Sebago Technics
Engineering Expertise You Can Build On

11/21/07

MINOR SITE PLAN APPLICATION

For:

Moody's Collision Center
Presumpscot Street
Portland, Maine
November 2007

On behalf of:

Moody's Collision Center
200 Narragansett Street
Gorham, Maine

By:

Sebago Technics, Inc.
One Chabot Street
Westbrook, Maine 04098

Site Plan Application

Department of Planning and Development
Portland Planning Board

Address of Proposed Development: Presumpscot Street Zone: IM

Project Name: Moody's Collision Center

Existing Building Size: N/A sq. ft. N/A	Proposed Building Size: 17,667 sq. ft.
Existing Acreage of Site: 111,824 sq. ft.	Proposed Acreage of Site: 111,824 sq. ft.

Tax Assessor's Chart, Block & Lot:	Property Owners Mailing address:	Telephone #: 207/839-2500
Chart# Block # Lot# 415 415-B 8 418A 418-C 001 419A 419A-A 7	Moody's Collision Center 200 Narragansett St. Gorham, ME 04038	Cell Phone #:
Consultant/Agent Contact Name and mailing address, Telephone # and Cell Phone #: Shawn Frank c/o Sebago Technics One Chabot St. P.O. Box 1339 Westbrook, ME 04098 207-856-0277	Applicant's Name/Mailing Address: Same as above	Telephone #: Cell Phone #:

Fee For Service Deposit (all applications) ✓ ($200.00)

Proposed Development (check all that apply)

✓ New Building ___ Building Addition ___ Change of Use ___ Residential ___ Office ___ Retail
___ Manufacturing ___ Warehouse/Distribution ___ Parking lot
___ Subdivision ($500.00) + amount of lots____ ($25.00 per lot) $_____ + major site plan fee if applicable
___ Site Location of Development ($3,000.00)
(except for residential projects which shall be $200.00 per lot_____)
___ Traffic Movement ($1,000.00) ___ Storm water Quality ($250.00)
___ Section 14-403 Review ($400.00 + $25.00 per lot)
___ Other_____

Major Development (more than 10,000 sq. ft.)

___ Under 50,000 sq. ft. ($500.00)
___ 50,000 - 100,000 sq. ft. ($1,000.00)
___ Parking Lots over 100 spaces ($1,000.00)
___ 100,000 - 200,000 sq. ft. ($2,000.00)
___ 200,000 - 300,000 sq. ft. ($3,000.00)
___ Over 300,000 sq. ft ($5,000.00)
___ After-the-fact Review ($1,000.00 + applicable application fee)

DEPT OF BUILDING INSPECTION
CITY OF PORTLAND, ME
NOV 21 2007
RECEIVED

~ Please see next page ~

Minor Site Plan Review

✓ Less than 10,000 sq. ft. ($400.00) (less than 20,000 s.f. in the I-M Zone)

___ After-the-fact Review ($1,000.00 + applicable application fee)

Plan Amendments

___ Planning Staff Review ($250.00)

___ Planning Board Review ($500.00)

Who billing will be sent to: Mr. Shawn Moody
Moody's Collision Center
200 Narragansett St.
Gorham, ME 04038

Submittals shall include (7) separate **folded** packets of the following:

a. copy of application
b. cover letter stating the nature of the project
c. site plan containing the information found in the attached sample plans checklist
d. 1 set of 11x17 plans

Section 14-522 of the Zoning Ordinance outlines the process which is available on our web site: **portlandmaine.gov**

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the 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

This application is for site review only; a Building Permit application and associated fees will be required prior to construction.

