



September 10, 2015
15056

Ms. Barbara Barhydt
Development Review Services Manager
City of Portland
389 Congress Street
Portland, ME 04101

Application for Level II – Site Plan Permit
Portland Public Services Sand & Salt Storage

Dear Ms. Barhydt:

On behalf of the City of Portland's Department of Public Services, we have prepared this application for Level II – Site Plan Permit approval in the Industrial Moderate Impact (IM) and Conditional Industrial – Low impact (C50) Zones.

Project Introduction:

As discussed at our recent per-application meeting, the City of Portland's Department of Public Services is looking to relocate the (2) two sand and salt storage building from the Hanover Street operations to 250 Canco Road. Over the past several years, the City has begun the planning process to vacate the Hanover Street facility and pursue a new location for Public Services. This is a substantive effort and will require the complete relocation to occur over an extended time period due to costs.

The first step in the relocation planning was the sale of a portion of the Hanover Street property that has historically served as the Sand and Salt Storage area for the peninsula. The City owns two 35' by 60' PVC covered storage buildings that hold mixed sand/salt and salt storage for the winter operations.

With the sale of the Hanover Street facility, the City removed the buildings in the early spring of 2015. As a result, the City currently does not have a location on the peninsula for storing winter sand and salt. This has created an urgent need to identify and permit a new location for this important public service.

Project Location:

The City has entered into a purchase and sell agreement for the former Seltzer and Rydholm property located at 250 Canco Road property. The property includes a large building that will be utilized by Public Services for equipment storage and general operations. In addition, the City currently leases the abutting Nelson & Small building/parcel and has developed an agreement with JB Brown for a land swap to create a large parcel of land that will eventually accommodate the majority of the City Public Services Department.

At present, the City is simply seeking approval for the relocation of the existing mixed sand/salt and salt buildings to this property to continue providing peninsula winter maintenance.

Project Improvements:

Project improvements will be limited to site access and general grading improvements predominantly within the existing developed portions of the site to accommodate the placement of the storage buildings along with associated maneuvering areas and vehicle parking. No utilities are required other than extension of an electrical service from the existing Seltzer and Rydholm build to provide for safety and operations al lighting.

Stormwater Management:

The project includes a catch-basin system and the construction of a gravel wetland to achieved stormwater treatment consistent with the MDEP's chapter 500 regulations which have been adopted by the City of Portland.

Project Time-line:

This project is critical for the proper maintenance of City streets during winter time operations. Given the urgent need and impending winter conditions, the City is facing a time sensitive situation. As a result, we are asking for the planning department's assistance to expedite the review and permitting of this project to avoid any lapse in fall/winter sanding and salting of City roads.

Closure:

On behalf of the Department of Public Services, we look forward to working with the staff to permit this project. As you consider the application, please contact us if you have any questions.

Sincerely,

SEBAGO TECHNICS, INC.



Owens A. McCullough, P.E. LEED-AP
Vice President Engineering & Project Development

OAM/llg
Enc.



LEVEL II SITE PLAN APPLICATION

To:

**City of Portland
Planning Board**

For:

Sand & Salt Storage Facility
250 Canco Road
Portland, Maine 04103

Prepared for:

City of Portland
Department of Public Services
55 Portland Street
Portland, Maine 04101

Prepared by:

Sebago Technics, Inc.
75 John Roberts Road, Suite 1A
South Portland, Maine 04106

September 10, 2015

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Exhibit 1

Application Form & Checklist



Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

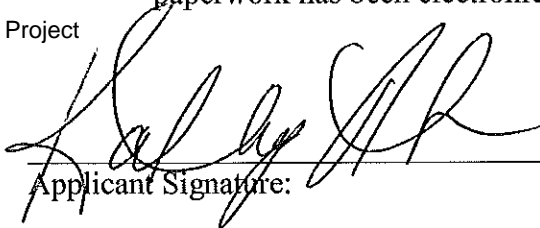
Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a *legal signature* per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are *paid in full* to the Inspections Office, City of Portland Maine by method noted below:

- Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.

*N/A City Project


Applicant Signature: _____

9/9/15
Date: _____

_____ I have provided digital copies and sent them on:

_____ Date:

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3rd Floor, Room 315.



Level II – Preliminary and Final Site Plans Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level II: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Level II: Site Plan Development includes:

- New construction of structures with a total floor area of less than 10,000 sq. ft. in all zones, except in Industrial Zones.
- New construction of structures with a total floor area of less than 20,000 sq. ft. in Industrial Zones.
- Any new temporary or permanent parking area, paving of an existing unpaved surface parking area in excess of 7,500 sq. ft. and serving less than 75 vehicles, or creation of other impervious surface area greater than 7,500 sq. ft.
- Building addition(s) with a total floor area of less than 10,000 sq. ft. (cumulatively within a 3 year period) in any zone, except in Industrial Zones.
- Building addition(s) with a total floor area of less than 20,000 sq. ft. in Industrial Zones.
- Park improvements: New structures or buildings with a total floor area of less than 10,000 sq. ft., facilities encompassing an area of greater than 7,500 sq. ft. and less than 20,000 sq. ft. (excludes rehabilitation or replacement of existing facilities).
- New construction of piers, docks, wharves, bridges, retaining walls, and other structures within the Shoreland Zone.
- Land disturbance between 1 and 3 acres that are stripped, graded, grubbed, filled or excavated.
- A change in the use of a total floor area between 10,000 and 20,000 sq. ft. in any existing building (cumulatively within a 3 year period).
- Lodging house, bed and breakfast facility, emergency shelter or special needs independent living unit.
- Signage subject to approval pursuant to Section 14-526 (d) 8.a. of the Land Use Code.
- Any new major or minor auto service station with less than 10,000 sq. ft. of building area in any permitted zone other than the B-2 or B-5 zones.
- The creation of day care or home babysitting facilities to serve more than 12 children in a residential zone (not permitted as a home occupation under section 14-410) in any principal structure that has not been used as a residence within the 5 years preceding the application.
- Any drive-through facility that is not otherwise reviewed as a conditional use under Article III.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division

Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours

Monday thru Friday
8:00 a.m. – 4:30 p.m.

PROJECT NAME: Portland Public Services Sand & Salt Storage Facility

PROPOSED DEVELOPMENT ADDRESS:

250 Canco Road, Portland, Maine 04103

PROJECT DESCRIPTION:

Relocate City sand/salt storage sheds from Hanover Street location.

CHART/BLOCK/LOT: 148-A-8, 148-A-7, 148-A-2

PRELIMINARY PLAN _____ (date)

FINAL PLAN _____ (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Kathy Alves, Facilities Director Business Name, if applicable: City of Portland, Address: 389 Congress Street City/State : Portland, ME Zip Code: 04101	Applicant Contact Information E-mail: kra@portlandmaine.gov Home #: N/A Work #: 207-874-8892 Cell #: 207-233-8523 Fax#: N/A
Owner – (if different from Applicant) Name: See purchase & sale agreements Address: City/State : Zip Code:	Owner Contact Information E-mail: Home #: Work #: Cell #: Fax#:
Agent/ Representative Name: Sebago Technics, Inc. Attn: Owens McCullough Address: 75 John Roberts Road, Suite 1A City/State : South Portland, ME Zip Code: 04106	Agent/Representative Contact information E-mail: omccullough@sebagotechnics.com Home #: N/A Work #: 207-200-2073 Cell #: 207-232-1649 Fax#: 207-856-2206
Billing Information Name: See applicant info Address: City/State : Zip Code:	Billing Information E-mail: Home #: Work #: Cell #: Fax#:

Engineer Name: See agent info Address: City/State : Zip Code:	Engineer Contact Information E-mail: Home #: Work #: Cell #: Fax#:
Surveyor Name: Sebago Technics, Inc. Attn: Charlie Brown Address: 75 John Roberts Road, Suite 1A City/State : South Portland, ME Zip Code: 04106	Surveyor Contact Information E-mail: cbrown@sebagotechnics.com Home #: N/A Work #: 207-200-2053 Cell #: N/A Fax#: 207-856-2206
Architect Name: N/A Address: City/State : Zip Code:	Architect Contact Information E-mail: Home #: Work #: Cell #: Fax#:
Attorney Name: N/A Address: City/State : Zip Code:	Attorney Contact Information E-mail: Home #: Work #: Cell #: Fax#:

APPLICATION FEES:

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

Level II Development (check applicable reviews) <input checked="" type="checkbox"/> Less than 10,000 sq. ft. (\$400) <input type="checkbox"/> After-the-fact Review (\$1,000 plus applicable application fee) <hr/> The City invoices separately for the following: <ul style="list-style-type: none"> • 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) <input type="checkbox"/> Traffic Movement (\$1,000) <input checked="" type="checkbox"/> Stormwater Quality (\$250) <input type="checkbox"/> Site Location (\$3,000, except for residential projects which shall be \$200/lot) # of Lots ___ x \$200/lot = _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Change of Use <input type="checkbox"/> Flood Plain <input type="checkbox"/> Shoreland <input type="checkbox"/> Design Review <input type="checkbox"/> Housing Replacement <input type="checkbox"/> Historic Preservation
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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-Documents-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:

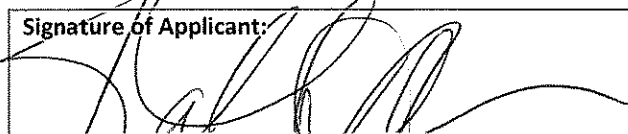
1. One (1) full size site plans that must be folded.
2. One (1) copy of all written materials or as follows, unless otherwise noted:
 - a. Application form that is completed and signed.
 - b. Cover letter stating the nature of the project.
 - c. All Written Submittals (Sec. 14-527 (c), including evidence 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: 9/9/15
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PROJECT DATA

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

Total Area of Site	625,347	sq. ft.
Proposed Total Disturbed Area of the Site	84,909	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)	greater than 3 acres	sq. ft.
Impervious Area (Total Proposed)	46,799	sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	0	sq. ft.
Building Footprint (Total Proposed)	4,200	sq. ft.
Building Floor Area (Total Existing)	0	sq. ft.
Building Floor Area (Total Proposed)	4,200	sq. ft.
Zoning		
Existing	IM & C50	
Proposed, if applicable	N/A	
Land Use		
Existing	Warehouse and Distribution Facility	
Proposed	Municipal Facility	
Residential, If applicable		
# of Residential Units (Total Existing)	N/A	
# of Residential Units (Total Proposed)		
# of Lots (Total Proposed)		
# of Affordable Housing Units (Total Proposed)		
Proposed Bedroom Mix		
# of Efficiency Units (Total Proposed)	N/A	
# 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)	N/A	
# of Parking Spaces (Total Proposed)		
# of Handicapped Spaces (Total Proposed)		
Bicycle Parking Spaces		
# of Bicycle Spaces (Total Existing)	N/A	
# of Bicycle Spaces (Total Proposed)		
Estimated Cost of Project	To be determined	

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

FINAL PLAN - Level II 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)
X		1	* Completed Application form
X		1	* Application fees
X		1	* Written description of project
X		1	* Evidence of right, title and interest
N/A		1	* Evidence of state and/or federal permits
X		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
X		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
X		1	* Evidence of financial and technical capacity
X		1	Construction Management Plan
X		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
X		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
X		1	Stormwater management plan and stormwater calculations, including description of project, hydrology and impervious area.
X		1	Written summary of project's consistency with related city master plans
N/A		1	Evidence of utility capacity to serve
N/A		1	Written summary of solid waste generation and proposed management of solid waste
N/A		1	A code summary referencing NFPA 1 and all Fire Department technical standards
X		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
N/A		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)
X		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		1	Final Site Plans including the following:
X			Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);
X			Existing and proposed structures on parcels abutting site;
X			All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;
X			Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;
X			Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;
X			Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;
X			Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;
X			Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;
X			Location of all snow storage areas and/or a snow removal plan;
N/A			A traffic control plan as detailed in Section 1 of the Technical Manual;
X			Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);
N/A			Location and proposed alteration to any watercourse;
N/A			A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;
N/A			Proposed buffers and preservation measures for wetlands;
X			Existing soil conditions and location of test pits and test borings;
X			Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;
X			A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;
X			Grading plan;
X			Ground water protection measures;
X			Existing and proposed sewer mains and connections;
X			Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
X			Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;

- Continued on next page -

X		Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
N/A		Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property;
X		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
N/A		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
N/A		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;
X		Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;
X		An exterior lighting plan in accordance with Section 12 of the Technical Manual;
X		A signage plan showing the location, dimensions, height and setback of all existing and proposed signs;
X		Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.



PORTLAND FIRE DEPARTMENT SITE REVIEW FIRE DEPARTMENT CHECKLIST



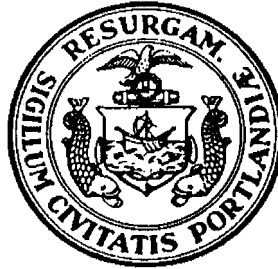
A separate drawing[s] shall be provided as part of the site plan application for the Portland Fire Department's review.

1. Name, address, telephone number of applicant
2. Name address, telephone number of architect
3. Proposed uses of any structures [NFPA and IBC classification]
4. Square footage of all structures [total and per story]
5. Elevation of all structures
6. Proposed fire protection of all structures
 - **As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)**
7. Hydrant locations
8. Water main[s] size and location
9. Access to all structures [min. 2 sides]
10. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.

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

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Mr. Frank J. Brancely,
Senior Engineering Technician,
Phone #: (207) 874-8832,
Fax #: (207) 874-8852,
E-mail: fjb@portlandmaine.gov

Date: _____

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: _____ Chart Block Lot Number: _____

Proposed Use: _____

Previous Use: _____

Existing Sanitary Flows: _____ GPD

Existing Process Flows: _____ GPD

Description and location of City sewer that is to receive the proposed building sewer lateral.

Site Category	Commercial <i>(see part 4 below)</i>	<input type="checkbox"/>
	Industrial <i>(complete part 5 below)</i>	<input type="checkbox"/>
	Governmental	<input type="checkbox"/>
	Residential	<input type="checkbox"/>
	Other <i>(specify)</i>	<input type="checkbox"/>

(Clearly, indicate the proposed connections, on the submitted plans)

2. Please, Submit Contact Information.

City Planner's Name: _____ Phone: _____

Owner/Developer Name: _____

Owner/Developer Address: _____

Phone: _____ Fax: _____ E-mail: _____

Engineering Consultant Name: _____

Engineering Consultant Address: _____

Phone: _____ Fax: _____ E-mail: _____

(Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review)

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: _____ GPD

Peaking Factor/ Peak Times: _____

Specify the source of design guidelines: *(i.e. "Handbook of Subsurface Wastewater Disposal in Maine," "Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify)*

(Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet)

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values: _____
Size of External Grease Interceptor: _____
Retention Time: _____
Peaking Factor/ Peak Times: _____

(Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet)

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated: _____ GPD
Do you currently hold Federal or State discharge permits? Yes _____ No _____
Is the process wastewater termed categorical under CFR 40? Yes _____ No _____
OSHA Standard Industrial Code (SIC): <http://www.osha.gov/oshstats/sicser.html>
Peaking Factor/Peak Process Times: _____

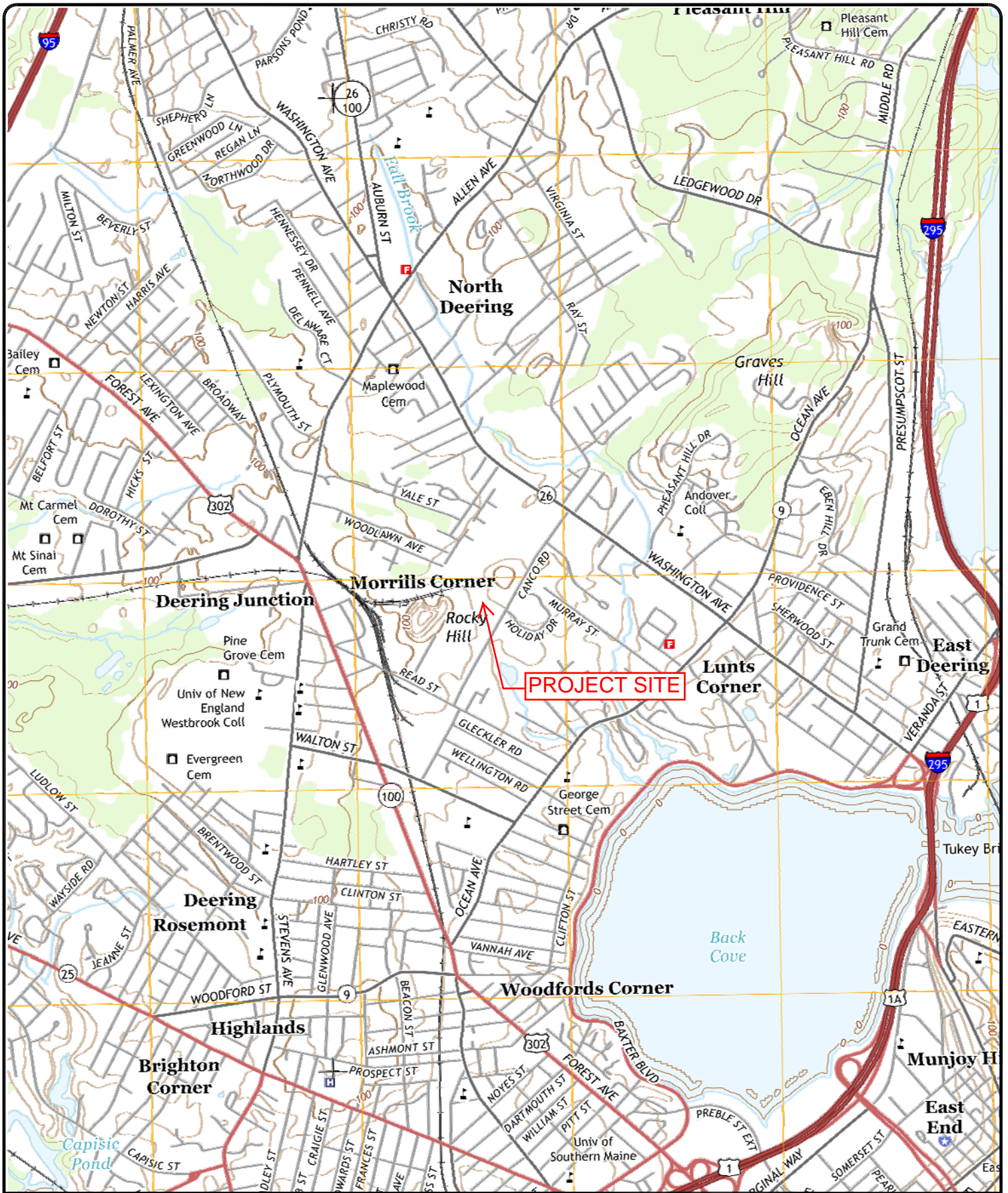
(Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps)

(Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided below, or attached, as a separate sheet)

Notes, Comments or Calculation

Exhibit 2

USGS Location Map



**LOCATION MAP
OF SAND & SALT STORAGE**

LOCATION:
250 CANCO ROAD
PORTLAND, MAINE 04103

FOR: CITY OF PORTLAND
55 PORTLAND STREET
PORTLAND, MAINE 04101

SCALE: 1"=2000'

DATE: 09-09-15

SHEET:
1 OF 1

SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd. Suite 1A South Portland, ME 04106 Tel. 207-200-2100
250 Goddard Rd. Suite B Lewiston, ME 04240 Tel. 207-783-5656

Exhibit 3

Financial Capacity

Exhibit 3


Financial Capacity

The project will be funded through the City of Portland by council authorization.

Exhibit 4

Right, Title or Interest

COMMERCIAL LEASE (NET LEASE)

1. PARTIES
212 Canco Realty LLC, a Maine limited liability company, with a mailing address of 212 Canco Road, Portland, ME 04103 ("LANDLORD"), hereby leases to the City of Portland, Maine, a Maine municipality with a mailing address of 389 Congress St., Portland, Maine Attn: Corporation Counsel ("TENANT"), and TENANT hereby leases from LANDLORD the following described premises.
2. LEASED PREMISES
The leased premises are deemed to contain 18,695 square feet of warehouse space, as shown on the attached Exhibit A. The leased premises are located at 212 Canco Road, Portland, Maine. Together with the right to use, in common with others entitled thereto, the hallways and stairways necessary for access to the leased premises. TENANT shall also have the right to use, in common with others, parking spaces at the rear of the building in areas designated by LANDLORD. The leased premises are accepted in "as is" condition except if specifically set forth to the contrary in this Lease. TENANT acknowledges that: a) LANDLORD has made no representations and TENANT is not relying on any representations about the leased premises, their suitability for any particular use and/or the physical condition thereof; and b) that TENANT has conducted its own due diligence inquiries with respect to the leased premises and is satisfied with the results thereof.
3. TERM
 The term of this Lease shall be for one (1) years, unless sooner terminated as herein provided, commencing on ~~September-1, 2013~~ ^{OCT 1, 2013} (the "Commencement Date") and ending on ~~October 31, 2014~~ ^{October 31, 2014}. However, The TENANT shall have the right to terminate this Lease at any time for its convenience on prior written Notice to LANDLORD, upon 30 days notice. If this Lease is terminated by the TEANT for convenience, the TENANT shall pay the LANDLORD for any unpaid, unrecovered, or unrecoverable out of pocket amounts actually expended or incurred in reliance on this Lease prior to the effective date of such notice.
4. RENT
TENANT shall pay to LANDLORD base rent at the rate of Three Dollars and Sixty Cents (\$3.60) per square foot, in the annual amount of Sixty-Seven Thousand Three Hundred and Two Dollars (\$67,302), payable in advance in equal monthly installments in the amount of Five Thousand Eight Dollars and Fifty Cents (\$5,608.50) on the first day of each month during the term without deduction or setoff, said rent to be prorated for portions of a calendar month at the beginning or end of said term, all payments to be made to LANDLORD or to such agent and at such place as LANDLORD shall from time to time in writing designate; provided, however, that TENANT shall pay the first month's rent and the last month's rent contemporaneously with the execution of this Lease. If TENANT does not pay base rent, supplemental and additional rents, or other fees and charges when due pursuant to the term of this Lease, then LANDLORD, in its sole discretion, may charge, in addition to any other remedies it may have, a late charge for each month or part thereof that TENANT fails to pay the amount due after the due date. The late charge shall be equal to four percent (4%) of the amount due LANDLORD each month in addition to the rent then due.
5. RENT ADJUSTMENT
Commencing on the Commencement Date, TENANT will pay to LANDLORD as additional rent hereunder, in accordance with subparagraph B of this Article, 27.9% of all real estate taxes on the land and buildings of which the leased premises are a part in each year of the term of this Lease or any extension or renewal thereof and proportionately for any part of a fiscal year in which this Lease commences or ends. If LANDLORD obtains an abatement of any such excess real estate tax, a proportionate share of such abatement, less the reasonable fees and costs incurred in obtaining the same, if any, shall be refunded to TENANT.
 - A. TAXES
 - B. OPERATING COSTS
Commencing on the Commencement Date, TENANT shall pay to LANDLORD as additional rent hereunder in accordance with subparagraph B of this Article, 27.9% of all operating expenses. Operating expenses are defined for the purposes of this agreement as operating expenses per annum of the building and its appurtenances and all exterior areas, yards, plazas, sidewalks, landscaping, parking areas, and the like then (i.e. as of said last day of the calendar year concerned) located outside of the building but related thereto and the parcels of land on which they are located (said building appurtenances, exterior areas, and land hereinafter referred to in total as the "building"). Operating expenses include, but are not limited to: (i) all costs of furnishing electricity, heat, air-conditioning, water and sewer and other utility services and facilities to the building; (ii) all costs of any insurance carried by LANDLORD related to the building; (iii) all costs for common area cleaning and janitorial services; (iv) all costs of maintaining the building including the operation and repair of heating and air conditioning equipment and any other common building equipment, and all repairs, improvements and replacements required by law or necessary to keep the building in a well maintained condition; (v) all costs of snow and ice removal, landscaping and grounds care; (vi) all other costs of the management of the building, including, without limitation property management fees; and (vii) all other reasonable costs relating directly to the ownership, operation, maintenance and management of the building by LANDLORD. TENANT's share of operating expenses shall be prorated should this Lease be in effect with respect to only a portion of any calendar year.

LANDLORD estimates that taxes and operating costs during the first year of the term of this Lease shall be approximately Two Dollars (\$2.00) per square foot. During each year of the term of this Lease, TENANT shall make monthly estimated payments to LANDLORD, as additional rent for TENANT'S share of real estate taxes and operating expenses for the then current year. Said estimated monthly payments shall be made along with base rent payments and shall be equal to one twelfth (1/12) of TENANT'S annualized share of LANDLORD'S real estate taxes and operating expenses for the current year. Within one hundred and twenty (120) days after the end of each calendar year, LANDLORD shall deliver to TENANT a statement showing the amount of such real estate taxes and operating expenses also showing TENANT'S share of the same. In the event that TENANT does not object to such statement in writing within ninety (90) days of receipt of same, such statement shall be deemed accurate. Upon written request by TENANT to LANDLORD made within said ninety (90) day period, LANDLORD shall provide to TENANT reasonable supporting documentation for any item of expense on such statement objected to by TENANT. TENANT shall, within thirty (30) days after such delivery, pay TENANT'S share to LANDLORD, as additional rent, less any estimated payments. If the estimated payments exceed TENANT'S share, then the excess shall be applied to the next year's monthly payments for estimated increases.

6. UTILITIES

TENANT shall pay, as they become due, all bills for electricity and other utilities (whether they are used for furnishing heat or other purposes) that are furnished to the leased premises and presently separately metered, all bills for fuel furnished to a separate tank servicing the leased premises exclusively, and all charges for telephone and other communication systems used at and supplied to the leased premises. LANDLORD agrees to furnish water for ordinary drinking, cleaning, lavatory and toilet facilities and reasonable heat and air conditioning, if installed as part of the structure of the building (except to the extent that the same are furnished through separately metered utilities or separate fuel tanks as set forth above) so as to maintain the leased premises and common areas of the building at comfortable levels during normal business hours on regular business days of the heating and air condition seasons of each year, to furnish elevator service, if installed as a part of the structure of the building, and to light passageways and stairways during business hours, and to furnish such common area cleaning service as is customary in similar building in said city or town, all subject to interruption due to any accident, to the making of repairs, alterations or improvements, to labor difficulties, to trouble in obtaining fuel, electricity, service, or supplies from the sources from which they are usually obtained for said building, or to any cause beyond LANDLORD'S control.

LANDLORD shall have no obligation to provide utilities or equipment other than the utilities and equipment within the leased premises as of the commencement date of this Lease. In the event TENANT requires additional utilities or equipment, the installation and maintenance thereof shall be TENANT'S sole obligation, provided that such installation shall be subject to the written consent of LANDLORD.

7. USE OF LEASED PREMISES

TENANT shall use the leased premises only for the purpose of making vehicle repairs and adjustments, and any other use permitted by law and local ordinance. If such use increases the cost of LANDLORD'S insurance on the building, TENANT shall pay, as additional rent hereunder, any such increase. Neither LANDLORD nor LANDLORD'S BROKER have made any representations to TENANT regarding the uses of the leased premises allowed under applicable law, and TENANT acknowledges and agrees that TENANT assumes all responsibility and risk for investigating the same.

8. COMPLIANCE WITH LAWS

TENANT agrees to conform to the following provisions during the entire term of this Lease: (i) TENANT shall not injure or deface the leased premises or building; (ii) No auction sale, inflammable fluids, chemicals, nuisance, objectionable noise or odor shall be permitted on the leased premises; (iii) TENANT shall not permit the use of the leased premises for any purpose other than set forth herein or any use thereof which is improper, offensive, contrary to law or ordinance, or liable to invalidate or increase the premiums for any insurance on the building or its contents or liable to render necessary any alterations or additions to the building; and (iv) TENANT shall not obstruct in any manner any portion of the building not hereby demised or the sidewalks or approaches to said building or any inside or outside windows or doors. TENANT shall observe and comply with all codes, ordinances, laws, regulations and other governmental or quasi-governmental orders or inspections affecting TENANT, the leased premises and/or TENANT'S use and all reasonable rules and security regulations now or hereafter made by LANDLORD for the care and use of the leased premises, the building, its facilities and approaches. TENANT agrees to keep the leased premises equipped with all safety appliances and make all accessibility alterations, improvements or installations to the building, and/or accommodations in TENANT'S use thereof required by law or any public authority as a result of TENANT'S use or occupancy of the premises or TENANT'S alterations or additions thereto, which alterations, improvements and installations shall be subject to LANDLORD'S consent as provided in this Lease.

9. MAINTENANCE

A. TENANT'S OBLIGATIONS

TENANT acknowledges by entry thereupon that the leased premises are in good and satisfactory order, repair and condition, and covenants during said term and further time as TENANT holds any part of said premises to keep the leased premises (including without limitation windows, doors and all systems serving exclusively the leased premises) in as good order, repair and condition as the same are in at the commencement of said term, or may be put in thereafter, damage by fire or unavoidable casualty and reasonable use and wear only excepted. Notwithstanding anything to the contrary herein, if TENANT has leased ground floor space, TENANT covenants to keep all plate glass windows in good repair and condition and to carry adequate insurance to provide for the replacement of any such plate glass which is damaged or destroyed.

B. LANDLORD'S OBLIGATIONS

LANDLORD agrees to maintain and repair the roof, exterior walls and structure of the building of which the leased premises are a part, building systems not exclusively serving the leased premises and the common areas, in the same condition as they are at the commencement of the term or as it may be put in during the term of this Lease, reasonable wear and tear, damage by fire and other casualty only excepted, unless such maintenance or repair is made necessary by fault or neglect of TENANT or the employees, contractors, agents or invitees of TENANT, in which case such maintenance or repair shall be at the expense of TENANT and TENANT shall pay all costs therefor.

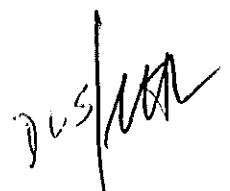
10. ALTERATIONS-ADDITIONS TENANT shall not make any alterations or additions, or permit the making of any holes in any part of said building (except for nail holes for hanging art), or paint or place any signs, drapes, curtains, shades, awnings, aerials or flagpoles or the like, or permit anyone except TENANT to use any part of the leased premises for desk space or for mailing privileges without on each occasion obtaining prior written consent of LANDLORD. TENANT may install signs of the following dimensions in the following locations, which signs shall be installed at TENANT'S sole expense, in compliance with all applicable laws and ordinances, and subject to LANDLORD'S prior approval, which shall not be unreasonably withheld. TENANT shall not suffer or permit any lien of any nature or description to be placed against the building, the leased premises or any portion thereof, and in the case of any such lien attaching to immediately pay and remove the same; this provision shall not be interpreted as meaning that TENANT has any authority or power to permit any lien of any nature or description to attach or to be placed upon LANDLORD'S title or interest in the building, the leased premises, or any portion thereof.
11. ASSIGNMENT-SUBLEASING TENANT shall not by operation of law or otherwise, assign, mortgage or encumber this Lease, or sublet or permit the leased premises or any part thereof to be used by others, without LANDLORD'S prior express written consent in each instance [which consent shall not be unreasonably withheld] (cross out if not applicable). In any case where LANDLORD shall consent to such assignment or subletting, TENANT named herein and any guarantor of this Lease shall remain fully liable for the obligations of TENANT hereunder, including, without limitation, the obligation to pay the rent and other amounts provided under this Lease. For purposes of this Lease, the sale of controlling interest in the stock of a corporate TENANT, sale of the controlling membership interest in an LLC or similar entity, or the change of a general partner of a partnership TENANT shall constitute an assignment of this Lease.
12. SUBORDINATION AND QUIET ENJOYMENT This Lease automatically shall be subject and subordinate to any and all mortgages, deeds of trust and other instruments in the nature of a mortgage, that is now or at any time hereafter a lien or liens on the property of which the leased premises are a part and TENANT shall, within ten (10) days after they are requested, promptly execute and deliver such written instruments as shall be necessary to show the subordination of this Lease to said mortgages, deeds of trust or other such instruments in the nature of a mortgage. Provided TENANT performs all of its obligations under this Lease, TENANT shall be entitled to the quiet enjoyment of the leased premises; provided TENANT covenants that it holds the leased premises subject to all easements, covenants and other matters of record, and agrees to abide by same to the extent the same affect the leased premises. TENANT agrees to sign within ten (10) days after they are requested, such estoppel certificates as are requested by LANDLORD or LANDLORD'S lender.
13. LANDLORD'S ACCESS LANDLORD or agents of LANDLORD may, at all reasonable times during the term of this Lease, enter the leased premises (i) to examine the leased premises and, if LANDLORD shall so elect, to make any repairs or additions LANDLORD may deem necessary and, at TENANT'S expense, to remove any alterations, additions, signs, drapes, curtains, shades, awnings, aerials or flagpoles, or the like, not consented to in writing, (ii) to show the leased premises to prospective purchasers and mortgagees, and (iii) to show the leased premises to prospective tenants during the six (6) months preceding the expiration of this Lease. LANDLORD reserves the right at any time within six (6) months before the expiration of this Lease to affix to any suitable part of the leased premises a notice for leasing the leased premises and to keep the signage affixed without hindrance or molestation. LANDLORD also reserves the right at any time to affix to any suitable part of the leased premises a notice for selling the leased premises or property of which the leased premises are a part and to keep the signage affixed without hindrance or molestation.
14. INDEMNIFICATION AND LIABILITY Subject to and limited by the defenses and immunities afforded by the Maine Tort Claims Act and other applicable law, TENANT will defend and, except to the extent caused solely by the negligence or willful conduct of LANDLORD, will indemnify LANDLORD and its employees, agents and management company, and save them harmless from any and all injury, loss, claim, damage, liability and expense (including reasonable attorney's fees) in connection with the loss of life, personal injury or damage to property or business, arising from, related to, or in connection with the occupancy or use by TENANT of the leased premises or any part of LANDLORD'S property or the building, or occasioned wholly or in part by any act or omission of TENANT, its contractors, subcontractors, subtenants, licensees or concessionaires, or its or their respective agents, servants or employees while on or about the leased premises. TENANT shall also pay LANDLORD'S expenses, including reasonable attorney's fees, incurred by LANDLORD in successfully enforcing any obligation, covenant or agreement of this Lease or resulting from TENANT'S breach of any provisions of this Lease (including without limitation any attorneys' fees incurred to monitor or intervene in any bankruptcy proceeding involving TENANT), or any document, settlement or other agreements related to this Lease. The provisions of this Article shall survive the termination or earlier expiration of the term of this Lease. Without limitation of any other provision herein, neither LANDLORD, its employees, agents nor management company shall be liable for, and TENANT hereby releases them from all claims for, any injuries to any person or damages to property or business sustained by TENANT or any person claiming through TENANT due to the building or any part thereof (including the premises), or any appurtenances thereof, being in need of repair or due to the happening of any accident in or about the building or the leased premises or due to any act or negligence of TENANT or of any employee or visitor of TENANT. Without limitation, this provision shall apply to injuries and damage caused by nature, rain, snow, ice, wind, frost, water, steam, gas or odors in any form or by the bursting or leaking of windows, doors, walls, ceilings, floors, pipes, gutters, or other fixtures; and to damage caused to fixtures, furniture, equipment and the like situated at the leased premises, whether owned by TENANT or others. Notwithstanding the foregoing, all obligations of indemnification herein by TENANT to the Landlord are subject to, and limited by, the limitation of liability, defenses and immunities available to the TENANT under the Maine Tort Claims Act (14 M.R.S.A. § 8101 et seq.) (as it may be amended from time to time) or under any other applicable law. Landlord shall give the TENANT prompt notice of any matter as to which it may seek indemnity hereunder, and shall not settle any such matter without the City's consent.

DUS [Signature]

15. TENANT'S LIABILITY INSURANCE LANDLORD acknowledges having been informed by TENANT that TENANT self-insures for the risks generally that would be covered by commercial general liability insurance, in connection with the Maine Municipal Associations 'Risk Management Pool.'
16. FIRE CASUALTY- EMINENT DOMAIN Should a substantial portion of the leased premises, or of the property of which they are a part, be damaged by fire or other casualty, or be taken by eminent domain, LANDLORD may elect to terminate this Lease. When such fire, casualty, or taking renders the leased premises unfit for use and occupation and LANDLORD does not so elect to terminate this Lease, a just and proportionate abatement of rent shall be made until the leased premises, or in the case of a partial taking what may remain thereof, shall have been put in proper condition for use and occupation. LANDLORD reserves and excepts all rights to damages to the leased premises and building and the leasehold hereby created, accrued or subsequently accruing by reason of anything lawfully done in pursuance of any public, or other, authority; and by way of confirmation, TENANT grants to LANDLORD all TENANT'S rights to such damages and covenants to execute and deliver such further instruments of assignment thereof as LANDLORD may from time to time request. LANDLORD shall give TENANT notice of its decision to terminate this Lease or restore the premises within ninety (90) days after any occurrence giving rise to LANDLORD'S right to so terminate or restore. Notwithstanding anything to the contrary contained herein, LANDLORD'S obligation to put the leased premises or the building in proper condition for use and occupation shall be limited to the amount of the proceeds from any insurance policy or policies or of damages which accrue by reason of any taking by a public or other authority, which are available to LANDLORD for such use.
17. DEFAULT AND BANKRUPTCY In the event that:
- (a) TENANT shall default in the payment of any installment of rent or other sum herein specified when due which default is not corrected within seven (7) days after written notice thereof; or
 - (b) TENANT shall default in the observance or performance of any other of the TENANT'S covenants, agreements, or obligations hereunder and such default shall not be corrected within ten (10) days after written notice thereof; or
 - (c) The leasehold hereby created shall be taken on execution, or by other process of law; or
 - (d) Any assignment shall be made of TENANT'S property for the benefit of creditors, or a receiver, guardian, conservator trustee in bankruptcy or similar officer shall be appointed by a court of competent jurisdiction to take charge of all or any part of TENANT'S property, or a petition is filed by TENANT under any bankruptcy, insolvency or other debtor relief law,
- then and in any of said cases (notwithstanding any license of any former breach of covenant or waiver of the benefit hereof or consent in a former instance), LANDLORD shall be entitled to all remedies available to LANDLORD at law and equity including without limitation, the remedy of forcible entry and detainer, and LANDLORD lawfully may, immediately or at any time thereafter, and without demand or notice, mail a notice of termination to TENANT, or, if permitted by law, enter into and upon the leased premises or any part thereof in the name of the whole and repossess the same as of its former estate, and expel TENANT and those claiming through or under it and remove it or their effects without being deemed guilty of any manner of trespass, and without prejudice to any remedies which might otherwise be used for arrears of rent or preceding breach of covenant, and upon such mailing or entry as aforesaid, this Lease shall terminate; and TENANT covenants and agrees, notwithstanding any entry or re-entry by LANDLORD, whether by summary proceedings, termination, or otherwise, that TENANT shall, as of the date of such termination, immediately be liable for and pay to LANDLORD the entire unpaid rental and all other balances due under this Lease for the remainder of the term. In addition, TENANT agrees to pay to LANDLORD, as damages for any above described breach, all costs of reletting the leased premises including real estate commissions and costs of renovating the premises to suit any new tenant, and TENANT agrees to reimburse LANDLORD for all attorneys' and paralegals' fees incurred by LANDLORD in connection with a TENANT default, including without limitation such fees incurred in connection with a bankruptcy proceeding.
18. NOTICE Any notice from LANDLORD to TENANT relating to the leased premises or to the occupancy thereof, shall be deemed duly served, upon mailing to: City of Portland Corporation Counsel, 389 Congress St., Portland, ME 04101-3509 , certified mail, return receipt requested, postage prepaid,. Such notice shall be deemed served on the date postmarked, and any time period in this Lease running from the date of notice shall commence on the date of postmark. Any notice from TENANT to LANDLORD relating to the leased premises or to the occupancy thereof, shall be deemed duly served, if mailed to LANDLORD by registered or certified mail, return receipt requested, postage prepaid, addressed to LANDLORD at LANDLORD'S address set forth in Article 1, or at such other address as LANDLORD may from time to time advise in writing.
19. SURRENDER TENANT shall at the expiration or other termination of this Lease peaceably yield up the leased premises and all additions, alterations, fixtures (including those installed by TENANT), and improvements thereto in good order, repair and condition, damage by fire, unavoidable casualty, and reasonable wear and tear only excepted, first moving all goods and effects not attached to the leased premises, repairing all damage caused by such removal, and leaving the leased premises clean and tenantable. If LANDLORD in writing permits TENANT to leave any such goods and chattels at the leased premises, and TENANT does so, TENANT shall have no further claims and rights in such goods and chattels as against LANDLORD or those claiming by, through or under LANDLORD, and TENANT shall be deemed to have conveyed such items to LANDLORD unless LANDLORD elects to reject acceptance of the same.

