n # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

Please Read Application And Notes, If Any, Attached

BU[illegible]TION

PERMIT

PERMIT ISSUED

Permit Number: 100867

This is to certify that 50 INDUSTRIAL WAY LLC A[illegible]gford & [illegible] SEP 28 2010

Has permission to 40' x 130' Addition FOUNDAT[illegible]N ONLY

50 INDUSTRIAL WAY CE[illegible]326 B009001 City of Portland

Provided that the person or persons, fi[illegible] or co[illegible]on ac[illegible]ting this permit shall comply with all of the provisions of the Statutes of Ma[illegible]e and of the O[illegible]ces of the City of Portland regulating the construction, maintenance and use[illegible] buildings and stru[illegible]res, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notif[illegible]tion of [illegible]spectio[illegible]nust be give[illegible]nd writte[illegible]ermissio[illegible]rocured befo[illegible]his buil[illegible]g or pa[illegible]hereof is lath[illegible] or othe[illegible]ed-in. 2[illegible] HOU[illegible]NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. CAPT. K. Lawhead

Health Dept. _____

Appeal Board _____

Other _____

Department Name

Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No:	Issue Date:	CBL:
10-0867		326 B009001

Location of Construction:	Owner Name:	Owner Address:	Phone:
50 INDUSTRIAL WAY	50 INDUSTRIAL WAY LLC	50 INDUSTRIAL WAY	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Langford & Low, Inc.	PO Box 662 Portland	2077975141
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	**Zone:**
		Foundation Only/Commercial	I-M

Past Use:	Proposed Use:	Permit Fee:	Cost of Work:	CEO District:
Commercial "Allagash Brewery"	Commercial "Allagash Brewery" - 40' x 130' Addition FOUNDATION ONLY	$340.00	$32,000.00	5

FIRE DEPT: ☑ Approved ☐ Denied

*See Conditions

Signature: KG

INSPECTION: Use Group: F-2 Type: N/A

Foundation Only IBC 2003

Signature: MB 9/28/10

Proposed Project Description:
40' x 130' Addition FOUNDATION ONLY

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)

Action: ☐ Approved ☐ Approved w/Conditions ☐ Denied

Signature: Date:

Permit Taken By:	Date Applied For:
ldobson	07/21/2010

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building permits do not include plumbing, septic or electrical work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

PERMIT ISSUED

SEP 28 2010

City of Portland

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
☐ Shoreland	☐ Variance	☑ Not in District or Landmark
☐ Wetland	☐ Miscellaneous	☐ Does Not Require Review
☐ Flood Zone	☐ Conditional Use	☐ Requires Review
☐ Subdivision	☐ Interpretation	☐ Approved
☐ Site Plan	☐ Approved	☐ Approved w/Conditions
Maj ☐ Minor ☐ MM ☐	☐ Denied	☐ Denied
Date: 7/23/10	Date:	Date:

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT | ADDRESS | DATE | PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE | DATE | PHONE

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the City of Portland Inspection Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months, if the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue with construction.**

__X__ **Footing/Building Location Inspection: Prior to pouring concrete or setting precast piers**

__X__ **Re-Bar Schedule Inspection: Prior to pouring concrete**

__X__ **Underground electrical or plumbing inspection prior to pouring concrete**

__X__ **The final report of Special Inspections shall be submitted prior to the final inspection or the issuance of the Certificate of Occupancy**

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No:	Date Applied For:	CBL:
10-0867	07/21/2010	326 B009001

Location of Construction:	Owner Name:	Owner Address:	Phone:
50 INDUSTRIAL WAY	50 INDUSTRIAL WAY LLC	50 INDUSTRIAL WAY	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Langford & Low, Inc.	PO Box 662 Portland	(207) 797-5141
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		Foundation Only/Commercial	

Proposed Use:	Proposed Project Description:
Commercial "Allagash Brewery" - 40' x 130' Addition FOUNDATION ONLY	40' x 130' Addition FOUNDATION ONLY

Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Marge Schmuckal **Approval Date:** 07/23/2010

Note: **Ok to Issue:** ☑

1) Separate permits shall be required for any new signage.

2) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.

Dept: Building **Status:** Approved with Conditions **Reviewer:** Jeanine Bourke **Approval Date:**

Note: **Ok to Issue:** ☐

1) This is approval for foundation work only, separate review and approval is required for the building construction.

Dept: Fire **Status:** Approved **Reviewer:** Capt Keith Gautreau **Approval Date:** 07/29/2010

Note: **Ok to Issue:** ☑

Comments:

7/23/2010-mes: WAIT FOR PLANNING SIGN OFF BEFORE ISSUING

9/10/2010-jmb: Left vcmsg for Gabby at L & L for geotech report and statement of special inspections. Received email with the geotech report and complete special inspections report for the whole project. Ok to issue pending planning/drc approval.

9/28/2010-jmb: Received email from Phil D. For approval, ok to issue

Jeanie Bourke - 100 Industrial Way, Allagash Brewing - Building Permit

From: Philip DiPierro
To: Code Enforcement & Inspections
Date: 9/27/2010 4:34 PM
Subject: 100 Industrial Way, Allagash Brewing - Building Permit
CC: Giles, Eric

Hi all, this project meets minimum DRC site plan requirements for the issuance of the building permit. Please see HTE for sign off.

Thanks.

Phil

Marge Schmuckal - 50 Industrial Way - Allagash Brewing

From: Marge Schmuckal
To: Eric Giles; Philip DiPierro
Date: 7/23/2010 11:51 AM
Subject: 50 Industrial Way - Allagash Brewing

We have received a permit application to begin work on the new foundation - can a permit be issued?
Marge

General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: 50 Industrial way, Portland		
Total Square Footage of Proposed Structure/Area: 5200 ft²	Square Footage of Lot	
Tax Assessor's Chart, Block & Lot Chart# 326 Block# B Lot# 9	Applicant *must be owner, Lessee or Buyer* Name Rob Todd Address 50 Industrial Way City, State & Zip Portland, ME	Telephone: 207-878-5385
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name Rob Todd Address (SEE ABOVE) City, State & Zip	Cost Of Work: $ 32,000 DPW C of O Fee: $ Total Fee: $ 340

Current legal use (i.e. single family) Brewery
If vacant, what was the previous use?
Proposed Specific use: Brewery
Is property part of a subdivision? If yes, please name
Project description:
Brewery addition that is 40ft by 130ft. 1 level and is similar to existing building. (Foundation only) DPW

Contractor's name: Langford and Low
Address: 248 Warren Avenue
City, State & Zip Portland, ME 04103 Telephone: 207-797-5141
Who should we contact when the permit is ready: Gabrielle Russell Telephone: 207-797-5141
Mailing address: 248 Warren Ave. P.O. Box 662 Portland ME, 04103

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

RECEIVED
JUL 21 2010
Dept. of Building Inspections
City of Portland Maine

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

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 and 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 Code Official'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.

Signature: Date: 7/19/10

This is not a permit; you may not commence ANY work until the permit is issue

With Barbara

Applicant: Allagash Brewing Date: 6/8/10

Address: 50 Industrial Way C-B-L: 326-B-9

CHECK-LIST AGAINST ZONING ORDINANCE

Date - #10-086 Expired Site Plan 2009

Zone Location - I-M

Interior or corner lot -

Proposed Use/Work - Addition for 5,200# Allagash Brewery addition for Warehouse storage

Sewage Disposal - City 40'x130' > use ok

Lot Street Frontage - 60' min - 60'+ shown

Front Yard - 1' for every 1' of Bldg height - 36.0 min req - 107' Scaled

Rear Yard - 25' min - 95' Scaled

Side Yard - 25' min - 31.5' & 33' Scaled

Projections -

Width of Lot -

Height - 75' MAX - 2 story shown - 36' from lowest to highest ~~33.5~~ on previous SAPPL.

Lot Area - ~~73,180# Assessors~~ 73,073# given — No min lot size req

Lot Coverage/ Impervious Surface - 75% max * 73073 x 75% = 54,804.75# max allowed

18,268.2# min pervious → showing AT least 35,220# pervious

Area per Family - N/A

Off-street Parking - offices 950# ÷ 400 = 5 pkg spaces

max 75,000 ÷ 1,000 = 16 pkg spaces } 21 pkg spcs req - 22 pkg shown

Loading Bays - 1 Loading Dock - 14'x50' - 1 loading Dock shown

Site Plan - #10-79900008 (previous approval lapsed

Shoreland Zoning/ Stream Protection - N/A

Flood Plains - Panel 1 - Zone C

min 10' pavement setback req. - is meeting

STATEMENT OF SPECIAL CONSTRUCTION MONITORING

PROJECT: **ALLAGASH BREWERY ADDITION**
50 Industrial Way, Portland, Maine

PERMIT APPLICANT: **Langford and Low Inc**
APPLICANT'S ADDRESS: **248 Warren Ave, Portland, ME**

STRUCTURAL ENGINEER OF RECORD
Associated Design Partners, Inc
80 Leighton Rd, Falmouth ME 04105

CONTRACTOR: **Langford and Low Inc**

This Statement of Special Construction Monitoring is submitted as a condition for building permit issuance in accordance with Section 1704.0 of the 2003 International Building Code. It includes the Schedule of Special Construction Monitoring and Testing as applicable to this project. Also included is a listing of agents and other approved agencies to be retained for conducting the monitoring and testing applicable to this project.

The Special Construction Monitoring Coordinator shall keep records of all observations listed herein, and shall furnish field reports to the Registered Design Professional of Record. All discrepancies shall be brought to the immediate attention of the Contractor for correction, and to the Registered Design Professional of Record. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Registered Design Professional of Record. Interim reports shall be submitted to the Registered Design Professional of Record monthly, unless more frequent submissions are requested.

The Special Construction Monitoring program does not relieve the Contractor of his or her responsibilities. Job site safety is solely the responsibility of the Contractor. Materials and activities covered under the monitoring schedule are not to include the Contractor's equipment and methods used to erect or install the materials listed.

Prepared by:

Aaron S. Wilson
(type or print name)

9-10-10

Signature Date

Design Professional Seal

Owner's Authorization:

Building Official's Acceptance:

SPECIAL CONSTRUCTION MONITORING AGENTS

This Statement of Special Construction Monitoring / Quality Assurance Plan includes the following building systems:

- ☒ Soils and Foundations
- ☒ Cast-in-Place Concrete Retaining walls
- ☐ Precast Concrete
- ☐ Masonry
- ☒ Structural Steel
- ☒ Cold-Formed Steel Framing
- ☐ Spray Fire Resistant Material
- ☐ Wood Construction
- ☐ Exterior Insulation and Finish System
- ☐ Mechanical & Electrical Systems
- ☐ Architectural Systems
- ☐ Special Cases

AGENT	FIRM	CONTACT INFORMATION
1. Engineer of Record	**Associated Design Partners**	**80 Leighton Rd** **Falmouth ME 04105** **Ph: 878-1751**
2. Special Construction Monitoring Coordinator	**Associated Design Partners**	**80 Leighton Rd** **Falmouth ME 04105** **Ph: 878-1751**
3. Field Monitor	**S.W. Cole**	**286 Portland Road** **Gray, ME 04039-9586** **P: (207) 657.2866**
4. Testing Agency	**S.W. Cole**	**286 Portland Road** **Gray, ME 04039-9586** **P: (207) 657.2866**

Note: The testing agency shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

QUALITY ASSURANCE FOR LATERAL SYSTEMS

Quality Assurance for Seismic Requirements

Seismic Design Category *B*

Quality Assurance Plan Required (Y/N) *N*

If seismic design category C, and plan is not required, explain (see exceptions to 1705.1)

Description of seismic force resisting system and designated seismic systems:

Ordinary Steel Moment Resisting Frames

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) *98MPH*

Quality Assurance Plan Required (Y/N) *N*

Description of wind force resisting system and designated wind resisting components:
Ordinary Steel Moment Resisting Frames.

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility in accordance with section 1705.3, and 1706.3 of the 2003 IBC code.

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE Structural Engineer – a licensed SE or PE specializing in the design of building structures

PE/GE Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations

EIT Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT Concrete Field Testing Technician – Grade 1
ACI-CCI Concrete Construction Inspector
ACI-LTT Laboratory Testing Technician – Grade 1&2
ACI-STT Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI Certified Welding Inspector
AWS/AISC-SSI Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT Non-Destructive Testing Technician – Level II or III.

International Code Council (ICC) Certification

ICC-SMSI Structural Masonry Special Inspector
ICC-SWSI Structural Steel and Welding Special Inspector
ICC-SFSI Spray-Applied Fireproofing Special Inspector
ICC-PCSI Prestressed Concrete Special Inspector
ICC-RCSI Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT Concrete Technician – Levels I, II, III & IV
NICET-ST Soils Technician - Levels I, II, III & IV
NICET-GET Geotechnical Engineering Technician - Levels I, II, III & IV

Exterior Design Institute (EDI) Certification

EDI-EIFS EIFS Third Party Inspector

TABLE 1 – SCHEDULE OF SPECIAL CONSTRUCTION MONITORING

MATERIAL / ACTIVITY		EXTENT of MONITORING (Continuous, Periodic, Other, Exempt, None)	COMMENTS	AGENT #	DATE COMPLETED	REV #
1704.3 STEEL CONSTRUCTION						
1. Material Verification of high strength bolts, nuts, and washers.	a. Identification markings to conform to ASTM standards specified in the approved construction documents.	Periodic	Provide inspection reports for field installed bolts to Agent 1 also.	3		
	b. Manufacturers Certificate of Compliance required.	Other	Fabricator to provide Certificate to Agent 1.	1		
2. Inspection of High – Strength Bolting	a. Bearing type connections	Periodic	Provide inspection reports to Agent 1 also.	3		
	b. Slip – critical connections	None	No S-C connections in building			
3. Material Verification of structural steel	a. Identification marking to conform to ASTM standards specified in the contract documents.	Exempt	Fabricator is AISC certified.			
	b. Manufacturers certified mill test Reports.	Other	Fabricator to provide Certificate to Agent 1.	1		
4. Material Verification of weld filler materials:	a. Identification marking to conform to AWS standards specified in the contract documents.	Exempt	Fabricator is AISC certified.			
	b. Manufacturers Certificate of Compliance required.	Exempt	No field welding. Shop welding performed by AISC certified fabricator			
5. Inspection of Welding – Structural Steel	a. Single Pass fillet welds < 5/16"	Periodic	Inspect Field welds only. Shop welding performed by AISC certified fabricator	3		
	b. Roof deck attachment	Periodic	Provide inspection reports to Agent 1 also.	3		
6. Inspection of Steel Frame Joint details for compliance with approved documents.	a. Bracing / moment frame connections	Periodic	Provide inspection reports to Agent 1 also.	3		
	b. Member locations	Periodic	Provide inspection reports to Agent 1 also.	3		
	c. Application of joint details at each connection.	Periodic	Provide inspection reports to Agent 1 also.	3		

TABLE 1 – STATEMENT OF SPECIAL INSPECTIONS, cont.

MATERIAL/ACTIVITY		EXTENT of INSPECTION (Continuous, Periodic, Other, None)	COMMENTS	AGENT #	DATE COMPLETED	REV #
1704.4 CONCRETE CONSTRUCTION						
1. Inspection of reinforcing steel, including placement.		Periodic		1		
2. Inspection of reinforcing steel welding		None	No welding of rebar specified in contract drawings			
3. Inspect bolts embedded into concrete prior to and during placement of concrete where allowable loads have been increased.		None	Allowable loads have not been increased for lateral loads.			
4. Verify concrete mix design(s)		Periodic	SER to review and approve mix design(s) prior to delivery.	1		
5. Sample fresh concrete for strength tests, perform slump and air content tests, and determine temperature of concrete.		Continuous		3,4		
6. Inspection of concrete placement for proper techniques.		Continuous		3		
7. Inspection for maintenance of specified curing temperature and techniques.		Periodic		3		
1704.5 MASONRY CONSTRUCTION - Level 1 Special Inspection for non-essential facility – 1704.5.2						
1. As Masonry Construction begins, the following shall be verified to ensure conformance	a. Proportions of site-prepared mortar	None				
	b. Construction of mortar joints	None				
	c. Location of reinforcement	None				
	d. Pre-stressing technique	None	No pre-stressing in building			
	e. Grade and size of pre-stressing tendons.	None	No pre-stressing in building			
2. The Inspection program shall verify the following:	a. Size and location of structural elements.	None				
	b. Type, size, and location of embedded anchors.	None				
	c. Size, grade, and type of reinforcing	None				
1704.5MASONRY CONSTRUCTION - Level 1 Special Inspection for non-essential facility – 1704.5.2						

TABLE 1 – STATEMENT OF SPECIAL INSPECTIONS, cont.

