City of Auburn, Maine
Planning & Permitting Department
60 Court Street | Auburn, Maine 04210
www.auburnmaine.gov | 207.333.6601

PLANNING BOARD AGENDA
April 8, 2025 – 6:00 p.m.
City Council Chambers, 60 Court Street

1. **ROLL CALL:**
2. **MINUTES:** Review the March 11, 2025, meeting minutes. All meetings are available live and after airing on YouTube https://www.youtube.com/c/CityofAuburnMaine
3. **SITE PLAN REVIEW:** Danville Corner Housing Development: The Planning Board will open this project, which was previously postponed at the March 11, 2025, meeting, postpone to the May 13, 2025, Planning Board meeting. The application, submitted by Terradyn Consultants LLC on behalf of Timothy Millet, proposes 21 two-unit homes, resulting in a total of 42 residential units. The project is located on property owned by Spurwink Services Incorporated, on Danville Corner Road, Tax Map 122-004, within the General Business (GB) District.
4. **PUBLIC HEARING/ SITE PLAN REVIEW:** Brickyard Commons: The Planning Board will host a Public Hearing for the application submitted by, JIG Investments, LLC, for a Site Plan Review application. The applicant is proposing a 96-unit apartment complex with associated site improvements and infrastructure. This project was previously approved in 2022 but has since expired, and no changes are proposed from the prior approval. The subject property is located on Brickyard Circle, Tax Map Lot 199-052-000, and is within the T-5.1 - Downtown Traditional Center Zoning District.
5. **PUBLIC HEARING/ SITE PLAN REVIEW: 65 Washington St North:** The Planning Board will host a Public Hearing for the application submitted by, Terradyn Consultants, LLC, for a Site Plan Review application. The applicant is proposing a renovation of the existing building and infrastructure for a multi-use site of storage, office, and cannabis retail location The subject property is located at 65 Washington St North, Tax Map Lot 220-085 and is within the T-5.1 - Downtown Traditional Center Zoning District.
6. **WORKSHOP:** The Planning Board will host a workshop to discuss the formation of a subcommittee focused on reviewing and developing Planning Board policies and procedures.
7. **PUBLIC COMMENT:**
8. **MISCELLANEOUS:**
    a. Upcoming Agenda Items
    b. Comments on Capital Improvement Plan
9. **ADJOURNMENT**

Auburn Planning Board meetings can be viewed live on the City of Auburn YouTube channel (https://www.youtube.com/c/CityofAuburnMaine), and on Great Falls Television (Spectrum Cable Channel 11). Following live broadcasts, Planning Board meetings are rebroadcast at 7:00AM, noon, and 7:00PM on Tuesdays on GFTV and are available anytime on our YouTube channel.

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PLANNING BOARD Minutes - DRAFT
March 11th, 2025 – 6:00 p.m.
City Council Chambers, 60 Court Street

1. **ROLL CALL:** Riley Bergeron, Bob Hayes, Paul Jacques, Stacey LeBlanc, Darren Finnegan, Tim DeRoche, Maureen Hopkins.

   Absent – Ed Bearor (*Associate Member*)

2. **MINUTES:** Review the February 11, 2025, meeting minutes. All meetings are available live and after airing on YouTube https://www.youtube.com/c/CityofAuburnMaine

   Riley Bergeron points out a spelling typo in his name and requests a correction.

   Motion to Approve with spelling correction: Bob Hayes **Second**: Darren Finnegan **Vote**: 7-0

   Motion Carries

3. **APPOINTMENT**: The Planning Board will discuss and vote to appoint a student representative to the Planning Board

   Adolphe Ngengele, a Junior at Edward Little High School introduced himself. He is class president this year and excited to learn about the Planning Board process.

   Motion to Appoint Adolphe Ngengele to the student representative seat on the Planning Board: Riley Bergeron. **Second**: Bob Hayes **Vote**: 7-0 **Motion Carries**

   Emily Carrington, City Clerk, swears in Adolphe Ngengele and he joins the Planning Board for the duration of the meeting.

4. **WORKSHOP:** Capital Improvement Plan: The Planning Board will host a workshop to hear and discuss a presentation on the City of Auburn Capital Improvement Plan

   Phil Crowell, City Manager, presents updates on the Capital Improvement Projects throughout Auburn to the Planning Board. He talked about facilities and the status of various projects, goals for expanding public utilities and fiber networks as well as planned road improvements.

0:39

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5. **PUBLIC HEARING/ SITE PLAN REVIEW:** Stetson Road Multifamily: The Planning Board will host a Public Hearing for this project, which was previously postponed at the February 11, 2025, meeting, for further review and action at the March 11, 2025, Planning Board meeting. The application, submitted by DiPrete Engineering on behalf of A.R. Building Company, proposes 50 residential buildings consisting of 30 four-unit multifamily buildings and 20 duplexes, resulting in a total of 160 residential units. The project is located on Stetson Road, Tax Map 291-011, within the General Business (GB) District.

   Natalie Thomsen provides a Staff Report. She highlights updates to the development project which includes a reduction in 20 units from the previous design (180 units changing to 160 units). The applicant also provided a traffic analysis report and an updated utility plan that brings the private utilities to public standards. The developer is also proposing phased development since the city's ordinance calls for completion of a project within a year and based on the scale of development, the building of the development will take longer than a year to complete.

   Maureen Hopkins asks staff about the difference between a multi-family residence versus a single family-attached residence since the review standards for the two different projects would be different. Staff reviewed the definitions of each and recognized that some further clarification is needed.

   Brandon Carr with DiPrete Engineering is present to speak on behalf of the applicant. The applicant and staff look at the intended use of this development and determine since the developer will maintain ownership and rent out the apartments, that this development falls in line with a multi-family development.

   Motion to Open Public Comment: Darren Finnegan **Second**: Tim DeRoche **Vote**: 7-0 **Motion Carries**

   Spencer Dunn – Court St – Speaks in support of the project. Feels that this sort of housing is needed in the area and the site plan meets zoning ordinances. Dunn appreciates that the developer was willing to modify the design based on requests from city staff and Planning Board.

   Stephen Beale – 575 Johnson Rd – Raises a concern over the timing for building of this project in conjunction with road work scheduled to take place on Stetson Road this summer. Also refers to a prior development project and voiced concern over adding a condition to the completion of the project to require the developer to provide the software for the pump stations to public utilities.

   John Rice – Director of Operations, Schooner Estates – Speaks about the fact that Schooner Estates which is located across the street from this proposed development sits on granite ledge which has caused issues for utilities with lightning strikes and warns that the developer should take that into account to ensure the utilities are grounded well or plan for a backup system. Also makes a request that the developer considers landscaping that will provide sound and visual barriers year-round which would be mutually beneficial to both developments.

   Motion to Close Public Comment: Riley Bergeron **Second**: Bob Hayes **Vote**: 7-0 **Motion Carries**

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Board recognizes the validity of the request for year-round screening plantings and how that will benefit both properties.

Tim DeRoche makes the motion that the proposal meets the requirements of Sections 60-1277 for a Site Plan review and Sec. 60-1359 for subdivision proposing to 50 Residential buildings: 20 duplexes and 30 quadplexes, sidewalks and a paved drive isle off Stetson Road, also City Assessor's Parcel I.D. 291-011. The proposed project should be considered pursuant to Chapter 60, Article XVI Division 2 – Site Plan Review, Article IV Subdivision, Article IV, Division 13 – GB - General Business District, and Article IV, Division 7- Multifamily Suburban District with the following conditions:

A. *No development activity until any bonding or inspection fees are determined by the Auburn Engineering Department.*
B. *Blasting permit in advance of blasting from the City of Auburn, Planning, Permitting and Code Department.*
C. *Prior to the adoption of the sewer lines by the Auburn Sewer District, the Applicant must complete all necessary infrastructure improvements, secure final approval of the pump station design, conduct required testing and inspections, and provide as-built plans and documentation to the satisfaction of the Auburn Sewer District and be in receipt of appropriate operational software.*
D. *Prior to the issuance of a certificate of occupancy for the last unit constructed in Phase 1, the sidewalk along Stetson Road must be completed to the city's satisfaction.*
E. Adequate screening along Stetson Road between this project and Schooner Estates be established.

Second: Riley Bergeron **Vote:** 7-0 **Motion Carries**

1:08

6. **PUBLIC HEARING/ SITE PLAN REVIEW:** Danville Corner Housing Development: The Planning Board will host a Public Hearing for this project, which was previously postponed at the February 11, 2025, meeting, for further review and action at the March 11, 2025, Planning Board meeting. The application, submitted by Terradyn Consultants LLC on behalf of Timothy Millet, proposes 21 two-unit homes, resulting in a total of 42 residential units. The project is located on property owned by Spurwink Services Incorporated, on Danville Corner Road, Tax Map 122-004, within the General Business (GB) District.

Craig Sweet from Terradyn Consultants addressed the Board and asks for a postponement to the April 8th meeting.

Maureen Hopkins asked for clarification on the definition of single family attached dwellings and two-family dwellings because the way in which these units are categorized would change the development standards applied.

Board and Applicant discussed elements of the development plan and will plan to revisit this project at the next meeting.

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Motion to Open Public Comment: Tim DeRoche **Second**: Darren Finnegan **Vote**: 7-0 **Motion Carries**

Dana Staples – Shares that he liked the project better in the first iteration which included 44 single family homes rather than the duplex-style homes. He supported the affordability of the single family home model.

John Cleveland – 183 Davis Ave - Reminds the board that the decision they make on this development will set the president for future developments as to how the City defines single family attached versus 2-family dwellings.

Motion to Close Public Comment: Tim DeRoche **Second:** Darren Finnegan **Vote**: 7-0 **Motion Carries**

The Board asks for clarification from legal and staff to know what review standards they will be using for this project at the next meeting.

Motion to Postpone this agenda item to the April 8th Meeting: Riley Bergeron **Second**: Bob Hayes **Vote**: 7-0 **Motion Carries**

1:36

7. **PUBLIC HEARING/ SITE PLAN REVIEW:** BWC Gulf Island Pond, LLC – Auburn Solar Project: The Planning Board will host a Public Hearing for this project, which was previously postponed at the February 11, 2025, meeting, for further review and action at the March 11, 2025, Planning Board meeting. The application, submitted by Sean Murphy of Flycatcher LLC on behalf of BWC Gulf Island Pond, LLC (a subsidiary of BlueWave Energy), proposes a 1.41 MW DC ground-mounted solar array on approximately 10.12 acres at 224 East Waterman Road, Tax Map 393-010, within the Agriculture and Resource Protection Zoning District.

Natalie provides a Staff Report on this development. This project was previously approved but the approval expired. The size of the project has been reduced from the previous version.

Applicant, Colin Sexton with Blue Wave Energy, spoke about updates to the project since the 2022 approval.

Motion to Open Public Comment: Riley Bergeron **Second**: Darren Finnegan **Vote** 7-0 **Motion Carries**

Stephen Beale – 575 Johnson Rd – Asks the applicant if this plan is covering just a small part of a larger parcel and whether the location is in an area that is less-desirable for farming.

Motion to Close Public Comment: Riley Bergeron **Second**: Paul Jacques **Vote**: 7-0 **Motion Carries**

Riley Bergeron makes a motion that the proposal meets the requirements of Sections 60-1277 and 60-1336 and approve the Site Plan by BWC Gulf Island Pond, LLC, a subsidiary of BlueWave Energy, to construct a 1.41 MW-DC ground-mounted solar energy generating system on approximately 10.12 acres at 224 East Waterman Road, Tax Map Lot 137-026, located in the Agriculture and Resource Protection Zoning District.

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The proposed project has met the standards pursuant to Chapter 60, Article XVI, Division 2 – Site Plan Review and Division 3 – Special Exception, with the following conditions:

A. *No development activity until any bonding or inspection fees are determined by the Auburn Engineering Department.*

B. *Prior to any blasting activities, the applicant shall receive a blasting permit from the City of Auburn Planning, Permitting, and Code Department.*

C. *Prior to the final electrical approval, the applicant shall submit a final as-built site plan to the Fire Prevention Officer, indicating all shut-down mechanisms for emergency response.*

D. *Prior to the issuance of a building permit, the applicant shall submit an acceptable financial surety.*

Second: Bob Hayes **Vote:** 7-0 **Motion Carries**

1:46

8. PUBLIC HEARING/ SITE PLAN REVIEW: Soper Mill Brook, LLC – Penley Corner Solar Project: The Planning Board will host a Public Hearing for this project, which was previously postponed at the February 11, 2025, meeting, for further review and action at the March 11, 2025, Planning Board meeting. The application, submitted by Sean Murphy of Flycatcher LLC on behalf of Soper Mill Brook, LLC (a subsidiary of BlueWave Energy), proposes a 1 MW DC ground-mounted solar array on approximately 10.91 acres on Penley Corner Road, Tax Map 137-026, within the Agriculture and Resource Protection Zoning District.

Natalie Thomsen provides a staff report. Colin Sexton with Blue Wave Energy spoke about the project.

Motion to Open Public Comment: Riley Bergeron **Second**: Bob Hayes **Vote**: 7-0 **Motion Carries**

Motion to Close Public Comment: Bob Hayes **Second**: Darren Finnegan **Vote**: 7-0 **Motion Carries**

Riley Bergeron appreciates the environmentally conscious approach that the applicant has taken into consideration when developing this plan.

Maureen Hopkins inquires about the ordinance stating that 1% of the Ag zone can be developed into Solar Projects and was curious if the City has reached that threshold yet.

Natalie Thomsen shares that the city has not yet reached 50% of that 1% of land use yet. These projects assuredly fall within that land use amount.

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Riley Bergeron makes a motion that the proposal meets the requirements of Sections 60-1277 and 60-1336 and approve the Site Plan by Soper Mill Brook, LLC, a subsidiary of BlueWave Energy, for the construction of a 1 MW-DC ground-mounted solar energy generating system on approximately 10.91 acres at 371 Penley Corner Road, Tax Map Lot 137-026, located in the Agriculture and Resource Protection Zoning District. The proposed project has met the standards pursuant to Chapter 60, Article XVI, Division 2 – Site Plan Review and Division 3 – Special Exception, with the following conditions:

A. *No development activity until any bonding or inspection fees are determined by the Auburn Engineering Department.*

B. *Prior to any blasting activities, the applicant shall receive a blasting permit from the City of Auburn Planning, Permitting, and Code Department.*

C. *Prior to the final electrical approval, the applicant shall submit a final as-built site plan to the Fire Prevention Officer, indicating all shut-down mechanisms for emergency response.*

D. Prior to the issuance of a building permit, the applicant shall submit an acceptable financial surety.

Second: Bob Hayes **Vote**: 7-0 **Motion Carries**

1:53

9. PUBLIC HEARING/ SITE PLAN REVIEW: Salt & Light Community Center: The Planning Board will host a Public Hearing for this project to review and take action on a Site Plan Review and Special Exception application submitted by Darlene Conant on behalf of Salt & Light Community Center. The applicant is proposing a walk-in community center with site improvements and associated infrastructure. The subject property is located at 29 Hampshire Street, Tax Map Lot 240-177, within the T-5.1 - Downtown Traditional Center Zoning District.

Staff Report provided by Natalie Thomsen.

Darlene Conant, applicant, speaks about the project. Darlene has been running this organization for about 5 years using shared and rented spaces in the city to run their programs for inner-city at-risk youth. Having this space of their own will allow for expansion of their programs.

Motion to Open Public Comment: Tim Deroche **Second**: Riley Bergeron
Vote: 7-0 **Motion Carries**

Motion to Close Public Comment: Tim DeRoche **Second**: Darren Finnegan **Vote**: 7-0
Motion Carries

Maureen Hopkins asks about pedestrian traffic around the roads near this project and whether the police had any concerns about that.

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David Hediger mentioned that there are established crosswalks and sidewalks in the area and there and Police did not raise this as a concern.

Tim DeRoche makes a motion that the proposal meets the requirements of Sections 60-1277 and 60- 1336 and approve the Salt & Light Community Center for the property located at 29 Hampshire Street (Tax Map: 240-177), within the Downtown Traditional Center (T-5.1) zoning district. The proposed project has met the standards pursuant to Chapter 60, Article XVI, Division 2- Site Plan Review and Division 3 – Special Exception with the following conditions:

A. *No development activity until any bonding or inspection fees are determined by the Auburn Engineering Department.*

B. *Blasting permit in advance of blasting from the City of Auburn, Planning, Permitting and Code Department.*

C. *Prior to the issuance of a Certificate of Occupancy the applicant must pass a Life Safety Inspection from the Auburn Fire Department*

Second: Bob Hayes **Vote**: 6-1 (Maureen Hopkins opposes) **Motion Carries**

10. PUBLIC COMMENT: No Public comment

11. MISCELLANEOUS:

a. Upcoming Agenda Items
   i. CIP Workshop
   ii. Danville Corner Rd Development
   iii. Multifamily Development – Brickyard Commons
   iv. Cannabis retail facility

b. Legal Opinion on Validity of Planning Board Vote for Election of Chair and Vice Chair

Legal opinion confirmed that the elections that took place were valid and do not need to be revisited, but does recommend the board creates a subcommittee to consider edits to the Procedures and Policies to make the process clearer. Maureen Hopkins and Stacey LeBlanc express interest in participating on a subcommittee.

12. ADJOURNMENT

Motion to Adjourn: Tim DeRoche **Second:** Bob Hayes **Vote**: 7-0 **Meeting Adjourned**

2:09

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DRAFT

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TO: Auburn Planning Board
FROM: Natalie Thomsen, Planning Coordinator
DATE: April 08, 2025
RE: Postponement of Danville Corner Road Development Review

The Planning Board will open the **Danville Corner Housing Development** project at the April 8, 2025 meeting, which was previously postponed from the March 11, 2025 meeting. The applicant, **Terradyn Consultants LLC**, on behalf of **Timothy Millet**, proposes to construct **21 two-unit homes**, for a total of **42 residential units**. The project is located on property owned by **Spurwink Services Incorporated** on **Danville Corner Road**, **Tax Map 122-004**, within the **General Business (GB) District**.

At the request of the applicant, staff recommends the Planning Board **postpone this item to the May 13, 2025 meeting**. The project must be reviewed under the **Planned Unit Development (PUD)** standards due to the attached nature of the proposed dwellings. The applicant has asked for additional time to revise the submission to meet these standards.

Attached is a legal memorandum dated March 18, 2025, from City Attorney Daniel C. Stockford (Brann & Isaacson), clarifying that:

- The proposed units meet the definition of **one-family attached dwellings** under the zoning ordinance.
- As such, the project must be reviewed as a **Planned Residential Unit Development and Subdivision**, per Sec. 60-306(a)(4).
- For density purposes, the project may utilize the **two-family dwelling** standard of **6 units per acre**, allowing up to 43 units on the 7.2-acre site.

Staff supports this postponement to ensure the project aligns with all applicable ordinance provisions and review standards.

Suggested Motions:

Motion to Reopen the Project:
"I move to reopen the review of the Danville Corner Road development."

Motion to Postpone:
"I move to postpone the review of the Danville Corner Road development to the May 13 Planning Board meeting to allow for the applicant to submit a complete application."

BRANN & ISAACSON
ATTORNEYS AND COUNSELORS AT LAW

DANIEL C. STOCKFORD | Partner
dstockford@brannlaw.com

MEMORANDUM

TO: Natalie Thomsen, Planning Coordinator, City of Auburn
CC: Eric Cousens, Executive Director of Public Services; David Hediger, Director of Planning and Permitting
FROM: Daniel C. Stockford, Brann & Isaacson
DATE: March 18, 2025
RE: Zoning Interpretation Request – Danville Corner Housing Development

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This memorandum is in response to your inquiry regarding the appropriate zoning classification and density standards for the proposed Danville Corner Housing Development. We understand that the applicant proposes to develop 42 residential units in a duplex-style configuration on a 7.2-acre site in the Multifamily Suburban (MS) zoning district. The project includes 21 structures, each containing two dwelling units with a shared common wall extending the full width of the structure. We understand that the units are to be sold individually rather than as a single building, and that the applicant does not wish to stack units but instead desires to maintain the side-by-side duplex format.

Below are the questions you asked followed in bold by our response to each question:

Clarification Requests:

1. **Classification of the Housing Type:**
    a. The project design shares features of both **one-family attached** and **two-family dwellings** as defined in Sec. 60-2. Given that the structures share a **full-width common wall**, does Auburn's zoning ordinance require that the project be classified as **one-family attached**?

BI Response: As noted in the materials you sent, the definition of a one-family attached dwelling in Section 60-2 of the Code of Ordinances is "a residential structure designed to house a single-family unit from lowest level to roof, with private outside entrance, but not necessarily occupying a private lot, and sharing a common wall or walls with an adjoining dwelling unit or units." Based on our review of the materials provided by the developer with the February 3, 2025 letter to you from Craig Sweet of Terradyn

Consultants, the proposed units fall within the definition of one-family attached dwellings because (1) each unit is designed to house a single family unit from lowest level to roof; (2) each unit has a private outside entrance; and (3) each unit shares a common wall or walls with an adjoining dwelling unit.

b. If so, does the classification as **one-family attached** necessitate the project to be reviewed under the **Planned Unit Development (PUD) standards** under Sec. 60-306(a)(4)?

BI Response: Yes. Section 60-306(a)(4) of the Code of Ordinances provides that attached one-family dwellings are a permitted use in the Multifamily Suburban District "provided that they are approved by the planning board as part of a planned residential unit development and subdivision, under the provisions of division 9 of article IV and division 4 of article XVI of this chapter." Because the proposed units meet the definition of one-family attached dwellings under the ordinance, the project should be reviewed under the Planned Unit Development provisions of Division 9 of Article IV (Sections 60-359 to 60-420), as well as the Subdivision provisions of Division 4 of Article XVI (Sections 60-1359 to 60-1368).

c. Does a **"one-family attached" dwelling qualify as a "two-family dwelling" for density purposes**, or are these classifications mutually exclusive?

BI Response: The definition of a two-family dwelling in Section 60-2 of the Code of Ordinances is "a freestanding building intended and designed to be occupied and used exclusively for residential purposes by two families only, with separate housekeeping and cooking facilities for each." We believe that the proposed buildings fall within the definition of two-family dwellings because (1) they are intended and designed to be occupied and used exclusively for residential purposes by two families only, and (2) each dwelling unit within the buildings has separate housekeeping and cooking facilities.

We do not believe that the definition of a one-family attached dwelling and the definition of a two-family dwelling are mutually exclusive, for purposes of applying the density provisions of the ordinance. Section 60-307 does not contain any maximum density standard for one-family attached dwellings in the MFS District, even though one-family attached dwellings are a permitted use within the District. Because the buildings containing one-family attached dwellings meet the definition of two-family dwellings, and there is a specific density provision in the ordinance applicable to two-family dwellings, it is our conclusion that the Section 60-307 density standard applicable to two-family dwellings applies to the current proposal.

For two-family dwellings, the ordinance allows a maximum density of 6 dwelling units per acre. This means that the 7.26 acre parcel should be able to accommodate the 42 dwelling units that are proposed (i.e., 21 two-family dwellings).

2. Impact of Sales Model on Classification:

a. The applicant intends to **sell units individually** rather than selling each structure as a whole.
b. Does the **townhouse definition** ("a single-family dwelling unit that is one of two or more residential buildings having a common or party wall separating the units") apply to this project?

BI Response: It appears that the ordinance definition of a townhouse is broad enough to cover the project as proposed, because each of the two dwelling units in each building has a common party wall separating it from the other dwelling unit.

c. If so, would classifying the structures as **townhouses** affect whether they qualify as **one-family attached** or **two-family dwellings** under Sec. 60-306?

BI Response: We do not believe that the fact that the townhouse definition may be broad enough to cover the structures affects whether the proposed buildings qualify as one-family attached dwellings or two-family dwellings under section 60-306. It should be noted that there appear to be only three references to townhouses in the Code of Ordinances, including the definition of townhouse in Section 60-2, the section relating to calculation of green area of individual lots for townhouses under Section 60-307(2), and the third relating to the use and parking matrix in certain districts under the form-based code, Section 60-554.

3. Applicable Density Standard under Sec. 60-307:

a. Given that the project utilizes the density standards for the **Multifamily Suburban Zone**, which provides for the following densities:
   i. **One-family: 4 units per acre**
   ii. **Two-family: 6 units per acre**
   iii. **Multifamily: 17 units per acre**
d. Which standard applies if the project is classified as **one-family attached** instead of **two-family dwelling**?

BI Response: As noted under Question 1 (c) above, it is our opinion that the density standard applicable to the project as proposed is the density standard that applies to two-family dwellings under Section 60-307. This means that the maximum density for the project as currently proposed is 6 dwelling units per acre.

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To: Auburn Planning Board
From: Natalie Thomsen, Planning Coordinator
Re: JIG Investments, LLC, for a Site Plan Review application for a 96-unit apartment complex with associated site improvements and infrastructure located on Brickyard Circle, Tax Map Lot 199-052-000. The proposed project should be considered pursuant to Chapter 60, Article XVI Division 2 – Site Plan Review, Article IV Subdivision, Article IV, Division 14 – Form Based Code
Date: April 08, 2025



I. PROPOSAL –

JIG Investments, LLC, has submitted a Site Plan Review application for a proposed residential development to be located on a 10.9-acre parcel off Brickyard Circle (Parcel ID 199-052-000). The project, known as Brickyard Commons, proposes the construction of a 96-unit apartment complex consisting of eight (8) three-story multifamily residential buildings. Each building will contain 12 two-bedroom units. Associated site improvements include interior roadways, sidewalks, parking areas, stormwater treatment facilities, landscaping, recreational amenities, and underground utilities.

This project was originally approved by the Planning Board in June 2022, with a minor revision in December 2022 and a one-year extension granted in 2023. However, all Planning Board approvals have fully expired as of June 28, 2024. As such, this application is now being reviewed

as a new site plan application and must be evaluated in full compliance with current zoning and site plan review standards.

The applicant proposes to phase the development, with initial construction focusing on site improvements and Buildings 1 through 4, including Fire Brick Lane and Clay Court. The remaining site work for Buildings 5 through 8 and associated parking and stormwater infrastructure will be completed in subsequent phases. The proposed 193 parking spaces will also be constructed in phases, with 168 spaces built in Phase 1 and the remaining 25 guest spaces constructed in Phase 2 if needed to meet demand.

Utilities for the project will include:

- Public water and sewer service extended from Brickyard Circle, with separate domestic and fire service lines;
- Underground electric and communications utilities, beginning at new overhead poles near the entrance road;
- All utility designs have been reviewed by a Professional Engineer and will require final approval from the Auburn Water and Sewer District.

The development will be accessed by an improved 26-foot-wide private roadway extending from Brickyard Circle. Based on traffic analysis, the project does not require a Traffic Movement Permit (TMP) from the Maine Department of Transportation (MDOT), as it generates fewer than 100 peak-hour trips. However, the traffic assessment determined that the project meets MDOT warrants for a new turning movement and associated improvements. Specifically, the applicant will be required to create a new curb cut and install a left-turn lane on Washington Street northbound, located directly opposite the northern end of Brickyard Circle. This design will enable a more conventional left-turn movement and improve traffic operations. Additionally, the 40-foot-wide median at this location provides adequate space for turning vehicles to safely stage and align before crossing into Brickyard Circle, enhancing both maneuverability and visibility for drivers. The applicant has provided engineering plans for this offsite improvement and will be responsible for constructing the turning lane with MDOT design standards.

Additional offsite improvements include the construction of a 914-foot-long public sidewalk along the west side of Brickyard Circle, which will enhance pedestrian connectivity in the area.

The proposed buildings meet all dimensional and design standards of the T-5.1 Downtown Traditional Center zoning district and are designed to integrate with the surrounding neighborhood character while preserving open space along Taylor Brook. Approximately 6.89 acres (63.4%) of the site will remain as open space, and building coverage will be limited to 9.6% of the total lot area.

II. ZONING CONSIDERATIONS –

The proposed project is located in the T-5.1 Downtown Traditional Center Zoning District, as defined under Auburn's Form-Based Code (Sec. 60-556). This district is designed to encourage compact, walkable, and mixed-use neighborhoods that reinforce traditional urban development

patterns. The T-5.1 zone permits multifamily residential buildings by right, subject to compliance with the district's form-based dimensional and design standards.

Unlike conventional zoning districts, the Form-Based Code does not regulate density through units per acre. Instead, density is inherently controlled by the building form, including regulations on building height, frontage, lot coverage, setbacks, and open space. As stated in the ordinance:

"The T-5.1 Downtown Traditional Center Zone is intended to reinforce the urban form and character of downtown neighborhoods through a mixture of building types, street types, and uses at a moderate-to-high intensity." (Sec. 60-556)

The applicant proposes eight (8) three-story apartment buildings, each containing twelve (12) dwelling units, for a total of 96 units. The site design conforms to all applicable dimensional standards, including a maximum front setback of 10 feet, building height limited to 3 stories, open space coverage exceeding 12%, and building coverage well below the 75% maximum. The project design promotes a street-oriented layout with pedestrian connectivity, consistent with the goals of the T-5.1 District.

III. PARKING & ACCESS MANAGEMENT STANDARDS -

Parking Requirements (Sec. 60-608)

For multifamily dwellings, the ordinance requires one parking space per dwelling unit and one guest space per four units, per: "Sec. 60-608 – Parking Requirements: For multifamily dwellings, 1 space per dwelling unit and 1 guest space per 4 units." With 96 units proposed, the development is required to provide a minimum of 120 parking spaces. The applicant proposes 193 spaces, including 168 to be constructed in Phase 1, with the remaining 25 guest spaces deferred to Phase 2 if tenant demand warrants.

✅ **Standard Met**

Driveway and Curb Cut Design (Sec. 60-800)

The project is accessed via an existing private drive off Brickyard Circle, originally constructed in 2010 and to be widened to 26 feet as part of this development. This exceeds the 20-foot minimum width required for two-way traffic, ensuring safe ingress and egress for residents, visitors, emergency vehicles, and service providers. Two internal private streets, Clay Court and Veneer Place, provide direct access to the residential buildings.

Sidewalks will run along both sides of all internal roads, and walkways will connect directly to each building entrance. The design prioritizes internal circulation and pedestrian connectivity consistent with the Form-Based Code.

✅ **Standard Met**

Sight Distance Requirements

Driveways and access points must be located to provide adequate sight distance. According to the traffic assessment prepared by Barton & Loguidice, all driveway locations meet or exceed MDOT sight distance standards, based on posted speed limits on Brickyard Circle and Washington Street North.

✅ **Standard Met**

Traffic Impact and Turn Lane Requirement

The traffic assessment, dated May 5, 2022, concludes the development will generate approximately 55 PM peak-hour trips, which is below the 100-trip threshold requiring a Traffic Movement Permit (TMP) per MDOT rules.

However, the traffic assessment determined that the project meets MDOT warrants for a new turning movement and associated improvements. Specifically, the applicant will be required to create a new curb cut and install a left-turn lane on Washington Street northbound, located directly opposite the northern end of Brickyard Circle. This design will enable a more conventional left-turn movement and improve traffic operations. Additionally, the 40-foot-wide median at this location provides adequate space for turning vehicles to safely stage and align before crossing into Brickyard Circle, enhancing both maneuverability and visibility for drivers.

✅ **Standard Met With Condition**

Landscaping and Buffering Requirements (Sec. 60-607 #10 & #16)

Parking areas containing more than 80 spaces are required to include appropriate landscaping features such as islands or perimeter buffers to minimize visual impacts, reduce heat gain, and improve overall site design. While the Brickyard Commons site plan does not include individual landscaped islands within each parking area, the site is designed such that parking is distributed across eight residential buildings, naturally breaking up large expanses of pavement. Additionally, the site includes over 6 acres of open space, with lawn areas and green buffers between buildings and around the site perimeter.

The layout avoids uninterrupted parking fields, enhances visual aesthetics, and supports the walkability goals of the T-5.1 District.

✅ **Standard Met**

Lighting Requirements (Sec. 60-607 #11)

Exterior lighting for parking areas and drive aisles must be designed to provide safe illumination while minimizing glare and light spillover onto adjacent properties or roadways. The Brickyard Commons project proposes the use of fixtures that are engineered to provide best-in-class light distribution and efficient pole spacing for large-scale residential and commercial developments. These fixtures are full cutoff, downcast, and LED-based, ensuring compliance with Auburn's lighting standards for shielding, efficiency, and nighttime visibility. The lighting plan supports

both pedestrian safety and vehicular circulation while limiting light trespass beyond property boundaries.

✅ **Standard Met**

Pavement and Markings (Sec. 60-607 #12)

All parking areas must be constructed using impermeable paving materials, and must include proper drainage, striping, and signage to support safe vehicular circulation. The Brickyard Commons project includes paved driveways and parking areas designed in accordance with Chapter 46 – Streets and Sidewalks and the City's engineering standards. All parking stalls will be clearly marked and properly drained through the site's engineered stormwater system, including catch basins and curbing to ensure long-term durability and function.

✅ **Standard Met**

IV. WETLANDS/STORMWATER/SITE LAW

The Auburn Zoning Ordinance requires that stormwater management systems be designed to control runoff, prevent flooding, and minimize erosion. All qualifying developments must comply with the Maine Department of Environmental Protection (MDEP) Chapter 500 Stormwater Management Standards, which ensure that post-development peak runoff rates do not exceed pre-development conditions. Soil erosion and sedimentation control measures must also be implemented throughout construction to protect surrounding natural resources.

The Brickyard Commons project complies with Sec. 46-209 and is subject to permitting under Auburn's delegated review authority from MDEP. The development will disturb over one acre of land and create approximately 4.01 acres of new impervious surface, triggering review under both Chapter 500 and the Site Location of Development Act (SLODA) for projects between three and seven acres. A complete Stormwater Management Plan has been submitted, which includes a detention pond for peak flow control and a Focal Point biofiltration system for water quality treatment. These systems are designed to handle runoff from impervious surfaces and promote infiltration to support downstream water quality and aquatic habitat health. The applicant currently has valid SLODA approval.

✅ **Standard Met**

Erosion and Sedimentation Control – Sec. 60-1069

Per Sec. 60-1069, development projects must implement erosion control measures to prevent soil loss and sedimentation into nearby water bodies. All erosion control practices must follow Best Management Practices (BMPs) from the Maine Stormwater Management Design Manual, ensuring that construction activities limit soil disturbance and mitigate erosion-related risks.

The Brickyard Commons project includes a comprehensive erosion and sedimentation control plan that features silt fencing, erosion control blankets, stabilized construction entrances, and temporary sediment basins to manage runoff during active construction. Long-term stabilization measures

such as loaming, seeding, and riprap are proposed for permanent soil stabilization. Additionally, a Stormwater Operations & Maintenance Plan has been provided, outlining inspection schedules and maintenance responsibilities to ensure continued effectiveness of the stormwater infrastructure.

✅ **Standard Met**

OTHER PERTINENT ITEMS -

Sidewalk Improvements and Pedestrian Connectivity
As a condition of the original 2022 approval, the applicant will construct a 914-foot-long public sidewalk along the western side of Brickyard Circle. This sidewalk will connect the proposed development to the broader pedestrian network and enhance walkability in the neighborhood. The sidewalk will be located within the public right-of-way and constructed to City of Auburn specifications.

Public Utilities and Infrastructure Coordination
The development will be served by public water and sewer, extended from existing infrastructure in Brickyard Circle. The applicant has revised utility plans to include separate domestic and fire service lines, as required by the Auburn Water and Sewer District. Underground electric and communications will be extended to each building from new overhead poles near the site entrance.

Natural Resources Protection Act (NRPA) Permit Compliance
The applicant previously obtained a Natural Resources Protection Act (NRPA) permit from the Maine DEP and a wetlands permit from the U.S. Army Corps of Engineers for minor wetland impacts. These permits remain valid, and the applicant will be required to comply with all conditions of approval, including wetland buffer preservation, invasive species control, and compensatory mitigation through in-lieu fee payment.

Phasing of Construction
The project will be completed in two phases, as shown on the submitted site plan.

- **Phase 1** includes site grading, stormwater infrastructure, Fire Brick Lane, Clay Court, Buildings 1–4, and 168 parking spaces.
- **Phase 2** includes Buildings 5–8, Veneer Place, and 25 additional parking spaces if required based on actual tenant demand.

Each phase will implement required erosion control and utility measures to ensure orderly and code-compliant development.

IV. WAIVER REQUEST-

No Waivers are being requested

V. DEPARTMENT REVIEW-

a. **Police -** ✓
b. **Auburn Water and Sewer** – ✓
c. **Code Enforcement** – ✓
d. **Engineering** –✓
e. **Public Services-** ✓
f. **Airport** – ✓

VI. PLANNING BOARD ACTION-

The proposed project requires review and findings for approval of Sections 60-1277:

A. Site Plan Review, Section 60-1277:

1. Does the site plan protect adjacent areas against detrimental or offensive uses on the site by provision of adequate surface water drainage, buffers against artificial and reflected light, sight, sound, dust and vibration; and preservation of light and air?
2. Is the convenience and safety of vehicular and pedestrian movement within the site and in relation to adjacent areas adequately addressed?
3. Are the proposed methods of disposal for wastes adequately addressed?
4. Does the site plan provide adequate protection of environment features on the site and adjacent areas?

VII. STAFF RECOMMENDATIONS -

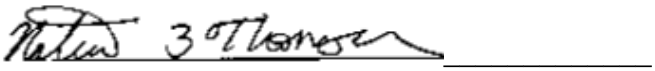
Staff recommends the Planning Board find that the Site Plan for the proposed development meets the requirements of Sec. 60-1277, and APPROVE the project application. Staff recommends the following conditions:

- *No development activity until any bonding or inspection fees are determined by the Auburn Engineering Department.*
- *Blasting permit in advance of blasting from the City of Auburn, Planning, Permitting and Code Department.*
- *The construction of the left turn lane on Washington Street-North to Brickyard Circle must be completed before the issuance of a certificate of occupancy for 24 units or by September 1, 2026, whichever comes first.*
- *A Manual on Uniform Traffic Control Devices* (*MUTCD) warning sign must be added to the Washington Street southbound approach to the existing crossover, identifying that vehicles are entering ahead, before the issuance of a certificate of occupancy for any dwelling units.*

Suggested Motions:

I make a motion that the proposal meets the requirements of Sections 60-1277 for a Site Plan review proposing 96-unit apartment complex with associated site improvements and infrastructure off Brickyard Circle, City Assessor's Parcel I.D. 199-052-000. The proposed project should be considered pursuant to Chapter 60, Article XVI Division 2 – Site Plan Review, Article IV Subdivision, Article IV, Division 14 – Form Based Code with the following conditions:

A. *No development activity until any bonding or inspection fees are determined by the Auburn Engineering Department.*
B. *Blasting permit in advance of blasting from the City of Auburn, Planning, Permitting and Code Department.*
C. The construction of the left turn lane on Washington Street-North to Brickyard Circle must be completed before the issuance of a certificate of occupancy for 24 units or by September 1, 2026, whichever comes first.
D. A Manual on Uniform Traffic Control Devices (*MUTCD) warning sign must be added to the Washington Street southbound approach to the existing crossover, identifying that vehicles are entering ahead, before the issuance of a certificate of occupancy for any dwelling units.*



Natalie Thomsen
Planning Coordinator

Stoneybrook
Land Use, Inc.

9172 SW 52nd Place Road
Ocala, FL 34481
(207) 513-6123

February 27, 2025
Revised March 24, 2025

Mr. David Hediger
Planning, Permitting and Code Division
City of Auburn
60 Court Street
Auburn, ME 04210

RE: Brickyard Commons
Brickyard Circle

Dear Mr. Hediger:

On behalf of JIG Investments, LLC (JIG), I am pleased to submit this letter and attachments to secure approvals for Brickyard Commons, a 96-unit apartment complex to be located off Brickyard Circle. The parcel is located in the Downtown Traditional Center T-5.1 District and is shown on the City GIS system as Parcel ID 199-052-000. This project was first approved by the City on June 28, 2022. Those approvals were revised on December 21, 2022, to change requirements related to offsite improvements. A one-year extension was approved by the Planning Board in 2023, but the original project approvals expired on June 28, 2024.

The Maine Department of Environmental Protection (MDEP) approved a Natural Resource Protection Act application for wetland impacts on September 15, 2022. The US Army Corps of Engineers (USACOE) approved the same wetland impacts on June 13, 2022. Both permits are still valid. This application is submitted to secure City approvals for the same project previously approved with no changes proposed.

The property boundaries are shown on a plan entitled "Existing Conditions Boundary Plan of the Queen of Hearts Parcel" prepared by Sebago Technics, Inc. in 2008. By this survey, the lot contains about 10.9 acres and has about 135' of frontage on Brickyard Circle. The lot also has about 397' of frontage on Washington Street Southbound, but that frontage is subject to "control of access" rights purchased by

the Maine Department of Transportation (MDOT) which will not allow driveway access along this frontage.

The property is currently vacant. Main-Land Development Consultants, Inc. (MLDC) has mapped wetland areas on the property. These wetland areas, existing conditions and proposed improvements are shown on the attached full set of site engineering plans also prepared by MLDC. The site engineering plans provide full details for the site improvements, utility connections and stormwater improvements. All these improvements have been designed to meet City and State standards.

All plans and documents are the same plans and documents that were previously submitted and reflect all of the changes requested by Local, State and Federal agencies during that review process to secure approvals. Plans are dated from February 3, 2022 – September 13, 2022, to document all of the changes made during that review. No changes to Local, State or Federal review requirements since the previous approvals impact the site design as presented and therefore, no changes have been made or are proposed for this approval.

JIG plans to construct eight three-story buildings with each building containing 12 apartments. Each apartment will have two bedrooms, two baths and a small laundry area. Entrance will be through a center entry foyer with stairs leading to units on all three levels. Entrance walkways will be set on grade to allow handicap accessibility to units on the first-floor level. Buildings are set back a maximum of 9.5' from the sidewalk access ways leading from the parking lots. Dirigo Architectural (Dirigo) has prepared plans showing preliminary floor layouts, roof and elevation views.

The existing site access way constructed in 2010 from Brickyard Circle will be upgraded to provide a single two-way 26' wide private street to serve this project. Two additional private streets will split off the main access and serve the first four apartment buildings. Mailboxes and dumpsters are provided between the two building clusters. Sidewalks are provided along the entire length of the private streets to promote walkability between buildings and the service areas. Outdoor recreational amenities are also shown on the site plans.

Parking requirements for the District, are 1 space per dwelling unit plus one guest parking space per four dwelling units. Therefore, this site requires a minimum of 120 spaces. We have shown 193 spaces to meet tenant requirements. These spaces

are provided along the private streets or in separate parking areas adjacent to those streets. However, to address comments from abutters, these parking spaces will be constructed in two phases. A total of 168 spaces will be constructed in Phase 1 and the remaining 25 spaces will be constructed in Phase 2 only if the spaces are required to meet tenant demands for parking.

We have included a traffic assessment prepared by Barton & Loguidice, LLC. Trip generation shows a maximum of 55 weekday PM peak hour trips for this project. This traffic assessment demonstrates that this project will not exceed the 100-vehicle peak hour trip generation that would require a Traffic Movement Permit from the Maine Department of Transportation (MDOT). The site access road and the Washington Street/Brickyard Circle intersection both have sufficient sight distances and will operate safely for the proposed use.

The assessment indicates that no changes to the existing one-way traffic flow on Brickyard Circle will be necessary. However, this project meets traffic warrants for a left turn lane located on the Washington Street Northbound at the crossover approximately 340' north from Brickyard Circle's northern entrance. As required by prior approvals, JIG has provided a design for these offsite improvements. JIG will also be responsible for constructing a sidewalk along the western side of Brickyard Circle about 914'.

In the proposed condition, total impervious areas will be 4.01 acres. Stormwater improvements will be provided with a proposed pre-treatment system in series with a detention pond. MLDC has prepared a stormwater quantity analysis, erosion control narrative and provided plans with details showing how these improvements meet the requirements of Local and State stormwater rules.

At this level of development, this project will require permits from the MDEP for the Site Location of Development Act (SLODA) and Stormwater Law (Stormwater) projects. We request that you process this application under your expanded delegated authority and grant these MDEP permits as part of your review of this project

Sewer services will be extended from the existing public sewer main crossing the property. Water service will be extended along the access roads from the existing water main in Brickyard Circle. Power and communications will be extended overhead from the last power pole on Brickyard Circle with two new poles, one near the

project entrance road and the other will extend into the site near the entrance road. From that second new pole, a new underground service will be installed along the project access roads.

The project will impact 13,632 square feet of wetland area. These impacts include impacts to 4,096 square feet of wetland of special significance located within the shoreland area or floodplain of Taylor Brook. These impacts have already been approved by MDEP and USACOE.

The buildings are set back 27' (building #7) from any property line. Building #1 is set back about 99' from the Washington Street right of way and Building #2 is set back about 270' from the Brickyard Circle right of way. Building #4 is set back about 63' from Taylor Brook. As required under the District standards, the front face of all buildings are set back 9.5' or within the maximum setback of 10' from the access way adjacent to the structure. Entrance walkways are all set at a maximum grade of 2% to allow handicap accessibility to the lower level of each structure.

Building Lot Coverage is 9.6%, where the District allows a maximum of 75%. Useable Open Space is 12.2% and the District requires 5%. All buildings are 3 stories high and the District requires a minimum of 2 stories and a maximum of 4 stories. Please refer to the letter from Dirigo outlining how the building architectural features meet the District design requirements.

As you can see, a large portion of the property has been preserved in its natural condition. Special attention has been made to keep the areas along the brook undisturbed. Unit density proposed is about 8.8 units per acre. Allowed density could be up to 16 units per acre. Total open space on the parcel is 6.89 acres or 63.4% of the total lot area. Amenities encourage enjoyment of these open space areas around the building areas. Total impervious area on the property is 174,755 square feet or 36.6% of the total lot area.

The original approvals listed three conditions of approval as follows:

1. *No development activity until any bonding or inspection fees are determined by the City of Auburn Engineering department.*

   JIG agrees to pay any bonding of inspection fees required.

2. *Separate water lines must be incorporated: One domestic and one fire. Size should be designed by the PE and confirmed by the Water District. Sewer should be tied into existing manhole or there should be a new manhole installed.*

   The Site Plans submitted with this application have been revised to show these utility connections sized by a PE. The Water and Sewer District needs to confirm these changes.

3. *Offsite improvements in the view of $320,000.00 be granted to the city.*

   This condition of approval was revised in December of 2022 to require JIG to construct a sidewalk along the western side of Brickyard Circle for about 914' and to provide engineering design for offsite traffic improvements. Plans for these offsite improvements are included with this application. JIG is also prepared to construct the sidewalk as required.

Site construction is expected to begin in May. All trees will be cut, and grading will begin for site improvements shown around Buildings 1 – 4. This will include the construction of Fire Brick Lane to Clay Court. Clay Court and Veneer Place, including utilities and stormwater improvements will be prepared to allow construction of these four buildings. While these buildings are constructed, site construction for the remainder of Fire Brick Lane, utility extensions, stormwater improvements and grading in the area of Buildings 5-8 will be prepared for building construction.

Building construction of all eight buildings will take 36 to 48 months. Site construction will be ongoing during this entire period. The current plan is to start at Building #1 and #2 and to always have at least two buildings under construction. Once the first building is complete, Building #3 will be started, when the second building is complete Building #4 will be started and so on until all eight buildings have been constructed. The first building should be ready for occupancy by the Summer of 2026.

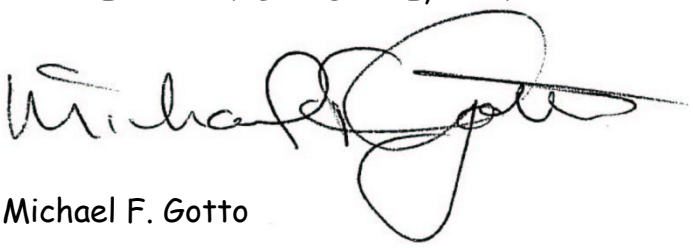
Prior to occupying each building, final site work for that building will be completed. This includes final grading, loam and seed, pavement and parking space striping to meet zoning code requirements for the number of units occupied. Stormwater treatment to support that parking and building improvements will also be

completed. Depending upon the time of year, final landscaping may not be completed but must be completed during the next planting season.

Total project costs are expected to be about $9.5 million. Please do not hesitate to call if you have any questions about the information provided or need additional information to complete your review of this project.

Respectfully Yours

STONEYBROOK LAND USE, INC.



Michael F. Gotto

cc: John Gendron

David Hediger

From: John Q. Adams <jadams@bartonandloguidice.com>
Sent: Friday, March 28, 2025 2:14 PM
To: Mike Gotto; Eric Cousens; David Hediger; Natalie Thomsen
Cc: John Gendron
Subject: [External]Brickyard Circle/Washington St Left turn Lane

All,

After our meeting and discussion today, I offer the following response:

I am in agreement that 24-units of the 96-unit Brickyard Circle multifamily development can be constructed with the following conditions:

1. The development will not proceed beyond 25% build-out which corresponds to 24-units unless the left-turn lane is constructed on Washington St.
2. The left-turn lane on Washington Street shall be constructed and completed during 2026, preferably before schools starts at the end of August.
3. An MUTCD warning sign will be added to the Washington St southbound approach to the existing crossover, identifying that vehicles are entering ahead.

John

John Q. Adams, P.E., P.T.O.E.
Senior Associate

Barton&Loguidice
Mobile: 207.331.6694
Email: jadams@bartonandloguidice.com
Website | LinkedIn | Twitter | Facebook | Vimeo

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City of Auburn, Maine
Planning & Permitting
Eric Cousens, Director
60 Court Street | Auburn, Maine 04210
www.auburnmaine.gov | 207.333.6601

Development Review Application

PROJECT NAME: Brickyard Commons

PROPOSED DEVELOPMENT ADDRESS: Brickyard Circle

PARCEL ID #: 199-052

REVIEW TYPE: Site Plan ✔ Site Plan Amendment ☐
Subdivision ☐ Subdivision Amendment ☐

PROJECT DESCRIPTION: See Cover Letter

CONTACT INFORMATION:

Applicant	
Name:	JIG Investments, LLC
Address:	P.O. Box 1913
City / State	Lewiston, ME
Zip Code	04241
Work #:	
Cell #:	
Fax #:	
Home #:	
Email:	

Property Owner	
Name:	Same
Address:	
City / State	
Zip Code	
Work #:	
Cell #:	
Fax #:	
Home #:	
Email:	

Project Representative	
Name:	Mike Gotto - Stoneybrook Land Use, Inc.
Address:	9172 SW 52nd Place Road
City / State	Ocala, FL
Zip Code	34481
Work #:	(207) 513-6123
Cell #:	
Fax #:	
Home #:	
Email:	mike@stoneybrookllc.com

Other professional representatives for the project (surveyors, engineers, etc.),	
Name:	Main-Land Development Consultants
Address:	69 Main Street
City / State	Livermore Falls, ME
Zip Code	04254
Work #:	(207) 897-6752
Cell #:	
Fax #:	
Home #:	
Email:	michael.barnes@main-landdci.com

PROJECT DATA

The following information is required where applicable, in order complete the application

IMPERVIOUS SURFACE AREA/RATIO

Existing Total Impervious Area	0 sq. ft.
Proposed Total Paved Area	128,992 sq. ft.
Proposed Total Impervious Area	174,755 sq. ft.
Proposed Impervious Net Change	174,755 sq. ft.
Impervious surface ratio existing	0 % of lot area
Impervious surface ratio proposed	36.6 % of lot area

BUILDING AREA/LOT COVERAGE

Existing Building Footprint	0 sq. ft.
Proposed Building Footprint	45,763 sq. ft.
Proposed Building Footprint Net change	45,763 sq. ft.
Existing Total Building Floor Area	0 sq. ft.
Proposed Total Building Floor Area	137,289 sq. ft.
Proposed Building Floor Area Net Change	137,289 sq. ft
New Building	Yes (yes or no)
Building Area/Lot coverage existing	0 % of lot area
Building Area/Lot coverage proposed	9.6 % of lot area

ZONING

Existing	T-5.1
Proposed, if applicable	N/A

LAND USE

Existing	Vacant
Proposed	Multi-family Housing

RESIDENTIAL, IF APPLICABLE

Existing Number of Residential Units	0
Proposed Number of Residential Units	96
Subdivision, Proposed Number of Lots	N/A

PARKING SPACES

Existing Number of Parking Spaces	0
Proposed Number of Parking Spaces	177
Number of Handicapped Parking Spaces	16
Proposed Total Parking Spaces	193

ESTIMATED COST OF PROJECT: $9.5 million

DELEGATED REVIEW AUTHORITY CHECKLIST

SITE LOCATION OF DEVELOPMENT AND STORMWATER MANAGEMENT

Existing Impervious Area	0 sq. ft.
Proposed Disturbed Area	307,969 sq. ft.
Proposed Impervious Area	174,755 sq. ft.

1. ***If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with MDEP.***
2. ***If the proposed impervious area is greater than one acre including any impervious area crated since 11/16/05, then the applicant shall apply for a MDEP Stormwater Management Permit, Chapter 500, with the City.***
3. ***If total impervious area (including structures, pavement, etc) is greater than 3 acres since 1971 but less than 7 acres, then the applicant shall apply for a Site Location of Development Permit with the City. If more than 7 acres then the application shall be made to MDEP unless determined otherwise.***
4. ***If the development is a subdivision of more than 20 acres but less than 100 acres then the applicant shall apply for a Site Location of Development Permit with the City. If more than 100 acres then the application shall be made to MDEP unless determined otherwise.***

TRAFFIC ESTIMATE

Total traffic estimated in the peak hour-existing (Since July 1, 1997) 0 passenger car equivalents (PCE)

Total traffic estimated in the peak hour-proposed (Since July 1, 1997) 55 passenger car equivalents (PCE)

If the proposed increase in traffic exceeds 100 one-way trips in the peak hour then a traffic movement permit will be required.

Zoning Summary

1. Property is located in the T-5.1 zoning district.
2. Parcel Area: 10.9 acres / _____ square feet(sf).

Regulations	Required/Allowed	Provided
Min Lot Area	N/A	10.9 acres
Street Frontage	24'	532'
Min Front Yard	0	9.5'
Min Rear Yard	10'	N/A
Min Side Yard	0	N/A
Max. Building Height	4 story	3 story
Use Designation	Multi-family	Multi-family
Parking Requirement	1 space/ per ____ square feet of floor area	
Total Parking:	120	193
Overlay zoning districts (if any):	Stream Protection	Floodplain
Urban impaired stream watershed?	~~YES~~/NO If yes, watershed name_____	

DEVELOPMENT REVIEW APPLICATION SUBMISSION

Submissions shall include fifteen (15) complete packets containing the following materials:

1. 5 Full size plans and 10 smaller (no larger than 11" x 17") plans containing the information found in the attached sample plan checklist.
2. Application form that is completed and signed by the property owner or designated representative. (NOTE: All applications will be reviewed by staff and any incomplete application will not be accepted until all deficiencies are corrected.
3. Cover letter stating the nature of the project.
4. All written submittals including evidence of right, title and interest.
5. Copy of the checklist completed for the proposal listing the material contained in the submitted application.

Refer to the application checklist for a detailed list of submittal requirements.

To view the City of Auburn Zoning Ordinance, go to:
www.auburnmaine.gov under Government, select Departments of the City, then Planning, Permitting & Code. On the left menu, choose Subdivisions, Land Use, Zoning Ordinance. Or click HERE.

For additional information on Site Plan Review, please click HERE or scan code:

For additional information on Special Exceptions, please click HERE or scan code:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, I certify that the City's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for development review only; a Performance Guarantee, Inspection Fee, Building Permit Application and other associated fees and permits will be required prior to construction.

Signature of Applicant:	**Date:**
	2/27/2025

City of Auburn, Maine
Office of Planning & Permitting
Eric J. Cousens, Director
60 Court Street | Auburn, Maine 04210
www.auburnmaine.gov | 207.333.6601

Development Review Checklist

The following information is required where applicable to be submitted for an application to be complete

PROJECT NAME: Brickyard Commons
PROPOSED DEVELOPMENT ADDRESS: Brickyard Circle
PARCEL #: 199-052

Required Information		*Check when Submitted*		*Applicable Ordinance*
Site Plan		*Applicant*	*Staff*	
	Owner's Names/Address	✔		
	Names of Development	✔		
	Professionally Prepared Plan	✔		
	Tax Map or Street/Parcel Number	✔		
	Zoning of Property	✔		
	Distance to Property Lines	✔		
	Boundaries of Abutting land	✔		
	Show Setbacks, Yards and Buffers	✔		
	Airport Area of Influence			
	Parking Space Calcs	✔		
	Drive Openings/Locations	✔		
	Subdivision Restrictions			
	Proposed Use	✔		
	PB/BOA/Other Restrictions			
	Fire Department Review			
	Open Space/Lot Coverage	✔		

Required Information		*Check when Submitted*		*Applicable Ordinance*
Landscape Plan		*Applicant*	*Staff*	
	Greenspace Requirements	✔		
	Setbacks to Parking	✔		
	Buffer Requirements	N/A		
	Street Tree Requirements	N/A		
	Screened Dumpsters	✔		
	Additional Design Guidelines	✔		
	Planting Schedule	✔		
Stormwater & Erosion Control Plan		*Applicant*	*Staff*	
	Compliance w/ chapter 500	✔		
	Show Existing Surface Drainage	✔		
	Direction of Flow	✔		
	Location of Catch Basins, etc.	✔		
	Drainage Calculations	✔		
	Erosion Control Measures	✔		
	Maine Construction General Permit	✔		
	Bonding and Inspection Fees			
	Post-Construction Stormwater Plan			
	Inspection/monitoring requirements			
Lighting Plan		*Applicant*	*Staff*	
	Full cut-off fixtures	✔		
	Meets Parking Lot Requirements	✔		
Traffic Information		*Applicant*	*Staff*	
	Access Management	N/A		
	Signage	✔		
	PCE - Trips in Peak Hour	✔		

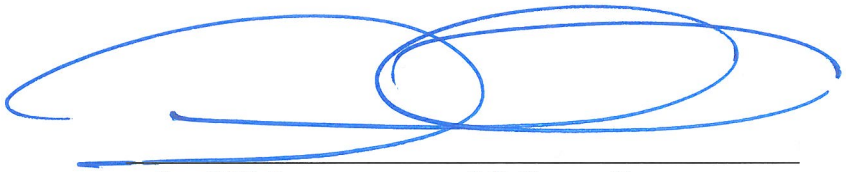
Required Information		*Check when Submitted*		*Applicable Ordinance*
	Vehicular Movements	✔		
	Safety Concerns	✔		
	Pedestrian Circulation	✔		
	Police Traffic			
	Engineering Traffic			
Utility Plan		*Applicant*	*Staff*	
	Water	✔		
	Adequacy of Water Supply			
	Water main extension agreement			
	Sewer	✔		
	Available city capacity			
	Electric	✔		
	Natural Gas			
	Cable/Phone	✔		
Natural Resources		*Applicant*	*Staff*	
	Shoreland Zone	✔		
	Flood Plain	✔		
	Wetlands or Streams	✔		
	Urban Impaired Stream	N/A		
	Phosphorus Check	N/A		
	Aquifer/Groundwater Protection	N/A		
	Applicable State Permits	N/A		
	Lake Auburn Watershed	N/A		
	Taylor Pond Watershed	N/A		
Right, Title or Interest		*Applicant*	*Staff*	
	Verify	✔		
	Document Existing Easements, Covenants, etc.	✔		

Required Information		*Check when Submitted*		*Applicable Ordinance*
Technical & Financial Capacity		*Applicant*	*Staff*	
	Cost Est./Financial Capacity	✔		
	Performance Guarantee			
State Subdivision Law		*Applicant*	*Staff*	
	Verify/Check	✔		
	Covenants/Deed Restrictions	N/A		
	Offers of Conveyance to City	N/A		
	Association Documents	N/A		
	Location of Proposed Streets & Sidewalks	✔		
	Proposed Lot Lines, etc.	N/A		
	Data to Determine Lots, etc.	✔		
	Subdivision Lots/Blocks	N/A		
	Specified Dedication of Land	N/A		
Additional Subdivision Standards		*Applicant*	*Staff*	
	Mobile Home Parks	N/A		
	PUD	N/A		
A JPEG or PDF of the proposed site plan		*Applicant*	*Staff*	
Final sets of the approved plans shall be submitted digitally to the City, on a CD or DVD, in AutoCAD format R 14 or greater, along with PDF images of the plans for archiving		✔		

JIG Investments, LLC
P.O. Box 1913
Lewiston, ME 04241-1913

To Whom It May Concern:

The signature below authorizes Stoneybrook Land Use, Inc. and Main-Land Development Consultants, Inc. to act as the applicant's agents in the processing of the enclosed application.



for JIG Investments, LLC, applicant

John M. Gendron, Member

(print name, title)

City of Auburn, Maine
Office of Planning & Permitting
Eric Cousens, Director
60 Court Street | Auburn, Maine 04210 www.auburnmaine.gov | 207.333.6601

Applicant:
JIG Investments
P.O. Box 1913
Lewiston ME 04341
Agent:
Stoneybrook Land Use, Inc. (C/O Mike Gotto)
4846 Sun City Center Blvd. #300
Sun City Center, FL 33573-6281
RE: Brickyard Commons/ Brickyard Circle

Dear Mr. Gotto,
I am pleased to issue this letter of conditional approval for Brickyard Commons. On June 28, 2022, the planning board approved the development of a 96-unit multifamily housing project consisting of eight 19,000 square foot buildings made up of eight three-story apartment buildings each containing 12 units with 168 parking spaces at Parcel I.D. 199-052 shown on Auburn's GIS system.

The planning board found that the proposal meets the requirements of Site Plan Ordinance, Sec. 60-45, Sec. 60-550 and Sec. 60-554 Multifamily Permitted Uses under Division 14, T-5.1 of the Form Based Code. The board voted to approve this project finding that the development has made provisions for the protection of adjacent areas against detrimental or offensive uses on the site by provision of adequate surface water drainage, buffers against artificial and reflected light, sound, dust and vibration; and the preservation of light and air; (2) Convenience and safety of vehicular and pedestrian movement within the site and in relation to adjacent areas; (3) Adequacy of the methods of disposal for wastes; and (4) Protection of environmental features on the site and in adjacent areas. Board further finds that the development meets all Special Exception requirements (Sec. 60-45).

This approval is contingent upon the following conditions being met:

1. No development activity until any bonding or inspection fees are determined by the City of Auburn Engineering department.
2. Separate water lines must be incorporated: One domestic and one fire. Size should be designed by the PE and confirmed by the Water District. Sewer should be tied into existing manhole or there should be a new manhole installed.
3. Offsite improvements in the view of $320,000.00 be granted to the city.

This approval is also based on the following documents and plans:

1. Auburn Water and Sewer District Memo (5/19/22)
2. Half-size Brickyard Circle Conceptual Left-Turn Lane (6/8/22)

3. City Submittal (5/6/22) including 43 documents/ plans
4. Response Submittal (6/17/22) including 17 documents/ plans
5. Planning Board Motion RE: Brickyard Commons/ Brickyard Circle (6/28/22)
6. Brickyard Commons Staff Report (6/28/22)
7. Full Stormwater submittal (5/6/22)
8. Complete revised stormwater package (submitted 8/18/22) including 23 documents/ plans.
9. NRPA permit, # L-29856-2G-A-N/2F-B-N.
10. USACE Permit # NAE-2022-01096

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

Katherine Cook, Planning Coordinator

C: File

City of Auburn, Maine
Office of Planning & Permitting
Eric Cousens, Director
60 Court Street | Auburn, Maine
04210 www.auburnmaine.gov |
207.333.6601

December 21, 2022

Applicant:
JIG Investments
P.O. Box 1913
Lewiston, ME 04341
Agent:
Stoneybrook Land Use, Inc. (C/O Mike Gotto)
4846 Sun City Center Blvd. #300
Sun City Center, GL 33573-6281

RE: Brickyard Commons/ Brickyard Circle In-lieu payment revision for Condition of Approval

Dear Mr. Gotto,

I am pleased to issue this letter of approval for a modified conditional approval for Brickyard Commons. Originally , on June 28, 2022 the Planning Board approved the development of a 96-unit multifamily housing project consisting of building (8) eight 19,000 square foot buildings with 168 parking spaces at Parcel I.D. 199-052 shown on Auburn's GIS system. All conditions, plans set, and approvals still apply according to the June 28th, 2022 approval letter and application packet except for the following:
Condition item #3: Offsite improvements in-lieu payment of $320,000. To meet the intent of the $320,000 in-lieu payment the following will be completed by the Applicant.

Construction by Applicant (JIG Investments)

- Developer will complete construction of a sidewalk on the western side of Brickyard Circle from the entrance to Brickyard Commons to the intersection of Washington Street South (914'+/-). Construction plans must follow city design standards for sidewalks.

Design by a Traffic Professional Engineer for Remaining Off-site Improvements by Applicant (JIG Investments)

- The addition of a left turn lane, accommodating for deceleration, on Washington Street North to provide access to the northern end of Brickyard Circle, as shown in attached sketch from Barton and Loguidice.
- The elimination of two crossovers, as shown in the attached sketch from Mike Gotto presented at planning board meeting on June 28th, 2022.
- Confirmation of site distances and turning radii for all movements within the project area by a Traffic Professional Engineer.

- A new wayfinding package design for Washington Street North and Washington Street South within project area including U-turn prohibitions, reverse direction signage, etc

Coordination and submission Details by Applicant

- All designs should be completed to MaineDOT specifications.
- Design engineering team will host a kickoff meeting and provide 25% and 75% plans for review by the City and MaineDOT
- Developer will provide the city with bid ready documents for construction of the improvements to include but not limited to plans, details specification and bid sheets to City/MaineDOT Standards.

This revision is effective the date of this letter.

Regards,

John A. Blais
Deputy Director of Planning & Permitting

Cc: Transportation & Community Development

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

JIG INVESTMENTS, LLC	) NATURAL RESOURCES PROTECTION ACT
Auburn, Androscoggin County	) WETLANDS OF SPECIAL SIGNIFICANCE
APARTMENT COMPLEX	) ADJACENT TO A RIVER, STREAM, OR BROOK
L-29856-2G-A-N (approval)	) WATER QUALITY CERTIFICATION
L-29856-2F-B-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. §§ 480-A–480-JJ, Section 401 of the Clean Water Act (33 U.S.C. § 1341), and Chapters 310 and 315 of Department rules, the Department of Environmental Protection (Department) has considered the application of JIG INVESTMENTS, LLC (applicant) with the supportive data, agency review comments, public comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. Summary: The applicant proposes to permanently fill a total of 13,632 square feet of freshwater wetlands, including 4,096 square feet within wetland areas considered wetlands of special significance (WOSS) due to their location within the 100-year floodplain of Taylor Brook. The proposed wetland alterations are associated with the construction of an apartment complex consisting of eight three-story buildings, each with 12 residential units, as well as an associated entrance drive, parking areas, and utility infrastructure. The proposed project includes a stormwater management system consisting of one grassed underdrained soil filter and one detention pond with a Focal Point biofiltration system. The majority of proposed WOSS impacts are due to the proposed access drive, which is located over an existing primitive access road and an existing culvert in disrepair. The applicant proposes to remove the existing culvert and replace it with a 36-inch-diameter culvert to maintain connectivity within the wetlands. The proposed development is located adjacent to approximately 0.3 miles of Taylor Brook. Portions of the proposed project are located within 25 feet of the brook. The proposed project is shown on a set of 17 plan sheets, the most relevant of which is titled, "W1.1 Impact Overview Plan," all prepared by Main-Land Development Consultants, Inc. (MLDC) and last revised August 11, 2022, with the exception of Sheet C1.0, which were last revised on September 9, 2022, and Sheet C6.2, which was last revised on September 13, 2022. The project site is located off Brickyard Circle in the City of Auburn.

The proposed project will result in more than three acres of impervious area. The proposed project was reviewed under the Site Location of Development Act (Site Law) by the City of Auburn through its delegated review authority pursuant to 38 M.R.S. §

The proposed project will disturb more than one acre of land. Prior to the start of construction, the applicant must submit a Notice of Intent to comply with the requirements of the Maine Construction General Permit (MCGP) to the Department for review.

B. Current Use of the Site: The proposed project is located on a 10.9-acre parcel of land bordered by Taylor Brook to the north and west, railroad tracks to the south, and by Brickyard Circle and Washington Street S. to the east. The parcel is forested and undeveloped except for an overgrown access road and fill area on the eastern portion of the parcel. The parcel is identified as Lot 52 on Map 199 of the City of Auburn's tax maps.

C. Public Comments: While the application was being reviewed, the Department received comments from four interested persons who own property near or abutting the project site. The Department reviewed all comments from the interested persons. The Department did not receive any requests for a public hearing during the 20-day period specified in Chapter 2, *Rule Concerning the Processing of Applications and Other Administrative Matters* (06-096 Ch. 2, last amended June 9, 2018), governing the processing of applications.

One of the interested persons commented that not all abutters to the proposed project received a notice prior to the applicant filing the application, and that the public informational meeting for the proposed project was held on the same day as an Auburn City Planning Board meeting, which precluded interested residents from attending both meetings. As defined in Chapter 2, § 1(A), an "abutter" is a person who owns property that both adjoins and is within one mile of the delineated project boundary, including owners of property directly across a public or private right of way. The Department reviewed the evidence of public notices provided by the applicant, including certified mail receipts, and determined that the applicant met the public notice requirements specified in Chapter 2, § 14. The Department further determined that the applicant met the requirements for a public informational meeting as described in Chapter 2, § 13.

The interested persons expressed a range of concerns, including the visual impact of the proposed project, potential harm to wildlife and wildlife habitats, increased flooding, and degradation of water quality in Taylor Brook. Two of the interested persons were also concerned about the potential for the proposed development to degrade the quality of groundwater that feeds a nearby natural spring historically used as a source for bottled drinking water. The Department's assessment and the applicant's responses to these concerns are discussed in the Findings below. Visual impacts are discussed in Finding 2; wildlife and habitats are discussed in Finding 4; flooding is discussed in Finding 5; and surface and groundwater quality are discussed in Finding 6.

Some of the concerns raised by the interested persons do not fall within the scope of the NRPA review. These include concerns related to noise, water supply and wastewater infrastructure, traffic patterns, historic archaeological features, and safety fencing around stormwater basins and adjacent industrial properties. Some of these concerns are

regulated by the City of Auburn through its municipal ordinance and delegated Site Law review authority. The Department forwarded the comments regarding historic archaeological features to the City of Auburn and the U.S. Army Corps of Engineers to address in their respective reviews of the proposed project, as applicable.

2. EXISTING SCENIC, AESTHETIC, RECREATIONAL OR NAVIGATIONAL USES:

The Natural Resources Protection Act (NRPA), in 38 M.R.S. § 480-D(1), requires the applicant to demonstrate that the proposed project will not unreasonably interfere with existing scenic, aesthetic, recreational and navigational uses.

In accordance with Chapter 315, *Assessing and Mitigating Impacts to Scenic and Aesthetic Uses*, the applicant submitted a copy of the Department's Visual Evaluation Field Survey Checklist as Appendix A to the application along with a description of the property and the proposed project. The applicant also submitted several photographs of the proposed project site and the surrounding area. Department staff visited the project site on August 11, 2022.

During the review, the Department received public comments regarding adverse impacts to the scenic character of the project area as seen from their private residences and from public ways. Chapter 315 states that an unreasonable adverse visual impact is one that is expected to unreasonably interfere with the general public's visual enjoyment and appreciation of a scenic resource, or those that otherwise unreasonably impair the character or quality of such a place. To assess this review standard, the Department considers the viewshed of the proposed activity as viewed from the protected resource or other public lands.

The proposed project is partially located within an unnamed freshwater wetland adjacent to Taylor Brook. The wetlands are located on private property and are not accessible to the public. The proposed project is also located within 25 feet of Taylor Brook, which is a scenic resource visited by the general public for the use, observation, enjoyment, and appreciation of its natural and cultural visual qualities. The brook is wide enough for navigation by canoe and kayak; however, there are no public access points on the segment of the brook that runs adjacent to the project site, which is an approximately one-mile-long segment from Minot Avenue to U.S. Route 202 (Washington Street). Taylor Brook runs under Washington Street and into the Little Androscoggin River, which is also a scenic resource. The proposed project will not be visible from the river due to intervening vegetation and structures along Washington Street. The proposed project will be visible from the public way of Brickyard Circle and may be partially visible from Washington Street.

The surrounding area is developed with numerous commercial and residential structures. The commercial structures are concentrated around Washington Street to the southeast of the project site, but also include Hammond Lumber Company, a railroad yard, and Savage Safe Handling, all located to southwest of the project site. A residential neighborhood is located to the north, approximately 200 feet from the project site at the

closest point. The parcel immediately across Taylor Brook from the project site is a privately owned residential lot that is largely forested. Additional small commercial and residential lots are located in the project vicinity on Brickyard Circle.

To reduce the visual impact of the proposed project, the applicant designed the development to retain a buffer, ranging in width from 25 to 130 feet of existing vegetation adjacent to Taylor Brook except at the proposed access drive and the proposed outfall pipe for the stormwater detention pond, where the proposed disturbance extends to the brook. The applicant stated that due to traffic restrictions, the only allowable entrance to the site is off Brickyard Circle, where the road frontage is only approximately 90 feet. The applicant located the access road as far from the brook as possible given site constraints and proposes a retaining wall on either side of the road to limit intrusion into the wetlands and towards the brook. At the proposed outfall pipe, the disturbance adjacent to the brook will be limited to an approximately 10-foot-wide clearing of shoreline vegetation and a small riprap apron at the pipe outlet.

In response to public comments and Department comments, the applicant submitted additional photographs of the surrounding area and elaborated on the visual impact of the proposed project. The applicant stated that vegetative screening is proposed near the project entrance, consisting of a 20-foot-wide buffer of retained vegetation along the property line adjacent to Washington Street. The applicant stated that the proposed project will not be visible from any sites on the National Register of Historic Places, nor from any public trails or parks. The applicant identified Baker Mill trail as the only public trail in the vicinity of the project site. The applicant stated that the proposed project, located approximately 0.3 miles from the trailhead, will not be visible from the trail due to intervening vegetation and structures. The applicant concluded that given the developed nature of the surrounding area, including the adjacent four-lane divided highway and numerous commercial businesses, and given the lack of public access to Taylor Brook at the project site, the proposed project is compatible with the character of the existing landscape.

The Department staff utilized the Department's Visual Impact Assessment Matrix in its evaluation of the proposed project. The Matrix is used to assess the visual impact severity of a proposed project based on the distance and visibility of the project from a natural landmark or other outstanding natural or cultural feature, State, National, or locally designated park or trail, and on the approximate number of people likely to view the project from the resource or a public way per day. The severity rating is also based on the visual elements of landscape compatibility, scale contrast, and spatial dominance as defined in Chapter 315, § 9. The Department determined that the proposed project is directly visible from several vantage points on Taylor Brook, Brickyard Circle, and Washington Street. Given the lack of public access, the Department determined that the project site is not viewed by more than 25 people per day from the scenic resource but may be viewed by more than 25 people per day from a public way. The proposed project would not be visible from any natural landmark or other natural or outstanding cultural feature or from any State, National, or locally designated park or trail. Given these considerations and the visual element ratings, the Matrix showed an acceptable potential

visual impact rating for the proposed project. Based on the information submitted in the application and during the review, the visual impact rating and the site inspection by Department staff, the Department finds that the location and scale of the proposed activity is compatible with the existing visual quality and landscape characteristics found within the viewshed of the scenic resource in the project area.

The Department determined that based on the nature of the proposed project and its location, there are no existing recreational or navigational uses of the resource that would be unreasonably impacted. The Department finds that the proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses of the freshwater wetlands.

3. SOIL EROSION:

The NRPA, in 38 M.R.S. § 480-D(2), requires the applicant to demonstrate that the proposed project will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

The applicant submitted an erosion and sedimentation control plan prepared by MLDC and dated April 14, 2022. Additional notes and details are shown on the plans referenced in Finding 1. The plan is based on the Department's *Maine Erosion & Sedimentation Control Best Management Practices (BMP) Manual.* The applicant proposes that construction vehicles will access the site over a temporary stabilized construction entrance off Brickyard Circle. Prior to the start of ground disturbance, a double row of sediment barriers will be installed downgradient of the work area, as shown on Sheets C3.1 and C3.2 of the plan set. Temporary mulch will be applied to areas of exposed soil not being worked for seven consecutive days and prior to significant rain events. In areas within 75 feet of a stream or wetland, temporary mulch will be applied to areas of exposed soil after two consecutive days of inactivity, and prior to significant rain events. Slopes steeper than 15% will be stabilized with biodegradable netting or matting installed over mulch and seed. Stockpiles of erodible materials will be located at least 75 feet from delineated streams and wetlands. In the event that water must be pumped from trenches or stormwater basins during construction, the water will be directed through a filter bag or secondary containment structure in an upland location, as indicated on Sheet C1.0 of the plan set.

The applicant anticipates that construction will begin in the fall of 2022 and be completed by the spring of 2024. The sediment barriers and other temporary erosion control measures will be inspected and maintained throughout construction. Between November 1 and April 15, winter stabilization methods will be employed, including the doubling of hay mulch on all disturbed areas and maintenance of the double row of sediment barriers between disturbed areas and protected natural resources. During the winter period, no more than one acre of soil may be exposed at one time.

Upon project completion, all remaining disturbed areas will be loamed, seeded, and mulched in accordance with the notes and details in the above-referenced plan set. Upon final stabilization, sediment barriers will be removed from the site.

The proposed project was reviewed by the Department's Geology Unit. The Geology Unit recommended that any blasting, if necessary, should conform to the to the performance standards described in 38 M.R.S. § 490-Z(14). The applicant agreed to this recommendation.

As noted in Finding 1A above, prior to the start of construction, the applicant must submit a Notice of Intent to comply with the requirements of the MCGP to the Department for review.

The Department finds that the activity will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment provided that prior to the start of construction, the applicant submits a Notice of Intent to comply with the MCGP as described above.

4. HABITAT CONSIDERATIONS:

The NRPA, in 38 M.R.S. § 480-D(3), requires the applicant to demonstrate that the proposed project will not unreasonably harm significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

The applicant submitted a natural resource report prepared by MLDC and dated February 28, 2022, based on surveys of the project site conducted in November of 2021. The report was supplemented by additional surveys conducted in August of 2022. In the report, MLDC identified one perennial stream known as Taylor Brook, as well as one mixed scrub-shrub and forested wetland complex associated with the brook. No other streams or potential vernal pools were identified. MLDC noted invasive plant species present including oriental bittersweet (*Celastrus orbiculatus*) and common buckthorn (*Rhamnus cathartica*). Department staff visited the project site in August of 2022 and determined that the type and extent of natural resources on the project parcel are reasonably consistent with the boundaries shown on the plans referenced in Finding 1. Department staff noted the presence of additional invasive plant species, including Japanese barberry (*Berberis thunbergii*), Japanese knotweed (*Reynoutria japonica*), multiflora rose (*Rosa multiflora*), and winged euonymus (*Euonymus alatus*).

During the review, the interested persons expressed concerns regarding the impact of the proposed project on various wildlife species and habitat, including bat species listed as Threatened, Endangered, or of Special Concern. The comments also included concerns about vernal pools on adjacent properties.

The NRPA regulates activities within 250 feet of significant vernal pools located on a given project parcel, but not on adjacent parcels. The applicant's agent did not identify

any vernal pools on the project parcel. At the site visit, Department staff confirmed that no potential vernal pools are present.

According to the Department's Geographic Information System (GIS) database, there are no mapped Essential or Significant Wildlife Habitats located at the project site. The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the proposed project and recommended, in comments dated August 23, 2022, that the applicant maintain a 100-foot buffer of undisturbed vegetation adjacent to Taylor Brook to protect water quality, maintain natural inputs of woody debris, and maintain suitable habitat conditions for fish and other aquatic life. MDIFW commented that there are no known state-listed Endangered, Threatened, or Special Concern species at the project site, although it is possible that one or more listed bat species occur in the project area. However, there are no known bat hibernacula or maternity roosts at the project site, and MDIFW does not anticipate that the proposed project will result in significant adverse impacts to bats. In accordance with the special conditions of a USACE permit for the proposed project (NAE-2022-01096), the applicant does not propose any tree clearing during the bat pup-rearing season of June 1 to July 31.

The applicant designed the proposed project with a vegetated buffer along the stream ranging from 25 to 130 feet wide, except at the proposed access road WOSS crossing and at the outfall pipe for the proposed detention pond. The applicant stated that a consistent 100-foot-wide buffer is not practicable given site constraints, and that the proposed project would not be financially viable if reduced to a smaller size. The applicant also noted that the NRPA only regulates activities within 75 feet of a river, stream, or brook, and stated that the proposed project minimizes impacts to the 75-foot riparian buffer to the greatest extent practicable.

The Department supports MDIFW's recommendation for a 100-foot-wide vegetated riparian buffer where possible but agrees with the applicant that the jurisdiction of the NRPA extends only 75 feet from a river, stream, or brook. Given the nature of the project site, the project design, and the lack of rare or sensitive habitat types and species in the project area, the Department determined that the proposed stream-adjacent activities will not result in unreasonable harm to fisheries or wildlife.

Given the presence of invasive plant species at the project site, any construction mats and equipment must be thoroughly cleaned and free of vegetation and soil before leaving the project site.

The Department finds that the activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life provided that the applicant cleans any construction mats and equipment of vegetation and soil before leaving the project site.

5. FLOODING:

The NRPA, in 38 M.R.S. § 480-D(6), requires the applicant to demonstrate that the proposed project will not unreasonably cause or increase flooding of the alteration area or adjacent properties.

The proposed access drive off Brickyard Circle crosses through the 100-year flood plain of Taylor Brook. During the review, the Department received comments from interested persons concerned that the project site, including the adjacent road (Brickyard Circle), frequently floods and that the proposed development will worsen flooding on the subject parcel and adjacent parcels.

The applicant responded that except for the proposed entrance road area, which is within the mapped floodplain, the elevation of the project parcel is significantly higher than the road. The applicant stated that based on its stormwater analysis of pre- and post-development conditions, which it conducted for the municipal review process, the proposed project will displace approximately 100 cubic feet of flood storage capacity, which the applicant stated is negligible. The applicant further stated that the proposed stormwater management structures have been designed to keep post-development peak flow rates at or below pre-development peak flow rates following storm events.

The proposed project was reviewed by the Maine Department of Agriculture, Conservation, and Forestry's Maine Flood Management Program (MFMP). In correspondence dated August 3, 2022, MFMP provided a map of the project site depicting the flood hazard area, which consists of a floodway and a floodplain. MFMP commented that the majority of the project parcel is located outside of the mapped flood hazard area, and that fill is allowed within the floodplain, provided that any buildings within the floodplain have the lowest floor elevated at least one foot above the base flood elevation. The applicant does not propose any fill within the floodway and does not propose any buildings within the floodplain.

Based on the project design and MFMP's review, the Department does not anticipate that the proposed project will not result in unreasonable flooding on the subject parcel or adjacent parcels.

6. WATER QUALITY CONSIDERATIONS:

The NRPA, in 38 M.R.S. § 480-D(5), requires the applicant to demonstrate that the proposed project will not unreasonably interfere with the natural flow of any surface or subsurface waters and that the proposed activity will not violate any state water quality law.

The proposed project is located adjacent to approximately 0.3 miles of Taylor Brook. As discussed in Finding 4, portions of the proposed project are located immediately adjacent to the brook, while the majority of the proposed project will be located between 25 and 130 feet from the brook. Taylor Brook is considered a Class B stream. The

Department's Bureau of Water Quality (BWQ) sampled the stream at the project site in 2003, 2008, and 2018. The sampling indicated the stream only met Class C in 2003 and attained Class B in 2008 and 2018.

The applicant does not propose any withdrawal from, or discharge to, the groundwater. The proposed project will be served by public water and sewer lines. The applicant stated that no hazardous materials will be stored on site, nor will any emergency generators powered by diesel or other liquid petroleum products be stored on site. No infiltration of stormwater is proposed.

The interested persons raised concerns regarding the effect of the proposed project on water quality in Taylor Brook due to an increase in stormwater runoff containing road salts and other contaminants. The interested persons claimed that the project site is located over several aquifers of state significance. Two of the interested persons own a natural spring, housed in a building on Brickyard Circle, which has been used to bottle drinking water in the past and which the owners plan to use for bottling drinking water again in the future. The owners of the spring expressed concerns that the proposed project will degrade water quality at the spring, compromising their ability to produce bottled water. The spring is located approximately 400 feet downstream and on the opposite side of Taylor Brook from the project site.

According to the Department's GIS database and the Maine Geological Survey's open data, the project site is not located over a significant sand and gravel aquifer.

BWQ staff reviewed the proposed project and commented, in correspondence dated August 17, 2022, that developments of this nature can result in an increase in non-point source pollutants such as road salts, heavy metals, petroleum products, nutrients, and sediment, which could adversely affect water quality in Taylor Brook. However, BWQ staff also commented that based on the project location and stream characteristics, the additional inputs would likely be sufficiently diluted to avoid harm to water quality, except at times when flow levels are significantly below baseline. Any inputs would be further diluted approximately 0.2 miles downstream, where Taylor Brook enters the Little Androscoggin River. To ensure protection of groundwater quality, BWQ recommended that the proposed stormwater structures be installed with an impermeable liner to prevent infiltration.

The Department's Geology Unit also reviewed the proposed project for potential impacts to water quality. In correspondence dated September 9, 2022, the Geology Unit commented that it is unclear whether the natural spring owned by the interested persons shares a subsurface aquifer with the project site. Based on the soil test pit data from the project site, a till-covered bedrock ridge beneath the site will direct much of the overburden subsurface flow toward Taylor Brook and the adjacent wetlands, rather than into any aquifer below. Given that the spring is located adjacent to several existing pollutant sources, including a major roadway which is closer to the spring than the proposed development, the effects of the proposed development on the spring, if any, would be difficult to distinguish from other sources. To maximize protection of

groundwater quality, the Geology Unit recommended that the impermeable liner under the stormwater structures be at least 30 millimeters thick and extend under the proposed Focal Point as well as the detention pond and underdrained soil filter; that the applicant show on the plan sheets how the liner seams will be sealed; and that the applicant specify a location on the plan for a temporary dewatering basin and ensure that the area downgradient of the basin is stabilized prior to any dewatering activities.

In response to these comments, the applicant provided details of the proposed stormwater structures, as shown on Sheets C6.1 and C6.2 of the plans referenced in Finding 1, showing a 10-millimeter-thick impermeable liner under the proposed stormwater structures. The applicant revised the plans to extend the 10-millimeter liner under the Focal Point but stated that increasing the liner thickness to 30 millimeters would add a significant cost and is not feasible for the applicant. The applicant revised Sheet C6.2 to indicate how the seams of the liner will be sealed and provided a revised Sheet C1.0 to show the location of a temporary dewatering basin. The applicant confirmed that the downgradient area will be stabilized prior to use of the basin. As discussed in Finding 3, the applicant proposes to use erosion and sedimentation control measures during construction to minimize impacts to water quality from siltation.

The Department acknowledges that design specifications for stormwater management structures do not typically fall within the scope of a NRPA review, and that the proposed stormwater management structures were reviewed and approved by the City of Auburn under delegated Site Law review authority. The Department finds that the proposed 10-millimeter-thick impermeable liner, in conjunction with the proposed erosion and sedimentation control plan, will provide adequate protection for groundwater.

The Department evaluated the public comments, reviewer comments, the applicant's response to comments, and the information in the record. Based on the nature and location of the proposed project, the applicant's stormwater management plan, the erosion and sedimentation control plan, and the other considerations discussed above, the Department finds that the proposed project is unlikely to violate any state water quality law, including those governing the classification of the State's waters.

7. WETLANDS AND WATERBODIES PROTECTION RULES:

The applicant proposes to fill 13,632 square feet of mixed scrub-shrub and forested freshwater wetlands, including 4,096 square feet within floodplain wetland areas considered WOSS. The majority of proposed WOSS impacts (3,982 square feet) are due to the proposed access road, while the remainder (114 square feet) are due to the outfall pipe for the proposed stormwater detention pond. The non-WOSS impacts are due to the proposed access road and the grading of fill slopes around the apartment buildings and parking areas.

The *Wetlands and Waterbodies Protection Rules*, 06-096 C.M.R. ch. 310 (last amended November 11, 2018), interpret and elaborate on the NRPA criteria for obtaining a permit. The rules guide the Department in its determination of whether a project's impacts would

be unreasonable. A proposed project would generally be found to be unreasonable if it would cause a loss in wetland area, functions and values and there is a practicable alternative to the project that would be less damaging to the environment. Each application for a NRPA permit that involves a freshwater wetland alteration must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist.

A. Avoidance. An applicant must submit an analysis of whether there is a practicable alternative to the project that would be less damaging to the environment and this analysis is considered by the Department in its assessment of the reasonableness of any impacts. Additionally, for activities proposed in, on, or over wetlands of special significance the activity must be among the types listed in Chapter 310, § 5(A) or a practicable alternative less damaging to the environment is considered to exist and the impact is unreasonable. Crossings by roads and utilities, such as the proposed access road and stormwater outfall pipe, are among the activities specifically provided for in Chapter 310, § 5(A)(1)(b). The applicant submitted an alternatives analysis prepared by MLDC and dated April 15, 2022, supplemented by an additional narrative dated June 16, 2022. The purpose of the proposed project is to develop the project parcel for a profitable use that also serves the City of Auburn's economic goals. The applicant considered taking no action to develop the parcel but determined that this would not meet the project purpose.