DUS/mt

20. HAZARDOUS MATERIALS
- TENANT covenants and agrees that, with respect to any hazardous, toxic or special wastes, materials or substances including asbestos, waste oil and petroleum products (the "Hazardous Materials") which TENANT, its agents or employees, may use, handle, store or generate in the conduct of its business at the leased premises TENANT will: (i) comply with all applicable laws, ordinances and regulations which relate to the treatment, storage, transportation and handling of the Hazardous Materials (ii) that TENANT will in no event permit or cause any disposal of Hazardous Materials in, on or about the leased premises and in particular will not deposit any Hazardous Materials in, on or about the floor or in any drainage system or in the trash containers which are customarily used for the disposal of solid waste; (iii) that TENANT will with advance notice and at all reasonable times permit LANDLORD or its agents or employees to enter the leased premises to inspect the same for compliance with the terms of this paragraph and will further provide upon five (5) days notice from LANDLORD copies of all records which TENANT may be obligated by federal, state and/or local law to obtain and keep; (iv) that upon termination of this Lease, TENANT will at its expense, remove all Hazardous Materials, which came to exist on, in, or under the leased premises during the term of this Lease or any extensions thereof, from the leased premises and comply with applicable local, state and federal laws as the same may be amended from time to time; and (v) TENANT further agrees to deliver the leased premises to LANDLORD at the termination of this Lease free of all Hazardous Materials which came to exist on, in, or under the leased premises during the term of this Lease or any extensions thereof. The terms used in this paragraph shall include, without limitation, all substances, materials, etc., designated by such terms under any laws, ordinances or regulations, whether federal state or local.
21. LIMITATION OF LIABILITY
- TENANT agrees to look solely to LANDLORD'S interest in the building for recovery of any judgment from LANDLORD or any of LANDLORD's partners, managers, or owners, it being agreed that LANDLORD and any other such party is not personally liable for any such judgment. The provision contained in the foregoing sentence shall not limit any right that TENANT might otherwise have to obtain an injunctive relief against LANDLORD or LANDLORD'S successors in interest, or any other action not involving the personal liability of LANDLORD and any other such party. Under no circumstances shall LANDLORD ever be liable for lost profits, indirect or consequential damages.
22. LANDLORD DEFAULT
- LANDLORD shall in no event be in default in the performance of any of its obligations hereunder unless and until LANDLORD shall have failed to perform such obligations within thirty (30) days or such additional time as is reasonably required to correct any such default after notice by TENANT to LANDLORD properly specifying wherein LANDLORD has failed to perform any such obligation. Further, if the holder of the mortgage on the building of which the leased premises are a part notifies TENANT that such holder has taken over LANDLORD'S rights under this Lease, TENANT shall not assert any right to deduct the cost of repairs or any monetary claim against lender or holder from rent thereafter due and accruing, but shall look solely to LANDLORD for satisfaction of such claim.
23. WAIVER OF RIGHTS
- No consent or waiver, express or implied, by either party to or of any breach of any covenant, condition or duty of the other, shall be construed as a consent or waiver to or of any other breach of the same or other covenant, condition or duty.
24. SUCCESSORS AND ASSIGNS
- The covenants and agreements of LANDLORD and TENANT shall run with the land and be binding upon and inure to the benefit of them and their respective heirs, executors, administrators, successors and assigns, but no covenant or agreement of LANDLORD, express or implied, shall be binding upon any person except for defaults occurring during such person's period of ownership nor binding individually upon any fiduciary, any shareholder or any beneficiary under any trust.
25. HOLDOVER
- If TENANT fails to vacate the leased premises at the termination of this Lease, then the terms of this Lease shall be applicable during said holdover period, except for base rent, which shall be increased to two (2) times the then-current base rent for the period just preceding such termination; but this provision shall not be interpreted as consent or permission by LANDLORD for TENANT to holdover at the termination of this Lease and the terms of this holdover provision shall not preclude LANDLORD from recovering any other damages which it incurs as a result of TENANT'S failure to vacate the leased premises at the termination of this Lease.
26. JURY TRIAL WAIVER
- NOTWITHSTANDING ANYTHING IN THIS LEASE TO THE CONTRARY, TENANT AND LANDLORD, FOR THEMSELVES AND THEIR SUCCESSORS AND ASSIGNS, HEREBY KNOWINGLY, WILLINGLY, AND VOLUNTARILY WAIVE ANY AND ALL RIGHTS TENANT AND/OR LANDLORD MAY HAVE TO A TRIAL BY JURY IN ANY FORCIBLE ENTRY AND DETAINER ("FED") ACTION OR PROCEEDING BROUGHT BY LANDLORD OR LANDLORD'S SUCCESSORS AND/OR ASSIGNS BASED UPON OR RELATED TO THE PROVISIONS OF THIS LEASE. LANDLORD AND TENANT HEREBY AGREE THAT ANY SUCH FED ACTION OR PROCEEDING SHALL BE HEARD BEFORE A SINGLE JUDGE OF THE APPROPRIATE DISTRICT COURT OR A SINGLE JUDGE OF THE APPROPRIATE SUPERIOR COURT, OR A FEDERAL DISTRICT COURT JUDGE SITTING IN THE DISTRICT OF MAINE.



27. MISCELLANEOUS

If TENANT is more than one person or party, TENANT'S obligations shall be joint and several. Unless repugnant to the context, "LANDLORD" and "TENANT" mean the person or persons, natural or corporate, named above as LANDLORD and TENANT respectively, and their respective heirs, executors, administrators, successors and assigns. LANDLORD and TENANT agree that this Lease shall not be recordable but each party hereto agrees, on request of the other, to execute a Memorandum of Lease in recordable form and mutually satisfactory to the parties. If any provision of this Lease or its application to any person or circumstances shall to any extent be invalid or unenforceable, the remainder of this Lease and the application of such provision to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby and each provision of this Lease shall be valid and enforceable to the fullest extent permitted by law. The submission of this Lease or a summary of some or all of its provisions for examination by TENANT does not constitute a reservation of or option for the premises or an offer to lease said premises, and this document shall become effective and binding only upon the execution and delivery hereof by both LANDLORD and TENANT. Employees or agents of LANDLORD have no authority to make or agree to make a lease or any other agreement or undertaking in connection herewith. All negotiations, considerations, representations and understandings between LANDLORD and TENANT are incorporated herein and no prior agreements or understandings, written or oral, shall be effective for any purpose. No provision of this Lease may be modified or altered except by agreement in writing between LANDLORD and TENANT, and no act or omission of any employee or agent of LANDLORD shall alter, change, or modify any of the provisions hereof. Time is of the essence of this agreement. This Lease shall be governed exclusively by the provisions hereof and by the laws of the State of Maine. The headings herein contained are for convenience only, and shall not be considered a part of this Lease.

28. BROKERAGE

TENANT warrants and represents to LANDLORD that it has not dealt with any broker, finder or similar person concerning the leasing of the leased premises, and agrees to defend and indemnify LANDLORD against any claim from a broker or finder claiming by or through TENANT. LANDLORD warrants and represents to TENANT that it has not dealt with any broker, finder or similar person concerning the leasing of the leased premises other than The Dunham Group ("LANDLORD'S BROKER"). LANDLORD agrees to pay LANDLORD'S BROKER any commission due upon execution of this Lease, and in the event of any brokerage claims against TENANT by LANDLORD'S BROKER, LANDLORD agrees to defend the same and indemnify TENANT against any such claim.

DISCLAIMER: THIS IS A LEGAL DOCUMENT. IF NOT FULLY UNDERSTOOD, CONSULT AN ATTORNEY.

IN WITNESS WHEREOF, the said parties hereunto set their hands and seals this 21st day of June, 2013.

TENANT:

LANDLORD:

CITY OF PORTLAND, MAINE
Legal Name of Tenant

212 CANCO REALTY LLC
Legal Name of Landlord

Mark H. Rees
Signature

David L. Small
Signature

Mark H. Rees, City Manager
NAME/TITLE

David L. Small, Manager
NAME/TITLE

Sonia Bean
Witness to Tenant

Kenn M. Nelson
Witness to Landlord

APPROVED AS TO FORM
[Signature]
CORPORATION COUNSEL'S OFFICE

[Handwritten signature]

lease Exhibit A
City of Portland Warehouse 2



Graham
Architects

Kennebunkport,
Maine
T:207.967.8850
F:207.967.8851

www.grahamarchitects.com

PROJECT

Existing Conditions
Nelson and Small
212 Canco Road
Portland, Maine

04.14.13

CLIENT

Nelson and Small
212 Canco Road
Portland, ME

CONTRACTOR

STRUCTURAL ENGINEER

INFORMATION

Path: m:\arch\structure\nelson and small

Issue Date: 04.14.13

Drawn By: DG

Checked By: DG

Revision:

1.

2.

3.

4.

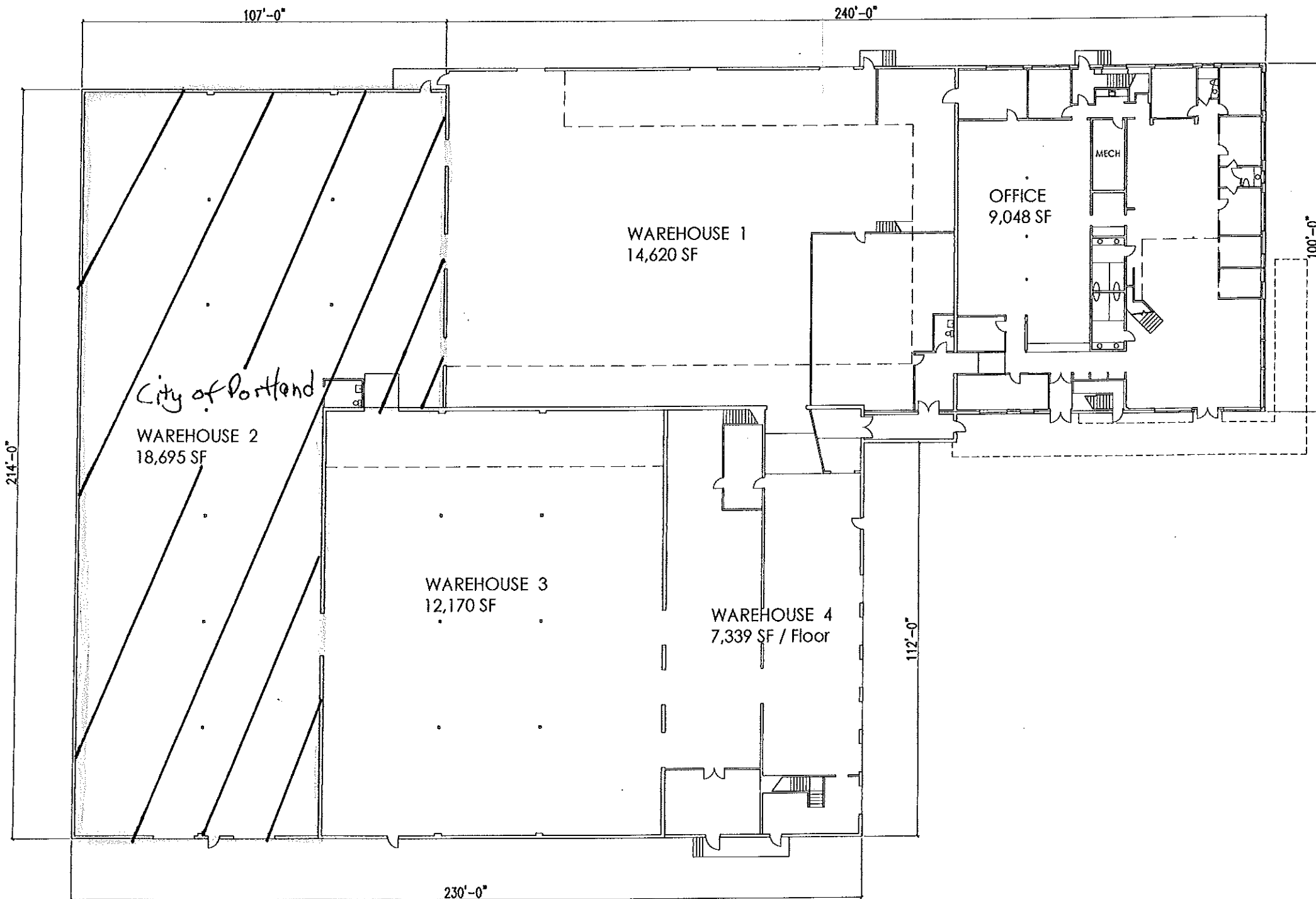
TITLE

First Floor Plan

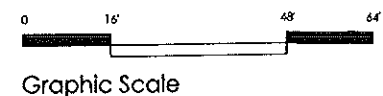
SCALE: 1/16"=1'-0"

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A101



1 FIRST FLOOR PLAN
1/16"=1'-0"



Graphic Scale



Executive Department
Sheila Hill-Christian, Acting City Manager

September 18, 2014

By Hand Delivery

212 Canco Realty LLC
Attention: General Manager
212 Canco Road
Portland, ME 04101

Re: Lease dated June 21, 2013, by and between the City of Portland, Maine and 212 Canco Realty LLC for 18,695 square feet.

Gentlepersons:

As you are aware, the City of Portland and 212 Canco Road LLC are parties to two leases for property located at 212 Canco Road — a June 21, 2013, lease for 18,695 square feet that terminates on September 30, 2014 (the “First City Lease”); and, a March 28, 2014, lease for an additional 19,381± square feet that terminates on November 1, 2018 (the “Second City Lease”). In section 29(4)(d) of the Second City Lease, 212 Canco Realty LLC granted the City of Portland the right to extend the term of the First City Lease until November 1, 2018 so that it would be co-terminus with the Second City Lease.¹

Accordingly, pursuant to Section 29(4)(d) of the Second City Lease, the City of Portland hereby notifies 212 Canco Realty LLC that it is exercising its right to extend the termination date of the First City Lease from September 30, 2014 until November 1, 2018.

I have enclosed three originals of this letter. Please sign them and return two originals to me. Thank you for your attention to this matter.

(Signature page follows)

¹ Section 29(4)(d) of the Second City Lease states that the City has the right to extend the termination date of the First City Lease to October 31, 2018 instead of November 1, 2018. Because the Second City Lease terminates on November 1, 2018, and the parties intended section 29(4)(d) to allow the City to extend the termination date of the First City Lease so that it would be co-terminus with the Second City Lease, the parties agree that the inadvertent reference to October 31, 2018 in section 29(4)(d) of the Second City Lease is hereby changed to November 1, 2018.

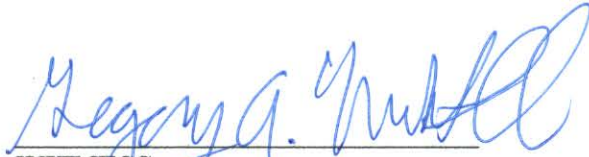
Sincerely,

The City of Portland, Maine



Sheila Hill-Christian

Its Acting City Manager,
thereunto duly authorized
and approved.



WITNESS

SEEN AND AGREED TO:

212 CANCO REALTY LLC



By: David L. Small

Its: A Manager of LLC

9/18/14

Date

cc: Leonard M. Nelson, Esq.

**COMMERCIAL LEASE (NET LEASE)
WITH OPTION TO PURCHASE**

1. PARTIES
212 Canco Realty LLC, a Maine limited liability company, with a mailing address of 212 Canco Road, Portland, ME 04103 ("LANDLORD"), hereby leases to the City of Portland, Maine, a Maine municipality with a mailing address of 389 Congress St., Portland, Maine Attn: Corporation Counsel ("TENANT"), and TENANT hereby leases from LANDLORD the following described premises.
2. LEASED PREMISES
The leased premises are deemed to contain 12,170 square feet of warehouse space, another 5,211 square feet of warehouse/mixed use and shared loading dock space, and 2,000 square feet of second floor office space (a total of 19,381 square feet), all as shown on the attached Exhibit A. The leased premises are located at 212 Canco Road, Portland, Maine. Together with the right to use, in common with others entitled thereto, the hallways and stairways necessary for access to the leased premises. TENANT shall also have the right to use, in common with others, 8 to 10 parking spaces at the rear of the building in areas designated by LANDLORD. Although the parties acknowledge that there are only 8 to 10 available parking spaces to accommodate TENANT's parking needs, the TENANT is granted the right to develop additional parking at the 212 Canco Road, Portland, Maine facility by improving, at TENANT's sole cost and expense, the rear yard area behind the building. If TENANT elects to develop said additional parking, it will do so in compliance with all applicable zoning and land use requirements, laws and ordinances. The leased premises are accepted in "as is" condition except if specifically set forth to the contrary in this Lease. TENANT acknowledges that: a) LANDLORD has made no representations and TENANT is not relying on any representations about the leased premises, their suitability for any particular use and/or the physical condition thereof; and b) that TENANT has conducted its own due diligence inquiries with respect to the leased premises and is satisfied with the results thereof. The shared loading dock space shall be used by the TENANT in common with other persons and other tenants as designated by LANDLORD, fully in accordance and compliance with the reasonable rules and regulations issued by LANDLORD or its building manager from time to time and the TENANT covenants to comply with such rules and regulations.
3. TERM
The term of this Lease shall be until November 1, 2018, unless sooner terminated as herein provided, commencing on April 1, 2014 (the "Commencement Date") provided however, the Commencement Date for the 2,000 square feet of second floor office space shall be the later of July 1, 2014." And however, if by November 1, 2018 TENANT has exercised the right to purchase pursuant to the Option which is part of this agreement, then the term of this Lease shall be continued until the leased premises have been conveyed to the TENANT pursuant to said Option.
4. RENT
TENANT shall pay to LANDLORD base rent at the rate of Five Dollars Fifty Cents (\$5.50) NNN per square foot for the 2,000 square feet of second floor office space and One Dollar Sixty Cents (\$1.60) NNN per square foot for the remaining 17,381 square feet of warehouse space and warehouse/mixed use and shared loading dock space as shown on the attached Exhibit A in the annual amount of Thirty-Eight Thousand Eight Hundred and Nine Dollars and Sixty Cents (\$38,809.60) payable in advance in equal monthly installments in the amount of Three Thousand Two Hundred Thirty-Four Dollars and Thirteen Cents (\$3,234.13) on the first day of each month during the term without deduction or setoff, said rent to be prorated for portions of a calendar month at the beginning or end of said term, all payments to be made to LANDLORD or to such agent and at such place as LANDLORD shall from time to time in writing designate; provided, however, that TENANT shall pay the first month's rent and the last month's rent contemporaneously with the execution of this Lease. If TENANT does not pay base rent, supplemental and additional rents, or other fees and charges when due pursuant to the term of this Lease, then LANDLORD, in its sole discretion, may charge, in addition to any other remedies it may have, a late charge for each month or part thereof that TENANT fails to pay the amount due after the due date. The late charge shall be equal to four percent (4%) of the amount due LANDLORD each month in addition to the rent then due. Notwithstanding the above, until the 2,000 square feet of second floor office space becomes a portion of the leased premises, the annual base rent shall be Twenty-Seven Thousand Eight Hundred and Nine Dollars and Sixty Cents (\$27,809.60) and the monthly base rent shall be Two Thousand Three Hundred Seventeen Dollars and Forty-Seven Cents (\$2,317.47) payable without deduction or off set as set forth above.
5. RENT ADJUSTMENT
Commencing on the Commencement Date, TENANT will pay to LANDLORD as additional rent hereunder, in accordance with subparagraph B of this Article, an amount deemed to be 25.9% of all real estate taxes on the land and buildings of which the leased premises are a part in each year of the term of this Lease or any extension or renewal thereof and proportionately for any part of a fiscal year in which this Lease commences or ends. Notwithstanding the above, if and when the 2,000 square feet of second floor office space becomes a portion of the leased premises, the additional rent percentage shall be deemed to be 28.9% for the remaining term of this Lease. For purposes of this calculation, the building is deemed to contain 67,000 square feet. If LANDLORD obtains an abatement of any such excess real estate tax, a proportionate share of such abatement, less the reasonable fees and costs incurred in obtaining the same, if any, shall be refunded to TENANT.
 - A. TAXES

B. OPERATING COSTS

Commencing on the Commencement Date, TENANT shall pay to LANDLORD as additional rent hereunder in accordance with subparagraph B of this Article, an amount deemed to be 25.9% of all operating expenses. Notwithstanding the above, if and when the 2,000 square feet of second floor office space becomes a portion of the leased premises, the additional rent percentage shall be deemed to be 28.9% for the remaining term of this Lease. For purposes of this calculation, the building is deemed to contain 67,000 square feet. Operating expenses are defined for the purposes of this agreement as operating expenses per annum of the building and its appurtenances and all exterior areas, yards, plazas, sidewalks, landscaping, parking areas, and the like then (i.e. as of said last day of the calendar year concerned) located outside of the building but related thereto and the parcels of land on which they are located (said building appurtenances, exterior areas, and land hereinafter referred to in total as the "building"). Operating expenses include, but are not limited to: (i) all costs of furnishing electricity, heat, air-conditioning, water and sewer and other utility services and facilities to the leased premises and the building; (ii) all costs of any insurance carried by LANDLORD related to the building; (iii) all costs for common area cleaning and janitorial services; (iv) all costs of maintaining the building including the operation and repair of heating and air conditioning equipment servicing the leased premises and the building and any other common building equipment, and all repairs, improvements and replacements required by law or necessary to keep the building in a well maintained condition; (v) all costs of snow and ice removal, landscaping and grounds care; (vi) all other costs of the management of the building, including, without limitation property management fees; and (vii) all other reasonable costs relating directly to the ownership, operation, maintenance and management of the building by LANDLORD. TENANT's share of operating expenses shall be prorated should this Lease be in effect with respect to only a portion of any calendar year.

LANDLORD estimates that taxes and operating costs during the first year of the term of this Lease shall be approximately Two Dollars and ~~Twenty~~ ^{thirty-four} Cents (~~\$2.20~~ ^{2.34}) per square foot. During each year of the term of this Lease, TENANT shall make monthly estimated payments to LANDLORD, as additional rent for TENANT'S share of real estate taxes and operating expenses for the then current year. Said estimated monthly payments shall be made along with base rent payments and shall be equal to one twelfth (1/12) of TENANT'S annualized share of LANDLORD'S real estate taxes and operating expenses for the current year. Within one hundred and twenty (120) days after the end of each calendar year, LANDLORD shall deliver to TENANT a statement showing the amount of such real estate taxes and operating expenses also showing TENANT'S share of the same. In the event that TENANT does not object to such statement in writing within ninety (90) days of receipt of same, such statement shall be deemed accurate. Upon written request by TENANT to LANDLORD made within said ninety (90) day period, LANDLORD shall provide to TENANT reasonable supporting documentation for any item of expense on such statement objected to by TENANT. TENANT shall, within thirty (30) days after such delivery, pay TENANT'S share to LANDLORD, as additional rent, less any estimated payments. If the estimated payments exceed TENANT'S share, then the excess shall be applied to the next year's monthly payments for estimated increases.

6. UTILITIES

LANDLORD agrees to furnish all utilities as described in section 5.B above. LANDLORD agrees to furnish water for ordinary drinking, cleaning, lavatory and toilet facilities and reasonable heat and air conditioning, if installed as part of the structure of the building so as to maintain the leased premises and common areas of the building at comfortable levels during normal business hours on regular business days of the heating and air condition seasons of each year, to furnish elevator service, if installed as a part of the structure of the building, and to light passageways and stairways during business hours, and to furnish such common area cleaning service as is customary in similar building in said city or town, all subject to interruption due to any accident, to the making of repairs, alterations or improvements, to labor difficulties, to trouble in obtaining fuel, electricity, service, or supplies from the sources from which they are usually obtained for said building, or to any cause beyond LANDLORD'S control.

LANDLORD shall have no obligation to provide utilities or equipment other than the utilities and equipment within the leased premises as of the commencement date of this Lease. In the event TENANT requires additional utilities or equipment, the installation and maintenance thereof shall be TENANT'S sole obligation, provided that such installation shall be subject to the written consent of LANDLORD.

7. USE OF LEASED PREMISES

TENANT may use the leased premises for any purpose or use permitted by law and local ordinance. If such use increases the cost of LANDLORD'S insurance on the building, TENANT shall pay, as additional rent hereunder, any such increase. Neither LANDLORD nor LANDLORD'S BROKER have made any representations to TENANT regarding the uses of the leased premises allowed under applicable law, nor TENANT acknowledges and agrees that TENANT assumes all responsibility and risk for investigating the same.

8. COMPLIANCE WITH LAWS

TENANT agrees to conform to the following provisions during the entire term of this Lease: (i) TENANT shall not injure or deface the leased premises or building; (ii) No auction sale, inflammable fluids, chemicals, nuisance, objectionable noise or odor shall be permitted on the leased premises; (iii) TENANT shall not permit the use of the leased premises for any purpose other than set forth herein or any use thereof which is improper, offensive, contrary to law or ordinance, or liable to invalidate or increase the premiums for any insurance on the building or its contents or liable to render necessary any alterations or additions to the building; and (iv) TENANT shall not obstruct in any manner any portion of the building not hereby demised or the sidewalks or approaches to said building or any inside or outside windows or doors. TENANT shall observe and comply with all codes, ordinances, laws, regulations and other governmental or quasi-governmental orders or inspections affecting TENANT, the leased premises and/or TENANT's use and all reasonable rules and security regulations now or hereafter made by LANDLORD for the care and use of the leased premises, the building, its facilities and approaches. TENANT agrees to keep the leased premises equipped with all safety appliances and make all accessibility alterations, improvements or installations to the building, and/or accommodations in TENANTS use thereof required by law or any public authority as a result of TENANT'S use or occupancy of the premises or TENANT'S alterations or additions thereto, which alterations, improvements and installations shall be subject to LANDLORD'S consent as provided in this Lease.

9. MAINTENANCE TENANT acknowledges by entry thereupon that the leased premises are in good and satisfactory order, repair and condition, and covenants during said term and further time as TENANT holds any part of said premises to keep the leased premises (including without limitation windows, doors and all systems serving exclusively the leased premises) in as good order, repair and condition as the same are in at the commencement of said term, or may be put in thereafter, damage by fire or unavoidable casualty and reasonable use and wear only excepted. Notwithstanding anything to the contrary herein, if TENANT has leased ground floor space, TENANT covenants to keep all plate glass windows in good repair and condition and to carry adequate insurance to provide for the replacement of any such plate glass which is damaged or destroyed.
- A. TENANT'S OBLIGATIONS
- B. LANDLORD'S OBLIGATIONS LANDLORD agrees to maintain and repair the roof, exterior walls and structure of the building of which the leased premises are a part, building systems not exclusively serving the leased premises and the common areas, in the same condition as they are at the commencement of the term or as it may be put in during the term of this Lease, reasonable wear and tear, damage by fire and other casualty only excepted, unless such maintenance or repair is made necessary by fault or neglect of TENANT or the employees, contractors, agents or invitees of TENANT, in which case such maintenance or repair shall be at the expense of TENANT and TENANT shall pay all costs therefor.
10. ALTERATIONS-ADDITIONS TENANT shall not make any alterations or additions, or permit the making of any holes in any part of said building (except for nail holes for hanging art), or paint or place any signs, drapes, curtains, shades, awnings, aerals or flagpoles or the like, or permit anyone except TENANT to use any part of the leased premises for desk space or for mailing privileges without on each occasion obtaining prior written consent of LANDLORD. TENANT may install signs of the following dimensions in the following locations, which signs shall be installed at TENANT'S sole expense, in compliance with all applicable laws and ordinances, and subject to LANDLORD's prior approval, which shall not be unreasonably withheld. TENANT shall not suffer or permit any lien of any nature or description to be placed against the building, the leased premises or any portion thereof, and in the case of any such lien attaching to immediately pay and remove the same; this provision shall not be interpreted as meaning that TENANT has any authority or power to permit any lien of any nature or description to attach or to be placed upon LANDLORD'S title or interest in the building, the leased premises, or any portion thereof.
11. ASSIGNMENT-SUBLEASING TENANT shall not by operation of law or otherwise, assign, mortgage or encumber this Lease, or sublet or permit the leased premises or any part thereof to be used by others, without LANDLORD'S prior express written consent in each instance (cross out if not applicable). In any case where LANDLORD shall consent to such assignment or subletting, TENANT named herein and any guarantor of this Lease shall remain fully liable for the obligations of TENANT hereunder, including, without limitation, the obligation to pay the rent and other amounts provided under this Lease. For purposes of this Lease, the sale of controlling interest in the stock of a corporate TENANT, sale of the controlling membership interest in an LLC or similar entity, or the change of a general partner of a partnership TENANT shall constitute an assignment of this Lease.
12. SUBORDINATION AND QUIET ENJOYMENT This Lease automatically shall be subject and subordinate to any and all mortgages, deeds of trust and other instruments in the nature of a mortgage, that is now or at any time hereafter a lien or liens on the property of which the leased premises are a part and TENANT shall, within ten (10) days after they are requested, promptly execute and deliver such written instruments as shall be necessary to show the subordination of this Lease to said mortgages, deeds of trust or other such instruments in the nature of a mortgage. Provided TENANT performs all of its obligations under this Lease, TENANT shall be entitled to the quiet enjoyment of the leased premises; provided TENANT covenants that it holds the leased premises subject to all easements, covenants and other matters of record, and agrees to abide by same to the extent the same affect the leased premises. TENANT agrees to sign within ten (10) days after they are requested, such estoppel certificates as are requested by LANDLORD or LANDLORD's lender.
13. LANDLORD'S ACCESS LANDLORD or agents of LANDLORD may, at all reasonable times during the term of this Lease, enter the leased premises to examine the leased premises and, if LANDLORD shall so elect, to make any repairs or additions LANDLORD may deem necessary and, at TENANT'S expense, to remove any alterations, additions, signs, drapes, curtains, shades, awnings, aerals or flagpoles, or the like, not consented to in writing.
14. INDEMNIFICATION AND LIABILITY Subject to and limited by the defenses and immunities afforded by the Maine Tort Claims Act and other applicable law, TENANT will defend and, except to the extent caused solely by the negligence or willful conduct of LANDLORD, will indemnify LANDLORD and its employees, agents and management company, and save them harmless from any and all injury, loss, claim, damage, liability and expense (including reasonable attorney's fees) in connection with the loss of life, personal injury or damage to property or business, arising from, related to, or in connection with the occupancy or use by TENANT of the leased premises or any part of LANDLORD'S property or the building, or occasioned wholly or in part by any act or omission of TENANT, its contractors, subcontractors, subtenants, licensees or concessionaires, or its or their respective agents, servants or employees while on or about the leased premises. TENANT shall also pay LANDLORD'S expenses, including reasonable attorney's fees, incurred by LANDLORD in successfully enforcing any obligation, covenant or agreement of this Lease or resulting from TENANT's breach of any provisions of this Lease (including without limitation any attorneys' fees incurred to monitor or intervene in any bankruptcy proceeding involving TENANT), or any document, settlement or other agreements related to this Lease. The provisions of this Article shall survive the termination or earlier expiration of the term of this Lease. Without limitation of any other provision herein, neither LANDLORD, its employees, agents nor management company shall be liable for, and TENANT hereby releases them from all claims for, any injuries to any person or damages to property or business sustained by TENANT or any person claiming through TENANT due to the building or any part thereof (including the premises), or any appurtenances thereof, being in need of repair or due to the happening of any accident in or about the building or the leased premises or due to any act or negligence of TENANT or of any employee or visitor of TENANT. Without limitation, this provision shall apply to injuries and damage caused by nature, rain, snow, ice, wind, frost, water, steam, gas or odors in any form or by the bursting or leaking of windows, doors, walls, ceilings, floors, pipes, gutters, or other fixtures; and to damage caused to fixtures, furniture, equipment and the like situated at the leased premises, whether owned by TENANT or others. Notwithstanding the foregoing, all obligations of indemnification

herein by TENANT to the Landlord are subject to, and limited by, the limitation of liability, defenses and immunities available to the TENANT under the Maine Tort Claims Act (14 M.R.S.A. § 8101 et seq.) (as it may be amended from time to time) or under any other applicable law. Landlord shall give the TENANT prompt notice of any matter as to which it may seek indemnity hereunder, and shall not settle any such matter without the City's consent.

15. TENANT'S
LIABILITY
INSURANCE

LANDLORD acknowledges having been informed by TENANT that TENANT self-insures for the risks generally that would be covered by commercial general liability insurance, in connection with the Maine Municipal Associations 'Risk Management Pool.'"

16. FIRE CASUALTY-
EMINENT
DOMAIN

Should a substantial portion of the leased premises, or of the property of which they are a part, be damaged by fire or other casualty, or be taken by eminent domain, LANDLORD may elect to terminate this Lease. When such fire, casualty, or taking renders the leased premises unfit for use and occupation and LANDLORD does not so elect to terminate this Lease, a just and proportionate abatement of rent shall be made until the leased premises, or in the case of a partial taking what may remain thereof, shall have been put in proper condition for use and occupation. LANDLORD reserves and excepts all rights to damages to the leased premises and building and the leasehold hereby created, accrued or subsequently accruing by reason of anything lawfully done in pursuance of any public, or other, authority; and by way of confirmation, TENANT grants to LANDLORD all TENANT'S rights to such damages and covenants to execute and deliver such further instruments of assignment thereof as LANDLORD may from time to time request. LANDLORD shall give TENANT notice of its decision to terminate this Lease or restore the premises within ninety (90) days after any occurrence giving rise to LANDLORD'S right to so terminate or restore. Notwithstanding anything to the contrary contained herein, LANDLORD'S obligation to put the leased premises or the building in proper condition for use and occupation shall be limited to the amount of the proceeds from any insurance policy or policies or of damages which accrue by reason of any taking by a public or other authority, which are available to LANDLORD for such use.

17. DEFAULT AND
BANKRUPTCY

In the event that:

- (a) TENANT shall default in the payment of any installment of rent or other sum herein specified when due which default is not corrected within seven (7) days after written notice thereof; or
- (b) TENANT shall default in the observance or performance of any other of the TENANT'S covenants, agreements, or obligations hereunder and such default shall not be corrected within ten (10) days after written notice thereof; or
- (c) The leasehold hereby created shall be taken on execution, or by other process of law; or
- (d) Any assignment shall be made of TENANT'S property for the benefit of creditors, or a receiver, guardian, conservator trustee in bankruptcy or similar officer shall be appointed by a court of competent jurisdiction to take charge of all or any part of TENANT'S property, or a petition is filed by TENANT under any bankruptcy, insolvency or other debtor relief law,

then and in any of said cases (notwithstanding any license of any former breach of covenant or waiver of the benefit hereof or consent in a former instance), LANDLORD shall be entitled to all remedies available to LANDLORD at law and equity including without limitation, the remedy of forcible entry and detainer, and LANDLORD lawfully may, immediately or at any time thereafter, and without demand or notice, mail a notice of termination to TENANT, or, if permitted by law, enter into and upon the leased premises or any part thereof in the name of the whole and repossess the same as of its former estate, and expel TENANT and those claiming through or under it and remove it or their effects without being deemed guilty of any manner of trespass, and without prejudice to any remedies which might otherwise be used for arrears of rent or preceding breach of covenant, and upon such mailing or entry as aforesaid, this Lease shall terminate; and TENANT covenants and agrees, notwithstanding any entry or re-entry by LANDLORD, whether by summary proceedings, termination, or otherwise, that TENANT shall, as of the date of such termination, immediately be liable for and pay to LANDLORD the entire unpaid rental and all other balances due under this Lease for the remainder of the term. In addition, TENANT agrees to pay to LANDLORD, as damages for any above described breach, all costs of reletting the leased premises including real estate commissions and costs of renovating the premises to suit any new tenant, and TENANT agrees to reimburse LANDLORD for all attorneys' and paralegals' fees incurred by LANDLORD in connection with a TENANT default, including without limitation such fees incurred in connection with a bankruptcy proceeding.

18. NOTICE

Any notice from LANDLORD to TENANT relating to the leased premises or to the occupancy thereof, shall be deemed duly served, upon mailing to: City of Portland Corporation Counsel, 389 Congress St., Portland, ME 04101-3509, certified mail, return receipt requested, postage prepaid. Such notice shall be deemed served on the date postmarked, and any time period in this Lease running from the date of notice shall commence on the date of postmark. Any notice from TENANT to LANDLORD relating to the leased premises or to the occupancy thereof, shall be deemed duly served, if mailed to LANDLORD by registered or certified mail, return receipt requested, postage prepaid, addressed to LANDLORD at LANDLORD'S address set forth in Article 1, or at such other address as LANDLORD may from time to time advise in writing.