MATERIAL/ACTIVITY		EXTENT of INSPECTION (Continuous, Periodic, Other, None)	COMMENTS	AGENT #	DATE COMPLETED	REV #
2. The Inspection program shall verify the following, cont:	d. welding of reinforcing bars	None				
	e. Protection of Masonry during cold weather (temp. below 40 deg F.)	None				
	f. Application and measurement of pre-stressing reinforcement	None	No pre-stressing in building			
3. Prior to grouting, the following shall be verified to ensure compliance.	a. Grout space is clean	None				
	b. Placement of reinforcement	None				
	c. Proportions of site-prepared grout	None				
	d. Construction of mortar joints	None				
4. Grout placement shall be verified to ensure compliance with code and construction document provisions.		None				
5. Preparation of any grout specimens, mortar specimens and/or prisms shall be observed		None				
6. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.		None				
1704.6WOOD CONSTRUCTION						
1. Horizontal Diaphragms and Vertical Shearwalls	a. Inspect sheathing size, grade, and thickness for conformance with construction documents.	None				
	b. Inspect sheathing fastener size and pattern for conformance with construction documents.	None				
	c. Verify attachment to supporting elements is per contract documents.	None				
2. Wood truss fabricator certification / quality control procedures	Verify shop fabrication and quality control procedures for wood truss plant.	None				
3. Material Grading	Verify material grading for sawn lumber for compliance with construction documents. Verify manufactured lumber (LVL'S, PSL's) for conformance with construction documents.	None				

1704.6WOOD CONSTRUCTION						
4. Wood Connections	Verify that connections are made as shown in the contract documents. For connections not specifically detailed, verify conformance with IBC 2003 Ch. 23	None				
5. Framing	Verify that framing is installed in accordance with construction documents.	None				
6. Pre-Fabricated Wood Trusses	Inspect truss and all bracing installation. Bracing to be installed per fabricator's recommendations and BCSI 1-03	None				
1704.7SOILS						
1. Site Preparation	Inspect preparation of site for conformance with Geotechnical recommendations prior to placement of prepared fill.	Periodic		3		
2. Fill Placement	During Fill Placement verify that material and lift thickness comply with approved Geotechnical report.	Periodic		3		
3. In-Place Soil Density	Verify compliance of in-place compacted dry density with approved Geotechnical report.	Periodic		3		
1704.7PILE FOUNDATIONS	Record installation and testing of procedures of each pile. Submit reports to building official and EOR. Reports to include pile tip cutoff elevation relative to a common benchmark.	None	No Piles on Job			
1704.10 ARCHITECTURAL WALL PANELS AND VENEERS	Verify compliance of attachment of interior and exterior Architectural veneers to supporting structure for building in Seismic Design Category E or F.	None	Building is Seismic Design Category B			
1704.11 SPRAYED FIRE-RESISTANT MATERIAL	a. Verify conformance of the prepared surface with manufacturer's specifications prior to application of material.	None	No Sprayed Fire-Resistant material in building.			
	b. Verify that substrate's ambient temperature meet manufacturer's specifications.	None				
	c. Verify that material thickness meets design specifications.	None				
	d. Verify that the material density meets the design specifications. Test in	None				

	accordance with ASTM E 605.					
	e. Verify that bond strength between material and substrate is greater than or equal to 150 psf. Test in accordance with ASTM E 736 and IBC 2003 1704.11.5.1 – 1704.11.5.2	None				
1704.12 EXTERIOR AND INSULATION AND FINISH SYSTEMS (EIFS)	Verify conformance of EFIS installation with manufacturers and design specifications.	None	No EIFS on building.			
1704.13 SPECIAL CASES COLD FORMED METAL FRAMING						
1. Framing	Verify member size, thickness, material, and spacing is in accordance with design specifications and drawings.	None				
2. Framing Connections	Verify that member connections are in accordance with design specifications and drawings.	None				
3. Welding	Verify welding of cold formed members is in accordance with design specifications and AWS standards.	None				
4. Light Gage Trusses	a. Verify that light gage trusses are design in accordance with the loads specified on the contract documents.	None				
	b. Verify that light gage trusses and truss bracing is installed per manufacturers specifications, contract documents, and BCSI 1-03 guidelines.	None				
1704.10 SMOKE CONTROL						
	a. Test ductwork for leakage and recode device locations prior to concealment of mechanical systems.	None				
	b. Prior to building occupation, perform pressure difference testing, flow measurements and detection, and control monitoring.	None				

Sebago Technics

sebago@technics.com
One Chabot Street
P.O. Box 1339
Westbrook, Maine
04098-1339
Ph. 207-856-0277
Fax 856-2206

March 15, 2006
02249

Mr. Rob Tod
Allagash Brewing
100 Industrial Way
Portland, ME 04103

Report on Subsurface and Foundation Investigation
Proposed Office and Production /Warehouse Facility, Portland, Maine

Dear Rob:

This report presents the results of our subsurface and foundation investigation for your proposed Office and Production/Warehouse Facility in Portland, Maine. These services were provided in accordance with our proposal dated January 19, 2006.

In summary, it is our opinion that the facility may be supported on spread and continuous footings bearing on the undisturbed, naturally deposited clay, or on compacted structural fill placed after removal of unsuitable soils or for raises-in-grade. In addition, an earth-supported slab-on-grade may be used for the ground floor. Specific recommendations regarding foundation design and construction considerations are presented below.

Introduction

The site is located immediately west of your existing facility on Industrial Way in Portland. The site is presently moderately wooded, and ground surface elevations within the limits of the building vary from approximately El. 76 to El. 82. The proposed facility will consist of an approximately 17,000-square foot building consisting of offices and production and warehouse space. Ground (lowest) floor will be at El. 83.5. The production and warehouse area will be single-story with high ceiling, and the office area will be two stories. We understand that floor loads resulting from equipment and product weights within the facility vary from approximately 27 pounds per square foot (psf) to 377 psf. A raise-in-grade of up to 6 feet will be required in the northeast corner.

Subsurface Explorations

On February 9 and 10, 2006, Maine Test Borings, Inc. (MTB) of Brewer, Maine drilled four borings, B1 to B4, at the site at locations shown on Sheet 1, Subsurface Exploration Plan. MTB drilled the borings to depths below ground surface varying from 22.0 feet to 32.0 feet. Sebago Technics, Inc. monitored the borings and prepared the logs included in Appendix A. Table I summarizes the results of borings. MTB backfilled the borings with the drilled material.

Borings were drilled using 2.5-inch inside diameter hollow stem auger borings. Samples were recovered at 5 foot intervals. Standard Penetration Resistance (N) was measured at each sample interval in accordance with ASTM Test D1586.

Sebago Technics, Inc. determined the locations of borings by survey methods. We determined the ground surface elevations at borings by linear interpolation between ground surface contours at the plotted locations.

The boring logs and related information depict the subsurface conditions and water levels encountered at the locations and during the times indicated on the logs. Subsurface conditions at other locations may differ from those encountered in the test borings. The passage of time may result in a change in groundwater conditions at the exploration.

Subsurface Conditions

The borings encountered three principal soil units at the site: topsoil, marine clay and marine sand. Encountered thickness and generalized descriptions of the strata encountered are presented below in order of increasing depth below ground surface. Due to the complexity of the deposition process, strata thickness will vary and may be absent at specific locations.

Topsoil - Topsoil consists of very soft, dark brown to brown sandy SILT (ML) with roots. Encountered thickness varies from 0.5 foot to 1.0 foot.

Marine Clay – Marine clay consists of medium stiff to very stiff, olive brown to gray lean CLAY (CL) with frequent sand partings. Encountered thickness varies from 9.4 feet to 19.6 feet.

Marine Sand – Marine sand consists of loose to medium dense, brown to tan poorly-grade SAND (SP). Borings penetrated up to 16.9 feet into the marine sand.

Water was only observed in B3 at a depth of 24.5 feet below ground surface. Observation of water was made over a relatively short period of time and may not represent the stabilized groundwater level. It is likely that water is perched on the top of the clay stratum during wet periods of the year. In addition, water levels at the site will vary with season, precipitation, temperature and construction activity in the area. Therefore, water levels during and following construction will vary from those measured in the borings.

Strength and Compressibility Characteristics of Clay Stratum

The stress history of the clay deposit, as developed from correlations with shear strength of similar clays in the area, is summarized on Figure 1. The undrained shear strength of the clay stratum was estimated from correlations with the Standard Penetration Resistance, N, measured at sample intervals. Correlations of shear strength vary from 1,000 psf to 2,500 psf. The stress history of the deposit was estimated by comparing the estimated undrained shear strength with correlations for strength and stress history of clay from other projects with similar conditions.

The stress-strain or compressibility characteristics (settlement) of clays are highly dependent upon their stress history. If clay is stressed within the limits of the maximum previous stress, σ_{vm}, the strain (settlement) will be a function of the recompression ratio (RR) of the clay. If the applied stress exceeds the maximum previous stress, the strain will be proportional to the virgin compression ratio (CR). The compression ratio is typically 10 to 15 times the recompression ratio.

The stress history and appropriate compression ratios were estimated for the clay deposit as discussed above. The correlations indicate that the deposit is significantly overconsolidated; that is, the existing overburden stress is considerably less than the maximum previous stress. The deposit likely became overconsolidated due to desiccation (drying) resulting from a lowering of the groundwater level at some time in the geologic past which created a stiff upper crust and also increased the effective overburden stress throughout the stratum.

Recommendations for Foundation Design

Recommended Foundation Type and Design Criteria

The existing topsoil is not considered suitable for support of the building or floor slab. All topsoil should be removed from within the building limits. In our opinion, the building may be supported on spread and continuous footings bearing on undisturbed, naturally-deposited clay, or on compacted structural fill placed after removal of unsuitable soil or for raises-in-grade. Interior walls may be supported on footings or thickened portions of the floor slab.

For uniformity, footings may be proportioned for an allowable bearing stress in pounds per square foot (psf) equal to 1,000 multiplied by the least lateral dimension of the footing in feet, up to 3,000 psf. All footings should be a minimum of 2.0 feet wide.

Exterior footings should be founded at least 4.5 feet below the lowest adjacent ground surface exposed to freezing. Interior footings should be founded a minimum of 1.5 feet below the ground floor slab.

Compacted structural fill supporting footings should extend laterally from the footings to at least the limits defined by 1 horizontal to 1 vertical lines sloped outward and downward from points located at least 2 feet horizontally beyond the bottom edges of the footings.

In order to consider foundations bearing above the clay stratum, we estimated the settlement of the clay resulting from the increased stress from the raise-in-grade, equipment and product weights, and building loads. We estimated the stress history of the clay stratum by correlating the undrained shear strength with that from other projects in the area. We estimate that the total settlement of the building will be on the order of 1.0 inch or less, with differential settlement less than 0.5 inch in 40 feet. We estimate that approximately 20 percent of this settlement will occur during the construction period and the remainder will be long-term settlement occurring over 10 years. We anticipate that settlement of this magnitude is acceptable. However, the structural engineer should determine final acceptability of settlement.

Ground Floor Slab

We recommend that the lowest level floor slab for the building be designed as an earth-supported, slab-on-grade bearing on a minimum 6 inches of compacted structural fill. All topsoil should be removed from within the building limits prior to placing fill. All fill placed below the floor slab for raises-in-grade should consist of compacted structural fill. Normal dampproofing and vapor barriers should be provided below the slab.

We recommend a modulus of subgrade reaction of 250 pounds per cubic inch for slab design.

Seismic Design Considerations

We recommend that the building be designed in accordance with the seismic requirements of the latest edition of the International Building Code, the site classification is Class D; the site response coefficient F_a is 1.5 for a short period spectral response acceleration S_s of 0.37g; the site response coefficient F_v is 2.4 for the 1-second period spectral response acceleration S_1 of 0.10g. The subgrade soils are not considered liquefaction susceptible.

Lateral Foundation Loads

We recommend that lateral loads be resisted by bottom friction on footings and that a coefficient of friction equal to 0.35 be used for footings. If this does not provide sufficient lateral resistance, we will consider the problem in more detail to take into account other factors.

Backfill Materials

Structural fill used below foundations and floor slabs and for backfill adjacent to walls should consist of sandy gravel to gravelly sand. It should be free of organic material, loam, trash, snow, ice, frozen soil and other objectionable material, and should conform to the following gradation:

Sieve Size	Percent Finer by Weight
6 inches	00
No. 4	30 to 90
No. 40	10 to 50
No. 200	to 8

Compacted structural fill should be placed in layers not exceeding eight inches in loose measure and compacted by self-propelled vibratory equipment at the approximate optimum moisture content to a dry density of at least 95 percent of the maximum dry density, as determined in accordance with ASTM Test Designation D1557. In confined areas, the maximum particle size should be reduced to 3 inches and the loose layer thickness should be reduced to 6 inches and compaction performed by hand-guided vibratory equipment.

Compacted structural fill on the outside of the foundation walls should extend laterally a minimum of 2 feet from the wall. Backfill beyond this limit may consist of common fill. The top 12 inches of fill on the exterior of the building should consist of low permeability material or bituminous concrete pavement to minimize water infiltration next to the building. Grading should provide for runoff away from the building.

Common fill may consist of inorganic mineral soil that can be placed in layers and compacted. Common fill should be placed and spread in layers not exceeding 12 inches in thickness and compacted with a minimum of two systematic passes of the equipment placing the fill.

Pavement Section

We recommend the following pavement sections for roads and parking areas:

Roads and Automobile Parking Areas

3 in. bituminous concrete, placed in two layers
3 in. screened or crushed gravel base course
12 in. sand or gravel subbase course

Base and subbase course materials should conform to the following gradations:

Base Course

Screened or Crushed Gravel (Maine DOT Standard Specification, Highways and Bridges; Section 703.06a, Type A)

Sieve Size	Percent Finer by Weight
2 inches	100
1/2 inch	45 to 70
1/4 inch	30 to 55
No. 40	0 to 20
No. 200	0 to 5

Subbase Course

Sand or Gravel (Maine DOT, Section 703.06b, Type D)

Sieve Size	Percent Finer by Weight
4 inches	100
1/4 inch	25 to 70
No. 40	0 to 30
No. 200	0 to 7

(Note: Type D aggregate should be modified to a maximum 4 inch size. Compacted structural fill may be substituted for gravel subbase course, but the maximum particle size should be reduced to 4 inches.)

All topsoil should be removed from within the limits of pavement.

Subbase course material should be placed in maximum 8-inch thick loose lifts and compacted at approximately optimum moisture content to a dry density of at least 95 percent of maximum dry density, as determined in accordance with ASTM Test Designation D1557. Base course material should be placed in one lift and compacted with a minimum of two coverages with self-propelled vibratory compaction equipment.

It should be noted that the subgrade soils may be frost-susceptible. Therefore, pavement roughness due to non-uniform frost movement may occur. To eliminate such non-uniform frost movement would require approximately 4.5 feet of structural fill subbase. However, it is common practice to tolerate seasonal movement to avoid the high cost of the added thickness of subbase.

Construction Considerations

General

The primary purpose of this section of the report is to comment on items related to excavation, earthwork, and related geotechnical aspects of proposed construction. It is written primarily for the engineer having responsibility for preparation of plans and specifications. Since it identifies potential construction problems related to foundations and earthwork, it will also aid personnel who monitor the construction activity. Contractors for this project must evaluate the construction problems on the basis of their own knowledge and experience in the Portland, Maine area and on the basis of similar projects in other localities, taking into account their proposed construction methods, procedures, equipment and personnel.

Excavation, Lateral Support and Control of Water

We anticipate that foundation excavation can be accomplished with sloped open excavation through the overburden soils provided safe side slopes can be maintained. Some sloughing and raveling should be anticipated in temporary slopes. Temporary excavations should be made in accordance with all OSHA and other applicable regulatory agency requirements.

We anticipate that groundwater may be encountered at proposed subgrade level or bearing level of footings. Open pumping from sumps can likely control groundwater. In general, the contractor should control groundwater and water from runoff and other sources by methods which prevent disturbance of bearing surfaces or adjacent soils and allow construction in-the-dry.

Subgrade Preparation

The subgrade soil is susceptible to disturbance from construction traffic. Equipment and personnel should not be permitted to travel across exposed footing bearing surfaces or exposed slab subgrades. Any subgrade areas that are disturbed should be recompacted or excavated and replaced with compacted structural fill prior to placing concrete. Subgrades should be protected against freezing temperatures if exposed during construction. Final excavation to subgrade should be performed using equipment with smooth-edge buckets.

Construction Monitoring

The foundation recommendations contained herein are based on the known and predictable behavior of a properly engineered and constructed foundation. Monitoring of the foundation construction is required to enable the geotechnical engineer to keep in contact with procedures and techniques used in construction. Therefore, we recommend that a person qualified by training and experience be present to provide monitoring at the site during preparation of foundation bearing surfaces and placement of compacted structural fill.

Limitations of Recommendations

This report has been prepared for specific application to the subject project in accordance with generally accepted geotechnical engineering practices. In the event that any changes in the nature, design or location of the building are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and the conclusions of this report modified or verified in writing.

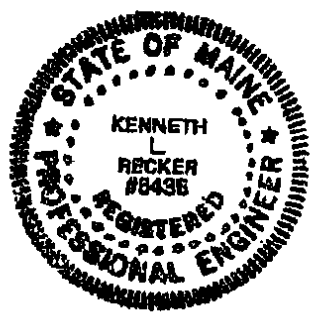
The recommendations presented herein are based in part on the data obtained from the referenced test borings. The nature and extent of variations between the explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.