Signature of Applicant:	Date:
	11/13/2007

DEPT. OF BUILDING INSPECTION
CITY OF PORTLAND, ME
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City of Portland, Maine Site Plan Checklist

Project Name, Address of Project

Application Number

Submitted () & Date (b,c)	Item	Required Information	Section 14-525
✓	(1)	Standard boundary survey (stamped by a registered surveyor, at a scale of not less than 1 inch to 100 feet and including:	1
✓	(2)	Name and address of applicant and name of proposed development	a
✓	(3)	Scale and north points	b
✓	(4)	Boundaries of the site	c
✓	(5)	Total land area of site	d
✓	(6)	Topography - existing and proposed (2 feet intervals or less)	e
✓	(7)	Plans based on the boundary survey including:	2
✓	(8)	Existing soil conditions	a
✓	(9)	Location of water courses, marshes, rock outcroppings and wooded areas	b
✓	(10)	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
✓	(11)	Approx location of buildings or other structures on parcels abutting the site	d
✓	(12)	Location of on-site waste receptacles	e
✓	(13)	Public utilities	e
✓	(14)	Water and sewer mains	e
✓	(15)	Culverts, drains, existing and proposed, showing size and directions of flows	e
✓	(16)	Location and dimensions, and ownership of easements, public or private rights-of-way, both existing and proposed	f
✓	(17)	Location and dimensions of on-site pedestrian and vehicular access ways	g
✓	(18)	Parking areas	g
✓	(19)	Loading facilities	g
✓	(20)	Design of ingress and egress of vehicles to and from the site onto public streets	g
✓	(21)	Curb and sidewalks	g
✓	(22)	Landscape plan showing:	h
✓	(23)	Location of existing proposed vegetation	h
✓	(24)	Type of vegetation	h
✓	(25)	Quantity of plantings	h
✓	(26)	Size of proposed landscaping	h
✓	(27)	Existing areas to be preserved	h
✓	(28)	Preservation measures to be employed	h
✓	(29)	Details of planting and preservation specifications	h
✓	(30)	Location and dimensions of all fencing and screening	i
✓	(31)	Location and intensity of outdoor lighting system	j
✓	(32)	Location of fire hydrants, existing and proposed	k
✓	(33)	Written statement	c
✓	(34)	Description of proposed uses to be located on site	l
✓	(35)	Quantity and type of residential, if any	l
✓	(36)	Total land area of the site	b2
✓	(37)	Total floor area and ground coverage of each proposed building and structure	b2
✓	(38)	General summery of existing and proposed easements or other burdens	c3
✓	(39)	Method of handling solid waste disposal	4
✓	(40)	Applicant's evaluation of availability of off-site public facilities, including sewer, water and streets	5
✓	(41)	Description of any problems of drainage or topography, or a representation that there are none	6
✓	(42)	An estimate of the time period required for completion of the development	7
✓	(43)	A list of all state and federal regulatory approvals to which the development may be subject to	8

N/A	(44)	The status of any pending applications	8
✓	(45)	Anticipated timeframe for obtaining such permits	h8
N/A	(46)	A letter of non jurisdiction	h8
✓	(47)	Evidence of financial and technical capability to undertake and complete the development including a letter from a responsible financial institution stating that is has reviewed the planned development and would seriously consider financing it when approved.	

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; and
- a wind impact analysis.
- an environmental impact study;
- a sun shadow study;
- a study of particulates and any other noxious
- a noise study;

