



#### Pineland

Cumberland Hall  
41 Campus Drive, Suite 101  
New Gloucester, ME 04260

#### Portland

565 Congress Street, Suite 201  
Portland, ME 04101

February 3, 2021

Project #2033

Bub Fournier  
City of Belfast  
Director of Code & Planning  
131 Church Street  
Belfast, ME 04915

### **Site Plan Application Proposed Multi-Family Housing 115 Congress Street, Belfast, Maine**

Dear Bub:

On behalf of **Developers Collaborative Predevelopment, LLC** and **DC 115 Congress LP**, attached are drawings and information in support of a Site Plan application for a proposed mixed-income multi-family development at 115 Congress Street, the former site of the Belfast Public Works facility. The information provided is intended to meet the requirements of Chapter 90 of the City of Belfast Code of Ordinances.

Developers Collaborative (DC) is a Portland based development group that pursues community-oriented projects emphasizing smart growth, environmental sustainability, affordable housing, historic preservation and innovative design. DC recently completed design and permitting on an affordable housing project at 75 Wight Street in Belfast and construction is under way on that project.

Information on the project site conditions and the proposed project are provided below.

## **Project Site**

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The project site is approximately 4.3 acres in size and is located at 115 Congress Street. It is depicted on the City of Belfast Assessor's Map 35 as Lot 43 and is located in the Residential 2 (RES-2) Zoning District, where Multifamily Housing is an allowed use.

Buildings associated with the former public works facility have been removed. The site contains approximately 3 acres of compacted gravel and pavement. A single curb cut at the southeastern corner of the site is currently used for access.

The site appears to have been filled to create the public works facility. The center of the site is highest in elevation and a fill slope along the western property line extends down to an emergent

freshwater wetland. The eastern portion of the site generally slopes east towards Congress Street, and the western portion of the site generally slopes west towards the wetlands. The majority of stormwater runoff from the site is tributary to the wetland complex west of the project site, which was delineated by Mark Hampton Associates, Inc. and survey located by the project surveyor. The wetland complex is shown on the project plan set.

A public water main exists in Congress Street, and the public sewer system is located in both Bradbury Street and Salmond Street, directly across Congress Street from the project site. Overhead power and telecommunications utilities are also located on Congress Street.

The following figures showing information on the project site are attached for reference.

<b>Existing Site Figures</b>	
Figure 1	USGS Location Map
Figure 2	Aerial Photograph
Figure 3	Soils Map
Figure 4	Flood Map

## **Proposed Development**

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The proposed development includes the construction of four two-story buildings and one three-story building, featuring a total of 48 apartments. Four two-story buildings (Buildings B, C, D & E), including 36 apartments, will be income restricted for residents earning 60% or less of the area medium income. This portion of the project will be financed through the Maine State Housing Authority (MSHA) Low Income Tax Credit Program, as was the 75 Wight Street project.

The fifth building (Building A) will be three-stories and feature 12 apartments rented at market rates. This building will be located within a separate lease area within the overall parcel and will be financed separately from the rest of the project.

The project layout was designed around a large shared space central to the site. Lawn areas common to all residents will provide opportunities for residents to gather outdoors. A community room will be located at the east end of Building B. A covered terrace area adjacent to the community room and a naturalized play area will be located at the east end of the common space. Private patios and lawn areas at the back of the buildings will provide more private outdoor space for residents.

The site driveway will be moved approximately 60' north on Congress Street to align with the proposed parking. The design team was careful to not align the new driveway with any of the houses across Congress Street to prevent the headlights of exiting vehicles from shining into houses. Parking will be provided proximate to each proposed building, including ADA accessible parking spaces. DC's experience with affordable and market rate housing suggests that a parking ratio of 1.5 spaces per unit will meet the demand. The plan includes 72 parking spaces, or 1.5 spaces per unit. The plan offers the owner the ability to stripe additional accessible parking spaces should they be needed. This alternate striping scenario would result in the loss of 3 parking

spaces, bringing the total number of spaces to 69 (1.44 spaces per unit). DC believes this parking ratio would still be sufficient for the project.

The project will connect to the public water and sewer systems, both of which exist in the Congress Street right of way. Confirmation of ability to serve from both the Belfast Water District and the Belfast Sewer Department are included in Attachments 7 & 8. A fire hydrant is located across Congress Street from the project site at the intersection of Congress and Salmond Streets, and the buildings will feature sprinkler systems for fire protection. Overhead power and telecommunications utilities are located on utility poles on the east side of Congress Street. Power will run underground from two poles on Congress Street to two new pad mounted transformers on the site, where underground power will run to the new buildings. The buildings will be heated with ground mounted heat pump units located along the exterior of the buildings. Hot water will be provided by gas services from new underground propane tanks to be installed in two locations on the site.

Municipal solid waste and recycling dumpsters will be located in a fenced enclosure at the western edge of the site, where it will not be visible from Congress Street. The dumpster access drive will also provide an area for emergency vehicles to turn around on the site.

Site lighting will be comprised of pole mounted LED light fixtures to light the parking lot and building mounted fixtures to light the sidewalk surrounding the building. All fixtures will feature cut-off optics to prevent glare and light trespass on abutting properties. The pole mounted light fixtures will include timers and dimmers in order to manage the site lighting consistent with a residential neighborhood. Additional pathway lighting will be provided by 3.5' tall LED Pavillion Square bollard lights. A lighting plan is provided in the attached plan set (Sheet C-7.0).

## **Landscaping**

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A Landscape Plan was prepared by Aceto Landscape Architects, and is provided in the plan set (Sheets L 0-01 and L 1-00). Existing vegetation will be maintained for buffering purposes where possible, and additional plantings are designed to screen the parking lot, provide shade, and generally beautify the site. The proposed planting adjacent to the existing wetland on the south and west side of the property is designed as a transition and buffer zone. The planting is layered such that it will slow/dissipate runoff, improve water quality, and create a buffer for existing wetland wildlife (birds, animals, insects). The transition/buffer planting is predominantly located where re-grading of the site is proposed. This strategy for transitional planting will prevent sheet flow and erosion of the slope. Layering of vegetation is achieved by utilizing a spectrum of sizes from large to small. River birch trees are the largest species, followed by overlapping drifts of dogwood shrubs. Between the dogwood are filler species, installed as plugs. The proposed plugs include Fox Sedge, Fringed Sedge, Grass-Leaved Goldenrod, Smooth Aster.

## **Stormwater Management**

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A stormwater management system has been designed to exceed the standards of the Maine Department of Environmental Protection and City of Belfast, to protect the water quality in the wetlands located next to the project site and insure that downstream properties are not affected by the project. Areas of the site not covered with buildings or pavement will be revegetated with robust plantings. The project will result in a reduction in impervious area and an increase in vegetated area of approximately 1.5 acres.

Runoff from impervious and developed areas will be collected, temporarily stored, and treated in four stormwater best management practices (BMPs) prior to being discharged to the wetlands or on site vegetated areas. An underdrained soil filter will be installed southwest of Building D and will provide both stormwater treatment and attenuation of peak flows from a portion of the paved parking area, roof and lawn. A second underdrained soil filter will be installed northwest of building A and will provide both stormwater treatment and attenuation of peak flows from a portion of the paved parking area, roof and lawn. Two rain gardens will be installed in the central lawn area and will provide both stormwater treatment and attenuation of peak flows from a portion of lawn, walkways, and roof. Each building will also have a perimeter drip edge that will collect runoff from the building roof. A Stormwater Management Report is provided in Attachment 4.

## **Architecture**

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Buildings B, C, D & E were designed by Archetype Architects to be similar in appearance with varying forms to break up the façade. These buildings are all two stories with a pitched roof. Each building has porches and bump outs, clapboard siding, and some variation in window sizes. There is a subtle variation in colors on the four buildings.

Each unit will be accessed with a private door directly into the unit. Second floor units are accessed by interior stairways. Building C includes a community room, office and laundry room.

Building A designed by Archetype Architects is different in appearance from the other four buildings. It is a 3-story building with 4 units per floor. The building is further from Congress Street and partially obscured by the other buildings and the landscaping. The façade has 10" square channel fiber cement siding. The siding and window colors will be different from the other four buildings.

All the buildings are designed in a New England style, using traditional New England materials and details, to be sympathetic with the neighborhood buildings. Floor Plans and elevation views for all five buildings are provided in Attachment 5.

## Timeline

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<b>Tentative Project Timeline – 115 Congress Street</b>	
Project Design and Approvals	September 2020 to March 2021
Construction Planning & Contract	March to April 2021
Property & Construction Closing	April 2021
Start Construction (12 Months)	May 2021
Project Marketing and Rent Up	Winter 2022
Construction Completion	Spring 2022
Occupancy	Early Summer 2022

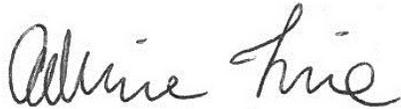
## Closure

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The project has been designed to meet the Site Plan Review Criteria in Chapter 90, §92-42, the Environmental Standards of Chapter 102, §1122-1136, and the Technical Standards of Chapter 98. A narrative describing how these criteria and standards are met is provided in Attachment 6.

We look forward to further discussing this project with staff and meeting with the Planning Board at the next available meeting. Please contact me with any questions or comments you have or if you need additional information.

Sincerely,  
**TERRADYN CONSULTANTS, LLC**



Adrienne Fine, P.E.  
Senior Project Engineer

cc: Laura Reading, Developers Collaborative

## LIST OF ATTACHMENTS

Attachment 1	Current Deed, Purchase & Sale Agreement
Attachment 2	Technical Capability
Attachment 3	Existing Conditions Figures
Attachment 4	Stormwater Management Report
Attachment 5	Building Plans & Elevations
Attachment 6	Standards Compliance Narrative
Attachment 7	Correspondence with Belfast Water District
Attachment 8	Correspondence with Belfast Wastewater Treatment Plant Superintendent
Attachment 9	Traffic Impact Study by Traffic Solutions
Attachment 10	Financial Capacity

## DRAWING INDEX

C-1.0	COVER SHEET
1	SURVEY
C-2.0	EXISTING CONDITIONS & DEMO PLAN
C-3.0	SITE PLAN
C-4.0	GRADING, DRAINAGE & EROSION CONTROL PLAN
C-5.0	UTILITY PLAN
L 0-01	PLANT SCHEDULE
L 1-00	PLANTING PLAN
C-6.0	SITE DETAILS
C-6.1	UTILITY DETAILS
C-6.2	EROSION CONTROL NOTES & DETAILS
C-6.3	DRAINAGE DETAILS
C-7.0	PHOTOMETRIC LIGHTING PLAN

# **Attachment 1**

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Current Deed and P&S Agreement

## OPTION AGREEMENT

THIS AGREEMENT made and entered into as of July 9, 2020, by and between THE CITY OF BELFAST, a Maine body corporate and politic with a place of business and mailing address of City Hall, 131 Church Street, Belfast, ME 04915 ("Grantor" or "City") and DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC, a Maine limited liability company with a place of business in Portland, Maine and mailing address of 100 Commercial Street, Suite 414, Portland, Maine 04101 (the "Grantee")

WITNESSETH:

WHEREAS, Grantor holds title to certain land located at 115 Congress Street in the City of Belfast;

WHEREAS, Grantee has proposed developing rental housing on such land;

NOW THEREFORE, in consideration of One Dollar (\$1.00) (the "Option Consideration"), the receipt of which is hereby acknowledged by Grantor, Grantor and Grantee hereby agree as follows:

1. Grant of Option. Grantor hereby grants to Grantee, its successors and assigns, the exclusive and irrevocable option to purchase the parcel of land located at 115 Congress Street, being Lot 43 as shown on City of Belfast Tax Map 35, being the former City of Belfast Public Works property, having approximately 4.5 acres, with all rights and easements appurtenant thereto (collectively the "Property"), on the terms and conditions contained in this Agreement.
2. Expiration. Grantee shall be obligated to take all reasonable good faith steps as are required to apply for financing/low income tax credits through the MaineHousing Multi-Family Housing LIHTC Pre-Application process on or before July 9, 2020. This option shall expire on August 1, 2021, at midnight, Eastern Time unless exercised by that date and time. Grantee shall have the unilateral right to extend the term of the option granted herein to August 1, 2022, at midnight, Eastern Time; provided Grantee exercises such option to extend in a written notice delivered to Grantor not later than August 1, 2021.
3. Notice of Exercise. This option may only be exercised by Grantee giving written notice of election to exercise to Grantor by first class mail, postage prepaid, registered or certified, return receipt requested, or by hand delivery, in either case addressed or delivered to Grantor at the address set forth at the beginning of this Agreement, or to such other address as Grantor may designate to Grantee in writing. Said notice shall be deemed to have been duly given if postmarked or delivered by hand prior to the expiration date and time specified herein.
4. Failure to Exercise. In the event that Grantee fails to exercise the option granted in this Agreement within the time specified in Section 2 above, the Option Consideration shall

be retained by Grantor and thereafter neither Grantor nor Grantee shall have any further rights or claims against the other except those specifically provided as surviving closing or termination hereof.

5. Post-Exercise Provisions. In the event that Grantee exercises the option granted in this Agreement as provided herein, the following provisions shall be applicable:

- a. Purchase Price. Subject to any adjustments and prorations hereinafter described, the total purchase price for the Property shall be \$136,423 (the "Purchase Price"), payable at closing by certified or bank cashier's check or by wire transfer. The Option Consideration shall be credited against the Purchase Price at closing.
- b. Closing. The closing under this Agreement shall take place within fifteen (15) days after the date this option is exercised (the "Closing Date") at 10:00 AM, local time, at Grantee's counsel's office, or at such other time and place as Grantor and Grantee shall mutually agree upon in writing. At the closing, Grantor shall execute and deliver to Grantee a municipal quitclaim deed to the Property and such other affidavits, instruments and documents as Grantee may reasonably request and which are customary in commercial real estate transactions in Maine. In exchange, at the closing, Grantee shall pay to Grantor the balance of the Purchase Price.
- c. Adjustments, Prorations and Closing Costs. The recording fee for the deed of conveyance and any expenses related to any mortgage which Grantee may grant to a lender in connection with the purchase of the Property shall be paid by Grantee. Grantee shall pay its share of the Maine real estate transfer tax in accordance with 36 M.R.S.A. §4641-A.
- d. Possession. Grantor shall deliver possession of the Property to Grantee at the closing, free and clear of all leases, tenancies or occupancies by any person other than Grantee or its assignee described in Section 13 below.
- e. Risk of Loss. All risk of loss to the Property prior to the closing shall be on Grantor except if it arises from the act or omission of Grantee.
- f. Subject to the provisions in Section 8 c below, Grantee shall purchase the property "AS IS" in its existing condition as Grantee has had an opportunity to investigate this former public works site and Grantee shall assume all risk related to the condition and development of the property upon the date of closing. Grantee acknowledges that this is a Brownfields regulated site with hazardous materials. The Grantee shall indemnify and hold the Grantor harmless from all claims, loss and demands and regulatory action or enforcement which arise after closing, except to the extent due to the failure of Grantor to comply with the Voluntary Response Action Plan documents prior to closing, and this subparagraph (f) shall survive the closing.

6. Default; Remedies. In the event that Grantee defaults in its obligations under this Agreement, and such default is not cured within thirty (30) days after written notice

thereof, the sole remedy of Grantor shall be to terminate this Agreement, and upon termination Grantor may retain the Option Consideration and both parties shall be released from their obligations hereunder (except those specifically provided as surviving closing or termination hereof). In the event that Grantor defaults in its obligations under this Agreement, and such default is not cured within thirty (30) days after written notice thereof, Grantee shall have available all remedies, including, without limitation the right to seek specific performance and the right to recovery of damages.

- a. If Grantee does not submit a pre-application for the Affordable Project to MaineHousing in July 2020 or if that pre-application receives a final denial, it shall be considered a default by Grantee.
- b. If Grantee does not submit a full tax credit application to MaineHousing by the applicable deadline, currently September 24, 2020, it shall be considered a default by Grantee.
- c. If Grantee at any time prior to closing does not pursue the development of the Projects with reasonable commercial efforts, it shall be considered a default by Grantee.

7. Inspection; Access to Information. At all reasonable times upon reasonable prior notice, Grantee and any prospective lender or investor of Grantee's shall have a license to enter the Property and to perform, at Grantee's expenses, any and all inspections, tests, surveys or other due diligence inquiries with respect to the Property as Grantee deems necessary or appropriate. Grantee agrees to return the Property as nearly as possible to its original condition after all of such tests and inspections. Grantor shall cooperate with Grantee in such inspection. Grantee shall defend, indemnify and hold Grantor fully and completely harmless from and against any and all claims, demands, suits and actions of any person arising out of Grantee's exercise of its rights in this Section, including all claims by or on behalf of Grantee and Grantee's and Grantor's agents and contractors, or their respective estates. The rights and obligations set forth in this Section shall survive closing or the termination or expiration of the rights herein. Without limiting the generality of the foregoing, this Agreement and Grantee's purchase or the Property are subject to a determination by Maine State Housing Authority as to the desirability of the Property for Grantee's intended uses as a result of the completion of any environmental review process required by HUD.

8. Development. The following provisions are an integral part of this Agreement:

- a. Projects. Grantee commits to pursue, in two phases, the development of an approximately thirty-six (36) unit rental housing project affordable to households earning a maximum of fifty percent (50%) and sixty percent (60%) of area median income or less, with a mix of 1, 2, and 3 bedroom units, in a configuration of attached rowhouse/townhouse units and open space (the "Affordable Project") and an approximately twelve (12) unit market rate rental housing project in a single three story building with no elevator which shall be at least 50% two bedroom units (the "Market Project") ; collectively (the "Projects"). Grantee shall at its expense use diligent commercial efforts

- to obtain tax increment financing (“TIF”), as more particularly set forth in subsection b. below, and municipal permits and approvals of the Projects.
- b. Tax Increment Financing. Grantee will pursue obtaining a TIF for 30 years of operations of the completed Projects. Grantee intends to propose a TIF of 50% which Grantee projects may allow for a successful application for low income housing tax credits (“LIHTC”).
  - c. Environmental Cleanup. Grantor shall transfer title to the Property to Grantee after a Commissioner’s Certificate of Completion under the Maine Voluntary Response Action Program (the “COC”) has been issued. The draft COC and accompanying draft declaration of environmental covenant (the “DEC”), both of which shall be recorded at the Waldo County Registry of Deeds when finalized, shall contain restrictions reasonably satisfactory to Grantee. If the COC and/or DEC do not contain restrictions reasonably satisfactory to Grantee, Grantee may terminate this Agreement; Grantee’s dissatisfaction is not and will not be construed as a default of Grantor’s obligations under this Agreement. Grantee acknowledges that Grantor has no control over the contents of the COC and/or DEC which are Maine Department of Environmental Protection Voluntary Response Action Program documents.
  - d. Financial Capacity. Grantee shall not receive title to Property without demonstrating full financial commitments for the Affordable Project. Grantee shall also submit a letter from Grantee’s financial institution demonstrating general capacity to execute the Market Project.
  - e. Permitting and Approvals. Grantee shall not receive title to Property without full municipal and state land use approvals required to construct at least the Affordable Project.

