34-H-1
58 Alder Street
Bayside Bowl Expansion

#2015-049

III. BACKGROUND

On October 27, 2009, the Planning Board approved a site plan to establish the Bayside Bowl within the former Skillful Vending building at 58 Alder Street. The approval letter is shown as Attachment A. The proposal at that time included 12 bowling lanes, 60 seat restaurant space, 33 parking spaces (7 onsite and 26 shared offsite) as well as various site improvements.

Applicant acquired a 23,450 sf vacant lot in 2011 adjacent to Bayside Bowl which extended the applicant's landholdings to Kennebec Street. That same year applicant received administrative site plan approval for an outdoor seasonal patio for this parcel. With the prospect of the Somerset Street Extension looming in the future, certain improvements such as landscaping, sidewalks and drainage were deferred to the future. See Attachment B. The present 2015 submission proposes this area as a parking lot.

On March 17, 2015, the applicant completed a transaction with the City of Portland to purchase the "salt shed" parcel at 71 Hanover Street. This acquisition is intended to facilitate an expansion of the Bayside Bowl which abuts this property. With this property purchase the applicant now controls the entire Alder-Kennebec- Alder-Lancaster block.

Lancaster Street between Alder and Hanover was discontinued by the City Council on May 1, 1995 to facilitate Public Services operations in this area. Based on that action, the applicant owns to the middle of the street although a public easement was retained. The City owns the other half of the street which abuts the City's Traffic Division building. The Bayside Bowl expansion does not encroach within the right of way. By way of background, the City has recently been discussing whether the Traffic Division building should be considered for redevelopment proposals.

The Somerset Street Extension Study has a direct impact on the Bayside Bowl site. The study is comprised of two components. The first part focuses on the design and construction of extending Somerset Street from Elm to Hanover Street while the second part evaluates various alignments of extending Somerset Street (Kennebec Street) and the Bayside Trail to Forest Avenue.

The submitted Bayside Bowl site plan incorporates the projected street alignment on the plan which crosses their property near the corner of Kennebec and Hanover. The proposed parking lot has been designed outside the projected alignment footprint. Land acquisition and engineering plans for the Elm Street to Hanover Street section are expected to be completed later in the year with construction taking place in 2016.

IV. DEVELOPMENT PROPOSAL

Applicant proposes to construct a two story addition to the existing bowling alley. See site plan on following page of this memo. The expansion includes additional bowling alleys, a second floor area for squash courts and a rooftop bar. The addition increases the net floor area of the facility by 35,251 sf resulting in a total building floor area of 48,857 sf. The building addition is 45 feet high.

The project expands the number of bowling alleys from 12 to 20. Restaurant space will be increased from 60 seats to 210 seats. A partially covered 100 seat rooftop deck is proposed.

Squash courts will be run by Community Squash and includes 8 single squash courts, 1 doubles court, a small gym, class rooms and locker rooms. A 48 seat mezzanine will be provided to observe matches.

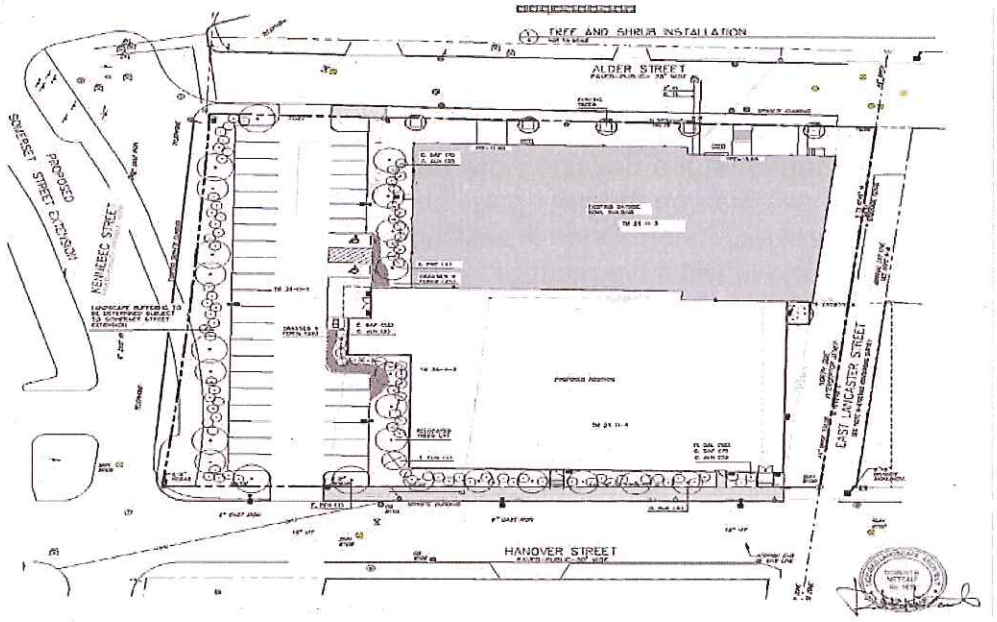
The existing public entrance on Alder Street remains and a second public entrance (facing Kennebec Street) will be incorporated into the addition.

The proposal fills in about two-thirds of the Lancaster-Hanover- Alder-Kennebec block except for the parking area along Kennebec Street.

Parking includes a temporary 36 space lot on-site (gravel surface) and 17 shared spaces off-site. The temporary parking lot would have formal review at a later date once the B-7 zoning parking lot issue for this site has been resolved and the alignment of Somerset Street extension has been finalized. See next section (Surface Parking Setback under B-7 Zoning). The 7 existing spaces on the Hanover Street side of the property are eliminated to accommodate the building addition footprint.

An 8 foot wide brick sidewalk is proposed along Hanover Street while the existing brick sidewalk along Alder Street is being extended about 22 feet but both sidewalks stop at the parking lot driveway in deference to the future alignment of Somerset Street which will likely be constructed in 2016. The proposed alignment is shown on the plan below. We would suggest that when the parking lot comes in for formal review in the future that the applicant be responsible for extending the sidewalk to meet the new sidewalk along Somerset Street.

Three Bayside street light fixtures are proposed along Hanover Street.



Proposed Bayside Bowl Site Plan

V. STAFF REVIEW

B-7 Zoning

The site is located in the B-7 zone. Significant zoning review issues are highlighted below.

Height...The project site is located in District B of the Bayside Height Overlay Zone which requires a minimum height of 3 floors and a maximum height of 105 feet. The Bayside Bowl addition is 45 feet high but has only two functional floors which is short of the minimum height of 3 floors. Sec. 14-298 (h)(5) provides for an exception to the minimum height requirement - "such restriction shall not apply to those portions of the building addition(s) that are closer to the street line than the building footprint existing as (March 9, 2005)". The proposed addition will be built closer to the street. Based on this exception the proposal does meet the minimum height requirement.

Surface Parking Setback...The B-7 zone requires new surface parking be located a minimum of 35 feet from the street [Sec. 14-295 (a)(25)]. The purpose of the language is to encourage buildings near the street line in creating an urban building edge along streets. The applicant's proposal features parking along the Kennebec Street side of the lot, most of which are within 35 feet of the existing Kennebec Street right-of-way. The proposed parking area is currently an unimproved lot. The 35 foot setback standard would not apply if the parking lot was grandfathered but staff has not seen any information substantiating a grandfathered parking use for this lot. The applicant is in the process of researching this issue.

Applicant is proposing the parking area shown on the site plan be considered a temporary parking lot until a zoning text amendment is implemented to address this issue. There are several reasons for this path. The projected alignment for Somerset Street extension has not been finalized. This project requires a "taking" of a portion of the Bayside Bowl property as well as another nearby property. The site plan on the prior page shows the projected alignment of Somerset Street extension. Once the taking has been finalized (which will be later in the year) we will have a better idea of the relationship of the roadway to the parking lot setback.

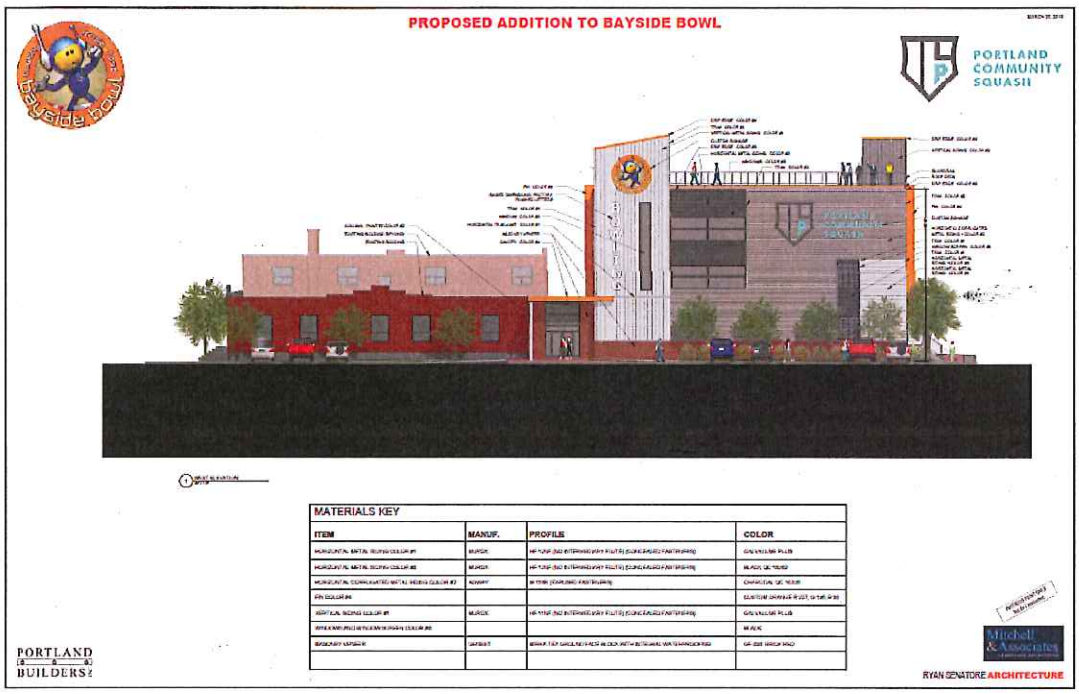
Mind full of the future Somerset Street extension project, the site plan approval letter for the outdoor patio allowed a 5 year window (to June 16, 2016) to complete site related improvements. See Attachment B. Note that sec. 14-522 of the Site Plan ordinance allows temporary parking lots for up to 1 year. Staff is therefore recommending the parking area be treated as a temporary parking lot with final review taking place by June 16, 2016.

Over the next year staff will draft an amendment (narrow in scope) to address the parking setback issue unless the applicant is successful in documenting a grandfathered parking use. Bayside Bowl has a set of circumstances which make it unique to other properties in the B-7 which would be reflected in the amendment. In concept the amendment would allow some flexibility but require measures supporting the Bayside Vision such as a multi-story building, a minimum floor area ratio and on-site surface parking not exceeding the normal zoning requirement.

Signs…A formal signage plan needs to be submitted.

Building Elevations and B-7 Design Standards
Building elevations have been submitted. See Attachment Plans. Kennebec Street and Hanover Street views are shown below. The proposed addition makes a major statement in overall building mass on the site. While the building has only functionally two floors (high ceiling height for squash courts), it reads as a much taller building with its 45 foot height. A prominent building entrance has been created facing Kennebec Street although the existing Alder Street entrance remains. The addition is clad in a variety of horizontal and vertical metal siding with a lower base of masonry veneer.

The building is surrounded by 4 streets so the building is viewed by the public from all 4 streets.



Kennebec Street View

Hanover Street View

Comments from Caitlin Cameron, Urban Designer, are shown below and as Attachment C.

Design Review Criteria:
The project must meet all *B-7 Design Principles & Standards*.

Findings of the Design Review:
The proposed design **does not pass** all of the criteria of the *B7 Design Guidelines* – please refer to comments below regarding Standards not currently being met. The applicant may revise the design according to the review comments and resubmit.
General Comments:

- Please provide drawings showing all of existing building.
- Which building entrances will be operable to the public (new and existing)?
- What is the proposed pedestrian circulation around the site?

Principle A: Urban Design
A-5: Pedestrian Environment – *Development on public streets or public spaces shall . . . enhance the pedestrian environment through the use of elements at the first floor such as fully functioning entries oriented to the street; active windows and storefronts; awnings and weather protection; appropriately scaled streetlights; trees and landscaping; . . .*

- See comments below regarding the orientation of the primary building entrance and windows.

A-7: Building Orientation – *The primary facades and entrances of buildings shall be oriented to streets, major pedestrian routes, or open spaces in order enhance the pedestrian-oriented environment. The primary facades and entrances of buildings shall not be oriented toward parking lots.*

- The primary entrance should be revised to have a visible and accessible orientation to Alder Street. Staff suggests adding a double door to the vestibule facing Alder Street and altering the canopy design to extend over this part of the entry. Lighting and Signage should also be provided on this East (facing Alder) face of the stair tower/vestibule.

Principle B: Access and Circulation
B-6: Multi-modality – *New development shall create a functional and safe environment that provides a continuous travel corridor for pedestrians and bicycles which serves the same major destinations as automobiles.*

- Please provide a direct pedestrian path from Kennebec Street to the primary building entrance.

B-9: Streetscape Design – *New development in the public realm shall utilize the City's streetscape standards for Bayside which include specifications for sidewalks, streetlights, street furniture, fencing and walls, landscaping and signage in order to create a unified image of the neighborhood.*

- Please provide a direct pedestrian path from Kennebec Street to the primary building entrance.

Principle C: Parking, Loading and Service Areas

C-7: Bike Racks – *Bike racks shall be provided in a convenient location, proximate to the entry or entries of the building(s), either immediately adjacent to or no further than the associated motor vehicle parking, and shall be visible from the street or provided with prominent directional signage visible from the street as detailed in the Technical and Design Standards and Guidelines Manual and in compliance with the City's Off-street bicycle parking standards*

- Bike racks appear to be on private property. If any bike racks are proposed in the public right-of-way, they must conform to the Technical Manual in placement as well as type specification (Dero).
- Make sure bike racks correspond to any new building entrance arrangement, including for staff.

C-8: Service, Utility and Mechanical Infrastructure – *Areas for outdoor storage and trash collection or compaction shall not be visible from public rights-of-way, or located within 20 feet of any public street, sidewalk, or open space.*

- A waiver may be required about the placement of the trash storage.
- More detail about the waste management is requested.
- Materials for screening trash storage should be of the same family as the rest of the building materials.

Principle E: Architectural Design

E-6: Entrances – *Buildings along public streets shall have the primary entrances oriented to the street. Primary entrances shall not be oriented to a parking lot or structure. . . . Commercial and mixed use buildings shall be permeable and accessible on all sides from the public way, unless the building program precludes such design.*

- The primary entrance should be revised to have a visible and accessible orientation to Alder Street. Staff suggests adding a double door to the vestibule facing Alder Street and altering the canopy design to extend over this part of the entry. Lighting and Signage should also be provided on this East (facing Alder) face of the stair tower/vestibule.

E-7: Windows – *Windows shall be located on all facades visible from public rights of way. . . . The first floor transparency (minimum visible transmittance (VT) of .7 or greater) along public streets and the trail shall be equal to at least 50% of the wall area between the height of 2 and 9 feet.*

- Consider adding more fenestration to the Dining/Lounge along Hannover Street area to increase the visibility of the active uses on the street.

E-12: Materials – *Materials such as thing gauge metal panels . . . shall not be used on facades visible from public rights-of-way.*

- Please provide more information about the gauge of the metal siding.

E-13: Transparency – *Windows that have daylighting application on all levels of the façade shall use glass with a visible transmittance (VT) value of .7 or greater, which looks clear. . . . Opaque, heavily tinted or reflective glass shall not be used at the pedestrian level unless it can be demonstrated that the building program precludes the use of transparent glass.*

- Please provide more information about the transparency of the windows.

E-16: Signage – *Each building may have one sign per storefront tenant at the pedestrian level, one sign board at each entrance with a tenant roster, and a street number sign at entrances as necessary.*

- Add signage to the East-facing (Alder-facing) side of the primary building entry stair tower/vestibule to provide a strong presence and orientation to the street.

Circulation – Pedestrian

An 8 foot wide brick sidewalk is proposed along Hanover Street while the existing brick sidewalk along Alder Street is being extended about 22 feet but both sidewalks stop at the parking lot driveway entrance rather than continuing along the lot frontage to Kennebec Street. This was probably done in deference to the future alignment of Somerset Street which will likely be constructed in 2016. We would suggest that when the parking lot comes in for formal review in the future that the applicant be responsible for extending the sidewalk to meet the new sidewalk along Somerset Street.

A brick sidewalk was installed along the frontage of the Alder Street building as part of the previous review.

A landscaped area is shown between the parking lot and the building addition (Kennebec side) but no walkway is shown on the plan. We are recommending that a sidewalk be installed within this area connecting to the public sidewalks on

Alder Street and Hanover Street. While a new sidewalk will be installed along Somerset Street as part of the City project, the applicant should install a walkway from the edge of the parking lot to the street roughly lining up with the building entrance.

Circulation – Vehicle
As part of the submission applicant has submitted a traffic impact study (entitled Traffic Impact Study Expansion of Bayside Bowl) prepared by Gorrill Palmer. See Attachment 12.

Parking
Application is proposing a total of 53 parking spaces, 36 temporary on-site spaces and 17shared off-site spaces. Presumably the temporary spaces will be converted to permanent spaces in the future. There is no parking requirement in the B-7 zone so the Planning Board determines the appropriate number based upon the applicant's parking study and recommendation from the City Transportation Engineer.

Documentation of off-site parking leases should be submitted.

The submission states "the Bayside Bowl project is forecast to require a total of 91 parking spaces. The site will provide 37 parking spaces, with an additional 17 parking spaces provide off-site. We recommend that a parking study be performed once the site is fully occupied to confirm the need for additional spaces." Note staff counts 36 on-site spaces not 37 spaces. Other comments on the parking submission are shown below.

The parking lot has access on Alder Street and Hanover Street.

Traffic
On-site circulation includes the parking lot with access on Alder Street and Hanover Street.

Tom Errico, Traffic Review Consultant, has reviewed plan and submitted material and his comments are shown below and Attachment D. Mr Errico believes the project qualifies for a Traffic Movement Permit since the submission underestimates the estimated trip generation for the project.

- The applicant has requested a waiver for providing a construction management plan at this time. It would be my suggestion that the applicant provide some general guiding principles as it relates to how construction will impact existing parking and traffic with the intent of providing a more detailed construction plan as a condition of approval.

- Based upon discussions with DPS staff it is my understanding that a portion of the proposed parking lot could be paved or implemented in its

final form without disturbance from the Somerset Street Extension project. Accordingly, the applicant should investigate construction of a portion of the parking lot in final form.

- I have reviewed the traffic study prepared by Gorrill-Palmer Consulting Engineers, Inc. and do not support the methods used in estimating trip generation. Approval of the assumptions will require supporting documentation. Specific concerns include:

    - 30% reduction in restaurant trips associated with shared use.
    - Use of ITE Land Use Code439 for a Bowling Alley when only one site was sampled for estimating traffic.
    - I would expect overlap for use of the Squash Court time slots and therefore traffic and parking generation needs to account for this.
    - The study assumed an occupancy of two per vehicle.
    - 15% will utilize transit.
    - A 20% reduction in trip levels based upon assumptions that the site will not be fully utilized.

  The traffic study concluded that taking into account the above assumptions, the project would generate 99 trips during the peak hour and therefore would not trigger the threshold of 100 trips needed to file a Traffic Movement Permit. In addition to above concerns, the project should also include the trips associated with the initial Bayside Bowl project. Based upon these factors it is my opinion that the project requires a Traffic Movement Permit. I would note that based upon the capacity analysis conducted by the applicant I do not expect the project to have significant traffic impacts in the area.

- Additional information is requested in quantifying the parking demand for the project. I would suggest the applicant survey existing users as part of understanding existing parking demand and use that information to predict future supply needs. If the applicant conducts such a survey, methods should be coordinated with City staff.

- The applicant has requested a waiver from City standards for parking lot aisle width based upon the need for added buffer space. I would prefer that the City standard (24 feet) be met, unless Jeff Tarling determines the added buffer width is critically important.

- A detectible warning panel shall be installed on the Hanover Street sidewalk ramp at Lancaster Street.

- It is suggested that on-street parking be provided on the east side of Hanover Street along the property frontage. This action will require changes to the City's Traffic Schedule and will need to be approved by the TS&E Committee and City Council. The applicant shall be responsible for provide materials in support of the TS&E and City Council packets.

- Upon determination of the final parking supply number, the corresponding bicycle parking spaces should be provided on-site per City Standards.

- Projects in the Bayside area have been required to make monetary contributions towards implementation of the Marginal Way Master Plan and the Somerset Street Extension Project. I will assess this requirement, in coordination with DPS and Planning staff, following approval of final trip generation and assignment information.

Engineering Related Comments
Comments from David Senus, Development Review Consultant, are shown below and on Attachment E.

- In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:

    - Basic Standard: The Applicant will need to provide plans, notes, and details to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500.

    - General Standard: The project will result in a net decrease in impervious area. As such, the projectis not required to include any specific stormwater anagement features for stormwater qualitycontrol. The Applicant has proposed a grassed, underdrained stone filtration swale to provide some level of water quality treatment for runoff from the site. This approach to stormwater management on the site is acceptable to the City; however, we encourage the Applicant to review the City's Stormwater Service Charge Credit Manual (available online) to evaluate whether they would consider incorporating treatment measures which may qualify for a future Stormwater Service Charge credit.

- Flooding Standard: The project will result in a net decrease in impervious area. As such, the project is not required to include any specific stormwater nanagement features to control the rate of stormwater runoff from the site.

- The project will disturb more than one acre; the Applicant should note that a Maine Construction General Permit will be required from the MaineDEP and that copies of all permits should be forwarded to the City upon receipt.

- The Applicant has noted that ability to serve letters have been requested from the Portland Water District and the City of Portland; these letters should be forwarded upon receipt.

- The Applicant should provide the details on the concrete dumpster pad and pipe installation trench cross-section.

- Final plans must be stamped by a professional engineer (Section 14-527, sub-section (f) of the City of Portland Land Use Ordinance).

- The field inlet and catch basin details depict a flat frame and grate flush with the adjacent grade. We recommend that the Applicant consider installing domed grates (beehive grates) on field inlets and catch basins located in landscape / lawn areas.

Utilities
All utilities such as water, power and sewer will be extended from the existing building to serve the addition. An ability to serve letter has been received from CMP but letters regarding water and sewer service should also be submitted.

Lighting
Site lighting consists of new pole mounted fixtures (three) in the parking lot, wall mounted fixtures located at egress locations and wall pac fixtures along the former Lancaster Street side of the addition. The existing building has small wall wash fixtures located along the Alder Street and Kennebec Street façade.

The Beacon Viper (small) pole mounted fixture and the Beacon Traverse (wall mounted) appear to have a cut-off feature. Applicant should submit a photometric plan for the site along with height of the poles and mounting height of wall mounted fixtures.

Three Bayside street light fixtures are proposed along Hanover Street. The applicant previously installed street lights along Alder Street but a third light is needed north of the driveway.

Landscaping
A review of the plan indicates that 7 trees will be planted along the Hanover Street side of the property while 8 trees (of which 3 are relocated) will be planted along the edge of the building (Kennebec Street side). A variety of understory plantings are proposed.

A dumpster is proposed along the Lancaster Street side of the addition. The dumpster will be screened by a fence but we are recommending that the enclosure comply with the B-7 design standard C-8 that requires "materials, colors and design of screening walls and fences shall conform to those used on the building".

A note shows concept landscaping between the parking lot and Somerset Street but with no landscape species identified. The note states "landscape buffering to be determined subject to Somerset Street Extension". A landscaping plan could be reviewed as part of the final site plan for the parking lot.

Comments from Jeff Tarling, City Arborist, will be available prior to the public hearing.

Fire
A hydrant is located diagonally across the street at the corner of Kennebec Street and Preble Street.

Comments from Deputy Fire Chief Keith Gautreau are shown as Attachment F.

VI. WAIVERS

Applicant is requesting a number of waivers that are more specifically described in Attachment 9. These waivers are summarized below. In addition, 5 "temporary waiver requests" are listed which relate to submission requirements that would be provided for the public hearing or at a later date.

Street Tree Requirement (Sec. 14-526 2.b. iii a and Technical Design Manual)...Submission indicates based on street frontage requirements 17 street trees are required. Twelve trees are proposed but due to pending Somerset Street project applicant requests a waiver and will provide the fee in lieu for the remaining 5.

Parking Lot and Parking Space (Technical Design Manual 1.14)...Applicant requests "a waiver to retain the existing gravel parking area until the final design of Somerset Street Extension has been determined" and that "improvements not be required until completion of Somerset Street Extension". For the public hearing Staff will draft a condition of approval to address the timing of the parking lot completion.

Street Lighting (Technical Design Standards 10.4 Standards for Special Lighting District)...Request to waive street lighting fixtures along Kennebec Street frontage due to pending roadway improvements for Somerset Street Extension.

Travel Aisle Width...Request to reduce parking lot aisle width from 24 feet to 22 feet.

Landscape Buffer (Technical Design Standards 4.5.5 Parking Areas...Request to waive the landscape buffer requirements around the surface parking until the final design of Somerset Street Extension has been determined and street improvements have been completed.

Next Steps:
Schedule a Public Hearing

ATTACHMENT LIST:

Staff Attachments

A. Bayside Bowl Planning Board Approval Letter (dated 10-27-09)
B. Bayside Bowl Administrative Approval Letter (dated 6-11-11)
C. Memo from Caitlin Cameron, Urban Designer (dated 4-13-15)
D. Memo from Tom Errico, Traffic Review Consultant (dated 4-9-15)
E. Memo from David Senus, Development Review Consultant (4-7-15)
F. Memo from Keith Gautreau, Fire Prevention (4-3-15)

Applicant Submission (March 23, 2015)

1. Development Review Application and Checklist
2. Right, Title or Interest
3. Project Description and Project Data
4. Tax Map
5. Existing Soils and Condition
6. Public Utilities
7. Technical Capability, Financial Capability and Letter of Authorization
8. Compliance with Applicable Zoning
9. Waiver Request
10. Consistency with City's Master Plan and Conformity with Design Standards
11. Fire Department Check list and HVAC Emissions Requirements
12. Traffic and Parking Study
13. Stormwater Management Plan
14. Solid Waste Disposal and Snow Removal
15. Light Fixtures
16. Construction Management Plan – to be determined

17. Easements

Applicant Submission (Response to Staff Comments, April 22, 2015)

1. Cover Letter
2. Portland Water District Ability to Serve Letter (4-10-15)
3. Neighborhood Meeting Certification
4. Catalogue Cuts

Plans (March 23, 2015)

P1. Location Map
P2. Existing Conditions
P3. Layout and Lighting Plan
P4. Grading and Drainage Plan
P5. Planting Plan
P6. Site Details
P7. Site Details
P8. Stormwater Plan (Pre-Development)
P9. Stormwater Plan (Post-Development)
P10. First Floor Plan
P11. Second Floor Plan
P12. Mezzanine Level Plan
P13. Roof Plan
P14. West Elevation
P15. South Elevation
P16. East Elevation
P17. North Elevation
P18. Rendering 1 Existing
P19. Rendering 1 Proposed
P20. Rendering 2 Existing
P21. Rendering 2 Proposed
P22. Rendering 3 Existing
P23. Rendering 3 Proposed
P24. Rendering 4 Existing
P25. Rendering 4 Proposed
P26. Rendering 5
P27. Stamped Survey

Plans (April 22, 2015)

P1.1 Location Map
P2.1 First Floor Plan
P3.1 Second Floor Plan
P4.1 Mezzanine Level Plan
P5.1 Roof Plan
P6.1 Birdseye View
P7.1 West Elevation
P8.1 South Elevation

P9.1 East Elevation
P10.1 North Elevation
P11.1 Layout and Utilities Plan
P12.1 Erosion and Sedimentation Control Plan
P13.1 Portland Water District Infrastructure Plan
P14.1 Construction Management Plan
P15.1 Renderings

ATT. A

CITY OF PORTLAND, MAINE
PLANNING BOARD

David Matero
DayMatero Studios
100 Front Street
Bath, ME 04530

Dale Akeley
Project Resources
PO Box 661
Yarmouth, ME 04096

Re: BOWL PORTLAND
Address: 58 ALDER STREET CBL: 034-H-002-001
Project ID: 09-79900009
Applicant: JUSTIN ALFOND AND CHARLES MITCHELL

November 10, 2009

Dear Applicants,

On October 27, 2009, the Portland Planning Board considereda site plan application for change of use and building renovation for Bowl Portland at 58 Alder Street The Planning Board reviewed the proposal for conformance with the standards of theConditional Use Reviewand Site Plan Ordinance. The Planning Board voted 6-0 (Hall absent) to approve the application with the following motion(s) and condition(s) as presented below.

CONDITIONAL USE
The Planning Board voted 6-0 (Hall absent) that the proposed plans are in conformance with Section 14-474 and Section 14-296(3) of the Land Use Code, subject to the following conditions

1. That the applicant shall submit, for the City's Associate Corporation Counsel review and approval prior to the issuance of a building permit, anaddendum to the lease that stipulates that the developer reserves the right to relocate said parking or convert surface parking to structured parking as long as the replacement parking is located within a reasonable distance from the associated use and the parking lease shall remain ineffect got the full term of use; and

2. The applicant shall maintain seven (7) onsite parking spaces and the two twenty-six (26) shared offsite parking lots for the duration of the use.

WAIVERS
The Planning Board voted 2-4 (Lowery, Tevanian, Patterson and Silk opposed; Hall absent) to waive the requirement of Standard B-11 of the Bayside B7 Design Standards and Guidelines which requires street lighting along public streets. Thus thewaiver **failed.**

SITE PLAN REVIEW
A. The Planning Board voted 6-0 (Hall absent) that the plan is in conformance with the site plan standards of the Land Use Code, subject to the following condition of approval:

1. Per Bayside B7 Design Standards and Guidelines, the applicant shall submit signage plan to be review and approval by the Planning Authority;

2. The brick sidewalk and curb on Hanover Street shall be rebuilt in kind along the frontage of the property per Department of Public Services;

3. That the site plan be revised per David Margdis- Pinco memorandum dated 10.15.2009 and be submitted for review and approval before the issuance of a building permit[as modified in section B below];

4. That the site plan be revised per Tom Errico memorandum dated 10.16.2009 and be submitted for review and approval before theissuance of a building permit[as modified in section B below]

5. That the Landscape Plan be revised per the City Arborist recommendations per memorandum dated 09.14.2009 and be submitted for review and approvalbefore the issuance of a building permit;

6. That the applicant address Captain Keith Gautreau memorandum of 10.23.2009 and be submitted for review and approval before theissuance of a building permit;

7. The applicant shall revise the site planto meet the B7 Design Guideline Standard B-11 for street lighting; and

8. The midblock crosswalk at Alder Street to be reviewed by the Crosswalk Review Committee.

B. The following conditionsof approval failed:

1. That the applicant shall remove five hundred (500) sq ft of the asphalt pavment along the frontage of the building on Alder Street and replace it with landscaping. A landscaping shall be submitted for review and approval by the Planning Authority and City Arborist before the issuance of a building permit(2-4, Lowery, Tevanian, Lewis and Morrissette opposed; Hall absent);

2. That the applicant shall provide a sidewalk connection along Alder Street between the applicant's site and Kennebec Street. In addition, acrosswalk and a handicapped ramp shall also be added at the intersection of Alder Street and Kennebec Street, and be submitted for review and approval by Department of Public Services and the Planning Authority(0-6, Hall absent).

Please note the following provisions and requirements for all site plan and subdivision appeals:

1. The site shall be developed and maintained as depicted in the site plan and the written submission of the applicant. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974,shall require the prior approval of a revised site plan by the Planning Board or the planning authority pursuant to the terms of this article. Any such parcel lawfully altered prior to the enactment date of these revisions shall not be further altered wihut approval as provided herein. Modification or alteration shall mean and include any deviations from the approved site plan including, but not limited to, topography, vegetation and impervious surfaces shown on the site plan. No action, other than an amadment approved by the planning authority or Planning Board, and field changes approved by the Public Services authority as provided herein, by any authority or department shall authorize any such modification or alteration.

2. The above approvals do not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Inspection Division.

3. A performance guarantee covering the site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and seven (7) final sets of plans must be submitted to and approved by the Planning Division and Public Services Dept. prior to the release of a building permit, street opening permit or certificate of occupancy for site plans.

4. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.

5. Final sets of plans shall be submitted digitally to the Planning Division, on a CD or DVD, in AutoCAD format (*,dwg), release AutoCAD 2005 or greater.

6. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

7. Prior to construction, a pre-construction meeting shall be held at the project site with the contractor, development review coordinator, Public Service's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

8. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

Philip DiPierro, Development Review Coordinator, must be notified five (5) working days prior to date required for final site inspection. The Development Review Coordinator can be reached at 874-8632. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Shukria Wiar at (207) 756-8083 or by email at shukriaw@portlandmaine.gov

Sincerely,

David Silk, Chair
Portland Planning Board

ATT B

PORTLAND MAINE

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EXECUTIVE DEPARTMENT
Patricia A. Finnigan, Acting City Manager

June 9, 20111

Senator Justin Alfond
134 Sheridan Street
Portland ME 04101

Project Name: Outdoor Patio, Bowl Portland **Project ID:** 2011-204
Address: 58 Alder Street

Dear Senator Alfond:

You have requested a permit to create a seasonal outdoor patio adjacent to Bayside Bowl located at 58 Alder Street. The proposed project is located in the B-7 zone and requires a Level 1, site alteration permit.

We have reviewed the plans prepared by David Matero of DayMatero Studio. You propose to pave approximately 2,757 sq ft on the site for use as an outdoor seating space and outdoor game area (such as horseshoes and cornhole toss). The total patio area will measure 4,140 sq ft. You also propose to place a metal interlocking fence around the perimeter which will be removed when the patio closes for the season.

Background

The ordinance requires several site improvements in order to build the patio. As you know, the City plans to do extensive construction work adjacent to 58 Alder Street. That infrastructure project will involve extending Somerset Street, as well as the discontinuance and realignment of the section of Kennebec Street adjacent to Bayside Bowl. If the City required you to complete the site improvements as required by the ordinance, the Somerset/Kennebec Streets construction work would undoubtedly necessitate ripping out and redoing much of your site improvement work. In addition, the exact design and engineering requirements for your site improvements are not known at this time and will not be known until the final design and construction of the Somerset/Kennebec Street project is completed.

In recognition of the extensive planned road construction work which will be taking place adjacent to Bayside Bowl, we are taking a practical approach to your request which meets the objectives of the ordinance and will facilitate the coordination of the street improvement work with your business expansion plans including building the patio project.

A. Immediate Requirements

In order to meet the objectives of the ordinance in the near term while the Somerset/Kennebec Street construction project is underway, you will be required to do the preliminary site improvements described below.

1. **Performance Bond.** In recognition of the impending Somerset Street improvements, and in order to coordinate improvements to public ways and sidewalks, you will need to post a performance bond. The bond will guarantee the costs of constructing the sidewalk improvements on Alder Street adjacent to the area of the proposed patio/outdoor seating area. The bond will cover the cost of installing a sidewalk and curbing which meets the City's technical specifications (granite curb and brick sidewalk), based on plans and cost estimate you have provided. The sidewalk will need to be installed within 5 years or upon completion of the Somerset/Kennebec Street construction project.

2. **Fencing and Landscaping.** Given the seasonal nature of the project, the proposed removable fencing is permitted, just as one would use temporary barriers at a sidewalk café to provide separation between pedestrians and the patrons. If the applicant decides in the future to install permanent fencing, the City's technical specifications will apply.

Landscaping, including trees, will be required to be planted as part of the permanent site work. In the meantime, at a minimum, planters with flowers and/or plants are expected to be included as part of the project.

3. **Property survey and property pins.** A property survey is on file; property pins need to be set at all property corners.

C. Future Improvements

Within 5 years of receiving the Level 1, site alteration permit, or upon completion of the Somerset/Kennebec Street construction project, you will be expected to make the permanent site improvements as required in the zone at that time. These include:

1. **Sidewalks.** Install the curb and sidewalk work along Alder Street which was guaranteed through the performance bond. In addition, based upon the actual location and construction of Somerset and Kennebec Streets, you will need to submit curb and sidewalk plans along the newly constructed Somerset Street, which meet the City's technical specifications (Technical Manual 1.8.1).

2. **Drainage.** A drainage plan will need to be submitted which accounts for the changes in grade due to street and sidewalk elevations. (Technical Manual, Section 5).

3. **Landscaping.** The site plan ordinance requires street trees for all development sites (Section 14-526 (b) (2) (e) (iii). You will need to submit a landscaping plan which meets this design standard (Technical Manual Section 4.6.3).

4. Fences. The B-7 Design Standard E-11 requires fences or walls along public streets, trails, alleys, or public spaces to be of high quality, durable and weather resistant materials such as brick, stone, wood and high grade metals.

5. Traffic Impact Analysis. The applicant will be required to provide a traffic impact analysis that reflects the use of the outdoor space to determine if additional parking or traffic improvements are necessary to meet the ordinance.

We appreciate your patience as we considered and worked through the issues presented by your proposal. Due to its timing and the fact that it is located adjacent to the planned major street construction project, we want to ensure the projects are coordinated and neither you nor the City are in the position of wasting time and money by constructing infrastructure which would needlessly be replaced in the future.

Thank you for your commitment to Bayside, creating jobs, and expanding what is proving to be an exciting entertainment destination in Portland.