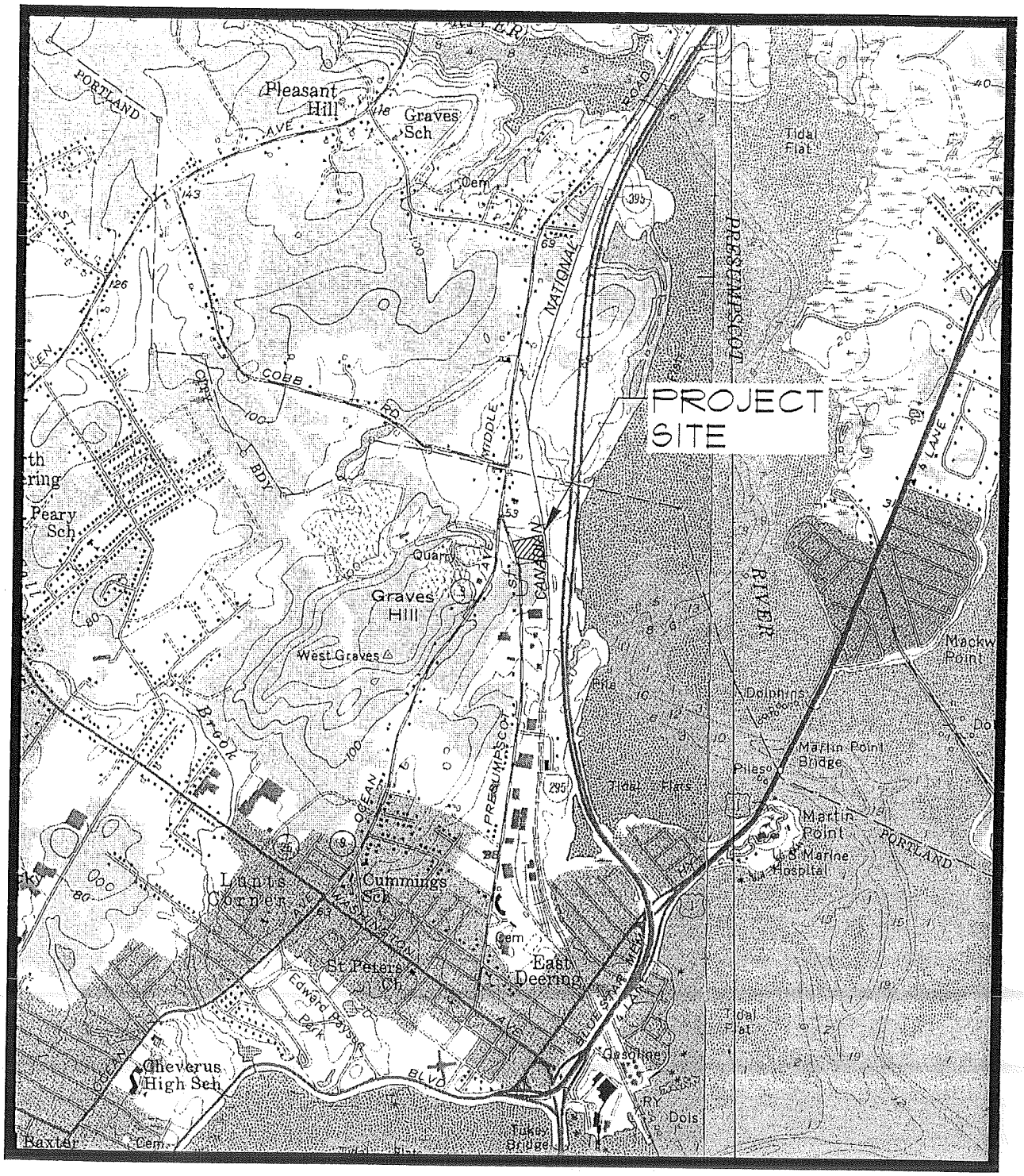
Other comments:

Table of Contents
Minor Subdivision Application

Exhibit 1

Location Map, Tax Map

FIGURE 1



SITE LOCATION MAP

USGS TOPOGRAPHIC
7.5 MIN. QUADRANGLE
PORTLAND–WEST
& PORTLAND–EAST
SCALE: 1"=2,000'

Sebago Technics
Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098–1339
Tel (207) 856–0277