We request that we be provided the opportunity for a general review of final design and specifications in order to determine that our earthwork and foundation recommendations have been interpreted and implemented in the design and specifications as they were intended.

It has been a pleasure to work with you on this project. Please do not hesitate to contact us if you have any questions or need additional information.

Sincerely,

SEBAGO TECHNICS, INC.



Kenneth L. Recker, P.E.
Geotechnical Engineering Manager

KLR:klr/jc

Enclosures:

Table I	- Summary of Test Borings
Sheet 1	- Subsurface Exploration Plan
Appendix A	- Logs of Test Borings

ZONING ADMINISTRATOR
MARGE SCHMUCKAL

June 16, 2010

I have reviewed the addition for a warehouse for Allagash Brewing. The property is located within an I-M Industrial Zone which allows the uses proposed and existing.

All the I-M Zone requirements are being met, including setbacks, building height, parking and maximum impervious surface requirements.

Separate permits are required for building permits and any new signage.

Certificate of Design Application

From Designer: Associated Design Partners Inc

Date: 7/16/10

Job Name: Allagash Brewery Addition

Address of Construction: _____

2003 International Building Code

Construction project was designed to the building code criteria listed below:

Building Code & Year IBC 2006 Use Group Classification (s) _____

Type of Construction _____

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC _____

Is the Structure mixed use? _____ If yes, separated or non separated or non separated (section 302.3) _____

Supervisory alarm System? _____ Geotechnical/Soils report required? (See Section 1802.2) _____

Structural Design Calculations

_____ Submitted for all structural members (106.1 – 106.11)

Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use	Loads Shown
WAREHOUSE	125PSF

Wind loads (1603.1.4, 1609)

ASCE METH 1 Design option utilized (1609.1.1, 1609.6)

98 Basic wind speed (1809.3)

1.0 Building category and wind importance Factor, I_w table 1604.5, 1609.5)

B Wind exposure category (1609.4)

N.A. Internal pressure coefficient (ASCE 7)

+/- 20 Component and cladding pressures (1609.1.1, 1609.6.2.2)

+/-20 Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

E.L.F. Design option utilized (1614.1)

II Seismic use group ("Category")

0.314 / 0.19 Spectral response coefficients, S_{DS} & S_{D1} (1615.1)

D Site class (1615.1.5)

NA Live load reduction

20PSF Roof *live* loads (1603.1.2, 1607.11)

42psf Roof snow loads (1603.7.3, 1608)

60PSF Ground snow load, P_g (1608.2)

42PSF If P_g > 10 psf, flat-roof snow load P_f

1.0 If P_g > 10 psf, snow exposure factor, C_e

1.0 If P_g > 10 psf, snow load importance factor, I_s

1.0 Roof thermal factor, C_t (1608.4)

NA Sloped roof snowload, P_s (1608.4)

B Seismic design category (1616.3)

O.S.M.R.F. Basic seismic force resisting system (1617.6.2)

3.5 Response modification coefficient, R_I and deflection amplification factor C_d (1617.6.2)

E.L.F. Analysis procedure (1616.6, 1617.5)

23.5K Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

NA Flood Hazard area (1612.3)

83.5 FT Elevation of structure

Other loads

NA Concentrated loads (1607.4)

NA Partition loads (1607.5)

NA Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404

Certificate of Design

Date: 7/16/10

From: Associated Design Partners Inc

These plans and / or specifications covering construction work on:

Allagash Brewery Addition

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the ***2003 International Building Code*** and local amendments.

STATE OF MAINE
AARON S. WILSON
NO 10429
LICENSED
PROFESSIONAL ENGINEER
(SEAL)

Signature:

Title: Engineer

Firm: Associated Design Partners Inc

Address: 60 Leighton Rd

Falmouth ME 04105

Phone: 207 878 6757

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

Accessibility Building Code Certificate

Designer: Associated Design Partners Inc

Address of Project: _____

Nature of Project: _____

_____

_____

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act. Residential Buildings with 4 units or more must conform to the Federal Fair Housing Accessibility Standards. Please provide proof of compliance if applicable

STATE OF MAINE
AARON S. WILSON
NO 10429
LICENSED PROFESSIONAL ENGINEER
(SEAL)

Signature: _____

Title: Engineer

Firm: Associated Design Partners Inc

Address: 86 Leighton Rd

Falmouth ME 04105

Phone: 207 878 1751

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

CITY OF PORTLAND, MAINE
Department of Building Inspections

Original Receipt

7.21 2010

Received from Dan Williams / Hanson

Location of Work 50 Intl Way.

Cost of Construction $_____ Building Fee: _____

Permit Fee $_____ Site Fee: _____

Certificate of Occupancy Fee: _____

Total: 340

Building (IL) ___ Plumbing (I5) ___ Electrical (I2) ___ Site Plan (U2) ___

Other _____

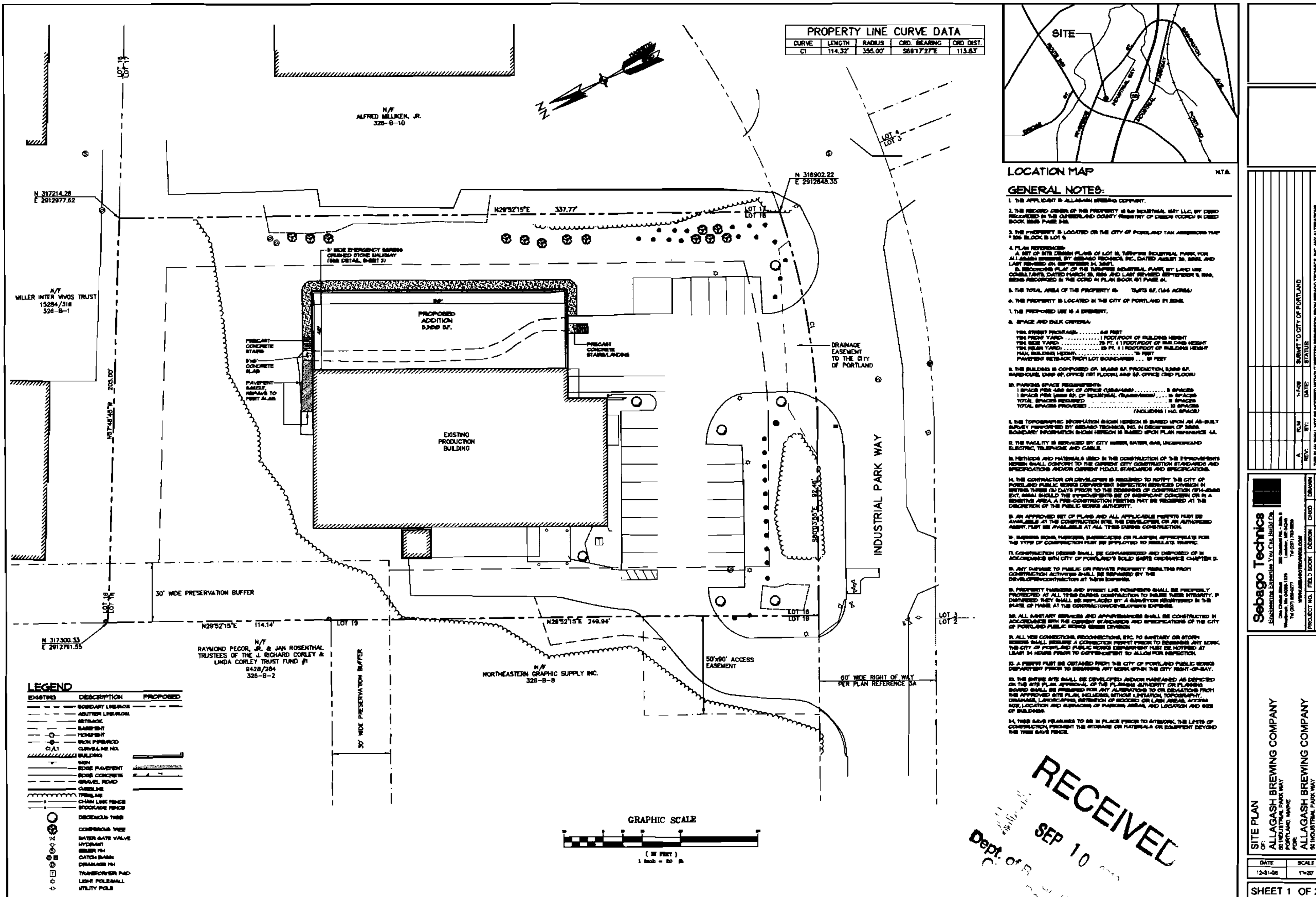
CBL: 326 D-9

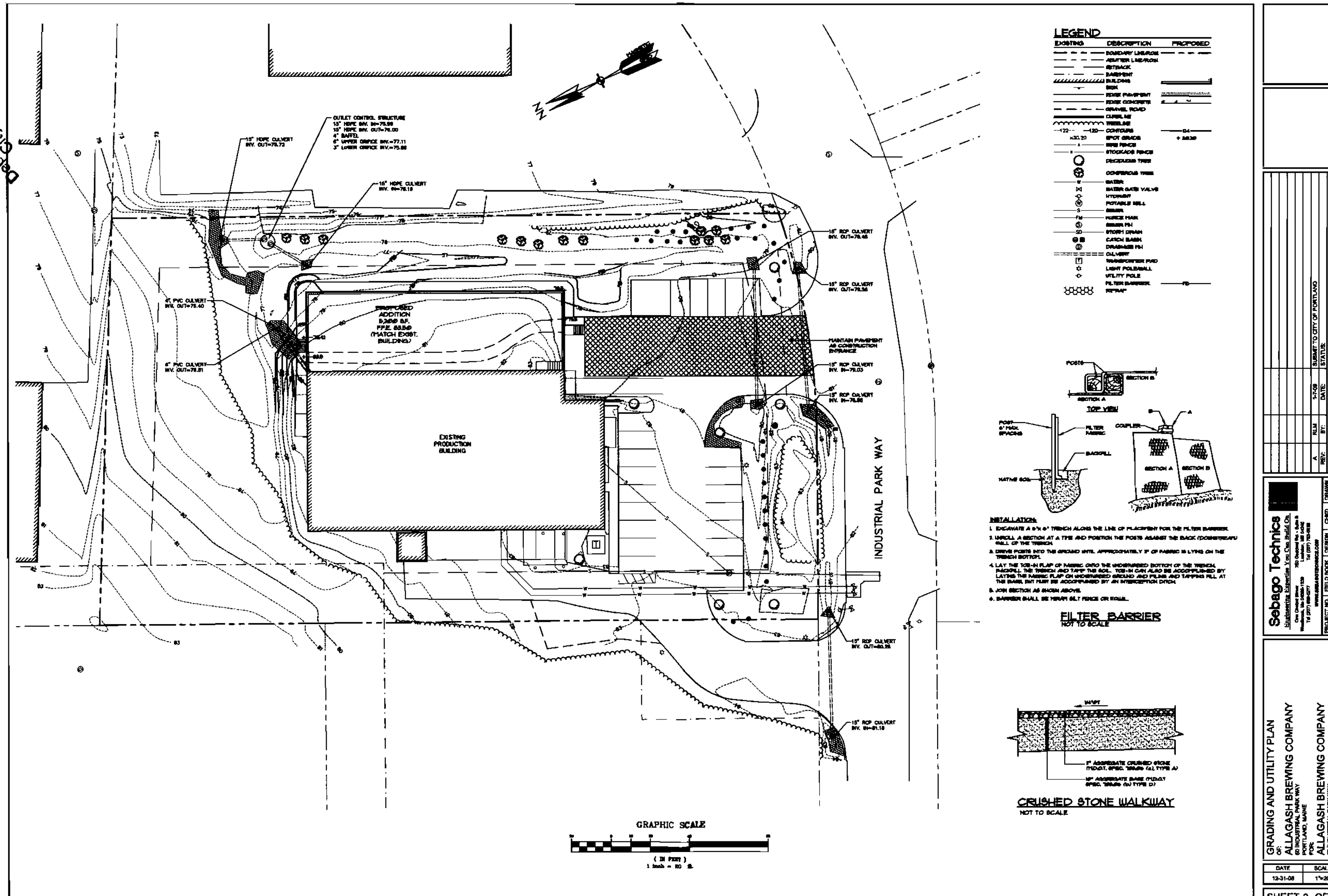
Check #: CC Total Collected $ 340

No work is to be started until permit issued.
Please keep original receipt for your records.

Taken by: S. J.

WHITE - Applicant's Copy
YELLOW - Office Copy
PINK - Permit Copy


PROPERTY LINE CURVE DATA
CURVE | LENGTH | RADIUS | CRD. BEARING | CRD DIST.
C1 | 114.32' | 355.00' | S68°17'27"E | 113.83'
SITE
LOCATION MAP
N.T.S.
GENERAL NOTES:
1. THE APPLICANT IS ALLAGASH BREWING COMPANY.
N/F ALFRED MILLIKEN, JR. 326-B-10
N/F MILLER INTER VIVOS TRUST 15284/318 326-B-1
N 317214.26 E 2912977.62
N 318902.22 E 2912848.35
N 317300.33 E 2912781.55
N29°52'15"E 337.77'
N57°48'45"W 203.00'
N29°52'15"E 114.14'
N29°52'15"E 246.94'
S60°03'55"E 92.46'
LOT 15
LOT 17
LOT 18
LOT 19
LOT 16
LOT 4
LOT 3
LOT 2
PROPOSED ADDITION
EXISTING PRODUCTION BUILDING
PRECAST CONCRETE STAIRS
PRECAST CONCRETE STAIRS/LANDING
PAVEMENT SAWCUT, REPAVE TO MEET SLAB
DRAINAGE EASEMENT TO THE CITY OF PORTLAND
INDUSTRIAL PARK WAY
30' WIDE PRESERVATION BUFFER
N/F RAYMOND PECOR, JR. & JAN ROSENTHAL TRUSTEES OF THE J. RICHARD CORLEY & LINDA CORLEY TRUST FUND #1 9428/284 326-B-2
N/F NORTHEASTERN GRAPHIC SUPPLY INC. 326-B-8
50'x90' ACCESS EASEMENT
60' WIDE RIGHT OF WAY PER PLAN REFERENCE 5A
LEGEND
EXISTING
DESCRIPTION
PROPOSED
GRAPHIC SCALE
RECEIVED
SEP 10
Dept. of Building Inspections
Portland Maine
Sebago Technics
Engineering Expertise You Can Build On
PROJECT NO. 02249
FIELD BOOK
DESIGN RLM
CHKD RLM
DRAWN MAL
A RLM 1-7-08 SUBMIT TO CITY OF PORTLAND
REV: BY: DATE: STATUS:
SITE PLAN
OF: ALLAGASH BREWING COMPANY
50 INDUSTRIAL PARK WAY
PORTLAND, MAINE
FOR: ALLAGASH BREWING COMPANY
50 INDUSTRIAL PARK WAY
PORTLAND, MAINE 04103
DATE 12-31-08
SCALE 1"=20'
SHEET 1 OF 2
02249S-2009.dwg, TAB: SITE



RECEIVED
SEP 10 2010
Dept. of Building Inspections
City of Portland Maine

comments submitted

City of Portland
Development Review Application
Planning Division Transmittal form

6/9/10

Application Number: 10-79900008 **Application Date:** June 8, 2010

Project Name: BUILDING ADDITION

Address: 50 Industrial Way **CBL:** 326 - B-009-001

Project Description: Industrial Way - 50; Building Addition; Allagash Brewing

Zoning: IM

Other Reviews Required:

Review Type: MINOR SITE PLAN

Applicant:
Rob Tod
50 Industrial Way
Portland Me 04103

Agent/Representative:
Paul Ureneck
1 Canal Plaza
Portland Mc 04101

Distribution List:

☐ Planner	Eric Giles, Aicp	☐ Parking	John Peverada
☐ ZoningAdministrator	Marge Schmuckal	☐ Design Review	Alex Jaegerman
☐ Traffic	Tom Errico	☐ Corporation Counsel	Danielle West-Chuhta
☐ Stormwater	Dan Goyette	☐ Sanitary Sewer	John Emerson
☐ Fire Department	Keith Gautreau	☐ Inspections	Tammy Munson
☐ City Arborist	Jeff Tarling	☐ Historic Preservation	Deb Andrews
☐ Engineering	David Margolis-Pineo	☐ Outside Agency	
		☐ DRC Coordinator	Phil DiPierro

Preliminary Comments needed by: Wednesday, June 16, 2010
Final Comments needed by: Wednesday, June 23, 2010

CBRE | Boulos Property Management
CB RICHARD ELLIS

One Canal Plaza, Suite 500
Portland, ME 04101

T 207.871.1290
F 207.772.2647

www.baulos.com

June 3, 2010

Barbara Barhydt
Development Review Services Manager
City of Portland
Planning Department
389 Congress St
Portland, Me. 04101

RE: Minor Site Plan Review Application, Allagash Brewing Company

Dear Barbara:

On behalf of Allagash Brewing Company I am pleased to submit 7 copies on the enclosed plans, associated information for a minor site plan review and the application fee of $400.00. For your reference, a site plan application of the existing building was submitted in November of 2005, approval was received in 2006, and construction was completed in 2007. Subsequent to that approval an approval to build the 5,200 square foot addition was received in February of 2009. That approval, however, expired in February of 2010, hence, our submission for re approval. Based on Allagash's continued growth the building addition continues to be necessary. The proposed use of the addition remains that of a commercial brewery for the production and distribution of beer.