19. SURRENDER IF TENANT has not exercised its option to purchase and closed on such purchase (as set forth in Paragraph 29 Addendum), or if this Lease terminates for any other reason prior to Tenant exercising its option to purchase, TENANT, shall at the expiration or other termination of this Lease, peaceably yield up the leased premises and all additions, alterations, fixtures (including those installed by TENANT), and improvements thereto in good order, repair and condition, damage by fire, unavoidable casualty, and reasonable wear and tear only excepted, first moving all goods and effects not attached to the leased premises, repairing all damage caused by such removal, and leaving the leased premises clean and tenantable. If LANDLORD in writing permits TENANT to leave any such goods and chattels at the leased premises, and TENANT does so, TENANT shall have no further claims and rights in such goods and chattels as against LANDLORD or those claiming by, through or under LANDLORD, and TENANT shall be deemed to have conveyed such items to LANDLORD unless LANDLORD elects to reject acceptance of the same.
20. HAZARDOUS MATERIALS TENANT covenants and agrees that, with respect to any hazardous, toxic or special wastes, materials or substances including asbestos, waste oil and petroleum products (the "Hazardous Materials") which TENANT, its agents or employees, may use, handle, store or generate in the conduct of its business at the leased premises TENANT will: (i) comply with all applicable laws, ordinances and regulations which relate to the treatment, storage, transportation and handling of the Hazardous Materials (ii) that TENANT will in no event permit or cause any disposal of Hazardous Materials in, on or about the leased premises and in particular will not deposit any Hazardous Materials in, on or about the floor or in any drainage system or in the trash containers which are customarily used for the disposal of solid waste; (iii) that TENANT will with advance notice and at all reasonable times permit LANDLORD or its agents or employees to enter the leased premises to inspect the same for compliance with the terms of this paragraph and will further provide upon five (5) days notice from LANDLORD copies of all records which TENANT may be obligated by federal, state and/or local law to obtain and keep; (iv) that upon termination of this Lease, TENANT will at its expense, remove all Hazardous Materials, which came to exist on, in, or under the leased premises during the term of this Lease or any extensions thereof, from the leased premises and comply with applicable local, state and federal laws as the same may be amended from time to time; and (v) TENANT further agrees to deliver the leased premises to LANDLORD at the termination of this Lease free of all Hazardous Materials which came to exist on, in, or under the leased premises during the term of this Lease or any extensions thereof. The terms used in this paragraph shall include, without limitation, all substances, materials, etc., designated by such terms under any laws, ordinances or regulations, whether federal state or local.
21. LIMITATION OF LIABILITY TENANT agrees to look solely to LANDLORD'S interest in the building for recovery of any judgment from LANDLORD or any of LANDLORD's partners, managers, or owners, it being agreed that LANDLORD and any other such party is not personally liable for any such judgment. The provision contained in the foregoing sentence shall not limit any right that TENANT might otherwise have to obtain an injunctive relief against LANDLORD or LANDLORD'S successors in interest, or any other action not involving the personal liability of LANDLORD and any other such party. Under no circumstances shall LANDLORD ever be liable for lost profits, indirect or consequential damages.
22. LANDLORD DEFAULT LANDLORD shall in no event be in default in the performance of any of its obligations hereunder unless and until LANDLORD shall have failed to perform such obligations within thirty (30) days or such additional time as is reasonably required to correct any such default after notice by TENANT to LANDLORD properly specifying wherein LANDLORD has failed to perform any such obligation. Further, if the holder of the mortgage on the building of which the leased premises are a part notifies TENANT that such holder has taken over LANDLORD'S rights under this Lease, TENANT shall not assert any right to deduct the cost of repairs or any monetary claim against lender or holder from rent thereafter due and accruing, but shall look solely to LANDLORD for satisfaction of such claim.
23. WAIVER OF RIGHTS No consent or waiver, express or implied, by either party to or of any breach of any covenant, condition or duty of the other, shall be construed as a consent or waiver to or of any other breach of the same or other covenant, condition or duty.
24. SUCCESSORS AND ASSIGNS The covenants and agreements of LANDLORD and TENANT shall run with the land and be binding upon and inure to the benefit of them and their respective heirs, executors, administrators, successors and assigns, but no covenant or agreement of LANDLORD, express or implied, shall be binding upon any person except for defaults occurring during such person's period of ownership nor binding individually upon any fiduciary, any shareholder or any beneficiary under any trust.
25. HOLDOVER If TENANT fails to vacate the leased premises at the termination of this Lease and has not exercised its option to purchase the 212 Canco Road premises, then the terms of this Lease shall be applicable during said holdover period, except for base rent, which shall be increased to two (2) times the then-current base rent for the period just preceding such termination; but this provision shall not be interpreted as consent or permission by LANDLORD for TENANT to holdover at the termination of this Lease and the terms of this holdover provision shall not preclude LANDLORD from recovering any other damages which it incurs as a result of TENANT'S failure to vacate the leased premises at the termination of this Lease.
26. JURY TRIAL WAIVER NOTWITHSTANDING ANYTHING IN THIS LEASE TO THE CONTRARY, TENANT AND LANDLORD, FOR THEMSELVES AND THEIR SUCCESSORS AND ASSIGNS, HEREBY KNOWINGLY, WILLINGLY, AND VOLUNTARILY WAIVE ANY AND ALL RIGHTS TENANT AND/OR LANDLORD MAY HAVE TO A TRIAL BY JURY IN ANY FORCIBLE ENTRY AND DETAINER ("FED") ACTION OR PROCEEDING BROUGHT BY LANDLORD OR LANDLORD'S SUCCESSORS AND/OR ASSIGNS BASED UPON OR RELATED TO THE PROVISIONS OF THIS LEASE. LANDLORD AND TENANT HEREBY AGREE THAT ANY SUCH FED ACTION OR PROCEEDING SHALL BE HEARD BEFORE A SINGLE JUDGE OF THE APPROPRIATE DISTRICT COURT OR A SINGLE JUDGE OF THE APPROPRIATE SUPERIOR COURT, OR A FEDERAL DISTRICT COURT JUDGE SITTING IN THE DISTRICT OF MAINE.

27. MISCELLANEOUS

If TENANT is more than one person or party, TENANT'S obligations shall be joint and several. Unless repugnant to the context, "LANDLORD" and "TENANT" mean the person or persons, natural or corporate, named above as LANDLORD and TENANT respectively, and their respective heirs, executors, administrators, successors and assigns. LANDLORD and TENANT agree that this Lease shall not be recordable but each party hereto agrees, on request of the other, to execute a Memorandum of Lease in recordable form and mutually satisfactory to the parties. If any provision of this Lease or its application to any person or circumstances shall to any extent be invalid or unenforceable, the remainder of this Lease and the application of such provision to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby and each provision of this Lease shall be valid and enforceable to the fullest extent permitted by law. The submission of this Lease or a summary of some or all of its provisions for examination by TENANT does not constitute a reservation of or option for the premises or an offer to lease said premises, and this document shall become effective and binding only upon the execution and delivery hereof by both LANDLORD and TENANT. Employees or agents of LANDLORD have no authority to make or agree to make a lease or any other agreement or undertaking in connection herewith. All negotiations, considerations, representations and understandings between LANDLORD and TENANT are incorporated herein and no prior agreements or understandings, written or oral, shall be effective for any purpose. No provision of this Lease may be modified or altered except by agreement in writing between LANDLORD and TENANT, and no act or omission of any employee or agent of LANDLORD shall alter, change, or modify any of the provisions hereof. Time is of the essence of this agreement. This Lease shall be governed exclusively by the provisions hereof and by the laws of the State of Maine. The headings herein contained are for convenience only, and shall not be considered a part of this Lease.

28. BROKERAGE

TENANT warrants and represents to LANDLORD that it has not dealt with any broker, finder or similar person concerning the leasing of the leased premises, and agrees to defend and indemnify LANDLORD against any claim from a broker or finder claiming by or through TENANT. LANDLORD warrants and represents to TENANT that it has not dealt with any broker, finder or similar person concerning the leasing of the leased premises other than The Boulos Company ("LANDLORD'S BROKER"). LANDLORD agrees to pay LANDLORD'S BROKER any commission due upon execution of this Lease, and in the event of any brokerage claims against TENANT by LANDLORD'S BROKER, LANDLORD agrees to defend the same and indemnify TENANT against any such claim.

29. OPTION TO PURCHASE

LANDLORD hereby grants TENANT as part of this lease agreement, the right and option to purchase all of the LANDLORD's real property at 212 Canco Road, on the terms and conditions set out in this paragraph 29 as further set forth in the attached continuation of paragraph 29 in Exhibit B, OPTION TO PURCHASE; and the terms and conditions therein are hereby incorporated herein.

DISCLAIMER: THIS IS A LEGAL DOCUMENT. IF NOT FULLY UNDERSTOOD, CONSULT AN ATTORNEY.

IN WITNESS WHEREOF, the said parties hereunto set their hands and seals this 28th day of March, 2014.

TENANT:

LANDLORD:

City of Portland, Maine
Legal Name of Tenant

212 Canco Realty LLC
Legal Name of Landlord

Signature

Signature

Mark H. Rees, City Manager
NAME/TITLE

David L. Small, owners' representative
NAME/TITLE

Witness to Tenant

Witness to Landlord

Approved as to form:

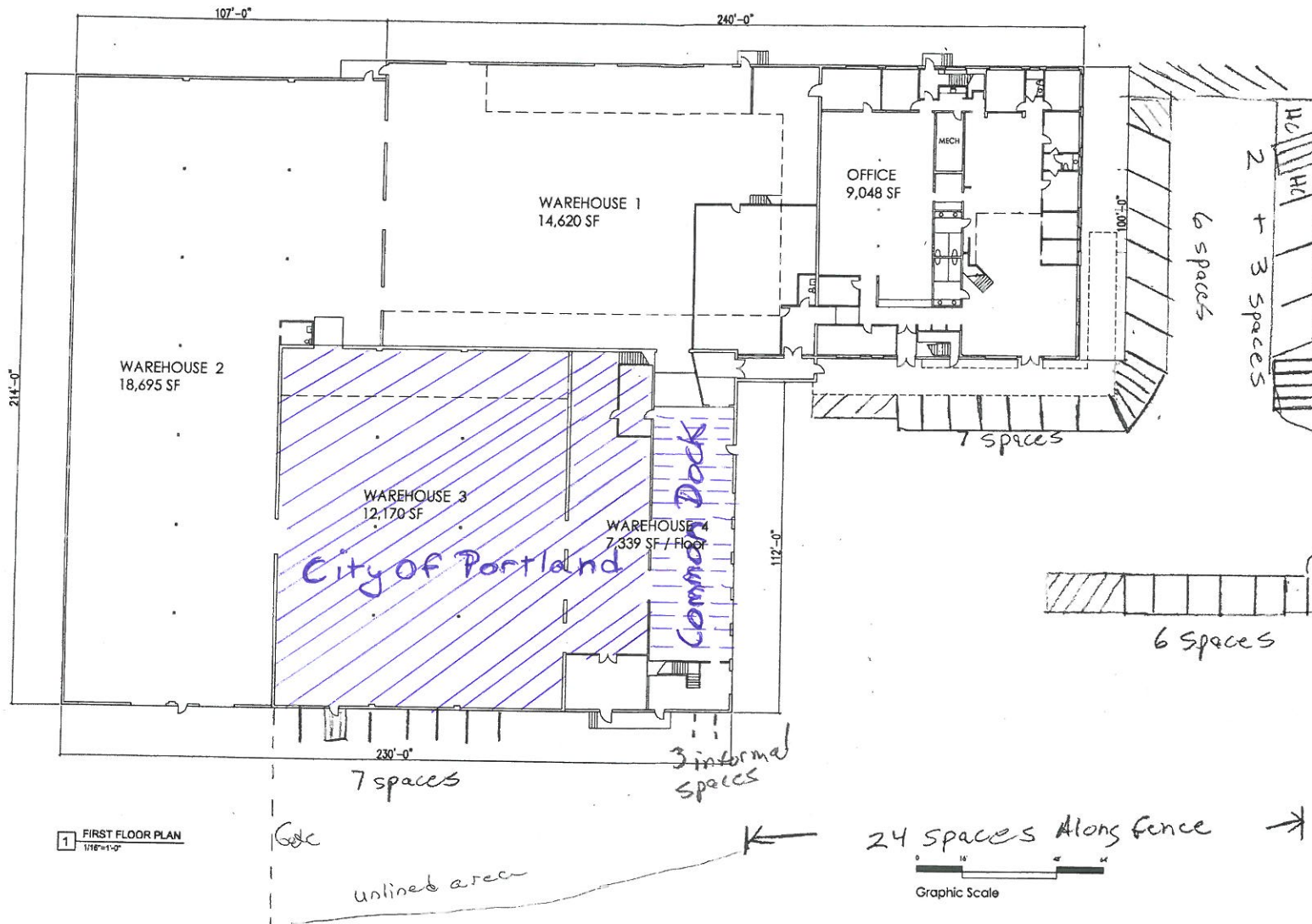
Approved as to funds:

[Signature]
Corporation Counsel's Office

[Signature]
Finance Department

Exhibit A

Page 1 Ground Floor Only



1 FIRST FLOOR PLAN
1/16"=1'-0"



Graham Architects
Kennebunkport, Maine
1207.942.8850
1207.947.8851
www.grahamarchitects.com

PROJECT
Existing Conditions
Nelson and Small
212 Canco Road
Portland, Maine

04.14.13

CLIENT
Nelson and Small
212 Canco Road
Portland, ME

CONTRACTOR

STRUCTURAL ENGINEER

INFORMATION
Plan: m:\architect\nelson and small
Issue Date: 04.14.13
Drawn By: DG
Checked By: DG
Revised:
1.
2.
3.
4.

TITLE
First Floor Plan

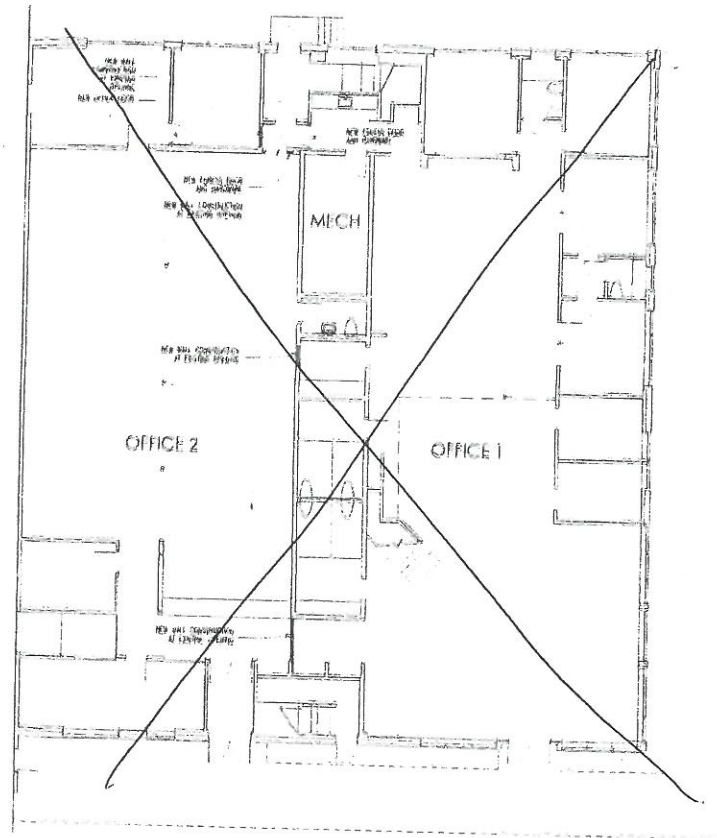
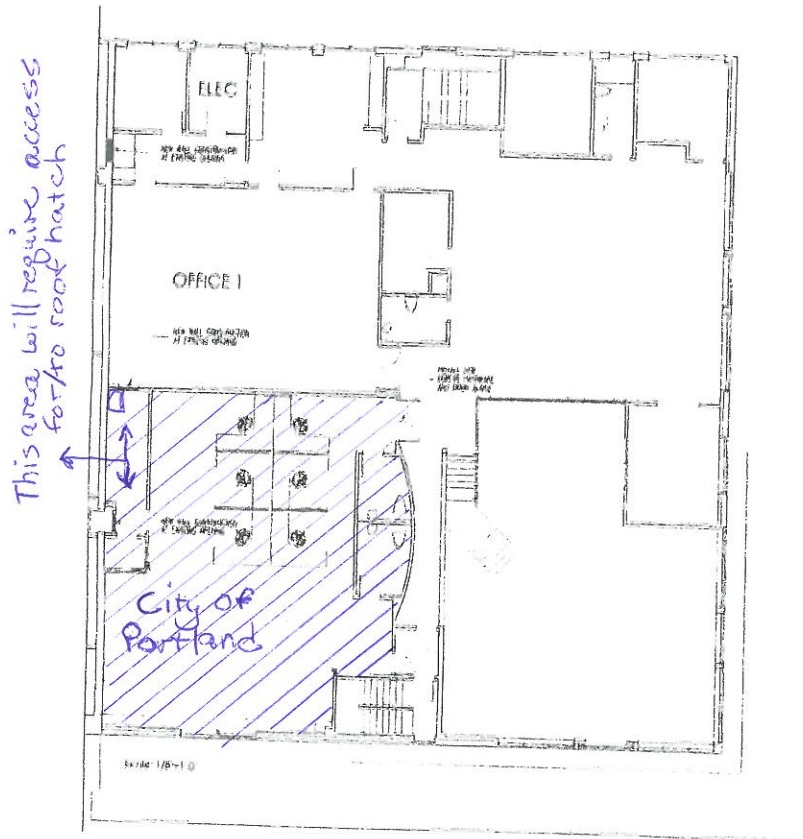
SCALE 1/16"=1'-0"

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A101

Exhibit A

Page 2, Second Floor Office



Graham Architects

Portland, Oregon
 1000 NE Oregon Street
 Portland, OR 97232
 www.grahamarchitects.com

PROJECT
 Existing Conditions
 Nelson and Small
 242 Commercial
 Portland, Maine

08.20.13

CLIENT
 242 Commercial
 242 Commercial
 Portland, ME

COORDINATOR
 STRUCTURAL ENGINEER

REVISIONS

NO. 1	DATE	DESCRIPTION
1	08.20.13	ISSUED FOR PERMIT
2	08.20.13	ISSUED FOR PERMIT
3	08.20.13	ISSUED FOR PERMIT
4	08.20.13	ISSUED FOR PERMIT

DATE
 08.20.13

SCALE
 1/8"=1'-0"

**EXHIBIT B, contains Paragraph 29 of the
COMMERCIAL LEASE (NET LEASE)
WITH OPTION TO PURCHASE**

29. OPTION TO PURCHASE REAL ESTATE

The LANDLORD hereby grants to the TENANT, its successors and assigns, the exclusive option and right to purchase the premises owned by LANDLORD and located at 212 Canco Road, Portland, Cumberland County, Maine, Map 148, Block A, Lot 7 (the "Property"), more fully described in the deed recorded in the Cumberland County Registry of Deeds in Book 25041, Page 277, attached Exhibit A, subject to the following terms and conditions:

1. Purchase Price and Credit for Lease Payment. The purchase price for the premises shall be Two Million Nine Hundred Thousand Dollars (\$2,900,000). The TENANT represents and warrants that it has the funds required to complete the purchase contemplated by this Option and that a purchase has been approved by all necessary parties and departments within the TENANT.
2. Use. LANDLORD understands that TENANT intends to use this property for municipal needs, but this option is not intended to limit the TENANT's use of this property.
3. Term of Option. As long as the TENANT is not in default of its leasehold obligations set forth below in both of the TENANT leases with LANDLORD described below and as long as the TENANT is then leasing both leaseholds described below, the TENANT may exercise its option to purchase at any time after March 1, 2017; but, no later than October 31, 2018, time being of the essence.
4. Existing Leases. There are now existing four leases of portions of the Property, and the parties expect there to be a fifth, as well; with their term dates, they are:

<u>Tenant</u>	<u>Term start(s)</u>	<u>Term ends</u>	<u>Approx. Sq. Ft</u>
Webber Supply*	7/1/2013	6/30/2018	20,268
Unified Technologies*	11/1/2013	10/31/2018	12,243
Nelson & Small	----	6/30/2014	---
City of Portland	10/1/2013	9/30/2014	18,695
City of Portland	3/1/2014	10/31/2018	19,381

*the above listed "Term ends" date for both the Webber Supply Lease and the Unified Technologies Lease are subject to TENANT extension options as well as LANDLORD early termination provisions.

- a) As long as the TENANT is not in default of its lease hold obligations as set forth in both of the TENANT's leases with the LANDLORD, LANDLORD will cause the Nelson & Small lease as it relates to the existing ground floor and second floor office space to terminate not later than June 30, 2014.
- b) As long as the TENANT is not in default of its leasehold obligations as set forth in both of the TENANT's leases with LANDLORD described below and as long as the TENANT is then leasing both leaseholds described above, LANDLORD will renew both of the TENANT's leases, if requested by the TENANT, to extend the term until the date when LANDLORD conveys the Property to the TENANT. LANDLORD has provided the TENANT with copies of the Webber Supply lease and Unified Technologies lease, prior to the execution of second TENANT Lease of which this option to purchase is a part. At closing, the TENANT will assume the LANDLORD's interest in and obligations under said leases.
- c) As long as the TENANT is not in default of its leasehold obligations set forth in both of the TENANT's leases with LANDLORD described below and as long as the TENANT is then leasing both leaseholds described below, LANDLORD agrees not to lease any portion of the Premises to any party (except to the TENANT) before October 31, 2018, unless TENANT does not exercise its right to lease such space when offered the right below to lease such empty space. Accordingly, LANDLORD will offer any space other than the spaces leased to the TENANT, as and if it becomes available, on the same terms and conditions as in the Lease to which this Option is attached except as to rent which shall be \$4.00 per sq. ft. per year plus all CAMS, taxes and operating expenses, and TENANT shall exercise its right to lease said space within ten (10) days after such notice. If TENANT does not exercise its right to lease such space, LANDLORD shall have the right to lease such space to a third party. Also, LANDLORD will ensure that the entire building on the Property shall be in 'broom clean' condition upon the date when LANDLORD conveys the Property to the TENANT. That said, the sale will be "As Is" with all faults, and the LANDLORD makes no representations as to the condition of the Property.
- d) Upon the execution of this Lease to TENANT, the TENANT and LANDLORD agree to amend the lease with the TENANT dated June 21, 2013 eliminating Tenant's right to terminate on 30 days' notice in Section 3. At the end of the current term of the June 21, 2013, lease (September 30, 2014) the TENANT shall have the right to extend the term of said lease such that the June 21, 2013 lease term ends on October 31, 2018.

5. Exercise of Option. This option to purchase may be exercised by the TENANT so long as it is a tenant in good standing under two different leases with LANDLORD, one dated June 21, 2013 and the other dated March ____, 2014, and both leases are then in full force and effect by giving written notice to LANDLORD by FEDEX or Certified U.S. Mail, return receipt requested, addressed as follows: 212 Canco Realty LLC, Attn: General Manager, 212 Canco Road, Portland, ME 04103, or by delivery in hand to the General Manager of 212 Canco Realty LLC and with a duplicate copy to Leonard M. Nelson, c/o Bernstein Shur, 100 Middle Street, PO Box 9729, Portland, ME 04104-5029.
6. Settlement. Following the exercise of this option to purchase, the closing shall be held within three (3) months of the receipt by LANDLORD of the written Notice of Exercise (the "Closing Period"), time being of the essence at a location and time mutually agreed upon by the parties. Payment of the purchase price shall be by certified bank check or by wire transfer of funds.
7. Inspection and Survey. During the term of the option to purchase, the TENANT, its successors and assigns shall have the right to enter the Property at all reasonable times with prior notice to LANDLORD for the purpose of conducting such inspections, surveys, wetlands, environmental and soils investigation and studies as it deems necessary. The TENANT shall assume all responsibility for such entry, inspections or investigations and shall hold LANDLORD harmless from any claims related to such entry, inspections or investigations.
8. Deed. At the Closing, LANDLORD shall deliver to the TENANT a duly executed and acknowledged Quitclaim with Covenant.

LANDLORD shall pay its share of the real estate transfer tax, if any. The TENANT shall be responsible for the cost of recording the Deed.
9. "Put" in favor of Canco Realty. At any time between the date hereof and October 31, 2018, LANDLORD shall have the right to request the TENANT that it execute its \$2.9 Million option to purchase the Property. In the event the TENANT does not exercise its option right within 90 days of the request, the TENANT's option to purchase the Property shall automatically terminate and be of no further force and effect. Exercise by the TENANT of its lease and option to purchase shall be accomplished by notifying LANDLORD pursuant to Paragraph 5 above.
10. Notices. Any notice under this Option shall be delivered or sent by Fed Ex or certified mail, postage prepaid, return receipt requested, and addressed as follows:

If to Canco Realty, to:
212 Canco Realty LLC
Attn: General Manager
212 Canco Road
Portland, ME 04103

With copy to:
Leonard M. Nelson, Esq.
Bernstein Shur
100 Middle Street
P.O. Box 9729
Portland, ME 04104-5029

If to City, to: City Manager
City of Portland
389 Congress Street
Portland, ME 04101

11. Execution and Recording. This option to purchase set forth in this paragraph 29 of the lease is a portion of the lease between LANDLORD and TENANT and may not be recorded. Upon the request of TENANT a Memorandum of Lease and Option shall be executed in a form eligible for recordation, and may be recorded at TENANT's expense at the Cumberland County Registry of Deeds.
12. Release of Option. Concurrently with this lease being executed, the TENANT shall execute and deliver to LANDLORD a written release, quitclaim deed or other instrument specified by LANDLORD, evidencing the non-exercise or termination of its option rights. The instrument shall be signed and acknowledged in a form eligible for recordation. LANDLORD's attorney shall hold said executed instrument in escrow and shall be entitled to release and record said instrument if a) the option to purchase is not exercised within the Exercise Period; or b) such earlier time as is set forth in Paragraph 9 above; or, c) if either of the two City Leases with Canco Realty described above terminates prior to the City's exercise of this Option; or, d) if the TENANT exercises its option and does not close within the Closing Period.
13. Binding Effect. This option to purchase shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, executors, administrators, successors and assigns.
14. Assignment. This option to purchase may not be assigned by the City. Any purported assignment shall be void and in such event the TENANT's rights in this option to purchase shall terminate and be of no further force and effect.

15. Severability. If any provision of this option to purchase is found to be invalid or unenforceable, such finding shall not affect the validity or enforceability of any other provision hereof.
16. Compensation for Option. The City's entering into this Commercial Lease and performing its obligations set forth therein is hereby deemed to be, and include, partial consideration for this option to purchase. Other consideration includes the City's representation and warranty that it has the funds required to complete the purchase contemplated by this option to purchase and that a purchase has been approved by all necessary parties and Departments at the City.
17. Governing Law. This option to purchase shall be governed by and construed in accordance with the laws of the State of Maine.

EXHIBIT A

[Deed at Book 25041, Page 277]

QUITCLAIM DEED

Leonard M. Nelson, Kenneth M. Nelson, and Andrew J. Nelson, holders of a one-third interest by virtue of a Trustees' Deed of Distribution from Leonard M. Nelson and Kenneth M. Nelson as Trustees of the Harold P. Nelson Family Trust dated October 4, 2006 and recorded in the Cumberland County Registry of Deeds in Book 24435, Page 193; Harriette Small, holder of a one-third interest by virtue of a warranty deed from N&S Realty Corp. dated March 1, 1961 and recorded in the Cumberland County Registry of Deeds in Book 2600, Page 210, and 212 Associates, a Maine general partnership, holder of a one-third interest by virtue of a deed from Donald J. Nelson dated December 28, 1984 and recorded in said Registry of Deeds in Book 6659, Page 146 (by and through Leonard M. Nelson, Kenneth M. Nelson, Andrew J. Nelson, Mary Nelson, Merle Nelson, David Small and Betty Small, being all of the general partners of 212 Associates, thereunto duly authorized) (collectively the "Grantors") FOR CONSIDERATION PAID, grant to 212 Canco Realty, LLC, a Maine limited liability company, with a mailing address of 212 Canco Road, Portland, ME ("Grantee") all their right, title and interest in certain real property, together with any improvements thereon, known as 212 Canco Road, in the City of Portland, County of Cumberland and State of Maine, more particularly described in Exhibit A attached hereto and made part of.

WITNESS our hands and seals this ~~___~~^{as} day of April 1st, 2007.

WITNESSES:

Claire Connell
Witness

Leonard M. Nelson
Leonard M. Nelson

Claire Connell
Witness

Kenneth M. Nelson
Kenneth M. Nelson

Claire Connell
Witness

Andrew J. Nelson
Andrew J. Nelson

Harriette Small
Witness

Harriette Small
Harriette Small

Claire Connell
Witness

212 ASSOCIATES
By: Leonard M. Nelson
Leonard M. Nelson
Its General Partner

Claire Connell
Witness

By: Kenneth M. Nelson
Kenneth Nelson

Claire Connell
Witness

Claire Connell
Witness

Claire Connell
Witness

Claire Connell
Witness

[Signature]
Witness

By: Mary B. Nelson
Mary Nelson

By: Merle Nelson
Merle Nelson

By: [Signature]
Andrew Nelson

By: David Small
David Small

By: Betty Small
Betty Small

STATE OF MAINE
COUNTY OF CUMBERLAND, ss

April 12, 2007

PERSONALLY APPEARED Leonard M. Nelson and acknowledged the foregoing instrument to be his free act and deed, his free act and deed in his capacity as general partner of 212 Associates and the free act and deed of 212 Associates.

Before me,

Peter J. Van Hemel, [Signature]
Peter J. Van Hemel, ~~Attorney-at-Law~~ Notary Public
Commission Expires:
Print Name:

Exhibit A

A certain lot or parcel of land with buildings thereon, located in the City of Portland, Cumberland County, Maine, bounded and described as follows:

Beginning at an iron pipe at a point in the northwesterly side line of Canco Road in the division line between land conveyed by the City of Portland to Cumberland Securities Corporation by deed dated April 1, 1954 and recorded in Cumberland County Registry of Deeds in Book 2172, Page 4 (now or formerly owned by New England Union Mutual Life Insurance Company and under lease to Central Maine Power Company) and the land herein conveyed, said point being distant northeasterly along said side line of Canco Road 800 feet from the northeasterly side line of Bay Street; thence northeasterly by the northwesterly side line of Canco Road a distance of 219.83 feet to a point and an iron pipe in the northwesterly side line of Canco Road; thence northwesterly by the division line between the land herein conveyed and land now or formerly of Montefusco and making an included angle of $100^{\circ} 58'$ through the west with the southwesterly direction of the northwesterly side line of Canco Road a distance of 417.34 feet to an angle and an iron pipe; thence northwesterly and making an included angle of $165^{\circ} 15'$ through the west with the southeasterly direction of the last described line a distance of 167.55 feet to a copper bolt set in a granite monument; thence on a prolongation in a straight line of the last described course a distance of 84.50 feet to a point and an iron pipe; thence southwesterly and making an angle of 90° with the last described line a distance of 159.06 feet, more or less, to a point and an iron pipe in the easterly side line of the railroad spur right-of-way conveyed by the City of Portland to Quincy Market Cold Storage & Warehouse Company by deed recorded in the Cumberland County Registry of Deeds in Book 2076, Page 145; thence southerly by said easterly side line of said right-of-way about 337 feet to a point and an iron pipe; thence southeasterly by the division line between the land hereby being conveyed and the aforementioned land conveyed by the City of Portland to Cumberland Securities Corporation by deed dated April 1, 1954 and recorded in the Cumberland County Registry of Deeds in Book 2172, Page 4 (now or formerly owned by New England Union Mutual Life Insurance Company and under lease to Central Maine Power Company) a distance of 435.05 feet, more or less, to Canco Road and the point of beginning, said last mentioned division line making an angle of 90° with the northwesterly side line of Canco Road, containing 182,952 square feet. The land hereinabove described is a part of the property acquired by the City of Portland by deed of Goodrich, Stickney & Burnham Land Company, dated April 24, 1944, and recorded in the said Registry of Deeds in Book 1745, Page 244, and by deed of Charles L. Goodrich et als, dated June 10, 1918, and recorded in the said Registry in Book 1010, Page 1. LMW

Excepting and reserving, however, from the aforesaid premises and to the City of Portland, its successors and assigns, forever, a right-of-way for the purpose of maintaining, operating, altering, repairing, removing and replacing a sewer line or lines, said right-of-way being bounded and described as follows:

Beginning in the northwesterly side line of Canco Road in the division line between the land being above conveyed and land conveyed to Cumberland Securities Corporation; thence northwesterly by said division line about 435.05 feet, more or less, to the above mentioned railroad spur right-of-way, said right-of-way or easement to be thirty (30) feet wide and to lie wholly on the northeasterly side of the described line.

This conveyance is made upon the express condition that the said Grantee, its successors and assigns, shall not erect, place, or maintain any structures on, above, or under said right-of-way or easement which in any way will interfere with the use of said right-of-way or easement by the City of Portland, its successors and assigns, for the purpose above reserved.

There is also conveyed in the deed the following interest in land:

The right, pursuant to reservations set forth in a certain deed from the City of Portland to Quincy Market Cold Storage & Warehouse Company, dated January 29, 1952 and recorded in the Cumberland County Registry of Deeds in Book 2076, Page 145, to use in common for railroad purposes as therein defined, and

subject to the provisions therein set forth, the railroad spur track constructed by the said Quincy Market Cold Storage & Warehouse Company in the right-of-way referred to therein.

Together with any interests, in any and all, easements and rights of way, now or in the future, benefiting the premises herein conveyed, including without limit, a certain easement conveyed from J.B. Brown & Sons to Harold P. Nelson, et al. their successors and assigns for pedestrian and vehicular ingress and egress, over and upon property of said J.B. Brown & Sons, its successors and assigns, as more particularly described in the Easement Deed dated July 1, 1996 and recorded in the Cumberland County Registry of Deeds in Book 12596, Page 164 to which reference may be had for a more particular description of the easement.

This conveyance is made subject to covenants, agreements, terms and conditions set forth in a deed from the City of Portland to N & S Realty Corp. dated January 14, 1960, and recorded in said Registry in Book 2520, Page 313.

This conveyance includes all of the Grantors' rights in and to any agreements relating to railroad spur and sidetracks which serve said land and buildings.

LAGW

Received
Recorded Register of Deeds
Apr 25, 2007 03:45:40P
Cumberland County
Pamela E. Lovley

LAND EXCHANGE AGREEMENT

This Land Exchange Agreement (this “Agreement”) is made as of the ___ day of July, 2015, by and between the J.B. BROWN & SONS (“JBB”) and FORE RIVER WAREHOUSING & STORAGE CO., INC. (“FRW&S”), each a Maine corporation with offices in Portland, Maine, and their respective successors and permitted assigns (JBB and FRW&S shall be collectively referred to herein as “JBBrown”), and CITY OF PORTLAND, a Maine municipal corporation with a place of business in Portland, Maine and mailing address of 389 Congress Street, Portland, Maine 04101 (“City”).

Section 1. Introduction.

Each of the parties owns real property in Portland, Maine. The parties have agreed to exchange certain property, and to provide for certain appurtenant easements in connection with the exchange, all on the terms and conditions set forth in this Agreement. Exhibit A is an aerial photograph that generally depicts the properties that are the subject of the exchange.

Section 2. Property to be Exchanged.

In the exchange:

- (i) City will convey to JBBrown the parcel of land acquired from Norman S. Reef and Raymond H. Reef as Trustees of the R.F. Investment Trust, located at or near Cornell Street and Morrill Street (Tax Map 151A-A-013) and depicted on Exhibit A as “Parcel 1”;
- (ii) City will convey to JBB and FRW&S an access easement deed for vehicle and pedestrian ingress and egress from and to Canco Road across the City’s property located at or near 250 Canco Road (Tax Map 154-B-001) to JBB’s and FRW&S’ respective properties located on Quarry Road, which easement area shall be constructed and maintained by the City and is depicted on Exhibit A as “Parcel 2”;
- (iii) JBBrown will convey to City the parcel of land depicted on Exhibit A as Parcel 3 and identified as Tax Map 148-A-002 (“Parcel 3”);
- (iv) JBBrown will convey to City a portion of the parcel of land depicted on Exhibit A as Parcel 4 and identified as Tax Map 151A-A-014 (“Parcel 4”);
- (v) JBBrown will convey to City the parcel of land depicted on Exhibit A as Parcel 5 and identified as Tax Map 154-B-045 (“Parcel 5”);

All of these conveyances will be on the terms and conditions set forth in this Agreement.

Section 3. Equivalent Value.

The parties agree that (i) the value of the property and the easement that City is conveying to JBBrown in this exchange is equivalent to the value of the properties that JBBrown is conveying to City in this exchange, and (ii) each party's conveyance is in full consideration of the other party's conveyance. Except as provided in Section 10 below (regarding closing adjustments), neither party is any monetary payment to the other party in connection with the exchange.

Section 4. Property Being Exchanged "As-Is".

(a) Parcel 1. Except as hereinafter set forth, JBBrown acknowledges that it is acquiring Parcel 1 "as is" and that City has made no representations or warranties of any kind whatsoever with respect to the condition of Parcel 1 or the compliance of Parcel 1 with any laws, rules, regulations, or ordinances, including (without limitation) any relating to zoning, the environment, or hazardous materials. Notwithstanding the foregoing, it shall be a condition of JBBrown's obligations to close that (i) Parcel 1 is no longer subject to a Contract Zone Agreement, and (ii) JBBrown is satisfied with the title and environmental condition (including as to any hazardous materials as described in an environmental report to be provided to JBBrown by the City).

(b) Parcel 2. City will construct and maintain the easement for JBBrown (Parcel 2) described in Section 2(ii). JBBrown shall have the right to install signage at the Canco Road entrance way to the easement across Parcel 2 that will indicate the easement roadway is an entrance to JBBrown properties, provided that such signage has all necessary permits and complies with all applicable legal requirements. All such signage shall be installed and maintained by JBBrown at JBBrown's sole cost and expense.

(c) Parcels 3, 4 and 5. City acknowledges that it is acquiring Parcels 3, 4 and 5 "as is" and that JBBrown has made no representations or warranties of any kind whatsoever with respect to the condition of Parcels 3, 4 and 5 or the compliance of Parcels 3, 4 and 5 with any laws, rules, regulations or ordinances, including (without limitation) any relating to zoning, the environment, or hazardous materials. Notwithstanding the foregoing, it shall be a condition of City's obligations to close that City is satisfied with the title and environmental condition of Parcels 3, 4 and 5.

Section 5. Title.

(a) Title Examinations; Objections. The parties will have from the date of this Agreement until 4:00 PM Eastern Daylight Savings Time on the sixtieth (60th) day after the date of this Agreement (the "Due Diligence Period") to complete their respective title examinations. Title shall be good, marketable and insurable title, free and clear of all encumbrances except (i) as set forth in Exhibit B, (ii) easements for utilities servicing the property, (iii) zoning ordinances, and (iv) real estate taxes not yet due and payable. Each party will have until the end of the Due Diligence Period to deliver to the other party any written objections to matters (other

than the permitted exceptions identified herein) that materially affect marketability or use. Objections not made prior to the end of the Due Diligence Period will be deemed waived; provided, however, that objections pertaining to matters of record first appearing after the date of this Agreement may be made at any time prior to the closing.