9. Brokerage. The parties represent to one another that neither has dealt with or had contact with any broker in connection with the transaction described in this Agreement. In the event that a broker claims a commission, the party having contact with that broker shall be responsible for satisfying that commission and indemnifying the other party therefor. The rights and obligations set forth in this Section shall survive closing or the termination or expiration of the rights herein.

10. Governmental Powers Unaffected. Nothing in this Agreement shall be deemed to waive, impair, modify or preclude enforcement of any otherwise applicable permit requirements, municipal ordinances or other measures enacted or adopted by the City of Belfast in its governmental capacity. This Agreement shall not constitute approval of any license or permit that may be required under the City of Belfast’s municipal ordinances or Maine law for redevelopment or operation of the Property.

11. Recording of Option. Grantor and Grantee agree that this Option shall not be recorded. If requested, Grantor agrees to execute and acknowledge before a notary public, in

recordable form under Maine law, a Memorandum of Option, and to deliver the same to Grantee for recording at the Waldo County Registry of Deeds.

12. Notices. Except as provided in Section 3 above, all notices, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given on the date of service if served personally on the party to whom notice is to be given, or on the first business day after mailing if mailed to the party to whom notice is to be given by first class mail, postage prepaid, registered or certified, return receipt requested, addressed to the recipient at the addresses set forth at the beginning of this Agreement. Either party may change its address for purposes of this Section by giving the other party notice of the new address in the manner described herein.

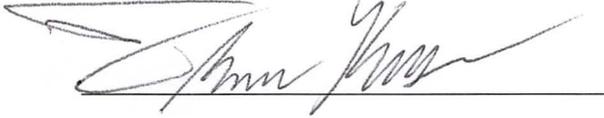
13. Assignment. Grantee may assign this option and its rights under this Agreement to a limited partnership affiliated with, or otherwise specially created by, the Grantee in order to receive tax credits to finance the Projects, without the prior consent of the Grantor. Any other assignment shall require the prior written consent of the Grantor, in its sole discretion.

14. Miscellaneous. Time is of the essence hereof. This Agreement constitutes the entire agreement between Grantor and Grantee concerning Grantee's acquisition of the Property, there are no agreements or understandings between the parties as to the Property except as set forth herein or therein, and all prior agreements and understandings as to the Property are superseded by this Agreement. This Agreement shall not be altered or amended except by a written amendment signed by Grantor and Grantee. This Agreement may be simultaneously executed in any number of counterparts, each of which when duly executed and delivered shall be an original; but such counterparts shall constitute but one and the same agreement. This Agreement will inure to the benefit of and bind the respective successors and assigns of Grantor and Grantee. As used in this Agreement, the singular number shall include the plural, the plural the singular, and the use of one gender shall be deemed applicable to all genders. Captions and headings in this Agreement are inserted for reference only, and shall not be deemed to alter, limit or expand any provision hereof. This Agreement shall be governed by and construed in accordance with the laws of Maine. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof. The terms of this Agreement are for the sole and exclusive protection and use of Grantor and Grantee or its assignee as described above. No party shall be a third-party beneficiary hereunder, and no provision hereof shall operate or inure to the use and benefit of such third party. Nothing in this Agreement shall be deemed to create a partnership, joint venture or other similar legal relationship between Grantee and Grantor.

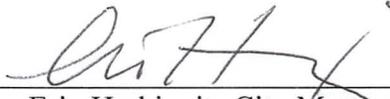
IN WITNESS WHEREOF, Grantor and Grantee have executed this Agreement as of the date first above written.

WITNESS:

CITY OF BELFAST, Grantor



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By:   
Erin Herbig, its City Manager

DEVELOPERS COLLABORATIVE  
PREDEVELOPMENT LLC, Grantee



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By:   
Kevin R. Bunker, its Manager

# **Attachment 2**

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Technical Capability

## Technical Capability

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The applicant, **Developers Collaborative** (DC), is a Portland based development group that pursues community-oriented projects emphasizing smart growth, environmental sustainability, affordable housing, historic preservation and innovative design. DC utilizes a collaborative development process that is supported by partnerships and creative problem solving.

Information about DC's development experience is available at the "Projects" section of their website at [www.developerscollaborative.com/projects/](http://www.developerscollaborative.com/projects/). Similar to the proposed project, a significant portion of DC's work focuses on affordable housing development utilizing Low Income Housing Tax Credits (LIHTC) managed by the Maine State Housing Authority (MSHA). Over the last 10 years, DC has been among the most prolific tax credit developers in Maine, having developed 15 LIHTC projects in Maine. The proposed project will be their 9<sup>th</sup> senior LIHTC project in Maine.

While DC does have their own management company, they will utilize C&C Realty Management on this project due to their close proximity to the property. C&C is based in Augusta and has a large presence in both Waldo and Knox Counties, with at least 7 current communities under management in the area. C&C currently manages other projects for DC with excellent results. They are a professional and experienced management company. More information on C&C Realty Management can be found on their website: [www.ccrealtymanagement.com](http://www.ccrealtymanagement.com).

## Design Team

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Developers Collaborative has assembled a team of designers and technical experts to assist with the design, entitlement process, and construction of the project. **Terradyn Consultants** has been retained to prepare site plans and lead the entitlement process with local and state regulators.

Terradyn Consultants was established in 2005 and currently has nine professionals providing civil engineering, land planning, stormwater management design, and environmental permitting services to developers, contractors and municipalities in the areas of commercial, residential and industrial development. The principal owners have previously been involved in the successful design and permitting of many projects of similar size and scope. More information on Terradyn Consultants can be found on the website: [www.terradyconsultants.com](http://www.terradyconsultants.com).

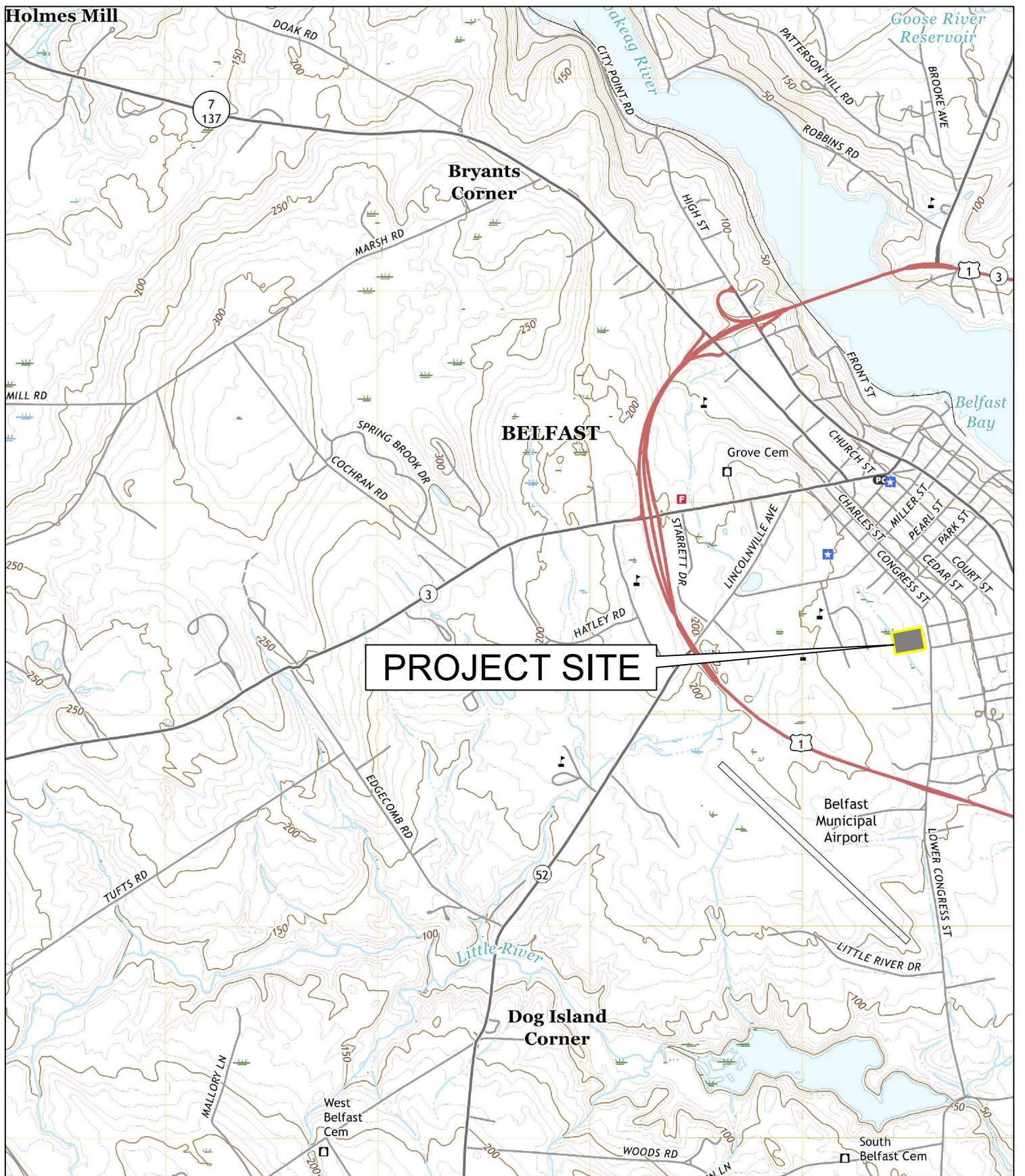
Several other consultants have provided information used to prepare the design drawings and application materials. A list of other consultants retained by the applicant is provided below.

<b>Archetype Architects</b> 48 Union Wharf Portland, ME 04101	Architecture
<b>Paul H. Roupp, Jr., PLS</b> 25 Maple Street Monmouth, ME 04259	Survey
<b>Aceto Landscape Architects</b> 565 Congress Street, Suite 310 Portland, ME 04101	Landscape Architecture
<b>Mark Hampton Associates, Inc.</b> P.O. Box 1931 Portland, ME 04104	Wetland Delineation

# **Attachment 3**

Existing Conditions Figures

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**PROJECT SITE**

**USGS MAP**

**PROJECT:**  
 MULTI-FAMILY HOUSING  
 115 CONGRESS STREET, BELFAST, MAINE

**PREPARED FOR:**  
 DEVELOPERS COLLABORATIVE  
 100 COMMERCIAL STREET, SUITE 414  
 PORTLAND, MAINE 04101



**TERRADYN  
 CONSULTANTS, LLC**

207.926.5111 • info@terradyconsultants.com • www.terradyconsultants.com

**PINELAND**  
 41 CAMPUS DRIVE, SUITE 101  
 NEW GLOUCESTER, ME 04260

**PORTLAND**  
 565 CONGRESS STREET, SUITE 201  
 PORTLAND, ME 04101

**PROJECT NO.**  
 2033

**DATE**  
 8/26/2020

**SCALE**  
 1"=2,000'

**FIGURE 1**





**PROJECT SITE**

**AERIAL PHOTO**

**PROJECT:**  
 MULTI-FAMILY HOUSING  
 115 CONGRESS STREET, BELFAST, MAINE

**PREPARED FOR:**  
 DEVELOPERS COLLABORATIVE  
 100 COMMERCIAL STREET, SUITE 414  
 PORTLAND, MAINE 04101



**TERRADYN  
 CONSULTANTS, LLC**

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**PINELAND**  
 41 CAMPUS DRIVE, SUITE 101  
 NEW GLOUCESTER, ME 04260

**PORTLAND**  
 565 CONGRESS STREET, SUITE 201  
 PORTLAND, ME 04101

**PROJECT NO.**  
 2033

**DATE**  
 8/26/2020

**SCALE**  
 1"=100'

**FIGURE 2**



**PROJECT SITE**



**SOILS LEGEND**

SYMBOL	NAME
PaB	PERU FINE SANDY LOAM
BtB	BRAYTON FINE SANDY LOAM
BvB	BRAYTON FINE SANDY LOAM

**MEDIUM INTENSITY SOIL SURVEY**

PROJECT:  
 MULTI-FAMILY HOUSING  
 115 CONGRESS STREET, BELFAST, MAINE

PREPARED FOR:  
 DEVELOPERS COLLABORATIVE  
 100 COMMERCIAL STREET, SUITE 414  
 PORTLAND, MAINE 04101



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PINELAND  
 41 CAMPUS DRIVE, SUITE 101  
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PORTLAND  
 565 CONGRESS STREET, SUITE 201  
 PORTLAND, ME 04101

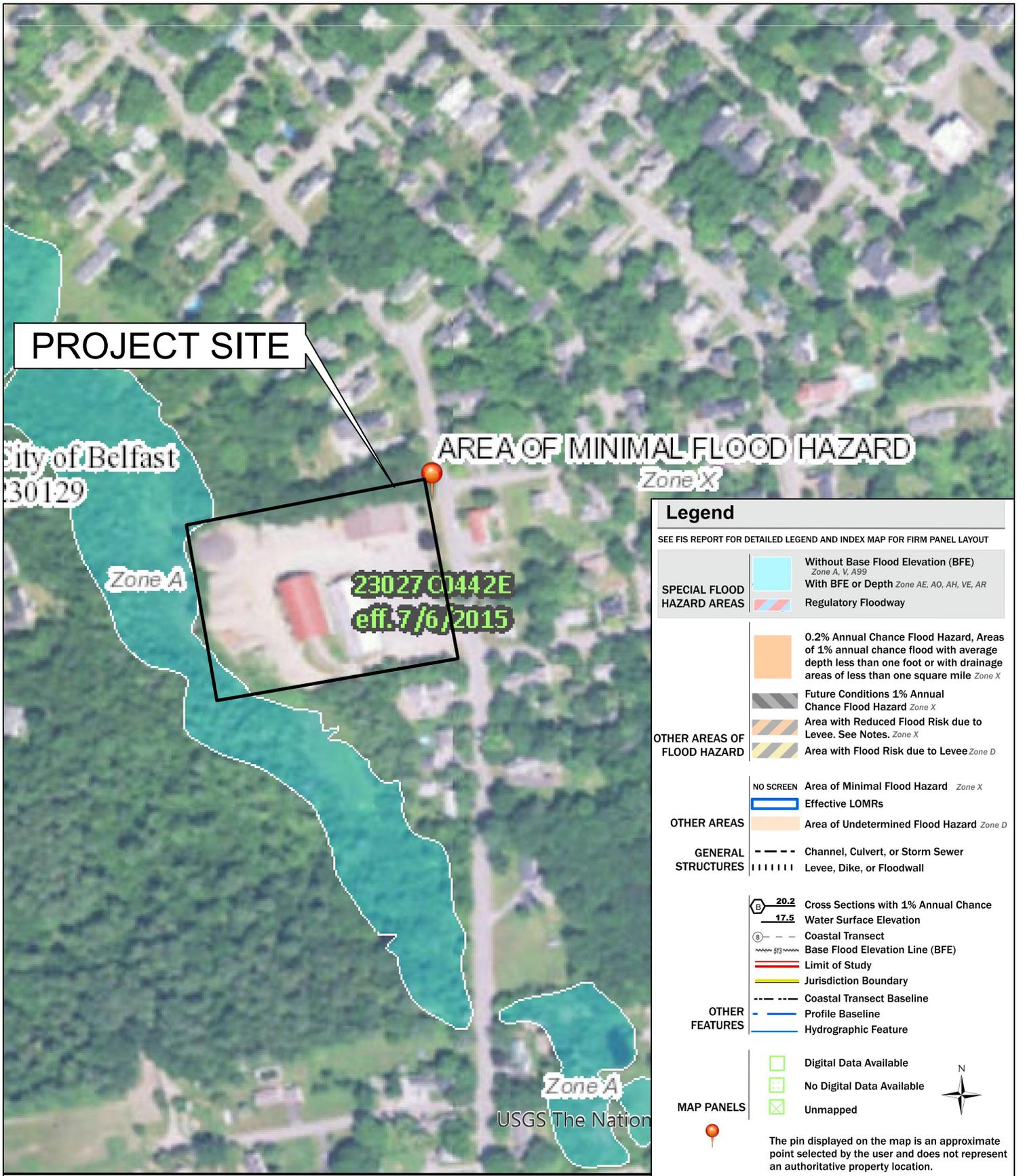
PROJECT NO.  
 2033

DATE  
 12/30/2020

SCALE  
 1"=100'

**FIGURE 3**





**Legend**

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
OTHER AREAS		Area with Flood Risk due to Levee Zone D
		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

**FLOOD INSURANCE RATE MAP**

PROJECT:  
MULTI-FAMILY HOUSING  
115 CONGRESS STREET, BELFAST, MAINE

PREPARED FOR:  
DEVELOPERS COLLABORATIVE  
100 COMMERCIAL STREET, SUITE 414  
PORTLAND, MAINE 04101



**TERRADYN  
CONSULTANTS, LLC**

207.926.5111 • info@terradyconsultants.com • www.terradyconsultants.com

PINELAND  
41 CAMPUS DRIVE, SUITE 101  
NEW GLOUCESTER, ME 04260

PORTLAND  
565 CONGRESS STREET, SUITE 201  
PORTLAND, ME 04101

PROJECT NO. 2033	FIGURE 4
DATE 12/30/2020	
SCALE 1"=250'	

# **Attachment 4**

Stormwater Management Report

---



**Pineland**

Cumberland Hall  
41 Campus Drive, Suite 101  
New Gloucester, ME 04260

**Portland**

565 Congress Street, Suite 201  
Portland, ME 04101

**115 CONGRESS BELFAST HOUSING**  
115 CONGRESS STREET, BELFAST, MAINE

**STORMWATER MANAGEMENT REPORT**

PREPARED FOR:

**DEVELOPERS COLLABORATIVE**  
100 COMMERCIAL STREET, SUITE 414  
PORTLAND, MAINE 04101

PREPARED BY:

**TERRADYN CONSULTANTS LLC**  
565 CONGRESS STREET, SUITE 201  
PORTLAND, MAINE 04101

JANUARY 20, 2020



## Introduction

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Terradyn Consultants has been retained by Developers Collaborative to prepare civil-site plans and permit applications for the development of a 48-unit housing project, including 36 affordable housing units, located at 115 Congress Street in Belfast, Maine.

The project requires Site Plan approval from the Belfast Planning Board and a Stormwater Permit from the Maine Department of Environmental Protection. The existing site includes approximately 2.88 acres of impervious area, which will be reduced to approximately 1.51 acres of impervious area in the proposed condition, which is a reduction of approximately 1.37 acres of impervious area. This report analyzes the effect that the proposed project is expected to have on the downstream properties and waterways.

## Existing Project Site

---

The site contains approximately 2.88 acres of compact gravel and pavement. Buildings associated with the former public works facility have been removed. The site appears to have been filled to create the public works facility. The majority of the site is impervious. The western portion of the site is made up of emergent wetlands that extend off site to the northwest and southwest.

The center of the site is highest in elevation and a fill slope along the western property line extends down to the emergent wetland. The eastern portion of the site generally slopes east towards Congress Street and the western portion of the site generally slopes west towards the wetlands. The majority of the stormwater runoff from the site is tributary to the wetland complex west of the project site. The wetland complex drains in a southerly direction and ultimately outlets into Belfast Bay.