Utilities including water, sewer, telephone, electric and gas are currently serving the site via Industrial Way. No additional utility services are required for the expansion. Storm water runoff generated by the site will be directed to and collected by the existing detention basin, which was designed to accommodate all runoff from the proposed development. The detention basin released the storm water through an outlet control structure, which ensures that the post development peak discharge rates are below pre development rates.

The proposed expansion will not require alteration of existing wetlands. Additionally, the scope of this project does not require a storm water permit form the Maine Department of Environmental Protection.

CB Richard Ellis
Boulos Property Management

Attached for your review are the requirement documents that were submitted with the formerly approved application. I have included an updated financial capacity letter from Bath Savings Bank and also the City of Portland Wastewater Capacity Application which is part of the new application process.

Should you have any questions or comments please do not hesitate to contact me.

Thank you.

Sincerely,

Paul Ureneck
Vice President
Project Management

Cc: Rob Tod, Allagash Brewing Company

Development Review Application

PORTLAND, MAINE

Department of Planning and Urban Development,
Planning Division and Planning Board

PROJECT NAME: Allagash Brewing

PROPOSED DEVELOPMENT ADDRESS:

50 Industrial Way Portland Me

PROJECT DESCRIPTION:

5200 sf building addition

CHART/BLOCK/LOT: 326/B/9

CONTACT INFORMATION:

APPLICANT		PROPERTY OWNER	
Name:	Rob Tod	Name:	Same
Address:	50 Industrial Way	Address:	
	Portland Me		
Zip Code:	04103	Zip Code:	
Work #:	878 5385	Work #:	
Cell #:	450 4274	Cell #:	
Fax #:		Fax #:	
Home:		Home:	
E-mail:	robtod@allagash.com	E-mail:	

BILLING ADDRESS

Name:	Same
Address:	
Zip:	
Work #:	
Cell #:	
Fax #:	
Home:	
E-mail:	

~As applicable, please include additional contact information on the next page~

AGENT/REPRESENTATIVE

Name: Paul Ureneck
Address: CBRE The Boulos Co
1 Canal Plaza Portland
Zip Code: 04101
Work #: 871 1290
Cell #: 233 1172
Fax #: 772 2647
Home:
E-mail: pureneck@boulos.com

ENGINEER

Name: Sebago Technics, Inc
Address: PO Box 1339
Westbrook, Me. 04098
Zip Code:
Work #: 856 0277
Cell #:
Fax #: 856 2206
Home:
E-mail: rmeek@sebagotechnics.com
Richard Meek

ARCHITECT

Name: n/a
Address:
Zip Code:
Work #:
Cell #:
Fax #:
Home:
E-mail:

CONSULTANT

Name: Associated Design Partners Inc
Address: 80 Leighton Rd
Falmouth Me
Zip Code: 04105
Work #: 878 1751
Cell #:
Fax #: 878 1788
Home:
E-mail: adp@adpengineering.com

SURVEYOR

Name: Sebago Technics Inc
Address: See Engineer section
Zip Code:
Work #:
Cell #:
Fax #:
Home:
E-mail:

ATTORNEY

Name: Rob Ruesch
Address: Verrill Dana
1Portland Square
Zip Code: Portland Me 04101
Work #: 774 4000
Cell #:
Fax #: 774 7499
Home:
E-mail: rreusch@verrilldana.com

PROJECT DATA

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

Total Site Area	73073	sq. ft.
Proposed Total Disturbed Area of the Site	7000	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

Proposed Total Paved Area		sq. ft.
Existing Total Impervious Area		sq. ft.
Proposed Total Impervious Area		sq. ft.
Proposed Impervious Net Change		sq. ft.

BUILDING AREA

Existing Building Footprint	11700	sq. ft.
Proposed Building Footprint	16900	sq. ft.
Proposed Building Footprint Net change	5200	sq. ft.
Existing Total Building Floor Area	11700	sq. ft.
Proposed Total Building Floor Area	16900	sq. ft.
Proposed Building Floor Area Net Change	5200	sq. ft.
New Building	yes (addition)	(yes or no)

ZONING

Existing	IM
Proposed, if applicable	Same

LAND USE

Existing	
Proposed	

RESIDENTIAL, IF APPLICABLE

Proposed Number of Affordable Housing Units	N/A
Proposed Number of Residential Units to be Demolished	
Existing Number of Residential Units	
Proposed Number of Residential Units	
Subdivision, Proposed Number of Lots	

PARKING SPACES

Existing Number of Parking Spaces	22
Proposed Number of Parking Spaces	22
Number of Handicapped Parking Spaces	1
Proposed Total Parking Spaces	22

BICYCLE PARKING SPACES

Existing Number of Bicycle Parking Spaces	0
Proposed Number of Bicycle Parking Spaces	0
Total Bicycle Parking Spaces	0

ESTIMATED COST OF PROJECT

$650,000.00

Please answer the following with a Yes/No response on all that apply to the proposed development

Institutional	n	Change of Use	n	
Parking Lot	y	Design Review	n	
Manufacturing	y	Flood Plain Review	n	
Office	n	Historic Preservation	n	
Residential	n	Housing Replacement	n	
Retail/Business	n	14-403 Street Review	n	
Warehouse	y	Shoreland	n	
Single Family Dwelling	n	Site Location	n	
2 Family Dwelling	n	Stormwater Quality	y	
Multi-Family Dwelling	n	Traffic Movement	n	
B-3 Ped Activity Review	n	Zoning Variance	n	(or date)
Change of Use	n	Historic Dist./Landmark	n	
		Off Site Parking	n	

Site Plan Checklist

Portland, Maine

Department of Planning and Urban Development, Planning Division and Planning Board

Allagash Brewing Bldg Addition 50 Industrial Way Portland

Project Name, Address of Project **Application Number**

(The form is to be completed by the Applicant or Designated Representative)

Check Submitted: Applicant	Staff	Required Information	Section 14-525 (b,c)
referenced in plan		Standard boundary survey (stamped by a registered surveyor, at a scale of not less than 1 inch to 100 feet and including:	1
x		Name and address of applicant and name of proposed development	a
x		* Scale and north points	b
x		* Boundaries of the site	c
x		* Total land area of site	d
x		* Topography - existing and proposed (2 feet intervals or less)	e
n/a		Plans based on the boundary survey including:	2
n/a		* Existing soil conditions	a
n/a		* Location of water courses, wetlands, marshes, rock outcroppings and wooded areas	b
x		* Location, ground floor area and grade elevations of building and other structures existing and proposed, elevation drawings of exterior facades, and materials to be used	c
x		* Approx location of buildings or other structures on parcels abutting the site and a zoning summary of applicable dimensional standards (example page 11 of packet)	d
x		* Location of on-site waste receptacles	e
x		* Public utilities	
x		* Water and sewer mains	e
x		* Culverts, drains, existing and proposed, showing size and directions of flows	e
x		* Location and dimensions, and ownership of easements, public or private rights-of-way, both existing and proposed	f
x		* Location and dimensions of on-site pedestrian and vehicular access ways	g
x		* Parking areas	
x		* Loading facilities	g
x		* Design of ingress and egress of vehicles to and from the site onto public streets	g
x		* Curb and sidewalks	g
n/a		Landscape plan showing:	h
x		* Location of existing vegetation and proposed vegetation	h
n/a		* Type of vegetation	h
"		* Quantity of plantings	h
"		* Size of proposed landscaping	h
"		* Existing areas to be preserved	h
"		* Preservation measures to be employed	h
"		* Details of planting and preservation specifications	h
"		* Location and dimensions of all fencing and screening	i
"		Location and intensity of outdoor lighting system	j
x		Location of fire hydrants, existing and proposed (refer to Fire Department checklist – page 11)	k
x		Written statements to include:	c
x		* Description of proposed uses to be located on site	c1
x		* Quantity and type of residential, if any	c1
x		* Total land area of the site	c2
x		* Total floor area, total disturbed area and ground coverage of each proposed Building and structure	c2
x		* General summary of existing and proposed easements or other burdens	c3
x		* Type, quantity and method of handling solid waste disposal	c4
x		* Applicant's evaluation or evidence of availability of off-site public facilities, including sewer, water and streets (refer to the wastewater capacity application – page 12)	c5
x		* Description of existing surface drainage and a proposed stormwater management plan or description of measures to control surface runoff.	c6

X		* An estimate of the time period required for completion of the development	7
X		* A list of all state and federal regulatory approvals to which the development may be subject to. the status of any pending applications, anticipated timeframe for obtaining such permits, or letters of non-jurisdiction.	8
X		* Evidence of financial and technical capability to undertake and complete the development including a letter from a responsible financial institution stating that it has reviewed the planned development and would seriously consider financing it when approved.	
X		* Evidence of applicant's right title or interest, including deeds, leases, purchase options or other documentation.	
X		* A description of any unusual natural areas, wildlife and fisheries habitats, or archaeological sites located on or near the site.	
UPON REQUEST		A jpeg or pdf of the proposed site plan, if available.	
UPON REQUEST		Final sets of the approved plans shall be submitted digitally to the Planning Division, on a CD or DVD, in AutoCAD format (*,dwg), release AutoCAD 2005 or greater.	

Note: Depending on the size and scope of the proposed development, the Planning Board or Planning Authority may request additional information, including (but not limited to):

- drainage patterns and facilities
- erosion and sedimentation controls to be used during construction
- a parking and/or traffic study
- emissions
- a wind impact analysis
- an environmental impact study
- a sun shadow study
- a study of particulates and any other noxious
- a noise study

02249

SITE PLAN CHECKLIST REQUIREMENTS

SECTION 14-525(B) CONTENTS:

1. A standard boundary survey has been prepared and is included within this submittal showing all pertinent information as requested in Subsections a. through e. The plans are provided at a scale of 1" = 20'.

2. A plan set has been prepared and is included within this submittal showing all pertinent information as requested in Subsections a. through o. The set includes a site plan, grading and utility plan, landscape plan, and detail sheet. A site location map has been included as Exhibit 3.

SECTION 14-525(C) WRITTEN STATEMENTS:

The record owner of the property is Allagash Brewing Company located at 50 Industrial Way, Portland, ME.

1. The proposed development will include a 5,200 square foot addition to the existing building. The addition will be used as warehouse space for storing product produced in the existing facility. The proposal does not deviate from the originally approved site plan, which depicts the addition described above.

2. The existing parcel includes approximately 73,073 square feet (1.68 acres). The floor area of the proposed building is 16,900 square feet.

3. Drainage easements were originally proposed along Industrial Way to allow for placement and access to a driveway culvert. There is also an access easement on the abutting westerly property.

4. Solid waste quantities generated by the project will not significantly increase as a result of the proposed addition. Solid waste and recyclables are currently contained on site inside a screened dumpster enclosure. Solid waste and recyclables are currently disposed of by a licensed waste management and recycling company under contract with the owner.

5. The site is currently serviced by city public water and sewer, natural gas, electric, phone and cable utilities. No significant increase in demand to any of the available utilities is anticipated as a result of the proposed addition. The original letters of capacity from the Portland Water District and Portland Public Works are included for reference.

6. The Stormwater Management Plan will not be significantly altered from the original design. A copy of the original narrative and calculations is included for reference.

SUMMER 2010

7. We anticipate an approximately 3-month construction schedule commencing upon project approvals in the ~~early spring of 2009.~~ The anticipated construction schedule is dependent on approval of the final design plans for the project.

8. The project site is fully developed and less than three acres in size and will have less than an acre of impervious area. As such, the site will not require an MDEP Site Location of Development, Stormwater permit, nor a Maine Construction General Permit since it is expected that the area of disturbance will be less than one acre. We do not anticipate that the project is subject to any additional state or federal approvals and we are unaware of any pending applications related to the project site.

9. A letter of financial capacity and intent to finance is included for reference. The applicant is currently engaged in the brewing industry and will bring expertise to the proposed facility. Sebago Technics, Inc. is providing civil design documents. CBRE/Boulos Property Management is providing construction management services. Langford and Low is providing Architectural design documents and general contracting services.

10. The property is owned by the applicant, Allagash Brewing Company. A copy of the property deed is attached, for reference.

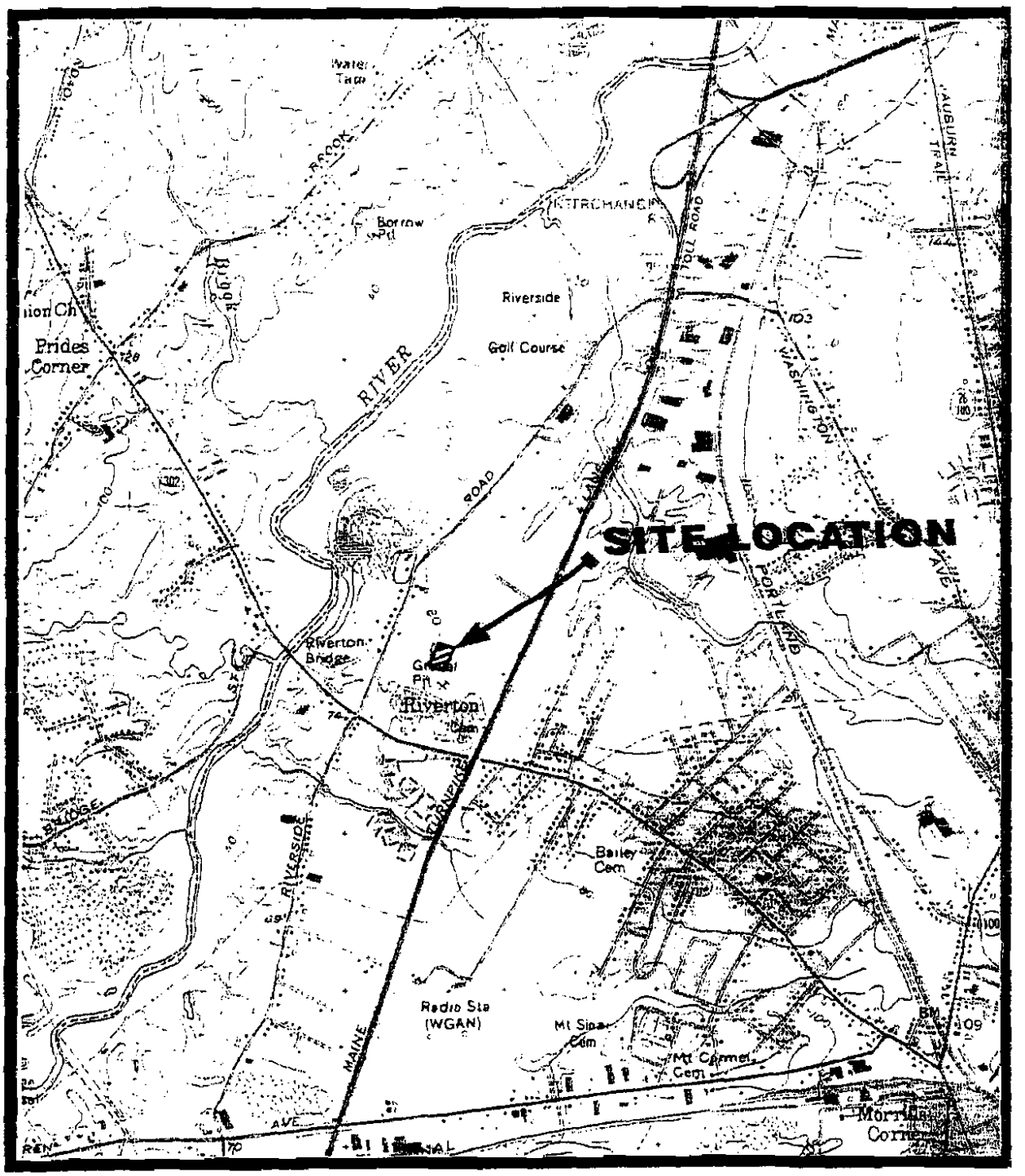
11. We have found no evidence at the project site to indicate that there are unusual natural areas, wildlife or fisheries habitat, or archeological sites on or near the project site.

12. We plan to submit the final approved drawings to the City in the desired electronic format(s).

13. A narrative description addressing the particulars of recyclable material generated by the site is included, for reference.

02249

FIGURE 1



SITE LOCATION MAP

USGS TOPOGRAPHIC

7.5 MIN. QUADRANGLE

PORTLAND WEST

SCALE: 1"=2,000'

Sebago Technics

Engineering & Planning for the Future

Doc#: 93526 Bk:18385 Pg: 348

QUITCLAIM DEED WITH COVENANT

NORTHEASTERN GRAPHIC SUPPLY, INC., a Maine corporation, for consideration paid, grants to 50 INDUSTRIAL WAY LLC, a Maine limited liability company with an address of 100 Industrial Way, Portland, Maine, 04103, with Quitclaim Covenant, the following described real property:

A certain lot or parcel of land, with any buildings and improvements thereon, situated in on the northerly side of Industrial Way, so-called, in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Lot 18 as shown on a Plan entitled Turnpike Industrial Park-Riverside Street, Portland Maine, Recording Plat, made for Portland Venture Partners, 100 Silver Street, Portland, Maine, by Land Use Consultants, dated March 25, 1986, revised through September 9, 1986 and recorded in the Cumberland County Registry of Deeds, in Plan Book 157, Page 61 ("the Subdivision Plan"), to which Subdivision Plan reference is hereby made for a more particular description.