(b) Option to Cure. In the event of a title objection, the party owning the property that is the subject of the title objection will have the option, but not the obligation, to cure the objection and will notify the other party of its election within ten (10) business days after receipt of the title objection. In the event that the party owning the property that is the subject of the objection elects to cure the title objection, that party thereupon will have thirty (30) days from the date of the notice of election, or such other reasonable time as the parties may agree, to cure the objection. In the event that the party owning the property that is the subject of the objection does not elect to cure the objection, or having elected to cure the objection fails to timely do so, the other party will have the option either to terminate this Agreement (after which neither party will have any further obligation or liability to the other under this Agreement) or to waive the objection and close.

Section 6. Conditions Precedent to Closing.

(a) Parcel 1 is subject to JBBrown's satisfactory review of an Environmental Report (Phase I).

(b) The City shall cause the termination or provide satisfactory evidence to JBBrown that a certain Contract Zone affecting Parcel 1 has terminated.

(c) JBBrown is satisfied in its sole discretion in the condition or plans for the construction of the easement as described above over Parcel 2.

(d) Parcels 3, 4 and 5 are subject to City's satisfactory review of environmental issues.

Section 7. Closing.

The closing will be on or before the thirtieth (30th) day after the later to occur of: (i) the expiration of the Due Diligent Period, and (ii) the date on which the Conditions to Closing described in Section 6 above are completed to the satisfaction of each party to this Agreement, to be held at Verrill Dana, LLP, One Portland Square, Portland, Maine, or on such other date or at such other place as the parties may agree.

Section 8. Deeds.

(a) Deed to City. At the closing, JBBrown will deliver to City a fully-executed Quitclaim Deed conveying Parcels 3, 4 and 5.

(b) Deed to JBBrown. At the closing, City will deliver to JBBrown a fully-executed Municipal Quitclaim Deed conveying Parcel 1; and City will deliver to JBB and FRW&S a fully-executed Easement Deed as to Parcel 2.

(c) Property Descriptions. The property descriptions contained in each deed will be survey descriptions based on a survey plan (the "Plan") that will more specifically describe the properties shown on Exhibit A hereto. The Plan will be distributed to the parties hereto prior the expiration of the Due Diligence Period and the parties will agree on property descriptions prior to the closing.

(d) Abutter Status. Each deed will recite that the grantee is an abutter to the grantor.

Section 9. Closing Deliverables.

(a) City Deliverables. At the closing, and as a condition to closing, City will deliver in connection with its conveyance to JBBrown:

- (i) the executed contract zone termination described in Section 6(b) above;
- (ii) the executed deed described in Section 8(b) above;
- (iii) an executed State of Maine Real Estate Transfer Tax Declaration;
- (iv) an executed notice pursuant to 38 M.R.S.A. § 563(6) stating that, to the best of City's knowledge, no underground storage facility for the storage of oil or petroleum exists on the property being conveyed to JBBrown;
- (v) documentation acceptable to JBBrown indicating that this transaction has been duly authorized and that the person executing documents on behalf of City and City's general partner is duly authorized to do so;
- (vi) an executed owner's affidavit indicating no tenants or other occupants presently in possession and indicating no debts due for labor or services performed or materials used that could give rise to mechanic's liens.

(b) JBBrown Deliverables. At the closing, and as a condition to closing, JBBrown will deliver in connection with its conveyance to City:

- (i) the executed deed described in Section 8(a) above;
- (ii) an executed State of Maine Real Estate Transfer Tax Declaration;
- (iii) an executed notice pursuant to 38 M.R.S.A. § 563(6) stating that, to the best of JBBrown's knowledge, no underground storage facility for the storage of oil or petroleum exists on the property being conveyed to City;

(iv) documentation acceptable to City indicating that this transaction has been duly authorized and that the person executing documents on behalf of JBBrown is duly authorized to do so;

(v) an executed certificate of non-foreign and Maine Residency status; and

(vi) an executed owner's affidavit indicating no tenants or other occupants presently in possession and indicating no debts due for labor or services performed or materials used that could give rise to mechanic's liens.

Section 10. Closing Costs and Apportionments.

(a) Real Estate Taxes and Assessments. The parties acknowledge that the City is exempt from taxes or assessments on its property and that Parcels 1 and 2 are exempt from real estate taxes for fiscal year 2016. As to Parcels 3, 4 and 5, JBBrown shall be liable for all real estate taxes and assessments for fiscal year 2016. JB Brown shall pay all such taxes on or before the closing date.

(b) Real Estate Transfer Tax. Each real estate transfer tax declaration will state that the value of the properties that is the subject of the declaration is the assessed value, and JBBrown will pay its share of real estate transfer taxes. The parties acknowledge that, pursuant to 36 M.R.S.A. § 4641-C(1), City is exempt from real estate transfer taxes.

(c) Recording Fees. City will pay the recording fees for the termination of contract zone, if necessary, and for the deed from JBBrown on Parcels 3, 4 and 5. JBBrown will pay the recording fee for the deeds from City on Parcels 1 and 2.

(d) Legal Fees and Expenses. The parties each will bear the cost of their respective legal fees and expenses.

Section 11. Representations and Warranties.

(a) City. City represents and warrants that:

(i) It has full power and authority to enter into this Agreement and to carry out its obligations under this Agreement.

(ii) This Agreement has been duly authorized, executed, and delivered by City and is a legal, valid, and binding agreement of City, enforceable in accordance with its terms. The execution, delivery, and performance of this Agreement by City will not violate any judgment or order applicable to City or City's instruments of organization, governance or operation, and will not result in any material breach of, or constitute a material default under, or result in the creation of any material lien, charge, security interest, or other encumbrance upon Parcel 1 or any note, bond, indenture, mortgage,

deed of trust, bank loan, or credit agreement to which City is a party or by which Parcel 1 is bound.

(iii) City has not received any written notice of any pending condemnation, violation of law, or other legal action of any kind materially and adversely affecting Parcel 1.

(iv) City has no knowledge of any pending or threatened litigation, administrative action, or governmental investigation or examination (including, but not limited to, environmental investigations, examinations, claims, and demands) concerning Parcel 1.

(v) No third party has any right to acquire all or any part of Parcel 1.

(b) JBBrown. JBBrown represents and warrants that:

(i) JBBrown has full power and authority to enter into this Agreement and to carry out its obligations under this Agreement.

(ii) This Agreement has been duly authorized, executed, and delivered by JBBrown and is a legal, valid, and binding agreement of JBBrown, enforceable in accordance with its terms. The execution, delivery, and performance of this Agreement by JBBrown will not violate any judgment or order applicable to JBBrown or result in any material breach of or constitute a material default under any agreements to which JBBrown is a party.

(iii) JBBrown has not received any written notice of any pending condemnation, violation of law, or other legal action of any kind materially and adversely affecting Parcels 3, 4 and 5.

(iv) JBBrown has no knowledge of any pending or threatened litigation, administrative action, or governmental investigation or examination (including, but not limited to, environmental investigations, examinations, claims, and demands) concerning Parcels 3, 4 and 5.

(v) No third party has any right to acquire all or any part of Parcels 3, 4 or 5.

(c) Survival. All representations and warranties contained herein are intended to remain true and correct as of the closing, are deemed to be restated at the closing, and will survive the closing.

Section 12. General Provisions.

(a) Assignment. Neither this Agreement nor any of the rights or obligations of any party pursuant to this Agreement may be assigned without the prior written consent of the other party.

(b) Brokers. Each party will indemnify and hold harmless the other from and against any claims for brokerage commissions arising out of any brokerage agreements entered into by the indemnifying party.

(c) Governing Law. This Agreement is governed by, and is to be construed and enforced in accordance with, the laws of the State of Maine (without regard to conflicts-of-laws principles that would require the application of any other law).

(d) Entire Agreement. This Agreement constitutes the entire agreement between the parties relating to the exchange of the property that is the subject of this Agreement, supersedes all prior oral or written offers, negotiations, agreements, understandings, and courses of dealing between the parties relating thereto, and is subject to no understandings, conditions or representations other than those expressly stated herein. This Agreement may be modified or amended only by means of a writing signed by the parties.

(e) Notices. Notices in connection with this Agreement must be in writing, delivered by certified mail or by Federal Express or a similar overnight delivery carrier to the addresses set forth below:

To JBBrown:

Vincent P. Veroneau
J.B. Brown & Sons
36 Danforth Street
P.O. Box 207
Portland, Maine 04112-0207

with a copy to:

David L. Galgay, Jr., Esq.
Verrill Dana

Mailing address: P.O. Box 586
Portland, Maine 04112-0586

Street address: One Portland Square
Portland, Maine 04101

To City:

Gregory A. Mitchell
Director of Economic Development
City of Portland
389 Congress Street
Portland, Maine 04101

with a copy to:

Danielle West-Chuhta, Esq.
Corporate Counsel
City of Portland
389 Congress Street
Portland, Maine 04101

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, effective as of the day and year first above written.

J.B. Brown & Sons

By: _____
Vincent P. Veroneau
Its President

Fore River Warehousing & Storage Co., Inc.

By: _____
Vincent P. Veroneau
Its President

City of Portland

By: _____
Jon P. Jennings
Its City Manager

Approved as to Form: _____

Corporation Counsel

Approved as to Funds: _____

Finance Dept.



Parcel 5 – J.B. Brown to City

Parcel 2 – Approximate Easement Area to J.B. Brown

Parcel 3 – J.B. Brown to City

Parcel 1 – City Tax-Acquired Property to J.B. Brown

Parcel 4 – Approximate Area - J.B. Brown to City

Exhibit 5

Stormwater Management Plan & Calculations



Stormwater Management Report

Portland Public Services Sand & Salt Storage Facility
250 Canco Road
Portland, Maine 04103

General

The following Stormwater Management Plan has been prepared for the City of Portland Department of Public Services to evaluate stormwater runoff and erosion control for the sand and salt storage facility project to be located off Canco Road. Project improvements will include relocation of two sand and salt storage sheds, construction of heavy duty paved areas, associated utilities, stormwater infrastructure and sidewalks along Canco Road. A gravel wetland is proposed for stormwater runoff treatment and detention so that runoff from new impervious and developed surfaces are managed in general conformance with the General Standards of Maine Department of Environmental Protection's Stormwater Management Law.

Existing warehouses were built sometime in the mid to late 80s prior to Chapter 500 Stormwater regulations. Greater than one acre of new paved area will be created, but considering the amount of gravel area to be redeveloped, the overall change is below one acre. Since less than one acre of impervious is being created, the project does not qualify for Maine DEP chapter 500 standards.

Existing Site Conditions

The project is located on the northwest side of Canco Road, roughly 0.3 miles northwest of its intersection with Read Street. Land in the vicinity of the project site is predominantly developed for industrial uses. The existing facility is bounded by a residential neighborhood to the north, industrial and commercial uses to the south and west, and Canco Road to the east. An assisted living community is located across Canco Road.

Land to be developed for the sand and salt storage facility is presently developed, with ground cover consisting of pavement, gravel and building. Topography is generally consistent throughout the project site, with slopes ranging from 2-4% in the developed area and steeper sideslopes along the perimeter, with some areas of exposed ledge. Runoff from the site eventually drains southeasterly via a combination of sheet and shallow concentrated flow toward an onsite closed storm drainage system that discharges to a closed storm drainage system within Canco Road.

Proposed Improvements

The project consists of redevelopment of an abandoned warehouse site. Approximately 46,799 square feet of new impervious area will be created including 4,200 square feet of sand and salt storage structure, and 42,599 square feet of new pavement area to provide ample space for vehicular movement through the site. Travel lane widths and paved areas are generally wider, or will be made wider than normal to accommodate large work and fleet vehicles. An existing 180 square feet of paved area will be removed and landscaped area will be created, for a total development area (landscaped and impervious) of 46,799 square feet. Remaining areas to be disturbed and replanted are currently

grassed. Landscaped areas consist of vegetated sideslopes, shallow swales for stormwater conveyance and stormwater best management practices (BMPs) for stormwater detention and treatment. 14,278 square feet of landscaped area will require regrading in order to accommodate for our proposed gravel wetland.

Stormwater Management

To mitigate peak runoff and treat stormwater we have proposed a gravel wetland which has the capacity to treat a large volume of runoff. The gravel wetland is designed in accordance with the latest MDEP Chapter 500 regulations. The majority of proposed impervious surfaces and associated landscaped areas will be graded to direct stormwater runoff to a new onsite storm drainage system that ultimately discharges to a pretreatment sediment forebay.

The stormwater management plan was designed to examine impervious areas across the entire developed site and provide treatment of runoff from at least 95% of the additional impervious area and a minimum 80% of total developed area. Existing and proposed impervious areas will be treated through the use of a gravel wetland. Since existing onsite development is currently left untreated before it is conveyed to the closed storm drainage system along Canco Road, credit is being considered for existing impervious areas treated. Overall, treatment of runoff will be provided for greater than 95% of the impervious area and 80% of the developed area requiring treating treatment. As proposed, the stormwater management design will exceed Maine DEP Chapter 500 General Standard for treatment requirements. Stormwater management design calculations for gravel wetland sizing and for General Standard compliance are enclosed.

Stormwater infrastructure is designed with the capacity to handle runoff from a 25-year storm event. Stormwater will be detained within the water quality volume (WQV) and slowly filtrate through the subsurface media where it will be conveyed via a 6" underdrain pipe to an outlet control structure. The outlet pipe will discharge directly to a drainageway that directs runoff toward the closed storm drainage system along Canco Road.

A HydroCAD model was created to examine pre- and post-development peaks rates of runoff at SP1 and to examine pipe capacity within the proposed closed storm drainage system. The model predicts slight decreases in peak flow rates during the 2-, 10- and 25-year storm events at SP1. Flow from the existing developed site is also directed to a second study point in the northerly corner, designated SP2. The HydroCAD model does not examine peak rates of runoff at this study point. Runoff from a significant amount of impervious area that currently drains to SP2, but will be rerouted in the post development conditions to drain to the gravel wetland, and ultimately SP1. The access drive will be widened slightly within the watershed draining to SP2, however impervious area change is much less in the proposed condition. Therefore, no formal detention/retention of storm water runoff is proposed for the project because peak rates of runoff are anticipated less than pre-development levels or relatively unchanged at SP2.

Inspection & Maintenance

Provisions for periodic inspection and maintenance of the gravel wetland, catch basins, storm pipes and other stormwater infrastructure are included in the Inspection, Maintenance, and Housekeeping Plan.

Summary

The site will be graded so that development will not significantly alter natural drainage patterns, and will include a comprehensive grading, and drainage plan responsive to site characteristics, topographical conditions. We designed this project to meet the Maine Department of Environmental Protection's Stormwater Management Law. As presented in the analysis and depicted on the site plans, stormwater runoff discharging from the site will be collected and pretreated in a sediment forebay before entering gravel wetland system. A site-specific erosion and sedimentation control plan is also proposed to address during and after construction conditions. Temporary erosion control measures will be implemented during the construction phase of the project as specified on the Erosion & Sedimentation Control Plan as provided on the site plans.

Permanent erosion control measures have also been incorporated into the plan for long-term stabilization of the site. These measures will be integrated with the overall site development, which includes limits for disturbance and clearing (see clearing limits on site plans), and a permanent revegetation plan.

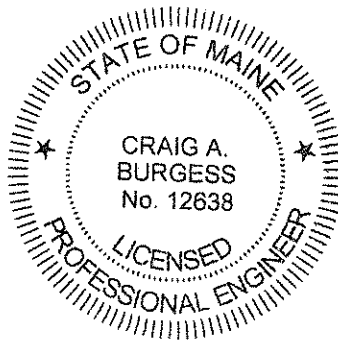
Prepared by:

SEBAGO TECHNICS, INC.



Craig A. Burgess, PE
Project Engineer

CAB/oam



SEBAGO TECHNICS, INC.
 75 John Roberts Road Suite 1A
 South Portland, Maine 04106
 Tel. (207) 200-2100

JOB 15056
 SHEET NO. 1 OF 1
 CALCULATED BY ACH DATE 9/8/2015
 FILE NAME 15056-WQC PRINT DATE 9/10/2015

Treatment Calculations for Portland Public Services Sand and Salt Storage Pond:							
(CPV = Channel Protection Volume)				Gravel Wetland GW-1			
Tributary Areas - Watershed 1							
Impervious Area =				2.457	ac		
Landscaped Area =				1.066	ac		
Water Quality Volume							
CPV = 0.5" x Impervious + 0.2"x Landscape =				5,233	cf	0.12014	af
Provided CPV =				5,766	cf		
Sediment Forebay Calculation							
Annual Sediment Volume =							
Area to be Sanded x 500 lbs/acre-storm / 90 lbs/cf x 10 storms/year							
Area to be Sanded =				1.23	ac		
Annual Sediment Volume =				68.3	cf		
Forebay Volume Provided=					Elev.	Surface Area	
					73	360	
					71	120	
Volume Provided=				480	cf		

Table 1: MDEP GENERAL STANDARD CALCULATIONS
Portland Public Services Sand & Salt Storage Facility, Portland, Maine
Job #15056

AREA ID	WATERSHED SIZE (Ac.)	EXISTING IMPERVIOUS AREA (Ac.)	PROPOSED IMPERVIOUS AREA REQUIRING TREATMENT (Ac.)	ONSITE LANDSCAPED AREA (Ac.)	DEVELOPED AREA (Ac.)	UNDEVELOPED AREAS (Ac.)	TREATMENT PROVIDED?	IMPERVIOUS AREA TREATED* (Ac.)	LANDSCAPED AREA TREATED* (Ac.)	DEVELOPED AREA TREATED* (Ac.)	TREATMENT BMP
1S	1.322	0.685	0.196	0.441	0.637	0.685	YES	0.881	0.441	1.322	GW-1
2S	0.500	0.500	0.000	0.000	0.000	0.500	NO	0.000	0.000	0.000	NONE
3S	0.515	0.515	0.000	0.000	0.000	0.515	NO	0.000	0.000	0.000	NONE
4S	1.420	0.223	0.710	0.486	1.197	0.223	YES	0.933	0.486	1.420	GW-1
5S	0.530	0.365	0.000	0.165	0.165	0.365	NO	0.000	0.000	0.000	NONE
6S	1.085	0.368	0.000	0.717	0.717	0.368	YES	0.368	0.717	1.085	GW-1
7S	0.258	0.048	0.000	0.210	0.210	0.048	NO	0.000	0.000	0.000	NONE
8S*	-	-	0.170	-	-	-	NO	0.000	0.000	0.000	NONE
TOTAL (Ac.)	5.630	2.704	1.077	2.019	2.926	2.704		2.182	1.645	3.827	

*8S UNMODELED SUBCATCHMENT SEE BELOW

TOTAL IMPERVIOUS AREA REQUIRING TREATMENT-PROPOSED (Ac.)	1.077	TOTAL DEVELOPED AREA (Ac.)	2.926
TOTAL IMPERVIOUS AREA RECEIVING TREATMENT (Ac.)	2.182	TOTAL DEV. AREA RECEIVING TREATMENT (Ac.)	3.827
% OF IMPERVIOUS AREA RECEIVING TREATMENT	202.69%	% OF DEV. AREA RECEIVING TREATMENT	130.80%

TOTAL IMPERVIOUS AREA

NEW IMPERVIOUS AREA= 46,799 SF OR 1.08 AC
EXISTING GRAVEL PAD AREA= 10,357 SF OR 0.24 AC
TOTAL IMPERVIOUS AREA= 36,442 SF OR 0.84 AC

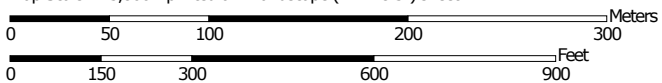
STUDY POINT 2 IMPERVIOUS AREA UNTREATED PRE VS POST

(PRE) 1S=29,828 SF
(PPOST)8S UNMODELED SUBCATCHMENT= 3,650 SF

Drainage Class—Cumberland County and Part of Oxford County, Maine



Map Scale: 1:3,800 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84








MAP LEGEND

Area of Interest (AOI)



 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  Excessively drained
-  Somewhat excessively drained
-  Well drained
-  Moderately well drained
-  Somewhat poorly drained
-  Poorly drained
-  Very poorly drained
-  Subaqueous
-  Not rated or not available


Soil Rating Lines

-  Excessively drained
-  Somewhat excessively drained
-  Well drained
-  Moderately well drained
-  Somewhat poorly drained
-  Poorly drained
-  Very poorly drained
-  Subaqueous
-  Not rated or not available






Soil Rating Points

-  Excessively drained
-  Somewhat excessively drained
-  Well drained
-  Moderately well drained
-  Somewhat poorly drained
-  Poorly drained
-  Very poorly drained
-  Subaqueous
-  Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
 Survey Area Data: Version 9, Sep 13, 2014

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

Date(s) aerial images were photographed: Jul 31, 2013—Aug 11, 2013

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

Drainage Class

Drainage Class— Summary by Map Unit — Cumberland County and Part of Oxford County, Maine (ME005)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BuB	Buxton silt loam, 3 to 8 percent slopes	Somewhat poorly drained	20.2	27.7%
Cu	Cut and fill land	Moderately well drained	17.7	24.3%
HrB	Hollis fine sandy loam, 3 to 8 percent slopes	Somewhat excessively drained	0.2	0.3%
HsB	Hollis very rocky fine sandy loam, 3 to 8 percent slopes	Somewhat excessively drained	9.3	12.7%
HsC	Hollis very rocky fine sandy loam, 8 to 20 percent slopes	Somewhat excessively drained	9.1	12.4%
Ro	Rock land	Excessively drained	7.3	9.9%
Sn	Scantic silt loam, 0 to 3 percent slopes	Poorly drained	8.4	11.5%
Wa	Walpole fine sandy loam	Poorly drained	0.8	1.1%
Totals for Area of Interest			73.0	100.0%

Description

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

**Sand & Salt Storage Facility
250 Canco Road
Portland, Maine 04103**

Introduction

The following plan outlines the anticipated inspection and maintenance procedures for the erosion and sedimentation control measures as well as stormwater management facilities for the project. This plan also outlines several housekeeping requirements that shall be followed during and after construction. These procedures shall be followed in order to ensure the intended function of the designed measures and to prevent unreasonably adverse impacts to the surrounding environment.

The procedures outlined in this Inspection, Maintenance and Housekeeping Plan are provided as an overview of the anticipated practices to be used on this site. In some instances, additional measures may be required due to unexpected conditions. For additional detail on any of the erosion and sedimentation control measures or stormwater management devices to be utilized on this project, refer to the most recently revised edition of the "Maine Erosion and Sedimentation Control BMP" manual and/or the "Stormwater Management for Maine: Best Management Practices" manual as published by the Maine Department of Environmental Protection (MDEP).

During Construction

1. **Inspection:** During the construction process, it is the Contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section. These responsibilities include inspecting disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in any applicable permits, shall conduct the inspections.
2. **Maintenance:** All measures shall be maintained in an effective operating condition until areas are permanently stabilized. If Best Management Practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within 7 calendar days and prior to any storm event (rainfall).
3. **Documentation:** A log summarizing the inspections and any corrective action taken must be maintained on-site. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, material storage areas, and vehicle access points to the site. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. The

permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

4. **Specific Inspection and Maintenance Tasks:** The following is a list of erosion control and stormwater management measures and the specific inspection and maintenance tasks to be performed during construction.

A. Sediment Barriers:

- Hay bale barriers, silt fences, and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- If the fabric on a silt fence or filter barrier should decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, it shall be replaced.
- Sediment deposits should be removed after each storm event. They must be removed before deposits reach approximately one-half the height of the barrier.
- Filter berms shall be reshaped as needed.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared, and seeded.

B. Riprap Materials:

- Once a riprap installation has been completed, it should require very little maintenance. It shall, however, be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone.

C. Erosion Control Blankets:

- Inspect these reinforced areas semi-annually and after significant rainfall events for slumping, sliding, seepage, and scour. Pay close attention to unreinforced areas adjacent to the erosion control blankets, which may experience accelerated erosion.
- Review all applicable inspection and maintenance procedures recommended by the specific blanket manufacturer. These tasks shall be included in addition to the requirements of this plan.

D. Stabilized Construction Entrances/Exits:

- The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way.
- When the control pad becomes ineffective, the stone shall be removed along with the collected soil material. The entrance should then be reconstructed.
- Areas that have received mud-tracking or sediment deposits shall be swept or washed. Washing shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device (not into storm drains, ditches, or waterways).

E. Temporary Seed and Mulch:

- Mulched areas should be inspected after rain events to check for rill erosion.
- If less than 90% of the soil surface is covered by mulch, additional mulch shall be applied in bare areas.
- In applications where seeding and mulch have been applied in conjunction with erosion control blankets, the blankets must be inspected after rain events for dislocation or undercutting.
- Mulch shall continue to be reapplied until 95% of the soil surface has established temporary vegetative cover.

F. Stabilized Temporary Drainage Swales:

- Sediment accumulation in the swale shall be removed once the cross section of the swale is reduced by 25%.
- The swales shall be inspected after rainfall events. Any evidence of sloughing of the side slopes or channel erosion shall be repaired and corrective action should be taken to prevent reoccurrence of the problem.
- In addition to the stabilized lining of the channel (i.e. erosion control blankets), stone check dams may be needed to further reduce channel velocity.

5. **Housekeeping:** The following general performance standards apply to the proposed project.

- A. Spill prevention: Controls must be used to prevent pollutants from being discharged from materials on-site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
- B. Groundwater protection: During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors, accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
- C. Fugitive sediment and dust: Actions must be taken to insure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.
- D. Debris and other materials: Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- E. Trench or foundation dewatering: Trench dewatering is the removal of water from trenches, foundations, cofferdams, ponds, and other areas within the construction area that retain water after excavation. In most cases, the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to

collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved.

Post-Construction

1. **Inspection:** After construction, it is the responsibility of the City of Portland or assigned heirs to comply with the inspection and maintenance procedures outlined in this section. All measures must be maintained in effective operating condition. The owner shall inspect and maintain 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.

2. **Specific Inspection and Maintenance Tasks:** The following is a list of permanent erosion control and stormwater management measures and the inspection and maintenance tasks to be performed after construction. 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
 - A. **Vegetated Areas:**
 - Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems.
 - Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

 - B. **Ditches, Swales and Other Open Channels:**
 - Inspect ditches, swales, level spreaders and other open stormwater channels in the spring, in the late fall, and after heavy rains to remove any obstructions to flow. Remove accumulated sediments and debris, remove woody vegetative growth that could obstruct flow, and repair any erosion of the ditch lining.
 - Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity.
 - Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable.
 - If the ditch has a riprap lining, replace riprap in areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged.

 - C. **Culverts:**

- Inspect culverts in the spring, in the late fall, and after heavy rains to remove any obstructions to flow.
- Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit.
- Inspect and repair any erosion damage at the culvert's inlet and outlet.

D. Removal of Winter Sand:

- Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring.
- Accumulations on pavement may be removed by pavement sweeping.
- Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader or other acceptable method.

E. Outlet Control Structures:

- Inspect outlet structures two times per year (preferably in spring and fall) to ensure that the outlet structures are working in their intended fashion and that they are free of debris.
- Clean structures when sediment depths reach 12 inches from invert of outlet.
- At a minimum, remove floating debris and hydrocarbons at the time of the inspection.

F. Gravel Wetland:

1st Year Post-Construction: Inspection frequency should be after every major storm in the first year following construction.

- Inspect to be certain system drains within 24-72 hrs (within the design period, but also not so quickly as to minimize stormwater treatment).
- Watering plants as necessary during the first growing season.
- Re-vegetating poorly established areas as necessary.
- Treating diseased vegetation as necessary.
- Quarterly inspection of soil and repairing eroded areas, especially on slopes
- Checking inlets, outlets, and overflow spillway for blockage, structural integrity, and evidence of erosion.

Post-Construction: Inspection frequency should be at least every 6 months thereafter, as per USEPA Good House-Keeping Requirements. Inspection frequency can be reduced to annual following 2 years of monitoring that indicates the rate of sediment accumulation is less than the cleaning criteria listed below. Inspections should focus on:

- Checking the filter surface for dense, complete, root mat establishment across the wetland surface. Thorough revegetation with grasses, forbs, and shrubs is necessary. Unlike bioretention, where mulch is commonly used, complete surface coverage with vegetation is needed. If after a second growing season a minimum vegetative coverage of 50% is not achieved a reinforcement planting

is required.

- Checking the gravel wetland surface for standing water or other evidence of riser clogging, such as discolored or accumulated sediments. Replace riser stone if clogging occurs which results in drainage time for the riser-full volume greater than 48 hours.
- Checking the sedimentation chamber or forebay for sediment accumulation, trash, and debris.
- Inspect to be certain the sedimentation forebay drains within 24 to 72 hrs.
- Checking inlets, outlets, and overflow spillway for blockage, structural integrity, and evidence of erosion.
- Removal of decaying vegetation, litter, and debris.

Cleaning Criteria for Sedimentation Forebay: Sediment should be removed from the sedimentation chamber (forebay) when it accumulates to a depth of more than 12 inches (30 cm) or 10 percent of the pretreatment volume. The sedimentation forebay should be cleaned of vegetation if persistent standing water and wetland vegetation becomes dominant. The cleaning interval is approximately every 4 years. A dry sedimentation forebay is the optimal condition while in practice this condition is rarely achieved. The sedimentation chamber, forebay, and treatment cell outlet devices should be cleaned when drawdown times exceed 60 to 72 hours. Materials can be removed with heavy construction equipment; however this equipment should not track on the wetland surface. Revegetation of disturbed areas as necessary. Removed sediments should be dewatered (if necessary) and disposed of in an acceptable manner.

- Cleaning Criteria for Gravel Wetland Treatment Cells: Sediment should be removed from the gravel wetland surface when it accumulates to a depth of several inches (>10 cm) across the wetland surface. Materials should be removed with rakes rather than heavy construction equipment to avoid compaction of the gravel wetland surface. Heavy equipment could be used if the system is designed with dimensions that allow equipment to be located outside the gravel wetland, while a backhoe shovel reaches inside the gravel wetland to remove sediment. Removed sediments should be dewatered (if necessary) and disposed of in an acceptable manner.
- Draining and Flushing Gravel Wetland Treatment Cells: For maintenance it may be necessary to drain or flush the treatment cells. The optional drains will permit simpler maintenance of the system if needed. The drains need to be closed during standard operation. Flushing of the risers and horizontal subdrains is most effective with the entire system drained. Flushed water and sediment should be collected and properly disposed.

3. Documentation:

- A. 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 they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they required maintenance or repair, including the record of the deficiency and corrective action(s) taken.

B. A log summarizing the inspections and any corrective action taken must be maintained. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of controls. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. A sample "Stormwater Inspection and Maintenance Form" has been included as Attachment 1 of this Inspection, Maintenance, and Housekeeping Plan.

4. **Duration of Maintenance:** Perform maintenance as described and required for any associated permits unless and until the system is formally accepted by a municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. If a municipality or quasi-municipal district chooses to accept a stormwater management system, or a component of a stormwater system, it must provide a letter to the MDEP stating that it assumes responsibility for the system. The letter must specify the components of the system for which the municipality or district will assume responsibility, and that the municipality or district agrees to maintain those components of the system in compliance with MDEP standards. Upon such assumption of responsibility, and approval by the MDEP, the municipality, quasi-municipal district, or association becomes a co-permittee for this purpose only and must comply with all terms and conditions of the permit.

Attachments

Attachment 1 – Sample Stormwater Inspection and Maintenance Log Form

ATTACHMENT 1 - STORMWATER INSPECTION AND MAINTENANCE LOG

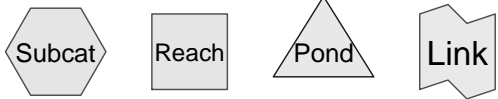
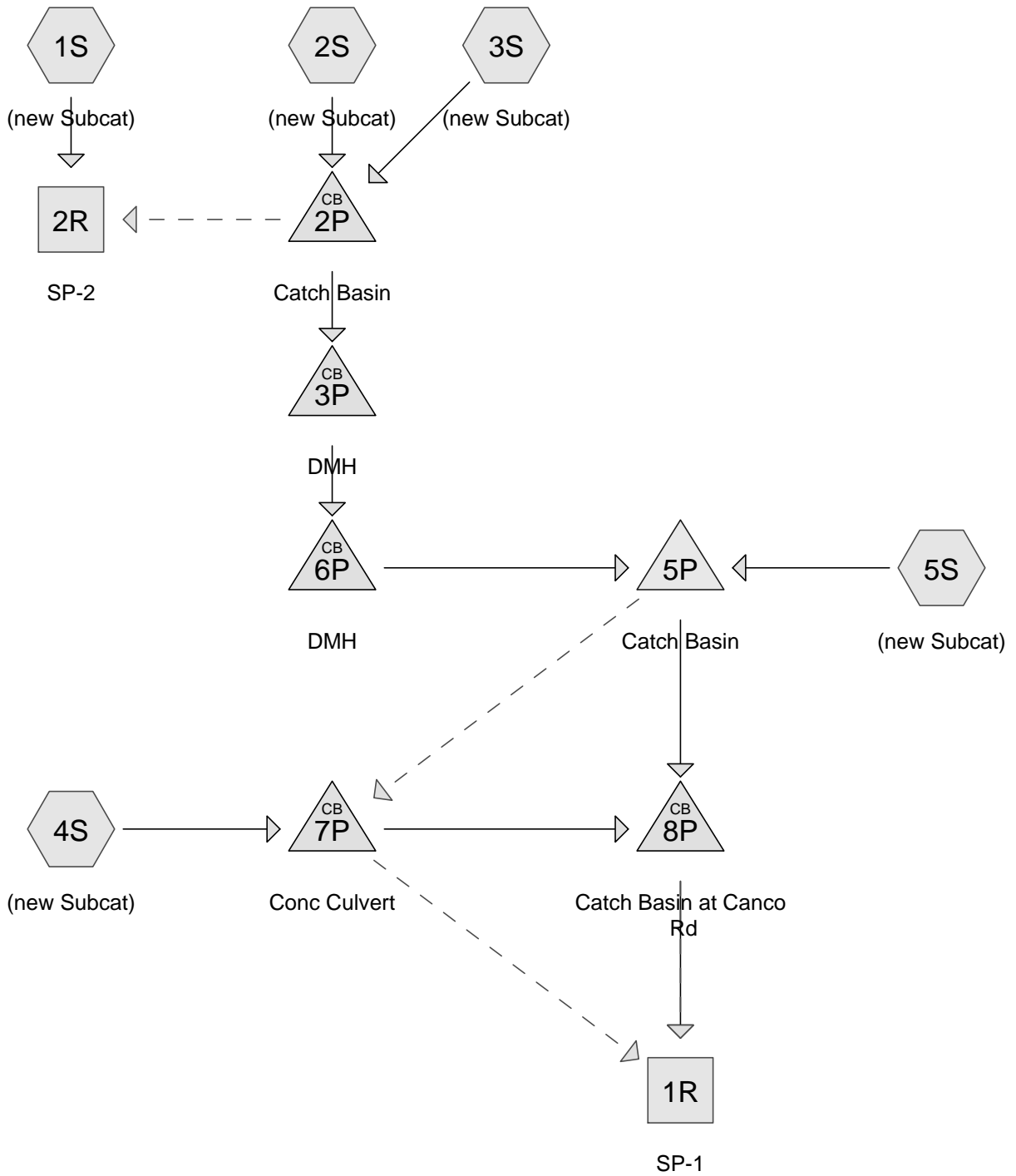
**Sand & Salt Storage Facility
250 Canco Road
Portland, Maine 04103**

This log is intended to accompany the Inspection, Maintenance and Housekeeping Plan for the proposed buildings and paved areas at 250 Canco Road, Portland, Maine. The following items shall be checked, cleaned and maintained on a regular basis as specified in the Maintenance Plan and as described in the table below. This log shall be kept on file for a minimum of five (5) years and shall be available for review by the municipality. Qualified personnel familiar with drainage systems shall perform all inspections. Attached is a copy of the construction and post-construction maintenance logs.