In order to complete the permit process please contact Barbara Barhydt at 874-8719

Sincerely,

Patricia A. Finnigan
Acting City Manager

cc: Penny St. Louis, Director, Planning & Urban Development Dept.
Barbara Barhydt, Development Review Manager

ATTC

Planning and Urban Development Department
Planning Division

Subject:	B7 Design Review – Bayside Bowl Addition
Written by:	Caitlin Cameron, Urban Designer
Date of Review:	Monday, April 13, 2015

On Monday, April 13, a design review according to the *City of Portland Design Manual* Standards was performed for the proposed redevelopment at 58 Alder Street. The review was performed by Caitlin Cameron, Urban Designer, Rick Knowland, Senior Planner, and Alex Jaegerman, Planning Division Director, all within the Planning Division of the Department of Planning & Urban Development. The project was reviewed against the *B-7 Mixed Use Urban District Zone Design Principles & Standards* (Appendix 4 of the Design Manual).

Design Review Criteria:
The project must meet all *B-7 Design Principles & Standards*.

Findings of the Design Review:
The proposed design **does not pass** all of the criteria of the *B7 Design Guidelines* – please refer to comments below regarding Standards not currently being met. The applicant may revise the design according to the review comments and resubmit.

General Comments:

- Please provide drawings showing all of existing building.
- Which building entrances will be operable to the public (new and existing)?
- What is the proposed pedestrian circulation around the site?

Principle A: Urban Design

A-5: Pedestrian Environment – *Development on public streets or public spaces shall . . . enhance the pedestrian environment through the use of elements at the first floor such as fully functioning entries oriented to the street; active windows and storefronts; awnings and weather protection; appropriately scaled streetlights; trees and landscaping; . . .*

- **See comments below regarding the orientation of the primary building entrance and windows.**

A-7: Building Orientation – *The primary facades and entrances of buildings shall be oriented to streets, major pedestrian routes, or open spaces in order enhance the pedestrian-oriented environment. The primary facades and entrances of buildings shall not be oriented toward parking lots.*

- **The primary entrance should be revised to have a visible and accessible orientation to Alder Street. Staff suggests adding a double door to the vestibule facing Alder Street**

and altering the canopy design to extend over this part of the entry. Lighting and Signage should also be provided on this East (facing Alder) face of the stair tower/vestibule.

Principle B: Access and Circulation

B-6: Multi-modality – *New development shall create a functional and safe environment that provides a continuous travel corridor for pedestrians and bicycles which serves the same major destinations as automobiles.*

- **Please provide a direct pedestrian path from Kennebec Street to the primary building entrance.**

B-9: Streetscape Design – *New development in the public realm shall utilize the City's streetscape standards for Bayside which include specifications for sidewalks, streetlights, street furniture, fencing and walls, landscaping and signage in order to create a unified image of the neighborhood.*

- **Please provide a direct pedestrian path from Kennebec Street to the primary building entrance.**

Principle C: Parking, Loading and Service Areas

C-7: Bike Racks – *Bike racks shall be provided in a convenient location, proximate to the entry or entries of the building(s), either immediately adjacent to or no further than the associated motor vehicle parking, and shall be visible from the street or provided with prominent directional signage visible from the street as detailed in the Technical and Design Standards and Guidelines Manual and in compliance with the City's Off-street bicycle parking standards*

- **Bike racks appear to be on private property. If any bike racks are proposed in the public right-of-way, they must conform to the Technical Manual in placement as well as type specification (Dero).**
- **Make sure bike racks correspond to any new building entrance arrangement, including for staff.**

C-8: Service, Utility and Mechanical Infrastructure – *Areas for outdoor storage and trash collection or compaction shall not be visible from public rights-of-way, or located within 20 feet of any public street, sidewalk, or open space.*

- **A waiver may be required about the placement of the trash storage.**
- **More detail about the waste management is requested.**
- **Materials for screening trash storage should be of the same family as the rest of the building materials.**

Principle E: Architectural Design

E-6: Entrances – *Buildings along public streets shall have the primary entrances oriented to the street. Primary entrances shall not be oriented to a parking lot or structure. . . . Commercial and mixed use buildings shall be permeable and accessible on all sides from the public way, unless the building program precludes such design.*

- **The primary entrance should be revised to have a visible and accessible orientation to Alder Street. Staff suggests adding a double door to the vestibule facing Alder Street and altering the canopy design to extend over this part of the entry. Lighting and Signage should also be provided on this East (facing Alder) face of the stair tower/vestibule.**

E-7: Windows – *Windows shall be located on all facades visible from public rights of way. . . . The first floor transparency (minimum visible transmittance (VT) of .7 or greater) along public streets and the trail shall be equal to at least 50% of the wall area between the height of 2 and 9 feet.*

- **Consider adding more fenestration to the Dining/Lounge along Hannover Street area to increase the visibility of the active uses on the street.**

E-12: Materials – *Materials such as thing gauge metal panels . . . shall not be used on facades visible from public rights-of-way.*

- **Please provide more information about the gauge of the metal siding.**

E-13: Transparency – *Windows that have daylighting application on all levels of the façade shall use glass with a visible transmittance (VT) value of .7 or greater, which looks clear. . . . Opaque, heavily tinted or reflective glass shall not be used at the pedestrian level unless it can be demonstrated that the building program precludes the use of transparent glass.*

- **Please provide more information about the transparency of the windows.**

E-16: Signage – *Each building may have one sign per storefront tenant at the pedestrian level, one sign board at each entrance with a tenant roster, and a street number sign at entrances as necessary.*

- **Add signage to the East-facing (Alder-facing) side of the primary building entry stair tower/vestibule to provide a strong presence and orientation to the street.**

ATT D

Rick Knowland - Bayside Bowl Expansion - Preliminary Traffic Comments

From: Tom Errico <thomas.errico@tylin.com>
To: RWK@portlandmaine.gov
Date: 4/9/2015 2:39 PM
Subject: Bayside Bowl Expansion - Preliminary Traffic Comments
CC: JST@portlandmaine.gov; JBartlett@portlandmaine.gov; DMP@portlandmaine.go...

Hi Rick – I have reviewed the application materials for the project and offer the following preliminary traffic comments.

- The applicant has requested a waiver for providing a construction management plan at this time. It would be my suggestion that the applicant provide some general guiding principles as it relates to how construction will impact existing parking and traffic with the intent of providing a more detailed construction plan as a condition of approval.

- Based upon discussions with DPS staff it is my understanding that a portion of the proposed parking lot could be paved or implemented in its final form without disturbance from the Somerset Street Extension project. Accordingly, the applicant should investigate construction of a portion of the parking lot in final form.

- I have reviewed the traffic study prepared by Gorrill-Palmer Consulting Engineers, Inc. and do not support the methods used in estimating trip generation. Approval of the assumptions will require supporting documentation. Specific concerns include:
  - 30% reduction in restaurant trips associated with shared use.
  - Use of ITE Land Use Code439 for a Bowling Alley when only one site was sampled for estimating traffic.
  - I would expect overlap for use of the Squash Court time slots and therefore traffic and parking generation needs to account for this.
  - The study assumed an occupancy of two per vehicle.
  - 15% will utilize transit.
  - A 20% reduction in trip levels based upon assumptions that the site will not be fully utilized.

  The traffic study concluded that taking into account the above assumptions, the project would generate 99 trips during the peak hour and therefore would not trigger the threshold of 100 trips needed to file a Traffic Movement Permit. In addition to above concerns, the project should also include the trips associated with the initial Bayside Bowl project. Based upon these factors it is my opinion that the project requires a Traffic Movement Permit. I would note that based upon the capacity analysis conducted by the applicant I do not expect the project to have significant traffic impacts in the area.

- Additional information is requested in quantifying the parking demand for the project. I would suggest the applicant survey existing users as part of understanding existing parking demand and use that information to predict future supply needs. If the applicant conducts such a survey, methods should be coordinated with City staff.

- The applicant has requested a waiver from City standards for parking lot aisle width based upon the need for added buffer space. I would prefer that the City standard (24 feet) be met, unless Jeff Tarling determines the added buffer width is critically important.

- A detectible warning panel shall be installed on the Hanover Street sidewalk ramp at Lancaster Street.

- It is suggested that on-street parking be provided on the east side of Hanover Street along the property frontage. This action will require changes to the City's Traffic Schedule and will need to be approved by the TS&E Committee and City Council. The applicant shall be responsible for provide materials in support of the TS&E and City Council packets.

- Upon determination of the final parking supply number, the corresponding bicycle parking spaces should be provided on-site per City Standards.

- Projects in the Bayside area have been required to make monetary contributions towards implementation of the Marginal Way Master Plan and the Somerset Street Extension Project. I will assess this requirement, in coordination with DPS and Planning staff, following approval of final trip generation and assignment information.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director
TY LIN INTERNATIONAL
12 Northbrook Drive
Falmouth, ME 04105
207.781.4721 (main)
207.347.4354 (direct)
207.400.0719 (mobile)
207.781.4753 (fax)
thomas.errico@tylin.com
Visit us online at www.tylin.com
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T 207.774.2112
F 207.774.6635

ATT E

MEMORANDUM

TO: Rick Knowland, Planner
FROM: David Senus, P.E.
DATE: April 7, 2015
RE: Bayside Bowl, Level III Site Plan Application

Woodard & Curran has reviewed the Level III Site Plan Application for the proposed expansion of the Bayside Bowl facility located at 58 Alder Street in Portland, Maine. The project involves a three level addition with a 16,217 square-foot building footprint.

Documents Reviewed by Woodard & Curran

- Level III Site Plan Application and attachments, dated March 23, 2015, prepared by Mitchell & Associates, on behalf of BoPo, LLC.
- Existing Conditions Plan, dated March 20, 2015, prepared by Sebago Technics.
- Engineering Plans, Sheets 1-6, dated March 23, 2015, prepared by Mitchell & Associates, on behalf of BoPo, LLC.

Comments

1) In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:
   a) Basic Standard: The Applicant will need to provide plans, notes, and details to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500.
   b) General Standard: The project will result in a net decrease in impervious area. As such, the project is not required to include any specific stormwater management features for stormwater quality control. The Applicant has proposed a grassed, underdrained stone filtration swale to provide some level of water quality treatment for runoff from the site. This approach to stormwater management on the site is acceptable to the City; however, we encourage the Applicant to review the City's Stormwater Service Charge Credit Manual (available online) to evaluate whether they would consider incorporating treatment measures which may qualify for a future Stormwater Service Charge credit.
   c) Flooding Standard: The project will result in a net decrease in impervious area. As such, the project is not required to include any specific stormwater management features to control the rate of stormwater runoff from the site.
2) The project will disturb more than one acre; the Applicant should note that a Maine Construction General Permit will be required from the MaineDEP and that copies of all permits should be forwarded to the City upon receipt.
3) The Applicant has noted that ability to serve letters have been requested from the Portland Water District and the City of Portland; these letters should be forwarded upon receipt.
4) The Applicant should provide the following details:
   a) Concrete Dumpster Pad; and
   b) Pipe Installation Trench Cross-Section
5) Final plans must be stamped by a professional engineer (Section 14-527, sub-section (f) of the City of Portland Land Use Ordinance).
6) The field inlet and catch basin details depict a flat frame and grate flush with the adjacent grade. We recommend that the Applicant consider installing domed grates (beehive grates) on field inlets and catch basins located in landscape / lawn areas.

ATT F

MEMORANDUM

To: FILE

From: Richard Knowland

Subject: Application ID: 2015-049

Date: 4/3/2015

Comments Submitted by: Keith Gautreau/Fire on 4/1/2015

Building
The new building shall not affect the egress or required Fire Department access for the neighboring building.
Hydrants
2009 NFPA 1 18.3 Water Supplies and Fire Hydrants
-Fire Department Connections shall not be located where large diameter hose may block egress.

1.Hydrants

1.)2009 NFPA 1 18.3 Water Supplies and Fire Hydrants
2.)Fire Department Connections shall not be located where large diameter hose may block egress.

2.Fire Vehicle Access

1.)Largest Fire Department Vehicle must be able to navigate through the parking lot to access building.
2.)Fire Department Access shall have an unobstructed vertical clearance of not less than 13 ft 6 in.
3.)Vertical clearance shall be permitted to be reduced, provided such reduction does not impair access by fire apparatus, and approved signs are installed and maintained indicating the established vertical clearance when approved.

Construction Management Plan
Streets must maintain a 20' width for Fire Department access at all times.
Fire Hydrants shall not be blocked or enclosed by fencing. A 3' foot clearance must be kept at all times around the fire hydrant.
If gates are locked, a Portland Fire Department Knox padlock must be purchased by the applicant to allow access for the Fire Department.
The Construction Company' emergency contact information shall be posted on the property in case of an after hours emergency.
All construction shall comply with 2009 NFPA 1 Chapter 16 Safeguards During Building Construction, Alteration, and Demolition Operations.
Any cutting and welding done will require a Hot Work Permit from Fire Department.

Comments Submitted by: Keith Gautreau/Fire on 4/1/2015

It's look as though access will be good, at least two sides possibly three depending on Lancaster.

Fire Comments:

All construction and installation shall comply with 2009 NFPA 1, 2009 NFPA 101.

All construction and installation shall comply with City of Portland Fire Department Building Regulations.
http://www.portlandmaine.gov/fireprevention/fdrulesandregulations.pdf

All construction and installation shall comply with City Code Chapter 10.
http://www.portlandmaine.gov/citycode/chapter010.pdf

Street addresses shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer. Contact Michelle Sweeney at 874-8682 for further information.

2009 NFPA 101, Life Safety Code
101:12.1.7.3 Life Safety Evaluation

Att. 7

TECHNICAL CAPABILITY

The following firms and individuals have provided technical information contained in this application:

Mitchell & Associates — Landscape Architects and Site Planners
70 Center Street
Portland, Maine 04101
Telephone: (207) 774-4427
Contact: Robert Metcalf, RLA, Maine #1815
Sashie Misner, RLA, Maine #3657

Ryan Senatore, Architecture — Architects
565 Congress Street, Suite 304
Portland, Maine 04101
Telephone: (207) 650-6414
Contact: Ryan Senatore, Maine

Ransom Consulting Engineers — Civil Engineers
400 Commercial Street
Portland, Maine 04101
Telephone: (207) 772-2891
Contacts: Stephen Bradstreet, PE, Maine

Sebago Technics — Land Surveyors
75 John Roberts Road, #1A
South Portland, Maine 04106
Telephone: (207) 200-2100
Contact: Bill Shippen

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements:

CMP Handbook of Standard Requirements
(http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf)

If you have any questions, please contact me.

Regards,

Jamie Cough

Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

IBERDROLA USA

3/2/2015

Sashie Misner
Mitchell & Associates
70 Center Street
Portland, ME 04101
Sent via email to: smisher@mithcellassociate.biz

RE: Ability to Serve Letter for Bayside Bowl Expansion-58 Alder Street in Portland

Dear Ms. Misner:

CMP has the ability to serve the proposed project located at 58 Alder Street in Portland, Maine, in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Standards Handbook. If you have any questions on the process, or need help in completion of the documents, please feel free to contact me.

New Service Milestones

- Call 1-800-565-3181 to establish a new account and an SAP work order.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections if you have them.
- Submit Load information. Please complete this CMP spreadsheet using load information
- Submit the easement information worksheet. Please complete this CMP form and either email or fax back to us.
- Preliminary meetings with CMP to determine the details of job
- Field planner design appointment to cost out job and develop CMP Invoice.
- Submit invoice for payment.
- Easements signed and payment received.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer delivery, potential substation upgrades, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

www.cmpco.com

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Unitil
natural gas

March 17, 2015

Sashie Misner
Mitchell & Associates
The Staples School
70 Center Street
Portland, ME 04101

Re: Bayside Bowl Expansion, 58 Alder Street, Portland, ME

Dear Ms. Misner:

Thank you for your interest in using natural gas for the above referenced project.

Unitil has natural gas in the vicinity of this project to provide additional gas service. The evaluation to complete the design, costs and determining what the customer contribution may be, if any, can be completed once Unitil receives the completed design and load information. Unitil welcomes the opportunity for further discussions regarding this project.

If you have any further questions or require additional information, please contact me directly at (207) 541-2505 or at fowler@unitil.com.

Sincerely,

Kelly Fowler

Kelly Fowler
Sr. Business Development Representative
Unitil Corporation
(o) 207-541-2505 (f) 207-541-2565

PUBLIC UTILITIES

The existing Bayside Bowl building is served by all needed utilities. The owner plans to extend all services internally to serve the addition.

Water

The existing building is presently served by a 2 inch domestic and a 6 inch sprinkler service from a water main in Alder Street. We have requested an ability to service letter from Portland Water District.

Sanitary Sewer

Sanitary sewer for the existing building will be expanded internally to serve the addition. A wastewater capacity letter has been filed with the city and will be provided upon receipt. To address the required grease containment, the applicant will install a "Great Basin" in the basement area to meet this requirement per discussions with Benjamin Pearson.

Natural Gas

Natural gas serves the building from an existing service line in Alder Street. See the attached ability to serve letter from Unitil.

Electric

Electric service presently is served by overhead from Alder Street. See the attached letter from CMP stating their ability to service this proposed project.

Telephone and Cable TV

Telephone and cable TV presently is served by overhead from Alder Street

Att. 5

EXISTING SOIL CONDITIONS

Soils on the site are representative of the urban environment.

Test borings performed by Ransom Consulting Engineers in March 2015 revealed fill material, marine silt/clay, marine sand glacial till, and bedrock. An Environmental Site Assessment I and II, including VRAP Plan are in the process of being completed. The soils report and ESA report will be submitted upon completion.

Bayside Bowl

Att. 4

TAX MAP

Please see attached Assessor's Plan noting the project site, Chart 34, Block H, Lots 1-5.

PROJECT DATA

Owner - Applicant	BoPo L.L.C. Justin Alfond; Manager 58 Alder Street Portland, Maine 04101
Existing Zone	B7 –Urban Commercial Zone/ Mixed Development Zone
Tax Map & Lot Number	Map 34, Block H, Lots 1-5
Land Area	55,290 SF, or 1.27 Acres
Existing Land Use	Bowling alley, gravel lot & City sand and salt sheds
Proposed Land Use	Bowling alley addition with squash courts
Water	Extending from existing building
Sanitary Sewer	Extending from existing building
Natural Gas	Extending from existing building
Storm Drainage	30" in storm drain in Alder Street
Electric	Extending from existing building
Telephone & Cable TV	Extending from existing building

Parking for the facility is currently within the gravel lot along Kennebec Street and a small paved lot on Hanover Street. The paved lot will be replaced by the building addition. The gravel area will be maintained as a gravel parking lot until such time as the proposed Somerset Street Extension has been completed.

Stormwater Management

The current site is 100 percent impervious. The site is relatively flat and existing runoff is by sheet flow across the gravel lot and along the Alder Street sidewalk. Roof runoff from the existing building is directed to the sidewalk along Alder Street and to the parking lot side of the building. This was previously approved by the city for Bayside Bowl. The existing and proposed building cover, including site improvements will cover approximately 95 percent of the property.

Based upon discussions with city staff, the intent is to continue to sheet flow the parking area toward Kennebec Street where a combination of filter strip and field inlet improvements will collect runoff and be directed to an existing catch basin in Lancaster Street. Roof runoff from the addition will be collected internally and directed via an 8 inch line to the catch basin referenced above. We should note that proposed improvements for the Somerset Street Extension may impact final Stormwater management improvements and the applicant will work with city staff to address any modifications as may be necessary. More detail on the stormwater system can be found in the included stormwater management plan.

PROJECT DESCRIPTION

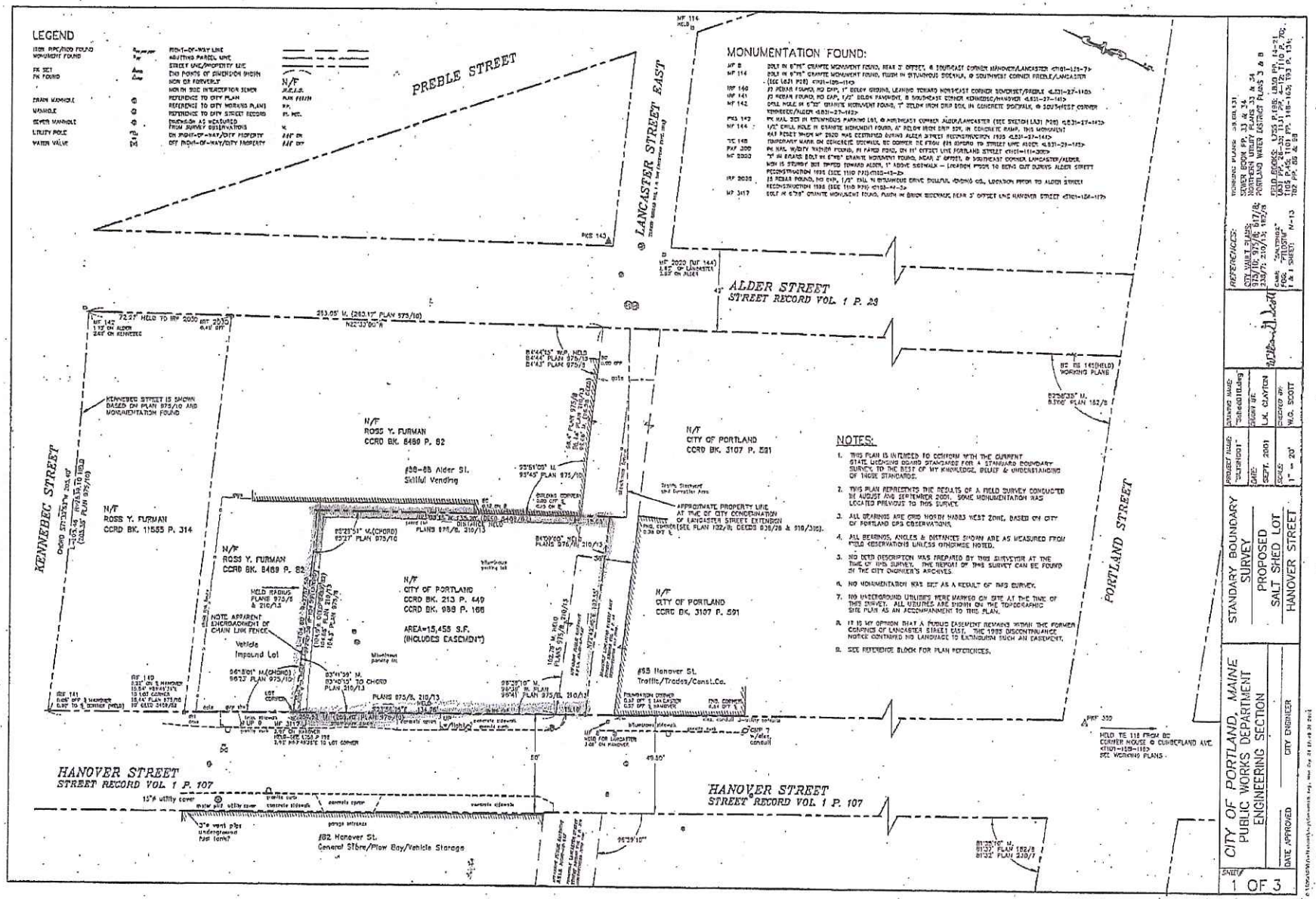
With the purchase of the adjacent property at 71 Hanover Street, Bayside Bowl (BoPo; LLC) plans to construct a two-story (45' height) addition to the existing bowling alley. The addition would expand the bowling facilities and provide a second level floor area to house squash courts. In June, Bayside Bowl will celebrate five years in business. Their business has grown steadily to where an expansion is necessary to accommodate customers. Customers include multiple leagues, corporate business and walk-ins. The addition will add necessary facilities to serve the current demand. The added service amenities including dining/lounge area and roof deck will entice customers to the bayside business during the slower summer months.

Portland Community Squash, a partner in this venture, incorporated as a 501(c)(3) organization in 2013, and has been teaching squash to students from King, Waynflete, and Casco Bay HS on two converted racquetball courts at the Portland YMCA. With the squash courts at Bayside Bowl, Portland Community Squash plans to pioneer 'community squash' – bringing together adult leagues, competitive middle and high school youth squash programs, and a robust urban squash program, all under one roof. The organization anticipates the new facility will serve as a second home for students of the bayside neighborhood, as well as a place to exercise and give back to members that live and work on the peninsula.

Bayside Bowl, located at 58 Alder Street, proposes to construct a two level building addition (45' height) on the adjacent 71 Hanover Street lot. Bayside Bowl has recently contracted with the city to purchase the parcel and currently owns the remaining lots within the block. The gross square footage of the addition is 29,724 SF. The first floor expansion (16,217 SF) includes the addition of eight ten pin bowling lanes, dining and lounge area, function room, bar and stage, and related house facilities. The second (13,507 SF) floor level will be run by Portland Community Squash and include eight singles courts, one doubles court, a small gym, classrooms, and both adult and child locker rooms. A partially covered, roof level deck (3,127 SF) will provide outdoor access with views to the Back Cove and the surrounding neighborhood.

The main entrance will remain on Alder Street and a new entrance will be located along the north western side of the addition facing Kennebec Street. Site improvements include a new brick sidewalk along Hanover Street and an extend section along Alder Street, site landscaping and street tree plantings along Hanover Street and landscaping along the face of the building fronting Kennebec Street. New site lighting will be provided in the parking area at new points of building egress. An enclosed trash area will be located along former Lancaster Street side of the addition.

EXHIBIT
Exhibit B



Reference is made to a plan titled "Standard Boundary Survey – Proposed Salt Shed Lot – Hanover Street", dated September 2001, as revised October 14, 2009, by William G. Scott, Professional Land Surveyor, and on file as Plan 900/17/001rev., at the City of Portland, Public Services Department, Engineering Archives.

EXHIBIT A

A certain lot or parcel of land situated in the City of Portland, County of Cumberland, and State of Maine, and more particularly bounded and described as follows:

BEGINNING at the intersection of the easterly line of Hanover Street with the northerly line of Lancaster Street, said Lancaster Street being discontinued between Hanover Street and Alder Street by Order No. 253 of the Portland City Council on May 1, 1995;

THENCE N 23° 56' 25" W 134.76 feet, more or less, along the easterly line of Hanover Street to a point at land now or formerly of BOPO, LLC, as described in a deed recorded at the Cumberland County Registry of Deeds in Deed Book 28797, Page 222;

THENCE running easterly along said land of BOPO, LLC 104.60 feet, more or less, along a non-tangent curve to the left with a radius of 2757.50 feet, a chord bearing and distance of N 72° 21' 36" E 104.59 feet, more or less, to a point;

THENCE S 23° 08' 15" E 135.20 feet, more or less, along said land of BOPO, LLC to a point along said northerly line of said Lancaster Street, as discontinued;

THENCE S 23° 08' 15" E 15.08 feet, more or less, through said Lancaster Street, as discontinued, to a point along the centerline of said Lancaster Street;

THENCE S 72° 42' 45" W 102.55 feet, more or less, along said centerline of Lancaster Street, as discontinued, to a point along said easterly line of Hanover Street;

THENCE N 23° 56' 25" W 15.10 feet, more or less, along said easterly line of Hanover Street to the **POINT OF BEGINNING**.

Said lot or parcel of land being 15,455 square feet, more or less, and includes the northerly portion of said Lancaster Street as discontinued.

Bearings are based on the Maine State Coordinates, West Zone, NAD 1983, HARN, Grid North, and field surveys conducted by the City of Portland, Department of Public Services, Engineering Division.

Said lot or parcel of land is subject to a public easement reserved by the City of Portland in said discontinued portion of Lancaster Street for all purposes, including, without limitation, the maintenance, repair, or replacement of the existing 44 inch diameter brick sewer known as the North Side Interceptor Sewer.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals on the day and year first written above.

CITY OF PORTLAND

WITNESS

Sheila Hill-Christian
Its Acting City Manager

BOPO, LLC

WITNESS

Justin Alfond
Its Manager

Approved as to Form:

Corporation Counsel's Office

FOR BUYER:	BOPO LLC Attention: Justin Alfond 58 Alder Street Portland, Maine 04101
With a copy to:	Gary D. Vogel, Esq. Drummond Woodsum 84 Marginal Way, Suite 600 Portland, ME 04101-2480

20. **SIGNATURES; MULTIPLE COUNTERPARTS.** This Agreement may be executed in any number of counterparts and by different parties in separate counterparts. Each counterpart when so executed shall be deemed to be an original and all of which together shall constitute one and the same agreement. A signature in a faxed, pdf or other reproduced or electronic document shall be considered the equivalent of an original signature.

21. **BROKERS.** Seller and Buyer each represents and warrants that neither has dealt with a real estate broker in connection with this transaction. Buyer agrees to indemnify and hold harmless Seller from any claims made by any broker should Buyer's representation in this paragraph be false. Subject to the limitations of liability set forth in the Maine Tort Claims Act, Seller agrees to indemnify and hold harmless Buyer from any claims made by any broker should Seller's representation in this paragraph be false. The foregoing indemnities shall include all legal fees and costs incurred in defense against any such claim, and shall survive closing.

13. **CLOSING**. Time is of the essence in the performance of this agreement. The closing shall be held at City Hall at a time agreeable to the parties on or before seventy-five (75) days after the date first set forth above.

14. **ENTIRE AGREEMENT.** This Agreement represents the entire and complete Agreement and understanding between the parties and supersedes any prior agreement or understanding, written or oral, between the parties with respect to the acquisition or exchange of the Property hereunder. This Agreement cannot be amended except by written instrument executed by SELLER and BUYER.

15. **HEADINGS AND CAPTIONS.** The headings and captions appearing herein are for the convenience of reference only and shall not in any way affect the substantive provisions hereof.

16. **BINDING EFFECT**. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, administrators, successors and assigns.

17. **TIME**. The SELLER and BUYER each confirm and agree that each of the time periods set forth herein are essential provisions of the terms of this Agreement.

18. **GOVERNING LAW**. This Agreement shall be construed in all respects in accordance with, and governed by, the laws of the State of Maine. All parties hereto hereby consent to the exclusive jurisdiction of the Superior Court for the County of Cumberland in the State of Maine, for all actions, proceedings and litigation arising from or relating directly or indirectly to this Agreement or any of the obligations hereunder, and any dispute not otherwise resolved as provided herein shall be litigated solely in said Court. 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.

19. **NOTICE**. 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, certified, return receipt requested, addressed to the recipient at the addresses set forth below. Either party may change addresses for purposes of this paragraph by giving the other party notice of the new address in the manner described herein.

FOR THE SELLER:	City of Portland ATTN: CITY MANAGER 389 Congress Street Portland, ME 04101
With a copy to:	The Office of the Corporation Counsel at the same address.

SELLER defaults under this Agreement, and if BUYER is not then in default hereunder, BUYER shall have the right to pursue specific performance, but at all times may elect in substitution therefor, as its sole remedy, the right to a return of its deposit, together with reimbursement, in an amount not to exceed Fifteen Thousand Dollars ($15,000.00) of reasonable, documented, out-of-pocket costs or expenses incurred by BUYER in connection with its purchase of the Premises, including fees of inspectors, attorneys, or other professionals engaged by BUYER in connection with its purchase of the Premises.

9. **RISK OF LOSS.** The risk of loss or damage to the Premises by fire or otherwise, until transfer of title hereunder, is assumed by the SELLER. The Premises is to be delivered in substantially the same condition as of the date of this Agreement unless otherwise stated. In the event SELLER is not able to deliver the Premises as stated, BUYER may terminate this Agreement and receive a refund of the Deposit.

10. **PROPERTY SOLD "AS IS, WHERE IS."** BUYER acknowledges that BUYER has had an opportunity to inspect the Premises, and to hire professionals to do so, and that Premises will be sold "as is, where is" and "with all faults." SELLER, and its agents, make no representations or warranties with respect to the accuracy of any statement as to boundaries or acreage, or as to any other matters contained in any description of the Premises, or as to the fitness of the Premises for a particular purpose, or as to development rights, merchantability, habitability, or as to any other matter, including without limitation, land use, zoning and subdivision issues or the environmental, mechanical, or structural condition of the Premises. Acceptance by BUYER of the Deed at closing and payment of the purchase price shall be deemed to be full performance and discharge by the SELLER of every agreement and obligation contained herein.

11. **ENVIRONMENTAL INDEMNIFICATION**. BUYER covenants and agrees, at BUYER's sole cost and expense, to indemnify, defend, and hold SELLER harmless from and against any and all claims, damages, losses, liabilities, obligations, settlement payments, penalties, assessments, citations, directives, claims, litigation, demands, defenses, judgments, costs, or expenses of any kind, including, without limitation, reasonable attorneys', consultants', and experts' fees incurred in investigating, defending, settling, or prosecuting any claim, litigation or proceeding, that may at any time be imposed upon, incurred by or asserted or awarded against SELLER and relating directly or indirectly to the violation of or compliance with any federal, state, or local environmental laws, rules, or regulations governing the release, handling or storage of hazardous wastes or hazardous materials and affecting all or any portion of the Premises, including without limitation the environmental matters identified in the Tewhey Report identified in and attached to the RFP.

12. **RIGHTS OF SELLER TO REPURCHASE PROPERTY**. If development of the Premises in substantially the form set forth in the Proposal, including the securing of a certificate of occupancy, is not complete within 18 months after the closing, the Seller shall have the right, but not the obligation, to repurchase the Premises at the Purchase Price.

SELLER shall be allowed to store the Retained Property on the Premises and continue to operate its sand and salt operations from the Premises until no later than June 15, 2015, provided, however, that SELLER shall endeavor to remove the Retained Property at the earliest date feasible prior to June 15, 2015. Such license agreement shall provide that SELLER shall be entitled to store the Retained Property and continue to operate its sand and sale operations from the Premises until the earlier of June 15, 2015, or the date that it removes the Retained Property from the Premises. Such agreement shall also include the following indemnification provision: "SELLER subject to and limited by the defenses, immunities and limitations of liability available to SELLER under the Maine Tort Claims Act, 14 M.R.S. § 8101 et seq., shall indemnify and hold Buyer harmless from any claims, damages, demands or liabilities resulting from SELLER's exercise of its rights under this license agreement, including without limitation, claims for personal injury, property damage and for the cost of removal including mechanic's lien claims, provided that such claims, damages, demands, or liabilities are caused by any negligent act or omission of the SELLER or its agents, employees or contractors. The license agreement shall also provide that SELLER shall cause its contractors or employees removing the Retained Property to deliver to Buyer, no later than 10 days after the completion of the removal of the Retained Property, a waiver of any and all mechanic's liens associated with the cost of the removal of the Retained Property.

6. **INSPECTIONS**. At reasonable times upon reasonable prior notice prior to Closing, and with SELLER's consent, BUYER, its agents, contractors and any prospective lender or investor of BUYER shall have the right to enter the Premises and perform, at BUYER's expense, any and all inspections, tests, surveys or other due diligence inquiries with respect to the Premises as BUYER deems necessary or appropriate. BUYER agrees to return the Premises as nearly as possible to its original condition after all of such tests and inspections. SELLER shall cooperate with BUYER in such inspections. BUYER shall complete any such inspections within 60 days of the date first set forth above (the "Inspection Period"). In the event that an inspection reveals defects or conditions which are unacceptable to BUYER, BUYER may, prior to the end of the Inspection Period, terminate this Agreement and receive back the Deposit.

7. **REAL ESTATE TAXES, PRORATIONS AND TRANSFER TAX.** BUYER shall be liable for all real estate taxes beginning as of the start of fiscal year 2016 and continuing thereafter. Because the Property is currently owned by the City of Portland, which is exempt from real estate taxes, no taxes were assessed or will be due for any portion of fiscal year 2015 and no taxes will be prorated at the closing. Any utilities for the Property shall be prorated as of the closing. The Maine real estate transfer tax shall be paid for by Buyer in accordance with 36 M.R.S.A. § 4641-A. SELLER is exempt from paying the transfer tax pursuant to 36 M.R.S.A. § 4641-C. The recording fee for the deed of conveyance and any expenses relating to BUYER's financing or closing shall be paid for by BUYER.

8. **DEFAULT AND REMEDIES**. In the event that BUYER defaults hereunder for a reason other than the default of the SELLER, SELLER shall retain the deposit, it being understood, however, the SELLER's acceptance thereof shall not constitute a waiver of any other legal or equitable remedy available to SELLER. In the event

document and its attachments shall be construed to be supplemental to one another to the extent possible.

2. **SALE.** SELLER agrees to sell the Premises to BUYER, and BUYER agrees to buy the Premises in accordance with the terms and conditions set forth in this Agreement. This Agreement is for the sale of land only and does not include the structures, concrete block walls, or any other personal property on the Premises (the "Retained Property"), to which the SELLER shall retain title, and which Seller shall fully remove at SELLER'S sole cost, risk and expense as set forth in Section 5 below.

3. **CONSIDERATION**. The consideration for the Premises shall be Three Hundred Forty Thousand Eighteen Dollars ($340,018.00) (the "Purchase Price") payable as follows:

   a. The SELLER acknowledges receipt of BUYER's deposit in the amount of Thirty-Four Thousand One Dollars and Eighty Cents ($34,001.80) (the "Deposit") paid to it as of the date of this Agreement; and

   b. The BUYER shall pay to the SELLER at closing the remaining Three Hundred Six Thousand Sixteen Dollars and Twenty Cents ($306,016.20) in immediately available funds.

4. **TITLE.** SELLER shall convey the Premises to BUYER at the closing in fee simple with good and marketable and insurable title by a quitclaim deed without covenant acceptable to BUYER. Buyer acknowledges that the deed shall contain a restriction stating that in the event that the Premises or any portion thereof shall be exempt from real and personal property taxes, by transfer, conversion, or otherwise, then the then-owner of the exempt portion shall make annual payments to the SELLER in lieu of taxes in the amount equal to the amount of property taxes that would have been assessed on the exempt portion of the real and personal property situated on the Premises had such property remained taxable. Such restriction shall also confirm that BUYER and its successors and assigns shall possess and be vested with all rights and privileges as to abatement and appeal of valuations, rates, and the like as are accorded owners of real and personal property in Maine. If SELLER is unable to convey title to the Premises in accordance with the provisions of this paragraph, then SELLER shall have a reasonable time period, not to exceed 60 days from the time SELLER receives written notice of a defect, unless otherwise agreed to by both parties, during which it shall make a good faith effort to remedy the defect, after which time, if such defect is not corrected so that there is marketable and insurable title, BUYER may within 2 days thereafter, at BUYER's option, withdraw the Deposit, and neither party shall have any further obligation hereunder. BUYER may, at BUYER's option elect to close notwithstanding any such defects that may exist.