When the applicant acquired the project parcel, it was zoned for industrial and commercial uses. The applicant considered developing the property as a self-storage facility with 12 buildings and an office; however, the applicant determined that such a facility would occupy a large footprint and require grading in close proximity to Taylor Brook, resulting in approximately 19,000 square feet of wetland fill. The applicant also stated that the construction of a self-storage facility on the parcel would not be financially feasible for the applicant. The applicant considered developing the property as a site for heavy equipment sales, consisting of an entrance drive, 21,600-square-foot building, small parking lot, and 4.6-acre paved vehicle and equipment storage area. The applicant determined that the site was not suitable for access by large tractor trailers, and that modifying the site for tractor trailer access was not financially feasible. Further, the applicant stated that this alternative would have resulted in approximately 25,000 square feet of wetland fill.

The applicant consulted with City staff on the use of the project parcel. The City of Auburn subsequently rezoned the project area to allow for mixed uses, including residential development. The applicant determined that the development of an apartment complex would be financially feasible for the applicant and would help meet the City's goals for additional housing in Auburn. The applicant further determined that the proposed apartment complex would result in the least amount of disturbance adjacent to Taylor Brook and the least amount of wetland fill compared to the commercial use alternatives described above. The applicant considered multiple layouts of the apartment complex, including an alternate entrance point to avoid crossing the WOSS near Brickyard Circle. However, the applicant determined that an entrance off Washington

Street would not be possible based on traffic patterns, and the project parcel has only 90 feet of accessible frontage on Brickyard Circle, all of which is adjacent to WOSS. In light of these considerations, the applicant stated that there is no practicable alternative to the proposed project that meets the project purpose and avoids impacts to the resource.

B. Minimal Alteration. In support of an application and to address the analysis of the reasonableness of any impacts of a proposed project, an applicant must demonstrate that the amount of freshwater wetland to be altered will be kept to the minimum amount necessary for meeting the overall purpose of the project. The applicant designed the proposed project to maximize the use of available upland on the project parcel. The applicant incorporated retaining walls and side slopes of 2H:1V to minimize intrusion into the wetland and upland areas adjacent to Taylor Brook. The applicant designed the proposed access drive to follow the southern boundary of the project site, as far from Taylor Brook and the associated wetland as possible. The access drive over the WOSS was designed to the narrowest width practicable given the need for two-way traffic and a pedestrian walkway on one side. The applicant designed the crossing with retaining walls on either side to limit intrusion into the wetland.

During the review, the Department asked the applicant to elaborate on why the project footprint could not be further reduced by eliminating one or more buildings. The applicant responded that the proposed layout represents the smallest development footprint that is financially viable. The applicant considered adding a fourth story to the proposed three-story buildings to consolidate the project footprint. The zoning rules allow for a maximum of four stories; however, the applicant determined that adding the fourth story would require the installation of elevators, sprinkler systems, and other code requirements that would substantially increase construction costs. The applicant further stated that the proposed design is already reduced to approximately 50% of the maximum residential unit density allowed by the current municipal zoning rules, and that further reduction would limit the project's contribution towards the City's housing objectives. The applicant stated that the proposed project minimizes wetland impacts to the greatest extent practicable.

C. Compensation. In accordance with Chapter 310, § 5(C)(6)(a), compensation may be required to achieve the goal of no net loss of freshwater wetland functions and values. The threshold over which compensation is generally required is 500 square feet of alteration in a freshwater WOSS. The proposed project will permanently alter 13,632 square feet of freshwater wetlands, including 4,096 square feet of WOSS.

The applicant submitted a wetland functional assessment prepared by MLDC and dated March 2, 2022. In the assessment, MLDC identified flood-flow alteration and shoreline stabilization as the principal functions of the wetland affected by the proposed project. MLDC noted that the wetland is dominated by invasive plants such as oriental bittersweet (*Celastrus orbiculatus*) and common buckthorn (*Rhamnus cathartica*), and that the functions of the wetland are limited by its proximity to residential development and major roads.

To compensate for lost wetland functions and values, the applicant proposes to make a contribution into the In-Lieu Fee program of the Maine Natural Resource Conservation Program in the amount of $71,431.68. Prior to the start of construction, the applicant must submit a payment in the amount of $71,431.68, payable to "Treasurer, State of Maine," and directed to the attention of the In-Lieu Fee Program Administrator at 17 State House Station, Augusta, Maine 04333. The submission of payment must include a cover letter the references the Department license number associated with the project.

The Department finds that the applicant has avoided and minimized freshwater wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project provided that prior to project construction, the applicant submits the In-Lieu Fee payment as described above.

8. OTHER CONSIDERATIONS:

The Department finds, based on the design, proposed construction methods, and location, the proposed project will not inhibit the natural transfer of soil from the terrestrial to the marine environment and will not interfere with the natural flow of any surface or subsurface waters. The proposed project is not located in a coastal sand dune system, is not a crossing of an outstanding river segment, and does not involve dredge spoils disposal or the transport of dredge spoils by water.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. §§ 480-A–480-JJ and Section 401 of the Clean Water Act (33 U.S.C. § 1341):

A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.

B. The proposed activity will not cause unreasonable erosion of soil or sediment provided that prior to the start of construction, the applicant submits a Notice of Intent to comply with the MCGP as described in Finding 3 and the corresponding condition below.

C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life provided that the applicant washes construction mats and equipment prior to leaving the project site as described in Finding 4 and the corresponding condition below, and provided that the applicant submits the In-Lieu Fee payment as described in Finding 7 and the corresponding condition below.

E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.

F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.

G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.

H. The proposed activity is not on or adjacent to a sand dune.

I. The proposed activity is not on an outstanding river segment as noted in 38 M.R.S. § 480-P.

THEREFORE, the Department APPROVES the above noted application of JIG INVESTMENTS, LLC to construct an apartment complex and associated infrastructure as described in Finding 1, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. Standard Conditions of Approval, a copy attached.

2. The applicant shall take all necessary measures to ensure that its activities or those of its agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.

3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

4. Prior to the start of construction, the applicant shall submit a Notice of Intent to comply with the requirements of the Maine Construction General Permit to the Department for review.

5. To prevent the spread of invasive plant species, any construction mats and equipment must be thoroughly cleaned and free of vegetation and soil before leaving the project site.

6. Prior to the start of construction, the applicant shall submit a payment in the amount of $71,431.68, payable to “Treasurer, State of Maine”, to the attention of the ILF Program Administrator at 17 State House Station, Augusta, Maine 04333. The submission of payment shall include a cover letter the references the Department license number associated with the project

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 15th DAY OF SEPTEMBER 2022.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
For: Melanie Loyzim, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

JEM/L29856ANBN/ATS#89440,89693

FILED
September 15th, 2022
State of Maine
Board of Environmental Protection

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO
ATTENTION OF

MAINE GENERAL PERMITS (GPs)
AUTHORIZATION LETTER AND SCREENING SUMMARY

John Gendron
JIG Investments, LLC.
PO Box 1913
Lewiston, ME 04241

CORPS PERMIT # NAE-2022-01096
CORPS GP(s) # 8 & 22
STATE ID#

DESCRIPTION OF WORK:

To place approximately 13,632sf. of fill in freshwater wetland adjacent to Taylor Brook for the development of multi-unit apartment buildings "Brickyard Commons" off Brickyard Circle in Auburn, ME. This work is described on the attached plans entitled "Brickyard Commons" on two (2) sheets dated "4-18-2022" and "5-10-22". See Conditions

LAT/LONG COORDINATES: 44.078333 ° N -70.238862 ° W **USGS QUAD:** LEWISTON, MAINE

I. CORPS DETERMINATION:

Based on our review of the information you provided, we have determined that your project will have only minimal individual and cumulative impacts on waters and wetlands of the United States. Your work is therefore authorized by the U.S. Army Corps of Engineers under the Federal Permit, the Maine General Permit which can be found at: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/ Accordingly, we do not plan to take any further action on this project.

You must perform the activity authorized herein in compliance with all the terms and conditions of the GP(s) [including any attached Additional Conditions and any conditions placed on the State 401 Water Quality Certification including any required mitigation]. Please review the GP(s) carefully, including the GP(s) conditions beginning on page 5, to familiarize yourself with its contents. You are responsible for complying with all of the GP(s) requirements; therefore you should be certain that whoever does the work fully understands all of the conditions. You may wish to discuss the conditions of this authorization with your contractor to ensure the contractor can accomplish the work in a manner that conforms to all requirements.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

Condition 45 of the GP(s) (page 19) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the GP(s) on October 14, 2025. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 14, 2026.

This authorization presumes the work shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, please submit a request for an approved jurisdictional determination in writing to the undersigned.

No work may be started unless and until all other required local, State and Federal licenses and permits have been obtained. **This includes but is not limited to a Flood Hazard Development Permit issued by the town if necessary.**

II. STATE ACTIONS: PENDING [X], ISSUED [ ], DENIED [ ] DATE

APPLICATION TYPE: PBR: TIER 1: X , TIER 2 : , TIER 3: : INDIV LURC: DMR LEASE: NA:

III. FEDERAL ACTIONS:

JOINT PROCESSING MEETING: May 12, 2022 LEVEL OF REVIEW: Self-Verification: Pre-Construction Notification: X

AUTHORITY (Based on a review of plans and/or State/Federal applications): SEC 10 , 404 X 10/404 , 103

EXCLUSIONS: The exclusionary criteria identified in the general permit do not apply to this project.

FEDERAL RESOURCE AGENCY OBJECTIONS: EPA NO , USF&WS NO , NMFS NO

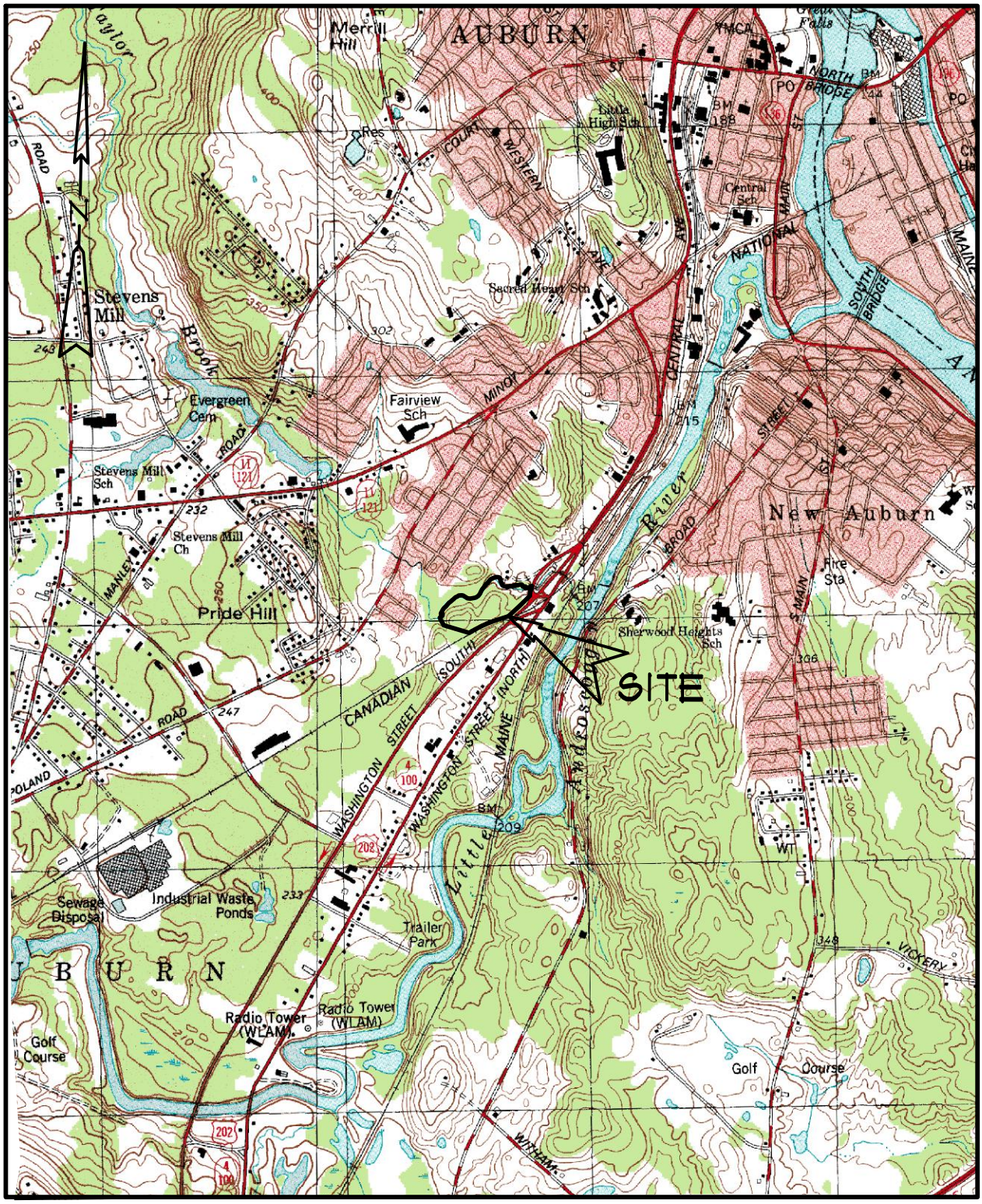
If you have any questions on this matter, please contact my staff at 207-623-8367 at our Augusta, Maine Project Office. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at http://per2.nwp.usace.army.mil/survey.html

Heather S. Stukas
Digitally signed by Heather S. Stukas
Date: 2022.06.13 11:20:50 -04'00'

HEATHER S. STUKAS
PROJECT MANAGER
MAINE PROJECT OFFICE

Frank J Del Giudice
Digitally signed by Frank J Del Giudice
Date: 2022.06.13 12:30:21 -04'00'

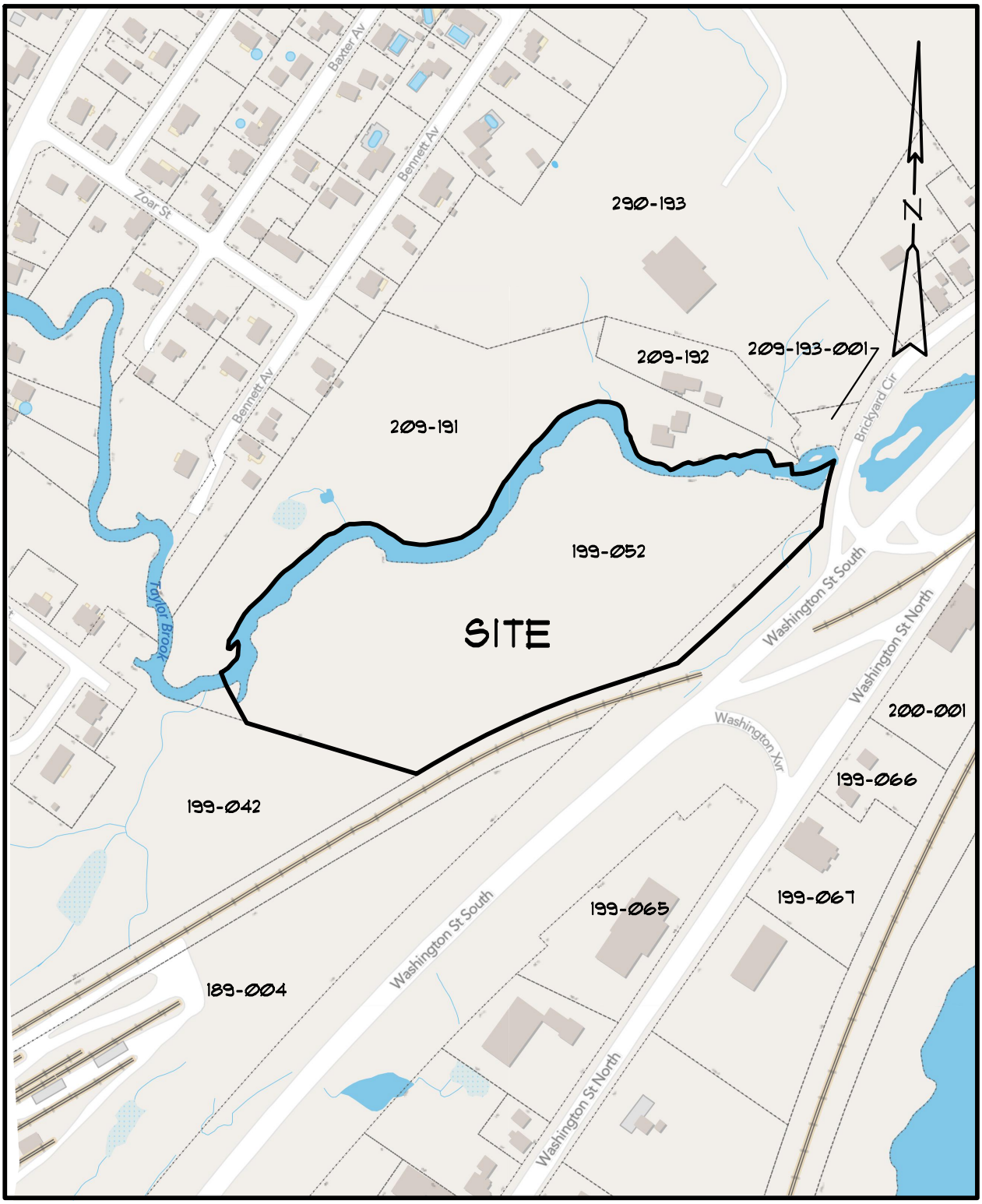
FRANK J. DEL GIUDICE
CHIEF, PERMITS & ENFORCEMENT BRANCH
REGULATORY DIVISION



USGS LOCATION MAP

BRICKYARD COMMONS - BRICKYARD CIRCLE, AUBURN
OWNER: JIG INVESTMENTS, LLC
SCALE: 1" = 2,000'
DATE OF GRAPHIC: APRIL 14, 2022
SOURCE: MAINE OFFICE OF GIS
ORIGINAL PUBLICATION DATE: 1967

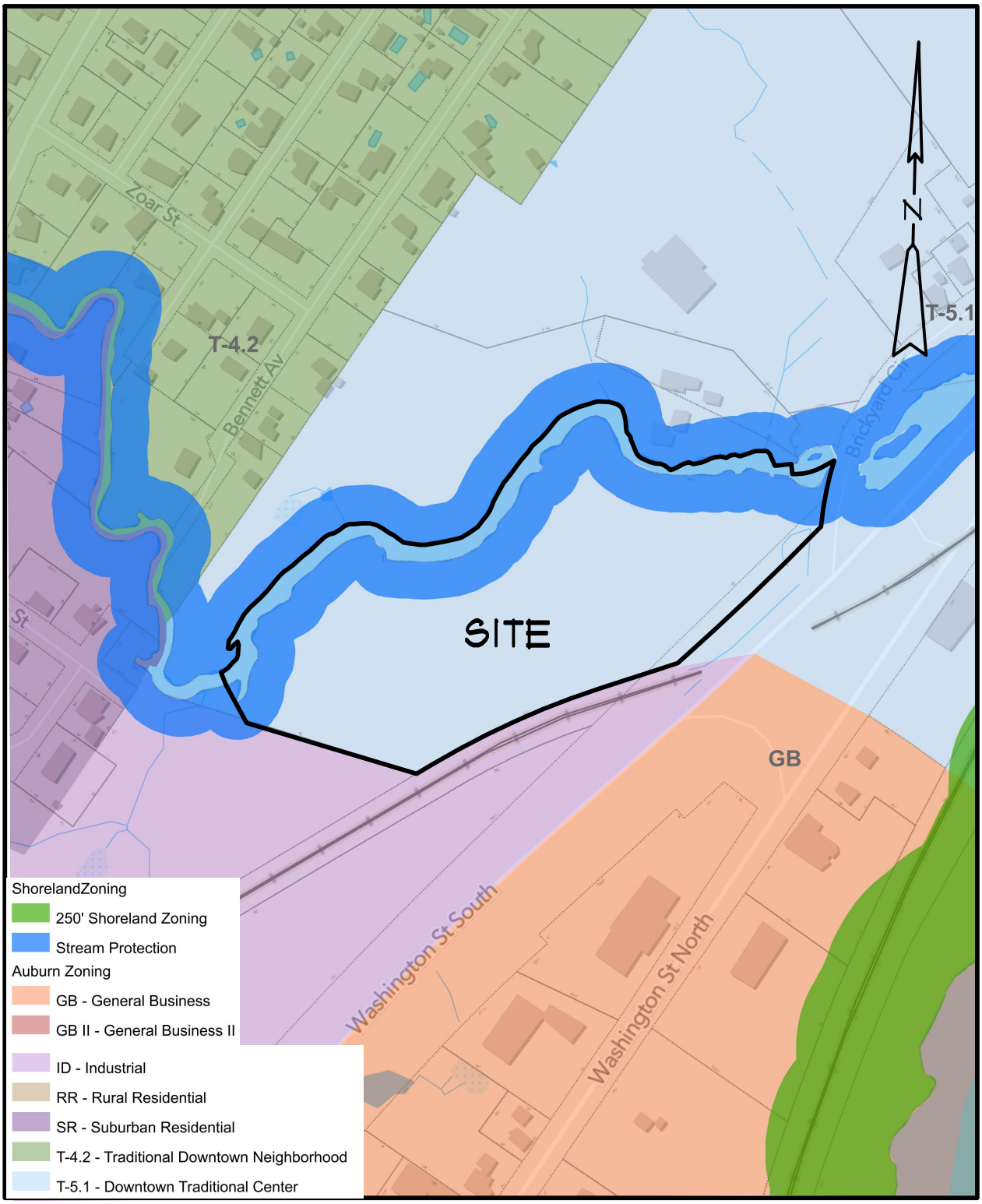
Stoneybrook
Land Use, Inc.



TAX MAP

BRICKYARD COMMONS - BRICKYARD CIRCLE, AUBURN
OWNER: JIG INVESTMENTS, LLC
SCALE: 1" = 300'
DATE OF GRAPHIC: APRIL 14, 2022
SOURCE: CITY OF AUBURN GIS
PUBLICATION DATE: 2021

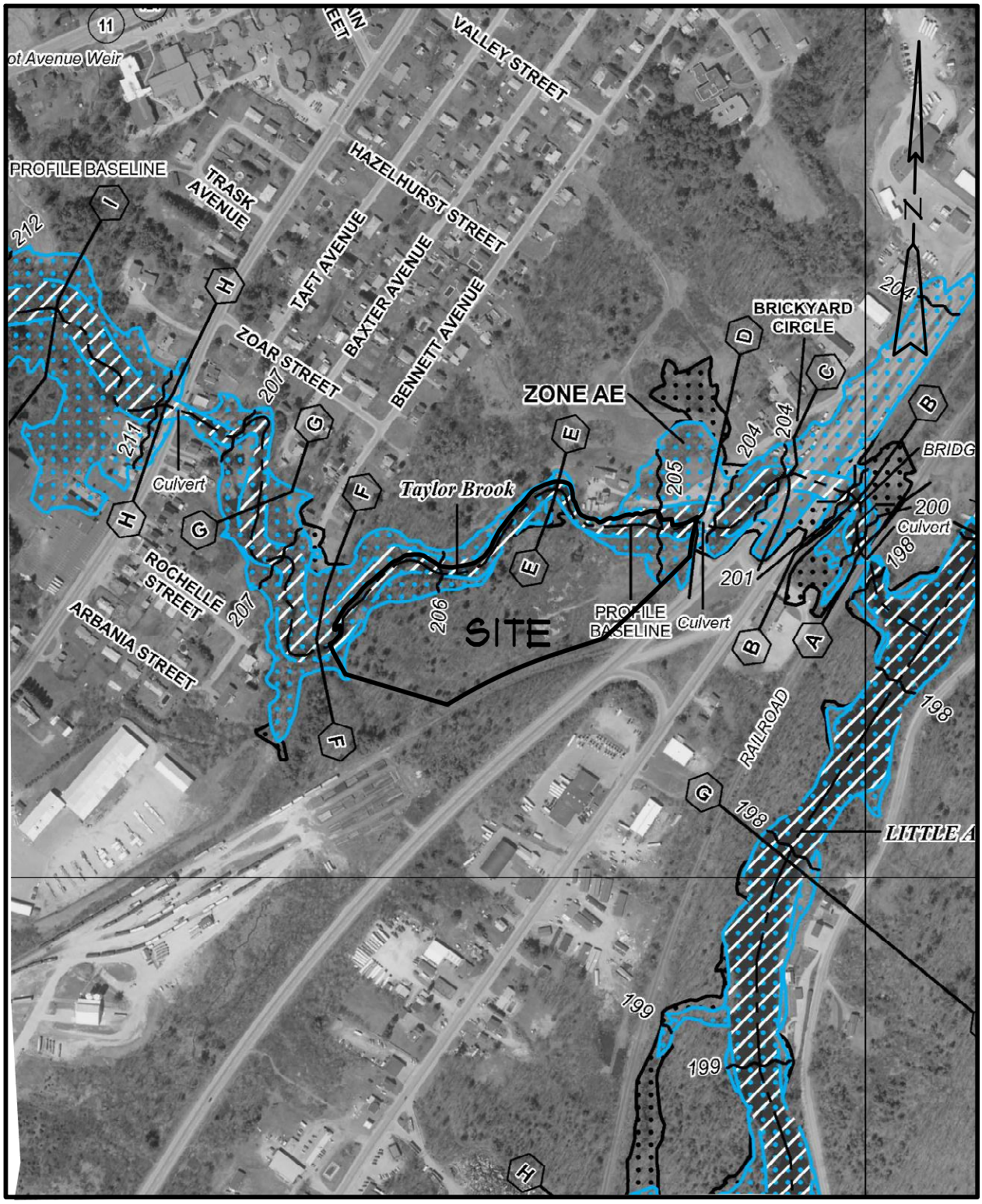
Stoneybrook
Land Use, Inc.



ZONING MAP

BRICKYARD COMMONS - BRICKYARD CIRCLE, AUBURN
OWNER: JIG INVESTMENTS, LLC
SCALE: 1" = 300'
DATE OF GRAPHIC: APRIL 14, 2022
SOURCE: CITY OF AUBURN GIS
PUBLICATION DATE: 2021

Stoneybrook
Land Use, Inc.



FLOOD MAP

BRICKYARD COMMONS - BRICKYARD CIRCLE, AUBURN
OWNER: JIG INVESTMENTS, LLC
SCALE: 1" = 500'
DATE OF GRAPHIC: APRIL 14, 2022
SOURCE: FEMA FLOOD INSURANCE RATE MAP
PUBLICATION DATE: JULY 8, 2013

Stoneybrook
Land Use, Inc.

Bk 10865 Pg294 #20111
09-03-2021 @ 02:55p

DLN #1002140160896

MAINE SHORT FORM QUITCLAIM DEED WITH COVENANT

OTIS SOUTH, LLC, a Maine limited liability company of Freeport, Cumberland County, Maine, for consideration paid, hereby grants to **JIG INVESTMENTS, LLC**, a Maine limited liability company with a mailing address of 50 Alfred Plourde Parkway, P O Box 1913, Lewiston, Maine 04240, with **QUITCLAIM COVENANT**, a certain lot or parcel of land situated in **Auburn**, Androscoggin County, Maine, being more particularly described on the attached *Exhibit A*.

MAINE REAL ESTATE TRANSFER TAX PAID

Being the same premises described in the deed of Port of Auburn, LLC to Otis South, LLC, and dated April 11, 2014, and recorded in the Androscoggin County Registry of Deeds in Book 8896, Page 131.

IN WITNESS whereof, the said Otis South, LLC, has caused this instrument to be signed and sealed this 27 day of September, 2021.

OTIS SOUTH, LLC

Witness

By: _____
Ford S. Reiche, Manager

STATE OF MAINE
COUNTY OF ANDROSCOGGIN, SS.

Personally appeared before me this 27 day of September, 2021, the above-named Ford S. Reiche, Manager of Otis South, LLC, and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of Otis South, LLC.

_____
~~Notary Public~~/Maine Attorney-at-Law

William K. Skelton, Esq.
Type or Print Name
Maine Attorney at Law
My commission expires: Bar No. 8589

DOCS\SKELTON\JIG Investments\Washington-Otis South\MSFQCCDEED.docx

EXHIBIT A

The land in Auburn, County of Androscoggin, State of Maine, described as follows:

Parcel 1
A certain lot or parcel of land situated northwesterly of Washington Street, bounded and described as follows:

Beginning at a point in the northerly side of Taylor Brook, said point also being on the apparent westerly sideline of Old Washington Street;

THENCE, South five degrees fifty minutes West (S 5° 50' W), along said sideline to a point on the southerly bank of Taylor Brook;

THENCE, South five degrees fifty minutes West (S 5° 50' W), continuing along said sideline one hundred seventy-seven (177) feet to a point on the apparent northerly sideline of Washington Street southbound;

THENCE, South sixty-five degrees thirty-seven minutes West (S 65° 37' W), along the apparent northerly sideline of Washington Street southbound three hundred sixteen (316) feet to a point on the northerly sideline of the railroad right-of-way now or formerly of the Grand Trunk Railway;

THENCE in a Westerly direction along said railroad five hundred forty-five (545) feet, more or less, to a point;

THENCE, North fifty-five degrees fifty-one minutes West (N 55° 51" W) three hundred fifty-six (356) feet to a point;

THENCE, North eleven degrees ten minutes zero seconds West (N 11° 10' 00" W) forty-eight (48) feet, more or less, to a point on the southerly side of Taylor Brook;

THENCE across said Brook to its northerly side;

THENCE, in an easterly direction along the northerly side of Taylor Brook to the point of beginning.

Parcel 2
A certain triangular-shape lot or parcel of land bounded and described as follows:

Bounded northerly and westerly by the apparent southerly and easterly sidelines of Old Washington Street and, bounded southeasterly by the apparent northwesterly sideline of what is now known as Brick Yard Circle. Containing less than one-quarter (1/4) of an acre.

Also conveying any rights, title and interest the Grantor may have to the Old Washington Street right-of-way assumed to be discontinued by abandonment, subject to the rights of others, public or private, to make use thereof.

Also conveying any flowage rights related to the dam which was formerly across Taylor Brook and located on the parcel herein described.

Excepting and reserving any flowage rights over and across the parcel herein described related to the dam across the Little Androscoggin River.

Excepting an easement to the Auburn Sewer District, dated April 13, 1972, recorded in the Androscoggin County Registry of Deeds in Book 1141, Page 335.

ANDROSCOGGIN COUNTY
TINA M CHOUINARD
REGISTER OF DEEDS

February 12, 2025

City of Auburn
60 Court Street
Auburn, ME 04210

RE: JIG Investments, LLC

To Whom It May Concern:

Please be advised that Camden National Bank is the Bank of account for JIG Investments, LLC. JIG Investments, LLC and John Gendron have always maintained a positive relationship with Camden National Bank since 2017. Given the strength of the relationship I can say without hesitation that JIG Investments has the funds and ability to complete this project. All accounts are and have been in good standing since inception.

If you have any questions, please feel free to contact me: Joshua D. Tainter, Vice President, Camden National Bank, 178 Court Street, Suite 3, Auburn, Maine 04210. Telephone: 207-897-8612 or email: jtainter@camdennational.com.

Sincerely,

Joshua D. Tainter
VP, Commercial Banking Officer

Traffic Assessment

Date: May 5, 2022

To: **Mike Gotto, Stoneybrook Land Use, Inc.**

From: Jacob Sirois
Engineer 1
Barton & Loguidice, LLC.

John Q. Adams, P.E., PTOE
Associate, Senior Transportation Engineer
Barton & Loguidice, LLC.

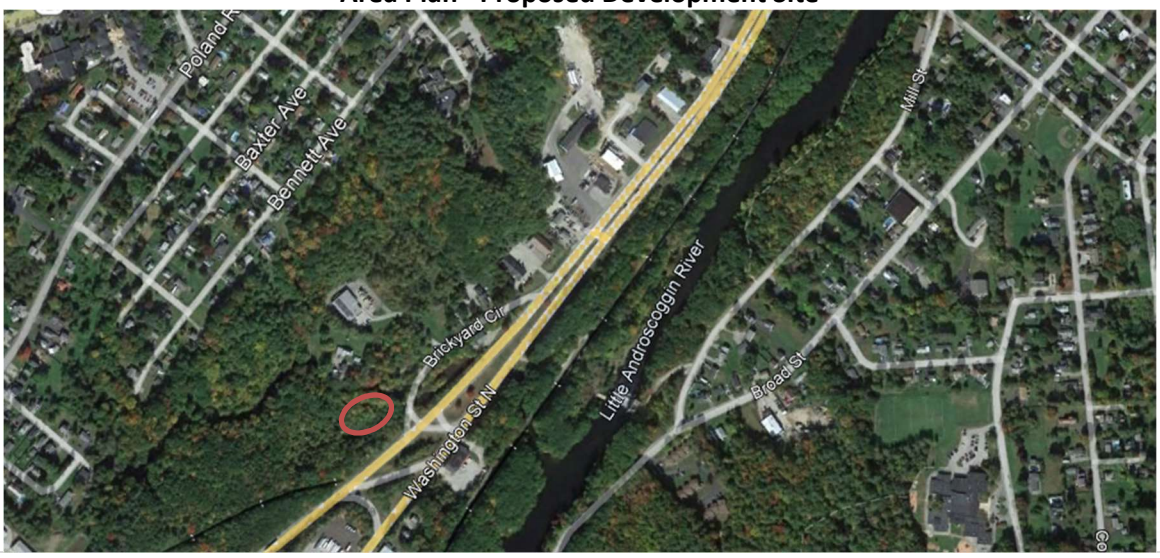
Re: **Proposed Brickyard Circle Development**
96-unit Residential Development, Brickyard Circle, Auburn, Maine

Introduction

JIG Investments, LLC, is proposing development of a 96-unit residential complex on Brickyard Circle in the City of Auburn (refer to Area Plan below for location of proposed project). The proposed site will be accessed via a proposed 26-foot wide driveway connecting to the western side of Brickyard Circle. The proposed development entrance will be located approximately 70-feet away from the intersection of Brickyard Circle and Washington Street South (Route 202).

The purpose of this traffic assessment is to evaluate and measure the level of impact on traffic operations and safety resulting with the development of the proposed project. Site generated trip projections are provided for "key" peak hour time-periods throughout a typical week. Road safety conditions were determined based upon a review of MaineDOT's latest road safety data. Intersection sight distance was field reviewed and measured to ensure safe and acceptable sight distance will be provided at the proposed and existing entrances on Brickyard Circle, and lastly, a left-turn treatment warrant analysis was performed to ensure safe turning operations for vehicles entering the site from Washington Street North.

Area Plan - Proposed Development Site



Site Access

Washington Street in the vicinity of the proposed site is split into a northbound and southbound one-way pair, with each a 2-lane roadway with a median in-between, ranging from approximately 25-feet at the crossover north of the site and approximately 120-feet at the southern entrances Brickyard Circle crossover. Brickyard Crossover at the southern entrance provides one-way access for vehicles exiting out of Brickyard Circle onto Washington Street North.

Given the separated directional movements on Washington Street, vehicles on the northbound approach that want to enter the proposed site will need to enter Washington Street Southbound at the existing crossover approximately 340-feet north of Brickyard Circles northern entrance on Washington Street southbound.

Site Trip Generation

Daily and peak hour trip generation was determined for the proposed project based upon trip tables presented in the eleventh edition of the Institute of Transportation Engineers (ITE) "**TRIP GENERATION**" handbook. The ITE publication provides numerous land use categories and the average volume of trips generated by each category.

Site trip estimates for the Brickyard Circle Residential Development Apartment Project; are based upon LUC #220 – Multifamily Housing (Low-Rise); which is described in the ITE publication as: multi-family housing including apartments, townhouses, and/or condominiums located within the same building with at least three other dwelling units and that have between two or three levels. Calculation of the total number of trips generated per each corresponding time period are summarized below in Table 1.1.

Trip Generation - Brickyard Circle Residential Development
Brickyard Circle, Auburn, ME

Table 1.1
ITE Trip Generation Calculations

Land Use	Multifamily Housing (Low-Rise) Not Close to Rail Transit - LUC 220					
Time Period	Dwelling Units	Trip Generation Rate (Trips per Dwelling Unit)	Trips Generated	Distribution Entering / Exiting	Enter	Exit
AM Weekday Peak Hour (Street)	96	0.40	38	24% / 76%	9	29
PM Weekday Peak Hour (Street)	96	0.51	49	63% / 37%	31	18
AM Weekday Peak Hour (Generator)	96	0.47	45	24% / 76%	11	34
PM Weekday Peak Hour (Generator)	96	0.57	55	62% / 38%	34	21
Saturday Peak Hour*	96	0.41	39	50% 50%	20	20

*Trip generation distribution for Saturday peak hour is assumed to be 50/50

As presented in the preceding table, this development generate a maximum of **45** Weekday AM peak hour trips, **55** Weekday PM peak hour trips and **39** Saturday peak hour trips.

Vehicle Sight Distance

The Maine Department of Transportation's Highway Entrance and Driveway Rules require the following sight distances for a non-mobility roadway:

Sight Distance Standards

Speed Limit	Sight Distance
25 mph	**200 feet**
30 mph	250 feet
35 mph	305 feet
40 mph	360 feet
45 mph	**425 feet**
50 mph	495 feet

The section of Brickyard Circle fronting the proposed residential development is presently unposted. We assumed that the speed limit is 25mph, which requires an unobstructed sight distance of 200-feet. Washington Street at the southern entrance of Brickyard Circle presently has an official speed limit of 45mph, which requires an unobstructed sight distance of 425-feet for both Washington Street North and South entrances. MaineDOT's Rules and Regulations require sight distance to be measured in accordance with the following procedures: *"Sight distance is measured to and from the point on the centerline of the proposed access that is located 10-feet from the edge of traveled way. The height of the hypothetical person's view is considered to be 3½ feet above the pavement and the height of the object being viewed is considered to be 4¼ feet above the pavement."*

Our field measurements at the proposed site entrance on Brickyard Circle indicate that existing sight distances are in excess of the requirements based on an assumed speed limit of 25mph. Looking left, we measured a sight distance of 350-feet, satisfying the sight distance requirements for a speed limit of up to 35mph. Looking right, there is an unobstructed sight distance to the intersection at Washington Street.

Our field measurements looking left (north) from both the North and South entrance onto Washington Street from Brickyard Circle indicate that existing measurements are in excess of the requirements based on an official speed limit of 45mph. At both of the entrances we measured a sight distance of 690-feet, which is in excess of the required 425-feet sight distance. Below on the next page, we have included pictures of the sight distance measurements we recorded for the site entrance onto Brickyard Circle, and the Brickyard Circle Northbound and Southbound entrances on to Washington Street

Looking Left out of Site Entrance onto Brickyard Circle



Looking Left out of Washington St NB Entrance



Looking Left out of Washington St SB Entrance



Existing Road Safety Conditions

The Maine Department of Transportation's (MaineDOT) Accident Records Section provided the latest three-year (2019 through 2021) crash data for the section of Route 202 (Washington Street North and South) between and including Sharlaines Crossover and Miami Avenue. The distance is approximately 0.65 miles to the north, and 0.60 miles to the south of the Brickyard Circle entrance.

Figure 1 - 2019 -2021 Traffic Accident Summary

Location	Total Crashes	Critical Rate Factor
1. North Washington Street @ Miami Avenue	3	0.66
2. North Washington Street @ Washington Crossover	1	0.24
3. North Washington Street @ Sharlaines Crossover	2	0.50
4. South Washington Street @ Miami Avenue	2	0.47
5. South Washington Street btw. Miami Avenue and Washington Crossover	6	0.33
6. South Washington Street btw. Washington Crossover and Washington NB Crossover	1	0.23
7. North Washington Street btw. Brickyard Crossover and Sharlaines Crossover	2	0.09
8. South Washington Street btw. Sharlaines Crossover and Markarlyn Street	4	0.32
9. South Washington Street btw. Markarlyn Street and Brickyard Circle	2	0.33
10. South Washington Street btw. Brickyard Circle and RD INV 2752183	3	0.45
11. South Washington Street btw. RD INV 2752183 and Brickyard Circle	1	0.69
12. South Washington Street btw. Washington Crossover and Miami Avenue	1	0.05

The MaineDOT considers any roadway intersection or segment a high crash location (HCLs) if both of the following criteria are met:

- ***8 or more accidents in a three-year period***
- ***A Critical Rate Factor greater than 1.00***

The data presented in the chart shows there are no identified HCLs within the defined study area.

Left-Turn Lane Warrant Assessment

Given the separated directional movements on Washington Street, vehicles on the northbound approach that want to enter the proposed site will need to enter Washington Street Southbound at the existing crossover approximately 340-feet north of Brickyard Circles northern entrance. We have performed an analysis using Maine DOT procedures to determine if a formal left-turn lane is warranted at this crossover intersection. This potential left-turn lane would accommodate existing traffic making this movement as well as new trips for the Brickyard Circle making this movement.

MaineDOT and the National Cooperative Highway Research Program (NCHRP) Report 457 requires the determination of whether a dedicated left-turn lane is warranted for left-turn entry trips based on the "average" traffic conditions. Based on our review of the Maine DOT weekly mean adjustment factors, the "average" traffic conditions happens during the week that the Traffic counts were collected, November 10th 2021, therefore our traffic counts and the "average" traffic condition counts are the same. In addition, we anticipate a project completion date of 2023, so a 2% growth rate has been assumed and included based on an annual rate of 1% for 2022 and 2023. Figure 2 in the Appendix shows the 2023 average condition volumes at the site entrance for both the Washington Street north and south directions.

MaineDOT requires the use of the National Cooperative Highway Research Program (NCHRP) Report 457 for evaluating whether projected volumes warrant a dedicated left-turn for the proposed site. For our analysis, we combined the entering trips generated by the proposed site, as shown in Figure 1 in the Appendix B, and combined them with the 2023 average condition volumes to predict the 2023 post development volumes, shown in Figure 3 in the Appendix, that are used in the left-turn warrant assessment.

The analysis shows that the proposed project will generate 18 left-turns in the PM peak hour and along with the 13 left-turns generated by the existing Ness Oil during the PM peak hour. This analysis indicates that a left-turn treatment solution is warranted by the NCHRP Report 457. The NCHRP Report 457 analysis is summarized below in Chart 1. This is primarily due to the existing high traffic volumes on Washington Street. We also feel the higher traffic speeds on Washington Street contribute to the need for a left-turn treatment.

Chart 1 - NCHRP Report 457 Left-Turn Warrant Analysis – PM Peak Hour

4-lane roadway

INPUT

Variable	Value
Left-turning volume (V_L), veh/h:	31
Advancing volume (V_A), veh/h:	860
Opposing volume (V_O), veh/h:	761

OUTPUT

Variable	Message
Opposing volume (Vo) check:	O.K.
Combined volume (V_A and V_O) check:	O.K.
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	8.0
Critical headway, s:	6.0

We feel some discussion with City staff should be held to decide how best to provide left-turn treatment and the optimal location for the left-turn treatment. We have considered a location at the existing cross over so that we do not create another curb cut in the median on Washington Street, however, because of the width of the median at this location (approx. 25-feet) a left-turn lane may create more of a U-turn type of movement rather than a left-turn movement. Another option would be to create a new curb cut and left-turn lane on Washington Street northbound opposite and across from the existing north end of Brickyard Circle. This would allow the movement to be a more typical left-turn movement. In addition, due to the width of the median at this location (approx. 40-feet) the turning vehicle has enough width to be better oriented to cross Washington Street to enter the north end of Brickyard Circle.

At this point, we are making an initial preliminary recommendation of an 11-ft wide, 100-ft left-turn lane, with a 165-ft bay taper (15:1 based on posted speed of 45mph). However, it is recommended that we discuss the location and details of this potential left-turn treatment with City staff, and based on that meeting we can quickly prepare a concept plan solution.

Summary

1. The expected trip generation for the proposed development is estimated to be a total of 45 trips during the weekday AM peak hour and 55 trips during the weekday PM. Overall, the project will be a low volume trip generator and will be well below the minimum MaineDOT threshold of 100 new peak hour trips ends that would require a Traffic Movement Permit.

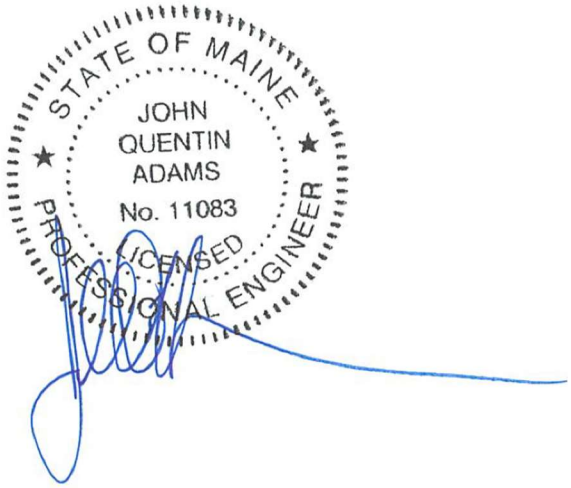
2. A review of Maine DOT Crash data available for the latest three-year period (2019 – 2021) for the section of Route 202 (Washington Street North and South) between and including Sharlaines Crossover and Miami Avenue for a distance of approximately 1.25 miles. Our review indicates that there are no high crash locations in the study area.

3. Vehicle sight distance field measurements looking left of both the proposed site entrance and existing southern entrances of Brickyard Circle indicate existing sight distances are in excess of the requirements based on an assumed speed limit of 25mph and official speed limit of 45mph. Looking left of the proposed site entrance we measured a sight distance of 350-feet. Looking left of both southern existing entrances on Brickyard Circle we measured sight distances of 690-feet.

4. The left–turn analysis indicates that a left-turn lane treatment is warranted to accommodate left-turns from Washington Street Northbound. The analysis is based on Maine DOT procedures using the NCHRP Report 457. We feel some discussion with City staff should be held to decide how best to provide left-turn treatment and the optimal location for the left-turn treatment. We have considered a location at the existing cross over so that we do not create another curb cut in the median on Washington Street, however, because of the width of the median at this location (approx. 25-feet) a left-turn lane may create more of a U-turn type of movement rather than a left-turn movement. Another option would be to create a new curb cut and left-turn lane on Washington Street northbound opposite and across from the existing north end of Brickyard Circle. This would allow the movement to be a more typical left-turn movement. In addition, due to the width of the median at this location (approx. 40-feet) the turning vehicle has enough width to be better oriented to cross Washington Street to enter the north end of Brickyard Circle.

   At this point, we are making an initial preliminary recommendation of an 11-ft wide, 100-ft left-turn lane, with a 165-ft bay taper (15:1 based on posted speed of 45mph). However, it is recommended that we discuss the location and details of this potential left-turn treatment with City staff, and based on that meeting we can quickly prepare a concept plan.

5. With the recommendations of this traffic assessment, it is our professional opinion that the proposed Brickyard Circle Residential development should not have any significant impact to traffic operations and safety on the area roadway network.

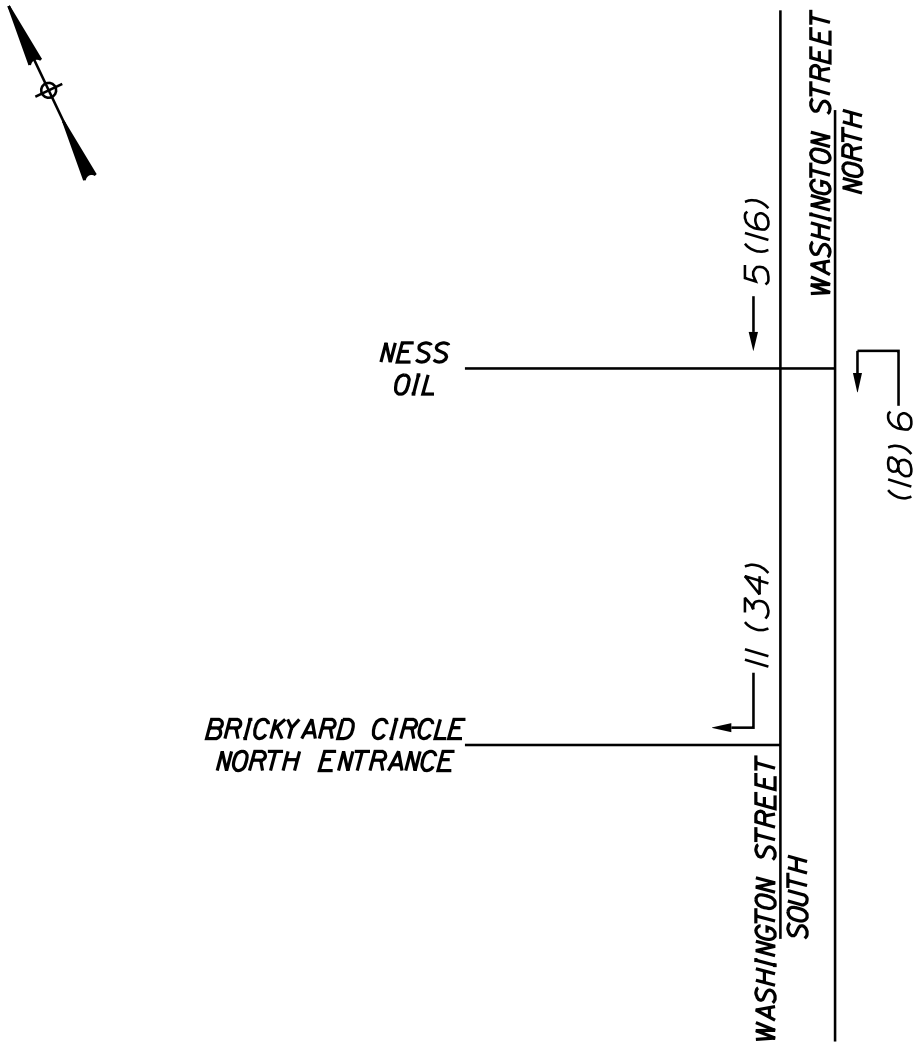


John Q. Adams, PE, PTOE, Date: 04/05/2022

APPENDIX

1. Traffic Figures (1-3)

2. Maine DOT Crash Data

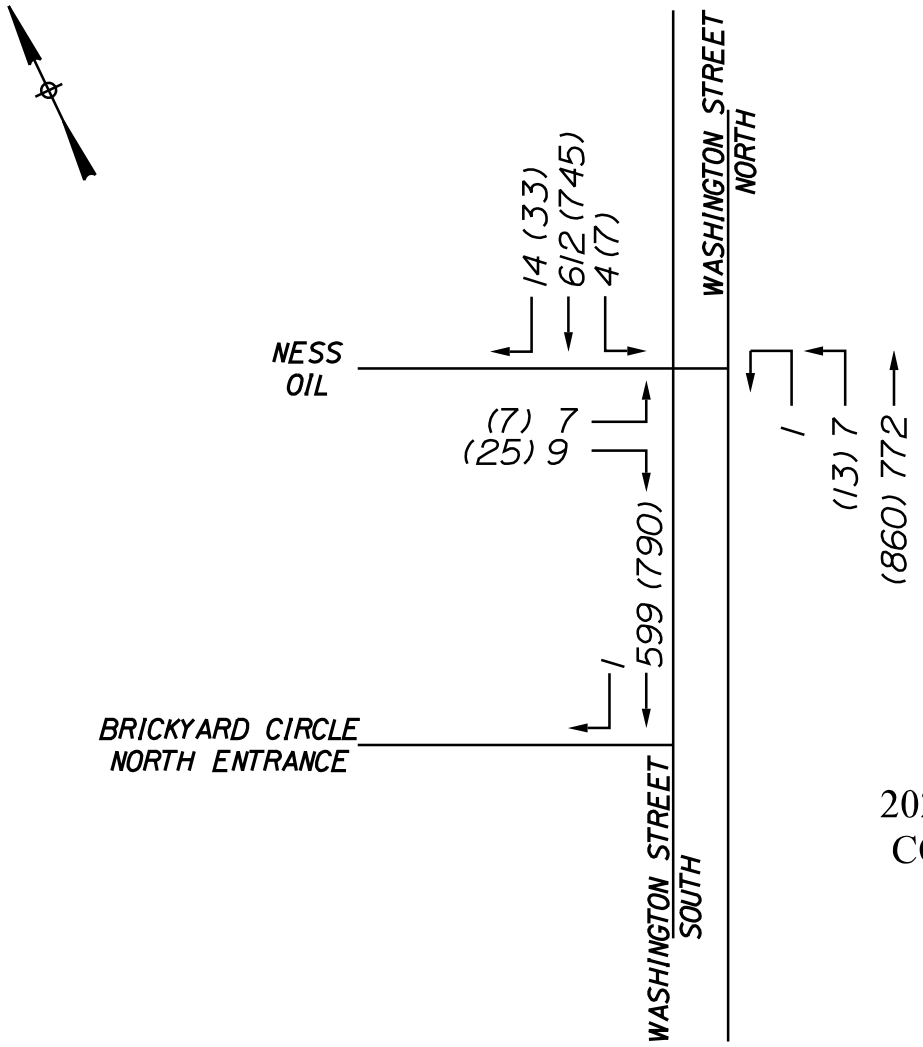


SITE TRIP ASSIGNMENT
AT SITE ENTRANCE
AM & PM PEAK HOURS
FIGURE 1

LEGEND
XX = AM PEAK HOUR TRIPS
(XX) = PM PEAK HOUR TRIPS

BRICKYARD CIRCLE
RESIDENTIAL DEVELOPMENT
AUBURN, MAINE
DATE: MAY, 2022

Barton & Loguidice

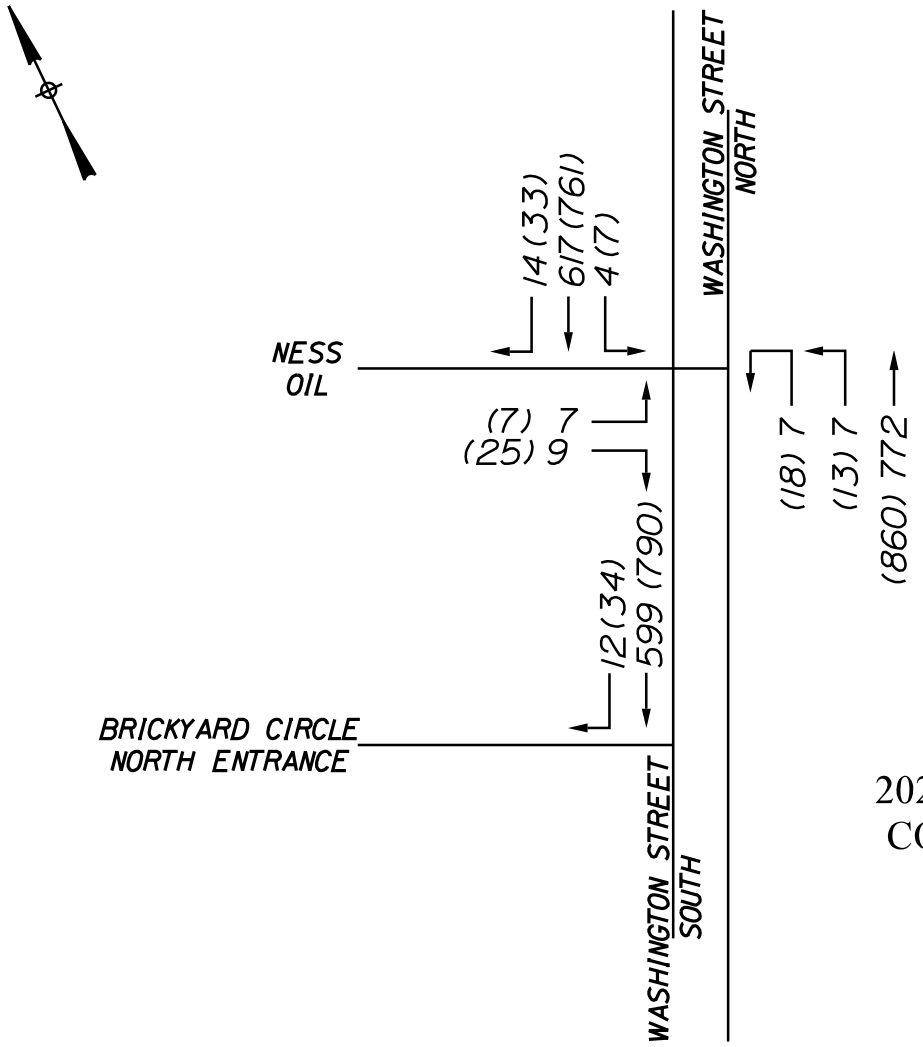


2023 POST DEVELOPMENT AVERAGE CONDITION VOLUME ADJUSTMENT AM & PM PEAK HOURS
FIGURE 2

LEGEND
XX = AM PEAK HOUR TRIPS
(XX) = PM PEAK HOUR TRIPS

BRICKYARD CIRCLE RESIDENTIAL DEVELOPMENT
AUBURN, MAINE
DATE: MAY, 2022

Barton & Loguidice



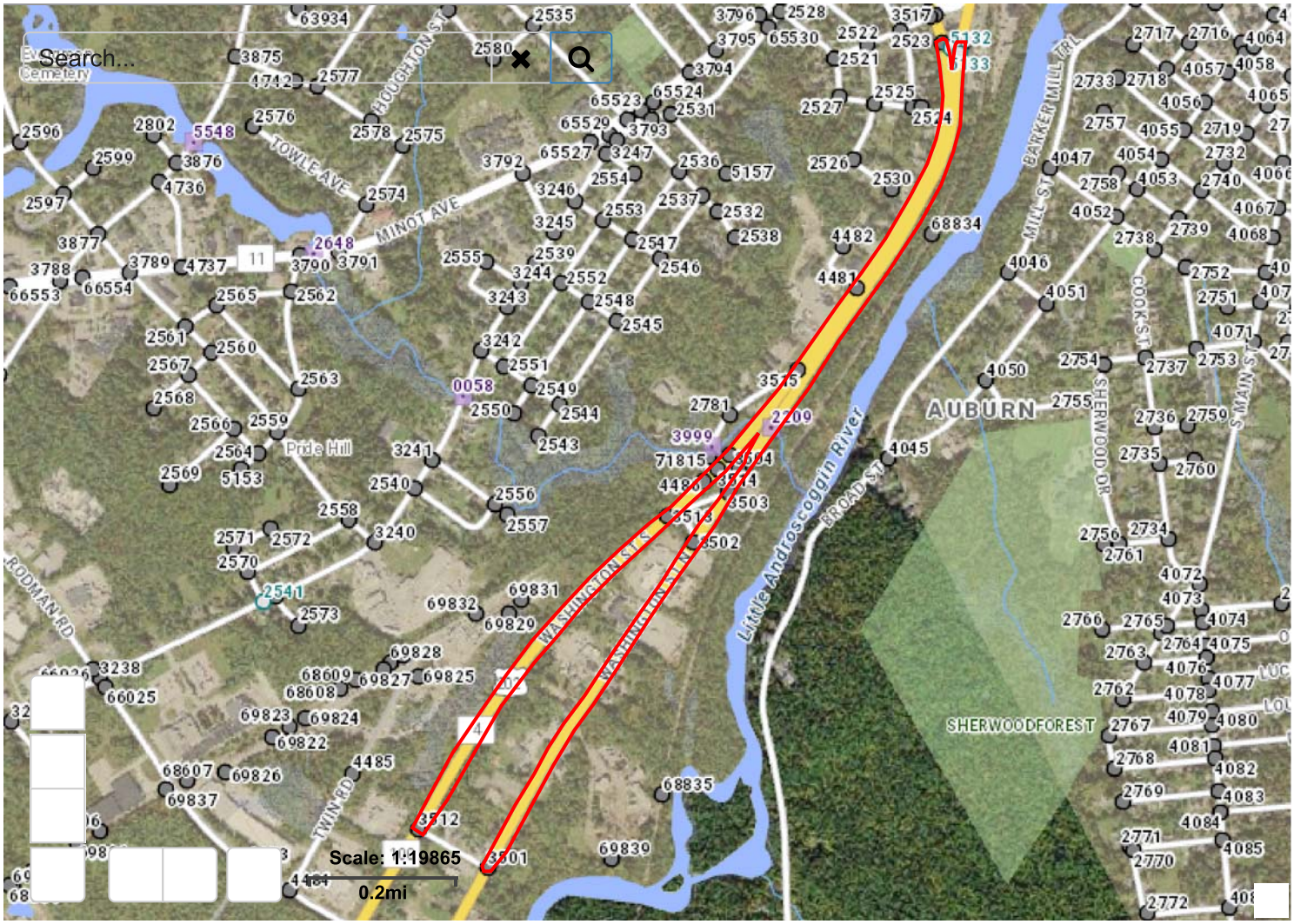
2023 POST DEVELOPMENT AVERAGE CONDITION VOLUME ADJUSTMENT & SITE TRIP ASSIGNMENT AM & PM PEAK HOURS
FIGURE 3

LEGEND
XX = AM PEAK HOUR TRIPS
(XX) = PM PEAK HOUR TRIPS

BRICKYARD CIRCLE RESIDENTIAL DEVELOPMENT
AUBURN, MAINE
DATE: MAY, 2022

Barton & Loguidice

2. MAINE DOT CRASH DATA


Search...
AUBURN
SHERWOODFOREST
Pride Hill
Little Androscoggin River
WASHINGTON ST S
WASHINGTON ST N
TOWLE AVE
MINOT AVE
HOUGHTON ST
BARKER MILL RD
MILL ST
COOK ST
SHERWOOD DR
S MAIN ST
BRODMAN RD
TWIN RD
BROAD ST
Scale: 1:19865
0.2mi

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☐ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Auburn
Rte. 4/100/202/Washington St. NB/SB from Washington XVR to Sharlaines XVR

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 0202X	Start Node: 3501	Start Offset: 0	☐ Exclude First Node
	End Node: 3505	End Offset: 0	☐ Exclude Last Node
Route: 0202S	Start Node: 3516	Start Offset: 0	☐ Exclude First Node
	End Node: 3512	End Offset: 0	☐ Exclude Last Node
Route: 3200840	Start Node: 3501	Start Offset: 0	☑ Exclude First Node
	End Node: 3512	End Offset: 0	☑ Exclude Last Node
Route: 01A0451	Start Node: 3502	Start Offset: 0	☑ Exclude First Node
	End Node: 3513	End Offset: 0	☑ Exclude Last Node
Route: 01B0452	Start Node: 3503	Start Offset: 0	☑ Exclude First Node
	End Node: 3513	End Offset: 0	☑ Exclude Last Node
Route: 01D0453	Start Node: 3504	Start Offset: 0	☑ Exclude First Node
	End Node: 3514	End Offset: 0	☑ Exclude Last Node
Route: 3201847	Start Node: 64937	Start Offset: 0	☑ Exclude First Node
	End Node: 64938	End Offset: 0	☑ Exclude Last Node
Route: 01C1274	Start Node: 3505	Start Offset: 0	☑ Exclude First Node
	End Node: 3516	End Offset: 0	☑ Exclude Last Node
Route: 01U0002	Start Node: 5132	Start Offset: 0	☑ Exclude First Node
	End Node: 5133	End Offset: 0	☑ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
3501	0202X - 70.53	Int of MIAMI AV N WASHINGTON ST	2	3	0	0	0	1	2	33.3	4.348	0.23	0.35	0.00
												Statewide Crash Rate:	0.13	
3502	0202X - 71.05	Int of N WASHINGTON ST WASHINGTON XVR	2	1	0	0	0	1	0	100.0	3.582	0.09	0.37	0.00
												Statewide Crash Rate:	0.13	
3503	0202X - 71.13	Int of N WASHINGTON ST WASH NB CR OVR	2	0	0	0	0	0	0	0.0	3.476	0.00	0.37	0.00
												Statewide Crash Rate:	0.13	
3504	0202X - 71.17	Int of BRICKYARD XVR N WASHINGTON ST	2	0	0	0	0	0	0	0.0	3.561	0.00	0.37	0.00
												Statewide Crash Rate:	0.13	
A5133	0202X - 71.81	Int of N WASHINGTON ST SHARLAINES XVR	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
												Statewide Crash Rate:	0.13	
P3505	0202X - 71.82	Int of N WASHINGTON ST SHARLAINES XVR	2	2	0	0	0	0	2	0.0	3.687	0.18	0.36	0.00
												Statewide Crash Rate:	0.13	
3516	0202S - 7.44	Int of S WASHINGTON ST SHARLAINES XVR	2	0	0	0	0	0	0	0.0	3.360	0.00	0.37	0.00
												Statewide Crash Rate:	0.13	
4481	0202S - 7.80	Int of MARKALYN ST S WASHINGTON ST	2	0	0	0	0	0	0	0.0	3.246	0.00	0.38	0.00
												Statewide Crash Rate:	0.13	
3515	0202S - 7.94	Int of BRICKYARD CIR S WASHINGTON ST	2	0	0	0	0	0	0	0.0	3.163	0.00	0.38	0.00
												Statewide Crash Rate:	0.13	
64937	0202S - 8.09	Int of RD INV 2752183 S WASHINGTON ST	2	0	0	0	0	0	0	0.0	3.342	0.00	0.37	0.00
												Statewide Crash Rate:	0.13	
3514	0202S - 8.11	Int of BRICKYARD CIR BRICKYARD XVR S WASHINGTON	2	0	0	0	0	0	0	0.0	3.345	0.00	0.37	0.00
												Statewide Crash Rate:	0.13	
4486	0202S - 8.14	Int of BRICKYARD CIR S WASHINGTON ST	2	0	0	0	0	0	0	0.0	3.387	0.00	0.37	0.00
												Statewide Crash Rate:	0.13	
3513	0202S - 8.21	Int of S WASHINGTON ST WASH NB CR OVR WASHINGTC	2	0	0	0	0	0	0	0.0	3.499	0.00	0.37	0.00
												Statewide Crash Rate:	0.13	
3512	0202S - 8.75	Int of MIAMI AV S WASHINGTON ST	2	2	0	0	0	0	2	0.0	3.814	0.17	0.36	0.00
												Statewide Crash Rate:	0.13	
64938	01D0453 - 0.01	Int of BRICKYARD XVR RD INV 2752183	2	0	0	0	0	0	0	0.0	0.094	0.00	0.10	0.00
												Statewide Crash Rate:	0.13	
A5132	01C1274 - 0.02	Non Int SHARLAINES XVR	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
												Statewide Crash Rate:	0.13	
Study Years:	3.00	NODE TOTALS:		8	0	0	0	2	6	25.0	45.904	0.06	0.21	0.28

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
3501	3502	3123810	0 - 0.52	0202X - 70.53	0.52	2	6	0	0	0	0	6	0.0	0.01863	107.38	327.22	0.00
Int of MIAMI AV N WASHINGTON ST				US 202											Statewide Crash Rate: 187.10		
3502	3503	175830	0 - 0.08	0202X - 71.05	0.08	2	1	0	0	0	0	1	0.0	0.00278	119.87	512.95	0.00
Int of N WASHINGTON ST WASHINGTON XVR				US 202											Statewide Crash Rate: 187.10		
3503	3504	3120492	0 - 0.04	0202X - 71.13	0.04	2	0	0	0	0	0	0	0.0	0.00139	0.00	613.19	0.00
Int of N WASHINGTON ST WASH NB CR OVR				US 202											Statewide Crash Rate: 187.10		
3504	5133	3103913	0 - 0.64	0202X - 71.17	0.64	2	2	0	0	0	0	1	0.0	0.02279	29.25	314.53	0.00
Int of BRICKYARD XVR N WASHINGTON ST				US 202											Statewide Crash Rate: 187.10		
3505	5133	3123698	0 - 0.01	0202X - 71.81	0.01	2	0	0	0	0	0	0	0.0	0.00036	0.00	796.88	0.00
Int of N WASHINGTON ST SHARLAINES XVR				US 202											Statewide Crash Rate: 187.10		
3516	4481	3103921	0 - 0.36	0202S - 7.44	0.36	2	4	0	0	0	2	2	50.0	0.01165	114.49	361.30	0.00
Int of S WASHINGTON ST SHARLAINES XVR				US 202 SB											Statewide Crash Rate: 187.10		
3515	4481	3117771	0 - 0.14	0202S - 7.80	0.14	2	2	0	0	1	0	1	50.0	0.00438	152.37	456.56	0.00
Int of BRICKYARD CIR S WASHINGTON ST				US 202 SB											Statewide Crash Rate: 187.10		
64937	3515	3116367	0 - 0.15	0202S - 7.94	0.15	2	3	0	0	0	0	3	0.0	0.00501	199.48	441.18	0.00
Int of RD INV 2752183 S WASHINGTON ST				US 202 SB											Statewide Crash Rate: 187.10		
3514	64937	3130292	0 - 0.02	0202S - 8.09	0.02	2	1	0	0	0	0	1	0.0	0.00066	504.39	726.25	0.00
Int of BRICKYARD CIR BRICKYARD XVR S WASHINGTON ST				US 202 SB											Statewide Crash Rate: 187.10		
3514	4486	3103920	0 - 0.03	0202S - 8.11	0.03	2	0	0	0	0	0	0	0.0	0.00099	0.00	665.10	0.00
Int of BRICKYARD CIR BRICKYARD XVR S WASHINGTON ST				US 202 SB											Statewide Crash Rate: 187.10		
3513	4486	3103919	0 - 0.07	0202S - 8.14	0.07	2	0	0	0	0	0	0	0.0	0.00237	0.00	534.70	0.00
Int of S WASHINGTON ST WASH NB CR OVR WASHINGTON XVR				US 202 SB											Statewide Crash Rate: 187.10		
3512	3513	3129171	0 - 0.54	0202S - 8.21	0.54	2	1	0	0	0	0	1	0.0	0.01889	17.64	326.28	0.00
Int of MIAMI AV S WASHINGTON ST				US 202 SB											Statewide Crash Rate: 187.10		
3501	3512	3119793	0 - 0.11	3200840 - 0	0.11	2	0	0	0	0	0	0	0.0	0.00069	0.00	719.55	0.00
Int of MIAMI AV N WASHINGTON ST				RD INV 3200840											Statewide Crash Rate: 187.10		
3502	3513	3117455	0 - 0.06	01A0451 - 0	0.06	2	0	0	0	0	0	0	0.0	0.00006	0.00	120.18	0.00
Int of N WASHINGTON ST WASHINGTON XVR				RD INV 01 A0451											Statewide Crash Rate: 187.10		
3503	3513	3117456	0 - 0.09	01B0452 - 0	0.09	2	0	0	0	0	0	0	0.0	0.00001	0.00	-	0.00
Int of N WASHINGTON ST WASH NB CR OVR				RD INV 01 B0452											Statewide Crash Rate: 187.10	15307.23	
3504	64938	3140513	0 - 0.01	01D0453 - 0	0.01	2	0	0	0	0	0	0	0.0	0.00001	0.00	-	0.00
Int of BRICKYARD XVR N WASHINGTON ST				RD INV 01 D0453											Statewide Crash Rate: 187.10	10938.10	
64938	3514	3140512	0 - 0.03	01D0453 - 0.01	0.03	2	0	0	0	0	0	0	0.0	0.00002	0.00	-4742.49	0.00
Int of BRICKYARD XVR RD INV 2752183				RD INV 01 D0453											Statewide Crash Rate: 187.10		
64937	64938	3116369	0 - 0.03	3201847 - 0	0.03	2	0	0	0	0	0	0	0.0	0.00001	0.00	-8532.74	0.00
Int of RD INV 2752183 S WASHINGTON ST				RD INV 3201847											Statewide Crash Rate: 187.10		
3505	5132	3117457	0 - 0.02	01C1274 - 0	0.02	2	0	0	0	0	0	0	0.0	0.00002	0.00	-2867.86	0.00
Int of N WASHINGTON ST SHARLAINES XVR				RD INV 01 C1274											Statewide Crash Rate: 187.10		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
3516	5132	3117458	0 - 0.01	01C1274 - 0.02	0.01	2	0	0	0	0	0	0	0.0	0.00001	0.00	-7375.98	0.00
Int of S WASHINGTON ST SHARLAINES XVR				RD INV 01 C1274											Statewide Crash Rate: 187.10		
5132	5133	3131386	0 - 0.01	01U0002 - 0	0.01	2	0	0	0	0	0	0	0.0	0.00000	0.00	-132579.06	0.00
Non Int SHARLAINES XVR				RD INV 01 U0002											Statewide Crash Rate: 187.10		
Study Years: 3.00				Section Totals:	2.97		20	0	0	1	2	16	15.0	0.09073	73.48	252.80	0.29
				Grand Totals:	2.97		28	0	0	1	4	22	17.9	0.09073	102.87	358.67	0.29

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
3501	3502	3123810	0 - 0.52	0202X - 70.53	6	0	0	0	0	6	2020-26451	11/01/2020	70.57	PD
											2020-31917	12/18/2020	70.72	PD
											2021-14929	06/16/2021	70.74	PD
											2021-5915	03/05/2021	70.81	PD
											2021-33508	11/25/2021	70.84	PD
											2020-22262	09/18/2020	70.95	PD
3502	3503	175830	0 - 0.08	0202X - 71.05	1	0	0	0	0	1	2019-54589	06/12/2019	71.07	PD
3503	3504	3120492	0 - 0.04	0202X - 71.13	0	0	0	0	0	0				
3504	5133	3103913	0 - 0.64	0202X - 71.17	2	0	0	0	0	1	2021-36616	12/22/2021	71.30	PD
											2019-49330	04/12/2019	71.56	
3505	5133	3123698	0 - 0.01	0202X - 71.81	0	0	0	0	0	0				
3516	4481	3103921	0 - 0.36	0202S - 7.44	4	0	0	0	2	2	2019-76167	12/17/2019	7.50	PD
											2020-9672	04/09/2020	7.60	C
											2021-4118	02/17/2021	7.70	C
											2020-25070	10/19/2020	7.74	PD
3515	4481	3117771	0 - 0.14	0202S - 7.80	2	0	0	1	0	1	2021-13393	06/02/2021	7.84	PD
											2019-42673	02/18/2019	7.88	B
64937	3515	3116367	0 - 0.15	0202S - 7.94	3	0	0	0	0	3	2019-45109	03/10/2019	8.03	PD
											2020-30254	12/05/2020	8.04	PD
											2019-43094	02/21/2019	8.07	PD
3514	64937	3130292	0 - 0.02	0202S - 8.09	1	0	0	0	0	1	2019-43126	02/21/2019	8.10	PD
3514	4486	3103920	0 - 0.03	0202S - 8.11	0	0	0	0	0	0				
3513	4486	3103919	0 - 0.07	0202S - 8.14	0	0	0	0	0	0				
3512	3513	3129171	0 - 0.54	0202S - 8.21	1	0	0	0	0	1	2021-12430	05/24/2021	8.25	PD
3501	3512	3119793	0 - 0.11	3200840 - 0	0	0	0	0	0	0				
3502	3513	3117455	0 - 0.06	01A0451 - 0	0	0	0	0	0	0				
3503	3513	3117456	0 - 0.09	01B0452 - 0	0	0	0	0	0	0				
3504	64938	3140513	0 - 0.01	01D0453 - 0	0	0	0	0	0	0				
64938	3514	3140512	0 - 0.03	01D0453 - 0.01	0	0	0	0	0	0				
64937	64938	3116369	0 - 0.03	3201847 - 0	0	0	0	0	0	0				
3505	5132	3117457	0 - 0.02	01C1274 - 0	0	0	0	0	0	0				
3516	5132	3117458	0 - 0.01	01C1274 - 0.02	0	0	0	0	0	0				
5132	5133	3131386	0 - 0.01	01U0002 - 0	0	0	0	0	0	0				
				Totals:	20	0	0	1	2	16				

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												PM												
	Hour of Day																								
Day Of Week	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot
SUNDAY	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	4
MONDAY	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	3
TUESDAY	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
WEDNESDAY	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2	0	0	0	0	1	0	0	0	0	7
THURSDAY	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5
FRIDAY	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	1	0	0	0	0	0	0	1	0	6
SATURDAY	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
Totals	0	1	0	0	0	0	0	2	5	1	1	2	5	0	0	3	2	0	0	1	1	1	1	2	0	28

Vehicle Counts by Type

Unit Type	Total
1-Passenger Car	23
2-(Sport) Utility Vehicle	11
3-Passenger Van	1
4-Cargo Van (10K lbs or Less)	2
5-Pickup	5
6-Motor Home	1
7-School Bus	0
8-Transit Bus	0
9-Motor Coach	0
10-Other Bus	0
11-Motorcycle	0
12-Moped	0
13-Low Speed Vehicle	0
14-Autocycle	0
15-Experimental	0
16-Other Light Trucks (10,000 lbs or Less)	1
17-Medium/Heavy Trucks (More than 10,000 lbs)	3
18-ATV - (4 wheel)	0
20-ATV - (2 wheel)	0
21-Snowmobile	0
22-Pedestrian	0

Unit Type	Total
23-Bicyclist	0
24-Witness	2
25-Other	0
26-Construction	0
27-Farm Vehicle	0
Total	49

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	3	15	0	0	0	0	18
Ran Off Roadway	1	0	0	0	0	0	1
Failed to Yield Right-of-Way	4	2	0	0	0	0	6
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	6	0	0	0	0	0	6
Improper Turn	0	0	0	0	0	0	0
Improper Backing	0	0	0	0	0	0	0
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	4	0	0	0	0	0	4
Failed to Keep in Proper Lane	3	0	0	0	0	0	3
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	2	0	0	0	0	0	2
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	1	0	0	0	0	0	1
Over-Correcting/Over-Steering	1	0	0	0	0	0	1
Other Contributing Action	1	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0
Total	26	17	0	0	0	0	43

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	26	17	0	0	0	0	43
Physically Impaired	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total	26	17	0	0	0	0	43

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	5	0	0	0	0	5
20-24	6	0	0	0	0	6
25-29	8	0	0	0	0	8
30-39	9	0	0	0	0	9
40-49	5	0	0	0	0	5
50-59	6	0	0	0	0	6
60-69	2	0	0	0	0	2
70-79	1	0	0	0	0	1
80-Over	2	0	0	0	0	2
Unknown	3	0	0	0	0	3
Total	47	0	0	0	0	47

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	1	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	47
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	1		
13-Motor Vehicle in Transport	35		
14-Parked Motor Vehicle	3		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	1		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	2		
27-Guardrail Face	2		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post, Pole, or Support	0		

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	1	1
C	4	8
PD	22	0
Total	27	9

Road Character

Road Grade	Total
1-Level	18
2-On Grade	6
3-Top of Hill	1
4-Bottom of Hill	3
5-Other	0
Total	28

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	0
2-Traffic Signals (Flashing)	0
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	1
6-Yield Sign	1
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	26
14-Other	0
Total	28

Light

Light Condition	Total
1-Daylight	21
2-Dawn	1
3-Dusk	1
4-Dark - Lighted	2
5-Dark - Not Lighted	3
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	28

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	0	1	0	1
FEBRUARY	3	0	1	4
MARCH	2	0	1	3
APRIL	1	1	0	2
MAY	0	0	2	2
JUNE	2	0	2	4
JULY	0	0	0	0
AUGUST	1	1	0	2
SEPTEMBER	0	2	0	2
OCTOBER	0	1	0	1
NOVEMBER	0	1	1	2
DECEMBER	1	2	2	5
Total	10	9	9	28

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End - Sideswipe	9	1	6	0	0	2	0	0	0	0	0	0	0	0	18
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	7	0	1	0	0	0	0	0	0	0	0	0	0	0	8
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	17	1	8	0	0	2	0	0	0	0	0	0	0	0	28

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	0	1	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	1	1
Daylight	12	0	0	0	0	0	0	1	0	0	0	13
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	1	0	0	0	0	0	0	0	0	0	1	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	5	0	0	0	5
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	15	2	0	0	0	0	0	7	0	0	4	28

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PLAN LEGEND

Town, County, State
Property Lines
R/W Lines-Existing
R/W Lines-Proposed
Culvert-Existing
Culvert Proposed
Curbing — Existing — Proposed
Type 1
Type 3
Type 5
Outline of Bodies of Water
Exposed Bedrock
Buildings
Trees — Conifer — Deciduous
Tree Line
Clearing Limit Line
Railroad

Catch Basins — Existing ■ Proposed
Manholes — Existing ● Proposed
Proposed Underdrain
Proposed Ditch
Existing Ditch
Utility Poles — Existing ● Proposed
Fire Hydrants — Existing ◈ Proposed
Existing Water Line
Existing San. Sewer
Existing San. Sewer Manhole
Guardrail-Existing
Guardrail-Proposed
Guardrail-Cable, Other
Centerline-Existing
Centerline-Proposed 10+00
Travelway-Existing
Travelway-Proposed

Boring HB-XXX-###
Pavement Core PC-#
Test Pit TP-XXX-###

Probe P-#.#X
#.# = Depth
X = W (Weathered Rock)
R (Refusal)
NR (No Refusal)

STONEYBROOK LAND USE

BRICKYARD CIRCLE LEFT TURN LANE AND PAVEMENT REMOVAL

ROUTE 100/202 AT BRICKYARD CIRCLE
AUBURN, ANDROSCOGGIN COUNTY, MAINE

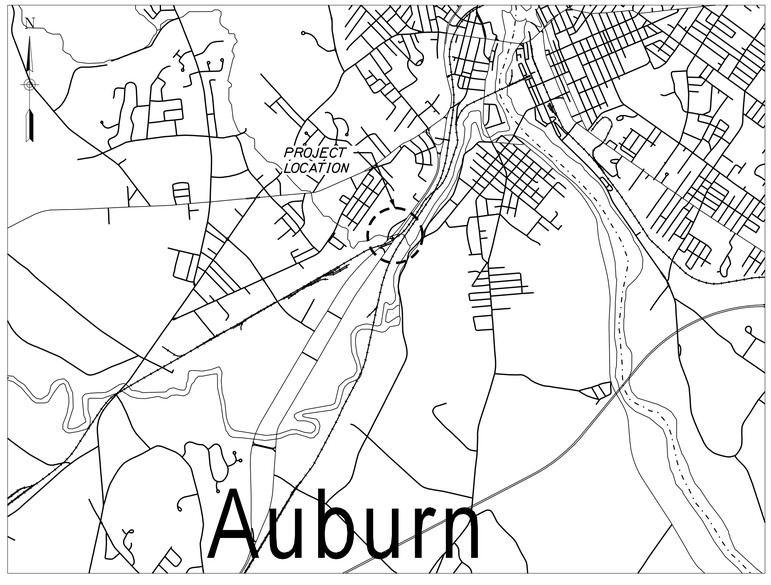
MAY 2023

FINAL DESIGN

INDEX OF SHEETS

Description	Sheet No.
Title Sheet	1
Typical Sections	2
Estimated Quantities	3
General Notes	4
Plan - Pavement Removal	5
Plan/Profile - Left Turn Lane	6
Striping/Signing Plan	7-8
Cross Sections	9-13

SCOPE OF WORK: WIDEN ROUTE 100/202 TO INCLUDE A 100' LEFT TURN LANE WITH A 180' BAY TAPER AND 265' DECELERATION LENGTH. REMOVE TWO PAVED AREAS FOR REVERSING DIRECTION AND REVISE SIGNING.



PROJECT LOCATION MAP
1" = 0.5 mile

Barton & Loguidice

PREPARED AND APPROVED BY

STATE OF MAINE
JOHN QUENTIN ADAMS
No. 11083
LICENSED PROFESSIONAL ENGINEER

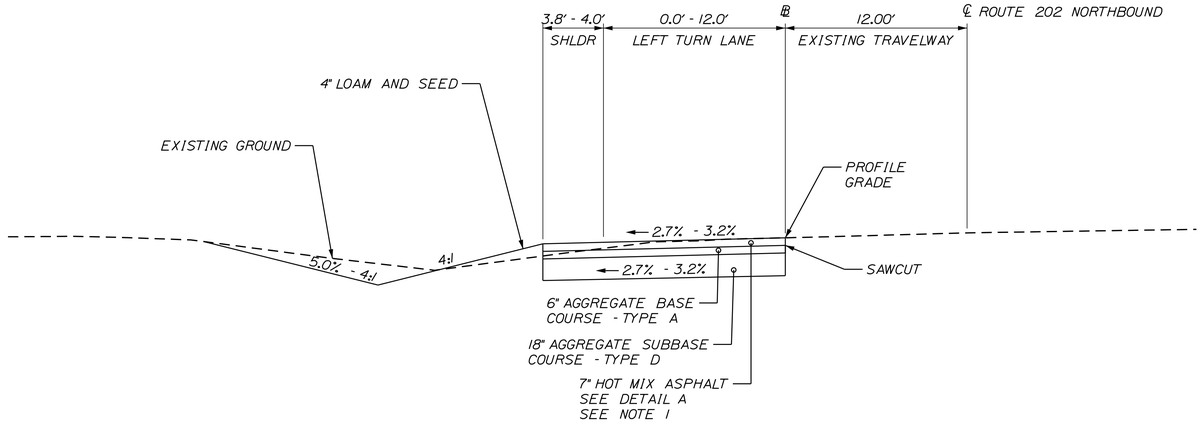
JOHN Q. ADAMS, P.E.
MAINE
P.E. NUMBER

DATE SIGNED
05/09/23
11083

Sheet Number
1

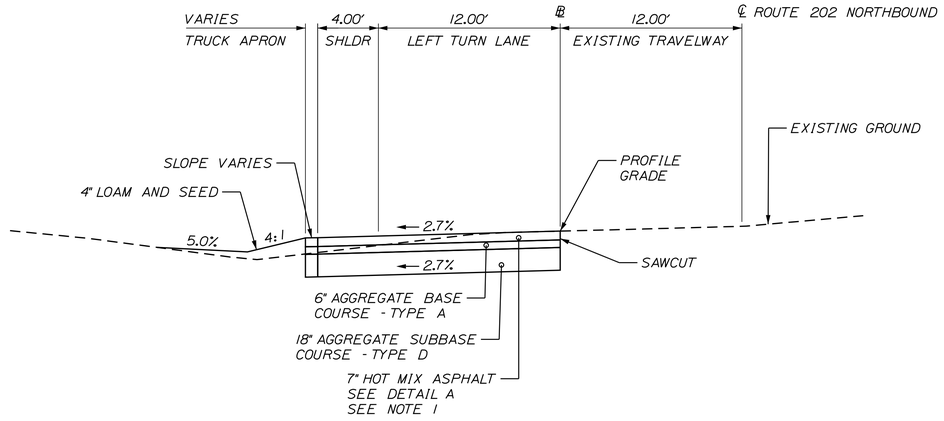
Project Number
2453.008.001

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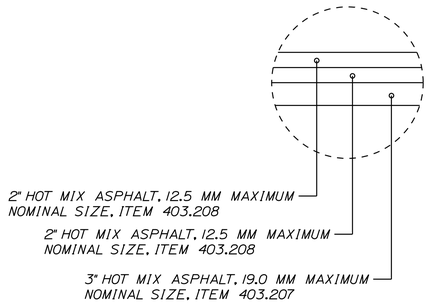
TYPICAL SECTION - TURN LANE

STA 1+00 TO STA 4+44
NOT TO SCALE



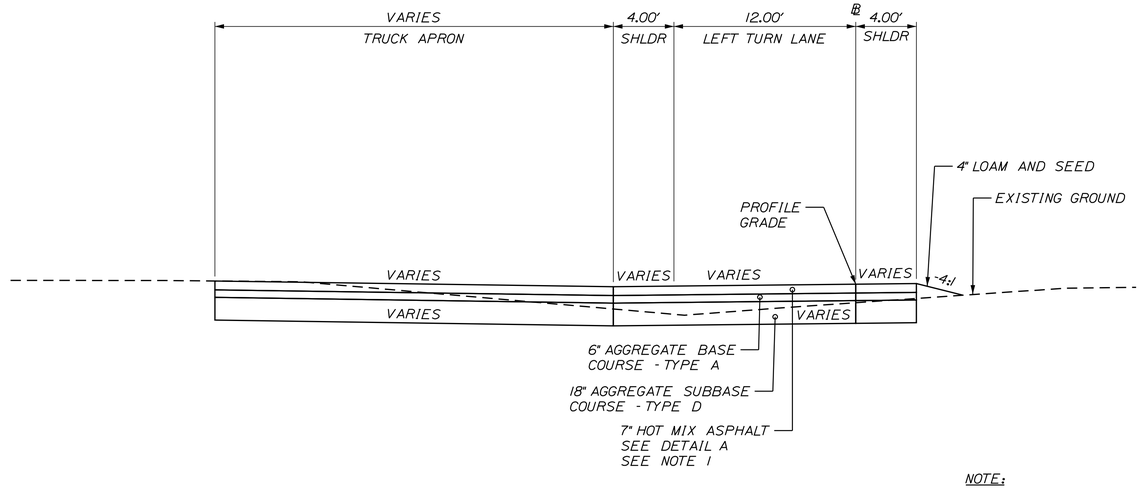
TYPICAL SECTION - TURN LANE WITH TRUCK APRON

STA 4+44 TO STA 4+68
NOT TO SCALE



DETAIL A

NOT TO SCALE



TYPICAL SECTION - TURN LANE WITH TRUCK APRON AND RIGHT SHOULDER

STA 4+68 TO STA 5+31
NOT TO SCALE

NOTE:

1. RECORD DRAWINGS INDICATE 7" HMA DEPTH. CONTRACTOR TO MATCH EXISTING PAVEMENT DEPTH.
2. THE PAVEMENT AND BASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
3. THE STATIONING SHOWN UNDER EACH TYPICAL IS APPROXIMATE.
4. 4" OF LOAM AND SEED SHALL BE USED ON ALL DISTURBED SLOPES.