Meaning and intending to convey and hereby conveying the same premises as conveyed to Northeastern Graphic Supply by deed of Alfred H. Milliken, Jr., et als, dated June 2, 1988 and recorded in the Cumberland County Registry of Deeds in Book 8317, Page 51.

Together with an easement to benefit the above described Lot 18, over the parcel of land described hereinafter (the "Easement Area") for ingress and egress by foot and by vehicle, together with the right to construct, improve, maintain, repair, grade, excavate, fill and pave a driveway within the Easement Area for access to Lot 18, and together with the right to install within the Easement Area, both above and below ground, utility services to include, without limitation, facilities necessary or convenient for the transmission of electricity, gas, telephone communications, cable television, computer communications, sewerage and water.

The Easement Area is a fifty (50) foot wide parcel of land, being a portion of Lot 19 as shown on the Subdivision Plan, bound and described as follows:

Beginning on the northerly side of Industrial Park Way, also known as Industrial Way, at the southwesterly corner of Lot 18 as shown on the Subdivision Plan, said point also being the most southerly corner of Lot 19 as shown on the Subdivision Plan;

Thence N 29° 52' 15" E along the westerly sideline of Lot 18 and the easterly sideline of Lot 19 a distance of 90.00 feet;

MAINE REAL ESTATE TAX PAID

b18385p348.tif (1696x2200x2 tiff) [2]

Doc#: 93526 Bk:18385 Pg: 349

Rec'd Received
Recorded Register of Deeds
Nov 15,2002 10:01:56A
Cumberland County
John B. Obrien

Thence N 60° 03' 55" W through land of Northeastern Graphic Supply, Inc., being Lot 19 as aforesaid, a distance of 50.00 feet;

Thence S 29° 52' 15" W through land of Northeastern Graphic Supply, Inc., being Lot 19 as aforesaid, a distance of 90.00 feet to the northerly sideline of Industrial Way;

Thence S 60° 03' 55" E along the northerly sideline of Industrial Way a distance of 50.00 feet to the point of beginning.

The Easement Area consists of approximately 4,500 square feet.

The Grantor herein reserves for itself, its successors and assigns, the right to use the Easement Area in common with the Grantee for all purposes, including but not limited to, ingress and egress by foot and vehicle and the right to install and/or connect to all utilities located within the Easement Area, all of which reserved rights shall benefit the Grantor's adjoining property.

IN WITNESS WHEREOF, Northeastern Graphic Supply, Inc. has caused this instrument to be executed by Brian Kroot, its president this 14th day of November, 2002.

WITNESS

Catherine E. Decker

NORTHEASTERN GRAPHIC SUPPLY, INC.

By: _____
Brian Kroot
Its: President

State of Maine
County of Cumberland

November 14, 2002

Personally appeared before me the above named Brian Kroot, president of Northeastern Graphic Supply, Inc. and acknowledged the foregoing instrument to be his/her free act and deed in said capacity and the free act and deed of Northeastern Graphic Supply, Inc.

Catherine E. Decker
~~Notary Public~~/Attorney at Law

Print Name CATHERINE E. DECKER

My Commission Expires N/A

Portland
Water District

225 Douglass St. • P.O. Box 3553 • Portland, ME 04104-3553
(207) 774-5961
FAX (207) 761-8307
www.pwd.org

September 16, 2002

Mr. Richard L. Meek
Sebago Technics, Inc.
One Chabot Street
Westbrook, Maine 04098-1339

Re: Allagash Brewing, Industrial Way; Portland

Dear Sir:

The Portland Water District has a 12" water main in Industrial Way, Portland, near the proposed site. A test on a nearby hydrant produced the following results: static pressure 68 psi; pito pressure 55 psi; with a flow of 1244 gpm. With these results in mind, the District feels we have sufficient capacity available to serve this proposed project and meet all normal fire protection and domestic water service demands. **Please notify your plumber of these results so that they can design your system to best fit the available pressure.**

With certification by the developer that all required permits have been received, we look forward to serving this project.

Sincerely,

PORTLAND WATER DISTRICT

David W. Coffin, PLS
Engineering Supervisor

Department of Public Works

William J. Bray
Director

CITY OF PORTLAND

29 October 2002

Mr. Richard L. Meek,
Sebago Technics,
P.O. Box 1339,
Westbrook, Maine 04098-1339.

RE: The Capacity to Handle Wastewater Flows, from The Site of the Proposed Allagash Brewing Development, 48-64 Industrial Way (326-B-9).

Dear Mr. Meek:

The **design flow** is calculated by dividing the highest monthly flow over the period of at least one year of water meter records by the number of days the facility was in use during the month with the highest flow. Then multiplying this resulting quotient by a "multiplying factor" of 1.5. Then, multiplying this new number by the number of gallons in a hundred cubic feet (HCF). Finally, this number is multiplied by five, to account for maximum growth of the proposed facility, to arrive at the design flow, in gallons per day. Thus, 76 (HCF) divided by 22 (work days) times 1.5 (a multiplying factor) times 748 (gallons) times 5 (a growth factor) = **19,373 GPD**

For a more detailed explanation, please see Section 903.2.3, Chapter Nine, Design Flows, in the Handbook of Subsurface Wastewater Disposal in Maine.

The existing ten-inch diameter polyvinyl chloride sewer pipe located in Industrial Way has adequate capacity to **transport**, while The Portland Water District sewage treatment facilities, located off Marginal Way, have adequate capacity to **treat** the total anticipated wastewater flows of **19,373 GPD**, from the proposed project.

The City combined sewer overflow (C.S.O.) abatement consent agreement, with the U.S E.P.A. and The Maine D.E.P. requires C.S.O. abatement, as well as Stormwater mitigation, from all projects, in order to offset any increase in sanitary flows.

The City expects an Industrial Pretreatment Permit application from Allagash Brewing re their industrial process wastewaters.

If I can be of further help, please call me at 874-8832.

Sincerely,
CITY OF PORTLAND

Frank J Brancely, B.A., and M.A.
Senior Engineering Technician

CC:Engineer/FJBM agency Letters\Industrial Way 48-64

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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

Date: 5/28/10

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

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

Site Address: 50 Industrial Way Portland Me
(Regarding addressing, please contact Leslie Kaynor, either at 756-8346, or at LMK@portlandmaine.gov)

Chart Block Lot Number: 326/B /9

Proposed Use: Brewery
Previous Use: Brewery
Existing Sanitary Flows: 25 employees=375 GPD
Existing Process Flows: 9000 GPD
Description and location of City sewer, at proposed building sewer lateral connection:
10" diameter pipe unknown material located approx in middle of Industrial Way
Clearly, indicate the proposed connection, on the submitted plans.

Site Category:
Commercial
Industrial *(complete part 4 below)* x
Governmental
Residential
Other *(specify)*

2. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 20% growth 450 GPD
Peaking Factor/ Peak Times: Monday - Friday 5am 11pm
Specify the source of design guidelines: *(i.e. x "Handbook of Subsurface Wastewater Disposal in Maine," __ "Plumbers and Pipe Fitters Calculation Manual," __ Portland Water District Records, __ Other (specify)*

15gpd per employee = 30 employees x 15 gpd = 450 gpd

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.

3. Please, Submit Contact Information.

Owner/Developer Name: Allagash Brewing
Owner/Developer Address: 50 Industrial Way Portland Me
Phone: 878 5385 Fax: E-mail: robtod@allagash.com
Engineering Consultant Name: Richard Meek PE c/o Sebago Technics, Inc
Engineering Consultant Address: PO Box 1339 Westbrook,Me 04098
Phone: 856 0277 x269 Fax: 856 2206 E-mail: rmeek@sebagotechnics.com
City Planner's Name: Phone: 874 8728

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

4. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated: 30% growth 11,700 GPD
Do you currently hold Federal or State discharge permits? Yes x No
Is the process wastewater termed categorical under CFR 40? Yes No x
OSHA Standard Industrial Code (SIC): 2082 *(http://www.osha.gov/oshstats/sicser.html)*
Peaking Factor/Peak Process Times: Monday Friday 5am 11pm

Bath Savings Institution
Since 1852

May 24, 2010

City of Portland
Planning Division
389 Congress Street
Portland ME 04101

Re: Allagash Brewing/50 Industrial Way, LLC

To Whom it May Concern:

Allagash Brewing has been a customer of Bath Savings Institution since June 2006. We assisted with financing the construction of current Allagash Brewing facility at 50 Industrial Way in Portland. This letter is to underscore that Bath Savings Institution believes that 50 Industrial Way, LLC has the financial capacity to finance the expansion of the existing building at 50 Industrial Way.

We look forward to assisting them as this growing business continues to expand and create jobs in the Portland market.

If you have any questions regarding the financial capacity of 50 Industrial Way, LLC, to undertake the expansion of their current building please do not hesitate to give me call.

Thank you for your consideration.

Sincerely,

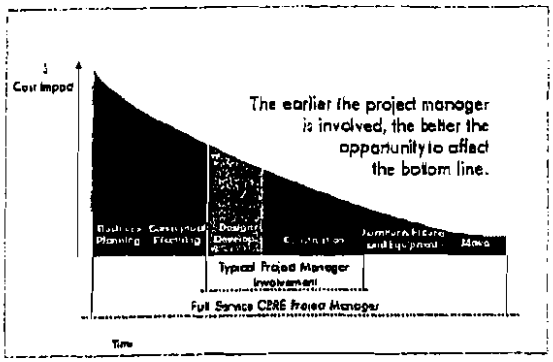
Geoff G. Gattis
Executive Vice President & CCO

jdm

cc: Allagash Brewing
Paul Ureneck

105 FRONT STREET, PO BOX 548, BATH, MAINE 04530
TEL. 207-442-7711 FAX 207-442-9137
1-800-447-4559
MEMBER FDIC

PROJECT SERVICES



MANAGING YOUR PROJECT

With any project, regardless of size or complexity, the biggest challenge is knowing who is needed when, and what it should cost. Having someone on your team from the beginning with the knowledge and experience to guide the process can accelerate schedules and increase cost effectiveness. The result is time and money saved, without sacrificing the quality of the project.

DON'T KNOW WHERE TO START?

We are our clients' advocates. Our Project Management Division provides a single source of expertise to oversee ony or all tasks necessary to renovate space, construct new buildings, or help with other real estate-related tasks. We offer an integrated package of services, available together or separately, to smoothly manage oll aspects of your project. This single source management technique provides direct accountability and has been the key to our success for 30 years.

Our project management team uses both in-house resources and our relationships with specialized consultants to assist our clients. The process can be complex, involving architects, engineers, environmental consultants, lawyers, and contractors. The entire process, from the initial idea to completion, runs smoothly. Our track record speaks for itself.

CBRE/Boulos can assist with any of these items as part of our menu of services:

- ✓ Tenant Improvements
- ✓ Capital Improvements
- ✓ Program Development
- ✓ Facility Assessment
- ✓ Site Selection
- ✓ Due Diligence
- ✓ Permitting & Government Relotions
- ✓ Project Team Selection
- ✓ Communications
- ✓ Scheduling
- ✓ Budget Management
- ✓ Construction Oversight
- ✓ Systems Commissioning
- ✓ Furniture & Equipment Selection
- ✓ Move Management

WHO TO CALL

Paul Ureneck
Vice President of Project Management
pureneck@boulos.com

Kim Farrar
Project Manager
kfarrar@boulos.com

CBRE/Boulos Property Management
One Canal Plaza
Portland, ME 04101
(207) 871-1290

EXPERIENCE VALUE EXCELLENCE

CBRE | Boulos Property Management
CB RICHARD ELLIS

PROJECT SERVICES

SAMPLE PROJECTS MANAGED BY CBRE/BOULOS

First Park, Oakland – Spec building to be developed by the local development authority (Owner's Rep., Project Team Selection, Scheduling, Budget Management)

25 Thomas Dr., Westbrook – 16,000+/- SF Flex Building Shell (Owner's Rep., Permitting/Government Relations, Project Team Selection, Communications, Scheduling, Budget Management, Construction Oversight)

8 Thomas Dr., Westbrook – 15,000+/- SF Flex Building (Owner's Rep., Permitting/Government Relations, Project Team Selection, Communications, Scheduling, Budget Management, Construction Oversight, Systems Commissioning)

4 Thomas Dr., Westbrook – 38,400+/- SF Flex Building (Owner's Rep., Permitting/Government Relations, Project Team Selection, Communications, Scheduling, Budget Management, Construction Oversight, Systems Commissioning)

41 Donald B. Dean Dr., South Portland – 18,200+/- SF Class A Office Building (Owner's Rep., Permitting/Government Relations, Project Team Selection, Communications, Scheduling, Budget Management, Construction Oversight, Systems Commissioning)

Saco Valley Shopping Center, Saco – Retail Shopping Center Renovation/Expansion, including tenant relocations (Owner's Rep., Permitting/Government Relations, Communications, Scheduling, Budget Management, Construction Oversight, Systems Commissioning, Move Management)

Pineland, New Gloucester – 356,000+/- SF Business Campus renovated from previous use as a state facility; included complete rehabilitation of various aged buildings, construction of new buildings, and complete site & infrastructure redevelopment (Owner's Rep., Facility Assessment, Due Diligence, Permitting/Government Relations, Project Team Selection, Communications, Scheduling, Budget Management, Construction Oversight, Systems Commissioning, Furniture & Equipment Selection)

52 & 70 Farm View Dr., New Gloucester – 60,000+/- SF shell office space fit up for new tenant (Owner's Rep., Program Development, Permitting & Government Relations, Project Team Selection, Communications, Scheduling, Budget Management, Construction Oversight, Systems Commissioning)

2325 West Broadway, South Portland – 21,000+/- SF Warehouse/Distribution Building (Owner's Rep., Permitting/Government Relations, Project Team Selection, Budget Management)

Fore Street Garage, Portland – Capital improvements/repairs performed on a 400+/- space multi-story parking garage (Owner's Rep., Facility Assessment, Project Team Selection, Communications, Scheduling, Budget Management, Construction Oversight)

Olivia's Garden Greenhouses, New Gloucester – state-of-the-art hydroponic greenhouse designed & constructed (Owner's Rep., Permitting & Government Relations, Project Team Selection, Communications, Scheduling, Budget Management, Construction Oversight, Systems Commissioning)

PROJECT SERVICES

THE PROJECT MANAGEMENT TEAM

Paul Ureneck
Vice President

Paul Ureneck joined CBRE/Boulos Property Management in 1985. Prior to joining the CBRE/Boulos team, Mr. Ureneck served in various supervisory capacities for large commercial construction companies throughout Northern New England. He has over thirty years of experience in the permitting, design and construction of commercial office, industrial and retail buildings.

Mr. Ureneck's responsibilities include the oversight of all CB Richard Ellis/Boulos Property Management and third party development from the initial conceptual design through ultimate occupancy by coordinating all design, contracting, and regulatory approval tasks. Mr. Ureneck also oversees all tenant improvement work in a multi-building portfolio totaling approximately 3,000,000 square feet.

Kim Farrar
Project Manager
Maine Real Estate Lic. #BA902461

Kim Farrar is Project Manager for CBRE/Boulos Property Management. As Project Manager, she works with contractors, vendors, governmental agencies, tenants, owners, and staff on all aspects of development projects. Since joining the company in 1988, she has served in several capacities, including General Manager for the brokerage company, Development Coordinator, and Property Manager. Active in the real estate field since 1985, Ms. Farrar has been involved with both high-end residential/investment and commercial real estate.

02249

Sebago Technics, Inc.
Technical Ability

Sebago Technics, Inc. has been retained to perform the civil engineering, stormwater management, and sediment and erosion control design for the proposed project. In addition, we have prepared the Maine Department of Environmental Protection Site Location Application. The technical phase of this project includes the preparation of a detailed grading design, taking into account hydrogeological considerations and stormwater management. The permitting phase of this project consists of the preparation of all State and local application packages and coordination throughout the entire review process from initial submission to final approval.

Company Background

Sebago Technics, Inc. was established in 1981. The company, as a whole, has grown to approximately 95 professionals. The company consists of civil/site engineers, surveyors, landscape architects, soil scientist, and other professionals. In 1986, a computer-aided design drafting (CADD) division was established to further enhance our scope of available services. Sebago Technics, Inc. provides full-range technical assistance to developers, contractors, and municipalities in the areas of commercial, residential, and industrial developments.

Key Personnel

Walter P. Stinson, P.E.

President and founder of Sebago Technics, is a Registered Professional Engineer with a background that includes experience with the Department of Agriculture, Soil Conservation Service. He has a strong interest in land management, experience in grading and drainage practices, and maintains a strong involvement in all significant projects of the firm.

Charles L. Brown, P.L.S.

A Registered Land Surveyor, he joined the firm in 1984. His expertise in boundary and topographic surveying provides comprehensive land planning and design services to clients.