5. **POSSESSION.** Full possession of the Premises will be delivered to Buyer at the transfer of title, free and clear of all tenancies or occupancies by any person or entity. Notwithstanding the previous sentence, in the event that the SELLER is unable to fully remove the Retained Property before the closing date, BUYER and SELLER shall in good faith negotiate and execute a license agreement pursuant to which

PURCHASE AND SALE AGREEMENT

THIS AGREEMENT for the purchase and sale of real estate made this 17th day of March, 2015 by and between the CITY OF PORTLAND, a body politic and corporate located in Cumberland County, Maine, (hereinafter referred to as "SELLER"), and BOPO, LLC, a Maine limited liability company with a mailing address of 58 Alder Street, Portland, Maine, (hereinafter referred to as "BUYER").

RECITALS

WHEREAS, the SELLER is the owner of certain land located 71 Hanover Street in Portland, Maine, as more specifically described in Exhibit A, attached hereto and incorporated herein (the "Premises"), and as generally depicted in the plan attached as Exhibit B and incorporated herein; and

WHEREAS, the SELLER desires to sell the Premises and has published a certain "Request for Proposals For the Sale and Reuse of Property Located at 71 Hanover Street, RFP #5215" (the "RFP"), a copy of which is attached hereto as Exhibit C and incorporated herein, and the provisions of which shall survive closing; and

WHEREAS, the BUYER has submitted a proposal in response to the RFP (the "Proposal"), a copy of which is attached hereto as Exhibit D and incorporated herein; and

WHEREAS, after reviewing all proposals submitted in response to the RFP, the SELLER has selected the BUYER as the successful bidder; and

WHEREAS, BUYER desires to purchase and develop the Premises in accordance with the terms of the Proposal, and the SELLER desires to sell the Premises to the BUYER so that the BUYER may do so.

NOW THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties, intending to be legally bound, hereby agree as follows:

1. **RECITALS INCORPORATED BY REFERENCE**. The recitals set forth above are hereby incorporated herein by reference and made a part of this agreement. The restatement in this document of any term of the RFP or Proposal shall not be deemed to waive any term not so restated. If any disagreement is found between the RFP or the Proposal and this document, then this document shall govern; and the RFP shall govern over the Proposal, to the extent they disagree; provided, however, that this

EXHIBIT A

A certain lot or parcel of vacant land situated on the Southerly side of Kennebec Street in the City of Portland, County of Cumberland, and State of Maine being bounded and described as follows:

Beginning at a rod on the Westerly side of Alder Street marking the Northeasterly corner of other land conveyed to Ross Y. Furman by deed recorded in the Cumberland County Registry of Deeds in book 8489 Page 82, said rod being located 190.90' from the intersection of the Northerly line of Lancaster Street and said Westerly line of Alder Street;

Thence, Westerly by the Northerly line of the said land now or formerly of Ross Y. Furman making an included angle of 85°-02' –from Alder Street, a distance of 203.85' to a rod on the Northwesterly corner of said Grantee land marking the Easterly line of Hanover Street;

Thence, Northerly by the Easterly line of said Hanover Street making an included angle of 96°-23' a distance of 69.20' to a spike set on the Southerly line of said Kennebec Street, being on the arc of a curve.

Thence, Easterly by the Southerly line of said Kennebec Street on a curve to the left whose radius is 2,639.1' an arc distance of 205.36' to a rod set on the Westerly line of said Alder Street said rod being found on a chord making an included angle of 84°-31' and a distance of 205.31';

Thence, Southerly by the Westerly line of said Alder Street making an included angle of 94°-04' from the said chord line a distance of 72.27' to the point of beginning.

Above parcel comprising approximately 14,097 square feet.

Reference is made to a Release Deed to Ross Y. Furman from Portland Terminal Company dated July 28, 1994 and recorded in the Cumberland County Registry of Deeds in Book 11555, Page 314. This conveyance is made subject to all reservations, conditions, covenant and agreements contained in the said Release Deed.

Received
Recorded Register of Deeds
Jul 01,2011 02:19:37P
Cumberland County
Pamela E. Lovley

Doc#: 32106 Bk:28797 Pg: 224

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that **ROSS Y. FURMAN,** whose mailing address is P.O. Box 2, Portland, Maine 04112 ("Grantor") for consideration paid, grants to **BOPO, LLC,** a Maine limited liability company whose mailing address is 58 Alder Street, Portland, Maine 04101 ("Grantee") with *WARRANTY COVENANTS,* a certain lot or parcel of land, with all appurtenances thereto, located on Kennebec Street in the City of Portland (the "Property") and more particularly described on Exhibit A attached hereto.

Witness my hand this 30 day of June, 2011.

Witness

Ross Y. Furman

MAINE REAL ESTATE TAX PAID

State of Maine
Cumberland, ss.

June 30, 2011

Personally appeared Ross Y. Furman and acknowledged the foregoing instrument to be his free act and deed.

Before me,

Notary Public/~~Attorney at Law~~

Ann B Pottle
Printed Name

ANN B. POTTLE
Notary Public • State of Maine
My Commission Expires September 3, 2016

SEAL

EXHIBIT A

Beginning on the northerly line of Lancaster Street at its intersection with the westerly line of Alder Street; thence northerly on said line of Alder Street one hundred eighty-nine and five-tenths (189.5) feet, more or less, to the southerly line of the location of the York and Cumberland Railroad Company, which line last mentioned is parallel with and about seventy-four (74) feet southerly, measured on a radial line, from the southerly line of Kennebec Street; thence westerly on said southerly line of said location two hundred three and eight-tenths (203.8) feet, more or less, to the easterly line of Hanover Street; thence southerly on said line of Hanover Street fifty (50) feet to the southerly line of land conveyed by George P. Wescott to the Portland and Rochester Railroad by deed dated November 3, 1880, and recorded in Cumberland Registry of Deeds in Book 506, Page 452; thence easterly on said last mentioned line, being a curve line parallel with said location line, one hundred four and nine-tenths (104.9) feet more or less, to the westerly line of land conveyed by Charles Q. Clapp to the Kennebec & Portland Railroad Company and the York & Cumberland Railroad Company by deed dated September 13, 1850 and recorded in said Registry, Book 227, Page 155; thence southerly on said last mentioned line and the extension of same, a total distance of one hundred thirty-five and two-tenths (135.2) feet, more or less, to the aforesaid line of Lancaster Street; thence easterly on said line of Lancaster Street, ninety-six and five-tenths (96.5) feet, more or less, to the point of beginning; containing 23,450 square feet, more or less.

Being the same premises conveyed to the Grantor pursuant to a Warranty Deed from Ross Y. Furman dated December 15, 2008 and recorded in the Cumberland County Registry of Deeds in Book 26504, Page 12 and a Corrective Deed dated June 25, 2011 and recorded in the Cumberland County Registry of Deeds in Book 28789, Page 189.

Received
Recorded Register of Deeds
Jul 01,2011 02:18:39P
Cumberland County
Pamela E. Lovley

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that **SKILLFUL RE, LLC,** whose mailing address is P.O. Box 2, Portland, Maine 04112 ("Grantor") for consideration paid, grants to **BOPO, LLC,** a Maine limited liability company whose mailing address is 58 Alder Street, Portland, Maine 04101 ("Grantee") with *WARRANTY COVENANTS,* a certain lot or parcel of land, with all buildings and improvements thereon and all appurtenances thereto, located on Alder Street in the City of Portland (the "Property") and more particularly described on Exhibit A attached hereto.

Witness my hand this 30th day of June, 2011.

MAINE REAL ESTATE TAX PAID

Witness

Skillful RE, LLC

By: Ross Y. Furman
Manager

State of Maine
~~Cumberland~~ Washington, ss.

June 30, 2011

Personally appeared Ross Y. Furman, Manager of Skillful RE, LLC and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of Skillful RE, LLC.

Before me,

Notary Public/~~Attorney at Law~~

Ann B Pottle
Printed Name

SEAL

ANN B. POTTLE
Notary Public • State of Maine
My Commission Expires September 3, 2016

Att. 2

RIGHT, TITLE OR INTEREST

Please see attached warranty deed for the lot at 58 Alder Street and the purchase and sale agreement for 71 Hanover Street.

		Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
		Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;
		Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
		Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property;
		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
		A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;
		Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;
		An exterior lighting plan in accordance with Section 12 of the Technical Manual;
		A signage plan showing the location, dimensions, height and setback of all existing and proposed signs;
		Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.

Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST** **(* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
		1	**Final Site Plans including the following:**
			Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);
			Existing and proposed structures on parcels abutting site;
			All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;
			Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;
			Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;
			Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;
			Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;
			Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;
			Location of all snow storage areas and/or a snow removal plan;
			A traffic control plan as detailed in Section 1 of the Technical Manual;
			Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);
			Location and proposed alteration to any watercourse;
			A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;
			Proposed buffers and preservation measures for wetlands;
			Existing soil conditions and location of test pits and test borings;
			Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;
			A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;
			Grading plan;
			Ground water protection measures;
			Existing and proposed sewer mains and connections;

- Continued on next page -

FINAL PLAN - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
		1	* Completed Application form
		1	* Application fees
		1	* Written description of project
		1	* Evidence of right, title and interest
		1	* Evidence of state and/or federal permits
		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
		1	* Evidence of financial and technical capacity
		1	Construction Management Plan
		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
		1	Stormwater management plan and stormwater calculations
		1	Written summary of project's consistency with related city master plans
		1	Evidence of utility capacity to serve
		1	Written summary of solid waste generation and proposed management of solid waste
		1	A code summary referencing NFPA 1 and all Fire Department technical standards
		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

PRELIMINARY PLAN (Optional) - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST**
		1	Completed Application form
		1	Application fees
		1	Written description of project
		1	Evidence of right, title and interest
		1	Evidence of state and/or federal approvals, if applicable
		1	Written assessment of proposed project's compliance with applicable zoning requirements
		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
		1	Written requests for waivers from site plan or technical standards, if applicable.
		1	Evidence of financial and technical capacity
		1	Traffic Analysis (may be preliminary, in nature, during the preliminary plan phase)
Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST**
		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
		1	**Preliminary Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase)**
		Proposed grading and contours;	
		Existing structures with distances from property line;	
		Proposed site layout and dimensions for all proposed structures (including piers, docks or wharves in Shoreland Zone), paved areas, and pedestrian and vehicle access ways;	
		Preliminary design of proposed stormwater management system in accordance with Section 5 of the Technical Manual (note that Portland has a separate applicability section);	
		Preliminary infrastructure improvements;	
		Preliminary Landscape Plan in accordance with Section 4 of the Technical Manual;	
		Location of significant natural features (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features) located on the site as defined in Section 14-526 (b) (1);	
		Proposed buffers and preservation measures for significant natural features, as defined in Section 14-526 (b) (1);	
		Location , dimensions and ownership of easements, public or private rights of way, both existing and proposed;	
		Exterior building elevations.	

PROJECT DATA

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

Total Area of Site	55,290 sq. ft.
Proposed Total Disturbed Area of the Site	53,290 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.	
Impervious Surface Area	
Impervious Area (Total Existing)	55,290 sq. ft.
Impervious Area (Total Proposed)	55,290 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	13,606 sq. ft.
Building Footprint (Total Proposed)	29,823 sq. ft.
Building Floor Area (Total Existing)	13,606 sq. ft.
Building Floor Area (Total Proposed)	48,857 sq. ft.
Zoning	
Existing	B-7
Proposed, if applicable	NA
Land Use	
Existing	Bowling Alley &City of Portland salt sheds
Proposed	Bowling Alley/Squash Courts
Residential, If applicable	
# of Residential Units (Total Existing)	NA
# of Residential Units (Total Proposed)	
# of Lots (Total Proposed)	
# of Affordable Housing Units (Total Proposed)	
Proposed Bedroom Mix	
# of Efficiency Units (Total Proposed)	
# of One-Bedroom Units (Total Proposed)	
# of Two-Bedroom Units (Total Proposed)	
# of Three-Bedroom Units (Total Proposed)	
Parking Spaces	
# of Parking Spaces (Total Existing)	41
# of Parking Spaces (Total Proposed)	34
# of Handicapped Spaces (Total Proposed)	2
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	14
# of Bicycle Spaces (Total Proposed)	21
Estimated Cost of Project	2.4 million

APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the **Electronic Plan and Document Submittal** page of the City's website at http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal

2. **In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.**

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

1. **One (1) full size site plans** that must be **folded.**
2. One (1) copy of all written materials or as follows, unless otherwise noted:
   a. Application form that is completed and signed.
   b. Cover letter stating the nature of the project.
   c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

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

This application is for a Level II Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant: 	**Date:** March 23, 2015

Engineer	Engineer Contact Information
Name: Ransom Consulting Engineers, Steve Bradstreet Address: 400 Commercial Street City/State : Portland. ME Zip Code: 04101	Work # 207.772.2891 Cell # Fax# e-mail: stephen.bradstreet@ransomenv.com
Surveyor	**Surveyor Contact Information**
Name: Sebago Technics, Bill Shippen Address: 75 John Roberts Road #1A City/State : South Portland, ME Zip Code: 04106	Work # 207.200.2100 Cell # Fax# e-mail: bshippen@sebagotechnics.com
Architect	**Architect Contact Information**
Name: Ryan Senatore Architecture Address: 565 Congress Street, Suite 304 City/State : Portland, ME Zip Code: 04101	Work # 207.650.6414 Cell # Fax# e-mail: ryan@senatorearchitecture.com
Attorney	**Attorney Contact Information**
Name: Address: City/State : Zip Code:	Work # Cell # Fax# e-mail:

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Level III Development (check applicable reviews)

_ _ Less than 50,000 sq. ft. ($500.00)
_X_ 50,000 - 100,000 sq. ft. ($1,000)
___ 100,000 – 200,000 sq. ft. ($2,000)
___ 200,000 – 300,000 sq. ft. ($3,000)
___ over $300,00 sq. ft. ($5,000)
___ Parking lots over 11 spaces ($1,000)
___ After-the-fact Review ($1,000.00 plus applicable application fee)

Plan Amendments (check applicable reviews)

___ Planning Staff Review ($250)
___ Planning Board Review ($500)

_____

The City invoices separately for the following:

- Notices ($.75 each)
- Legal Ad (% of total Ad)
- Planning Review ($40.00 hour)
- Legal Review ($75.00 hour)

Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.

Other Reviews (check applicable reviews)

___ Traffic Movement ($1,000)
___ Stormwater Quality ($250)
___ Subdivisions ($500 + $25/lot)
# of Lots ___ x $25/lot = _____
___ Site Location ($3,000, except for residential projects which shall be $200/lot)
# of Lots ___ x $200/lot = _____
___ Other _____
___ Change of Use
___ Flood Plain
___ Shoreland
___ Design Review
___ Housing Replacement
___ Historic Preservation

Att. 1

PROJECT NAME: Bayside Bowl

PROPOSED DEVELOPMENT ADDRESS:

71 Hanover Street

PROJECT DESCRIPTION:

Approximately 16,000 sq. ft. expansion to Bayside Bowl to add 8 additional first floor bowling lanes, second floor squash courts with mezzanine, and associated service facilities.

CHART/BLOCK/LOT: 34/H/ 1-5

PRELIMINARY PLAN _____ (date)
FINAL PLAN _____ (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Justin Alfond Business Name, if applicable: Address: 58 Alder Street City/State : Portland, ME Zip Code: 04101	**Applicant Contact Information** Work # Home# Cell # Fax# e-mail:
Owner – (if different from Applicant) Name: BoPo, L.L.C. Address: 58 Alder Street City/State : Portland, ME Zip Code: 04101	**Owner Contact Information** Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: Mitchell & Associates, Bob Metcalf Address: 70 Center Street City/State : Portland , ME Zip Code: 04101	**Agent/Representative Contact information** Work # 207.774.4427 Cell # e-mail: rmetcalf@mitchellassociates.biz
Billing Information Name: Justin Alfond Address: 58 Alder Street City/State : Portland, ME Zip Code: 04101	**Billing Information** Work # 207.232.4187 Cell # Fax# e-mail: jalfond@gmail.com

TABLE OF CONTENTS

Project Description

The proposed project includes a three level addition to Bayside Bowl which includes the addition of eight bowling lanes, dining and lounge area, second level squash courts and third level mezzanine and a roof deck patio. The gross square footage of the proposed addition is 35,251 square feet, with a 16,217 square foot building footprint. Service delivery area is located on the Hanover / (discontinued) Lancaster Street corner with an enclosed trash storage area on Lancaster Street. The project is further described in the following application.

Submission

This submission includes the following information:

1. Cover letter, dated March 23, 2015
2. Site Plan and Subdivision Application & Checklist
3. Application Fee: $1000
4. Written Submission Documentation
5. One set of plans (24" x 36")
6. One set of plans (11"x17")
7. One set of digital files

We trust that the Planning Board will consider this a complete application for a workshop meeting. If you desire any additional information, please do not hesitate to contact us. We look forward to our meeting with the Board at its earliest convenience.

Sincerely,
Mitchell & Associates

Robert B. Metcalf, Principal
Maine Licensed Landscape Architect

Enclosures

cc: Justin Alfond
Ryan Senatore

Mitchell
& Associates
LANDSCAPE ARCHITECTS

The Staples School
70 Center Street
Portland, Maine 04101
P: 207.774.4427
F: 207.874.2460
www.mitchellassociates.biz

March 23, 2015

Mr. Alexander Jaegerman,
Director of the Portland Planning Division
and Planning Board Members
City of Portland
389 Congress Street
Portland, Maine 04101

RE: Bayside Bowl Addition
71 Hanover Street
Site Plan Review

Dear Alex and Board Members:

On behalf of BoPo, L.L.C., we are pleased to submit the following Site Plan Application for the proposed addition to Bayside Bowl located at 58 Alder Street in Portland. This submission has been prepared in compliance with requirements of the City of Portland Zoning and Site Plan Ordinance. The project is intended to increase recreational opportunities within the Portland peninsula.

The Site

Bayside Bowl is located at 58 Alder Street; until recently, the city has owned the adjacent parcel within the block at 71 Hanover Street as a site for the city salt and sand sheds. BoPo, L.L.C. is currently under contract with the city for the purchase of this property and proposes to construct a three level addition to their existing building within the 71 Hanover Street lot. The 71 Hanover Street lot is 15,102 square feet. With the purchase of this lot BoPo, L.L.C. will own the block encircled by Kennebec, Hanover, Lancaster (discontinued) and Alder Streets with a total development area of 55,290 SF. The soils are characterized as urban conditions, test borings performed by Ransom Consulting Engineers revealed fill material, marine silt/clay, marine sand glacial till, and bedrock. The BoPo, L.L.C. property consists of the Bayside Bowl building, a paved outdoor dining area, a gravel parking lot, a paved seven space parking lot and the city salt and sand sheds.

Bayside Bowl

Site Plan Application

March 23, 2015

APPLICANT:
BOPO, LLC
Justin Alfond; Manager
58 Alder Street
Portland, Maine 04101

AGENT:
MITCHELL & ASSOCIATES
Landscape Architects and Land Planners
70 Center Street
Portland, Maine 04101

Project Description

The proposed project includes a three level addition to Bayside Bowl which includes the addition of eight bowling lanes, dining and lounge area, second level squash courts and third level mezzanine and a roof deck patio. The gross square footage of the proposed addition is 35,251 square feet, with a 16,217 square foot building footprint. Service delivery area is located on the Hanover / (discontinued) Lancaster Street corner with an enclosed trash storage area on Lancaster Street. The project is further described in the following application.

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We trust that the Planning Board will consider this a complete application for a workshop meeting. If you desire any additional information, please do not hesitate to contact us. We look forward to our meeting with the Board at its earliest convenience.

Sincerely,
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Robert B. Metcalf, Principal
Maine Licensed Landscape Architect

Enclosures

cc: Justin Alfond
Ryan Senatore

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PROJECT NAME: Bayside Bowl

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71 Hanover Street

PROJECT DESCRIPTION:

Approximately 16,000 sq. ft. expansion to Bayside Bowl to add 8 additional first floor bowling lanes, second floor squash courts with mezzanine, and associated service facilities.

CHART/BLOCK/LOT: 34/H/ 1-5

PRELIMINARY PLAN _____ (date)
FINAL PLAN _____ (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Justin Alfond Business Name, if applicable: Address: 58 Alder Street City/State : Portland, ME Zip Code: 04101	**Applicant Contact Information** Work # Home# Cell # Fax# e-mail:
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Agent/ Representative Name: Mitchell & Associates, Bob Metcalf Address: 70 Center Street City/State : Portland , ME Zip Code: 04101	**Agent/Representative Contact information** Work # 207.774.4427 Cell # e-mail: rmetcalf@mitchellassociates.biz
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Name: Ransom Consulting Engineers, Steve Bradstreet Address: 400 Commercial Street City/State : Portland. ME Zip Code: 04101	Work # 207.772.2891 Cell # Fax# e-mail: stephen.bradstreet@ransomenv.com
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Name: Sebago Technics , Bill Shippen Address: 75 John Roberts Road #1A City/State : South Portland, ME Zip Code: 04106	Work # 207.200.2100 Cell # Fax# e-mail: bshippen@sebagotechnics.com
Architect	**Architect Contact Information**
Name: Ryan Senatore Architecture Address: 565 Congress Street, Suite 304 City/State : Portland, ME Zip Code: 04101	Work # 207.650.6414 Cell # Fax# e-mail: ryan@senatorearchitecture.com
Attorney	**Attorney Contact Information**
Name: Address: City/State : Zip Code:	Work # Cell # Fax# e-mail:

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Level III Development (check applicable reviews)

_ _ Less than 50,000 sq. ft. ($500.00)
X 50,000 - 100,000 sq. ft. ($1,000)
___ 100,000 – 200,000 sq. ft. ($2,000)
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Other Reviews (check applicable reviews)

___ Traffic Movement ($1,000)
___ Stormwater Quality ($250)
___ Subdivisions ($500 + $25/lot)
# of Lots ___ x $25/lot = _____
___ Site Location ($3,000, except for residential projects which shall be $200/lot)
# of Lots ___ x $200/lot = _____
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___ Flood Plain
___ Shoreland
___ Design Review
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APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the **Electronic Plan and Document Submittal** page of the City's website at http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal

2. **In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.**

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

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   a. Application form that is completed and signed.
   b. Cover letter stating the nature of the project.
   c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

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

This application is for a Level II Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:	**Date:** March 23, 2015

PROJECT DATA

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

Total Area of Site	55,290 sq. ft.
Proposed Total Disturbed Area of the Site	53,290 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.	
Impervious Surface Area	
Impervious Area (Total Existing)	55,290 sq. ft.
Impervious Area (Total Proposed)	55,290 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	13,606 sq. ft.
Building Footprint (Total Proposed)	29,823 sq. ft.
Building Floor Area (Total Existing)	13,606 sq. ft.
Building Floor Area (Total Proposed)	48,857 sq. ft.
Zoning	
Existing	B-7
Proposed, if applicable	NA
Land Use	
Existing	Bowling Alley &City of Portland salt sheds
Proposed	Bowling Alley/Squash Courts
Residential, If applicable	
# of Residential Units (Total Existing)	NA
# of Residential Units (Total Proposed)	
# of Lots (Total Proposed)	
# of Affordable Housing Units (Total Proposed)	
Proposed Bedroom Mix	
# of Efficiency Units (Total Proposed)	
# of One-Bedroom Units (Total Proposed)	
# of Two-Bedroom Units (Total Proposed)	
# of Three-Bedroom Units (Total Proposed)	
Parking Spaces	
# of Parking Spaces (Total Existing)	41
# of Parking Spaces (Total Proposed)	34
# of Handicapped Spaces (Total Proposed)	2
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	14
# of Bicycle Spaces (Total Proposed)	21
Estimated Cost of Project	2.4 million

PRELIMINARY PLAN (Optional) - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST**
		1	Completed Application form
		1	Application fees
		1	Written description of project
		1	Evidence of right, title and interest
		1	Evidence of state and/or federal approvals, if applicable
		1	Written assessment of proposed project's compliance with applicable zoning requirements
		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
		1	Written requests for waivers from site plan or technical standards, if applicable.
		1	Evidence of financial and technical capacity
		1	Traffic Analysis (may be preliminary, in nature, during the preliminary plan phase)
Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST**
		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
		1	**Preliminary Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase)**
		Proposed grading and contours;	
		Existing structures with distances from property line;	
		Proposed site layout and dimensions for all proposed structures (including piers, docks or wharves in Shoreland Zone), paved areas, and pedestrian and vehicle access ways;	
		Preliminary design of proposed stormwater management system in accordance with Section 5 of the Technical Manual (note that Portland has a separate applicability section);	
		Preliminary infrastructure improvements;	
		Preliminary Landscape Plan in accordance with Section 4 of the Technical Manual;	
		Location of significant natural features (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features) located on the site as defined in Section 14-526 (b) (1);	
		Proposed buffers and preservation measures for significant natural features, as defined in Section 14-526 (b) (1);	
		Location , dimensions and ownership of easements, public or private rights of way, both existing and proposed;	
		Exterior building elevations.	

FINAL PLAN - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
		1	* Completed Application form
		1	* Application fees
		1	* Written description of project
		1	* Evidence of right, title and interest
		1	* Evidence of state and/or federal permits
		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
		1	* Evidence of financial and technical capacity
		1	Construction Management Plan
		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
		1	Stormwater management plan and stormwater calculations
		1	Written summary of project's consistency with related city master plans
		1	Evidence of utility capacity to serve
		1	Written summary of solid waste generation and proposed management of solid waste
		1	A code summary referencing NFPA 1 and all Fire Department technical standards
		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST** **(* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
		1	**Final Site Plans including the following:**
			Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);
			Existing and proposed structures on parcels abutting site;
			All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;
			Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;
			Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;
			Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;
			Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;
			Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;
			Location of all snow storage areas and/or a snow removal plan;
			A traffic control plan as detailed in Section 1 of the Technical Manual;
			Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);
			Location and proposed alteration to any watercourse;
			A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;
			Proposed buffers and preservation measures for wetlands;
			Existing soil conditions and location of test pits and test borings;
			Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;
			A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;
			Grading plan;
			Ground water protection measures;
			Existing and proposed sewer mains and connections;

- Continued on next page -

		Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
		Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;
		Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
		Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property;
		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
		A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;
		Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;
		An exterior lighting plan in accordance with Section 12 of the Technical Manual;
		A signage plan showing the location, dimensions, height and setback of all existing and proposed signs;
		Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.

Att. 2

RIGHT, TITLE OR INTEREST

Please see attached warranty deed for the lot at 58 Alder Street and the purchase and sale agreement for 71 Hanover Street.

Doc#: 32105 Bk:28797 Pg: 222

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that **SKILLFUL RE, LLC,** whose mailing address is P.O. Box 2, Portland, Maine 04112 ("Grantor") for consideration paid, grants to **BOPO, LLC,** a Maine limited liability company whose mailing address is 58 Alder Street, Portland, Maine 04101 ("Grantee") with *WARRANTY COVENANTS,* a certain lot or parcel of land, with all buildings and improvements thereon and all appurtenances thereto, located on Alder Street in the City of Portland (the "Property") and more particularly described on Exhibit A attached hereto.

Witness my hand this 30th day of June, 2011.

MAINE REAL ESTATE TAX PAID

Witness

Skillful RE, LLC

By: Ross Y. Furman
Manager

State of Maine
~~Cumberland~~ Washington, ss.

June 30, 2011

Personally appeared Ross Y. Furman, Manager of Skillful RE, LLC and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of Skillful RE, LLC.

Before me,

Notary Public/~~Attorney at Law~~

Ann B Pottle
Printed Name

SEAL

ANN B. POTTLE
Notary Public • State of Maine
My Commission Expires September 3, 2016

EXHIBIT A

Beginning on the northerly line of Lancaster Street at its intersection with the westerly line of Alder Street; thence northerly on said line of Alder Street one hundred eighty-nine and five-tenths (189.5) feet, more or less, to the southerly line of the location of the York and Cumberland Railroad Company, which line last mentioned is parallel with and about seventy-four (74) feet southerly, measured on a radial line, from the southerly line of Kennebec Street; thence westerly on said southerly line of said location two hundred three and eight-tenths (203.8) feet, more or less, to the easterly line of Hanover Street; thence southerly on said line of Hanover Street fifty (50) feet to the southerly line of land conveyed by George P. Wescott to the Portland and Rochester Railroad by deed dated November 3, 1880, and recorded in Cumberland Registry of Deeds in Book 506, Page 452; thence easterly on said last mentioned line, being a curve line parallel with said location line, one hundred four and nine-tenths (104.9) feet more or less, to the westerly line of land conveyed by Charles Q. Clapp to the Kennebec & Portland Railroad Company and the York & Cumberland Railroad Company by deed dated September 13, 1850 and recorded in said Registry, Book 227, Page 155; thence southerly on said last mentioned line and the extension of same, a total distance of one hundred thirty-five and two-tenths (135.2) feet, more or less, to the aforesaid line of Lancaster Street; thence easterly on said line of Lancaster Street, ninety-six and five-tenths (96.5) feet, more or less, to the point of beginning; containing 23,450 square feet, more or less.

Being the same premises conveyed to the Grantor pursuant to a Warranty Deed from Ross Y. Furman dated December 15, 2008 and recorded in the Cumberland County Registry of Deeds in Book 26504, Page 12 and a Corrective Deed dated June 25, 2011 and recorded in the Cumberland County Registry of Deeds in Book 28789, Page 189.

Received
Recorded Register of Deeds
Jul 01,2011 02:18:39P
Cumberland County
Pamela E. Lovley

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that **ROSS Y. FURMAN**, whose mailing address is P.O. Box 2, Portland, Maine 04112 ("Grantor") for consideration paid, grants to **BOPO, LLC**, a Maine limited liability company whose mailing address is 58 Alder Street, Portland, Maine 04101 ("Grantee") with *WARRANTY COVENANTS*, a certain lot or parcel of land, with all appurtenances thereto, located on Kennebec Street in the City of Portland (the "Property") and more particularly described on Exhibit A attached hereto.

Witness my hand this 30 day of June, 2011.

Witness

Ross Y. Furman

MAINE REAL ESTATE TAX PAID

State of Maine
Cumberland, ss.

June 30, 2011

Personally appeared Ross Y. Furman and acknowledged the foregoing instrument to be his free act and deed.

Before me,

Notary Public/~~Attorney at Law~~

Ann B Pottle
Printed Name

ANN B. POTTLE
Notary Public • State of Maine
My Commission Expires September 3, 2016

SEAL

EXHIBIT A

A certain lot or parcel of vacant land situated on the Southerly side of Kennebec Street in the City of Portland, County of Cumberland, and State of Maine being bounded and described as follows:

Beginning at a rod on the Westerly side of Alder Street marking the Northeasterly corner of other land conveyed to Ross Y. Furman by deed recorded in the Cumberland County Registry of Deeds in book 8489 Page 82, said rod being located 190.90' from the intersection of the Northerly line of Lancaster Street and said Westerly line of Alder Street;

Thence, Westerly by the Northerly line of the said land now or formerly of Ross Y. Furman making an included angle of 85°-02' –from Alder Street, a distance of 203.85' to a rod on the Northwesterly corner of said Grantee land marking the Easterly line of Hanover Street;

Thence, Northerly by the Easterly line of said Hanover Street making an included angle of 96°-23' a distance of 69.20' to a spike set on the Southerly line of said Kennebec Street, being on the arc of a curve.

Thence, Easterly by the Southerly line of said Kennebec Street on a curve to the left whose radius is 2,639.1' an arc distance of 205.36' to a rod set on the Westerly line of said Alder Street said rod being found on a chord making an included angle of 84°-31' and a distance of 205.31';

Thence, Southerly by the Westerly line of said Alder Street making an included angle of 94°-04' from the said chord line a distance of 72.27' to the point of beginning.

Above parcel comprising approximately 14,097 square feet.

Reference is made to a Release Deed to Ross Y. Furman from Portland Terminal Company dated July 28, 1994 and recorded in the Cumberland County Registry of Deeds in Book 11555, Page 314. This conveyance is made subject to all reservations, conditions, covenant and agreements contained in the said Release Deed.

Received
Recorded Register of Deeds
Jul 01,2011 02:19:37P
Cumberland County
Pamela E. Lovley

PURCHASE AND SALE AGREEMENT

THIS AGREEMENT for the purchase and sale of real estate made this 17th day of March, 2015 by and between the CITY OF PORTLAND, a body politic and corporate located in Cumberland County, Maine, (hereinafter referred to as "SELLER"), and BOPO, LLC, a Maine limited liability company with a mailing address of 58 Alder Street, Portland, Maine, (hereinafter referred to as "BUYER").

RECITALS

WHEREAS, the SELLER is the owner of certain land located 71 Hanover Street in Portland, Maine, as more specifically described in Exhibit A, attached hereto and incorporated herein (the "Premises"), and as generally depicted in the plan attached as Exhibit B and incorporated herein; and

WHEREAS, the SELLER desires to sell the Premises and has published a certain "Request for Proposals For the Sale and Reuse of Property Located at 71 Hanover Street, RFP #5215" (the "RFP"), a copy of which is attached hereto as Exhibit C and incorporated herein, and the provisions of which shall survive closing; and

WHEREAS, the BUYER has submitted a proposal in response to the RFP (the "Proposal"), a copy of which is attached hereto as Exhibit D and incorporated herein; and

WHEREAS, after reviewing all proposals submitted in response to the RFP, the SELLER has selected the BUYER as the successful bidder; and

WHEREAS, BUYER desires to purchase and develop the Premises in accordance with the terms of the Proposal, and the SELLER desires to sell the Premises to the BUYER so that the BUYER may do so.

NOW THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties, intending to be legally bound, hereby agree as follows:

1. **RECITALS INCORPORATED BY REFERENCE**. The recitals set forth above are hereby incorporated herein by reference and made a part of this agreement. The restatement in this document of any term of the RFP or Proposal shall not be deemed to waive any term not so restated. If any disagreement is found between the RFP or the Proposal and this document, then this document shall govern; and the RFP shall govern over the Proposal, to the extent they disagree; provided, however, that this

document and its attachments shall be construed to be supplemental to one another to the extent possible.

2. **SALE.** SELLER agrees to sell the Premises to BUYER, and BUYER agrees to buy the Premises in accordance with the terms and conditions set forth in this Agreement. This Agreement is for the sale of land only and does not include the structures, concrete block walls, or any other personal property on the Premises (the "Retained Property"), to which the SELLER shall retain title, and which Seller shall fully remove at SELLER'S sole cost, risk and expense as set forth in Section 5 below.

3. **CONSIDERATION**. The consideration for the Premises shall be Three Hundred Forty Thousand Eighteen Dollars ($340,018.00) (the "Purchase Price") payable as follows:

   a. The SELLER acknowledges receipt of BUYER's deposit in the amount of Thirty-Four Thousand One Dollars and Eighty Cents ($34,001.80) (the "Deposit") paid to it as of the date of this Agreement; and

   b. The BUYER shall pay to the SELLER at closing the remaining Three Hundred Six Thousand Sixteen Dollars and Twenty Cents ($306,016.20) in immediately available funds.

4. **TITLE.** SELLER shall convey the Premises to BUYER at the closing in fee simple with good and marketable and insurable title by a quitclaim deed without covenant acceptable to BUYER. Buyer acknowledges that the deed shall contain a restriction stating that in the event that the Premises or any portion thereof shall be exempt from real and personal property taxes, by transfer, conversion, or otherwise, then the then-owner of the exempt portion shall make annual payments to the SELLER in lieu of taxes in the amount equal to the amount of property taxes that would have been assessed on the exempt portion of the real and personal property situated on the Premises had such property remained taxable. Such restriction shall also confirm that BUYER and its successors and assigns shall possess and be vested with all rights and privileges as to abatement and appeal of valuations, rates, and the like as are accorded owners of real and personal property in Maine. If SELLER is unable to convey title to the Premises in accordance with the provisions of this paragraph, then SELLER shall have a reasonable time period, not to exceed 60 days from the time SELLER receives written notice of a defect, unless otherwise agreed to by both parties, during which it shall make a good faith effort to remedy the defect, after which time, if such defect is not corrected so that there is marketable and insurable title, BUYER may within 2 days thereafter, at BUYER's option, withdraw the Deposit, and neither party shall have any further obligation hereunder. BUYER may, at BUYER's option elect to close notwithstanding any such defects that may exist.

5. **POSSESSION.** Full possession of the Premises will be delivered to Buyer at the transfer of title, free and clear of all tenancies or occupancies by any person or entity. Notwithstanding the previous sentence, in the event that the SELLER is unable to fully remove the Retained Property before the closing date, BUYER and SELLER shall in good faith negotiate and execute a license agreement pursuant to which

SELLER shall be allowed to store the Retained Property on the Premises and continue to operate its sand and salt operations from the Premises until no later than June 15, 2015, provided, however, that SELLER shall endeavor to remove the Retained Property at the earliest date feasible prior to June 15, 2015. Such license agreement shall provide that SELLER shall be entitled to store the Retained Property and continue to operate its sand and sale operations from the Premises until the earlier of June 15, 2015, or the date that it removes the Retained Property from the Premises. Such agreement shall also include the following indemnification provision: "SELLER subject to and limited by the defenses, immunities and limitations of liability available to SELLER under the Maine Tort Claims Act, 14 M.R.S. § 8101 et seq., shall indemnify and hold Buyer harmless from any claims, damages, demands or liabilities resulting from SELLER's exercise of its rights under this license agreement, including without limitation, claims for personal injury, property damage and for the cost of removal including mechanic's lien claims, provided that such claims, damages, demands, or liabilities are caused by any negligent act or omission of the SELLER or its agents, employees or contractors. The license agreement shall also provide that SELLER shall cause its contractors or employees removing the Retained Property to deliver to Buyer, no later than 10 days after the completion of the removal of the Retained Property, a waiver of any and all mechanic's liens associated with the cost of the removal of the Retained Property.