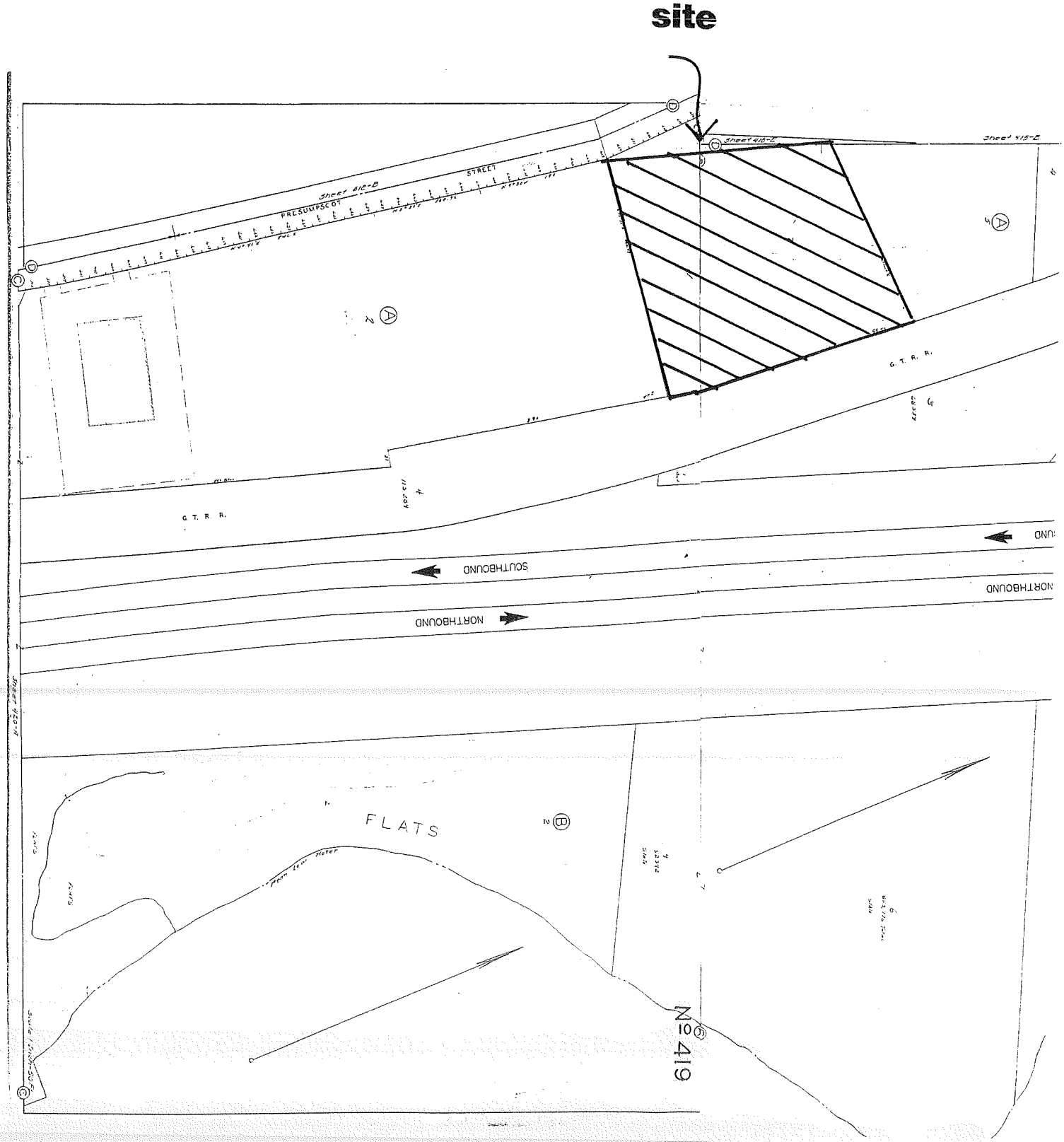

site
Sheet 416-E
Sheet 415-E
Sheet 416-B
PRESUMPSCOT
STREET
G. T. R. R.
SOUTHBOUND
NORTHBOUND
FLATS
N 10 419

Exhibit 2

Water Service Capacity Letter

Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

October 24, 2007

Sebago Technics
One Chabot Street
P.O. Box 1339
Westbrook, ME 04092

Attn: Jayson R. Haskell
Re: Moody's Collision Center – Presumpscot Street, Portland
Ability to serve with PWD water

Dear Mr. Haskell:

This letter is to confirm that there should be an adequate supply of clean and healthful water to serve the needs of the proposed Collision Center at Presumpscot Street in Portland. According to District records, there is a 10-inch water main on the east side of the street as well as a hydrant located adjacent to the property.

The current data from the nearest hydrant indicates there should be adequate capacity of water to serve the needs of your proposed project.