	INSPECTOR NAME	DATE PERFORMED	SUGGESTED INTERVAL
Vegetated Areas			
Inspect all slopes and embankments			Annually
Replant bare areas or areas with sparse growth			Annually
Gravel Surfaces			
Clear accumulated winter sand			Annually
Remove sediment along edges and in pockets			Annually
Ditches & Swales			
Remove any obstructions and accumulated sediments and debris			Monthly
Repair any erosion of ditch lining			Annually
Mow vegetated ditches			Annually
Remove woody vegetation growing through riprap			Annually
Repair any slumping side slopes			Annually
Replace riprap where stones have dislodged			Annually
Culverts & Catch Basins			
Remove accumulated sediments and debris at the inlet, outlet, within conduit			Annually
Repair any erosion at inlet and outlet			Annually
Inspect and clean sump			Annually

Exhibit 6

Pre & Post Development Drainage Summaries



15056 Pre

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

Prepared by {enter your company name here}

Printed 9/10/2015

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Page 2

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: (new Subcat) Runoff Area=57,594 sf 51.79% Impervious Runoff Depth=1.99"
 Flow Length=473' Tc=9.9 min CN=89 Runoff=2.69 cfs 0.219 af

Subcatchment 2S: (new Subcat) Runoff Area=21,770 sf 100.00% Impervious Runoff Depth=2.87"
 Tc=5.0 min CN=98 Runoff=1.56 cfs 0.119 af

Subcatchment 3S: (new Subcat) Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=2.87"
 Tc=5.0 min CN=98 Runoff=1.60 cfs 0.123 af

Subcatchment 4S: (new Subcat) Runoff Area=107,928 sf 9.80% Impervious Runoff Depth=1.46"
 Flow Length=975' Tc=10.0 min CN=82 Runoff=3.68 cfs 0.301 af

Subcatchment 5S: (new Subcat) Runoff Area=35,499 sf 59.61% Impervious Runoff Depth=2.16"
 Tc=5.0 min CN=91 Runoff=2.11 cfs 0.147 af

Reach 1R: SP-1 Inflow=8.60 cfs 0.690 af
 Outflow=8.60 cfs 0.690 af

Reach 2R: SP-2 Inflow=2.69 cfs 0.219 af
 Outflow=2.69 cfs 0.219 af

Pond 2P: Catch Basin Peak Elev=77.96' Inflow=3.16 cfs 0.242 af
 Primary=3.16 cfs 0.242 af Secondary=0.00 cfs 0.000 af Outflow=3.16 cfs 0.242 af

Pond 3P: DMH Peak Elev=76.59' Inflow=3.16 cfs 0.242 af
 12.0" Round Culvert n=0.013 L=252.0' S=0.0103 '/' Outflow=3.16 cfs 0.242 af

Pond 5P: Catch Basin Peak Elev=74.07' Storage=96 cf Inflow=5.27 cfs 0.389 af
 Primary=4.93 cfs 0.389 af Secondary=0.00 cfs 0.000 af Outflow=4.93 cfs 0.389 af

Pond 6P: DMH Peak Elev=74.68' Inflow=3.16 cfs 0.242 af
 12.0" Round Culvert n=0.013 L=241.0' S=0.0054 '/' Outflow=3.16 cfs 0.242 af

Pond 7P: Conc Culvert Peak Elev=73.05' Inflow=3.68 cfs 0.301 af
 Primary=3.68 cfs 0.301 af Secondary=0.00 cfs 0.000 af Outflow=3.68 cfs 0.301 af

Pond 8P: Catch Basin at Canco Rd Peak Elev=74.62' Inflow=8.60 cfs 0.690 af
 Primary=7.94 cfs 0.688 af Secondary=0.64 cfs 0.002 af Outflow=8.60 cfs 0.690 af

Total Runoff Area = 5.629 ac Runoff Volume = 0.910 af Average Runoff Depth = 1.94"
56.87% Pervious = 3.202 ac 43.13% Impervious = 2.428 ac

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: (new Subcat) Runoff Area=57,594 sf 51.79% Impervious Runoff Depth=3.39"
 Flow Length=473' Tc=9.9 min CN=89 Runoff=4.51 cfs 0.374 af

Subcatchment 2S: (new Subcat) Runoff Area=21,770 sf 100.00% Impervious Runoff Depth=4.36"
 Tc=5.0 min CN=98 Runoff=2.33 cfs 0.182 af

Subcatchment 3S: (new Subcat) Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=4.36"
 Tc=5.0 min CN=98 Runoff=2.40 cfs 0.187 af

Subcatchment 4S: (new Subcat) Runoff Area=107,928 sf 9.80% Impervious Runoff Depth=2.72"
 Flow Length=975' Tc=10.0 min CN=82 Runoff=6.91 cfs 0.562 af

Subcatchment 5S: (new Subcat) Runoff Area=35,499 sf 59.61% Impervious Runoff Depth=3.59"
 Tc=5.0 min CN=91 Runoff=3.43 cfs 0.244 af

Reach 1R: SP-1 Inflow=14.04 cfs 1.175 af
 Outflow=14.04 cfs 1.175 af

Reach 2R: SP-2 Inflow=4.51 cfs 0.374 af
 Outflow=4.51 cfs 0.374 af

Pond 2P: Catch Basin Peak Elev=79.52' Inflow=4.73 cfs 0.369 af
 Primary=4.73 cfs 0.369 af Secondary=0.00 cfs 0.000 af Outflow=4.73 cfs 0.369 af

Pond 3P: DMH Peak Elev=79.08' Inflow=4.73 cfs 0.369 af
 12.0" Round Culvert n=0.013 L=252.0' S=0.0103 '/' Outflow=4.73 cfs 0.369 af

Pond 5P: Catch Basin Peak Elev=74.58' Storage=630 cf Inflow=8.15 cfs 0.613 af
 Primary=5.40 cfs 0.599 af Secondary=1.94 cfs 0.014 af Outflow=7.34 cfs 0.613 af

Pond 6P: DMH Peak Elev=77.50' Inflow=4.73 cfs 0.369 af
 12.0" Round Culvert n=0.013 L=241.0' S=0.0054 '/' Outflow=4.73 cfs 0.369 af

Pond 7P: Conc Culvert Peak Elev=74.82' Inflow=8.65 cfs 0.576 af
 Primary=6.23 cfs 0.559 af Secondary=2.42 cfs 0.017 af Outflow=8.65 cfs 0.576 af

Pond 8P: Catch Basin at Canco Rd Peak Elev=74.90' Inflow=11.63 cfs 1.158 af
 Primary=8.19 cfs 1.103 af Secondary=3.44 cfs 0.056 af Outflow=11.63 cfs 1.158 af

Total Runoff Area = 5.629 ac Runoff Volume = 1.549 af Average Runoff Depth = 3.30"
56.87% Pervious = 3.202 ac 43.13% Impervious = 2.428 ac

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: (new Subcat) Runoff Area=57,594 sf 51.79% Impervious Runoff Depth=4.54"
 Flow Length=473' Tc=9.9 min CN=89 Runoff=5.96 cfs 0.500 af

Subcatchment 2S: (new Subcat) Runoff Area=21,770 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=5.0 min CN=98 Runoff=2.94 cfs 0.232 af

Subcatchment 3S: (new Subcat) Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=5.0 min CN=98 Runoff=3.03 cfs 0.239 af

Subcatchment 4S: (new Subcat) Runoff Area=107,928 sf 9.80% Impervious Runoff Depth=3.80"
 Flow Length=975' Tc=10.0 min CN=82 Runoff=9.59 cfs 0.785 af

Subcatchment 5S: (new Subcat) Runoff Area=35,499 sf 59.61% Impervious Runoff Depth=4.76"
 Tc=5.0 min CN=91 Runoff=4.47 cfs 0.323 af

Reach 1R: SP-1 Inflow=18.77 cfs 1.579 af
 Outflow=18.77 cfs 1.579 af

Reach 2R: SP-2 Inflow=5.96 cfs 0.500 af
 Outflow=5.96 cfs 0.500 af

Pond 2P: Catch Basin Peak Elev=81.30' Inflow=5.97 cfs 0.470 af
 Primary=5.97 cfs 0.470 af Secondary=0.00 cfs 0.000 af Outflow=5.97 cfs 0.470 af

Pond 3P: DMH Peak Elev=82.24' Inflow=5.97 cfs 0.470 af
 12.0" Round Culvert n=0.013 L=252.0' S=0.0103 '/' Outflow=5.97 cfs 0.470 af

Pond 5P: Catch Basin Peak Elev=74.69' Storage=946 cf Inflow=10.44 cfs 0.794 af
 Primary=5.49 cfs 0.752 af Secondary=3.91 cfs 0.042 af Outflow=9.40 cfs 0.793 af

Pond 6P: DMH Peak Elev=80.54' Inflow=5.97 cfs 0.470 af
 12.0" Round Culvert n=0.013 L=241.0' S=0.0054 '/' Outflow=5.97 cfs 0.470 af

Pond 7P: Conc Culvert Peak Elev=75.12' Inflow=13.29 cfs 0.827 af
 Primary=6.57 cfs 0.750 af Secondary=6.72 cfs 0.077 af Outflow=13.29 cfs 0.827 af

Pond 8P: Catch Basin at Canco Rd Peak Elev=74.93' Inflow=12.05 cfs 1.502 af
 Primary=8.22 cfs 1.407 af Secondary=3.84 cfs 0.095 af Outflow=12.05 cfs 1.502 af

Total Runoff Area = 5.629 ac Runoff Volume = 2.079 af Average Runoff Depth = 4.43"
56.87% Pervious = 3.202 ac 43.13% Impervious = 2.428 ac

Summary for Subcatchment 1S: (new Subcat)

Runoff = 5.96 cfs @ 12.13 hrs, Volume= 0.500 af, Depth= 4.54"

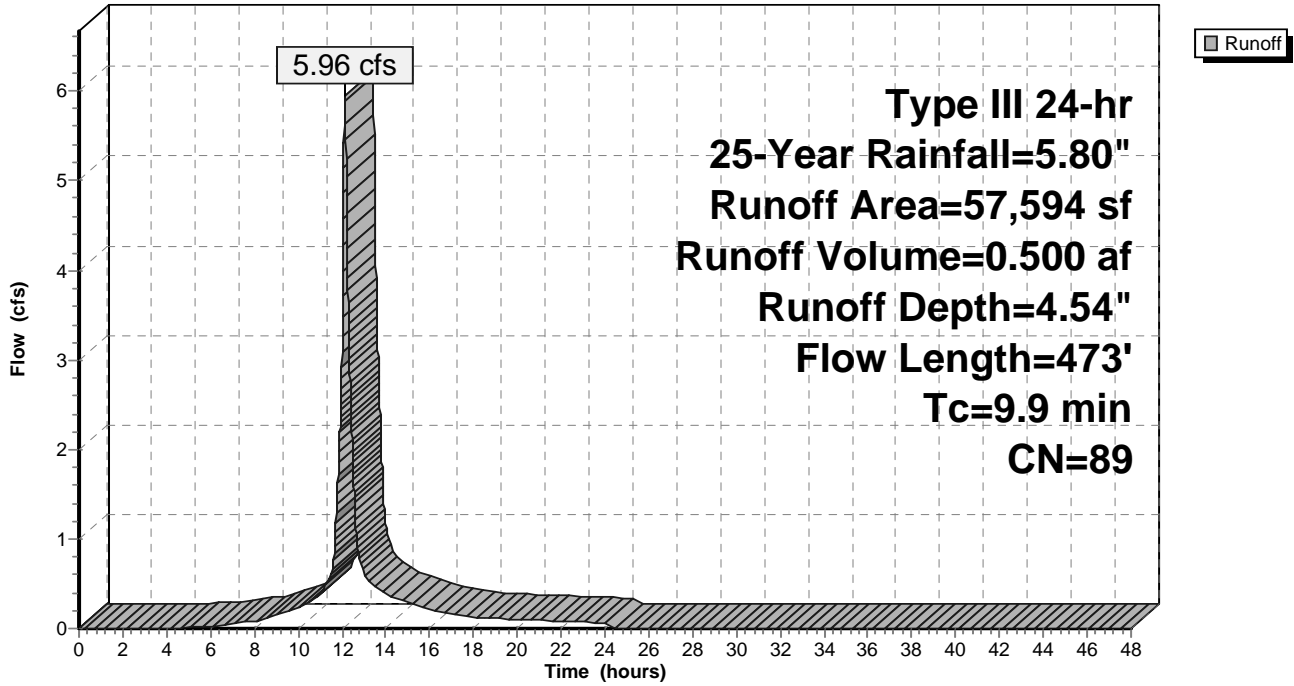
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
20,659	80	>75% Grass cover, Good, HSG D
7,107	77	Woods, Good, HSG D
29,828	98	Paved parking, HSG D
57,594	89	Weighted Average
27,766		48.21% Pervious Area
29,828		51.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	57	0.0260	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 3.10"
1.5	93	0.0100	1.01		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.10"
1.7	201	0.0100	2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.1	19	0.1300	2.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.9	103	0.0060	1.83	5.48	Trap/Vee/Rect Channel Flow, Bot.W=3.00' D=0.50' Z= 2.0 & 10.0 '/' Top.W=9.00' n= 0.030 Earth, grassed & winding
9.9	473	Total			

Subcatchment 1S: (new Subcat)

Hydrograph



Summary for Subcatchment 2S: (new Subcat)

Runoff = 2.94 cfs @ 12.07 hrs, Volume= 0.232 af, Depth= 5.56"

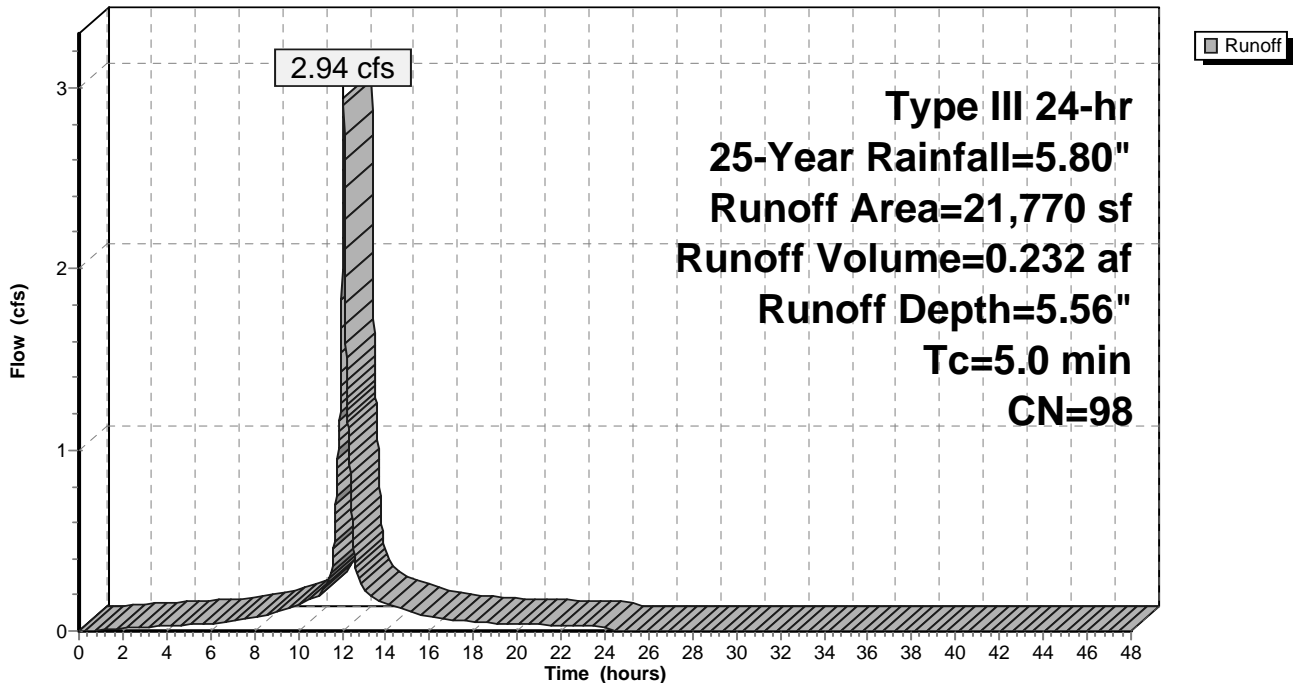
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
21,770	98	Paved parking, HSG D
21,770		100.00% Impervious Area

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

Subcatchment 2S: (new Subcat)

Hydrograph



Summary for Subcatchment 3S: (new Subcat)

Runoff = 3.03 cfs @ 12.07 hrs, Volume= 0.239 af, Depth= 5.56"

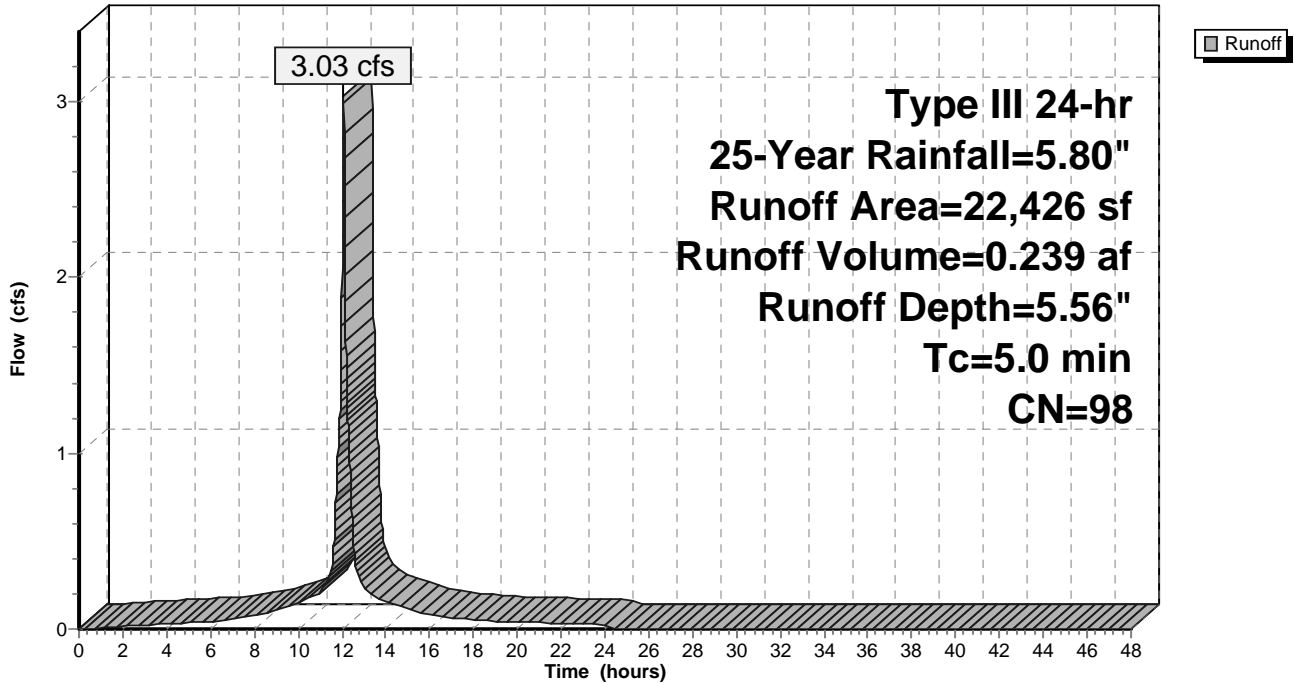
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
22,426	98	Roofs, HSG D
22,426		100.00% Impervious Area

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

Subcatchment 3S: (new Subcat)

Hydrograph



Summary for Subcatchment 4S: (new Subcat)

Runoff = 9.59 cfs @ 12.14 hrs, Volume= 0.785 af, Depth= 3.80"

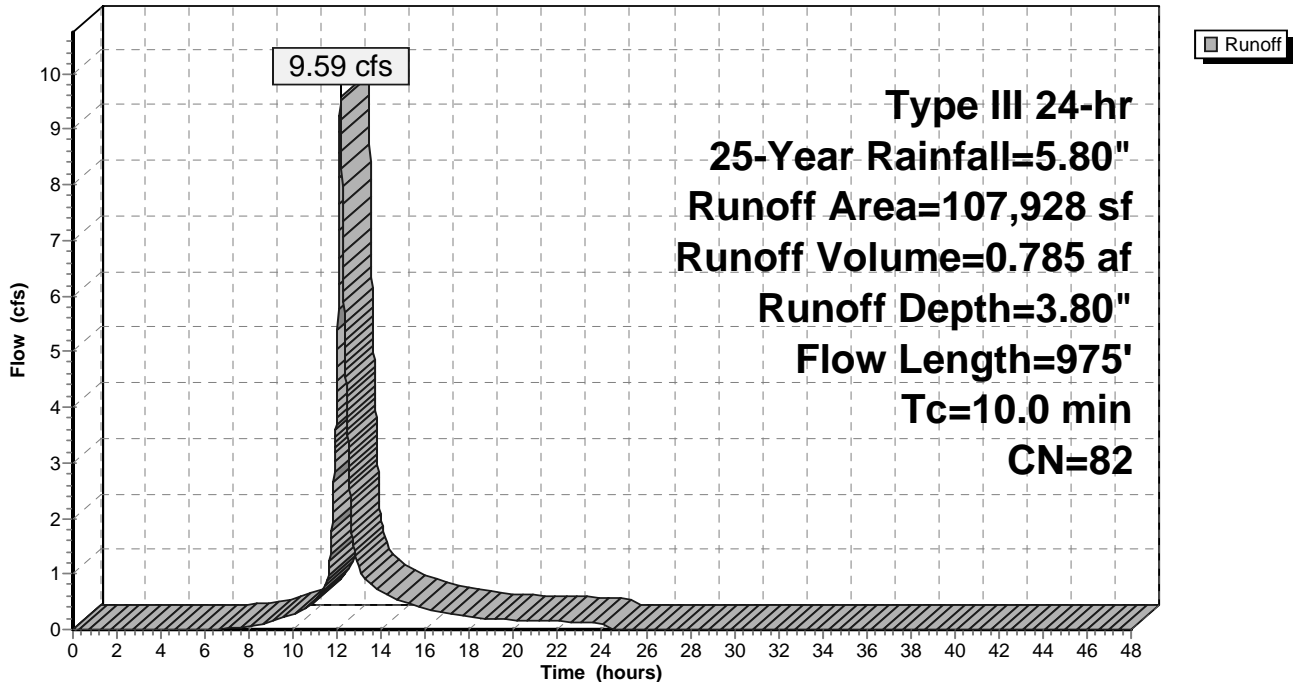
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
11,983	91	Gravel roads, HSG D
42,431	77	Woods, Good, HSG D
10,573	98	Paved parking, HSG D
42,941	80	>75% Grass cover, Good, HSG D
107,928	82	Weighted Average
97,355		90.20% Pervious Area
10,573		9.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	124	0.0140	1.23		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.10"
4.9	181	0.0150	0.61		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
3.4	670	0.0209	3.27	3.27	Trap/Vee/Rect Channel Flow, Bot.W=1.00' D=0.50' Z= 2.0 '/' Top.W=3.00' n= 0.030 Earth, grassed & winding
10.0	975	Total			

Subcatchment 4S: (new Subcat)

Hydrograph



Summary for Subcatchment 5S: (new Subcat)

Runoff = 4.47 cfs @ 12.07 hrs, Volume= 0.323 af, Depth= 4.76"

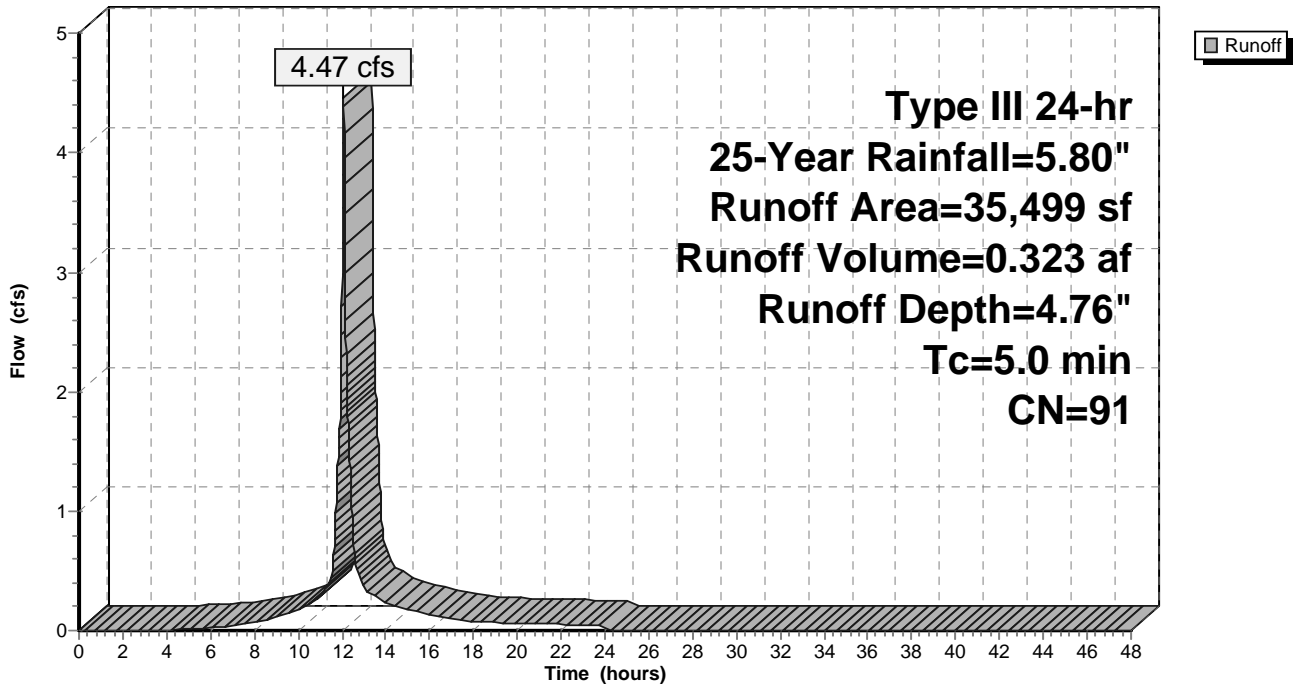
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
21,162	98	Paved parking, HSG D
14,337	80	>75% Grass cover, Good, HSG D
35,499	91	Weighted Average
14,337		40.39% Pervious Area
21,162		59.61% Impervious Area

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

Subcatchment 5S: (new Subcat)

Hydrograph



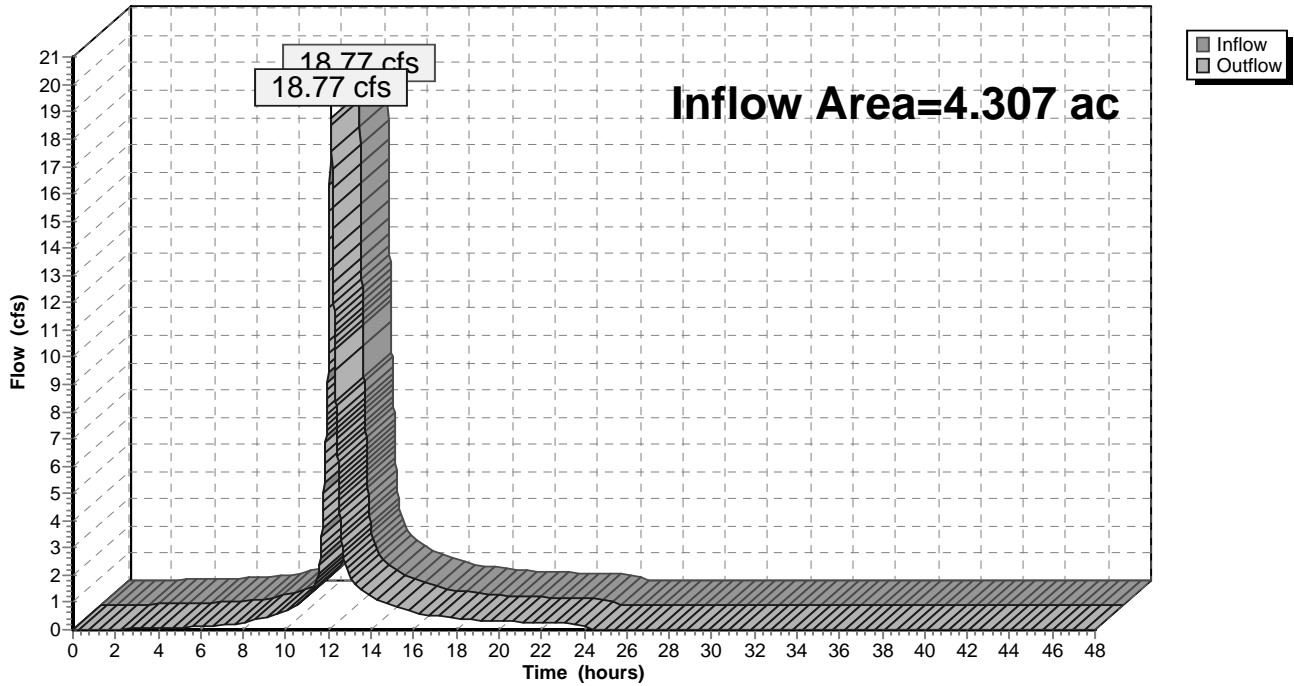
Summary for Reach 1R: SP-1

Inflow Area = 4.307 ac, 40.47% Impervious, Inflow Depth = 4.40" for 25-Year event
Inflow = 18.77 cfs @ 12.12 hrs, Volume= 1.579 af
Outflow = 18.77 cfs @ 12.12 hrs, Volume= 1.579 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach 1R: SP-1

Hydrograph



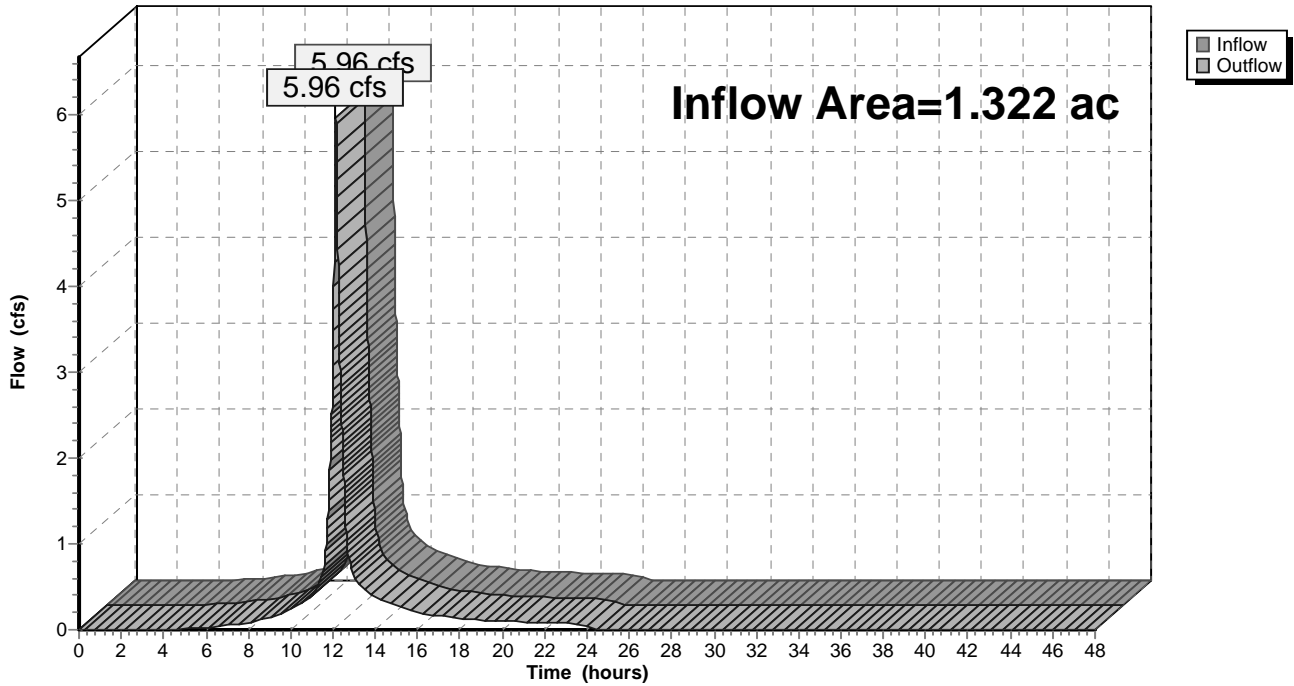
Summary for Reach 2R: SP-2

Inflow Area = 1.322 ac, 51.79% Impervious, Inflow Depth = 4.54" for 25-Year event
Inflow = 5.96 cfs @ 12.13 hrs, Volume= 0.500 af
Outflow = 5.96 cfs @ 12.13 hrs, Volume= 0.500 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach 2R: SP-2

Hydrograph



Summary for Pond 2P: Catch Basin

Inflow Area = 1.015 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-Year event
 Inflow = 5.97 cfs @ 12.07 hrs, Volume= 0.470 af
 Outflow = 5.97 cfs @ 12.07 hrs, Volume= 0.470 af, Atten= 0%, Lag= 0.0 min
 Primary = 5.97 cfs @ 12.07 hrs, Volume= 0.470 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 81.30' @ 12.07 hrs
 Flood Elev= 85.00'

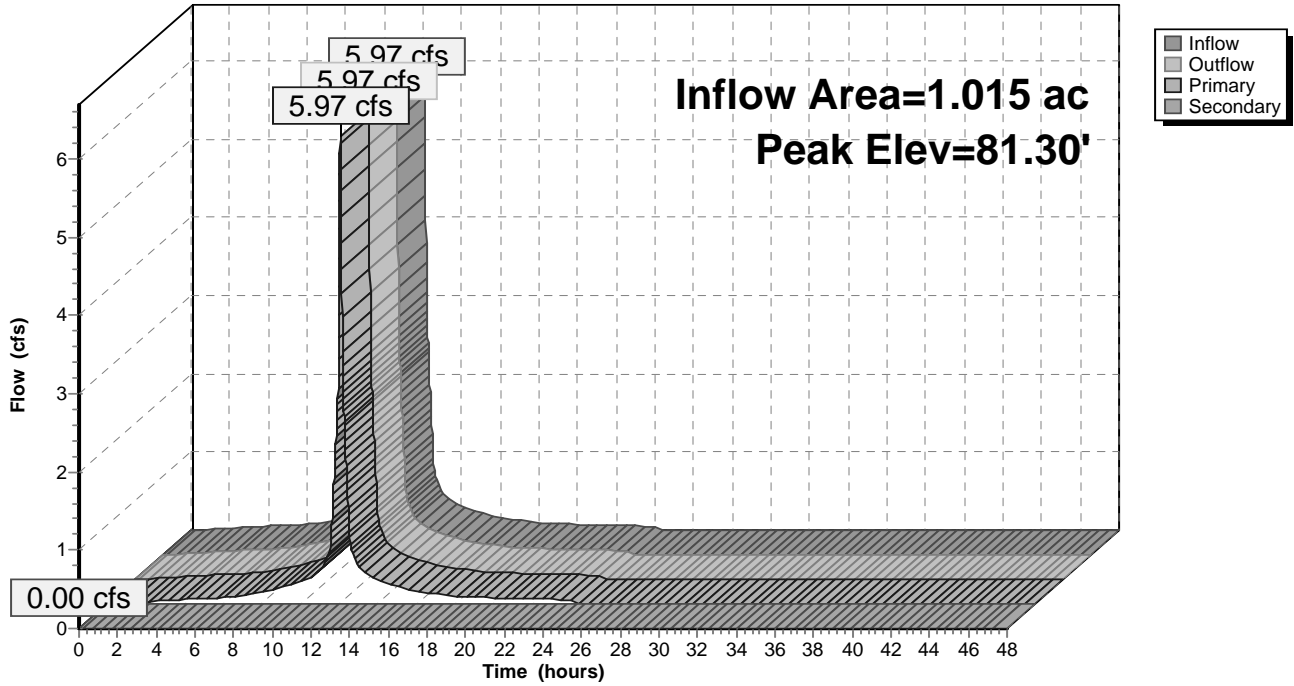
Device	Routing	Invert	Outlet Devices
#1	Primary	76.76'	12.0" Round Culvert L= 121.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 76.76' / 75.54' S= 0.0101 1/1' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	84.95'	30.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=5.97 cfs @ 12.07 hrs HW=81.30' (Free Discharge)
 ↑1=Culvert (Barrel Controls 5.97 cfs @ 7.60 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=76.76' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 2P: Catch Basin

Hydrograph



Summary for Pond 3P: DMH

Inflow Area = 1.015 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-Year event
 Inflow = 5.97 cfs @ 12.07 hrs, Volume= 0.470 af
 Outflow = 5.97 cfs @ 12.07 hrs, Volume= 0.470 af, Atten= 0%, Lag= 0.0 min
 Primary = 5.97 cfs @ 12.07 hrs, Volume= 0.470 af

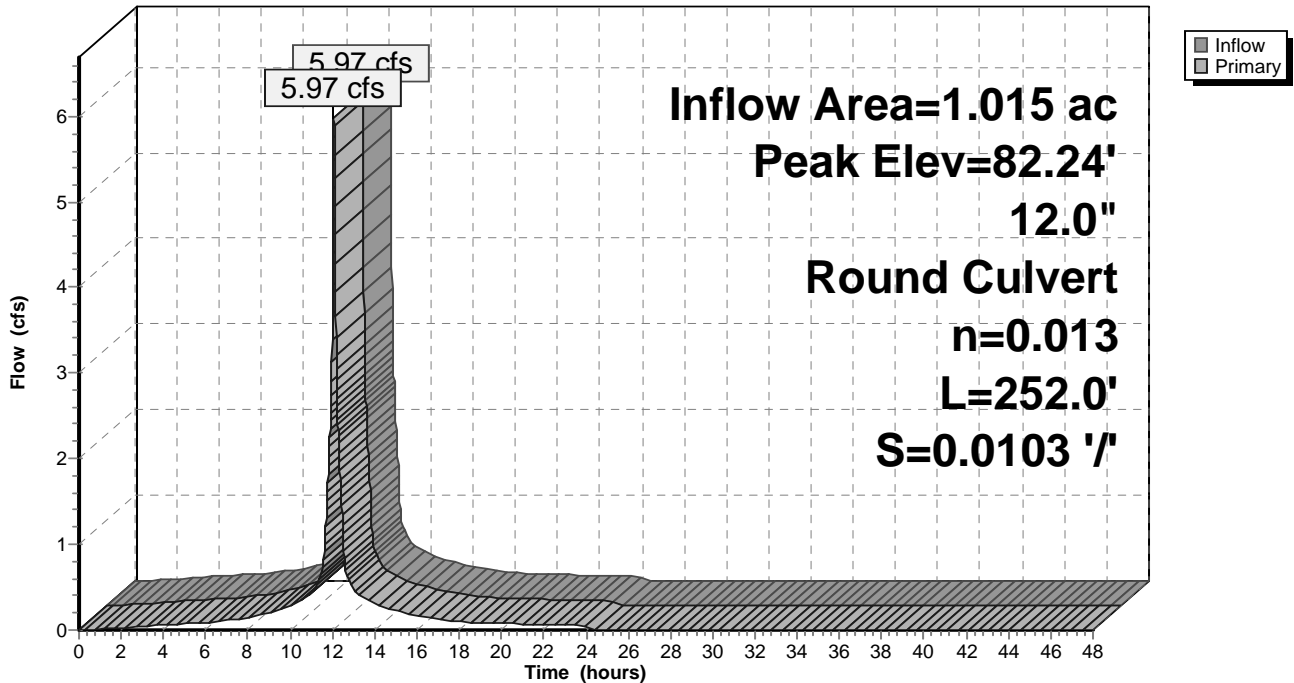
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 82.24' @ 12.07 hrs
 Flood Elev= 84.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	75.39'	12.0" Round Culvert L= 252.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.39' / 72.79' S= 0.0103 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.97 cfs @ 12.07 hrs HW=82.24' (Free Discharge)
 ←1=Culvert (Barrel Controls 5.97 cfs @ 7.60 fps)

Pond 3P: DMH

Hydrograph



Summary for Pond 5P: Catch Basin

Inflow Area = 1.830 ac, 82.01% Impervious, Inflow Depth = 5.21" for 25-Year event
 Inflow = 10.44 cfs @ 12.07 hrs, Volume= 0.794 af
 Outflow = 9.40 cfs @ 12.11 hrs, Volume= 0.793 af, Atten= 10%, Lag= 2.2 min
 Primary = 5.49 cfs @ 12.11 hrs, Volume= 0.752 af
 Secondary = 3.91 cfs @ 12.11 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 74.69' @ 12.11 hrs Surf.Area= 3,721 sf Storage= 946 cf
 Flood Elev= 74.00' Surf.Area= 654 sf Storage= 49 cf

Plug-Flow detention time= 0.9 min calculated for 0.793 af (100% of inflow)
 Center-of-Mass det. time= 0.7 min (760.2 - 759.6)

Volume	Invert	Avail.Storage	Storage Description
#1	70.46'	2,763 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
70.46	13	0	0
73.99	13	46	46
74.00	654	3	49
74.50	1,101	439	488
75.00	8,000	2,275	2,763