6. **INSPECTIONS**. At reasonable times upon reasonable prior notice prior to Closing, and with SELLER's consent, BUYER, its agents, contractors and any prospective lender or investor of BUYER shall have the right to enter the Premises and perform, at BUYER's expense, any and all inspections, tests, surveys or other due diligence inquiries with respect to the Premises as BUYER deems necessary or appropriate. BUYER agrees to return the Premises as nearly as possible to its original condition after all of such tests and inspections. SELLER shall cooperate with BUYER in such inspections. BUYER shall complete any such inspections within 60 days of the date first set forth above (the "Inspection Period"). In the event that an inspection reveals defects or conditions which are unacceptable to BUYER, BUYER may, prior to the end of the Inspection Period, terminate this Agreement and receive back the Deposit.

7. **REAL ESTATE TAXES, PRORATIONS AND TRANSFER TAX.** BUYER shall be liable for all real estate taxes beginning as of the start of fiscal year 2016 and continuing thereafter. Because the Property is currently owned by the City of Portland, which is exempt from real estate taxes, no taxes were assessed or will be due for any portion of fiscal year 2015 and no taxes will be prorated at the closing. Any utilities for the Property shall be prorated as of the closing. The Maine real estate transfer tax shall be paid for by Buyer in accordance with 36 M.R.S.A. § 4641-A. SELLER is exempt from paying the transfer tax pursuant to 36 M.R.S.A. § 4641-C. The recording fee for the deed of conveyance and any expenses relating to BUYER's financing or closing shall be paid for by BUYER.

8. **DEFAULT AND REMEDIES**. In the event that BUYER defaults hereunder for a reason other than the default of the SELLER, SELLER shall retain the deposit, it being understood, however, the SELLER's acceptance thereof shall not constitute a waiver of any other legal or equitable remedy available to SELLER. In the event

SELLER defaults under this Agreement, and if BUYER is not then in default hereunder, BUYER shall have the right to pursue specific performance, but at all times may elect in substitution therefor, as its sole remedy, the right to a return of its deposit, together with reimbursement, in an amount not to exceed Fifteen Thousand Dollars ($15,000.00) of reasonable, documented, out-of-pocket costs or expenses incurred by BUYER in connection with its purchase of the Premises, including fees of inspectors, attorneys, or other professionals engaged by BUYER in connection with its purchase of the Premises.

9. **RISK OF LOSS.** The risk of loss or damage to the Premises by fire or otherwise, until transfer of title hereunder, is assumed by the SELLER. The Premises is to be delivered in substantially the same condition as of the date of this Agreement unless otherwise stated. In the event SELLER is not able to deliver the Premises as stated, BUYER may terminate this Agreement and receive a refund of the Deposit.

10. **PROPERTY SOLD "AS IS, WHERE IS."** BUYER acknowledges that BUYER has had an opportunity to inspect the Premises, and to hire professionals to do so, and that Premises will be sold "as is, where is" and "with all faults." SELLER, and its agents, make no representations or warranties with respect to the accuracy of any statement as to boundaries or acreage, or as to any other matters contained in any description of the Premises, or as to the fitness of the Premises for a particular purpose, or as to development rights, merchantability, habitability, or as to any other matter, including without limitation, land use, zoning and subdivision issues or the environmental, mechanical, or structural condition of the Premises. Acceptance by BUYER of the Deed at closing and payment of the purchase price shall be deemed to be full performance and discharge by the SELLER of every agreement and obligation contained herein.

11. **ENVIRONMENTAL INDEMNIFICATION**. BUYER covenants and agrees, at BUYER's sole cost and expense, to indemnify, defend, and hold SELLER harmless from and against any and all claims, damages, losses, liabilities, obligations, settlement payments, penalties, assessments, citations, directives, claims, litigation, demands, defenses, judgments, costs, or expenses of any kind, including, without limitation, reasonable attorneys', consultants', and experts' fees incurred in investigating, defending, settling, or prosecuting any claim, litigation or proceeding, that may at any time be imposed upon, incurred by or asserted or awarded against SELLER and relating directly or indirectly to the violation of or compliance with any federal, state, or local environmental laws, rules, or regulations governing the release, handling or storage of hazardous wastes or hazardous materials and affecting all or any portion of the Premises, including without limitation the environmental matters identified in the Tewhey Report identified in and attached to the RFP.

12. **RIGHTS OF SELLER TO REPURCHASE PROPERTY**. If development of the Premises in substantially the form set forth in the Proposal, including the securing of a certificate of occupancy, is not complete within 18 months after the closing, the Seller shall have the right, but not the obligation, to repurchase the Premises at the Purchase Price.

13. **CLOSING**. Time is of the essence in the performance of this agreement. The closing shall be held at City Hall at a time agreeable to the parties on or before seventy-five (75) days after the date first set forth above.

14. **ENTIRE AGREEMENT.** This Agreement represents the entire and complete Agreement and understanding between the parties and supersedes any prior agreement or understanding, written or oral, between the parties with respect to the acquisition or exchange of the Property hereunder. This Agreement cannot be amended except by written instrument executed by SELLER and BUYER.

15. **HEADINGS AND CAPTIONS.** The headings and captions appearing herein are for the convenience of reference only and shall not in any way affect the substantive provisions hereof.

16. **BINDING EFFECT**. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, administrators, successors and assigns.

17. **TIME**. The SELLER and BUYER each confirm and agree that each of the time periods set forth herein are essential provisions of the terms of this Agreement.

18. **GOVERNING LAW**. This Agreement shall be construed in all respects in accordance with, and governed by, the laws of the State of Maine. All parties hereto hereby consent to the exclusive jurisdiction of the Superior Court for the County of Cumberland in the State of Maine, for all actions, proceedings and litigation arising from or relating directly or indirectly to this Agreement or any of the obligations hereunder, and any dispute not otherwise resolved as provided herein shall be litigated solely in said Court. 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.

19. **NOTICE**. 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, certified, return receipt requested, addressed to the recipient at the addresses set forth below. Either party may change addresses for purposes of this paragraph by giving the other party notice of the new address in the manner described herein.

FOR THE SELLER:	City of Portland ATTN: CITY MANAGER 389 Congress Street Portland, ME 04101
With a copy to:	The Office of the Corporation Counsel at the same address.

FOR BUYER:	BOPO LLC Attention: Justin Alfond 58 Alder Street Portland, Maine 04101
With a copy to:	Gary D. Vogel, Esq. Drummond Woodsum 84 Marginal Way, Suite 600 Portland, ME 04101-2480

20. **SIGNATURES; MULTIPLE COUNTERPARTS.** This Agreement may be executed in any number of counterparts and by different parties in separate counterparts. Each counterpart when so executed shall be deemed to be an original and all of which together shall constitute one and the same agreement. A signature in a faxed, pdf or other reproduced or electronic document shall be considered the equivalent of an original signature.

21. **BROKERS.** Seller and Buyer each represents and warrants that neither has dealt with a real estate broker in connection with this transaction. Buyer agrees to indemnify and hold harmless Seller from any claims made by any broker should Buyer's representation in this paragraph be false. Subject to the limitations of liability set forth in the Maine Tort Claims Act, Seller agrees to indemnify and hold harmless Buyer from any claims made by any broker should Seller's representation in this paragraph be false. The foregoing indemnities shall include all legal fees and costs incurred in defense against any such claim, and shall survive closing.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals on the day and year first written above.

CITY OF PORTLAND

WITNESS

Sheila Hill-Christian
Its Acting City Manager

BOPO, LLC

WITNESS

Justin Alfond
Its Manager

Approved as to Form:

Corporation Counsel's Office

EXHIBIT A

A certain lot or parcel of land situated in the City of Portland, County of Cumberland, and State of Maine, and more particularly bounded and described as follows:

BEGINNING at the intersection of the easterly line of Hanover Street with the northerly line of Lancaster Street, said Lancaster Street being discontinued between Hanover Street and Alder Street by Order No. 253 of the Portland City Council on May 1, 1995;

THENCE N 23° 56' 25" W 134.76 feet, more or less, along the easterly line of Hanover Street to a point at land now or formerly of BOPO, LLC, as described in a deed recorded at the Cumberland County Registry of Deeds in Deed Book 28797, Page 222;

THENCE running easterly along said land of BOPO, LLC 104.60 feet, more or less, along a non-tangent curve to the left with a radius of 2757.50 feet, a chord bearing and distance of N 72° 21' 36" E 104.59 feet, more or less, to a point;

THENCE S 23° 08' 15" E 135.20 feet, more or less, along said land of BOPO, LLC to a point along said northerly line of said Lancaster Street, as discontinued;

THENCE S 23° 08' 15" E 15.08 feet, more or less, through said Lancaster Street, as discontinued, to a point along the centerline of said Lancaster Street;

THENCE S 72° 42' 45" W 102.55 feet, more or less, along said centerline of Lancaster Street, as discontinued, to a point along said easterly line of Hanover Street;

THENCE N 23° 56' 25" W 15.10 feet, more or less, along said easterly line of Hanover Street to the **POINT OF BEGINNING**.

Said lot or parcel of land being 15,455 square feet, more or less, and includes the northerly portion of said Lancaster Street as discontinued.

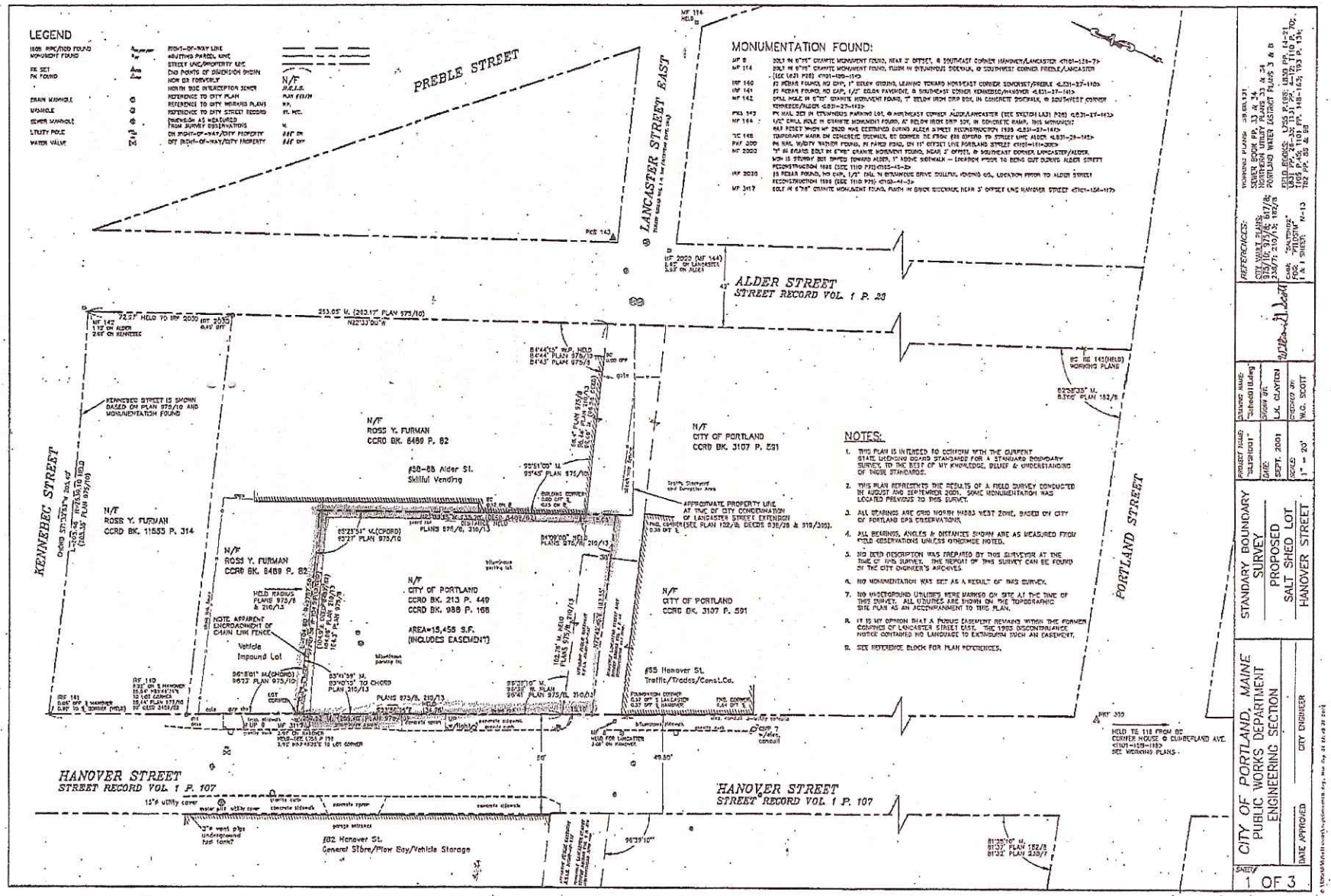
Bearings are based on the Maine State Coordinates, West Zone, NAD 1983, HARN, Grid North, and field surveys conducted by the City of Portland, Department of Public Services, Engineering Division.

Said lot or parcel of land is subject to a public easement reserved by the City of Portland in said discontinued portion of Lancaster Street for all purposes, including, without limitation, the maintenance, repair, or replacement of the existing 44 inch diameter brick sewer known as the North Side Interceptor Sewer.

Reference is made to a plan titled "Standard Boundary Survey – Proposed Salt Shed Lot – Hanover Street", dated September 2001, as revised October 14, 2009, by William G. Scott, Professional Land Surveyor, and on file as Plan 900/17/001rev., at the City of Portland, Public Services Department, Engineering Archives.

L 41/906

EXHIBIT
Exhibit B



PROJECT DESCRIPTION

With the purchase of the adjacent property at 71 Hanover Street, Bayside Bowl (BoPo; LLC) plans to construct a two-story (45' height) addition to the existing bowling alley. The addition would expand the bowling facilities and provide a second level floor area to house squash courts. In June, Bayside Bowl will celebrate five years in business. Their business has grown steadily to where an expansion is necessary to accommodate customers. Customers include multiple leagues, corporate business and walk-ins. The addition will add necessary facilities to serve the current demand. The added service amenities including dining/lounge area and roof deck will entice customers to the bayside business during the slower summer months.

Portland Community Squash, a partner in this venture, incorporated as a 501(c)(3) organization in 2013, and has been teaching squash to students from King, Waynflete, and Casco Bay HS on two converted racquetball courts at the Portland YMCA. With the squash courts at Bayside Bowl, Portland Community Squash plans to pioneer 'community squash' – bringing together adult leagues, competitive middle and high school youth squash programs, and a robust urban squash program, all under one roof. The organization anticipates the new facility will serve as a second home for students of the bayside neighborhood, as well as a place to exercise and give back to members that live and work on the peninsula.

Bayside Bowl, located at 58 Alder Street, proposes to construct a two level building addition (45' height) on the adjacent 71 Hanover Street lot. Bayside Bowl has recently contracted with the city to purchase the parcel and currently owns the remaining lots within the block. The gross square footage of the addition is 29,724 SF. The first floor expansion (16,217 SF) includes the addition of eight ten pin bowling lanes, dining and lounge area, function room, bar and stage, and related house facilities. The second (13,507 SF) floor level will be run by Portland Community Squash and include eight singles courts, one doubles court, a small gym, classrooms, and both adult and child locker rooms. A partially covered, roof level deck (3,127 SF) will provide outdoor access with views to the Back Cove and the surrounding neighborhood.

The main entrance will remain on Alder Street and a new entrance will be located along the north western side of the addition facing Kennebec Street. Site improvements include a new brick sidewalk along Hanover Street and an extend section along Alder Street, site landscaping and street tree plantings along Hanover Street and landscaping along the face of the building fronting Kennebec Street. New site lighting will be provided in the parking area at new points of building egress. An enclosed trash area will be located along former Lancaster Street side of the addition.

Parking for the facility is currently within the gravel lot along Kennebec Street and a small paved lot on Hanover Street. The paved lot will be replaced by the building addition. The gravel area will be maintained as a gravel parking lot until such time as the proposed Somerset Street Extension has been completed.

Stormwater Management

The current site is 100 percent impervious. The site is relatively flat and existing runoff is by sheet flow across the gravel lot and along the Alder Street sidewalk. Roof runoff from the existing building is directed to the sidewalk along Alder Street and to the parking lot side of the building. This was previously approved by the city for Bayside Bowl. The existing and proposed building cover, including site improvements will cover approximately 95 percent of the property.

Based upon discussions with city staff, the intent is to continue to sheet flow the parking area toward Kennebec Street where a combination of filter strip and field inlet improvements will collect runoff and be directed to an existing catch basin in Lancaster Street. Roof runoff from the addition will be collected internally and directed via an 8 inch line to the catch basin referenced above. We should note that proposed improvements for the Somerset Street Extension may impact final Stormwater management improvements and the applicant will work with city staff to address any modifications as may be necessary. More detail on the stormwater system can be found in the included stormwater management plan.

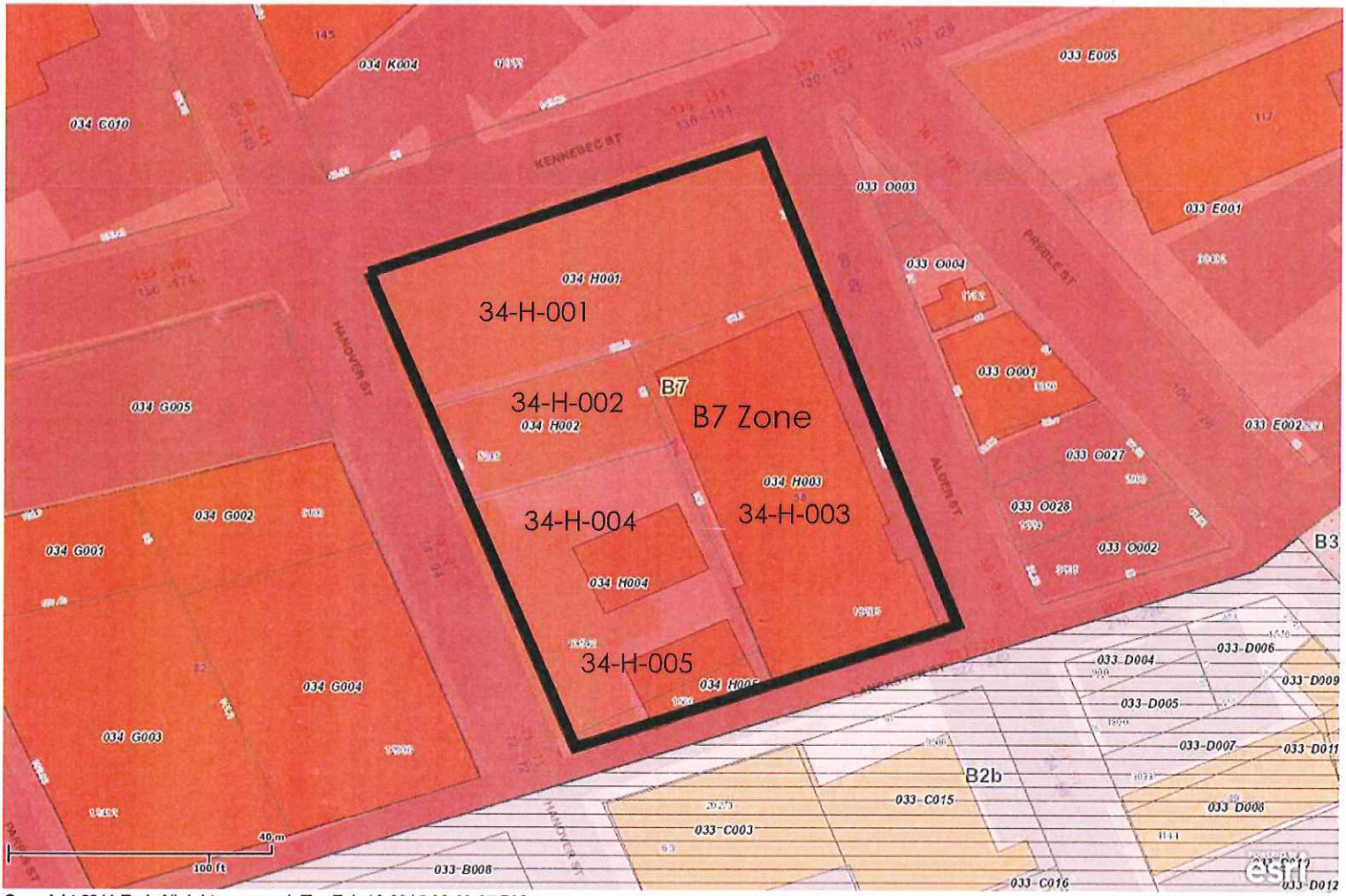
PROJECT DATA

Owner - Applicant	BoPo L.L.C. Justin Alfond; Manager 58 Alder Street Portland, Maine 04101
Existing Zone	B7 –Urban Commercial Zone/ Mixed Development Zone
Tax Map & Lot Number	Map 34, Block H, Lots 1-5
Land Area	55,290 SF, or 1.27 Acres
Existing Land Use	Bowling alley, gravel lot & City sand and salt sheds
Proposed Land Use	Bowling alley addition with squash courts
Water	Extending from existing building
Sanitary Sewer	Extending from existing building
Natural Gas	Extending from existing building
Storm Drainage	30" in storm drain in Alder Street
Electric	Extending from existing building
Telephone & Cable TV	Extending from existing building

TAX MAP

Please see attached Assessor's Plan noting the project site, Chart 34, Block H, Lots 1-5.

Bayside Bowl



EXISTING SOIL CONDITIONS

Soils on the site are representative of the urban environment.

Test borings performed by Ransom Consulting Engineers in March 2015 revealed fill material, marine silt/clay, marine sand glacial till, and bedrock. An Environmental Site Assessment I and II, including VRAP Plan are in the process of being completed. The soils report and ESA report will be submitted upon completion.

PUBLIC UTILITIES

The existing Bayside Bowl building is served by all needed utilities. The owner plans to extend all services internally to serve the addition.

Water

The existing building is presently served by a 2 inch domestic and a 6 inch sprinkler service from a water main in Alder Street. We have requested an ability to service letter from Portland Water District.

Sanitary Sewer

Sanitary sewer for the existing building will be expanded internally to serve the addition. A wastewater capacity letter has been filed with the city and will be provided upon receipt. To address the required grease containment, the applicant will install a "Great Basin" in the basement area to meet this requirement per discussions with Benjamin Pearson.

Natural Gas

Natural gas serves the building from an existing service line in Alder Street. See the attached ability to serve letter from Unitil.

Electric

Electric service presently is served by overhead from Alder Street. See the attached letter from CMP stating their ability to service this proposed project.

Telephone and Cable TV

Telephone and cable TV presently is served by overhead from Alder Street

Unitil
natural gas

March 17, 2015

Sashie Misner
Mitchell & Associates
The Staples School
70 Center Street
Portland, ME 04101

Re: Bayside Bowl Expansion, 58 Alder Street, Portland, ME

Dear Ms. Misner:

Thank you for your interest in using natural gas for the above referenced project.

Unitil has natural gas in the vicinity of this project to provide additional gas service. The evaluation to complete the design, costs and determining what the customer contribution may be, if any, can be completed once Unitil receives the completed design and load information. Unitil welcomes the opportunity for further discussions regarding this project.

If you have any further questions or require additional information, please contact me directly at (207) 541-2505 or at fowler@unitil.com.

Sincerely,

Kelly Fowler

Kelly Fowler
Sr. Business Development Representative
Unitil Corporation
(o) 207-541-2505 (f) 207-541-2565

IBERDROLA USA

3/2/2015

Sashie Misner
Mitchell & Associates
70 Center Street
Portland, ME 04101
Sent via email to: smisher@mithcellassociate.biz

RE: Ability to Serve Letter for Bayside Bowl Expansion-58 Alder Street in Portland

Dear Ms. Misner:

CMP has the ability to serve the proposed project located at 58 Alder Street in Portland, Maine, in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Standards Handbook. If you have any questions on the process, or need help in completion of the documents, please feel free to contact me.

New Service Milestones

- Call 1-800-565-3181 to establish a new account and an SAP work order.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections if you have them.
- Submit Load information. Please complete this CMP spreadsheet using load information
- Submit the easement information worksheet. Please complete this CMP form and either email or fax back to us.
- Preliminary meetings with CMP to determine the details of job
- Field planner design appointment to cost out job and develop CMP Invoice.
- Submit invoice for payment.
- Easements signed and payment received.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer delivery, potential substation upgrades, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

www.cmpco.com

IBERDROLA USA

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements:

CMP Handbook of Standard Requirements
(http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf)

If you have any questions, please contact me.

Regards,

Jamie Cough

Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

Att. 7

TECHNICAL CAPABILITY

The following firms and individuals have provided technical information contained in this application:

Mitchell & Associates — Landscape Architects and Site Planners
70 Center Street
Portland, Maine 04101
Telephone: (207) 774-4427
Contact: Robert Metcalf, RLA, Maine #1815
Sashie Misner, RLA, Maine #3657

Ryan Senatore, Architecture — Architects
565 Congress Street, Suite 304
Portland, Maine 04101
Telephone: (207) 650-6414
Contact: Ryan Senatore, Maine

Ransom Consulting Engineers — Civil Engineers
400 Commercial Street
Portland, Maine 04101
Telephone: (207) 772-2891
Contacts: Stephen Bradstreet, PE, Maine

Sebago Technics — Land Surveyors
75 John Roberts Road, #1A
South Portland, Maine 04106
Telephone: (207) 200-2100
Contact: Bill Shippen

BNY MELLON
WEALTH MANAGEMENT

Susan B. Gruber
First Vice President

January 26, 2015

Mr. Matthew F. Fitzgerald
Purchasing Manager
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Dear Mr. Fitzgerald:

Please be advised that Justin Alfond has been a client of BNY Mellon for many years and has handled all of his accounts satisfactorily.

I can confirm that he has the financial wherewithal to enter into the land purchase as part of the Bowl Portland project, both to purchase the land and renovate the property.

If you require further information, please contact me directly.

Sincerely yours,

Susan B. Gruber

Susan B. Gruber
First Vice President

cc: Justin Alfond

BNY Mellon Center, 201 Washington Street, 024-0092, Boston, MA 02108
T 617 722 7443 F 888 657 7353 susan.gruber@bnymellon.com

BOPO LLC
58 Alder Street
Portland, ME 04102

Letter of Authorization

March 20, 2015

Chair O'Brien and City Planner Rick Knowland
389 Congress Street
Portland, ME 04101

Dear Chairman O'Brien and City Planner Rick Knowland,

Please be advised that this letter authorizes Mitchell & Associates to act as agents on behalf of BOPO LLC in submissions to the city and Maine DEP in regards to any and all application materials and public meetings that relate to our proposed development at Bayside Bowl at 58 Alder Street including 71 Hanover Street.

Sincerely,

(Client name)

COMPLIANCE WITH B-7 ZONING REQUIREMENTS

The proposed addition is within the B-7 Mixed Development zone (Urban Commercial Zone) and is reviewed under the B-7 Bayside design standards. The intent of the addition design is to complement the existing building and to add vibrancy to the surrounding neighborhood fabric. This bayside working neighborhood consists of a diverse mix of architectural forms ranging from smaller residential structures to large multi-story commercial buildings. Developmentally, the neighborhood is in transition as the city relocates many of the public service facilities that are currently based adjacent to this site. The addition to Bayside Bowl and the expansion of Portland Community Squash facilities will add a fun and lively community recreation component to the neighborhood.

The existing building façade and frontage along Alder Street will remain the same while the mass of the 45 foot height addition will be located along Hanover Street. The building along Alder Street has 190 square feet of road frontage with an average 13.5 foot setback from the property line. Along Hanover Street, the building will be 45 tall and will be located 10 feet from the property line. The building will reflect a similar scale and texture as the surrounding industrial buildings.

Parking for Bayside Bowl is located in a gravel lot adjacent to Kennebec Street; this lot will be maintained as parking for the facility. Bayside Bowl utilizes shared parking with adjacent businesses whose hours of operation do not coincide with Bayside Bowls busiest hours.

The proposed development is in compliance with the applicable zoning requirements set-forth the Portland Land Use Ordinance conforming to provisions of the Site Plan and Subdivision Regulations and the zoning provisions of the B7 designated districts

B-7 Bayside Design Standards

Urban Design

Since opening in 2010, Bayside Bowl has helped rejuvenate the bayside neighborhood through providing high quality, accessible recreation activities, entertainment and food attractive to residents near and far. The existing building adds to the bayside texture reinforcing the sense of place beginning to take shape as development expands in the area. The building melds with the surrounding neighborhood through the use of brick yet, maintains a unique identity through the use of signage and building accents.

The addition to Bayside will build on existing momentum. The main entrance will remain along Alder Street and the addition will have an entrance facing Kennebec Street. The new structure will be clad with durable materials such as masonry and pre-finished metal siding to create structure that will maintain its fresh appearance with minimal maintenance. The building design is scaled to relate to the pedestrian experience through the use of multiple siding colors and patterns. Materials chosen emphasize a crisp clean building that will add to the neighborhoods revitalization. The building base is comprised

of masonry defining its connection with the ground. The first story is clad with metal corrugated siding punctuated with windows that allow interaction with Hanover Street. The facade above is designed to reference the squash court use within, through projecting contrasting color elements adding to the visual interest of the building. The new entrance facing Lancaster Street is highlighted by an entry tower clad in vertical pre-finished metal siding. This element knits the existing structure to the addition and serves as a neighborhood marker to the active recreational activities within.

Site improvements will improve the pedestrian experience along Hanover Street. A new brick sidewalk and street tree plantings are proposed where the City salt and sand sheds currently exist. Sidewalk improvements along Kennebec Street are not proposed due to pending planning decisions for the Somerset Street Extension design. An enclosed trash collection area will be discreetly tucked along Lancaster Street (discontinued street).

Where current uses within the small block (Alder, Kennebec, Lancaster & Hanover) are uncomplimentary, the new addition will unite the block visually and aesthetically helping to further shape the identity of bayside.

Access and Circulation

The addition to Bayside Bowl will contribute a small part to a larger vision of connectivity. The project will improve sidewalk access, enhance the pedestrian experience through landscaping and improved sense of place.

Parking, Loading and Service Areas

Service areas for the building will be located along Hanover and Lancaster Streets. The entrances to these areas are designed to the same high standard as the remaining building. Mechanical equipment, HVAC and other utilities are located to minimize disturbance to surrounding properties and public spaces.

Open Space and the Public Realm

Landscaping is intended to improve the overall pedestrian experience of this block of bayside. Street trees and plantings along Hanover Street will help soften the building face and add color, texture and seasonal interest along the sidewalks. Native plantings are proposed for their unique character and hardiness to the local climate. Vegetation between the 45 foot building face and the sidewalk along Hanover Street will help transition the scale of the building to the pedestrian scale ensuring a comfortable experience.

Architectural Design

Standard E-1 Architectural Design

The building to be located at 71 Hanover Street as shown in this proposal is an addition to the adjacent existing brick structure which houses Bayside Bowl. The planned addition will expand Bayside Bowl on the first level and provide additional recreational activity on the second and third levels. The second and third levels would be the new home of

Portland Community Squash. The building's roof level will be partially covered with a roof deck for the patrons of Bayside Bowl.

The intent of the building design is to add vibrancy to the existing neighborhood fabric. We have spent much time walking around the Bayside Neighborhood looking at the existing neighborhood and building typologies. The neighborhood has a diverse mix of Architectural forms ranging from smaller residential structures to large multistory commercial buildings.

The use of landscaping is also an important design tool to help scale the building and create a relationship to the street and pedestrian experience. At the building setbacks from the street we have designed linear planting areas that extend for a large percentage of the facades along the Streets. These plantings will soften the building wall and add color and texture along the sidewalks.

Standard E-2 Height

The building height is proposed to be 46' above grade, this height has been determined by many factors, including the proposed uses and functions, the height overlay map for the neighborhood, and to relate to the existing buildings in the neighborhood. We have designed the building elevations with multiple siding patterns and colors to break up the building facade to scale the building down to create a pedestrian friendly scale. The top of the building has a roof deck rail and is broken by the stair tower elements as well as the projecting fins to create visual interest where the building meets the sky.

Standard E-3 Massing

We have designed the building elevations with multiple siding patterns and colors to break up the building facade to scale the building down to create a pedestrian friendly scale. The changes in materials break the facades with horizontal and vertical articulation to relate to the existing fabric of the neighborhood.

Standard E-4 Articulation

We have included windows, louvers, siding patterns, projecting fins, contrasting colors and awnings to articulate the facades of the building and break them up to a pedestrian friendly scale. The base of the building includes a masonry veneer which not only provides a durable base but gives the building a relationship to the pedestrian scale at the sidewalk level.

Standard E-5 Flexibility of interior layout

The building is a column and beam construction with large spans so that the interior layout is very flexible over the life of the building.

Standard E-6 Entrances

The entrances to the building are articulated with steps, guardrails and canopies with transparent doors to create inviting and well defined access to the building.

Standard E-7 Windows

Windows and transparency are provided at the street facades but are limited in area due to the required functions within. Glazing for both the bowling lanes and squash courts are not conducive to the uses as glare to the users hinders their ability to perform the sports, we have utilized glazing to the maximum extent possible without impacting the uses of the building.

Standard E-8 Storefronts

See response to Standard E-7 above

Standard E-9 Back Sides of Buildings

The back side of the building along East Lancaster Street is defined by facade material changes and some fenestration, this is not a prominent facade of the structure.

Standard E-10 Rooftop Appurtenances

Due to the location low on the Peninsula any rooftop projecting elements should not impact and landmark features of the city.

Standard E-11 Fences and Walls

The only fence on the site is the trash enclosure which is made of a durable wood material.

Standard E-12 Materials

We have utilized durable materials such as masonry and pre-finished metal siding to create a long life span structure that will keep its fresh appearance for many years ahead. The quality of the design is very important on this site, the building is scaled down with the use of multiple siding colors and patterns to relate to the human experience at the sidewalk level. Materials chosen emphasize a crisp clean building that will add to the neighborhoods revitalization. The building base is comprised of masonry defining how the building meets the ground. The first story is clad with metal corrugated siding that is broken up with windows along Hanover Street. The facade above is designed to reflect the Squash Court use within utilizing projecting contrasting color elements adding to the visual interest of the building. The main entry to the structure facing Lancaster street is highlighted by an entry tower clad in vertical pre-finished metal siding. This element knits the existing structure to the new addition and serves as a neighborhood marker to the active recreational activities that lie within.

Standard E-13 Transparency

See response to Standard E-7 above

Standard E-14 Illumination

Building lighting is limited to cut off downlights as shown on the photometric plan

Standard E-15 Weather Protection

Awnings are provided at three of the new building entries for exterior landing protection

Standard E-16 Signage

Two building mounted signs are proposed on the West Elevation one sign for Bayside Bowl and one sign for Portland Community Squash. These are dimensional signs and not lit.

Standard E-17 Historic Buildings

The project does not impact historic buildings

Standard E-18 Sustainable Design

Sustainable design is important to our team, the proposed structure and landscape designs will be developed to maximize energy efficiency and reduce the building's environmental impact. The project will be designed to meet and exceed the City of Portland Green Building Code. We are proposing a highly efficient building envelope with continuous insulation and air sealing details. The building will reduce its energy consumption by the use LED lighting, high efficiency HVAC systems and a white membrane roof to reduce HVAC energy loads. The Landscape design will be comprised of native plantings that do not require irrigation systems.

Standard E-19 Shadows

The project is setback from sufficiently from the Bayside Trail

Standard E-20 Wind

Due to the building size and scale we have not completed a wind study

WAIVER REQUESTS

The following waiver request are sought:

1. **Street Tree Requirement (Sec. 14-526 2.b. iii. a & Technical Design Manual 4.6.3)** The Technical design Standards for Commercial uses requires one street tree per 30 FT to 45 FT spacing based on street frontage. Bayside Bowl now has frontage on three streets with a total length of 757 +/- FT. There are 5 existing trees along Alder Street and one on Hanover where the existing paved parking lot is located. The proposed plan provides for an additional 6 trees along Hanover for a total of 12 trees. Based on a 45 FT spacing, 17 trees would be required. The pending redesign for the Somerset Street Extension will impact the current Kennebec Street frontage. The applicant has designed the project taking into consideration the preliminary design for Somerset Street and is requesting a waiver for the additional trees and provide the fee in lieu for the remaining 5 trees.

2. **Parking Lot and Parking Space Design (Technical Design Manual 1.14)** The applicant is requesting a waiver to retain the existing gravel parking area, until the final design of the Somerset Street Extension has been determined. Due to potential impacts from the design of road and drainage improvements for Somerset Street that may impact the design as submitted, the applicant does not want to incur cost to remove/replace any improvements. The applicant will work with the city staff to coordinate the interface between both projects and make any necessary changes to the design as submitted with this application. The applicant request that improvements not be required until completion of Somerset Street Extension.

3. **Street Lighting (Technical Design Standards 10.4 Standards for Special Lighting District)**The applicant is requesting a waiver from the requirement to provide street light fixtures along the Kennebec Street frontage due to pending roadway improvements for Somerset Street Extension.

4. **Travel Aisle Width** The applicant is requesting to reduce the width of the parking lot travel aisle from 24 feet to 22 feet. We are requesting the two foot reduction to minimize pavement and allow for a wider buffer planting area in front of the parking along the new Somerset Street Extension.