Hydrant Location:	Presumpscot St at Ocean Ave
Hydrant Number:	POD-HYD01241
Static Pressure:	84 psi
Flow:	1255 gpm
Last Tested:	06/20/1991

Please notify your mechanical engineer of these results so that they can design your system to best fit the noted conditions. If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

David Coffin

David Coffin, P.L.S.
Engineering Supervisor
dcoffin@pwd.org

07-Presumpscot St - Moody's

225 DOUGLASS STREET P.O. BOX 3553 PORTLAND, MAINE 04104-3553
PHONE: 207.774.5961 FAX: 207.761.8307 WEB: WWW.PWD.ORG

Exhibit 3

Regulatory Approvals

Exhibit 3

Regulatory Approvals

The project will be required to file a Stormwater Permit-by-Rule Application with the Maine Department of Environmental Protection as part of the permitting for this project.

Exhibit 4

Financial Capacity and Technical Capacity

07548

Exhibit 4

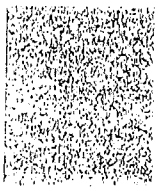
Financial Capacity and Technical Capacity

The applicant and owner, Moody's Collision Center is a successful auto body repair company. The applicant has successfully completed and operated several auto body repair buildings such as this one throughout southern Maine including the following locations.

- Gorham
- Scarborough
- Biddeford

Sebago Technics has been retained to perform the civil engineering, Geotechnical Investigation and report, wetland mapping, stormwater management, septic test pits, and sediment and erosion control design for the proposed project. The technical phase of this project includes the preparation of a detailed grading design, taking into account hydrological considerations and stormwater management. The permitting phase of this project consists of the preparation of all the local application packages and coordination throughout the entire review process from initial submission to final approval.

Attached is a letter from Norway Savings Bank indicating that the applicant has the financial ability to complete the project.



Norway Savings Bank

October 25, 2007

City of Portland, Maine
Planning Department
389 Congress Street
Portland, ME 04101

Re: Shawn Moody/Moody's Collision Centers, Inc./Real Estate Holdings, LLC
Presumpscot Street, Portland

To Whom It May Concern:

This letter is to verify for the City of Portland Planning Department that, based on our understanding of the project, Norway Savings Bank believes that Shawn Moody and his various business entities are financially capable of completing the project.

While this letter is in no way to be construed as a commitment to lend funds, Shawn Moody has been a customer of Norway Savings Bank since July of 2003 and we have worked successfully with Mr. Moody on similar projects in the past.

I hope this letter meets your needs and expectations, but should you require any additional information please don't hesitate to call me at 774-5000 x226.

Sincerely,

Richard R. Flagg
Vice President, Commercial Lending

Exhibit 5

Lighting

Exhibit 5

Lighting

Outdoor lighting for this project will be provided by eleven, 20' pole mounted lights and fourteen 15' wall packs. All proposed lighting is metal halide full cutoff design with a maximum wattage of 100. Attached are cut sheets of the proposed light fixtures. In addition, a photometric plan has been included as part of the plan set.

07548

Portland Lighting Standards

	PORTLAND STDS.	MOODY'S
Max:min	20:1	14.33
Min	0.2fc	0.3
Max	5.0fc	4.3
Avg	1.25fc	1.18
Provide	avg:min ratio	3.93
Pole ht.	20'	20
Wall pack ht.	15'	15
Max wattage	250	100
Metal halide only		MH
10' Photo grid		10'
Run points to	0.0fc	✓
		0.6 MAX

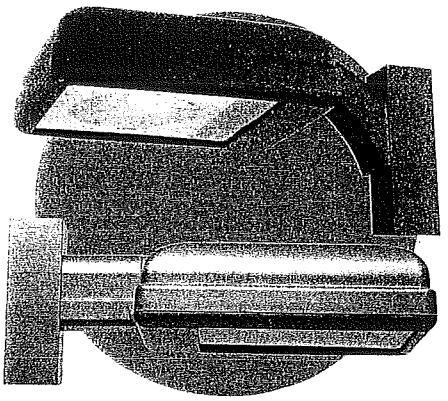
Fc at property line should approach 0.1 but in this zone (Ind.) it is not mandatory.