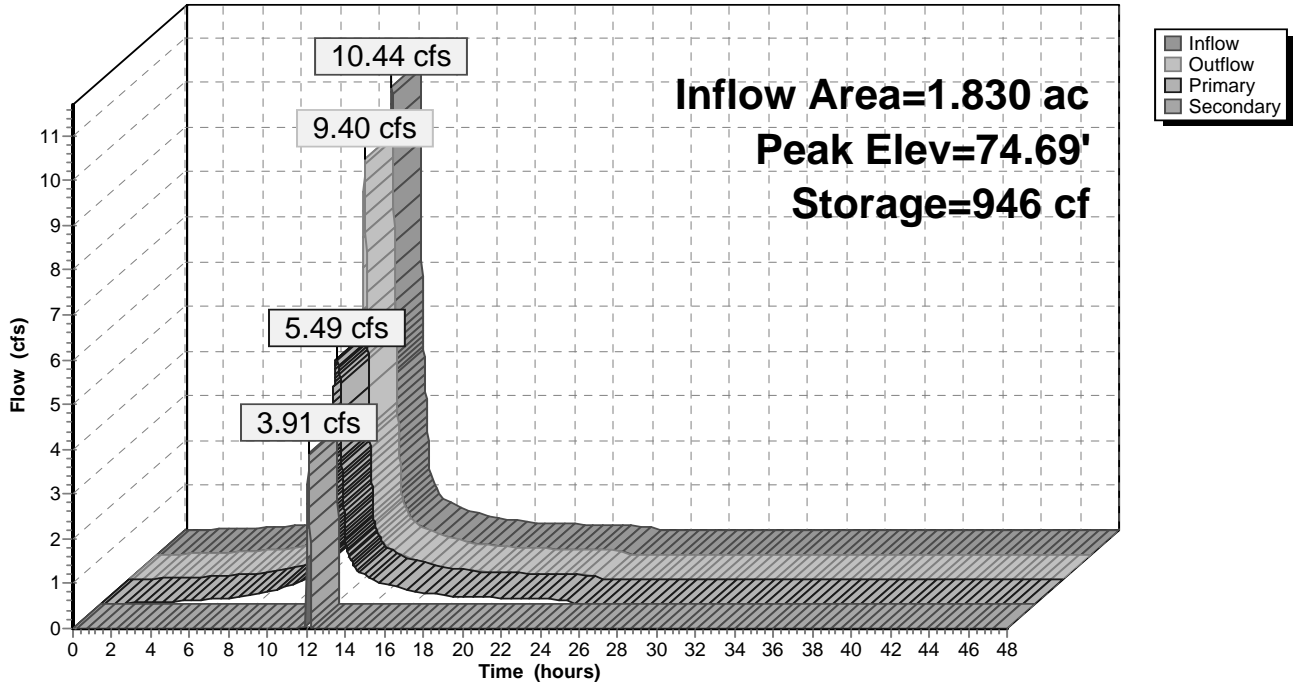
Device	Routing	Invert	Outlet Devices
#1	Primary	71.35'	12.0" Round Culvert L= 88.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.35' / 70.46' S= 0.0101 1/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	74.40'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=5.49 cfs @ 12.11 hrs HW=74.69' (Free Discharge)
 ↖**1=Culvert** (Barrel Controls 5.49 cfs @ 6.98 fps)

Secondary OutFlow Max=3.90 cfs @ 12.11 hrs HW=74.69' (Free Discharge)
 ↖**2=Broad-Crested Rectangular Weir** (Weir Controls 3.90 cfs @ 1.35 fps)

Pond 5P: Catch Basin

Hydrograph



Summary for Pond 6P: DMH

Inflow Area = 1.015 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-Year event
 Inflow = 5.97 cfs @ 12.07 hrs, Volume= 0.470 af
 Outflow = 5.97 cfs @ 12.07 hrs, Volume= 0.470 af, Atten= 0%, Lag= 0.0 min
 Primary = 5.97 cfs @ 12.07 hrs, Volume= 0.470 af

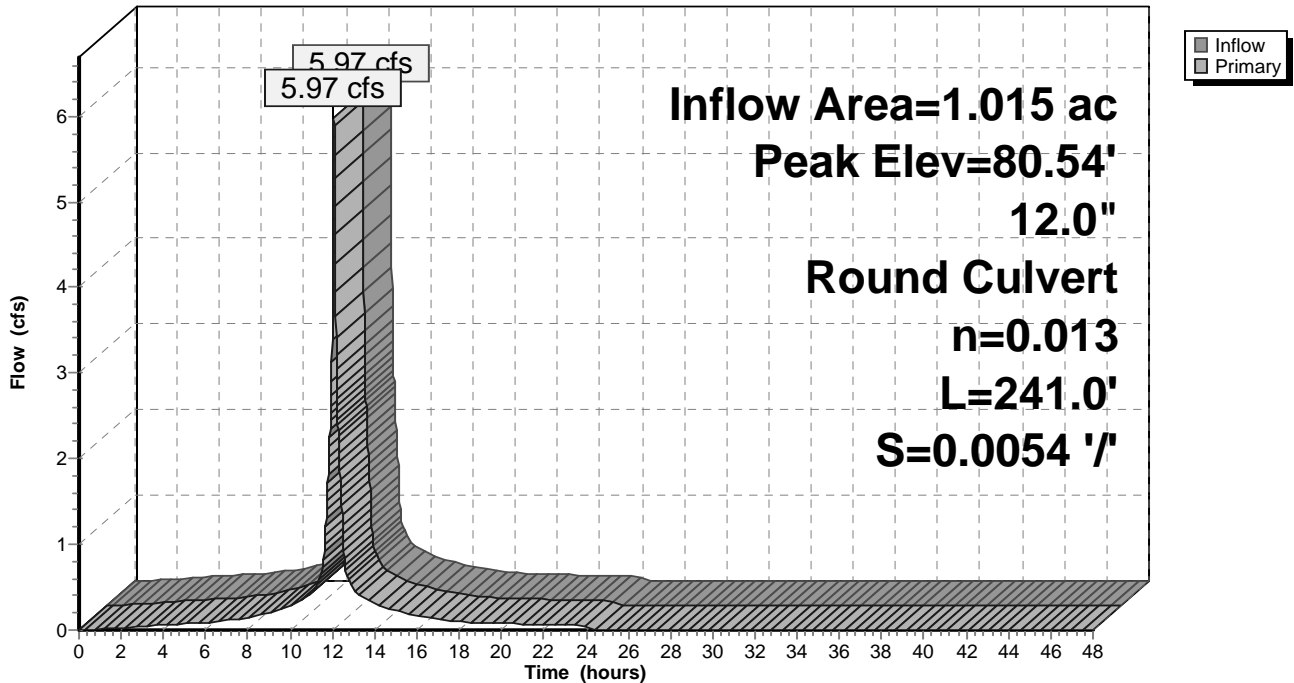
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 80.54' @ 12.07 hrs
 Flood Elev= 80.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	72.69'	12.0" Round Culvert L= 241.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 72.69' / 71.40' S= 0.0054 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.97 cfs @ 12.07 hrs HW=80.54' (Free Discharge)
 ←1=Culvert (Barrel Controls 5.97 cfs @ 7.60 fps)

Pond 6P: DMH

Hydrograph



Summary for Pond 7P: Conc Culvert

Inflow Area = 2.478 ac, 9.80% Impervious, Inflow Depth = 4.00" for 25-Year event
 Inflow = 13.29 cfs @ 12.12 hrs, Volume= 0.827 af
 Outflow = 13.29 cfs @ 12.12 hrs, Volume= 0.827 af, Atten= 0%, Lag= 0.0 min
 Primary = 6.57 cfs @ 12.12 hrs, Volume= 0.750 af
 Secondary = 6.72 cfs @ 12.12 hrs, Volume= 0.077 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 75.12' @ 12.12 hrs
 Flood Elev= 75.00'

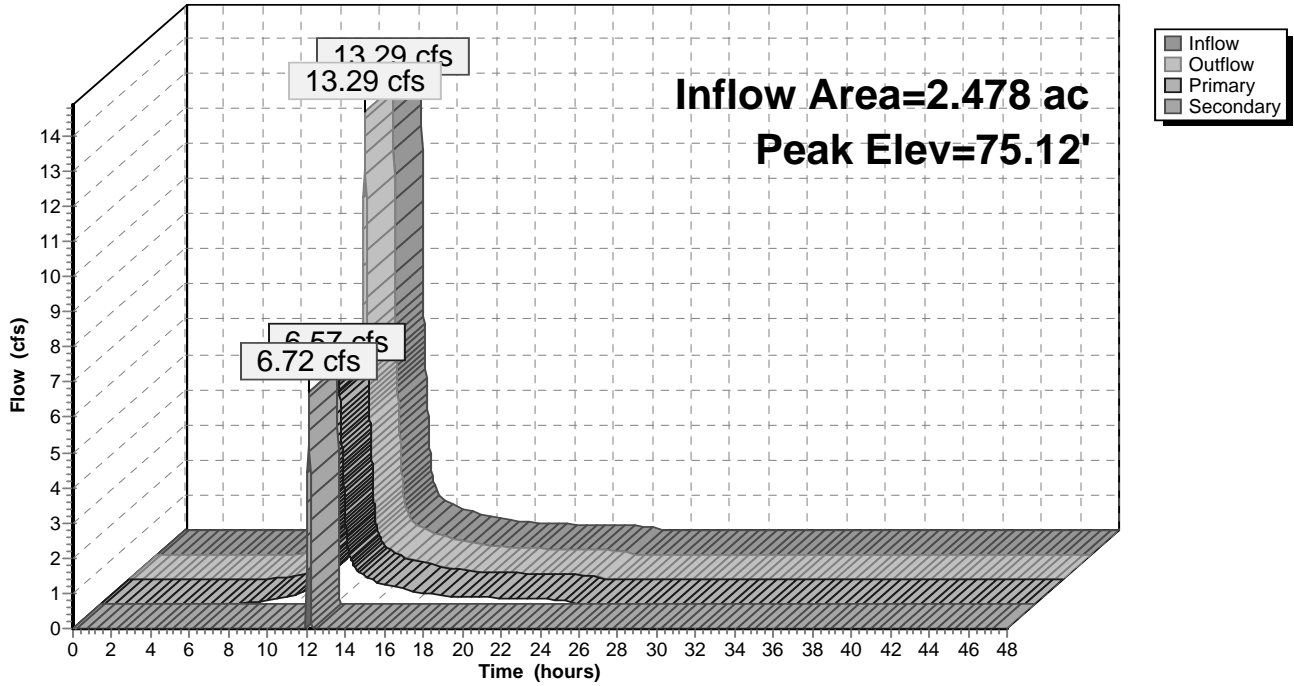
Device	Routing	Invert	Outlet Devices
#1	Primary	71.60'	12.0" Round Culvert L= 9.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 71.60' / 69.81' S= 0.1989 1' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	74.50'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=6.57 cfs @ 12.12 hrs HW=75.12' (Free Discharge)
 ↑1=Culvert (Inlet Controls 6.57 cfs @ 8.36 fps)

Secondary OutFlow Max=6.70 cfs @ 12.12 hrs HW=75.12' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Weir Controls 6.70 cfs @ 2.17 fps)

Pond 7P: Conc Culvert

Hydrograph



Summary for Pond 8P: Catch Basin at Canco Rd

Inflow Area = 4.307 ac, 40.47% Impervious, Inflow Depth = 4.18" for 25-Year event
 Inflow = 12.05 cfs @ 12.12 hrs, Volume= 1.502 af
 Outflow = 12.05 cfs @ 12.12 hrs, Volume= 1.502 af, Atten= 0%, Lag= 0.0 min
 Primary = 8.22 cfs @ 12.12 hrs, Volume= 1.407 af
 Secondary = 3.84 cfs @ 12.12 hrs, Volume= 0.095 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 74.93' @ 12.12 hrs
 Flood Elev= 74.00'

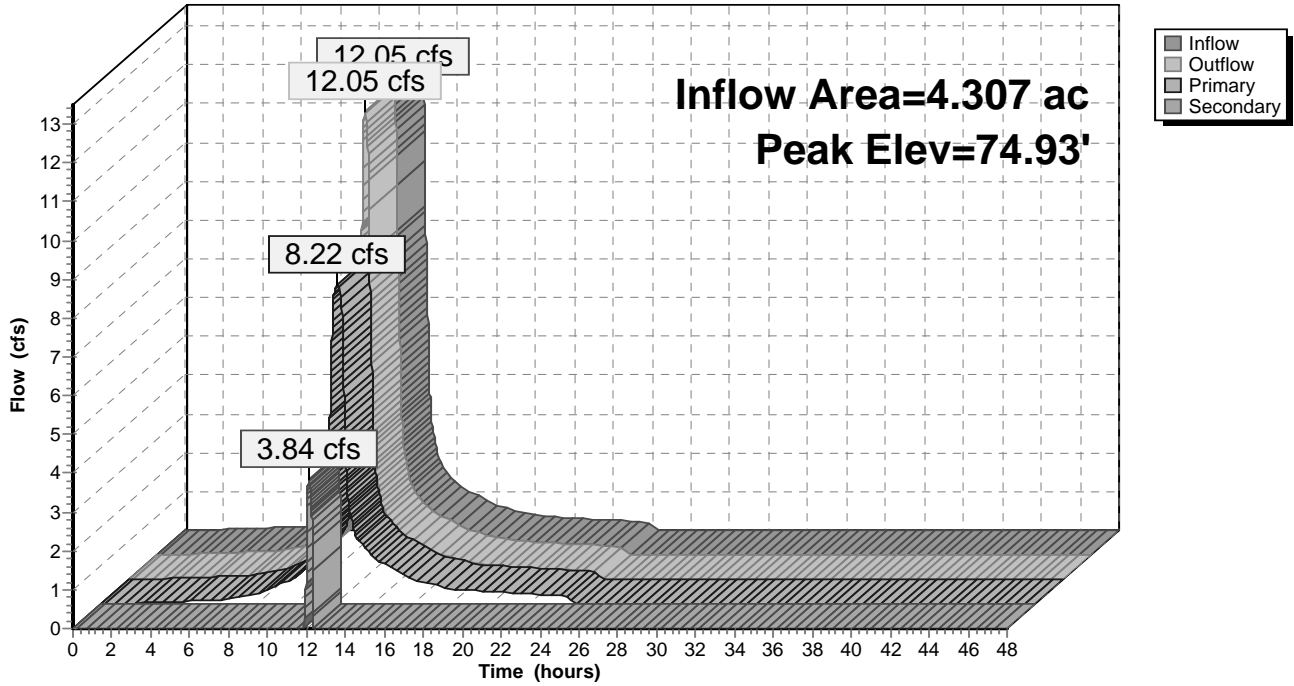
Device	Routing	Invert	Outlet Devices
#1	Primary	69.71'	12.0" Round Culvert L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 69.71' / 69.51' S= 0.0100 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	74.50'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=8.22 cfs @ 12.12 hrs HW=74.93' (Free Discharge)
 ↑1=Culvert (Inlet Controls 8.22 cfs @ 10.46 fps)

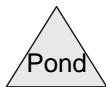
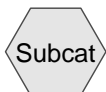
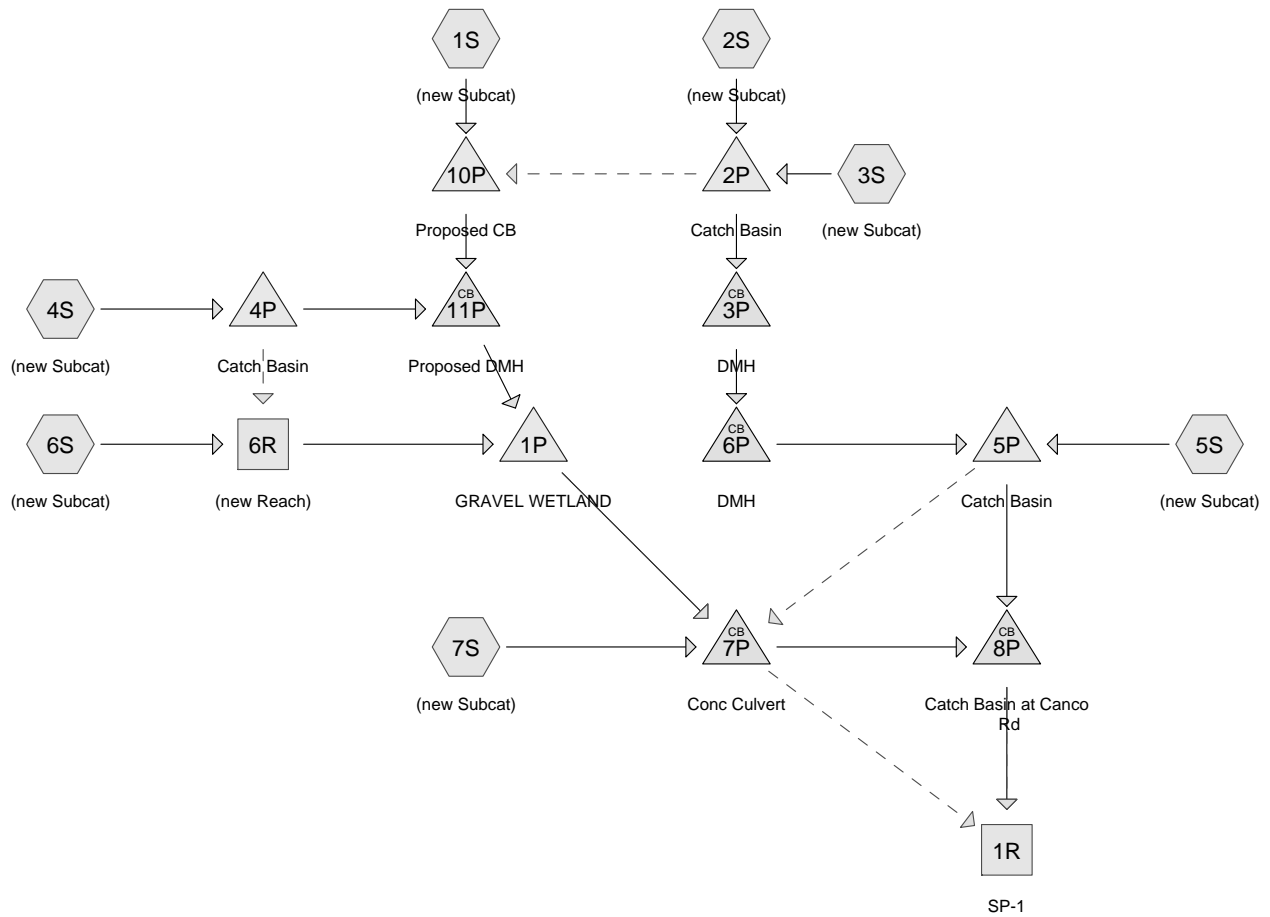
Secondary OutFlow Max=3.84 cfs @ 12.12 hrs HW=74.93' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Weir Controls 3.84 cfs @ 1.79 fps)

Pond 8P: Catch Basin at Canco Rd

Hydrograph



POST DEVELOPMENT



Routing Diagram for 15056 post
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15056 post

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

Prepared by {enter your company name here}

Printed 9/10/2015

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: (new Subcat)	Runoff Area=57,594 sf 66.64% Impervious Runoff Depth=2.26" Flow Length=379' Tc=8.6 min CN=92 Runoff=3.13 cfs 0.249 af
Subcatchment 2S: (new Subcat)	Runoff Area=21,770 sf 100.00% Impervious Runoff Depth=2.87" Tc=5.0 min CN=98 Runoff=1.56 cfs 0.119 af
Subcatchment 3S: (new Subcat)	Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=2.87" Tc=5.0 min CN=98 Runoff=1.60 cfs 0.123 af
Subcatchment 4S: (new Subcat)	Runoff Area=61,841 sf 65.75% Impervious Runoff Depth=2.45" Tc=5.0 min CN=94 Runoff=4.05 cfs 0.289 af
Subcatchment 5S: (new Subcat)	Runoff Area=23,086 sf 68.85% Impervious Runoff Depth=2.26" Tc=5.0 min CN=92 Runoff=1.42 cfs 0.100 af
Subcatchment 6S: (new Subcat)	Runoff Area=47,263 sf 33.88% Impervious Runoff Depth=1.75" Tc=5.0 min CN=86 Runoff=2.31 cfs 0.158 af
Subcatchment 7S: (new Subcat)	Runoff Area=11,237 sf 18.78% Impervious Runoff Depth=1.53" Tc=5.0 min CN=83 Runoff=0.48 cfs 0.033 af
Reach 1R: SP-1	Inflow=8.56 cfs 1.068 af Outflow=8.56 cfs 1.068 af
Reach 6R: (new Reach)	Avg. Flow Depth=0.39' Max Vel=3.20 fps Inflow=2.31 cfs 0.158 af n=0.030 L=308.0' S=0.0260 '/' Capacity=16.04 cfs Outflow=2.23 cfs 0.158 af
Pond 1P: GRAVEL WETLAND	Peak Elev=73.72' Storage=10,240 cf Inflow=9.15 cfs 0.695 af Primary=4.69 cfs 0.694 af Secondary=0.00 cfs 0.000 af Outflow=4.69 cfs 0.694 af
Pond 2P: Catch Basin	Peak Elev=77.96' Storage=31 cf Inflow=3.16 cfs 0.242 af Primary=3.16 cfs 0.242 af Secondary=0.00 cfs 0.000 af Outflow=3.16 cfs 0.242 af
Pond 3P: DMH	Peak Elev=76.59' Inflow=3.16 cfs 0.242 af 12.0" Round Culvert n=0.013 L=252.0' S=0.0103 '/' Outflow=3.16 cfs 0.242 af
Pond 4P: Catch Basin	Peak Elev=76.97' Storage=17 cf Inflow=4.05 cfs 0.289 af Primary=4.05 cfs 0.289 af Secondary=0.00 cfs 0.000 af Outflow=4.05 cfs 0.289 af
Pond 5P: Catch Basin	Peak Elev=73.71' Storage=42 cf Inflow=4.58 cfs 0.342 af Primary=4.58 cfs 0.341 af Secondary=0.00 cfs 0.000 af Outflow=4.58 cfs 0.341 af
Pond 6P: DMH	Peak Elev=74.68' Inflow=3.16 cfs 0.242 af 12.0" Round Culvert n=0.013 L=241.0' S=0.0054 '/' Outflow=3.16 cfs 0.242 af
Pond 7P: Conc Culvert	Peak Elev=73.79' Inflow=4.91 cfs 0.727 af Primary=4.91 cfs 0.727 af Secondary=0.00 cfs 0.000 af Outflow=4.91 cfs 0.727 af

15056 post

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

Prepared by {enter your company name here}

Printed 9/10/2015

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Pond 8P: Catch Basin at Canco Rd

Peak Elev=74.63' Inflow=8.56 cfs 1.068 af
Primary=7.95 cfs 1.065 af Secondary=0.61 cfs 0.003 af Outflow=8.56 cfs 1.068 af

Pond 10P: Proposed CB

Peak Elev=80.61' Storage=60 cf Inflow=3.13 cfs 0.249 af
15.0" Round Culvert n=0.013 L=153.0' S=0.0242 '/ Outflow=3.13 cfs 0.247 af

Pond 11P: Proposed DMH

Peak Elev=78.81' Inflow=6.92 cfs 0.537 af
15.0" Round Culvert n=0.013 L=279.0' S=0.0050 '/ Outflow=6.92 cfs 0.537 af

Total Runoff Area = 5.629 ac Runoff Volume = 1.071 af Average Runoff Depth = 2.28"
35.87% Pervious = 2.019 ac 64.13% Impervious = 3.610 ac

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: (new Subcat)	Runoff Area=57,594 sf 66.64% Impervious Runoff Depth=3.70" Flow Length=379' Tc=8.6 min CN=92 Runoff=5.01 cfs 0.408 af
Subcatchment 2S: (new Subcat)	Runoff Area=21,770 sf 100.00% Impervious Runoff Depth=4.36" Tc=5.0 min CN=98 Runoff=2.33 cfs 0.182 af
Subcatchment 3S: (new Subcat)	Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=4.36" Tc=5.0 min CN=98 Runoff=2.40 cfs 0.187 af
Subcatchment 4S: (new Subcat)	Runoff Area=61,841 sf 65.75% Impervious Runoff Depth=3.91" Tc=5.0 min CN=94 Runoff=6.31 cfs 0.463 af
Subcatchment 5S: (new Subcat)	Runoff Area=23,086 sf 68.85% Impervious Runoff Depth=3.70" Tc=5.0 min CN=92 Runoff=2.27 cfs 0.163 af
Subcatchment 6S: (new Subcat)	Runoff Area=47,263 sf 33.88% Impervious Runoff Depth=3.10" Tc=5.0 min CN=86 Runoff=4.04 cfs 0.280 af
Subcatchment 7S: (new Subcat)	Runoff Area=11,237 sf 18.78% Impervious Runoff Depth=2.81" Tc=5.0 min CN=83 Runoff=0.88 cfs 0.061 af
Reach 1R: SP-1	Inflow=13.83 cfs 1.740 af Outflow=13.83 cfs 1.740 af
Reach 6R: (new Reach)	Avg. Flow Depth=0.52' Max Vel=3.72 fps Inflow=4.04 cfs 0.280 af n=0.030 L=308.0' S=0.0260 '/ Capacity=16.04 cfs Outflow=3.94 cfs 0.280 af
Pond 1P: GRAVEL WETLAND	Peak Elev=74.25' Storage=14,247 cf Inflow=14.88 cfs 1.149 af Primary=8.38 cfs 1.148 af Secondary=0.00 cfs 0.000 af Outflow=8.38 cfs 1.148 af
Pond 2P: Catch Basin	Peak Elev=79.51' Storage=52 cf Inflow=4.73 cfs 0.369 af Primary=4.72 cfs 0.369 af Secondary=0.00 cfs 0.000 af Outflow=4.72 cfs 0.369 af
Pond 3P: DMH	Peak Elev=79.06' Inflow=4.72 cfs 0.369 af 12.0" Round Culvert n=0.013 L=252.0' S=0.0103 '/ Outflow=4.72 cfs 0.369 af
Pond 4P: Catch Basin	Peak Elev=78.09' Storage=31 cf Inflow=6.31 cfs 0.463 af Primary=6.30 cfs 0.463 af Secondary=0.00 cfs 0.000 af Outflow=6.30 cfs 0.463 af
Pond 5P: Catch Basin	Peak Elev=74.50' Storage=485 cf Inflow=6.99 cfs 0.532 af Primary=5.32 cfs 0.529 af Secondary=0.75 cfs 0.003 af Outflow=6.07 cfs 0.532 af
Pond 6P: DMH	Peak Elev=77.48' Inflow=4.72 cfs 0.369 af 12.0" Round Culvert n=0.013 L=241.0' S=0.0054 '/ Outflow=4.72 cfs 0.369 af
Pond 7P: Conc Culvert	Peak Elev=74.71' Inflow=8.81 cfs 1.211 af Primary=6.12 cfs 1.151 af Secondary=2.69 cfs 0.060 af Outflow=8.81 cfs 1.211 af

15056 post

Type III 24-hr 10-Year Rainfall=4.60"

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Pond 8P: Catch Basin at Canco Rd

Peak Elev=74.88' Inflow=11.38 cfs 1.680 af

Primary=8.17 cfs 1.615 af Secondary=3.21 cfs 0.065 af Outflow=11.38 cfs 1.680 af

Pond 10P: Proposed CB

Peak Elev=81.05' Storage=66 cf Inflow=5.01 cfs 0.408 af

15.0" Round Culvert n=0.013 L=153.0' S=0.0242 '/ Outflow=5.01 cfs 0.406 af

Pond 11P: Proposed DMH

Peak Elev=84.72' Inflow=10.94 cfs 0.870 af

15.0" Round Culvert n=0.013 L=279.0' S=0.0050 '/ Outflow=10.94 cfs 0.870 af

Total Runoff Area = 5.629 ac Runoff Volume = 1.743 af Average Runoff Depth = 3.72"
35.87% Pervious = 2.019 ac 64.13% Impervious = 3.610 ac

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: (new Subcat)	Runoff Area=57,594 sf 66.64% Impervious Runoff Depth=4.87" Flow Length=379' Tc=8.6 min CN=92 Runoff=6.50 cfs 0.537 af
Subcatchment 2S: (new Subcat)	Runoff Area=21,770 sf 100.00% Impervious Runoff Depth=5.56" Tc=5.0 min CN=98 Runoff=2.94 cfs 0.232 af
Subcatchment 3S: (new Subcat)	Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=5.56" Tc=5.0 min CN=98 Runoff=3.03 cfs 0.239 af
Subcatchment 4S: (new Subcat)	Runoff Area=61,841 sf 65.75% Impervious Runoff Depth=5.10" Tc=5.0 min CN=94 Runoff=8.10 cfs 0.603 af
Subcatchment 5S: (new Subcat)	Runoff Area=23,086 sf 68.85% Impervious Runoff Depth=4.87" Tc=5.0 min CN=92 Runoff=2.95 cfs 0.215 af
Subcatchment 6S: (new Subcat)	Runoff Area=47,263 sf 33.88% Impervious Runoff Depth=4.22" Tc=5.0 min CN=86 Runoff=5.44 cfs 0.382 af
Subcatchment 7S: (new Subcat)	Runoff Area=11,237 sf 18.78% Impervious Runoff Depth=3.91" Tc=5.0 min CN=83 Runoff=1.21 cfs 0.084 af
Reach 1R: SP-1	Inflow=18.52 cfs 2.288 af Outflow=18.52 cfs 2.288 af
Reach 6R: (new Reach)	Avg. Flow Depth=0.60' Max Vel=4.03 fps Inflow=5.44 cfs 0.382 af n=0.030 L=308.0' S=0.0260 '/' Capacity=16.04 cfs Outflow=5.33 cfs 0.382 af
Pond 1P: GRAVEL WETLAND	Peak Elev=74.62' Storage=17,387 cf Inflow=19.44 cfs 1.521 af Primary=9.49 cfs 1.518 af Secondary=0.14 cfs 0.001 af Outflow=9.62 cfs 1.519 af
Pond 2P: Catch Basin	Peak Elev=81.27' Storage=74 cf Inflow=5.97 cfs 0.470 af Primary=5.95 cfs 0.470 af Secondary=0.00 cfs 0.000 af Outflow=5.95 cfs 0.470 af
Pond 3P: DMH	Peak Elev=82.19' Inflow=5.95 cfs 0.470 af 12.0" Round Culvert n=0.013 L=252.0' S=0.0103 '/' Outflow=5.95 cfs 0.470 af
Pond 4P: Catch Basin	Peak Elev=79.22' Storage=46 cf Inflow=8.10 cfs 0.603 af Primary=8.09 cfs 0.603 af Secondary=0.00 cfs 0.000 af Outflow=8.09 cfs 0.603 af
Pond 5P: Catch Basin	Peak Elev=74.65' Storage=654 cf Inflow=8.90 cfs 0.685 af Primary=5.45 cfs 0.663 af Secondary=3.08 cfs 0.022 af Outflow=8.53 cfs 0.685 af
Pond 6P: DMH	Peak Elev=80.49' Inflow=5.95 cfs 0.470 af 12.0" Round Culvert n=0.013 L=241.0' S=0.0054 '/' Outflow=5.95 cfs 0.470 af
Pond 7P: Conc Culvert	Peak Elev=74.89' Inflow=13.07 cfs 1.625 af Primary=6.32 cfs 1.445 af Secondary=6.75 cfs 0.180 af Outflow=13.07 cfs 1.625 af

15056 post

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

Prepared by {enter your company name here}

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Page 2

Pond 8P: Catch Basin at Canco Rd

Peak Elev=74.91' Inflow=11.77 cfs 2.108 af

Primary=8.20 cfs 2.007 af Secondary=3.57 cfs 0.100 af Outflow=11.77 cfs 2.108 af

Pond 10P: Proposed CB

Peak Elev=81.54' Storage=72 cf Inflow=6.50 cfs 0.537 af

15.0" Round Culvert n=0.013 L=153.0' S=0.0242 '/ Outflow=6.51 cfs 0.536 af

Pond 11P: Proposed DMH

Peak Elev=91.28' Inflow=14.11 cfs 1.139 af

15.0" Round Culvert n=0.013 L=279.0' S=0.0050 '/ Outflow=14.11 cfs 1.139 af

Total Runoff Area = 5.629 ac Runoff Volume = 2.291 af Average Runoff Depth = 4.88"
35.87% Pervious = 2.019 ac 64.13% Impervious = 3.610 ac

Summary for Subcatchment 1S: (new Subcat)

Runoff = 6.50 cfs @ 12.12 hrs, Volume= 0.537 af, Depth= 4.87"

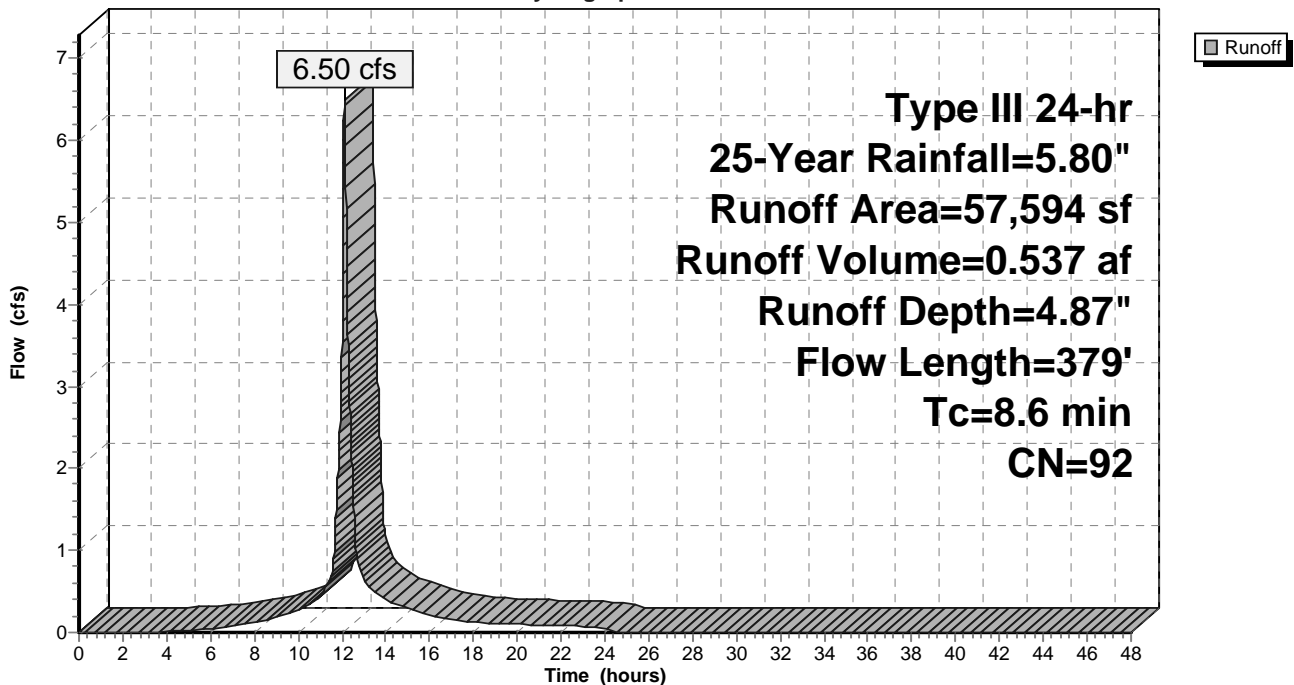
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
14,902	80	>75% Grass cover, Good, HSG D
4,310	77	Woods, Good, HSG D
38,382	98	Paved parking, HSG D
57,594	92	Weighted Average
19,212		33.36% Pervious Area
38,382		66.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	57	0.0260	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 3.10"
1.5	93	0.0100	1.01		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.10"
1.4	229	0.0190	2.80		Shallow Concentrated Flow, Paved Kv= 20.3 fps
8.6	379	Total			

Subcatchment 1S: (new Subcat)

Hydrograph



Summary for Subcatchment 2S: (new Subcat)

Runoff = 2.94 cfs @ 12.07 hrs, Volume= 0.232 af, Depth= 5.56"

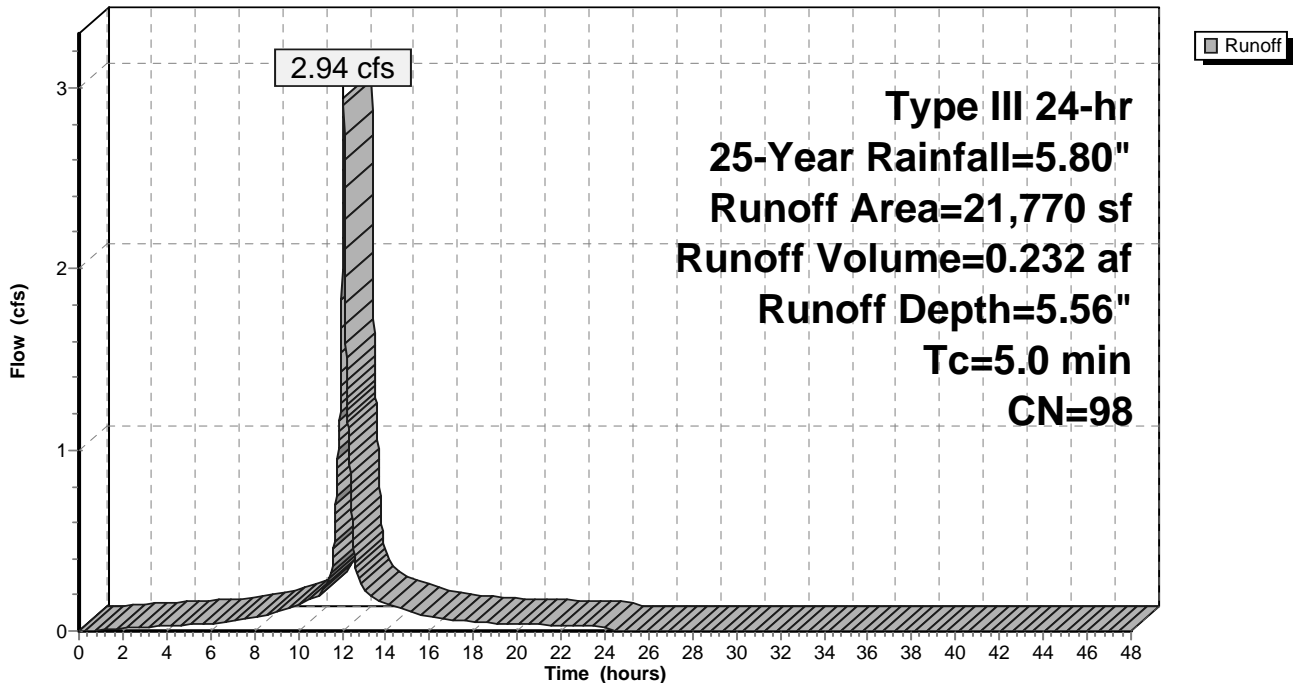
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
21,770	98	Paved parking, HSG D
21,770		100.00% Impervious Area

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

Subcatchment 2S: (new Subcat)