5. **Landscape Buffer (Technical Design Standards 4.5.5 Parking Areas)**

The applicant is requesting a waiver of the landscape buffer requirements around the surface parking until the final design of Somerset Street Extension has been determined and street improvements have been completed. The applicant will work with staff to finalize a planting plan to address the buffer standards.

Temporary Waiver Request

The applicant requests the following temporary waivers:

1. Construction Management Plan. At this stage in development we are unable to provide a detailed construction management plan. We request the ability to provide this at a later time.

2. Lighting Photometric Plan. We have selected the attached fixtures for site lighting and building mounted units. We are requesting a temporary waiver for the submission of the photometric plan, a plan will be provided before a scheduled public hearing.

3. Sign Plan. The Sign Plan will be in conformance with city zoning. We have shown the intended signage and request the ability to provide the detailed sign information at a later time for staff review

4. Manufacturers' Verification of Mechanical Systems, HVAC equipment will be mounted on the roof. Sizing and selection of equipment is currently being developed. Appropriate documentation will be submitted for staff review. We request the ability to provide at a later date.

5. We are requesting the temporary waiver of the requirement for existing soil conditions. The applicant's geotechnical and environmental consultants are in the process of completing the geotechnical and Environmental Site Assessment studies. A final copy of the report will be submitted as soon as possible.

CONSISTENCY WITH CITY'S COMPREHENSIVE PLAN

The Project is consistent with the City's Comprehensive Plan and, more specifically, the Bayside Vision

The Bayside Vision lays out 11 development principles to achieve the City's goals for encouraging development in the bayside neighborhood. This project supports many of the principles proposed.

1. Urban Gateway: Extending Downtown and inviting visitors

Bayside Bowl has been referred to in the press as a 'cultural hotspot' and has been cited as 'integral to bayside revitalization'. Expanding and diversifying the recreation opportunities available will enhance the draw of visitors and locals in to the bayside neighborhood.

2. Economic and employment opportunities

Bayside Bowl currently employs 22 people and will add an additional 6 employees after the addition. Employment types are within service and management industry.

3. A walkable district

Bayside Bowl is the only bowling alley on the peninsula providing good, walkable recreation to much of the downtown and bayside neighborhoods. The addition of squash courts will provide an additional community asset accessible within the peninsula.

7. A neighborhood center

Bayside bowl serves as a community gathering space offering league and recreational bowling opportunities. The addition of Portland Community Squash to the facility will extend their reach to a wider population offering healthy recreation opportunities for kids and adults.

10. Environmental Remediation

71 Hanover Street is the location of the City salt and sand sheds. Work involved in this project will be assessment and cleanup of soils, as necessary. The environmental aspects of the site, from the soils to the addition of landscaping and street tree plantings, will be greatly enhanced with the proposed improvements.

Att. 11

FIRE DEPARTMENT CHECKLIST

1. Name, address, telephone number of applicant

   Justin Alfond, Bayside Bowl
   58 Alder Street
   Portland, Maine 04101
   Phone: 207.553.7777

2. Name, address, telephone number of architect

   Ryan Senatore Architecture
   565 Congress Street, Suite 304
   Portland, Maine 04101
   Contact: Ryan Senatore
   Phone: 207.650.6414

3. Proposed uses of any structures [NFPA and IBC classification]

   IBC: Assembly A2 - Restaurant, Assembly A3 - Bowling Lanes
   NFPA: New Assembly Occupancy

4. Square footage of all structures [total and per story]

   Existing Building: 13,606 SF (one floor)
   Addition
   First Floor: 16,217 SF
   Second Floor: 13,507 SF
   Total: 43,330 SF

5. Elevation of all structures

   Building Height is 46 feet as measured by IBC definitions.

Proposed fire protection of all structures

Fully Supervised NFPA 13 system throughout. Standpipes at both stairs

6. Hydrant locations:

The nearest hydrant is located on the corner of Preble Street and Kennebec Street approximately 150 feet from the existing building.

7. An exterior connection (s) to the sprinkler system will be provided per Fire Departments Request and standpipe connections are proposed

A 6 inch water main is located within Hanover Street. A 6 inch water service for fire is proposed to serve the new addition.

8. Access to all structures [min. 2 sides]

Bayside Bowl will encompass the entire block encircled by Lancaster, Hanover, Alder and Kennebec Streets. The proposed structure is accessible from the full lengths of Alder Street, Hanover Street and Lancaster Street and from a gravel parking lot along Kennebec Street.

9. A code summary shall be included referencing NFPA 1 and all fire department Technical standards.

Preliminary Code Summary provided to PFD under separate cover (Ryan Senatore to review details with Portland Fire Department).

10. Elevators shall be sized to fit an 81" x 23" stretcher and two personnel

The elevator will be a 3,500lb. elevator and fit a stretcher.

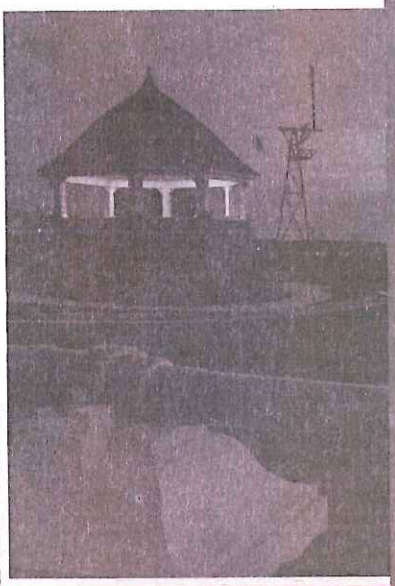
11. Some structures may require Fire flows using annex H of NFPA 1

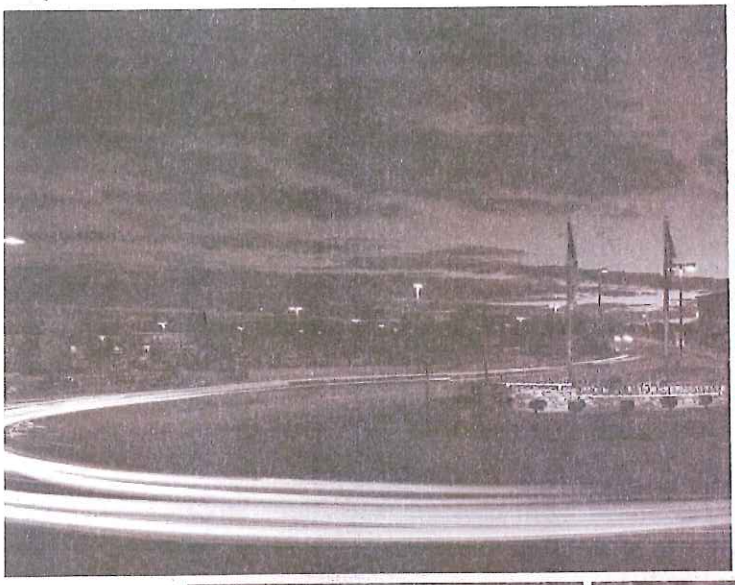
Att. 12

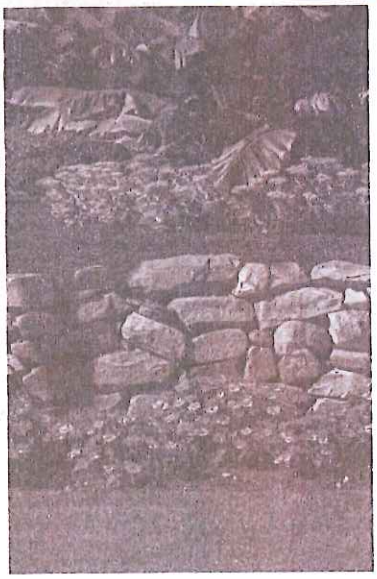
TRAFFIC IMPACT STUDY
EXPANSION OF
BAYSIDE BOWL

Portland, Maine

Relationships.
Responsiveness.
Results.







STATE OF MAINE
RANDALL E. DUNTON
No. 8686
LICENSED PROFESSIONAL ENGINEER

3/23/15

Prepared for:
Mitchell & Associates
70 Center Street
Portland, Maine 04101

March 2015

SUBMITTED BY:

Gorrill Palmer
P.O. Box 1237,
15 Shaker Road
Gray, ME 04039
207.657.6910

Traffic Impact Study
Expansion of Bayside Bowl
Portland, Maine

I. Introduction

The purpose of this Study is to assess the traffic and parking impact of the proposed expansion of Bayside Bowl in Portland, Maine. The site is located within the block defined by Alder, Kennebec, Hanover and Lancaster Streets. The site currently consists of a 12 lane bowling facility and a 60 seat restaurant. The proposed expansion includes the following:

- An additional 8 bowling lanes
- 8 squash courts for singles matches
- 1 squash court for 4 players
- A 48 seat mezzanine to observe the matches
- 25 seat function room
- 38 seat classroom
- An expansion of the restaurant to a total of 210 seats
- A 100 seat roof bar

Vehicular and pedestrian access to the site is planned from Hanover and Alder Streets. Figure 1 of the Appendix shows the approximate location of the site

II. Existing Traffic Volumes

Gorrill Palmer (GP) obtained weekday traffic counts at the following intersections from Lewis Berger:

- Kennebec and Hanover Streets
- Kennebec and Preble Streets
- Kennebec and Alder Streets

The results of the counts are shown in Figure 2 of the Appendix to this report.

III. Proposed uses in the Vicinity of the Proposed Development

Approved projects that are not yet opened as well as projects for which applications have been filed are required to be included in the predevelopment volumes for this project. The City's consulting traffic engineer, Tom Errico, was contacted and requested we include the traffic to be generated by Federated Properties which was

furnished by FST. Based on the trip distribution figures provided for that project (attached), there are no trips from that project forecast to travel through this project's study area.

IV. Pre-Development Traffic Volumes

The traffic counts shown in Figure 2 were obtained in October 2013, and have been adjusted by GP to approximate the 30th highest hour of the year using the weekly group mean factors published by the MaineDOT. This resulted in a time of year adjustment of 4.5%.

The proposed project is anticipated to be constructed by 2017. MaineDOT traffic counts in the area show a slight decline in traffic growth in recent years; however, to allow for some growth in the area, our office utilized an estimated growth of 1.0% per year to increase the existing traffic volumes shown in Figure 2 to 2017. GP combined these volumes with the time of year adjustment traffic to yield the 2017 Pre-Development traffic volumes shown in Figure 3.

V. Trip Generation

The site currently consists of a 12 lane bowling facility and a 60 seat restaurant. The proposed expansion includes the following:

- An additional 8 bowling lanes
- 8 squash courts for singles matches
- 1 squash court for 4 players
- A 48 seat mezzanine to observe the matches
- 25 seat function room
- 38 seat classroom
- An expansion of the restaurant to a total of 210 seats
- A 100 seat roof bar

The Institute of Transportation Engineers' publication *Trip Generation, 7th Edition* is generally utilized to forecast trip generation. However, this project is unique and the overall project does not fit into all of the ITE categories. We did use two of the Land Use Codes (LUC); LUCs 437-Bowling Alley and 931-Quality Restaurant.

Development component	Estimated PM Peak Hour Trip Ends
Additional 8 bowling lanes – LUC 437	36 trip ends (ITE)
150 seat restaurant expansion – LUC 931	27 trip ends (ITE)*
Trip ends	63 trip ends

*Assumes 30% use by patrons already on site.

For the remaining uses, the forecast trip generation for the PM peak hour, when most people are arriving, is based on each of these sources and estimates made by our office for the other components of the project and are summarized below. A trip end is defined as a trip into or out of the site; thus a round trip is equal to two trip ends. The detailed trip generation calculations are provided in the Appendix to this study.

Development component	Estimated Peak Hour Trips Entering
8 squash singles courts	16 (2 people per court)
1 squash doubles court	4 (4 people on court)
48 seat mezzanine to observe matches	48 (full)
25 seat function room	25 (full)
38 seat classroom	38 (full)
100 seat roof bar	0 (used by patrons already on site)
Total patrons entering during PM peak	**131**

Assuming occupancy of 2.0 people per vehicle yields 66 trip ends. These 66 trip ends combined with the bowling alley and restaurant yields an initial forecast of 129 trip ends before additional adjustments are made.

To forecast the actual anticipated entering traffic, GP made the following assumptions:

- 15% of the patrons will use transit (reduction of 19 trip ends)
- Normal use of the building is at 80% capacity of the uses (reduction of 26 trip ends)

Applying these adjustments to the 129 trip ends yields an estimated number of trips arriving at the site of 84 trip ends. During the peak hour we have assumed that the entering traffic comprises 85% of the total trips ends which yields the following:

- Total Entering Volume: 84 trips in
- Total Exiting Volume: 15 trips out
- Total 99 Trip ends

This level of trip generation does not meet the threshold for filing for a Traffic Movement Permit with the MaineDOT since it will generate less than 100 trip ends during the peak hour.

VI. Trip Composition and Assignment

We have assumed that all the trips to and from the site are primary trips made for the sole purpose of going to and from the site. The trip assignment has been based on the traffic counts completed at the adjacent intersections.

VII. Post-Development Traffic Volumes

The pre-development volumes shown in Figure 3 have been combined with the traffic forecast for the expansion of Bayside Bowl shown in Figure 4 to yield the post development traffic volumes shown in Figure 5.

VIII. Capacity Analysis

Gorrill-Palmer Consulting Engineers, Inc. completed capacity analyses for the existing intersections of Hanover and Preble with Kennebec Street.

The analysis was completed with Synchro/SimTraffic analysis software. Levels of service rankings are similar to the academic ranking system where an 'A' is very good with little control delay and an 'F' represents very poor conditions. At an unsignalized intersection, if the level of service falls below a 'D', an evaluation should be made to determine if mitigation is warranted.

The following table summarizes the relationship between control delay and level of service:

Level of Service Criteria for Unsignalized Intersections

Level of Service	Control Delay per Vehicle (sec)
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 summarized as follows. The detailed analyses are included in the Appendix.

Year 2017 Capacity Analyses

Approach	Level of Service	
	PM Pre	PM Post
Hanover / Kennebec		
Kennebec - EB	A	A
Kennebec - WB	A	A
Hanover - NB	A	A
Hanover - SB	A	A
Preble / Kennebec		
Kennebec - EB	A	A
Kennebec - WB	A	A
Preble - SB	A	A

As can be seen from the above results the unsignalized intersections are forecast to operate at an acceptable level of service.

IX. Driveway Sight lines

The City and Maine Department of Transportation has guidelines for sight distances at driveways. The basic sight line standards for driveways are as follows:

Maine DOT Standards for Sight Distance

Posted Speed (mph)	Sight Distance
25	200
30	250
35	305
40	360
45	425
50	495
55	570

Gorrill-Palmer Consulting Engineers, Inc. has evaluated the available sight lines at the existing driveway in accordance with Maine DOT standards.

The Maine DOT standards are as follows:

Driveway observation point:	10 feet off major street travel way
Height of eye at driveway:	3 ½ feet above ground
Height of approaching vehicle:	4 ¼ feet above road surface

The assumed speed on Hanover and Alder Street in the vicinity of the planned site is 25 mph, which requires an available sight line of 200 feet. The available sight distance looking left and right entering onto Hanover from the site exceeds 250 feet to the left

and to Kennebec Street looking right. The available sight distance to the left and right exiting onto Adler Street exceeds 250 feet looking right and to Kennebec Street looking left.

As identified, the sight lines for the driveways exceed requirements. Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right of way, not exceed 2 feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is entering and exiting into the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

X. Crash Summary Data

Gorrill-Palmer Consulting Engineers, Inc. obtained the crash data from MaineDOT for the period of 2011-2013, the most recent period available.

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual crash rate to the rate for similar intersections in the state. A CRF of less than 1.00 indicates a rate of less than average) **and:**

2. A minimum of eight crashes over the same three-year period.

Based on the crash data provided by MaineDOT, there are no high crash locations in the immediate vicinity.

XI. Parking Forecast

The site is currently proposed to provide 37 on-site vehicle parking spaces. The PM peak hour trip generation is forecast to be 99 trip ends (84 entering + 15 exiting). Assuming a fifty percent overlap between the exiting vehicles leaving a parking space and entering vehicles looking for a parking space, the site may need 91 parking spaces. Since the site will accommodate 37 parking spaces, the remaining need for off-site parking spaces is 54 parking spaces. It is our understanding that the applicant is currently negotiating with Apothecary by Design to share their 17 spaces starting at 5:30 PM. The use of these spaces would reduce the off-site parking need to 37 parking spaces. Since this facility is extremely unique, and accurate parking needs can vary, we recommend that the applicant perform a complete parking study once the facility is constructed and fully occupied to confirm the need for additional spaces. The extent and methodology for the parking study would be approved by the City prior to beginning the study.

XII. Conclusions / Recommendations

The following is a summary of the conclusions and recommendations of GP based on the information and analysis presented in this study.

1. The proposed Bayside Bowl project is forecast to generate 99 trip ends during a PM peak hour. This level of trip generation does not require a MaineDOT traffic movement permit.

2. The capacity analyses shows the existing unsignalized intersections are forecast to operate at acceptable levels of service.

3. Sight distance at the site driveways exceeds requirements.

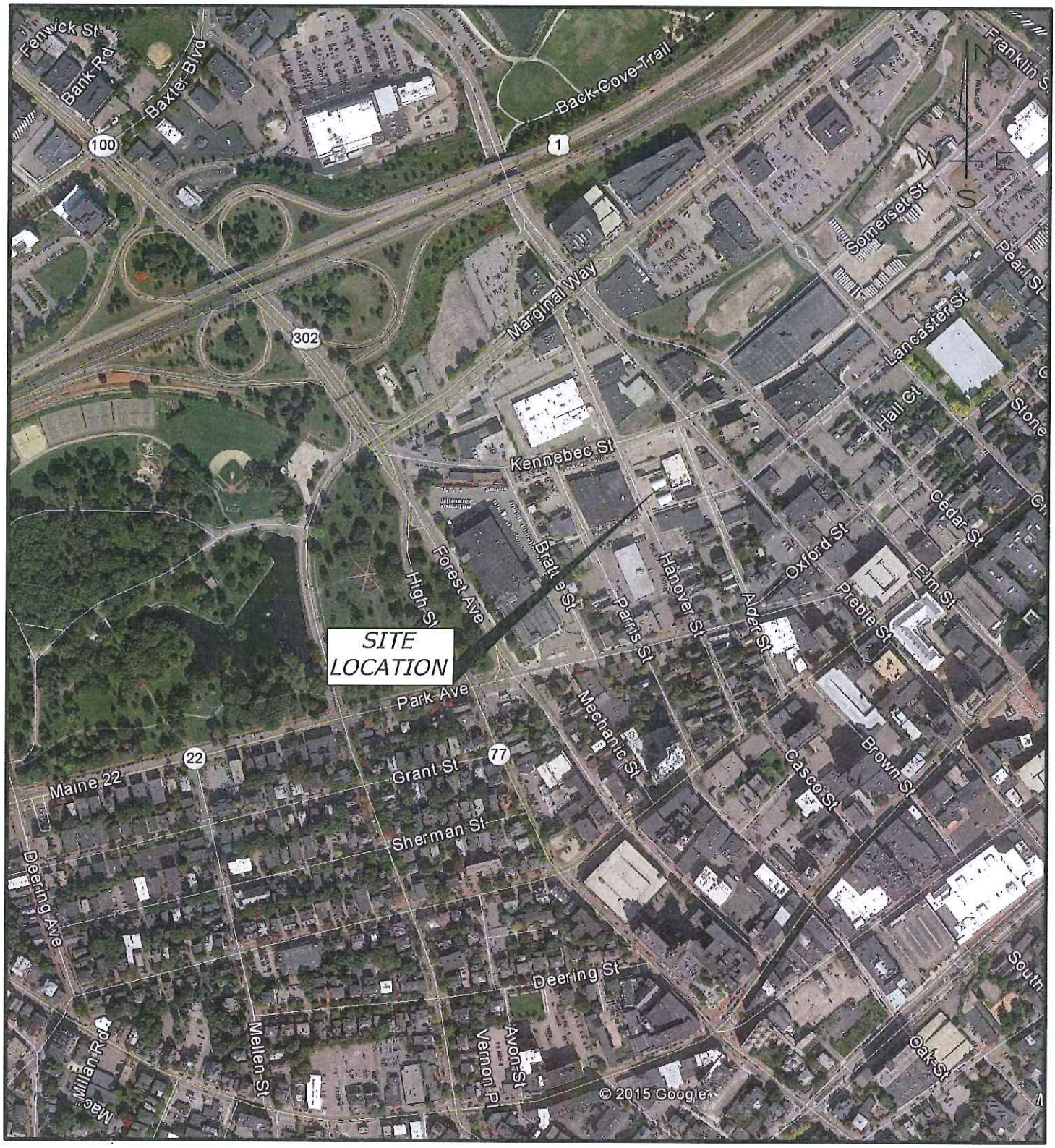
4. The crash data shows that there are no high crash locations in the immediate vicinity.

5. The Bayside Bowl project is forecast to require a total of 91 parking spaces. The site will provide 37 parking spaces, with an additional 17 parking spaces provided off-site. We recommend that a parking study be performed once the site is fully occupied to confirm the need for additional spaces.

Site Location Map
Turning Movement Diagrams

Location Map

Figure No. 1



BAYSIDE BOWL
PORTLAND, MAINE

Design:	RED	Scale:	NONE
Draft:	LAN	Date:	MAR 2015
Checked:	TLG	File Name:	2994-TRAFF.dwg

GORRILL PALMER

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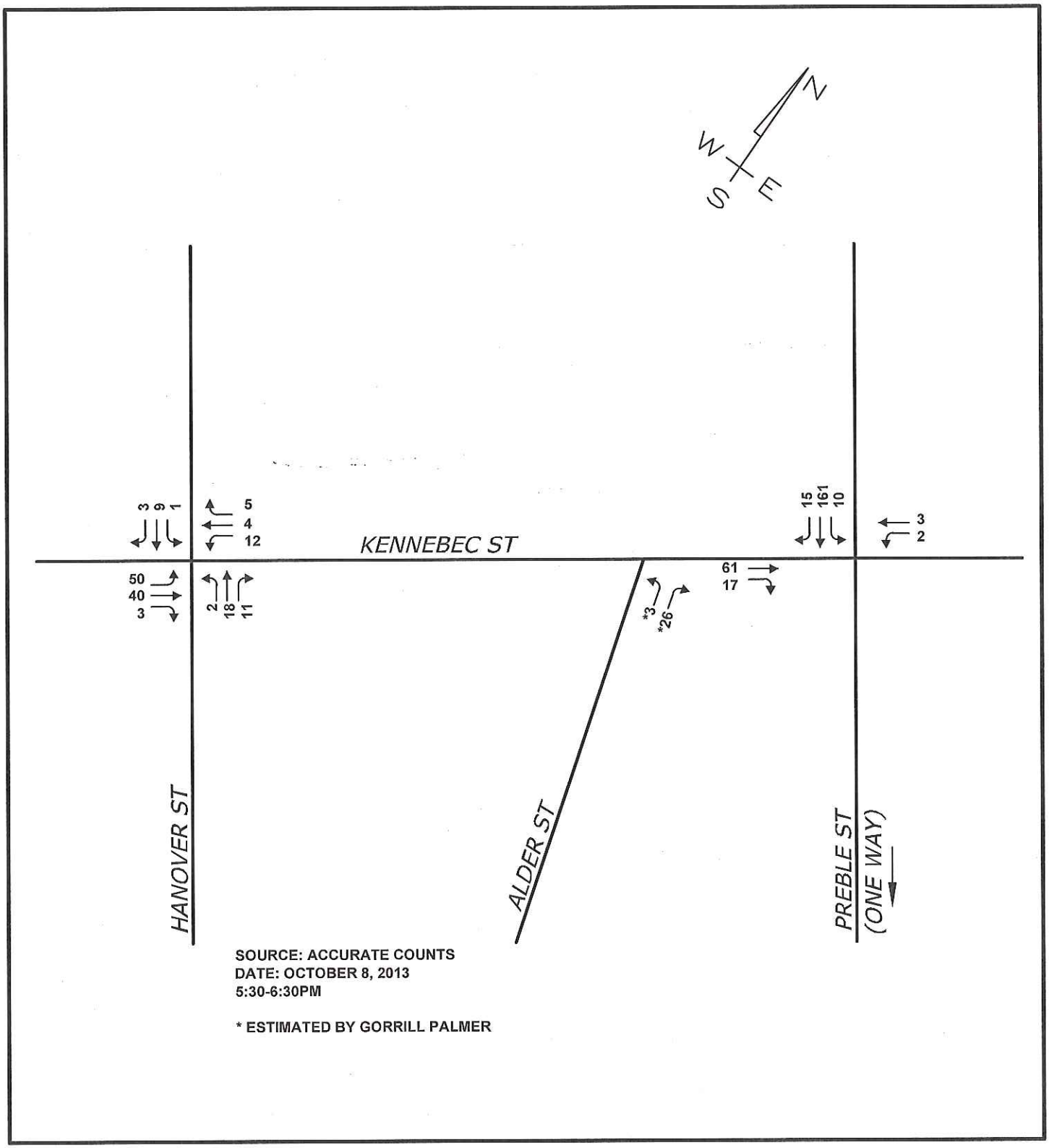
Raw Volumes

Figure No. 2



BAYSIDE BOWL
PORTLAND, MAINE

Design: RED Scale: NONE
Draft: LAN Date: MAR 2015
Checked: TLG File Name: 2994-TRAFF.dwg

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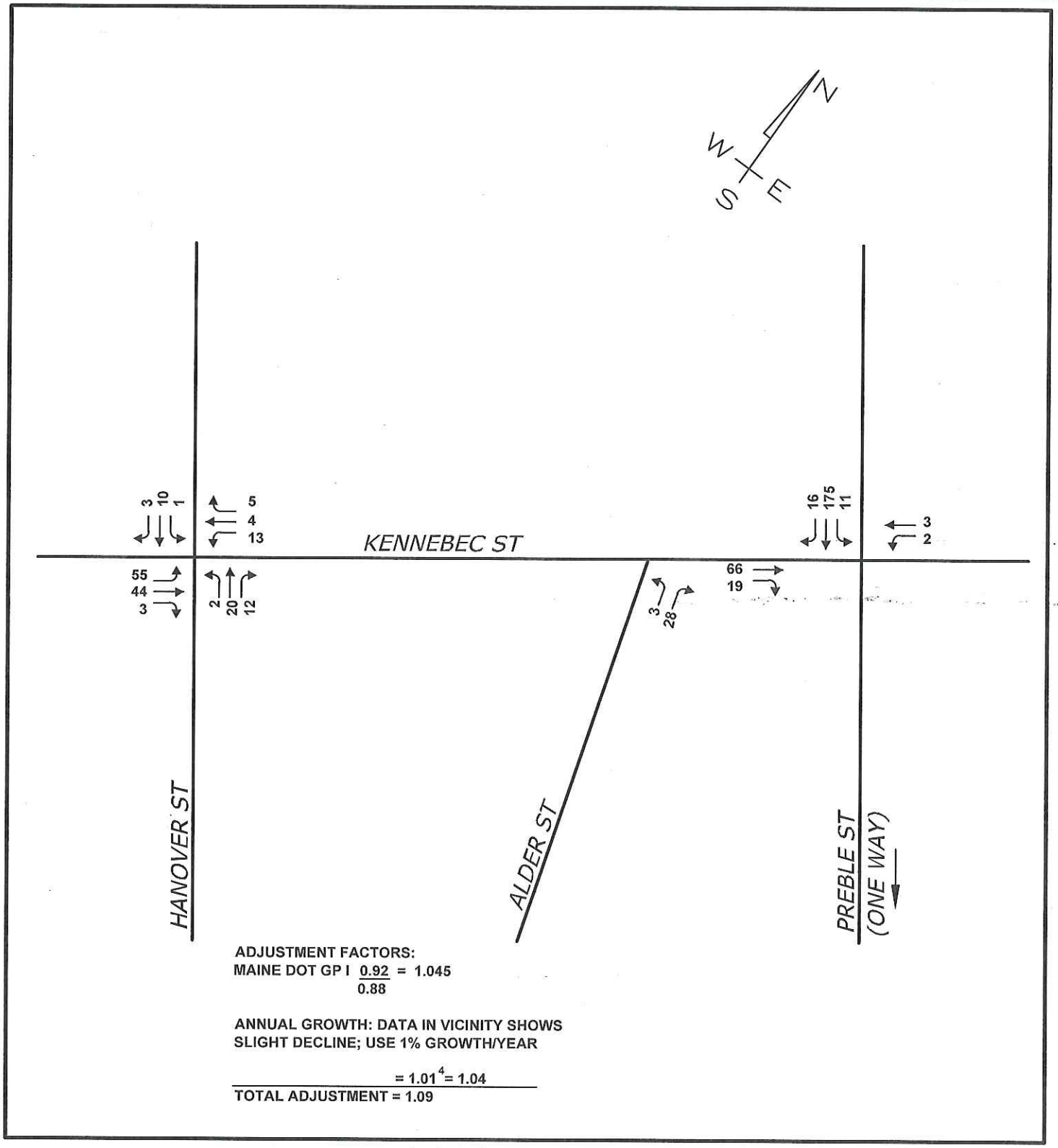
2017 Predevelopment PM Design Hour Volumes

Figure No. 3



ADJUSTMENT FACTORS:
MAINE DOT GP I $\frac{0.92}{0.88} = 1.045$

ANNUAL GROWTH: DATA IN VICINITY SHOWS SLIGHT DECLINE; USE 1% GROWTH/YEAR

$= 1.01^4 = 1.04$

TOTAL ADJUSTMENT = 1.09

BAYSIDE BOWL
PORTLAND, MAINE

Design:	RED	Scale:	NONE
Draft:	LAN	Date:	MAR 2015
Checked:	TLG	File Name:	2994-TRAFF.dwg

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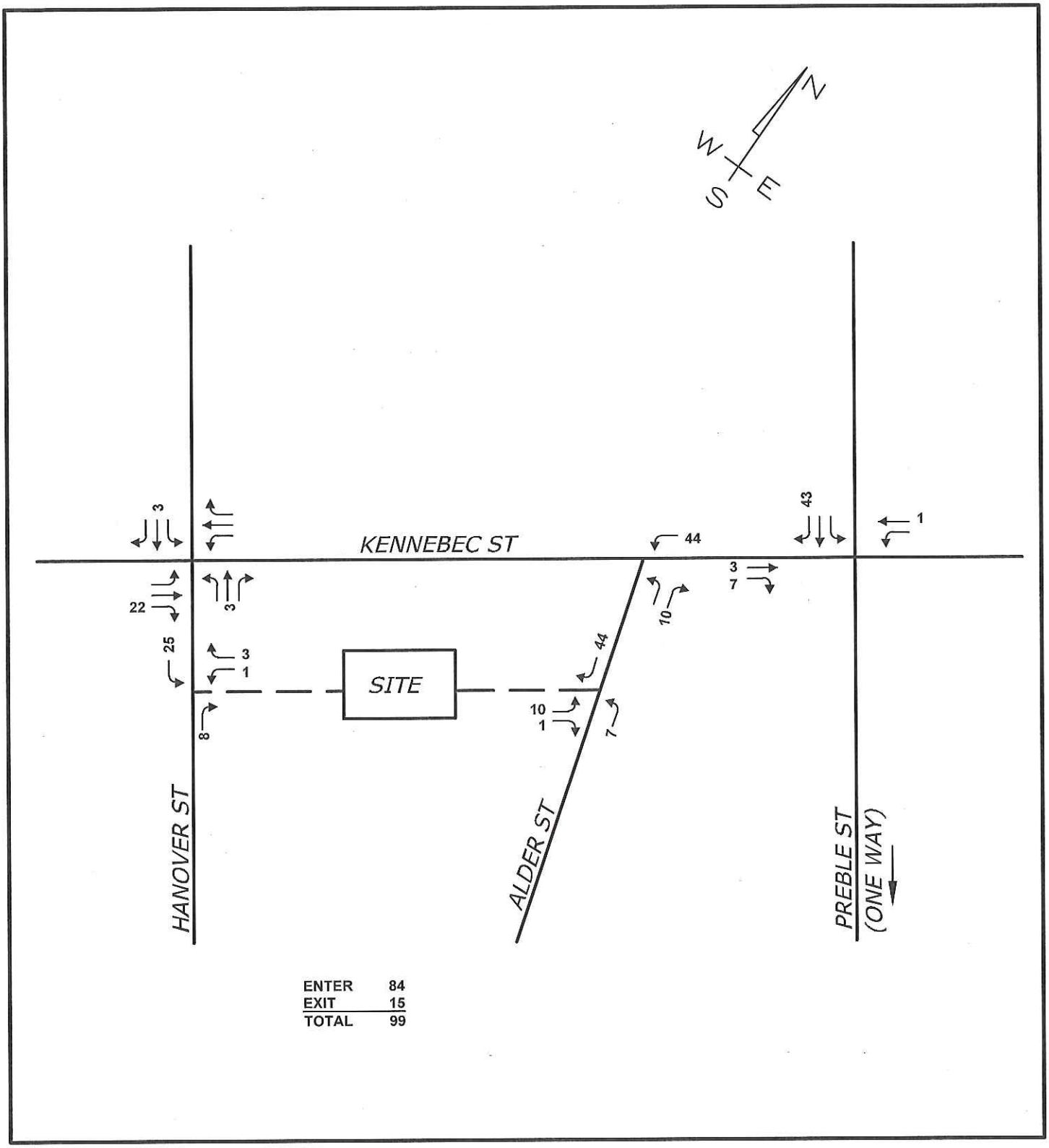
Trip Distribution and Assignment

Figure No. 4



BAYSIDE BOWL
PORTLAND, MAINE

Design: RED Scale: NONE
Draft: LAN Date: MAR 2015
Checked: TLG File Name: 2994-TRAFF.dwg

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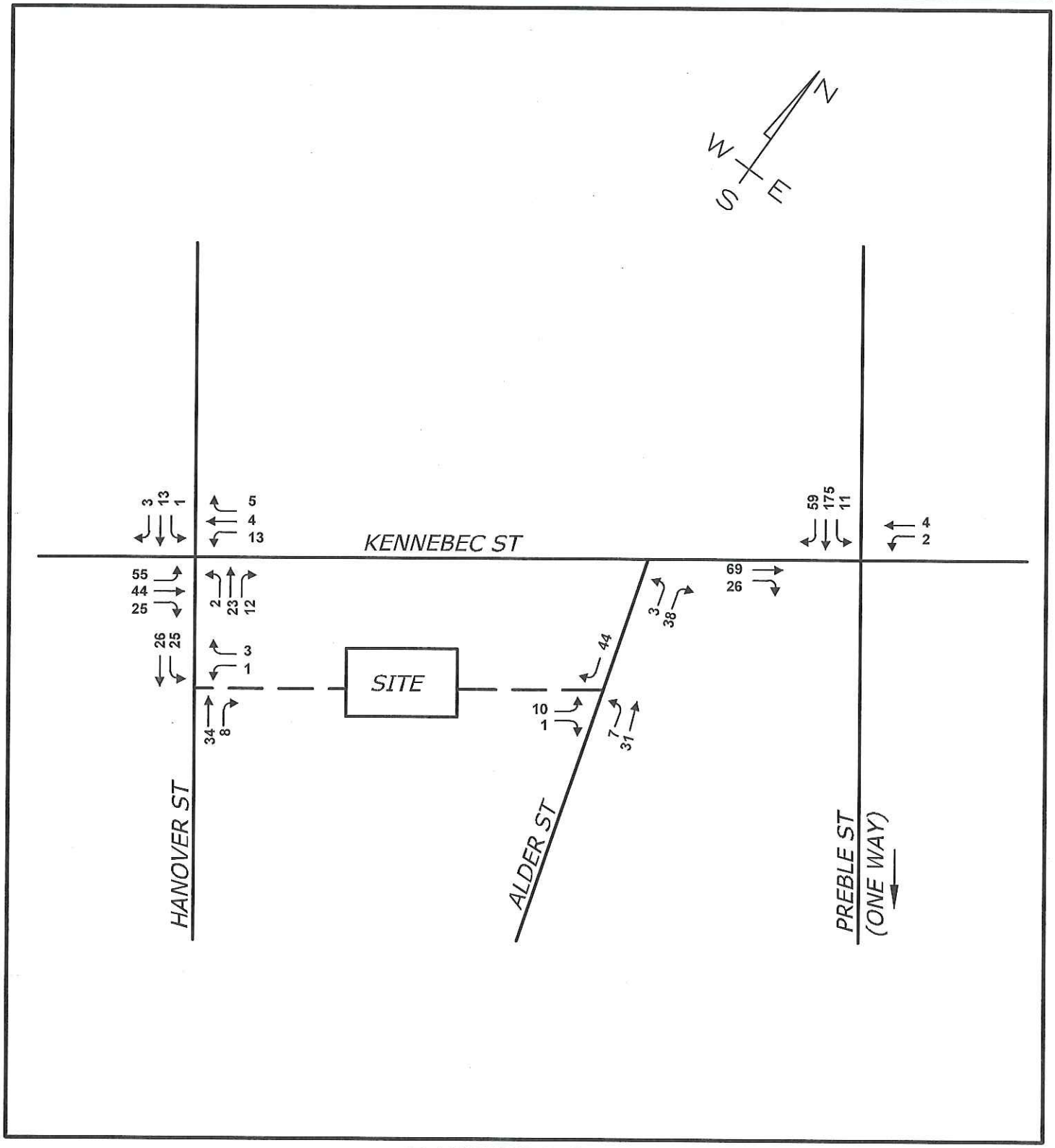
2017 Postdevelopment PM Design Hour Volumes

Figure No. 5



BAYSIDE BOWL
PORTLAND, MAINE

Design: RED Scale: NONE
Draft: LAN Date: MAR 2015
Checked: TLG File Name: 2994-TRAFF.dwg

GORRILL PALMER

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Site Generated Trip Ends
PM Peak Hour
TOTAL ENTERING TRIPS = 184
TOTAL EXITING TRIPS = 165