The Natural Resource Conservation Commission (NRCS) identifies onsite soils as Peru Fine Sandy Loam (HSG C/D) and Brayton Fine Sandy Loam (HSG D).

A "Zone A" 100-year Flood Hazard Area associated with the wetland is located on the western edge of the site. No Base Flood Elevation has been established for the Flood Hazard Area. No development is proposed within the mapped flood hazard area.

Congress Street has approximately 22 feet of pavement width, minimal gravel shoulders and a roadside ditch adjacent to the project site. Public water and sewer mains are located within Congress Street. Overhead power and telecommunications utilities are located on poles on the east side of Congress Street.

The following existing conditions figures are provided in Exhibit 1:

Figure 1	USGS Topographic Map
Figure 2	Aerial Photograph
Figure 3	NRCS Medium Intensity Soil Survey
Figure 4	Flood Insurance Rate Map

## **Proposed Project**

---

The proposed development includes removal of the existing packed gravel and paved areas on site, and the construction of four two-story buildings and one three-story building, featuring 48 apartments. 36 of the apartments within four of the buildings will be affordable housing. The project layout was designed around a large shared space central to the site. Lawn areas common to all residents will provide opportunities for residents to gather outdoors. The site development will also include a paved driveway and parking spaces, new utilities, and stormwater management features.

The buildings will face the central lawn common area. Building A is on the westerly side of the site and will include 12 market rate apartments. Buildings B and C are on the northerly side of the site, and Buildings D and E are on the southerly side of the site, all of which will include affordable housing. The buildings will feature sloped roofs and each unit will have a private back patio. A community room is located in building C. The common lawn area and parking is located between the buildings in the center of the site. The parking lot extends northwesterly around the back of Building A and contains parking for 72 vehicles. A new driveway will be constructed from Congress Street to access the parking.

The development will be served by the Belfast Water District's (BWD) public water system and the City of Belfast public sewer system. No on-site water extraction or subsurface wastewater disposal is proposed.

The project will result in 1.51 acres of impervious area, a net decrease of 1.37 acres from the existing condition. Overall, runoff patterns will remain similar to the existing condition. The site will continue to slope from the center to both the east and the west, with the majority of the site draining to the emergent wetland complex to the west.

Four structural best management practices (BMPs) have been designed to collect, store and treat runoff from on-site impervious areas prior to discharging it to the wetland and stream.

Runoff from a portion of the paved parking lot will be directed to a new underdrained soil filter located west of Building D. Runoff from another portion of the paved parking lot will be directed to a new underdrained soil filter located north of Building A. Runoff from walkways and lawn areas at the center of the site will be directed to two rain gardens located in the central lawn area.

## **Applicable Design Standards**

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### Maine Department of Environmental Protection:

The project will disturb more than one acre of land area and requires a stormwater permit pursuant to the Stormwater Management Law 38 M.R.S §420-D. However, the project is a redevelopment project per the MDEP Chapter 500 Section 4.C(2)(d) that results in a decrease of impervious area. Redevelopment calculations were completed per Chapter 500 requirements and result in a negative ranked impact change, which means that 0% of the developed area requires stormwater treatment. The project must meet the following standards of Chapter 500:

Basic Standards: Erosion and Sedimentation Control Standards (Appendix A): These standards include the implementation of measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as define in 38 M.R.S. §480-B.

This standard will be met through the implementation of an Erosion & Sedimentation Control Plan specifically designed for the project. The plan includes limiting the amount of denuded area on the site, rapidly stabilizing disturbed areas and the implementation of a perimeter controls such as silt fence or erosion control mix berms at the downslope limits of disturbance. The plan was developed in accordance with Chapter 500 Appendix A and the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers*, dated October 2016.

The Erosion & Sedimentation Control Plan is presented on the following project drawings for convenient reference during construction.

- C-4.0** Grading, Drainage & Erosion Control Plan
- C-6.2** Erosion Control Notes & Details

Local:

In addition to the requirements of Chapter 500, the project must also meet the following standards of the City of Belfast Site Plan Review Criteria (Chapter 90 §90-42) and Environmental Standards (Chapter 102 §102-1124).

Soil Erosion and Sediment Control: Similar to the requirements of Chapter 500 (Appendix A), This standard requires developments to not cause unreasonable soil erosion or a reduction in the land's capacity to hold water so that a dangerous or unhealthy condition results.

This standard is met with the Erosion & Sedimentation Control Plan described above.

Control of Stormwater Runoff: This standard requires surface water to be minimized and detained on-site, if possible, in order to prevent flooding downstream. The city's technical standards (Chapter 98) require that peak discharge for the developed site shall not exceed that of the undeveloped site for the 2 and 25-year storm events. The Environmental Standards (§102-1124) also require that stormwater infrastructure is designed for the 50-year design storm.

This standard is met through temporary storage and controlled release of runoff on the project site in the proposed Underdrained Soil Filters and Rain Gardens. More information on the control of peak flows is provided below.

## **Re-Development Project**

---

The proposed project includes the removal of existing packed gravel and paved surfaces previously utilized as part of the City of Belfast Public Works facility, and redeveloping the site with buildings, parking, landscaped areas, and stormwater management features. This redevelopment results in the removal of approximately 1.37 acres of existing impervious area. The requirements for treatment of a redevelopment project are scaled based on the pollutant

discharge that, if the stormwater was untreated, would result from the re-development project. Maine DEP Chapter 500 Section 4.C(2)(d) outlines the required treatment calculations to determine the level of treatment required. These calculations are provided in Exhibit 2, and result in a negative ranked impact change, which means 0% of the developed area must be treated per Table 3: Treatment Levels for Redevelopment Projects from Chapter 500. A redevelopment plan showing the impact ratings is provided in Exhibit 3.

## **Stormwater BMPs**

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Proposed stormwater BMPs were designed in accordance with the Maine Department of Environmental Protection Stormwater Best Management Practices Manual. Information on each BMP is provided below and calculations are included in Exhibit 4. The following stormwater treatment measures were implemented on the site to treat stormwater runoff from a 2" storm event:

### Underdrained Soil Filter #1

Underdrained Soil Filter #1 (UDSF) will be constructed in order to temporarily store and treat runoff from a portion the proposed parking lot. UDSF #1 will be located west of Building D. Portions of the parking lot will drain to two catch basins that direct stormwater to a riprap sediment forebay for pretreatment. Runoff from smaller storm events will filter through a soil media before being collected in the underdrain system and discharge to the ground surface.

- Treatment area: 20,754 square feet
- Water Quality Volume = 1" x impervious area + 0.4" x landscaped area
- Filter Surface Area = 1.5% tributary landscaped area + 3.8% tributary impervious area
- Spillway designed to pass the 50 year storm event
- UDSF #1 drains in 27 hours with 2.5" orifice at underdrain outlet

### Underdrained Soil Filter #2

UDSF #2 will be constructed in order to temporarily store and treat runoff from a portion the proposed parking lot. UDSF #2 will be located north of Building A. Portions of the parking lot will drain overland to a riprap sediment forebay for pretreatment. Runoff from smaller storm events will filter through a soil media before being collected in the underdrain system and discharge to the ground surface.

- Treatment area: 19,072 square feet
- Water Quality Volume = 1" x impervious area + 0.4" x landscaped area
- Filter Surface Area = 2% tributary landscaped area + 5% tributary impervious area
- Spillway designed to pass the 50 year storm event
- UDSF #2 drains in 25 hours with 2.5" orifice at underdrain outlet

### Rain Garden #1

Rain garden #1 will be constructed on the eastern side of the central lawn adjacent to the natural play area in order to temporarily store and treat runoff from the proposed lawn and pathways in the central area of the site. Rain garden #1 does not have underdrain, nor is it designed for infiltration. It will act as a shallow detention basin that allows stormwater to pass slowly over a small berm to discharge.

### Rain Garden #2

Rain garden #2 will be constructed in order to temporarily store and treat runoff from the proposed lawn and pathways in the central area of the site. Rain garden #2 will be located on the western side of the central lawn area adjacent to Building A. Rain garden #2 is designed with underdrain that will outlet to the wetland complex on the western side of the project site.

## **Stormwater Quantity Control**

---

A hydrologic analysis of pre-development and post-development conditions was conducted based upon the methodology contained in the USDA Soil Conservation Service's Technical Releases No. 22 and 55 (SCS TR-20 and TR-55).

Two study points were selected as the points of analysis for this project. Study Point 1 is located on the eastern side of the site where stormwater enters the Congress Street stormwater network (ditches and CB). Study Point 2 is located in the wetlands on the western side of the site where stormwater leaves the property.. The entire 2-acre project site drains directly to this Study Point. The total area tributary to the Study Point is approximately 112 acres.

For Waldo County, Maine a 24-hour SCS Type III storm distribution was used for the analysis using the following storm frequencies and rainfall amounts, per Maine DEP Chapter 500:

<b>Storm Event</b>	<b>24-Hour Rainfall</b>
2-Year Storm	2.9 inches
25-Year Storm	5.2 inches
50-Year Storm	6.1 inches

Land use, cover, delineation of watershed subcatchments, hydraulic flow paths, and hydrologic soil group (HSG) types were obtained using the following data:

1. Belfast, Maine USGS 7.5 minute quadrangle map.
2. NRCS Medium Intensity Soils Survey.
3. Lidar topography with 2-foot contour intervals, made available by the State of Maine office of GIS.
4. Plan of Topographic Site Survey prepared by Paul H. Ruopp Jr., PLS Land Surveying and Mapping of Monmouth, ME.
5. Wetland delineation completed by Mark Hampton Associates, Inc. of Portland, ME.
6. Field reconnaissance by Terradyn Consultants.

Runoff curve numbers, time of concentration, and travel time data were established based on methods outlined in the USDA TR-55 manual.

Culverts were included in the models as ponds with culvert outlets.

A minimum time of concentration of 5 minutes, and a maximum sheet flow distance of 150 linear feet was used in the models.

### **Pre-Development Conditions**

The pre-development HydroCAD model includes four (4) subcatchments draining to the two (2) Study Points.

A Pre-Development Watershed Map, showing sub-watershed boundaries, time of concentration flow paths, ponds, and reaches is provided in Exhibit 5. The Pre-development HydroCAD model is attached in Exhibit 6.

Existing condition peak rates of runoff at the Study Points are as follows:

<b>Pre-Development Peak Rates of Runoff (cfs)</b>			
	<b>2-Year</b>	<b>25-Year</b>	<b>50-Year</b>
SP1	3.7	7.3	8.7
SP2	5.7	11.7	14.1

The pre-development peak rates of runoff are a baseline used for comparison to the post-development condition.

### **Post-Development Conditions**

The post-development condition includes the proposed development of the project site. Five post-development subcatchments on the project site were delineated in order to model the proposed improvements, including the underdrained soil filter and roof dripline filter. The off-site subcatchments remain unchanged from the pre-development model.

A Post-development Watershed Map showing sub-watershed boundaries, time of concentration flow paths, ponds, and reaches is provided in Exhibit 5. The Post-development HydroCAD model is attached in Exhibit 7.

Post-development peak rates of runoff at the Study Point are as follows:

<b>Post-Development Peak Rates of Runoff (cfs)</b>			
	<b>2-Year</b>	<b>25-Year</b>	<b>50-Year</b>
SP1	1.6	4.8	5.9
SP2	1.8	4.5	5.5

## **Stormwater Analysis**

The results of the pre-development and post-development models were analyzed at the defined Study Points. The direct comparison of the pre-development and post-development conditions at the Study Points is as follows:

<b>Peak Runoff Flow Rates Comparison</b>		
<b>Storm Event</b>	<b>Pre-Development (cfs)</b>	<b>Post-Development (cfs)</b>
Study Point 1		
2-Year	3.7	1.6
25-Year	7.3	4.8
50-Year	11.7	5.9
Study Point 2		
2-Year	5.7	1.8
25-Year	11.7	4.5
50-Year	14.1	5.5

The peak rates of runoff are expected to decrease or remain the same for the three design storm events at the two study points.

## **Inspection & Maintenance Plan**

Stormwater management and treatment measures require regular inspection and maintenance to maintain their effectiveness. The project Inspection & Maintenance Plan is included in Exhibit 8.

## **Conclusions**

The proposed project will result in the reduction of 1.37 acres of impervious area through the redevelopment of the former Belfast Public Works site. Runoff patterns will remain similar to existing conditions. Redevelopment calculations indicate that no stormwater treatment is required for this project by DEP Chapter 500. However, stormwater BMPs will be constructed to provide water quality (below DEP standards) and quantity control in order to protect downstream properties and waterbodies from the effects of the redevelopment. The project meets the applicable Basic Standards of Chapter 500 and the City of Belfast requirements, and is expected to have no detrimental effect on downstream properties.

## **List of Exhibits**

- 1 – Existing Conditions Figures
- 2 – Redevelopment Calculations
- 3 – Redevelopment Plan
- 4 – BMP Design Calculations
- 5 – Watershed Maps
- 6 – Pre-Development HydroCAD Model
- 7 – Post-Development HydroCAD Model
- 8 – Inspection & Maintenance Plan

## **ABBREVIATED APPLICATION**

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ATTACHMENTS NOT INCLUDED

# **Attachment 5**

Building Plans & Elevations

---

BUILDING B - DARKER GREY

BUILDING C - CYPRESS GREEN



1 | North Complex  
3/32" = 1'-0"

All siding to be 5" clapboard. All trim and windows to be white. All entry doors to be colored as indicated. Colors should be muted in appearance.

BUILDING D - COOL GREY

BUILDING E - DARKER GREEN

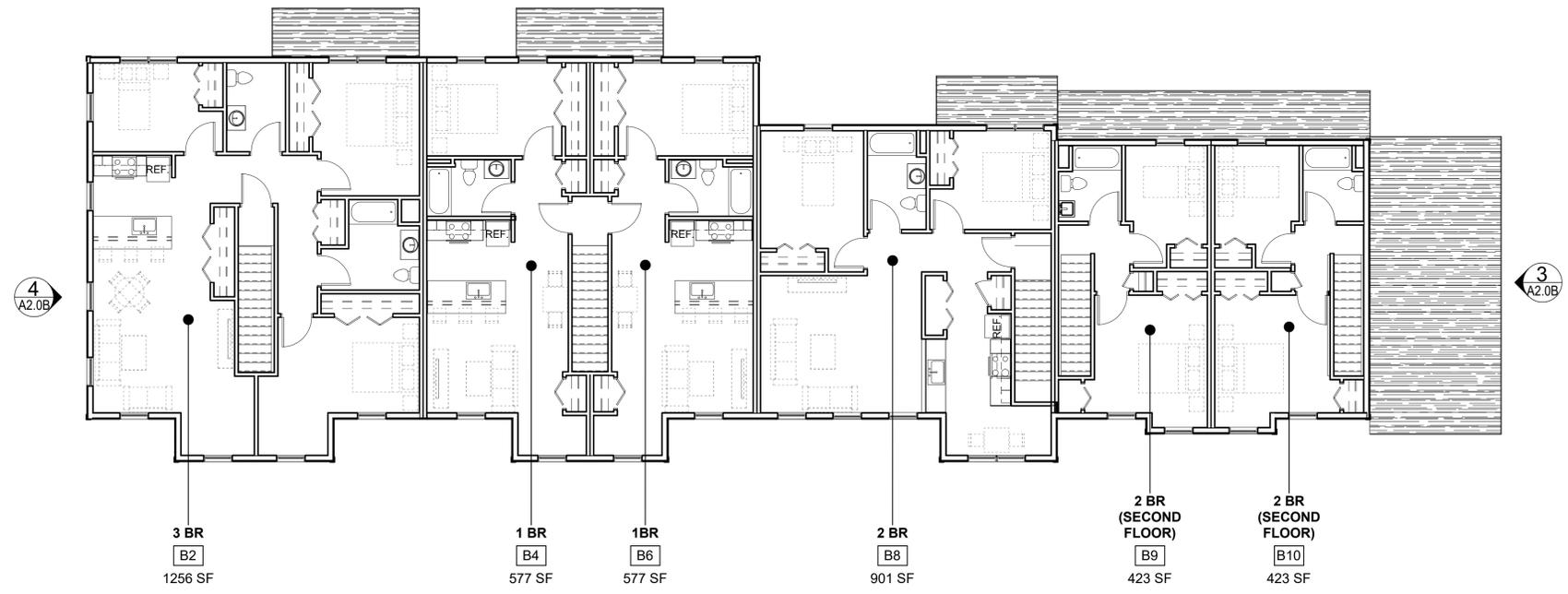


2 | South Complex  
3/32" = 1'-0"

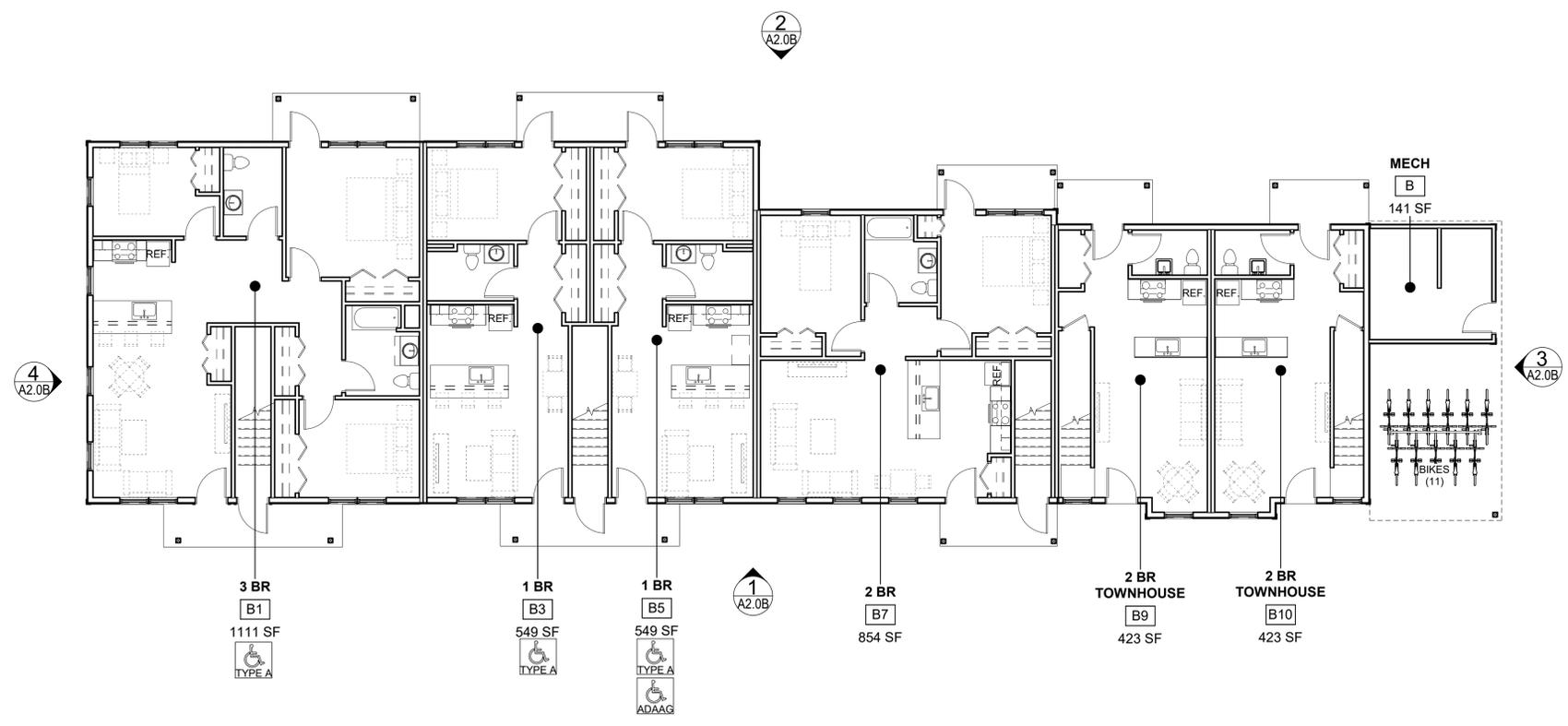
# Overall Elevations

SEPT. 2020

A1.01



2 | 2ND FLOOR - BUILDING B  
1/8" = 1'-0"