Barton & Loguidice

STATE OF MAINE ★ REGISTERED PROFESSIONAL ENGINEER ★ JOHN QUENTIN ADAMS No. 11083

	BY	DATE
	AGC	05/09/23
		05/09/23

SIGNATURE
11083
P.E. NUMBER
05/09/23
DATE

PROJ. MANAGER
DESIGN-DETAILED AGC
CHECKED-REVIEWED JQA

CITY OF AUBURN
BRICKYARD CIRCLE

TYPICAL SECTIONS

SHEET NUMBER
2
OF 13

Username: ACHANDLER Date:5/9/2023
Filename: ...\002_TypicalSections.dgn

QUANTITIES:

Item No.	Item Description	Unit	Quantity
201.23	Remove Single Tree Top Only	EA	1
201.24	Removing Stump	EA	1
203.20	Common Excavation (Left Turn Lane)	CY	670
203.20	Common Excavation (Crossovers Pavement Removal)	CY	380
304.10	Aggregate Subbase Course - Gravel	CY	410
304.14	Aggregate Base Course - Type A	CY	140
403.207	Hot Mix Asphalt, 19 MM Maximum Nominal Size	T	120
403.208	Hot Mix Asphalt, 12.5 MM Maximum Nominal Size	T	160
409.15	Bituminous Tack Coat	Gal	36
615.07	Loam	CY	220
618.14	Seeding, Method Number 2	Unit	18
619.12	Mulch	Unit	18
627.733	4 inch White or Yellow Pavement Marking Line	LF	850
627.75	White or Yellow Pavement and Curb Marking	SF	72
627.77	Removing Existing Pavement Marking	SF	370
645.106	Demount Regulatory, Warning, Confirmation, and Route Marker Assembly Sign	EA	3
645.271	Regulatory, Warning, Confirmation, and Route Assembly Sign, Type I	SF	15
645.291	Roadside Guide Signs Type II	SF	75
652.XX	Maintenance of Traffic	LS	1
656.75	Temporary Soil Erosion and Water Pollution Control	LS	1
659.10	Mobilization	LS	1

EARTHWORKS SUMMARY (LEFT TURN LANE):

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM MODEL OR PLANS)	670	
TOTAL COMMON EXCAVATION		670

FILL FOR BORROW CALCULATIONS

COMMON FILL (FROM MODEL OR PLANS)	30	
TOTAL FILL		30

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

ALL DEDUCTIONS:		
GRUBBING IN CUT	350	
TOTAL DEDUCTIONS		350
TOTAL AVAILABLE COMMON EXCAVATION (-) TOTAL DEDUCTIONS	320	
TOTAL AVAILABLE NON-ROCK EXCAVATION		320

COMPUTATION OF WASTE STORAGE & WASTE MATERIAL

TOTAL AVAILABLE WASTE STORAGE AREA (FROM CROSS SECTIONS)	0	
GRUBBING IN CUT	350	
TOTAL WASTE MATERIAL	350	
TOTAL WASTE MATERIAL TO BE UTILIZED*		0
TOTAL WASTE MATERIAL TO BE WASTED		350

COMPUTATION FOR SURPLUS MATERIAL OR COMMON BORROW FOR ESTIMATE

TOTAL AVAILABLE NON-ROCK EXCAVATION	320 x 0.90	=	288
TOTAL AVAILABLE EXCAVATION			288

IF NO BORROW IS NEEDED, SURPLUS MATERIAL = AVAILABLE EXCAVATION (-) TOTAL FILL, (+)

TOTAL WASTE MATERIAL TO BE WASTED	608
SURPLUS MATERIAL	**608 CY**

Barton & Loguidice

STATE OF MAINE · JOHN QUENTIN ADAMS · No. 11083 · PROFESSIONAL ENGINEER

	BY	DATE
	AGC	05/09/23
	AGC	05/09/23
PROJ. MANAGER		
DESIGN-DETAILED	AGC	
CHECKED-REVIEWED	JQA	

SIGNATURE
11083 P.E. NUMBER
05/09/23 DATE

CITY OF AUBURN
BRICKYARD CIRCLE

QUANTITIES & EARTHWORKS

SHEET NUMBER
3
OF 13

Username: ACHANDLER Date:5/9/2023
Filename: ...\003_Quantities01.dgn

Usename: ACHANDLER Date:5/9/2023
Filename: ...\004_GeneralNotes.dgn

GENERAL NOTES:

1. THIS PROJECT TO BE COMPLETED IN ACCORDANCE WITH THE MAINEDOT STANDARD SPECIFICATIONS AND STANDARD DETAILS.
2. WHERE DEEMED NECESSARY BY THE CITY AND MAINEDOT. UNSUITABLE EXCESS MATERIAL SHALL BE REMOVED FROM THE EDGES OF SHOULDERS AND PLACED IN DESIGNATED AREAS OR DISPOSED OF. PAYMENT WILL BE MADE UNDER APPROPRIATE CONTRACT ITEMS.
3. ALL INSLOPE AND DITCHES IN CUT AREAS SHALL BE GRADED AS SHOWN ON THE TYPICALS OR FLATTER. OR AS DIRECTED BY THE CITY AND MAINEDOT.
4. ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF OFF THE PROJECT IN ACCEPTABLE WASTE AREAS REVIEWED BY THE CITY AND MAINEDOT. GRADING, SEEDING AND MULCHING OF WASTE AREAS SHALL BE CONSIDERED INCIDENTAL.
5. EXISTING ABANDONED WATER MAINS BROKEN BY THE CONTRACTOR DURING CONSTRUCTION SHALL HAVE THE ENDS PLUGGED WITH BRICK AND MORTAR. COST FOR ALL LABOR AND MATERIAL WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO DIRECT PAYMENT WILL BE MADE.
6. LOAM HAS BEEN ESTIMATED FOR DISTURBED LAWN AREAS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE CITY AND MAINEDOT.
7. UNLESS OTHERWISE NOTED SEEDING METHOD NO. 1 SHALL BE UTILIZED ON ALL LAWNS AND DEVELOPED AREAS; SEEDING METHOD NO. 2 SHALL BE UTILIZED ON ALL OTHER AREAS.
8. LOAM SHALL BE PLACED TO A NOMINAL DEPTH OF 4 INCHES IN LAWN AREAS AND 2 INCHES IN ALL OTHER AREAS UNLESS OTHERWISE NOTED OR DIRECTED.
9. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING MAILBOXES TO ENSURE THAT THE MAIL WILL BE DELIVERABLE. PAYMENT FOR THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
10. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING OPERATIONAL BUSINESS DIRECTIONAL SIGNS (OBDS) TO ENSURE THAT THEY ARE VISIBLE TO THE TRAVELING PUBLIC. PAYMENT FOR THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
11. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE CITY AND MAINEDOT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.
12. TRIM ALL TREE BRANCHES TO 20 FEET ABOVE THE PAVEMENT. A TREE SPECIALIST SHALL BE SUBCNTRACTED FOR THIS WORK AND PAYMENT WILL BE MADE BY INVOICE PLUS 5%. ANY TREE BRANCHES DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION WILL BE TRIMMED AT THE CONTRACTOR'S EXPENSE.
13. CLEARING LIMITS SHALL BE 10 FEET BEYOND AND PARALLEL TO THE CONSTRUCTION SLOPE LINES OR AS AUTHORIZED BY THE CITY AND MAINEDOT.
14. ALL CLEARING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPERATE PAYMENT WILL BE MADE. THE ACTUAL LINES FOR CLEARING SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE CITY AND MAINEDOT.
15. PRIOR TO REMOVING ANY PAVEMENT OR PLACING SHIM, THE ROADWAY WILL BE INSPECTED FOR POSSIBLE SUBSURFACE BOULDERS, WHICH WILL BE REMOVED AS DIRECTED BY THE CITY AND MAINEDOT. PAYMENT WILL BE MADE UNDER APPROPRIATE CONTRACT EXCAVATION ITEMS. BACKFILL WILL BE PLACED TO SUBGRADE WITH MATERIAL CONSISTENT WITH SURROUNDING MATERIAL. AGGREGATE SUBBASE COURSE GRAVEL WILL BE PLACED FROM SUBGRADE TO FINISH GRADE AND WILL BE PAID UNDER THE APPROPRIATE ITEM.
16. THE CONTRACTOR SHALL PLAN AND CONDUCT WORK SO THAT UPON COMPLETION OF THE PROJECT THRE IS NO DROP OFF FROM THE EDGE OF SHOULDER PAVEMENT.
17. ANY NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING (OR MILLING) SHALL BE INCIDENTAL TO THE RELATED PAVING (OR MILLING) ITEMS. THIS INCLUDES KILLING AND REMOVAL OF ALL VEGETATIVE MATTER.
18. CROSS SLOPES FOR NORMAL AND SUPERELEVATED SECTIONS WILL BE STRAIGHT UNLESS OTHERWISE DIRECTED BY THE CITY AND MAINEDOT.
19. CONTRACTOR TO REMOVE ALL CONFLICTING SIGNS AND PAVEMENT MARKINGS.
20. THE CITY OF AUBURN AND MAINEDOT SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIALS IN PROGRESS OR COMPLETED AND SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN THEIR SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING RED-LINE AS-BUILT DRAWINGS OF THE FINAL WORK TO THE CITY AND MAINEDOT. THOSE DRAWINGS SHALL BE A CLEAN SET OF PLANS SHOWING ALL SHANGES, MODIFICATIONS, AND ELEVATIONS TO THE BID PLANS.
22. THE CONTRACTOR SHALL USE A MAINEDOT APPROVED LAB FOR ALL FIELD SAMPLING AND TESTING. SAMPLING AND TESTING FREQUENCY AND METHODS SHALL FOLLOW MAINEDOT STANDARD SPECIFICATIONS 2020 EDITION.
23. CONTRACTOR SHALL SUBMIT A SUMMARY OF ALL TESTING AND SAMPLING RESULTS TO THE CITY OF AUBURN AND MAINEDOT.

GENERAL NOTES (CONT):

24. FINAL STRIPING FOR THE PROJECT SHALL BE DONE BY THE CONTRACTOR PER THE STRIPING LAYOUT IN THE CONTRACT DOCUMENTS OR AS PROVIDED BY THE CITY. PAYMENT SHALL BE MADE UNDER APPROPRIATE CONTRACT ITEMS.
25. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS.
26. EXISTING GROUND INFORMATION WAS DEVELOPED FROM SURVEY DATA COLLECTED BY MAIN-LAND DEVELOPMENT CONSULTANTS. ACTUAL CONDITIONS MAY VARY FROM THOSE INDICATED ON PLANS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
27. EROSION AND SEDIMENTATION CONTROL SHALL MEET CURRENT MAINE DEP STANDARDS AND BEST MANAGEMENT PLAN AND SHALL BE INSTALLED PRIOR TO WORK AND SHALL BE INSPECTED ON A DAILY BASIS.
28. THE CITY RESERVES THE RIGHT TO ADJST BID ITEM QUANTITIES BASED ON BID RESULTS AND BUDGET LIMITATIONS.
29. CONTRACTOR SHALL CONFIRM THAT ALL SIGNS REMOVED AND RESET WITHIN THE CLEAR ZONE AND ALL SIGNS TO REMAIN WITHIN THE CLEAR ZONE SHALL BE INSTALLED ON A BREAKAWAY POST, AND SHALL PROVIDE A BREAKAWAY DEVICE FOR ANY SIGN POST NOT MEETING BREAKAWAY REQUIREMENTS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 645.116, REINSTALL REGULATORY, WARNING, CONFIRMATION, AND ROUTE MARKER ASSEMBLY SIGN.
30. CONTRACTOR SHALL BE RESPONSIBLE FOR WASTING ALL SURPLUS MATERIAL.
31. STATIONS REFERENCED ARE APPROXIMATE.

TEMPORARY TRAFFIC CONTROL NOTES:

1. CONTRACTOR SHALL PROVIDE TEMPORARY TRAFFIC CONTROL AS NECESSARY AND PERFORM REQUIRED WORK IN A MANNER THAT WILL CAUSE MINIMAL DISRUPTION TO TRAFFIC.
2. CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLANS MEETING MAINEDOT AND MUTCD STANDARDS TO THE CITY FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
3. ALL CONSTRUCTION/TRAFFIC CONTROL SIGNS SHALL CONFORM TO REQUIREMENTS OF MAINE DOT AND MUTCD., AND WILL BE INSTALLED PRIOR TO START OF CONSTRUCTION.
4. CONTRACTOR TO COORDINATE WITH CITY AND SCHOOL DEPARTMENTS AND LOCAL EMERGENCY SERVICES TO NOTIFY OF ROAD CLOSURE. IF REQUIRED, ONE WEEK AND 2 DAYS PRIOR.
5. CONTRACTOR RESPONSIBLE FOR MAINTAINING SAFE TRAFFIC OPERATIONS AT ALL TIMES DURING CONSTRUCTION.
6. CONTRACTOR TO REGULARLY REVIEW TEMPORARY CONSTRUCTION SIGNS AND ENSURE ALL ARE MAINTAINED AND IN PLACE OR ARE REPLACED IF MISSING.
7. SIGNS TO BE PLACED IN LOCATIONS THAT MAXIMIZE VISIBILITY. CONTRACTOR TO INSTALL SIGNS WITHIN R.O.W. AND NOT BLOCKING PRIVATE PROPERTY ACCESS.

UTILITY NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATIONS OF THE EXISTING UTILITIES SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR SHALL COMPLETE TEST PITS IN AREAS WHERE POTENTIAL UTILITY CONFLICTS MAY EXIST. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE OR ADJUST ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE THIS WORK WITH UTILITIES AS NECESSARY.
2. PRIOR TO CONSTRUCTION, EXCAVATION, BORING, ETC., THE CONTRACTOR MUST NOTIFY DIGSAFE AND A SITE IDENTIFICATION NUMBER AND DIGSAFE DATE MUST BE OBTAINED.
3. CONTRACTOR SHALL CONTACT AND COORDINATE WITH UTILITIES UPON AWARD OF THE CONTRACT. CONTRACTOR SHALL COORDINATE WITH UTILITIES COMPANIES SO THAT THE REQUIRED UTILITIES HAVE BEEN RELOCATED BY THE RESPECTIVE UTILITY COMPANIES.
4. CONTRACTOR TO CONTACT AND NOTIFY UTILITIES OF PLANNED CONSTRUCTION ACTIVITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR TO FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND UTILITIES AND SHALL VERIFY ALL UTILITIES AND THEIR LOCATION PRIOR TO COMMENCING WORK.
5. DAMAGE TO ANY UTILITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR OR REPLACE AT THEIR COST.
6. CONTACT INFORMATION FOR RELEVANT UTILITIES:

AT & T (Portland Office)
Coughlan, Alice
Covers from Portland to Farmingdale
45 Forest Avenue
Portland, ME 04101
(207)879-5050
acoughlan@att.com

Auburn Water & Sewerage District
Hazelton, Sid, Superintenent
P. O. Box 414 Auburn, ME 04212-0414
(207)784-6469
shazelton@awsd.org

Auburn, City of
Goyette, Dan, Director of Public Services
60 Court Street Auburn, Maine 04210
(207)333-6601
dgoyette@auburnmaine.gov

Brookfield Renewable Energy Partners, L.P.
DeLuca, Ernest, Land Use/Compliance Specialist
150 Main Street
Lewiston, ME
(207)755-5619
ernest.deluca@brookfieldrenewable.com

Buckeye Partners LP
Wing, Steven, Operation Manager
170 Lincoln Street
South Portland, Maine 04106
(207)808-4506
swing@buckeye.com

Central Maine Power Company
Laney, Timothy, Project Manager
57 Old Winthrop Road
Augusta, Maine 04330
(207)629-9555
timothy.laney@cmpco.com

Charter Communications,Inc.
Charter Letter I, Email Address Letter I
118 Johnson Road
Portland, ME 04102
(207)620-3410
dlpormeconstleadership@charter.com

Consolidated Communications of Northern
New England Company LLC
Consolidated Letter I, Email address Letter I
5 Davis Farm Road
Portland, ME 04103
(207)878-0854
mdot_requests@fairpoint.com

OTT Communications (South)
Knight, Jim, Outside Plant Supervisor/Engineer
56 Campus Drive
New Gloucester, ME 04260
(207)688-8284
jim.knight@otelco.com

Oxford Networks
Ellingwood, Michael, Engineering Manager
491 Lisbon Street
Lewiston, ME 04240
(207)333-3471
mellingwood@firstlight.net

Revolution Networks (aka NECAP)
Ellingwood, Michael, Engineering Manager
(207)333-3471
mellingwood@firstlight.net

Revolution Networks (aka
NECAP) dba Firstlight
Ellingwood, Michael, Engineering Manager
(207)333-3471
mellingwood@firstlight.net

Springfield Terminal Railway
Higgins, Shawn, Project Engineer
1700 Iron Horse Park
North Billerica, MA 01862
(978)663-1127
shiggins@panam.com

St. Lawrence & Atlantic Railroad Co.
Birkel, Jason, Project Manager
225 First Flight Drive
Suite 201
Auburn, ME 04210
(207)753-4229
jbirkel@gwrr.com

Unitil Corp.
Giroux, Derick, Project Leader
P.O. Box 3586
Portland, ME 04104
(207)536-5663
girouxd@unitil.com

Barton & Loguidice

STATE OF MAINE * REGISTERED PROFESSIONAL ENGINEER * JOHN QUENTIN ADAMS No. 11083

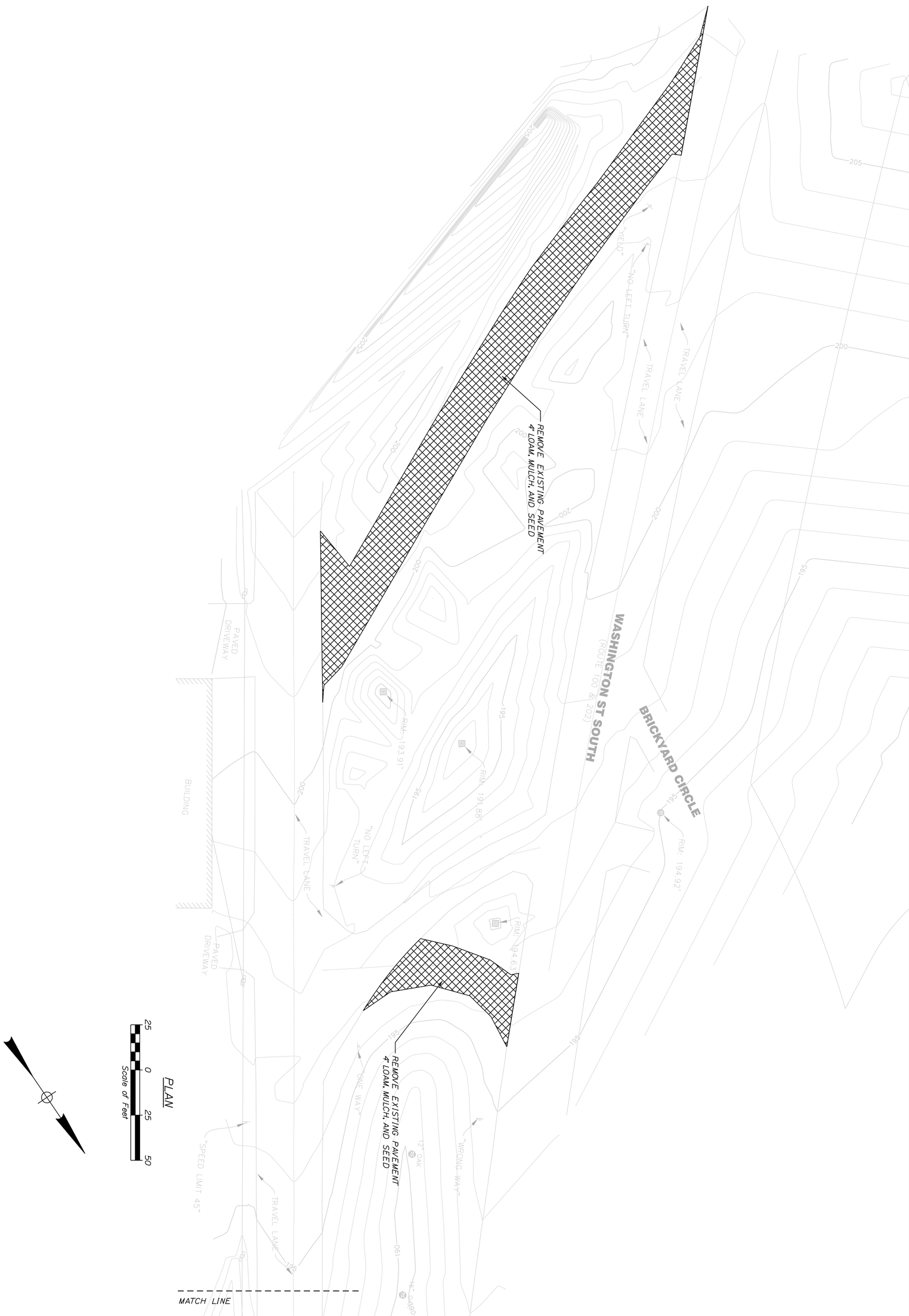
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P.E. NUMBER		
05/09/23	AGC	05/09/23
DATE		

PROJ. MANAGER
DESIGN-DETAILED AGC
CHECKED-REVIEWED JQA

CITY OF AUBURN
BRICKYARD CIRCLE

GENERAL NOTES

SHEET NUMBER
4
OF 13



SHEET NUMBER 5 OF 13

CITY OF AUBURN
BRICKYARD CIRCLE

PLAN - PAVEMENT REMOVAL

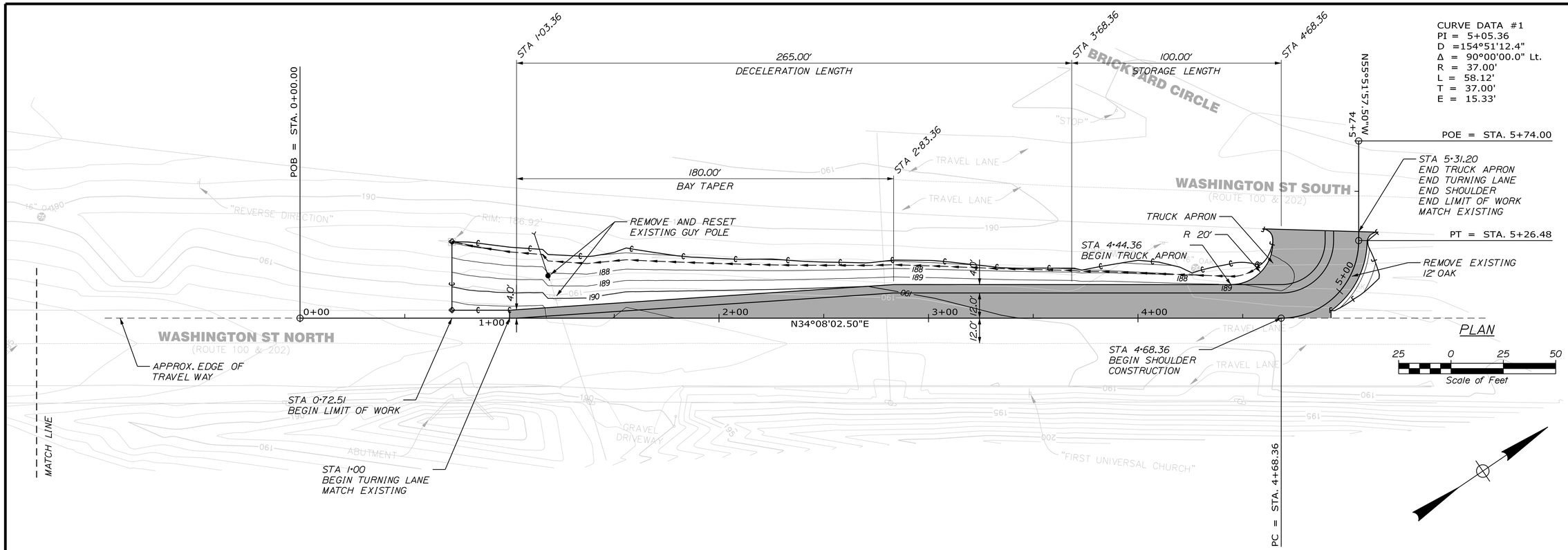
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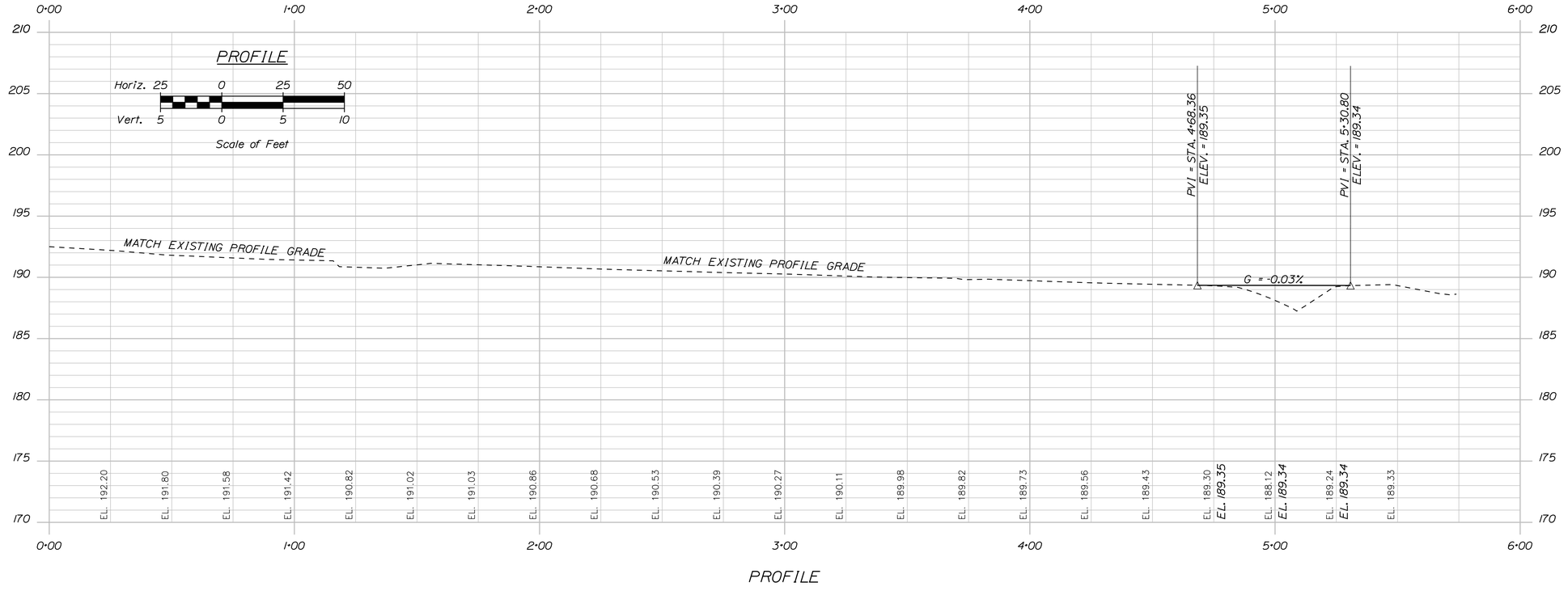
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11083
P.E. NUMBER
05/09/23
DATE

STATE OF MAINE
JOHN QUENTIN ADAMS
No. 11083
REGISTERED PROFESSIONAL ENGINEER

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Username: ACHANDLER Date:5/9/2023
Filename: ...\Microstation\005_HDPlan02.dgn





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STATE OF MAINE ★ REGISTERED PROFESSIONAL ENGINEER ★ JOHN QUENTIN ADAMS No. 11083

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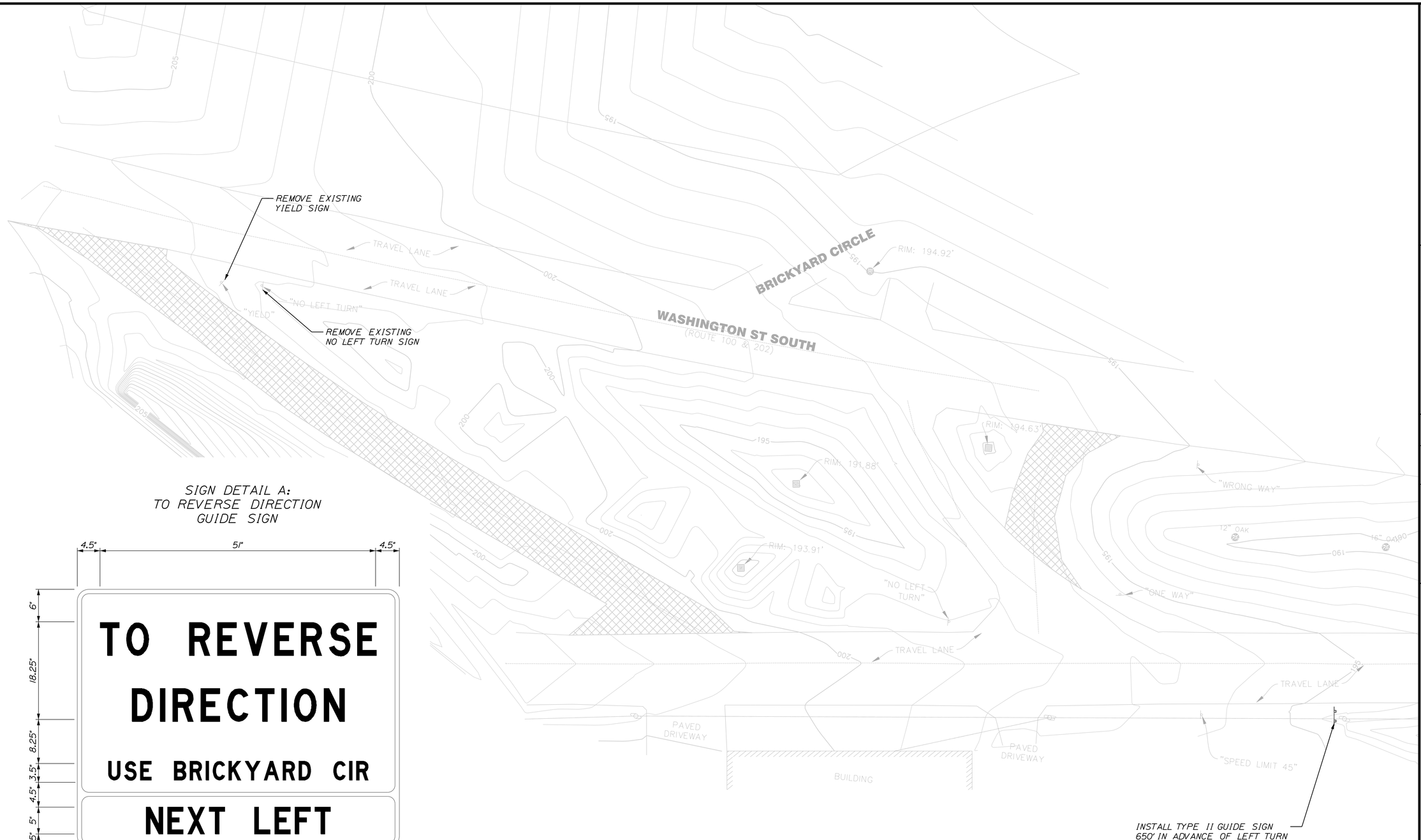
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CITY OF AUBURN
BRICKYARD CIRCLE

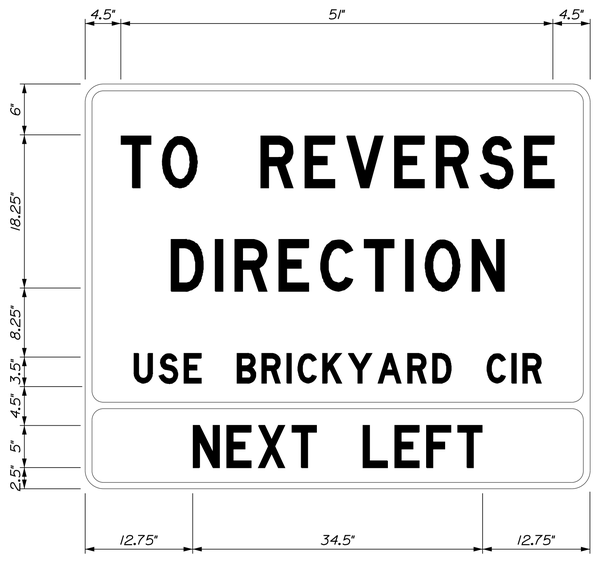
PLAN/PROFILE - TURN LANE

SHEET NUMBER
6
OF 13

Username: ACHANDLER Date:5/9/2023
Filename: ...\006_StripingPlan01.dgn



SIGN DETAIL A:
TO REVERSE DIRECTION GUIDE SIGN



NOTES FOR SIGN DETAIL A:
BORDER: R=2.25", TH=0.75"
TEXT:
- TO REVERSE DIRECTION: 6.5" HIGHWAY GOTHIC SERIES D
- USE BRICKYARD CIRCLE: 3.5" HIGHWAY GOTHIC SERIES D
- NEXT LEFT: 5" HIGHWAY GOTHIC SERIES D
COLORS:
- LEGEND: WHITE (RETROREFLECTIVE)
- BACKGROUND: GREEN (RETROREFLECTIVE)

INSTALL TYPE II GUIDE SIGN
650' IN ADVANCE OF LEFT TURN
48" X 60"
TWO 4" X 6" WOOD POSTS
SEE SIGN DETAIL A

PLAN

25 0 25 50
Scale of Feet

Barton & Loguidice

STATE OF MAINE
JOHN QUENTIN ADAMS
No. 11083
REGISTERED PROFESSIONAL ENGINEER

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	AGC	05/09/23
		05/09/23

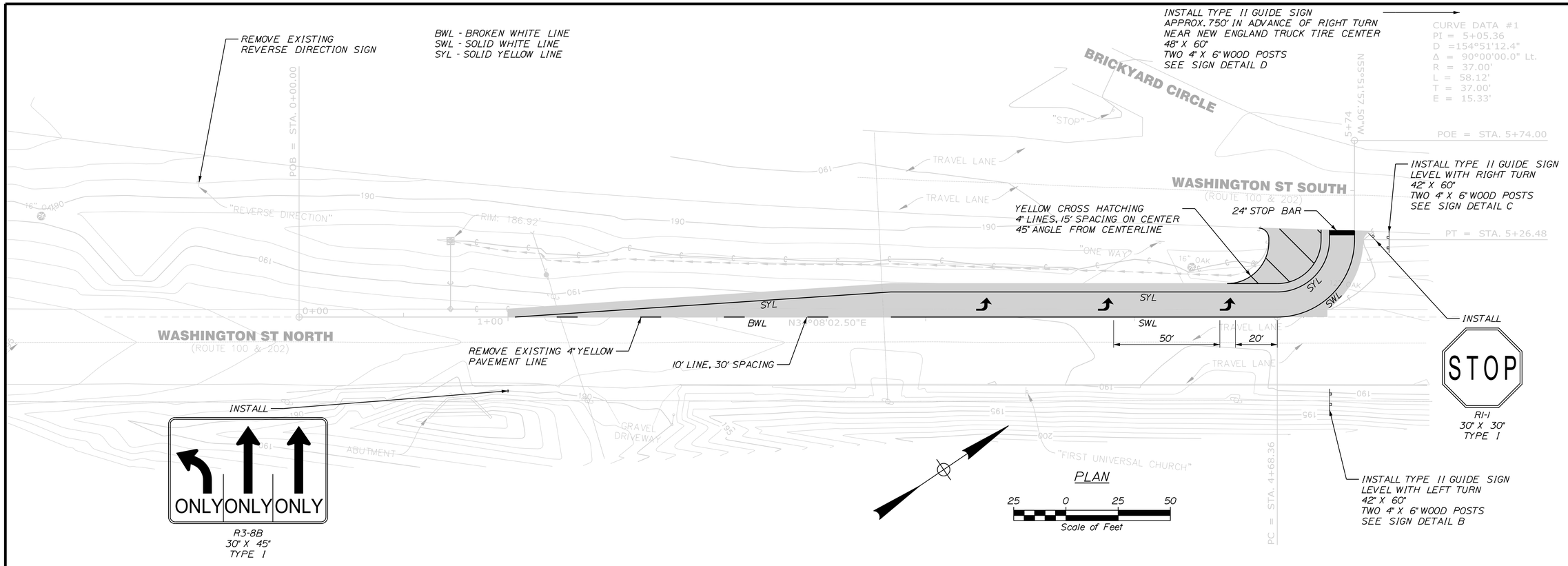
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DATE

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CHECKED-REVIEWED JQA

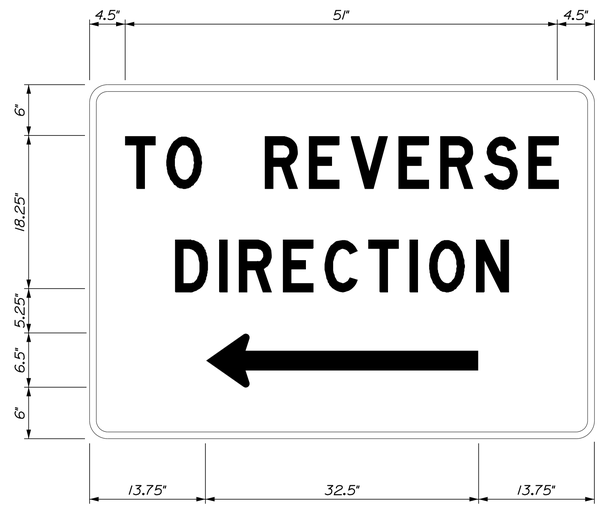
CITY OF AUBURN
BRICKYARD CIRCLE

SIGNING/STRIPING (1 OF 2)

SHEET NUMBER
7
OF 13

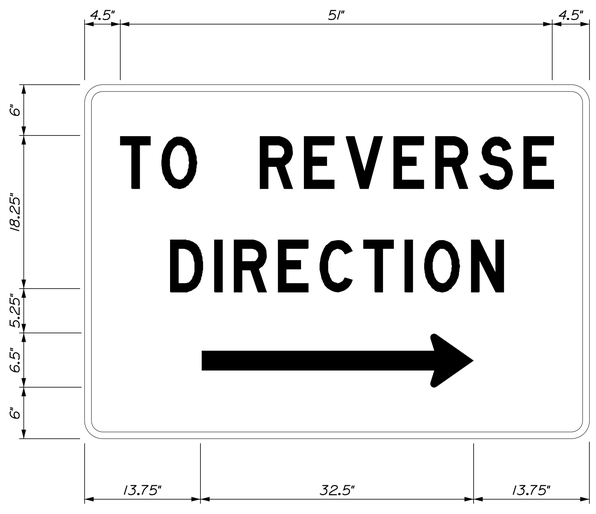


SIGN DETAIL B:
TO REVERSE DIRECTION GUIDE SIGN



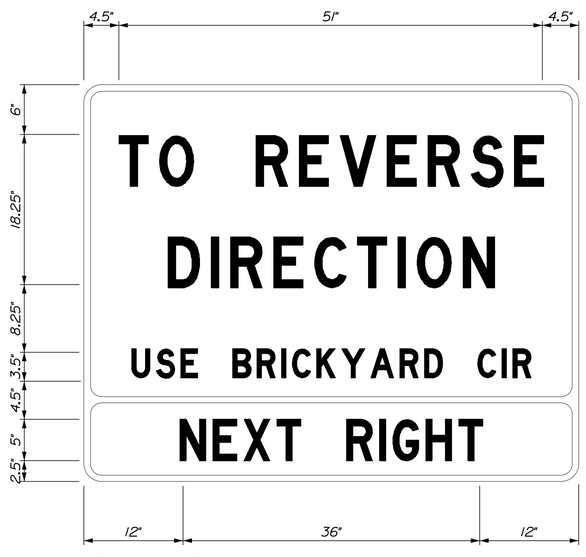
NOTES FOR SIGN DETAIL B:
BORDER: R=2.25", TH=0.75"
TEXT: 6.5" HIGHWAY GOTHIC SERIES D
COLORS:
- LEGEND: WHITE (RETROREFLECTIVE)
- BACKGROUND: GREEN (RETROREFLECTIVE)

SIGN DETAIL C:
TO REVERSE DIRECTION GUIDE SIGN



NOTES FOR SIGN DETAIL C:
BORDER: R=2.25", TH=0.75"
TEXT: 6.5" HIGHWAY GOTHIC SERIES D
COLORS:
- LEGEND: WHITE (RETROREFLECTIVE)
- BACKGROUND: GREEN (RETROREFLECTIVE)

SIGN DETAIL D:
TO REVERSE DIRECTION GUIDE SIGN



NOTES FOR SIGN DETAIL D:
BORDER: R=2.25", TH=0.75"
TEXT:
- TO REVERSE DIRECTION: 6.5" HIGHWAY GOTHIC SERIES D
- USE BRICKYARD CIRCLE: 3.5" HIGHWAY GOTHIC SERIES D
- NEXT LEFT: 5" HIGHWAY GOTHIC SERIES D
COLORS:
- LEGEND: WHITE (RETROREFLECTIVE)
- BACKGROUND: GREEN (RETROREFLECTIVE)

Barton & Loguidice

STATE OF MAINE ★ REGISTERED PROFESSIONAL ENGINEER ★ JOHN QUENTIN ADAMS No. 11083

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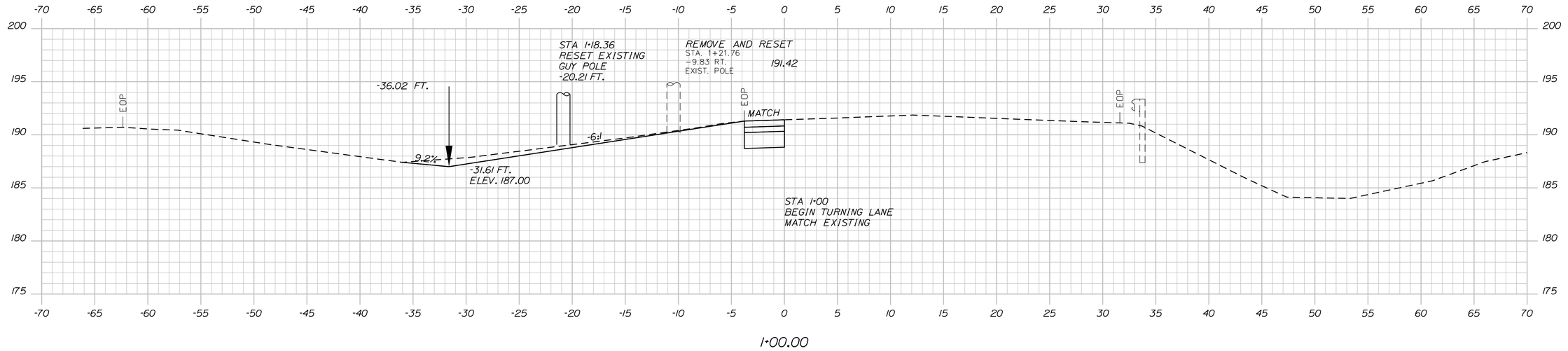
PROJ. MANAGER
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CITY OF AUBURN
BRICKYARD CIRCLE

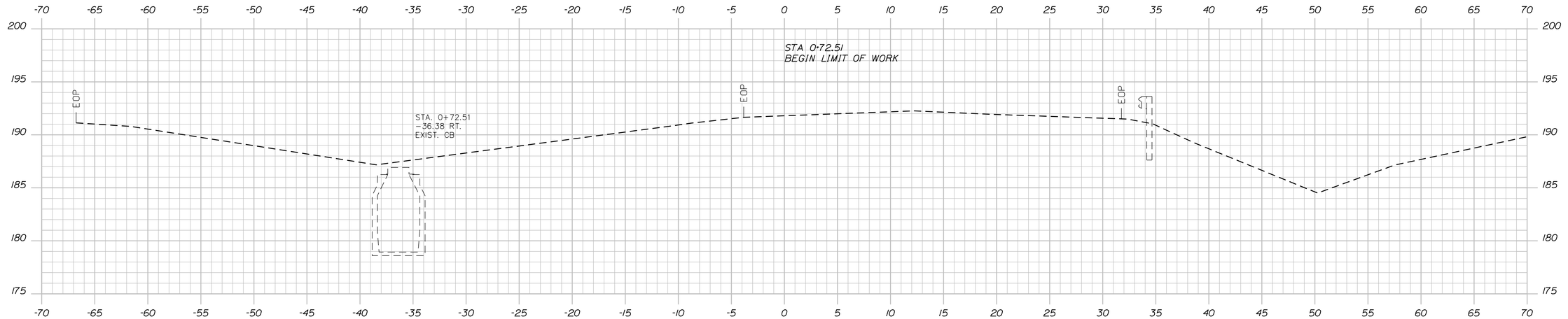
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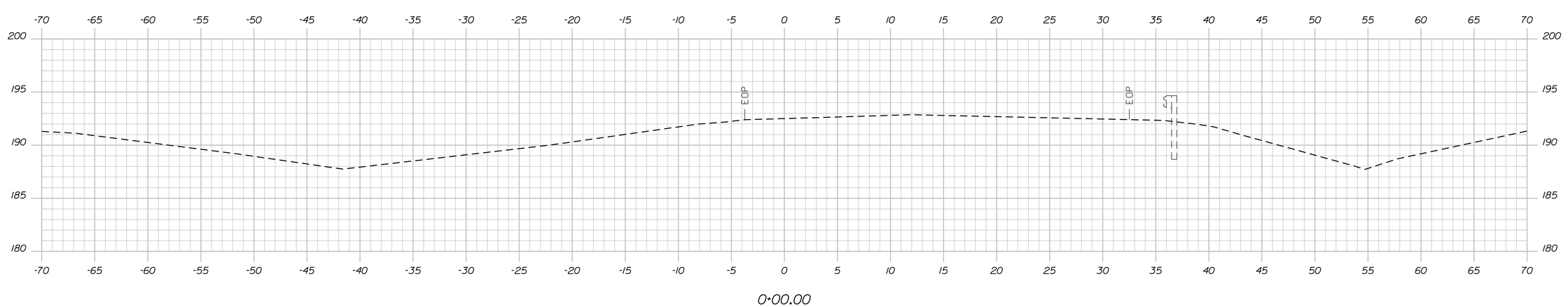
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Barton & Loguidice

STATE OF MAINE ★ REGISTERED PROFESSIONAL ENGINEER ★ JOHN QUENTIN ADAMS No. 11083

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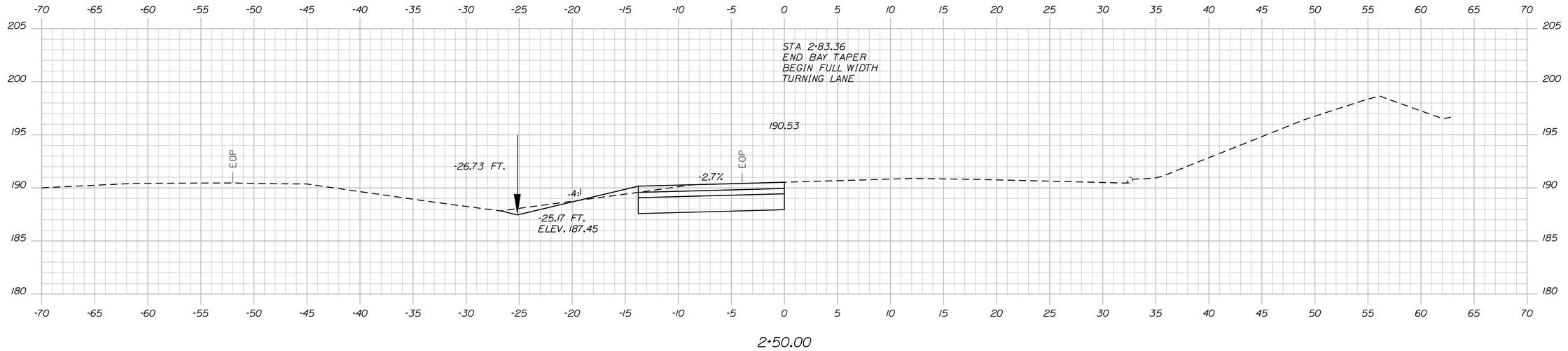
CITY OF AUBURN
BRICKYARD CIRCLE

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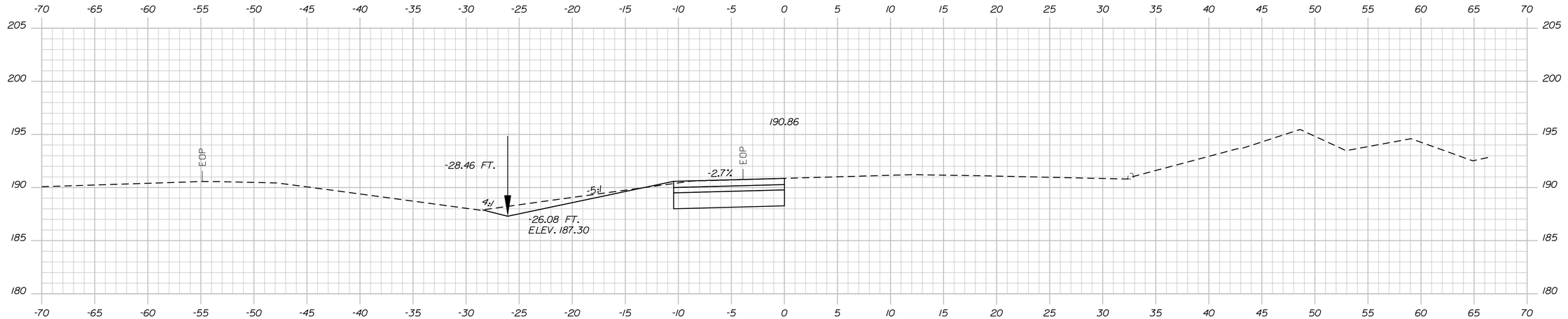
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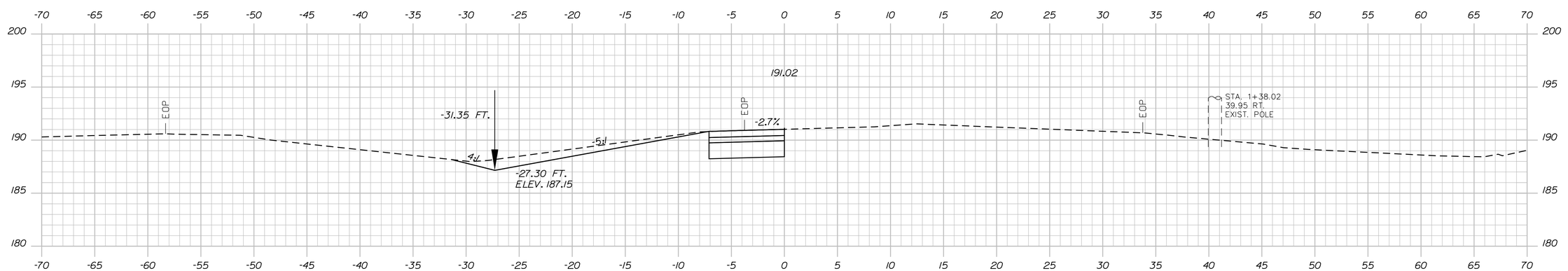
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JOHN QUENTIN ADAMS
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CITY OF AUBURN
BRICKYARD CIRCLE

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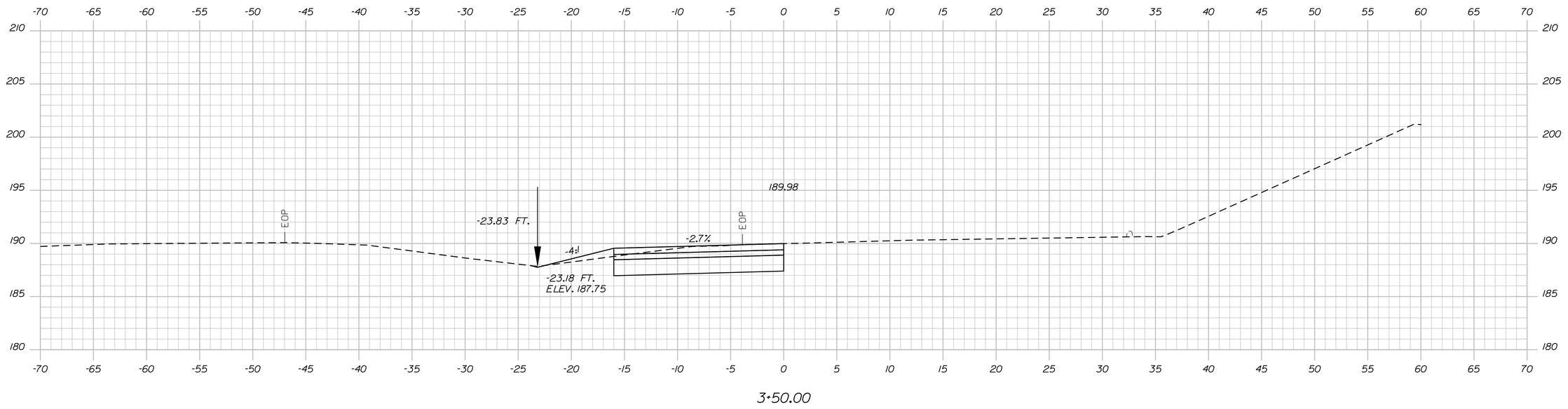
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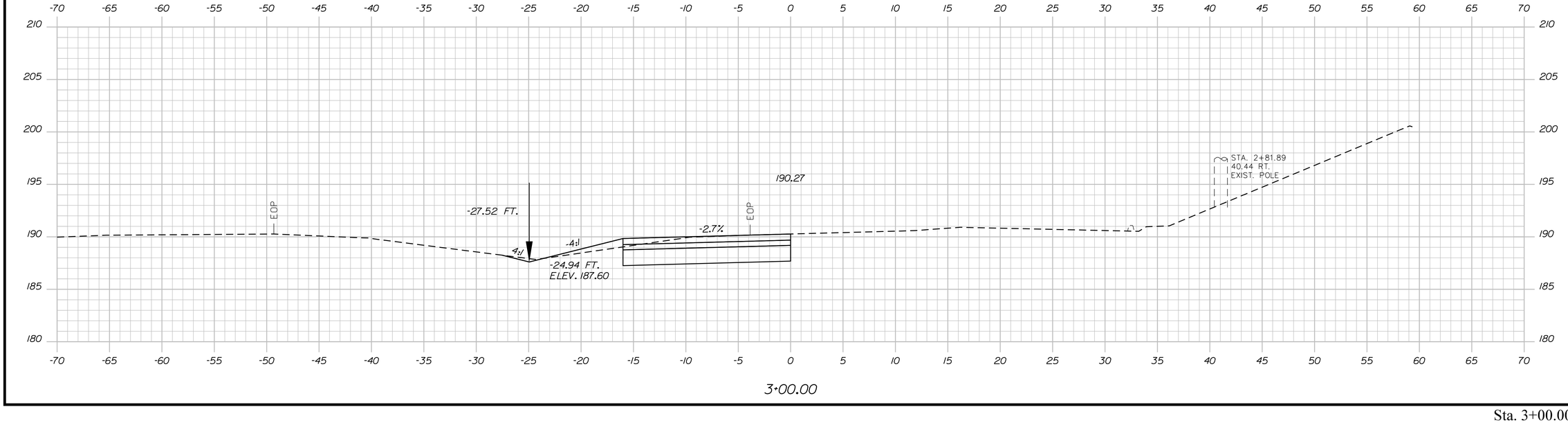
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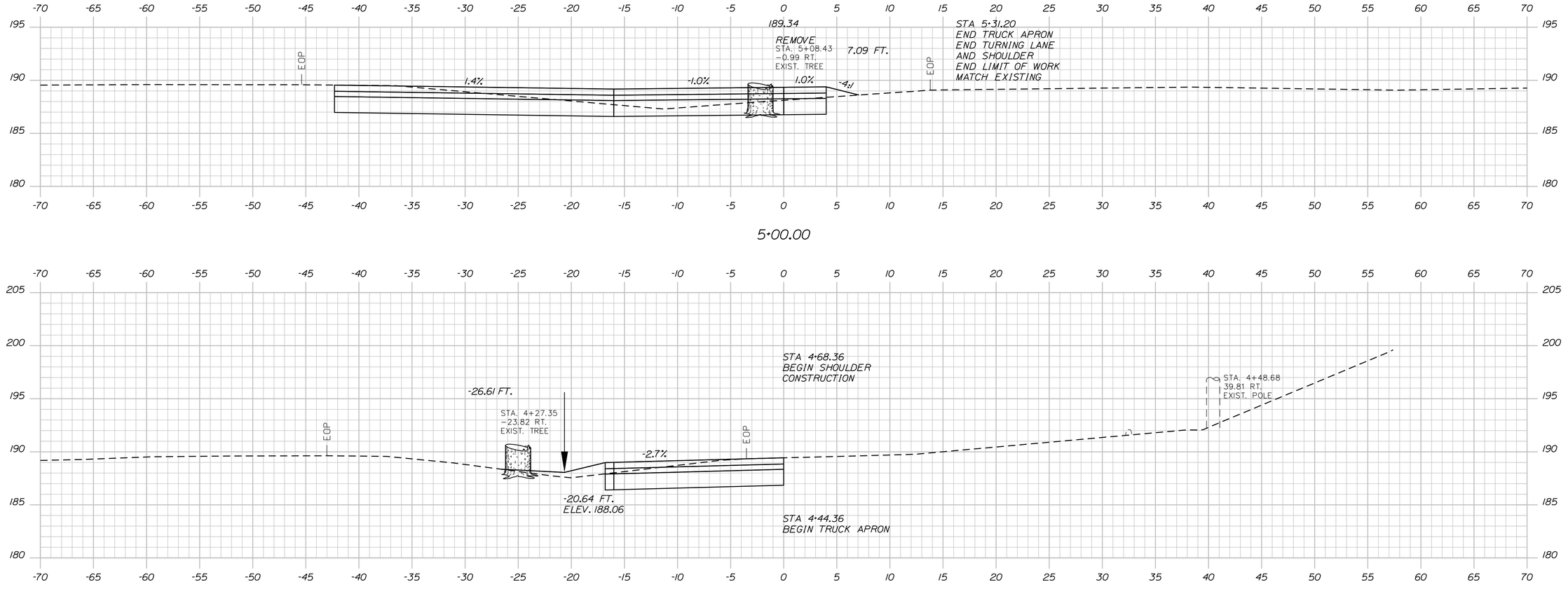
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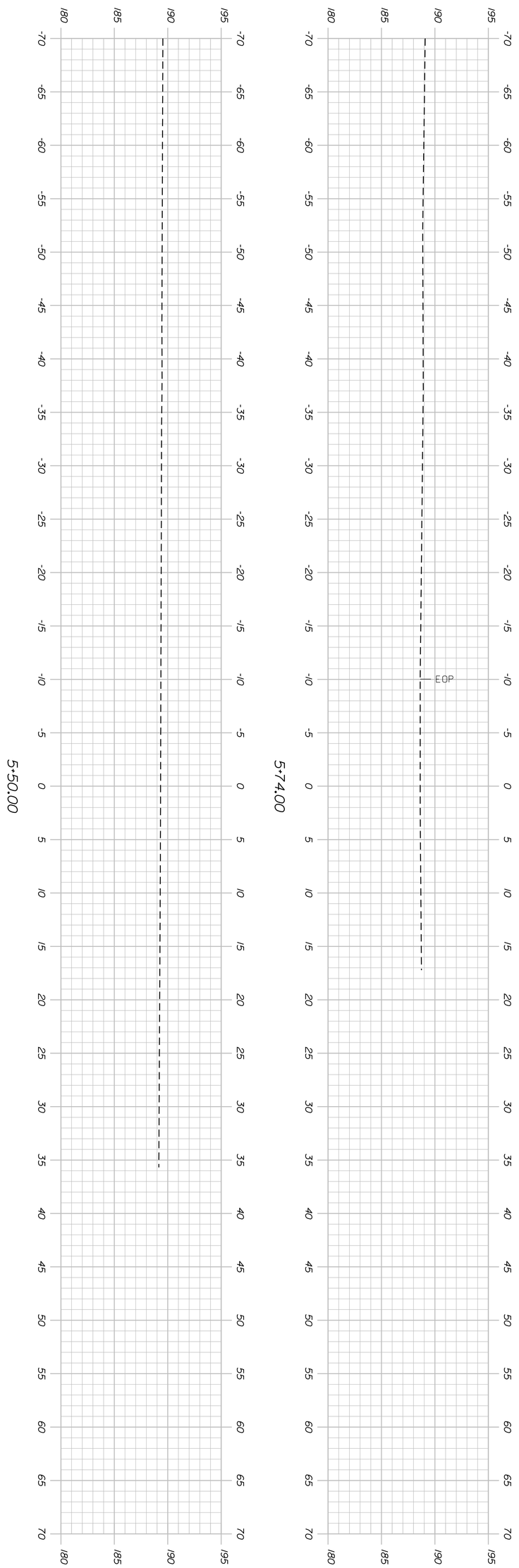
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CITY OF AUBURN
BRICKYARD CIRCLE

CROSS SECTIONS

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P.E. NUMBER
05/09/23
DATE

STATE OF MAINE
JOHN QUENTIN ADAMS
No. 11083
LICENSED PROFESSIONAL ENGINEER

Barton & Loguidice

Stormwater Management

(Partial Copy)

STORMWATER MANAGEMENT NARRATIVE
Rev: February 20, 2025



A. Narrative:

The subject property is located on Brickyard Circle in Auburn, Maine. The intent of this project is to construct 8, 12-unit apartment buildings along with access roads, parking , and recreational areas. In total, this project proposes **4.01** acres of new impervious area and **3.06** acres of new non-impervious area for a total of **7.07** acres of developed area.

The site, in its existing condition, is nearly entirely wooded. The project proposes to create impervious area and as such, stormwater design for quality and quantity treatment is proposed. Two stormwater Best Management Practices and one proprietary device are utilized to manage both stormwater quality and quantity. Two stormwater ponds were designed using Maine DEP Best Management Practice methods as outline in the *Maine Stormwater Management Design Manual, Technical Design Manual Volume III.*

To address stormwater peak flow rates, the site was modeled in the pre-development and post-development conditions. This analysis shows that stormwater run-off rates decrease as a result of the project. Main-Land identified two Watershed Analysis Points (WAP A & B) in the pre-development condition and three Watershed Analysis Points (WAP A, B & C) in the post-development condition where stormwater runoff leaves the subject parcel.

The following is a description of the areas flowing to each Watershed Analysis Point (WAP) in the pre- and post-development conditions. HydroCAD version 10.0, was used to model both conditions. As described below, the proposed stormwater peak flow rates leaving the project site are generally less than the existing condition. Following the descriptions, a table summarizing pre and post development flowrates is included. D1.1 Pre-Development and D2.1 Post-Development Plan show these WAP's and their associated flow paths.

Stormwater Management

Pre-Development:

The project parcel in the pre-development condition, is nearly entirely wooded except for an open meadow area near the existing entrance off Brickyard Circle. The site generally slopes north toward Taylor Brook.

Two Watershed Analysis Points (WAPs) were identified in the pre-development condition. WAP A is located on Taylor Brook, just before the culvert under Brickyard Circle. WAP B is located on the southeastern side of the site and flows to the adjacent

railroad tracks, is picked up by the drainage ditch, flows under the existing access culvert and into Taylor Brook.

Post-Development:

Post-Development stormwater quality goals for this project were derived from Maine DEP's Chapter 500 rules. Based on the standard, **95%** of new impervious area and **80%** of new developed area must be treated for quality. Per the stormwater design, integral to and included with this narrative, **98.0%** and **82.1%** of the impervious and developed areas respectfully, are treated.

In the post-development condition, an additional WAP, "C", was identified. This WAP was created by the proposed access drive sloping up into the site, resulting in runoff from the only untreated impervious area of the site. Runoff from this small segment of road flows over Brickyard Circle and into Taylor Brook.

WAP B in post-development no longer will have runoff flowing to it. Instead, runoff from developed area will be captured through ditching and treated.

WAP A in post-development is the point to which most of the site drains. As mentioned previously, 98% of impervious and 82.1% of developed area are treated. This treatment percentage is accomplished through the use of a Grassed Underdrained Soil Filter and a proprietary FocalPoint device that drains to a Detention Pond. The Grassed Underdrained Soil Filter treats Subcatchment series "3" along with roof runoff from building 2. The other treatment area, which includes Subcatchment series "4" along with roof runoff from the other 7 buildings, is comprised of a proprietary filter media bed called FocalPoint designed by *Ferguson Waterworks*. Treated water from that system discharges to a Detention Pond to control flooding volume. Details regarding the drainage network which captures and channels stormwater to the treatment ponds can be found on the Grading, Utilities, and Stormwater Plans which are included as part of this application.

Along with the quality treatment percentages, peak stormwater flow attenuation was designed to ensure the peak stormwater flowrate in the post-development condition does not exceed that of the pre-development condition. A summary of peak stormwater flows in pre- & post-development is shown below. Units are in cubic feet per second (cfs).

WAP	Storm Event	Pre-Develop.	Post-Develop.	Change
A	2-year	5.79	5.38	-0.41
	10-year	11.05	9.45	-1.60
	25-year	15.8	15.48	-0.32
B	2-year	0.23	0	-0.23
	10-year	0.45	0	-0.45
	25-year	0.65	0	-0.65
C	2-year	0	0.14	0.14
	10-year	0	0.21	0.21
	25-year	0	0.26	0.26

Total Flow From Site		
	Pre	Post
2-year	6.02	5.52
10-year	11.50	9.66
25-year	16.45	15.74

Figure 1: Drainage Summary Tables

As shown in the tables above, WAP A and B see a decrease in peak stormwater runoff flows in the post-development condition. WAP C doesn't exist in the pre-development condition and comprises of a small portion of entrance drive that is not able to be attenuated due to the physical restraints of the site. The entire site flows to Taylor Brook and the overall peak flow of stormwater runoff is decreased by the project so the project meets the requirements of the Town of Auburn's stormwater ordinance.

The following is an address to Maine DEP Site Location of Development Act (SLODA) Section 12 requirements.

1. Development Location: The proposed project is located near the intersection of Washington St. and Brickyard Circle. This project is located within the watershed of Taylor Brook.

2. Surface Water on or Abutting the Site: A hydrologic analysis of the upstream watershed of Taylor brook was not performed as part of the stormwater analysis.

3. Downstream Ponds and Lakes: Taylor Brook flows into the Little Androscoggin River and onto the Androscoggin River.

4. General Topography: As stated the project parcel generally flows north to Taylor Brook. The site is gently sloping in upland areas and drops steeply to the brook.

5. Flooding: The 100-yr flood zone boundary is shown on the plan set included as part of this application.

6. Alterations to Natural Drainage Ways: The proposed drainage design closely follows the existing drainage patterns as the runoff flows to Taylor Brook.

7. Alterations to Land Cover: Alteration to existing land cover will include the construction of buildings, paved parking areas, and landscaped grassed areas.

8. Modeling Assumptions: As stated above no hydrologic analysis of Taylor Brook was performed as part of the stormwater analysis. TR-55 modeling methodology was utilized as this is a "small watershed" analysis.

9. Water Quantity Control: Two stormwater ponds are proposed which reduce peak runoff to near pre-development condition.

10. Water Quality Treatment: Stormwater quality treatment is achieved through the use of a Grassed Underdrained Soil Filter Pond and "Focal Point" treatment system.

11. Off-site Credits: Not Applicable

12. Compensation Fees: Not Applicable for stormwater related impacts. In lieu compensation is intended for mitigation of wetland impacts.

13. Development Impacts: Impacts to Natural Resources are included as part of this application.

B. Maps:

1. Topographic Map: Existing Topography is show on C1.0 Existing Conditions and Demolition.

2. Soils Map: The site is comprised of Hydrologic Soils Group (HSG) C and D soils. Soils boring logs are included as part of this application.

C. Drainage Plans:

Please see D1.1 Pre-Development and D2.1 Post-Development Stormwater Plan included as part of this application.

1. Contours: Existing conditions contours provided by topographic survey, see Survey reference plan. Proposed contours are shown on the stormwater plans.

2. Plan Elements: The Plan shows all of the required elements, including a legend, north arrow, title block, revision block and areas for professional stamps.

3. Land Cover Types and Boundaries: Included as part of this application.

4. Soil Group Boundaries: Please see boring logs provided as part of this application.

5. Stormwater Quantity Subwatershed Boundaries: Watershed boundary lines are shown on the plan.

6. Stormwater Quality Subwatershed Boundaries: Watershed boundary lines are shown on the plan.

7. Watershed Analysis Points: Shown of the Plans.

8. Hydrologic Flow Lines: Shown of the Plans.

9. Runoff Storage Areas: Shown on the Plans.

10. Roads and Drives: Shown on the Plans.

11. Facilities: Existing and proposed buildings and parking areas are shown on the Site Plans included in this application.

12. Drainage Systems: The closed drainage system of stormdrains and catch basins is shown on the Site Utilities plans.

13. Natural and Man-Made Drainage Ways: Design plans and stormwater model depict natural and proposed drainage ways.

14. Wetlands: The Site Plans included in the application show wetlands on site.

15. Flooded Areas: The 100-Year Flood Zone Boundary is shown the Plans.

16. Benchmark: N/A

17. Stormwater Detention, Retention and Infiltration Facilities: See narrative and accompanying documents. These elements are detailed on the plans and supporting documents.

18. Stormwater Treatment Facilities: See narrative and accompanying documents.

19. Drainage Easements: No drainage easements are proposed.

D. Runoff Analysis: Please see the accompanying document included as part of this application. TR-55 analysis was performed using HydroCAD version 10 software.

1. Curve Number Computations: Included as part of this application.

2. Time of Concentration Calculations: Included as part of this application.

3. Travel Time Calculations: Included as part of this application.

4. Peak Discharge Calculations: Included as part of this application.

5. Reservoir Routing Calculations: Included as part of this application.

E. Flooding Standard Submissions:

See calculations and plans provided.

F. General Standards Submissions:

See calculations and plans provided.

1. Narrative.

Included as part of the application.

2. Drainage Plans.

Included as part of the application.

3. Calculations.

Included as part of the application.

4. Details, Designs, and Specifications.

a. Ponds. Provided as part of this application.

b. Underdrained Vegetated (Soil) Filters. Provided as part of this application.

c. Infiltration N/A

d. Buffers. N/A

5. Phosphorus Removal. N/A

G. Responsible Party for Long-Term Maintenance. The Maintenance Plan included as part of this application. The responsible party is the Applicant until such time as the property and permits are conveyed.

H. Components of the Maintenance Plan: The Maintenance Plan is included as part of this application.

1. Responsible Party: Applicant is the responsible party.

2. Transfer Mechanism: Transfer of the responsibility to conform with the Maintenance Plan will follow with the ownership of the parcel.

3. Facilities to be maintained: The facilities include the drives, drainage ditches, culverts, FocalPoint, Grassed Underdrained Soil Filter, and Detention Pond.

4. Inspection and Maintenance Tasks: The Plan (attached to this section) provides details as to the frequency of inspections, and the potential tasks that may be associated with this Plan.

5. Deed Restrictions and Covenants: No deed covenants or restrictions are proposed.

6. Maintenance Log: A description and a sample of a maintenance log is included as part of the Maintenance Plan.

7. Contracts: There are no proposed contracts for third party maintenance for this project.

I. Maintenance by a Homeowner Association: N/A

J. Maintenance of Facilities by a Municipality: N/A

K. General Inspection and Maintenance Requirements: A Maintenance Plan for the overall project site is included as part of this Section.

1. Drainage Easements: N/A

2. Ditches and Culverts: The Plan includes inspections and maintenance schedules of all culverts and ditches as described.

3. Roadways and parking surfaces: The Plan describes the maintenance necessary on the roads and parking, including resurfacing.

4. Stormwater Detention and Retention Facilities: The Plan describes the maintenance necessary for the stormwater facilities proposed by the project.

5. Runoff Infiltration Facilities: N/A

6. Proprietary Devices: “FocalPoint Treatment System”

7. Buffers: N/A

8. Other Practices and measures: N/A

Post-Development Area Summary		
	Ac	Notes
Impervious	**4.01**	Including Treatment Exempt Area
Developed	**7.07**	Impervious + Non-Impervious Developed. Including Exempt Area
Non-Impervious Developed	**3.06**	Developed Re-Vegetated Area
Undeveloped	**3.88**	Including Brook Surface Area

Proposed Treatment Percentages		
	Non-Linear	
	Impervious	Developed
Proposed	3.92	6.87
Treated	3.84	5.64
Percent Treated	**98.0%**	**82.1%**
Percent Required	95%	80%

DRAINAGE SUMMARY TABLE

WAP	Storm Event	Pre-Develop.	Post-Develop.	Change
A	2-year	5.79	5.38	-0.41
	10-year	11.05	9.45	-1.6
	25-year	15.80	15.48	-0.32
B	2-year	0.23	0	-0.23
	10-year	0.45	0	-0.45
	25-year	0.65	0	-0.65
C	2-year	0	0.14	0.14
	10-year	0	0.21	0.21
	25-year	0	0.26	0.26

Total Flow From Site		
	Pre	Post
2-year	6.02	5.52
10-year	11.5	9.66
25-year	16.45	15.74

Project: **Brickyard Commons**

Proj Number: 21-342

DRAINAGE AREA CALCULATIONS

PRE-DEVELOPMENT AREAS

SUB	TOTAL	WOODS D	MEADOW D	GRAVEL D	PAVED D	ROOF D	GRASS D	WATER/ BROOK	
1	5.79	5.42	0.37						OKAY
2	0.34	0.34							OKAY
5	4.82	3.59	0.02					1.21	OKAY
									OKAY
									OKAY
									OKAY
									OKAY
									OKAY
									OKAY
									OKAY
									OKAY
									OKAY
									OKAY
	10.95	9.35	0.39	0		0	0		10.95

POST-DEVELOPMENT AREAS

		EXISTING AREAS							PROPOSED AREAS							
SUB	TOTAL	WOODS D	MEADOW D	GRAVEL D	PAVED D	ROOF D	GRASS D	WATER BROOK	PAVED D	GRAVEL D	ROOF IMPERV	PAVED EXEMPT	GRASS D	GRASS EXEMPT		
1.0	0.05								0.04				0.01			OKAY
2.0	0.36	0.16										0.09		0.11		OKAY
3.0	0.37								0.18				0.19			OKAY
3.1	0.07								0.06				0.01			OKAY
3.2	0.23								0.14				0.09			OKAY
3.3	0.1								0.08				0.02			OKAY
3.4	0.18	0.07							0.07				0.04			OKAY
3.5	0.09								0.08				0.01			OKAY
4.0	0.44												0.44			OKAY
4.1	0.04								0.04							OKAY
4.2	0.52								0.45		0.01		0.06			OKAY
4.3	0.13								0.08				0.05			OKAY
4.4	0.08								0.07				0.01			OKAY
4.5	0.18								0.02				0.16			OKAY
4.6	0.05								0.04				0.01			OKAY
4.7	0.13	0.01							0.09				0.03			OKAY
4.8	0.63								0.12				0.51			OKAY
4.9	0.02								0.02							OKAY
4.10	0.24								0.20				0.04			OKAY
4.11	0.2								0.17				0.03			OKAY
4.12	0.20								0.15				0.05			OKAY
4.13	0.18								0.16				0.02			OKAY
4.14	0.2								0.17				0.03			OKAY
5.0	4.82	2.43						1.21	0.04				1.14			OKAY
6.1	0.18									0.05	0.13					OKAY
6.2	0.18									0.05	0.13					OKAY
6.3	0.18									0.05	0.13					OKAY
6.4	0.18									0.05	0.13					OKAY
6.5	0.18									0.05	0.13					OKAY
6.6	0.18									0.05	0.13					OKAY
6.7	0.18									0.05	0.13					OKAY
6.8	0.18									0.05	0.13					OKAY
	10.95	2.67	0	0	0	0	0	1.21	2.47	0.4	1.05	0.09	2.95	0.11	0	10.95

WORKSHEET FOR EVALUATING STORMWATER BMP's

FILTER DESIGNS

filter 1

Channel Protection Volume	acres:		
Impervious Area	0.79	1" Volume=	2868 cf
Developed non-impervious area	0.36	0.4" Volume=	523 cf
		Total Volume=	**3390** cf

Area Sizing	sq. ft:	
5% of the Impervious Area	1721	
2% of the Developed non-impervious Area	314	
Total surface area of the filter media top:	**2034**	square feet

Sediment Forebay		
Impervious area to be sanded:	0.79	acres
Sand Application Rate, per storm	500	lbs per acre
Sand Desity, +/-	90	pcf
Number of Storms	10	annually
Forebay Size	**44**	cf

Design Forebay Size	**84**	cf
Designed Volume:	3618	cf
Designed Filter Area:	2076	sf

FERGUSON WATERWORKS

FOCALPOINT DESIGN SHEET

HIGH PERFORMANCE MODULAR BIOFILTRATION SYSTEM
MAINE CHAPTER 500 PROJECTS



1. **Determine FocalPoint bed area (minimum 174 sf/acre of impervious area - ex: 0.2 acres = 35 sf)**
   See step 2 to determine if minimum size is appropriate.
   - Tributary impervious area: = See Cover Letter ac **(A)**
   - Tributary pervious area: = _____ ac **(B)**
   - Minimum FocalPoint bed area required: **= ((A x 1.0) + (B x 0.4)) * 174** = 631 sf
   - FocalPoint bed area provided*: = 645 sf
   - Dimensions of proposed FocalPoint: = 15 ft x 43 ft

2. **A 0.95 in Type III 24-hr rainfall event shall be modelled to demonstrate the entire storm volume is treated prior to activation of the overflow (typically set at 6 - 12 in above the mulch)**
   - Temporary storage depth provided: = 6 in
     (typically 6 - 12 in)
   - Temporary storage volume provided at above depth: = 399 ft^3
   - Peak ponding depth from 0.95” 24 hr storm event: = BELOW MULCH in

3. **Ratio of the surface area of the filter media (sf) to the temporary ponding volume (cf) shall be no less than 1:5**
   - Ratio of FocalPoint bed area: = _____ : _____

4. **Subsurface R-Tank or chamber treatment row must be sized to treat the peak flow from a 1 yr - 24-hr storm event.**
   - 1 yr 24-hr peak flowrate: = 7.87 cfs
   - Chamber/module selected:
     - Cultec 330 XLHD (1 chamber per 0.227 cfs) ☐
     - Cultec 150 XLHD (1 chamber per 0.185 cfs) ☐
     - R-Tank modules (WHAT TYPE)(1 module per 0.02 cfs) ☑
   - Number of chamber/modules required: = 394

5. **Controlled release of the channel protection over 24 - 48 hrs**
   - Controlled realease of the channel protection volume is being achieved by:
     - Expanded subsurface storage basin with outlet control structure (OCS) ☐
     - Surface detention basin with OCS ☑

6. **A landscape plan for the FocalPoint bed area has been prepared** ☐

7. **Design review and installation oversight by manufacturer’s representative**
   - The design has been reviewed by Ferguson ☐
   - Engineer will coordinate installation inspection with Ferguson ☐

Contact Loren Joyce - Stormwater Engineer
Cell: 207.272.9743 | Email: loren.joyce@ferguson.com

FERGUSON WATERWORKS

DESIGNING WITH FOCALPOINT IN MAINE

The Maine Department of Environmental Protection has approved the FocalPoint (High Performance Modular Biofiltration System) for use on Chapter 500 site development projects in the State of Maine.

SIZING CRITERIA SUMMARY

- The surface area of the media within the FocalPoint must be sized using a ratio of 174 sf to 1 are of impervious area (ex. 26 sf to 0.15 acres).
- The system must be modelled in HydroCAD (or similar TR-55 modeling software) to demonstrate that the entire volume of a 0.95-in Type II or III 24-hr storm is treated prior to activation of the bypass/overflow (typically set at 6 - 12 in above the mulch surface).
- The system must be placed in-line with a subsurface chamber based treatment row that is approved by the department. The treatment row will be sized to treat the peak flow from a 1-year, 24-hour storm event.
- Additional storage downstream of the FocalPoint and treatment row will be required to store at least the sum of 1.0 in of runoff from the impervious areas and 0.4 in of runoff from the landscaped areas that drain to the system (unless attenuation of the channel protection volume is not required) and control to release to drain between 24 - 48 hrs.

FOCALPOINT SYSTEMS:






FOCALPOINT ACCESSORIES:


Pretreatment - Rain Guardian Turret


Pretreatment - Rain Guardian Foxhole


Pretreatment - PreTx


Bypass protection - Domed overflow with filter insert

For additional information please visit: acfenvironmental.com

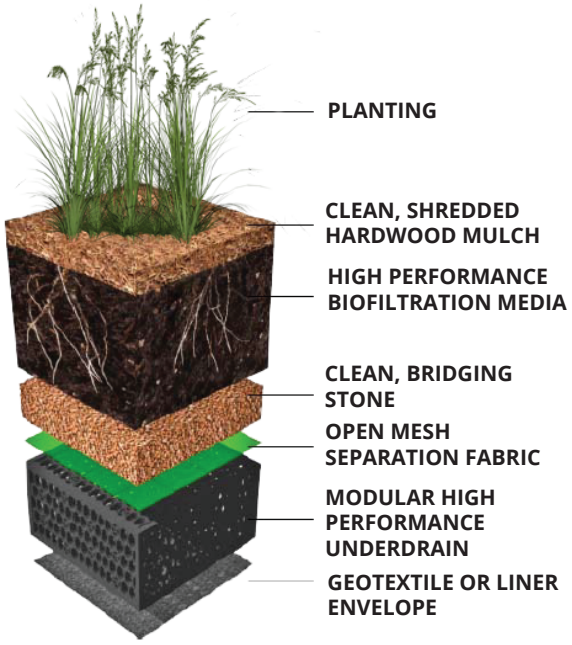
Contact Loren Joyce - Stormwater Engineer
Cell: 207.272.9743 | Email: loren.joyce@ferguson.com

FOCALPOINT
BIOFILTRATION SYSTEM

STORMWATER MANAGEMENT

HIGH PERFORMANCE MODULAR BIOFILTRATION SYSTEM FOR FILTRATION OF STORMWATER

FocalPoint is an ultra-efficient, modular biofiltration system that treats and drains large volumes of stormwater runoff in a small footprint to meet post-construction stormwater treatment requirements. The biofiltration system utilizes the physical, chemical and biological mechanisms of a soil, plant and microbe complex to remove pollutants typically found in urban stormwater runoff. The system can be installed along the edge of a roadway behind curb lines, in landscaped stormwater basins and can be incorporated into an urban green infrastructure streetscapes. Infiltration flow rates for the system's standard media exceed 100" per hour. It is a complete, integrated system with a demanding specification that ensures functionality, performance and maintainability.









ADVANTAGES:

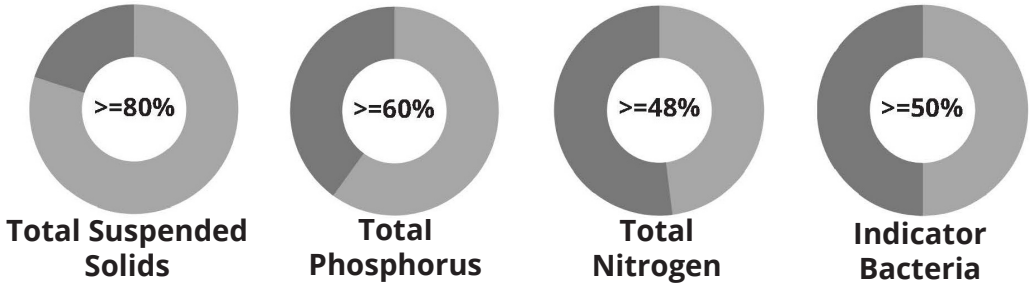
- Gain usable square footage
- Reduce material requirements and cost
- Improve property aesthetic and value
- 100"+ per hour infiltration rate
- Treat the same amount of water in <10% of the area required for traditional bioretention
- ACF provides 1st year of maintenance on system

For more information about Stormwater Management, contact Inside Sales at 800.448.3636
email at info@acfenv.com

ACF ENVIRONMENTAL

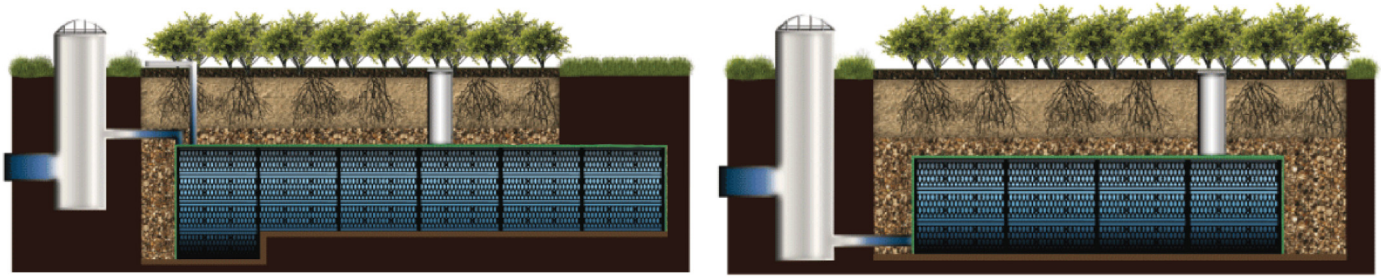
POLLUTANT REMOVAL

FocalPoint achieves pollutant removal rates consistent with traditional bioretention, and the option of increased removal characteristics for specific pollutant targets. The system is 3rd party field tested under TAPE (Technology Assessment Protocol – Ecology), independently field tested by the North Carolina State University, and has numerous agencies' approvals that meet state water quality standards for post construction BMPs.

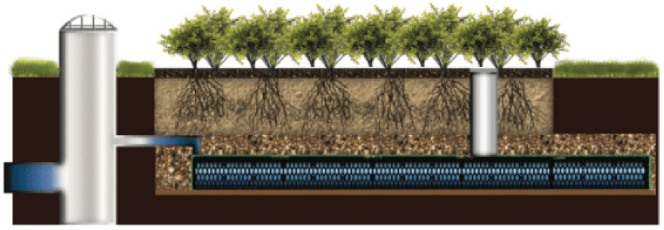


MODULAR UNDERDRAIN

FocalPoint's modular open cell underdrain system, unlike traditional underdrains, not only supports the flow rate of the media, but can be expanded beyond the footprint of the media bed to provide unlimited underground detention, infiltration and/or storage for water reuse. This can help meet channel protection, infiltration and flood control requirements.