Shawn M. Frank, P.E.

A Registered Professional Engineer, he joined the firm in 1985 as a design engineer. His 23 years of practice in consulting engineering firms provides the required experience to allow for effective project management.

STORMWATER MANAGEMENT
Allagash Brewing
Lot 18, Turnpike Industrial Park
Portland, Maine

General

This Stormwater Management Plan has been prepared to evaluate the pre and post-development condition associated with the proposed development on Lot 18 of the Turnpike Industrial Park in Portland, Maine. This project is being proposed by the applicant Allagash Brewing, and includes approximately 1.68 acres.

The site is located within an industrial park. The proposed development will consist of a 18,200 square foot building; 1,050 square feet of concrete pads for storage silo; associated parking and maneuvering areas; landscaping and associated grading. A detention pond is proposed to mitigate the increased runoff generated by this development.

Pre-Development Site Conditions

The proposed project site is presently undeveloped. Ground cover consists primarily of woodland. The topography throughout the site consists of flat slops with approximately 18,300 square feet of wetland area. Based upon the available topographic information the entire site is included in one subcatchment. Stormwater is conveyed generally north and east via sheet flow and shallow concentrated flow and eventually exits the site at the easterly property line. Observation of the site indicates that the proposed parcel of land is presently stable with no areas of erosion.

Soils

Soils information used for the stormwater evaluation was obtained via the Medium Intensity Soil Survey. The soil survey maps one (1) soil type on the site, which is Scantic. It is classified with a Hydrologic Soil Group D.

Methodology

The stormwater runoff analysis was developed using the "HydroCAD" computer modeling software, which incorporates the TR-55 and TR-20 methodologies as provided by the Soil Conservation Service of the U.S. Department of Agriculture. The 2-year, 10-year, and 25-year, Type III, 24-hour storm events were used for the analysis. The 24-hour rainfall values utilized in the hydrologic model are as follows.

Storm Frequency Precipitation (in./24 hr)	
2-year	3.0
10-year	4.7
25-year	5.5

Post-Development Site Conditions

Drainage for the post-development conditions includes three subcatchments. The ground cover has changed from woodland to impervious and grass cover.

Watershed 1 is comprised of mostly wooded area, with a small portion of impervious from the parking and silo storage area. Runoff is conveyed via sheet flow and shallow concentrated flow to the Study Point, located at the easterly property line.

Watershed 2 consists of the building, paved areas, and lawn areas. Runoff is directed via sheet flow, shallow concentrated flow and pipe flow to the detention pond, located on the eastern side of the property. The detention pond utilizes an outlet control structure to direct stormwater to the Study Point.

Watershed 3 consists of the immediate runoff associated with the roadside ditches. Culverts are being added under driveway entrances in order to maintain drainage patterns through the existing ditches. Flow continues in existing ditches to the Study Point along the eastern property line.

Stormwater Management

The following table summarizes the results of stormwater calculations for the design storm events for the project area. Calculations and computer modeling data sheets are provided with this report.

Stormwater Peak Discharge Summary Table

Study Point									
SP1	1.32	1.25	-0.07	2.97	2.48	-0.49	3.80	3.54	-0.26

Summary

The proposed development will include a detention pond to which runoff from impervious areas will be directed. The runoff will subsequently be released to the existing woodlands at the rear and to the east of the property via a multi-stage discharge control structure. The pond is designed to hold post-developed peak discharge rates at or below pre-developed peak discharge rates for the 2, 10, and 25-year storm events

Other drainage provisions will include specific grading plan and erosion and sedimentation control measures that will be implemented throughout the construction sequence. Incorporation of the above mentioned drainage provisions and infrastructure for the proposed development would adequately address stormwater runoff such that no significant impacts to downstream properties are anticipated.

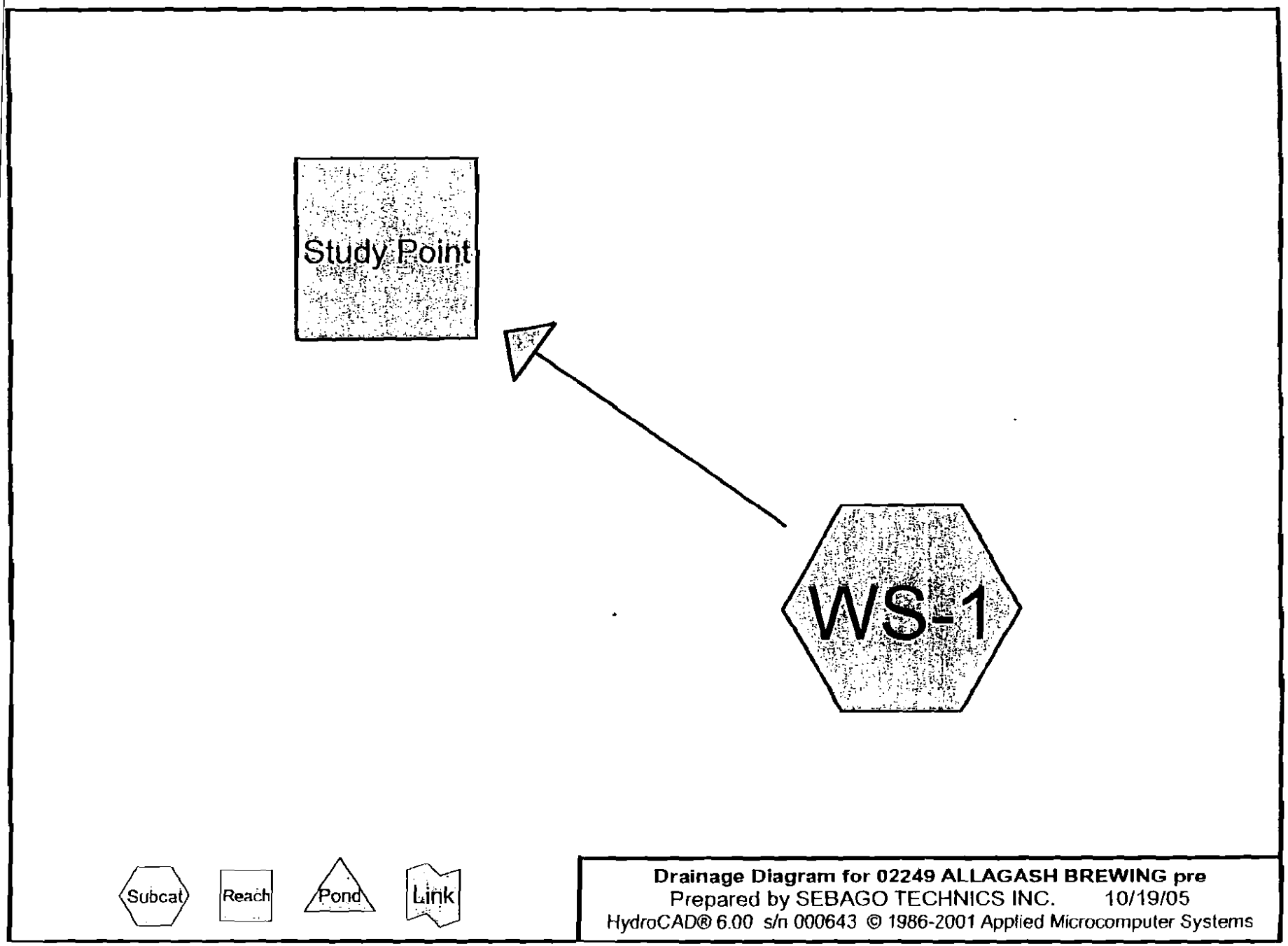
Prepared by

SEBAGO TECHNICS, INC.

Rebecca L. Steinberg
Design Engineer

Richard L. Meek, P.E.
Project Engineer

RLS/RLM:rls/dlf
November 15, 2005



Drainage Diagram for 02249 ALLAGASH BREWING pre
Prepared by SEBAGO TECHNICS INC. 10/19/05
HydroCAD® 6.00 s/n 000643 © 1986-2001 Applied Microcomputer Systems

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Type III 24-hr Rainfall=3.00"
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment WS-1: (new node)

Tc=35.7 min CN=78 Area=1.980 ac Runoff= 1.32 cfs 0.169 af

Reach Study Point: (new node)

Inflow= 1.32 cfs 0.169 af
Outflow= 1.32 cfs 0.169 af

Runoff Area = 1.980 ac Volume = 0.169 af Average Depth = 1.02"

Subcatchment WS-1: (new node)

Runoff = 1.32 cfs @ 12.52 hrs, Volume= 0.169 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=3.00"

Area (ac)	CN	Description
1.900	77	Woods, Good, HSG D
0.080	98	Paved parking & roofs
1.980	78	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.7	150	0.0200	0.1		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.00"
5.0	250	0.0280	0.8		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
35.7	400	Total			

Reach Study Point: (new node)

Inflow = 1.32 cfs @ 12.52 hrs, Volume= 0.169 af
Outflow = 1.32 cfs @ 12.52 hrs, Volume= 0.169 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Type III 24-hr Rainfall=4.70"
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment WS-1: (new node)

Tc=35.7 min CN=78 Area=1.980 ac Runoff= 2.97 cfs 0.373 af

Reach Study Point: (new node)

Inflow= 2.97 cfs 0.373 af
Outflow= 2.97 cfs 0.373 af

Runoff Area = 1.980 ac Volume = 0.373 af Average Depth = 2.26"

Subcatchment WS-1: (new node)

Runoff = 2.97 cfs @ 12.50 hrs, Volume= 0.373 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=4.70"

Area (ac)	CN	Description
1.900	77	Woods, Good, HSG D
0.080	98	Paved parking & roofs
1.980	78	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.7	150	0.0200	0.1		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.00"
5.0	250	0.0280	0.8		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
35.7	400	Total			

Reach Study Point: (new node)

Inflow = 2.97 cfs @ 12.50 hrs, Volume= 0.373 af
Outflow = 2.97 cfs @ 12.50 hrs, Volume= 0.373 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Type III 24-hr Rainfall=5.50"
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment WS-1: (new node)
Tc=35.7 min CN=78 Area=1.980 ac Runoff= 3.80 cfs 0.479 af

Reach Study Point: (new node)
Inflow= 3.80 cfs 0.479 af
Outflow= 3.80 cfs 0.479 af

Runoff Area = 1.980 ac Volume = 0.479 af Average Depth = 2.90"

Subcatchment WS-1: (new node)

Runoff = 3.80 cfs @ 12.50 hrs, Volume= 0.479 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=5.50"

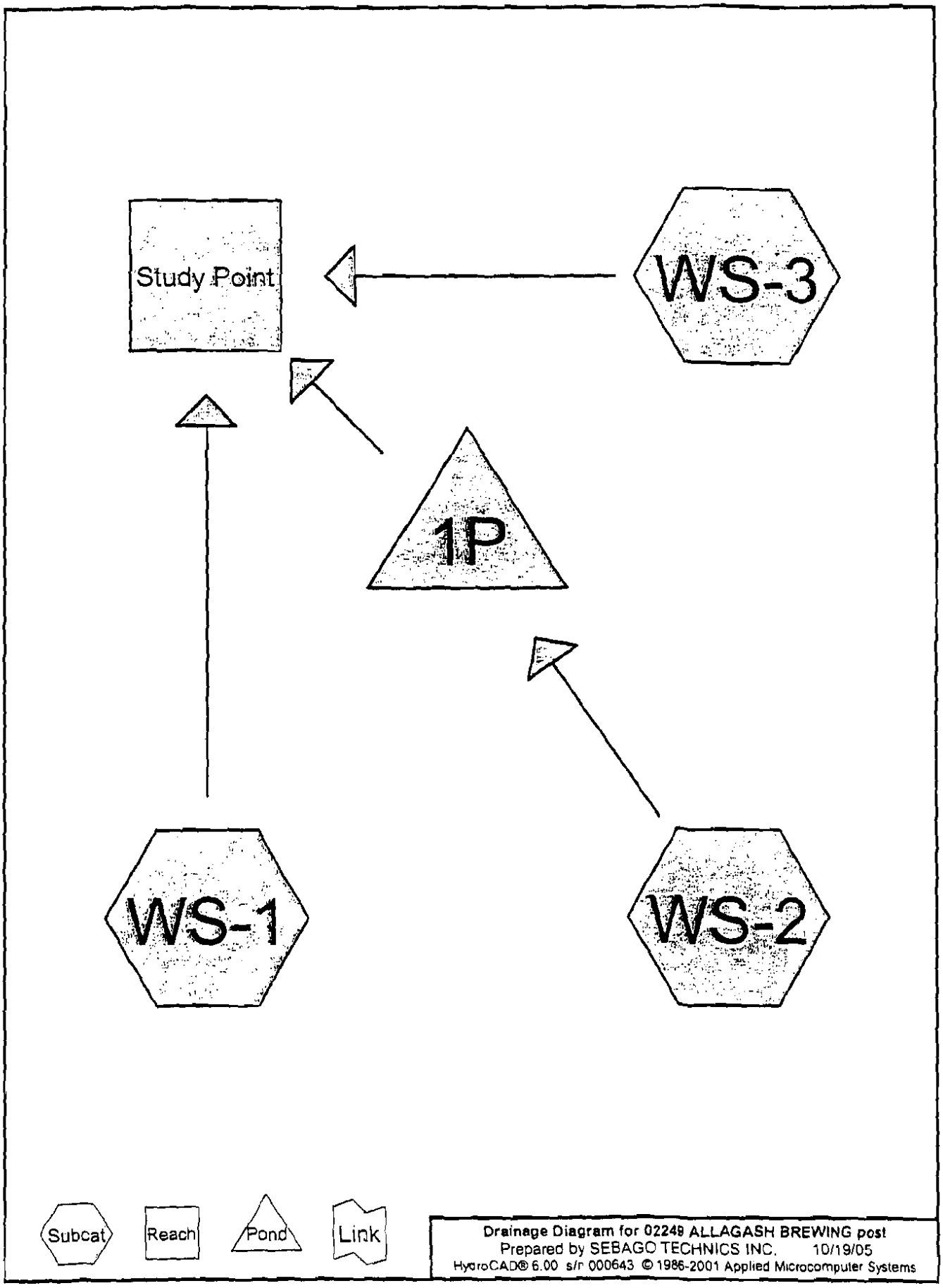
Area (ac)	CN	Description
1.900	77	Woods, Good, HSG D
0.080	98	Paved parking & roofs
1.980	78	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.7	150	0.0200	0.1		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.00"
5.0	250	0.0280	0.8		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
35.7	400	Total			

Reach Study Point: (new node)

Inflow = 3.80 cfs @ 12.50 hrs, Volume= 0.479 af
Outflow = 3.80 cfs @ 12.50 hrs, Volume= 0.479 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



Drainage Diagram for 02249 ALLAGASH BREWING post
Prepared by SEBAGO TECHNICS INC. 10/19/05
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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Type III 24-hr Rainfall=3.00"
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment WS-1: (new node)
Tc=37.4 min CN=80 Area=0.660 ac Runoff= 0.48 cfs 0.063 af

Subcatchment WS-2: (new node)
Tc=4.0 min CN=95 Area=1.070 ac Runoff= 3.06 cfs 0.206 af

Subcatchment WS-3: (new node)
Tc=2.1 min CN=92 Area=0.250 ac Runoff= 0.68 cfs 0.042 af

Reach Study Point: (new node)
Inflow= 1.25 cfs 0.309 af
Outflow= 1.25 cfs 0.309 af

Pond 1P: (new node)
Peak Storage= 3,461 cf Inflow= 3.06 cfs 0.206 af
Primary= 0.66 cfs 0.204 af Secondary= 0.00 cfs 0.000 af Outflow= 0.66 cfs 0.204 af

Runoff Area = 1.980 ac Volume = 0.312 af Average Depth = 1.89"

Subcatchment WS-1: (new node)

Runoff = 0.48 cfs @ 12.54 hrs, Volume= 0.063 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=3.00"

Area (ac)	CN	Description
0.398	77	Woods, Good, HSG D
0.081	98	Paved parking & roofs
0.181	80	>75% Grass cover, Good, HSG D
0.660	80	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
31.5	150	0.0187	0.1		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.00"
5.9	255	0.0210	0.7		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
37.4	405	Total			

Subcatchment WS-2: (new node)

Runoff = 3.06 cfs @ 12.06 hrs, Volume= 0.206 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=3.00"

Area (ac)	CN	Description
0.863	98	Paved parking & roofs
0.207	80	>75% Grass cover, Good, HSG D
1.070	95	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	30	0.0330	0.2		**Sheet Flow, A to B** Grass: Short n= 0.150 P2= 3.00"
0.5	83	0.0370	2.9		**Shallow Concentrated Flow, B to C** Grassed Waterway Kv= 15.0 fps
0.3	75	0.0053	3.8	4.70	**Circular Channel (pipe), C to D** Diam= 15.0" Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013
4.0	188	Total			

Subcatchment WS-3: (new node)

Runoff = 0.68 cfs @ 12.04 hrs, Volume= 0.042 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=3.00"