1 | 1ST FLOOR - BUILDING B  
1/8" = 1'-0"

Prepared For: Owner

Consultant:

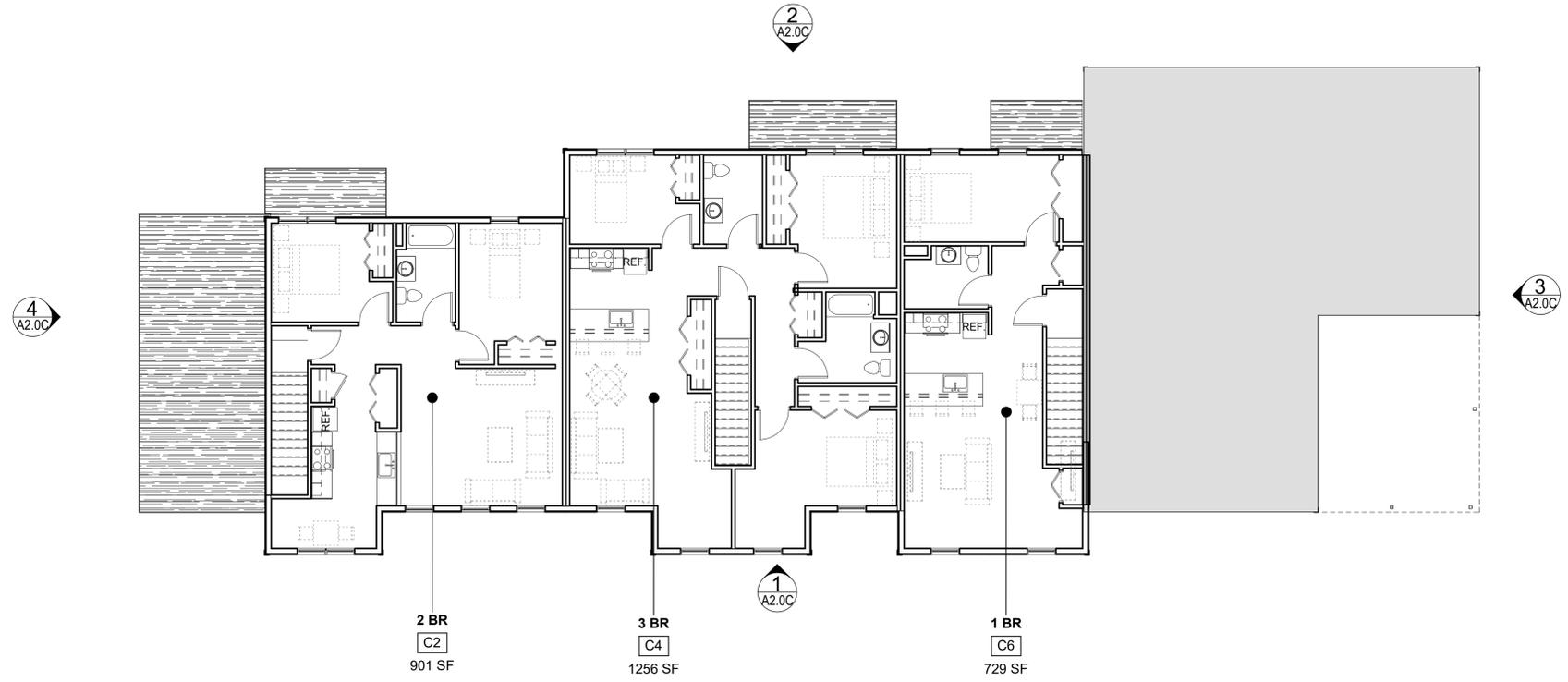
Architect: **ARCHETYPE** architects  
48 Union Wharf Portland, Maine 04101  
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project: HOUSING  
PROTOTYPES TYPE E

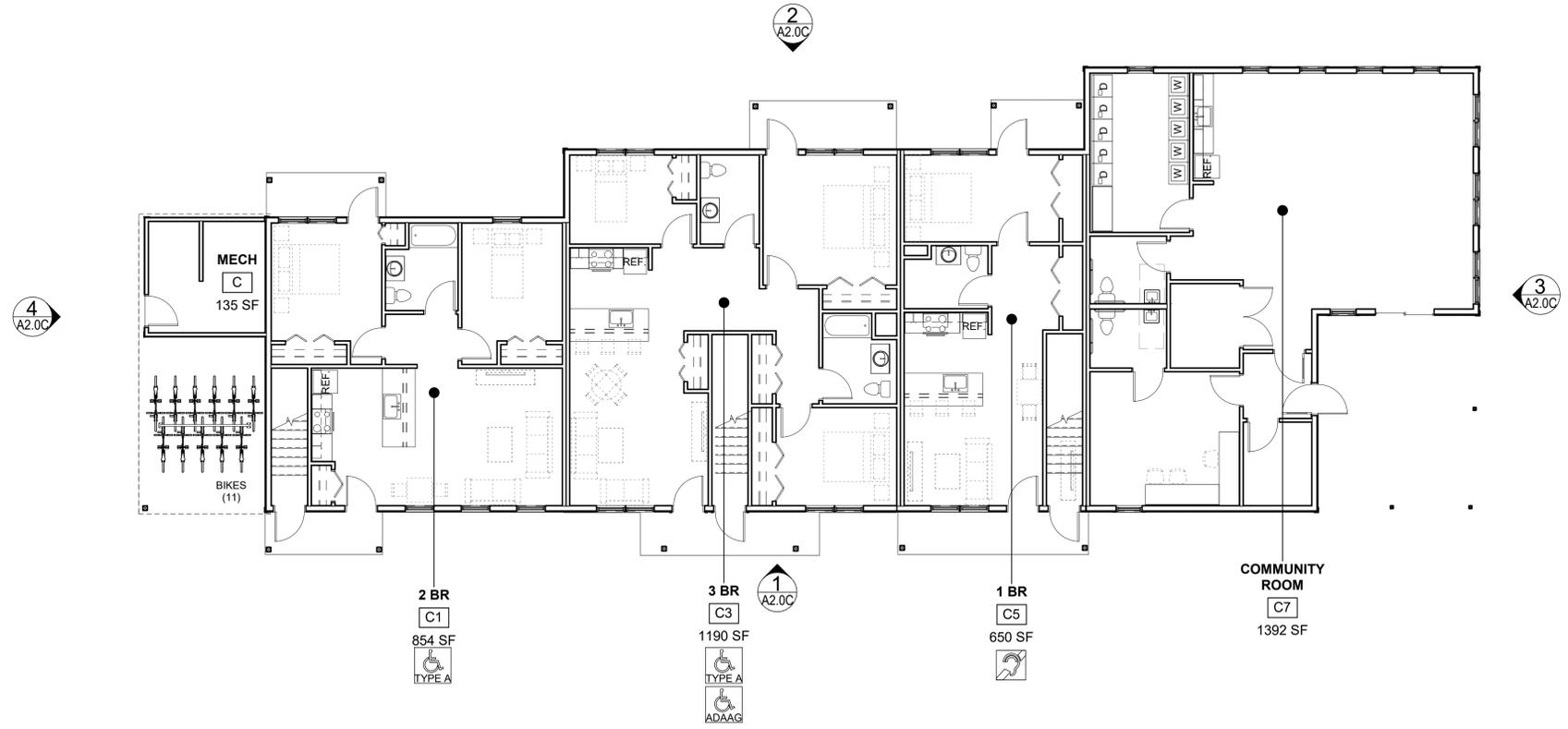
Revisions:

Date: SEPT. 2020  
Scale: 1/8" = 1'-0"  
BUILDING B FLOOR  
PLANS

A1.0B



2 | 2ND FLOOR - BUILDING C  
1/8" = 1'-0"



1 | 1ST FLOOR - BUILDING C  
1/8" = 1'-0"

Prepared For:  
**Owner**

Consultant:

Architect:  
**ARCHETYPE**  
architects  
48 Union Wharf Portland, Maine 04101  
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:  
**HOUSING**  
**PROTOTYPES TYPE E**

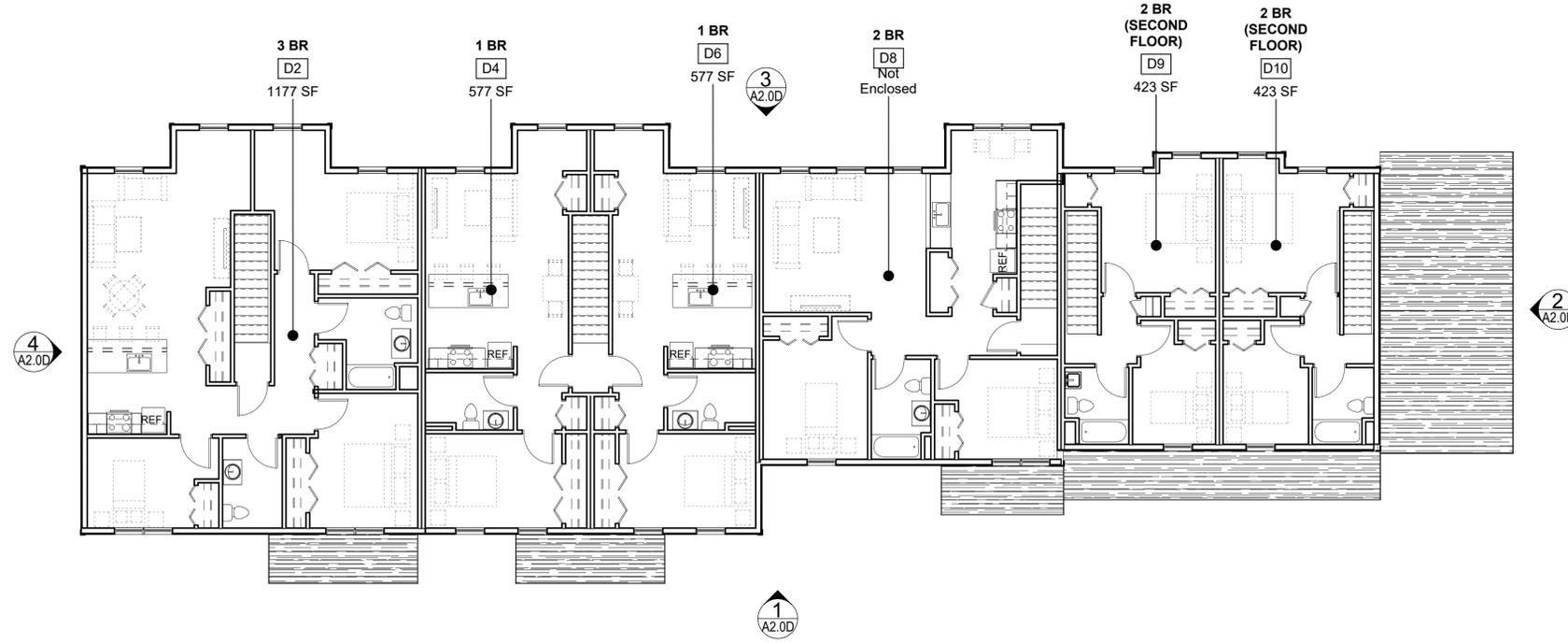
Revisions:

Scale:  
1/8" = 1'-0"

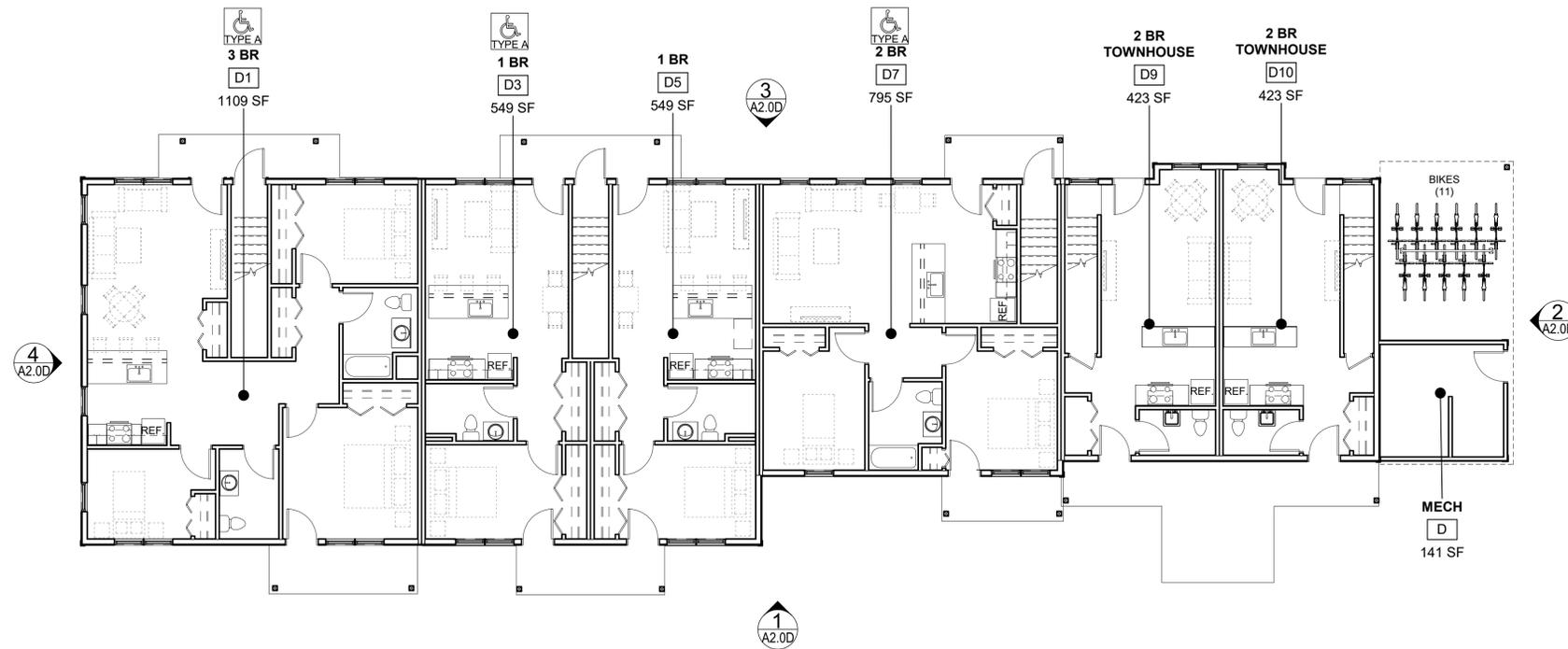
Date:  
SEPT. 2020

**BUILDING C FLOOR**  
**PLANS**

**A1.0C**

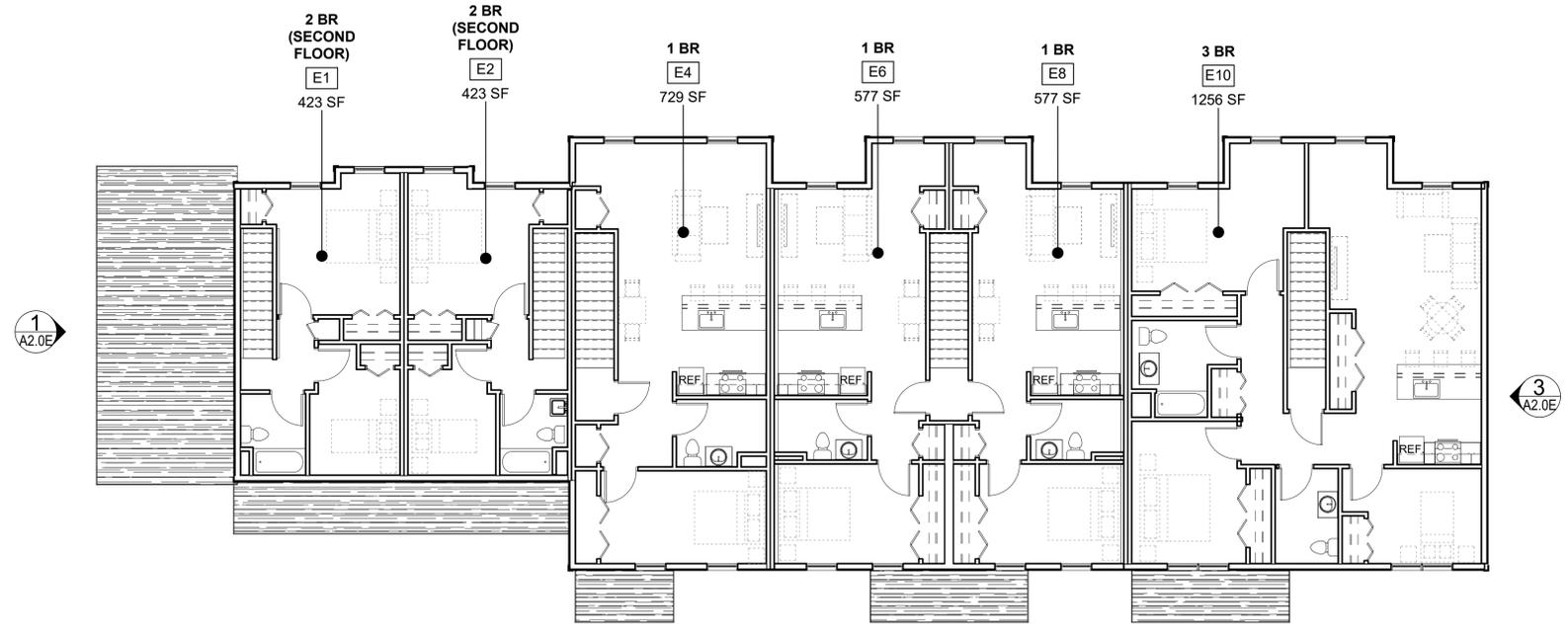


2 | 2ND FLOOR - BUILDING D  
1/8" = 1'-0"