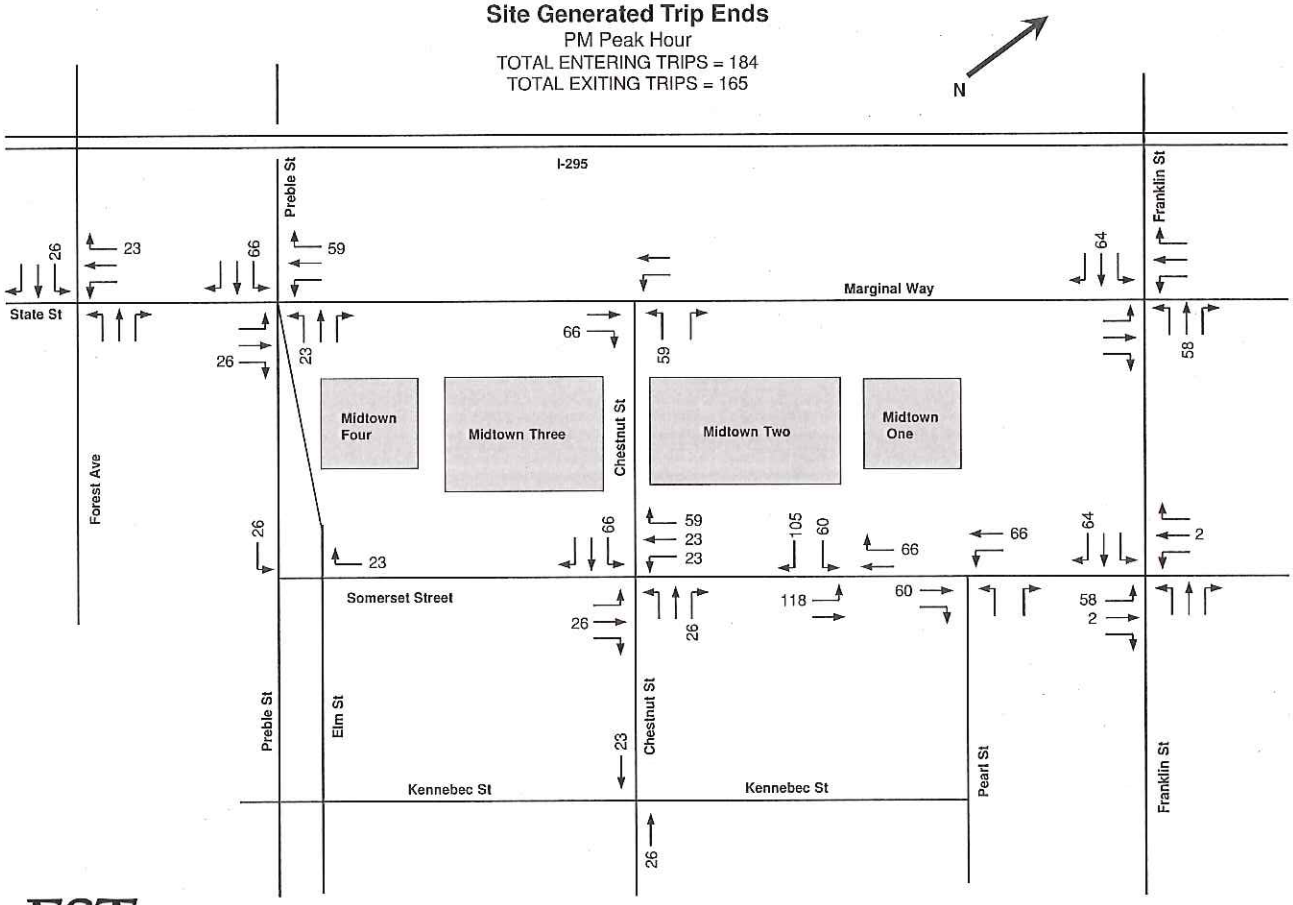


Figure 3
Not to Scale

Capacity and Queuing Analyses

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	365	399	374	357	375	371
Vehs Exited	368	402	375	357	374	375
Starting Vehs	3	4	3	3	4	2
Ending Vehs	0	1	2	3	5	2
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	52	57	54	51	53	53
Travel Time (hr)	2.5	2.8	2.5	2.4	2.5	2.5
Total Delay (hr)	0.4	0.5	0.4	0.4	0.4	0.4
Total Stops	237	280	254	237	248	250
Fuel Used (gal)	2.3	2.6	2.3	2.2	2.3	2.3

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	365	399	374	357	375	371
Vehs Exited	368	402	375	357	374	375
Starting Vehs	3	4	3	3	4	2
Ending Vehs	0	1	2	3	5	2
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	52	57	54	51	53	53
Travel Time (hr)	2.5	2.8	2.5	2.4	2.5	2.5
Total Delay (hr)	0.4	0.5	0.4	0.4	0.4	0.4
Total Stops	237	280	254	237	248	250
Fuel Used (gal)	2.3	2.6	2.3	2.2	2.3	2.3

3: Kennebec St & Hanover St Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.0	0.1	0.1	0.1
Total Del/Veh (s)	4.6	4.1	4.0	4.1	4.4
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

6: Preble St & Kennebec St Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.1
Total Del/Veh (s)	5.6	8.1	0.1	1.8
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.1
Total Del/Veh (s)	3.9
Denied Entry Before	0
Denied Entry After	0

Intersection: 3: Kennebec St & Hanover St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	59	28	35	31
Average Queue (ft)	31	15	20	11
95th Queue (ft)	51	37	44	35
Link Distance (ft)	258	208	273	254
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Preble St & Kennebec St

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	44	22
Average Queue (ft)	19	2
95th Queue (ft)	34	13
Link Distance (ft)	208	374
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	473	473	486	449	431	463
Vehs Exited	472	473	485	450	431	461
Starting Vehs	3	3	3	5	3	2
Ending Vehs	4	3	4	4	3	2
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	63	63	65	60	59	62
Travel Time (hr)	3.1	3.1	3.2	3.0	2.9	3.1
Total Delay (hr)	0.5	0.5	0.5	0.5	0.5	0.5
Total Stops	291	305	307	294	281	295
Fuel Used (gal)	2.9	2.9	2.9	2.7	2.6	2.8

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	473	473	486	449	431	463
Vehs Exited	472	473	485	450	431	461
Starting Vehs	3	3	3	5	3	2
Ending Vehs	4	3	4	4	3	2
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	63	63	65	60	59	62
Travel Time (hr)	3.1	3.1	3.2	3.0	2.9	3.1
Total Delay (hr)	0.5	0.5	0.5	0.5	0.5	0.5
Total Stops	291	305	307	294	281	295
Fuel Used (gal)	2.9	2.9	2.9	2.7	2.6	2.8

3: Kennebec St & Hanover St Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.0	0.1	0.1	0.1
Total Del/Veh (s)	4.4	1.5	4.2	4.3	3.6
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

6: Preble St & Kennebec St Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.1
Total Del/Veh (s)	5.7	5.4	0.2	1.7
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.1
Total Del/Veh (s)	3.7
Denied Entry Before	0
Denied Entry After	0

Intersection: 3: Kennebec St & Hanover St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	73	28	40	31
Average Queue (ft)	34	15	20	15
95th Queue (ft)	55	38	45	39
Link Distance (ft)	258	208	273	254
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Preble St & Kennebec St

Movement	EB	WB	SE
Directions Served	TR	LT	LT
Maximum Queue (ft)	55	22	7
Average Queue (ft)	22	3	0
95th Queue (ft)	42	16	4
Link Distance (ft)	208	374	243
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

MDOT Crash Data
Trip Generation Calculations

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

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

Alder St area

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0560414	Start Node: 19010 End Node: 19008	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node
Route: 0560345	Start Node: 19008 End Node: 19045	Start Offset: 0 End Offset: 0	☑ Exclude First Node ☐ Exclude Last Node
Route: 0560593	Start Node: 19045 End Node: 19021	Start Offset: 0 End Offset: 0	☑ Exclude First Node ☐ Exclude Last Node
Route: 0560008	Start Node: 69141 End Node: 19021	Start Offset: 0 End Offset: 0	☑ Exclude First Node ☑ Exclude Last Node
Route: 0560597	Start Node: 19010 End Node: 19016	Start Offset: 0 End Offset: 0	☑ Exclude First Node ☐ Exclude Last Node
Route: 0560426	Start Node: 19017 End Node: 19018	Start Offset: 0 End Offset: 0	☑ Exclude First Node ☑ Exclude Last Node
Route: 0560426	Start Node: 19016 End Node: 19017	Start Offset: 0 End Offset: 0	☑ Exclude First Node ☑ Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
19010	0560414 - 0.26	Int of KENNEBEC ST PREBLE ST	2	6	0	0	0	0	6	0.0	1.885	1.06	0.46	2.32
												Statewide Crash Rate:	0.14	
69141	0560414 - 0.27	Int of ALDER ST KENNEBEC ST	2	1	0	0	0	1	0	100.0	0.482	0.69	0.60	1.16
												Statewide Crash Rate:	0.14	
19004	0560414 - 0.32	Non Int KENNEBEC ST	2	0	0	0	0	0	0	0.0	0.197	0.00	0.55	0.00
												Statewide Crash Rate:	0.14	
19008	0560414 - 0.33	0509428 POR,HANOVER,KENNEBEC ST.	2	0	0	0	0	0	0	0.0	1.232	0.00	0.51	0.00
												Statewide Crash Rate:	0.14	
19018	0560345 - 0.16	Int of HANOVER ST LANCASTER ST	2	0	0	0	0	0	0	0.0	0.445	0.00	0.60	0.00
												Statewide Crash Rate:	0.14	
19045	0560345 - 0.27	Int of HANOVER ST PORTLAND ST	2	2	0	0	0	1	1	50.0	1.701	0.39	0.44	0.00
												Statewide Crash Rate:	0.13	
19021	0560593 - 0.18	Int of ALDER ST, OXFORD ST, PORTLAND ST	2	0	0	0	0	0	0	0.0	1.758	0.00	0.44	0.00
												Statewide Crash Rate:	0.13	
19017	0560008 - 0.06	Int of ALDER ST LANCASTER ST	2	0	0	0	0	0	0	0.0	0.255	0.00	0.59	0.00
												Statewide Crash Rate:	0.14	
19016	0560597 - 0.19	Int of LANCASTER ST PREBLE ST	2	3	0	0	0	1	2	33.3	1.455	0.69	0.49	1.41
												Statewide Crash Rate:	0.14	
Study Years: 3.00		NODE TOTALS:		12	0	0	0	3	9	25.0	9.410	0.43	0.30	1.43

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
69141	19010	3509369	0 - 0.01	0560414 - 0.26	0.01	2	0	0	0	0	0	0	0.0	0.00004	0.00	336.32	0.00
Int of ALDER ST KENNEBEC ST				RD INV 05 60414											Statewide Crash Rate: 346.68		
19004	69141	3509368	0 - 0.05	0560414 - 0.27	0.05	2	1	0	0	1	0	0	100.0	0.00020	1692.76	1473.67	1.15
Non Int KENNEBEC ST				RD INV 05 60414											Statewide Crash Rate: 346.68		
19004	19008	194695	0 - 0.01	0560414 - 0.32	0.01	2	0	0	0	0	0	0	0.0	0.00004	0.00	527.37	0.00
Non Int KENNEBEC ST				RD INV 05 60414											Statewide Crash Rate: 346.68		
19008	19018	194702	0 - 0.05	0560345 - 0.11	0.05	2	1	0	0	0	0	1	0.0	0.00026	1279.95	1422.66	0.00
0509428 POR,HANOVER,KENNEBEC ST.				RD INV 05 60345											Statewide Crash Rate: 346.68		
19018	19045	194720	0 - 0.11	0560345 - 0.16	0.11	2	3	0	0	1	0	2	33.3	0.00037	2692.61	1334.84	2.02
Int of HANOVER ST LANCASTER ST				RD INV 05 60345											Statewide Crash Rate: 346.68		
19021	19045	3122297	0 - 0.04	0560593 - 0.14	0.04	2	0	0	0	0	0	0	0.0	0.00059	0.00	622.52	0.00
Int of ALDER ST, OXFORD ST, PORTLAND ST				RD INV 05 60593											Statewide Crash Rate: 151.38		
69141	19017	3525695	0 - 0.06	0560008 - 0	0.06	2	0	0	0	0	0	0	0.0	0.00013	0.00	1491.00	0.00
Int of ALDER ST KENNEBEC ST				RD INV 05 60008											Statewide Crash Rate: 346.68		
19017	19021	194719	0 - 0.10	0560008 - 0.06	0.10	2	3	0	0	0	0	1	0.0	0.00020	5092.43	1474.06	3.45
Int of ALDER ST LANCASTER ST				RD INV 05 60008											Statewide Crash Rate: 346.68		
19010	19016	3106835	0 - 0.06	0560597 - 0.13	0.06	2	1	0	0	0	0	1	0.0	0.00083	403.41	690.88	0.00
Int of KENNEBEC ST PREBLE ST				RD INV 05 60597											Statewide Crash Rate: 186.33		
19017	19018	194718	0 - 0.05	0560426 - 0.27	0.05	2	0	0	0	0	0	0	0.0	0.00002	0.00	-3452.66	0.00
Int of ALDER ST LANCASTER ST				RD INV 05 60426											Statewide Crash Rate: 346.68		
19016	19017	194716	0 - 0.03	0560426 - 0.24	0.03	2	0	0	0	0	0	0	0.0	0.00002	0.00	-1417.32	0.00
Int of LANCASTER ST PREBLE ST				RD INV 05 60426											Statewide Crash Rate: 346.68		
Study Years: 3.00				Section Totals:	0.57		9	0	0	2	0	5	22.2	0.00268	1120.19	650.38	1.72
				Grand Totals:	0.57		21	0	0	2	3	14	23.8	0.00268	2613.78	834.56	3.13

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
69141	19010	3509369	0 - 0.01	0560414 - 0.26	0	0	0	0	0	0				
19004	69141	3509368	0 - 0.05	0560414 - 0.27	1	0	0	1	0	0	2012-37806	09/04/2012	0.27	B
19004	19008	194695	0 - 0.01	0560414 - 0.32	0	0	0	0	0	0				
19008	19018	194702	0 - 0.05	0560345 - 0.11	1	0	0	0	0	1	2012-34013	07/31/2012	0.13	PD
19018	19045	194720	0 - 0.11	0560345 - 0.16	3	0	0	1	0	2	2011-7452	08/09/2011	0.21	B
											2011-1429C	01/25/2011	0.22	PD
											2013-2828	02/02/2013	0.25	PD
19021	19045	3122297	0 - 0.04	0560593 - 0.14	0	0	0	0	0	0				
69141	19017	3525695	0 - 0.06	0560008 - 0	0	0	0	0	0	0				
19017	19021	194719	0 - 0.10	0560008 - 0.06	3	0	0	0	0	1	2012-28697	05/21/2012	0.09	
											2013-5124	02/22/2013	0.13	
											2012-43808	11/09/2012	0.13	PD
19010	19016	3106835	0 - 0.06	0560597 - 0.13	1	0	0	0	0	1	2013-23165	09/17/2013	0.18	PD
19017	19018	194718	0 - 0.05	0560426 - 0.27	0	0	0	0	0	0				
19016	19017	194716	0 - 0.03	0560426 - 0.24	0	0	0	0	0	0				
				Totals:	9	0	0	2	0	5				

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												Hour of Day	PM											
Day Of Week	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MONDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	3
TUESDAY	0	0	0	0	0	0	1	1	0	1	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	7
WEDNESDAY	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
FRIDAY	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	5
SATURDAY	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3
Totals	0	0	0	0	0	1	1	3	1	1	1	2	0	2	1	3	0	2	0	2	0	0	1	0	0	21

Vehicle Counts by Type

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

Unit Type	Total
23-Bicyclist	1
24-Witness	6
25-Other	3
Total	46

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	6	3	0	0	0	0	9
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	3	4	0	0	0	0	7
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	1	0	0	0	0	0	1
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	0	1	0	0	0	0	1
Improper Turn	0	1	0	0	0	0	1
Improper Backing	0	1	0	0	0	0	1
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	0	0	0	0	0	0	0
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	0	0	0	0	0	0
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	2	0	0	0	0	0	2
Unknown	2	3	0	0	0	0	5
Total	14	13	0	0	0	0	27

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	17	12	0	0	0	1	30
Physically Impaired or Handicapped	0	1	0	0	0	0	1
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	1	0	0	0	0	1	2
Other	0	1	0	0	0	0	1
Total	18	14	0	0	0	2	34

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	3	0	0	0	0	3
20-24	4	0	0	0	0	4
25-29	6	0	0	0	0	6
30-39	6	0	0	0	0	6
40-49	5	0	0	0	0	5
50-59	4	0	0	0	0	4
60-69	2	0	0	0	0	2
70-79	2	0	0	0	0	2
80-Over	0	0	0	0	0	0
Unknown	6	1	0	1	0	8
Total	38	1	0	1	0	40

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Most Harmful Event

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

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	0
2-Traffic Signals (Flashing)	0
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	1
5-Stop Signs - Other	9
6-Yield Sign	0
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	10
14-Other	1
Total	21

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	2	2
C	3	4
PD	14	0
Total	19	6

Road Character

Road Grade	Total
1-Level	13
2-On Grade	8
3-Top of Hill	0
4-Bottom of Hill	0
5-Other	0
Total	21

Light

Light Condition	Total
1-Daylight	15
2-Dawn	1
3-Dusk	1
4-Dark - Lighted	3
5-Dark - Not Lighted	1
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	21

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2011	2012	2013	Total
JANUARY	2	1	0	3
FEBRUARY	0	0	2	2
MARCH	2	1	0	3
APRIL	0	0	0	0
MAY	0	1	0	1
JUNE	0	1	1	2
JULY	0	1	0	1
AUGUST	2	0	0	2
SEPTEMBER	0	3	1	4
OCTOBER	0	0	1	1
NOVEMBER	1	1	0	2
DECEMBER	0	0	0	0
Total	7	9	5	21

Report is limited to the last 10 years of data.

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	4	0	0	2	0	0	0	0	0	0	0	0	0	6
Head-on / Sideswipe	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Intersection Movement	0	0	0	8	0	1	0	0	0	0	0	0	0	9
Pedestrians	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	0	1	0	0	0	0	0	0	0	0	0	1
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Other	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	0	0	12	0	2	0	0	0	0	0	0	0	21

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	2	0	0	0	0	0	0	0	0	0	0	2
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	14	0	0	0	0	0	0	0	0	0	0	14
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	1	0	0	0	0	0	0	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

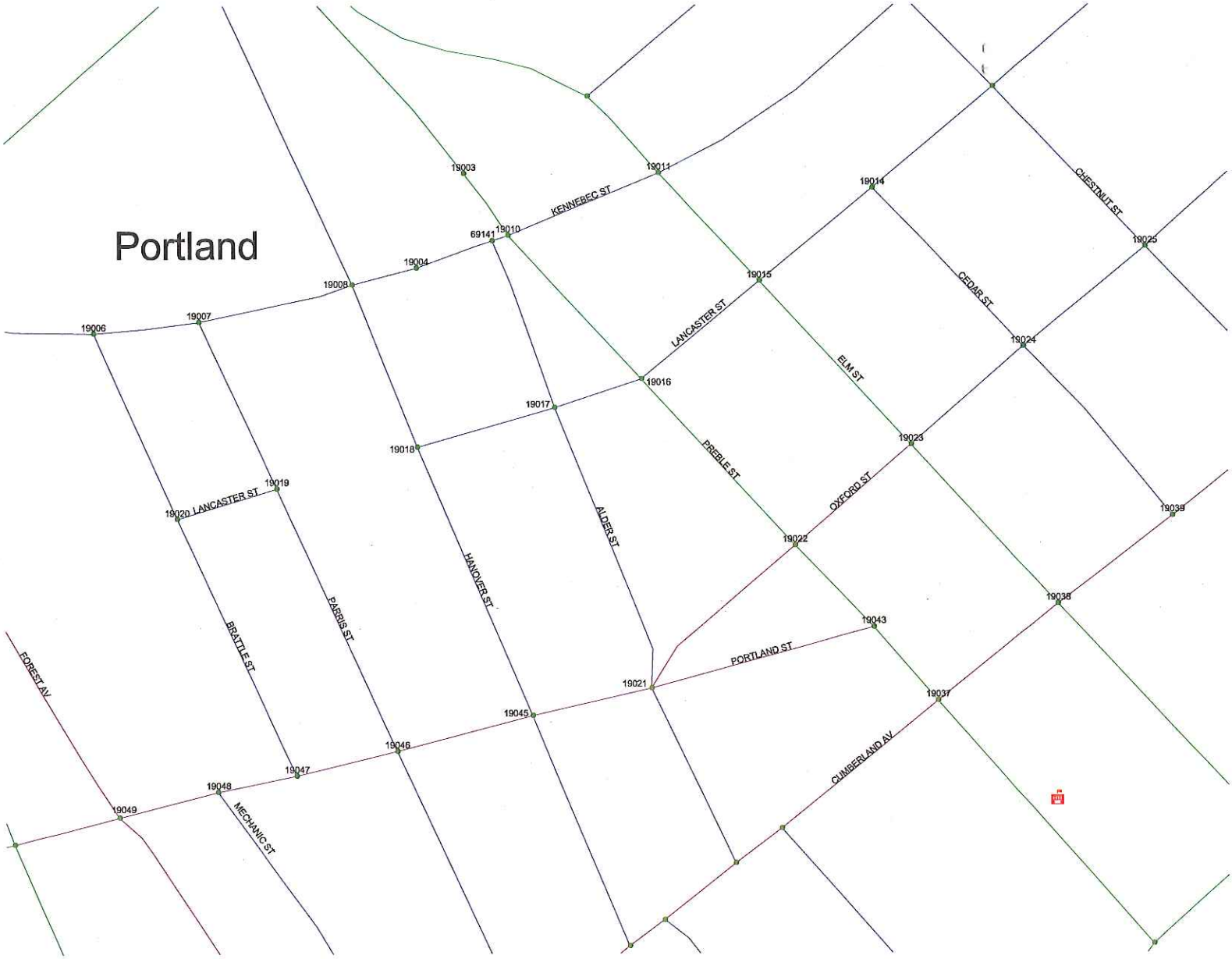
Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0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

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	1	0	0	0	1
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	18	0	0	0	1	0	0	2	0	0	0	21


Portland
19003
19011
19014
CHESTNUT ST
KENNEBEC ST
69141
19010
19025
19004
19008
19015
CEDAR ST
19006
19007
LANCASTER ST
19024
ELM ST
19016
19017
19023
19018
PREBLE ST
19019
19020 LANCASTER ST
OXFORD ST
19039
ALDER ST
19022
HANOVER ST
19038
19043
PARRIS ST
BRATTLE ST
PORTLAND ST
FOREST AV
19021
19037
19045
19046
CUMBERLAND AV
19047
19048
19049
MECHANIC ST

JN: 2994
Project Description: Bayside Bowl
Project Location: Portland
Date: 3/19/2015

Gorrill-Palmer Consulting Engineers, Inc.
P.O. Box 1237
15 Shaker Road
Gray, Maine 04039

Quality Restaurant
Land Use Code (LUC) 931

Seats: 150

Time Period	ITE Trip Rate	Trip Ends	Directional Split IN	Directional Split OUT	Directional Distribution IN	Directional Distribution OUT
Weekday	T = 2.86 (X)	429	50%	50%	215	214
AM Peak Adjacent Street	T = 0.03 (X)	5	70%	30%	4	1
PM Peak Adjacent Street	T = 0.26 (X)	39	65%	35%	25	14
AM Peak of Generator	T = 0.16 (X)	24	70%	30%	17	7
PM Peak of Generator	T = 0.30 (X)	45	60%	40%	27	18
Saturday	T = 2.81 (X)	422	50%	50%	211	211
Saturday Peak Hour of Gen.	T = 0.33 (X)	50	60%	40%	30	20

Att. 13

STORMWATER MANAGEMENT PLAN

Please see the attached stormwater report from Ransom Consulting Engineers.

RANSOM
Consulting, Inc.

Consulting
Engineers
and Scientists

Bayside Bowl Stormwater Management Narrative

Date:	March 23, 2015
To:	City of Portland
From:	Stephen J. Bradstreet, P.E.
Peer Review:	Maureen P. McGlone, P.E.
Location:	58 Alder Street, Portland, Maine

List of Appendices:

Appendix A: Post Construction Stormwater Management Plan
Appendix B: Stormwater BMP Inspection and Maintenance Requirements
Appendix C: Pre Development Hydro CAD Calculations
Appendix D: Post Development Hydro CAD Calculations

Existing Conditions:

The site is a 55,290 SF (1.27 acres) acre parcel that is bordered by Kennebec Street, Hanover Street, East Lancaster Street and the existing Bayside Bowl building. The site's topography is generally flat and slopes from the south to the north and drains into catch basins on Hanover Street and Alder Street. Actual site topography was difficult to ascertain due to large snow piles on much of the site. The parcel is currently being utilized for the Portland Public Services salt sheds, a paved parking area for Public Services, and a gravel parking lot for the existing Bayside Bowl. The entire parcel is impervious with either paved or gravel surfaces.

Stormwater runoff from the area of the parcel containing the two salt sheds (Sub-catchment 3) flows in two directions. A portion flows toward Hanover Street and into CB 8110. The remaining area appears to flow to an on-site catch basin located in the most northerly storage bay. It is unknown if that catch basin is tied into the City's stormdrain system on Hanover Street. The paved parking lot and possibly part of the existing gravel parking area (Sub-catchment 2) also appears to flow to CB 8110. The remaining part of the site, consisting of the majority of the gravel parking lot and the existing building flows to CB 8290 located in Alder Street. All catch basins are part of the City's combined sewer system in this area of Bayside.

Proposed Development:

The applicant, BoPo, LLC proposes to construct a 2 story (with a third floor deck area) building addition to the existing Bayside Bowl. The building will have an additional eight lanes of bowling on the first floor along with expanded restaurant sitting area, kitchen area and storage. The second floor will have Squash courts, training rooms and locker facilities. The proposed development will decrease the site's

impervious area from 52,290 SF to approximately 47,588 SF. The remaining area will be a combination of landscaped planting areas or lawn.

Stormwater Management – Basic Standards:

Erosion and sedimentation control measures are detailed within the design plans. Good housekeeping practices will be in accordance with Maine DEP Best Management Practices. A post construction stormwater management plan is provided in *Appendix A*. Stormwater BMP inspection and maintenance requirements are provided in *Appendix B*.

Stormwater Management - Quality:

The existing site is currently all gravel and basically an impervious site. The existing gravel parking lot sheet flows primarily to the catch basin in Alder Street, which at this location is a separated system. The second area of the site is a small paved parking lot. Stormwater from this area of the site flows to a catch basin located in Hanover Street which is connected to the City's combined sewer system. The third area of the site is the City's salt sheds and truck loading area that sheet flows out to the same catch basin in Hanover Street.

The site's impervious area has been reduced by 7,702 SF which is a 14% reduction. With the removal of the salt sheds and truck loading area, the stormwater quality would improve greatly. However, an underdrained vegetated swale is proposed in the grass area adjacent to Kennebec Street. This will further improve the water quality exiting the site. Furthermore, the site's stormwater will now primarily exit to Alder Street, into the separated system. This will reduce the load on the combined sewer system within Hanover Street.

Stormwater Management - Quantity:

With the reduction in impervious area and the introduction of landscaped areas with an underdrained vegetated swale, there are no detention measures proposed. The stormwater runoff has been reduced by 6% to 36% depending on the storm event. The 1" storm event is obviously the most frequent and has been reduced by 36%. Based on the proposed site conditions and the reduction in stormwater flows, we believe that detention is not required.

Hydraulic Analysis:

Stormwater runoff calculations for quantity were made using the HydroCAD 10.0 computer program, which is based on the Soil Conservation Service's TR-20 methodology. Runoff hydrographs are generated based on a standard Type III 24 hour storm.

Five storm events were modeled as follows:

1. 1" storm: The 1" storm event was analyzed to simulate a heavy weather event that would typically happen multiple times over a given year and may impact the CSO frequency and volume.

2. 2-year frequency flood event: 3" rainfall

3. 10-year frequency flood event: 4.7" rainfall

4. 25-year frequency flood event: 5.5" rainfall

5. 100-year frequency flood event: 6.7" rainfall

Runoff Curve numbers were determined based on land coverage and soil type based on geotechnical investigations conducted on March 12, 2015. Soils were typically 8-10 feet of urban fill underlain by soft clays. Times of concentration were developed based on runoff flow paths for each subarea and shown on the Pre and Post-Development plans. A minimum Tc of 6 minutes was set in the HydroCAD model.

Peak runoff flow rates and runoff volumes are provided for the following two analysis points, which are identified on the Pre and Post-Development plans.

1. Analysis Point A (CB at Alder Street)-This catch basin currently receives stormwater runoff from the existing gravel parking lot. In this area the catch basin is in a separated stormwater system.

2. Analysis Point B (CB at Hanover Street)-This catch basin currently receives stormwater runoff from the salt shed and paved parking lot areas. In this area the catch basin is in a combined sewer system.

Analysis Point A shows an increase in runoff rates and volume; however reduction in flows going to Analysis Point B and the overall reduction in flows and volumes off-site benefits the combined sewer system downstream of the site.

Analysis Point B) shows a reduction in runoff rates and volumes.

Peak runoff rates and runoff volumes for the above analysis points and storm events are tabulated in the following tables. HydroCAD calculations can be found in *Appendices C & D*. Pre- and Post-Development plans (SW-1 and SW-2) can be found in the plan set.

Storm Event	PRE-Development Peak Runoff RATES cubic feet per second (CFS)			
	Analysis Point A CB in Alder St	Analysis Point B CB in Hanover St		Total A + B
	Sub Area 1	Sub Area 2	Sub Area 3	
1" Storm	.55	.2	.32	1.07
2 Year Frequency Storm	1.93	.69	1.03	3.65
10 Year Frequency Storm	3.07	1.1	1.63	5.80
25 Year Frequency Storm	3.61	1.29	1.91	6.81
100 Year Frequency Storm	4.41	1.57	2.33	8.31

Storm Event	POST-Development Peak Runoff RATES cubic feet per second (CFS)		
	Analysis Point A CB in Alder St	Analysis Point B CB in Hanover St	Total A + B
1" Storm	.66	.00	.66
2 Year Frequency Storm	2.99	.10	3.09
10 Year Frequency Storm	4.96	.25	5.21
25 Year Frequency Storm	5.87	.33	6.2
100 Year Frequency Storm	7.24	.44	7.69

Storm Event	PRE-Development Runoff VOLUMES acre feet (AF) volume of water 1' deep over one acre			
	Analysis Point A CB in Alder St	Analysis Point B CB in Hanover St		Total A + B
	Sub Area 1	Sub Area 2	Sub Area 3	
1" Storm	.037	.013	.022	.072
2 Year Frequency Storm	.142	.051	.078	.270
10 Year Frequency Storm	.233	.083	.125	.441
25 Year Frequency Storm	.275	.098	.148	.521
100 Year Frequency Storm	.339	.121	.181	.641

Storm Event	POST-Development Runoff VOLUMES acre feet (AF) volume of water 1' deep over one acre		
	Analysis Point A CB in Alder St	Analysis Point B CB in Hanover St	Total A+B
1" Storm	.046	.000	.046
2 Year Frequency Storm	.217	.007	.224
10 Year Frequency Storm	.372	.017	.388
25 Year Frequency Storm	.445	.022	.467
100 Year Frequency Storm	.556	.029	.586

APPENDIX A

Post Construction Stormwater Management Plan

Bayside Bowl Stormwater Management Narrative
City of Portland
58 Alder Street
Portland, Maine

Bayside Bowl Post-construction stormwater management plan

The Applicant shall maintain the BMPs in accordance with the approved plan and shall demonstrate compliance with the plan as follows:

(a) *Inspections.* The owner or operator of a BMP shall hire a qualified post-construction stormwater inspector to at least annually, inspect the BMPs, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.

(b) *Maintenance and repair.* If the BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator of the BMP shall take corrective action(s) to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective action(s) to the department of public services ("DPS") in the annual report.

(c) *Annual report.* The owner or operator of a BMP or a qualified post-construction stormwater inspector hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification to DPS in a form provided by DPS, certifying that the person has inspected the BMP(s) and that the yare adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, including the record of the deficiency and corrective action(s) taken.

(d) *Filing fee.* Any persons required to file and annual certification under this section shall include with the annual certification a filing fee established by DPS to pay the administrative and technical costs of review of the annual certification.

(e) *Right of entry.* In order to determine compliance with this article and with the post-construction stormwater management plan, DPS may enter upon property at reasonable hours with the consent of the owner, occupant or agent to inspect the BMPs.

Bayside Bowl: Stormwater BMP Inspection Log

The City of Portland, ME requires ongoing annual inspections to ensure the proper maintenance and operation of stormwater management facilities. Inspections must be conducted by third parties qualified by the City.

A. General Information

Use only one Cover Sheet per site with as many specific structural BMP Inspection Report attachments as needed. Attach required color digital photos of site, structures and devices as applicable with captions.

Project Name:	**Bayside Bowl**	**Inspection Date:**	
Parcel Map, Block and Lot:	**34-H-001, 34-H-002, 34-H-004, 34-H-005**	**Current Weather:**	
BMP Owner:	**Bo,Po, LLC**	**Date / Amount Last Precip:**	
Owner Mailing Address:	**58 Alder Street Portland, Maine**	**3PI Company:**	
		3PI Mailing Address:	
Owner Phone #:	**207-232-4187**		
Owner Email:		**Inspector Name:**	
		Inspector Phone #:	
		Inspector Email:	

B. Inspection Report Attachments

Please document the number of each structural BMP type found at this site in the blank spaces provided below. Use additional Attachments if / as needed and submit all Attachments together with the Cover Sheet as a single report.

BMP Type	Number BMPs at site
Vegetated Areas	-
Stormdrain Outlets	1
Stormdrain Structures: Overflow Control and Harco Drain with Stormsack	2
FocalPoint High Flow Biofiltration Unit	1
R-Tank Subsurface Detention-Infiltration System	1

Other (describe	

C. Inspection Results

FAIL** ☐

** If any one item on an Inspection Report attachment is coded as "Work Needed" then entire BMP fails inspection.

** If a site has multiple BMPs and one fails inspection, mark as "Fail" until all BMPs pass inspection.

Note: Applicable BMP Inspection Reports and confirmatory color digital photos summarizing required repairs must be submitted to the City following completion of the preliminary inspection. A re-inspection and certification must be completed within 60 days of the failed preliminary report. It is recommended that the inspector be part of the repair / maintenance process to ensure that repairs are performed properly.

PASS ☐

Note: a qualified professional (as determined by the City) must sign below and include all applicable Inspection Report attachments and confirmatory digital color photos with captions.

D. Professional Certification (as qualified by City of Portland Stormwater Program Coordinator)

To be completed only when all BMPs at this site are functioning as designed with no outstanding maintenance issues.

I, _____, as a duly qualified third party inspector attest that a thorough inspection has been completed for ALL applicable BMPs that are associated with this particular site. All inspected structural BMPs are performing as designed and intended and are in compliance with the provisions of the City Portland's Standards

Signature: _____

Date: _____

Form Adapted from the City of South Portland's Annual Structural BMP Inspection Report Cover Sheet

Owner: BoPo, LLC	Operator:
Location & Parcel Id:	Inspector:
	Date:

General Information	Observations
Inspection duration (hours)	
Days since last precipitation	
Quantity of last precipitation (in)	
Type of inspection	
Storm event	
Current weather	
Photos taken	☐ Yes ☐ No ☐ NA
Nearby natural resources	☐ Yes ☐ No ☐ NA
Copy of ESC plan	☐ Yes ☐ No ☐ NA
MEDEP Permit # (*if applicable*)	

General info notes

Vegetated Areas	Observations
Condition of slopes and embankment is good	☐ Yes ☐ No ☐ NA
No bare areas (< 90% covered) with sparse growth	☐ Yes ☐ No ☐ NA
Armored areas have no rill erosion or the flow diverted to onsite areas can withstand concentrated flows	☐ Yes ☐ No ☐ NA

Vegetated area notes

Stormdrain outlets	Observations
Accumulated sediments and debris at the outlet and within the conduit have been removed.	☐ Yes ☐ No ☐ NA
Erosion damage at the outlet have been repaired	☐ Yes ☐ No ☐ NA

Outlet notes

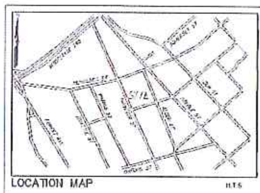
Stormdrain Structures (Require inspection TWICE per year)	Observations
Accumulated sediments from inflow channels, pipes and sumps between basins have been removed and legally disposed of.	☐ Yes ☐ No ☐ NA
Floating debris and floating oils have been removed.	☐ Yes ☐ No ☐ NA
Debris and Sediment Removed From Harco Stormsack	☐ Yes ☐ No ☐ NA

Stormdrain Structure system notes
The Harco Stormsack in the overflow drain shall be inspected every three months for the first year and twice annually after that. It is CRITICAL THAT THE STORMSACK BE MAINTAINED IN ORDER TO PREVENT DEBRIS AND SEDIMENT FROM ENTERING THE R-TANKs.