Area (ac)	CN	Description
0.165	98	Paved parking & roofs
0.085	80	>75% Grass cover, Good, HSG D
0.250	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	118	0.0430	3.6	6.07	**Parabolic Channel, A to B** W=5.00' D=0.50' Area=1.7 sf Perim=5.1' n= 0.040
0.4	72	0.0030	2.9	3.54	**Circular Channel (pipe), B to C** Diam= 15.0" Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013
0.5	80	0.0088	2.6	17.43	**Parabolic Channel, C to D** W=10.00' D=1.00' Area=6.7 sf Perim=10.3' n= 0.040
0.4	110	0.0270	4.6	30.53	**Parabolic Channel, D to E** W=10.00' D=1.00' Area=6.7 sf Perim=10.3' n= 0.040
0.3	75	0.0200	4.0	0.79	**Circular Channel (pipe), E to F** Diam= 6.0" Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013
2.1	455	Total			

Reach Study Point: (new node)

Inflow = 1.25 cfs @ 12.43 hrs, Volume= 0.309 af
Outflow = 1.25 cfs @ 12.43 hrs, Volume= 0.309 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 1P: (new node)

Inflow = 3.06 cfs @ 12.06 hrs, Volume= 0.206 af
Outflow = 0.66 cfs @ 12.46 hrs, Volume= 0.204 af, Atten= 78%, Lag= 23.8 min
Primary = 0.66 cfs @ 12.46 hrs, Volume= 0.204 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 77.57' Storage= 3,461 cf
Plug-Flow detention time= 79.6 min calculated for 0.204 af (99% of inflow)
Storage and wetted areas determined by Prismatic sections

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	0	0	0
77.00	2,530	1,265	1,265
78.00	5,205	3,868	5,133
79.00	8,150	6,678	11,810

Primary OutFlow (Free Discharge)
└─1=Culvert
  ├─2=Orifice/Grate
  ├─3=Orifice/Grate
  └─4=Sharp-Crested Rectangular Weir

Secondary OutFlow (Free Discharge)
└─5=Broad-Crested Rectangular Weir

#	Routing	Invert	Outlet Devices
1	Primary	75.90'	**15.0" x 10.0' long Culvert** RCP, sq.cut end projecting, Ke= 0.500 Outlet Invert= 75.85' S= 0.0050 '/' n= 0.011 Cc= 0.900
2	Device 1	75.90'	**3.0" Vert. Orifice/Grate** C= 0.600
3	Device 1	77.05'	**5.0" Vert. Orifice/Grate** C= 0.600
4	Device 1	78.05'	**6.0' long x 1.5' high Sharp-Crested Rectangular Weir** 2 End Contraction(s)
5	Secondary	78.25'	**14.0' long x 6.0' 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 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 2.6

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Type III 24-hr Rainfall=4.70"
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment WS-1: (new node)
Tc=37.4 min CN=80 Area=0.660 ac Runoff= 1.04 cfs 0.134 af

Subcatchment WS-2: (new node)
Tc=4.0 min CN=95 Area=1.070 ac Runoff= 5.00 cfs 0.346 af

Subcatchment WS-3: (new node)
Tc=2.1 min CN=92 Area=0.250 ac Runoff= 1.15 cfs 0.075 af

Reach Study Point: (new node)
Inflow= 2.48 cfs 0.548 af
Outflow= 2.48 cfs 0.548 af

Pond 1P: (new node)
Peak Storage= 5,873 cf Inflow= 5.00 cfs 0.346 af
Primary= 1.25 cfs 0.339 af Secondary= 0.00 cfs 0.000 af Outflow= 1.25 cfs 0.339 af

Runoff Area = 1.980 ac Volume = 0.555 af Average Depth = 3.36"

Subcatchment WS-1: (new node)

Runoff = 1.04 cfs @ 12.52 hrs, Volume= 0.134 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=4.70"

Area (ac)	CN	Description
0.398	77	Woods, Good, HSG D
0.081	98	Paved parking & roofs
0.181	80	>75% Grass cover, Good, HSG D
0.660	80	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
31.5	150	0.0187	0.1		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.00"
5.9	255	0.0210	0.7		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
37.4	405	Total			

Subcatchment WS-2: (new node)

Runoff = 5.00 cfs @ 12.06 hrs, Volume= 0.346 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=4.70"

Area (ac)	CN	Description
0.863	98	Paved parking & roofs
0.207	80	>75% Grass cover, Good, HSG D
1.070	95	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	30	0.0330	0.2		**Sheet Flow, A to B** Grass: Short n= 0.150 P2= 3.00"
0.5	83	0.0370	2.9		**Shallow Concentrated Flow, B to C** Grassed Waterway Kv= 15.0 fps
0.3	75	0.0053	3.8	4.70	**Circular Channel (pipe), C to D** Diam= 15.0" Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013
4.0	188	Total			

Subcatchment WS-3: (new node)

Runoff = 1.15 cfs @ 12.04 hrs, Volume= 0.075 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=4.70"

Area (ac)	CN	Description
0.165	98	Paved parking & roofs
0.085	80	>75% Grass cover, Good, HSG D
0.250	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	118	0.0430	3.6	6.07	**Parabolic Channel, A to B** W=5.00' D=0.50' Area=1.7 sf Perim=5.1' n= 0.040
0.4	72	0.0030	2.9	3.54	**Circular Channel (pipe), B to C** Diam= 15.0" Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013
0.5	80	0.0088	2.6	17.43	**Parabolic Channel, C to D** W=10.00' D=1.00' Area=6.7 sf Perim=10.3' n= 0.040
0.4	110	0.0270	4.6	30.53	**Parabolic Channel, D to E** W=10.00' D=1.00' Area=6.7 sf Perim=10.3' n= 0.040
0.3	75	0.0200	4.0	0.79	**Circular Channel (pipe), E to F** Diam= 6.0" Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013
2.1	455	Total			

Reach Study Point: (new node)

Inflow = 2.48 cfs @ 12.42 hrs, Volume= 0.548 af
Outflow = 2.48 cfs @ 12.42 hrs, Volume= 0.548 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 1P: (new node)

Inflow = 5.00 cfs @ 12.06 hrs, Volume= 0.346 af
Outflow = 1.25 cfs @ 12.41 hrs, Volume= 0.339 af, Atten= 75%, Lag= 21.3 min
Primary = 1.25 cfs @ 12.41 hrs, Volume= 0.339 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 78.11' Storage= 5,873 cf
Plug-Flow detention time= 84.4 min calculated for 0.338 af (98% of inflow)
Storage and wetted areas determined by Prismatic sections

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	0	0	0
77.00	2,530	1,265	1,265
78.00	5,205	3,868	5,133
79.00	8,150	6,678	11,810

Primary OutFlow (Free Discharge)
└─1=Culvert
  ├─2=Orifice/Grate
  ├─3=Orifice/Grate
  └─4=Sharp-Crested Rectangular Weir

Secondary OutFlow (Free Discharge)
└─5=Broad-Crested Rectangular Weir

#	Routing	Invert	Outlet Devices
1	Primary	75.90'	**15.0" x 10.0' long Culvert** RCP, sq.cut end projecting, Ke= 0.500 Outlet Invert= 75.85' S= 0.0050 '/' n= 0.011 Cc= 0.900
2	Device 1	75.90'	**3.0" Vert. Orifice/Grate** C= 0.600
3	Device 1	77.05'	**5.0" Vert. Orifice/Grate** C= 0.600
4	Device 1	78.05'	**6.0' long x 1.5' high Sharp-Crested Rectangular Weir** 2 End Contraction(s)
5	Secondary	78.25'	**14.0' long x 6.0' 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 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 2.6

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Type III 24-hr Rainfall=5.50"
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment WS-1: (new node)
Tc=37.4 min CN=80 Area=0.660 ac Runoff= 1.31 cfs 0.170 af

Subcatchment WS-2: (new node)
Tc=4.0 min CN=95 Area=1.070 ac Runoff= 5.91 cfs 0.412 af

Subcatchment WS-3: (new node)
Tc=2.1 min CN=92 Area=0.250 ac Runoff= 1.38 cfs 0.090 af

Reach Study Point: (new node)
Inflow= 3.54 cfs 0.662 af
Outflow= 3.54 cfs 0.662 af

Pond 1P: (new node)
Peak Storage= 6,445 cf Inflow= 5.91 cfs 0.412 af
Primary= 2.09 cfs 0.402 af Secondary= 0.00 cfs 0.000 af Outflow= 2.09 cfs 0.402 af

Runoff Area = 1.980 ac Volume = 0.672 af Average Depth = 4.07"

Subcatchment WS-1: (new node)

Runoff = 1.31 cfs @ 12.51 hrs, Volume= 0.170 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=5.50"

Area (ac)	CN	Description
0.398	77	Woods, Good, HSG D
0.081	98	Paved parking & roofs
0.181	80	>75% Grass cover, Good, HSG D
0.660	80	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
31.5	150	0.0187	0.1		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.00"
5.9	255	0.0210	0.7		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
37.4	405	Total			

Subcatchment WS-2: (new node)

Runoff = 5.91 cfs @ 12.06 hrs, Volume= 0.412 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=5.50"

Area (ac)	CN	Description
0.863	98	Paved parking & roofs
0.207	80	>75% Grass cover, Good, HSG D
1.070	95	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	30	0.0330	0.2		**Sheet Flow, A to B** Grass: Short n= 0.150 P2= 3.00"
0.5	83	0.0370	2.9		**Shallow Concentrated Flow, B to C** Grassed Waterway Kv= 15.0 fps
0.3	75	0.0053	3.8	4.70	**Circular Channel (pipe), C to D** Diam= 15.0" Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013
4.0	188	Total			

Subcatchment WS-3: (new node)

Runoff = 1.38 cfs @ 12.04 hrs, Volume= 0.090 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=5.50"

Area (ac)	CN	Description
0.165	98	Paved parking & roofs
0.085	80	>75% Grass cover, Good, HSG D
0.250	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	118	0.0430	3.6	6.07	**Parabolic Channel, A to B** W=5.00' D=0.50' Area=1.7 sf Perim=5.1' n= 0.040
0.4	72	0.0030	2.9	3.54	**Circular Channel (pipe), B to C** Diam= 15.0" Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013
0.5	80	0.0088	2.6	17.43	**Parabolic Channel, C to D** W=10.00' D=1.00' Area=6.7 sf Perim=10.3' n= 0.040
0.4	110	0.0270	4.6	30.53	**Parabolic Channel, D to E** W=10.00' D=1.00' Area=6.7 sf Perim=10.3' n= 0.040
0.3	75	0.0200	4.0	0.79	**Circular Channel (pipe), E to F** Diam= 6.0" Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013
2.1	455	Total			

Reach Study Point: (new node)

Inflow = 3.54 cfs @ 12.34 hrs, Volume= 0.662 af
Outflow = 3.54 cfs @ 12.34 hrs, Volume= 0.662 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 1P: (new node)

Inflow = 5.91 cfs @ 12.06 hrs, Volume= 0.412 af
Outflow = 2.09 cfs @ 12.29 hrs, Volume= 0.402 af, Atten= 65%, Lag= 14.1 min
Primary = 2.09 cfs @ 12.29 hrs, Volume= 0.402 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 78.20' Storage= 6,445 cf
Plug-Flow detention time= 80.2 min calculated for 0.401 af (97% of inflow)
Storage and wetted areas determined by Prismatic sections

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	0	0	0
77.00	2,530	1,265	1,265
78.00	5,205	3,868	5,133
79.00	8,150	6,678	11,810

Primary OutFlow (Free Discharge)
└─1=Culvert
  ├─2=Orifice/Grate
  ├─3=Orifice/Grate
  └─4=Sharp-Crested Rectangular Weir

Secondary OutFlow (Free Discharge)
└─5=Broad-Crested Rectangular Weir

#	Routing	Invert	Outlet Devices
1	Primary	75.90'	**15.0" x 10.0' long Culvert** RCP, sq.cut end projecting, Ke= 0.500 Outlet Invert= 75.85' S= 0.0050 '/' n= 0.011 Cc= 0.900
2	Device 1	75.90'	**3.0" Vert. Orifice/Grate** C= 0.600
3	Device 1	77.05'	**5.0" Vert. Orifice/Grate** C= 0.600
4	Device 1	78.05'	**6.0' long x 1.5' high Sharp-Crested Rectangular Weir** 2 End Contraction(s)
5	Secondary	78.25'	**14.0' long x 6.0' 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 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 2.6

Pond 1P: (new node)

Inflow	=	5.91 cfs @	12.06 hrs,	Volume=	0.412 af
Outflow	=	3.99 cfs @	12.15 hrs,	Volume=	0.254 af, Atten= 33%, Lag= 5.2 min
Primary	=	0.00 cfs @	5.00 hrs,	Volume=	0.000 af
Secondary	=	3.99 cfs @	12.15 hrs,	Volume=	0.254 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

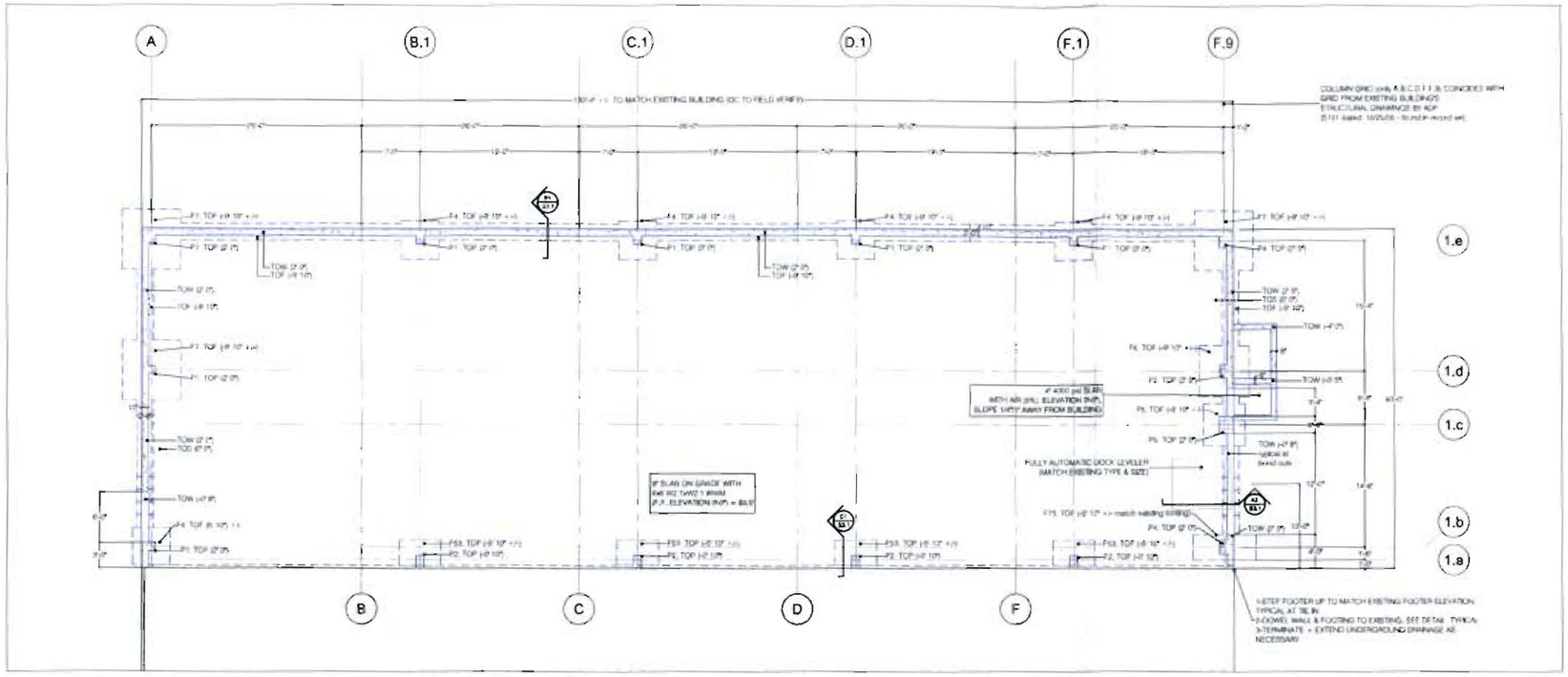
Peak Elev= 78.49' Storage= 8,414 cf
Plug-Flow detention time= 154.6 min calculated for 0.253 af (61% of inflow)
Storage and wetted areas determined by Prismatic sections

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	0	0	0
77.00	2,530	1,265	1,265
78.00	5,205	3,868	5,133
79.00	8,150	6,678	11,810