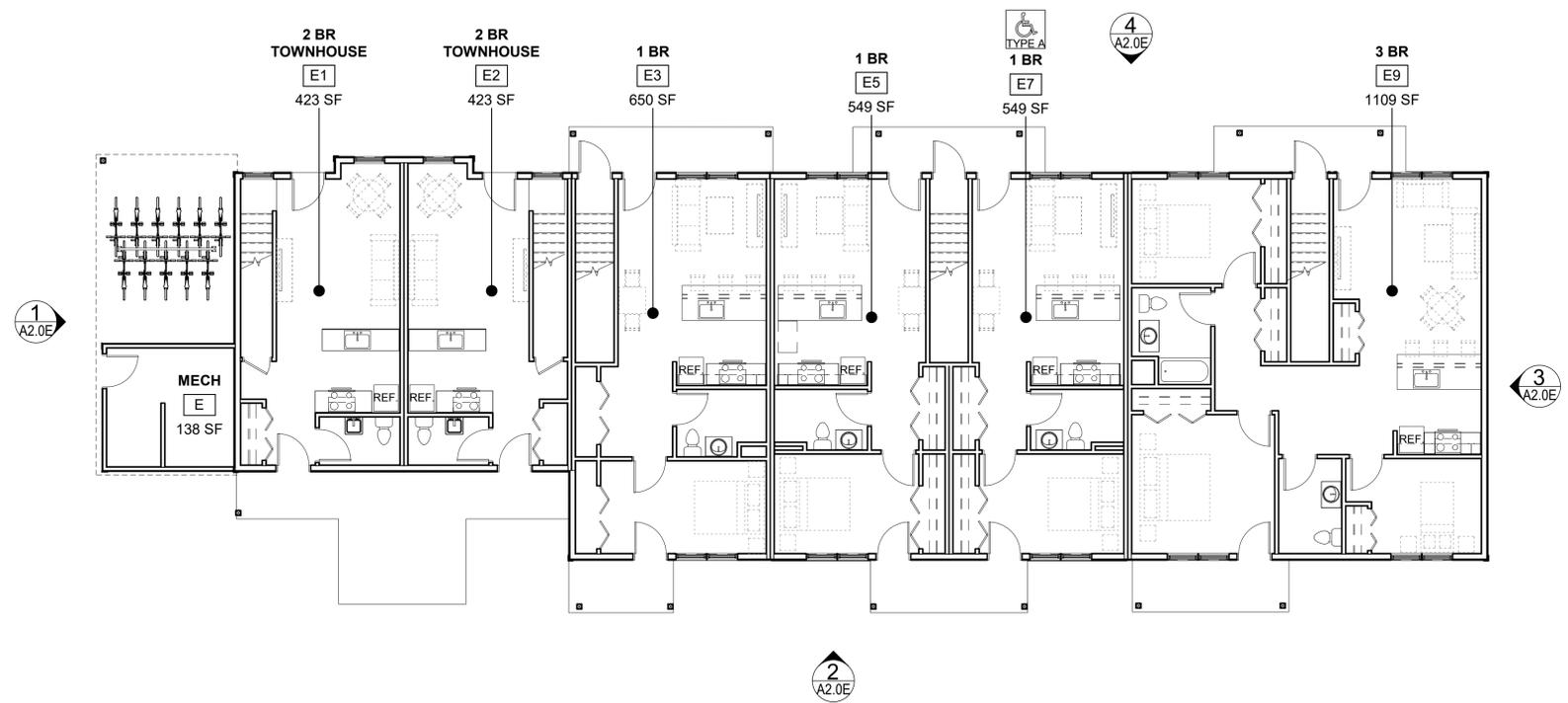


1 | 1ST FLOOR - BUILDING D  
1/8" = 1'-0"

Date: SEPT. 2020	Scale: 1/8" = 1'-0"	Project: HOUSING PROTOTYPES TYPE E	Revisions:	Prepared For:	Owner
				Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM	Consultant:
BUILDING D FLOOR PLANS		A1.0D			



2 | 2ND FLOOR - BUILDING E  
1/8" = 1'-0"



1 | 1ST FLOOR - BUILDING E  
1/8" = 1'-0"

Prepared For:  
**Owner**

Consultant:

Architect:  
**ARCHETYPE**  
architects  
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Project:  
**HOUSING**  
PROTOTYPES TYPE E

Revisions:

Date: SEPT. 2020  
Scale: 1/8" = 1'-0"  
**BUILDING E FLOOR**  
PLANS

**A1.0E**



3 | BUILDING B LEFT ELEVATION  
1/8" = 1'-0"



2 | BUILDING B REAR ELEVATION  
1/8" = 1'-0"



4 | BUILDING B RIGHT ELEVATION  
1/8" = 1'-0"



1 | BUILDING B ENTRY ELEVATION  
1/8" = 1'-0"

Prepared For:  
**Owner**

Consultant:

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Project:  
**HOUSING  
PROTOTYPES TYPE E**

Revisions:

Scale:  
1/8" = 1'-0"

Date:  
SEPT. 2020

**BUILDING B  
ELEVATIONS**

**A2.0B**



**4** BUILDING C LEFT ELEVATION  
1/8" = 1'-0"



**2** BUILDING C REAR ELEVATION  
1/8" = 1'-0"



**3** BUILDING C RIGHT ELEVATION  
1/8" = 1'-0"



**1** BUILDING C ENTRY ELEVATION  
1/8" = 1'-0"

Prepared For:  
**Owner**

Consultant:

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Project:  
**HOUSING**  
PROTOTYPES TYPE E

Revisions:

Date: SEPT. 2020  
Scale: 1/8" = 1'-0"

**BUILDING C**  
ELEVATIONS

**A2.0C**



4 | BUILDING D LEFT ELEVATION  
1/8" = 1'-0"



1 | BUILDING D REAR ELEVATION  
1/8" = 1'-0"



2 | BUILDING D RIGHT ELEVATION  
1/8" = 1'-0"



3 | BUILDING D ENTRY ELEVATION  
1/8" = 1'-0"

Prepared For:  
**Owner**

Consultant:

**ARCHETYPE**  
architects  
48 Union Wharf Portland, Maine 04101  
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Architect:

HOUSING  
PROTOTYPES TYPE E

Project:

Revisions:

Scale: 1/8" = 1'-0"

Date: SEPT. 2020

**BUILDING D  
ELEVATIONS**

**A2.0D**



1 BUILDING E LEFT ELEVATION  
1/8" = 1'-0"



2 BUILDING E REAR ELEVATION  
1/8" = 1'-0"



3 BUILDING E RIGHT ELEVATION  
1/8" = 1'-0"



4 BUILDING E ENTRY ELEVATION  
1/8" = 1'-0"

Prepared For:  
**Owner**

Consultant:

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architects  
48 Union Wharf Portland, Maine 04101  
(207) 772-6022 ARCHETYPE@ARCHETYPEDA.COM

Project:  
**HOUSING**  
**PROTOTYPES TYPE E**

Revisions:

Scale: 1/8" = 1'-0"

Date: SEPT. 2020

**BUILDING E**  
**ELEVATIONS**

**A2.0E**

1 | 1ST FLOOR  
1/4" = 1'-0"



4  
A2.0

2  
A2.0

3  
A2.0

1  
A2.0

Date: SEPT. 2020  
Scale: 1/4" = 1'-0"

Revisions:

Project:  
CONGRESS ST  
BELFAST BUILDING  
A

Architect:  
**ARCHETYPE**  
architects  
48 Union Wharf Portland, Maine 04101  
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Consultant:

Prepared For:  
Owner

A1.00



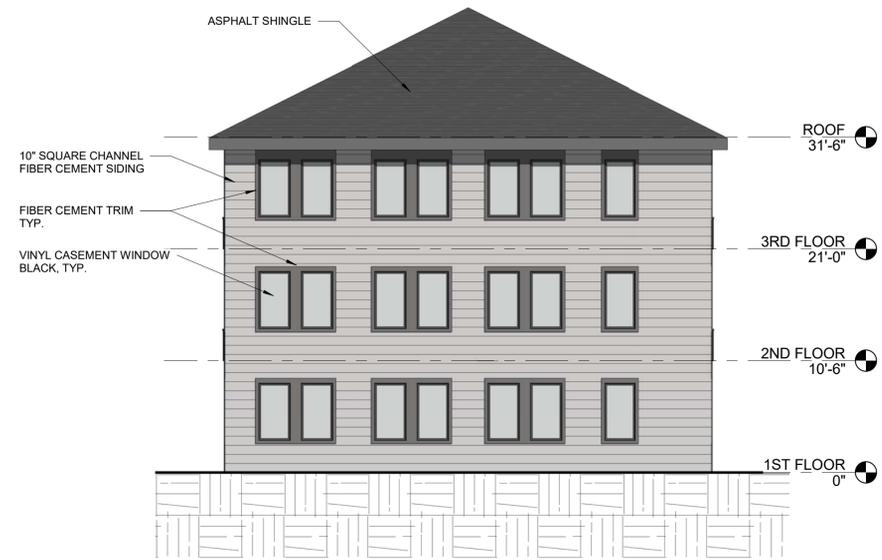
**1 WEST ELEVATION**  
1/8" = 1'-0"



**2 EAST ELEVATION**  
1/8" = 1'-0"



**3 SOUTH ELEVATION**  
1/8" = 1'-0"



**4 NORTH ELEVATION**  
1/8" = 1'-0"

Prepared For:  
**Owner**

Consultant:

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architects  
48 Union Wharf Portland, Maine 04101  
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:  
**CONGRESS ST  
BELFAST BUILDING  
A**

Revisions:

Date: SEPT. 2020  
Scale: 1/8" = 1'-0"

**ELEVATIONS**

**A2.0**

# **Attachment 6**

Standards Compliance Narrative

---



#### Pineland

Cumberland Hall  
41 Campus Drive, Suite 101  
New Gloucester, ME 04260

#### Portland

565 Congress Street, Suite 201  
Portland, ME 04101

February 3, 2021

Project #2033

## SITE PLAN REVIEW CRITERIA

---

### Chapter 90-Site Plans

#### Section 90-42

- (1) **Pollution:** The proposed development will not result in undue water or air pollution. In making this determination, consideration shall be given to:
  - a. A Zone A Flood Hazard Area is mapped along the western site boundary in the location of the wetland complex adjacent to the site. No development is proposed within the flood hazard area, and the first floor of the proposed buildings is approximately 8' above the wetland and flood area. No flooding is expected in the developed portions of the site. A flood map for the immediate vicinity of the site is provide in Attachment 3, and the location of the flood hazard area is shown on the project drawings.
  - b. Onsite soils are identified on the NRCS Medium Intensity Soil Survey as Brayton fine sandy loam and Peru fine sandy loam, which are suitable to support the proposed development. A soils map is provided in Attachment 3. The project will utilize the public sewer system. No onsite wastewater disposal is proposed.
  - c. The site slopes from the center both to the west and to the east at slopes between 1% and 33%. No onsite wastewater disposal is proposed, so the slope of the land will have no effect on effluent.
  - d. No streams are located within the vicinity of the project site; however, a large wetland complex is located along the western site boundary and drains in a southerly direction. The majority of the site is tributary to the wetland, which ultimately drains to Belfast Bay at Belfast City Park. The wetland will not be used for disposal of effluent.
  - e. The project will adhere to all applicable state and local health and water resource rules, regulations and codes.
  
- (2) **Sufficient water:** The project will connect to the existing public water mains in Congress Street for both domestic water and fire suppression. Water use is expected to be approximately 8,000 gallons per day based on design flow rates published in the State of Maine Subsurface Wastewater Disposal Rules. Correspondence with the Belfast Water District regarding proposed water usage is provide in Attachment 7.
  
- (3) **Municipal water supply:** The project will utilize water from the Belfast Water District system. See Section (2) for more information.
  
- (4) **Soil erosion and sediment control:** A site specific Erosion and Sediment Control Plan has been developed for the project with an emphasis on minimizing disturbance and rapid stabilization during construction. The plan was developed in accordance with the *Maine*

*Erosion and Sediment Control Best Management Practices Manual for Designers and Engineers*, published by the Maine Department of Environmental Protection, October 2016. Proposed erosion and sedimentation control measures are shown on Sheet C-4.0, and a written Erosion Control narrative and construction details are located on Sheet C-6.2.

- (5) **Highway or public road congestion:** The project was designed to provide safe vehicle access to and from the site. A new 24' wide driveway will be constructed off Congress Street on the eastern side of the project site. Sight distance measurements in excess of 300-feet were recorded in both directions of travel from the centerline of the proposed site access driveway at Congress Street, which exceeds the requirements of the City of Belfast Land Use Regulations, Chapter 98 Technical Standards.

A traffic impact study was completed by Traffic Solutions in October, 2020. A copy of the study is provided in Attachment 9. The study found that the project is expected to generate a total of 22 vehicle trips during a typical AM peak hour and a slightly greater volume of 27 vehicle trips in the PM peak hour. The traffic generated by the proposed project is insignificant relative to the volume of traffic on Congress Street and at nearby intersections. The project will not result in unreasonable congestion or unsafe conditions in the vicinity.

The site was designed to accommodate emergency vehicles and a trash truck, which will regularly haul solid waste from the on-site dumpsters.

- (6) **Sewage waste disposal:** The proposed project will utilize the public wastewater system for sewage disposal. The project is expected to generate approximately 8,000 gallons of wastewater per day based on design flow rates published in the State of Maine Subsurface Wastewater Disposal Rules. A new sewer service will be installed from the existing manhole at the intersection of Salmond Street and Congress Street. Correspondence with the Belfast Wastewater Treatment Plan Superintendent is provided in Attachment 8.
- (7) **Municipal solid waste and sewage waste disposal:** The proposed development will not cause an unreasonable burden on the City's ability to dispose of solid waste and sewage. See Section (6) for information on sewage disposal and Section (18) for information on solid waste disposal.
- (8) **Aesthetic, cultural and natural values:** The project was designed to be a compatible addition to the Congress Street neighborhood and will not have an undue adverse effect on the scenic or natural beauty of the area. The project will develop a vacant gravel lot into housing with planted buffers and landscape design. No known historical or archaeological sites are located on or adjacent to the project site, and a review of the Maine Department of Inland Fisheries and Wildlife data indicates that no Essential Wildlife Habitats or Significant Wildlife Habitats are located on or adjacent the project site.

**(9) Conformity with City ordinances and plans:**

The project has been designed to conform with all applicable city ordinances and plans, as described herein.

**(10) Financial and technical capacity:**

Financial Capacity

The applicant has the financial capacity to develop the project in compliance with all applicable local, state and federal environmental standards. The project is estimated to cost approximately \$8.1M. The project will utilize the Maine State Housing Authority (MSHA) Low Income Housing Tax Credit (LIHTC) program, which provides subsidies in the form of a federal tax credit to developers of affordable rental housing, and MSHA rental loan program deferred interest and interest only debt.

Technical Capability

Developers Collaborative is a Portland based development group that pursues community-oriented projects emphasizing smart growth, environmental sustainability, affordable housing, historic preservation and innovative design. DC has hired a group of technical professionals to assist with the design and permitting of the project. Terradyn Consultants has been retained to prepare site plans and application materials. A full list of consultants who have assisted in preparing the information contained within this application is provided in Attachment 2.

**(11) Surface waters; outstanding river segments:** The project is not located within a Shoreland Zone, as defined by 38 M.R.S.A. Chapter 3, Subchapter 1, Article 2-B, or as delineated on the City of Belfast Shoreland Zoning Map. This Criteria is not applicable. However, the project will not adversely affect the quality or affect the shoreline of downstream bodies of water.

**(12) Groundwater:** The project will not use groundwater for its water supply and will not discharge wastewater or other pollutants to groundwater. The proposed project is no expected to adversely affect the quality or quantity of groundwater or any public or private water source.

**(13) Flood areas:** A Zone A Flood Hazard Area is mapped along the western site boundary in the location of the wetland complex adjacent to the site. No development is proposed within the flood hazard area, and the first floor of the proposed buildings is approximately 8' above the wetland and flood area. No flooding is expected in the developed portions of the site. A flood map for the immediate vicinity of the site is provide in Attachment 3, and the location of the flood hazard area is shown on the project drawings.

**(14) Freshwater wetlands:** Freshwater wetlands were delineated on the site by Mark Hampton Associates, Inc. and survey located by the project surveyor. The freshwater wetland is located on the western side of the project parcel and is shown on the project drawings. The wetland is an emergent wetland greater than 20,000 square feet and is considered a Wetland of Special Significance by Maine DEP. The proposed development is located on the central and eastern side of the parcel and will not result in any direct impacts to wetlands.

**(15) Rivers or streams:** No rivers or streams are located on or adjacent to the project site.

**(16) Stormwater:** The proposed development will provide for adequate stormwater management. A site specific stormwater management system was designed to meet the requirements of the Chapter 98 Technical Standards of the Land Use Regulations. A Stormwater management report was prepared to ensure that the proposed development will not have an adverse effect on downstream properties or infrastructure. The stormwater management report is provided as Attachment 4.

**(17) Access to direct sunlight for abutting property owner for solar energy system:** The size, location, and orientation of the project parcel and proposed development will prevent it from having any impact on the abutting properties' access to direct sunlight.

**(18) Solid waste management:** The project will generate several sources of solid waste during and after construction:

Site Clearing Debris

There are no trees located on site. During construction, any smaller woody debris will be ground and mulched for use as a soil amendment or as an erosion control measure. Excess organic debris may need to be disposed of at a licensed facility.

Construction Waste

Construction of the buildings is expected to generate approximately 90 tons of construction debris based on typical rates published by the EPA. The contractor will be required to separate construction waste on site prior to recycling or disposal at a licensed facility.

Municipal Solid Waste

The EPA estimates that Municipal Solid Waste (MSW) is generated at a rate of 4.5 pounds per person per day, approximately 25% of which is recycled. The proposed development is expected to have a maximum of 130 residents (2 people in each 1-bedroom unit + 1 additional person per additional bedroom in 2-bedroom and 3-bedroom units), which will generate approximately 585 pounds of MSW per day.

A dumpster will be located west of Building D in a designated area not visible from the road for the storage of solid waste. The applicant expects to contract with Casella Waste Management to regularly pick up and dispose of the waste at a licensed facility. The project is not expected to have any impact on the Belfast Transfer Station.

**(19) Exterior lighting:** The proposed development will include exterior lighting for the safety of the residents and visitors. Site lighting will include 13 pole mounted lights installed around the parking area at a height of 14' and wall mounted or porch canopy mounted lights at doorways and around the perimeter of the buildings. Bollard lights mounted at 3'-6" are also proposed along key walkways and adjacent to the play area. All fixtures feature LED bulbs with cut-off optics at 3000K temperature in order to minimize glare and adverse impacts on

neighboring properties and rights-of-way. Details on the proposed lighting is provided on the Photometric Plan (Sheet C-7.0) located in the attached plan set.

Additionally, the applicant will develop a schedule to automatically lower light levels on the site after a certain time in order to minimize impacts on abutting properties and save electricity.

**(20) Buffering of adjacent uses:** The proposed project is adjacent to residential uses on all sides. Single family homes are located on lots to the north, east and south. Wetlands and undeveloped land are located west of the project. Natural vegetation will be preserved on the north, south and west sides of the parcel. A wildflower meadow is also proposed along the north, south and west sides of the parcel between the existing vegetation and the lawn areas. Plantings are proposed along Congress Street, framing the site entrance, and surrounding the buildings that will act as a buffer for surrounding residences. The dumpster will be screened with a fence enclosure and vegetation.