R-Tank underdrain can be extended beyond FocalPoint footprint as shown above



ACF ENVIRONMENTAL
LET'S GET IT DONE

800.448.3636
acfenvironmental.com

ACCESSORY PRODUCTS



Beehive Overflow Filter Riser
for collection of gross solids during major storm events



Rain Guardian Turret
for curbline pretreatment and energy dissipation

SUMMARY FOR POND 1P: DETENTION POND

INFLOW AREA = 4.620 AC, 66.23% IMPERVIOUS, INFLOW DEPTH = 3.38" FOR 10-YR EVENT
INFLOW = 17.26 CFS @ 12.08 HRS, VOLUME= 1.303 AF
OUTFLOW = 4.56 CFS @ 12.45 HRS, VOLUME= 0.571 AF, ATTEN= 74%, LAG= 21.9 MIN
PRIMARY = 0.00 CFS @ 0.00 HRS, VOLUME= 0.000 AF ← Primary Plugged
SECONDARY = 4.56 CFS @ 12.45 HRS, VOLUME= 0.571 AF

ROUTING BY DYN-STOR-IND METHOD, TIME SPAN= 0.00-48.00 HRS, DT= 0.01 HRS
PEAK ELEV= 211.84' @ 12.45 HRS SURF.AREA= 8,516 SF STORAGE= 33,035 CF

PLUG-FLOW DETENTION TIME= 290.4 MIN CALCULATED FOR 0.571 AF (44% OF INFLOW)
CENTER-OF-MASS DET. TIME= 155.7 MIN (934.1 - 778.4)

VOLUME	INVERT	AVAIL.STORAGE	STORAGE DESCRIPTION
#1	203.00'	46,069 CF	CUSTOM STAGE DATA (PRISMATIC) LISTED BELOW (RECALC)

ELEVATION (FEET)	SURF.AREA (SQ-FT)	INC.STORE (CUBIC-FEET)	CUM.STORE (CUBIC-FEET)
203.00	647	0	0
204.00	1,117	882	882
205.00	1,653	1,385	2,267
206.00	2,254	1,954	4,221
207.00	2,919	2,587	6,807
208.00	3,651	3,285	10,092
209.00	4,832	4,242	14,334
210.00	6,026	5,429	19,763
211.00	7,279	6,653	26,415
212.00	8,755	8,017	34,432
213.20	10,640	11,637	46,069 ← Top of Berm

DEVICE	ROUTING	INVERT	OUTLET DEVICES
#1	PRIMARY	203.00'	**24.0" ROUND CULVERT X 0.00** L= 129.9' CPP, PROJECTING, NO HEADWALL, KE= 0.900 INLET / OUTLET INVERT= 203.00' / 202.00' S= 0.0077 '/' CC= 0.900 N= 0.013 CORRUGATED PE, SMOOTH INTERIOR, FLOW AREA= 3.14 SF
#2	DEVICE 1	210.30'	**15.0" W X 5.0" H VERT. ORIFICE/GRATE** C= 0.600
#3	DEVICE 1	211.40'	**48.0" HORIZ. ORIFICE/GRATE** C= 0.600 LIMITED TO WEIR FLOW AT LOW HEADS
#4	DEVICE 1	203.25'	**4.0" ROUND CULVERT** L= 13.0' CPP, PROJECTING, NO HEADWALL, KE= 0.900 INLET / OUTLET INVERT= 203.25' / 203.25' S= 0.0000 '/' CC= 0.900 N= 0.010 PVC, SMOOTH INTERIOR, FLOW AREA= 0.09 SF
#5	SECONDARY	211.70'	**25.0' LONG (PROFILE 9) BROAD-CRESTED RECTANGULAR WEIR** HEAD (FEET) 1.97 2.46 2.95 3.94 4.92 COEF. (ENGLISH) 3.55 3.55 3.57 3.60 3.66

SUMMARY FOR POND FP:

[80] WARNING: EXCEEDED POND SD3.5 BY 1.35' @ 16.62 HRS (3.96 CFS 2.183 AF)

INFLOW AREA =	1.220 AC,	64.75% IMPERVIOUS,	INFLOW DEPTH =	3.37"	FOR 10-YR EVENT
INFLOW =	3.69 CFS @	12.08 HRS,	VOLUME=	0.343 AF	
OUTFLOW =	0.34 CFS @	13.38 HRS,	VOLUME=	0.110 AF,	ATTEN= 91%, LAG= 77.7 MIN
PRIMARY =	0.00 CFS @	0.00 HRS,	VOLUME=	0.000 AF	← Primary Plugged
SECONDARY =	0.34 CFS @	13.38 HRS,	VOLUME=	0.110 AF	

ROUTING BY DYN-STOR-IND METHOD, TIME SPAN= 0.00-48.00 HRS, DT= 0.01 HRS
PEAK ELEV= 208.55' @ 13.38 HRS SURF.AREA= 3,824 SF STORAGE= 10,351 CF

PLUG-FLOW DETENTION TIME= 368.2 MIN CALCULATED FOR 0.110 AF (32% OF INFLOW)
CENTER-OF-MASS DET. TIME= 217.6 MIN (1,005.8 - 788.3)

VOLUME	INVERT	AVAIL.STORAGE	STORAGE DESCRIPTION
#1	205.00'	16,607 CF	**CUSTOM STAGE DATA (PRISMATIC)** LISTED BELOW (RECALC)

ELEVATION (FEET)	SURF.AREA (SQ-FT)	INC.STORE (CUBIC-FEET)	CUM.STORE (CUBIC-FEET)	
205.00	2,075	0	0	
206.00	2,522	2,299	2,299	
206.50	2,756	1,320	3,618	
207.00	3,005	1,440	5,058	
208.00	3,521	3,263	8,321	
209.00	4,069	3,795	12,116	
210.00	4,913	4,491	16,607	← Top of Berm

DEVICE	ROUTING	INVERT	OUTLET DEVICES
#1	DEVICE 2	205.00'	**2.410 IN/HR EXFILTRATION OVER SURFACE AREA** CONDUCTIVITY TO GROUNDWATER ELEVATION = 201.50'
#2	PRIMARY	203.00'	**4.0" ROUND CULVERT X 0.00** L= 40.0' CPP, PROJECTING, NO HEADWALL, KE= 0.900 INLET / OUTLET INVERT= 203.00' / 202.00' S= 0.0250 '/' CC= 0.900 N= 0.020 CORRUGATED PE, CORRUGATED INTERIOR, FLOW AREA= 0.09 SF
#3	SECONDARY	208.50'	**8.0' LONG (PROFILE 9) BROAD-CRESTED RECTANGULAR WEIR** HEAD (FEET) 1.97 2.46 2.95 3.94 4.92 COEF. (ENGLISH) 3.55 3.55 3.57 3.60 3.66

PRIMARY OUTFLOW MAX=0.00 CFS @ 0.00 HRS HW=205.00' TW=199.00' (DYNAMIC TAILWATER)
↑—2=**CULVERT** (CONTROLS 0.00 CFS)
↑—1=**EXFILTRATION** (PASSES 0.00 CFS OF 0.12 CFS POTENTIAL FLOW)

SECONDARY OUTFLOW MAX=0.34 CFS @ 13.38 HRS HW=208.55' TW=199.05' (DYNAMIC TAILWATER)
↑—3=**BROAD-CRESTED RECTANGULAR WEIR** (WEIR CONTROLS 0.34 CFS @ 0.82 FPS)

Ferguson Waterworks
94 Pleasant Ave
South Portland, ME 04106

Shane Howley, E.I.
Staff Engineer
69 Main Street
Livermore Falls, ME 04254
May 2, 2022

SUBJECT: Brickyard Commons – Washington St., Auburn, ME
Design Review of SWM Systems – FocalPoint Biofiltration System

Dear Shane,

Thank you for forwarding the Submission 1 Plans for the proposed Brickyard Commons development site in Auburn, Maine to Ferguson Waterworks for review. Our team has reviewed the plans dated January 4th, 2022 as well as HydroCAD modeling, which shows the following FocalPoint system:

- FocalPoint Biofiltration System – 615 SF footprint with
  - 24" dia. domed overflow structure with filter insert
  - 360 Expanded R-Tank^{HD} Treatment Row Modules

System Review:

- The FocalPoint system is set in a recessed vegetated 'bowl' area.
- Runoff flows into the system from the surrounding pavement, developed areas and through a network of storm drains.
- The typical FocalPoint section appears to consist of 3" mulch, 18" media, 6" bridging stone and 1.44' modular underdrain.
- A 24" dia. domed overflow riser with filter insert is specified to convey larger storm events – essentially as a bypass.
- A landscape plan should be prepared for the site including the FocalPoint bed areas.

Overall, Ferguson takes no exceptions to the location and application of the FocalPoint system for this project to provide WQ treatment. Ferguson will review/provide comments for plan revisions and final system detail sheets as received.

With regard to the installation, Ferguson Waterworks will host a preconstruction meeting with the site contractor and will be on-site during the entire installation to ensure that the installation is being conducted in accordance with our standard installation procedures. Ferguson Waterworks will also provide maintenance consultation for the first year following install consisting of typical maintenance procedures and overview of system condition.

Please review and contact me with any questions from your office. We look forward to working with you on this project.

Sincerely,



Loren Joyce,
Stormwater Engineer
Ferguson Waterworks

Cc: Robert J Woodman, Ferguson Waterworks

STATE OF MAINE
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

May 16, 2016

Stormwater Systems ACF-Convergent Water Technologies Alliance
23 Faith Drive
Gorham, ME 04038
ATTN: Robert Woodman and Scott Gorneau

Dear Mr. Woodman and Mr. Gorneau:

This letter is to inform you that the Department of Environmental Protection (Department) has determined the FocalPoint system (a high performance modular biofiltration system), when installed in series with a subsurface chamber-based treatment row, meets the requirements of the General Standards (Section 4.C.) of the Stormwater Management Rules (Chapter 500), provided that the system is filled with the FocalPoint engineered filter media; it is sized to meet the requirements of the General Standards (Section 4.B.); and it is installed, operated and maintained in accordance with the following provisions:

1. The FocalPoint system must be sized in accordance with the manufacturer's latest field test results with the goal of treating 90% of the annual runoff volume. To accomplish this, the system must be modelled in HydroCAD (or similar TR-55 modelling software) to demonstrate that the entire volume of a 0.95 inch Type III 24-hr storm is treated prior to activation of the bypass/overflow (typically set at 6" to 12" above the mulch surface).

2. The surface area of the media within the FocalPoint must be a minimum of 174 square feet per 1 acre of impervious area treated (26 sq. ft. per 0.15 acres). The thickness of the media is to be no less than 1.5 ft (18 inches) and the ratio of the surface area of the filter media bed in square feet to the ponding volume in cubic feet must be no less than 1 to 5.

3. The FocalPoint system consists of five components that include: 1) an open cell underdrain; 2) a wide aperture separation mesh wrap around the underdrain; 3) a layer of clean washed, 3/8" diameter bridging stone; 4) advanced high flow rate engineered media with an infiltration rate of 100 inches per hour; and 5) double shredded hardwood mulch. These components are built from the bottom up to create a mostly permeable profile that measures 3 feet from bottom of underdrain to top of mulch. The ponding depth above the mulch surface is typically 6 to 12 inches and varies based on site conditions. An overflow outlet should be placed above the ponding depth.

4. The FocalPoint system requires the establishment of vegetation that is tolerant of wet and dry conditions. Plants that are not performing as desired should be replaced as needed. A list of appropriate plants for use in the FocalPoint system is provided at: http://www.acfenvironmental.com/products/stormwater-management/filtration/focal-point/.

5. The FocalPoint biofiltration system must be placed in-line with a subsurface chamber-based treatment row that is approved by the Department such that both the treated discharge and the bypass discharge from the FocalPoint system drain to the treatment row. The treatment row must be sized to treat the peak flow from a 1-year, 24-hour storm event. The treatment row structure must be continuous and without obstacle for cleaning, and must have access at both ends for the removal of accumulated sediment and debris. The treatment row must be underlain with a bottom surface consisting of 2 layers of woven geotextile (e.g., ACF S300) that extends 18 to 24 inches beyond all sides of the bottom of the structure.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

6. Additional storage downstream of the FocalPoint and treatment row will be required to store at least the sum of 1.0 inch of runoff from the impervious areas and 0.4 inches of runoff from the lawn and landscaped areas that drain to the system unless attenuation of the channel protection volume is not required (i.e. direct discharge to a lake, tidal waters, or a major river). An external outlet control structure must control the flow out of a downstream storage system, sized for the entire channel protection volume, and drain in no less than 24 hours or more than 48 hours.

7. If required for flooding control, the storage system can be sized to provide for the storage and release of the peak flow with a regulated flow rate from 24-hour storms of the 2, 10, and 25-year frequencies such that the peak flows from the project site do not exceed the peak flow prior to undertaking the project.

8. The applicant must demonstrate that the design meets all the manufacturer's specifications and shall be reviewed by the manufacturer prior to submission to the Department for approval. Review and approval of the design by the manufacturer will be sufficient to demonstrate conformance with the manufacturer's specifications. The FocalPoint system must be installed by a manufacturer's certified installer or under the supervision of a manufacturer's representative.

9. Components of the system that are delivered in bulk (i.e., mulch, high flow media and clean washed bridging stone), should be contained in nylon super sacks to promote ease of storage and protection during on-site construction activities.

10. The FocalPoint and treatment row system should be inspected and maintained if necessary at least once every six months to maintain the established efficiency for pollutant removal. Prior to construction, a five-year binding inspection and maintenance contract must be provided prior to the Department for review and approval, and must be renewed before contract expiration. The contract will be with a professional with knowledge of erosion and stormwater control, including experience with the proposed system.

11. The overall stormwater management design must meet all Department criteria and sizing specifications and will be reviewed and approved by the Department prior to use.

12. This approval is conditional on full-scale, cold climate field testing results, performed in accordance with the Department's protocols, confirming that the pollutant removal efficiency and sizing of the FocalPoint system are appropriate. The "permit shield" provision (Section 14) of the Chapter 500 rules will apply, and the Department will not require the replacement of the system if, with proper maintenance, pollutant removals do not satisfy the General Standard Best Management Practices.

We look forward to working with you as these stormwater management systems are installed on new projects. Questions concerning this decision should be directed to Marianne Hubert at (207) 215-6485 or Jeff Dennis at (207) 215-6376.

Sincerely,

Mark R Bergeron

Mark Bergeron, P.E.
Director
Bureau of Land Resources

C: Don Witherill, Maine DEP

SPECIFICATION
HIGH PERFORMANCE MODULAR BIOFILTRATION SYSTEM (HPMBS)
Material, Performance and Installation Specification

I. Summary

The following general specifications describe the components and installation requirements for a volume based High Performance Modular Biofiltration System (HPMBS) that utilizes physical, chemical and biological mechanisms of a soil, plant and microbe complex to remove pollutants typically found in urban storm water runoff. The modular treatment system in which the biologically active biofiltration media is used shall be a complete, integrated system designed to be placed in Square Foot or Linear Foot increments per the approved drawings to treat contaminated runoff from impervious surfaces.

The High Performance Modular Biofiltration System (HPMBS) is comprised of the following components:

A. Plant Component

1. Manufacturer shall provide a regionalized list of acceptable plants.

2. Plants, as specified in the approved drawings/manufacturer's plant list, shall be installed at the time the HPMBS is commissioned for use.

3. Plants and planting are typically included in landscape contract.

B. Biofilter Component

1. This component employs a high performance cross-section in which each element is highly dependent on the others to meet the performance specification for the complete system. It is important that this entire cross-section be provided as a complete system, and installed as such.

2. As indicated in the approved drawings, the elements of the Biofilter include:

    A. *A mulch protective layer (if specified).*

    B. *An advanced high infiltration rate biofiltration planting media bed which utilizes physical, chemical and biological mechanisms of the soil, plant, and microbe complex, to remove pollutants found in storm water runoff.*

    C. *A separation layer which utilizes the concept of 'bridging' to separate the biofiltration media from the underdrain without the use of geotextile fabrics.*

D. *A wide aperture mesh layer utilized to prevent bridging stone from entering the underdrain/storage element.*

E. *A modular, high infiltration rate 'flat pipe' style underdrain/storage system which is designed to directly infiltrate or exfiltrate water through its surface. The modular underdrain must provide a minimum of 95% void space.*

C. Energy Dissipation Component

1. An Energy Dissipation Component is typically specified to slow and spread out water as it enters the system. This component is dependent upon the design in the approved drawings, but typically consists of a rock gabion, rock filter dam or dense vegetation element, such as native grasses, either surrounding the Biofiltration Component or located immediately upstream of it.

D. Pretreatment Component

1. Pretreatment, when specified, is typically accomplished by locating the Biofiltration Component within a traditional vegetated BMP such as a vegetated swale, vegetated depression, traditional bioretention system, vegetated filter strip, sediment forebay, etc. These BMPs provide primary TSS removal when desirable.

E. Observation and Maintenance Component

1. An Observation and Maintenance Port shall be installed per the approved drawings to provide for easy inspection of the underdrain/storage element, and cleanout access if needed.

F. Extreme Event Overflow (by others)

1. An Extreme Event Overflow should be located external to, but near the Biofiltration element to provide bypass when needed. This may be an overland flow bypass structure, beehive overflow grate structure, or equivalent that serves the purpose. If beehive overflow structures is utilized it should include a removable filter insert to provide a minimum of 50% TSS removal and control of gross pollutants, trash and floatables.

II. Quality Assurance and Performance Specifications

The quality and composition of all system components and all other appurtenances and their assembly process shall be subject to inspection upon delivery of the system to the work site.

Installation is to be performed only by skilled work people with satisfactory record of performance on earthworks, pipe, chamber, or pond/landfill construction projects of

comparable size and quality.

A. Plants

1. Plants must be compatible with the HPMBS media and the associated highly variable hydrologic regime. Plants are typically facultative with fibrous roots systems such a native grasses and shrubs.

2. Manufacturer shall provide a regionalized list of acceptable plants.

3. All plant material shall comply with the type and size required by the approved drawings and shall be alive and free of obvious signs of disease.

B. Mulch

1. Mulch, typically double shredded hardwood (non-floatable), shall comply with the type and size required by the approved drawings, and shall be screened to minimize fines.

C. Biofiltration Media

1. Biologically active biofiltration media shall be visually inspected to ensure appropriate volume, texture and consistency with the approved drawings, and must bear a batch number marking from the manufacturer which certifies performance testing of the batch to meet or exceed the required infiltration rate (100 in/hr). A third party laboratory test must be provided to certify the 100 in/hr rate.

2. Manufacturer shall provide, at no additional cost to the project owner/operator, maintenance of the biofiltration system for a period of one year.

3. Pollutant Removal performance, composition and characteristics of the Biofiltration Media must meet or exceed the following minimum standards as demonstrated by testing acceptable to the project engineer:

Pollutant	**Removal Efficiency**
TSS	91%
Phosphorus	66%
Nitrogen	48%
Composition and Characteristics	
Sand - Fine	< 5%
Sand – Medium	10% - 15%
Sand – Coarse	15% - 25%
Sand – Very Coarse	40% - 45%
Gravel	10% - 20%
Infiltration Rate	>100 inches per hour
Peat Moss*	5% - 15%

* Peat Moss Specification
Listed by Organic Materials Review Institute
100% natural peat (no composted, sludge, yard or leaf waste)
Total Carbon >85%
Carbon to Nitrogen Ratio 15:1 to 23:1
Lignin Content 49% to 52%
Humic Acid >18%
pH 6.0 to 7.0
Moisture Content 30% to 50%
95% to 100% passing 2.0mm sieve
> 80% passing 1.0mm sieve

D. Underdrain/Storage System

1. Underdrain/storage components shall be manufactured in an ISO certified facility and be manufactured from at least 90% post consumer recycled materials.

2. Underdrain/storage components shall meet or exceed the following characteristics:

Property	Value
Surface Void Area	≥ 85%
Unit Weight	3.25 lbs/cf
Service Temperature	-14° to 167°
Unconfined Crush Strength	32.48 psi
180 Day Creep Test	
Load Applied – Initial and Sustained	11.16 psi
• Creep Sustained – After 180 Days	0.20 inches
• Creep Sustained – After 180 Days	1.13 %
• Projected Creep – 40 years	1.72%

E. Separation Mesh

1. Separation Mesh shall be composed of high-tenacity monofilament polypropylene yarns that are woven together to produce an open mesh geotextile which shall be inert to biological degradation and resistant to naturally encountered chemicals, alkalis and acids. The mesh shall meet or exceed the following characteristics:

Properties	Test Method	Unit	Min Ave Roll Value	
			MD	CD
Tensile Strength	ASTM D4595	kN/m (lbs/ft)	21 (1440)	25.3 (1733)
Creep Reduced Strength	ASTM D5262	kN/m (lbs/ft)	6.9 (471)	8.3 (566)
Long Term Allowable Design Load	GRI GG-4	kN/m (lbs/ft)	5.9 (407)	7.2 (490)

UV Resistance (at 500 hours)	-	% strength retained	90
Aperture Size (machine direction)	-	mm (in)	2 (0.08)
Aperture Size (cross machine direction)	-	mm (in)	2 (0.08)
Mass/Unit Area	ASTM D5261	g/m^2 (oz/yd^2)	197 (5.8)

F. Bridging Stone

1. Bridging Stone shall be 3/8" pea gravel, or other diameter sized to prevent migration of filter media, as specified by manufacturer.

2. Stone must be washed and free from sediment, soil and contaminants.

III. Delivery, Storage and Handling

A. Protect all materials from damage during delivery and store UV sensitive materials under tarp to protect from sunlight including all plastics, when time from delivery to installation exceeds one week. Storage should occur on smooth surfaces, free from dirt, mud and debris.

B. Biofiltration media shall be segregated from any other aggregate materials and shall be protected against contamination, including contamination from any stormwater runoff from areas of the site which are not stabilized.

IV. Submittals

A. Product Data

1. Submit manufacturer's product data and approved Installation Manual as well as manufacturer's Operations and Maintenance Manual for the system. It will be the responsibility of the system owner/operator or their contractor to ensure the system is operated and maintained in accordance with the manual.

B. Certification

1. Manufacturer shall submit a letter of certification that the complete system meets or exceeds all technical and packaging requirements. Biofiltration media packaging must bear a batch number marking from the manufacturer which matches a letter from the manufacturer certifying performance testing of the batch to meet or exceed the required infiltration rate.

C. Drawings

1. Manufacturer shall provide dimensional drawings including details for construction, materials, specifications and pipe connections.

D. Manufacturer's Warranty

1. Manufacturer shall provide a warranty for all components of the HPMBS for a period of one year provided the unit is installed, operated and maintained in accordance with the manual. Improper operation, maintenance or accidental or illegal activities (i.e. dumping of pollutants, vandalism, etc.) will void the warranty. Biofiltration media shall be warranted to pass the post-installation infiltration test described in this document.

E. Design Computations

1. The HPMBS must be sized using a volume based sizing criteria and demonstrate, using a SCS stormwater modelling software/spreadsheet calculator that the required water quality volume (defined by the Engineer of Record) passes through the HPMBS prior to activation of the overflow device (set no higher than twelve (12) inches above the top elevation of the HPMBS (typically defined as top of mulch). Design computations must be provided as part of the submittal process. If local regulations have the system approved based on an alternative sizing criteria the larger of the two computed sizes will govern.

F. Substitutions

1. Any proposed equal alternative product substitution to this specification must be submitted for review and approved prior to bid opening. Review package should include third party reviewed performance data for both flow rate and pollutant removal of biofiltration media. Pollutant removal data must follow specified protocols. All components must meet or exceed Quality Assurance and Performance Criteria indicated herein.

V. Project Conditions

A. Review manufacturer's recommended installation procedures and coordinate installation with other work affected, such as grading, excavation, utilities, construction access and erosion control to prevent all non- installation related construction traffic over the completed HPMBS.

B. Cold Weather

1. Do not use frozen materials or materials mixed or coated with ice or frost.

2. Do not build on frozen ground or wet, saturated or muddy subgrade.

3. Care must be taken when handling plastics when air temperature is at 40 degrees or below as plastic becomes brittle.

C. Protect partially completed installation against damage from other construction

traffic when work is in progress and following completion of backfill by establishing a perimeter with highly visible construction tape, fencing, or other means until construction is complete.

D. Soil stabilization of the surrounding site must be complete before the Biofiltration System can be brought online. Soil stabilization occurs when 90% of the site has been paved or vegetated. Temporary erosion control and/or sedimentation prevention measures shall be implemented to reduce the possibility of sediments being transported into the Biofiltration System prior to full stabilization of the site. Significant sediment loads can damage the HPBMS and lead to failure if not prevented or remediated promptly.

VI. PRODUCTS

A. Acceptable HPBMS

FocalPoint High Performance Biofiltration System

B. Acceptable Beehive Overflow Grate Structure (Optional)

Beehive Overflow Grate Structure with removable StormSack

C. Acceptable Manufacturer

Manufacturer:

Convergent Water Technologies, Inc.
(800) 711-5428
www.convergentwater.com

D. Authorized Value Added Reseller

ACF Environmental
(800) 448 3636
www.acfenvironmental.com

VII. Packaging

A. HPMBS is assembled on site.

B. Modular underdrain/storage unit is shipped flat and modules are assembled prior to installation.

C. Biofiltration media is delivered in one ton super sacks each labeled with manufacturer's batch number and/or in bulk with accompanying manufacturer's certification.

D. Other components are delivered in bulk or super sacks

VIII. Execution

A. Excavation and Backfill

1. Base of excavation shall be smooth, level and free of lumps or debris, and compacted unless infiltration of storm water into subgrade is desired. A thin layer (3") of compacted base material is recommended to establish a level working platform (may not be needed in sandy soils). If the base of the excavation is pumping or appears excessively soft, a geotechnical engineer should be consulted for advice. In many cases, a stabilization geotextile and 6" of compactable material that drains well will be sufficient to amend the bearing capacity of the soil.

2. Most applications require 8 oz Non-Woven Geotextile or equivalent nonwoven geotextile with a nominal weight of 8 oz per square yard to line the excavation to separate in situ soils and the HPMBS. (Applications requiring water to infiltrate the in situ sub-soils should use a bridging stone rather than geotextile to provide a separation layer between the HPMBS and the in situ soils). Geotextile, when utilized, should be placed on the bottom and up the sides of the excavation. Absolutely no geotextiles should be used in the water column. If an impermeable liner is specified, it shall be installed according to manufacturer's instructions and recommendations.

3. Specified backfill material must be free from lumps, debris and any sharp objects that could penetrate the geotextile. Material is used for backfill along the sides of the system as indicated in engineering detail drawings.

B. Inspection

1. Examine prepared excavation for smoothness, compaction and level. Check for presence of high water table, which must be kept at levels below the bottom of the under drain structure at all times. If the base is pumping or appears excessively soft, a geotechnical engineer should be consulted for advice.

2. Installation commencement constitutes acceptance of existing conditions and responsibility for satisfactory performance. If existing conditions are found to be unsatisfactory, contact Project Manager or Engineer for resolution prior to installation.

IX. Cleanup and Protection during Ongoing Construction Activity

A. Perform cleaning during the installation and upon completion of the work.

B. Remove from site all excess materials, debris, and equipment. Repair any damage to adjacent materials and surfaces resulting from installation.

C. If surrounding drainage area is not fully stabilized, a protective covering of geotextile fabric should be securely placed to protect the Biofiltration Media.

D. Construction phase erosion and sedimentation controls shall be placed to protect the inlet(s) to the Biofiltration System. Excessive sedimentation, particularly prior to establishment of plants may damage the HPMBS.

E. Strictly follow manufacturer's guidelines with respect to protection of the HPMBS between Installation and Commissioning phases.

X. Commissioning

A. Commissioning should only be carried out once the contributing drainage area is fully stabilized. If Commissioning must be carried out sooner, it is imperative that appropriate erosion and sediment controls be placed to prevent the entry of excessive sediment/pollutant loads into the system.

B. Commissioning entails removing the protective covering from the Biofiltration Media, planting the plant material in accordance with the approved drawings, and placing mulch if specified.

1. Dig planting holes the depth of the root ball and two to three times as wide as the root ball. Wide holes encourage horizontal root growth that plants naturally produce.

2. With trees, you must ensure you are not planting too deep. Don't dig holes deeper than root balls. The media should be placed at the root collar, not above the root collar. Otherwise the stem will be vulnerable to disease.

3. Strictly follow manufacturer's planting guidance.

C. Cover the exposed root ball top with mulch. Mulch should not touch the plant base because it can hold too much moisture and invite disease and insects. Evenly place 3 inches of double-shredded hardwood mulch (if specified) on the surface of the media.

D. Plantings shall be watered-in at installation and temporary irrigations shall be provided, if specified.

XI. Using the HPMBS

A. Maintenance Requirements

1. Each correctly installed HPMBS is to be maintained by the manufacturer for a minimum period of one year. The cost of this service is to be included in the manufacturer's price of the system.

2. Annual maintenance consists of two (2) scheduled visits unless otherwise specified.

3. Each maintenance visit consists of the following:

1. *Complete system inspection*

2. *Removal of foreign debris, silt, plant material, trash and mulch (if needed)*

3. *Evaluation of biofiltration media*

4. *Evaluation of plant health*

5. *Inspection of underdrain/storage system via Observation/Maintenance Port*

6. *Properly dispose of all maintenance refuse items (trash, mulch, etc.)*

7. *Take photographs documenting plant growth and general system health*

8. *Update and store maintenance records*

9. *To ensure long term performance of the HPMBS, continuing annual maintenance should be performed per the manufacturer's Operations and Maintenance Manual.*

4. If sediment accumulates beyond an acceptable level in the underdrain/storage system, it will be necessary to flush the underdrain. This can be done by pumping water into the Observation/Maintenance Port or adjacent overflow structure, allowing the turbulent flows through the underdrain to re- suspend the fine sediments. If multiple Observation/Maintenance Ports have been installed, water should be pumped into each port to maximize flushing efficiency.

   Sediment-laden water can be pumped out and either captured for disposal or filtered through a Dirtbag filter bag, if permitted by the locality.

XII. Measurement and Payment

Given the integrated nature of the HPMBS, measurement and payment will be based not on the individual component prices, but on the size of the Biofiltration Media bed. The external dimension as indicated in the approved plans and executed in the installation will be measured in Square Feet and payment will be made per HPMBS system.

Measurement and payment of beehive overflow grate structure with removable filter insert will be based on per unit price.



FOCALPOINT SYSTEM OVERLAY
SCALE: 1" = 10'

0 10' 20'
SCALE 1" = 10'

FocalPoint
BIOFILTRATION SYSTEMS

ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

FERGUSON WATERWORKS

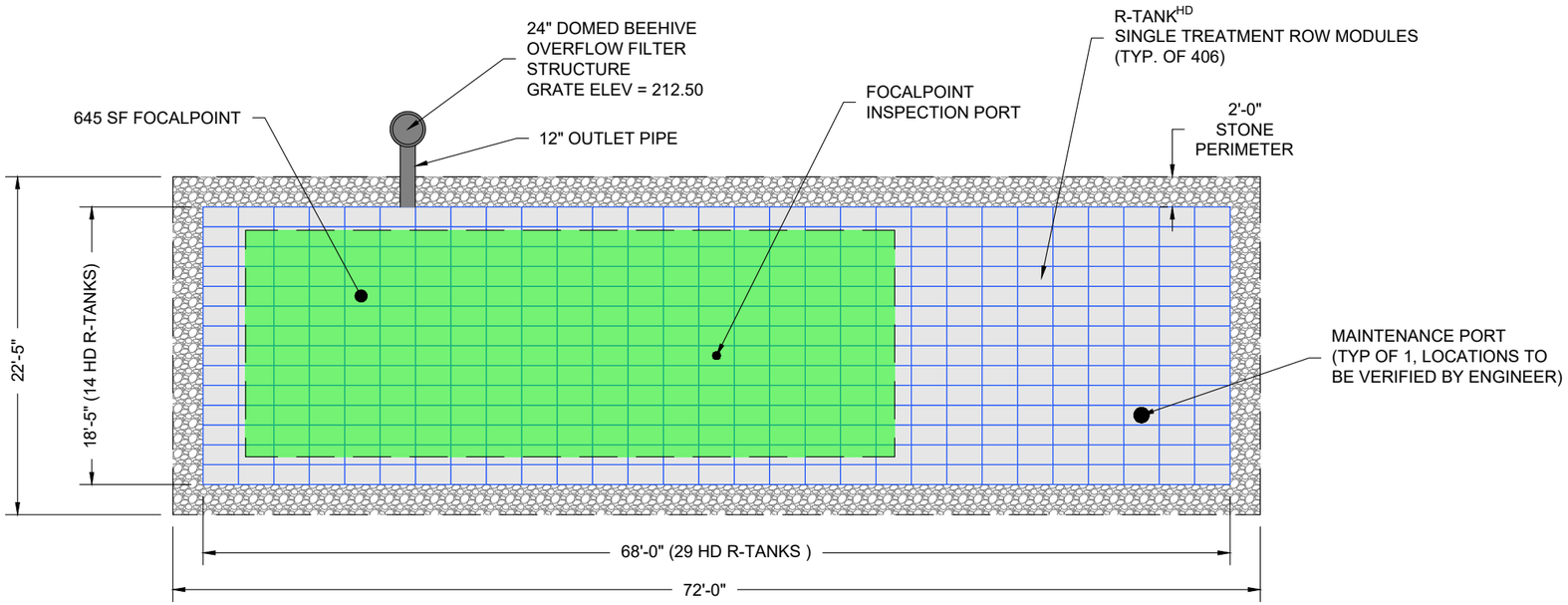
FOR ADDITIONAL INFORMATION PLEASE CONTACT:
FERGUSON WATERWORKS,
1-800-448-3636, www.ferguson.com

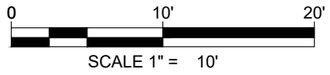
FOCALPOINT SYSTEM OVERLAY
WASHINGTON STREET
AUBURN, ME
SITE DESIGNATION: FP-1

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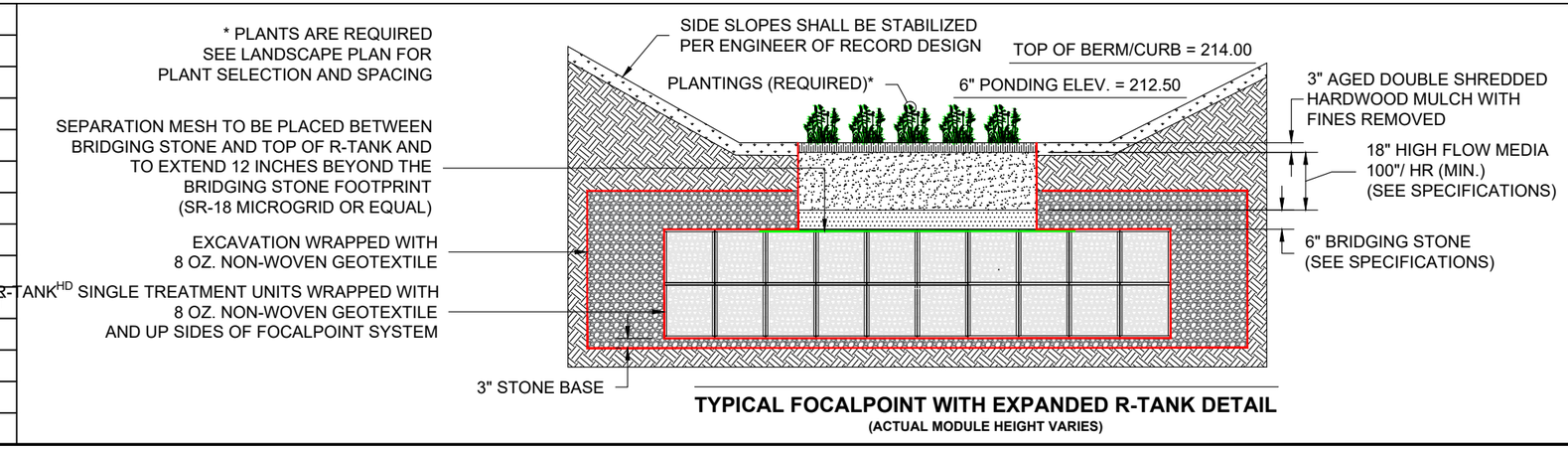
DATE
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SHEET NO.
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LAYOUT SCALE	1" = 10'
FOCALPOINT FILTER SURFACE AREA	645 SF
TOP OF MULCH ELEVATION	212
TOP OF MEDIA ELEVATION	211.75
DEPTH OF MEDIA	18"
TOP OF BRIDGING STONE ELEVATION	210.25
TOP OF R-TANK UNDERDRAIN ELEV.	209.75
R-TANK UNDERDRAIN INVERT	208.31
INVERT OF STONE BASE (3")	208.06
R-TANK^{HD} MODULE TYPE	SINGLE TREATMENT
# OF SINGLE TREATMENT R-TANKS	406
TOTAL R-TANK SYSTEM STORAGE	2,735 CF
R-TANK STORAGE VOLUME	1,713 CF
STONE STORAGE VOLUME (40% VOID RATIO)	1,022 CF



TYPICAL FOCALPOINT WITH EXPANDED R-TANK DETAIL
(ACTUAL MODULE HEIGHT VARIES)

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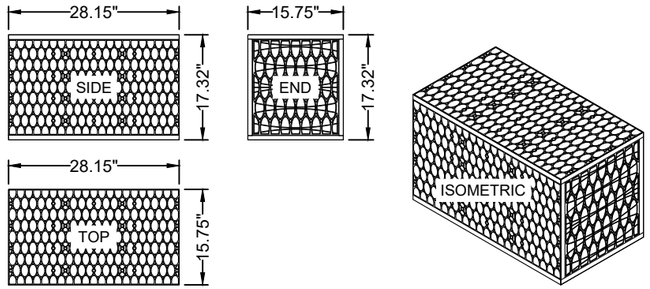
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FOCALPOINT SYSTEM LAYOUT
WASHINGTON STREET
AUBURN, ME
SITE DESIGNATION: FP-1

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2 of 9

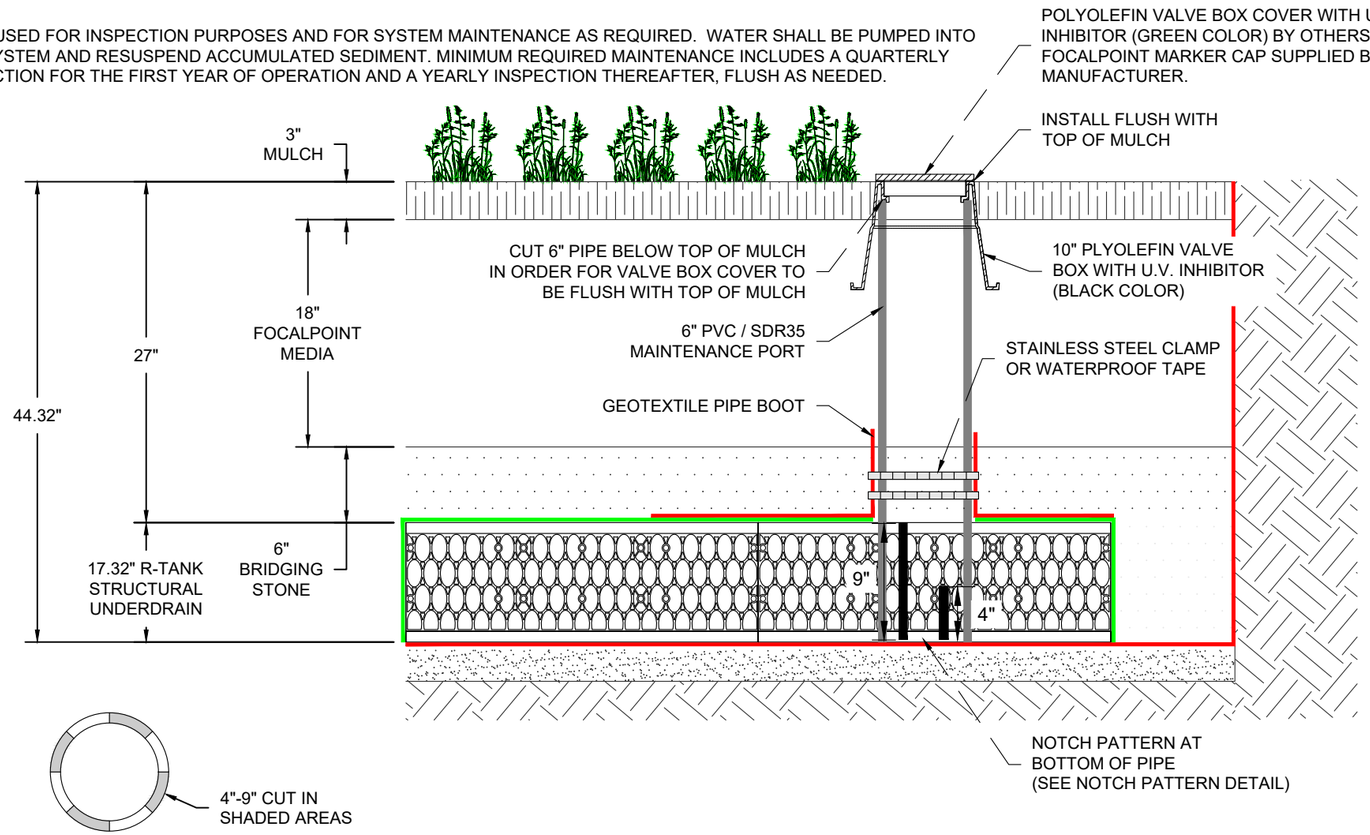


MODULE DATA

GEOMETRY:	**LOAD RATING:**
LENGTH = 28.15 IN. (715 MM)	33.4 PSI, (MODULE ONLY)
WIDTH = 15.75 IN. (400 MM)	HS20, (WITH ACF COVER SYSTEM)
HEIGHT = 17.32 IN. (440 MM)	**MATERIAL:**
TANK VOLUME = 4.44 CF	100% RECYCLED POLYPROPYLENE
STORAGE VOLUME = 4.22 CF	**SMALL PLATES PER**
VOID INTERNAL VOLUME: 95%	**SEGMENT/TOTAL:**
VOID SURFACE AREA: 90%	5/5

SINGLE R-TANK^{HD} - MODULE DETAIL

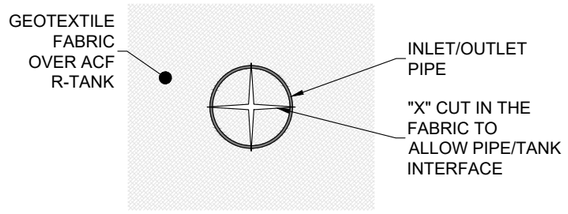
NOTE:
PORT USED FOR INSPECTION PURPOSES AND FOR SYSTEM MAINTENANCE AS REQUIRED. WATER SHALL BE PUMPED INTO THE SYSTEM AND RESUSPEND ACCUMULATED SEDIMENT. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION FOR THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER, FLUSH AS NEEDED.



PIPE NOTCH PATTERN DETAIL

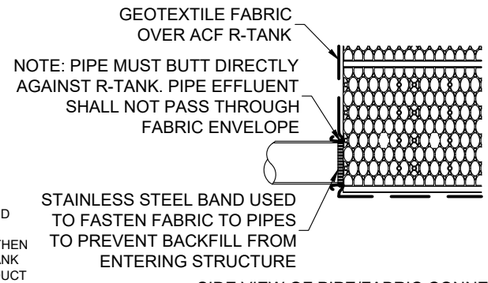
FOCALPOINT OBSERVATION & MAINTENANCE PORT DETAIL

CUT AN "X" IN THE FABRIC ENVELOPE THAT IS SLIGHTLY LARGER THAN THE PIPE. PULL THE FABRIC FLAPS AROUND THE PIPE, AND SEAL WITH A STAINLESS STEEL BAND.

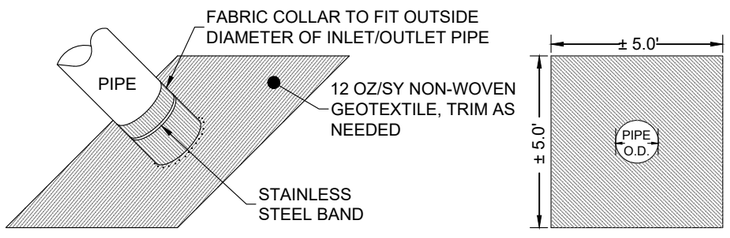


END VIEW OF PIPE/FABRIC CONNECTION

AFTER TANK WRAP IS SECURED TO PIPE, SLIDE BOOT AGAINST R-TANK AND SECURE WITH SECOND STAINLESS STEEL BAND, THEN ATTACH BOOT FLAP TO TANK ENVELOPE FABRIC WITH DUCT TAPE OR OTHER ADHESIVE.

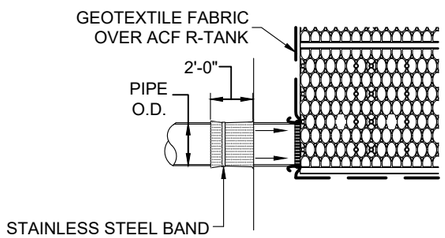


SIDE VIEW OF PIPE/FABRIC CONNECTION



GEOTEXTILE BOOT

FRONT VIEW OF GEOTEXTILE BOOT



SIDE VIEW OF GEOTEXTILE BOOT

R-TANK^{HD} TYPICAL TANK INLET/OUTLET W/ GEOTEXTILE PIPE BOOT DETAIL

R-TANK^{HD} QUANTITIES	
R-TANK^{HD} MODULE TYPE	SINGLE TREATMENT
# OF SINGLE TREATMENT R-TANKS	406
TOTAL SYSTEM STORAGE	2,735 CF
R-TANK STORAGE VOLUME	1,713 CF
STONE STORAGE VOLUME (40% VOID RATIO)	1,022 CF
STONE BED FOOTPRINT	1,620 SF
STONE QUANTITY	95 CY
SR-18 MICROGRID (UNDER FOCALPOINT)	0 SF (## SY)
8 OZ. NON-WOVEN GEOTEXTILE TANK WRAP	1,000 SF (111 SY)
8 OZ. NON-WOVEN GEOTEXTILE EXCAVATION WRAP	2,000 SF (222 SY)
8 OZ. NON-WOVEN GEOTEXTILE LINER PROTECTION	4,000 SF (444 SY)
6" FOCALPOINT INSPECTION PORT	1
12" MAINTENANCE PORTS	1
PIPE BOOTS (UNKNOWN SIZE)	2
NOTE: STONE QUANTITY INCLUDES 6" OF COVER AND 3" OF BASE.	
NOTE: GEOTEXTILE / LINER QUANTITIES INCLUDE A 15% WASTE FACTOR.	

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1-800-448-3636, www.ferguson.com

FOCALPOINT SYSTEM DETAILS
WASHINGTON STREET
AUBURN, ME
SITE DESIGNATION: FP-1

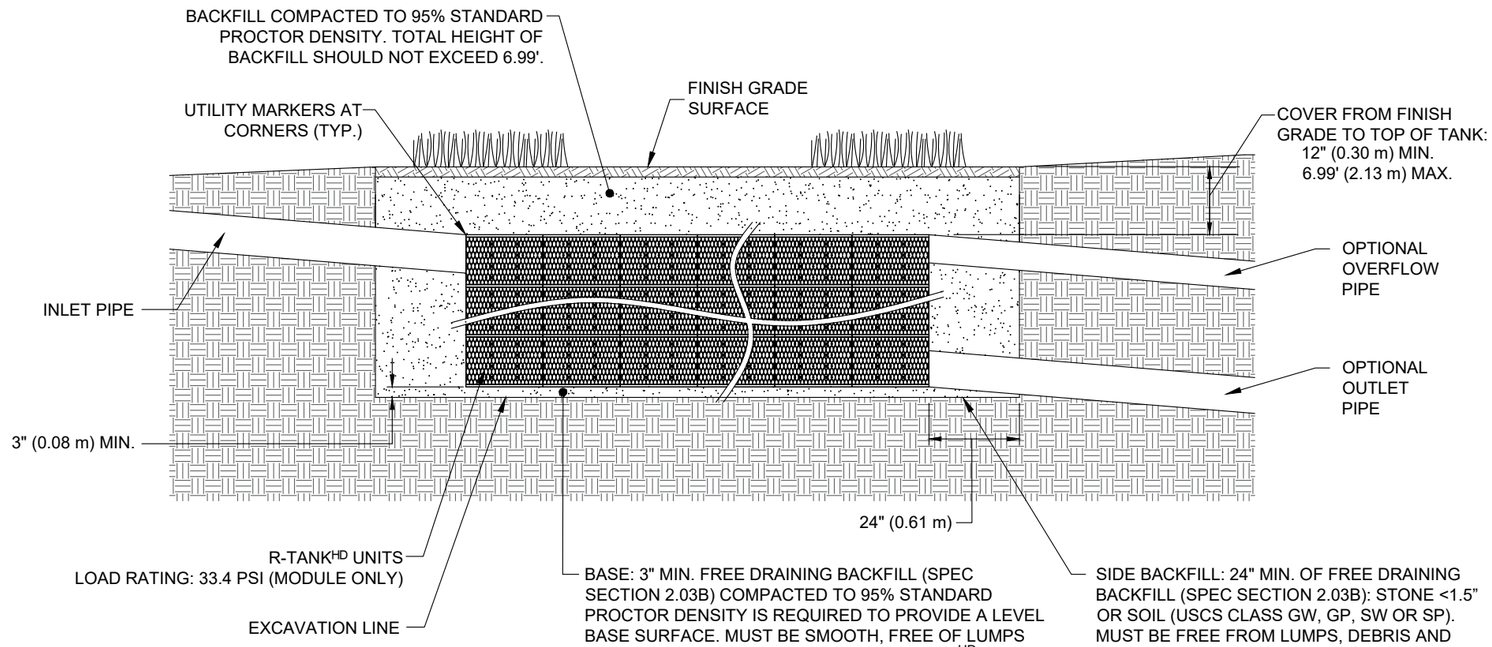
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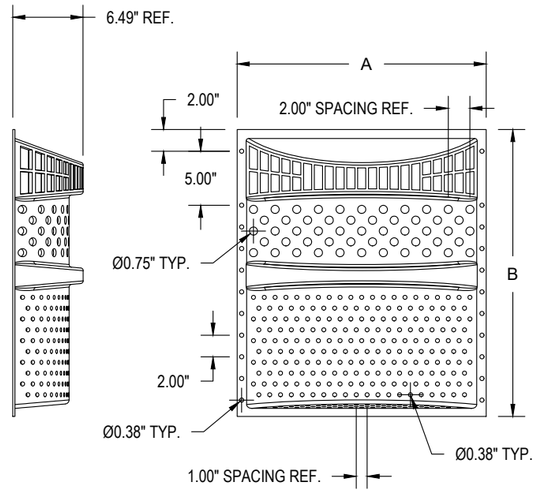
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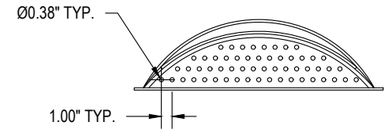
NOTES:

1. FOR COMPLETE MODULE DATA, SEE APPROPRIATE R-TANK^{HD} SHEET (MINI MODULE, SINGLE MODULE, DOUBLE MODULE, TRIPLE MODULE, QUAD MODULE, OR PENTA MODULE).
2. PRE-TREATMENT STRUCTURES NOT SHOWN.
3. FOR INFILTRATION APPLICATIONS, GEOTEXTILE ENVELOPING R-TANK SHALL BE ACF M200 (PER SPEC SECTION 2.02A) AND BASE SHALL BE 4" MIN. UNCOMPACTED FREE DRAINING BACKFILL (SPEC SECTION 2.03A) TO PROVIDE A LEVEL BASE. SURFACE MUST BE SMOOTH, FREE OF LUMPS OR DEBRIS, AND EXTEND 2' BEYOND R-TANK^{HD} FOOTPRINT.



R-TANK^{HD} GREEN SPACE - SECTION VIEW





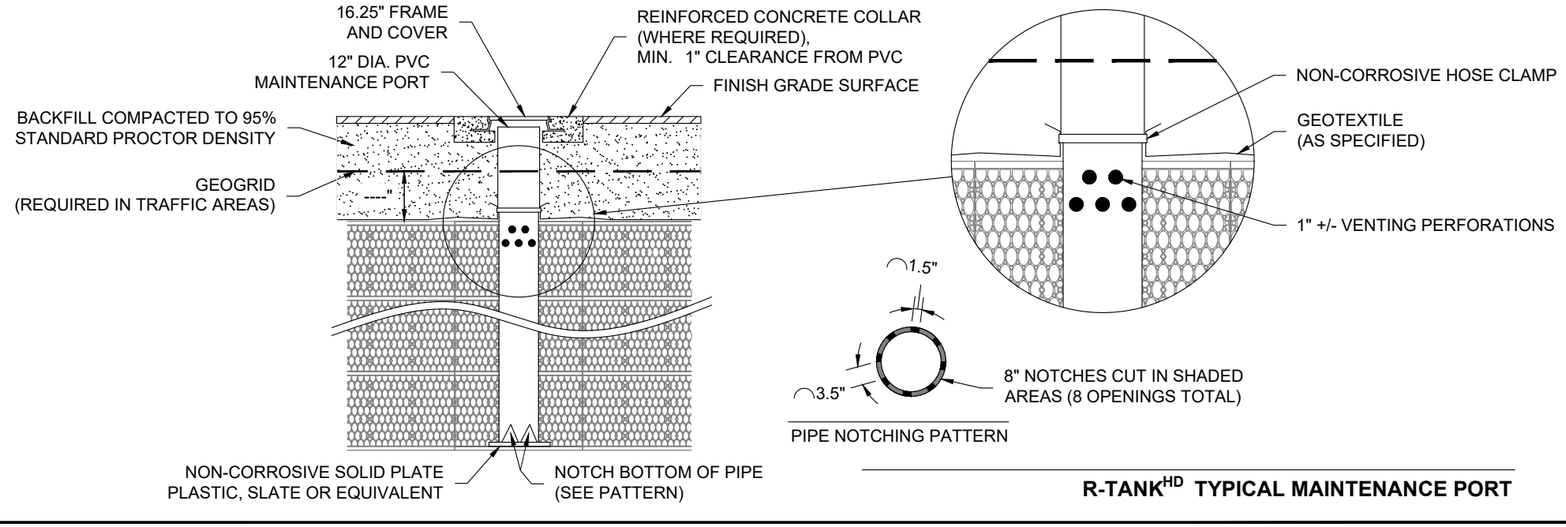
SIZE	A	B
23" x 24"	23"	26.51"
28" x 30"	28"	33.15"
34" x 36"	34"	38.69"

±0.25" TOLERANCE ON DIMENSIONS

TRASHGUARD PLUS PRETREATMENT DETAIL

NOTES

1. THIS PORT IS USED TO PUMP WATER INTO THE SYSTEM AND RE-SUSPEND ACCUMULATED SEDIMENT SO THAT IT MAY BE PUMPED OUT.
2. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH AS NEEDED.
3. ONLY R-TANK^{HD} AND R-TANK^{SD} MAY BE USED IN TRAFFIC APPLICATIONS.
4. SEE TRAFFIC LOADING DETAIL FOR MINIMUM & MAXIMUM COVER REQUIREMENTS.



PIPE NOTCHING PATTERN

R-TANK^{HD} TYPICAL MAINTENANCE PORT

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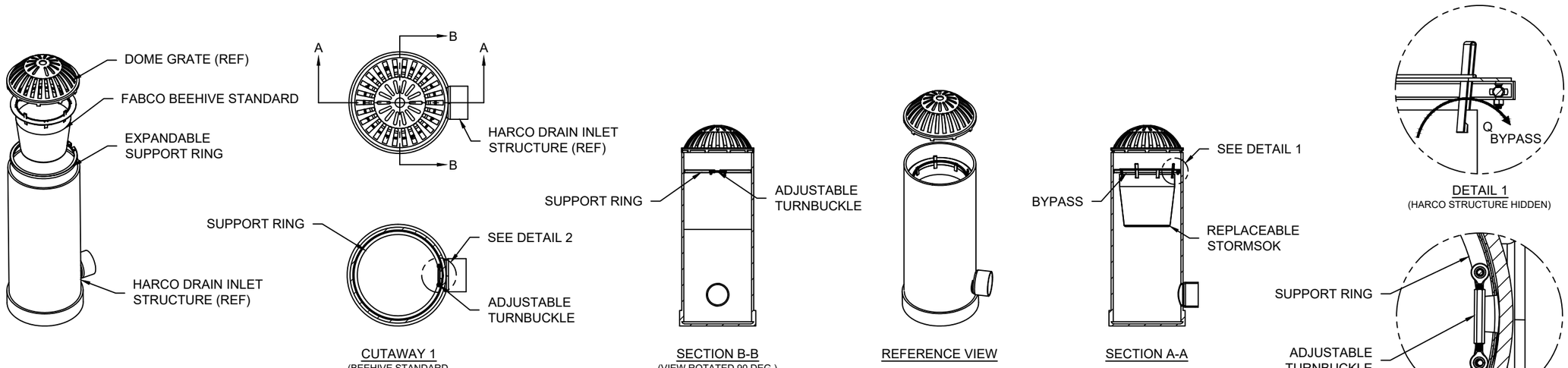
NOTES:

1. MATERIAL:
   - A) SUPPORT FLANGE: ALUMINUM ALLOY PLATE, 5000 SERIES
   - B) STORMSOK: WOVEN POLYPROPYLENE GEOTEXTILE
   - C) EXPANSION RING: ALUMINUM ALLOY CHANNEL, 6000 SERIES
   - D) HARDWARE: STAINLESS STEEL
2. RECOMMENDED MINIMUM VAULT DEPTH: 2-IN BELOW STORMSOK
3. USE ONLY WITH FABCO REPLACEABLE STORMSOK

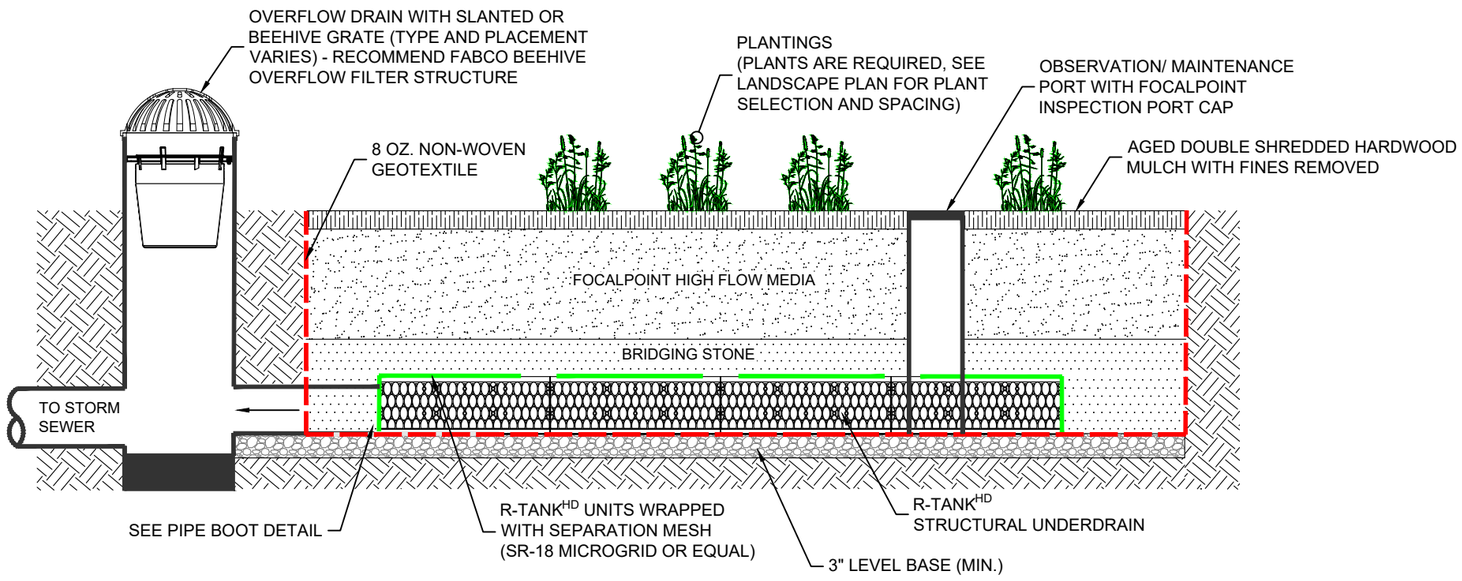
GENERAL INSTALLATION:

ADJUST THE TURNBUCKLE DOWN TO GIVE THE SMALLEST RING DIAMETER AND LOCATE THE EXPANSION RING INTO THE HARCO STRUCTURE MINIMUM OF 6-IN DOWN FROM THE TOP OPENING AS SHOWN. BEGIN OPENING THE TURNBUCKLE UNTIL THE EXPANSION RING IS SELF SUPPORTING, THEN VERIFY THE RING IS LEVEL AND PLUMB TO THE HARCO STRUCTURE. USING A CALIBRATED TORQUE WRENCH, CONTINUE TO OPEN THE TURNBUCKLE TO GIVEN TORQUE (MODEL-SPECIFIC). DO NOT OVER TIGHTEN. INSTALL THE STORMSACK ASSEMBLY DIRECTLY ON THE SUPPORT RING.

STRUCTURE DIA. (IN.)	DEBRIS CAPACITY (CU. FT.)	FILTERED FLOWRATE (CFS)	BYPASS FLOWRATE (CFS)
12	0.66	1.70	1.00
15	1.00	2.10	1.30
18	1.20	2.30	1.40
24	2.80	3.90	2.20
30	2.80	3.90	2.22



FABCO BEEHIVE STANDARD OVERFLOW FILTER STRUCTURE



TYPICAL FOCALPOINT SECTION WITH OVERFLOW STRUCTURE

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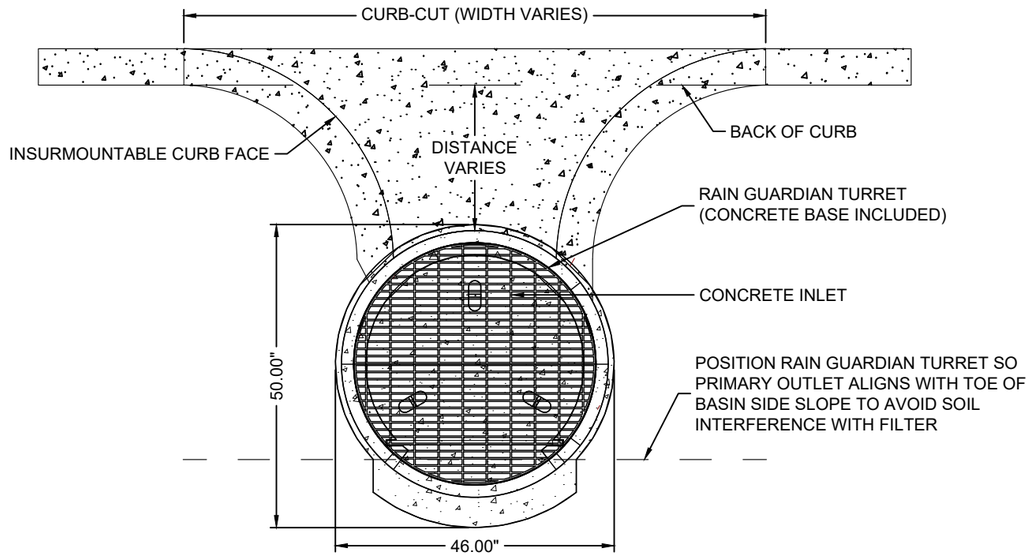
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FOCALPOINT OVERFLOW STRUCTURE DETAILS
WASHINGTON STREET
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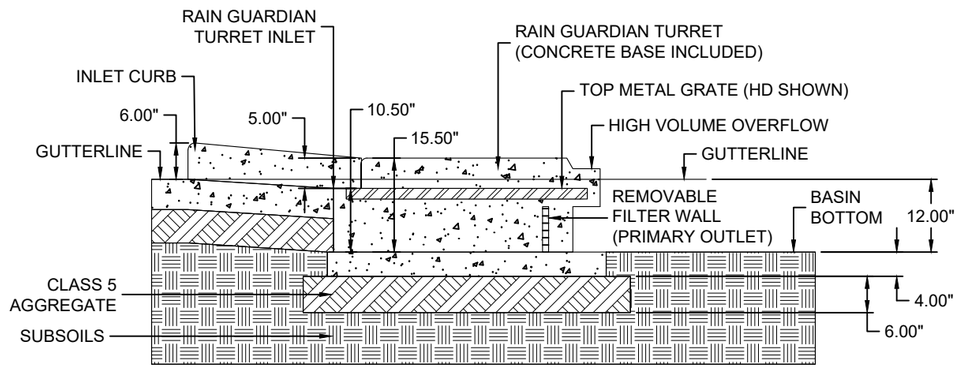
DATE: 05/02/22

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RAIN GUARDIAN TURRET - PLAN VIEW

U.S. PATENT 8,501,016



RAIN GUARDIAN TURRET - CROSS-SECTION

SPECIFICATIONS:

1. STEEL REINFORCED, COLD JOINT SECURED MONOLITHIC CONCRETE STRUCTURE (1,030 LBS).
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. CONCRETE AIR ENTRAINED (4 PERCENT TO 8 PERCENT BY VOLUME).
3. MANUFACTURED AND DESIGNED TO ASTM C858.
4. THREE-POINT PICK USING RECESSED LIFTING POCKETS WITH A STANDARD HOOK.
5. SOIL UNDER BASE TO BE COMPACTED TO 95 PERCENT STANDARD PROCTOR.
6. TWO-PIECE LIGHT-DUTY GALVANIZED GRATE (34.5 LBS/PIECE) FOR 541 LB CONCENTRATED LOAD OR 309 LB/SQFT UNIFORM LOAD.
7. TWO-PIECE HEAVY-DUTY GALVANIZED GRATE (77.5 LBS/PIECE) FOR 2,456 LB CONCENTRATED LOAD OR 1,404 LB/SQFT UNIFORM LOAD.
8. USE EXPANSION JOINT MATERIAL BETWEEN TURRET AND BIORETENTION INLET.

FocalPoint BIOFILTRATION SYSTEMS

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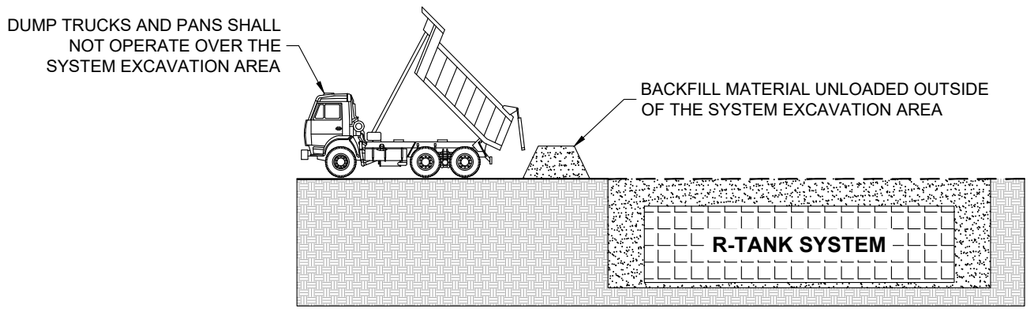
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WASHINGTON STREET
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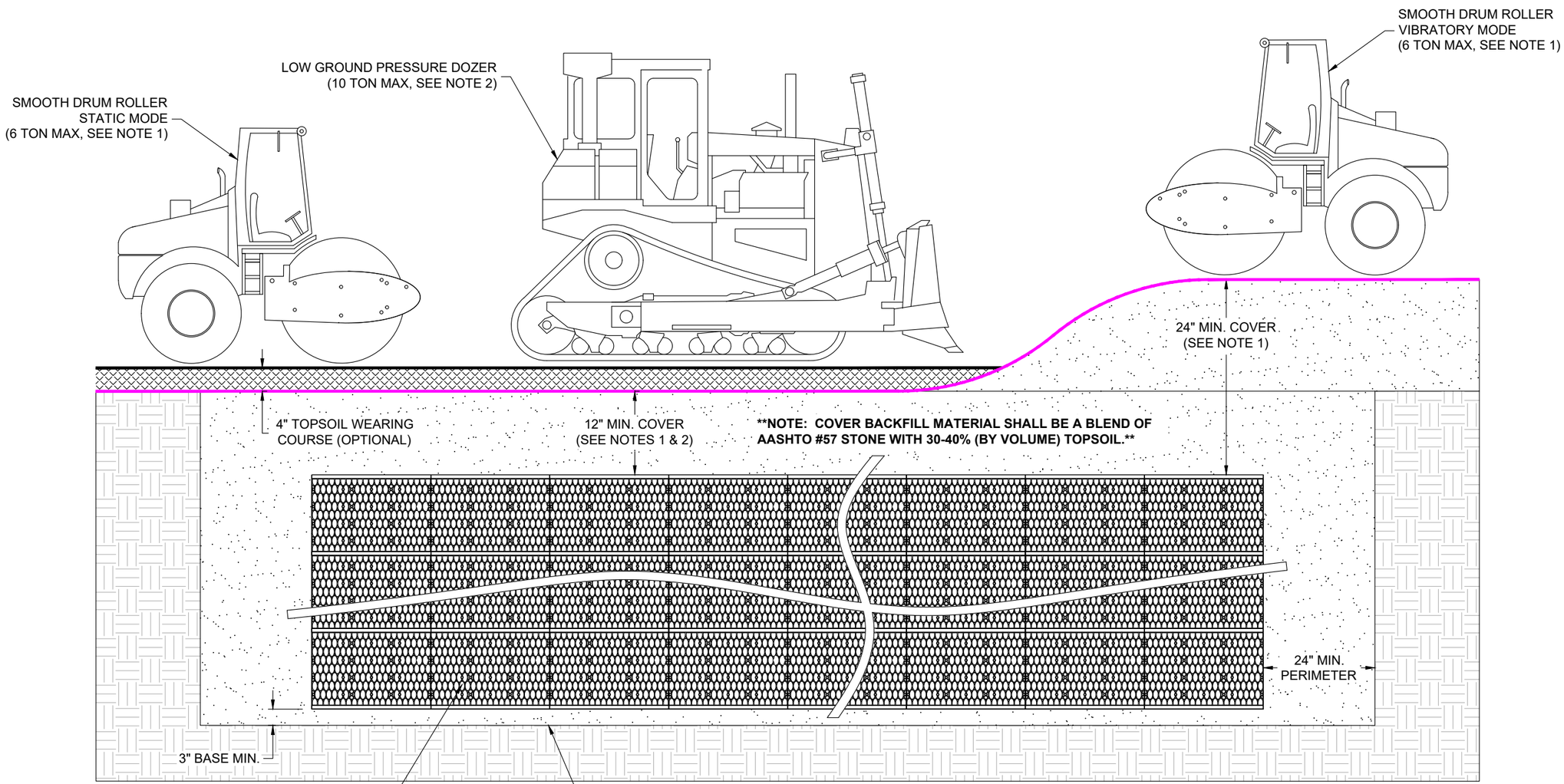
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DUMP TRUCK DETAIL (SEE NOTE 3)

NOTES:

1. FOLLOWING PLACEMENT OF SIDE BACKFILL, A UNIFORM 12" LIFT OF THE FREELY DRAINING MATERIAL (SPEC SECTION 2.03 B) SHALL BE PLACED OVER THE R-TANK AND LIGHTLY COMPACTED USING A WALK-BEHIND TRENCH ROLLER. ALTERNATELY, A ROLLER (MAXIMUM GROSS VEHICLE WEIGHT OF 6 TONS) MAY BE USED. ROLLER MUST REMAIN IN STATIC MODE UNTIL A MINIMUM OF 24" OF COVER HAS BEEN PLACED OVER THE MODULES. SHEEP FOOT ROLLERS SHOULD NOT BE USED. **SPEC SECTION 3.05 A**
2. ONLY LOW PRESSURE TIRE OR TRACK VEHICLES (LESS THAN 7 PSI AND OPERATING WEIGHT OF LESS THAN 20,000 LBS) SHALL BE OPERATED OVER THE R-TANK SYSTEM DURING CONSTRUCTION. **SPEC SECTION 3.05 B**
3. DUMP TRUCKS AND PANS SHALL NOT BE OPERATED WITHIN THE R-TANK SYSTEM AT ANY TIME. WHERE NECESSARY, THE HEAVY EQUIPMENT SHOULD UNLOAD IN AN AREA ADJACENT TO THE R-TANK SYSTEM AND THE MATERIAL SHOULD BE MOVED OVER THE SYSTEM WITH TRACKED EQUIPMENT. **SPEC SECTION 3.05 B**
4. ENSURE THAT ALL UNRELATED CONSTRUCTION TRAFFIC IS KEPT AWAY FROM THE LIMITS OF EXCAVATION UNTIL THE PROJECT IS COMPLETE AND FINAL SURFACE MATERIALS ARE IN PLACE. NO NON-INSTALLATION RELATED LOADING SHOULD BE ALLOWED OVER THE R-TANK SYSTEM UNTIL THE FINAL DESIGN SECTION HAS BEEN CONSTRUCTED (INCLUDING PAVEMENT). **SPEC SECTION 3.05 C**
5. SEE R-TANK INSTALLATION GUIDE OR CONTACT YOUR LOCAL ACF REPRESENTATIVE FOR ADDITIONAL INFORMATION.



CONSTRUCTION EQUIPMENT COVER DETAIL - GREEN SPACE
(FOR AREAS OUTSIDE OF FOCALPOINT FOOTPRINT)

FocalPoint BIOFILTRATION SYSTEMS

ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

FERGUSON WATERWORKS

FOR ADDITIONAL INFORMATION PLEASE CONTACT:
FERGUSON WATERWORKS,
1-800-448-3636, www.ferguson.com

R-TANK CONSTRUCTION EQUIPMENT COVER DETAIL
WASHINGTON STREET
AUBURN, ME
SITE DESIGNATION: FP-1

DRAWN BY
LTJ

DATE
05/02/22

SHEET NO.
7 of 9

FOCALPOINT SPECIFICATION

I. SUMMARY

THE FOLLOWING GENERAL SPECIFICATIONS DESCRIBE THE COMPONENTS AND INSTALLATION REQUIREMENTS FOR A VOLUME BASED HIGH PERFORMANCE MODULAR BIOFILTRATION SYSTEM (HPMBS) THAT UTILIZES PHYSICAL, CHEMICAL AND BIOLOGICAL MECHANISMS OF A SOIL, PLANT AND MICROBE COMPLEX TO REMOVE POLLUTANTS TYPICALLY FOUND IN URBAN STORM WATER RUNOFF. THE MODULAR TREATMENT SYSTEM IN WHICH THE BIOLOGICALLY ACTIVE BIOFILTRATION MEDIA IS USED SHALL BE A COMPLETE, INTEGRATED SYSTEM DESIGNED TO BE PLACED IN SQUARE FOOT OR LINEAR FOOT INCREMENTS PER THE APPROVED DRAWINGS TO TREAT CONTAMINATED RUNOFF FROM IMPERVIOUS SURFACES.

THE HIGH PERFORMANCE MODULAR BIOFILTRATION SYSTEM (HPMBS) IS COMPRISED OF THE FOLLOWING COMPONENTS:

A. PLANT COMPONENT
1. MANUFACTURER SHALL PROVIDE A REGIONALIZED LIST OF ACCEPTABLE PLANTS.
2. PLANTS, AS SPECIFIED IN THE APPROVED DRAWINGS/MANUFACTURER'S PLANT LIST, SHALL BE INSTALLED AT THE TIME THE HPMBS IS COMMISSIONED FOR USE.
3. PLANTS AND PLANTING ARE TYPICALLY INCLUDED IN LANDSCAPE CONTRACT.

B. BIOFILTER COMPONENT
1. THIS COMPONENT EMPLOYS A HIGH PERFORMANCE CROSS-SECTION IN WHICH EACH ELEMENT IS HIGHLY DEPENDENT ON THE OTHERS TO MEET THE PERFORMANCE SPECIFICATION FOR THE COMPLETE SYSTEM. IT IS IMPORTANT THAT THIS ENTIRE CROSS-SECTION BE PROVIDED AS A COMPLETE SYSTEM AND INSTALLED AS SUCH.
2. AS INDICATED IN THE APPROVED DRAWINGS, THE ELEMENTS OF THE BIOFILTER INCLUDE:

A. A MULCH PROTECTIVE LAYER (IF SPECIFIED).

B. AN ADVANCED HIGH INFILTRATION RATE BIOFILTRATION PLANTING MEDIA BED WHICH UTILIZES PHYSICAL, CHEMICAL AND BIOLOGICAL MECHANISMS OF THE SOIL, PLANT, AND MICROBE COMPLEX, TO REMOVE POLLUTANTS FOUND IN STORM WATER RUNOFF.

C. A SEPARATION LAYER WHICH UTILIZES THE CONCEPT OF 'BRIDGING' TO SEPARATE THE BIOFILTRATION MEDIA FROM THE UNDERDRAIN WITHOUT THE USE OF GEOTEXTILE FABRICS.

D. A WIDE APERTURE MESH LAYER UTILIZED TO PREVENT BRIDGING STONE FROM ENTERING THE UNDERDRAIN/STORAGE ELEMENT.

E. A MODULAR, HIGH INFILTRATION RATE 'FLAT PIPE' STYLE UNDERDRAIN/STORAGE SYSTEM WHICH IS DESIGNED TO DIRECTLY INFILTRATE OR EXFILTRATE WATER THROUGH ITS SURFACE. THE MODULAR UNDERDRAIN MUST PROVIDE A MINIMUM OF 95% VOID SPACE.

C. ENERGY DISSIPATION COMPONENT
1. AN ENERGY DISSIPATION COMPONENT IS TYPICALLY SPECIFIED TO SLOW AND SPREAD OUT WATER AS IT ENTERS THE SYSTEM. THIS COMPONENT IS DEPENDENT UPON THE DESIGN IN THE APPROVED DRAWINGS, BUT TYPICALLY CONSISTS OF A ROCK GABION, ROCK FILTER DAM OR DENSE VEGETATION ELEMENT, SUCH AS NATIVE GRASSES, EITHER SURROUNDING THE BIOFILTRATION COMPONENT OR LOCATED IMMEDIATELY UPSTREAM OF IT.

D. PRETREATMENT COMPONENT
1. PRETREATMENT, WHEN SPECIFIED, IS TYPICALLY ACCOMPLISHED BY LOCATING THE BIOFILTRATION COMPONENT DOWNSTREAM OF A SWALE, CURB CUT/ROCK APRON, SEDIMENT FOREBAY, DEEP OR SHALLOW SUMP WATER QUALITY MANHOLE, ETC. THESE BMPS SHOULD TARGET TRASH AND DEBRIS AND MEDIUM TO COARSE SEDIMENT.

E. OBSERVATION AND MAINTENANCE COMPONENT
1. AN OBSERVATION AND MAINTENANCE PORT SHALL BE INSTALLED PER THE APPROVED DRAWINGS TO PROVIDE FOR EASY INSPECTION OF THE UNDERDRAIN/STORAGE ELEMENT, AND CLEANOUT ACCESS IF NEEDED.

F. EXTREME EVENT OVERFLOW (BY OTHERS)
1. AN EXTREME EVENT OVERFLOW SHOULD BE LOCATED EXTERNAL TO, BUT NEAR THE BIOFILTRATION ELEMENT TO PROVIDE BYPASS WHEN NEEDED. THIS MAY BE AN OVERLAND FLOW BYPASS STRUCTURE, BEEHIVE OVERFLOW GRATE STRUCTURE, OR EQUIVALENT THAT SERVES THE PURPOSE. IF BEEHIVE OVERFLOW STRUCTURES IS UTILIZED IT SHOULD INCLUDE A REMOVABLE FILTER INSERT TO PROVIDE A MINIMUM OF 50% TSS REMOVAL AND CONTROL OF GROSS POLLUTANTS, TRASH AND FLOATABLES.

II. QUALITY ASSURANCE AND PERFORMANCE SPECIFICATIONS

THE QUALITY AND COMPOSITION OF ALL SYSTEM COMPONENTS AND ALL OTHER APPURTENANCES AND THEIR ASSEMBLY PROCESS SHALL BE SUBJECT TO INSPECTION UPON DELIVERY OF THE SYSTEM TO THE WORK SITE.

INSTALLATION IS TO BE PERFORMED ONLY BY SKILLED WORK PEOPLE WITH SATISFACTORY RECORD OF PERFORMANCE ON EARTHWORKS, PIPE, CHAMBER, OR POND/LANDFILL CONSTRUCTION PROJECTS OF COMPARABLE SIZE AND QUALITY.

A. PLANTS
1. PLANTS MUST BE COMPATIBLE WITH THE HPMBS MEDIA AND THE ASSOCIATED HIGHLY VARIABLE HYDROLOGIC REGIME. PLANTS ARE TYPICALLY FACULTATIVE WITH FIBROUS ROOTS SYSTEMS SUCH A NATIVE GRASSES AND SHRUBS.
2. MANUFACTURER SHALL PROVIDE A REGIONALIZED LIST OF ACCEPTABLE PLANTS.
3. ALL PLANT MATERIAL SHALL COMPLY WITH THE TYPE AND SIZE REQUIRED BY THE APPROVED DRAWINGS AND SHALL BE ALIVE AND FREE OF OBVIOUS SIGNS OF DISEASE.

B. MULCH
1. MULCH, TYPICALLY DOUBLE SHREDDED HARDWOOD (NON-FLOATABLE), SHALL COMPLY WITH THE TYPE AND SIZE REQUIRED BY THE APPROVED DRAWINGS, AND SHALL BE SCREENED TO MINIMIZE FINES. ROCK MULCH IS AN ALTERNATIVE TO WOOD BASED MULCH AND TYPICALLY CONSISTS OF CLEAN, ROUNDED RIVER ROCK (3-4" DIAM IN SIZE).

C. BIOFILTRATION MEDIA
1. BIOLOGICALLY ACTIVE BIOFILTRATION MEDIA SHALL BE VISUALLY INSPECTED TO ENSURE APPROPRIATE VOLUME, TEXTURE AND CONSISTENCY WITH THE APPROVED DRAWINGS, AND MUST BEAR A BATCH NUMBER MARKING FROM THE MANUFACTURER WHICH CERTIFIES PERFORMANCE TESTING OF THE BATCH TO MEET OR EXCEED THE REQUIRED INFILTRATION RATE (100 IN/HR). A THIRD-PARTY LABORATORY TEST MUST BE PROVIDED TO CERTIFY THE 100 IN/HR RATE.
2. AT NO ADDITIONAL COST AND WITHIN THE FIRST YEAR FOLLOWING INSTALLATION, AUTHORIZED VALUE-ADDED RESELLER SHALL PROVIDE ONE SITE VISIT/MAINTENANCE TRAINING AT THE REQUEST OF OWNER OR OWNERS REPRESENTATIVE. THE OWNER OR OWNERS' REP WILL BE SUPPLIED WITH THE FIRST ROUND OF REPLACEMENT MULCH BY THE RESELLER AT NO COST, SO LONG AS IT OCCURS IN THE FIRST YEAR FOLLOWING INSTALLATION.
3. POLLUTANT REMOVAL PERFORMANCE, COMPOSITION AND CHARACTERISTICS OF THE BIOFILTRATION MEDIA MUST MEET OR EXCEED THE FOLLOWING MINIMUM STANDARDS AS DEMONSTRATED BY TESTING ACCEPTABLE TO THE PROJECT ENGINEER:

Pollutant	Removal Efficiency
TSS	91%
Phosphorus	66%
Nitrogen	48%
Composition and Characteristics	
Sand - Fine	< 5%
Sand – Medium	10% - 15%
Sand – Coarse	15% - 25%
Sand – Very Coarse	40% - 45%
Gravel	10% - 20%
Infiltration Rate	>100 inches per hour
Peat Moss*	5% - 15%
* Peat Moss Specification	
Listed by Organic Materials Review Institute	
100% natural peat (no composted, sludge, yard or leaf waste)	
Total Carbon >85%	
Carbon to Nitrogen Ratio 15:1 to 23:1	
Lignin Content 49% to 52%	
Humic Acid >18%	
pH 6.0 to 7.0	
Moisture Content 30% to 50%	
95% to 100% passing 2.0mm sieve	
> 80% passing 1.0mm sieve	

D. UNDERDRAIN/STORAGE SYSTEM
1. UNDERDRAIN/STORAGE COMPONENTS SHALL BE MANUFACTURED IN AN ISO CERTIFIED FACILITY AND BE MANUFACTURED FROM AT LEAST 90% RECYCLED MATERIALS.
2. UNDERDRAIN/STORAGE COMPONENTS SHALL MEET OR EXCEED THE FOLLOWING CHARACTERISTICS:

Property	Value
Surface Void Area	≥ 85%
Unit Weight	3.25 lbs/cf
Service Temperature	-14° to 167°
Unconfined Crush Strength	32.48 psi
180 Day Creep Test	
Load Applied – Initial and Sustained	11.16 psi
* Creep Sustained – After 180 Days	0.20 inches
* Creep Sustained – After 180 Days	1.13%
* Projected Creep – 40 years	1.72%

E. SEPARATION MESH

1. SEPARATION MESH SHALL BE COMPOSED OF HIGH-TENACITY MONOFILAMENT POLYPROPYLENE YARNS THAT ARE WOVEN TOGETHER TO PRODUCE AN OPEN MESH GEOTEXTILE WHICH SHALL BE INERT TO BIOLOGICAL DEGRADATION AND RESISTANT TO NATURALLY ENCOUNTERED CHEMICALS, ALKALIS AND ACIDS. THE MESH SHALL MEET OR EXCEED THE FOLLOWING CHARACTERISTICS:

Properties	Test Method	Unit	Min Avg Roll Value	
			MD	CD
Tensile Strength	ASTM D4595	kN/m (lbs/ft)	21 (1440)	25.3 (1733)
Creep Reduced Strength	ASTM D5262	kN/m (lbs/ft)	6.9 (471)	8.3 (566)
Long Term Allowable Design Load	GRI GG-4	kN/m (lbs/ft)	5.9 (407)	7.2 (490)
UV Resistance (at 500 hours)	-	% strength retained	90.00	
Aperture Size (machine direction)	-	mm (in)	2 (0.08)	
Aperture Size (cross machine direction)	-	mm (in)	2 (0.08)	
Mass/Unit Area	ASTM D5261	g/m2 (oz/yd2)	197 (5.8)	

F. BRIDGING STONE
1. BRIDGING STONE SHALL BE 3/8" PEA GRAVEL, OR OTHER DIAMETER SIZED TO PREVENT MIGRATION OF FILTER MEDIA, AS SPECIFIED BY MANUFACTURER.
2. STONE MUST BE WASHED AND FREE FROM SEDIMENT, SOIL AND CONTAMINANTS.

III. DELIVERY, STORAGE AND HANDLING

A. PROTECT ALL MATERIALS FROM DAMAGE DURING DELIVERY AND STORE UV SENSITIVE MATERIALS UNDER TARP TO PROTECT FROM SUNLIGHT INCLUDING ALL PLASTICS, WHEN TIME FROM DELIVERY TO INSTALLATION EXCEEDS ONE WEEK. STORAGE SHOULD OCCUR ON SMOOTH SURFACES, FREE FROM DIRT, MUD AND DEBRIS.

B. BIOFILTRATION MEDIA SHALL BE SEGREGATED FROM ANY OTHER AGGREGATE MATERIALS AND SHALL BE PROTECTED AGAINST CONTAMINATION, INCLUDING CONTAMINATION FROM ANY STORMWATER RUNOFF FROM AREAS OF THE SITE WHICH ARE NOT STABILIZED.

IV. SUBMITTALS

A. PRODUCT DATA
1. SUBMIT MANUFACTURER'S PRODUCT DATA AND APPROVED INSTALLATION MANUAL AS WELL AS MANUFACTURER'S OPERATIONS AND MAINTENANCE MANUAL FOR THE SYSTEM. IT WILL BE THE RESPONSIBILITY OF THE SYSTEM OWNER/OPERATOR OR THEIR CONTRACTOR TO ENSURE THE SYSTEM IS OPERATED AND MAINTAINED IN ACCORDANCE WITH THE MANUAL.

B. CERTIFICATION
1. MANUFACTURER SHALL SUBMIT A LETTER OF CERTIFICATION THAT THE COMPLETE SYSTEM MEETS OR EXCEEDS ALL TECHNICAL AND PACKAGING REQUIREMENTS. BIOFILTRATION MEDIA PACKAGING MUST BEAR A BATCH NUMBER MARKING FROM THE MANUFACTURER WHICH MATCHES A LETTER FROM THE MANUFACTURER CERTIFYING PERFORMANCE TESTING OF THE BATCH TO MEET OR EXCEED THE REQUIRED INFILTRATION RATE.

C. DRAWINGS
1. MANUFACTURER SHALL PROVIDE DIMENSIONAL DRAWINGS INCLUDING DETAILS FOR CONSTRUCTION, MATERIALS, SPECIFICATIONS, AND PIPE CONNECTIONS. THESE DIMENSIONAL DRAWINGS SHALL INDICATE THE HPMBS FILTER BED AREA (SQ. FT) AND CORRESPOND WITH AN APPROVED SET PLANS OR DRAINAGE/STORMWATER MANAGEMENT REPORT STAMPED BY THE ENGINEER OF RECORD.

D. MANUFACTURER'S WARRANTY
1. MANUFACTURER SHALL PROVIDE A WARRANTY FOR ALL COMPONENTS OF THE HPMBS FOR A PERIOD OF ONE YEAR PROVIDED THE UNIT IS INSTALLED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE MANUAL. IMPROPER OPERATION, MAINTENANCE OR ACCIDENTAL OR ILLEGAL ACTIVITIES (I.E. DUMPING OF POLLUTANTS, VANDALISM, ETC.) WILL VOID THE WARRANTY.

E. SUBSTITUTIONS
1. ANY PROPOSED EQUAL ALTERNATIVE PRODUCT SUBSTITUTION TO THIS SPECIFICATION MUST BE SUBMITTED FOR REVIEW AND APPROVED PRIOR TO BID OPENING. REVIEW PACKAGE SHOULD INCLUDE THIRD PARTY REVIEWED PERFORMANCE DATA FOR BOTH FLOW RATE AND POLLUTANT REMOVAL OF BIOFILTRATION MEDIA. POLLUTANT REMOVAL DATA MUST FOLLOW SPECIFIED PROTOCOLS. ALL COMPONENTS MUST MEET OR EXCEED QUALITY ASSURANCE AND PERFORMANCE CRITERIA INDICATED HEREIN.

V. PROJECT CONDITIONS

A. REVIEW MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES AND COORDINATE INSTALLATION WITH OTHER WORK AFFECTED, SUCH AS GRADING, EXCAVATION, UTILITIES, CONSTRUCTION ACCESS AND EROSION CONTROL TO PREVENT ALL NON-INSTALLATION RELATED CONSTRUCTION TRAFFIC OVER THE COMPLETED HPMBS.

B. COLD WEATHER
1. DO NOT USE FROZEN MATERIALS OR MATERIALS MIXED OR COATED WITH ICE OR FROST.
2. DO NOT BUILD ON FROZEN GROUND OR WET, SATURATED OR MUDDY SUBGRADE.
3. CARE MUST BE TAKEN WHEN HANDLING PLASTICS WHEN AIR TEMPERATURE IS AT 40 DEGREES OR BELOW AS PLASTIC BECOMES BRITTLE.

C. PROTECT PARTIALLY COMPLETED INSTALLATION AGAINST DAMAGE FROM OTHER CONSTRUCTION TRAFFIC WHEN WORK IS IN PROGRESS AND FOLLOWING COMPLETION OF BACKFILL BY ESTABLISHING A PERIMETER WITH HIGHLY VISIBLE CONSTRUCTION TAPE, FENCING, OR OTHER MEANS UNTIL CONSTRUCTION IS COMPLETE.