Other Comments	Observations
Corrective action needed	☐ Yes ☐ No ☐ NA
If corrective action in needed, please explain detail	
Verbal notification provided to responsible party	☐ Yes ☐ No
Verbal notification contact	
Follow up required	☐ Yes ☐ No
Final comment notes	

Photos (*use additional pages as needed*)

Review Notes
Date Reviewed: Reviewed by: Date entered: Date edited: Edited by:



LOCATION MAP

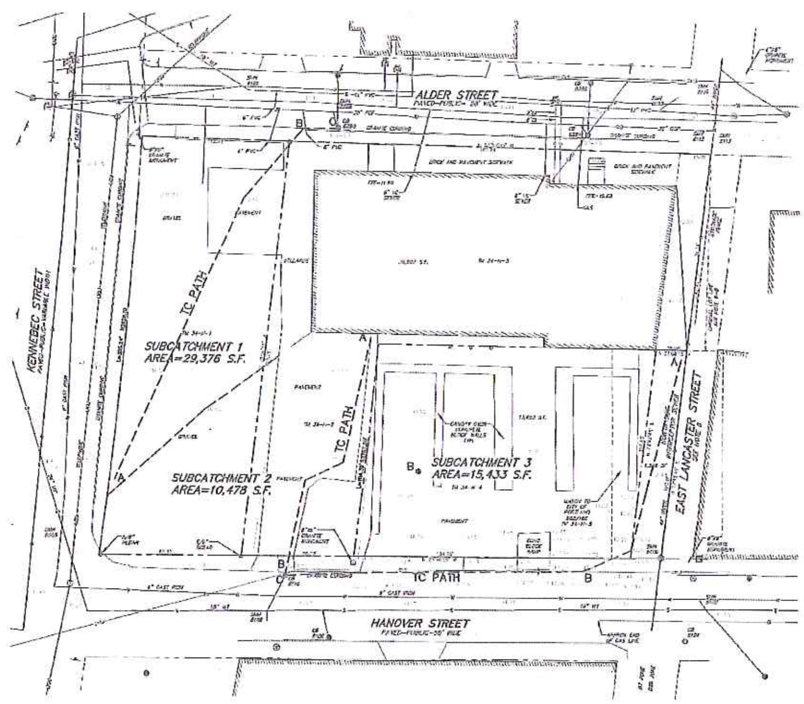
N.T.S.

PLAN REFERENCES

1. ALDER STREET RECONSTRUCTION PLAN AND PROFILE, CITY OF PORTLAND PUBLIC WORKS DEPARTMENT ENGINEERING SECTION DATED [illegible]
2. STANDARD BOUNDARY SURVEY PROPOSED [illegible] HANOVER STREET CITY OF PORTLAND PUBLIC WORKS DEPARTMENT ENGINEERING SECTION DATED SEPTEMBER [illegible]
3. LAND TITLE SURVEY ON KENNEBEC STREET, PORTLAND, MAINE PORTLAND TERMINAL COMPANY TO [illegible] ALDER ST., PORTLAND MAINE DATED JULY 17, [illegible] AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK [illegible] PAGE [illegible]
4. EXISTING CONDITIONS AND STANDARD BOUNDARY SURVEY ON KENNEBEC STREET, PORTLAND, MAINE FOR [illegible] ALDER STREET, PORTLAND, MAINE DATED APRIL 18, [illegible]
5. [illegible] SOMERSET STREET EXTENSION ELM STREET TO KENNEBEC STREET DATED JULY 3, 2012 CITY OF PORTLAND, MAINE PUBLIC SERVICES DEPARTMENT ENGINEERING DIVISION
6. LANCASTER STREET EXTENSION FROM PREBLE ST. TO FOREST AVE. DATED FEB. [illegible] ON FILE WITH THE CITY OF PORTLAND ENGINEERING DIVISION.
7. RIGHT OF WAY AND TRACK MAP PORTLAND TERMINAL OPERATED BY THE PORTLAND TERMINAL COMPANY STATION [illegible] TO STATION [illegible] JUNE 30, 1915 SHEET VI-C/2
8. CITY OF PORTLAND CITY PROPERTY REVALUATION SHEET [illegible]

GENERAL NOTES

1. SITE AREA: [illegible] SF OR 1.27 ACRES
2. SUBCATCHMENT 1: AREA = 29,376 S.F. IMPERVIOUS AREA = [illegible] S.F.
   SUBCATCHMENT 2: AREA = 10,478 S.F. IMPERVIOUS AREA = [illegible] S.F.
   SUBCATCHMENT 3: AREA = 15,433 S.F. IMPERVIOUS AREA = [illegible] S.F.
3. SUBCATCHMENT BOUNDARIES AND TC PATHS WERE ESTIMATED BASED ON SPOT GRADES PROVIDED ON THE EXISTING CONDITION SURVEY.
4.



LEGEND

EXISTING

PROPERTY LINE
GRANITE MONUMENT
IRON PIPE/ROD
CATCHBASIN
MANHOLE
HYDRANT
UTILITY POLE
GATE VALVE
SANITARY SEWER
STORM DRAIN
WATER
TELEPHONE
GAS
OVERHEAD WIRES
UNDERGROUND CABLE LINES
CURB
FENCE
SIGN
DECIDUOUS TREE
CONTOUR
SPOT ELEVATION

Prepared For:
Applicant:
BoPo, L.L.C.
Street Name
Portland, Maine

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

RANSOM Consulting Engineers and Scientists

BAYSIDE BOWL

58 Alder Street

Portland, Maine

Date: MARCH 20, 2018

Issued For: SITE PLAN SUBMISSION

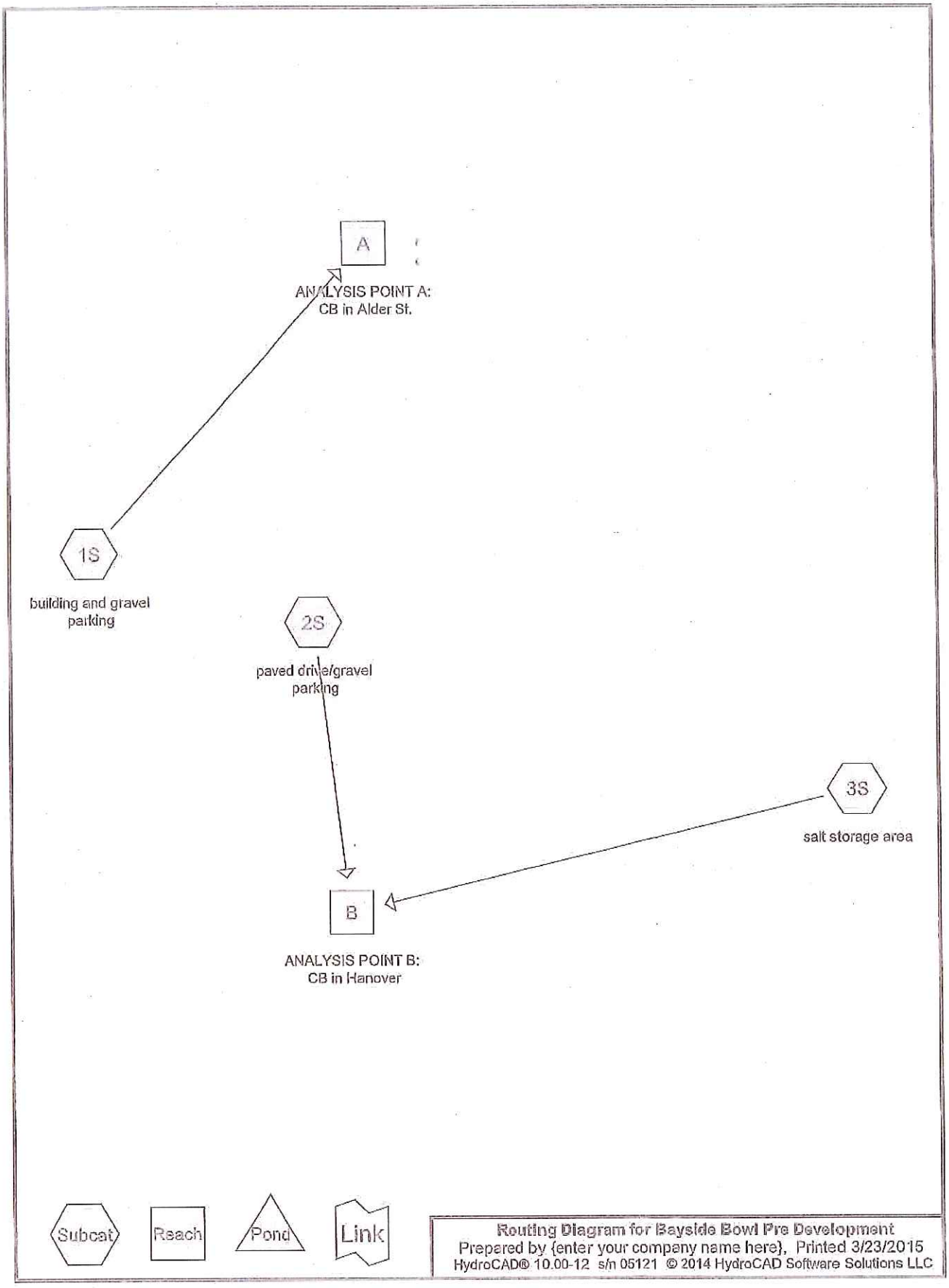
Revisions:

Title: PRE-DEVELOPMENT STORMWATER PLAN

Scale: 1"=20'

North:

Sheet No.: SW-1


A
ANALYSIS POINT A:
CB in Alder St.
1S
building and gravel
parking
2S
paved drive/gravel
parking
3S
salt storage area
B
ANALYSIS POINT B:
CB in Hanover
Subcat
Reach
Pond
Link
Routing Diagram for Bayside Bowl Pre Development
Prepared by {enter your company name here}, Printed 3/23/2015
HydroCAD® 10.00-12 s/n 05121 © 2014 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.312	96	Gravel surface, HSG B (1S, 2S)
0.958	98	Paved parking & roofs (1S, 2S, 3S)
1.269	**98**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.312	HSG B	1S, 2S
0.000	HSG C	
0.000	HSG D	
0.958	Other	1S, 2S, 3S
1.269		TOTAL AREA

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.312	0.000	0.000	0.000	0.312	Gravel surface	1S, 2S
0.000	0.000	0.000	0.000	0.958	0.958	Paved parking & roofs	1S, 2S, 3S
0.000	**0.312**	**0.000**	**0.000**	**0.958**	**1.269**	**TOTAL AREA**	

Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: building and gravel Runoff Area=29,376 sf 70.73% Impervious Runoff Depth>0.66"
Flow Length=200' Tc=6.0 min CN=97 Runoff=0.55 cfs 0.037 af

Subcatchment2S: paved drive/gravel Runoff Area=10,478 sf 52.52% Impervious Runoff Depth>0.66"
Flow Length=130' Slope=0.0130 '/' Tc=6.0 min CN=97 Runoff=0.20 cfs 0.013 af

Subcatchment3S: salt storage area Runoff Area=15,433 sf 100.00% Impervious Runoff Depth>0.75"
Flow Length=267' Tc=6.0 min CN=98 Runoff=0.32 cfs 0.022 af

Reach A: ANALYSISPOINT A: CB in Alder St. Inflow=0.55 cfs 0.037 af
Outflow=0.55 cfs 0.037 af

Reach B: ANALYSISPOINT B: CB in Hanover Inflow=0.51 cfs 0.035 af
Outflow=0.51 cfs 0.035 af

Total Runoff Area = 1.269 ac Runoff Volume = 0.073 af Average Runoff Depth = 0.69"
24.55% Pervious = 0.312 ac 75.45% Impervious = 0.958 ac

Summary for Subcatchment 1S: building and gravel parking

Runoff = 0.55 cfs @ 12.09 hrs, Volume= 0.037 af, Depth> 0.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
20,779	98	Paved parking & roofs
8,597	96	Gravel surface, HSG B
29,376	97	Weighted Average
8,597		29.27% Pervious Area
20,779		70.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	180	0.0060	0.93		**Sheet Flow, A-B gravel** Smooth surfaces n= 0.011 P2= 3.00"
0.1	20	0.0375	3.93		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.3	200	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: paved drive/gravel parking

Runoff = 0.20 cfs @ 12.09 hrs, Volume= 0.013 af, Depth> 0.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
5,503	98	Paved parking & roofs
4,975	96	Gravel surface, HSG B
10,478	97	Weighted Average
4,975		47.48% Pervious Area
5,503		52.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	130	0.0130	1.18		**Sheet Flow, A-B pavement** Smooth surfaces n= 0.011 P2= 3.00"
1.8	130	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 3S: salt storage area

Runoff = 0.32 cfs @ 12.08 hrs, Volume= 0.022 af, Depth> 0.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
15,433	98	Paved parking & roofs
15,433		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	122	0.0040	0.73		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.00"
0.8	145	0.0200	2.87		Shallow Concentrated Flow, B-C gutter Paved Kv= 20.3 fps
3.6	267	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach A: ANALYSIS POINT A: CB in Alder St.

Inflow Area = 0.674 ac, 70.73% Impervious, Inflow Depth > 0.66" for 1-inch event
Inflow = 0.55 cfs @ 12.09 hrs, Volume= 0.037 af
Outflow = 0.55 cfs @ 12.09 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Summary for Reach B: ANALYSIS POINT B: CB in Hanover

Inflow Area = 0.595 ac, 80.80% Impervious, Inflow Depth > 0.71" for 1-inch event
Inflow = 0.51 cfs @ 12.09 hrs, Volume= 0.035 af
Outflow = 0.51 cfs @ 12.09 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: building and gravel Runoff Area=29,376 sf 70.73% Impervious Runoff Depth>2.53"
Flow Length=200' Tc=6.0 min CN=97 Runoff=1.93 cfs 0.142 af

Subcatchment2S: paved drive/gravel Runoff Area=10,478 sf 52.52% Impervious Runoff Depth>2.53"
Flow Length=130' Slope=0.0130 '/' Tc=6.0 min CN=97 Runoff=0.69 cfs 0.051 af

Subcatchment3S: salt storage area Runoff Area=15,433 sf 100.00% Impervious Runoff Depth>2.64"
Flow Length=267' Tc=6.0 min CN=98 Runoff=1.03 cfs 0.078 af

Reach A: ANALYSISPOINT A: CB in Alder St. Inflow=1.93 cfs 0.142 af
Outflow=1.93 cfs 0.142 af

Reach B: ANALYSISPOINT B: CB in Hanover Inflow=1.72 cfs 0.128 af
Outflow=1.72 cfs 0.128 af

Total Runoff Area = 1.269 ac Runoff Volume = 0.270 af Average Runoff Depth = 2.56"
24.55% Pervious = 0.312 ac 75.45% Impervious = 0.958 ac

Summary for Subcatchment 1S: building and gravel parking

Runoff = 1.93 cfs @ 12.08 hrs, Volume= 0.142 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.00"

Area (sf)	CN	Description
20,779	98	Paved parking & roofs
8,597	96	Gravel surface, HSG B
29,376	97	Weighted Average
8,597		29.27% Pervious Area
20,779		70.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	180	0.0060	0.93		**Sheet Flow, A-B gravel** Smooth surfaces n= 0.011 P2= 3.00"
0.1	20	0.0375	3.93		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.3	200	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: paved drive/gravel parking

Runoff = 0.69 cfs @ 12.08 hrs, Volume= 0.051 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.00"

Area (sf)	CN	Description
5,503	98	Paved parking & roofs
4,975	96	Gravel surface, HSG B
10,478	97	Weighted Average
4,975		47.48% Pervious Area
5,503		52.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	130	0.0130	1.18		**Sheet Flow, A-B pavement** Smooth surfaces n= 0.011 P2= 3.00"
1.8	130	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 3S: salt storage area

Runoff = 1.03 cfs @ 12.08 hrs, Volume= 0.078 af, Depth> 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.00"

Area (sf)	CN	Description
15,433	98	Paved parking & roofs
15,433		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	122	0.0040	0.73		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.00"
0.8	145	0.0200	2.87		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.6	267	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach A: ANALYSIS POINT A: CB in Alder St.

Inflow Area = 0.674 ac, 70.73% Impervious, Inflow Depth > 2.53" for 2-Year event
Inflow = 1.93 cfs @ 12.08 hrs, Volume= 0.142 af
Outflow = 1.93 cfs @ 12.08 hrs, Volume= 0.142 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Summary for Reach B: ANALYSIS POINT B: CB in Hanover

Inflow Area = 0.595 ac, 80.80% Impervious, Inflow Depth > 2.59" for 2-Year event
Inflow = 1.72 cfs @ 12.08 hrs, Volume= 0.128 af
Outflow = 1.72 cfs @ 12.08 hrs, Volume= 0.128 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: building and gravel Runoff Area=29,376 sf 70.73% Impervious Runoff Depth>4.14"
Flow Length=200' Tc=6.0 min CN=97 Runoff=3.07 cfs 0.233 af

Subcatchment2S: paved drive/gravel Runoff Area=10,478 sf 52.52% Impervious Runoff Depth>4.14"
Flow Length=130' Slope=0.0130 '/' Tc=6.0 min CN=97 Runoff=1.10 cfs 0.083 af

Subcatchment3S: salt storage area Runoff Area=15,433 sf 100.00% Impervious Runoff Depth>4.25"
Flow Length=267' Tc=6.0 min CN=98 Runoff=1.63 cfs 0.125 af

Reach A: ANALYSISPOINT A: CB in Alder St. Inflow=3.07 cfs 0.233 af
Outflow=3.07 cfs 0.233 af

Reach B: ANALYSISPOINT B: CB in Hanover Inflow=2.72 cfs 0.208 af
Outflow=2.72 cfs 0.208 af

Total Runoff Area = 1.269 ac Runoff Volume = 0.441 af Average Runoff Depth = 4.17"
24.55% Pervious = 0.312 ac 75.45% Impervious = 0.958 ac

Summary for Subcatchment 1S: building and gravel parking

Runoff = 3.07 cfs @ 12.08 hrs, Volume= 0.233 af, Depth> 4.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
20,779	98	Paved parking & roofs
8,597	96	Gravel surface, HSG B
29,376	97	Weighted Average
8,597		29.27% Pervious Area
20,779		70.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	180	0.0060	0.93		**Sheet Flow, A-B gravel** Smooth surfaces n= 0.011 P2= 3.00"
0.1	20	0.0375	3.93		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.3	200	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: paved drive/gravel parking

Runoff = 1.10 cfs @ 12.08 hrs, Volume= 0.083 af, Depth> 4.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
5,503	98	Paved parking & roofs
4,975	96	Gravel surface, HSG B
10,478	97	Weighted Average
4,975		47.48% Pervious Area
5,503		52.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	130	0.0130	1.18		**Sheet Flow, A-B pavement** Smooth surfaces n= 0.011 P2= 3.00"
1.8	130	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 3S: salt storage area

Runoff = 1.63 cfs @ 12.08 hrs, Volume= 0.125 af, Depth> 4.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
15,433	98	Paved parking & roofs
15,433		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	122	0.0040	0.73		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.00"
0.8	145	0.0200	2.87		Shallow Concentrated Flow, B-C gutter Paved Kv= 20.3 fps
3.6	267	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach A: ANALYSIS POINT A: CB in Alder St.

Inflow Area = 0.674 ac, 70.73% Impervious, Inflow Depth > 4.14" for 10-Year event
Inflow = 3.07 cfs @ 12.08 hrs, Volume= 0.233 af
Outflow = 3.07 cfs @ 12.08 hrs, Volume= 0.233 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Summary for Reach B: ANALYSIS POINT B: CB in Hanover

Inflow Area = 0.595 ac, 80.80% Impervious, Inflow Depth > 4.20" for 10-Year event
Inflow = 2.72 cfs @ 12.08 hrs, Volume= 0.208 af
Outflow = 2.72 cfs @ 12.08 hrs, Volume= 0.208 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: building and gravel Runoff Area=29,376 sf 70.73% Impervious Runoff Depth>4.90"
Flow Length=200' Tc=6.0 min CN=97 Runoff=3.61 cfs 0.275 af

Subcatchment2S: paved drive/gravel Runoff Area=10,478 sf 52.52% Impervious Runoff Depth>4.90"
Flow Length=130' Slope=0.0130 '/' Tc=6.0 min CN=97 Runoff=1.29 cfs 0.098 af

Subcatchment3S: salt storage area Runoff Area=15,433 sf 100.00% Impervious Runoff Depth>5.00"
Flow Length=267' Tc=6.0 min CN=98 Runoff=1.91 cfs 0.148 af

Reach A: ANALYSISPOINT A: CB in Alder St. Inflow=3.61 cfs 0.275 af
Outflow=3.61 cfs 0.275 af

Reach B: ANALYSISPOINT B: CB in Hanover Inflow=3.20 cfs 0.246 af
Outflow=3.20 cfs 0.246 af

Total Runoff Area = 1.269 ac Runoff Volume = 0.521 af Average Runoff Depth = 4.93"
24.55% Pervious = 0.312 ac 75.45% Impervious = 0.958 ac

Summary for Subcatchment 1S: building and gravel parking

Runoff = 3.61 cfs @ 12.08 hrs, Volume= 0.275 af, Depth> 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.50"

Area (sf)	CN	Description
20,779	98	Paved parking & roofs
8,597	96	Gravel surface, HSG B
29,376	97	Weighted Average
8,597		29.27% Pervious Area
20,779		70.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	180	0.0060	0.93		**Sheet Flow, A-B gravel** Smooth surfaces n= 0.011 P2= 3.00"
0.1	20	0.0375	3.93		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.3	200	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: paved drive/gravel parking

Runoff = 1.29 cfs @ 12.08 hrs, Volume= 0.098 af, Depth> 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.50"

Area (sf)	CN	Description
5,503	98	Paved parking & roofs
4,975	96	Gravel surface, HSG B
10,478	97	Weighted Average
4,975		47.48% Pervious Area
5,503		52.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	130	0.0130	1.18		**Sheet Flow, A-B pavement** Smooth surfaces n= 0.011 P2= 3.00"
1.8	130	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 3S: salt storage area

Runoff = 1.91 cfs @ 12.08 hrs, Volume= 0.148 af, Depth> 5.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.50"

Area (sf)	CN	Description
15,433	98	Paved parking & roofs
15,433		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	122	0.0040	0.73		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.00"
0.8	145	0.0200	2.87		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.6	267	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach A: ANALYSIS POINT A: CB in Alder St.

Inflow Area = 0.674 ac, 70.73% Impervious, Inflow Depth > 4.90" for 25-Year event
Inflow = 3.61 cfs @ 12.08 hrs, Volume= 0.275 af
Outflow = 3.61 cfs @ 12.08 hrs, Volume= 0.275 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Summary for Reach B: ANALYSIS POINT B: CB in Hanover

Inflow Area = 0.595 ac, 80.80% Impervious, Inflow Depth > 4.96" for 25-Year event
Inflow = 3.20 cfs @ 12.08 hrs, Volume= 0.246 af
Outflow = 3.20 cfs @ 12.08 hrs, Volume= 0.246 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: building and gravel Runoff Area=29,376 sf 70.73% Impervious Runoff Depth>6.04"
Flow Length=200' Tc=6.0 min CN=97 Runoff=4.41 cfs 0.339 af

Subcatchment2S: paved drive/gravel Runoff Area=10,478 sf 52.52% Impervious Runoff Depth>6.04"
Flow Length=130' Slope=0.0130 '/' Tc=6.0 min CN=97 Runoff=1.57 cfs 0.121 af

Subcatchment3S: salt storage area Runoff Area=15,433 sf 100.00% Impervious Runoff Depth>6.14"
Flow Length=267' Tc=6.0 min CN=98 Runoff=2.33 cfs 0.181 af

Reach A: ANALYSISPOINT A: CB in Alder St. Inflow=4.41 cfs 0.339 af
Outflow=4.41 cfs 0.339 af

Reach B: ANALYSISPOINT B: CB in Hanover Inflow=3.90 cfs 0.302 af
Outflow=3.90 cfs 0.302 af

Total Runoff Area = 1.269 ac Runoff Volume = 0.641 af Average Runoff Depth = 6.06"
24.55% Pervious = 0.312 ac 75.45% Impervious = 0.958 ac

Summary for Subcatchment 1S: building and gravel parking

Runoff = 4.41 cfs @ 12.08 hrs, Volume= 0.339 af, Depth> 6.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=6.70"

Area (sf)	CN	Description
20,779	98	Paved parking & roofs
8,597	96	Gravel surface, HSG B
29,376	97	Weighted Average
8,597		29.27% Pervious Area
20,779		70.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	180	0.0060	0.93		**Sheet Flow, A-B gravel** Smooth surfaces n= 0.011 P2= 3.00"
0.1	20	0.0375	3.93		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.3	200	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: paved drive/gravel parking

Runoff = 1.57 cfs @ 12.08 hrs, Volume= 0.121 af, Depth> 6.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=6.70"

Area (sf)	CN	Description
5,503	98	Paved parking & roofs
4,975	96	Gravel surface, HSG B
10,478	97	Weighted Average
4,975		47.48% Pervious Area
5,503		52.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	130	0.0130	1.18		**Sheet Flow, A-B pavement** Smooth surfaces n= 0.011 P2= 3.00"
1.8	130	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 3S: salt storage area

Runoff = 2.33 cfs @ 12.08 hrs, Volume= 0.181 af, Depth> 6.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=6.70"

Area (sf)	CN	Description
15,433	98	Paved parking & roofs
15,433		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	122	0.0040	0.73		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.00"
0.8	145	0.0200	2.87		Shallow Concentrated Flow, B-C gutter Paved Kv= 20.3 fps
3.6	267	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach A: ANALYSIS POINT A: CB in Alder St.

Inflow Area = 0.674 ac, 70.73% Impervious, Inflow Depth > 6.04" for 100-Year event
Inflow = 4.41 cfs @ 12.08 hrs, Volume= 0.339 af
Outflow = 4.41 cfs @ 12.08 hrs, Volume= 0.339 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Summary for Reach B: ANALYSIS POINT B: CB in Hanover

Inflow Area = 0.595 ac, 80.80% Impervious, Inflow Depth > 6.10" for 100-Year event
Inflow = 3.90 cfs @ 12.08 hrs, Volume= 0.302 af
Outflow = 3.90 cfs @ 12.08 hrs, Volume= 0.302 af, Atten= 0%, Lag= 0.0 min

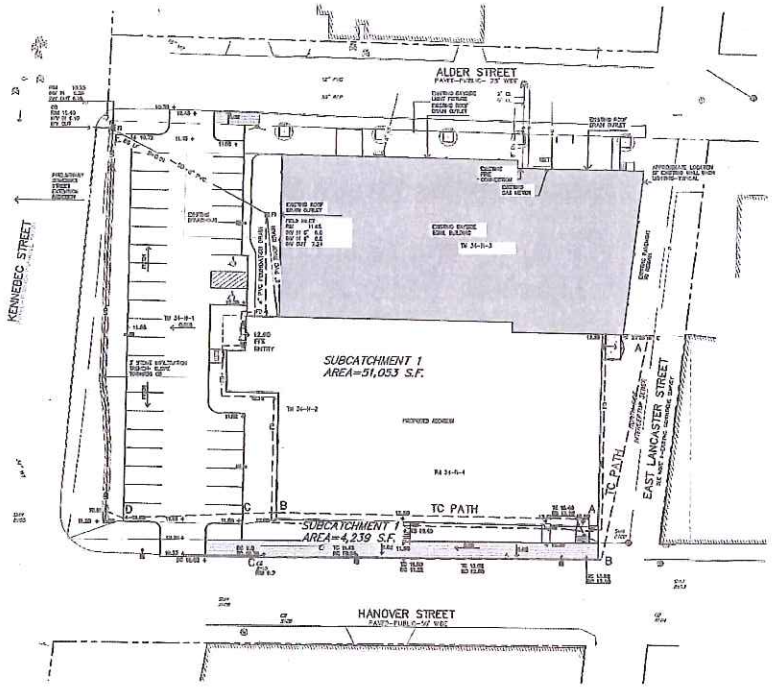
Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

GENERAL NOTES

1. SITE AREA: 51,053 SF OR 1.17 ACRES
2. SUBCATCHMENT 1: AREA = 51,053 S.F. IMPERVIOUS AREA = 45,815 S.F.
   SUBCATCHMENT 2: AREA = 4,239 S.F. IMPERVIOUS AREA = 3,818 S.F.
3. SUBCATCHMENT BOUNDARIES AND TC PATHS WERE ESTIMATED BASED ON SPOT GRADES PROVIDED ON THE PROPOSED GRADING PLAN.
4. ASPHALT ROOF DRAINS OUTLET IN THE VICINITY OF THE EXISTING READING FOR THE APPROXIMATE ELEVATIONS PROVIDED IN PARENTHESIS.

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
BENCH MARK	BM	*
IRON PIN		*
CATCH BASIN	CB	
MANHOLE	MH	
HYDRANT		
UTILITY POLE		
WATER VALVE	WV	WV
SANITARY SEWER	SS	S
STORM DRAIN	SD	SD
WATER	W	W
TELEPHONE	T	
GAS	GAS	G
GUARD		
FENCE		
SIGN		
DECIDUOUS TREE		
EVERGREEN TREE		
PIPE BOLLARD		
CURB INLET		
SPOT GRADE		
RETAINING WALL		
LIGHT FIXTURE		
SECURITY CAMERA		
OVERHEAD WIRES	OHW	
CATV CABLE LINES	T	



RANSOM
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Date: MARCH 24, 2015
Issue For: SITE PLAN SUBMISSION
Revisions:

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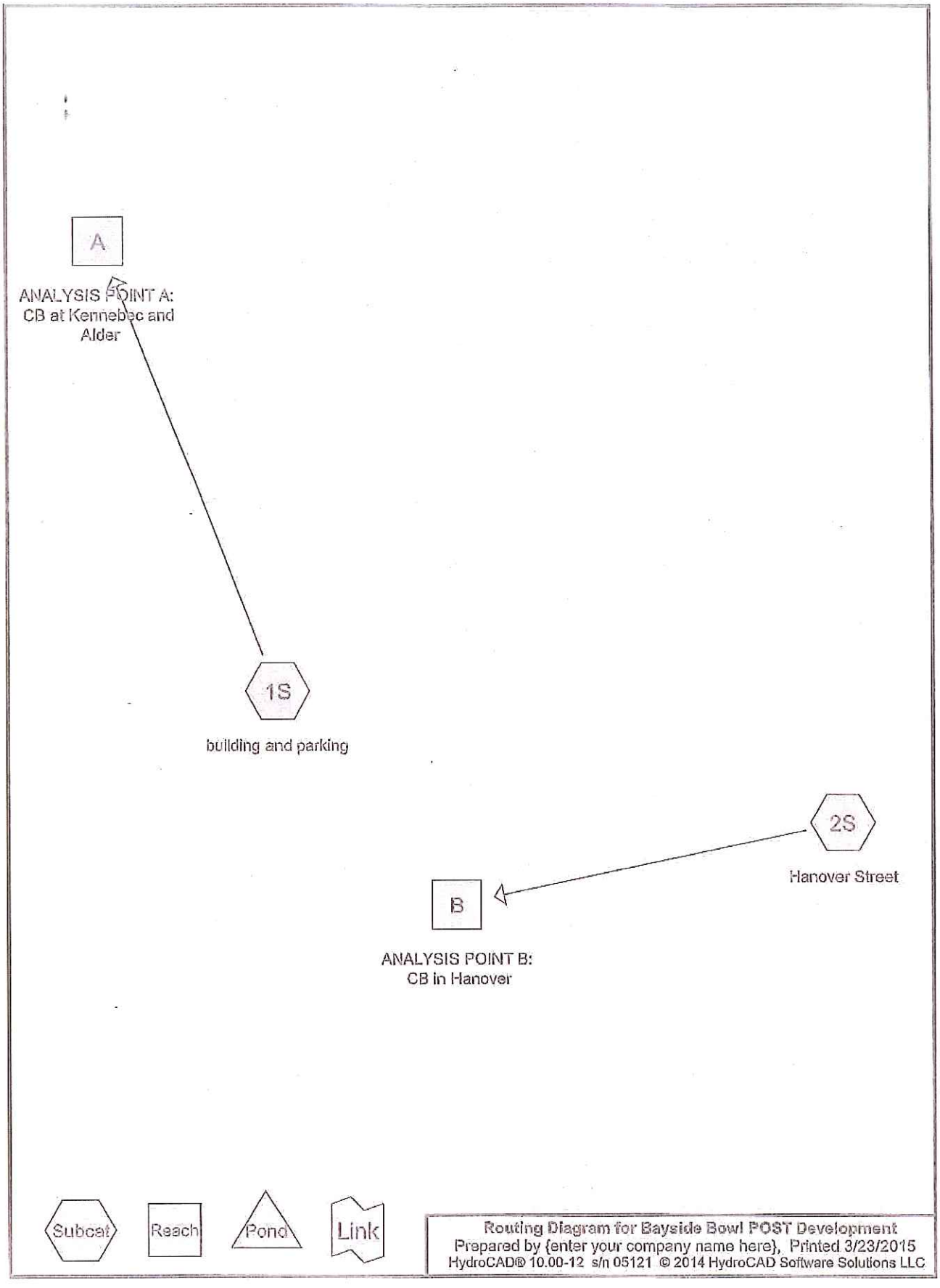
Title: POST DEVELOPMENT STORMWATER PLAN

Scale: 1" = 20'

Sheet No: SW-2


A
ANALYSIS POINT A:
CB at Kennebec and
Alder
1S
building and parking
2S
Hanover Street
B
ANALYSIS POINT B:
CB in Hanover
Subcat
Reach
Pond
Link
Routing Diagram for Bayside Bowl POST Development
Prepared by {enter your company name here}, Printed 3/23/2015
HydroCAD® 10.00-12 s/n 05121 © 2014 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.177	61	>75% Grass cover, Good, HSG B (1S, 2S)
1.093	98	Paved parking & roofs (1S, 2S)
1.269	**93**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.177	HSG B	1S, 2S
0.000	HSG C	
0.000	HSG D	
1.093	Other	1S, 2S
1.269		TOTAL AREA

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.177	0.000	0.000	0.000	0.177	>75% Grass cover, Good	1S, 2S
0.000	0.000	0.000	0.000	1.093	1.093	Paved parking & roofs	1S, 2S
0.000	**0.177**	**0.000**	**0.000**	**1.093**	**1.269**	**TOTAL AREA**	

Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: building and parking Runoff Area=51,053 sf 90.04% Impervious Runoff Depth>0.47"
Flow Length=424' Tc=7.1 min CN=94 Runoff=0.66 cfs 0.046 af

Subcatchment2S: Hanover Street Runoff Area=4,239 sf 38.41% Impervious Runoff Depth>0.02"
Flow Length=275' Tc=6.0 min CN=75 Runoff=0.00 cfs 0.000 af

Reach A: ANALYSISPOINT A: CB at Kennebec and Alder Inflow=0.66 cfs 0.046 af
Outflow=0.66 cfs 0.046 af

Reach B: ANALYSISPOINT B: CB in Hanover Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Total Runoff Area = 1.269 ac Runoff Volume = 0.046 af Average Runoff Depth = 0.43"
13.92% Pervious = 0.177 ac 86.08% Impervious = 1.093 ac

Summary for Subcatchment 1S: building and parking

Runoff = 0.66 cfs @ 12.10 hrs, Volume= 0.046 af, Depth> 0.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
45,968	98	Paved parking & roofs
5,085	61	>75% Grass cover, Good, HSG B
51,053	94	Weighted Average
5,085		9.96% Pervious Area
45,968		90.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	153	0.0050	0.83		**Sheet Flow, A-B roof** Smooth surfaces n= 0.011 P2= 3.00"
0.1	16	0.0310	2.83		**Shallow Concentrated Flow, B-C planted bed to parking** Unpaved Kv= 16.1 fps
0.5	60	0.0100	2.03		**Shallow Concentrated Flow, C-D Parking to swale** Paved Kv= 20.3 fps
3.4	195	0.0040	0.95		**Shallow Concentrated Flow, D-E swale** Grassed Waterway Kv= 15.0 fps
7.1	424	Total			

Summary for Subcatchment 2S: Hanover Street

Runoff = 0.00 cfs @ 13.78 hrs, Volume= 0.000 af, Depth> 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
1,628	98	Paved parking & roofs
2,611	61	>75% Grass cover, Good, HSG B
4,239	75	Weighted Average
2,611		61.59% Pervious Area
1,628		38.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	108	0.0030	0.63		**Sheet Flow, A-B pavement** Smooth surfaces n= 0.011 P2= 3.00"
1.0	167	0.0200	2.87		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.8	275	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach A: ANALYSIS POINT A: CB at Kennebec and Alder

Inflow Area = 1.172 ac, 90.04% Impervious, Inflow Depth > 0.47" for 1-inch event
Inflow = 0.66 cfs @ 12.10 hrs, Volume= 0.046 af
Outflow = 0.66 cfs @ 12.10 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Summary for Reach B: ANALYSIS POINT B: CB in Hanover

Inflow Area = 0.097 ac, 38.41% Impervious, Inflow Depth > 0.02" for 1-inch event
Inflow = 0.00 cfs @ 13.78 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 13.78 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: building and parking Runoff Area=51,053 sf 90.04% Impervious Runoff Depth>2.22"
Flow Length=424' Tc=7.1 min CN=94 Runoff=2.99 cfs 0.217 af

Subcatchment2S: Hanover Street Runoff Area=4,239 sf 38.41% Impervious Runoff Depth>0.88"
Flow Length=275' Tc=6.0 min CN=75 Runoff=0.10 cfs 0.007 af

Reach A: ANALYSISPOINT A: CB at Kennebec and Alder Inflow=2.99 cfs 0.217 af
Outflow=2.99 cfs 0.217 af

Reach B: ANALYSISPOINT B: CB in Hanover Inflow=0.10 cfs 0.007 af
Outflow=0.10 cfs 0.007 af

Total Runoff Area = 1.269 ac Runoff Volume = 0.224 af Average Runoff Depth = 2.12"
13.92% Pervious = 0.177 ac 86.08% Impervious = 1.093 ac

Summary for Subcatchment 1S: building and parking

Runoff = 2.99 cfs @ 12.10 hrs, Volume= 0.217 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.00"