Features

Housing - Die-cast aluminum housing with radius corners.
Door - Die-cast aluminum door with clear, flat tempered glass lens, fully gasketed to housing. Hinged door secured with two captive screws.
Optics - IES Type II, III, IV and V (square) light distributions with flat lens design for full cutoff classification. 100 watt to 400 watt lamps in HPS, MH Super MH and Pulse Start for design flexibility. All distributions are field-rotatable.
Mounting - Mounts on upswept or straight arms for poles or on wall bracket for uniform project look.
Electrical - Mogul porcelain socket, pulse rated with spring-loaded, nickel-plated center contact and reinforced lamp grip screw shell.
Finish - Durable Lektrocote® TGIC thermoset polyester powder coat paint finish assures long life and maintenance-free service.

UL and CSA listed for wet locations.

New Product Available



Ordering Information

Example: CR1 - A - H17 - H2 - F - Q - DB - F1

Series	Mount	Watts/ Source	Orient./ Dist.	Lens	Volts	Color	Options

Series
CR1 Cimarron

Mounting
A Arm Mount Construction (6" straight rigid arm included). Use #2 arm drill pattern (2-bolt) with poles.
AD Decorative Arm Mount (6" decorative upswept arm included). Use #2 arm drill pattern (2-bolt) with poles.
WB Wall Bracket (includes wall bracket and 6" straight arm unless WBAD option is chosen which substitutes Decorative Upswept arm)
0 No arm or wall bracket (only order without arm or wall bracket when they are ordered as an accessory)

Wattage/Source
Metal Halide
H17 175W (ED-28)
H25 250W (ED-28)
H40 400W (ED-28)
Super Metal Halide
MS17 175W (ED-28)
MS25 250W (ED-28)
MS40 400W (ED-28)
Pulse Start Metal Halide
P10 100W (ED-17)
P12 125W (ED-17)
P15 150W (ED-28)
P20 200W (ED-28)
P25 250W (ED-28)
P32 320W (ED-28)
P35 350W (ED-28)
P40 400W (ED-28)
High Pressure Sodium
S10 100W (ED-27.5)
S15 150W (ED-27.5)
S25 250W (ED-18)
S40 400W (ED-18)

Lamp Orientation/Distribution
H2 Horiz. II - hydroformed
H3 Horiz. III - hydroformed
H4 Horiz. IV - multi-piece
H5 Horiz. V (square) - hydroformed

Lens
F Flat

Voltage
Q Quad Tap® (120, 208, 240, 277V)
V Five-Tap (120, 208, 240, 277, 480V) (250 & 400W MH, 250 & 400W HPS only)
5 480V
T Tri-Tap (120/277/347V)
0 No Ballast
E 50Hz 220/240V (250 & 400W MH, 250 & 400W HPS only)

Color
DB Dark Bronze
BL Black
WH White
GR Gray
PS Platinum Silver
RD Red (Premium Color)
FG Forest Green (Premium Color)
CC Custom Color (Consult Factory)

Options
WBAD Substitutes decorative up-swept arm when WB wall bracket mounting is chosen
RPA2 Round Pole Adapter (2 3/4 - 3 1/8")
RPA3 Round Pole Adapter (3 1/4 - 3 3/4")
RPA4 Round Pole Adapter (3 7/8 - 4 1/2")
RPA5 Round Pole Adapter (5")
RPA6 Round Pole Adapter (6")
F(X) Fusing (replace X with voltage: 1-120, 2-208, 3-240, 4-277, 5-480, 6-347V)
P(X) Photo Button (replace X with voltage: 1-120, 2-208, 3-240, 4-277, 6-347V)
PR(X) Photo Cell Receptacle (replace X with voltage: 1-120, 2-208, 3-240, 4-277, 5-480, 6-347V)
QZ Quartz RS with lamp
HS Internal House Side Shield
VG Polycarbonate Vandal Guard
L Lamp