D. SOIL STABILIZATION OF THE SURROUNDING SITE MUST BE COMPLETE BEFORE THE BIOFILTRATION SYSTEM CAN BE BROUGHT ONLINE. SOIL STABILIZATION OCCURS WHEN 90% OF THE SITE HAS BEEN PAVED OR VEGETATED. TEMPORARY EROSION CONTROL AND/OR SEDIMENTATION PREVENTION MEASURES SHALL BE IMPLEMENTED TO REDUCE THE POSSIBILITY OF SEDIMENTS BEING TRANSPORTED INTO THE BIOFILTRATION SYSTEM PRIOR TO FULL STABILIZATION OF THE SITE. SIGNIFICANT SEDIMENT LOADS CAN DAMAGE THE HPBMS AND LEAD TO FAILURE IF NOT PREVENTED OR REMEDIATED PROMPTLY.

VI. PRODUCTS

A. ACCEPTABLE HPBMS
FOCALPOINT HIGH PERFORMANCE BIOFILTRATION SYSTEM

B. ACCEPTABLE BEEHIVE OVERFLOW GRATE STRUCTURE (OPTIONAL)
BEEHIVE OVERFLOW GRATE STRUCTURE WITH REMOVABLE STORMSACK

C. ACCEPTABLE MANUFACTURER
MANUFACTURER:
CONVERGENT WATER TECHNOLOGIES, INC.
(800) 711-5428
WWW.CONVERGENTWATER.COM

D. AUTHORIZED VALUE ADDED RESELLER
ACF ENVIRONMENTAL
(800) 448-3636
WWW.ACFENVIRONMENTAL.COM
OR
FERGUSON WATERWORKS
(800) 448-3636
WWW.FERGUSON.COM

VII. PACKAGING

A. HPMBS IS ASSEMBLED ON SITE.

B. MODULAR UNDERDRAIN/STORAGE UNIT IS SHIPPED FLAT AND MODULES ARE ASSEMBLED PRIOR TO INSTALLATION.

C. BIOFILTRATION MEDIA IS DELIVERED IN ONE TON SUPER SACKS EACH LABELED WITH MANUFACTURER'S BATCH NUMBER AND/OR IN BULK WITH ACCOMPANYING MANUFACTURER'S CERTIFICATION.

D. OTHER COMPONENTS ARE DELIVERED IN BULK OR SUPER SACKS

VIII. EXECUTION

A. EXCAVATION AND BACKFILL
1. BASE OF EXCAVATION SHALL BE SMOOTH, LEVEL AND FREE OF LUMPS OR DEBRIS, AND COMPACTED UNLESS INFILTRATION OF STORM WATER INTO SUBGRADE IS DESIRED. A THIN LAYER (3") OF COMPACTED BASE MATERIAL IS RECOMMENDED TO ESTABLISH A LEVEL WORKING PLATFORM (MAY NOT BE NEEDED IN SANDY SOILS). IF THE BASE OF THE EXCAVATION IS PUMPING OR APPEARS EXCESSIVELY SOFT, A GEOTECHNICAL ENGINEER SHOULD BE CONSULTED FOR ADVICE. IN MANY CASES, A STABILIZATION GEOTEXTILE AND 6" OF COMPACTABLE MATERIAL THAT DRAINS WELL WILL BE SUFFICIENT TO AMEND THE BEARING CAPACITY OF THE SOIL.
2. MOST APPLICATIONS REQUIRE 8 OZ NON-WOVEN GEOTEXTILE OR EQUIVALENT NONWOVEN GEOTEXTILE WITH A NOMINAL WEIGHT OF 8 OZ PER SQUARE YARD TO LINE THE EXCAVATION TO SEPARATE IN SITU SOILS AND THE HPMBS. (APPLICATIONS REQUIRING WATER TO INFILTRATE THE IN SITU SUB-SOILS SHOULD USE A BRIDGING STONE RATHER THAN GEOTEXTILE TO PROVIDE A SEPARATION LAYER BETWEEN THE HPMBS AND THE IN SITU SOILS). GEOTEXTILE, WHEN UTILIZED, SHOULD BE PLACED ON THE BOTTOM AND UP THE SIDES OF THE EXCAVATION. ABSOLUTELY NO GEOTEXTILES SHOULD BE USED IN THE WATER COLUMN. IF AN IMPERMEABLE LINER IS SPECIFIED, IT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
3. SPECIFIED BACKFILL MATERIAL MUST BE FREE FROM LUMPS, DEBRIS AND ANY SHARP OBJECTS THAT COULD PENETRATE THE GEOTEXTILE. MATERIAL IS USED FOR BACKFILL ALONG THE SIDES OF THE SYSTEM AS INDICATED IN ENGINEERING DETAIL DRAWINGS.

B. INSPECTION
1. EXAMINE PREPARED EXCAVATION FOR SMOOTHNESS, COMPACTION AND LEVEL. CHECK FOR PRESENCE OF HIGH WATER TABLE, WHICH MUST BE KEPT AT LEVELS BELOW THE BOTTOM OF THE UNDER DRAIN STRUCTURE AT ALL TIMES. IF THE BASE IS PUMPING OR APPEARS EXCESSIVELY SOFT, A GEOTECHNICAL ENGINEER SHOULD BE CONSULTED FOR ADVICE.
2. INSTALLATION COMMENCEMENT CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND RESPONSIBILITY FOR SATISFACTORY PERFORMANCE. IF EXISTING CONDITIONS ARE FOUND TO BE UNSATISFACTORY, CONTACT PROJECT MANAGER OR ENGINEER FOR RESOLUTION PRIOR TO

INSTALLATION.

IX. CLEANUP AND PROTECTION DURING ONGOING CONSTRUCTION ACTIVITY

A. PERFORM CLEANING DURING THE INSTALLATION AND UPON COMPLETION OF THE WORK.

B. REMOVE FROM SITE ALL EXCESS MATERIALS, DEBRIS, AND EQUIPMENT. REPAIR ANY DAMAGE TO ADJACENT MATERIALS AND SURFACES RESULTING FROM INSTALLATION.

C. IF SURROUNDING DRAINAGE AREA IS NOT FULLY STABILIZED, A PROTECTIVE COVERING OF GEOTEXTILE FABRIC SHOULD BE SECURELY PLACED TO PROTECT THE BIOFILTRATION MEDIA.

D. CONSTRUCTION PHASE EROSION AND SEDIMENTATION CONTROLS SHALL BE PLACED TO PROTECT THE INLET(S) TO THE BIOFILTRATION SYSTEM. EXCESSIVE SEDIMENTATION, PARTICULARLY PRIOR TO ESTABLISHMENT OF PLANTS MAY DAMAGE THE HPMBS.

E. STRICTLY FOLLOW MANUFACTURER'S GUIDELINES WITH RESPECT TO PROTECTION OF THE HPMBS BETWEEN INSTALLATION AND COMMISSIONING PHASES.

X. COMMISSIONING

A. COMMISSIONING SHOULD ONLY BE CARRIED OUT ONCE THE CONTRIBUTING DRAINAGE AREA IS FULLY STABILIZED. IF COMMISSIONING MUST BE CARRIED OUT SOONER, IT IS IMPERATIVE THAT APPROPRIATE EROSION AND SEDIMENT CONTROLS BE PLACED TO PREVENT THE ENTRY OF EXCESSIVE SEDIMENT/POLLUTANT LOADS INTO THE SYSTEM.

B. COMMISSIONING ENTAILS REMOVING THE PROTECTIVE COVERING FROM THE BIOFILTRATION MEDIA, PLANTING THE PLANT MATERIAL IN ACCORDANCE WITH THE APPROVED DRAWINGS, AND PLACING MULCH IF SPECIFIED.

1. DIG PLANTING HOLES THE DEPTH OF THE ROOT BALL AND TWO TO THREE TIMES AS WIDE AS THE ROOT BALL. WIDE HOLES ENCOURAGE HORIZONTAL ROOT GROWTH THAT PLANTS NATURALLY PRODUCE.

2. WITH TREES, YOU MUST ENSURE YOU ARE NOT PLANTING TOO DEEP. DON'T DIG HOLES DEEPER THAN ROOT BALLS. THE MEDIA SHOULD BE PLACED AT THE ROOT COLLAR, NOT ABOVE THE ROOT COLLAR. OTHERWISE THE STEM WILL BE VULNERABLE TO DISEASE.

3. STRICTLY FOLLOW MANUFACTURER'S PLANTING GUIDANCE.

C. COVER THE EXPOSED ROOT BALL TOP WITH MULCH. MULCH SHOULD NOT TOUCH THE PLANT BASE BECAUSE IT CAN HOLD TOO MUCH MOISTURE AND INVITE DISEASE AND INSECTS. EVENLY PLACE 3 INCHES OF DOUBLE-SHREDDED HARDWOOD MULCH (IF SPECIFIED) ON THE SURFACE OF THE MEDIA.

D. PLANTINGS SHALL BE WATERED-IN AT INSTALLATION AND TEMPORARY IRRIGATIONS SHALL BE PROVIDED, IF SPECIFIED.

XI. USING THE HPMBS

A. MAINTENANCE REQUIREMENTS
1. ANNUAL MAINTENANCE GENERALLY CONSISTS OF TWO (2) SCHEDULED VISITS UNLESS OTHERWISE SPECIFIED.
2. EACH MAINTENANCE VISIT CONSISTS OF THE FOLLOWING:

1. COMPLETE SYSTEM INSPECTION
2. REMOVAL OF FOREIGN DEBRIS, SILT, PLANT MATERIAL, TRASH AND MULCH (IF NEEDED)
3. EVALUATION OF BIOFILTRATION MEDIA
4. EVALUATION OF PLANT HEALTH
5. INSPECTION OF UNDERDRAIN/STORAGE SYSTEM VIA OBSERVATION/MAINTENANCE PORT
6. PROPERLY DISPOSE OF ALL MAINTENANCE REFUSE ITEMS (TRASH, MULCH, ETC.)
7. TAKE PHOTOGRAPHS DOCUMENTING PLANT GROWTH AND GENERAL SYSTEM HEALTH
8. UPDATE AND STORE MAINTENANCE RECORDS
9. TO ENSURE LONG TERM PERFORMANCE OF THE HPMBS, CONTINUING ANNUAL MAINTENANCE SHOULD BE PERFORMED PER THE MANUFACTURER'S OPERATIONS AND MAINTENANCE MANUAL.

3. IF SEDIMENT ACCUMULATES BEYOND AN ACCEPTABLE LEVEL IN THE UNDERDRAIN/STORAGE SYSTEM, IT WILL BE NECESSARY TO FLUSH THE UNDERDRAIN. THIS CAN BE DONE BY PUMPING WATER INTO THE OBSERVATION/MAINTENANCE PORT OR ADJACENT OVERFLOW STRUCTURE, ALLOWING THE TURBULENT FLOWS THROUGH THE UNDERDRAIN TO RE-SUSPEND THE FINE SEDIMENTS. IF MULTIPLE OBSERVATION/MAINTENANCE PORTS HAVE BEEN INSTALLED, WATER SHOULD BE PUMPED INTO EACH PORT TO MAXIMIZE FLUSHING EFFICIENCY.

SEDIMENT-LADEN WATER CAN BE PUMPED OUT AND EITHER CAPTURED FOR DISPOSAL OR FILTERED THROUGH A DIRTBAG FILTER BAG, IF PERMITTED BY THE LOCALITY.

XII. MEASUREMENT AND PAYMENT

GIVEN THE INTEGRATED NATURE OF THE HPMBS, MEASUREMENT AND PAYMENT WILL BE BASED NOT ON THE INDIVIDUAL COMPONENT PRICES, BUT ON THE SIZE OF THE BIOFILTRATION MEDIA BED. THE EXTERNAL DIMENSION AS INDICATED IN THE APPROVED PLANS AND EXECUTED IN THE INSTALLATION WILL BE MEASURED IN SQUARE FEET AND PAYMENT WILL BE MADE PER HPMBS SYSTEM.

MEASUREMENT AND PAYMENT OF BEEHIVE OVERFLOW GRATE STRUCTURE WITH REMOVABLE FILTER INSERT WILL BE BASED ON PER UNIT PRICE.

FocalPoint BIOFILTRATION SYSTEMS

ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

FERGUSON WATERWORKS

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FOCALPOINT SPECIFICATION
WASHINGTON STREET
AUBURN, ME
SITE DESIGNATION: FP-1

DRAWN BY
LTJ

DATE
05/02/22

SHEET NO.
8 of 9

R-TANK SPECIFICATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings, technical specification and general provisions of the Contract as modified herein apply to this section.

1.02 DESCRIPTION OF WORK INCLUDED

A. Provide excavation and base preparation per geotechnical engineer's recommendations and/or as shown on the design drawings, to provide adequate support for project design loads and safety from excavation sidewall collapse. Excavations shall be in accordance with the owner's and OSHA requirements.

B. Provide and install R-TankLD/, R-TankHD/, R-TankSD/, or R-TankU/D/ system (hereafter called R-Tank) and all related products including fill materials, geotextiles, geogrids, inlet and outlet pipe with connections per the manufacturer's installation guidelines provided in this section.

C. Provide and construct the cover of the R-Tank system including; stone backfill, structural fill cover, and pavement section as specified.

D. Protect R-Tank system from construction traffic after installation until completion of all construction activity in the installation area.

1.03 QUALITY CONTROL

A. All materials shall be manufactured in ISO certified facilities.

B. Installation Contractor shall demonstrate the following experience:

1. A minimum of three R-Tank or equivalent projects completed within 2 years; and,
2. A minimum of 25,000 cubic feet of storage volume completed within 2 years.
3. Contractor experience requirement may be waived if the manufacturer's representative provides on-site training and review during construction.

C. Installation Personnel: Performed only by skilled workers with satisfactory record of performance on bulk earthworks, pipe, chamber, or pond/landfill construction projects of comparable size and quality.

D. Contractor must have manufacturer's representative available for site review if requested by Owner.

1.04 SUBMITTALS

A. Submit proposed R-Tank layout drawings. Drawings shall include typical section details as well as the required base elevation of stone and tanks, minimum cover requirements and tank configuration.

B. Submit manufacturer's product data, including compressive strength and unit weight.

C. Submit manufacturer's installation instructions.

D. Submit R-Tank sample for review. Reviewed and accepted samples will be returned to the Contractor.

E. Submit material certificates for geotextile, geogrid, base course and backfill materials.

F. Submit required experience and personnel requirements as specified in Section 1.03.

G. Any proposed equal alternative product substitution to this specification must be submitted for review and approved prior to bid opening. Review package should include third party reviewed performance data that meets or exceeds criteria in Table 2.01 B.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Protect R-Tank and other materials from damage during delivery, and store UV sensitive materials under tarp to protect from sunlight when time from delivery to installation exceeds two weeks. Storage of materials should be on smooth surfaces, free from dirt, mud and debris.

B. Handling is to be performed with equipment appropriate to the materials and site conditions, and may include hand, handcart, forklifts, extension lifts, etc.

C. Cold weather:

1. Care must be taken when handling plastics when air temperature is 40 degrees or below as plastic becomes brittle.
2. Do not use frozen materials or materials mixed or coated with ice or frost.
3. Do not build on frozen ground or wet, saturated or muddy subgrade.

1.06 PREINSTALLATION CONFERENCE.

A. Prior to the start of the installation, a preinstallation conference shall occur with the representatives from the design team, the general contractor, the excavation contractor, the R-Tank installation contractor, and the manufacturer's representative.

1.07 PROJECT CONDITIONS

A. Coordinate installation for the R-Tank system with other on-site activities to eliminate all non-installation related construction traffic over the completed R-Tank system. No loads heavier than the design loads shall be allowed over the system, and in no case shall loads higher than a standard AASHTO HS20 (or HS25, depending on design criteria) load be allowed on the system at any time.

B. Protect adjacent work from damage during R-Tank system installation.

C. All pre-treatment systems to remove debris and heavy sediments must be in place and functional prior to operation of the R-Tank system. Additional pretreatment measures may be needed if unit is operational during construction due to increased sediment loads.

D. Contractor is responsible for any damage to the system during construction.

PART 2 - PRODUCTS

2.01 R-TANK UNITS

A. R -Tank - Injection molded plastic tank plates assembled to form a 95% void modular structure of predesigned height (custom for each project).

B. R-Tank units shall meet the following Physical & Chemical Characteristics:

PROPERTY	DESCRIPTION	R-Tank^{LD} VALUE	R-Tank^{HD} VALUE	R-Tank^{SD} VALUE	R-Tank^{UD} VALUE
Void Area	Volume available for water storage	95%	95%	95%	95%
Surface Void Area	Percentage of exterior available for infiltration	90%	90%	90%	90%
Vertical Compressive Strength	ASTM D 2412 / ASTM F 2418	30.0 psi	33.4 psi	42.9 psi	134.2 psi
Lateral Compressive Strength	ASTM D 2412 / ASTM F 2418	20.0 psi	22.4 psi	28.9 psi	N/A
HS-20 Minimum Cover	Cover required to support HS-20 loads	N/A	20"	18"	12" (STONE BACKFILL)
HS-25 Minimum Cover	Cover required to support HS-25 loads	N/A	24"	19"	15" (STONE BACKFILL)
Maximum Cover	Maximum allowable cover depth	3 feet	< 7 feet	< 10 feet	5 feet
Unit Weight	Weight of plastic per cubic foot of tank	3.29 lbs / cf	3.62 lbs/cf	3.96 lbs / cf	4.33 lbs / cf
Rib Thickness	Thickness of load-bearing members	0.18 inches	0.18 inches	0.18 inches	N/A
Service Temperature	Safe temperature range for use	-14 – 167° F	-14 – 167° F	-14 – 167° F	-14 – 167° F

C. Supplier: Ferguson Waterworks 2831 Cardwell Road Richmond, VA 23234 (T): 800-448-3636; (F): 804-743-7779 www.ferguson.com

2.02 GEOSYNTHETICS

A. Geotextile. A geotextile envelope is required to prevent backfill material from entering the R-Tank modules.

1. Standard Application: The standard geotextile shall be an 8 oz per square yard nonwoven geotextile (ACF N080 or equivalent).
2. Infiltration Applications: When water must infiltrate/exfiltrate through the geotextile as a function of the system design, a woven monofilament (ACF M200 or equivalent) shall be used.

B. Geogrid. For installations subject to traffic loads and/or when required by project plans, install geogrid (ACF BX12 or equivalent) to reinforce backfill above the R-Tank system. Geogrid is not always required for R-TankUD/ installations, and is often not required for non-traffic load applications.

2.03 BACKFILL & COVER MATERIALS

A. Bedding Materials: Stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System) shall be used below the R-Tank system (3" minimum). Material must be free from lumps, debris, and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation. For infiltration applications bedding material shall be free draining.

B. Side and Top Backfill: Material must be free from lumps, debris and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation.

1. Traffic Applications - Free draining material shall be used adjacent to (24" minimum) and above (for the first 12") the R-Tank system.

a. For HD, and SD modules, backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System).

b. For UD modules with less than 14" of top cover, backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter). The use of soil backfill on the sides and top of the UD module is not permitted unless the modules are installed outside of traffic areas or with cover depths of 14" or more. Top backfill material (from top of module to bottom of pavement base or 12" maximum) must be consistent with side backfill.

2. Non-Traffic / Green Space Applications - For all R-Tank modules installed in green spaces and not subjected to vehicular loads, backfill materials may either follow the guidelines for Traffic Applications above, or the top backfill layer (12" minimum) may consist of AASHTO #57 stone blended with 30-40% (by volume) topsoil to aid in establishing vegetation.

C. Additional Cover Materials: Structural Fill shall consist of granular materials meeting the gradational requirements of SM, SP, SW, GM, GP or GW as classified by the Unified Soil Classification System. Structural fill shall have a maximum of 25 percent passing the No. 200 sieve, shall have a maximum clay content of 10 percent and a maximum Plasticity Index of 4. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation.

2.04 OTHER MATERIALS

A. Utility Marker: Install metallic tape at corners of R-Tank system to mark the area for future utility detection.

PART 3 - EXECUTION

3.01 ASSEMBLY OF R-TANK UNITS

A. Assembly of modules shall be performed in accordance with the R-Tank Installation Manual, Section 2.

3.02 LAYOUT AND EXCAVATION

A. Installer shall stake out, excavate, and prepare the subgrade area to the required plan grades and dimensions, ensuring that the excavation is at least 2 feet greater than R-Tank dimensions in each direction allowing for installation of geotextile filter fabric, R-Tank modules, and free draining backfill materials.

B. All excavations must be prepared with OSHA approved excavated sides and sufficient working space.

C. Protect partially completed installation against damage from other construction traffic by establishing a perimeter with high visibility construction tape, fencing, barricades, or other means until construction is complete.

D. Base of the excavation shall be uniform, level, and free of lumps or debris and soft or yielding subgrade areas. A minimum 2,000 pounds per square foot bearing capacity is required.

1. Standard Applications: Compact subgrade to a minimum of 95% of Standard Proctor (ASTM D698) density or as required by the Owner's engineer.
2. Infiltration Applications: Subgrade shall be prepared in accordance with the contract documents. Compaction of subgrade should not be performed in infiltration applications.

E. Unsuitable Soils or Conditions: All questions about the base of the excavation shall be directed to the owner's engineer, who will approve the subgrade conditions prior to placement of stone. The owner's engineer shall determine the required bearing capacity of the R-Tank subgrade; however in no case shall a bearing capacity of less than 2,000 pounds per square foot be provided.

1. If unsuitable soils are encountered at the subgrade, or if the subgrade is pumping or appears excessively soft, repair the area in accordance with contract documents and/or as directed by the owner's engineer.
2. If indications of the water table are observed during excavation, the engineer shall be contacted to provide recommendations.
3. Do not start installation of the R-Tank system until unsatisfactory subgrade conditions are corrected and the subgrade conditions are accepted by the owner's engineer.

3.03 PREPARATION OF BASE

A. Place a thin layer (3" unless otherwise specified) of bedding material (Section 2.03 A), over the subgrade to establish a level working platform for the R-Tank modules. Level to within ½" (+/- ¼") or as shown on the plans. Native subgrade soils or other materials may be used if determined to meet the requirements of 2.03 A and are accepted by the owner's engineer.

1. Standard Applications: Static roll or otherwise compact bedding materials until they are firm and unyielding.
2. Infiltration Applications: Bedding materials shall be prepared in accordance with the contract documents.

B. Outline the footprint of the R-Tank system on the excavation floor using spray paint or chalk line to ensure a 2' perimeter is available around the R-Tank system for proper installation and compaction of backfill.

3.04 INSTALLATION OF THE R-TANKS

A. Where a geotextile wrap is specified on the stone base, cut strips to length and install in excavation, removing wrinkles so material lays flat. Overlap geotextile a minimum 12" or as recommended by manufacturer. Use tape, special adhesives, sandbags or other ballast to secure overlaps. As geotextiles can be damaged by extreme heat, smoking is not permissible on/near the geotextile, and tools using a flame to tack the overlaps, such as propane torches, are prohibited.

B. Where an impervious liner (for containment) is specified, install the liner per manufacturer's recommendations and the contract documents. The R-Tank units shall be separated from impervious liner by a non-woven geotextile fabric installed accordance with Section 3.04A.

C. Install R-Tank modules by placing side by side, in accordance with the design drawings. No lateral connections are required. It is advisable to use a string line to form square corners and straight edges along the perimeter of the R-Tank system. The modules are to be oriented as per the design drawing with required depth as shown on plans.

1. For LD, HD, and SD installations, the large side plate of the tank should be placed on the perimeter of the system. This will typically require that the two ends of the tank area will have a row of tanks placed perpendicular to all other tanks. If this is not shown in the construction drawings, it is a simple field adjustment that will have minimal effect on the overall system footprint. Refer to R-Tank Installation Guide for more details
2. For UD installations, there is no perpendicular end row required.

D. Wrap the R-Tank top and sides in specified geotextile. Cut strips of geotextile so that it will cover the sides and top, encapsulating the entire system to prevent backfill entry into the system. Overlap geotextile 12" or as recommended by manufacturer. Take great care to avoid damage to geotextile (and, if specified, impervious liner) during placement.

E. Identify locations of inlet, outlet and any other penetrations of the geotextile (and optional liner). These connections should be installed flush (butted up to the R-Tank) and the geotextile fabric shall be cut to enable hydraulic continuity between the connections and the R-Tank units. These connections shall be secured using pipe boots with stainless steel pipe clamps. Support pipe in trenches during backfill operations to prevent pipe from settling and damaging the geotextile, impervious liner (if specified) or pipe. Connecting pipes at 90 degree angles facilitates construction, unless otherwise specified. Ensure end of pipe is installed snug against R-Tank system.

F. Install Inspection and Maintenance Ports in locations noted on plans. At a minimum one maintenance port shall be installed within 10' of each inlet & outlet connection, and with a maximum spacing of one maintenance port for every 2,500 square feet. Install all ports as noted in the R-Tank Installation Guide.

G. If required, install ventilation pipes and vents as specified on drawings to provide ventilation for proper hydraulic performance. The number of pipes and vents will depend on the size of the system. Vents are often installed using a 90 degree elbow with PVC pipe into a landscaped area with "U" bend or venting bollard to inhibit the ingress of debris. A ground level concrete or steel cover can be used.

3.05 BACKFILLING OF THE R-TANK UNITS

A. Backfill and fill with recommended materials as follows:

1. Place freely draining backfill materials (Section 2.03 B) around the perimeter in lifts with a maximum thickness of 12". Each lift shall be placed around the entire perimeter such that each lift is no more than 24" higher than the side backfill along any other location on the perimeter of the R-Tank system. No fill shall be placed over top of tanks until the side backfill has been completed.
2. Each lift shall be compacted at the specified moisture content to a minimum of 95% of the Standard Proctor Density until no further densification is observed (for self-compacting stone materials). The side lifts must be compacted with walk behind compaction equipment. Even when "self-compacting" backfill materials are selected, a walk behind vibratory compactor must be used.
3. Take care to ensure that the compaction process does not allow the machinery to come into contact with the modules due to the potential for damage to the geotextile and R-Tank units.
4. No compaction equipment is permissible to operate directly on the R-Tank modules.
5. Top Backfill: Only low pressure track vehicles shall be operated over the R-Tank system during construction. Dump Trucks and Pans shall not be operated within the R-Tank system footprint at any time. Heavy equipment should unload in an area adjacent to the R-Tank system and the material should be moved over the system using tracked equipment with an operating weight of less than 10 tons.
   a. Typical Applications: Install a 12" (or as shown on plans) lift of freely draining material (Section 2.03 B) over the R-Tank Units, maintaining 12" between equipment tracks and R-Tank System. Lightly compacted using a walk-behind trench roller. Alternately, a roller (maximum gross vehicle weight of 6 tons) may be used. Roller must remain in static mode until a minimum of 24" of cover has been placed over the modules. Sheep foot rollers should not be used.
   b. Shallow Applications (< 18" total cover): Install top backfill in accordance with plans.
6. If required, install a geogrid as shown on plans. Geogrid shall extend a minimum of 3 feet beyond the limits of the excavation wall.
7. Following placement and compaction of the initial cover, subsequent lifts of structural fill (Section 2.03 C) shall be placed at the specified moisture content and compacted to a minimum of 95% of the Standard Proctor Density and shall cover the entire footprint of the R-Tank system. During placement of fill above the system, unless otherwise specified, a uniform elevation of fill shall be maintained to within 12" across the footprint of the R-Tank system. Do not exceed maximum cover depths listed in Table 2.01 B.
8. Place additional layers of geotextile and/or geogrid at elevations as specified in the design details. Each layer of geosynthetic reinforcement placed above the R-Tank system shall extend a minimum of 3 feet beyond the limits of the excavation wall.

B. Ensure that all unrelated construction traffic is kept away from the limits of excavation until the project is complete and final surface materials are in place. No non-installation related loading should be allowed over the R-Tank system until the final design section has been constructed (including pavement).

C. Place surfacing materials, such as groundcovers (no large trees), or paving materials over the structure with care to avoid displacement of cover fill and damage to surrounding areas.

D. Backfill depth over R-Tank system must be within the limitations shown in the table in Section 2.01 B. If the total backfill depth does not comply with this table, contact engineer or manufacturer's representative for assistance.

3.06 MAINTENANCE REQUIREMENTS

A. A routine maintenance effort is required to ensure proper performance of the R-Tank system. The Maintenance program should be focused on pretreatment systems. Ensuring these structures are clean and functioning properly will reduce the risk of contamination of the R-Tank system and stormwater released from the site. Pre-treatment systems shall be inspected yearly, or as directed by the regulatory agency and by the manufacturer (for proprietary systems). Maintain as needed using acceptable practices or following manufacturer's guidelines (for proprietary systems).

B. All inlet pipes and Inspection and/or Maintenance Ports in the R-Tank system will need to be inspected for accumulation of sediments at least quarterly through the first year of operation and at least yearly thereafter.

C. If sediment has accumulated to the level noted in the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system should be flushed.

D. All inspection and maintenance activities should be performed in accordance with the R-Tank Operation, Inspection & Maintenance Manual.

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R-TANK SPECIFICATION
WASHINGTON STREET
AUBURN, ME
SITE DESIGNATION: FP-1

DRAWN BY
LTJ

DATE
05/02/22

SHEET NO.
9 of 9

EROSION AND SEDIMENTATION CONTROL PLAN

Brickyard Commons
Auburn, Maine

Prepared By:

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
Livermore Falls, Maine
May 03, 2022

1. INTRODUCTION:

"A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 M.R.S.A. §480-B. Sediment control measures must be in place before the activity begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken." – Maine DEP Chapter 500 Rules, Appendix A.

This Plan has been developed to ensure that construction activities on this project site utilize sound erosion and sedimentation control measures. These measures will prevent or reduce the potential for the deposition of sediments down stream of site. The methods of control consist of preventive measures and remedial measures. Preventive measures are aimed at keeping the soils in their present location through mulching and through the reestablishment of vegetation. Remedial measures deal with the trapping and/or filtering of sediment laden stormwater run-off. Both types of measures will be utilized on this project.

The Erosion and Sedimentation Control Plan is best broken down into Temporary Measures, Winter Stabilization, and Permanent Measures.

2. TEMPORARY EROSION CONTROL:

Temporary control measures may consist of a combination of measures where appropriate and/or as shown on the plans.

A. Sediment Filter Berms:

Sediment Filter Berms are the preferred filtering device but may not be used in wetland areas. The berms shall be placed down slope of all earth moving activities, where water from these disturbed areas will run off. These berms will be placed along an even contour, be at least 24 inches tall, and 3 feet wide at the base. Turn the ends of the berm up-grade to avoid runoff flowing around the berm. In areas of high erosion potential, the berm will be backed by hay bales or silt fencing, as shown on the filter berm detail.

B. Silt Fencing:

Silt fencing may be used in place of, or together with, the sediment filter barriers. The silt

fencing will also be anchored at least four inches into the ground and placed along an even contour. Turn the ends of the fence up-grade to avoid runoff flowing around the fence. During frozen conditions, furnish and install Sediment Filter Berms in lieu of silt fencing or hay bales if frozen soil prevents the proper installation of silt fences and hay bales.

C. Stone Check dams:

Stone check dams shall be placed in the center of ditches immediately following excavation to provide a means of trapping sediments. (If the ditch has been immediately armored with rip-rap, check dams are not necessary.) The dams shall consist of small stone placed across the ditch, with a depression at the top of the dam to allow water over the top of the dam, should it become clogged with sediment. See the specifications on the Typical Details Plan for construction details of this measure.

D. Temporary Mulch:

Temporary mulch shall be placed on all disturbed areas where seeding, construction or stabilization activities will not take place for over 7 consecutive days. Temporary mulch will also be placed on areas within 75 feet of a natural resource (wetland, stream, etc.) where seeding will not take place for over 48 hours, and on all bare soils outside the road base prior to any predicted significant rain event. A significant rain event is considered to be at least ½ inch of rain or more. Temporary mulch may be hay and shall be applied at a rate of two bales per 1,000 square feet. Soil must not be visible upon completion of application, regardless of rate of application.

E. Topsoil Stockpiles:

Topsoil, removed as part of the construction, will be stockpiled on site for use in areas to be re-vegetated. The location of topsoil stockpiles must not be within 75 feet of a defined natural resource (wetland, stream, etc.), or within 75 feet of a swale or ditch.

Stockpiles shall be mulched with hay at two bales per 1,000 square feet. The area down slope from any stockpile areas will be protected by a sediment filter berm or silt fence placed directly below or down gradient from the stockpile. If the stockpile must be left for more than 30 days, the pile will be seeded with rye grass at a rate of two pounds per 1,000 square feet and mulched in accordance with this paragraph.

F. Trench Dewatering and Temporary Stream Diversion

Water from construction trench dewatering or temporary stream diversion will pass first through a proprietary product filter bag or secondary containment structure (e.g. hay bale and fabric lined pool) prior to discharge. The discharge site shall be selected to avoid flooding, icing, and sediment discharges to a protected resource. In no case shall the filter

bag or containment structure be located within 100 feet of a protected natural resource.

G. Catch Basins.

Catch basin inlets must be protected with a sediment trap until contributing areas, including paved and grassed island areas, are fully stabilized with pavement or grass. Temporary sediment traps shall be Dandy Bags or approved equal, with appropriate overflow slots. Geotextile cut to fit under the catch basin grate shall not be acceptable.

H. Maintenance of Temporary Measures:

All temporary measures described above shall be inspected weekly and before/after every significant storm event (1/2 inch of rain or greater) throughout the construction of the project. Repairs or replacements of temporary measures will be made as necessary. Once the site is stable, all temporary devices such as hay bale barriers and silt fencing will be removed.

A log shall be kept summarizing the inspections and any corrective action taken. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicles access points to the parcel. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.

The log must be made accessible to department staff and a copy must be provided upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

3. WINTER STABILIZATION:

The winter construction period is from November 1 through April 15. If the construction site is not stabilized with a combination of pavement, a road gravel base, 90% mature vegetation cover or riprap by November 1 then the site needs to be protected with winter stabilization.

Winter excavation and earthwork shall be completed such that no more than 1 acre of the site is denuded at any one time. Limit the exposed area to those areas in which work is expected to be undertaken during the following 15 days. Exposed area shall not be so large that it cannot be mulched in one day prior to any snow event.

Areas shall be considered to be denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed and mulched. Hay and straw mulch rate shall be a minimum of 200 lbs./1,000 s.f. (3 tons/acre) and shall be properly anchored.

The contractor must install any added measures which may be necessary to control erosion/sedimentation from the site dependent upon the actual site and weather conditions.

Continuation of earthwork operations on additional areas shall not begin until the exposed soil surface on the area being worked has been stabilized, in order to minimize areas without erosion control protection.

1. Soil Stockpiles

   Stockpiles of soil or subsoil will be mulched for over winter protection with hay or straw at twice the normal rate or at 200 lbs/1,000 s.f. (3 tons per acre) or with a four-inch layer of woodwaste erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

   Any new soil stockpile will not be placed (even covered with hay or straw) within 100 feet of any natural resources.

2. Natural Resource Protection

   Any areas within 100 feet from any natural resources, if not stabilized with a minimum of 90 % mature vegetation catch, shall be mulched by December 1 and anchored with plastic netting or protected with erosion control mats.

   During winter construction, a double line of sediment barriers (i.e. silt fence backed with hay bales or erosion control mix) will be placed between any natural resource and the disturbed area. Silt fencing may not be placed on frozen ground.

   Projects crossing the natural resource shall be protected a minimum distance of 100 feet on either side from the resource. Existing projects not stabilized by December 1 shall be protected with the second line of sediment barrier to ensure functionality during the spring thaw and rains.

3. Mulching

   Areas shall be considered denuded until loamed, seeded and mulched. Hay and straw mulch shall be applied at a rate of 200 lb. per 1.000 square feet or 3 tons/acre (twice the normal accepted rate) and shall be properly anchored. Mulch shall not be spread on top of snow. The snow will be removed down to a one-inch

depth or less prior to application.

An area shall be considered stabilized when exposed surfaces have been either mulched with straw or hay at a rate of 200 lb. per 1,000 square feet and adequately anchored, such that the ground surface is not visible though the mulch.

Between the dates of November 1 and April 15, all mulch shall be anchored by either peg line, mulch netting, or wood cellulose fiber. The ground surface shall not be visible though the mulch.

After November 1th, mulch and anchoring of all bare soil shall occur at the end of each final grading work day.

4. Mulching on Slopes and Ditches

Slopes shall not be left exposed for more than 7 days unless fully mulched and anchored. Slopes within 75 feet of a natural resource shall not be left exposed for more than 48 hours. Mulching shall be applied at a rate of 300 lbs/1,000 sq ft on all slopes greater than 8%. Erosion Control mesh shall be used to anchor mulch in all drainage ways and ditches, for slopes exposed to direct winds, and for all other slopes greater that 8 %. Erosion control blanket and check dams (or permanent Rip-Rap) shall be used in lieu of mulch in all drainage ways with slopes of 8 % or more.

A six inch layer of erosion control mix can be used to substitute erosion control blankets on all slopes except ditches.

5. Seeding

Between the dates of October 15 and April 1st, loam or seed will not be required. During periods of above freezing temperatures, finished areas shall be fine graded and either protected with mulch or temporarily seeded (see table below) and mulched until such time as the final treatment can be applied. If after November 1st the exposed area has been final graded and loamed, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

TEMPORARY SEED MIX

TYPE	% BY WEIGHT	% PURITY	% GERMINATION
Domestic Rye Grass	60	69.75	90
Perennial Rye Grass	20	28.00	85
Aroostook Rye Grass	20	28.00	85

Dormant seeding may be placed prior to the placement of mulch and fabric netting anchored with staples.

If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5lbs/1000 s.f. All areas seeded during the winter will be inspected in the spring for adequate catch. Areas not sufficiently vegetated (less than 90 % catch) shall be revegetated by replacing loam, seed and mulch.

If dormant seeding is not used, all disturbed areas shall be revegetated in the spring.

6. Trench Dewatering and Temporary Stream Diversion

   Water from construction trench dewatering or temporary stream diversion will pass first through a filter bag or secondary containment structure (e.g. hay bale lined pool) prior to discharge. The discharge site shall be selected to avoid flooding, icing, and sediment discharges to a protected resource. In no case shall the filter bag or containment structure be located within 100 feet of a protected natural resource.

7. Inspection and Monitoring

   Maintenance measures shall be applied as needed during the entire construction season. After each rainfall, snow storm or period of thawing and runoff, the site contractor shall perform a visual inspection of all installed erosion control measures and perform repairs as needed to insure their continuous function.

   In the spring, following the temporary/final seeding and mulching, the contractor shall inspect and repair any damages and/ or un-established spots. Established vegetative cover means a minimum of 90 % of areas vegetated with vigorous growth.

8. Standard for the timely stabilization of ditches and channels

All stone-lined ditches and channels shall be constructed and stabilized by November 1. All grass-lined ditches and channels shall be constructed and stabilized by September 1. Failure to stabilize a ditch or channel to be grass-lined by September 1, will require one of the following actions to stabilize the ditch for late fall and winter.

Install a sod lining in the ditch – Sod lining shall be installed in ditches by October 1. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, watering the sod to promote root growth into the disturbed soil, and anchoring the sod with jute or plastic mesh to prevent the sod strips from sloughing during flow conditions.

Install a stone lining in the ditch –Ditches shall be lined with stone riprap by November 1, as presented below. If necessary, the applicant will regrade the ditch prior to placing the stone lining so to prevent the stone lining from reducing the ditch's cross-sectional area.

9. Standard for the timely stabilization of disturbed slopes

Construct and stabilize stone-covered slopes by November 1. The applicant will Seed and mulch all slopes to be vegetated by September 1. Slopes will be considered any area having a grade greater than 15% (6H:1V). If the applicant fails to stabilize any slope to be vegetated by September 1, then the applicant will take one of the following actions to stabilize the slope for late fall and winter.

Stabilize the soil with temporary vegetation and erosion control mats -- Seed the disturbed slope with winter rye at a seeding rate of 3 pounds per 1000 square feet and apply erosion control mats over the mulched slope October 1. The applicant will monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or cover at least 90% of the disturbed slope by November 1, cover the slope with a layer of wood waste compost or with stone riprap as described below.

Stabilize the slope with sod -- Stabilize the disturbed slope with properly installed sod by October 1. Proper installation includes 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. Sod stabilization shall not be used late-season to stabilize slopes having a grade greater than 33% (3H:1V).

Stabilize the slope with wood waste compost (erosion control mix) --Place a six-inch layer of wood waste compost on the slope by November 1. Prior to placing

the wood waste compost, remove any snow accumulation on the disturbed slope. Wood waste compost will not be used to stabilize slopes having grades greater than 50% (2H:1V) or having groundwater seeps on the slope face.

Stabilize the slope with stone riprap -- Place a layer of stone riprap on the slope by November 1, similar to the Stone Lined Ditch the permanent erosion control section.

10. Standard for the timely stabilization of disturbed soils

Seed and mulch all disturbed soils on areas having a slope less than 15% by September 1. Failure to stabilize these soils by this date will require one of the following actions to stabilize the soil for late fall and winter.

Stabilize the soil with temporary vegetation -- Seed the disturbed soil with winter rye at a seeding rate of 3 pounds per 1000 square feet, lightly mulch the seeded soil with hay or straw at 75 pounds per 1000 square feet, and anchor the mulch with plastic netting by October 1. Growth of the rye will require monitoring over the following 30 days. If the rye fails to grow at least three inches or cover at least 75% of the disturbed soil before November 1, then mulch the area for over-winter protection as described below.

Stabilize the soil with sod -- Stabilize the disturbed soil with properly installed sod by October 1. 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 -- Mulch the disturbed soil by spreading hay or straw at a rate of at least 150 pounds per 1000 square feet on the area so that no soil is visible through the mulch by November 1. Prior to applying the mulch, remove any snow accumulation on the disturbed area. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

4. PERMANENT EROSION CONTROL:

Permanent measures will consist of the placement of culverts; culvert inlet/outlet stabilization; the construction of grass/stone lined ditches; and the re-vegetation of all areas outside the traveled way of the road, and those areas designated as stone lined ditches.

A. Culverts:

All culverts have been sized to handle the peak flows generated by a 25-year, 24-hour rainstorm. The locations and sizes of the culverts are shown on the Site Plans.

The inlets and outlets of the culverts will be armored with riprap to prevent scouring. This armoring will consist of placing stone possessing a D50 of 6 inches to a depth of 18 inches to the following dimensions: width equal to twice the diameter of the culvert; length equal to three times the diameter of the culvert, unless noted otherwise.

B. Ditches:

Ditches on the project have been designed based on expected flow rates and velocities for the 25-year, 24-hour storm event and the slope of the ditch. Where water velocities are expected to exceed 3.5 feet per second, the ditch has been designed to be stone lined. Ditches with water velocities of less than 3.5 feet per second have been designed to be grass lined.

Stone Lined Ditches:

Stone lined ditches will first be lined with a non-woven filter fabric, and then lined with riprap possessing a D50 of approximately 6 inches in diameter. This means that approximately half the stones by weight will be smaller than 6 inches and half will be larger. The minimum stone size should be 1 inch with the largest stone being 9 inches in diameter. The depth of stone in the ditch should average 15 inches.

The final shape of the ditch will consist of the following dimensions: a bottom width of two feet; side slopes possessing a 3:1 horizontal to vertical; and a total depth of 2 feet.

In lieu of stone rip-rap, the ditch may be lined with a permanent erosion control blanket, such as North American Green P300 or approved equal.

Grass Lined Ditches:

Grass lined ditches will possess the same final dimensions as the stone lined ditches. The flow area of the ditch will be armored by placing a biodegradable matting or netting (such as American Excelsior Curlex Blanket or equal) in the bottom of the ditch. Placement of this material must take place after seeding. Install according to the manufacturers' recommendations.

Seeding and mulching of grass lined ditches will follow the specifications stated

below for re-vegetation.

C. Re-vegetation Measures:

All areas to be permanently re-vegetated with grass will first be covered with loam and then fertilized.

Loam will be placed on all areas to be re-vegetated. Loam will be placed to a minimum depth of 4 inches. Loam will be the stockpiled topsoil, if possible.

Test the loam samples for nutrients at a proficient testing laboratory (The University of Maine provides this service). Request that the testing laboratory provide a recommended fertilizer mix. The areas with loam will then be fertilized with the recommended application rate. Lime will also be applied at a rate of 50 pounds per 1,000 square feet. Both the lime and the fertilizer will be mixed thoroughly with the soil.

All areas to be re-vegetated with permanent grass are to be seeded with the seed mix shown on the table below. This mixture will be applied at a rate of 2 pounds per 1,000 square feet.

General Lawn Areas	Chewing Fescue "Dignity"	35%
	Pennlawn Creeping Red Fescue	35%
	Perennial Rye "Tourstar" (Nutrite)	30%

Mulch will then be spread on all seeded areas at a rate of two bales per 1,000 square feet. Regardless of application rate the soil shall not be visible through the mulch.

Seed and mulch will be placed within five days of final grading of topsoil. Seeded areas will be inspected after 30 days to determine the success of the seeding. If the ground cover is less than 90%, the area will be reseeded.

D. Critical Areas:

Slopes in excess of 15% will require the placement of a biodegradable netting or matting over the mulch and seed (if the netting has no mulch in it). If stabilization is to take place after October 1, slopes over 8% will be treated with the matting.

E. Maintenance of Permanent Measures:

All measures will be inspected weekly and before and after every significant storm event during construction, and then at least once annually to insure proper function. Any

damaged areas will be repaired or replaced as necessary. Any ditches or culverts not functioning as designed will be redesigned and reconstructed according to specifications prepared by a Professional Engineer.

In any event, seeding should take place either between May 1 and June 15, or August 15 and September 1.

POST-CONSTRUCTION STORMWATER INSPECTION & MAINTENANCE PLAN

Brickyard Commons
Auburn, Maine

Narrative

The following outlines the proposed BMP's and their required inspection, maintenance, and reporting.

Inspections and maintenance will be the responsibility of the Property Owner/Applicant. Written reports of inspections and maintenance work will be kept to show the work has been completed as proposed. These reports will be kept by the Owner/Applicant, along with other relevant City of Auburn documentation.

Contacts:

Design Engineer:	Richard Dunton, P.E. Main-Land Development Consultants, INC P.O. Box Q, 69 Main Street Livermore Falls, Maine 04254
Applicant:	JIG Investments, LLC (JIG) P.O. 1776 Lewiston, ME
Owner:	JIG Investments, LLC
Focal Point Consultant:	Loren Joyce, P.E. Ferguson Waterworks 207-272-9743

Post Construction Stormwater Inspector:

_____
_____
_____

Contractors:

_____
_____
_____

Inspection

The applicant, JIG Investments, LLC, is responsible for complying with the City Stormwater Law Permit. The Applicant will be responsible for inspection and maintenance during construction and post-construction. The Applicant is also responsible for upkeep and compliance post-construction. The development is also subject to State Stormwater Management Law and will be subject to a "Five-year Recertification for Long-Term Maintenance of Stormwater Management Systems" as well as City requirements for stormwater maintenance as a MS4 community.

Purpose

The purpose of this Plan is to ensure proper function of the infrastructure constructed as part of this project. The infrastructure will include the stormwater control devices including but not limited to: drives and parking; catch basins and stormdrains; drainage ditches; Focal Point, filter pond, and detention pond. The tasks detailed in this Plan are the responsibility of the applicant.

Definitions

Significant Period of Rain: 1" or more of rain in a 24-hour period.

Inspection Scope

All areas of the site shall be inspected based on the criteria discussed for each site item or stormwater control measure as found later in the plan. See the Inspection and Maintenance Plan identifying locations of measures requiring inspection. Inspection activities listed herein are to be considered at minimum. Stormwater inspector shall use his or her judgement as to additional inspection or maintenance activities.

Inspection Frequency

Complete site inspections at the frequency listed in the following Inspection Summary.

Inspection Qualifications

For Post-Development Inspections, the qualified post-construction stormwater inspector with knowledge of erosion and stormwater control, including the standards and conditions of the project permit shall be retained by the Applicant.

Inspection/Maintenance Responsibility

It shall be the responsibility of the Applicant to retain the services of a Post-Construction Stormwater Inspector and provide for the repair and maintenance noted by inspections, if any. When maintenance is required by inspection, the Applicant shall perform the required maintenance and/or repairs in a timely fashion and notify the Inspector when the maintenance is

complete. The Applicant shall maintain detailed records for the inspections and maintenance performed.

Documentation

Post Construction inspection forms and documentation of corrective actions shall be maintained for at least (5) years.

Inspection and Maintenance Plan

The site will be inspected and maintained according to the following schedule and procedures.

INSPECTION SUMMARY
Brickyard Commons

Inspections of	Schedule
- **Drives & Parking**	Annual
- **Drainage Ditches**	Annual
- **Catch basins and Stormdrains**	Annual
- **Grassed Underdrain Soil Filter**	Semi-Annual
- **Detention Pond**	Annual
- **Focal Point**	Semi-Annual
- **Embankments**	Annual

Drives & Parking:

Inspection:

The roads will be inspected at least annually to ensure proper function and to ensure structural integrity. This inspection will take place in September. Road inspections will be simple visual inspections, looking at the drive or parking surface for cracking, puddling, sedimentation, heaving, potholing, or other signs of degradation.

Maintenance:

Maintenance will include sweeping and cleanup of sediments and debris, spot corrections when necessary, crack sealing, and eventual resurfacing insure safe drivability and long lifespan. This should be performed once a year at a minimum and shall occur in April or May.

Drainage Ditches:

Inspection:

Inspect drainage ditches annually to look for erosion, obstruction, debris, or damage to erosion armoring, such as rip-rap.

Maintenance:

The drainage ditches shall be re-shaped and re-stabilized if found to be eroding. Accumulated sediment should also be removed from the flow line of the ditch, if it exists.

Catch Basins and Storm Drains:

Inspection:

The stormwater collection and conveyance devices will be inspected on an annual basis in April or May of each year. The inspection will include a review of the structural integrity and function of each device, a review of the inlets and outlets storm drains, and a review of the downstream discharge areas of all pipes and channels.

Maintenance:

The inlets and outlets of the culverts and storm drains should be cleaned on a regular basis to ensure that sediment and debris does not discharge downstream or does not clog the pipe. Catch basin sumps shall be cleaned of debris and sediments.

Grassed Underdrain Soil Filter:

Inspection:

The inspection will include a review of the structural integrity of each device, a review of the inlet and outlet of the pond, and a review of the downstream discharge areas of all pipes and channels. Inspections should include a check for signs of snow storage and prohibited vehicle traffic including ATV's and tractors.

For the first three months after construction, inspect the filter bed monthly to verify the filter bed is draining within 24 - 48 hours. Thereafter, inspect semi-annually in May and October.

Maintenance:

If water ponds on the filter bed surface for more than 72 hours following a rain event, replace the top three inches of filter media. Dispose of clogged filter media soil according to the erosion and sedimentation control plan.

Remove sediments annually in October.

If mowing is desired, only hand-held string trimmers or push-mowers are allowed on the filter (no tractors).

Detention Pond:

Inspections:

Inspection by a professional engineer will consist of weekly visits to the site to inspect the installation of each pond's embankment construction, stormwater inlet, outlet control structure and emergency spillway construction from initial ground disturbance to final stabilization of the pond.

Monthly inspections of the ponds will take place for two years after construction is completed. Inspections will occur through the months of March to November and will be conducted immediately after a significant rain event, causing discharge from the pond's outlet structure.

The monthly inspections will include but not be limited to:

Inspection of the inlet pipe and outlet structure to determine if the structure is clogged, and to insure proper function. Blockages or obstructions will be removed. If the structure does not appear to be functioning as designed, a Professional Engineer will be retained to determine if corrective measures are required. Any recommended corrective measures would then be implemented as soon as practical.

Inspection of upstream and downstream drainage channels and structures to confirm proper flow of water into and out of the ponds, and to insure proper sizing of these channels. Litter and debris will be removed from all flow areas to assure continued flow. If the channels or structures appear unable to adequately handle actual flows, a Professional Engineer will be consulted as above. Any areas that exhibit signs of erosion or are otherwise inadequately stabilized will be repaired as necessary.

Long Term Inspections:

At the completion of the two years of monthly inspections, the ponds will be inspected on a semi-annual basis, in the spring and the fall of each year. The long-term inspections will include:

Inspection of the pond embankments to determine if there is evidence of erosion, cracking, slumping, leaking, tree growth, or other similar adverse conditions which would undermine the structural integrity of the embankments. Corrective measures, including re-shaping of the berms, will be undertaken where necessary to insure or restore structural integrity/stability of the embankments, and/or to maintain the design capacity of the pond.

A determination of whether the accumulation of sediment in the pond has reached the point, as described below, where removal of the sediment from the pond is necessary. This should be done by measuring the actual depth of water in the pond, and comparing this depth to the design depth.

Sediment Removal:

The ponds should be cleaned of sediment at that point when the design capacity of the pond has been reduced by 15%. Based upon studies in Washington D.C. and Canada, the expected volume-lost-to sediment rate is 0.5% to 1.0% per year. It is expected that the pond will require sediment removal every 15 to 20 years. Based upon these assumptions, the sediment removal schedule will be every 15 years, except where:

Intervening annual sediment accumulation inspections indicate that more frequent cleaning will occur, or;

A thorough 15th-year sediment accumulation inspection indicates that the scheduled cleaning is not yet necessary.

When sediment removal is required, it will be undertaken during dry weather conditions when inflow to the pond is at or near its annual low level. Accumulated sediments will be removed by first draining the pond. The sediments will then be excavated and then placed at the toe of the down gradient pond embankment, seeded and mulched in accordance with

the Permanent Revegetation Measures in the Erosion Control Plan. This disposal site will then be monitored until stable.

Inlets and Outlets: The inlets and outlets of the ponds will be inspected for stability; blockage by debris; uneven settling around any structures; excessive sediment around the outlet. These inspections may need to be more frequent if debris proves to be a problem. If problems are identified, they will be corrected by the end of October, if possible.

Downstream Areas: To ensure that the ponds are not causing erosion problems or other difficulties to downstream areas, these areas will be inspected for erosion and instability. If problems are identified, they will be corrected by the end of October, if possible.

Maintenance:

To insure proper functioning of the pond, some routine maintenance is required.

Mowing: The pond embankments and pond bottom are to be mowed at least twice annually to prevent the establishment of woody vegetation, and to promote healthy vegetative growth.

Sediment removal: If sediment deposition in the pond is found to be significant, regular removal of sediment may be required to maintain pond volume, and to prevent clogging or blocking of the primary outlet. Sediment will be spread on a relatively flat area, seeded with grass and mulched with hay in accordance with the Erosion Control Plan developed for this project.

Focal Point:

All Inspection and Maintenance activities should also be in accordance with the "Specification – High Performance Modular Biofiltration System (HPMBS)" located at the end of this document.

Inspection:

The inspection will include a review of the integrity of the bioflraition media, plant health, underlying storage system, a review of the inlet and outlet of the pond.

Inspect semi-annually in May and October.

Maintenance:

Remove any foreign debris, silt material, trash and replenish mulch if needed.

Embankments:

Inspection:

Embankments and steep slopes will be inspected at least annually to look for erosion rill and proper vegetation growth. This inspection will take place in September.

Maintenance:

Embankment maintenance includes: mowing where grass is preferred to woody vegetation; repair of erosion where applicable; and reseeding and mulching where bare soil is encountered.

RE-CERTIFICATION

Within three months of the 5-year anniversary of the permit date of issuance, and every 5-year anniversary, thereafter, submit a certification to the City of Auburn that contains:

- A statement that the site has been inspected for erosion problems and such problem areas have been appropriately repaired and permanently stabilized.
- A statement that all aspects of the stormwater management system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system.
- A statement that the erosion control plan and the stormwater management plan are being implemented as written, approved, and amended (if applicable) by City of Auburn.

INSPECTION AND MAINTENANCE LOG
Brickyard Commons
Post Construction Stormwater
Inspection & Maintenance Log

Date of Inspection: _____
Inspected by: _____

Purpose of Inspection: Monthly, Yearly, Significant Rainfall (circle one)

Drives & Parking

Description of Conditions:
_____
_____
_____
_____

Maintenance & Date of Repairs:
_____
_____
_____
_____

Follow Up Needed:
_____
_____
_____
_____

Drainage Ditches

Description of Conditions:

Maintenance & Date of Repairs:

Follow Up Needed/Additional Comments:

Catch Basins & Stormdrains

Description of Conditions:

Maintenance & Date of Repairs:

Sediment Inspection & Removal:

Date & Contractor for Sump Cleaning:

Follow Up Needed/Additional Comments:

Grassed Underdrain Soil Filter

Description of Conditions:

Maintenance & Date of Repairs:

Sediment Inspection & Removal:

Date & Contractor Cleaning:

Follow Up Needed/Additional Comments:

Detention Pond

Description of Conditions:

Maintenance & Date of Repairs:

Sediment Inspection & Removal:

Date & Contractor for Sump Cleaning:

Follow Up Needed/Additional Comments:

Focal Point

Description of Conditions:

Maintenance & Date of Repairs:

Sediment Inspection & Removal:

Date & Contractor for Sump Cleaning:

Follow Up Needed/Additional Comments:

Embankments

Description of Conditions:

Maintenance & Date of Repairs:

Sediment Inspection & Removal:

Date & Contractor for Sump Cleaning:

Follow Up Needed/Additional Comments:

HOUSEKEEPING PLAN

Brickyard Commons
Auburn, Maine

Prepared by:

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
P.O. Box Q, Livermore Falls, Maine

August 11, 2022

The purpose of this Plan is to ensure construction activities protect against and do not create or result in materials that could become a source of pollution. These standards apply to spill prevention, groundwater protection, sediment and dust, debris and other materials, excavation de-watering, authorized non-stormwater discharges and unauthorized non-stormwater discharges.

Spill Prevention:

A SPCC plan is unnecessary. No hazardous materials will be stored on site. The site will primarily be utilized for parking, loading/unloading and storage of non-hazardous material.

Groundwater Protection:

No stormwater infiltration areas are proposed on this site. Additionally, the site is not located over a Significant Sand and Gravel Aquifer.

Fugitive Sediment and Dust:

A stabilized construction exit will be maintained for the duration of construction to minimize the tracking of mud and sediment off site. Application of water will be utilized for dust prevention during construction. Application of other chemicals to reduce dust shall not be allowed without Maine DEP approval due to the Taylor Brook watershed.

Debris and Other Materials:

Construction debris shall be contained within roll-off dumpsters and hauled to a licensed waste facility. The site shall be kept in a tidy condition, free of trash and litter.

Excavation De-Watering:

If excavation dewatering is warranted, discharge of water from the excavation shall be through an approved filter as noted in the Erosion and Sedimentation Control Plan. The

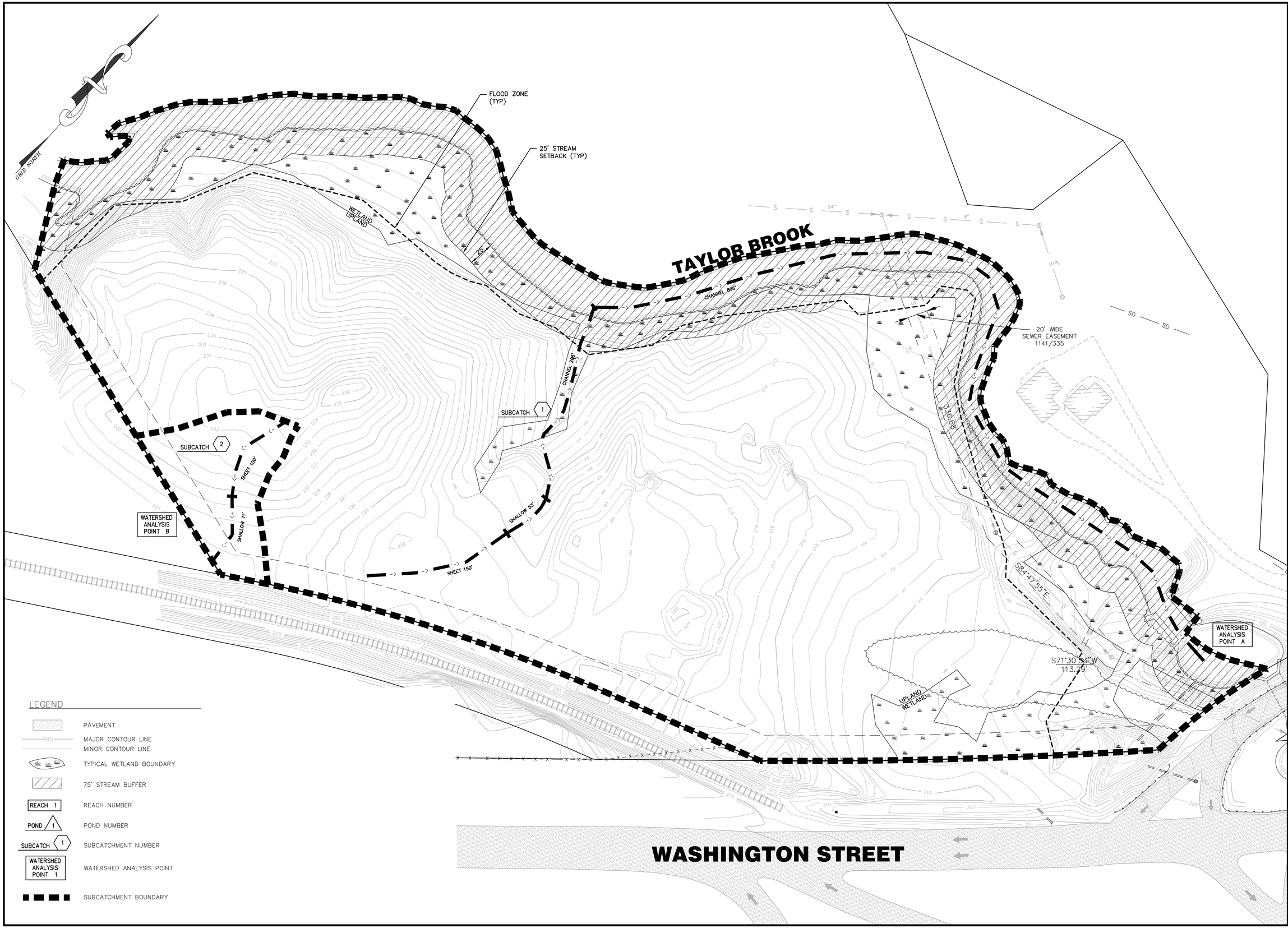
discharge shall be at minimum 100 feet from Taylor Brook and allow flow through a vegetated area prior to confluence with wetland or stream flows.

Authorized Non-Stormwater Discharges:

There are no authorized non-stormwater discharges existing or proposed for this site.

Unauthorized Non-Stormwater Discharges:

There are no unauthorized non-stormwater discharges existing or proposed for this site.



MAIN-LAND
DEVELOPMENT CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

40 0 20 40
(IN FEET)
1 INCH = 40 FT

SUBMISSION NOTES:
SUBMISSION 1: 2022-02-02 SDH
ISSUED FOR CLIENT REVIEW.

SUBMISSION 2: 2022-05-03 SDH
ISSUED FOR PERMITTING.

SUBMISSION 3: 2022-06-16 SDH
ISSUED FOR PERMITTING.

SUBMISSION 4: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	4
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

PRE-DEVELOPMENT STORMWATER

SEAL:

STATE OF MAINE
RICHARD W. DUNTON
No. 12485
LICENSED PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

D1.1

MLDC NO. 21-342 1 OF 1



MAIN-LAND
DEVELOPMENT CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
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PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

40 0 20 40
(IN FEET)
1 INCH = 40 FT

SUBMISSION NOTES:

SUBMISSION 1: 2022-02-18 SDH
ISSUED FOR CLIENT REVIEW.

SUBMISSION 2: 2022-05-03 SDH
ISSUED FOR PERMITTING.

SUBMISSION 3: 2022-06-16 SDH
ISSUED FOR PERMITTING.

SUBMISSION 4: 2022-08-11 SDH
ISSUED FOR PERMITTING.

SUBMISSION 5: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	5
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

POST-DEVELOPMENT STORMWATER

SEAL:

STATE OF MAINE
RICHARD W. DUNTON
No. 12485
LICENSED
PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

D2.1

MLDC NO. 21-342 1 OF 1

TEST PIT LOG

SUMMIT GEOENGINEERING SERVICES	Project: New Housing & Site Development Washington Street Auburn, ME 04210	Test Pit # **TP-1** Project #: 22066 Groundwater: 9-ft (open ~0.5-hr)

Contractor:	Gendron & Gendron	Ground Surface Elevation:	230 +/-
Equipment:	Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*	
Summit Staff:	Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves & rootlets, loose, humid, ML	FOREST DUFF
2	Olive brown SILT, with Sand seams, trace Clay, blocky, firm, humid, ML	GLACIAL MARINE
3	*Note: Slight seepage at 3-ft	
4		
5		
6	*Note: Increasing blockiness & moderately mottled starting at 6-ft	
7		
8	*Note: Left excavation open for ~0.5-hr for groundwater measurement	
▽ 9	Light brown SAND, some Gravel, v. dense, humid, SP	GLACIAL TILL
10	End of Test Pit at 9-ft, refusal on Bedrock	BEDROCK
11		
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-2
	Project: New Housing & Site Development Washington Street Auburn, ME 04210	Project #: 22066 Groundwater: None Observed (open ~1-hr)
Contractor: Gendron & Gendron	Ground Surface Elevation: 228.5 +/-	
Equipment: Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*	
Summit Staff: Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Silty SAND, frequent leaves & rootlets, loose, humid, SM	FOREST DUFF
2	Gray Sandy SILT, blocky, firm, humid, ML	STREAM ALLUVIUM
3		
4		
5		
6		
7		
8	*Note: Increasing blockiness & moderately mottled at 8-ft	
9	*Note: Hard digging starting at 8.5-ft	
10	End of Test Pit at 9-ft, refusal on Bedrock	BEDROCK
11		
12		
13		
14		
15		
16		
17		





SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-3
	Project: New Housing & Site Development Washington Street Auburn, ME 04210	Project #: 22066 Groundwater: 9-ft (open ~1.5-hr)
Contractor: Gendron & Gendron	Ground Surface Elevation: 218 +/-	
Equipment: Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*	
Summit Staff: Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves & rootlets, loose, humid, ML	FOREST DUFF
2	Light brown SAND, trace Silt, loose, humid, SP	STREAM ALLUVIUM
3		
4		
5		
6		
7	Olive brown & gray SILT, some Sand seams, blocky, moderately mottled, firm, humid, ML	
8		
▽ 9	*Note: Slight seepage at 9-ft. Left excavation open ~1.5-hr	
10	Olive brown Silty CLAY, some Sand seams, moderately mottled, blocky, stiff, humid, CL	GLACIAL MARINE
11		
12		
13		
14	*Note: Density decrease and moisture content transition to damp at 13-ft	
15		
16		
17	End of Test Pit at 16.5-ft, no refusal	





SUMMIT GEOENGINEERING SERVICES

TEST PIT LOG

Test Pit # **TP-4**

Project: New Housing & Site Development
Washington Street
Auburn, ME 04210

Project #: 22066

Groundwater: None Observed (open ~2hrs)

Contractor: Gendron & Gendron
Equipment: Volvo EC160EL Tracked Excavator
Summit Staff: Faith Thomas, P.E.

Ground Surface Elevation: 216 +/-
Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*
Date: 2/18/2022
Weather: Partly Cloudy, 30's F

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves & rootlets, loose, humid, ML	FOREST DUFF
2	Brown fine to medium SAND, some Silt & Gravel, occasional Cobbles, loose, humid, SP-SM	STREAM ALLUVIUM
3		
4	Pale brown Gravelly SAND, little Silt, occasional Cobbles, compact, humid, GP *Note: Hard digging starting at 4.5-ft	GLACIAL TILL
5	End of Test Pit at 5-ft, refusal on Bedrock	BEDROCK
6		
7		
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16		
17		





SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-5
	Project: New Housing & Site Development Washington Street Auburn, ME 04210	Project #: 22066 Groundwater: None Observed (open ~0.75-hr)
Contractor: Gendron & Gendron	Ground Surface Elevation: 232.5 +/-	
Equipment: Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*	
Summit Staff: Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves & rootlets, loose, humid, ML	FOREST DUFF
2	Olive brown SILT, with Sand seams, trace Clay, blocky, firm, humid, ML	GLACIAL MARINE
3		
4		
5		
6		
7	*Note: Increasing blockiness, moderately mottled & wet Sand seams at 6-ft.	
8		
9	*Note: Hard digging starting at 8-ft	
10	Light brown SAND, some Gravel, v. dense, humid, SP	GLACIAL TILL
11	End of Test Pit at 10.5-ft, refusal on Bedrock	BEDROCK
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	**TEST PIT LOG**		Test Pit # **TP-6**
	Project: New Housing & Site Development Washington Street Auburn, ME 04210		Project #: 22066 Groundwater: None Observed (open < 0.5hr)
Contractor: Gendron & Gendron	Ground Surface Elevation: 222.5 +/-		
Equipment: Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*		
Summit Staff: Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F	

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves & rootlets, loose, humid, ML	FOREST DUFF
2	Brown Sandy SILT, soft, moist, ML	STREAM ALLUVIUM
3		
4		
5	Olive brown SILT, with Sand seams, trace Clay, blocky, moderately mottled, firm, moist, ML	
6		
7	*Note: Hard digging & Cobbles starting at 6.5-ft	GLACIAL TILL
8		
9		
10		
11	End of Test Pit at 10.5-ft, very dense (no refusal)	
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	**TEST PIT LOG**		Test Pit # **TP-7**
	Project:	New Housing & Site Development Washington Street Auburn, ME 04210	Project #: 22066 Groundwater: 7-ft (open ~0.75-hr)
Contractor: Gendron & Gendron	Ground Surface Elevation: 226 +/-		
Equipment: Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*		
Summit Staff: Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F	

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves & rootlets, loose, humid, ML	FOREST DUFF
2	Light brown Silty SAND, trace Gravel, occasional Cobbles, compact, humid, SM	STREAM ALLUVIUM
3		
4		
5		
6	*Note: Increased Cobbles & Gravel with depth, starting at 5-ft	GLACIAL TILL
▽7	*Note: Slight seepage at 7-ft. Left excavation open for ~0.75-hr for groundwater measurement.	
8		
9	End of Test Pit at 8.5-ft, refusal on Bedrock	BEDROCK
10		
11		
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	**TEST PIT LOG**		Test Pit # **TP-8**
	Project: New Housing & Site Development Washington Street Auburn, ME 04210		Project #: 22066 Groundwater: 7-ft (open for ~3hrs)
Contractor: Gendron & Gendron	Ground Surface Elevation: 212.5 +/-		
Equipment: Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*		
Summit Staff: Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F	

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves & rootlets, loose, humid, ML	FOREST DUFF
2	Brown Silty SAND, isolated Boulder, loose, damp, SM	STREAM ALLUVIUM
3		
4	*Note: Moderate seepage at 3-ft	
5	Grayish brown SAND, some Silt seams & Gravel, moderately mottled, few Cobbles, compact, moist, SM	
6	*Note: Increased mottling & Cobbles with depth	
▽ 7	Yellow Silty SAND, occasional to frequent Cobbles, compact, moist, SM	
8	*Note: Left excavation open for ~3hrs for groundwater measurement	
9		
10		
11		
12	End of Test Pit at 11-ft, refusal on Bedrock	BEDROCK
13		
14		
15		
16		
17		

TEST PIT LOG

SUMMIT GEOENGINEERING SERVICES

Project:	New Housing & Site Development Washington Street Auburn, ME 04210	Test Pit #	**TP-9**
		Project #:	22066
		Groundwater:	7.5-ft (open for ~4.5hrs)
Contractor:	Gendron & Gendron	Ground Surface Elevation:	213 +/-
Equipment:	Volvo EC160EL Tracked Excavator	Reference:	DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*
Summit Staff:	Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves & rootlets, loose, humid, ML	FOREST DUFF
2	Yellow very fine SAND, trace to little Silt, compact, humid, SP-SM	STREAM ALLUVIUM
3		
4	*Note: Slight seepage at 4-ft	
5	Pale brown medium SAND, some to little Gravel, little Silt, frequent Cobbles, dense, humid, SP	GLACIAL TILL
6		
7		
▽ 8	*Note: Left excavation open for ~4.5hrs for groundwater measurement	
9		
10	End of Test Pit at 9.5-ft, refusal on Bedrock	BEDROCK
11		
12		
13		
14		
15		
16		
17		





SUMMIT GEOENGINEERING SERVICES	**TEST PIT LOG**		Test Pit # **TP-10**
	Project:	New Housing & Site Development Washington Street Auburn, ME 04210	Project #: 22066 Groundwater: 5-ft (open for ~5hrs)
Contractor:	Gendron & Gendron	Ground Surface Elevation:	212.5 +/-
Equipment:	Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*	
Summit Staff:	Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves & rootlets, loose, humid, ML	FOREST DUFF
2	Light brown Silty fine to medium SAND, trace to little Clay, occasional Cobbles, frequent Cobbles, dense, humid, SM	GLACIAL TILL
3		
4	*Note: Hard digging starting at 3-ft	
▽ 5	*Note: Weathered bedrock encountered at 5-ft. Left excavation open for ~5hrs for groundwater measurement.	
6	End of Test Pit at 5.5-ft, refusal on Bedrock	BEDROCK
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		

TEST PIT LOG

SUMMIT GEOENGINEERING SERVICES

Project:	New Housing & Site Development Washington Street Auburn, ME 04210	Test Pit #	**TP-11**
		Project #:	22066
		Groundwater:	5-ft (open < 0.5-hr)
Contractor:	Gendron & Gendron	Ground Surface Elevation:	210.5 +/-
Equipment:	Volvo EC160EL Tracked Excavator	Reference:	DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*
Summit Staff:	Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
	Dark brown Sandy SILT, frequent leaves, loose, humid, ML	FOREST DUFF
1	Olive brown Clayey SILT, some Sand seams, stiff, moist, ML *Note: Moderate mottling at 1-ft	GLACIAL MARINE
2		
3		
4	*Note: Pocket penetrometer reading: >4.5-tsf at 4-ft *Note: Hard digging at 4.5-ft	
▽ 5	Light brown Silty SAND, trace to little Gravel, occasional Boulders, dense, humid, SM	GLACIAL TILL
6	End of Test Pit at 5.5-ft, refusal on Bedrock	BEDROCK
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-12
	Project: New Housing & Site Development Washington Street Auburn, ME 04210	Project #: 22066 Groundwater: 5.5 ft (open ~6hrs)
Contractor: Gendron & Gendron	Ground Surface Elevation: 207 +/-	
Equipment: Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*	
Summit Staff: Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Brown Silty SAND, frequent rootlets, frequent Cobbles, compact, damp, SM	TOPSOIL
2	Olive brown Silty CLAY, some Sand seams, occasional Cobbles, isolated brick debris, soft, damp, CL	FILL
3	*Note: Pocket penetrometer reading: 0.5-tsf	
4	*Note: Pocket penetrometer reading: 1-tsf at 4-ft	
5	*Note: Slight mottling at 4-ft	
▽	Gray Silty CLAY, some Sand seams, firm, damp, CL	REWORKED
6	*Note: Pocket penetrometer reading: 1.5-tsf	
7	*Note: Left excavation open for ~6hrs for groundwater measurement *Note: Moderate seepage at 7-ft between layers	
8	Brown Sandy SILT, frequent organics (rootlets & tree limbs), isolated Boulder, soft, wet, ML	
9		
10	Gray Sandy SILT, trace to little Clay, firm, damp, ML	GLACIAL MARINE
	*Note: Pocket penetrometer reading: 2.5 to 4-tsf at 10.5-ft	
11	End of Test Pit at 10.5-ft, no refusal	
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	**TEST PIT LOG**	Test Pit # **TP-13**
	Project: New Housing & Site Development Washington Street Auburn, ME 04210	Project #: 22066 Groundwater: 4-ft (open ~4hrs)
Contractor: Gendron & Gendron	Ground Surface Elevation: 215.5 +/-	
Equipment: Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*	
Summit Staff: Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves, loose, humid, ML	FOREST DUFF
2	Brown SILT, with Sand seams, blocky, firm, humid, ML	STREAM ALLUVIUM
3		
▽4	*Note: Left excavation open for ~4hrs for groundwater measurement	
5		
6	*Note: Moderately mottled & hard digging starting at 5-ft	
7	End of Test Pit at 6-ft, refusal on Bedrock	BEDROCK
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	**TEST PIT LOG**		Test Pit # **TP-14**
	Project:	New Housing & Site Development Washington Street Auburn, ME 04210	Project #: 22066 Groundwater: 2.5-ft (open for ~4hrs)
Contractor: Gendron & Gendron	Ground Surface Elevation: 220 +/-		
Equipment: Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*		
Summit Staff: Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F	

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves, loose, humid, ML	FOREST DUFF
2	Brown Sandy SILT, some Gravel, frequent Cobbles, humid, dense, ML	GLACIAL TILL
▽ 3	*Note: Left excavation open for ~4hrs for groundwater measurement	
	End of Test Pit at 3-ft, refusal on Bedrock	BEDROCK
4		
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16		
17		

SUMMIT GEOENGINEERING SERVICES	**TEST PIT LOG**		Test Pit # **TP-15**
	Project:	New Housing & Site Development Washington Street Auburn, ME 04210	Project #: 22066 Groundwater: 5-ft (open for ~4.5hrs)
Contractor: Gendron & Gendron	Ground Surface Elevation: 214.5 +/-		
Equipment: Volvo EC160EL Tracked Excavator	Reference: DWG File Titled *"1wrk-existing & layout," received 2/24/22 by Main-Land Development*		
Summit Staff: Faith Thomas, P.E.	Date: 2/18/2022	Weather: Partly Cloudy, 30's F	

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Dark brown Sandy SILT, frequent leaves, loose, humid, ML	FOREST DUFF
2	Olive brown SILT, with Sand seams, blocky, isolated Boulder, firm, humid, ML	GLACIAL MARINE
3		
4	*Note: Isolated Boulder at 4-ft	
▽ 5	*Note: Hard digging, increasing Gravel & Cobbles at 4.5-ft. Left excavation open for ~4.5hrs for groundwater measurement.	GLACIAL TILL
6	End of Test Pit at 5-ft, refusal on Bedrock	BEDROCK
7		
8		
9		
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15		
16		
17		

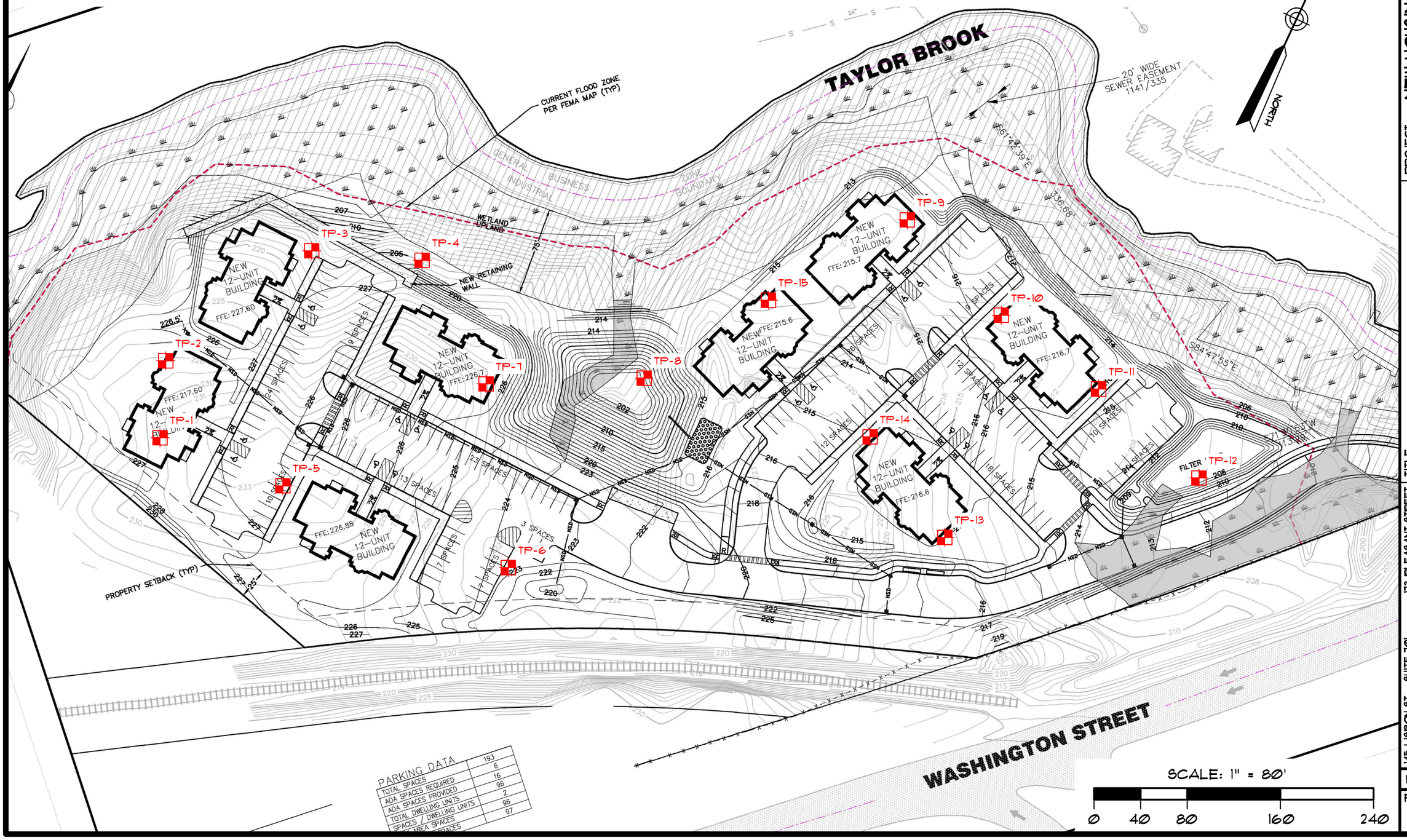
LEGEND

TP-1 SUMMIT TEST PIT (OBSERVED 2/18/2022). FIELD-LOCATED BY GENDRON & GENDRON

PLAN REFERENCES

1) PLAN TITLED "REVISED LAYOUT CONCEPT," DATED 2/3/2022, PREPARED BY MAIN-LAND DEVELOPMENT CONSULTANTS, INC.

2) DWG FILE TITLED "IWRK-EXISTING & LAYOUT, RECEIVED 2/24/2022, PREPARED BY MAIN-LAND DEVELOPMENT CONSULTANTS, INC.



PARKING DATA	
TOTAL SPACES	193
TOTAL SPACES REQUIRED	6
ADA SPACES PROVIDED	16
ADA SPACES REQUIRED	96
TOTAL DWELLING UNITS	2
SPACES / DWELLING UNITS	96
[illegible] AREA SPACES	97

PROJECT: NEW HOUSING & SITE DEVELOPMENT
WASHINGTON STREET, AUBURN, ME 04210

CLIENT: GENDRON CORP.
50 ALFRED A. FLOURDE PARKWAY, LEWISTON ME 04241

TITLE: EXPLORATION LOCATION PLAN

SCALE: 1" = 80'

DRAWN BY: FRT

APPR. BY: WMP

DATE: FEB. 23, 2022

173 PLEASANT STREET
ROCKLAND, ME 04841
Tel.: (207) 318-7161

145 LISBON ST. - SUITE 101
LEWISTON, ME 04240
Tel.: (207) 576-3313

SUMMIT
GEOENGINEERING SERVICES

PROJ.#: 22066

FIGURE: 1

BEACON
design . performance . technology

DATE: 2/27/2025 | LOCATION:

TYPE: | PROJECT:

CATALOG #:

VIPER Area/Site

VIPER LUMINAIRE

MICRO STRIKE | OPTICS STRIKE

FEATURES



- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as auto dealership, retail, commercial, and campus parking lots
- Featuring two different optical technologies, Strike and Micro Strike Optics, which provide the best distribution patterns for retrofit or new construction
- Rated for high vibration applications including bridges and overpasses. All sizes are rated for 1.5G
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™, wiSCAPE and 7-Pin with networked controls
- New customizable lumen output feature allows for the wattage and lumen output to be customized in the factory to meet whatever specification requirements may entail
- Field interchangeable mounting provides additional flexibility after the fixture has shipped

c UL us IP65

BUY AMERICAN SOLUTIONS

See Certification Specifications

CONTROL TECHNOLOGY

NX DISTRIBUTED INTELLIGENCE™ wiSCAPE™

SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with 1000 hour powder coat paint finish
- External hardware is corrosion resistant

OPTICS

- Micro Strike Optics (160, 320, 480, or 720 LED counts) maximize uniformity in applications and come standard with mid-power LEDs which evenly illuminate the entire luminous surface area to provide a low glare appearance. Catalog logic found on page 2
- Strike Optics (36, 72, 108, or 162 LED counts) provide best in class distributions and maximum pole spacing in new applications with high powered LEDs. Strike optics are held in place with a polycarbonate bezel to mimic the appearance of the Micro Strike Optics so both solutions can be combined on the same application. Catalog logic found on page 3
- Both optics maximize target zone illumination with minimal losses at the house-side, reducing light trespass issues. Additional backlight control shields and house side shields can be added for further reduction of illumination behind the pole
- One-piece silicone gasket ensures a weatherproof seal
- Zero up-light at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Mounting patterns for each arm can be found on page 11
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option (ASQU) or accessory for square and round poles.
- All mounting hardware included

INSTALLATION (CONTINUED)

- Knuckle arm fitter option available for 2-3/8" OD tenon
- For products with EPA less than 1 mounted to a pole greater that 20ft, a vibration damper is recommended

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40˚C to 40˚C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised

CONTROLS

- Photo control, occupancy sensor programmable controls, and Zigbee wireless controls available for complete on/off and dimming control
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- 0- 10V Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard

CONTROLS (CONTINUED)

- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor
- wiSCAPE® available with in fixture wireless control module, features dimming and occupancy sensor. Also available in 7-pin configuration

CERTIFICATIONS

- Meets the qualifications for DLC Premium
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40˚C ambient temperatures
- 1.5 G rated for ANSI C136.31 high vibration applications
- Fixture is IP65 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020. See Buy American Solutions.