Area (sf)	CN	Description
45,968	98	Paved parking & roofs
5,085	61	>75% Grass cover, Good, HSG B
51,053	94	Weighted Average
5,085		9.96% Pervious Area
45,968		90.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	153	0.0050	0.83		**Sheet Flow, A-B roof** Smooth surfaces n= 0.011 P2= 3.00"
0.1	16	0.0310	2.83		**Shallow Concentrated Flow, B-C planted bed to parking** Unpaved Kv= 16.1 fps
0.5	60	0.0100	2.03		**Shallow Concentrated Flow, C-D Parking to swale** Paved Kv= 20.3 fps
3.4	195	0.0040	0.95		**Shallow Concentrated Flow, D-E swale** Grassed Waterway Kv= 15.0 fps
7.1	424	Total			

Summary for Subcatchment 2S: Hanover Street

Runoff = 0.10 cfs @ 12.10 hrs, Volume= 0.007 af, Depth> 0.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.00"

Area (sf)	CN	Description
1,628	98	Paved parking & roofs
2,611	61	>75% Grass cover, Good, HSG B
4,239	75	Weighted Average
2,611		61.59% Pervious Area
1,628		38.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	108	0.0030	0.63		**Sheet Flow, A-B pavement** Smooth surfaces n= 0.011 P2= 3.00"
1.0	167	0.0200	2.87		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.8	275	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach A: ANALYSIS POINT A: CB at Kennebec and Alder

Inflow Area = 1.172 ac, 90.04% Impervious, Inflow Depth > 2.22" for 2-Year event
Inflow = 2.99 cfs @ 12.10 hrs, Volume= 0.217 af
Outflow = 2.99 cfs @ 12.10 hrs, Volume= 0.217 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Summary for Reach B: ANALYSIS POINT B: CB in Hanover

Inflow Area = 0.097 ac, 38.41% Impervious, Inflow Depth > 0.88" for 2-Year event
Inflow = 0.10 cfs @ 12.10 hrs, Volume= 0.007 af
Outflow = 0.10 cfs @ 12.10 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: building and parking Runoff Area=51,053 sf 90.04% Impervious Runoff Depth>3.81"
Flow Length=424' Tc=7.1 min CN=94 Runoff=4.96 cfs 0.372 af

Subcatchment2S: Hanover Street Runoff Area=4,239 sf 38.41% Impervious Runoff Depth>2.04"
Flow Length=275' Tc=6.0 min CN=75 Runoff=0.25 cfs 0.017 af

Reach A: ANALYSISPOINT A: CB at Kennebec and Alder Inflow=4.96 cfs 0.372 af
Outflow=4.96 cfs 0.372 af

Reach B: ANALYSISPOINT B: CB in Hanover Inflow=0.25 cfs 0.017 af
Outflow=0.25 cfs 0.017 af

Total Runoff Area = 1.269 ac Runoff Volume = 0.388 af Average Runoff Depth = 3.67"
13.92% Pervious = 0.177 ac 86.08% Impervious = 1.093 ac

Summary for Subcatchment 1S: building and parking

Runoff = 4.96 cfs @ 12.10 hrs, Volume= 0.372 af, Depth> 3.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
45,968	98	Paved parking & roofs
5,085	61	>75% Grass cover, Good, HSG B
51,053	94	Weighted Average
5,085		9.96% Pervious Area
45,968		90.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	153	0.0050	0.83		**Sheet Flow, A-B roof** Smooth surfaces n= 0.011 P2= 3.00"
0.1	16	0.0310	2.83		**Shallow Concentrated Flow, B-C planted bed to parking** Unpaved Kv= 16.1 fps
0.5	60	0.0100	2.03		**Shallow Concentrated Flow, C-D Parking to swale** Paved Kv= 20.3 fps
3.4	195	0.0040	0.95		**Shallow Concentrated Flow, D-E swale** Grassed Waterway Kv= 15.0 fps
7.1	424	Total			

Summary for Subcatchment 2S: Hanover Street

Runoff = 0.25 cfs @ 12.09 hrs, Volume= 0.017 af, Depth> 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
1,628	98	Paved parking & roofs
2,611	61	>75% Grass cover, Good, HSG B
4,239	75	Weighted Average
2,611		61.59% Pervious Area
1,628		38.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	108	0.0030	0.63		**Sheet Flow, A-B pavement** Smooth surfaces n= 0.011 P2= 3.00"
1.0	167	0.0200	2.87		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.8	275	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach A: ANALYSIS POINT A: CB at Kennebec and Alder

Inflow Area = 1.172 ac, 90.04% Impervious, Inflow Depth > 3.81" for 10-Year event
Inflow = 4.96 cfs @ 12.10 hrs, Volume= 0.372 af
Outflow = 4.96 cfs @ 12.10 hrs, Volume= 0.372 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Summary for Reach B: ANALYSIS POINT B: CB in Hanover

Inflow Area = 0.097 ac, 38.41% Impervious, Inflow Depth > 2.04" for 10-Year event
Inflow = 0.25 cfs @ 12.09 hrs, Volume= 0.017 af
Outflow = 0.25 cfs @ 12.09 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: building and parking Runoff Area=51,053 sf 90.04% Impervious Runoff Depth>4.56"
Flow Length=424' Tc=7.1 min CN=94 Runoff=5.87 cfs 0.445 af

Subcatchment2S: Hanover Street Runoff Area=4,239 sf 38.41% Impervious Runoff Depth>2.66"
Flow Length=275' Tc=6.0 min CN=75 Runoff=0.33 cfs 0.022 af

Reach A: ANALYSISPOINT A: CB at Kennebec and Alder Inflow=5.87 cfs 0.445 af
Outflow=5.87 cfs 0.445 af

Reach B: ANALYSISPOINT B: CB in Hanover Inflow=0.33 cfs 0.022 af
Outflow=0.33 cfs 0.022 af

Total Runoff Area = 1.269 ac Runoff Volume = 0.467 af Average Runoff Depth = 4.41"
13.92% Pervious = 0.177 ac 86.08% Impervious = 1.093 ac

Summary for Subcatchment 1S: building and parking

Runoff = 5.87 cfs @ 12.10 hrs, Volume= 0.445 af, Depth> 4.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.50"

Area (sf)	CN	Description
45,968	98	Paved parking & roofs
5,085	61	>75% Grass cover, Good, HSG B
51,053	94	Weighted Average
5,085		9.96% Pervious Area
45,968		90.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	153	0.0050	0.83		**Sheet Flow, A-B roof** Smooth surfaces n= 0.011 P2= 3.00"
0.1	16	0.0310	2.83		**Shallow Concentrated Flow, B-C planted bed to parking** Unpaved Kv= 16.1 fps
0.5	60	0.0100	2.03		**Shallow Concentrated Flow, C-D Parking to swale** Paved Kv= 20.3 fps
3.4	195	0.0040	0.95		**Shallow Concentrated Flow, D-E swale** Grassed Waterway Kv= 15.0 fps
7.1	424	Total			

Summary for Subcatchment 2S: Hanover Street

Runoff = 0.33 cfs @ 12.09 hrs, Volume= 0.022 af, Depth> 2.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.50"

Area (sf)	CN	Description
1,628	98	Paved parking & roofs
2,611	61	>75% Grass cover, Good, HSG B
4,239	75	Weighted Average
2,611		61.59% Pervious Area
1,628		38.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	108	0.0030	0.63		**Sheet Flow, A-B pavement** Smooth surfaces n= 0.011 P2= 3.00"
1.0	167	0.0200	2.87		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.8	275	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach A: ANALYSIS POINT A: CB at Kennebec and Alder

Inflow Area = 1.172 ac, 90.04% Impervious, Inflow Depth > 4.56" for 25-Year event
Inflow = 5.87 cfs @ 12.10 hrs, Volume= 0.445 af
Outflow = 5.87 cfs @ 12.10 hrs, Volume= 0.445 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Summary for Reach B: ANALYSIS POINT B: CB in Hanover

Inflow Area = 0.097 ac, 38.41% Impervious, Inflow Depth > 2.66" for 25-Year event
Inflow = 0.33 cfs @ 12.09 hrs, Volume= 0.022 af
Outflow = 0.33 cfs @ 12.09 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: building and parking Runoff Area=51,053 sf 90.04% Impervious Runoff Depth>5.70"
Flow Length=424' Tc=7.1 min CN=94 Runoff=7.24 cfs 0.556 af

Subcatchment2S: Hanover Street Runoff Area=4,239 sf 38.41% Impervious Runoff Depth>3.63"
Flow Length=275' Tc=6.0 min CN=75 Runoff=0.44 cfs 0.029 af

Reach A: ANALYSISPOINT A: CB at Kennebec and Alder Inflow=7.24 cfs 0.556 af
Outflow=7.24 cfs 0.556 af

Reach B: ANALYSISPOINT B: CB in Hanover Inflow=0.44 cfs 0.029 af
Outflow=0.44 cfs 0.029 af

Total Runoff Area = 1.269 ac Runoff Volume = 0.586 af Average Runoff Depth = 5.54"
13.92% Pervious = 0.177 ac 86.08% Impervious = 1.093 ac

Summary for Subcatchment 1S: building and parking

Runoff = 7.24 cfs @ 12.10 hrs, Volume= 0.556 af, Depth> 5.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=6.70"

Area (sf)	CN	Description
45,968	98	Paved parking & roofs
5,085	61	>75% Grass cover, Good, HSG B
51,053	94	Weighted Average
5,085		9.96% Pervious Area
45,968		90.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	153	0.0050	0.83		**Sheet Flow, A-B roof** Smooth surfaces n= 0.011 P2= 3.00"
0.1	16	0.0310	2.83		**Shallow Concentrated Flow, B-C planted bed to parking** Unpaved Kv= 16.1 fps
0.5	60	0.0100	2.03		**Shallow Concentrated Flow, C-D Parking to swale** Paved Kv= 20.3 fps
3.4	195	0.0040	0.95		**Shallow Concentrated Flow, D-E swale** Grassed Waterway Kv= 15.0 fps
7.1	424	Total			

Summary for Subcatchment 2S: Hanover Street

Runoff = 0.44 cfs @ 12.09 hrs, Volume= 0.029 af, Depth> 3.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=6.70"

Area (sf)	CN	Description
1,628	98	Paved parking & roofs
2,611	61	>75% Grass cover, Good, HSG B
4,239	75	Weighted Average
2,611		61.59% Pervious Area
1,628		38.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	108	0.0030	0.63		**Sheet Flow, A-B pavement** Smooth surfaces n= 0.011 P2= 3.00"
1.0	167	0.0200	2.87		**Shallow Concentrated Flow, B-C gutter** Paved Kv= 20.3 fps
3.8	275	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach A: ANALYSIS POINT A: CB at Kennebec and Alder

Inflow Area = 1.172 ac, 90.04% Impervious, Inflow Depth > 5.70" for 100-Year event
Inflow = 7.24 cfs @ 12.10 hrs, Volume= 0.556 af
Outflow = 7.24 cfs @ 12.10 hrs, Volume= 0.556 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Summary for Reach B: ANALYSIS POINT B: CB in Hanover

Inflow Area = 0.097 ac, 38.41% Impervious, Inflow Depth > 3.63" for 100-Year event
Inflow = 0.44 cfs @ 12.09 hrs, Volume= 0.029 af
Outflow = 0.44 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

SOLID WASTE DISPOSAL

Bayside Bowl currently contracts with a private hauler for removal of solid waste generated within the building and will continue to do so. A fenced exterior dumpster area for recycling and solid waste disposal will be located along the former Lancaster Street side of the addition. Pickup will occur twice each week.

SNOW REMOVAL

Snow is currently stored on site and removed as necessary. With the building addition, snow will still be able to be stored on the edges of the parking area along Kennebec Street and will require removal as necessary.

LIGHT FIXTURES

Site lighting will consist of new pole mounted fixtures (three) in the parking lot, wall mounted fixtures located at new egress locations and wall pac fixtures along the former Lancaster Street side of the addition. The existing building has small wall wash fixtures located along the Alder Street and Kennebunk Street façade. (Refer to attached light fixture cut sheets). Two "Bayside" street fixtures are located along the Alder Street frontage and three new "Bayside" fixtures are proposed along the Hanover Street frontage.

BEACON
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Ordering
rev 03.21.2013

Type:

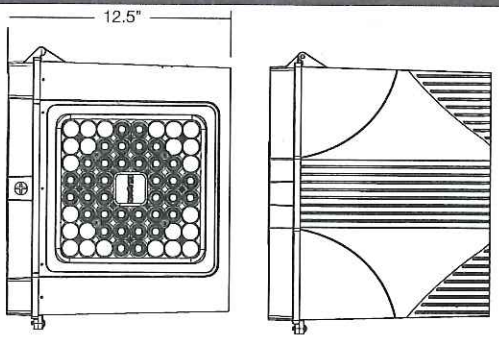
Ordering Code:

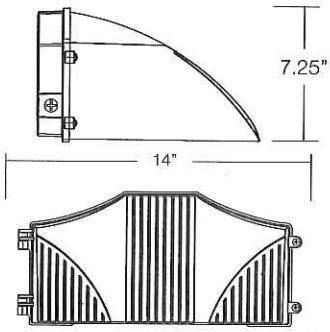
Job Name:

Notes:

TRAVERSE

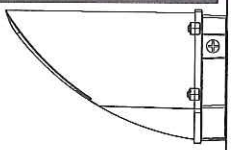
details



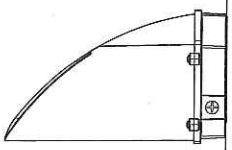


Models

for indoor up-lighting applications, select the **TRV-U** model



for down-lighting applications select the **TRV-D** model



ORDERING EXAMPLE: TRV-D / 60NB-136 / 5K / T5R / UNV / MDD / MT

model	engine-watts	cct-color temp	optics	voltage	electrical options	color
TRV-D Traverse down-light	**24NB-27**	**5K** 5000K	**T2** type II	**UNV** 120-277V	**PEC** button photocell *(specify voltage)*	**BB** black
TRV-U Traverse up-light	**24NB-55**	**4K** 4000K	**T3** type III	**347V**		**BZ** bronze
(indoor use only)	**36NB-80**	**3K** 3000K	**T4** type IV	**480V**	**MOB** motion sensor 33% or 50% dimming	**BW** white
	48NB-110		**T5R** rectangular	**12VDC** *(consult factory)*	*(not available on 48NB-110 & 60NB-136)*	**BG** green
	60NB-136	*5k 5000K (standard)*	**flood optics**		**2PF** dual power feed [1,2]	**BY** gray
	(see chart)		**2x2** narrow spot		**BPC** cold weather battery pack [3]	**MB** met. bronze
			5x5 medium flood		**OCS** occupancy sensor (on/off ONLY)	**MT** met. titanium
					standard electrical options	___ RAL
					lifeShield™ thermal protection	___ other
					20K - surge protection [4]	
					dimming drivers	

[1] not available on **24NB-27** [2] not available @ **347V/480V** input [3] **36NB-80** only [4] not available @ **347V** input

Engine	Wattage	Delivered Lumens (varies by optic)	Delivered LPW	TM21 Calculated % Lumen Maint. at 100,000 hrs
24NB	27	2752-3014	105-115	96.19%
24NB	55	5138-5500	93-100	96.19%
36NB	80	6935-8215	93-103	94.87%
48NB	110	10240-10950	93-103	92.73%
60NB	136	12800-13700	93-103	85.79%

TM21 is the framework for taking LM-80 data and making useful LED lifetime projections. Reported and Calculated Lifetimes shown are based on hours at the time of this printing. For current Reported and Calculated hours please contact factory or Beacon's web-site.

MOB ORDERING INFORMATION: When ordering a fixture with the motion detection option (MOB), please specify the appropriate information. These settings are specified in the ordering as shown in the example below.

TRV-D / 48NB-110 / T5SW / UNV / **MOB** - 1 to 30 min - 33% or 50% ?? / MT

High to Dim Delay | Low Level | Mounting Height (ft.)

CCT (color Temp) Lumen Output Multipliers	**CRI (Color Rendering)**
5000K = 1.0	min 67 CRI
4000K = .92	min 70 CRI
3000K = .75	min 80 CRI

TRAVERSE

Specification
rev 03.21.2013

GENERAL: The Beacon TRV luminaire is a wall surface mounted luminaire with a field replaceable LED light engine & optical bezel system. Internal components are totally enclosed in rain-tight and corrosion-resistant die cast aluminum housing. The TRV Luminaire is,suitable for wet locations.

HOUSING/LED THERMAL MANAGEMENT: The Beacon TRV luminaire consists of a die cast aluminum two-piece housing. The die cast main (thermal) housing provides direct heat exchange between the LED light engine and the cool outdoor air by drawing heat through integral heat channels and out to the sculptured and functional luminaire surface. LED drivers are thermally isolated from the main housing, mechanically attached and heat sinked to the rear housing The main housing is designed with heat dissipating fins for LED thermal management without the use of metallic screens, cages, or fans. The shape of the main housing is designed to prevent debris accumulation and as a bird nesting deterrent. The back and main housings are designed to hinge open for easy mounting and easy access.

MOUNTING & INSTALLATION: The rear housing (back plate) is designed with various bolt patterns for direct wall mounting or mounting to a recessed 4" junction box The rear housing has three integral 3/4" NPT power feed locations (bottom and each side) for surface mounted conduit applications. After mounting the rear housing to the wall or junction box the main housing is designed to hang and hinge closed after connecting the male and female quick connectors. The mounting design permits a simple retrofit to existing wall luminaires that utilize surface mount or recessed junction boxes.

BEZEL OPTICAL SYSTEM: Each Traverse luminaire is supplied with an Optical one piece cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel. The cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece Optical system. A two-piece die cut silicone and polycarbonate foam gasket ensures a weather-proof seal around each individual LED and allows the Traverse luminaire to be rated for high-pressure hose down (IP67) applications.

The optical cartridge is secured to the extruded housing with fasteners and a heat pad to ensure thermal conductivity. The optics are held in place without the use of adhesives and the complete assembly is gasketed for high pressure hose down cleaning. The cartridge assembly is available in various lighting distributions using TIR designed Acrylic optical lenses over each LED.

PRINTED CIRCUIT BOARD (PCB): Aluminum thermal clad board with 0.062" thick aluminum base layer "high temperature" HT-06503 or equivalent (subject to change) dielectric (0.003" thick, thermal conductivity of 2.2 W/MK, UL RTI of 140°C) 0.0014" thick copper circuit layer Circuit layer designed with copper pours to minimize thermal impedance across dielectric. Board shall be supplied with QPAD-3 fiberglass reinforced thermal pad 0.005" thick thermal conductivity of 2.0 W/Mk. Continuous use temperature of 180°C UL94 V-0. Board will be mounted to the heat sink using 12 #4-40 screws to ensure contact with thermal pad and heat sink. Use of thermal grease will not be allowed.

LIFESHIELD™ CIRCUIT: (OPTIONAL) Thermal circuit shall protect the luminaire from excessive temperature by interfacing with its 0-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits shall be designed to ensure maximum hours of operation to assure L70 rated lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range in recognition of the effect of reduced current on the internal temperature and longevity of the LEDs and other components.

A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F).

The LifeShield™ thermal regulation circuit will allow higher maximum wattages than would be permissible on an unregulated luminaire (if some variation in light output is permissible), without risk of premature LED failure. Operation shall be smooth and undetectable to the eye. Thermal circuit shall directly measure the temperature at the LED solder point.

LifeShield™ shall consist of surface mounted components mounted on the LED engine (printed circuit board). For maximum simplicity and reliability, the device shall have no dedicated enclosure, circuit board, wiring harness, gaskets, or hardware. Device shall have no moving parts, and shall operate entirely at low voltage (NEC Class 2). The device shall be located in an area of the luminaire that is protected from the elements.

LifeShield™ shall be designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers.

Device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.). The device will effectively control the solder point temperature as needed; otherwise it will allow the other control device(s) to function unimpeded.

MOTION ACTIVATED LUMINAIRES: Beacon TRV luminaires are available with an optional passive infrared (PIR) motion sensor capable of detecting motion within 24 feet of the sensor, 360° around the luminaire, when placed at an 8 foot mounting height. When no motion is detected for 5 minutes, the Motion Response system reduces the wattage from 10% to 50% (factory set at 50% reduction) of the maximum wattage, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration.

ELECTRICAL: Luminaires are equipped with an LED driver that accepts 100V through 277V, 50 Hz to 60 Hz (UNIV), or a driver that accepts 347V or 480V input. Power factor is .92 at full load. All electrical components are rated at 50,000 hours at full load and 40°C ambient conditions per MIL-217F Notice 2. Optional 0 to 10 volt dimming drivers are available upon request. Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is listed by UL for use at 600VAC at 50°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher. 15A rating applies to primary (AC) side only.

SURGE PROTECTOR: The onboard surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 10,000 Amps using the industry standard 8/20 pSec wave. The LSP shall have a clamping voltage of 320V and surge rating of 372J. The case shall be a high-temperature, flame resistant plastic enclosure.

COLD WEATHER BATTERY PACK: The emergency driver shall be capable of operating an LED load of up to 23.1 watts at rated current (700 mA) for a minimum of 90 minutes. It is suitable for damp locations as well as sealed and gasketed fixtures. The BPC shall have 37 watts of input power and a 54.0 watt-hour battery capacity and shall comply with emergency standards set forth by the current NEC.

FASTENERS: All fasteners shall be stainless steel. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, consult factory).

AGENCY CERTIFICATION: The luminaire shall bear a CSA label and be marked suitable for wet locations.

WARRANTY: Beacon luminaires feature a 5 year limited warranty. Beacon LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED drivers are covered by a 5 year limited warranty. PIR sensors carry a 5 year limited warranty from the sensor manufacturer. See Warranty Information on www.beaconproducts.com complete details and exclusions.

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Ordering
rev 03.21.2013

Type:

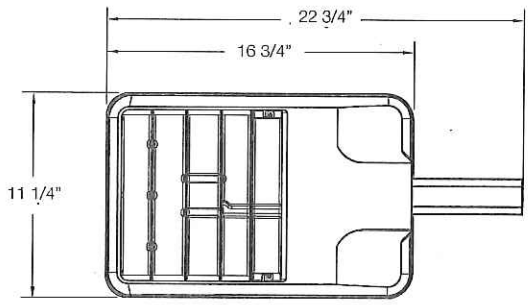
Ordering Code:

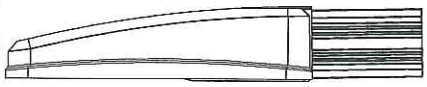
Job Name:

Notes:

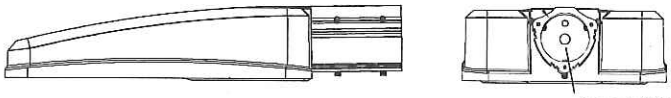
VIPER (SMALL)

details



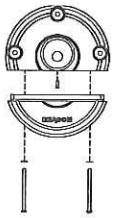


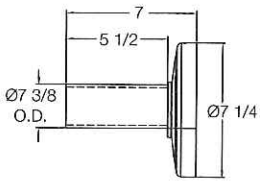
RA rectangular arm



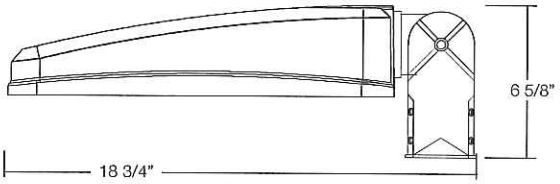
SF2 2-3/8" OD slip-fitter

Accepts 2 3/8" OD tenon, min 4" long.

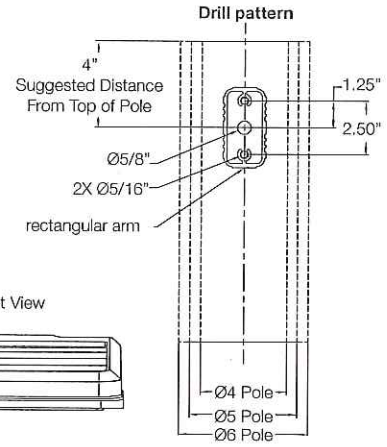


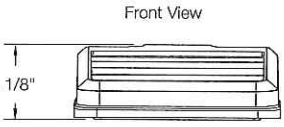


WB wall bracket



PK2 2-3/8" adjustable knuckle





weight: 15lbs **epa:** 0.67 ft²

ORDERING EXAMPLE: VP-S / 30NB-90 / 5K / T5R / UNV / PCRU-TL / SF2 / BB

model	engine-watts	cct-color temp	optics	voltage	electrical options	mounting options	color
VP-S	**22NB-50**	**5K** 5000K	**T2** type II	**UNV** 120-277	**PCRU** photocell (specify voltage)[1]	**RA** rectangular arm	**BB** black
(small)	**22NB-70**	**4K** 4000K	**T3** type III	**347**	**PCR3** photocell receptacle [2]	**SF2** 2-3/8" OD slip-fitter	**BZ** bronze
	30NB-70	**3K** 3000K	**T4** type IV	**480**	**PCR4** photocell receptacle [3]	**PK2** 2-3/8" adjustable knuckle	**BW** white
	30NB-90		**T5R** rectangular	**12VDC** *(consult factory)*	**TL** twistlock photocontrol		**BG** green
		5k 5000K (standard)	**T5QM** sq medium		**SC** shorting cap	**WB** wall bracket	**BY** gray
			T5W round wide		**NP** no photocontrol		**MB** met. bronze
					2PF dual power feed [4,5]		**MT** met. titanium
					std. electrical options		___ **RAL**
					lifeshield™ thermal protection		___ **OTHER**
					20k-surge protection [6]		
					dimming drivers		

[1] **120-277** only [2] **347V** only [3] **480V** only [4] not available on **30NB-90** [5] not available @ **347V/480V** input [6] not available @ **347V** input

VIPER (SMALL)

Specification
rev 03.21.2013

GENERAL: The Beacon Viper luminaire is available in two sizes with a wide choice of different LED wattage configurations and optical distributions designed to replace HID lighting up to 1000W MH or HPS and with 5 different mounting options for application in a wide variety of new and existing installations. Luminaires are suitable for wet locations.

BEZEL OPTICAL SYSTEM: Each Viper luminaire is supplied with an one piece optical cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel. The cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system. Two-piece silicone and microcellular polyurethane foam gasket ensures a weather-proof seal around each individual LED.

The optical cartridge is secured to the die cast housing with fasteners. The optics are held in place without the use of adhesives. The cartridge assembly is available in various lighting distributions using TIR designed acrylic optical lenses over each LED.

LIFESHIELD™ CIRCUIT: Thermal circuit shall protect the luminaire from excessive temperature by interfacing with the 0-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits shall be designed to ensure maximum hours of operation to assure L70 rated lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range.

A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F). The thermal circuit will allow higher maximum wattages than would be permissible on an unregulated luminaire (if some variation in light output is permissible), without risk of premature LED failure or lumen depreciation. Operation shall be smooth and undetectable to the eye. Thermal circuit shall directly measure the temperature at the LED solder point. Thermal circuit shall consist of surface mounted components mounted on the LED engine (printed circuit board). For maximum simplicity and reliability, the device shall have no dedicated enclosure, circuit board, wiring harness, gaskets, or hardware. Device shall have no moving parts, and shall operate entirely at low voltage. The device shall be located in an area of the luminaire that is protected from the elements. Thermal circuit shall be designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers.
Device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.). The device will effectively control the solder point temperature as needed; otherwise it will allow the other control device(s) to function unimpeded.

PRINTED CIRCUIT BOARD (PCB): Aluminum thermal clad board with 0.062" thick aluminum base layer, thermally conductive dielectric layer, 0.0014" thick copper circuit layer circuit layer designed with copper pours to minimize thermal impedance across dielectric. Board will be mounted to the heat sink using minimum 12 #4-40 screws to ensure contact with thermal pad and heat sink. Use of thermal grease will not be allowed.

HOUSING AND LED THERMAL MANAGEMENT: The Viper' monolithic housing design creates over 4.5 square feet (small Viper) or 7.7 square feet (large Viper) of heat-sinking surface area. Vertical fins, combined with flow-thru openings prevent sediment and moisture buildup on critical heat sinking surfaces without the need for grates, screens or other debris control tactics. The Viper housing, electrical compartment and fitter are made from die cast aluminum that is pre-treated and powder-coated to meet the most rugged industry standards. The finish is corrosion resistant to meet ASTMB-117, resists cracking or loss of adhesion per ASTM D522, resists surface impacts of up to 160 inch-pound. All external hardware is corrosion resistant. The housing serves as a heat-sink for the LED bezel with a separate compartment for the drivers.

ELECTRICAL ASSEMBLY: The fixture electrical compartment shall contain all LED driver components and shall be provided with a push-button terminal block for AC power connections. The housing is designed for an optional twist lock photo control receptacle.
ACCESSIBILITY: Although the Viper luminaire is designed to operate for many years without maintenance, accessibility is a key component in its design. The Drivers are mounted on a removable door that is secured with keyslotted screws and hinges down for convenient access. The drivers are field replaceable using quick disconnects.

DRIVERS: Luminaires are equipped with an LED driver that accepts 100V through 277V, 50 Hz to 60 Hz (UNIV), or a driver that accepts 347V or 480V input. Power factor is .92 at full load. All electrical components are rated at 50,000 hours at full load and 25°C ambient conditions per MIL- 217F Notice 2. Dimming drivers are standard, with connections for external dimming equipment available upon request. Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is listed by UL for use at 600VAC at 50°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only.

SURGE PROTECTOR: The onboard surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 20,000 Amps using the industry standard 8/20 pSec wave. The LSP shall have a clamping voltage of 925V and surge rating of 540J. The case shall be a high-temperature, flame resistant plastic enclosure.

FASTENERS: All fasteners shall be stainless steel. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, consult factory).

AGENCY CERTIFICATION: The luminaire shall bear a CSA label and be marked suitable for wet locations.

WARRANTY: Beacon luminaires feature a 5 year limited warranty. Beacon LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED drivers are covered by a 5 year limited warranty. PIR sensors carry a 5 year limited warranty from the sensor manufacturer. See Warranty Information on www.beaconproducts.com complete details and exclusions.

Power/Lumens & Distrubutions

Engine	Wattage	Delivered Lumens (varies by optic)	Delivered LPW	TM21 Calculated % Lumen Maint. at 100,000 hrs
22NB	50	4700-5020	93-103	96.19%
22NB	70	5780-6200	82-103	85.79%
30NB	70	6408-6850	91-103	95.02%
30NB	90	7700-8260	85-97	85.79%

TM21 is the framework for taking LM-80 data and making useful LED lifetime projections. Reported and Calculated Lifetimes shown are based on hours at the time of this printing. For current Reported and Calculated hours please contact factory or Beacon's web-site.

CCT (color Temp) Lumen Output Multipliers	CRI (Color Rendering)
5000K = 1.0	min 67 CRI
4000K = .92	min 70 CRI
3000K = .75	min 80 CRI

EASEMENTS

The Bayside Bowl survey references the following easements regarding the 'discontinued' Lancaster Street:

A. "Lancaster Street east had been discontinued as a city street on May 5, 1995. The discontinuance reserved the continued use of this property as a sewer easement for the still-active north side intercepting sewer. However, the discontinuance notice made no mention of also discontinuing the public easement within the street boundaries."

B. "The city has a stockade fence built out to the approximate centerline of the street which fences in a dumpster and materials storage area. I believe that the reversionary rights involved in the street discontinuance in May 1995 would establish the property line back in it's location prior to the creation of Lancaster Street. As is clearly shown on the 1913 plan of Lancaster Street Extension, the former property line between what is now Furman and the city, fronting along Alder Street, did not run along with the centerline of the proposed street. In fact, more land was taken from what is now Furman's parcel than was taken from what is now the city's."

Att. 1

Mitchell & Associates
LANDSCAPE ARCHITECTS

The Staples School
70 Center Street
Portland, Maine 04101
P: 207.774.4427
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April 22, 2015

Mr. Richard Knowland, Senior Planner
and Planning Board Members
City of Portland
389 Congress Street
Portland, Maine 04101

RE: Bayside Bowl and Portland Community Squash
58 Alder Street

Dear Rick and Planning Board Members,

The following documentation and supporting information have been prepared in response to staff review comments received on April 8, 2015, April 9, 2015, and April 13, 2015, responses are in **Italic**. In addition, the applicant has conducted a neighborhood meeting and the required submission documentation is attached.

Email from Rick Knowland April 8, 2015.

Comment's 3-5, 7-9 and 14:

3. Ability to serve letters should be provided from the Portland Water District and Dept. of Public Services (sewer capacity).

Request for letter from Public Services was sent. We have not received a response as of this date. As soon as we receive a letter a copy shall be provided.

4. Will the existing Alder Street building entrance remain a public entrance?

The two points of entry on Alder Street shall remain as the main entry points to the bowling facility. 58 Alder Street is the front door and legal address, with the access from the parking lot as a secondary entry serving patrons using the parking or walking via Hanover Street. Refer to partial waiver request below.

5. Dumpster along Lancaster Street. The screening of the dumpster should meet Bayside Design Standard C-7 ["materials, colors and design of screen walls and fences shall conform to those used on the building"]. A detail of this design should be provided. Also the dumpster enclosure should be clearly out of the old Lancaster Street r-o-w.

The dumpster enclosure is located in a recessed area between the existing and proposed building. Two sides of the enclosure are formed by the existing and proposed building with a double wide wood gate and a solid wood fence section with a man door access parallel to Hanover Street. The material on the building is a metal siding with exception of a masonry band along the base of the building. The use of similar material for the trash enclosure is not sustainable as these materials are subject to significant damage from impact from rolling trash units and trash hauling vehicles. The wood panels will be stained an appropriate complementary color to materials used on the building.

7. Bayside Design Standards, Standard A-7 (Building Orientation). I believe Bayside Bowl meets the primary intent of this standards but a sentence in the standard does state "the primary facades and entrances of buildings shall not be oriented toward parking lots". Would recommend that you request a partial waiver for this since the primary facade and entrance is adjacent to a parking lot as a well as supplemental info in support of the waiver request. The good news is that the primary façade and entrance does face a street. Standard E-6 has a "primary entrances shall not be oriented to a parking lot or structure" standard. A similar waiver should be requested as well.

As stated in item 4 above, the main entry to Bayside Bowl will continue to be on Alder Street. The unique situation with this parcel is that it has frontage on three streets and meeting the intent of the B7, Standard A-7 and E-6 is a challenge. Providing access from the parking lot as well as for pedestrians arriving from Hanover Street is a matter of function and convenience. We are requesting the following partial waiver:

The applicant is requesting a partial waiver from the requirements of the B7 Design Standards A-7 (Building Orientation) and E-6 that primary entrances shall not be oriented to a parking lot or structure to permit the secondary entry facing Kennebec Street and the parking lot.

8. What will the hours of the roof top bar? Is there a management plan to deal with potential noise issues at night that could impact the surrounding residential neighborhood?

The roof top deck, bar/outdoor patio, is a small area, the hours will be similar to the first floor bar and outdoor seasonal venue. The hours will be from 3 PM to midnight during the warmer months and activities will be similar to the current outdoor venue, providing outdoor music events, movie screenings, and gatherings. They have not had any complaints from the neighborhood for the outdoor uses. There will be a manager on duty at all times to address any noise issues. A significant feature of the roof deck will be the views to Back Cove and to the White Mountains.

9. Incorporate in your drawings where HVAC units will located. Will units be screened and integrated into the design of the building? Needs to be located away from residential properties.

The roof top elements have been shown on the roof plan enclosed with this submission, including the roof plans for the existing building. The mechanical units are located such that they are not visible from the street and not near any residential use. We understand that the adjacent City owned parcel to the south (Traffic Division) is being offered for sale by RFP for redevelopment for housing. The location of the equipment will have no impact on future development.

14. The plan has not extended a brick sidewalk down the northerly end of Alder Street project frontage. Is there a particular reason why the sidewalk has not been extended? Also presumably a Bayside street light fixture should also be installed in that location.

The brick sidewalk has not been extended to the north side of the two access curb cuts at this time pending the final design of the Somerset Street extension/realignment. The current Somerset Street concept appears to have potential impact on curb alignment that also impacts sidewalk. There is an existing section of concrete sidewalk and ADA ramp access to an existing crosswalk on Alder Street. The applicant is requesting as a condition of approval that construction of new sidewalk be deferred until the final design of Somerset Street and construction coordination can occur. The requirement for additional Bayside street light fixture can be evaluated at that time as well.

Woodard & Curran Memorandum: David Senus, P.E.

Comments

1. In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General and Flooding Standards. We offer the following comments:

(a) Basic Standard: The applicant will need to provide plans, notes and details to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of Maine DEP Chapter 500.

We have prepared the enclosed Erosion and Sediment Control plan to address the comments above.

(b) General Standard: The project will result in a net decrease in impervious area. As such, the project in not required to include any specific stormwater management features for stormwater quality control. The applicant has proposed a grassed, underdrained stone filtration swale to provide some level of water quality treatment for runoff from the site. This approach to stormwater management on the site is acceptable to the City; however, we encourage the Applicant to review the City's Stormwater Service Charge Credit Manual (available online) to evaluate whether they would consider incorporating treatment measures which may qualify for a future Stormwater Service Charge credit.

The applicant is aware of the City's new Stormwater Service Charge and will evaluate other opportunities to address water quality and provide information regarding water quality treatment measures that include the proposed infiltration and opportunities to address new roof run off from the prosed addition. We will provide this information in a subsequent submission.

(c) Flooding Standard: The project will result in a net decrease in impervious area. As such, the project is not required to include any specific stormwater management features to control the rate of stormwater runoff from the site.

No response required.

2. The project will disturb more than one acre; the Applicant should note that a Maine Construction General Permit will be required from the Maine DEP and that copies of all permits should be forwarded to the City upon receipt.

The applicant will file for the Maine Construction General Permit and will file a copy with the City.

3. The Applicant has noted that ability to serve letters have been requested from the Portland Water District and the City of Portland; these letters should be forwarded upon receipt.

See response above.