Existing and proposed vegetation is shown on the project drawings.

**(21) Noise:** The proposed housing development is compatible with the surrounding residential uses. Noise levels are not expected to create unreasonable interference with use and enjoyment of neighboring properties.

**(22) Storage of materials:**

- a. There will be no exposed nonresidential storage areas, exposed machinery, or areas used for the storage or collection of discarded automobiles, auto parts, metals or other articles of salvage or refuse on the project site.
- b. A dumpster for MSW storage will be located on the western side of Building D in a designated area off the parking lot. The dumpster will be located on a concrete pad and screened with a fence enclosure and landscape plantings.
- c. During construction, the site will be secured and maintained by the contractor to ensure the safety of the community. No safety hazards will be present on the site after construction.

**(23) Landscaping:** A Landscaping Plan has been developed by Aceto Landscape Architects and is provided in the attached plan set. The plan was developed with the goal of screening the parking area, buffering the project from abutting properties, and beautifying the site. Wetland transition plantings are also proposed between the developed area and the wetlands along the western property boundary.

**(24) Buffering of residential uses:** Residential uses abut the project site on the north and south property boundaries and to the east across Congress Street. Existing tree and undergrowth vegetation will be preserved on the north and south sides of the project site to serve as natural buffers. In addition to existing vegetation a wildflower meadow will be planted and maintained within 60 ft off the northern property line and within 30 ft of the southern property

line. Trees will be planted strategically within the meadow area to improve the buffer adjacent to existing residences. On the east side facing Congress Street extensive plantings are proposed to screen the site from the road. On the west side of the site there is a significant area of existing woodland and wetland on the site and the adjacent property.

On the north side of the site, the proposed buildings will be located at least 75' from the property boundary. On the south side of the site, the proposed buildings will be located at least 40' from the property boundary. The parking lot is in the central area of the site so the buildings and plantings will act to screen it from abutting properties.

**(25) Location of off-street parking:** The proposed parking lot is made up of two areas that extend into the site. One portion of the parking lot is in the center of the site north of Buildings D and E. The driveway extends from this parking lot to the northwest and the second portion of the lot is located on the western side of Building A. The lot contains parking for up to 72 vehicles, including 5 accessible spaces, which is the minimum required by MSHA's design guidelines. The plan offers the owner the ability to stripe additional accessible parking spaces should they be needed. This alternate striping scenario would result in the loss of 3 spaces, bringing the total number of spaces to 69. The building will have 9 total accessible apartments, so if there are more than five tenants who need accessible parking, the applicant has the ability to designate up to 6 additional handicap spaces (11 total). This would require the addition of access aisles and would reduce the total number of parking spaces to 69. The proposed striping, including optional handicap striping is shown on the Site Plan (Sheet C-3.0).

The proposed number of spaces is consistent with the applicant's experience managing affordable housing projects, where 60% to 80% of residents own a car. The 69 to 72 proposed parking spaces is expected to meet the parking demands of the residents with a handful of additional spaces available for visitors.

The parking lot is set back from Congress Street by approximately 61', and sidewalks and landscaped area will be located between the parking lot and the buildings. Landscaping will be installed in accordance with Section 98-249 of the Technical Standards in order to lessen the visual impact of the parking lot on residents and those driving by the site on Congress Street.

**(26) Hazardous waste:** No hazardous waste will be generated or stored on site.

**(27) Prevention or control of air pollution:** The proposed development will not create a substantial risk of air pollution or pose a significant risk of harm to local populations within the City or injury to wildlife, vegetation or property, or harm to use and enjoyment or surrounding property. There will be no emissions of dust, chemicals, fumes, or other sources of air pollution.

**(28) Protection of public health and safety:** The proposed development will provide housing in a safe and healthful environment and will not create a risk of damage to the public health or welfare of the community.

**(29) Adequacy of waste disposal:** See Section 18 – Solid Waste Management for information regarding the storage and disposal of Municipal Solid Waste generated by the project.

**(30) Additional standards for development that may substantially affect the environment:** The proposed development does not meet the state’s definition of development that may substantially affect the environment. Projects of this type are typically greater than 20 acres in size or create more than 3 acres of impervious surface.

## ENVIRONMENTAL STANDARDS

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### Chapter 102 §1122-1136

#### **Sec. 102-1122. Subsurface wastewater disposal**

On-site subsurface wastewater disposal will not be used for the proposed development. Wastewater will be discharged to the public sewer system.

#### **Sec. 102-1123. Erosion control**

A site specific Erosion and Sediment Control Plan has been developed for the project with an emphasis on minimizing disturbance and rapid stabilization during construction. The plan was developed in accordance with the *Maine Erosion and Sediment Control Best Management Practices Manual for Designers and Engineers*, published by the Maine Department of Environmental Protection, October 2016. Proposed erosion and sedimentation control measures are shown on Sheet C-4.0, and a written Erosion Control narrative and construction details are located on Sheet C-6.2.

#### **Sec. 102-1124. Control of stormwater run-off**

The proposed development will provide for adequate stormwater management. A site specific stormwater management system was designed to meet the requirements of the Chapter 98 Technical Standards of the Land Use Regulations. A Stormwater management report was prepared to ensure that the proposed development will not have an adverse effect on downstream properties or infrastructure. The stormwater management report is provided in Attachment 4.

#### **Sec. 102-1125. Wastewater pollution**

Wastewater will discharge into the public sewer system and flow to the city’s Wastewater Treatment Plant. A new sewer service lateral will be installed in accordance with Chapter 62, Article II of the City Code of Ordinances. Correspondence with the Wastewater Treatment Plant Superintendent is provided in Attachment 8.

- (a) The wastewater from the proposed development is not from an industrial use, and will not require pretreatment prior to discharge to the public sewer system.
- (b) Not Applicable. The wastewater will be discharge to the public system.

**Sec. 102-1126. Air pollution**

The proposed multi-family residential development will not emit dust, fly ash, fumes, vapors or gases which will have an adverse impact on human health, animals, vegetation, or property.

**Sec. 102-1127. Odors**

The proposed multi-family residential use will not produce noxious or harmful odors.

**Sec. 102-1128. Glare**

See Section 19, above and the Photometric Plan (Sheet C-7.0) included in the plan set for information on proposed exterior lighting. The Photometric Plan shows calculated light levels throughout the site and at the site boundaries. The proposed lighting plan is not expected to produce any light trespass on abutting properties.

**Sec. 102-1129. Noise**

The proposed housing development is compatible with the surrounding residential uses. Noise levels will not exceed, during any consecutive eight-hour period, an average of 75 dB(A) (re 20 micronewtons/m<sup>2</sup>) measured at any boundary line or 115 dB(A) for any period of 60 minutes in a twenty-four-hour period when measured at the source.

**Sec. 102-1130. Gravel extraction**

The proposed development is not a gravel extraction operation and is not subject to the rules and guidelines of the Site Location Development Law.

**Sec. 102-1131. Heating systems and oil storage tanks**

The proposed development will utilize heat pump units for heating and propane for hot water. No oil storage tanks will be installed on the site. Five 1,000 gallon liquid propane tanks will be installed underground in two locations west of the proposed buildings. The tanks have been sited and will be installed in accordance with the Liquefied Petroleum Gas Code (NFPA 58).

**Sec. 102-1132. Burning of household trash, brush and stumps**

No burning or disposal of household trash, brush or stumps will take place on the project site.

**Sec. 102-1133. Timber harvesting**

The proposed development is not a timber harvesting operation and is not subject to state rules regarding these type of activities.

**Sec. 102-1134. Uses in wetlands**

(31) Freshwater wetlands were delineated on the site by Mark Hampton Associates, Inc. and survey located by the project surveyor. The freshwater wetland is located on the western side of the project parcel and is shown on the project drawings. The wetland is an emergent wetland greater than 20,000 square feet and is considered a Wetland of Special Significance by Maine DEP. The proposed development is located on the central and eastern side of the parcel and will not result in any direct impacts to wetlands. Stormwater management outlet

pipes and spillways will be located within 25' of the wetlands so permitting will be completed with Maine DEP in accordance with the National Resources Protection Act.

**Sec. 102-1135. Uses in floodplains**

A Zone A Flood Hazard Area is mapped along the western site boundary in the location of the wetland complex adjacent to the site. No development is proposed within the flood hazard area, and the first floor of the proposed buildings is approximately 8' above the wetland and flood area. No flooding is expected in the developed portions of the site. A flood map for the immediate vicinity of the site is provide in Attachment 3, and the location of the flood hazard area is shown on the project drawings.

**Sec. 102-1136. Soils**

Onsite soils are identified on the NRCS Medium Intensity Soil Survey as Brayton fine sandy loam and Peru fine sandy loam, which are suitable to support the proposed development. A soils map is provided in Attachment 3. The project will utilize the public sewer system. No onsite wastewater disposal is proposed.

# **Attachment 7**

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Correspondence with Belfast Water District

## Adrienne Fine

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**From:** Keith Pooler <keith@belfastwater.org>  
**Sent:** Thursday, December 03, 2020 3:22 PM  
**To:** Adrienne Fine  
**Cc:** tammy@belfastwater.org; 'Bub Fournier'  
**Subject:** RE: 115 Congress Street Housing - water ability to serve request

Adrienne,

After reviewing the plans and talking to you this morning about the proposed housing project at 115 Congress St, I am pleased to advise you that Belfast Water has plenty of capacity to serve and we look forward to working with you on it in the future.

Please use this email as notice of capacity to serve, when you go to the permitting process with the City of Belfast. As we discussed this morning both the 6" and 12" water mains are active and are used to separate the 2 pressure zones we have in the City.

Please feel free to contact me anytime if you need anything else.

Thank You,

Keith

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**From:** Adrienne Fine <adrienne@terradyconsultants.com>  
**Sent:** Wednesday, December 2, 2020 4:52 PM  
**To:** keith@belfastwater.org  
**Subject:** 115 Congress Street Housing - water ability to serve request

Hi Keith,

I am a civil engineer working for Developers Collaborative on their housing development at the former DPW site, 115 Congress Street in Belfast. I am writing to request an ability to serve letter for water services and confirm information about the existing water mains in Congress Street. Attached is request letter and a draft utility plan for the project.

The project survey shows both a 6" water main and 12" water main on opposite sides of the street, can you confirm that both mains exist? I assume that we should connect to the 12" on the far side of Congress Street?

Do you have pressure data or flow test data from the hydrant near the intersection of Salmond and Congress Street? Depending on available pressure we may alter the service sizes shown on the attached plan.

Thank you,  
Adrienne

Adrienne Fine, P.E.  
Terradyn Consultants, LLC  
(207) 322-1223

# **Attachment 8**

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Correspondence with Belfast Wastewater Treatment Plant

**CITY OF BELFAST WASTEWATER TREATMENT PLANT**

54 Front Street, Belfast, Maine 04915 Tel. (207) 338-1744

December 27, 2020

Ms. Adrienne Fine, P.E.  
Terradyn Consultants, LLC  
41 Campus Drive, Suite 101  
New Gloucester, ME 04260

RE: Project #2033 – Ability to Serve Letter for the Proposed Multi-Family Housing Project at 115 Congress Street

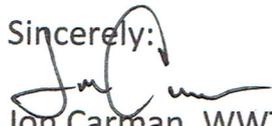
Dear Ms. Fine:

I have reviewed your letter requesting confirmation of capacity to accept and treat 8,040 gallons of wastewater daily from the proposed project at 115 Congress Street, the former site of the Belfast Public Works facility. Based on my initial review and the project discharge location at Salmond Street, it has been determined that the City's sewerage system has the capacity to convey and treat the proposed wastewater that will be generated by this project.

Please note that all construction standards, pursuant to Chapter 62 of the City of Belfast Code of Ordinances, must be followed throughout this project including connection to the public sewer at the manhole in the intersection of Congress and Salmond Street.

If you have any questions or require additional information please call me at 338-1744 or email me at [wwtp@cityofbelfast.org](mailto:wwtp@cityofbelfast.org).

Sincerely:



Jon Carman, WWTP Superintendent

Cc: Bub Fournier, Director, Code and Planning  
Bob Richards, Public Works Director

# **Attachment 9**

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Traffic Impact Study by Traffic Solutions

TRAFFIC IMPACT STUDY

FOR

PROPOSED

**“Belfast Housing”**

Prepared For: Developers Collaborative  
Prepared By: William J. Bray, P.E.  
October, 2020

## INTRODUCTION

Developers Collaborative are proposing to construct 48 residential apartments in (5) two-story buildings located on the former City of Belfast's Department of Public Works 4.34-acre site located at 118 Congress Street. The proposed residential apartments will include 36 income restricted (affordable housing) and 12 market rate units.

The proposed site is accessed through a single driveway entrance located approximately 120-feet northerly and opposite Salmond Street.

The purpose of this study is to examine existing traffic conditions in the general vicinity of the proposed project, estimate the total number of site trips generated by the project and, make a determination as to whether the existing transportation system can safely accommodate the added traffic demand generated by the project.

## EXISTING CONDITIONS

**Existing Design Hour Traffic:** A manual turning movement count was conducted at the Congress Street/Salmond Street intersection on Thursday, September 24, 2020. All traffic entering and exiting the intersection was recorded in 15-minute intervals between 7:00 and 9:00 a.m. and, again, between 3:00 and 6:00 p.m. (A copy of the traffic data is attached as an appendix to the report). From a summary of the data, it was determined that the "*morning*" peak hour occurs between 8:00 and 9:00 a.m. and the "*evening*" peak hour falls between 3:00 and 4:00 p.m.

Figure 1 illustratively depicts the estimated 2019 pre-development traffic conditions at the study intersection during both the morning and evening peak commuter hours.

**Traffic Count Adjustments:** Two separate distinctly different adjustments were applied to the traffic data collected late during the month of September this year: 1) seasonal adjustment and 2) A Covid-19 adjustment to approximate 2020 design hour traffic values at the study intersection.

- 1. Seasonal Adjustment:** The unadjusted "peak" traffic data collected during the month of September at the study intersection requires an adjustment to reflect "*peak*" travel conditions found during the summer months of July and August. MaineDOT provides factors for adjusting traffic data collected during other periods of time. MaineDOT utilizes highway classifications of I, II, or III for all State and Local roadways. Group I roadways are defined as urban roadways or those roads that typically see commuter traffic and experience little fluctuation from week to week throughout the year. Group II roadways or arterial roads are those that see a combination of commuter and recreational traffic and; therefore, experience moderate fluctuations during the year. Group III roads or recreational roadways are typically used for recreational purposes and experience significant seasonal fluctuations. MaineDOT classifies the section of Congress Street in the general vicinity of the Salmond Road intersection a Group I road and, as such, requires a seasonal adjustment of 1.036 to approximate "peak" summer travel conditions at the study intersection.
- 2. Covid-19 Adjustment:** The Covid-19 pandemic has had a very profound impact on travel within the State of Maine; and as a result, 2020 traffic volumes on the majority of roadways in the State of Maine are significantly lower than volumes measured in prior years. Traffic data collected in 2020 at any location within the State requires a level of adjustment to reflect typical expected traffic conditions at a designated location. The only historical traffic data available for the section of Congress Street near the study intersection is a 24-hour automatic traffic count performed by MaineDOT on Congress Street just south of the Grove Street intersection in 2017. A copy of MaineDOT's count summary sheet is attached. The MaineDOT data presents a two-way traffic volume of 103 vehicles in the morning peak hour and 145 vehicles in the evening peak hour. These 2017 two-way traffic volumes were then increased by an annual growth rate of 2% per year and further adjusted by a seasonal factor of 1.03 to approximate 2020 design

hour traffic conditions. The noted adjustments of the 2017 MaineDOT data suggests the expected volume of traffic in 2020 at the same location should be roughly 113 vehicles in the AM peak hour and 154 vehicles in the evening peak hour. To determine actual measured 2020 traffic volumes on the same section of Congress Street required the performance of manual turning movement counts at the Grove Street/Congress Street intersection. A manual turning movement count was collected at the Congress Street/Grove Street intersection between 7:00 and 9:00 a.m. and, again, between 3:00 and 6:00 p.m. on Tuesday, September 1, 2020 to establish existing 2020 two-way peak hour traffic volumes on Congress Street south of Grove Street. Copies of the peak hour summary sheets for the noted traffic count are attached as an appendix to the report. The summary reports of the 2020 count data show the existing two-way traffic volumes on Congress Street just south of Grove Street are about 44% lower than the estimated volumes projected based upon MaineDOT's 2017 adjusted traffic count.

Accordingly, Traffic Solutions applied both a seasonal adjustment of 1.036 and a Covid-19 adjustment of 1.44 to estimate 2020 design hour traffic conditions at the Congress Street/Salmond Street intersection. Figure 2 illustratively depicts 2020 design hour traffic conditions at the study intersection.

**Roadway Safety Conditions:** MaineDOT's Accident Records Section provided the latest three-year (2017 through 2019) crash data for the section of Congress Street between Wight Street and Grove Street, approximately 0.43 miles. MaineDOT's report shows that no reported crashes have occurred at any of the street intersections and/or the connecting roadway segments within the defined section of Congress Street.

#### **SITE TRAFFIC**

**Site Trip Generation:** Trip generation was determined for the proposed residential apartment project based upon trip tables presented in the tenth edition of the Institute of Transportation Engineers (ITE) "TRIP GENERATION" handbook. The proposed project will include a total of 48 residential apartments with 36 income restricted and the remaining market rate units. The following trip rates from the ITE publication were used in generating trip generation for the proposed overall project:

##### **Land-Use Code #220 – Multi-Family Housing (Low-Rise)**

<i>Street Peak Hour – AM Peak</i>	<i>= 0.46 trips/unit</i>
<i>Street Peak Hour – PM Peak</i>	<i>= 0.56 trips/unit</i>

The "Belfast Housing" residential apartment project is expected to generate a total of **22** trips during the AM peak hour and **27** trips in the weekday evening peak hour.

**Site Trip Distribution:** The Institute of Transportation Engineers handbook provides the following directional distribution rates for an apartment unit for both the AM and PM peak hours.

##### **Land-Use Code #220 – Apartment**

<i>Street Peak Hour – AM Peak</i>	<i>= 23% enter site/77% exit site</i>
<i>Street Peak Hour – PM Peak</i>	<i>= 63% enter site/37% exit site</i>

Based upon the noted directional distribution patterns, five (5) trips during the morning peak hour and 17 trips in the evening peak hour will enter the site and the remaining trips (17 AM trips and 10 PM trips) will exit the site.

**Vehicle Trip Composition:** This report has assumed all vehicle trips generated by the proposed project are "primary" or "new" vehicle trips to the area street network.

**Vehicle Trip Assignment:** Peak hour site trips generated by the proposed “Belfast Housing” residential apartment project were assigned through the proposed driveway entrance based upon existing directional travel splits recorded at the Congress Street/Salmond Street intersection.

Figure 3 is a “stick” diagram that presents the assignment of the site trips to the site entrance on Congress Street and through the Congress Street/Salmond Street intersection.