WARRANTY

- 5 year warranty
- See HLI Commercial and Industrial Outdoor Lighting Warranty for additional information

KEY DATA	
Lumen Range	5,000–80,000
Wattage Range	36–600
Efficacy Range (LPW)	92–155
Weight lbs. (kg)	13.7-30.9 (6.2-13.9)

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701 Millennium Boulevard • Greenville, SC 29607 / Tel 864.678.1000 / Website www.beaconproducts.com

HUBBELL Lighting

BEACON
design . performance . technology

DATE: 2/27/2025 | LOCATION:

TYPE: | PROJECT:

CATALOG #:

VIPER Area/Site

VIPER LUMINAIRE

MICROSTRIKE OPTICS – ORDERING GUIDE

Example: VP–2–320L-145–3K7–2–R–UNV–A3–BLT

CATALOG #

VP –

Series	
VP	Viper

Optic Platform
Micro Strike

Size	
1	Size 1
2	Size 2
3	Size 3
4	Size 4

Light Engine	
160L-35 [6]	5500 lumens
160L-50 [6]	7500 lumens
160L-75	10000 lumens
160L-100	12500 lumens
160L-115	15000 lumens
160L-135	18000 lumens
160L-160	21000 lumens
320L-145	21000 lumens
320L-170	24000 lumens
320L-185	27000 lumens
320L-210	30000 lumens
320L-235	33000 lumens
320L-255	36000 lumens
320L-315 [6]	40000 lumens
480L-285	40000 lumens
480L-320	44000 lumens
480L-340	48000 lumens
480L-390	52000 lumens
480L-425	55000 lumens
480L-470	60000 lumens
720L-435	60000 lumens
720L-475	65000 lumens
720L-515	70000 lumens
720L-565 [6]	75000 lumens
720L-600 [6]	80000 lumens
CLO	Custom Lumen Output [1]

CCT/CRI	
AP	AP-Amber Phosphor Converted
27K8	2700K, 80 CRI
3K7	3000K, 70 CRI
3K8	3000K, 80 CRI
35K8	3500K, 80 CRI
3K9	3000K, 90 CRI
4K7	4000K, 70 CRI
4K8	4000K, 80 CRI
4K9	4000K, 90 CRI
5K7	5000K, 70 CRI
5K8	5000K, 80 CRI

Distribution	
2	Type 2
3	Type 3
4F	Type 4 Forward
4W	Type 4 Wide
5QM	Type 5 Square Medium
5QW	Type 5 Square Wide

Optic Rotation	
L	Optic rotation left
R	Optic rotation right

Voltage	
UNV	120-277V
120	120V
208	208V
240	240V
277	277V
347	347V
480	480V

Mounting	
A	Arm mount for square pole/flat surface
A_	Arm mount for round pole [2]
ASQU	Universal arm mount for square pole
A_U	Universal arm mount for round pole [2]
AAU	Adjustable arm for pole mounting (universal drill pattern)
AA_U	Adjustable arm mount for round pole [2]
ADU	Decorative upswept Arm (universal drill pattern)
AD_U	Decorative upswept arm mount for round pole [2]
MAF	Mast arm fitter for 2-3/8" OD horizontal arm
K	Knuckle
T	Trunnion
WB	Wall Bracket, horizontal tenon with MAF
WM	Wall mount bracket with decorative upswept arm
WA	Wall mount bracket with adjustable arm

Color	
BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Bronze Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
LGT	Light Grey Gloss Textured
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured

Color Option	
CC	Custom Color

Options	
F	Fusing
2PF	Dual Power Feed
2DR	Dual Driver
TE	Tooless Entry
BC	Backlight Control
TB	Terminal Block

Network Control Options	
NXSPW-14F	NX Wireless, PIR Occupancy Sensor, Dimming Daylight Harvesting, 14' [1,3,4]
NXSPW-40F	NX Wireless, PIR Occupancy Sensor, Dimming Daylight Harvesting, 40' [1,3,4]
NXSP-14F	NX, PIR Occupancy Sensor, Dimming Daylight Harvesting, 14' [3,4]
NXSP-40F	NX, PIR Occupancy Sensor, Dimming Daylight Harvesting, 40' [3,4]
NXWE	NX Wireless Enabled (module + radio) [3,4]
WIR	wiSCAPE® In-Fixture Module [3,4]
WIRSC	wiSCAPE® Module and Occupancy Sensor [3,4]
Stand Alone Sensors	
BTS-14F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor [4]
BTS-40F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor [4]
BTSO-12F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor, up to 12' mounting height [4]
7PR	7-Pin Receptacle [4]
7PR-SC	7-Pin Receptacle with shorting cap [4]
3PR	3-Pin twist lock [4]
3PR-SC	3-Pin receptacle with shorting cap [4]
3PR-TL	3-Pin PCR with photocontrol [4]
Programmed Controls	
ADD	AutoDim Timer Based Dimming [4]
ADT	AutoDim Time of Day Dimming [4]
Photocontrols	
PC	Button Photocontrol [4,7]

1 – Items with a grey background can be done as a custom order. Contact brand representative for more information
2 – Replace "_" with "2" for 2.5"-3.4" OD pole, "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole
3 – Networked Controls cannot be combined with other control options
4 – Not available with 2PF option
5 – Not available with Dual Driver option
6 – Some voltage restrictions may apply when combined with controls
7 – Not available with 480V

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HUBBELL Lighting

BEACON
design . performance . technology

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

VIPER Area/Site

VIPER LUMINAIRE

STRIKE OPTIC – ORDERING GUIDE

Example: VP–ST–1–36L-39–3K7–2–UNV–A–BLT

CATALOG #

VP –

Series	
VP	Viper

– | Optic Platform | |
|---|---|
| ST | Strike |

– | Size | |
|---|---|
| 1 | Size 1 |
| 2 | Size 2 |
| 3 | Size 3 |
| 4 | Size 4 |

– | Light Engine | |
|---|---|
| 36L-39 [8] | 5500 lumens |
| 36L-55 [8] | 7500 lumens |
| 36L-85 | 10000 lumens |
| 36L-105 | 12500 lumens |
| 36L-120 | 14000 lumens |
| 72L-115 | 15000 lumens |
| 72L-145 | 18000 lumens |
| 72L-180 | 21000 lumens |
| 72L-210 | 24000 lumens |
| 72L-240 | 27000 lumens |
| 108L-215 [8] | 27000 lumens |
| 108L-250 | 30000 lumens |
| 108L-280 | 33000 lumens |
| 108L-325 | 36000 lumens |
| 108L-365 | 40000 lumens |
| 162L-320 | 40000 lumens |
| 162L-365 [10] | 44000 lumens |
| 162L-405 | 48000 lumens |
| 162L-445 | 52000 lumens |
| 162L-485 | 55000 lumens |
| 162L-545 [8] | 60000 lumens |
| CLO | Custom Lumen Output [1] |

– | CCT/CRI | |
|---|---|
| AM | monochromatic amber, 595nm |
| 27K8 | 2700K, 80 CRI |
| 3K7 | 3000K, 70 CRI |
| 3K8 | 3000K, 80 CRI |
| 3K9 | 3000K, 90 CRI |
| 35K8 | 3500K, 80 CRI |
| 4K7 | 4000K, 70 CRI |
| 4K8 | 4000K, 80 CRI |
| 4K9 | 4000K, 90 CRI |
| 5K7 | 5000K, 70 CRI |
| 5K8 | 5000K, 80 CRI |

– | Distribution | |
|---|---|
| FR | Auto Front Row |
| 2 | Type 2 |
| 3 | Type 3 |
| 4F | Type 4 Forward |
| 4W | Type 4 Wide |
| 5QN | Type 5 Square Narrow |
| 5QM | Type 5 Square Medium |
| 5QW | Type 5 Square Wide |
| 5W | Type 5 Wide (Round) |
| 5RW | Type 5 Rectangular |
| C | Corner Optic |
| TC | Tennis Court Optic |

– | Optic Rotation | |
|---|---|
| L | Optic rotation left |
| R | Optic rotation right |

– | Voltage | |
|---|---|
| UNV | 120-277V |
| 120 | 120V |
| 208 | 208V |
| 240 | 240V |
| 277 | 277V |
| 347 | 347V |
| 480 | 480V |

–

Mounting	
A	Arm mount for square pole/flat surface
A_	Arm mount for round pole [3]
ASQU	Universal arm mount for square pole
A_U	Universal arm mount for round pole [3]
AAU	Adjustable arm for pole mounting (universal drill pattern)
AA_U	Adjustable arm mount for round pole [3]
ADU	Decorative upswept Arm (universal drill pattern)
AD_U	Decorative upswept arm mount for round pole [3]
MAF	Mast arm fitter for 2-3/8" OD horizontal arm
K	Knuckle
T	Trunnion
WB	Wall Bracket, horizontal tenon with MAF
WM	Wall mount bracket with decorative upswept arm
WA	Wall mount bracket with adjustable arm

–

Color	
BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Bronze Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
LGT	Light Grey Gloss Textured
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured

Color Option	
CC	Custom Color

–

Options	
F	Fusing
E	Battery Backup [1,2,7,8,9]
2PF	Dual Power Feed
2DR	Dual Driver
TE	Tooless Entry
BC	Backlight Control
TB	Terminal Block

–

Network Control Options	
NXSPW-14F	NX Wireless, PIR Occupancy Sensor, Dimming Daylight Harvesting, 14' [1,4,5]
NXSPW-40F	NX Wireless, PIR Occupancy Sensor, Dimming Daylight Harvesting, 40') [1,4,5]
NXSP-14F	NX, PIR Occupancy Sensor, Dimming Daylight Harvesting, 14' [4,5]
NXSP-40F	NX, PIR Occupancy Sensor, Dimming Daylight Harvesting, 40' [4,5]
NXWE	NX Wireless Enabled [4,5]
WIR	wiSCAPE® In-Fixture Module [4,5]
WIRSC	wiSCAPE® Module and Occupancy Sensor [4,5]
Stand Alone Sensors	
BTS-14F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor [5]
BTS-40F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor [5]
BTSO-12F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor, up to 12' mounting height [5]
7PR	7-Pin Receptacle [5]
7PR-SC	7-Pin Receptacle with shorting cap [5]
3PR	3-Pin twist lock [5]
3PR-SC	3-Pin receptacle with shorting cap [5]
3PR-TL	3-Pin PCR with photocontrol [5]
Programmed Controls	
ADD	AutoDim Timer Based Dimming [5]
ADT	AutoDim Time of Day Dimming [5]
Photocontrols	
PC	Button Photocontrol [5,6]

1 – Items with a grey background can be done as a custom order. Contact brand representative for more information
2 – Battery temperature rating -20C to 55C
3 – Replace "_" with "2" for 2.5"-3.4" OD pole, "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole
4 – Networked Controls cannot be combined with other control options
5 – Not available with 2PF option
6 – Not available with 480V
7 – Not available with 347 or 480V
8 – Not available with Dual Driver option
9 – Only available in Size 1 housing
10 – Some voltage restrictions may apply when combined with controls

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HUBBELL Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

VIPER Area/Site

VIPER LUMINAIRE

ORDERING GUIDE (CONTINUED)

CATALOG #

Accessory Type		Size		Option		Color	
SHD	Shield	**1**	Size 1	**HSS-90-B**	House Side Shield 90° Back	**BLS**	Black Gloss Smooth
		2	Size 2	**HSS-90-F**	House Side Shield 90° Front	**BLT**	Black Matte Textured
		3	Size 3	**HSS-90-S**	House Side Shield 90° Side	**DBS**	Dark Bronze Gloss Smooth
		4	Size 4	**HSS-270-BSS**	House Side Shield 270° Back/Side/Side	**DBT**	Dark Bronze Matte Textured
				HSS-270-FSS	House Side Shield 270° Front/Side/Side	**GTT**	Graphite Matte Textured
				HSS-270-FSB	House Side Shield 270° Front/Side/Back	**LGS**	Light Gray Gloss Smooth
				HSS-360	House Side Shield 360°	**PSS**	Platinum Silver Smooth
				BC	Back Light Control	**WHS**	White Gloss Smooth
MTG	Mounting			**A**	Arm Mount for square pole/flat surface	**WHT**	White Matte Textured
				ASQU	Universal Arm Mount for square pole	**VGT**	Green Landscape Decorative
				AAU	Adjustable Arm for pole mounting	**LEG**	Legacy Colors
				ADU	Decorative upswept Arm	**Color Option**	
				RPA	Round Pole Adapter	**CC**	Custom Color
				MAF	Mast Arm Fitter for 2-3/8" OD horizontal arm		
				K	Knuckle		
				T	Trunnion		
				WB	Wall Bracket (compatible with universal arm mounts)		

Accessory Type		Option	
MSC	Miscellaneous	**BIRD SPK**	Bird Spike

Hubbell Control Solutions — Accessories (Sold Separately)

NX Distributed Intelligence™

☐ **NXOFM-1R1D-UNV** — On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with HubbNET Radio and Bluetooth® Radio, 120–480VAC

wiSCAPE® Lighting Control

☐ **WIR-RME-L** — On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110–480VAC

☐ **SCP-REMOTE** — Remote Control for SCP/_F option. Order at least one per project to program and control the occupancy sensor

For additional information related to these accessories please visit www.hubbellcontrolsolutions.com. Options provided for use with integrated sensor, please view specification sheet ordering information table for details.

CONTROLS

wiSCAPE™ NX DISTRIBUTED™ INTELLIGENCE

Control Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	On/Off Control	Programming	Pair with Sensor	Sensor Mounting Height
NXWE	–	✔	✔	–	–	✔	✔	–	–
NXSPW_F	NXSM-P	✔	✔	✔	✔	✔	✔	–	14ft, 40ft
NXSP_F	NXSM-P	–	–	✔	✔	✔	–	–	14ft, 40ft
BTSO12F	BTSMP-OMNI	–	–	✔	✔	✔	Bluetooth	–	12ft
BTS_F	BTSMP	–	–	✔	✔	–	–	–	14ft, 40ft
ADD	–	–	✔	–	–	✔	–	✔	–
ADT	–	–	✔	–	–	✔	–	✔	–
7PR	–	Paired with external control	Paired with external control	–	Paired with external control	Paired with external control	–	✔	–
7PR-SC	–	–	–	–	–	–	–	✔	–
3PR	–	–	–	–	–	Paired with external control	–	✔	–
3PR-SC	–	–	–	–	–	–	–	✔	–
3PR-TL	–	–	–	–	✔	✔	–	✔	–
WIR	–	✔	✔	–	✔	✔	Gateway	–	–
WIRSC	BTSMP	✔	✔	✔	✔	✔	Gateway	–	14ft, 40ft

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VIPER Area/Site

VIPER LUMINAIRE

DELIVERED LUMENS

For delivered lumens, please see Lumens Data PDF on www.hubbelllighting.com

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	0	25,000	*TM-21-11 36,000	50,000	100,000	Calculated L_{70} (Hours)
25°C / 77°F	1.00	0.97	0.96	0.95	0.91	408,000
40°C / 104°F	0.99	0.96	0.95	0.94	0.89	356,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98
50°C	122°F	0.97

Micro Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	–	0.841	–
3000K	0.977	0.861	0.647
3500K	–	0.900	–
4000K	1	0.926	0.699
5000K	1	0.937	0.791
Monochromatic Amber Multiplier			
Amber	0.250		

Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	–	0.859	–
3000K	0.941	0.912	0.703
3500K	–	0.906	–
4000K	1	0.894	0.734
5000K	1	0.879	0.711
Monochromatic Amber Multiplier			
Amber	0.255		

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VIPER Area/Site

VIPER LUMINAIRE

ELECTRICAL DATA: MICRO STRIKE

# OF LEDS	160						
NOMINAL WATTAGE	35	50	75	100	115	135	160
SYSTEM POWER (W)	34.9	50.5	72.1	97.2	111.9	132.2	157.8
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	0.29	0.42	0.63	0.83	0.96	1.13	1.33
208	0.17	0.24	0.36	0.48	0.55	0.65	0.77
240	0.15	0.21	0.31	0.42	0.48	0.56	0.67
277	0.13	0.18	0.27	0.36	0.42	0.49	0.58
347	0.10	0.14	0.22	0.29	0.33	0.39	0.46
480	0.07	0.10	0.16	0.21	0.24	0.28	0.33

# OF LEDS	320						
NOMINAL WATTAGE	145	170	185	210	235	255	315
SYSTEM POWER (W)	150	166.8	185.7	216.2	240.9	261.5	312
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	1.21	1.42	1.54	1.75	1.96	2.13	2.63
208	0.70	0.82	0.89	1.01	1.13	1.23	1.51
240	0.60	0.71	0.77	0.88	0.98	1.06	1.31
277	0.52	0.61	0.67	0.76	0.85	0.92	1.14
347	0.42	0.49	0.53	0.61	0.68	0.73	0.91
480	0.30	0.35	0.39	0.44	0.49	0.53	0.66

# OF LEDS	480					
NOMINAL WATTAGE	285	320	340	390	425	470
SYSTEM POWER (W)	286.2	316.7	338.4	392.2	423.2	468
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.38	2.67	2.83	3.25	3.54	3.92
208	1.37	1.54	1.63	1.88	2.04	2.26
240	1.19	1.33	1.42	1.63	1.77	1.96
277	1.03	1.16	1.23	1.41	1.53	1.70
347	0.82	0.92	0.98	1.12	1.22	1.35
480	0.59	0.67	0.71	0.81	0.89	0.98

# OF LEDS	720				
NOMINAL WATTAGE	435	475	515	565	600
SYSTEM POWER (W)	429.3	475	519.1	565.2	599.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	3.63	3.96	4.29	4.71	5.00
208	2.09	2.28	2.48	2.72	2.88
240	1.81	1.98	2.15	2.35	2.50
277	1.57	1.71	1.86	2.04	2.17
347	1.25	1.37	1.48	1.63	1.73
480	0.91	0.99	1.07	1.18	1.25

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VIPER Area/Site

VIPER LUMINAIRE

ELECTRICAL DATA: STRIKE

# OF LEDS	36				
NOMINAL WATTAGE	39	55	85	105	115
SYSTEM POWER (W)	39.6	56.8	83.6	108.2	113.7
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	0.33	0.46	0.71	0.88	1.00
208	0.19	0.26	0.41	0.50	0.58
240	0.16	0.23	0.35	0.44	0.50
277	0.14	0.20	0.31	0.38	0.43
347	0.11	0.16	0.24	0.30	0.35
480	0.08	0.11	0.18	0.22	0.25

# OF LEDS	72				
NOMINAL WATTAGE	120	145	180	210	215
SYSTEM POWER (W)	120.9	143.2	179.4	210.2	214.8
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	0.96	1.21	1.50	1.75	2.00
208	0.55	0.70	0.87	1.01	1.15
240	0.48	0.60	0.75	0.88	1.00
277	0.42	0.52	0.65	0.76	0.87
347	0.33	0.42	0.52	0.61	0.69
480	0.24	0.30	0.38	0.44	0.50

# OF LEDS	108				
NOMINAL WATTAGE	240	250	280	320	325
SYSTEM POWER (W)	241.7	250.8	278.3	322.1	324.7
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	1.79	2.08	2.33	2.71	3.04
208	1.03	1.20	1.35	1.56	1.75
240	0.90	1.04	1.17	1.35	1.52
277	0.78	0.90	1.01	1.17	1.32
347	0.62	0.72	0.81	0.94	1.05
480	0.45	0.52	0.58	0.68	0.76

# OF LEDS	162				
NOMINAL WATTAGE	365	405	445	485	545
SYSTEM POWER (W)	362.6	403.6	445.1	487.1	543.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	2.67	3.38	3.71	4.04	4.54
208	1.54	1.95	2.14	2.33	2.62
240	1.33	1.69	1.85	2.02	2.27
277	1.16	1.46	1.61	1.75	1.97
347	0.92	1.17	1.28	1.40	1.57
480	0.67	0.84	0.93	1.01	1.14

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CATALOG #:

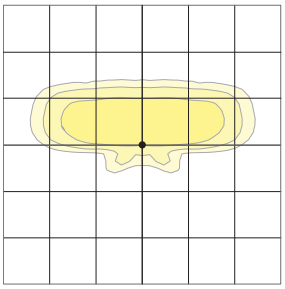
VIPER Area/Site

VIPER LUMINAIRE

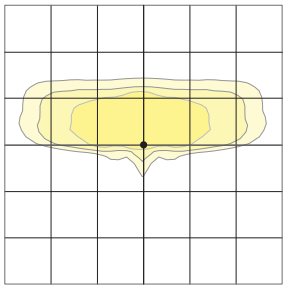
MICRO STRIKE PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

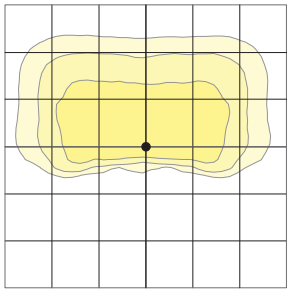
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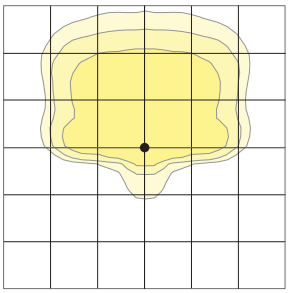
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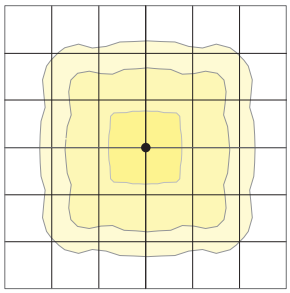
Type 4 Wide



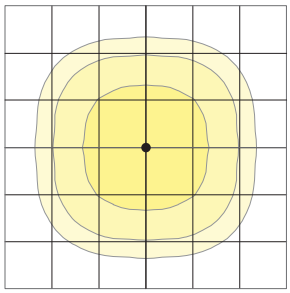
Type 4F



Type 5QM



Type 5QW



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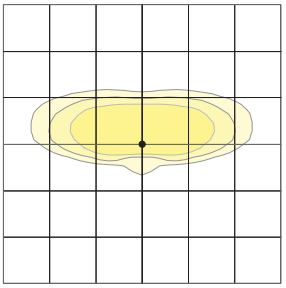
VIPER Area/Site

VIPER LUMINAIRE

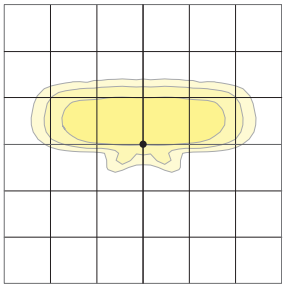
OPTIC STRIKE PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

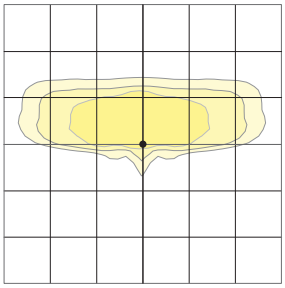
Type FR – Front Row/Auto Optic



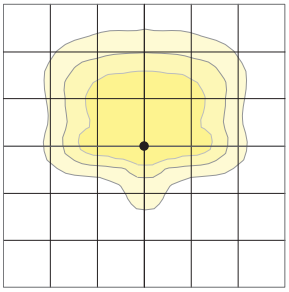
Type 2



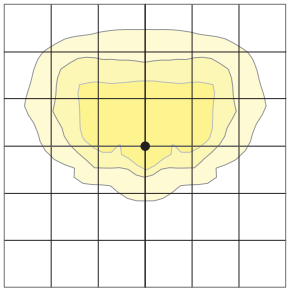
Type 3



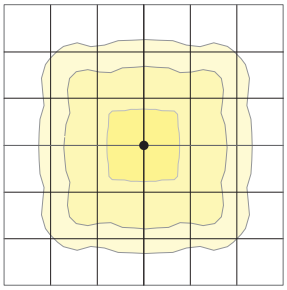
Type 4 Forward



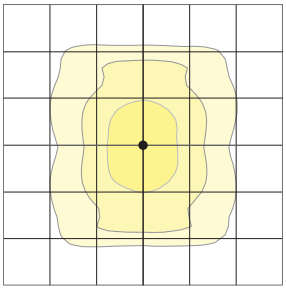
Type 4 Wide



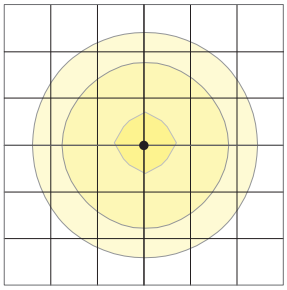
Type 5QM



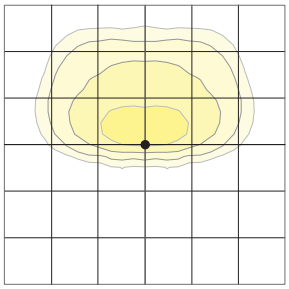
Type 5R (rectangular)



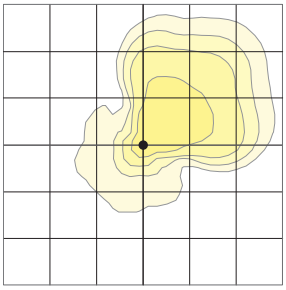
Type 5W (round wide)



Type TC



Type Corner



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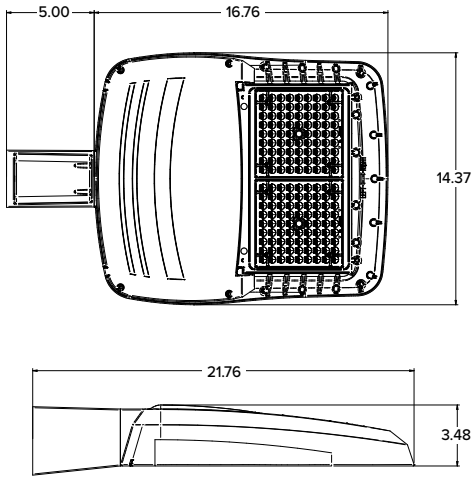
CATALOG #:

VIPER Area/Site

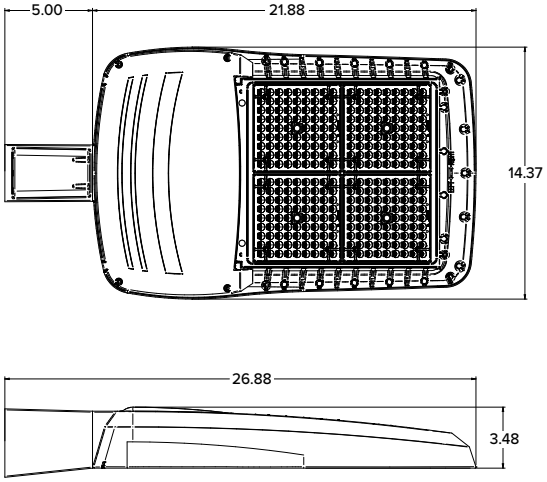
VIPER LUMINAIRE

DIMENSIONS

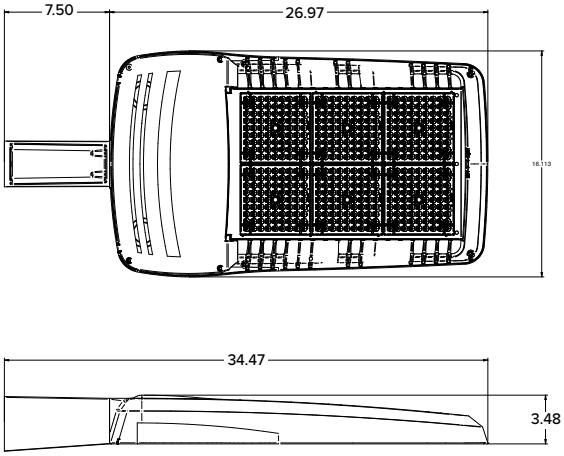
SIZE 1



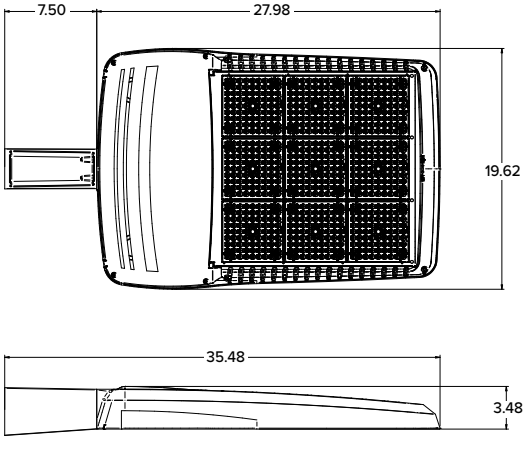
SIZE 2



SIZE 3



SIZE 4



	EPA				
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	Config.
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

	Weight	
	lbs	kgs
VP1 (Size 1)	13.7	6.2
VP2 (Size 2)	16.0	7.26
VP3 (Size 3)	25.9	11.7
VP4 (Size 4)	30.8	13.9

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

VIPER Area/Site

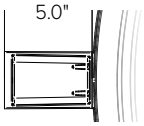
VIPER LUMINAIRE

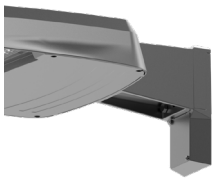
MOUNTING



ASQ–STRAIGHT ARM MOUNT

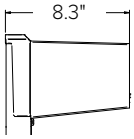
Fixture ships with integral arm for ease of installation. Compatible with Hubbell Outdoor B3 drill pattern. For round poles add applicable suffix (2/3/4/5)

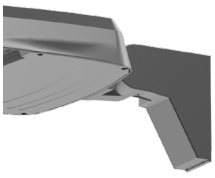




ASQU–UNIVERSAL ARM MOUNT

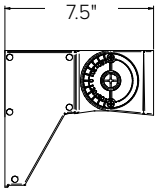
Universal mounting block for ease of installation. Compatible with drill patterns from 2.5" to 4.5" and Hubbell drill pattern S2. For round poles add applicable suffix (2/3/4/5)

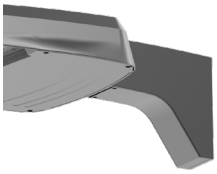




AAU–ADJUSTABLE ARM FOR POLE MOUNTING

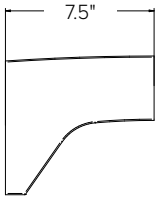
Rotatable arm mounts directly to pole. Compatible with drill patterns from 2.5" to 4.5" and Hubbell drill pattern S2. For round poles add applicable suffix (2/3/4/5). Rotatable in 15˚ aiming angle increments. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.

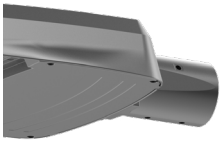




ADU–DECORATIVE UPSWEPT ARM

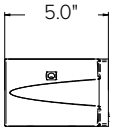
Upswept Arm compatible with drill patterns from 2.5" to 4.5". For round poles add applicable suffix (2/3/4/5).

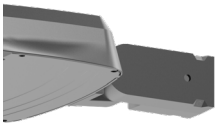




MAF–MAST ARM FITTER

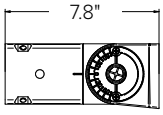
Fits 2-3/8" OD horizontal tenons.

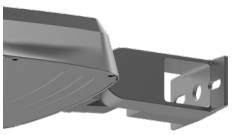




K–KNUCKLE

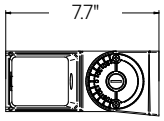
Knuckle mount 15˚ aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.





T–TRUNNION

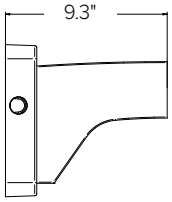
Trunnion for surface and crossarm mounting using (1) 3/4" or (2) 1/2" size through bolts. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.





WM–WALL MOUNT

Compatible with universal arm mount, adjustable arm mount, and decorative arm mount. The WA option uses the same wall bracket but replaces the decorative arm with an adjustable arm.



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HUBBELL Lighting

DATE: 2/27/2025 | LOCATION:

TYPE: | PROJECT:

CATALOG #:

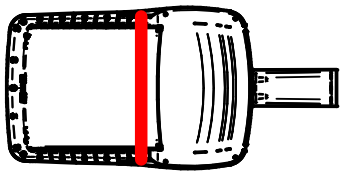
VIPER Area/Site

VIPER LUMINAIRE

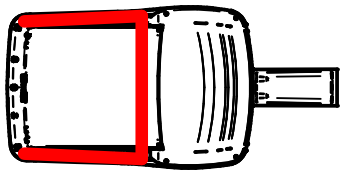
ADDITIONAL INFORMATION (CONTINUED)

HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES

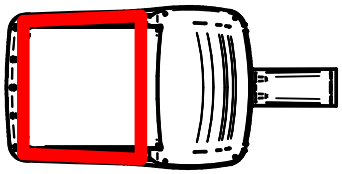
VPR2x HSS-90-B-xx



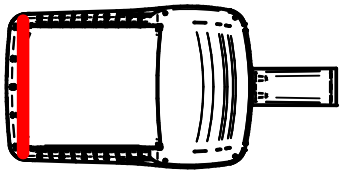
VPR2x HSS-270-BSS-xx



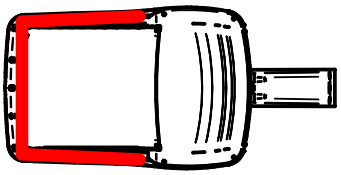
VPR2x HSS-360-xx



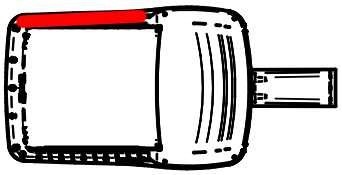
VPR2x HSS-90-F-xx



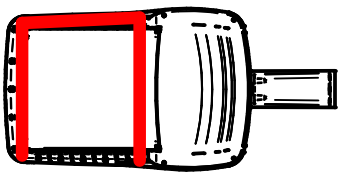
VPR2x HSS-270-FSS-xx



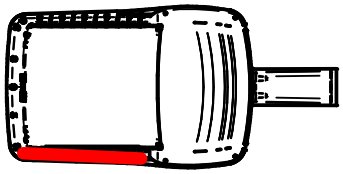
VPR2x HSS-90-S-xx



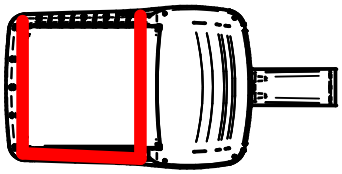
VPR2x HSS-270-FSB-xx



VPR2x HSS-90-S-xx



VPR2x HSS-270-FSB-xx



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VIPER Area/Site

VIPER LUMINAIRE

ADDITIONAL INFORMATION (CONTINUED)

PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6 - Delay 6 hours
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50% brightness
Auto-Dim Return	Delay 0-9 Hours	R6 - Return to full output after 6 hours

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6 - Dim at 6PM
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50%
Auto-Dim Return	12-6 AM and 9-11P	R6 - Return to full output at 6AM

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HUBBELL Lighting

Calculation Summary					
Room Name	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
SITE	0.61	3.6	0.0	N.A.	N.A.

Luminaire Schedule (note fixture catalogue numbers are not complete)						
Tag	**Qty**	**Lum. Lumens**	**LLF**	**Lum. Watts**	**Mounting Height**	**Description**
SA	6	6771	0.900	56.8	18	VP-1-36L-55-3K7-3
SB	3	5944	0.900	56.8	18	VP-1-36L-55-3K7-4W
SC	4	6636	0.900	56.8	18	VP-1-36L-55-3K7-4F
SD	5	4650	0.900	55	18	VP-S-36L-65-3K7-3-BC
SE	20	4205	0.900	55	14, 18	VP-1-36L-55-3K7-4W-BC

NOTES:
1) EXACT MOUNTING DETAILS TO BE DETERMINED AT JOBSITE BY OTHERS.
2) CALCULATIONS MAY or MAY NOT SHOW THE EFFECT OF SHADOWING CAUSED BY BUILDINGS AND OBJECTS WITHIN THE CALCULATED SPACE.
3) READINGS SHOWN ARE INITIAL HORIZONTAL FOOTCANDLES TAKEN AS SHOWN IN CALCULATION SUMMARY UNLESS OTHERWISE INDICATED.
4) THIS CALCULATION IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO SWANEY LIGHTING ASSOCIATES AND STANDARD ASSUMPTIONS OF THE SPACE.
5) CONFORMANCE TO CODES AND OTHER LOCAL REQUIREMENTS AS DETERMINED BY THE AHJ ARE THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
6) THIS LAYOUT DRAWING MUST BE COORDINATED WITH THE SITE LOCATION FOR CORRECT FIXTURE ORIENTATION.
7) DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY APEAR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.



HOLE
MANHOLE
SHUTOFF
GATE
E
BASIN
POLE
FIXTURE
YDRANT
UTILITY
LINE (SURVEYED)
OUNDARY LINES (APPROX.)
RAIL
MENT
CAD UTILITY

TYPICAL WETLAND BOUNDARY
NEW CHAIN-LINK FENCE
NEW CEDAR PRIVACY FENCE
WIRE FENCE
NEW ELECTRICAL PULL BOX
NEW TRANSFORMER
GRAVEL LINE
FLOOD BOUNDARY
WORK LIMIT
ZONE BOUNDARY
NEW SIGN

PARKING DATA

TOTAL SPACES	193
ADA SPACES REQUIRED	6
ADA SPACES PROVIDED	16
TOTAL DWELLING UNITS	96
SPACES / DWELLING UNITS	2
BUILDINGS 5-8	96
BUILDINGS 1-4	97

PLAN VIEW

TITLE
BRICKYARD COMMONS
AUBURN, ME
SITE LIGHTING LAYOUT

REF NO: site 4-6-22.AGI

GENERATED BY SWANEY LIGHTING, SCARBOROUGH ME - 207-883-7100 - swaneylighting.com

Date:4/5/2022

GENERATED FOR:
CED AUBURN

SCALE AS SHOWN

Page 1 of 1

SLA
SWANEY LIGHTING ASSOCIATES, INC.

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207.433.1075
www.dirigoae.com

Mr. John A. Blais
Planning, Permitting and Code Division
City of Auburn
60 Court Street
Auburn, ME 04210
Date: May 3, 2022

RE: Brickyard Commons at Brickyard Circle
Town of Auburn, Code Ordinance District Regulations
Architectural Intent and Purpose: Downtown Traditional Center (T-5.1)

Dear Mr. Blais:

Brickyard Commons is a 96-unit apartment complex to be located off Brickyard Circle that will maintain an urban environment with eight 3 story multifamily buildings. There will be active street connection with a paved walk from the accessways. The buildings have large front facades with many windows bringing sunlight into the units. The buildings will be wood framed with vinyl siding and brick accent, and the design has a garden style feel with an open connection to the outside space.

Sec. 60-550.1. Building Placement and Configuration T-5.1.

This project meets the building placement section with all new buildings set 9.5' from the sidewalk access ways. Side and rear setbacks, building lot coverage, and useable open space comply with city requirements. The principal building configuration meets all city requirements for building width, height, and story maximums.

Building Placement Dimensions:	Allowable	Actual
(A) Front Setback, Principal:	0-10' Max	9.5'
(B) (Corner Lot) Front Setback, Secondary:	0-10' Max	10'
(C) Side Setback	0*- 5' Min	N/A
(D) Rear Setback	0-10' Max	N/A
Building Lot Coverage	75% Max	9.6%
Useable Open Space	5% min.	12.2%
Frontage Build-Out	75% @ front setback	N/A
Lot width	24'Min-160'Max.	N/A

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(Continued)

Building Placement Dimensions:	Allowable	Actual

Principal Building Configuration:

(E) Building Width :	14'Min. – 150'Max.	N/A
Building Height Minimum	2 Story Min.	3 Story
(F) Building Height Maximum	4 Story Max	3 Story

Sec. 60-550.2. Building frontages T-5.1.

All new buildings will be interior to the site, and blocked by landscaping from Washington St. The buildings will have flush entrances at entry grade level for ADA accessibility. The buildings ground story entries will face paved accessways and have been recessed to promote handicap accessibility. The building envelope on ground and upper floors meet all window coverage requirements.

Building Envelope Articulation:

Façade window + door areas:	Requirement	Proposed
Ground Story Building Frontage Façade:	25%Min – 60%Max	32%
Upper Story Building Frontage Façade:	20%Min – 40%Max	31%
Ground Story Fin. Floor elevation	2'Min – 6' Max Below avg. grade	Waiver to meet ADA requirements
Front Façade Wall blank length	10' Max.	5' Max.

DIRIGO
ARCHITECTURAL
ENGINEERING + CONSTRUCTION MANAGEMENT

108 Mussey Road
Scarborough, ME 04074
tperkins@dirigoae.com
207.225.3040
207.433.1075
www.dirigoae.com

Sec. 60-550.3. External elements T-5.1.

Paved Parking on site will be provided with direct access to each apartment via ADA accessible routes. View of the parking will be blocked from Washington Street with existing and new screening. All building elements and accessory structures comply with setback requirements set forth in Sec. 60.550.3 Table for External elements T-5.1:

Feature	Requirements	Proposed
Front Yard Fence:	2' Min. – 4" Max. encouraged	N/A
Street Wall/Wall Opening:	20' (res.) – 24' (comm.)Max Width, Pedestrian = 6' Max.	N/A
Building Projections:	Stoop encroachments	N/A
Garages	Detached setback 20' Min.	N/A
Driveways:	On secondary frontage	N/A
Parking:	Residential designated/driveway	Met
Accessory Structures	20' from street r.o.w.	Met
Landscaping:	Encouraged/ limited extents	Provided
Foundation Planting:	Encouraged, w/clearance	Provided

Respectfully,

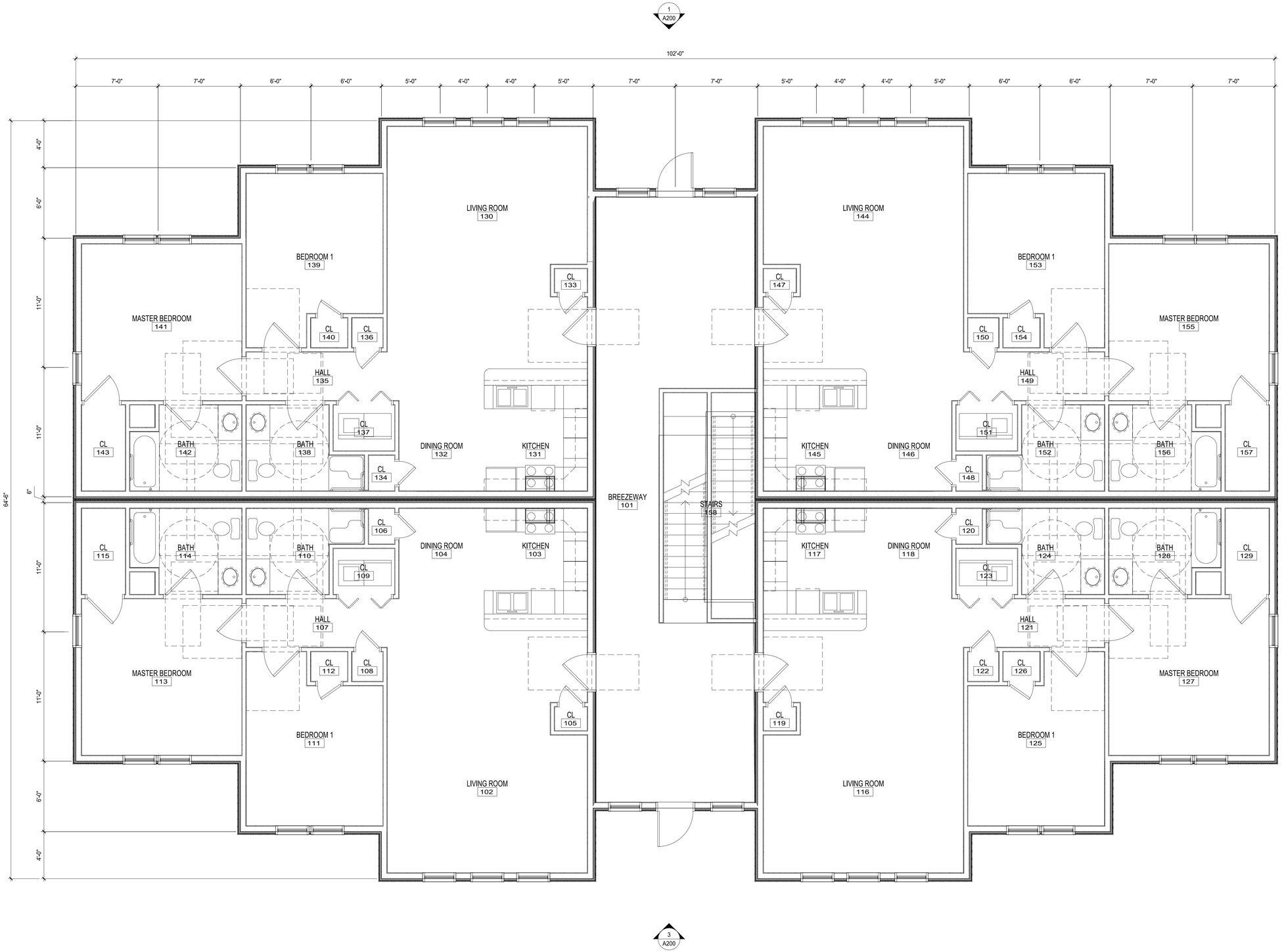
David L. Berry, Project Manager
Dirigo Architectural Engineering, LLC

Cc: Michael F. Gotto

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SHEET SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

May 03, 2022 - 4:56pm
S:\CAD Projects\22-005 Brickyard Apartments\22-005 Brickyard Apartments\Sheets\A100 FIRST FLOOR PLAN.dwg



1 A100 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

Brickyard Apartments

Washington St. Auburn, Maine

FOR

Gendron Corp.

50 Alfred A. Plourde Parkway PO Box 1913, Lewistion, Maine 04241

DIRIGO ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT
7 COBBLESTONE WAY, SUITE 2
TURNER, MAINE 04282
PH: (207) 225-3040
WS: DIRIGOAE.COM

SIGNED COPY OF DRAWING ON FILE AT DIRIGO A/E OFFICE

DRAFT

NOT FOR CONSTRUCTION

FIRST FLOOR PLAN

REV.	DATE	DESCRIPTION
0	5/3/22	ISSUED FOR PERMIT REVIEW

DRAWN BY: DLB & CJL | CHECKED BY: TWP

SCALE:	AS NOTED
DATE:	2/11/22
PROJECT:	22-005

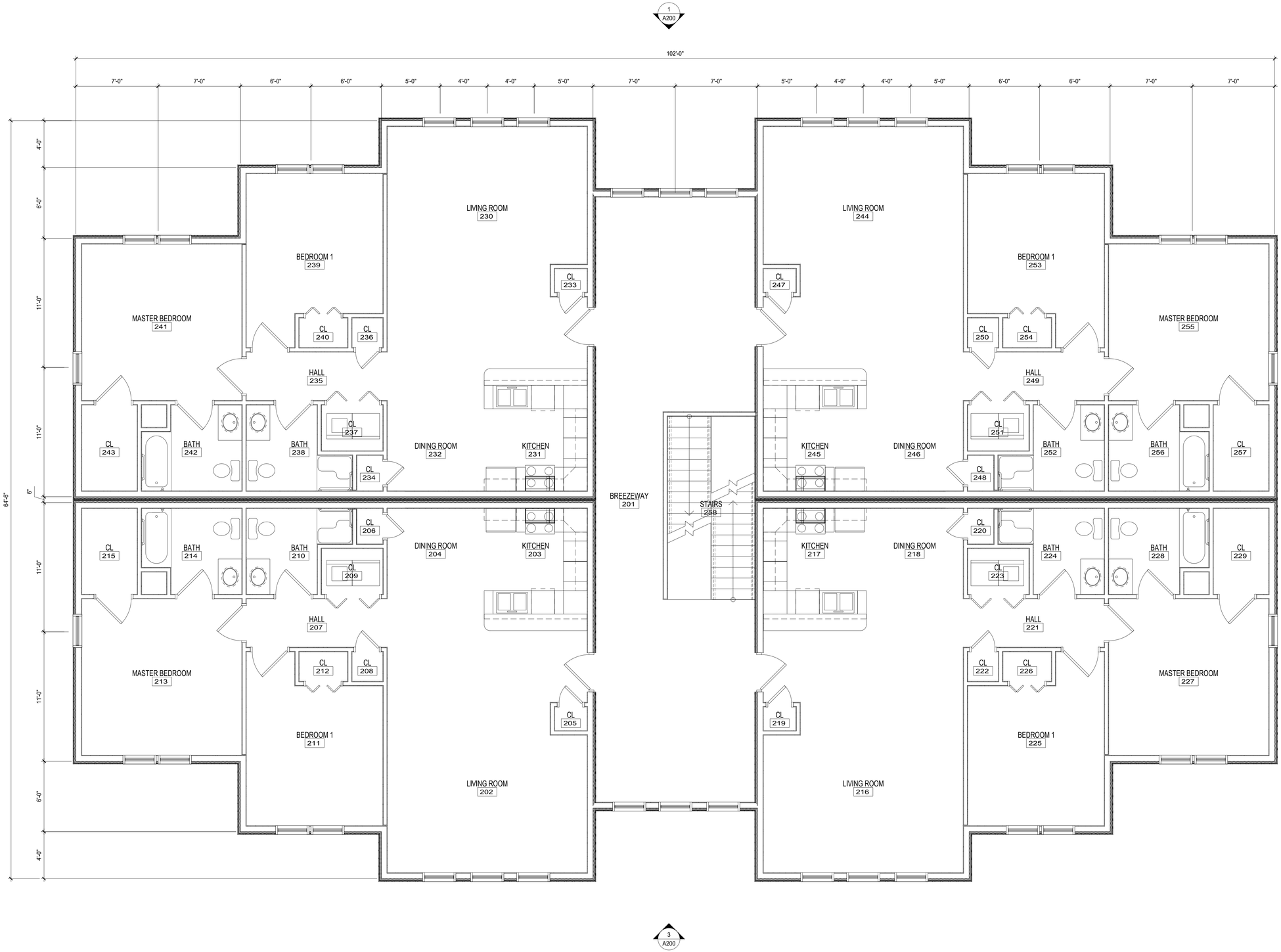
SHEET NO.

A100

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SHEET SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

May 03, 2022 - 4:56pm
S:\CAD Projects\22-005 Brickyard Apartments\22-005 Brickyard Apartments\Sheets\A101 SECOND FLOOR PLAN.dwg



1 A101 SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"

Brickyard Apartments
Washington St. Auburn, Maine
FOR
Gendron Corp.
50 Alfred A. Plourde Parkway PO Box 1913, Lewistion, Maine 04241

DIRIGO ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT
7 COBBLESTONE WAY, SUITE 2
TURNER, MAINE 04282
PH: (207) 225-3040
WS: DIRIGOAE.COM

SIGNED COPY OF DRAWING ON FILE AT DIRIGO A/E OFFICE

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NOT FOR CONSTRUCTION

SECOND FLOOR PLAN

REV.	DATE	DESCRIPTION
0	5/3/22	ISSUED FOR PERMIT REVIEW

DRAWN BY: DLB & CJL | CHECKED BY: TWP

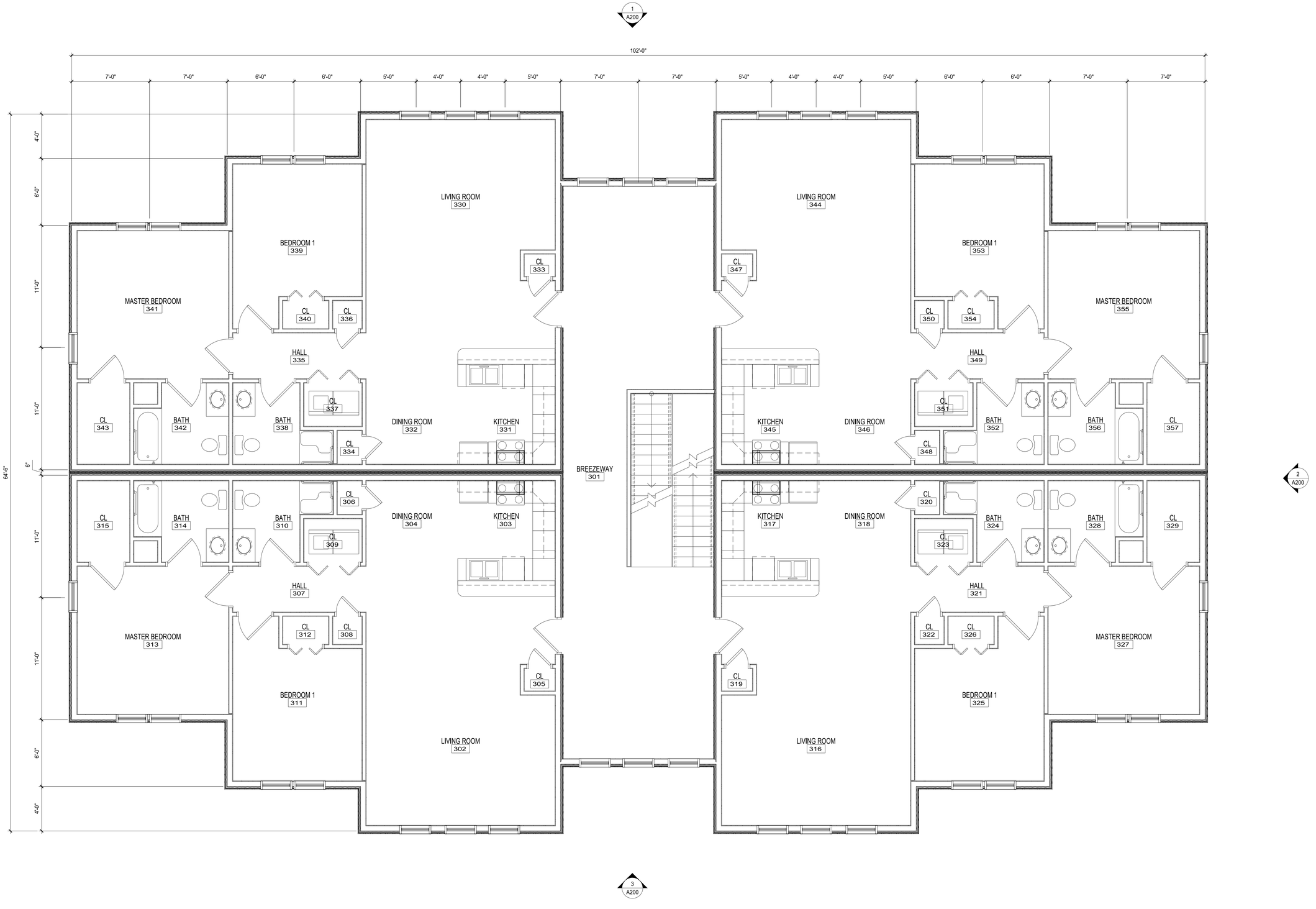
SCALE: AS NOTED
DATE: 2/11/22
PROJECT: 22-005

SHEET NO.
A101

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SHEET SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

May 03, 2022 - 4:56pm
S:\CAD Projects\22-005 Brickyard Apartments\22-005 Brickyard Apartments\Sheets\A102 THIRD FLOOR PLAN.dwg



1 A102 THIRD FLOOR PLAN
SCALE: 1/4" = 1'-0"

Brickyard Apartments

Washington St. Auburn, Maine

FOR

Gendron Corp.

50 Alfred A. Plourde Parkway PO Box 1913, Lewistion, Maine 04241

DIRIGO ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT
7 COBBLESTONE WAY, SUITE 2
TURNER, MAINE 04282
PH: (207) 225-3040
WS: DIRIGOAE.COM

SIGNED COPY OF DRAWING ON FILE AT DIRIGO A/E OFFICE

DRAFT

NOT FOR CONSTRUCTION

THIRD FLOOR PLAN

REV.	DATE	DESCRIPTION
0	5/3/22	ISSUED FOR PERMIT REVIEW

DRAWN BY: DLB & CJL | CHECKED BY: TWP

SCALE: AS NOTED
DATE: 2/11/22
PROJECT: 22-005

SHEET NO.

A102

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SHEET SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

May 03, 2022 - 4:56pm
S:\CAD Projects\22-005 Brickyard Apartments\22-005 Brickyard Apartments\Sheets\A103 ROOF PLAN.dwg

1 A103 ROOF PLAN
SCALE: 1/4" = 1'-0"

Brickyard Apartments

Washington St. Auburn, Maine

FOR

Gendron Corp.

50 Alfred A. Plourde Parkway PO Box 1913, Lewistion, Maine 04241

DIRIGO ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT
7 COBBLESTONE WAY, SUITE 2
TURNER, MAINE 04282
PH: (207) 225-3040
WS: DIRIGOAE.COM

SIGNED COPY OF DRAWING ON FILE AT DIRIGO A/E OFFICE

ROOF PLAN

REV.	DATE	DESCRIPTION

DRAWN BY: DLB & CJL | CHECKED BY: TWP

SCALE:	AS NOTED
DATE:	2/11/22
PROJECT:	22-005

SHEET NO.

A103

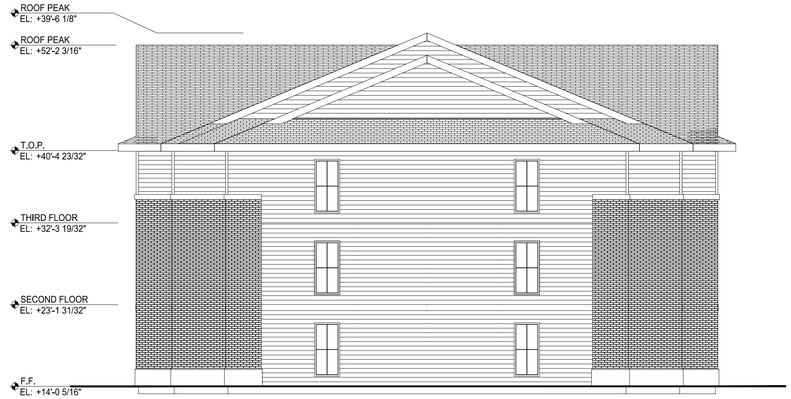
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SHEET SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

May 03, 2022 - 4:57pm
S:\CAD Projects\22-005 Brickyard Apartments\22-005 Brickyard Apartments\Sheets\A200 EXTERIOR ELEVATIONS.dwg



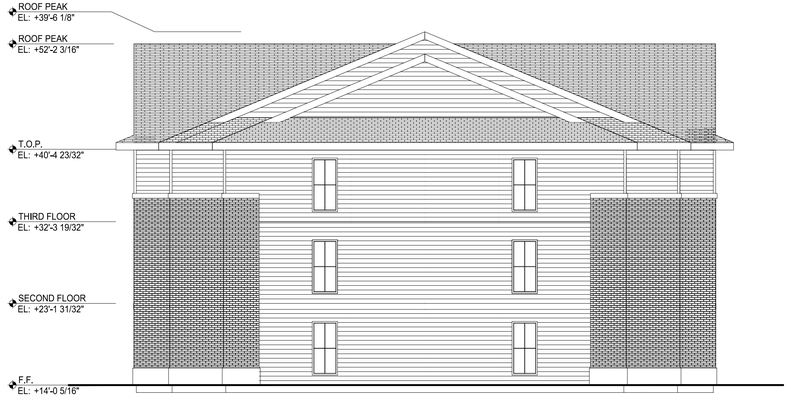
1 A200 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



2 A200 EAST ELEVATION
SCALE: 1/8" = 1'-0"



3 A200 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



4 A200 WEST ELEVATION
SCALE: 1/8" = 1'-0"

Brickyard Apartments

Washington St. Auburn, Maine

FOR

Gendron Corp.

50 Alfred A. Plourde Parkway PO Box 1913, Lewistion, Maine 04241

DIRIGO ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT
7 COBBLESTONE WAY, SUITE 2
TURNER, MAINE 04282
PH: (207) 225-3040
WS: DIRIGOAE.COM

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DRAFT

NOT FOR CONSTRUCTION

EXTERIOR ELEVATIONS

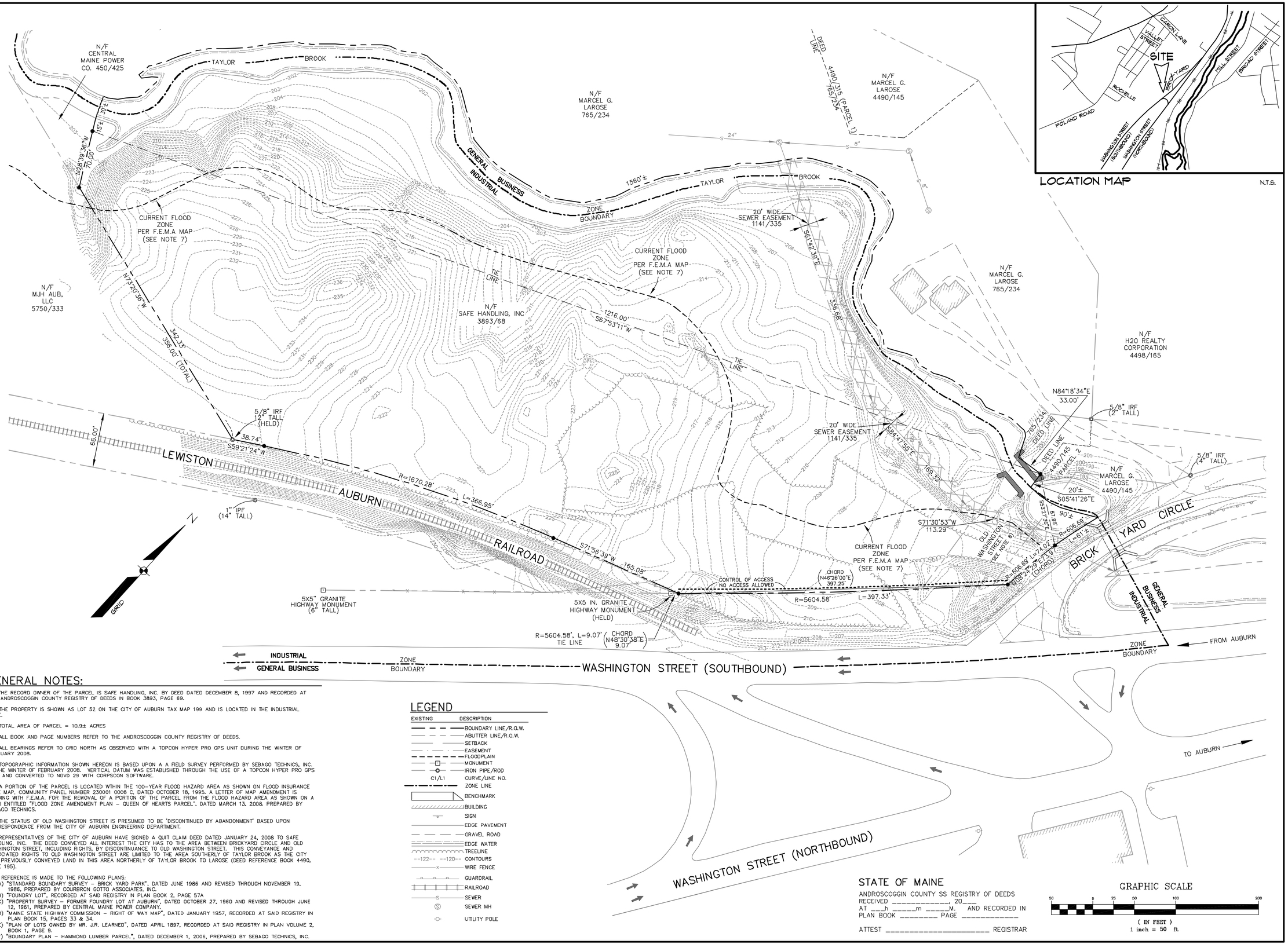
REV.	DATE	DESCRIPTION
0	5/3/22	ISSUED FOR PERMIT REVIEW

DRAWN BY: DLB & CJL | CHECKED BY: TWP

SCALE:	AS NOTED
DATE:	5/3/22
PROJECT:	22-005

SHEET NO.

A200



LOCATION MAP N.T.S.

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCEL IS SAFE HANDLING, INC. BY DEED DATED DECEMBER 8, 1997 AND RECORDED AT THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS IN BOOK 3893, PAGE 69.
2. THE PROPERTY IS SHOWN AS LOT 52 ON THE CITY OF AUBURN TAX MAP 199 AND IS LOCATED IN THE INDUSTRIAL ZONE.
3. TOTAL AREA OF PARCEL = 10.9± ACRES
4. ALL BOOK AND PAGE NUMBERS REFER TO THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS.
5. ALL BEARINGS REFER TO GRID NORTH AS OBSERVED WITH A TOPCON HYPER PRO GPS UNIT DURING THE WINTER OF FEBRUARY 2008.
6. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON A A FIELD SURVEY PERFORMED BY SEBAGO TECHNICS, INC. IN THE WINTER OF FEBRUARY 2008. VERTICAL DATUM WAS ESTABLISHED THROUGH THE USE OF A TOPCON HYPER PRO GPS UNIT AND CONVERTED TO NGVD 29 WITH CORPSCON SOFTWARE.
7. A PORTION OF THE PARCEL IS LOCATED WTHIN THE 100-YEAR FLOOD HAZARD AREA AS SHOWN ON FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 230001 0008 C, DATED OCTOBER 18, 1995. A LETTER OF MAP AMENDMENT IS PENDING WITH F.E.M.A. FOR THE REMOVAL OF A PORTION OF THE PARCEL FROM THE FLOOD HAZARD AREA AS SHOWN ON A PLAN ENTITLED "FLOOD ZONE AMENDMENT PLAN – QUEEN OF HEARTS PARCEL", DATED MARCH 13, 2008, PREPARED BY SEBAGO TECHNICS.
8. THE STATUS OF OLD WASHINGTON STREET IS PRESUMED TO BE 'DISCONTINUED BY ABANDONMENT' BASED UPON CORRESPONDENCE FROM THE CITY OF AUBURN ENGINEERING DEPARTMENT.
9. REPRESENTATIVES OF THE CITY OF AUBURN HAVE SIGNED A QUIT CLAIM DEED DATED JANUARY 24, 2008 TO SAFE HANDLING, INC. THE DEED CONVEYED ALL INTEREST THE CITY HAS TO THE AREA BETWEEN BRICKYARD CIRCLE AND OLD WASHINGTON STREET, INCLUDING RIGHTS, BY DISCONTINUANCE TO OLD WASHINGTON STREET. THIS CONVEYANCE AND ASSOCIATED RIGHTS TO OLD WASHINGTON STREET ARE LIMITED TO THE AREA SOUTHERLY OF TAYLOR BROOK AS THE CITY HAS PREVIOUSLY CONVEYED LAND IN THIS AREA NORTHERLY OF TAYLOR BROOK TO LAROSE (DEED REFERENCE BOOK 4490, PAGE 195).
10. REFERENCE IS MADE TO THE FOLLOWING PLANS:
    A) "STANDARD BOUNDARY SURVEY – BRICK YARD PARK", DATED JUNE 1986 AND REVISED THROUGH NOVEMBER 19, 1986, PREPARED BY COURBRON GOTTO ASSOCIATES, INC.
    B) "FOUNDRY LOT", RECORDED AT SAID REGISTRY IN PLAN BOOK 2, PAGE 57A
    C) "PROPERTY SURVEY – FORMER FOUNDRY LOT AT AUBURN", DATED OCTOBER 27, 1960 AND REVISED THROUGH JUNE 12, 1961, PREPARED BY CENTRAL MAINE POWER COMPANY.
    D) "MAINE STATE HIGHWAY COMMISSION – RIGHT OF WAY MAP", DATED JANUARY 1957, RECORDED AT SAID REGISTRY IN PLAN BOOK 15, PAGES 33 & 34.
    E) "PLAN OF LOTS OWNED BY MR. J.R. LEARNED", DATED APRIL 1897, RECORDED AT SAID REGISTRY IN PLAN VOLUME 2, BOOK 1, PAGE 9.
    F) "BOUNDARY PLAN – HAMMOND LUMBER PARCEL", DATED DECEMBER 1, 2006, PREPARED BY SEBAGO TECHNICS, INC.

LEGEND

EXISTING	DESCRIPTION
	BOUNDARY LINE/R.O.W.
	ABUTTER LINE/R.O.W.
	SETBACK
	EASEMENT
	FLOODPLAIN
	MONUMENT
	IRON PIPE/ROD
C1/L1	CURVE/LINE NO.
	ZONE LINE
	BENCHMARK
	BUILDING
	SIGN
	EDGE PAVEMENT
	GRAVEL ROAD
	EDGE WATER
	TREELINE
--122-- --120--	CONTOURS
	WIRE FENCE
	GUARDRAIL
	RAILROAD
	SEWER
	SEWER MH
	UTILITY POLE

STATE OF MAINE

ANDROSCOGGIN COUNTY SS REGISTRY OF DEEDS
RECEIVED _____, 20___
AT ____h _____m _____M. AND RECORDED IN
PLAN BOOK _____ PAGE _____

ATTEST _____ REGISTRAR

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

Kevin Hamm
NOT VALID UNLESS EMBOSSED HERE

REV:	BY:	DATE:	STATUS:
1	KRF	4-10-08	REVISED BOUNDARY DATA IN OLD WASHINGTON ST. & TIE LINES
1	KRF	3-27-08	RELEASED TO CLIENT

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

Sebago Technics
Engineering Expertise You Can Build On.
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

PROJECT NO.	FIELD BOOK	DESIGN	CHKD	DRAWN
08018	N/A	N/A	KRF	ATA

EXISTING CONDITIONS BOUNDARY PLAN
OF:
QUEEN OF HEARTS PARCEL
BRICKYARD CIRCLE
AUBURN, MAINE
FOR:
SAFE HANDLING, INC.
P.O. BOX 1567 – AUBURN, MAINE 04211-1567

DATE	SCALE
3-13-08	1"=50'

SHEET 1 OF 1

08018EC.dwg, TAB:STI 24X36



LOCATION MAP 1" = 1/2 MILE

LEGEND

- SEWER MANHOLE
- NEW SEWER MANHOLE
- NEW WATER SHUTOFF
- NEW WATER GATE
- UTILITY POLE
- NEW CATCH BASIN
- NEW UTILITY POLE
- NEW LIGHT FIXTURE
- NEW FIRE HYDRANT
- OVERHEAD UTILITY
- BOUNDARY LINE (SURVEYED)
- ABUTTING BOUNDARY LINES (APPROX.)
- GUARDRAIL
- SEWER EASEMENT
- NEW OVERHEAD UTILITY
- NEW CURB
- PAVEMENT
- NEW PAVEMENT
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- NEW MAJOR CONTOUR LINE
- NEW MINOR CONTOUR LINE
- TYPICAL WETLAND BOUNDARY
- NEW CHAIN-LINK FENCE
- NEW CEDAR PRIVACY FENCE
- WIRE FENCE
- GRAVEL LINE
- FLOOD BOUNDARY

IMPACT SUMMARY

WOSS IMPACT TOTAL (FILL)	4,096 S.F.
NON-WOSS WETLAND IMPACT (FILL)	9,536 S.F.

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

40 0 20 40
(IN FEET)
1 INCH = 40 FT

SUBMISSION NOTES:

SUBMISSION 1: 2022-03-22 SDH
ISSUED FOR REVIEW.

SUBMISSION 2: 2022-04-18 SDH
ISSUED FOR PERMITTING.

SUBMISSION 3: 2022-08-11 SDH
ISSUED FOR PERMITTING.

SUBMISSION 4: 2022-08-25 TLB
ISSUED FOR PERMITTING.

SUBMISSION 5: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	5
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

IMPACT OVERVIEW PLAN

SEAL:

STATE OF MAINE
RICHARD W. DUNTON No. 12485
LICENSED PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

W1.1

MLDC NO. 21-342 1 OF 1

NOTES

1. CITY OF AUBURN: TAX MAP 199, LOT 52.
2. TOTAL PARCEL AREA: 10.9 ACRES, MORE OR LESS.
3. EXISTING TOPOGRAPHY AND PROPERTY BOUNDARY IS BASED ON A PLAN BY SEBAGO TECHNICS ENTITLED "EXISTING CONDITIONS BOUNDARY PLAN OF QUEEN OF HEARTS PARCEL". DATED 2008-03-13.
4. OWNER OF RECORD AT TIME OF SURVEY: SAFE HANDLING, INC, BY DEED DATED DECEMBER 8, 1997. BOOK 3893, PAGE 69.
5. EXISTING TOPOGRAPHY SHOWN IS BASED ON A FIELD SURVEY PERFORMED BY SEBAGO TECHNICS, INC, IN FEBRUARY 2008.
6. WORK LIMITS ARE PROPERTY LINES UNLESS OTHERWISE NOTED. WORK FROM THE PROJECT SIDE WHEN NEAR NATURAL RESOURCES AND DO NOT DISTURB WETLANDS AND STREAM BUFFERS EXCEPT AS SHOWN.

GRID NORTH

N/F CENTRAL MAINE POWER CO. 450/425

30.04'

70.00' S28°39'36"W

N/F MJH AUB, LLC 5730/333

FLOOD ZONE (TYP)

75' NRPA STREAM BUFFER

25' NRPA STREAM SETBACK

N/F MARCEL G. LAROSE 765/234

WOSS IMPACT 3 114 S.F.

WETLAND IMPACT E 2,468 S.F.

WETLAND UPLAND

75'

25'

L= 1,560'±

TAYLOR BROOK

N/F MARCEL G. LAROSE 4490/145

N/F MARCEL G. LAROSE 765/234

WETLAND IMPACT D 759 S.F.

CURRENT FLOOD ZONE (TYP)

UPLAND WETLAND

WETLAND IMPACT C 245 S.F.

SEWER MANHOLE RIM: 205.5'± INV.: 189.4'

TREELINE (TYP)

356.00' N79°20'36"W

DOWNTOWN TRADITIONAL T-5.1 DISTRICT INDUSTRIAL DISTRICT

38.74' S59°21'24"W

R=1870.28' L=366.95'

CLEAR AND GRUB FROM EXISTING TREELINE TO NEW TREELINE

DEMOLISH TREELINE (TYP)

REMOVE 24" CULVERT (BURIED)

WOSS IMPACT 2 194 S.F.

GRUB EXISTING OPEN AREA

REMOVE COLLAPSED CULVERT

NEW TREELINE (TYP)

TEMPORARY CONSTRUCTION DE-WATERING AREA WITH DOUBLE LAYER SEDIMENTATION CONTROLS. SEE E&SC PLAN FOR DETAILS.

165.08' S71°56'39"W

R=606.63' L=61.37'

R=606.63' L=74.02'

BRICKYARD CIR.

R=5804.58' L=397.33'

WETLAND IMPACT A 3,681 S.F.

WETLAND IMPACT B 2,383 S.F.

WOSS IMPACT 1 3,788 S.F.

REMOVE GUARDRAIL AS SHOWN

PROTECT 15" CULVERT INV. OUT: 201.3'

PROTECT CATCH BASIN (APPROX.) RIM: 206.1'

INDUSTRIAL DISTRICT DOWNTOWN TRADITIONAL T-5.1 DISTRICT

ZONE BOUNDARY (TYP)

WASHINGTON STREET (SOUTH BOUND)

LEGEND

- SEWER MANHOLE
- UTILITY POLE
- OU — OVERHEAD UTILITY
- BOUNDARY LINE (SURVEYED)
- ABUTTING BOUNDARY LINES (APPROX.)
- GUARDRAIL
- SEWER EASEMENT
- ZONE BOUNDARY
- PAVEMENT
- 490 — MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- TYPICAL WETLAND BOUNDARY
- X — X — X — X — WIRE FENCE
- GRAVEL LINE
- FLOOD BOUNDARY
- S — SEWER LINE (APPROX.)
- SEWER EASEMENT
- PROPOSED TREELINE
- DEMOLISH TREELINE
- EXISTING TREELINE
- WL — WORK LIMIT

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.

69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

40 0 20 40

(IN FEET)

1 INCH = 40 FT

SUBMISSION NOTES:

SUBMISSION 1: 2022-03-18 SDH
ISSUED FOR CLIENT REVIEW.

SUBMISSION 2: 2022-03-24 SDH
ISSUED FOR 75% REVIEW.

SUBMISSION 3: 2022-03-31 SDH
ISSUED FOR 75% REVIEW.

SUBMISSION 4: 2022-05-03 SDH
ISSUED FOR PERMITTING.

SUBMISSION 5: 2022-06-16 SDH
ISSUED FOR PERMITTING.

SUBMISSION 6: 2022-08-11 SDH
ISSUED FOR PERMITTING.

SUBMISSION 7: 2022-09-09 RWD
ISSUED DEP REVIEW GEOLOGY COMMENTS.

SUBMISSION 8: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	8
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

EXISTING CONDITIONS AND DEMOLITION

SEAL:

STATE OF MAINE
RICHARD W. DUNTON No. 12485
LICENSED PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

C1.0

MLDC NO. 21-342 1 OF 14

ANDROSCOGGIN COUNTY SS REGISTRY OF DEEDS

RECEIVED: _____

AT ___ H. ___ M ___ M.

RECORDED IN PLAN BOOK _____, PAGE _____

ATTEST: _____
REGISTER

APPROVAL

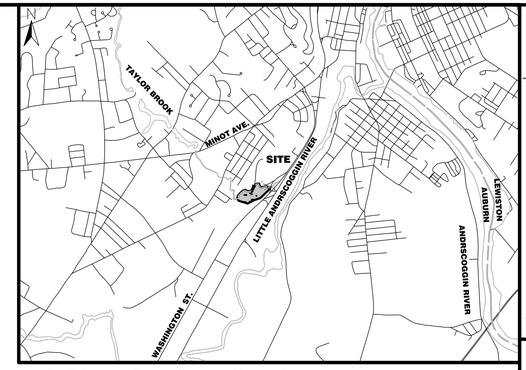
APPROVED BY THE CITY OF AUBURN PLANNING BOARD

_____ _____
CHAIRMAN DATE

_____ _____
CITY CLERK DATE

NOTES

1. AUBURN'S MUNICIPAL SITE PLAN AND SPECIAL EXCEPTION REVIEW SETS FORTH A PROCESS FOR DETERMINING WHETHER A DEVELOPMENT MEETS CERTAIN SPECIFIED CRITERIA, WHICH INCLUDE CRITERIA REGARDING STORMWATER MANAGEMENT, SEWAGE DISPOSAL, WATER SUPPLY AND VEHICULAR ACCESS AND OTHER ENVIRONMENTAL EFFECTS, LAYOUT, SCALE, APPEARANCE, AND SAFETY TO MEET THE REQUIREMENTS OF MAINE REVISED STATUTES SECTION 4402.6.
2. CITY OF AUBURN: TAX MAP 199, LOT 52.
3. TOTAL PARCEL AREA: 10.9 ACRES, MORE OR LESS.
4. EXISTING TOPOGRAPHY AND PROPERTY BOUNDARY IS BASED ON A PLAN BY SEBAGO TECHNICS ENTITLED "EXISTING CONDITIONS BOUNDARY PLAN OF QUEEN OF HEARTS PARCEL". DATED 2008-03-13.
5. OWNER OF RECORD AT TIME OF SURVEY: SAFE HANDLING, INC, BY DEED DATED DECEMBER 8, 1997. BOOK 3893, PAGE 69.
6. EXISTING TOPOGRAPHY SHOWN IS BASED ON A FIELD SURVEY PERFORMED BY SEBAGO TECHNICS, INC, IN FEBRUARY 2008.
7. WORK LIMITS ARE PROPERTY LINES UNLESS OTHERWISE NOTED. WORK FROM THE PROJECT SIDE WHEN NEAR NATURAL RESOURCES AND DO NOT DISTURB WETLANDS AND STREAM BUFFERS EXCEPT AS SHOWN.



LOCATION MAP 1" = 1/2 MILE

N/F CENTRAL MAINE POWER CO. 450/425

N/F MARCEL G. LAROSE 4490/145

N/F MARCEL G. LAROSE 765/234

N/F MJH AUB, LLC 5730/333

GRID NORTH

710.00' S28°39'36"W

30.04'

NEW RETAINING WALL BY OTHERS

100 YR FLOOD ZONE (TYP)

PHASE 2 PARKING, SIDEWALK AND CURB TO BE CONSTRUCTED IF WARRANTED (TYP)

75' NRPA STREAM BUFFER (TYP)

25' NRPA STREAM SETBACK (TYP)

WETLAND/UPLAND

75.8'

L= 1,560'±

TAYLOR BROOK

75' 25'

63.2'

RECREATIONAL AREA

27.6'

358.00' N73°20'36"W

PEDESTRIAN EASEMENT TO THE CITY OF AUBURN FOR FUTURE TRAIL CONNECTIVITY

DOWNTOWN TRADITIONAL T-5.1 DISTRICT / INDUSTRIAL DISTRICT

38.74' S59°21'24"W

NEW LIGHT POST (TYP)

NEW "FOCAL POINT" BY FERGUSON

NEW DETENTION POND

DUMPSTERS

RECREATIONAL AREA

NEW PICNIC TABLES AND GRILLS

NEW FIRE PIT

NEW BENCH (TYP)

R=1670.28' L=386.95'

NEW BUS STOP

DOWNTOWN TRADITIONAL T-5.1 DISTRICT / INDUSTRIAL DISTRICT

FIRE BRICK LANE

165.08' S71°56'39"W

NEW MAIL BOXES (2) CLUSTERS

99.6'

NEW GAZEBO (TYP)

NEW VAN ACCESSIBLE HANDICAP PARKING SIGN (2-TYP HCAP STALLS)

SHORELAND ZONE STREAM PROTECTION OVERLAY DISTRICT (TYP)

STREAM PROTECTION SETBACK (TYP)

NEW GRASS UNDERDRAINED SOIL FILTER POND

NEW SPEED LIMIT SIGN "10 MPH"

NEW GUARD RAIL

NEW RETAINING WALL BY OTHERS

NEW "STOP" SIGN

NEW PAINTED STOP BAR

WORK LIMIT BOUNDARY (TYP)

R=606.69' L=61.37'

R=606.69' L=74.02'

BRICKYARD CIR.

R=5604.58' L=397.33'

UPLAND/WETLAND

BUILDING 8 — 22 SPACES
BUILDING 7 — 9 SPACES
BUILDING 6 — 23 SPACES
BUILDING 5 — 17 SPACES
BUILDING 4 — 26 SPACES
BUILDING 3 — 9 SPACES
BUILDING 2 — 12 SPACES
BUILDING 1 — 10 SPACES

VENEER PLACE

CLAY COURT

INDUSTRIAL DISTRICT
DOWNTOWN TRADITIONAL
T-5.1 DISTRICT

ZONE BOUNDARY (TYP)

WASHINGTON STREET (SOUTH BOUND)

LEGEND

- SEWER MANHOLE
- NEW SEWER MANHOLE
- NEW WATER SHUTOFF
- NEW WATER GATE
- UTILITY POLE
- NEW CATCH BASIN
- NEW UTILITY POLE
- NEW LIGHT FIXTURE
- NEW FIRE HYDRANT
- NEW UNDERDRAIN CLEANOUT
- OVERHEAD UTILITY
- BOUNDARY LINE (SURVEYED)
- ABUTTING BOUNDARY LINES (APPROX.)
- GUARDRAIL
- NEW GUARDRAIL
- SEWER EASEMENT
- NEW OVERHEAD UTILITY
- NEW CURB
- PAVEMENT
- NEW PAVEMENT
- TYPICAL WETLAND BOUNDARY
- NEW CHAIN-LINK FENCE
- NEW CEDAR PRIVACY FENCE
- WIRE FENCE
- NEW ELECTRICAL PULL BOX
- NEW TRANSFORMER
- GRAVEL LINE
- FLOOD BOUNDARY
- WORK LIMIT
- ZONE BOUNDARY
- NEW SIGN
- PHASE 2 PARKING AREA

PARKING DATA

TOTAL PHASE 1 SPACES	167
ADA SPACES REQUIRED	6
ADA SPACES PROVIDED	16
TOTAL DWELLING UNITS	96
SPACES / DWELLING UNITS	1.7
BUILDINGS 5-8	82
BUILDINGS 1-4	85

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
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PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

40 0 20 40
(IN FEET)
1 INCH = 40 FT

SUBMISSION NOTES:

SUBMISSION 3: 2022-02-18 SDH
ISSUED FOR CLIENT REVIEW.

SUBMISSION 4: 2022-02-26 SDH
ISSUED FOR CLIENT REVIEW.

SUBMISSION 5: 2022-03-18 SDH
ISSUED FOR CLIENT REVIEW.

SUBMISSION 6: 2022-03-28 SDH
ISSUED FOR 75% REVIEW.

SUBMISSION 7: 2022-03-31 SDH
ISSUED FOR 75% REVIEW.

SUBMISSION 8: 2022-05-03 SDH
ISSUED FOR REVIEW.

SUBMISSION 9: 2022-05-03 SDH
ISSUED FOR REVIEW.

SUBMISSION 10: 2022-05-04 SDH
ISSUED FOR PERMITTING.

SUBMISSION 11: 2022-06-16 SDH
ISSUED FOR PERMITTING.

SUBMISSION 12: 2022-08-11 SDH
ISSUED FOR PERMITTING.

SUBMISSION 13: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	13
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

OVERVIEW PLAN

SEAL:

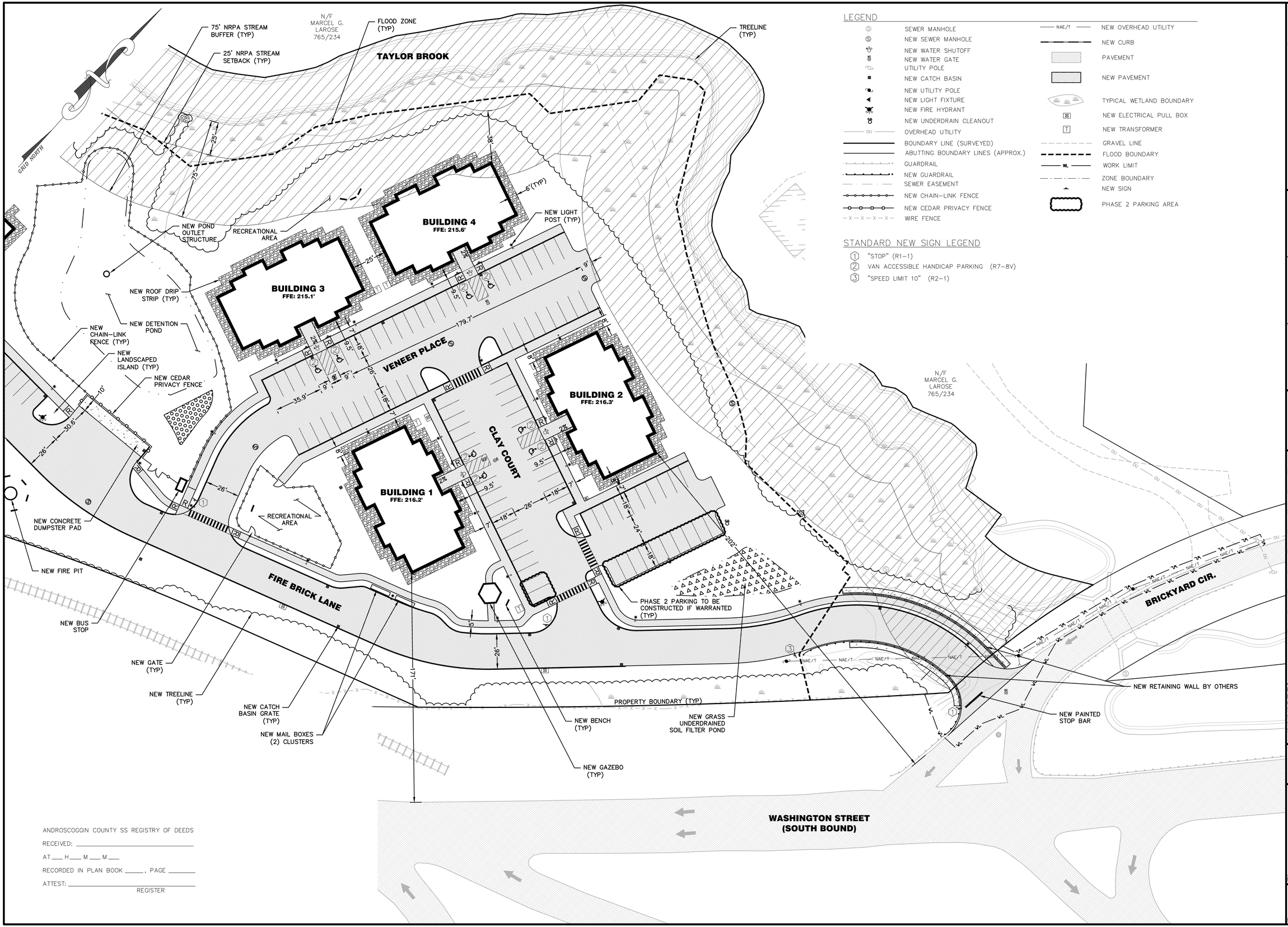
STATE OF MAINE
RICHARD W. DUNTON
No. 12485
LICENSED
PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

C2.0

MLDC NO. 21-342 2 OF 14



LEGEND

- SEWER MANHOLE
- NEW SEWER MANHOLE
- NEW WATER SHUTOFF
- NEW WATER GATE
- UTILITY POLE
- NEW CATCH BASIN
- NEW UTILITY POLE
- NEW LIGHT FIXTURE
- NEW FIRE HYDRANT
- NEW UNDERDRAIN CLEANOUT
- OVERHEAD UTILITY
- BOUNDARY LINE (SURVEYED)
- ABUTTING BOUNDARY LINES (APPROX.)
- GUARDRAIL
- NEW GUARDRAIL
- SEWER EASEMENT
- NEW CHAIN-LINK FENCE
- NEW CEDAR PRIVACY FENCE
- WIRE FENCE
- NEW OVERHEAD UTILITY
- NEW CURB
- PAVEMENT
- NEW PAVEMENT
- TYPICAL WETLAND BOUNDARY
- NEW ELECTRICAL PULL BOX
- NEW TRANSFORMER
- GRAVEL LINE
- FLOOD BOUNDARY
- WORK LIMIT
- ZONE BOUNDARY
- NEW SIGN
- PHASE 2 PARKING AREA

STANDARD NEW SIGN LEGEND

1. "STOP" (R1-1)
2. VAN ACCESSIBLE HANDICAP PARKING (R7-8V)
3. "SPEED LIMIT 10" (R2-1)

ANDROSCOGGIN COUNTY SS REGISTRY OF DEEDS

RECEIVED: _____

AT ___ H ___ M ___ M ___

RECORDED IN PLAN BOOK _____, PAGE _____

ATTEST: _____
REGISTER

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
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ISSUED FOR PERMITTING.

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ISSUED FOR PERMITTING.