Hydrograph



Summary for Subcatchment 3S: (new Subcat)

Runoff = 3.03 cfs @ 12.07 hrs, Volume= 0.239 af, Depth= 5.56"

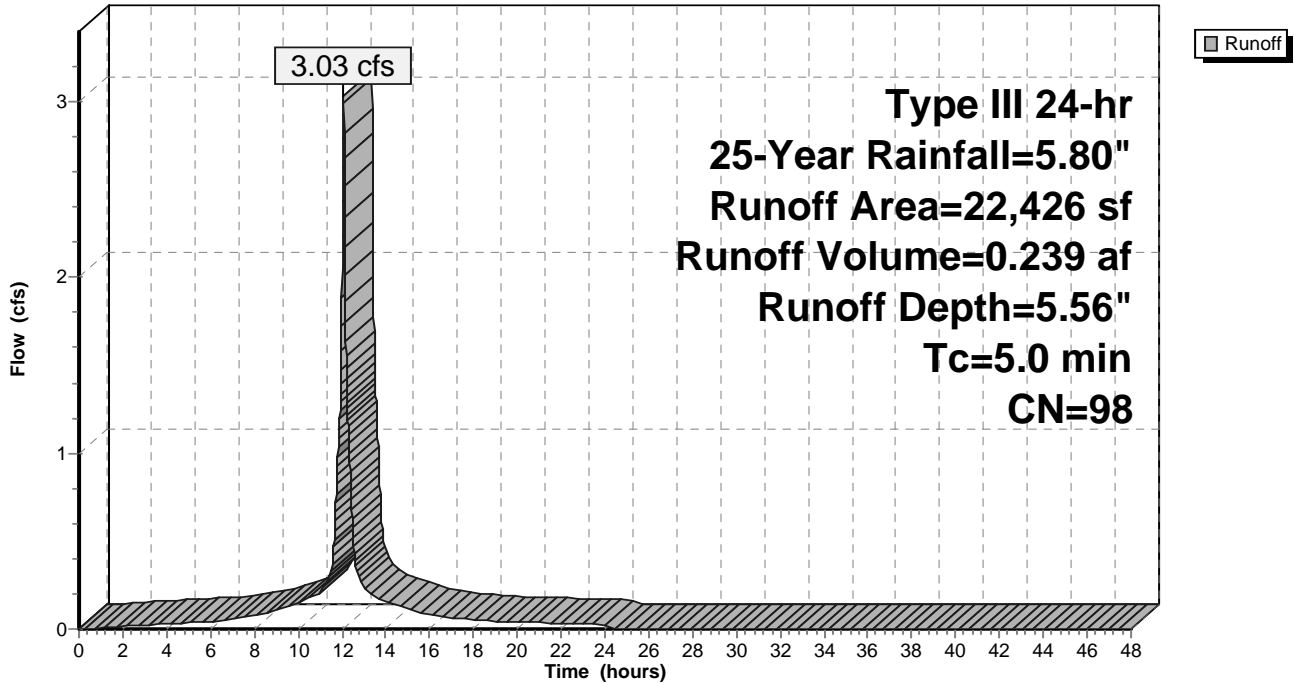
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
22,426	98	Roofs, HSG D
22,426		100.00% Impervious Area

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

Subcatchment 3S: (new Subcat)

Hydrograph



Summary for Subcatchment 4S: (new Subcat)

Runoff = 8.10 cfs @ 12.07 hrs, Volume= 0.603 af, Depth= 5.10"

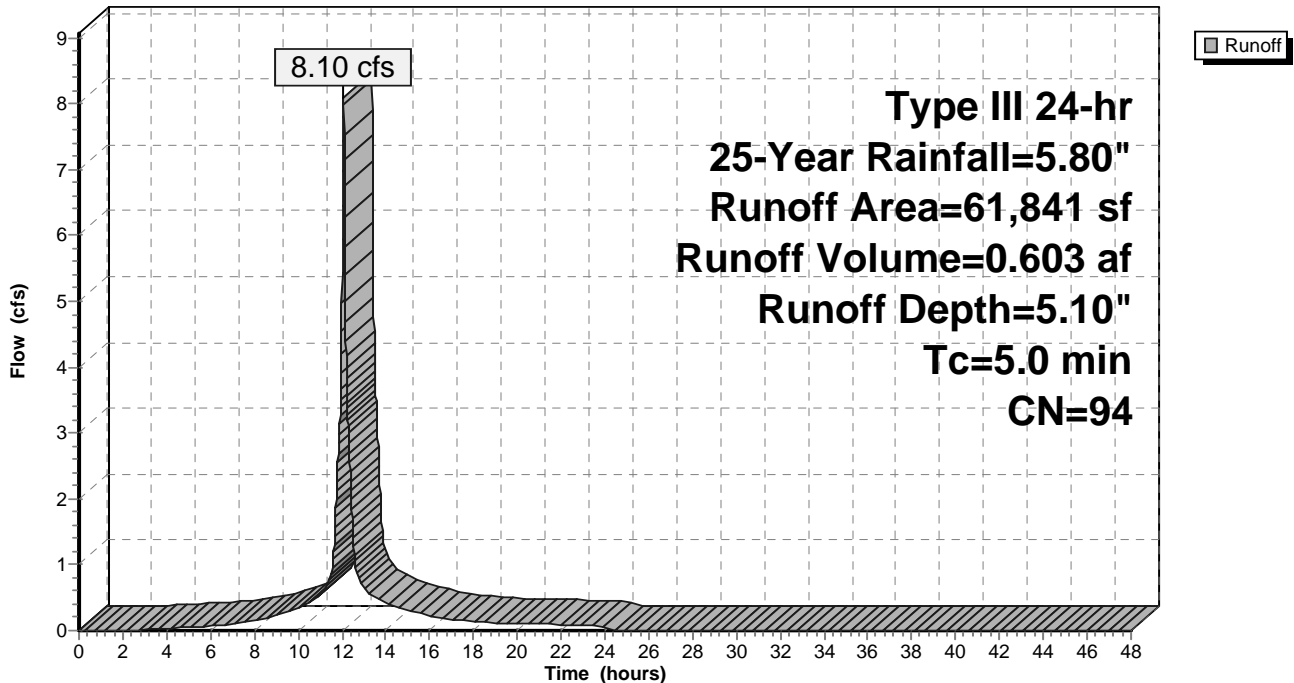
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
11,983	91	Gravel roads, HSG D
36,458	98	Paved parking, HSG D
9,200	80	>75% Grass cover, Good, HSG D
4,200	98	Roofs, HSG D
61,841	94	Weighted Average
21,183		34.25% Pervious Area
40,658		65.75% Impervious Area

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

Subcatchment 4S: (new Subcat)

Hydrograph



Summary for Subcatchment 5S: (new Subcat)

Runoff = 2.95 cfs @ 12.07 hrs, Volume= 0.215 af, Depth= 4.87"

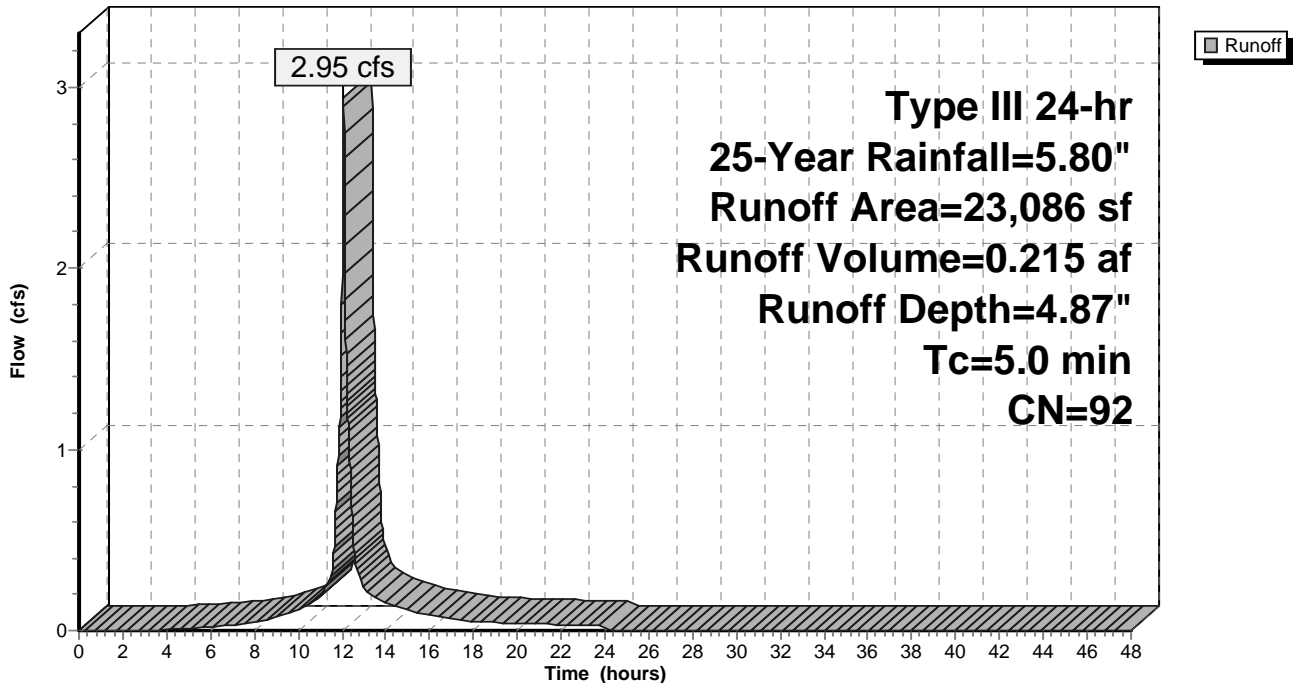
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
15,894	98	Paved parking, HSG D
7,192	80	>75% Grass cover, Good, HSG D
23,086	92	Weighted Average
7,192		31.15% Pervious Area
15,894		68.85% Impervious Area

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

Subcatchment 5S: (new Subcat)

Hydrograph



Summary for Subcatchment 6S: (new Subcat)

Runoff = 5.44 cfs @ 12.07 hrs, Volume= 0.382 af, Depth= 4.22"

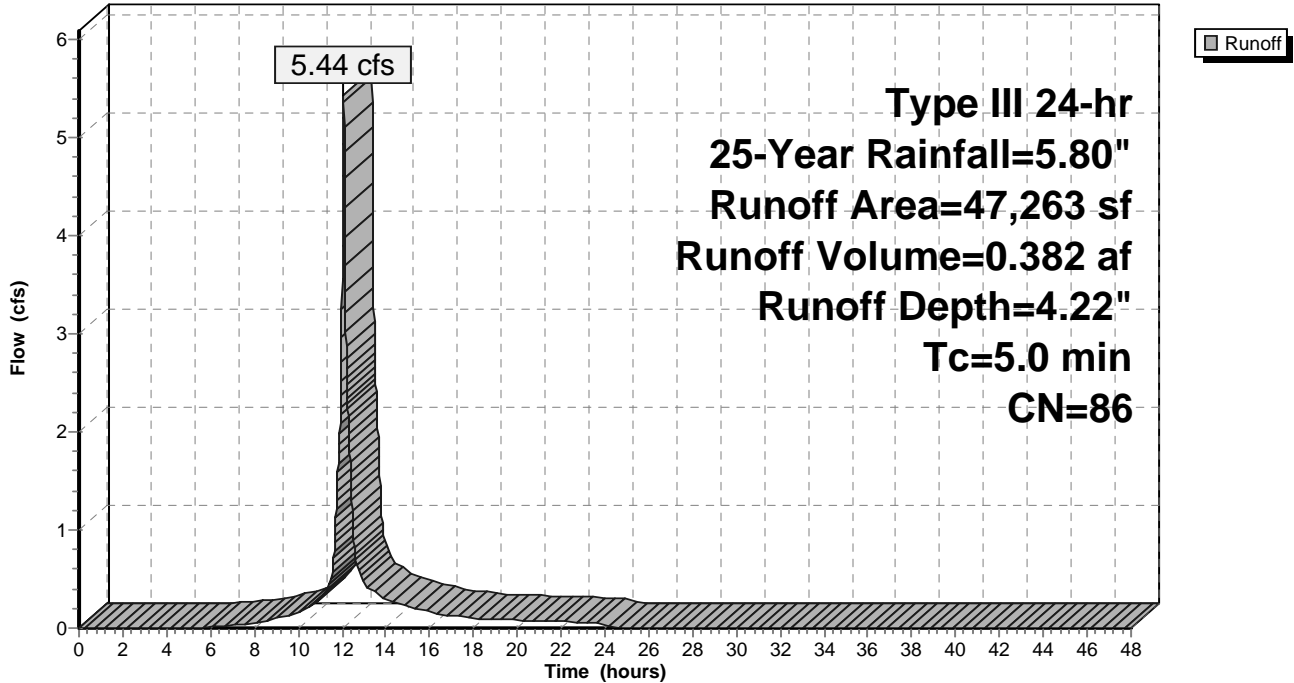
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
16,015	98	Paved parking, HSG D
22,327	80	>75% Grass cover, Good, HSG D
8,921	77	Woods, Good, HSG D
47,263	86	Weighted Average
31,248		66.12% Pervious Area
16,015		33.88% Impervious Area

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

Subcatchment 6S: (new Subcat)

Hydrograph



Summary for Subcatchment 7S: (new Subcat)

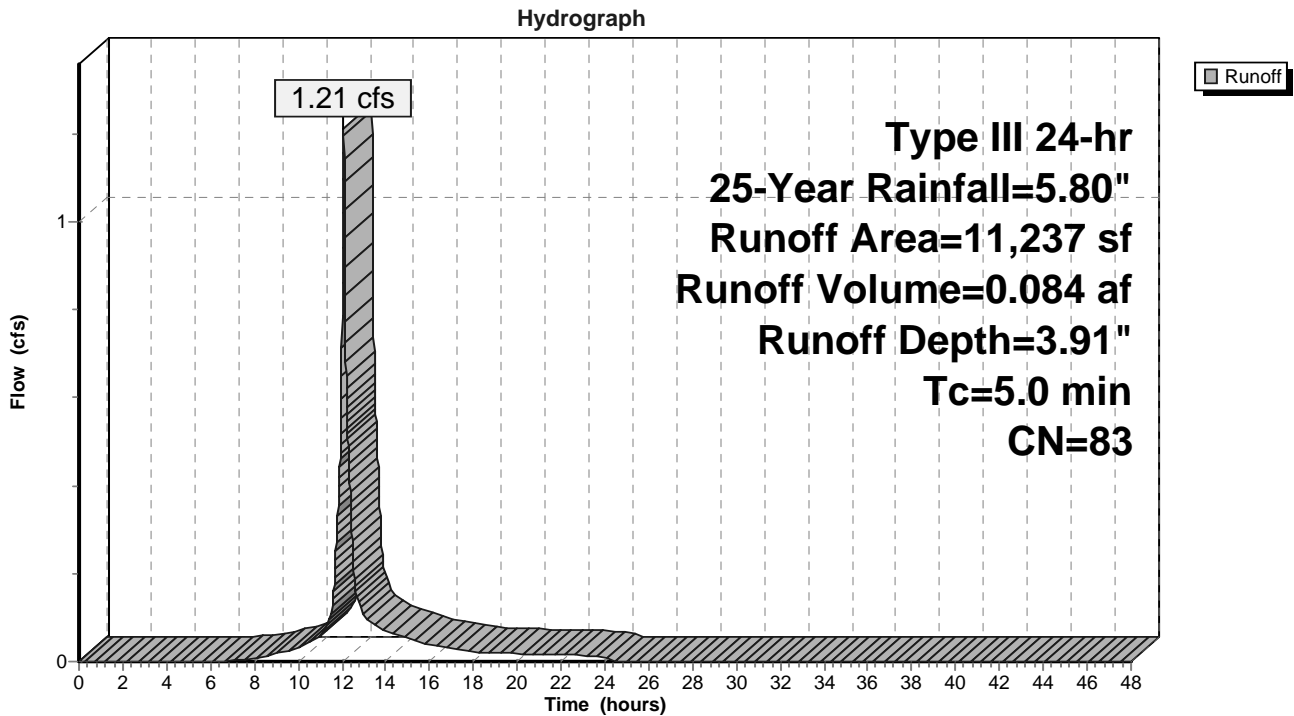
Runoff = 1.21 cfs @ 12.07 hrs, Volume= 0.084 af, Depth= 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
2,110	98	Paved parking, HSG D
9,127	80	>75% Grass cover, Good, HSG D
11,237	83	Weighted Average
9,127		81.22% Pervious Area
2,110		18.78% Impervious Area

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

Subcatchment 7S: (new Subcat)



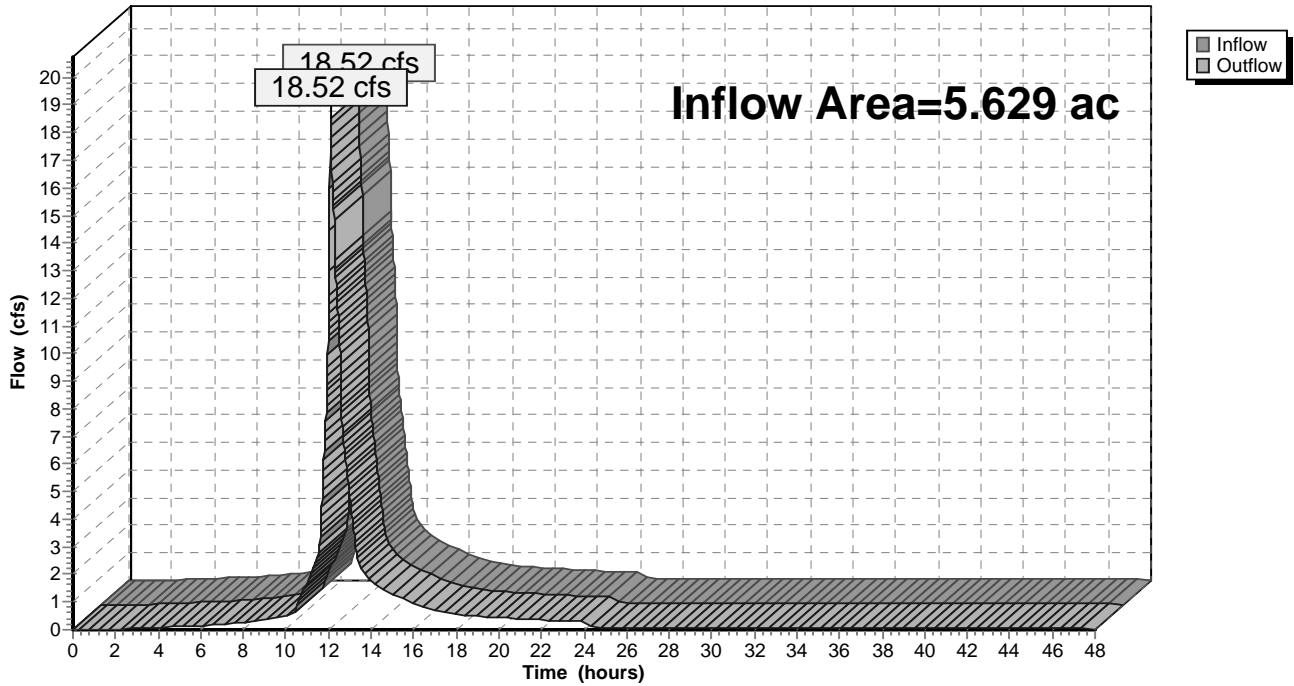
Summary for Reach 1R: SP-1

Inflow Area = 5.629 ac, 64.13% Impervious, Inflow Depth > 4.88" for 25-Year event
Inflow = 18.52 cfs @ 12.10 hrs, Volume= 2.288 af
Outflow = 18.52 cfs @ 12.10 hrs, Volume= 2.288 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach 1R: SP-1

Hydrograph



Summary for Reach 6R: (new Reach)

Inflow Area = 1.085 ac, 33.88% Impervious, Inflow Depth = 4.22" for 25-Year event
 Inflow = 5.44 cfs @ 12.07 hrs, Volume= 0.382 af
 Outflow = 5.33 cfs @ 12.09 hrs, Volume= 0.382 af, Atten= 2%, Lag= 1.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.03 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.28 fps, Avg. Travel Time= 4.0 min

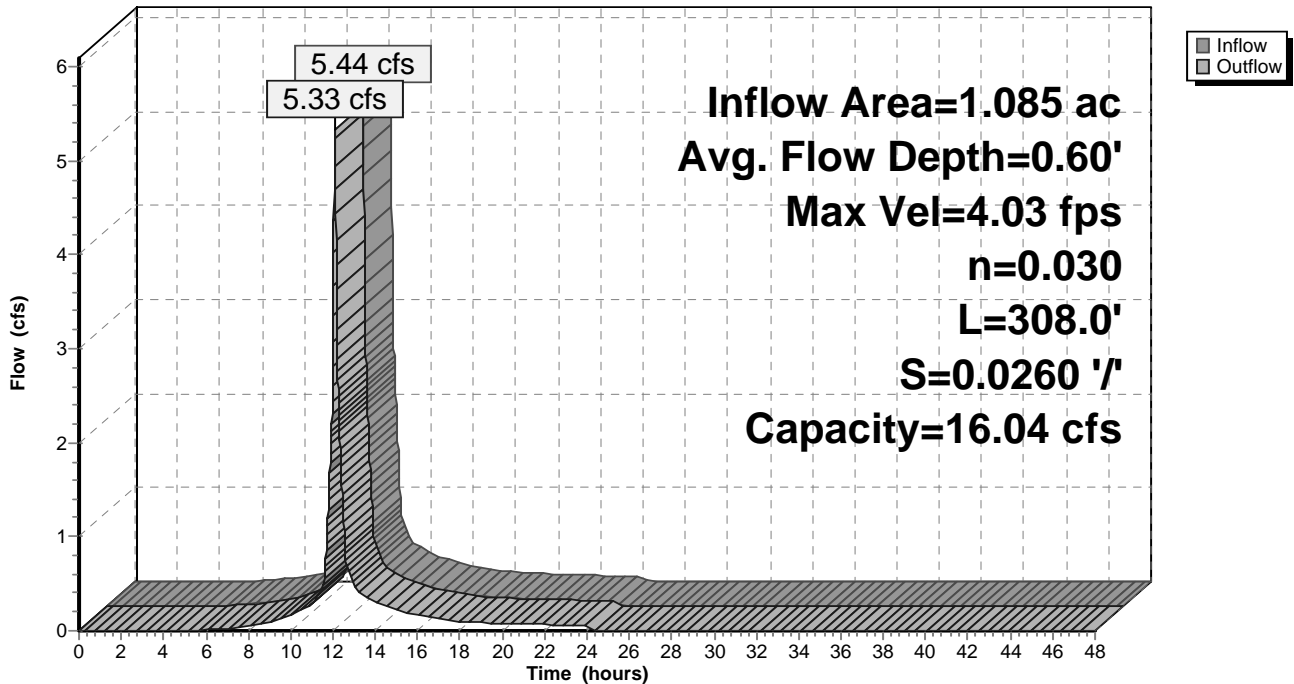
Peak Storage= 407 cf @ 12.09 hrs
 Average Depth at Peak Storage= 0.60'
 Bank-Full Depth= 1.00' Flow Area= 3.0 sf, Capacity= 16.04 cfs

1.00' x 1.00' deep channel, n= 0.030 Earth, grassed & winding
 Side Slope Z-value= 2.0 '/ Top Width= 5.00'
 Length= 308.0' Slope= 0.0260 '/
 Inlet Invert= 82.00', Outlet Invert= 74.00'



Reach 6R: (new Reach)

Hydrograph



Summary for Pond 1P: GRAVEL WETLAND

Inflow Area = 3.827 ac, 57.02% Impervious, Inflow Depth = 4.77" for 25-Year event
 Inflow = 19.44 cfs @ 12.09 hrs, Volume= 1.521 af
 Outflow = 9.62 cfs @ 12.26 hrs, Volume= 1.519 af, Atten= 50%, Lag= 10.0 min
 Primary = 9.49 cfs @ 12.26 hrs, Volume= 1.518 af
 Secondary = 0.14 cfs @ 12.26 hrs, Volume= 0.001 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 74.62' @ 12.26 hrs Surf.Area= 8,807 sf Storage= 17,387 cf
 Flood Elev= 76.20' Surf.Area= 11,000 sf Storage= 23,941 cf

Plug-Flow detention time= 150.9 min calculated for 1.519 af (100% of inflow)
 Center-of-Mass det. time= 150.4 min (931.7 - 781.3)

Volume	Invert	Avail.Storage	Storage Description
#1	71.75'	23,941 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
71.75	3,588	0	0
72.00	4,100	961	961
73.00	5,510	4,805	5,766
74.00	7,550	6,530	12,296
75.00	9,570	8,560	20,856
75.30	11,000	3,085	23,941

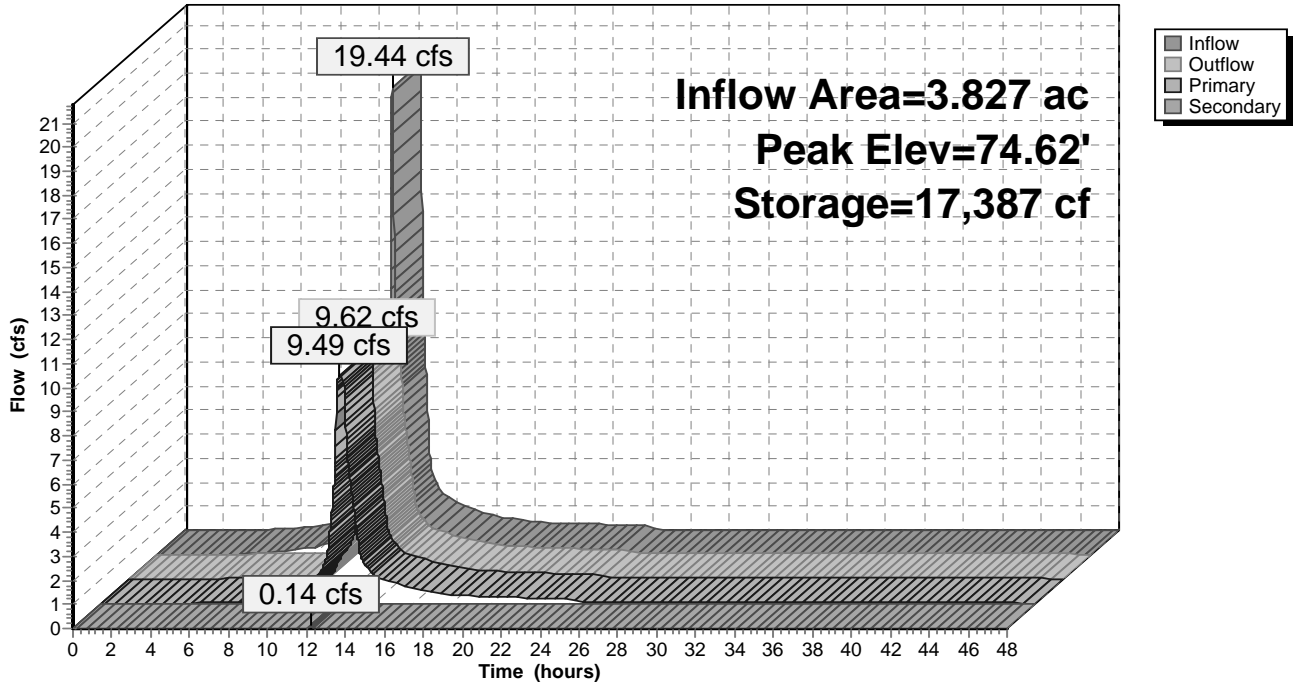
Device	Routing	Invert	Outlet Devices
#1	Primary	71.42'	15.0" Round Culvert L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.42' / 71.20' S= 0.0063 1/1 Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	71.42'	1.7" Vert. Orifice C= 0.600
#3	Device 1	73.00'	42.0" W x 4.5" H Vert. Orifice/Grate C= 0.600
#4	Device 1	74.05'	6.0' long x 2.25' rise Sharp-Crested Rectangular Weir 2 End Contraction(s)
#5	Secondary	74.60'	15.0' long x 6.0' breadth Emergency Spillway Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=9.49 cfs @ 12.26 hrs HW=74.62' (Free Discharge)
 1=Culvert (Inlet Controls 9.49 cfs @ 7.73 fps)
 2=Orifice (Passes < 0.13 cfs potential flow)
 3=Orifice/Grate (Passes < 7.56 cfs potential flow)
 4=Sharp-Crested Rectangular Weir (Passes < 8.33 cfs potential flow)

Secondary OutFlow Max=0.12 cfs @ 12.26 hrs HW=74.62' (Free Discharge)
 5=Emergency Spillway (Weir Controls 0.12 cfs @ 0.35 fps)

Pond 1P: GRAVEL WETLAND

Hydrograph



Summary for Pond 2P: Catch Basin

Inflow Area = 1.015 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-Year event
 Inflow = 5.97 cfs @ 12.07 hrs, Volume= 0.470 af
 Outflow = 5.95 cfs @ 12.08 hrs, Volume= 0.470 af, Atten= 0%, Lag= 0.3 min
 Primary = 5.95 cfs @ 12.08 hrs, Volume= 0.470 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 81.27' @ 12.08 hrs Surf.Area= 13 sf Storage= 74 cf
 Flood Elev= 85.00' Surf.Area= 13,376 sf Storage= 6,867 cf

Plug-Flow detention time= 1.2 min calculated for 0.470 af (100% of inflow)
 Center-of-Mass det. time= 0.7 min (745.4 - 744.7)

Volume	Invert	Avail.Storage	Storage Description
#1	75.54'	6,867 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
75.54	13	0	0
83.99	13	110	110
84.00	137	1	111
85.00	13,376	6,757	6,867

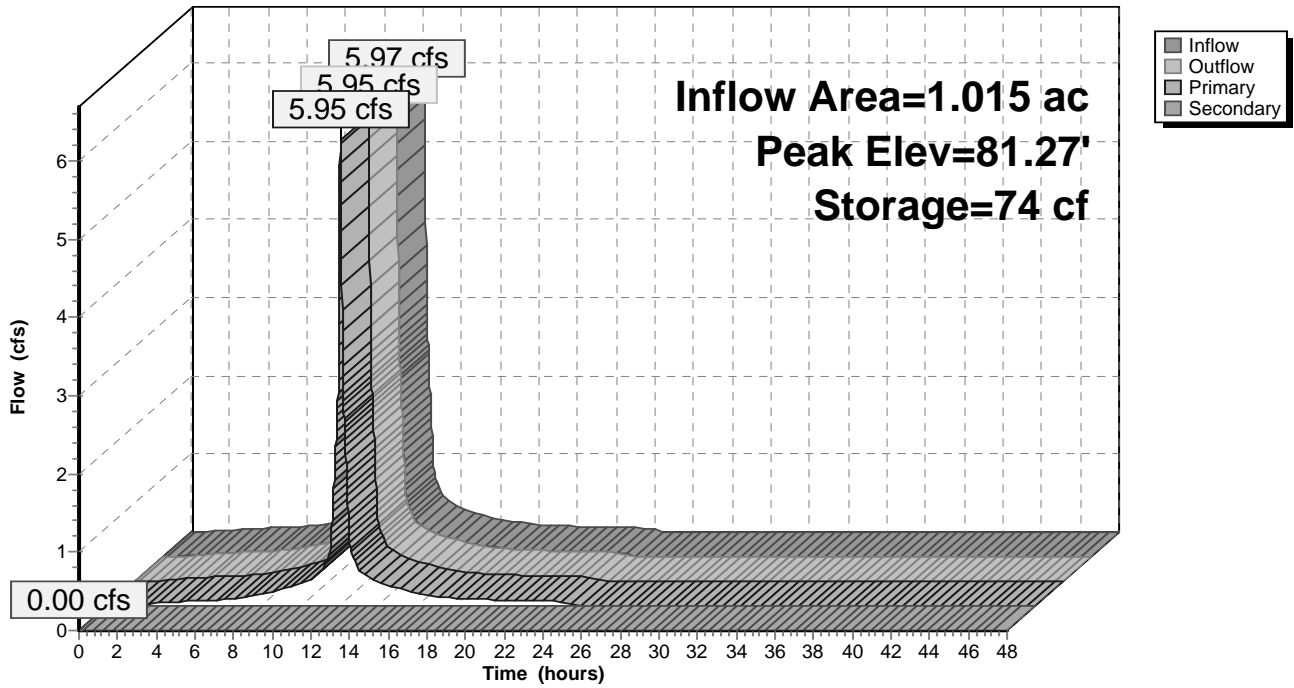
Device	Routing	Invert	Outlet Devices
#1	Primary	76.76'	12.0" Round Culvert L= 121.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 76.76' / 75.54' S= 0.0101 1/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	84.95'	30.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=5.94 cfs @ 12.08 hrs HW=81.25' (Free Discharge)
 ↑1=Culvert (Barrel Controls 5.94 cfs @ 7.57 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=75.54' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 2P: Catch Basin

Hydrograph



Summary for Pond 3P: DMH

Inflow Area = 1.015 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-Year event
 Inflow = 5.95 cfs @ 12.08 hrs, Volume= 0.470 af
 Outflow = 5.95 cfs @ 12.08 hrs, Volume= 0.470 af, Atten= 0%, Lag= 0.0 min
 Primary = 5.95 cfs @ 12.08 hrs, Volume= 0.470 af

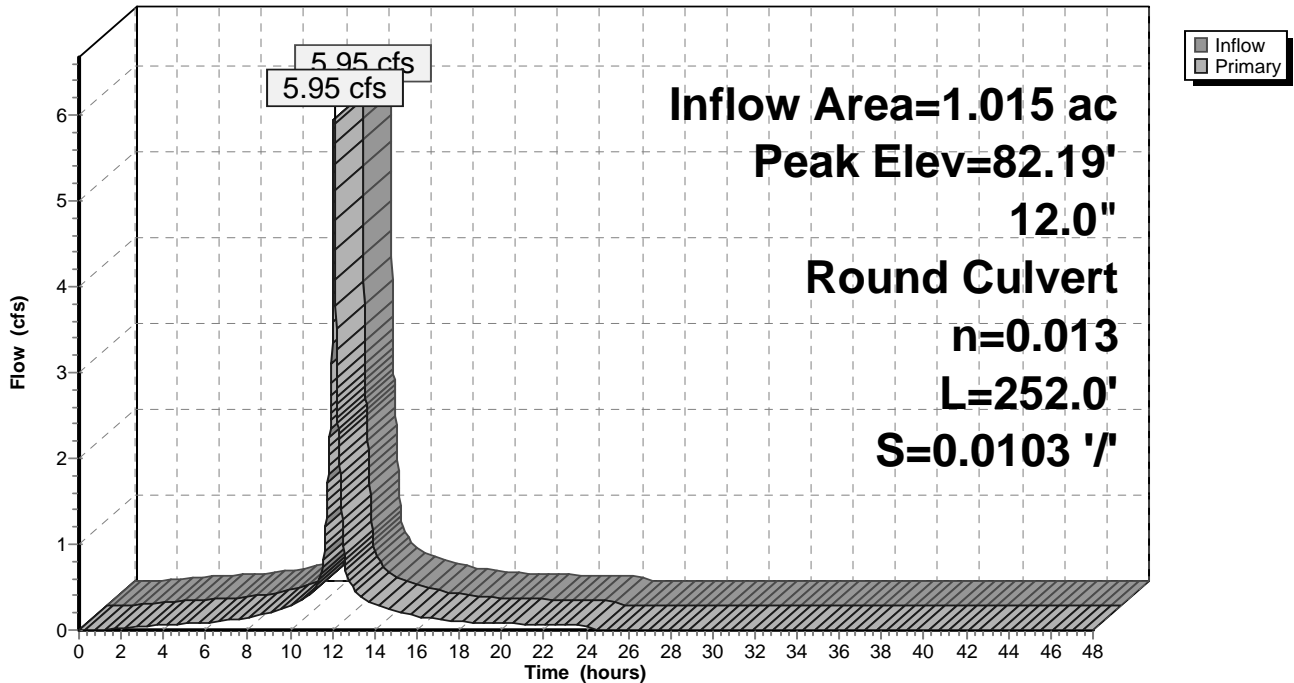
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 82.19' @ 12.08 hrs
 Flood Elev= 84.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	75.39'	12.0" Round Culvert L= 252.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.39' / 72.79' S= 0.0103 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.94 cfs @ 12.08 hrs HW=82.16' (Free Discharge)
 ←1=Culvert (Barrel Controls 5.94 cfs @ 7.57 fps)

Pond 3P: DMH

Hydrograph



Summary for Pond 4P: Catch Basin

Inflow Area = 1.420 ac, 65.75% Impervious, Inflow Depth = 5.10" for 25-Year event
 Inflow = 8.10 cfs @ 12.07 hrs, Volume= 0.603 af
 Outflow = 8.09 cfs @ 12.07 hrs, Volume= 0.603 af, Atten= 0%, Lag= 0.2 min
 Primary = 8.09 cfs @ 12.07 hrs, Volume= 0.603 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 79.22' @ 12.07 hrs Surf.Area= 13 sf Storage= 46 cf
 Flood Elev= 81.00' Surf.Area= 7,020 sf Storage= 3,881 cf

Plug-Flow detention time= 0.2 min calculated for 0.603 af (100% of inflow)
 Center-of-Mass det. time= 0.2 min (768.7 - 768.5)

Volume	Invert	Avail.Storage	Storage Description
#1	75.70'	3,881 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
75.70	13	0	0
79.70	13	52	52
80.00	488	75	127
81.00	7,020	3,754	3,881