### FUTURE TRAFFIC

**Other Development Traffic:** Traffic generated by projects that have been approved by the local Planning Board and/or the Maine Department of Transportation, yet are not open, must be included in the estimate of pre-development traffic. The City of Belfast Planning office advised there are (2) 25-unit affordable housing projects on Wight Street whose trip generation potentially impacts the study intersection. This report has assumed that a total of 9 trips in the morning peak hour and 13 trips in the evening peak hour will potentially impact through traffic volumes on Congress Street at Salmond Street.

Figure 4 presents the directional distribution of these added vehicle trips to the Congress Street/Salmond Street study intersection.

**2020 Pre-Development Traffic:** 2020 adjusted design hour traffic volumes forecast for the Salmond Street/Congress Street intersection highlighted on Figure 2 were combined with the other development trips presented on Figure 4 to forecast 2020 pre-development travel conditions at the study intersection.

Figure 4 illustratively presents the projected 2020 pre-development travel forecasts for the study intersection.

**2020 Post-Development Traffic:** Estimated 2020 pre-development traffic forecasts prepared for the study intersection, depicted on Figure 5, were combined with the site trip assignment illustrated on Figure 3 to create 2020 post-development traffic conditions at the study intersection.

Figure 6 graphically presents the estimated 2020 post-development traffic conditions for the study intersection.

### MOBILITY ANALYSIS

Capacity analyses of both 2020 pre- and post-development traffic conditions were performed utilizing the Synchro and Sim Traffic simulation models. Level of Service rankings are similar to the academic grading system, where an “A” is very good with little delay and “F” represents very poor conditions. The following table summarizes the relationship between delay and Level of Service for an unsignalized intersection:

Level of Service Criteria for Unsignalized Intersections

<u>Level of Service</u>	<u>Total Control Delay (sec/veh)</u>
A	Up to 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

The results of the capacity analyses are presented in the following table:

**Level of Service Summary**  
**2020 Pre- and Post-Development Conditions**

<b>Intersection/Approach</b>	<b>2020 Pre-Development</b>				<b>2020 Post-Development</b>			
	<b>AM Peak Hour</b>		<b>PM Peak Hour</b>		<b>AM Peak Hour</b>		<b>PM Peak Hour</b>	
	<b>Delay (sec.)</b>	<b>LOS</b>	<b>Delay (sec.)</b>	<b>LOS</b>	<b>Delay (sec.)</b>	<b>LOS</b>	<b>Delay (sec.)</b>	<b>LOS</b>
<b>Congress Street @ Salmond Street Intersection</b>								
- Congress Street NB	1 sec.	A	1 sec.	A	1 sec.	A	1 sec.	A
- Congress Street SB	1 sec.	A	1 sec.	A	1 sec.	A	1 sec.	A
- Salmond Street WB	4 secs.	A	4 secs.	A	4 secs.	A	4 secs.	A
- <b>Overall Intersection</b>	<b>1 sec.</b>	<b>A</b>	<b>1 sec.</b>	<b>A</b>	<b>1 sec.</b>	<b>A</b>	<b>1 sec.</b>	<b>A</b>
<b>Congress Street @ Site Driveway</b>								
- Congress Street NB	n/a	n/a	n/a	n/a	1 sec.	A	1 sec.	A
- Congress Street SB	n/a	n/a	n/a	n/a	1 sec.	A	1 sec.	A
- Site Driveway	n/a	n/a	n/a	n/a	3 secs.	A	4 secs.	A
- <b>Overall Intersection</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>1 sec.</b>	<b>A</b>	<b>1 sec.</b>	<b>A</b>

The study intersection is expected to experience minimal levels of vehicle delay representative of Level of Service A conditions under forecast 2020 pre-development travel conditions. The 2020 post-development operating conditions will mirror pre-development conditions at the study intersection, experiencing overall low levels of vehicle delay representative of Level of Service A conditions. The proposed site driveway/Congress Street intersection will operate very similar to existing conditions found at the Salmond Street/Congress Street intersection at the highest or best level of service during both peak hour time periods.

**VEHICLE SIGHT DISTANCE**

The City of Belfast’s recommended sight distance standards for all driveway entrances, as defined in Section 98.155 of the City code, are noted as follows:

**City of Belfast Recommended  
Sight Distance Standards**

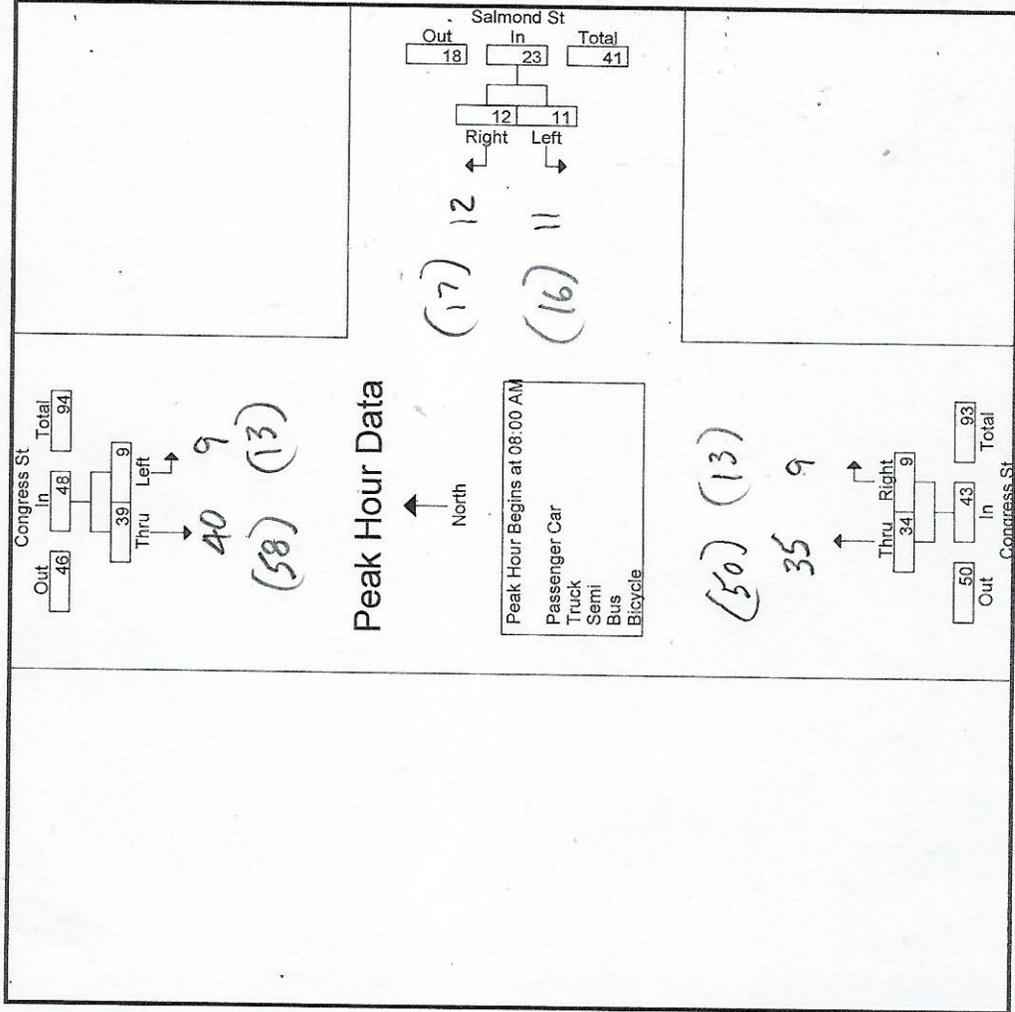
<b>Speed Limit</b>	<b>Sight Distance</b>
<b>25 mph</b>	<b>250 feet</b>
30	300 feet
35	350 feet
40	400 feet
45	450 feet
50	500 feet

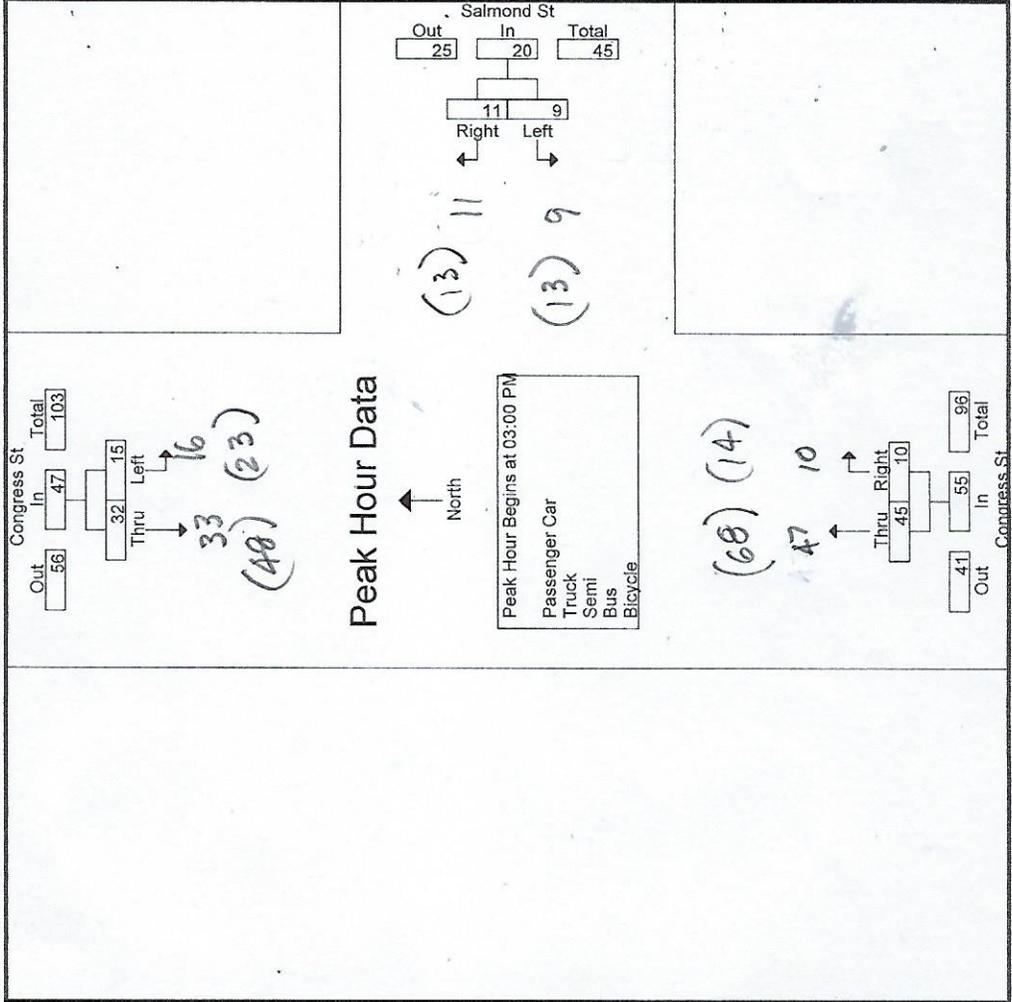
Congress Street, along the frontage of the proposed project site, is currently posted at 25mph requiring a recommended measured sight distance of 250-feet. Field measurements were recorded in both directions of travel from the proposed driveway entrance to the “Belfast Housing” residential apartment project consistent with the City’s standards as defined in Section 98-155 of the City Code. Sight distance measurements in excess of 300-feet were recorded in both directions of travel from the centerline of the proposed site access driveway at Congress Street.

**CONCLUSIONS/RECOMMENDATIONS**

- The proposed “Belfast Housing” residential housing project can be expected to generate a total of 22 vehicle trips during a typical AM peak hour and a slightly greater volume of 27 vehicle trips in the PM peak hour.

- MaineDOT's Traffic Safety Bureau's latest three-year (2017 through 2019) safety audit for the 0.43-mile section of Congress Street located between Grove and Wight Streets shows zero accidents have been reported.
- Traffic operations at the study intersection and the proposed site driveway intersection with Congress Street will operate during both peak hour time periods at the best or highest level of service (Level of Service A) with extremely low levels of vehicle delay.
- Sightline measurements in excess of 300-feet were observed from the centerline of the proposed site driveway entrance directionally at Congress Street, which meets and exceeds the City's recommended sight distance standard (250-feet) for a posted speed limit of 25mph.





Seasonal Adjustment Factor:  $0.97 \div 0.84 = 1.036$  XX Traffic data adjusted for seasonal variation  
 Adjustment with 2019-6-20-2020 HV traffic difference - use 44% increase in volume = (XX)

MAINE DEPARTMENT OF TRANSPORTATION  
 TRAFFIC ENGINEERING DIVISION  
 TRAFFIC MONITORING SECTION

Town Belfast  
 County Waldo  
 Location CONGRESS ST S/O GROVE ST  
 Start Date 06/06/17

Map U/48F

Sta. 232701002405  
 Town # 27010  
 County # 27

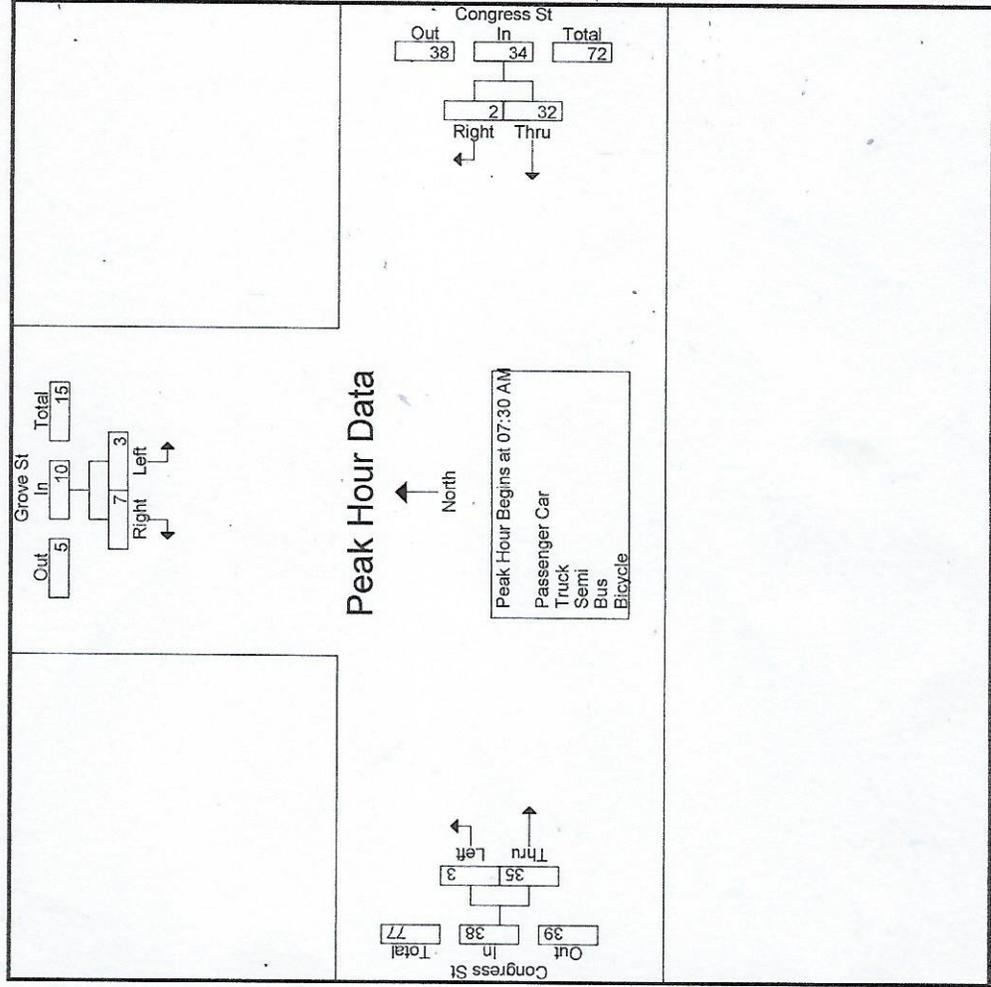
Counter # 845

Date	06/04/17	06/05/17	06/06/17	06/07/17	06/08/17	06/09/17	06/10/17	week day average
Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
0:00				2	3			3
1:00				1	0			1
2:00				0	0			0
3:00				2	1			2
4:00				2	4			3
5:00				14	11			13
6:00				39	44			42
7:00				79	71			75
8:00				94	103			99
9:00				87	105			96
10:00			97	88				93
11:00			117	89				103
12:00			110	113				112
13:00			125	105				115
14:00			136	119				128
15:00			145	144				145
16:00			113	108				111
17:00			63	74				69
18:00			57	53				55
19:00			36	42				39
20:00			23	31				27
21:00			13	13				13
22:00			6	7				7
23:00			3	2				3
Total	0	0	1044	1308	342	0	0	1354

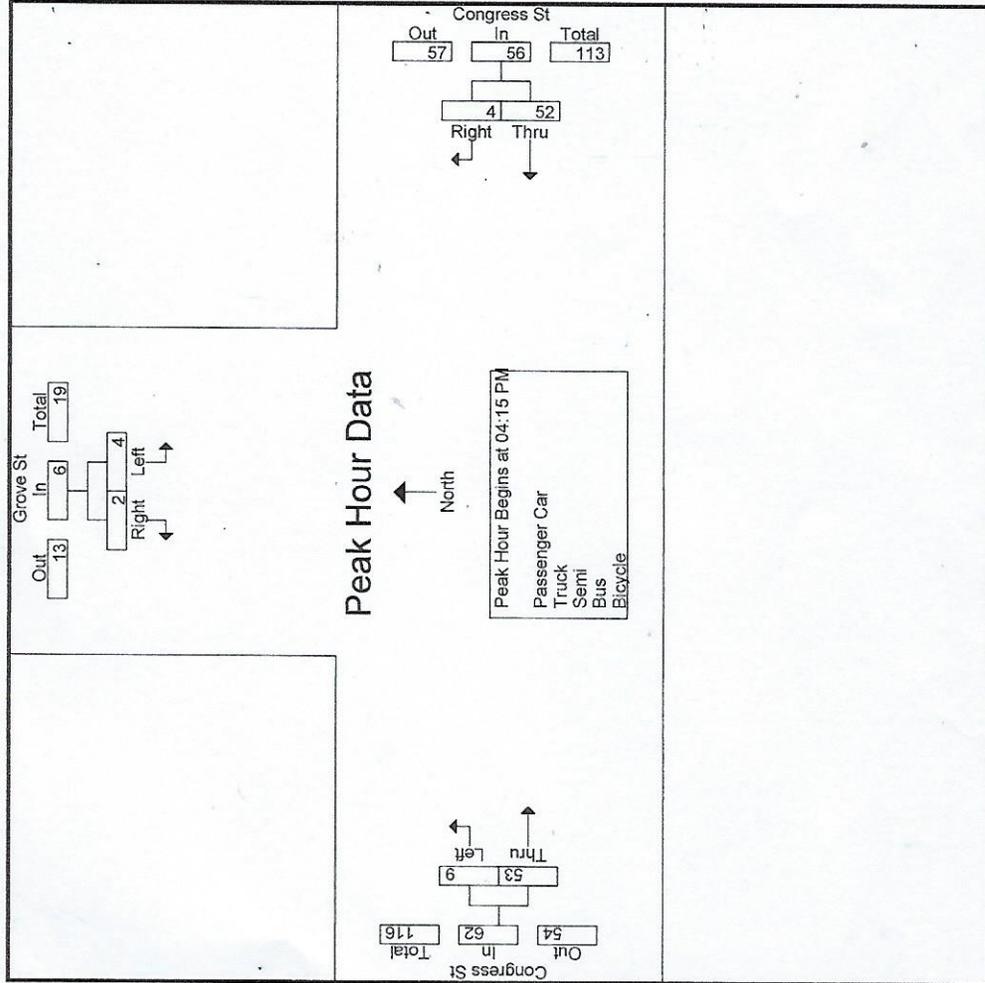
AM Peak 117 94 105  
 PM Peak 145 144  
 Peak hour count 145  
 DHV Factor 1.02  
 DHV % of AADT = 0.13 13%