SUBMISSION 9: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	9
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

SITE LAYOUT PLAN BUILDINGS 1-4

SEAL:

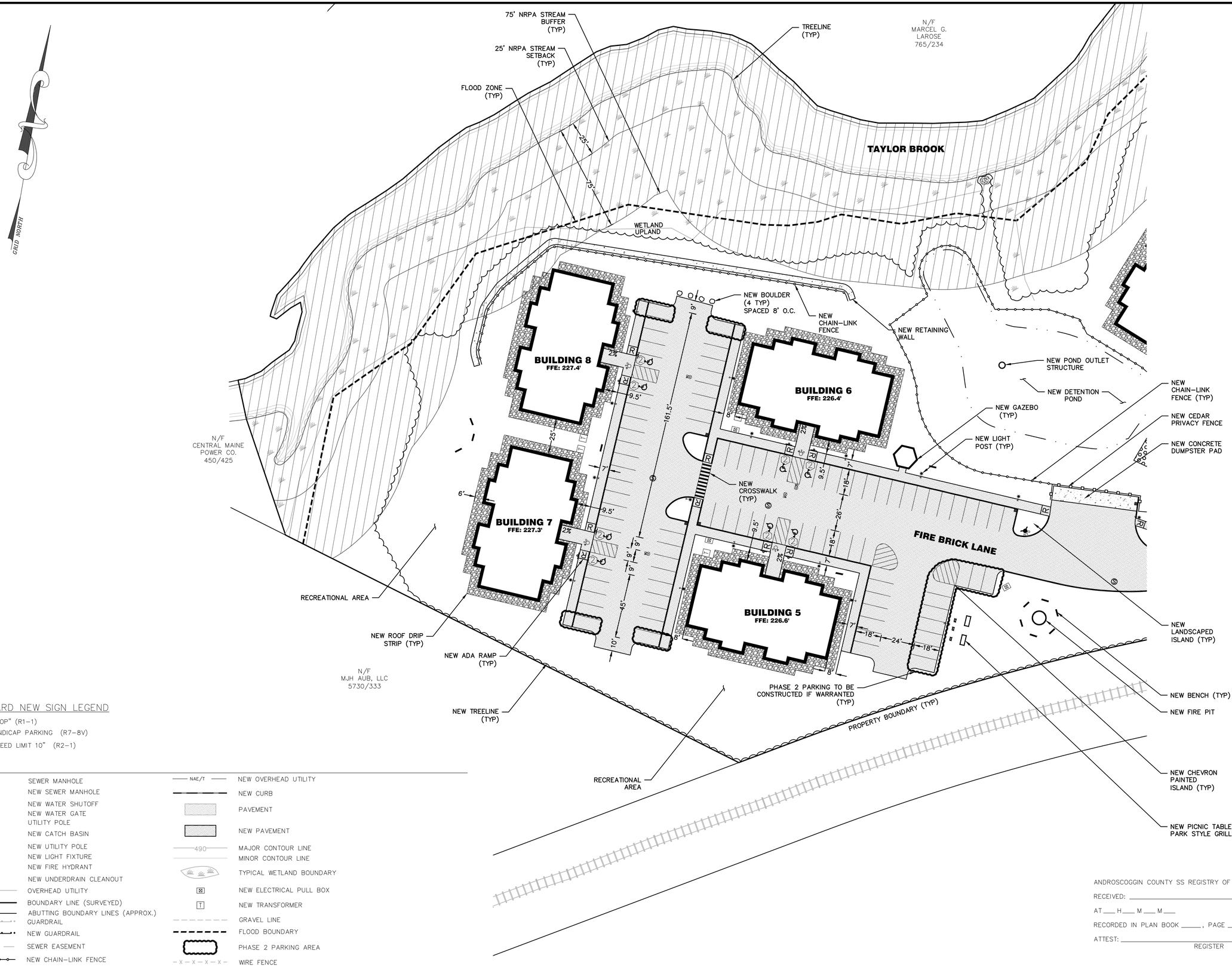
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2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

C2.1

MLDC NO. 21-342 3 OF 14



STANDARD NEW SIGN LEGEND

1. "STOP" (R1-1)
2. HANDICAP PARKING (R7-8V)
3. "SPEED LIMIT 10" (R2-1)

LEGEND

- SEWER MANHOLE
- NEW SEWER MANHOLE
- NEW WATER SHUTOFF
- NEW WATER GATE
- UTILITY POLE
- NEW CATCH BASIN
- NEW UTILITY POLE
- NEW LIGHT FIXTURE
- NEW FIRE HYDRANT
- NEW UNDERDRAIN CLEANOUT
- OVERHEAD UTILITY
- BOUNDARY LINE (SURVEYED)
- ABUTTING BOUNDARY LINES (APPROX.)
- GUARDRAIL
- NEW GUARDRAIL
- SEWER EASEMENT
- NEW CHAIN-LINK FENCE
- NEW CEDAR PRIVACY FENCE
- NAE/T — NEW OVERHEAD UTILITY
- NEW CURB
- PAVEMENT
- NEW PAVEMENT
- 490 — MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- TYPICAL WETLAND BOUNDARY
- NEW ELECTRICAL PULL BOX
- T — NEW TRANSFORMER
- GRAVEL LINE
- FLOOD BOUNDARY
- PHASE 2 PARKING AREA
- WIRE FENCE

ANDROSCOGGIN COUNTY SS REGISTRY OF DEEDS

RECEIVED: _____

AT ___ H ___ M ___ M ___

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ATTEST: _____
REGISTER

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PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	9
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

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SITE LAYOUT PLAN BUILDINGS 5-8

SEAL:

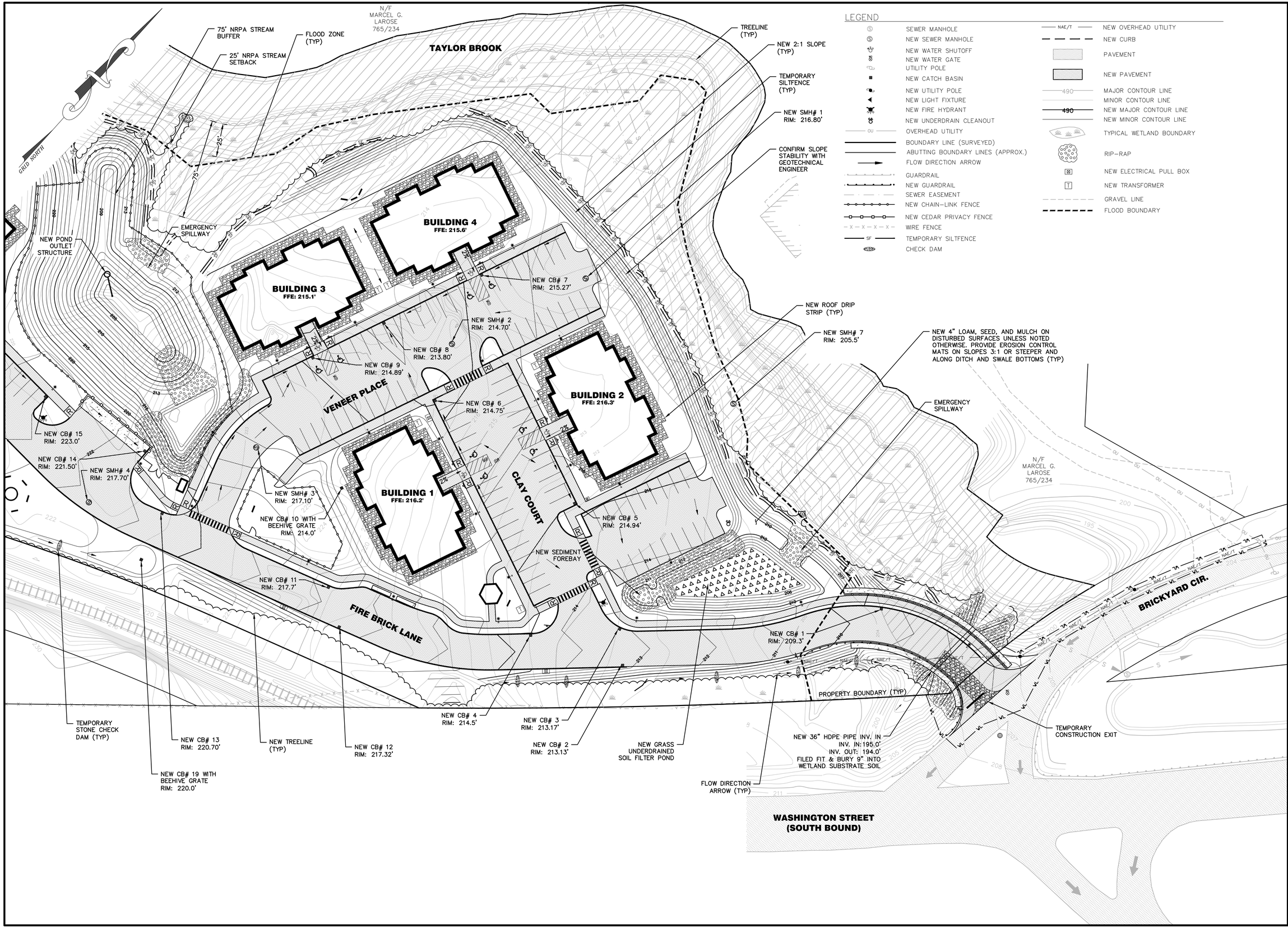
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PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

C2.2

MLDC NO. 21-342 4 OF 14



LEGEND

SEWER MANHOLE	NEW OVERHEAD UTILITY
NEW SEWER MANHOLE	NEW CURB
NEW WATER SHUTOFF	PAVEMENT
NEW WATER GATE	
UTILITY POLE	NEW PAVEMENT
NEW CATCH BASIN	
NEW UTILITY POLE	MAJOR CONTOUR LINE
NEW LIGHT FIXTURE	MINOR CONTOUR LINE
NEW FIRE HYDRANT	NEW MAJOR CONTOUR LINE
NEW UNDERDRAIN CLEANOUT	NEW MINOR CONTOUR LINE
OVERHEAD UTILITY	TYPICAL WETLAND BOUNDARY
BOUNDARY LINE (SURVEYED)	RIP-RAP
ABUTTING BOUNDARY LINES (APPROX.)	NEW ELECTRICAL PULL BOX
FLOW DIRECTION ARROW	NEW TRANSFORMER
GUARDRAIL	GRAVEL LINE
NEW GUARDRAIL	FLOOD BOUNDARY
SEWER EASEMENT	
NEW CHAIN-LINK FENCE	
NEW CEDAR PRIVACY FENCE	
WIRE FENCE	
TEMPORARY SILTFENCE	
CHECK DAM	

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PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

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MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
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DRAWING SCALE:

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(IN FEET)

1 INCH = 30 FT

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SUBMISSION 4: 2022-05-03 SDH
ISSUED FOR REVIEW.

SUBMISSION 5: 2022-05-04 SDH
ISSUED FOR PERMITTING.

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ISSUED FOR PERMITTING.

SUBMISSION 8: 2022-08-11 SDH
ISSUED FOR PERMITTING.

SUBMISSION 9: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	9
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

SITE GRADING PLAN BUILDINGS 1-4

SEAL:

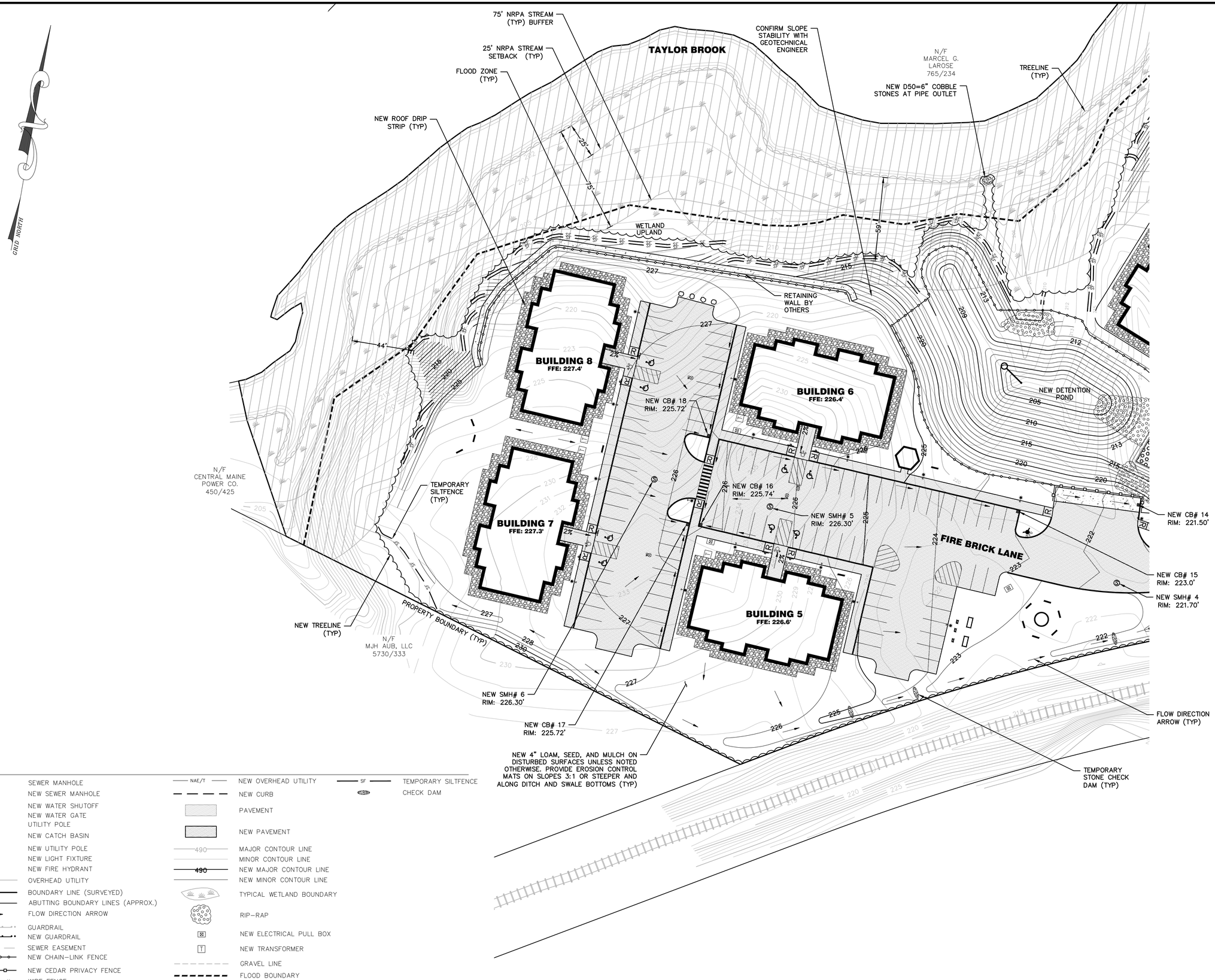
STATE OF MAINE
RICHARD W. DUNTON
No. 12485
LICENSED
PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

C3.1

MLDC NO. 21-342 5 OF 14



LEGEND

SEWER MANHOLE	NAE/T — NEW OVERHEAD UTILITY	SF — TEMPORARY SILTFENCE
NEW SEWER MANHOLE	NEW CURB	CHECK DAM
NEW WATER SHUTOFF	PAVEMENT	
NEW WATER GATE		
UTILITY POLE	NEW PAVEMENT	
NEW CATCH BASIN		
NEW UTILITY POLE	490 — MAJOR CONTOUR LINE	
NEW LIGHT FIXTURE	MINOR CONTOUR LINE	
NEW FIRE HYDRANT	490 — NEW MAJOR CONTOUR LINE	
OU — OVERHEAD UTILITY	NEW MINOR CONTOUR LINE	
BOUNDARY LINE (SURVEYED)	TYPICAL WETLAND BOUNDARY	
ABUTTING BOUNDARY LINES (APPROX.)		
FLOW DIRECTION ARROW	RIP-RAP	
GUARDRAIL		
NEW GUARDRAIL	NEW ELECTRICAL PULL BOX	
SEWER EASEMENT	NEW TRANSFORMER	
NEW CHAIN-LINK FENCE		
NEW CEDAR PRIVACY FENCE	GRAVEL LINE	
WIRE FENCE	FLOOD BOUNDARY	

MAIN-LAND
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CONSULTANTS, INC.

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WWW.MAIN-LANDDCI.COM

PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

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(IN FEET)
1 INCH = 30 FT

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ISSUED FOR 75% REVIEW.

SUBMISSION 4: 2022-05-03 SDH
ISSUED FOR REVIEW.

SUBMISSION 5: 2022-05-03 SDH
ISSUED FOR REVIEW.

SUBMISSION 6: 2022-05-04 SDH
ISSUED FOR PERMITTING.

SUBMISSION 7: 2022-06-16 SDH
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ISSUED FOR PERMITTING.

SUBMISSION 9: 2022-08-11 SDH
ISSUED FOR PERMITTING.

SUBMISSION 10: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	10
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

SITE GRADING PLAN BUILDINGS 5-8

SEAL:

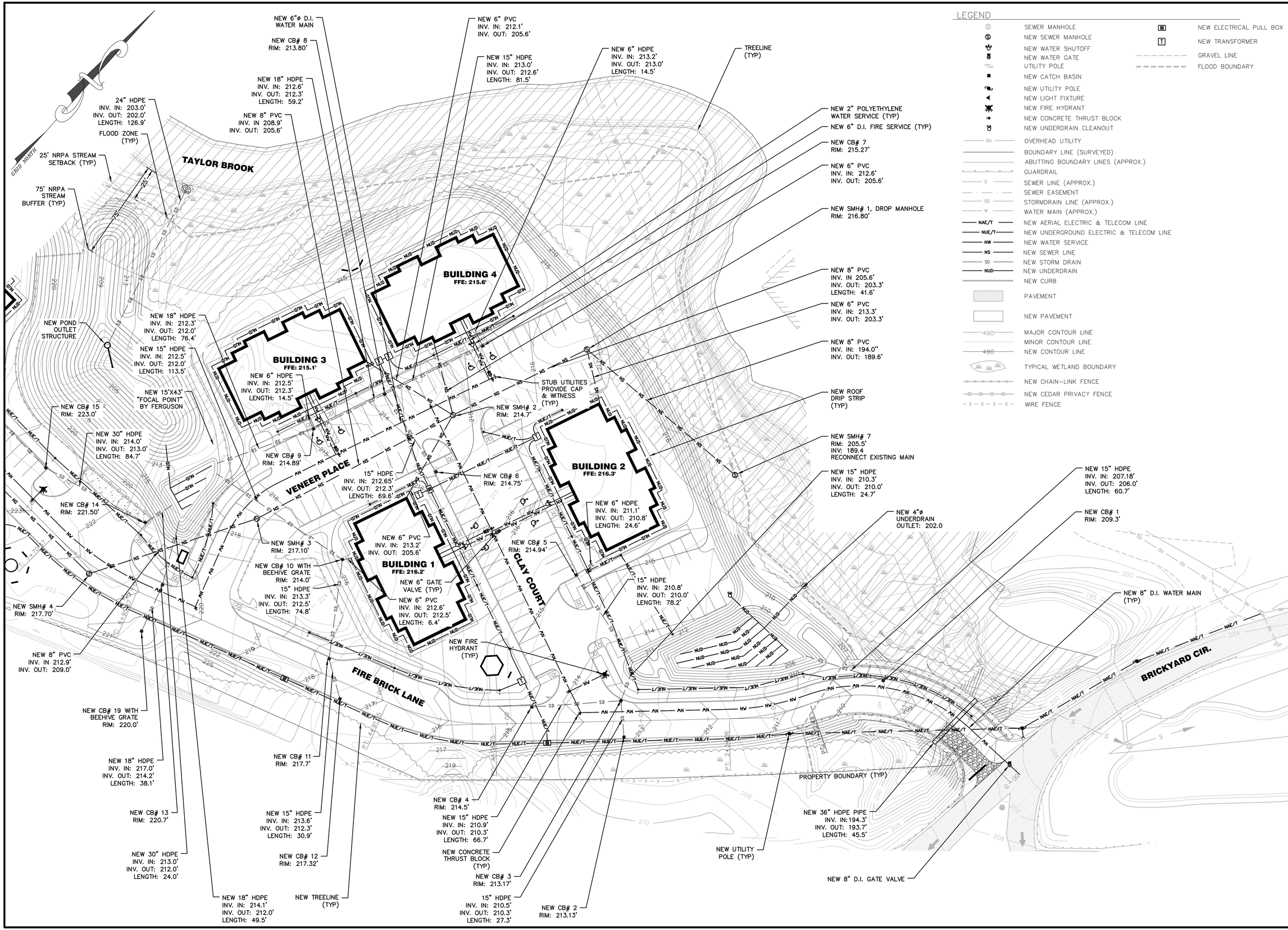
STATE OF MAINE
RICHARD W. DUNTON
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LICENSED
PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

C3.2

MLDC NO. 21-342 6 OF 14



LEGEND

- SEWER MANHOLE
- NEW SEWER MANHOLE
- NEW WATER SHUTOFF
- NEW WATER GATE
- UTILITY POLE
- NEW CATCH BASIN
- NEW UTILITY POLE
- NEW LIGHT FIXTURE
- NEW FIRE HYDRANT
- NEW CONCRETE THRUST BLOCK
- NEW UNDERDRAIN CLEANOUT
- OU — OVERHEAD UTILITY
- BOUNDARY LINE (SURVEYED)
- ABUTTING BOUNDARY LINES (APPROX.)
- GUARDRAIL
- S — SEWER LINE (APPROX.)
- SEWER EASEMENT
- SD — STORMDRAIN LINE (APPROX.)
- W — WATER MAIN (APPROX.)
- NAE/T — NEW AERIAL ELECTRIC & TELECOM LINE
- NUE/T — NEW UNDERGROUND ELECTRIC & TELECOM LINE
- NW — NEW WATER SERVICE
- NS — NEW SEWER LINE
- SD — NEW STORM DRAIN
- NUD — NEW UNDERDRAIN
- NEW CURB
- PAVEMENT
- NEW PAVEMENT
- 490 — MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- 490 — NEW CONTOUR LINE
- TYPICAL WETLAND BOUNDARY
- NEW CHAIN-LINK FENCE
- NEW CEDAR PRIVACY FENCE
- WIRE FENCE
- NEW ELECTRICAL PULL BOX
- NEW TRANSFORMER
- GRAVEL LINE
- FLOOD BOUNDARY

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ISSUED FOR REVIEW.

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ISSUED FOR REVIEW.

SUBMISSION 5: 2022-05-04 SDH
ISSUED FOR PERMITTING.

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SUBMISSION 7: 2022-06-28 SDH
ISSUED FOR PERMITTING.

SUBMISSION 8: 2022-08-11 SDH
ISSUED FOR PERMITTING.

SUBMISSION 9: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	9
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

SITE UTILITIES PLAN BUILDINGS 1-4

SEAL:

STATE OF MAINE
RICHARD W. DUNTON
No. 12485
LICENSED PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

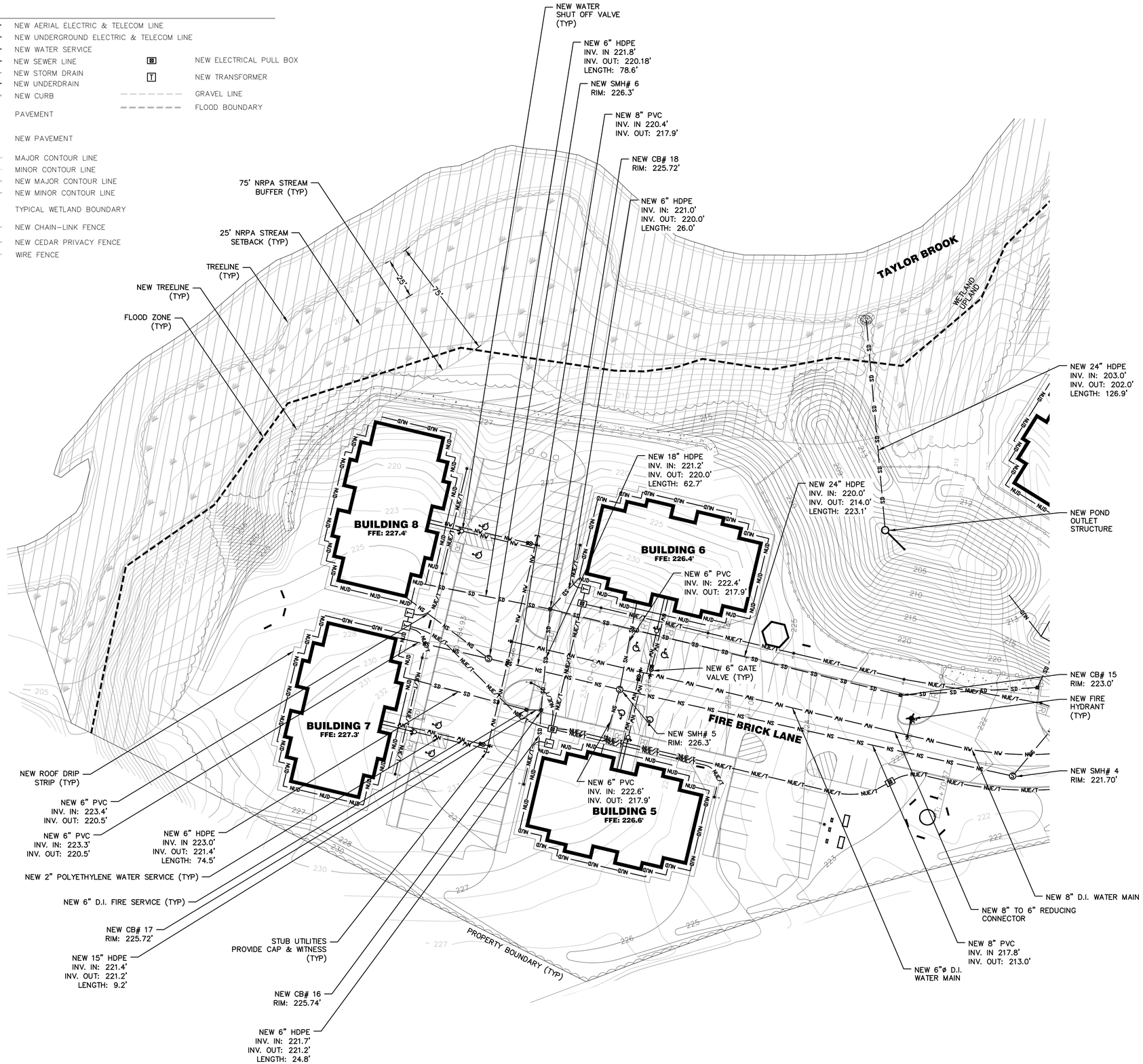
DRAWING NO.

C4.1

MLDC NO. 21-342 7 OF 14

LEGEND

- SEWER MANHOLE
- NEW SEWER MANHOLE
- NEW WATER SHUTOFF
- NEW WATER GATE
- UTILITY POLE
- NEW CATCH BASIN
- NEW UTILITY POLE
- NEW LIGHT FIXTURE
- NEW FIRE HYDRANT
- NEW CONCRETE THRUST BLOCK
- OVERHEAD UTILITY
- BOUNDARY LINE (SURVEYED)
- ABUTTING BOUNDARY LINES (APPROX.)
- GUARDRAIL
- SEWER LINE (APPROX.)
- SEWER EASEMENT
- STORMDRAIN LINE (APPROX.)
- WATER MAIN (APPROX.)
- NEW AERIAL ELECTRIC & TELECOM LINE
- NEW UNDERGROUND ELECTRIC & TELECOM LINE
- NEW WATER SERVICE
- NEW SEWER LINE
- NEW STORM DRAIN
- NEW UNDERDRAIN
- NEW CURB
- PAVEMENT
- NEW PAVEMENT
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- NEW MAJOR CONTOUR LINE
- NEW MINOR CONTOUR LINE
- TYPICAL WETLAND BOUNDARY
- NEW CHAIN-LINK FENCE
- NEW CEDAR PRIVACY FENCE
- WIRE FENCE
- NEW ELECTRICAL PULL BOX
- NEW TRANSFORMER
- GRAVEL LINE
- FLOOD BOUNDARY



MAIN-LAND DEVELOPMENT CONSULTANTS, INC.

69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

30 0 15 30
(IN FEET)
1 INCH = 30 FT

SUBMISSION NOTES:

SUBMISSION 1: 2022-03-28 SDH
ISSUED FOR 75% REVIEW.

SUBMISSION 2: 2022-03-31 SDH
ISSUED FOR 75% REVIEW.

SUBMISSION 3: 2022-05-03 SDH
ISSUED FOR REVIEW.

SUBMISSION 4: 2022-05-03 SDH
ISSUED FOR REVIEW.

SUBMISSION 5: 2022-05-04 SDH
ISSUED FOR PERMITTING.

SUBMISSION 6: 2022-06-16 SDH
ISSUED FOR PERMITTING.

SUBMISSION 7: 2022-06-28 SDH
ISSUED FOR PERMITTING.

SUBMISSION 8: 2022-08-11 SDH
ISSUED FOR PERMITTING.

SUBMISSION 9: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	9
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

SITE UTILITIES PLAN BUILDINGS 5-8

SEAL:

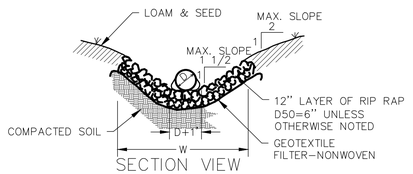
STATE OF MAINE
RICHARD W. DUNTON
No. 12485
LICENSED
PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

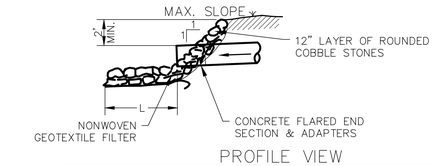
C4.2

MLDC NO. 21-342 8 OF 14



SECTION VIEW

PIPE DIAMETER (IN)	APRON WIDTH W (FT)	APRON LENGTH L (FT)
12	5	10
15	6	12
18	8	15
24	10	20
30	15	30
36	17	35



PROFILE VIEW

STORM DRAIN OUTET APRON — B3

NOT TO SCALE

TABLE 1 SOIL FILTER MEDIA		
Filter Media	Mixture by Volume	Specifications
Coarse Loamy Sand	70%-80%	Required to meet the Sieve Analysis specified in Table 2, below.
Mulch	20%-30%	Moderatley fine, shredded bark or wood fiber mulch with less than 5% passing the #200 sieve
No LESS than 8% passing the #200 sieve. Optimum 12%		

TABLE 2 COARSE LOAMY SAND SIEVE ANALYSIS SPEC.	
Sieve Size	% by Weight
#10	85-100
#20	70-100
#60	15-40
#200	8-15

TABLE 3 MEDOT Specifications for UNDERDRAINS	
Sieve Size	% by Weight
Underdrain Type B	
1"	95-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5

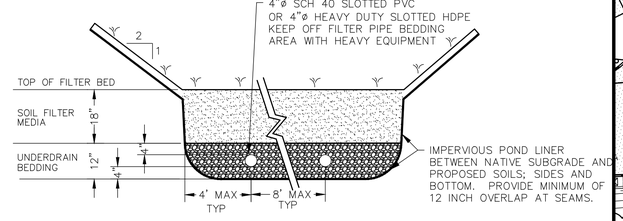
GENERAL NOTES

1. AVOID COMPACTING UNDERDRAIN BEDDING AND SOIL FILTER MEDIA DURING CONSTRUCTION. OVER-COMPACTED SOILS WILL NOT ALLOW PROPER WATER MIGRATION THROUGH THE SOIL SECTION; FILTER BEDS ARE INTENDED TO DRAIN DRY WITHIN 24 TO 48 HOURS.
2. SEED FILTER AREA WITH THE SEED MIX SHOWN ON TABLE 4.
3. DO NOT INSTALL AND STABILIZE THE SOIL FILTER MEDIA IN THE BASIN UNTIL AFTER CONTRIBUTING AREAS HAVE BEEN PERMANENTLY STABILIZED.

UNDERDRAIN BEDDING

1. UNDERDRAIN GRANULAR MATERIAL SHALL BE WELL GRADED, CLEAN, COARSE GRAVEL MEETING THE MEDOT SPECIFICATION 703.22 UNDERDRAIN TYP B FOR UNDERDRAIN BACKFILL (SEE TABLE 3).
2. UNDERDRAINS SHALL BE PLACED NO FURTHER THAN 8 FEET APART.
3. UNDERDRAINS SHALL MAINTAIN A MINIMUM OF 1% FOR POSITIVE DRAINAGE.

TABLE 4 CONSERVATION SEED MIX	
SPECIES	LBS/1000 SF
CREEPING RED FESCUE	.46
REDTOP	.05
TALL FESCUE	.46
TOTAL	.97

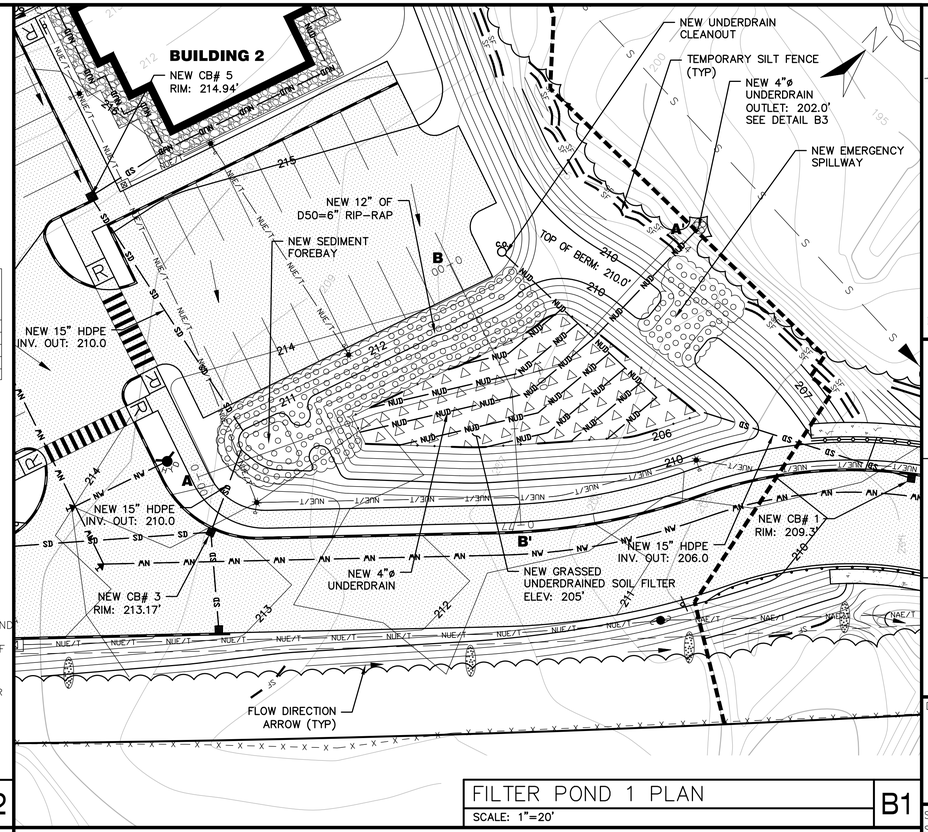


NOTE: MAINE DEP REQUIRES (PER CHAPTER 7.1 OF STORMWATER BMP DESIGN MANUAL), THE INSPECTION OF THE UNDERDRAINED FILTER BY THE DESIGN ENGINEER DURING CONSTRUCTION AT THE STAGES OF GENERAL SHAPE COMPLETED, UNDERDRAIN PIPE IN PLACE BUT NOT COVERED, DRAINAGE MEDIA IN PLACE, AND FINISHED WITH FILTER MEDIA AND SEED IN PLACE. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER 48 HOURS IN ADVANCE OF THE ESTIMATED TIME OF CONSTRUCTION INSPECTION TO ARRANGE AN INSPECTION.

ADDITIONALLY, THE MAINE DEP REQUIRES AN INSPECTION TO BE PERFORMED BY THE DESIGN ENGINEER TO VERIFY THE STRUCTURE'S FUNCTION, ONE YEAR FOLLOWING COMPLETION OF THE STRUCTURE. THE APPLICANT SHALL RETAIN THE SERVICES OF THE DESIGN ENGINEER TO PERFORM THE INSPECTION AND REPORT INSPECTION RESULTS TO THE MAINE DEP.

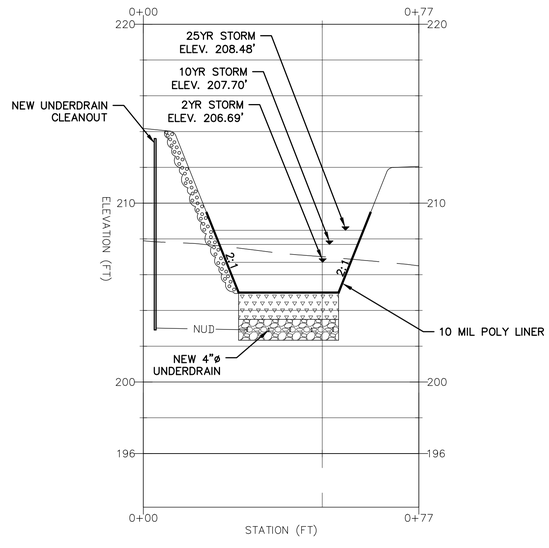
VEGETATED FILTER BED DETAIL — B2

NOT TO SCALE



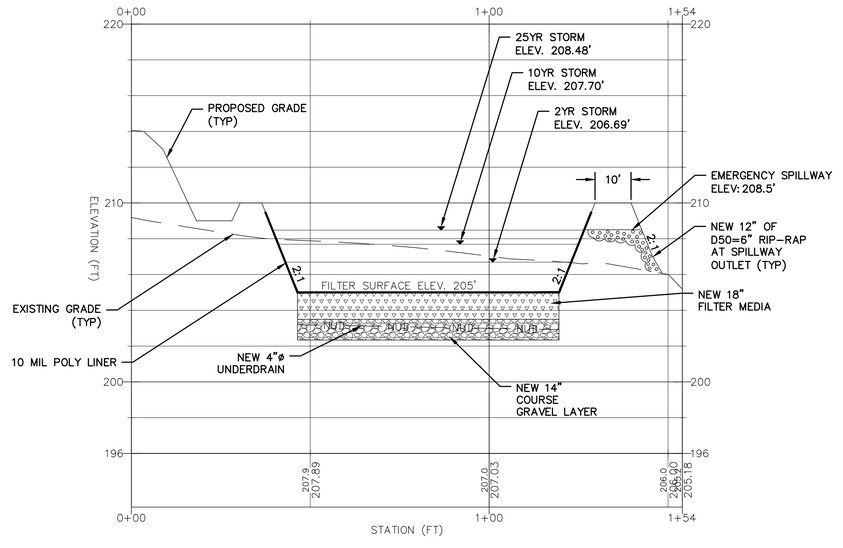
FILTER POND 1 PLAN — B1

SCALE: 1"=20'



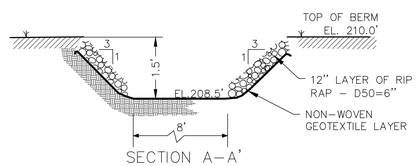
POND 1 SECTION B-B' — A2

SCALE: HORIZONTAL 1"=20', VERTICAL 1"=4'

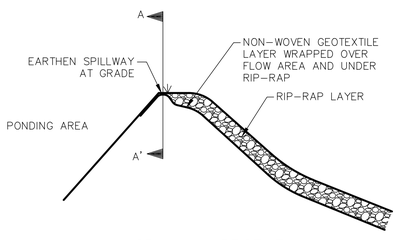


POND 1 SECTION A-A' — A1

SCALE: HORIZONTAL 1"=20', VERTICAL 1"=4'



SECTION A-A'



SPILLWAY PROFILE

PONDING AREA SPILLWAY — A3

NOT TO SCALE

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PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

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PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

VARIES

SUBMISSION NOTES:
SUBMISSION 1: 2022-05-03 SDH ISSUED FOR REVIEW.
SUBMISSION 2: 2022-05-03 SDH ISSUED FOR REVIEW.
SUBMISSION 3: 2022-05-04 SDH ISSUED FOR PERMITTING.
SUBMISSION 4: 2022-06-16 SDH ISSUED FOR PERMITTING.
SUBMISSION 5: 2022-06-28 SDH ISSUED FOR PERMITTING.
SUBMISSION 6: 2022-08-11 SDH ISSUED FOR PERMITTING.
SUBMISSION 7: 2025-02-19 MJB ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	7
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

FILTER POND PLAN AND SECTIONS

SEAL:

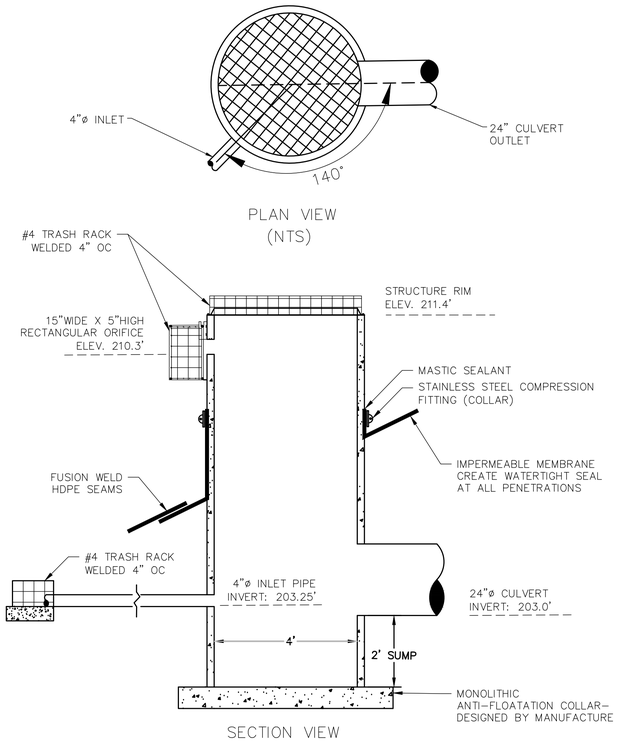
STATE OF MAINE
RICHARD W. DUNTON
No. 12485
LICENSED PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

C6.1

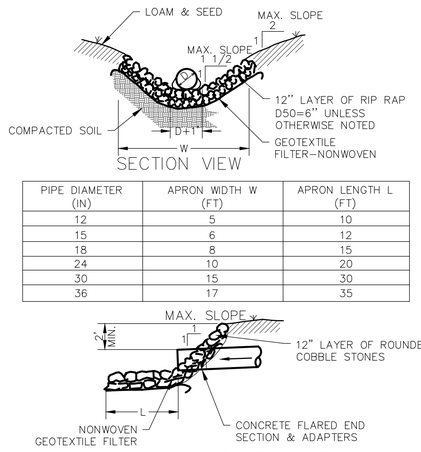
MLDC NO. 21-342 9 OF 14



POND OUTLET STRUCTURE

SCALE: 1"=2'

B3

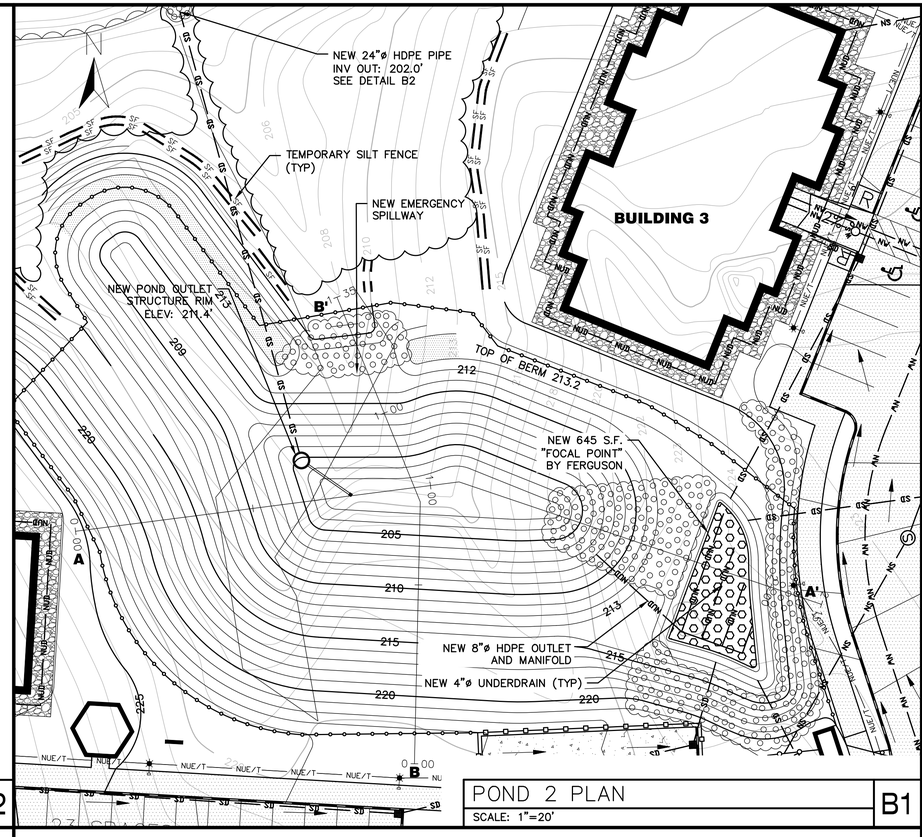


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STORM DRAIN OUTET APRON

NOT TO SCALE

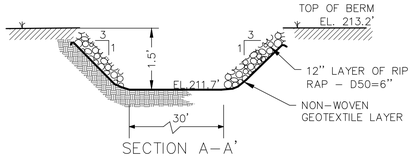
B2

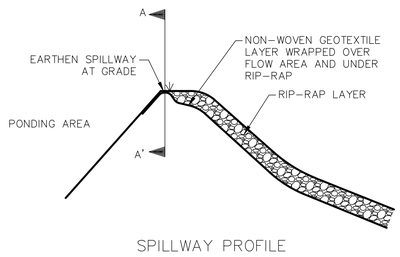


POND 2 PLAN

SCALE: 1"=20'

B1

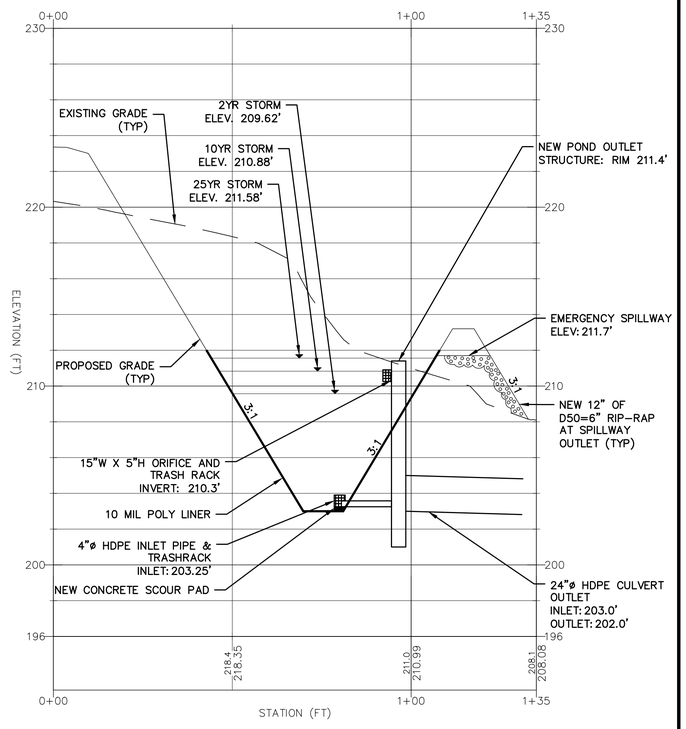




PONDING AREA SPILLWAY

NOT TO SCALE

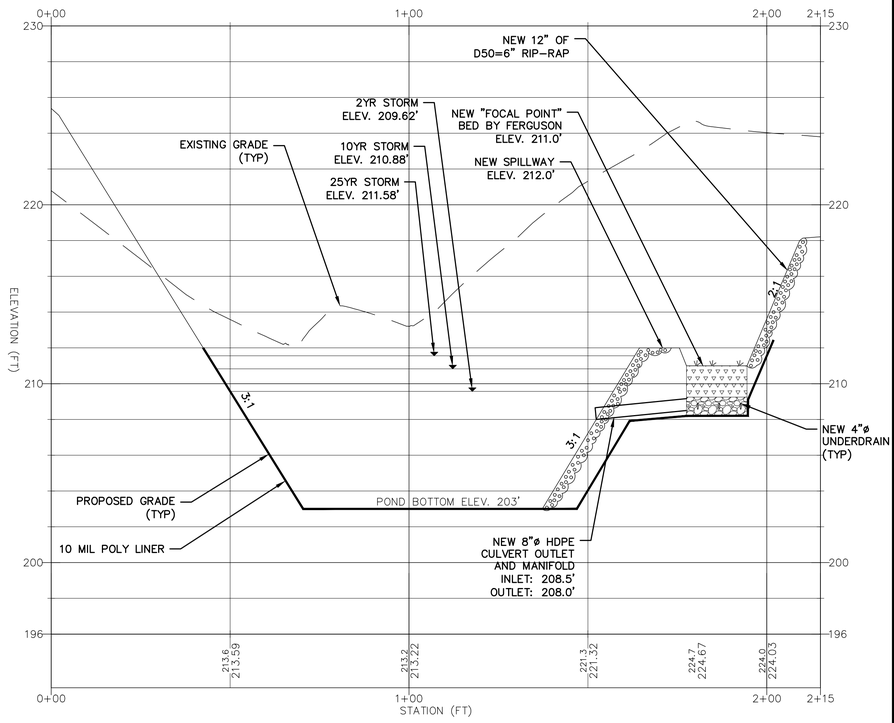
A3



POND 2 SECTION B-B'

SCALE: HORIZONTAL 1"=20', VERTICAL 1"=4'

A2



POND 2 SECTION A-A'

SCALE: HORIZONTAL 1"=20', VERTICAL 1"=4'

A1

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
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PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

VARIES

SUBMISSION NOTES:

SUBMISSION 1: 2022-05-03 SDH ISSUED FOR REVIEW.

SUBMISSION 2: 2022-05-03 SDH ISSUED FOR REVIEW.

SUBMISSION 3: 2022-05-04 SDH ISSUED FOR PERMITTING.

SUBMISSION 4: 2022-06-16 SDH ISSUED FOR PERMITTING.

SUBMISSION 5: 2022-06-28 SDH ISSUED FOR PERMITTING.

SUBMISSION 6: 2022-08-11 SDH ISSUED FOR PERMITTING.

SUBMISSION 7: 2022-09-09 RWD ISSUED FOR DEP REVIEW OF GEOLOGY COMMENTS.

SUBMISSION 8: 2022-09-13 RWD ISSUED FOR DEP POND COMMENT

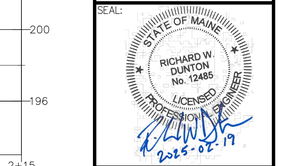
SUBMISSION 9: 2025-02-19 MJB ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	9
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

DETENTION POND PLAN AND SECTIONS

SEAL:

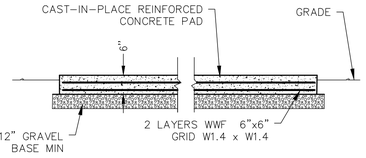


RICHARD W. DUNTON ME PE #12485

DRAWING NO.

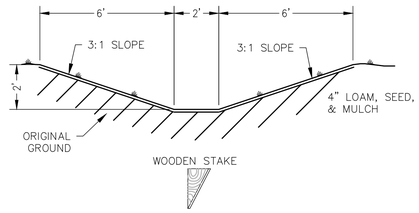
C6.2

MLDC NO. 21-342 10 OF 14



DUMPSTER PAD — C5

NOT TO SCALE

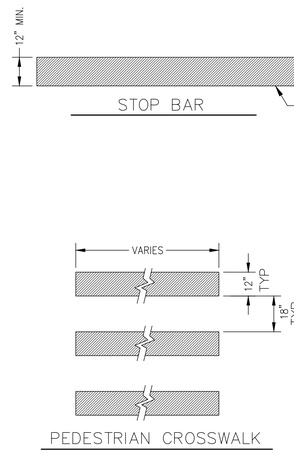


OPTION TO STAPLES

NOTES:
1. FLOW AREA OF GRASS DITCH TO BE LINED WITH AMERICAN EXCELSIOR CURLEX BANKMENT OR EQUAL, INSTALLED PER MANUFACTURER'S RECOMMENDATION WITHIN 48 HOURS OF FINAL DITCH GRADING.
2. BURY THE TOP OF THE NETTING IN A TRENCH 6" OR MORE DEEP.
3. TAM TRENCH FULL OF SOIL, SECURE WITH ROW OF STAPLES (OR WOOD STAKES), 12" SPACING, 4" DOWN FROM THE TRENCH.
4. OVERLAP-BURY UPPER END OF LOWER STRIP AS IN "A" & "B" OVERLAP END OF TOP STRIP 4" AND STAPLE OR WOOD STAKE.
5. CHECK SLOT-FOLD OF NETTING BURIED IN SLIT TRENCH TAMPED; DOUBLE ROW OF STAPLES (OR WOOD STAKES) AT 12" SPACING, USE CHECK SLOTS AT 15" SPACING IN DITCHES OR STEEP SLOPES.

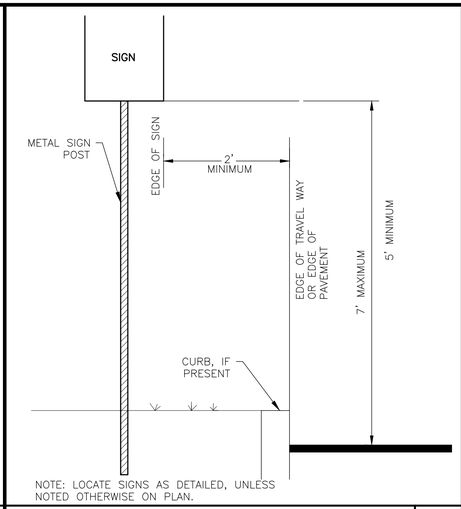
TYPICAL GRASS DITCH — C4

NOT TO SCALE



TYPICAL PAINT STRIPING — C2

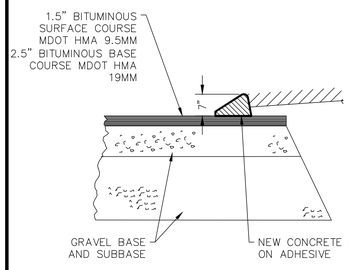
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NOTE: LOCATE SIGNS AS DETAILED, UNLESS NOTED OTHERWISE ON PLAN.

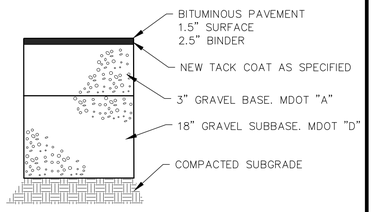
TRAFFIC SIGN DETAIL — C1

NOT TO SCALE



CONCRETE CURB — B5

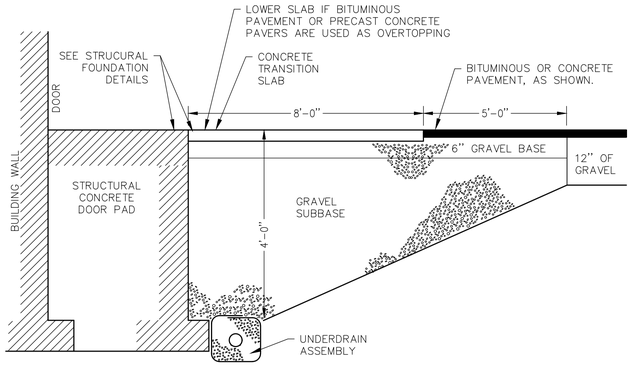
NOT TO SCALE | MDOT TYPE 3: MOLD 2



BITUMINOUS ROADS & PARKING

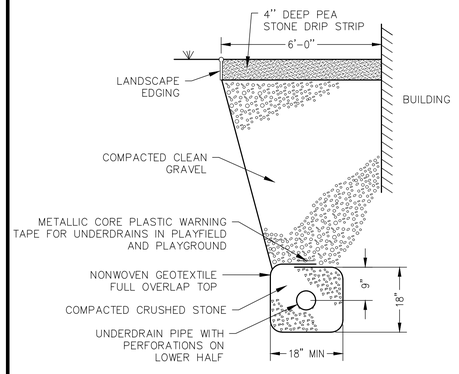
BITUMINOUS PAVEMENT DETAIL — B4

NOT TO SCALE



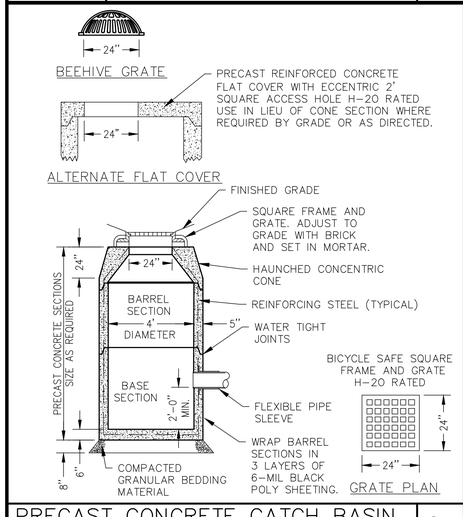
CONCRETE STRUCTRUAL SLAB DOORWAY — B2

NOT TO SCALE



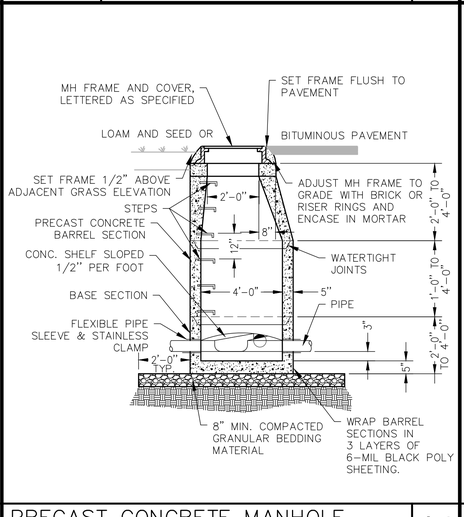
FOUNDATION UNDERDRAIN DETAIL — B1

NOT TO SCALE



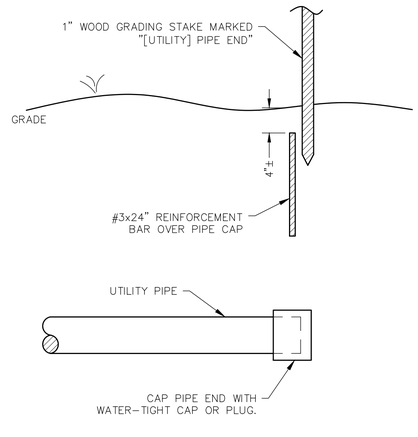
PRECAST CONCRETE CATCH BASIN — A5

NOT TO SCALE



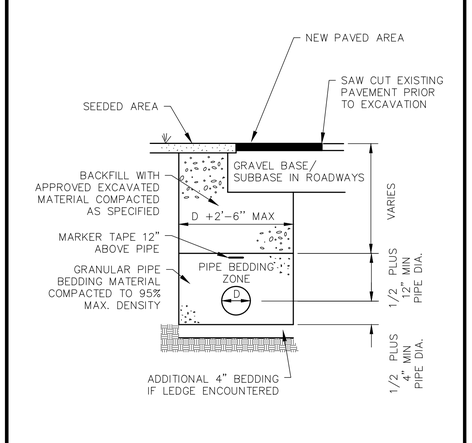
PRECAST CONCRETE MANHOLE — A4

NOT TO SCALE



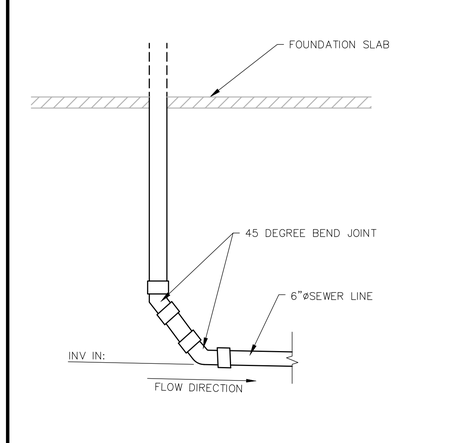
WITNESS STAKE DETAIL — A3

NOT TO SCALE



PIPE TRENCH — A2

NOT TO SCALE



SEWER PIPE RISER — A1

NOT TO SCALE

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
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PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

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PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

NOT TO SCALE

SUBMISSION NOTES:
SUBMISSION 1: 2022-03-18 SDH ISSUED FOR CLIENT REVIEW.
SUBMISSION 2: 2022-03-28 SDH ISSUED FOR 75% REVIEW.
SUBMISSION 3: 2022-03-31 SDH ISSUED FOR 75% REVIEW.
SUBMISSION 4: 2022-05-03 SDH ISSUED FOR REVIEW.
SUBMISSION 5: 2022-05-03 SDH ISSUED FOR PERMITTING.
SUBMISSION 6: 2022-06-16 SDH ISSUED FOR PERMITTING.
SUBMISSION 7: 2022-08-11 SDH ISSUED FOR PERMITTING.
SUBMISSION 8: 2025-02-19 MJB ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	8
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

DETAILS

SEAL:

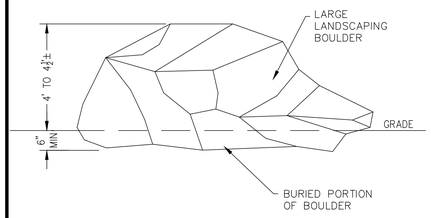
STATE OF MAINE
RICHARD W. DUNTON
No. 12485
LICENSED
PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

C9.1

MLDC NO. 21-342 11 OF 14



NOTES:

1. BOULDER SIZE AND SHAPE TO BE APPROVED BY ARCHITECT PRIOR TO PLACEMENT.

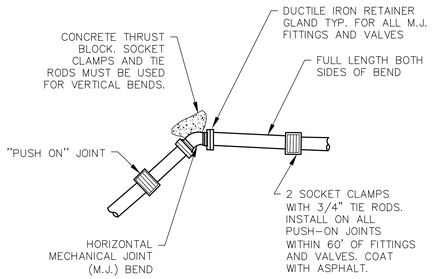
2. PARTIALLY BURY STONE (6" MIN) TO GIVE NATURAL APPEARANCE.

LANDSCAPE BOUNDER — C5

NOT TO SCALE

GENERAL DATA FOR BLOCKING STANDARD FITTINGS
MINIMUM SURFACE AREA OF CONCRETE BLOCK AGAINST UNDISTURBED EARTH – SQ.FT.

PIPE SIZE	HYDRANT, PLUG, CAP, TEE	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4"	4	4	4	3	2
6"	8	10	6	4	3
8"	12	16	10	6	4
10"	18	26	14	8	5
12"	26	36	20	12	7
14"	36	50	28	16	9
16"	46	64	36	20	12



RESTRAINT AT WATER LINE FITTINGS — C4

NOT TO SCALE

DANDY SACK™
SPECIFICATIONS

NOTE: THE DANDY SACK™ WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

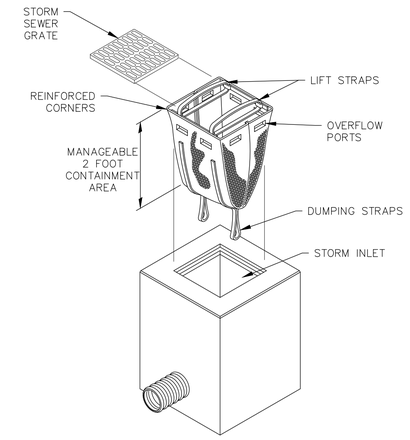
REGULAR FLOW DANDY SACK™ (BLACK)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.78 (400) x 1.40 (315)
Grab Tensile Elongation	ASTM D 4632	%	15 x 15
Puncture Strength	ASTM D 4833	kN (lbs)	0.87 (150)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	5506 (800)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.67 (150) x 0.73 (165)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m²(gal/min/ft²)	2852 (70)
Permittivity	ASTM D 4491	Sec⁻¹	0.90

HI-FLOW DANDY SACK™ (SAFETY ORANGE)

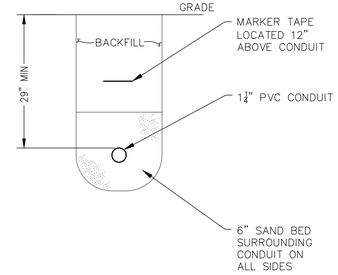
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m²(gal/min/ft²)	5907 (145)
Permittivity	ASTM D 4491	Sec⁻¹	2.1

*Note: All Dandy Sacks™ can be ordered with our optional oil absorbent pillows



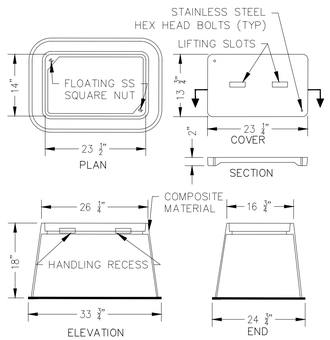
STORM DRAIN INLET EROSION CONTROL — C2

NOT TO SCALE



NEW UNDERGROUND ELECTRIC CONDUIT — C1

NOT TO SCALE



13" X 24" FLARED WALL JUNCTION BOX

NOTE:
THE JUNCTION BOX SHALL BE CAPABLE OF SUPPORTING INCIDENTAL TRAFFIC LOADS OF 22,000 POUNDS WITHOUT DISTORTION OR FAILURE. DIMENSIONS SHOWN ARE REPRESENTATIVE AND MAY HAVE SLIGHTLY DIFFERENT DIMENSIONS.

CONCRETE ELECTRICAL JUNCTION BOX — B5

NOT TO SCALE

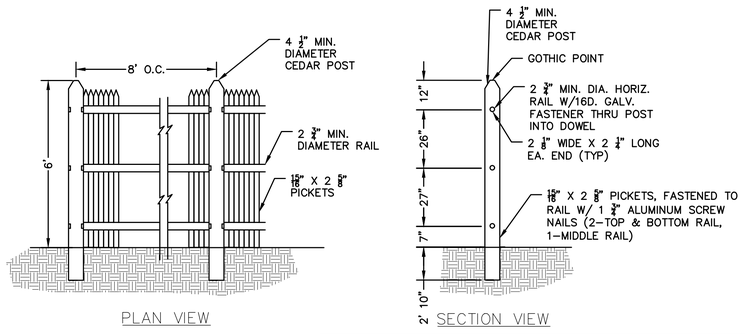
NOTES:
1. ALL FENCING MATERIAL SHALL BE NORTHERN WHITE CEDAR SAWN TO THE DIMENSIONS SHOWN ON THE DRAWING.

2. ALL FENCE POSTS SHALL BE TREATED WITH "CREOSOTE", ALL SIDES FOR A DIMENSION OF 3' FROM THE BUT OF POST.

3. POST SHALL MAINTAIN A DEPTH OF 2'-10" IN GROUND AND SHALL BE RACKED TO ACCOMMODATE ANY CHANGES IN GRADE.

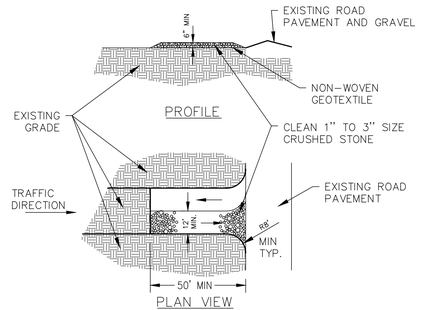
4. LINE OF FENCE TOP & BOTTOM SHALL BE INSTALLED STRAIGHT AND TRUE. ALL POST AND FACING BOARDS OR SLATS SHALL BE INSTALLED PARALLEL AND PLUMB. ALL RAILS SHALL BE INSTALLED PARALLEL AND TRUE.

5. CONTRACTOR SHALL CONSULT THE ENGINEER OF RECORD FOR APPROVAL OF ANY ADJUSTMENTS PRIOR TO INSTALLATION



CEDAR PRIVACY FENCE — B3

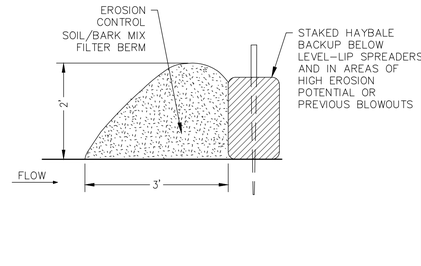
NOT TO SCALE

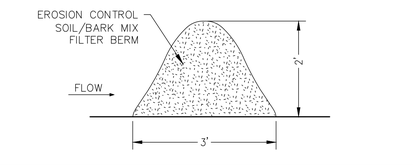


NOTES:
1. STONE SIZE: 2½" TO 1½" USE CRUSH STONE.
2. THICKNESS: MINIMUM OF 8".
3. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC TRAVELED WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE.

TEMP. STABILIZED CONSTRUCTION EXIT — B2

NOT TO SCALE

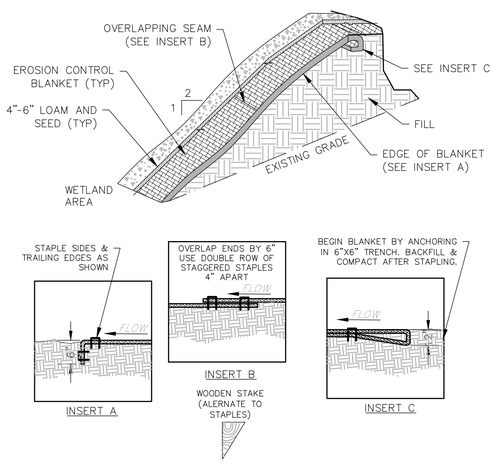




SEDIMENT FILTER BERM — B1

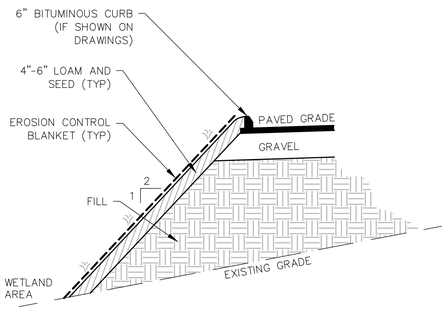
NOT TO SCALE

NOTES:
1. FILL SHALL BE COMPACTED IN 6" TO 12" LAYERS TO AVOID SETTLEMENT. COMPACT FILL UNDER PAVEMENTS AND GRAVEL AREAS TO 95% OF MAXIMUM DRY DENSITY; AND UNDER GRASS OR MULCH AREAS TO 90% OF MAXIMUM DRY DENSITY.
2. SOILS SHALL NOT CONTAIN COBBLES LARGER THAN 8" IN THE GREATEST DIMENSION, ICE, FROZEN SOIL, OR ROOTS/STUMPAGE.
3. DO NO WORK ON FROZEN OR MUDDY GROUND.
4. UNROLL MAT ONTO GROUND IN DIRECTION OF WATER FLOW.
5. MAT SHOULD LIE FLAT. DO NOT STRETCH MAT OVER GROUND. STRETCHING MAY CAUSE MAT TO BRIDGE DEPRESSIONS IN THE SURFACE AND ALLOW EROSION UNDERNEATH.
6. BURY TRANSVERSE TERMINAL ENDS OF MAT TO SECURE AND PREVENT EROSIVE FLOW UNDERNEATH.
7. SECURE MAT SNUGLY INTO ALL TRANSVERSE CHECK SLOTS.
8. BACKFILL AND COMPACT TRENCHES AND CHECK SLOTS AFTER STAKING THE MAT IN BOTTOM OF TRENCH.
9. OVERLAP ROLL ENDS BY THREE (3) FEET (MIN.) WITH UPSLOPE MAT ON TOP TO PREVENT UPLIFT OF MAT END BY WATER FLOW. IF INSTALLING IN THE DIRECTION OF A CONCENTRATED WATERFLOW, START NEW ROLLS IN A TRANSVERSE DITCH.
10. OVERLAP ADJACENT EDGES OF MAT BT THREE (3) INCHES (MIN.) AND STAKE.
11. WOOD STAKES ARE RECOMMENDED FOR PINNING MAT TO THE GROUND SURFACE. STAKES SHOULD BE 1" X 3" NOMINAL STOCK CUT IN A TRINGULAR SHAPE. STAKES SHOULD BE 12" TO 18" LONG, DEPENDING ON SOIL DENSITY.
12. DRIVE WOODEN STAKES TO WITHIN THREE (3) INCHES OF GROUND SURFACE. DO NOT DRIVE FLUSH TO SURFACE.
13. IN ALL TRANSVERSE TERMINAL TRENCHES AND CHECK SLOTS, STAKE EACH MAT AT ITS CENTER AND OVERLAP EDGES BEFORE BACKFILLING AND COMPACTING.
14. STAKE OVERLAPS LONGITUDINALLY AT THREE (3) TO FIVE (5) FOOT INTERVALS.
15. FOLLOW COLORED DOT PATTERNS BY MANUFACTURER.



EMBANKMENT W/EROSION CONTROL BLANKET — A4

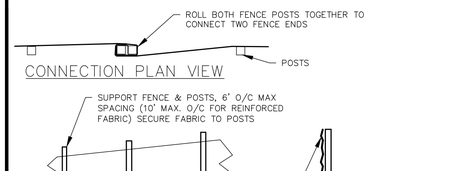
NOT TO SCALE



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14. STAKE OVERLAPS LONGITUDINALLY AT THREE (3) TO FIVE (5) FOOT INTERVALS.
15. FOLLOW COLORED DOT PATTERNS BY MANUFACTURER.

TYPICAL EMBANKMENT — A2

NOT TO SCALE



NOTES:
1. PLACE SILT FENCE OR FILTER BERMS ALONG UNIFORMLY SLOPED SURFACE.
2. EROSION CONTROL MIX FILTER BERM MAY BE SUBSTITUTED FOR A SILTFENCE. SEE THE SITE GRADING AND EROSION CONTROL PLAN.
3. EXCAVATE A 6"X6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
4. UNROLL ONE SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
5. DRIVE THE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM. JOIN SECTIONS AS SHOWN ABOVE.
6. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPLISHED BY AN INTERCEPTION DITCH.
7. BARRIER SHALL BE MIRAFI SILT FENCE OR APPROVED EQUAL.

SILT FENCE — A1

NOT TO SCALE

MAIN-LAND
DEVELOPMENT CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

NOT TO SCALE

SUBMISSION NOTES:
SUBMISSION 1: 2022-03-18 SDH ISSUED FOR CLIENT REVIEW.

SUBMISSION 2: 2022-03-28 SDH ISSUED FOR 75% REVIEW.

SUBMISSION 3: 2022-03-31 SDH ISSUED FOR 75% REVIEW.

SUBMISSION 4: 2022-05-03 SDH ISSUED FOR REVIEW.

SUBMISSION 5: 2022-05-03 SDH ISSUED FOR PERMITTING.

SUBMISSION 6: 2022-06-16 SDH ISSUED FOR PERMITTING.

SUBMISSION 7: 2022-08-11 SDH ISSUED FOR PERMITTING.

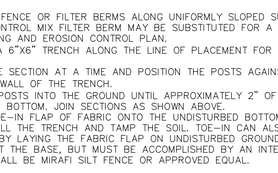
SUBMISSION 8: 2025-02-19 MJB ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	8
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

DETAILS

SEAL:



RICHARD W. DUNTON ME PE #12485

DRAWING NO.

C9.2

MLDC NO. 21-342 12 OF 14

MAIN-LAND
DEVELOPMENT
CONSULTANTS, INC.

69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
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MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

NOT TO SCALE

SUBMISSION NOTES:
SUBMISSION 1: 2022-08-11 SDH
ISSUED FOR PERMITTING.

SUBMISSION 2: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	2
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

DETAILS

SEAL:

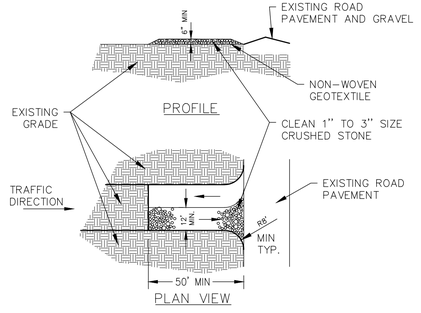
STATE OF MAINE
RICHARD W. DUNTON
No. 12485
LICENSED
PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

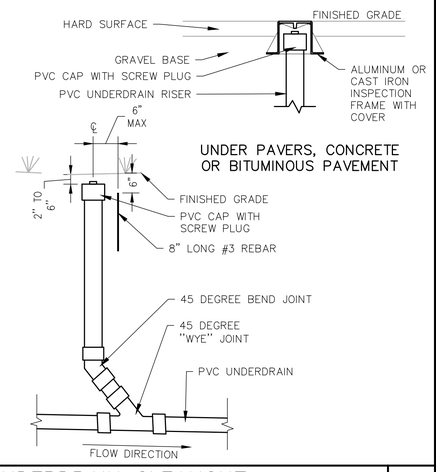
C9.3

MLDC NO. 21-342 13 OF 14

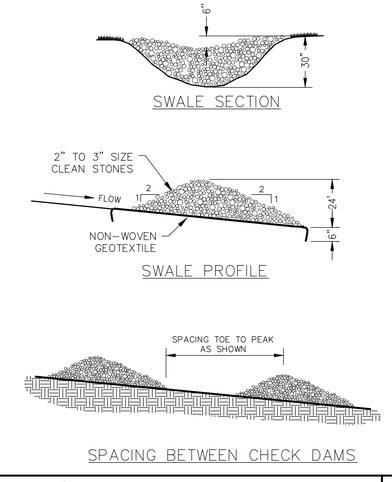


NOTES:
1. STONE SIZE: 2½" TO 1½" USE CRUSH STONE.
2. THICKNESS: MINIMUM OF 8".
3. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC TRAVELED WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE.

TEMP. STABILIZED CONSTRUCTION EXIT — NOT TO SCALE — A3



UNDERDRAIN CLEANOUT — NOT TO SCALE — A2



SWALE/DITCH STONE CHECK DAM — NOT TO SCALE — A1

2. TEMPORARY EROSION CONTROL: TEMPORARY CONTROL MEASURES MAY CONSIST OF A COMBINATION OF MEASURES WHERE APPROPRIATE AND/OR AS SHOWN ON THE PLANS.

A. SEDIMENT FILTER BERMS:

SEDIMENT FILTER BERMS ARE THE PREFERRED FILTERING DEVICE, BUT MAY NOT BE USED IN WETLAND AREAS. THE BERMS SHALL BE PLACED DOWN SLOPE OF ALL EARTH MOVING ACTIVITIES, WHERE WATER FROM THESE DISTURBED AREAS WILL RUN OFF. THESE BERMS WILL BE PLACED ALONG AN EVEN CONTOUR, BE AT LEAST 24 INCHES TALL, AND 3 FEET WIDE AT THE BASE. TURN THE ENDS OF THE BERM UP-GRADE TO AVOID RUNOFF FLOWING AROUND THE BERM. IN AREAS OF HIGH EROSION POTENTIAL, THE BERM WILL BE BACKED BY HAY BALES OR SILT FENCING, AS SHOWN ON THE FILTER BERM DETAIL.

B. SILT FENCING:

SILT FENCING MAY BE USED IN PLACE OF, OR TOGETHER WITH, THE SEDIMENT FILTER BARRIERS. THE SILT FENCING WILL ALSO BE ANCHORED AT LEAST FOUR INCHES INTO THE GROUND AND PLACED ALONG AN EVEN CONTOUR. TURN THE ENDS OF THE FENCE UP-GRADE TO AVOID RUNOFF FLOWING AROUND THE FENCE. DURING FROZEN CONDITIONS, FURNISH AND INSTALL SEDIMENT FILTER BERMS IN LIEU OF SILT FENCING OR HAY BALES IF FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF SILT FENCES AND HAY BALES.

C. STONE CHECK DAMS:

STONE CHECK DAMS SHALL BE PLACED IN THE CENTER OF DITCHES IMMEDIATELY FOLLOWING EXCAVATION TO PROVIDE A MEANS OF TRAPPING SEDIMENTS. (IF THE DITCH HAS BEEN IMMEDIATELY ARMORED WITH RIP-RAP, CHECK DAMS ARE NOT NECESSARY.) THE DAMS SHALL CONSIST OF SMALL STONE PLACED ACROSS THE DITCH, WITH A DEPRESSION AT THE TOP OF THE DAM TO ALLOW WATER OVER THE TOP OF THE DAM, SHOULD IT BECOME CLOGGED WITH SEDIMENT. SEE THE SPECIFICATIONS ON THE TYPICAL DETAILS PLAN FOR CONSTRUCTION DETAILS OF THIS MEASURE

D. TEMPORARY MULCH:

TEMPORARY MULCH SHALL BE PLACED ON ALL DISTURBED AREAS WHERE SEEDING, CONSTRUCTION OR STABILIZATION ACTIVITIES WILL NOT TAKE PLACE FOR OVER 7 CONSECUTIVE DAYS. TEMPORARY MULCH WILL ALSO BE PLACED ON AREAS WITHIN 75 FEET OF A NATURAL RESOURCE (WETLAND, STREAM, ETC.) WHERE SEEDING WILL NOT TAKE PLACE FOR OVER 48 HOURS, AND ON ALL BARE SOILS OUTSIDE THE ROAD BASE PRIOR TO ANY PREDICTED SIGNIFICANT RAIN EVENT. A SIGNIFICANT RAIN EVENT IS CONSIDERED TO BE AT LEAST 1 INCH OF RAIN OR MORE. TEMPORARY MULCH MAY BE HAY AND SHALL BE APPLIED AT A RATE OF TWO BALES PER 1,000 SQUARE FEET. SOIL MUST NOT BE VISIBLE UPON COMPLETION OF APPLICATION, REGARDLESS OF RATE OF APPLICATION.

E. TOPSOIL STOCKPILES:

TOPSOIL, REMOVED AS PART OF THE CONSTRUCTION, WILL BE STOCKPILED ON SITE FOR USE IN AREAS TO BE RE-VEGETATED. THE LOCATION OF TOPSOIL STOCKPILES MUST NOT BE WITHIN 75 FEET OF A DEFINED NATURAL RESOURCE (WETLAND, STREAM, ETC.), OR WITHIN 75 FEET OF A SWALE OR DITCH.

STOCKPILES SHALL BE MULCHED WITH HAY AT TWO BALES PER 1,000 SQUARE FEET. THE AREA DOWN SLOPE FROM ANY STOCKPILE AREAS WILL BE PROTECTED BY A SEDIMENT FILTER BERM OR SILT FENCE PLACED DIRECTLY BELOW OR DOWN GRADIENT FROM THE STOCKPILE. IF THE STOCKPILE MUST BE LEFT FOR MORE THAN 30 DAYS, THE PILE WILL BE SEEDED WITH RYE GRASS AT A RATE OF TWO POUNDS PER 1,000 SQUARE FEET AND MULCHED IN ACCORDANCE WITH THIS PARAGRAPH.

F. TRENCH DEWATERING AND TEMPORARY STREAM DIVERSION

WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A PROPRIETARY PRODUCT FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE AND FABRIC LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE.

H. MAINTENANCE OF TEMPORARY MEASURES:

ALL TEMPORARY MEASURES DESCRIBED ABOVE SHALL BE INSPECTED WEEKLY AND BEFORE/AFTER EVERY SIGNIFICANT STORM EVENT (1 INCH OF RAIN OR GREATER) THROUGHOUT THE CONSTRUCTION OF THE PROJECT. REPAIRS OR REPLACEMENTS OF TEMPORARY MEASURES WILL BE MADE AS NECESSARY. ONCE THE SITE IS STABLE, ALL TEMPORARY DEVICES SUCH AS HAY BALE BARRIERS AND SILT FENCING WILL BE REMOVED.

3. WINTER STABILIZATION:

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH A COMBINATION OF PAVEMENT, A ROAD GRAVEL BASE, 90% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 1 THEN THE SITE NEEDS TO BE PROTECTED WITH WINTER STABILIZATION.

WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS DENUDED AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDER TAKEN DURING THE FOLLOWING 15 DAYS. EXPOSED AREA SHALL NOT BE SO LARGE THAT IT CANNOT BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.

AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 200 LBS./1,000 S.F. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED.

THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS.

CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES
STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 200 LBS/1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOODWASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

ANY NEW SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET OF ANY NATURAL RESOURCES.

2. NATURAL RESOURCE PROTECTION
ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 90 % MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS.

DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. SILT FENCING MAY NOT BE PLACED ON FROZEN GROUND.

PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

3. MULCHING
AREAS SHALL BE CONSIDERED DENUDED UNTIL LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 200 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION.

AN AREA SHALL BE CONSIDERED STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 200 LB. PER 1,000 SQUARE FEET AND ADEQUATELY ANCHORED, SUCH THAT THE GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH.

BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, OR WOOD CELLULOSE FIBER. THE GROUND SURFACE SHALL NOT BE VISIBLE THOUGH THE MULCH.

AFTER NOVEMBER 1TH, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORK DAY.

4. MULCHING ON SLOPES AND DITCHES
SLOPES SHALL NOT BE LEFT EXPOSED FOR MORE THAN 7 DAYS UNLESS FULLY MULCHED AND ANCHORED. SLOPES WITHIN 75 FEET OF A NATURAL RESOURCE SHALL NOT BE LEFT EXPOSED FOR MORE THAN 48 HOURS. MULCHING SHALL BE APPLIED AT A RATE OF 300 LBS/1,000 SQ FT ON ALL SLOPES GREATER THAN 8%. EROSION CONTROL MESH SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS AND DITCHES, FOR SLOPES EXPOSED TO DIRECT WINDS, AND FOR ALL OTHER SLOPES GREATER THAT 8 %. EROSION CONTROL BLANKET AND CHECK DAMS (OR PERMANENT RIP-RAP) SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES OF 8 % OR MORE.

A SIX INCH LAYER OF EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

5. SEEDING: BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES, FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED (SEE TABLE BELOW) AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF AFTER NOVEMBER 1ST THE EXPOSED AREA HAS BEEN FINAL GRADED AND LOAMED, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.

TEMPORARY SEED MIX

TYPE	% BY WEIGHT	% PURITY	% GERMINATION
DOMESTIC RYE GRASS	60	69.7	90
PERENNIAL RYE GRASS	20	28.0	85
AROOSTOOK RYE GRASS	20	28.00	85

DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES.

IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5LBS/1000 S.F. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. AREAS NOT SUFFICIENTLY VEGETATED (LESS THAN 90 % CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH.

IF DORMANT SEEDING IS NOT USED, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

6. TRENCH DEWATERING
WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE.

7. INSPECTION AND MONITORING
MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION.

IN THE SPRING, FOLLOWING THE TEMPORARY/FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL INSPECT AND REPAIR ANY DAMAGES AND/ OR UN-ESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 90 % OF AREAS VEGETATED WITH VIGOROUS GROWTH.

8. STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS

ALL STONE-LINED DITCHES AND CHANNELS SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 1. ALL GRASS-LINED DITCHES AND CHANNELS SHALL BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. FAILURE TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 1, WILL REQUIRE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

INSTALL A SOD LINING IN THE DITCH – SOD LINING SHALL BE INSTALLED IN DITCHES BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.

INSTALL A STONE LINING IN THE DITCH –DITCHES SHALL BE LINED WITH STONE RIPRAP BY NOVEMBER 1, AS PRESENTED BELOW. IF NECESSARY, THE APPLICANT WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

9. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES

CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 1. THE APPLICANT WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 1. SLOPES WILL BE CONSIDERED ANY AREA HAVING A GRADE GREATER THAN 15% (6H:1V). IF THE APPLICANT FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 1, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE OCTOBER 1. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 90% OF THE DISTURBED SLOPE BY NOVEMBER 1, COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST OR WITH STONE RIPRAP AS DESCRIBED BELOW.

STABILIZE THE SLOPE WITH SOD -- STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES 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. SOD STABILIZATION SHALL NOT BE USED LATE-SEASON TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).

STABILIZE THE SLOPE WITH WOOD WASTE COMPOST (EROSION CONTROL MIX) --PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 1. PRIOR TO PLACING THE WOOD WASTE COMPOST, REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. WOOD WASTE COMPOST WILL NOT BE USED TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

STABILIZE THE SLOPE WITH STONE RIPRAP -- PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 1, SIMILAR TO THE STONE LINED DITCH THE PERMANENT EROSION CONTROL SECTION.

10. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS

SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% BY SEPTEMBER 1. FAILURE TO STABILIZE THESE SOILS BY THIS DATE WILL REQUIRE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING BY OCTOBER 1. GROWTH OF THE RYE WILL REQUIRE MONITORING OVER THE FOLLOWING 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.

STABILIZE THE SOIL WITH SOD -- STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. 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 -- MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH BY NOVEMBER 1. PRIOR TO APPLYING THE MULCH, REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

4. PERMANENT EROSION CONTROL:

PERMANENT MEASURES WILL CONSIST OF THE PLACEMENT OF CULVERTS; CULVERT INLET/OUTLET STABILIZATION; THE CONSTRUCTION OF GRASS/STONE LINED DITCHES; AND THE RE-VEGETATION OF ALL AREAS OUTSIDE THE TRAVELED WAY OF THE ROAD, AND THOSE AREAS DESIGNATED AS STONE LINED DITCHES.

A. CULVERTS:

ALL CULVERTS HAVE BEEN SIZED TO HANDLE THE PEAK FLOWS GENERATED BY A 25-YEAR, 24-HOUR RAIN STORM. THE LOCATIONS AND SIZES OF THE CULVERTS ARE SHOWN ON THE SITE PLANS.

THE INLETS AND OUTLETS OF THE CULVERTS WILL BE ARMORED WITH RIPRAP TO PREVENT SCOURING. THIS ARMORING WILL CONSIST OF PLACING STONE POSSESSING A D50 OF 6 INCHES TO A DEPTH OF 18 INCHES TO THE FOLLOWING DIMENSIONS: WIDTH EQUAL TO TWICE THE DIAMETER OF THE CULVERT; LENGTH EQUAL TO THREE TIMES THE DIAMETER OF THE CULVERT, UNLESS NOTED OTHERWISE.

B. DITCHES:

DITCHES ON THE PROJECT HAVE BEEN DESIGNED BASED ON EXPECTED FLOW RATES AND VELOCITIES FOR THE 25-YEAR, 24-HOUR STORM EVENT AND THE SLOPE OF THE DITCH. WHERE WATER VELOCITIES ARE EXPECTED TO EXCEED 3.5 FEET PER SECOND, THE DITCH HAS BEEN DESIGNED TO BE STONE LINED. DITCHES WITH WATER VELOCITIES OF LESS THAN 3.5 FEET PER SECOND HAVE BEEN DESIGNED TO BE GRASS LINED.

STONE LINED DITCHES:

STONE LINED DITCHES WILL FIRST BE LINED WITH A NON-WOVEN FILTER FABRIC, AND THEN LINED WITH RIPRAP POSSESSING A D50 OF APPROXIMATELY 6 INCHES IN DIAMETER. THIS MEANS THAT APPROXIMATELY HALF THE STONES BY WEIGHT WILL BE SMALLER THAN 6 INCHES AND HALF WILL BE LARGER. THE MINIMUM STONE SIZE SHOULD BE 1 INCH WITH THE LARGEST STONE BEING 9 INCHES IN DIAMETER. THE DEPTH OF STONE IN THE DITCH SHOULD AVERAGE 15 INCHES.

THE FINAL SHAPE OF THE DITCH WILL CONSIST OF THE FOLLOWING DIMENSIONS: A BOTTOM WIDTH OF TWO FEET; SIDE SLOPES POSSESSING A 3:1 HORIZONTAL TO VERTICAL; AND A TOTAL DEPTH OF 2 FEET.