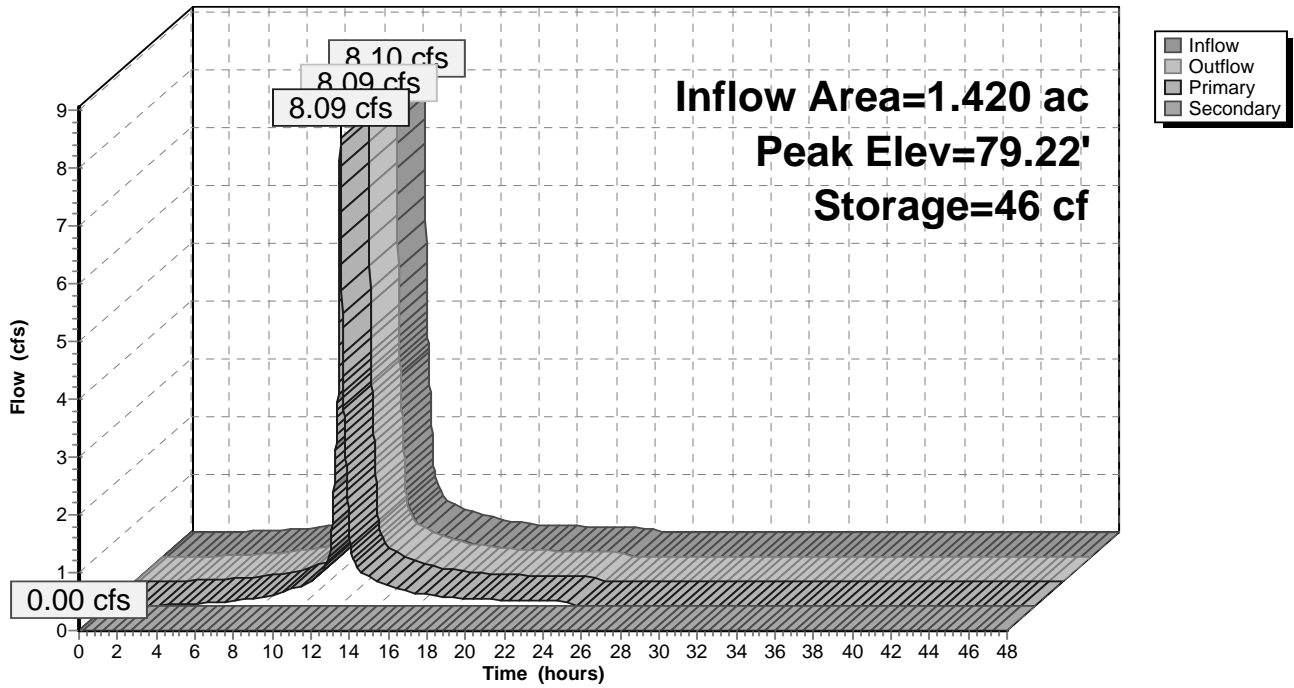
Device	Routing	Invert	Outlet Devices
#1	Primary	75.70'	15.0" Round Culvert L= 118.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.70' / 75.10' S= 0.0051 '/ n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Secondary	80.70'	20.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=8.08 cfs @ 12.07 hrs HW=79.21' (Free Discharge)
 ↑1=Culvert (Barrel Controls 8.08 cfs @ 6.58 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=75.70' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 4P: Catch Basin

Hydrograph



Summary for Pond 5P: Catch Basin

Inflow Area = 1.545 ac, 89.31% Impervious, Inflow Depth = 5.32" for 25-Year event
 Inflow = 8.90 cfs @ 12.07 hrs, Volume= 0.685 af
 Outflow = 8.53 cfs @ 12.10 hrs, Volume= 0.685 af, Atten= 4%, Lag= 1.4 min
 Primary = 5.45 cfs @ 12.10 hrs, Volume= 0.663 af
 Secondary = 3.08 cfs @ 12.10 hrs, Volume= 0.022 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 74.65' @ 12.10 hrs Surf.Area= 1,130 sf Storage= 654 cf
 Flood Elev= 74.00' Surf.Area= 654 sf Storage= 49 cf

Plug-Flow detention time= 0.9 min calculated for 0.685 af (100% of inflow)
 Center-of-Mass det. time= 0.6 min (756.1 - 755.4)

Volume	Invert	Avail.Storage	Storage Description
#1	70.46'	1,063 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
70.46	13	0	0
73.99	13	46	46
74.00	654	3	49
74.50	1,101	439	488
75.00	1,200	575	1,063

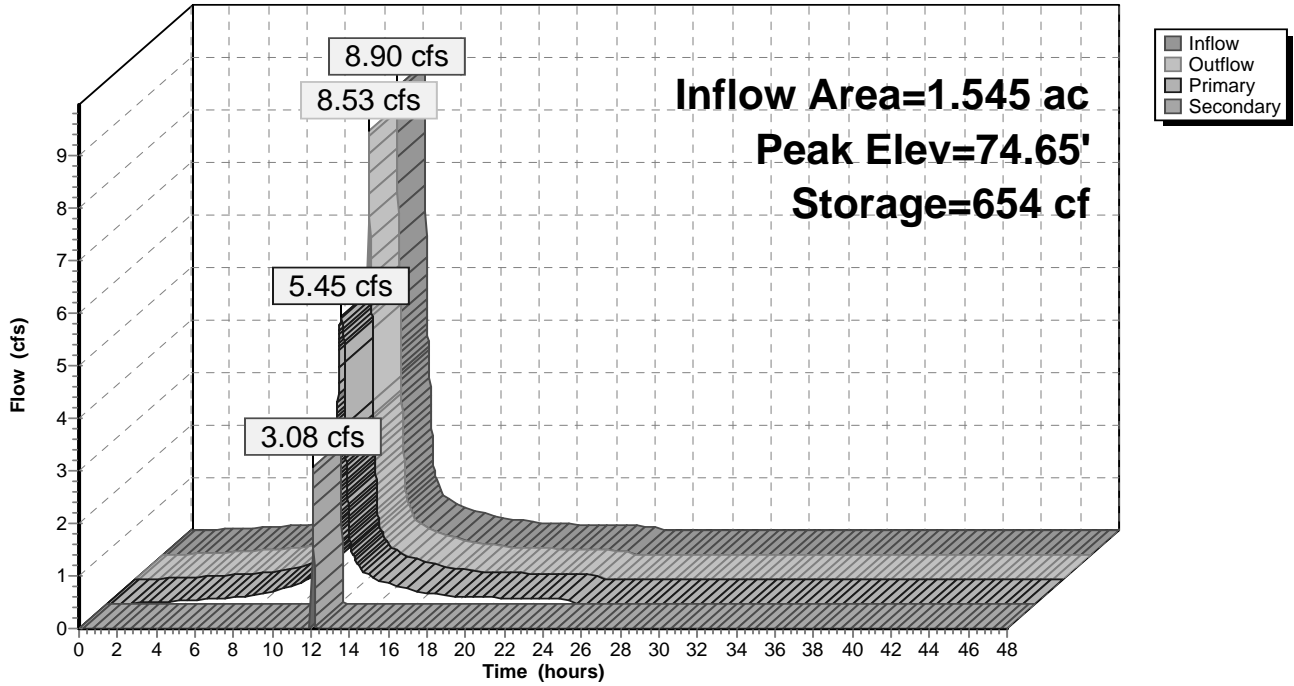
Device	Routing	Invert	Outlet Devices
#1	Primary	71.35'	12.0" Round Culvert L= 88.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.35' / 70.46' S= 0.0101 1/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	74.40'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=5.45 cfs @ 12.10 hrs HW=74.65' (Free Discharge)
 ↖**1=Culvert** (Barrel Controls 5.45 cfs @ 6.94 fps)

Secondary OutFlow Max=3.05 cfs @ 12.10 hrs HW=74.65' (Free Discharge)
 ↖**2=Broad-Crested Rectangular Weir** (Weir Controls 3.05 cfs @ 1.23 fps)

Pond 5P: Catch Basin

Hydrograph



Summary for Pond 6P: DMH

Inflow Area = 1.015 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-Year event
 Inflow = 5.95 cfs @ 12.08 hrs, Volume= 0.470 af
 Outflow = 5.95 cfs @ 12.08 hrs, Volume= 0.470 af, Atten= 0%, Lag= 0.0 min
 Primary = 5.95 cfs @ 12.08 hrs, Volume= 0.470 af

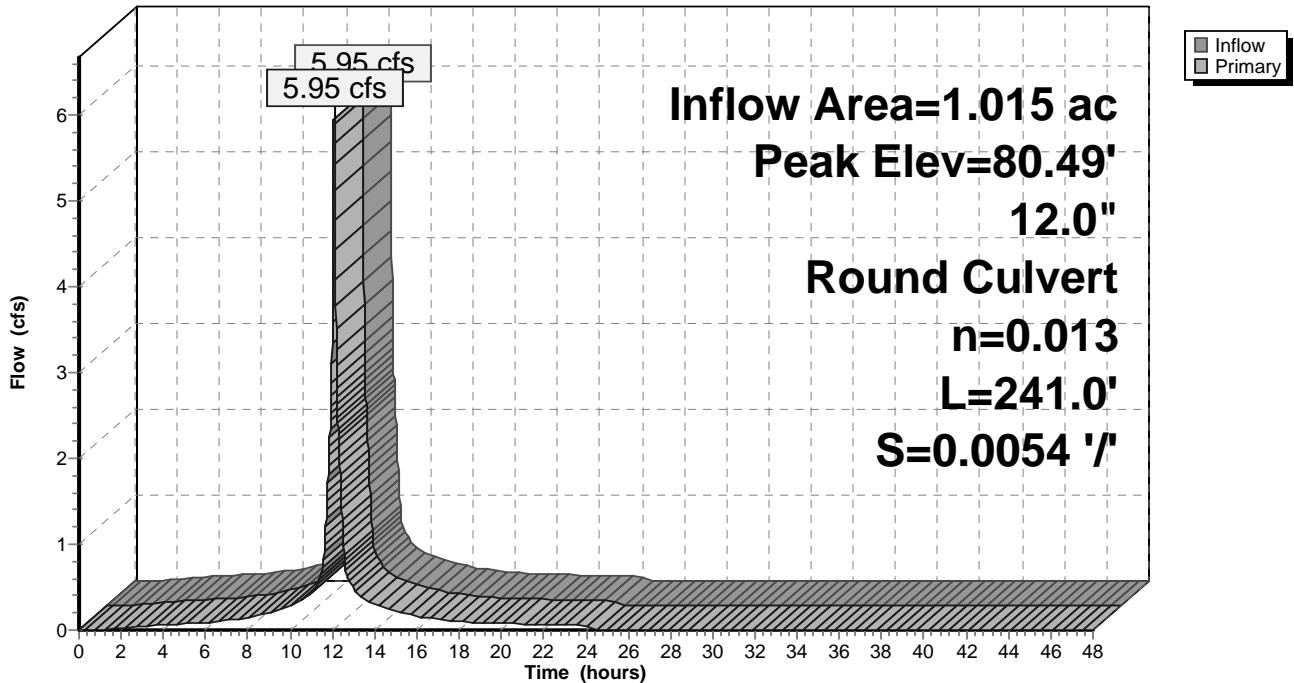
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 80.49' @ 12.08 hrs
 Flood Elev= 80.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	72.69'	12.0" Round Culvert L= 241.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 72.69' / 71.40' S= 0.0054 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.94 cfs @ 12.08 hrs HW=80.46' (Free Discharge)
 ↳ **1=Culvert** (Barrel Controls 5.94 cfs @ 7.57 fps)

Pond 6P: DMH

Hydrograph



Summary for Pond 7P: Conc Culvert

Inflow Area = 4.085 ac, 54.61% Impervious, Inflow Depth > 4.77" for 25-Year event
 Inflow = 13.07 cfs @ 12.10 hrs, Volume= 1.625 af
 Outflow = 13.07 cfs @ 12.10 hrs, Volume= 1.625 af, Atten= 0%, Lag= 0.0 min
 Primary = 6.32 cfs @ 12.10 hrs, Volume= 1.445 af
 Secondary = 6.75 cfs @ 12.10 hrs, Volume= 0.180 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 74.89' @ 12.10 hrs
 Flood Elev= 75.00'

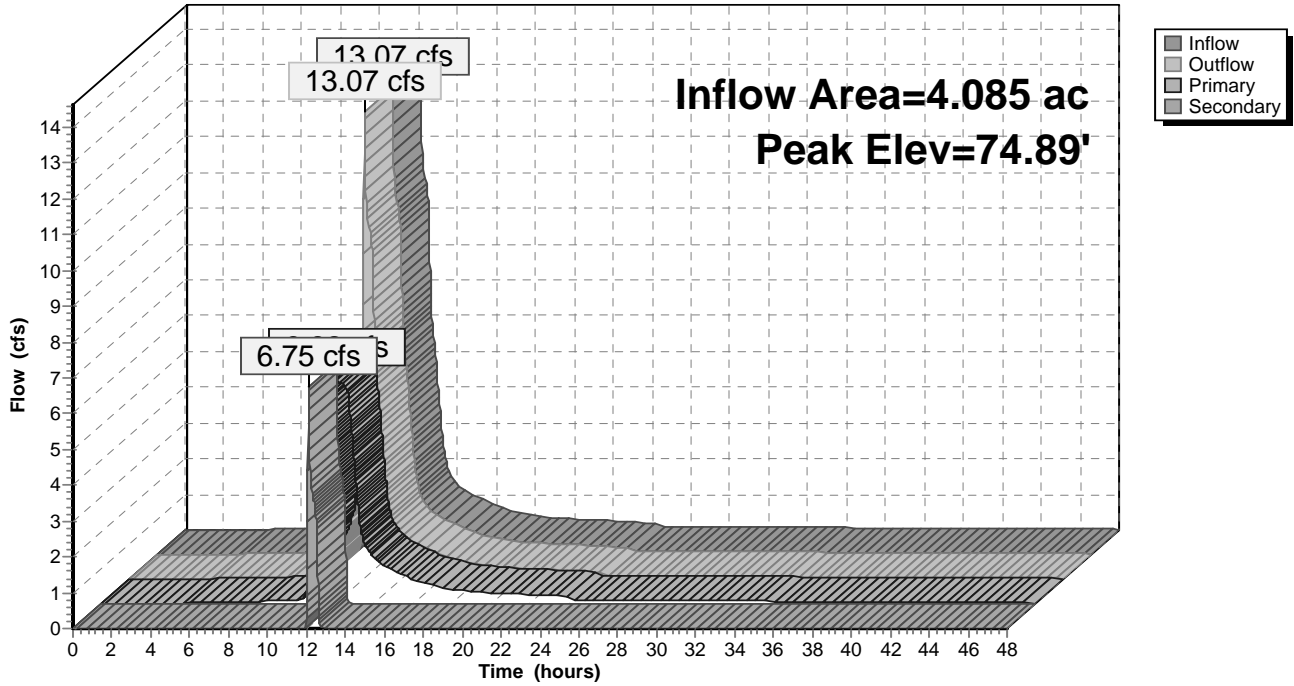
Device	Routing	Invert	Outlet Devices
#1	Primary	71.60'	12.0" Round Culvert L= 9.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.60' / 69.81' S= 0.1989 1/ S Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	74.50'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=6.32 cfs @ 12.10 hrs HW=74.89' (Free Discharge)
 ↑1=Culvert (Inlet Controls 6.32 cfs @ 8.05 fps)

Secondary OutFlow Max=6.71 cfs @ 12.10 hrs HW=74.89' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Weir Controls 6.71 cfs @ 1.71 fps)

Pond 7P: Conc Culvert

Hydrograph



15056 post

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

Prepared by {enter your company name here}

Printed 9/10/2015

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Summary for Pond 8P: Catch Basin at Canco Rd

Inflow Area = 5.629 ac, 64.13% Impervious, Inflow Depth > 4.49" for 25-Year event
 Inflow = 11.77 cfs @ 12.10 hrs, Volume= 2.108 af
 Outflow = 11.77 cfs @ 12.10 hrs, Volume= 2.108 af, Atten= 0%, Lag= 0.0 min
 Primary = 8.20 cfs @ 12.10 hrs, Volume= 2.007 af
 Secondary = 3.57 cfs @ 12.10 hrs, Volume= 0.100 af

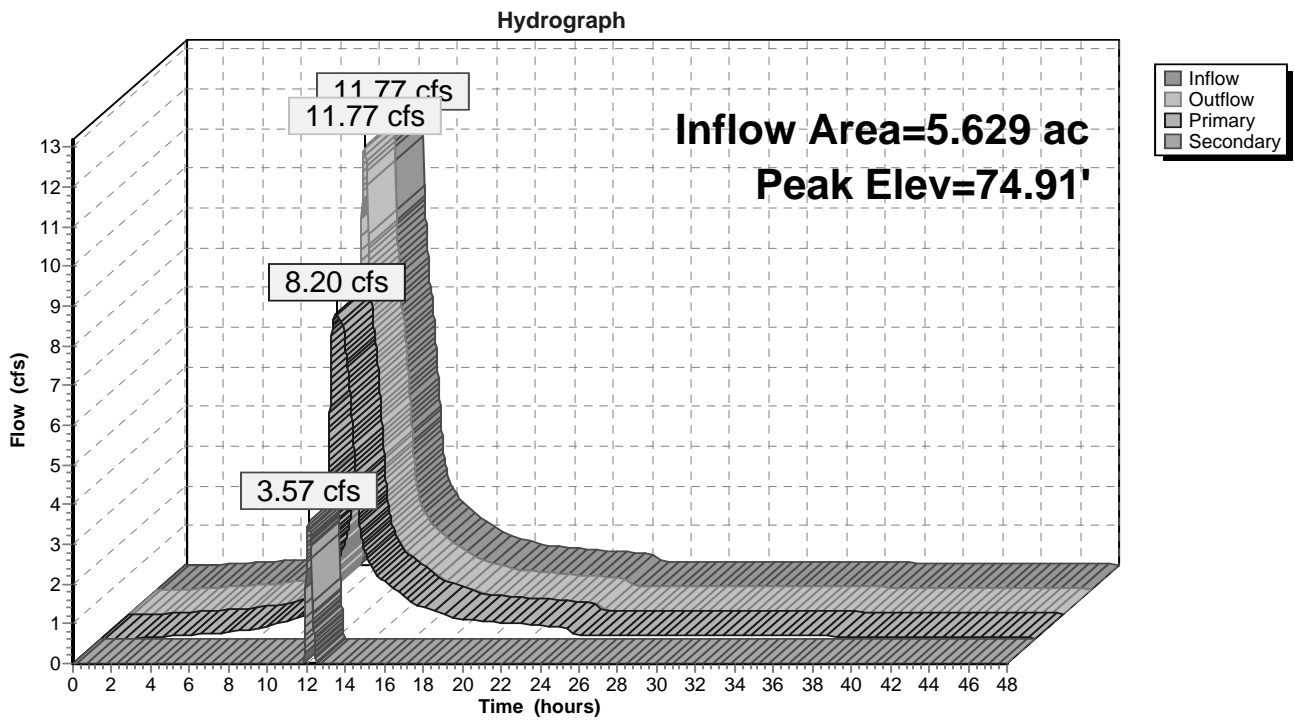
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 74.91' @ 12.10 hrs
 Flood Elev= 74.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	69.71'	12.0" Round Culvert L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 69.71' / 69.51' S= 0.0100 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Secondary	74.50'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=8.20 cfs @ 12.10 hrs HW=74.91' (Free Discharge)
 ↑1=Culvert (Inlet Controls 8.20 cfs @ 10.44 fps)

Secondary OutFlow Max=3.57 cfs @ 12.10 hrs HW=74.91' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Weir Controls 3.57 cfs @ 1.74 fps)

Pond 8P: Catch Basin at Canco Rd



Summary for Pond 10P: Proposed CB

Inflow Area = 1.322 ac, 66.64% Impervious, Inflow Depth = 4.87" for 25-Year event
 Inflow = 6.50 cfs @ 12.12 hrs, Volume= 0.537 af
 Outflow = 6.51 cfs @ 12.12 hrs, Volume= 0.536 af, Atten= 0%, Lag= 0.1 min
 Primary = 6.51 cfs @ 12.12 hrs, Volume= 0.536 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 81.54' @ 12.12 hrs Surf.Area= 13 sf Storage= 72 cf
 Flood Elev= 85.00' Surf.Area= 5,961 sf Storage= 3,239 cf

Plug-Flow detention time= 2.6 min calculated for 0.536 af (100% of inflow)
 Center-of-Mass det. time= 1.3 min (781.8 - 780.6)

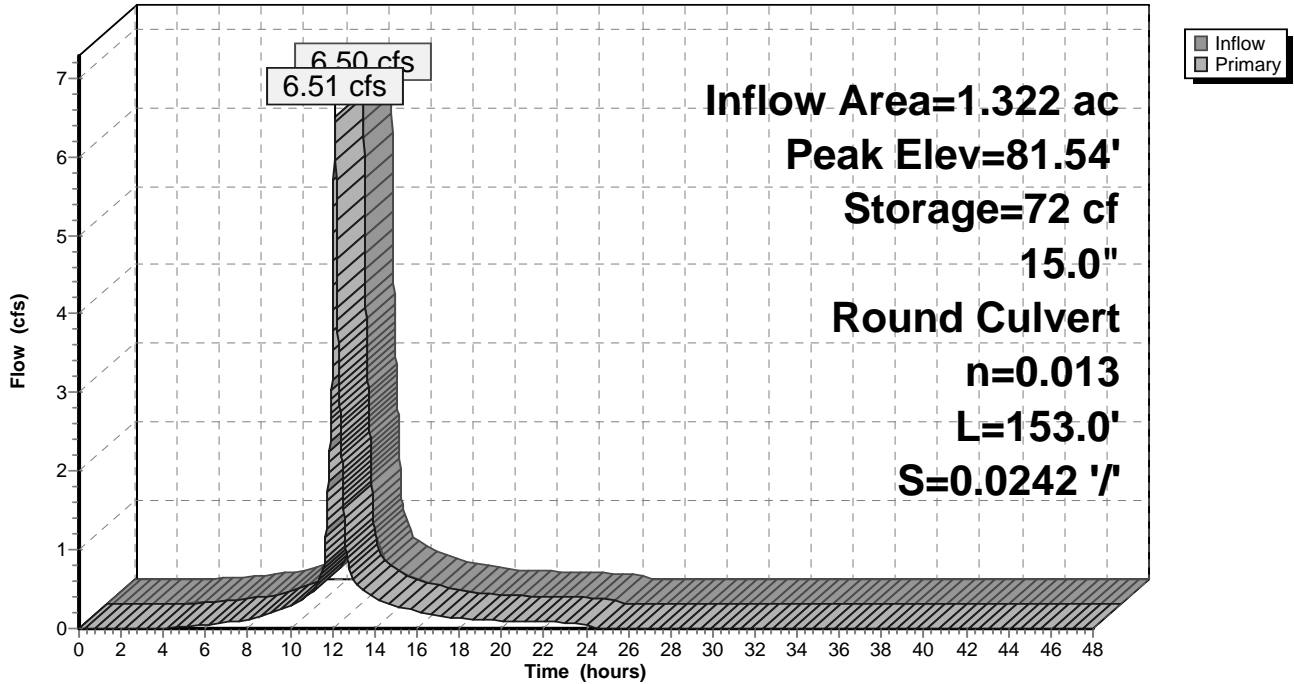
Volume	Invert	Avail.Storage	Storage Description
#1	76.00'	3,239 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	13	0	0
83.70	13	100	100
84.00	241	38	138
85.00	5,961	3,101	3,239

Device	Routing	Invert	Outlet Devices
#1	Primary	79.70'	15.0" Round Culvert L= 153.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 79.70' / 76.00' S= 0.0242 ' S= 0.0242 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=6.50 cfs @ 12.12 hrs HW=81.54' (Free Discharge)
 ↑1=Culvert (Inlet Controls 6.50 cfs @ 5.30 fps)

Pond 10P: Proposed CB

Hydrograph



Summary for Pond 11P: Proposed DMH

Inflow Area = 2.742 ac, 66.18% Impervious, Inflow Depth = 4.98" for 25-Year event
 Inflow = 14.11 cfs @ 12.09 hrs, Volume= 1.139 af
 Outflow = 14.11 cfs @ 12.09 hrs, Volume= 1.139 af, Atten= 0%, Lag= 0.0 min
 Primary = 14.11 cfs @ 12.09 hrs, Volume= 1.139 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 91.28' @ 12.09 hrs
 Flood Elev= 81.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	75.00'	15.0" Round Culvert L= 279.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.00' / 73.60' S= 0.0050 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=14.10 cfs @ 12.09 hrs HW=91.26' (Free Discharge)
 ←1=Culvert (Barrel Controls 14.10 cfs @ 11.49 fps)

Pond 11P: Proposed DMH

Hydrograph

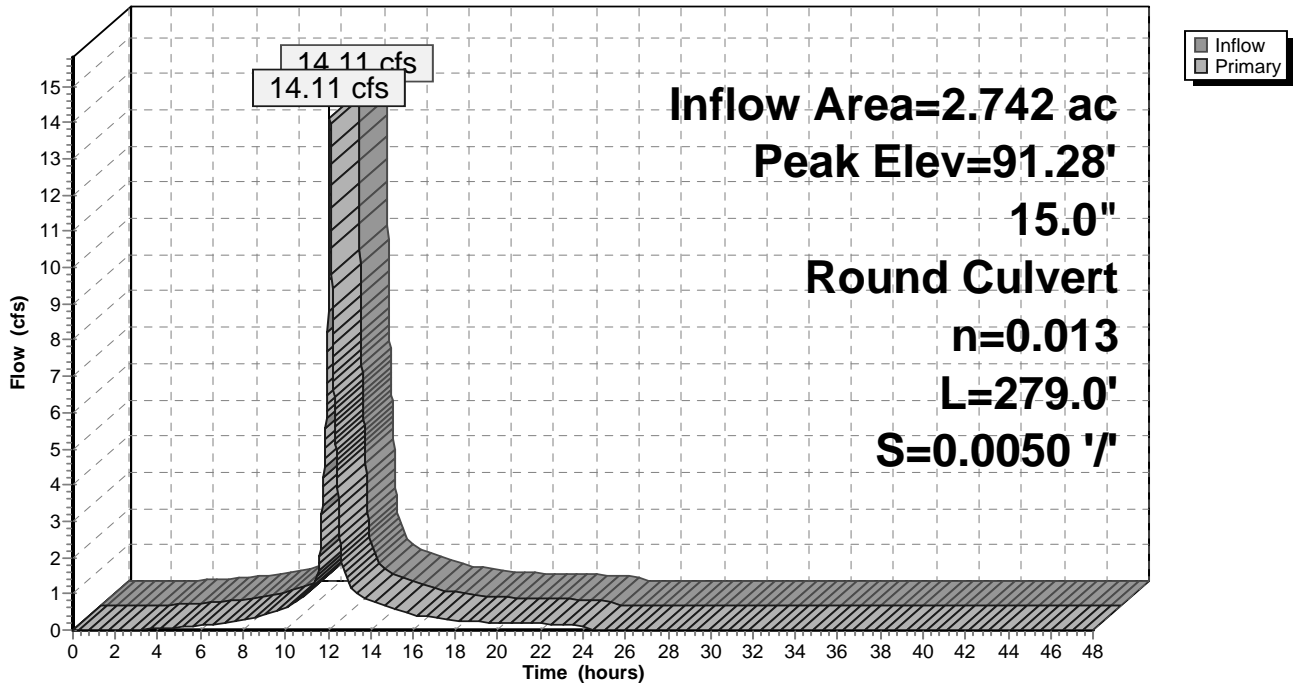


Exhibit 7

Sand & Salt Shed Photographs



Photo 1: Existing sand & salt sheds located on Hanover Street in Portland to be moved to proposed site.



Photo 2: Inside of existing salt shed located on Hanover Street in Portland.

Exhibit 8

Lighting Cut Sheets



This 78W spotlight combines high lumen output and a concentrated narrow beam distribution to illuminate objects up to 80 feet away with brilliant precision. Ideal for lighting large flags, tall building facades and signage.

Color: Bronze

Weight: 27.5 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type: Constant Current
 120V: 0.82A
 208V: 0.53A
 240V: 0.46A
 277V: 0.40A
 Input Watts: 89W
 Efficiency: 87%

LED Info

Watts: 78W
 Color Temp: 5000K (Cool)
 Color Accuracy: 68 CRI
 L70 Lifespan: 100,000
 Lumens: 6,357
 Efficacy: 71 LPW

Technical Specifications

Listings

UL Listing:

Suitable for wet locations. Suitable for ground mounting..

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water.

Effective Projected Area:

EPA = 1.2

Cold Weather Starting:

Minimum starting temperature is -40°F/-40°C.

Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures.

Thermal Management:

Superior thermal management with external Air-Flow fins.

Housing:

Precision die-cast aluminum housing and door frame.

Mounting:

Trunnion mount with cord (18-3AWG ST00W 600V 105° wet location rated 3 ft.).

Lens:

Tempered glass.

Reflector:

Vacuum-metallized, specular thermoplastic.

Gaskets:

High-temperature silicone.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

Mercury and UV free, and RoHS compliant.

LED Characteristics

LEDs:

Three multi-chip, high-output, long-life LEDs.

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2011.

Electrical

Driver:

3x26W drivers Constant current, Class2, 100-277V. 50/60 Hz, 6KV Surge Protection, 720mA, 100-277V 0.4A, Power Factor 99%.

THD:

13.7% at 120V

Optical

NEMA Type:

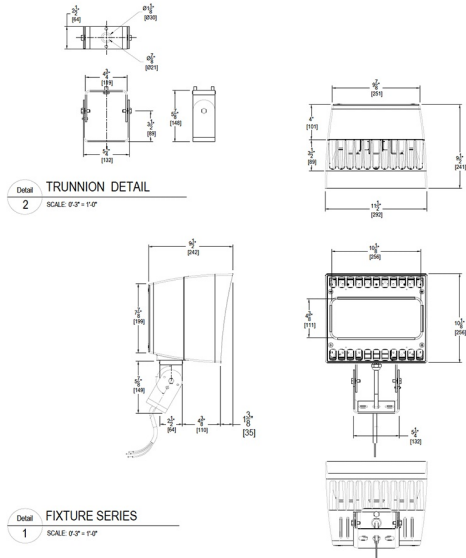
NEMA Beam Spread of 3H x 3V

Other

Patents:

The design of EZLED is protected by patents in U.S. Pat D679,856, and pending patents in Canada, China, Taiwan and Mexico.

Dimensions



Features

- High powered narrow beam spotlight
- Illuminates objects at a distance of 80 feet
- Available in NEMA type 3H x 3V and 4H x 4V
- Trunnion or slipfitter mounting options available
- Outperforms equivalent MH fixtures

Ordering Matrix

Family	Watts	Mount	Color Temp	Beam Spread	Finish	Photocell
EZLED	78 = 78W	SF = Slipfitter	= Cool Y = Warm N = Neutral	= 3H x 3V B44 = 4H x 4V	= Bronze W = White	= No Photocell /PC = 120V Button /PCS = 120V Swivel /PC2 = 277V Button /PCS2 = 120V Swivel



Rectangular shaped LED floodlight designed to replace 175W Metal Halide. Patent Pending airflow technology ensures long LED and driver lifespan. Use for building facade lighting, sign lighting, LED landscape lighting and instant-on security lighting.

Color: Bronze

Weight: 12.5 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	52W
120V:	0.45A	Color Temp:	5000K (Cool)
208V:	0.27A	Color Accuracy:	67 CRI
240V:	0.24A	L70 Lifespan:	100,000
277V:	0.21A	Lumens:	5,496
Input Watts:	54W	Efficacy:	102 LPW
Efficiency:	97%		

Technical Specifications

Other

FFLED52 with Photocell:

277V Swivel Photocell Included. Photocell is compatible with 208V-277V.

Threaded Size:

1/2" threaded arm.

Equivalency:

The FFLED52 is equivalent in delivered lumens to a 175W Metal Halide.

California Title 24:

Select an FFLED52 model equipped with a 0-10V driver (look for /D10 in the catalog #) for a 2013 California Title 24 compliant model.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Patents:

The FFLED design is protected by U.S. Pat. D643,147, Canada Pat. 140798, China Pat. ZL201130171304.1, Mexico Pat. 36757 and pending patent in Taiwan.

Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

Buy American Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

Trade Agreements Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Trade Agreements Act.

GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

Listings

UL Listing:

Suitable For Wet Locations. Suitable for mounting within 1.2M(4FT) of the ground.

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

LEDs:

Two multi-chip, 26Watt high performance LEDs.

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2008.

Construction

IP Rating:

Ingress Protection rating of IP65 for dust and water.

Ambient Temperature:

Suitable for use in 40°C ambient temperatures.

Cold Weather Starting:

The minimum starting temperature is -40°F/-40°C.

Thermal Management Housing:

Superior heat sinking with external Air-Flow fins.

Housing:

Die-cast aluminum housing, lens frame and mounting arm.

Mounting:

Heavy-duty mounting arm with O ring seal & stainless steel screw.

Effective Projected Area:

EPA = 0.65

Technical Specifications (continued)

Construction

Reflector:

Specular polycarbonate

Gaskets:

High-temperature silicone gaskets.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

Mercury and UV free.

Optical

NEMA Type:

NEMA Beam Spread of 7H x 6V

Electrical

Driver:

Constant Current, Class 2, 100-277V, 50/60 Hz, 4 kV surge protection, 120V: 0.45A, 208V: 0.27A, 240V: 0.24A, 277V: 0.21A

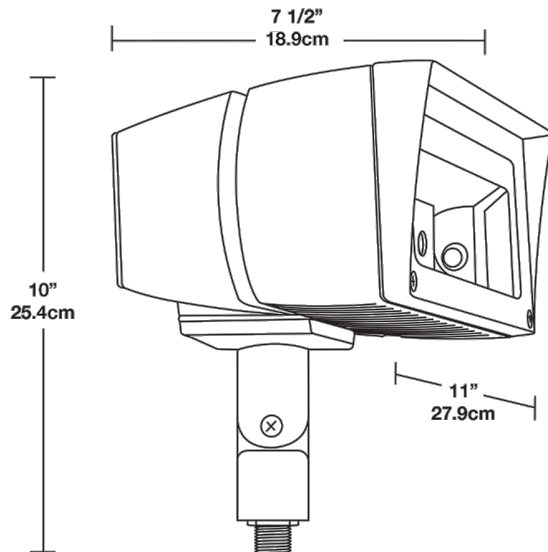
Power Factor:

99.4% at 120V, 94.6% at 277V

THD:

8.4% at 120V, 9.3% at 277V

Dimensions



Features

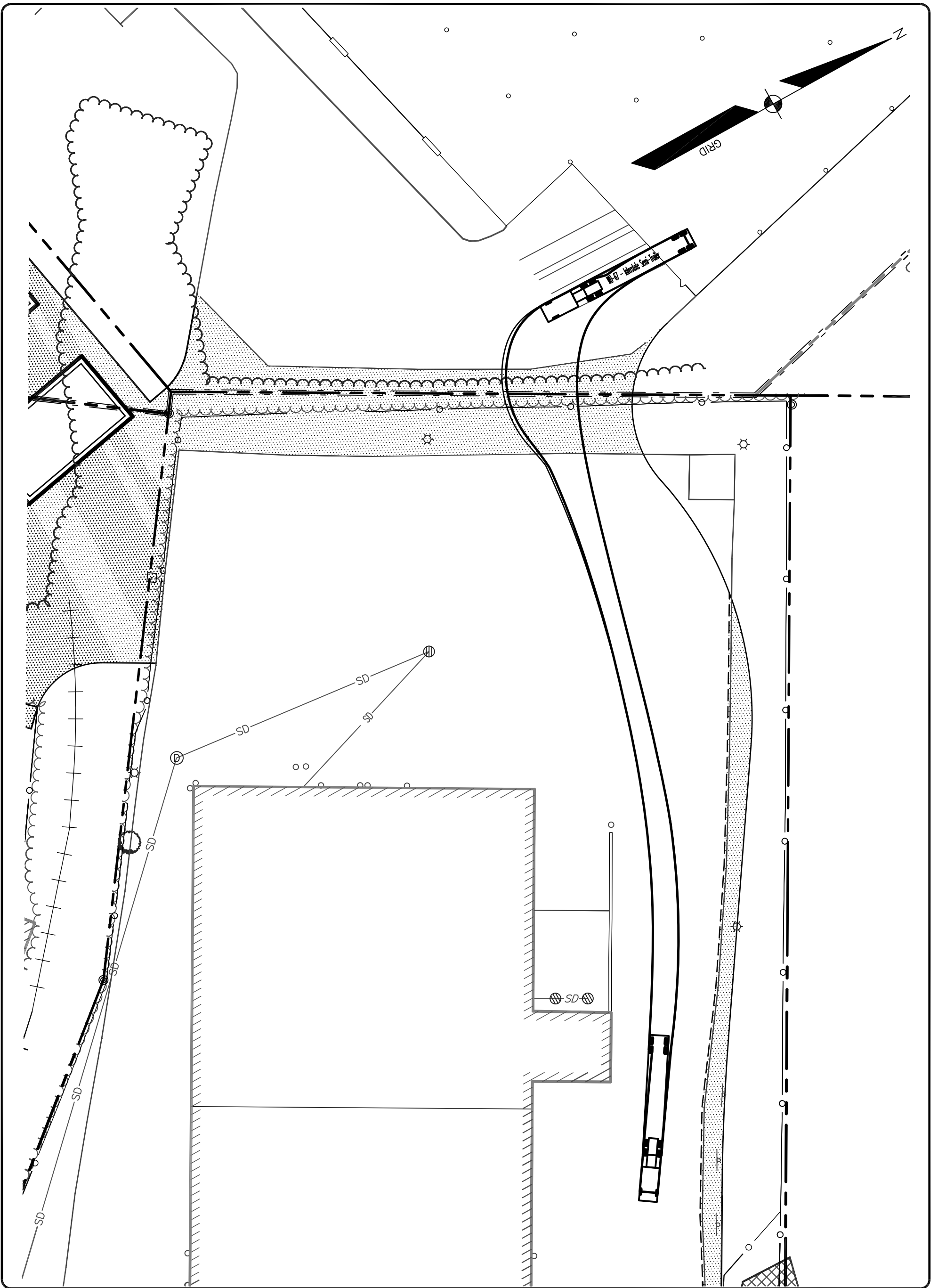
- Ultra efficient LED and optical design
- Replaces 175W MH floodlights
- 100,000 hour life based on LM-80 tests
- Air-flow technology heatsink
- 5-year warranty

Ordering Matrix

Family	Watts	Mount	Color Temp	Beam Spread	Finish	Dimming	Voltage	Photocell
FFLED	52 = 52W	= Arm T = Trunnion SF = Slipfitter	= Cool Y = Warm N = Neutral	= 7H x 6V B44 = 4H x 4V B55 = 5H x 5V	= Bronze W = White	= No Dimming /D10 = Dimmable	= 120-277V /480 = 480 Volt	= No Photocell /PC = 120V Button /PC2 = 240V Button /PCS = 120V Swivel /PCS2 = 240V Swivel

Exhibit 9

Traffic Movement



SHEET 1 OF 1

TURNING SKETCH
 OF:
SAND & SALT STORAGE FACILITY
 CANCO ROAD
 PORTLAND, MAINE 04102
 FOR:
CITY OF PORTLAND - DEPARTMENT OF PUBLIC SERVICES
 55 PORTLAND STREET
 PORTLAND, MAINE 04101

SEBAGO
 T E C H N I C S
 WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd. Suite 1A South Portland, ME 04106 Tel. 207-200-2100	250 Goddard Rd. Suite B Lewiston, ME 04240 Tel. 207-783-5656
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 MODIFIED WITHOUT
 WRITTEN PERMISSION FROM
 SEBAGO TECHNICS, INC.
 ANY ALTERATIONS,
 AUTHORIZED OR
 OTHERWISE, SHALL BE AT
 THE USER'S SOLE RISK
 AND WITHOUT LIABILITY TO
 SEBAGO TECHNICS, INC.

Exhibit 10

Site Plans (Reduced Size)