48 Duration

Week # 23  
 Old Group I  
 New Group I  
 Factor 0.86  
 2017 AADT 1160



*adjusted 2020 traffic apply by 44% difference in actual counted vs. normal expected level of traffic.*



*adjusted 2020 traffic applying 44% growth difference in actual counted vs. normal expected level of traffic*

# 2017 Maine Transportation Count Book

County

Waldo

TOWN	STA	ROAD-PN	LOCATION	GROUP	AA DT12	AA DT13	AA DT14	AA DT15	AA DT16	AA DT17
BELFAST	01703	10001-6	ALLYN ST E/O NORTHPORT ST	I	-	-	210 C	-	-	200 C
BELFAST	02606	00474-6	BACK BELMONT RD SW/O JESSE ROBBINS RD	I	-	-	960 C	-	-	1320 C
BELFAST	09802	10099-6	BACK SEARSPORT RD NE/O SR 141(SWAN LAKE)	I	-	-	1380 C	-	-	1640 C
BELFAST	05303	10005-6	BEAVER ST (OW) E/O CHURCH ST	I	-	-	1290 C	-	-	1250 C
BELFAST	06403	10047-3	BELMONT AVE E/O US 1 NB OFF RAMP	I	-	-	11010 C	-	-	10150 T
BELFAST	01108	10009-6	CEDAR ST NW/O PARK ST	I	-	-	-	-	-	230 C
BELFAST	06004	10009-6	CEDAR ST SE/O MAIN ST	I	-	-	680 C	-	-	690 C
BELFAST	01104	10009-6	CEDAR ST SE/O PARK ST	I	-	-	-	-	-	190 C
BELFAST	05308	10014-5	CHURCH ST NW/O MAIN ST	I	-	-	920 C	-	-	910 C
BELFAST	01708	10014-5	CHURCH ST NW/O NORTHPORT AVE	I	-	-	2170 C	-	-	1950 C
BELFAST	05304	10014-5	CHURCH ST SE/O MAIN ST	I	-	-	2310 C	-	-	2190 C
BELFAST	11104	10014-5	CHURCH ST SE/O PARK ST	I	-	-	2140 C	-	-	2060 C
BELFAST	01403	10020-6	CONDON ST E/O NORTHPORT AVE	I	-	-	-	-	-	290 C
BELFAST	00501	10021-6	CONGRESS ST N/O US 1 BYPASS	I	-	-	1710 C	-	-	1870 C
BELFAST	00505	10021-6	CONGRESS ST S/O AIRPORT RD	I	-	-	1670 C	-	-	1520 C
BELFAST	02405	10021-6	CONGRESS ST S/O GROVE ST	I	-	-	1200 C	-	-	1160 C
BELFAST	06204	10021-6	CONGRESS ST SE/O MAIN ST	I	-	-	910 C	-	-	970 C
BELFAST	03904	10021-6	CONGRESS ST SE/O MILLER ST	I	-	-	1320 C	-	-	1370 C
BELFAST	10708	00605-6	CROCKER RD NW/O SR 3 (BELMONT AVE)	I	-	-	1650 C	-	-	-
BELFAST	05008	10025-6	CROSS ST NW/O SPRING ST	I	-	-	-	-	-	260 C
BELFAST	08201	01211-6	DOAK RD N/O SR 7/137 (WALDO AVE)	I	-	-	730 C	-	-	-
BELFAST	11301	01668-6	FAIRGROUNDS RD N/O SR 3 (BELMONT)	I	-	-	-	-	-	2610 T
BELFAST	07603	10069-3	FIELD ST (OW) E/O WALDO AVE	I	-	-	2220 C	-	-	2540 C
BELFAST	05306	10034-6	FRANKLIN ST (OW) SW/O MAIN ST	I	-	-	550 C	-	-	570 C
BELFAST	05608	10019-6	FRONT ST NW/O MAIN ST	I	-	-	1170 C	-	-	-
BELFAST	05604	10035-6	FRONT ST SE/O MAIN ST	I	-	-	920 C	-	-	990 C
BELFAST	11305	01668-6	HATLEY RD S/O SR 3 (BELMONT AVE)	I	-	-	-	-	-	1580 T
BELFAST	03603	01211-6	HEAD OF TIDE RD E/O SR 7 (W WALDO RD)	I	-	-	970 C	-	-	920 C
BELFAST	12206	10021-6	HERRICK RD SW/O LWR CONGRESS ST @ BR	I	-	-	960 C	-	-	-
BELFAST	01701	10039-3	HIGH ST N/O ALLYN ST	I	-	-	4120 C	-	-	3510 C
BELFAST	05408	10039-3	HIGH ST NW/O BEAVER ST	I	-	-	4250 C	-	-	-
BELFAST	06808	10039-3	HIGH ST NW/O CHURCH ST (N JCT)	I	-	-	4640 C	-	-	4670 C



# 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

Belfast: Congress St from Wight St (node 48522) to Grove St (node 48526)

### REPORT PARAMETERS

Year 2017, Start Month 1 through Year 2019 End Month: 12

Route: 2710021

Start Node: 48522  
End Node: 48526

Start Offset: 0  
End Offset: 0

Exclude First Node  
 Exclude Last Node

# Crash Summary I

Node	Route - MP	Node Description	U/R	Nodes										CRF			
				Total Crashes	K	A	B	C	PD	Injury Crashes	Percent Annual M Ent-Veh	Crash Rate	Critical Rate				
48526	2710021 - 1.63	Int of CONGRESS ST GROVE ST	2	0	0	0	0	0	0	0	0	0	0.473	0.00	0.67	0.00	
48525	2710021 - 1.58	Int of BRADBURY ST CONGRESS ST	2	0	0	0	0	0	0	0	0	0.446	0.00	0.68	0.00		
48522	2710021 - 1.20	Int of CONGRESS ST WIGHT ST	2	0	0	0	0	0	0	0	0	0.759	0.00	0.62	0.00		
48524	2710021 - 1.52	Int of CONGRESS ST SALMOND ST	2	0	0	0	0	0	0	0	0	0.568	0.00	0.66	0.00		
48523	2710021 - 1.36	Int of CONGRESS ST PRISCILLA LN	2	0	0	0	0	0	0	0	0	0.479	0.00	0.67	0.00		
<b>Study Years: 3.00</b>				<b>NODE TOTALS:</b>													
				0	0	0	0	0	0	0	0	0	0	2.725	0.00	0.46	0.00

# Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	Injury Crashes					Annual HMVM	Crash Rate	Critical Rate	CRF
							A	B	C	PD	Injury				
48522	48523	5094184 Int of CONGRESS ST WIGHT ST	0 - 0.16	2710021 - 1.20 RD INV 27 10021	0.16	2	0	0	0	0	0	0.00060	0.00	1368.23	0.00
48523	48524	230246 Int of CONGRESS ST PRISCILLA LN	0 - 0.16	2710021 - 1.36 RD INV 27 10021	0.16	2	0	0	0	0	0	0.00088	0.00	1241.55	0.00
48524	48525	5094178 Int of CONGRESS ST SALMOND ST	0 - 0.06	2710021 - 1.52 RD INV 27 10021	0.06	2	0	0	0	0	0	0.00024	0.00	1670.47	0.00
48525	48526	230248 Int of BRADBURY ST CONGRESS ST	0 - 0.05	2710021 - 1.58 RD INV 27 10021	0.05	2	0	0	0	0	0	0.00021	0.00	1702.96	0.00
<b>Section Totals:</b>					0.43	0	0	0	0	0	0	0.00193	0.00	1013.96	0.00
<b>Grand Totals:</b>					0.43	0	0	0	0	0	0	0.00193	0.00	1212.26	0.00

Study Years: 3.00



SALMOND STREET

CONGRESS STREET

12 (11)  
11 (9)

9 (10)  
34 (45)

(15) 19  
(32) 39

SITE

**LEGEND**

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

**UNADJUSTED 2020 PEAK HOUR TRAFFIC**

**FIGURE 1**

**BELFAST HOUSING**  
118 CONGRESS STREET, BELFAST, MAINE

DATE: OCTOBER, 2020

FIGURE: 1

**TRAFFIC SOLUTIONS**  
17 MOUNTAIN DRIVE, GORHAM, MAINE 04038



SALMOND STREET

17 (13)  
16 (13)

CONGRESS STREET

13 (14)  
50 (68)

(23) 13  
(48) 58

SITE

LEGEND

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

ADJUSTED 2020 DESIGN HOUR TRAFFIC

FIGURE 2

Project Name and Location:  
BELFAST HOUSING  
118 CONGRESS STREET, BELFAST, MAINE  
DATE: OCTOBER, 2020

FIGURE: 2

TRAFFIC SOLUTIONS  
17 HOUNTNEY DRIVE, GORHAM, MAINE 04038

E:\LAND PROJECTS\24000\24399 TRAFFIC SOLUTIONS\BELFAST HOUSING\PLANSET\BELFAST HOUSING.DWG



SALMOND STREET

CONGRESS STREET

← 2 (9)

(8) 3 →

9 (5) →

← 2 (9)

6 (9)  
8 (9)

SITE

**LEGEND**

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

**SITE TRIP ASSIGNMENT**

**FIGURE 3**

E:\LAND PROJECTS\44000\44000 TRAFFIC SOLUTIONS\BELFAST HOUSING\PEARSET\BELFAST HOUSING.DWG

**BELFAST HOUSING**  
118 CONGRESS STREET, BELFAST, MAINE  
DATE: OCTOBER, 2020

FIGURE: 3

**TRAFFIC SOLUTIONS**  
17 MOUNTVIEW DRIVE, GORHAM, MAINE 04038



SALMOND STREET

CONGRESS STREET

← 7 (4)

(9) 2 →

SITE

**LEGEND**

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

OTHER DEVELOPMENT TRIPS

**FIGURE 4**



SALMOND STREET

(17) (13)  
16 (13)

CONGRESS STREET

13 (14)  
57 (72)

(23) 13  
(57) 60

SITE

LEGEND

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

2020 PRE-DEVELOPMENT TRAFFIC

FIGURE 5



SALMOND STREET

17 (13)  
16 (13)

CONGRESS STREET

13 (14)  
59 (81)

2 (9)

(23) 13  
(62) 69

(8) 3

∞ ∞  
⑤ ⑤

SITE

LEGEND

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

2020 POST-DEVELOPMENT TRAFFIC

FIGURE 6

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	174	200	165	180	159	175
Vehs Exited	174	199	164	179	158	175
Starting Vehs	1	2	2	1	3	1
Ending Vehs	1	3	3	2	4	1
Travel Distance (mi)	49	56	46	51	44	49
Travel Time (hr)	2.1	2.3	1.9	2.1	1.9	2.1
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	35	33	35	34	22	31
Fuel Used (gal)	1.6	1.7	1.5	1.6	1.4	1.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	174	200	165	180	159	175
Vehs Exited	174	199	164	179	158	175
Starting Vehs	1	2	2	1	3	1
Ending Vehs	1	3	3	2	4	1
Travel Distance (mi)	49	56	46	51	44	49
Travel Time (hr)	2.1	2.3	1.9	2.1	1.9	2.1
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	35	33	35	34	22	31
Fuel Used (gal)	1.6	1.7	1.5	1.6	1.4	1.5

3: Congress Street & Salmond St Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.1
Total Del/Veh (s)	3.8	0.1	0.3	0.8

6: Congress Street/Congress St & Development Performance by approach

Approach	NB	SB	All
Denied Del/Veh (s)	0.0	0.1	0.1
Total Del/Veh (s)	0.1	0.2	0.1

Total Network Performance

Denied Del/Veh (s)	0.1
Total Del/Veh (s)	1.1

Intersection: 3: Congress Street & Salmond St

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	54	29
Average Queue (ft)	21	1
95th Queue (ft)	50	13
Link Distance (ft)	797	84
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Congress Street/Congress St & Development

Movement		
Directions Served		
Maximum Queue (ft)		
Average Queue (ft)		
95th Queue (ft)		
Link Distance (ft)		
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	178	195	192	181	195	189
Vehs Exited	178	195	192	182	197	189
Starting Vehs	1	1	2	2	2	1
Ending Vehs	1	1	2	1	0	0
Travel Distance (mi)	47	52	50	49	53	50
Travel Time (hr)	2.1	2.3	2.2	2.1	2.3	2.2
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	50	52	53	45	45	50
Fuel Used (gal)	1.6	1.7	1.7	1.6	1.7	1.6

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	178	195	192	181	195	189
Vehs Exited	178	195	192	182	197	189
Starting Vehs	1	1	2	2	2	1
Ending Vehs	1	1	2	1	0	0
Travel Distance (mi)	47	52	50	49	53	50
Travel Time (hr)	2.1	2.3	2.2	2.1	2.3	2.2
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	50	52	53	45	45	50
Fuel Used (gal)	1.6	1.7	1.7	1.6	1.7	1.6

3: Congress Street & Salmond St Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.1
Total Del/Veh (s)	3.7	0.1	0.3	0.9

6: Congress Street/Congress St & Development Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.1	0.0	0.1	0.1
Total Del/Veh (s)	3.3	0.1	0.2	0.5

Total Network Performance

Denied Del/Veh (s)	0.1
Total Del/Veh (s)	1.4

Intersection: 3: Congress Street & Salmond St

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	55	16
Average Queue (ft)	23	1
95th Queue (ft)	49	10
Link Distance (ft)	797	84
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Congress Street/Congress St & Development

Movement	EB
Directions Served	LR
Maximum Queue (ft)	36
Average Queue (ft)	12
95th Queue (ft)	38
Link Distance (ft)	211
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0
---------------------------------

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:57	4:57	4:57	4:57	4:57	4:57
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	172	209	211	197	192	195
Vehs Exited	168	211	209	196	194	195
Starting Vehs	0	5	3	2	3	2
Ending Vehs	4	3	5	3	1	2
Travel Distance (mi)	48	59	60	56	54	55
Travel Time (hr)	2.0	2.5	2.5	2.3	2.3	2.3
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	24	41	32	27	32	30
Fuel Used (gal)	1.5	1.9	1.9	1.8	1.7	1.7

Interval #0 Information Seeding

Start Time	4:57
End Time	5:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	172	209	211	197	192	195
Vehs Exited	168	211	209	196	194	195
Starting Vehs	0	5	3	2	3	2
Ending Vehs	4	3	5	3	1	2
Travel Distance (mi)	48	59	60	56	54	55
Travel Time (hr)	2.0	2.5	2.5	2.3	2.3	2.3
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	24	41	32	27	32	30
Fuel Used (gal)	1.5	1.9	1.9	1.8	1.7	1.7

3: Congress Street & Salmond St Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.1
Total Del/Veh (s)	3.9	0.1	0.6	0.8

6: Congress Street/Congress St & Development Performance by approach

Approach	NB	SB	All
Denied Del/Veh (s)	0.0	0.1	0.1
Total Del/Veh (s)	0.1	0.2	0.1

Total Network Performance

Denied Del/Veh (s)	0.1
Total Del/Veh (s)	1.1

Intersection: 3: Congress Street & Salmond St

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	35	36
Average Queue (ft)	17	3
95th Queue (ft)	43	21
Link Distance (ft)	797	84
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Congress Street/Congress St & Development

Movement	WB	SB
Directions Served		
Maximum Queue (ft)		
Average Queue (ft)		
95th Queue (ft)		
Link Distance (ft)		
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:57	4:57	4:57	4:57	4:57	4:57
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	209	245	232	215	218	223
Vehs Exited	209	246	235	211	220	224
Starting Vehs	1	5	3	2	3	2
Ending Vehs	1	4	0	6	1	1
Travel Distance (mi)	56	66	62	57	59	60
Travel Time (hr)	2.4	2.8	2.6	2.5	2.6	2.6
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	37	46	48	37	44	42
Fuel Used (gal)	1.9	2.2	2.1	1.9	1.9	2.0

Interval #0 Information Seeding

Start Time	4:57
End Time	5:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run-Number	1	2	3	4	5	Avg
Vehs Entered	209	245	232	215	218	223
Vehs Exited	209	246	235	211	220	224
Starting Vehs	1	5	3	2	3	2
Ending Vehs	1	4	0	6	1	1
Travel Distance (mi)	56	66	62	57	59	60
Travel Time (hr)	2.4	2.8	2.6	2.5	2.6	2.6
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	37	46	48	37	44	42
Fuel Used (gal)	1.9	2.2	2.1	1.9	1.9	2.0

3: Congress Street & Salmond St Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.1
Total Del/Veh (s)	3.7	0.1	0.6	0.8

6: Congress Street/Congress St & Development Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.1	0.0	0.2	0.1
Total Del/Veh (s)	3.8	0.3	0.2	0.5

Total Network Performance

Denied Del/Veh (s)	0.1
Total Del/Veh (s)	1.3

Intersection: 3: Congress Street & Salmond St

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	40	40
Average Queue (ft)	18	4
95th Queue (ft)	44	23
Link Distance (ft)	797	84
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Congress Street/Congress St & Development

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	36	29
Average Queue (ft)	10	1
95th Queue (ft)	33	13
Link Distance (ft)	211	84
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

# **Attachment 10**

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Financial Capacity



February 3, 2021

Bub Fournier  
Director, Code and Planning  
City of Belfast  
131 Church Street  
Belfast, ME 04915

RE: 115 Congress Street

Dear Mr. Fournier:

On behalf of Bangor Savings Bank, I am pleased to provide this letter of support of Developers Collaborative Predevelopment, LLC and DC 115 Congress LP for the development of 115 Congress Street. Bangor Savings Bank has worked with Kevin Bunker, Manager of Developers Collaborative Predevelopment, LLC and Sole Member of DC 115 Congress GP LLC, General Partner of DC 115 Congress LP, and we believe the applicant has the ability to finance projected project costs. Kevin Bunker and Developers Collaborative Predevelopment, LLC have a great deal of experience with tax credit and tax increment financing. They possess the development expertise and management skills to successfully complete the proposed project on time and on budget.

While this letter of support is not a commitment to lend, Bangor Savings Bank would welcome the opportunity to be a resource for project financing. Please feel free to call me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean Rankin", written in a cursive style.

Sean Rankin  
Vice President  
Commercial Banking

280 Fore Street, Suite 200  
Portland, ME 04101  
p: 207.233.6612  
[Sean.Rankin@bangor.com](mailto:Sean.Rankin@bangor.com)