IN LIEU OF STONE RIP-RAP, THE DITCH MAY BE LINED WITH A PERMANENT EROSION CONTROL BLANKET, SUCH AS NORTH AMERICAN GREEN P300 OR APPROVED EQUAL.

GRASS LINED DITCHES:

GRASS LINED DITCHES WILL POSSESS THE SAME FINAL DIMENSIONS AS THE STONE LINED DITCHES. THE FLOW AREA OF THE DITCH WILL BE ARMORED BY PLACING A BIODEGRADABLE MATTING OR NETTING (SUCH AS AMERICAN EXCELSIOR CURLEX BLANKET OR EQUAL) IN THE BOTTOM OF THE DITCH. PLACEMENT OF THIS MATERIAL MUST TAKE PLACE AFTER SEEDING. INSTALL ACCORDING TO THE MANUFACTURERS' RECOMMENDATIONS.

SEEDING AND MULCHING OF GRASS LINED DITCHES WILL FOLLOW THE SPECIFICATIONS STATED BELOW FOR RE-VEGETATION.

C. RE-VEGETATION MEASURES:

ALL AREAS TO BE PERMANENTLY RE-VEGETATED WITH GRASS WILL FIRST BE COVERED WITH LOAM AND THEN FERTILIZED.

LOAM WILL BE PLACED ON ALL AREAS TO BE RE-VEGETATED. LOAM WILL BE PLACED TO A MINIMUM DEPTH OF 4 INCHES. LOAM WILL BE THE STOCKPILED TOPSOIL, IF POSSIBLE.

TEST THE LOAM SAMPLES FOR NUTRIENTS AT A PROFICIENT TESTING LABORATORY (THE UNIVERSITY OF MAINE PROVIDES THIS SERVICE). REQUEST THAT THE TESTING LABORATORY PROVIDE A RECOMMENDED FERTILIZER MIX, WITH EMPHASIS AT REDUCING THE PHOSPHORUS COMPONENT DUE TO THE TWITCHELL POND WATERSHED. THE AREAS WITH LOAM WILL THEN BE FERTILIZED WITH THE RECOMMENDED APPLICATION RATE. LIME WILL ALSO BE APPLIED AT A RATE OF 50 POUNDS PER 1,000 SQUARE FEET. BOTH THE LIME AND THE FERTILIZER WILL BE MIXED THOROUGHLY WITH THE SOIL.

ALL AREAS TO BE RE-VEGETATED WITH PERMANENT GRASS ARE TO BE SEEDED WITH THE SEED MIX SHOWN ON THE TABLE BELOW. THIS MIXTURE WILL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 SQUARE FEET.

GENERAL LAWN AREAS	CHEWING FESCUE "DIGNITY"	35%
	PENNLAWN CREEPING RED FESCUE	35%
	PERENNIAL RYE "TOURSTAR" (NUTRITE)	30%

MULCH WILL THEN BE SPREAD ON ALL SEEDED AREAS AT A RATE OF TWO BALES PER 1,000 SQUARE FEET. REGARDLESS OF APPLICATION RATE THE SOIL SHALL NOT BE VISIBLE THROUGH THE MULCH.

SEED AND MULCH WILL BE PLACED WITHIN FIVE DAYS OF FINAL GRADING OF TOPSOIL.

SEEDED AREAS WILL BE INSPECTED AFTER 30 DAYS TO DETERMINE THE SUCCESS OF THE SEEDING. IF THE GROUND COVER IS LESS THAN 90%, THE AREA WILL BE RESEEDED.

D. CRITICAL AREAS:

SLOPES IN EXCESS OF 15% WILL REQUIRE THE PLACEMENT OF A BIODEGRADABLE NETTING OR MATTING OVER THE MULCH AND SEED (IF THE NETTING HAS NO MULCH IN IT). IF STABILIZATION IS TO TAKE PLACE AFTER OCTOBER 1, SLOPES OVER 8% WILL BE TREATED WITH THE MATTING.

E. MAINTENANCE OF PERMANENT MEASURES:

ALL MEASURES WILL BE INSPECTED WEEKLY AND BEFORE AND AFTER EVERY SIGNIFICANT STORM EVENT DURING CONSTRUCTION, AND THEN AT LEAST ONCE ANNUALLY TO INSURE PROPER FUNCTION. ANY DAMAGED AREAS WILL BE REPAIRED OR REPLACED AS NECESSARY. ANY DITCHES OR CULVERTS NOT FUNCTIONING AS DESIGNED WILL BE REDESIGNED AND RECONSTRUCTED ACCORDING TO SPECIFICATIONS PREPARED BY A PROFESSIONAL ENGINEER.

IN ANY EVENT, SEEDING SHOULD TAKE PLACE EITHER BETWEEN MAY 1 AND JUNE 15, OR AUGUST 15 AND SEPTEMBER 1.

HOUSEKEEPING PLAN

THE PURPOSE OF THIS PLAN IS TO ENSURE CONSTRUCTION ACTIVITIES PROTECT AGAINST AND DO NOT CREATE OR RESULT IN MATERIALS THAT COULD BECOME A SOURCE OF POLLUTION. THESE STANDARDS APPLY TO SPILL PREVENTION, GROUNDWATER PROTECTION, SEDIMENT AND DUST, DEBRIS AND OTHER UNAUTHORIZED NON-STORMWATER DISCHARGES.

SPILL PREVENTION:
A SPCC PLAN IS UNNECESSARY. NO HAZARDOUS MATERIALS WILL BE STORED ON SITE. THE SITE WILL PRIMARILY BE UTILIZED FOR PARKING, LOADING/UNLOADING AND STORAGE OF NON-HAZARDOUS MATERIALS.

GROUNDWATER PROTECTION:
NO STORMWATER INFILTRATION AREAS A PROPOSED ON THIS SITE. ADDITIONALLY, THE SITE IS NOT LOCATED OVER A SIGNIFICANT SAND AND GRAVEL AQUIFER.

FUGITIVE SEDIMENT AND DUST:
A STABILIZED CONSTRUCTION EXIT WILL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION TO MINIMIZE THE TRACKING OF MUD AND SEDIMENT OFF SITE. APPLICATION OF WATER WILL BE UTILIZED FOR DUST PREVENTION DURING CONSTRUCTION. APPLICATION OF OTHER CHEMICALS TO REDUCE DUST SHALL NOT BE ALLOWED WITHOUT MAINE DEP APPROVAL DUE TO THE TAYLOR BROOK WATERSHED.

DEBRIS AND OTHER MATERIALS:
CONSTRUCTION DEBRIS SHALL BE CONTAINED WITHIN ROLL-OFF DUMPSTERS AND HAULED TO A LICENSED WASTE FACILITY. THE SITE SHALL BE KEPT IN A TIDY CONDITION, FREE FROM TRASH AND LITTER.

EXCAVATION DE-WATERING:
IF EXCAVATION DEWATERING IS WARRANTED, DISCHARGE OF WATER FROM EXCAVATION SHALL BE THROUGH AN APPROVED FILTER AS NOTED IN THE EROSION AND SEDIMENTATION CONTROL PLAN. THE DISCHARGE SHALL BE AT A MINIMUM OF 100' FROM TAYLOR BROOK AND ALLOW FLOW THROUGH A VEGETATED AREA PRIOR TO CONFLUENCE WITH WETLAND OR STREAM FLOWS.

AUTHORIZED NON-STORMWATER DISCHARGES:
THERE ARE NOT AUTHORIZED NON-STORMWATER DISCHARGES EXISTING OR PROPOSED FOR THIS SITE.

UNAUTHORIZED NON-STORMWATER DISCHARGES:
THERE ARE NO UNAUTHORIZED NON-STORMWATER DISCHARGES EXISTING OR PROPOSED FOR THIS SITE.

MAIN-LAND
DEVELOPMENT
CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

MADE FOR

JIG INVESTMENTS, LLC

PO BOX 1913
LEWISTON, MAINE 04241

DRAWING SCALE:

NOT TO SCALE

SUBMISSION NOTES:
SUBMISSION 1: 2022-08-11 SDH
ISSUED FOR PERMITTING.

SUBMISSION 2: 2025-02-19 MJB
ISSUED FOR PERMITTING

PROJ. MGR:	RWD
DRAWN BY:	SDH
CHECKED BY:	RWD
SUBMISSION NO.	2
SURVEY DATE:	N/A
SUBMISSION DATE:	2025-02-19
SUBMITTED FOR:	PERMITTING

NOT FOR CONSTRUCTION

EROSION CONTROL & HOUSEKEEPING NOTES

SEAL:

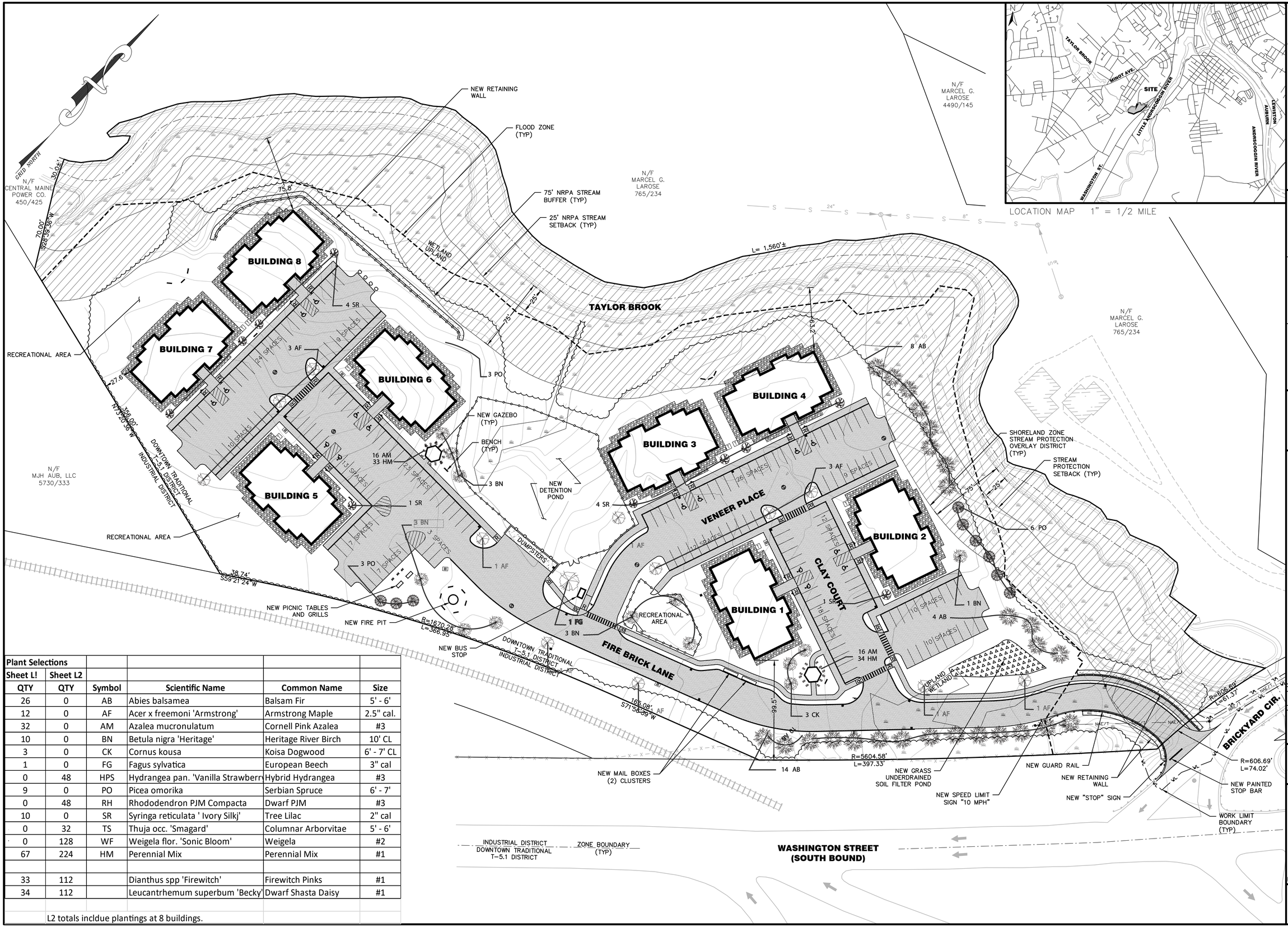
STATE OF MAINE
RICHARD W. DUNTON
No. 12485
LICENSED
PROFESSIONAL ENGINEER
2025-02-19

RICHARD W. DUNTON ME PE #12485

DRAWING NO.

C9.4

MLDC NO. 21-342 14 OF 14



Plant Selections					
Sheet L!	Sheet L2				
QTY	QTY	Symbol	Scientific Name	Common Name	Size
26	0	AB	Abies balsamea	Balsam Fir	5' - 6'
12	0	AF	Acer x freemoni 'Armstrong'	Armstrong Maple	2.5" cal.
32	0	AM	Azalea mucronulatum	Cornell Pink Azalea	#3
10	0	BN	Betula nigra 'Heritage'	Heritage River Birch	10' CL
3	0	CK	Cornus kousa	Koisa Dogwood	6' - 7' CL
1	0	FG	Fagus sylvatica	European Beech	3" cal
0	48	HPS	Hydrangea pan. 'Vanilla Strawberry'	Hybrid Hydrangea	#3
9	0	PO	Picea omorika	Serbian Spruce	6' - 7'
0	48	RH	Rhododendron PJM Compacta	Dwarf PJM	#3
10	0	SR	Syringa reticulata ' Ivory Silkj'	Tree Lilac	2" cal
0	32	TS	Thuja occ. 'Smagard'	Columnar Arborvitae	5' - 6'
0	128	WF	Weigela flor. 'Sonic Bloom'	Weigela	#2
67	224	HM	Perennial Mix	Perennial Mix	#1
33	112		Dianthus spp 'Firewitch'	Firewitch Pinks	#1
34	112		Leucantrhemum superbum 'Becky'	Dwarf Shasta Daisy	#1

L2 totals incldue plantings at 8 buildings.

MAIN-LAND
Development
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PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

GENDRON CORP.

50 ALFRED A. PLOURDE PARKWAY
PO BOX 1913,
LEWISTON, MAINE 04241

MADE FOR

GENDRON CORP.

50 ALFRED A. PLOURDE PARKWAY
PO BOX 1913,
LEWISTON, MAINE 04241

DRAWING SCALE:

40 0 20 40

(IN FEET)

1 INCH = 40 FT

Davis Landscape Company, Inc.
78 Lisbon Street
Lisbon, ME 04250
(207) 353-4848 tel
www.DavisLandscape.com

Date: 06-02-2022

Drawn By: CTD

NOT FOR CONSTRUCTION

Landscape Plan

SEAL:

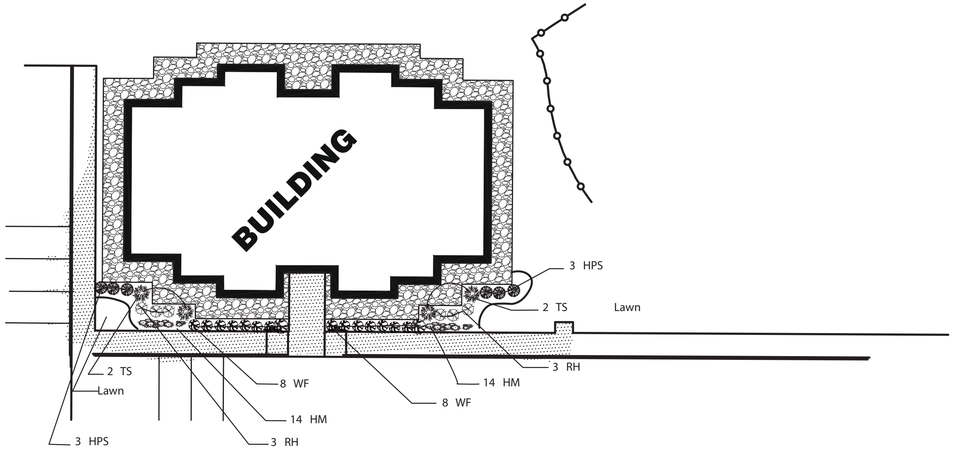
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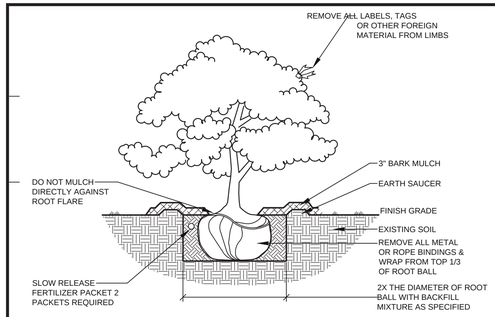
L 1

F 1



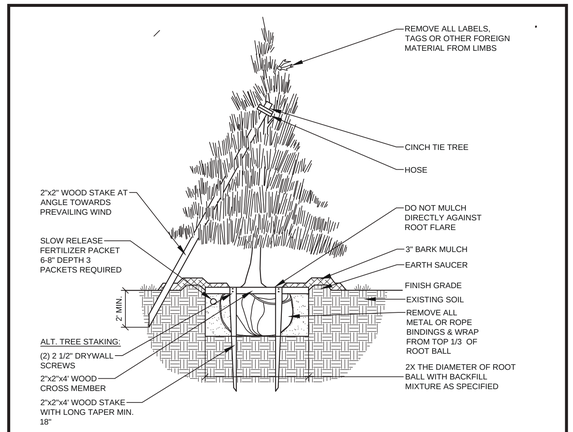
Building Planting - Typical @8 Buildings

Scale: 1" = 20'



DECIDUOUS & EVERGREEN SHRUB

NOT TO SCALE



NOTES:

INSTALL STAKES AND GUYS TO TREES IF THE FOLLOWING APPLY:

1. THE TREE IS OF SUBSTANTIAL SIZE.
2. THE PLANTING LOCATION IS EXTREMELY WINDY, AS ON OPEN UNDEVELOPED SITES.
3. THE PLANTING LOCATION IS COMPRISED OF SAND OR OTHER LOOSE TEXTURED SOILS.
4. IF STAKES AND GUYS ARE REQUIRED, REMOVE AFTER ONE YEAR TIME.

DECIDUOUS TREES

EVERGREEN TREES

NOT TO SCALE

MAIN-LAND
Development
Consultants, Inc.

69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

PROJECT

BRICKYARD COMMONS

AUBURN, MAINE 04210

OWNER OF RECORD

GENDRON CORP.

50 ALFRED A. PLOURDE PARKWAY
PO BOX 1913,
LEWISTON, MAINE 04241

MADE FOR

GENDRON CORP.

50 ALFRED A. PLOURDE PARKWAY
PO BOX 1913,
LEWISTON, MAINE 04241

DRAWING SCALE:

Davis Landscape Company, Inc.
78 Lisbon Street
Lisbon, ME 04250
(207) 353-4848 tel
www.DavisLandscape.com

Date: 06-02-2022

Drawn By: CTD

NOT FOR CONSTRUCTION

Landscape Details

SEAL:

DRAFT

RI

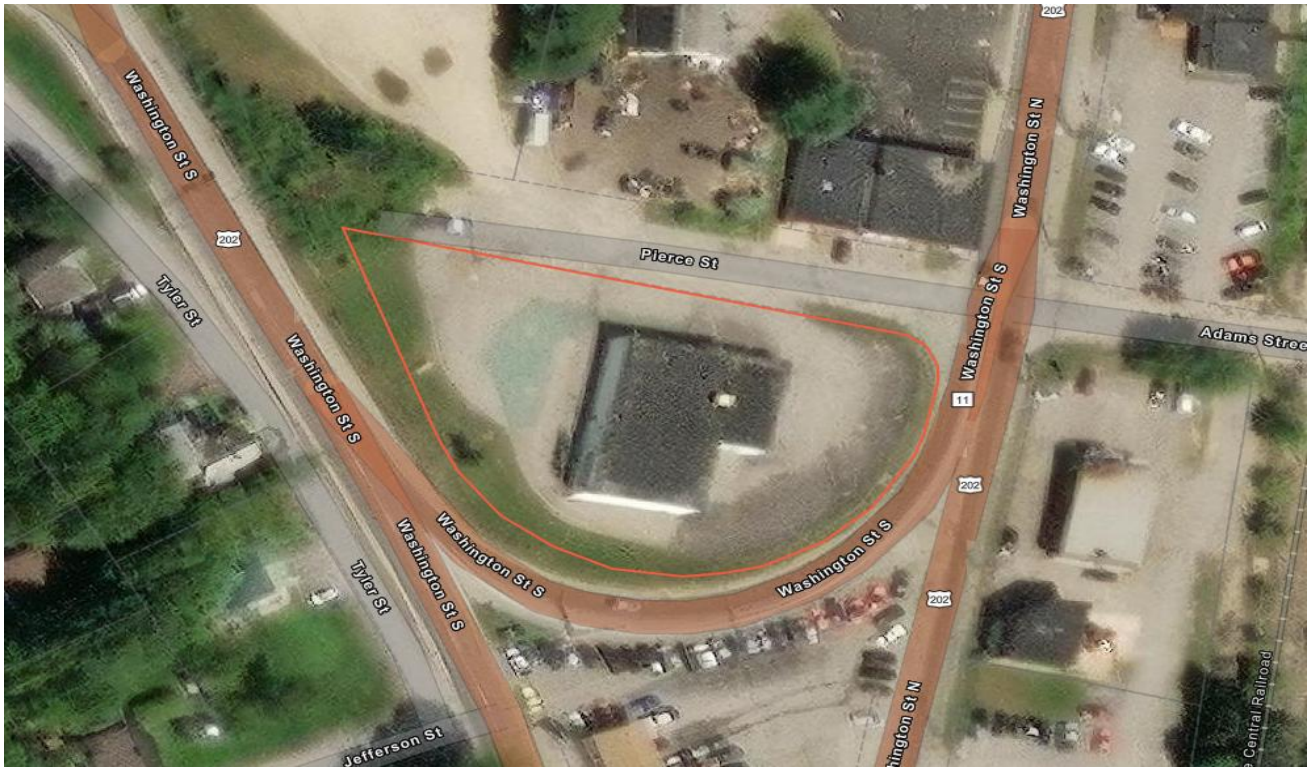
DRAWING NO.

L 2

F 1

City of Auburn, Maine
Office of Planning and Permitting
60 Court Street | Auburn, Maine 04210
www.auburnmaine.gov | 207.333.6601

To: Auburn Planning Board
From: Natalie Thomsen, Planning Coordinator
Re: MV Auburn Commercial Building: Public Hearing on a site plan review application submitted by Terradyn Consultants LLC on behalf of Frank Berenyi of MV Auburn, LLC, for the reuse of the existing commercial building located at 65 Washington Street North (City Assessor's Parcel I.D. 220-085). The applicant intends to utilize the building and infrastructure for a multi-use site, including storage, office space, and a cannabis retail location. The property is located within the T-5.1 Traditional Neighborhood District
Date: April 08, 2025



I. PROPOSAL

The applicant, Frank Berenyi of MV Auburn, LLC, is seeking Site Plan Review approval for the reuse of the existing commercial building located at 65 Washington Street North, also identified as City Assessor's Parcel I.D. 220-085. The applicant intends to utilize the property for a multi-use site that includes storage, office space, and a cannabis retail location. The site is currently developed and no changes to the existing building footprint are proposed. The property is situated within the T-5.1 Traditional Neighborhood District. The Planning Board should consider this application under Chapter 60, Article XVI, Division 2 – Site Plan Review, and Division 3 – Special Exception of the Auburn Zoning Ordinance.

II. ZONING CONSIDERATIONS

Chapter 60, Article IV, Division 14

The property lies in the **T-5.1 Traditional Neighborhood District**, which allows office uses by right. Storage use must be accessory to an allowed use or use given a Special exception by the Planning Board. The **cannabis retail component**, however, requires **Special Exception approval** and must meet specific **location and setback standards** under **Section 60-1336** and **Section 14-659(3)**.

Per City ordinance, **cannabis businesses must be located at least 750 feet** from the property line of any **preexisting public or private school (K–12**). For the purposes of this section, "school" includes a public school, private school, or public preschool program as defined in 20-A M.R.S.A. § 1, or any other educational facility that serves children from prekindergarten to grade 12

The **Spurwink Day Treatment Program**, located at **15 Sacred Heart Place**, is a **Special Purpose Private School (SPPS)** accredited by the Maine Department of Education. It qualifies as a school under the ordinance. Based on GIS measurements and staff review, the proposed cannabis retail location at 65 Washington Street North **does not meet the required 750-foot setback** and therefore **cannot be licensed under City ordinance**.

The setback requirements for the T-5.1 District, as specified in Section 60-556, require a minimum front setback of 0 feet and a maximum front setback of 10 feet, with side and rear setbacks ranging from 0 to 5 feet and 10 feet, respectively. The existing building complies with these setback requirements. No site improvements or structural modifications are proposed that would alter this compliance.

The Formed-Based Code districts have no parking requirements for commercial uses. The existing site provides 11 parking spaces, including one designated handicapped space, which is deemed adequate for the proposed uses.

The cannabis retail component is subject to additional regulations under Section 60-1336, which governs the location and operation of cannabis-related businesses. The applicant is required to obtain all necessary state and local licenses prior to commencing retail operations. The proposed retail space will be approximately 800 square feet within the existing building, and no exterior modifications or expansions are planned. The applicant has confirmed that all security and operational requirements will be met in compliance with local and state regulations.

III. PARKING & ACCESS MANAGEMENT

The existing site includes approximately 11 parking spaces, including one designated handicapped space. Parking for retail customers is provided along the front of the building, with additional spaces located along the side and rear of the site for staff and overflow parking. The site is largely paved and can accommodate additional parking if necessary. Access to the property is provided via a large curb cut along Pierce Street, with existing traffic control measures such as large stones limiting vehicular flow in certain areas. The existing site includes an approximately 160-foot curb cut. Per Sec. 60-607 - General provisions and design standards, the applicant will bring the site into compliance by adding curb to reduce the curb cut to a maximum of 32 feet. A traffic impact analysis was conducted using the ITE Trip Generation Handbook, which projects a weekday trip generation of approximately 211 trips, with peak-hour estimates ranging from 11 to 25 trips depending on the time of day.

IV. UTILITIES & INFRASTRUCTURE

The proposed development will utilize existing utility connections for water, sewer, and electricity. The site's prior commercial use ensures that adequate infrastructure is already in place, and no additional load is anticipated. Stormwater management will remain unchanged, with the site continuing to drain towards an existing catch basin near the corner of Pierce Street and Washington Street North. Snow storage will be accommodated along the rear of the property.

V. LANDSCAPING & LIGHTING

No new landscaping is proposed as part of this application, as the site is already fully developed. However, some plantings have been added along the Pierce Street entrance. Existing lighting will remain in place to provide adequate illumination for parking areas and site access. Landscaping is encouraged but shall not extend into any street sidewalk or travel way. Street trees are encouraged. Foundation plantings are encouraged but should be pruned and maintained with enough clearance from the building facade to encourage air circulation. The Planning Board may wish to consider whether additional screening or landscaping measures should be required as a condition of approval.

VI. WAIVERS

As part of the application, the applicant has requested a waiver from the 750-foot setback requirement from a school, specifically referencing the Spurwink Day Treatment Program, a Special Purpose Private School located at 15 Sacred Heart Place.

The applicant has submitted a letter from their attorney making two arguments:

1. **State Law Compliance**:
   The applicant notes that they meet the State of Maine's minimum setback requirement of 500 feet from schools. However, the City of Auburn has adopted a more stringent local standard—750 feet—which it is legally allowed to do under state law. The applicant's compliance with the state minimum does not exempt them from the City's more restrictive ordinance.
2. **Measurement Dispute**:
   The applicant contends that the site is more than 750 feet from the school when measured door-to-door. However, the Auburn ordinance clearly states that setbacks must be measured from property line to property line. The use of door-to-door measurement is only applicable in the context of commercial subdivisions and does not apply to cannabis licensing standards.

It is important to note that the City's ordinance does not include any provisions allowing for a waiver or exception to the 750-foot school setback requirement. Because the setback cannot be waived or reduced under current regulations, and the applicant does not meet this requirement, the application is ineligible for approval.

Staff recommends for the Planning Board to acknowledge the waiver request in the record with the statement below:

"The Planning Board acknowledges the applicant's request for a waiver from the 750-foot separation requirement between marijuana establishments and preexisting schools. However, this requirement is established under Sec. 14-659(3) of the City Ordinance, which states that marijuana businesses must be located at least 750 feet from the property line of any preexisting public or private school serving grades K–12. This section does not provide the Planning Board with any authority to waive or modify this standard. Therefore, the Board cannot take action on the waiver request, as it lies outside the scope of our jurisdiction."

VII. DEPARTMENT REVIEW:

a. Police - No comments received.
b. Auburn Water and Sewer – No comments received.
c. Fire Department/Code Enforcement – No comments received.
d. Engineering – No comments received.
e. Public Services- No comments received.
f. Airport – No comments received.

VII. PLANNING BOARD ACTION –

Sec 60-1304.(2) - A written denial of the application stating the reasons for such denial, upon a finding that:

a) The provisions for vehicular loading, unloading and parking and for vehicular and pedestrian circulation on the site and onto adjacent public streets will create hazards to safety.
b) The bulk, location or operation of proposed buildings and structures will be detrimental to and adversely affect the use and values of existing development in the neighborhood or the health or safety of persons residing or working therein.
c) The provisions for on-site landscaping are inadequate to screen neighboring properties from unsightly features of the development.
d) The site plan does not adequately provide for the soil and drainage problems which the development may give rise to in accordance with section 60-1301(14).
e) The provisions for exterior lighting create safety hazards for motorists traveling on adjacent streets, or are inadequate for the safety or occupants or users of the site, or will create a nuisance affecting adjacent properties.
f) The proposed development will unduly burden off-site sewer drainage or water systems.
g) The proposed development will create a fire hazard by failing to provide adequate access to the site, or to buildings on the site, for emergency vehicles.
h) The proposed development violates provisions of the zoning regulations applicable to the site or other applicable laws, regulations or ordinances.
i) The proposed development will unduly impact the ability to provide municipal services.

Sec. 60-1277. – Objective. In considering a site plan, the Planning Board shall make findings that the development has made provisions for:

(1) Protection of adjacent areas against detrimental or offensive uses on the site by provision of adequate surface water drainage, buffers against artificial and reflected light, sight, sound, dust and vibration; and preservation of light and air;
(2) Convenience and safety of vehicular and pedestrian movement within the site and in relation to adjacent areas;
(3) Adequacy of the methods of disposal for wastes; and
(4) Protection of environment features on the site and in adjacent areas.

Sec. 60-1336. – As conditions prerequisite to the granting of any special exceptions, the board shall require evidence of the following:

(1) That the special exception sought fulfills the specific requirements, if any, set forth in the zoning ordinance relative to such exception.
(2) That the special exception sought will neither create nor aggravate a traffic hazard, a fire hazard or any other safety hazard.

(3) That the special exception sought will not block or hamper the master development plan pattern of highway circulation or of planned major public or semipublic land acquisition.
(4) That the exception sought will not alter the essential characteristics of the neighborhood and will not tend to depreciate the value of property adjoining and neighboring the property under application.
(5) That reasonable provisions have been made for adequate land space, lot width, lot area, stormwater management in accordance with section 60-1301(14), green space, driveway layout, road access, off-street parking, landscaping, building separation, sewage disposal, water supply, fire safety, and where applicable, a plan or contract for perpetual maintenance of all the common green space and clustered off-street parking areas to ensure all such areas will be maintained in a satisfactory manner.
(6) That the standards imposed are, in all cases, at least as stringent as those elsewhere imposed by the city building code and by the provisions of this chapter.
(7) That essential city services which will be required for the project are presently available or can be made available without disrupting the city's master development plan.

VIII. STAFF RECOMMENDATIONS –

City staff have reviewed the application under the standards of Site Plan Review (Sec. 60-1277) and Special Exception (Sec. 60-1336). While many technical standards have been addressed, the marijuana retail use fails to meet a critical licensing requirement, namely, the required 750-foot setback from a school. As such, staff recommend that the Planning Board deny the application based on the following:

- Sec. 60-1304(2)(H):

"The proposed development violates provisions of the zoning regulations applicable to the site or other applicable laws, regulations, or ordinances."

Suggested Motion:
I make a motion that the proposal does not meet the requirements of Sections 60-1277 and 60-1336, and move to deny the Site Plan application submitted by Terradyn Consultants LLC on behalf of Frank Berenyi for the reuse of the existing building at 65 Washington Street North. The proposed cannabis retail use fails to comply with the 750-foot school setback requirement, rendering it ineligible for licensure under current City ordinance.

Natalie Thomsen
Planning Coordinator

TERRADYN
CONSULTANTS, LLC

207.926.5111
info@terradynconsultants.com
www.terradynconsultants.com

March 6, 2025,

24-286

Natalie Thomsen
Planning Coordinator
City of Auburn
60 Court Street
Auburn, ME 04210

MV Auburn Commercial Building
Frank Berenyi
65 Washington Street N, Auburn, ME

Dear Natalie,

On Behalf of Frank Berenyi of Marijuanaville (MV) Auburn, LLC, we are pleased to submit the development review application for the 65 Washington Street North property, the applicant intends to utilize the existing building and infrastructure for a multi-use site of storage, office, and medical cannabis retail location. We are requesting to be placed on the agenda for the next available Planning Board meeting.

EXISTING PROJECT SITE

The project site is located at 65 Washington North, where the Rotary meets Pierce Street. The property is on the City of Auburn Tax map 220 as lot 85. The site is located within the T-5.1 neighborhood district and is approximately 0.98 acres in size. The building is classified as commercial with a Land use code 15, Pers/Prof SV. The site is the former Subaru dealership and most recently the home of "The Doggz Inn" dog daycare which was in operation until 2019. It appears that the building has sat vacant since

The project site is already fully developed with a large entrance off of Pierce Street, the building features three large overhead doors, one in the rear of the site one along the frontage of Pierce Street, and the last along the front of the building.

The development is largely paved and drains towards the intersection of Pierce Street and the Rotary.

PROPOSED PROJECT

The Applicant is currently leasing the property and intends to utilize the existing commercial site as is with very minimal changes, only to reduce the entrance to the 32'. The existing commercial building will house offices for 3 employees, storage for general business uses, and will operate approximately a 20'x40' (800 SF) space for medical marijuana sales, for which they will apply for a license prior to operation.

The estimated cost for the curb installation is approximately $3,000 and the interior renovations will be to just prep and paint the interior floors which is anticipated to be around $5,000. The applicant had indicated that they have sufficient financial capacity to complete the proposed improvements.

Parking: The existing property has approximately 11 parking spaces. The site will feature 6 parking spaces with 1 handicapped space located along the front of the building for retail customers, and 5 along the rear of the building for additional customer parking if needed and staff parking. The property is largely paved and can support additional parking if needed however, the existing parking is felt to be sufficient for the needs of the business.

Access: There is a large curb cut along Pierce Street to access the property, historically there has been some sort of fencing or barrier placed along the western portion of the entrance to limit the flow of traffic. Currently, there are large stones in place in this area to prevent vehicular traffic, the applicant will formalize this and provide curbing limiting to a maximum of 32 feet.

Daily and peak hour trip generation was determined for the proposed project based on trip tables presented in the tenth edition of the Institute of Transportation Engineers (ITE) "Trip Generation" handbook. The ITE publication provides numerous land use categories and the average volume of trips generated by each category. Site trip estimates for this project are based upon LUC #882-Marijuana Dispensary; Calculations of the total number of trips generated per each corresponding time period are summarized below:

Land Use	Marijuana Dispensary- LUC 882		
Time Period	Size per 1,000 SF	Trip Generation Rate (Trips per Units)	Trips Generated
Weekday	1	211	211
AM Weekday Peak Hour (Street)	1	10.54	11
PM Weekday Peak Hour (Street)	1	18.92	19
AM Weekday Peak Hour (Generator)	1	16.57	17
PM Weekday Peak Hour (Generator)	1	24.57	25
Saturday	1	259.31	259
Saturday Peak Hour	1	28.85	29

It is unknown how many dogs the previous dog daycare could support, without that information, it is difficult to compare traffic flows.

Utilities: The building will utilize the existing utilities at the site, the use of the site is similar to its historical use as a commercial building and will not require any additional loads.

Stormwater Management: The existing impervious cover will be slightly reduced due to the installation of curbing with small island area. Site drainage will be the same as currently exists

and drains towards a catch basin located within the existing parking lot near the corner of Pierce and Washington Street North

Snow Removal: The site will feature adequate snow storage along the rear of the property.

Landscaping & Lighting: Some plantings have been added along the Pierce Street Entrance. The applicant is renting the existing structure which has been in operation as a commercial site as a car dealership and most recently dog daycare, the existing pavement is located very close to the property line along the rotary which limits the space available for additional plantings in that area.

WAIVER REQUEST

The applicant is requesting a waiver from the board to reduce the setback requirements for the licensing of the facility for medical marijuana. The applicant's attorney Brain D. Condon, JR has written a letter in support of the waver which is attached to this letter.

ATTACHMENTS

The following items have been attached:

1. Application Form & Checklist
2. Property Deed & Lease
3. Attorney Letter

CLOSING

The project has been designed to meet the review standards of the City of Auburn's Zoning and Land Use Code. Please do not hesitate to reach out if you have any questions or require additional information.

Sincerely,

TERRADYN CONSULTANTS, LLC

Craig Sweet

Craig Sweet, P.E.
Project Engineer

Terradyn Consultants, LLC has been retained by the Applicant to act as their agent and to provide all necessary information and documentation for the Board's review and approval of this project. We very much appreciate your time and attention to this matter.

ATTACHMENT 1

Application Form & Checklist

City of Auburn, Maine
Office of Planning & Permitting
Eric J. Cousens, Director
60 Court Street | Auburn, Maine 04210
www.auburnmaine.gov | 207.333.6601

Development Review Application

PROJECT NAME: 65 Washington St North

PROPOSED DEVELOPMENT ADDRESS: 65 Washington ST N , Auburn, ME 04210

PARCEL ID #: 220-85

REVIEW TYPE:
Site Plan x☐ **Site Plan Amendment** ☐
Subdivision ☐ **Subdivision Amendment** ☐

PROJECT DESCRIPTION: Please see attached Cover Letter

CONTACT INFORMATION:

Applicant

Name:	Frank Berenyi MV Auburn, LLC
Address:	68 College Ave
City / State	Waterville, ME
Zip Code	04901
Work #:	
Cell #:	(207) 509-0808
Fax #:	
Home #:	
Email:	fberenyi@hotmail.com

Property Owner

Name:	Dan Boutin 65 Rotary, LLC
Address:	PO BOX 1567
City / State	LEWISTON, ME
Zip Code	04241
Work #:	
Cell #:	
Fax #:	
Home #:	
Email:	cyboutin@yahoo.com

Project Representative Terradyn Consultants, LLC

Name:	Craig Sweet, PE
Address:	41 Campus Dr. Suite 301
City / State	New Gloucester, ME 04260
Zip Code	
Work #:	(207) 926-5111
Cell #:	
Fax #:	
Home #:	
Email:	craig@terradynconsultants.com

Other professional representatives for the project (surveyors, engineers, etc.),

Name:	
Address:	
City / State	
Zip Code	
Work #:	
Cell #:	
Fax #:	
Home #:	
Email:	

PROJECT DATA

The following information is required where applicable, in order complete the application

IMPERVIOUS SURFACE AREA/RATIO

Existing Total Impervious Area	33,733 sq. ft.
Proposed Total Paved Area	26,140 sq. ft.
Proposed Total Impervious Area	33,733 sq. ft.
Proposed Impervious Net Change	0 sq. ft.
Impervious surface ratio existing	76.72 % of lot area
Impervious surface ratio proposed	76.72 % of lot area

BUILDING AREA/LOT COVERAGE

Existing Building Footprint	7,594 sq. ft.
Proposed Building Footprint	7,954 sq. ft.
Proposed Building Footprint Net change	0 sq. ft.
Existing Total Building Floor Area	7,594 sq. ft.
Proposed Total Building Floor Area	7.594 sq. ft.
Proposed Building Floor Area Net Change	0 sq. ft
New Building	no (yes or no)
Building Area/Lot coverage existing	17 % of lot area
Building Area/Lot coverage proposed	17 % of lot area

ZONING

Existing	T-5.1
Proposed, if applicable	N/A

LAND USE

Existing	Commercial
Proposed	comercial

RESIDENTIAL, IF APPLICABLE

Existing Number of Residential Units	0
Proposed Number of Residential Units	0
Subdivision, Proposed Number of Lots	N/A

PARKING SPACES

Existing Number of Parking Spaces	6
Proposed Number of Parking Spaces	6
Number of Handicapped Parking Spaces	1
Proposed Total Parking Spaces	1

ESTIMATED COST OF PROJECT: $8,000, Applicant intents to utilize site as existing

DELEGATED REVIEW AUTHORITY CHECKLIST

SITE LOCATION OF DEVELOPMENT AND STORMWATER MANAGEMENT

Existing Impervious Area	33,733 sq. ft.
Proposed Disturbed Area	0 sq. ft.
Proposed Impervious Area	33,733, no change sq. ft.

1. ***If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with MDEP.***
2. ***If the proposed impervious area is greater than one acre including any impervious area crated since 11/16/05, then the applicant shall apply for a MDEP Stormwater Management Permit, Chapter 500, with the City.***
3. ***If total impervious area (including structures, pavement, etc) is greater than 3 acres since 1971 but less than 7 acres, then the applicant shall apply for a Site Location of Development Permit with the City. If more than 7 acres then the application shall be made to MDEP unless determined otherwise.***
4. ***If the development is a subdivision of more than 20 acres but less than 100 acres then the applicant shall apply for a Site Location of Development Permit with the City. If more than 100 acres then the application shall be made to MDEP unless determined otherwise.***

TRAFFIC ESTIMATE

Total traffic estimated in the peak hour-existing (Since July 1, 1997) 20-30 passenger car equivalents (PCE)

Total traffic estimated in the peak hour-proposed (Since July 1, 1997) 25 passenger car equivalents (PCE)

If the proposed increase in traffic exceeds 100 one-way trips in the peak hour then a traffic movement permit will be required.

Zoning Summary

1. Property is located in the T-5.1 zoning district.
2. Parcel Area: 0.98 acres / 42,688 square feet(sf).

Regulations	Required/Allowed	Provided
Min Lot Area	N/A	**0.98 ac**
Street Frontage	24'-160'	N/A
Min Front Yard	0'-10'	N/A
Min Rear Yard	10'	N/A'
Min Side Yard	~~0~~-5'	N/A'
Max. Building Height	2-4 story	1 Story-existing
Use Designation	commercial	commercial
Parking Requirement	1 space/ per	
Total Parking:	no min	6
Overlay zoning districts (if any):	None	
Urban impaired stream watershed?	YES/NO If yes, watershed name	

DEVELOPMENT REVIEW APPLICATION SUBMISSION

Submissions shall include fifteen (15) complete packets containing the following materials:

1. 5 Full size plans and 10 smaller (no larger than 11" x 17") plans containing the information found in the attached sample plan checklist.
2. Application form that is completed and signed by the property owner or designated representative. (NOTE: All applications will be reviewed by staff and any incomplete application will not be accepted until all deficiencies are corrected.
3. Cover letter stating the nature of the project.
4. All written submittals including evidence of right, title and interest.
5. Copy of the checklist completed for the proposal listing the material contained in the submitted application.

Refer to the application checklist for a detailed list of submittal requirements.

To view the City of Auburn Zoning Ordinance, go to:
www.auburnmaine.gov under City Departments / Planning, Permitting & Code / Subdivisions / Land Use /Zoning Ordinance

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, I certify that the City's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for development review only; a Performance Guarantee, Inspection Fee, Building Permit Application and other associated fees and permits will be required prior to construction.

Signature of Applicant: Craig Saucier	**Date:** March 6, 2025

City of Auburn, Maine
Office of Planning & Permitting
Eric J. Cousens, Director
60 Court Street | Auburn, Maine 04210
www.auburnmaine.gov | 207.333.6601

Development Review Checklist

The following information is required where applicable to be submitted for an application to be complete

PROJECT NAME: MV Auburn
PROPOSED DEVELOPMENT ADDRESS: 65 Washington Street North
PARCEL #: 220 Lot 85

Required Information		*Check when Submitted*		*Applicable Ordinance*
Site Plan		*Applicant*	*Staff*	
	Owner's Names/Address	X		
	Names of Development	X		
	Professionally Prepared Plan	X		
	Tax Map or Street/Parcel Number	X		
	Zoning of Property	X		
	Distance to Property Lines	X		
	Boundaries of Abutting land	X		
	Show Setbacks, Yards and Buffers	X		
	Airport Area of Influence	N/A		
	Parking Space Calcs	X		
	Drive Openings/Locations	X		
	Subdivision Restrictions	N/A		
	Proposed Use	X		
	PB/BOA/Other Restrictions	N/A		
	Fire Department Review	N/A		
	Open Space/Lot Coverage	N/A		

Required Information		*Check when Submitted*		*Applicable Ordinance*
Landscape Plan		*Applicant*	*Staff*	
	Greenspace Requirements	N/A		
	Setbacks to Parking	N/A		
	Buffer Requirements	N/A		
	Street Tree Requirements	N/A		
	Screened Dumpsters	N/A		
	Additional Design Guidelines	N/A		
	Planting Schedule	N/A		
Stormwater & Erosion Control Plan		*Applicant*	*Staff*	
	Compliance w/ chapter 500	N/A		
	Show Existing Surface Drainage	X		
	Direction of Flow	X		
	Location of Catch Basins, etc.	X		
	Drainage Calculations	N/A		
	Erosion Control Measures	N/A		
	Maine Construction General Permit	N/A		
	Bonding and Inspection Fees	N/A		
	Post-Construction Stormwater Plan	N/A		
	Inspection/monitoring requirements	N/A		
Lighting Plan		*Applicant*	*Staff*	
	Full cut-off fixtures			
	Meets Parking Lot Requirements	X		
Traffic Information		*Applicant*	*Staff*	
	Access Management	X		
	Signage	X		
	PCE - Trips in Peak Hour	X		

Required Information		*Check when Submitted*		*Applicable Ordinance*
Technical & Financial Capacity		*Applicant*	*Staff*	
	Cost Est./Financial Capacity	X		
	Performance Guarantee	N/A		
State Subdivision Law		***Applicant***	***Staff***	
	Verify/Check	N/A		
	Covenants/Deed Restrictions	N/A		
	Offers of Conveyance to City	N/A		
	Association Documents	N/A		
	Location of Proposed Streets & Sidewalks	N/A		
	Proposed Lot Lines, etc.	N/A		
	Data to Determine Lots, etc.	N/A		
	Subdivision Lots/Blocks	N/A		
	Specified Dedication of Land	N/A		
Additional Subdivision Standards		***Applicant***	***Staff***	
	Mobile Home Parks	N/A		
	PUD	N/A		
A JPEG or PDF of the proposed site plan		***Applicant***	***Staff***	
Final sets of the approved plans shall be submitted digitally to the City, on a CD or DVD, in AutoCAD format R 14 or greater, along with PDF images of the plans for archiving				

ATTACHMENT 2

Property Deed & Lease

Bk 7505 Pg141 #16602
08-12-2008 @ 10:07a

NOT AN OFFICIAL COPY

WARRANTY DEED

NOT AN OFFICIAL COPY

65 Washington Street, LLC, a Maine Limited Liability Company with a mailing address at 867 Center Street, Auburn, Maine 04210, grants to **65 Rotary LLC,** a Maine Limited Liability Company with a mailing address at 1023 Littlefield Road, Sabattus, Maine 04280, with **Warranty Covenants,** a certain lot or parcel of land, together with any buildings situated thereon, located in **Auburn**, County of **Androscoggin**, and State of **Maine**, as more fully described in Exhibit "A" attached hereto and made a part hereof.

In Witness Whereof, the undersigned has hereunto set its hand and seal effective this 11th day of August, 2008.

MAINE REAL ESTATE TRANSFER TAX PAID

Witness:

_____

65 Washington Street, LLC

By: _____
Derek Dube, Its Member

STATE OF MAINE
ANDROSCOGGIN, SS.

August 11, 2008

Then personally appeared before me the above-named **Derek Dube** in his aforesaid capacity as Member of **65 Rotary LLC**, and acknowledged the foregoing instrument to be his free act and deed in his capacity and the free act and deed of said Company.

Before me,

_____
~~Notary Public~~/Attorney-At-Law
Print Name: Paul R. Gosselin
My Commission Expires: _____

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EXHIBIT "A"

A certain lot or parcel of land situated in Auburn, County of Androscoggin, State of Maine bounded and described as follows:

Bounded on the easterly side by a public way known as Washington Street;

Bounded on the southerly side by a public way known as Jefferson Street;

Bounded on the westerly side by First Avenue; and

Bounded on the northerly side by Adams Street;

Excepting and reserving from the above described premises that portion taken by the Maine State Highway Commission by its Notice of Taking dated June 5, 1957 and recorded in the Androscoggin County Registry of Deeds in Book 761, Page 148.

Being a portion of the same premises conveyed to Westminster Associates, LLC by Quitclaim Deed with Covenant of Westminster Associates, a Maine General Partnership, dated April 28, 2005 and recorded in the Androscoggin County Registry of Deeds in Book 6316, Page 204.

Being the same premises conveyed to 65 Washington Street, LLC by Warranty Deed of Westminster Associates, LLC, dated August 9, 2007 and recorded in the Androscoggin County Registry of Deeds in Book 7227, Page 116.

ANDROSCOGGIN COUNTY
Tina R. Chaunard
REGISTER OF DEEDS

COMMERCIAL LEASE (NNN/NET LEASE)

1. PARTIES

65 Washington St LLC, with a mailing address of PO BOX 1567, Lewiston, ME 04241 ("LANDLORD"), hereby leases to Marijuanaville, with a mailing address of 68 College Ave, Waterville, ME 04901 ("TENANT"), and TENANT hereby leases from LANDLORD the following demised premises:

2. LEASED PREMISES

("Leased Premises")

A. DEMISED PREMISES

The Leased Premises are deemed to contain 8000 +/- square feet. The Leased Premises are located at 65 Washington Ave, Auburn, ME 04240. The Leased Premises shall include the right to use, in common with others entitled thereto, the hallways, stairways, and elevators, necessary for access to said Leased Premises, and lavatories nearest thereto. The Leased Premises are accepted in "as is" condition except as specifically set forth to the contrary in this Lease. TENANT acknowledges that: (a) LANDLORD has made no representations, and TENANT is not relying on any representations, about the Leased Premises, their suitability for any particular use and/or the physical condition thereof; and (b) that TENANT has conducted its own due diligence inquiries with respect to the Leased Premises and is satisfied with the results thereof.

B. PARKING

1. Unassigned Parking. During the term of this Lease and for the payment of additional monthly rent to LANDLORD in the amount of _____ Dollars ($ N/A) per parking space, which additional rent shall be due each month along with payment of base rent, TENANT also shall have the right, in common with LANDLORD and others, to use up to _____ ( ) [NONE IF LEFT BLANK] undesignated parking spaces in the parking lot located at _____. Except as otherwise specified in this Lease, LANDLORD makes no representation, warranty, or guarantee to TENANT that all or any number of said parking spaces will be reserved or available at any given time.

2. Assigned/Reserved Parking. During the term of this Lease and for the payment of additional monthly rent to LANDLORD in the amount of _____ Dollars ($ N/A) per parking space, which additional rent shall be due each month along with payment of base rent, TENANT also shall have the right to use _____ (ALL) [NONE IF LEFT BLANK] designated and reserved parking spaces in the parking lot located at _____. The parking spaces assigned to TENANT within said parking lot pursuant to this Section are more particularly described as follows: Parking areas, in its entirety, surrounding the leased building.

3. TERM

The term of this Lease shall be for Five (5) years, unless sooner terminated as herein provided, commencing on January 1, 2025 (the "Commencement Date") and ending on December 31, 2029. LANDLORD shall deliver possession of the Leased Premises to TENANT on or before January 1, 2025. All of TENANT's obligations under this Lease shall commence upon delivery of possession of the Leased Premises, except for those obligations that expressly commence on the Commencement Date.

4. RENT

Commencing on the Commencement Date, TENANT shall pay to LANDLORD the following base rent:

Lease Year:	Annual Base Rent (NNN):	Monthly Rent (NNN):
Year 1	$ 60,000.00 /year	$ 6,000.00 /month
Year 2	$ 78,000.00 /year	$ 6,500.00 /month
Year 3	$ 84,000.00 /year	$ 7,000.00 /month
Year 4	$ 84,000.00 /year	$ 7,000.00 /month
Year 5	$ 84,000.00 /year	$ 7,000.00 /month
Year 6	$ _____ /year	$ _____ /month
Year 7	$ _____ /year	$ _____ /month
Year 8	$ _____ /year	$ _____ /month
Year 9	$ _____ /year	$ _____ /month
Year 10	$ _____ /year	$ _____ /month

Tenant's Initials _____ Landlord's Initials _____

payable in advance in equal monthly installments on the first day of each month during the term of this Lease, without deduction or setoff. Said base rent shall be prorated for portions of a calendar month at the beginning or end of said Lease term.

All payments of base rent and other amounts due to LANDLORD pursuant to this Lease are to be made to LANDLORD or to such agent and at such place as LANDLORD shall from time to time in writing designate, the following being now so designated: PO BOX 1567, Lewiston ME 04241. If TENANT does not pay base rent, supplemental and additional rents, or other fees and charges when due pursuant to the term of this Lease, then LANDLORD, in its sole discretion, may charge, in addition to any other remedies it may have, a late charge for each month or part thereof that TENANT fails to pay the amount due after the due date. The late charge shall be equal to four percent (4%) of the amount due LANDLORD each month in addition to the rent then due.

5. ~~RENEWAL OPTION~~

So long as TENANT is not in default of this Lease at the time of exercise of TENANT's renewal option, TENANT shall have the option to renew this Lease for _____ (_____) term(s) of _____ (_____) year(s). In order to exercise TENANT's option, TENANT shall notify LANDLORD in writing of its intention to exercise its option no later than _____ (_____) days prior to the end of the then-current Lease term, said renewal to be upon the same terms and conditions set forth in this Lease except for base rent, which shall be as follows:

FIRST RENEWAL TERM:

Lease Year:	Annual Base Rent (NNN):	Monthly Rent (NNN):
Year 1	$ _____/year	$ _____/month
Year 2	$ _____/year	$ _____/month
Year 3	$ _____/year	$ _____/month
Year 4	$ _____/year	$ _____/month
Year 5	$ _____/year	$ _____/month

SECOND RENEWAL TERM:

Lease Year:	Annual Base Rent (NNN):	Monthly Rent (NNN):
Year 1	$ _____/year	$ _____/month
Year 2	$ _____/year	$ _____/month
Year 3	$ _____/year	$ _____/month
Year 4	$ _____/year	$ _____/month
Year 5	$ _____/year	$ _____/month

In the event that TENANT fails to perform its obligations under this Article, the option shall be deemed not to have been exercised.

6. SECURITY DEPOSIT

Upon execution of this Lease, TENANT shall pay to LANDLORD the amount of ~~Six Thousand, Five Hundred~~ Dollars ($ ~~6,500.00~~) ("Security Deposit"), which shall be held as a security for TENANT's performance as herein provided. LANDLORD, at its option and at any time, may use the Security Deposit in whole or in part to cure any default of TENANT hereunder. LANDLORD shall promptly notify TENANT of any such use of the Security Deposit. TENANT shall immediately replenish the Security Deposit to its full amount any time that all or any portion thereof is applied or used by LANDLORD to cure any default of TENANT hereunder. Any unused portion of the Security Deposit shall be refunded to TENANT without interest at the end of this Lease provided that TENANT has satisfactorily complied with the terms and conditions of this Lease.

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7. RENT ADJUSTMENT

A. TAXES

Commencing on the Commencement Date, TENANT shall pay to LANDLORD as additional rent hereunder, in accordance with subparagraph C of this Article, **One Hundred** percent (**100.000** %) of all real estate taxes on the land and buildings of which the Leased Premises are a part for each year of the term of this Lease and any extension or renewal thereof, and a prorated amount thereof for any part of a fiscal year in which this Lease commences or ends. If LANDLORD obtains an abatement of any such real estate taxes, a proportionate share of such abatement, less the reasonable fees and costs incurred in obtaining the same, if any, shall be refunded to TENANT.

B. OPERATING COSTS

Commencing on Commencement Date, TENANT shall pay to LANDLORD as additional rent hereunder, in accordance with subparagraph C of this Article, **One Hundred** percent (**100.000** %) of all "operating expenses" for each year of the Lease term and any extension or renewal thereof, and a prorated amount thereof for any part of any fiscal year in which this Lease commences or ends. "Operating expenses" are defined for the purposes of this Lease as the operating expenses per annum of the building and its appurtenances and all exterior areas, yards, plazas, sidewalks, landscaping, parking areas, and the like then (i.e., as of the last day of the relevant calendar year) located outside of the building but related thereto and the parcels of land on which they are located (said building appurtenances, exterior areas, and land hereinafter referred to in total as the "Property"). Operating expenses include, but are not limited to: (i) all costs of furnishing electricity, heat, air conditioning, water and sewer and other utility services and facilities to the Property; (ii) all costs of any insurance carried by LANDLORD related to the Property; (iii) all costs for common area cleaning and janitorial services; (iv) all costs of maintaining the Property including the operation and repair of heating and air conditioning equipment and any other common building equipment, non-capital roof repairs and all other repairs, improvements and replacements required by law or necessary to keep the Property in a well maintained condition; (v) all costs of snow and ice removal, landscaping and grounds care; (vi) all other costs of the management of the Property, including, without limitation property management fees; and (vii) all other reasonable costs relating directly to the ownership, operation, maintenance and management of the Property by LANDLORD.

C. PAYMENT OF RENT ADJUST-MENTS

During each year of the term of this Lease and any extension or renewal thereof, TENANT shall pay to LANDLORD, as additional rent hereunder, TENANT's share of real estate taxes and operating expenses for the then-current year in accordance with this Article. TENANT shall pay such additional rent in advance in equal monthly payments along with TENANT's monthly base rent payments. Such monthly additional rent payments under this Article shall be equal to one twelfth (1/12) of TENANT's estimated annual share of such real estate taxes and operating expenses for the current year, based on LANDLORD's reasonable estimate thereof as set forth in a written statement delivered to TENANT (i) on or prior to the Commencement Date, for the calendar year in which this Lease commences, and (ii) thereafter, no later than thirty (30) days prior to the beginning of each year of the term of this Lease and any extension or renewal thereof.

Within one hundred and twenty (120) days after the end of each calendar year, LANDLORD shall deliver to TENANT a statement showing the actual amount of such real estate taxes and operating expenses and TENANT's share of the same. In the event that TENANT does not object to such statement in writing within ninety (90) days of receipt of same, such statement shall be deemed accurate. Upon written request by TENANT to LANDLORD made within said ninety (90) day period, LANDLORD shall provide to TENANT reasonable supporting documentation for any item of expense on such statement objected to by TENANT. TENANT shall, within thirty (30) days after delivery of the annual reconciliation statement, pay to LANDLORD, as additional rent, the difference between TENANT's share of the actual real estate taxes and operating expenses for the relevant year and the amount of any estimated payments in respect thereof made by TENANT for the relevant year. If the estimated payments made by TENANT for the relevant year exceed TENANT's actual share of such real estate taxes and/or operating expenses, then the excess shall be applied to the next year's monthly payments for estimated real estate taxes and operating expenses under this Article, or refunded to TENANT at the expiration of this Lease subject to TENANT's compliance with the terms and conditions hereof.

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8. UTILITIES

TENANT shall pay, as they become due, all bills for electricity and other utilities (whether they are used for furnishing heat or other purposes) that are furnished to the Leased Premises, whether separately metered or billed back by LANDLORD to TENANT on a pro rata share basis, all bills for fuel furnished to a separate tank servicing the Leased Premises exclusively, and all charges for telephone or other communication systems used at and supplied to the Leased Premises. LANDLORD agrees to furnish water for ordinary drinking, cleaning, lavatory and toilet facilities and reasonable heat and air conditioning, if installed as part of the structure of the building of which the Leased Premises are a part (except to the extent that the same are furnished through separately metered utilities or separate fuel tanks as set forth above) so as to maintain the Leased Premises and common areas of the building at comfortable levels during normal business hours on regular business days of the heating and air conditioning seasons of each year, to furnish elevator service, if installed as a part of the structure of the building, and to light passageways and stairways during business hours, and to furnish such cleaning service as is customary in similar building in said city or town, all subject to interruption due to any accident, to the making of repairs, alterations or improvements, to labor difficulties, to trouble in obtaining fuel, electricity, service or supplies from the sources from which they are usually obtained for said building, or to any cause beyond LANDLORD's control.

LANDLORD shall have no obligation to provide utilities or equipment other than the utilities and equipment within the Leased Premises as of the commencement date of this Lease. In the event TENANT requires additional utilities or equipment, the installation and maintenance thereof shall be TENANT's sole obligation, provided that such installation shall be subject to the written consent of LANDLORD.

9. USE OF LEASED PREMISES

TENANT shall use the Leased Premises only for the purpose of: **Marijuana Retail & Grow Operation**. Neither LANDLORD nor LANDLORD's BROKER have made any representations to TENANT regarding the uses of the Leased Premises allowed under applicable law or other restrictions of record, and TENANT acknowledges and agrees that TENANT assumes all responsibility and risk for investigating the same.

10. COMPLIANCE WITH LAWS

TENANT agrees to conform to the following provisions during the entire term of this Lease and any extensions and renewals hereof: (i) TENANT shall not injure or deface the Leased Premises, the building, or any portion of the Property; (ii) No auction sale, inflammable fluids, chemicals, nuisance, or objectionable noise or odor shall be permitted on the Leased Premises or any portion of the Property; (iii) TENANT shall not permit the use of the Leased Premises or any portion of the Property for any purpose other than set forth herein or any use thereof which is improper, offensive, contrary to law or ordinance, or liable to invalidate or increase the premiums for any insurance on the Leased Premises, the building and its contents, or any portion of the Property, or liable to render necessary any alterations or additions to the building or the Property; and (iv) TENANT shall not obstruct in any manner any portion of the building or the Property not hereby demised or the sidewalks or approaches to said building or any inside or outside windows or doors. TENANT shall observe and comply with all codes, ordinances, laws, regulations, and other governmental or quasi-governmental orders or inspections affecting TENANT, the Leased Premises, the Property and/or TENANT's use thereof, and all reasonable rules and security regulations now or hereafter made by LANDLORD for the care and use of the Leased Premises, the building, and the Property. TENANT agrees to keep the Leased Premises equipped with all safety appliances and make all accessibility alterations, improvements or installations to the building, and/or accommodations in TENANT's use thereof, as are required by law or any public authority as a result of TENANT's use or occupancy of the Leased Premises or TENANT's alterations or additions thereto, which alterations, improvements and installations shall be subject to LANDLORD's written consent as provided in this Lease.

11. MAINTENANCE

A. TENANT'S OBLIGATIONS

TENANT acknowledges by entry thereupon that the Leased Premises are in good and satisfactory order, repair, and condition, and covenants during the Lease term and such further time as TENANT holds any part of the Leased Premises to keep said Leased Premises (including without limitation windows, doors and systems exclusively serving the Leased Premises) in as good order, repair and condition as the same are in at the commencement of the Lease term, or may be put in thereafter, damage by fire or unavoidable casualty and reasonable use and wear only excepted. Notwithstanding anything to the contrary herein, if TENANT has leased ground floor space, TENANT covenants to keep all plate glass windows appurtenant to the Leased

Premises in good repair and condition and to carry adequate insurance to provide for the replacement of any such plate glass which is damaged or destroyed. Notwithstanding anything to the contrary herein, TENANT shall be responsible for the expense of any and all maintenance and repairs to the Leased Premises, the building, and the Property arising out of the negligence or willful misconduct of TENANT or any of its employees, contractors, agents, customers, or invitees, and TENANT shall pay all such amounts promptly upon request by LANDLORD.

B. LANDLORD'S OBLIGATIONS

LANDLORD agrees to maintain and repair the roof, exterior walls and structure of the building of which the Leased Premises are a part, building systems not exclusively serving the Leased Premises, and the common areas of the building of which the Leased Premises are a part, in the same condition as they are at the commencement of the Lease term or as it may be put in during the term of this Lease, excepting only reasonable wear and tear, damage by fire and other casualty, and any damage arising from the negligence or willful misconduct of TENANT or any of its employees, contractors, agents, customers, or invitees.

12. ALTERATIONS-ADDITIONS

TENANT shall not make any alterations or additions to the Leased Premises, the building or the Property, or permit the making of any holes in any part of said building (except nail holes for hanging art), or paint or place any signs, drapes, curtains, shades, awnings, aerials or flagpoles or the like, or permit anyone except TENANT to use any part of the Leased Premises for desk space for mailing privileges without on each occasion obtaining prior written consent of LANDLORD. TENANT may install signs of the following dimensions in the following locations, which signs shall be installed at TENANT's sole expense, in compliance with all applicable laws and ordinances, and in compliance with LANDLORD's sign standards attached hereto: _____ [NONE IF LEFT BLANK]. TENANT shall not suffer or permit any lien of any nature or description to be placed against the building, the Leased Premises, the Property or any portion thereof. In the case of any such lien attaching, TENANT shall immediately pay and remove the same; provided, that this provision shall not be interpreted as meaning that TENANT has any authority or power to permit any lien of any nature or description to attach or to be placed upon LANDLORD's title or interest in the building, the Leased Premises, the Property or any portion thereof.

13. ASSIGNMENT-SUBLEASING

TENANT shall not by operation of law or otherwise, assign, mortgage or encumber this Lease, or sublet or permit the Leased Premises or any part thereof to be used by others, without LANDLORD's prior express written consent in each instance [which consent shall not be unreasonably withheld] (*cross out if not applicable*). In any case where LANDLORD shall consent to such assignment or subletting, TENANT named herein shall remain fully liable for the obligations of TENANT hereunder, including, without limitation, the obligation to pay rent and other amounts provided under this Lease. For purposes of this Lease, the sale of controlling interest in the stock of a corporate TENANT, sale of the controlling membership interest in an LLC or similar entity, or the change of a general partner of a partnership TENANT shall constitute an assignment of this Lease.

14. SUBORDINATION AND QUIET ENJOYMENT

This Lease automatically shall be subject and subordinate to any and all mortgages, deeds of trust and other instruments in the nature of a mortgage, that are now or at any time hereafter a lien or liens on the Property, and TENANT shall, within ten (10) days after they are requested, promptly execute and deliver such written instruments as shall be necessary to show the subordination of this Lease to said mortgages, deeds of trust or other such instruments in the nature of a mortgage. Provided TENANT performs all of its obligations and complies with all terms and conditions set forth in this Lease, TENANT shall be entitled to the quiet enjoyment of the Leased Premises; provided, that TENANT covenants that it holds the Premises subject to all easements, covenants and other matters of record, and agrees to abide by same to the extent the same affect the Leased Premises. TENANT agrees to sign within ten (10) days after they are requested, such estoppel certificates as are requested by LANDLORD or LANDLORD's lender.

15. LANDLORD'S ACCESS

LANDLORD or agents of LANDLORD may, at all reasonable times during the term of this Lease, enter the Leased Premises; (i) to examine the Leased Premises and, if LANDLORD shall so elect, to make any repairs or additions LANDLORD may deem necessary and, at TENANT's expense, to remove any alterations, additions, signs, drapes, curtains, shades, awnings, aerials or flagpoles, or the like, not consented to by LANDLORD in writing; (ii) to show the Leased Premises to prospective purchasers and mortgagees; and (iii) to show the Leased Premises to prospective tenants during the **Three** (**3**) months preceding the

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expiration of this Lease. LANDLORD reserves the right at any time within Three (3) months before the expiration of this Lease to affix to any suitable part of the Leased Premises a notice for leasing the Leased Premises and to keep the signage affixed without hindrance or molestation. LANDLORD also reserves the right at any time to affix to any suitable part of the Leased Premises a notice for selling the Leased Premises or property of which the Leased Premises are a part and to keep the signage affixed without hindrance or molestation.

16. INDEMNIFICATION AND LIABILITY

A. TENANT'S INDEMNIFICATION

TENANT will defend and indemnify LANDLORD and its owners, employees, agents and management company for, and save them harmless from, any and all injury, loss, claim, damage, liability and expense (including reasonable attorneys' fees) in connection with loss of life, personal injury, or damage to property or business, arising from, related to, or in connection with the occupancy or use by TENANT of the Leased Premises or any part of the Property, or occasioned wholly or in part by any act or omission of TENANT, its contractors, subcontractors, subtenants, licensees invitees, customers or concessionaires, or its or their respective owners, agents, servants or employees while on or about the Leased Premises or the Property; provided, that the foregoing indemnification obligation shall not apply to any injury, loss, claim, damage, liability, and expense caused solely by the negligence or willful conduct of LANDLORD. TENANT shall pay all expenses, including reasonable attorneys' fees, incurred by LANDLORD in successfully enforcing any obligation, covenant, or agreement of this Lease or resulting from TENANT's breach of any provisions of this Lease (including without limitation any attorneys' fees incurred to monitor or intervene in any bankruptcy proceeding involving TENANT), or TENANT's breach of the provisions of any document, settlement or other agreement related to this Lease. TENANT agrees not to assert immunity under workers' compensation laws as a defense to the enforcement by LANDLORD of the foregoing indemnity. The provisions of this Article shall survive the termination or earlier expiration of the term of this Lease. Except as set forth in subparagraph B of this Article, and without limitation of any other provision herein, neither LANDLORD, its owners, employees, agents or management company shall be liable for, and TENANT hereby releases such persons from all claims for, any loss of life or injuries to any person, or damages to property or business, sustained by TENANT or any person claiming through TENANT due to the building, the Property or any part thereof (including the Leased Premises), or any appurtenances thereof, being in need of repair or due to the happening of any accident in or about the Leased Premises or the Property, or due to any act or negligence by TENANT or of any owner, agent, employee, customer, invitee or visitor of TENANT. Without limitation, this provision shall apply to injuries and damage caused by nature, rain, snow, ice, wind, frost, water, steam, gas or odors in any form or by the bursting or leaking of windows, doors, walls, ceilings, floors, pipes, gutters, or other fixtures; and to damage caused to fixtures, furniture, equipment and the like situated at the Leased Premises, whether owned by TENANT or others.

B. LANDLORD'S INDEMNIFICATION

LANDLORD will defend and indemnify TENANT and its owners, employees, and agents for, and save them harmless from, any and all injury, loss, claim, damage, liability, and expense (including reasonable attorneys' fees) in connection with loss of life, personal injury, or damage to property or business caused soley by the gross negligence or willful misconduct of LANDLORD.

17. TENANT'S LIABILITY INSURANCE

TENANT shall (i) insure TENANT and LANDLORD, as an additional named insured, with commercial general liability coverage, on an occurrence basis and in such amounts and with such Maine-admitted companies and against such risks as LANDLORD shall reasonably require and approve, but in amounts not less than Two Million Dollars ($ 2,000,000.00) combined single limit, with deductibles of not more than $5,000 per occurrence, and (ii) insure LANDLORD and TENANT, as their interests appear, against loss of the contents and improvements of the Leased Premises under standard Maine all risk perils form, or its equivalent, in such amounts and with such Maine admitted companies as LANDLORD shall reasonably require and approve, with waiver of subrogation if such waiver can be obtained without charge. TENANT shall deposit with LANDLORD certificates for such insurance at or prior to the commencement of the term, and thereafter within thirty (30) days prior to the expiration of any such policies, and TENANT promptly shall deliver to LANDLORD complete copies of TENANT's insurance policies upon request from LANDLORD. All of the foregoing insurance policies shall provide that such policies shall not be cancelled without at least thirty (30) days prior written notice to each insured named therein. TENANT shall list LANDLORD as an additional named insured or loss payee, as the case may be, in all policies required by this Article.

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18. FIRE CASUALTY - EMINENT DOMAIN

Should a substantial portion of the Leased Premises, or of the Property, be damaged by fire or other casualty, or be taken by eminent domain, LANDLORD may elect to terminate this Lease. When such fire, casualty, or taking renders the Leased Premises unfit for use and occupation and LANDLORD does not so elect to terminate this Lease, a just and proportionate abatement of rent shall be made until the Leased Premises, or, in the case of a partial taking, what may remain thereof, shall have been put in proper condition for use and occupation. LANDLORD reserves and excepts all rights to damages to the Leased Premises, the building, the Property and the leasehold hereby created, accrued or subsequently accruing by reason of anything lawfully done in pursuance of any public, or other, authority; and by way of confirmation, TENANT grants to LANDLORD all TENANT's rights to such damages and covenants to execute and deliver such further instruments of assignment thereof as LANDLORD may from time to time request. LANDLORD shall give TENANT notice of its decision to terminate this Lease or restore the premises within ninety (90) days after any occurrence giving rise to LANDLORD's right to so terminate or restore. Notwithstanding anything to the contrary contained herein, LANDLORD's obligation to put the Leased Premises, the building or the Property in proper condition for use and occupation shall be limited to the amount of the proceeds from any insurance policy or policies or of damages which accrue by reason of any taking by a public or other authority, which are available to LANDLORD for such use.

19. DEFAULT AND BANKRUPTCY

In the event that:

(a) TENANT shall default in the payment of any installment of rent or other sum herein specified when due, which default is not corrected within seven (7) days after written notice thereof; or

(b) TENANT shall default in the observance or performance of any other of the TENANT's covenants, agreements, or obligations hereunder and such default shall not be corrected within ten (10) days after written notice thereof; or

(c) The leasehold hereby created shall be taken on execution, or by other process of law; or

(d) Any assignment shall be made of TENANT's property for the benefit of creditors, or a receiver, guardian, conservator, trustee in bankruptcy or similar officer shall be appointed by a court of competent jurisdiction to take charge of all or any part of TENANT's property, or a petition is filed by TENANT under any bankruptcy, insolvency or other debtor relief law,

then and in any of said cases (notwithstanding any license of any former breach of covenant or waiver of the benefit hereof or consent in a former instance), LANDLORD shall be entitled to all remedies available to LANDLORD at law and equity including, without limitation, the remedy of forcible entry and detainer, and LANDLORD lawfully may, immediately or at any time thereafter, and without demand or notice, mail a notice of termination to TENANT, or, if permitted by law, enter into and upon the Leased Premises or any part thereof in the name of the whole and repossess the same as of its former estate, and expel TENANT and those claiming through or under it and remove it or their effects without being deemed guilty of any manner of trespass, and without prejudice to any remedies which might otherwise be used for arrears of rent or preceding breach of covenant, and upon such mailing or entry as aforesaid, this Lease shall terminate; and TENANT covenants and agrees, notwithstanding any entry or re-entry by LANDLORD, whether by summary proceedings, termination, or otherwise, that TENANT shall, as of the date of such termination, immediately be liable for and pay to LANDLORD the entire unpaid rental and all other balances due under this Lease for the remainder of the term. In addition, TENANT agrees to pay to LANDLORD, as damages for any above described breach, all costs of reletting the Leased Premises including without limitation real estate commissions and costs of renovating the premises to suit any new tenant, and TENANT agrees to reimburse LANDLORD for all attorneys' and paralegals' fees incurred by LANDLORD in connection with a TENANT default, including without limitation such fees incurred in connection with a bankruptcy proceeding.

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20. NOTICE

Any notice from LANDLORD to TENANT relating to the Leased Premises or to the occupancy thereof, shall be deemed duly served, if left at the Leased Premises addressed to TENANT, or upon mailing to the Leased Premises, certified mail, return receipt requested, postage prepaid, addressed to TENANT. Such notice shall be deemed served on the date of hand delivery to the Leased Premises or on the date postmarked, and any time period in this Lease running from the date of notice shall commence on the date of delivery or postmark. Any notice from TENANT to LANDLORD relating to the Leased Premises or to the occupancy thereof, shall be deemed duly served, if mailed to LANDLORD by certified mail, return receipt requested, postage prepaid, addressed to LANDLORD at LANDLORD's address set forth in Article I, or at such other address as LANDLORD from time to time advise in writing.

21. SURRENDER

TENANT shall at the expiration or other termination of this Lease peaceably yield up the Leased Premises and all additions, alterations, fixtures (including those installed by TENANT), and improvements thereto in good order, repair and condition, damage by fire, unavoidable casualty, and reasonable wear and tear only excepted, first moving all goods and effects not attached to the Leased Premises, repairing all damage caused by such removal, and leaving the Leased Premises clean and tenantable. If LANDLORD in writing permits TENANT to leave any such goods and chattels at the Leased Premises, and TENANT does so, TENANT shall have no further claims and rights in such goods and chattels as against LANDLORD or those claiming by, through or under LANDLORD, and TENANT shall be deemed to have conveyed such items to LANDLORD unless LANDLORD elects to reject acceptance of the same.

22. HAZARDOUS MATERIALS

TENANT covenants and agrees that, with respect to any hazardous, toxic or special wastes, materials or substances including asbestos, waste oil and petroleum products (the "Hazardous Materials") which TENANT, its agents or employees, may use, handle, store or generate in the conduct of its business at the Leased Premises, TENANT will: (i) comply with all applicable laws, ordinances and regulations which relate to the treatment, storage, transportation and handling of the Hazardous Materials; (ii) that TENANT will in no event permit or cause any disposal of Hazardous Materials in, on or about the Leased Premises or the Property and in particular will not deposit any Hazardous Materials in, on or about the floor or in any drainage system or in the trash containers which are customarily used for the disposal of solid waste; (iii) that TENANT will, with advance notice and at all reasonable times, permit LANDLORD or its agents or employees to enter the Leased Premises to inspect the same for compliance with the terms of this Article and will further provide, upon five (5) days' notice from LANDLORD, copies of all records which TENANT may be obligated by federal, state and/or local law to obtain and keep; (iv) that upon termination of this Lease, TENANT will at its expense, remove all Hazardous Materials, which came to exist on, in, or under the Leased Premises during the term of this Lease or any extensions thereof, from the Leased Premises, and comply with all local, state and federal laws as the same may be amended from time to time; and (v) TENANT further agrees to deliver the Leased Premises to LANDLORD at the termination of this Lease free of all Hazardous Materials which came to exist on, in, or under the Leased Premises during the term of this Lease or any extensions thereof. The terms used in this paragraph shall include, without limitation, all substances, materials, etc., designated by such terms under any laws, ordinances or regulations, whether federal, state or local.

23. LIMITATION OF LIABLITY

TENANT agrees to look solely to LANDLORD's interest in the Property for recovery of any judgment from LANDLORD or any of LANDLORD's partners, managers or owners, it being agreed that LANDLORD and any other such party is not personally liable for any such judgment. The provision contained in the foregoing sentence shall not limit any right that TENANT might otherwise have to obtain an injunctive relief against LANDLORD or LANDLORD's successors in interest, or any other such action not involving the personal liability of LANDLORD and any other such party. Under no circumstances shall LANDLORD ever be liable for lost profits, indirect or consequential damages.

24. LANDLORD DEFAULT

LANDLORD shall in no event be in default in the performance of any of its obligations hereunder unless and until LANDLORD shall have failed to perform such obligations within thirty (30) days or such additional time as is reasonably required to correct any such default after notice by TENANT to LANDLORD properly specifying wherein LANDLORD has failed to perform any such obligation. Further, if the holder of the mortgage on the building of which the Leased Premises are a part notifies TENANT that such holder has taken over LANDLORD's rights under this Lease, TENANT shall not assert any right to deduct the cost of repairs or any monetary claim against lender or holder from rent thereafter due and accruing, but shall look solely to LANDLORD for satisfaction of such claim.

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IN WITNESS WHEREOF, the said parties hereunto set their hands and seals this 11 day of Dec, 2024.

TENANT:

Marijuanaville
Legal Name of Tenant

Signature

NAME/TITLE

Witness to Tenant

LANDLORD:

65 Washington St LLC
Legal Name of Landlord

Signature

NAME/TITLE Sole Member

Witness to Landlord

32. GUARANTY For value received, and in consideration for, and as an inducement to LANDLORD to enter into the foregoing Lease with Marijuanaville, TENANT, Frank Berenyi (hereinafter referred to as "GUARANTOR") does hereby unconditionally guaranty to LANDLORD the complete and due performance of each and every agreement, covenant, term and condition of the Lease to be performed by TENANT, including without limitation the payment of all sums of money stated in the Lease to be payable by TENANT. The validity of this guaranty and the obligations of the GUARANTOR hereunder shall not be terminated, affected, or impaired by reason of the granting by LANDLORD of any indulgences to TENANT. This guaranty shall remain and continue in full force and effect as to any renewal, modification, assignment, subletting or extension of the Lease, whether or not GUARANTOR shall have received any notice of or consented to such renewal, modification, assignment, subletting or extension. GUARANTOR hereby waives notice of acceptance of this guaranty by LANDLORD, notice of default by TENANT under the Lease, and all suretyship and guarantorship defenses generally. The liability of GUARANTOR under this guaranty shall be primary, and in any right of action which shall accrue to LANDLORD under the Lease, LANDLORD may proceed against GUARANTOR and TENANT, jointly and severally, and may proceed against GUARANTOR without having commenced any action against or having obtained any judgment against TENANT. All of the terms and provisions of this guaranty shall inure to the benefit of the successors and assigns of LANDLORD and shall be binding upon the successors and assigns of GUARANTOR.

IN WITNESS WHEREOF, GUARANTOR has executed this Guaranty this 11 day of Dec, 2024

GUARANTOR:

Frank Berenyi
Legal Name of Guarantor

Signature

Witness to Guarantor

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25. WAIVER OF RIGHTS

No consent or waiver, express or implied, by either party to or of any breach of any covenant, condition or duty of the other, shall be construed as a consent or waiver to or of any other breach of the same or other covenant, condition or duty.

26. SUCCESSORS AND ASSIGNS

The covenants and agreements of LANDLORD and TENANT shall run with the land and be binding upon and inure to the benefit of them and their respective heirs, executors, administrators, successors and assigns, but no covenant or agreement of LANDLORD, express or implied, shall be binding upon any person except for defaults occurring during such person's period of ownership nor binding individually upon any fiduciary, any shareholder or any beneficiary under any trust.

27. HOLDOVER

If TENANT fails to vacate the Leased Premises at the termination of this Lease, then the terms of this Lease shall be applicable during said holdover period, except for base rent, which shall be increased to two (2) times the then-current base rent for the period immediately preceding such termination; but this provision shall not be interpreted as consent or permission by LANDLORD for TENANT to holdover at the termination of this Lease and the terms of this holdover provision shall not preclude LANDLORD from recovering any other damages which it incurs as a result of TENANT's failure to vacate the Leased Premises at the termination of this Lease.

28. JURY TRIAL WAIVER

NOTWITHSTANDING ANYTHING IN THIS LEASE TO THE CONTRARY, TENANT AND LANDLORD, FOR THEMSELVES AND THEIR SUCCESSORS AND ASSIGNS, HEREBY KNOWINGLY, WILLINGLY, AND VOLUNTARILY WAIVE ANY AND ALL RIGHTS TENANT AND/OR LANDLORD MAY HAVE TO A TRIAL BY JURY IN ANY FORCIBLE ENTRY AND DETAINER ("FED") ACTION OR PROCEEDING BROUGHT BY LANDLORD OR LANDLORD'S SUCCESSORS AND/OR ASSIGNS BASED UPON OR RELATED TO THE PROVISIONS OF THIS LEASE. LANDLORD AND TENANT HEREBY AGREE THAT ANY SUCH FED ACTION OR PROCEEDING SHALL BE HEARD BEFORE A SINGLE JUDGE OF THE APPROPRIATE DISTRICT COURT OR A SINGLE JUDGE OF THE APPROPRIATE SUPERIOR COURT, OR A FEDERAL DISTRICT COURT JUDGE SITTING IN THE DISTRICT OF MAINE.

29. MISCELLANEOUS

If TENANT is more than one person or party, TENANT's obligations shall be joint and several. Unless repugnant to the context, "LANDLORD" and "TENANT" mean the person or persons, natural or corporate, named above as LANDLORD and TENANT respectively, and their respective heirs, executors, administrators, successors or assigns. LANDLORD and TENANT agree that this Lease shall not be recordable but each party hereto agrees, on the request of the other, to execute a Memorandum of Lease in recordable form and mutually satisfactory to the parties. If any provision of this Lease or its application to any person or circumstances shall to any extent be invalid or unenforceable, the remainder of this Lease and the application of such provision to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby and each provision of this Lease shall be valid and enforceable to the fullest extent permitted by law. The submission of this Lease or a summary of some or all of its provisions for examination by TENANT does not constitute a reservation of or option for the Leased Premises or an offer to lease said premises, and this document shall become effective and binding only upon the execution and delivery hereof by both LANDLORD and TENANT. Employees or agents of LANDLORD have no authority to make or agree to make a lease or any other agreement or undertaking in connection herewith. All negotiations, considerations, representations and understandings between LANDLORD and TENANT are incorporated herein and no prior agreements or understandings, written or oral, shall be effective for any purpose. No provision of this Lease may be modified or altered except by agreement in writing between LANDLORD and TENANT, and no act or omission of any employee or agent of LANDLORD shall alter, change, or modify any of the provisions hereof. Time is of the essence of this agreement. This Lease shall be governed exclusively by the provisions hereof and by the laws of the State of Maine. The headings herein contained are for convenience only, and shall not be considered a part of this Lease.

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30. BROKERAGE

TENANT warrants and represents to LANDLORD that it has not dealt with any broker, finder or similar person concerning the leasing of the Leased Premises other than N/A ("TENANT's BROKER"). In the event of any brokerage claims against LANDLORD by TENANT's BROKER, or any other person making such a claim through TENANT, TENANT agrees to defend the same and indemnify LANDLORD against any such claim. LANDLORD warrants and represents to TENANT that it has not dealt with any broker, finder or similar person concerning the leasing of the Leased Premises other than N/A ("LANDLORD's BROKER"). LANDLORD agrees to pay LANDLORD's BROKER any commission due upon execution of this Lease, and in the event of any brokerage claims against TENANT by LANDLORD's BROKER or any other person making such a claim through LANDLORD, LANDLORD agrees to defend the same and indemnify TENANT against any such claim. N/A agrees to pay N/A a commission upon execution of this Lease. The person entitled to a commission under the foregoing sentence is an intended third-party beneficiary or the foregoing sentence and may enforce the commission payment obligation.

31. OTHER PROVISIONS

It is also understood and agreed that:

Tenant at the Landlords sole discretion, has the right to purchase the property at a price not to exceed 1.2 million. If tenant does not exercise the option to purchase, tenant has the right to extend or renew the lease at market rate. Months Jan & Feb 2025 free, first months rent due ~~March~~ April 1st 2025. 10 months remaining for yr. 1.

DISCLAIMER: THIS IS A LEGAL DOCUMENT. IF NOT FULLY UNDERSTOOD, CONSULT AN ATTORNEY.

(Signature Page Follows)

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ATTACHMENT 3

Attorney Letter

BRIAN D. CONDON, JR.
Attorney at Law

126 Main Street
P.O. Box 169
Winthrop, ME 04364

(207) 377-3005
(207) 377-3007 Fax
(207) 485-4513 (cell)

March 5, 2025

City of Auburn

RE: Frank Berenyi Application- 65 Washington Avenue North, Auburn

Dear City of Auburn,

I am writing today in support of Mr. Berenyi's application for a dispensary license at 65 Washington Avenue North in Auburn. I believe it would be a great location for a Cannabis dispensary and is in line with the spirit of both the State of Maine statutes and City Ordinances. Currently the closest property line to closest property line distance is less than the ordinance required 750', however, several things should be considered and perhaps a waiver of that requirement could be discussed and implemented.

It has been brought to our attention that there may be some sort of entity that formerly called itself a school, the "Renaissance School" at 15 Sacred Heart Place, in Auburn, across from Washington Avenue South and next to Kennedy Avenue. It appears to be a multi-building compound, and is listed online with a telephone number and contact information. When contacted, the answering machine states that the property was "formerly the Renaissance School" and after some additional inquiries it is listed as a Spurwink "Day Program" but is not listed as a school with Spurwink. Regardless, the property lines are within the 750' but building to building is well over 1000' door to door.

Mr. Berenyi, upon first approaching the City, proposed 4 different properties as medical cannabis dispensaries. He was told that 3 of these would not work for some reason or another, but that 65 Washington Avenue North would in fact work. Hence, Mr. Berenyi entered into a long term and expensive lease with the owner, and has expended in excess of $50,000.00 on the project to date.

Mr. Berenyi's longer term plans are to explore and develop the other buildings in that area that are currently unoccupied, thus giving this area a nice little lift. I can attest, first hand, that Mr. Berenyi spares little expense when it comes to his commercial establishments as I've worked on no fewer than 9 projects and they all are well received in towns as far north as Bangor and as far south as Alfred. It would be a shame for something like this to derail this project. The City has in its power the ability to waive certain conditions and rely on the State mandated 500' if need be, and the City also has the power to decide that a day program is not, in fact, a school.

Having been involved with the medical cannabis statutes here in Maine since the beginning, I can certainly attest to care givers coming and going and the rules changing sometimes on a monthly basis. The school distance requirement was designed to assure that a minor does not wander into the establishment. There is little chance of that in this case, in this location due to the heavy traffic on Washington Avenue South, and the actual distance between buildings being larger than state statute requires.

Thank you for your attention to this matter.

Very truly yours,



Brian D. Condon, Jr.
Attorney at Law

BDC/mam
Enclosure