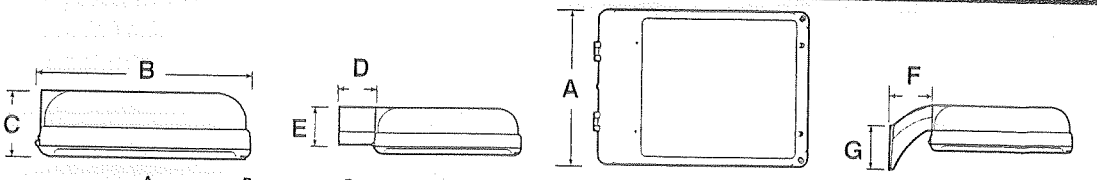
1 Factory wired for highest voltage unless specified.
Note Mounting A and AD acceptable for 90 degree configurations.
Note For Photocontrol Equipment, see page 609.

Accessories - Order Separately

Catalog Number	Description
CR1-PVG	Polycarbonate Vandal Shield
CR1-HS-23	Internal House-Side Shield (H2 and H3 distributions)
CR1-HS-4	Internal House-Side Shield (H4 distribution)
SSS-490-XX	Square Pole Tenon Adapter (4 @ 90°)
RSS-490-XX	Round Pole Tenon Adapter (4 @ 90°)
RSS-3120-XX	Round Pole Tenon Adapter (3 @ 120°)
WB-CR-XX	Wall Bracket
ARM-CR-K-TA-XX	Tenon Arm (single) adjustable
ARM-CR-TK-TA-XX	Tenon Arm (double 180°) adjustable
ARM-CR-K-S-XX	Adjustable arm (for flat surfaces)

Note Replace XX with color designation.

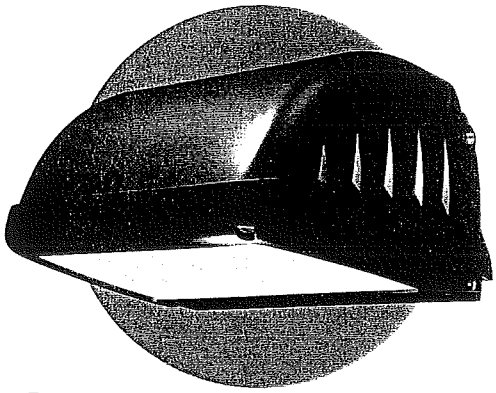
Dimensions



	A	B	C	D	E	F	G	EPA	Weight
CR1	16" 406mm	21 3/4" 552mm	6 3/4" 171mm	6" 152mm	5 5/8" 143mm	6 5/16" 160mm	5 5/8" 143mm	1.2 ft² 0.1 m²	44 lbs. 20 kg

Note: EPA and weight values include mounting arm
Note See page 699 for more detailed EPA information.

LAREDO



Features

- Decorative Cast Aluminum Housing and Door. Rugged protection for internal components. Provides heat sink and long ballast life.
- Full Cutoff Distribution - flat glass and segmented reflector provide wide spread with an environmentally friendly light control. Standard, removable front shield, reduces forward beam projection while maintaining lateral throw, if desired.
- Vertical lamp position (lamp is optional) provides maximum performance and life.
- Three point lag over recessed wiring boxes. Three 1/2" conduit hubs allow feed-thru wiring capability.
- Wide selection of wattage and sources including pulse start and electronic metal halide.
- 800 Series powder paint for lasting appearance in outdoor environments.
- Multiple options customize including a tool-free latch, which allows re-lamping from the ground, photocontrol for energy savings, fusing, quartz standby and EM sockets for remote power, lamps and five standard finishes.
- CSA certified for use in wet locations.