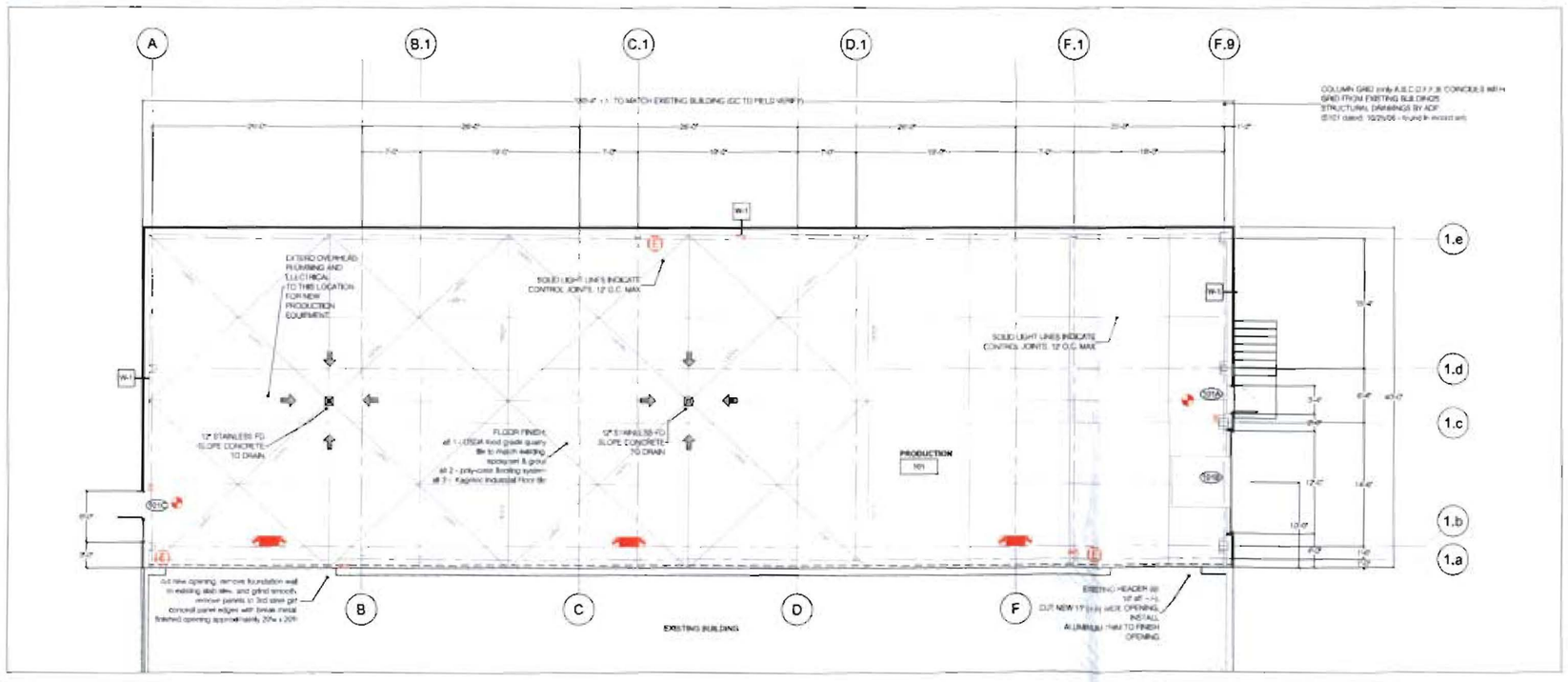
Primary OutFlow (Free Discharge)
- 1=Culvert
  - 2=Orifice/Grate
  - 3=Orifice/Grate
  - 4=Sharp-Crested Rectangular Weir

Secondary OutFlow (Free Discharge)
- 5=Broad-Crested Rectangular Weir

#	Routing	Invert	Outlet Devices
1	Primary	75.90'	**15.0" x 10.0' long Culvert X 0.00** RCP, sq.cut end projecting, Ke= 0.500 Outlet Invert= 75.85' S= 0.0050 '/' n= 0.011 Cc= 0.900
2	Device 1	75.90'	**3.0" Vert. Orifice/Grate** C= 0.600
3	Device 1	77.05'	**5.0" Vert. Orifice/Grate** C= 0.600
4	Device 1	78.05'	**6.0' long x 1.5' high Sharp-Crested Rectangular Weir** 2 End Contraction(s)
5	Secondary	78.25'	**14.0' long x 6.0' 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 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 2.6



1 Foundation Plan
Scale 1/8"=1'



2 1st Floor Plan Preliminary
Scale 1/8"=1'

FOOTING SCHEDULE		
IDENTIFICATION	SIZE	BOTTOM REINFORCING
F3	3'-0" x 3'-0" x 1'-0"	(4) #5's E.W.
F4	4'-6" x 4'-6" x 1'-2"	(5) #5's E.W.
F5	5'-0" x 5'-0" x 1'-2"	(6) #5's E.W.
F6	6'-0" x 6'-0" x1'-2"	(6) #6's E.W.
F7	7'-0" x 7'-0" x 1'-2"	(10) #5's E.W.
F53	3'-0" x 5'-0" x 1'-0"	(6) #5's S.W. (4) #5's L.W.
F73	3'-0"x7'-6"	(8) #5's S.W. (4) #5's L.W

PIER SCHEDULE		
IDENTIFICATION	SIZE	BOTTOM REINFORCING
P1	12" x 12"	(4) #5's VERT, #3 TIES AT 12" O.C.
P2	12" x 18"	(4) #5 U BARS, #3 TIES AT 12" O.C.
P4	14" x 20"	(5) #5 U BARS, #3 TIES AT 12" O.C.
P5	16" x 24"	(6) #5 U-bars. #3 ties at 12" o.c

NOTES:

1. TOF Indicates Top of Footing
2. TOC Indicates Top of Concrete
3. Top of concrete and top of footing elevations are referenced from finished floor elevation = (+ 83'-6") = 0'-0"
4. Relocate existing underdrain near line 1.a to allow for new footing installation
5. F.F. Indicates finished floor
6. See S302 for general notes and specifications.
7. Footings are centered on column grids, UNO
8. G.C. verify required width of all foundation wall bond-outs for door openings prior to construction.
9. Extend insulation at exterior concrete pads 4' beyond edge of concrete, typical.

PERFORMANCE CRITERIA

General:
Match existing equipment and fixture types

Fire Protection:
Extend existing sprinkler system into new space to meet all state and local codes

HVAC & Plumbing:
Extend existing overhead plumbing + electrical for brewery equipment
Utilize process energy and alternate energy sources where possible
Air to air heat exchanger
AWI Stainless steel 12" manufacturing floor drains (3), pitch concrete to drains, concrete to slope ¼" per 1'
(3) 4" roof drains, insulated
Natural gas fired hvac unit, AC capable (utilize glycol from beer making process)
(2) exterior hose bibs
Sealed engineering drawings
Mechanical permits
Plumbing permits

Electrical:
Fluorescent T5 high-bay lights (10) with daylight + occupancy sensors
Exit and emergency lighting as necessary per code
Exterior full cutoff wall packs as necessary to meet code requirements
Exterior door lights (full cutoff fixtures) at (2) exit doorways
Receptacles as necessary for convenience
Power to relocated equipment
Power at new loading dock
Fire alarm devices added or relocated as necessary
Sealed engineering drawings

Misc. Equipment:
Fully automatic dock leveler, see plan for location

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LANGFORD AND LOW
GENERAL CONTRACTOR

DRAWN BY:
GABRIELLE RUSSELL, LEED AP
PROJECT DESIGNER / PROJECT COORDINATOR
LANGFORD AND LOW
MASTER OF ARCHITECTURE, TULANE UNIVERSITY
BACHELOR OF ARCHITECTURE, TULANE UNIVERSITY

REVIEWED BY
-

JOB NUMBER
1028

DRAWING STATUS
- ☐ OFFICE REVIEW
- ☐ CLIENT REVIEW
- ☑ PERMIT SET, FOUNDATION ONLY
- ☐ BID / ESIMATING SET
- ☐ CONTRACT DRAWINGS
- ☐ CONSTRUCTION SET

CONSULTANTS
STRUCTURAL - ARROWHEAD DESIGN PARTNERS
MECHANICAL -
ELECTRICAL -
LANDSCAPE -
CIVIL -
DESIGN: LANGFORD AND LOW

LICENSED PROFESSIONAL'S SEAL

PROJECT NAME & LOCATION
ALLAGASH BREWERY Addition
50 INDUSTRIAL WAY
PORTLAND, MAINE

DRAWING TITLE
Foundation & 1st Floor Plans

DATE
JULY 20, 2010

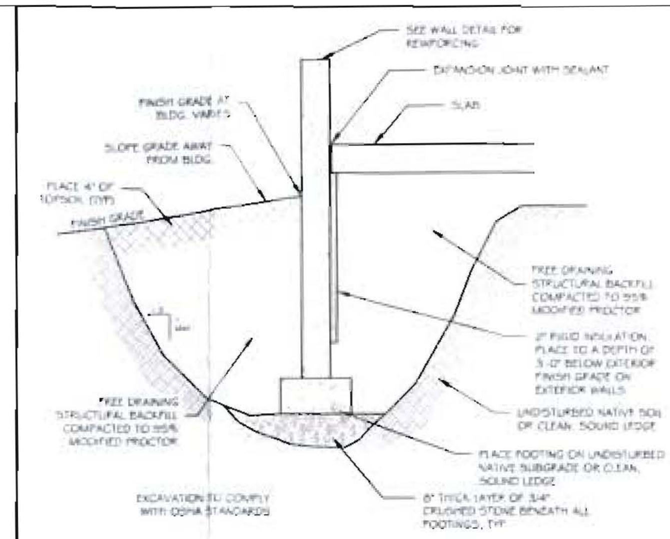
REVISIONS

SCALE
AS NOTED

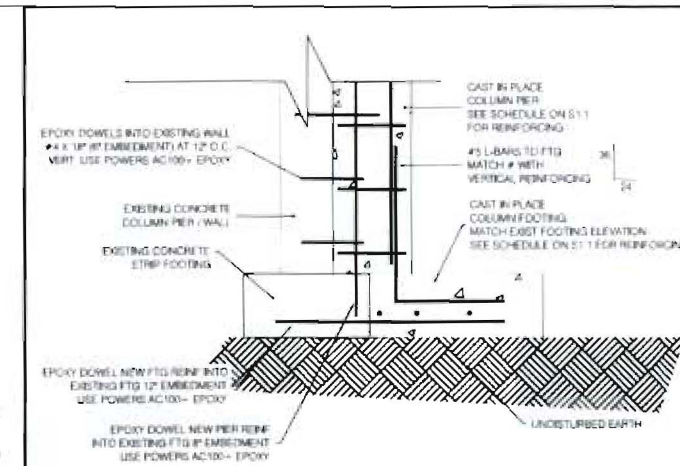
SHEET NUMBER
A2.1

GENERAL STRUCTURAL NOTES

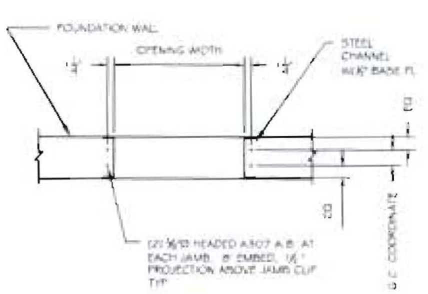
C4 GENERAL NOTES
SCALE: NO SCALE



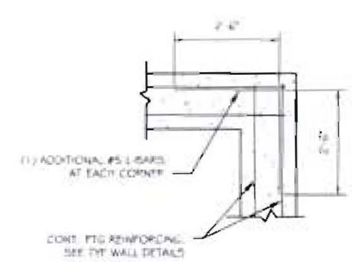
C2 TYPICAL EARTHWORK DETAIL
SCALE: NO SCALE



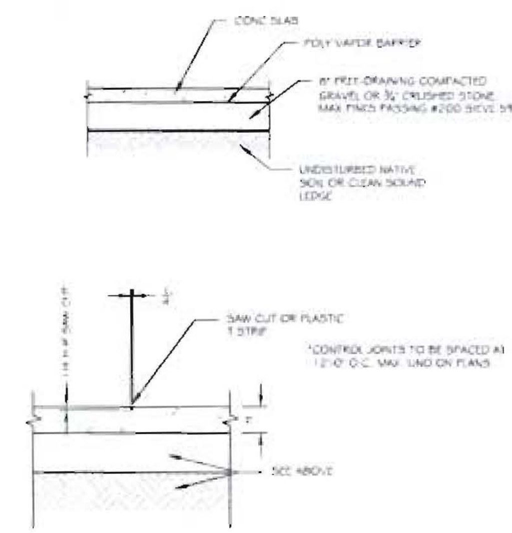
C1 NEW TO EXISTING FOUNDATION DETAIL
SCALE: 3/4" = 1'-0"



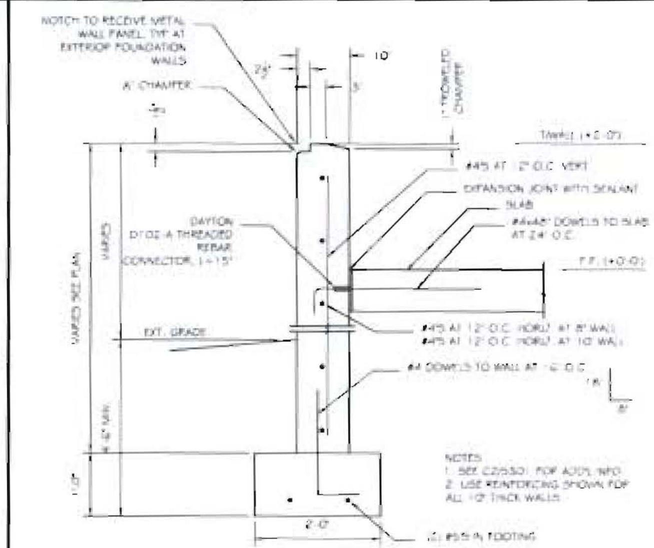
B4 ANCHORS AT FRAMED OPENINGS
SCALE: NO SCALE



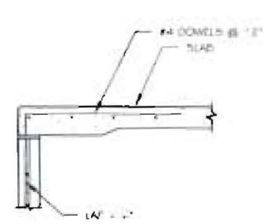
B3 CORNER REIFORCING IN FOOTING
SCALE: 1" = 1'-0"



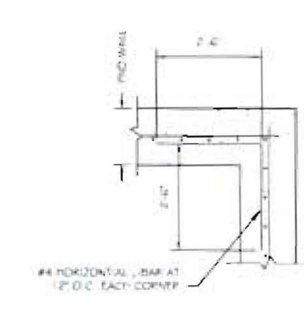
B2 TYPICAL SLAB DETAILS
SCALE: NO SCALE



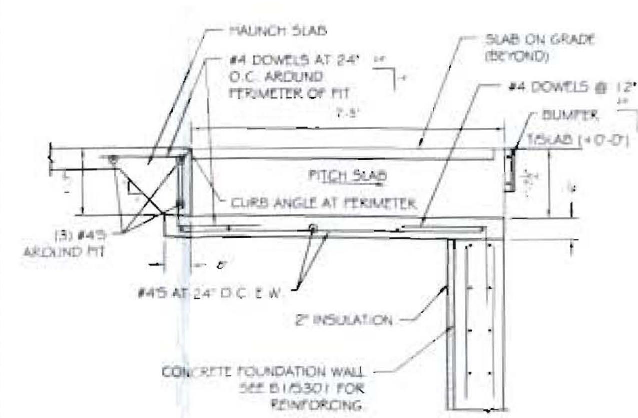
B1 1 O" FOUNDATION WALL AT T/WALL +2'-0"
SCALE: 3/4" = 1'-0"



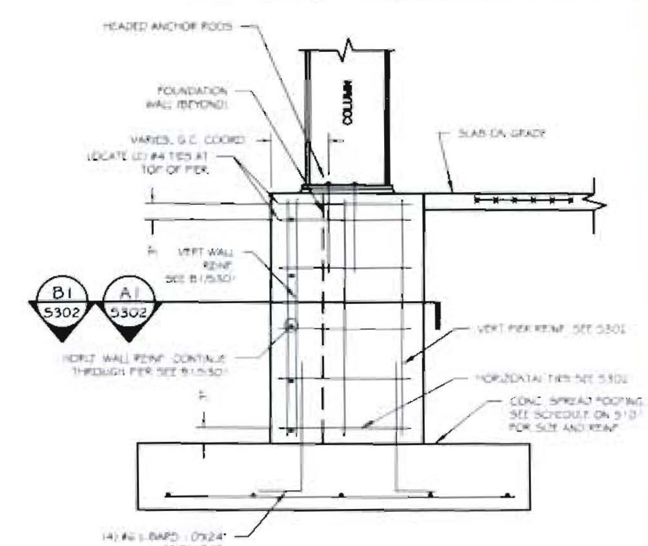
A4 TYP. SECTION AT DOOR OPENINGS
SCALE: NO SCALE



A3 CORNER REINFORCING IN FOUNDATION WALL
SCALE: NO SCALE



A2 DOCK LEVELER PIT
SCALE: 1/2" = 1'-0"



A1 TYP. PIER / FOOTING SECTION AT EXT. WALL
SCALE: NO SCALE

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CONSULTANTS

LICENSED PROFESSIONAL'S SEAL
STATE OF MAINE
AARON S. WILSON
No. 10429
LICENSED PROFESSIONAL ENGINEER

PROJECT NAME & LOCATION
ALLAGASH BREWERY
Addition
50 INDUSTRIAL WAY
PORTLAND, MAINE

DRAWING TITLE
FOUNDATION DETAILS

DATE
JULY 19, 2010

REVISIONS

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AS NOTED

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S3.1