Ordering Information

Example: LMC — 175P — 8 — 1 — TL

Series	Watts/ Source	Volts	Finish	Options

Series
- LMC — Laredo Medium Cutoff

Wattage/Source

Pulse Start Metal Halide
- 70P — 70W
- 100P — 100W
- 150P — 150W
- 175P — 175W

Metal Halide
- 175H — 175W

Electronic Metal Halide
- 70E — 70W
- 100E — 100W

Electronic Fluroescent
- 42F — 42/32/26W[1]

High Pressure Sodium
- 70S — 70W
- 150S — 150W

Voltage
- 8 — Quad-Tap® (120, 208, 240, 277V)
- 6 — TriTap (120, 277, 347V)
- 5 — 480V
- E — 220/240V 50Hz (std. on EL or FL ballasts)

Finish
- 1 — Bronze
- 2 — Black
- 3 — Gray
- 4 — White
- 5 — Platinum

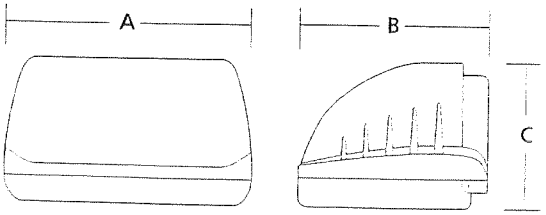
Options
- PC(X) — Button photocontrol (specify voltage)
- TL — Tool-Less Entry
- LP — Lamp included
- F(X) — Fusing (specify voltage)
- QST — Time delay quartz stand-by system-less lamp
- EM — DC bayonet socket (for remote power by others)
- EM12 — MR11/MR16 two pin socket for 12V power by others

1 For with lamp option - indicate desired wattage: LP42, LP32, LP26

Accessories - Order Separately

Catalog Number	Description
PBT-1	Photocontrol, button type, 120V
PBT-234	Photocontrol, button type, 208, 240, 277V
LMC-SPC	Polycarbonate shield

Dimensions



A	B	C
16"	12.13"	9"
406 mm	308 mm	229 mm

Exhibit 6

Right, Title or Interest

AGREEMENT FOR PURCHASE AND SALE OF REAL ESTATE LAND ONLY

This Agreement is entered into by and between STJ, Inc. of 939 Parker Farm Road, Buxton, York County, Maine, hereinafter called "Seller" and Real Estate Holdings, LLC. of 200 Narragansett Street, Gorham, Cumberland, County, Maine, hereinafter referred to as "Buyers"

1. Purchase and Sale. Seller agrees to sell and convey to Buyers and Buyers agree to buy upon the terms and conditions hereinafter set forth, the land located at Presumpscot Street, Portland, Me County of Cumberland, State of Maine, as described in a deed recorded at Book 22789, Page 161 & 162, of the Cumberland County Registry of Deeds, a copy of which is attached hereto.

2. Purchase Price. Buyers agree to pay to Seller for the property the sum of subject to any adjustments and prorations described herein. The purchase price shall be payable as follows:

a. Earnest Money Deposit. The sum of is herewith paid to STJ, Inc. as escrow agent to be credited against the price at time of closing.

b. Balance of Price. The balance of shall be paid to Seller at the time of closing by bank or certified check.

3. Title. Seller shall convey the property by a duly executed warranty deed free and clear of all encumbrances except those which are acceptable to the Buyers. In the event that Seller is not able to convey clear title, Seller shall have a reasonable time, not to exceed sixty (60) days, in which to remedy the matter. In the event that the matter cannot be remedied within such time, or in the event that Seller elects not to remedy the same, the earnest money deposit shall be returned to Buyers and this Agreement shall terminate.

4. Possession. Seller shall deliver possession to Buyers at the time of the closing unless the parties agree to allow Buyers to take occupancy sooner in which case a Use and Occupancy Agreement would be entered into.

5. Closing. The closing of this transaction shall occur within 180 days of execution of this contract at a time and place mutually agreeable to Seller and Buyers or on such earlier date as is mutually agreeable to Buyers and Seller.

6. Prorations. Real Estate taxes shall be prorated as of the date of the closing based upon the fiscal year for the

municipality.

7. Risk of Loss. The risk of loss or damage to the property from any cause prior to the closing remains with the Seller.

8. Default; Remedies. In the event that Seller fails to close hereunder for a reason other than the default of the Buyers, Seller shall return the Earnest Money Deposit to Buyers, and Buyers shall retain their rights for specific performance. In the event that Buyers fail to close hereunder for a reason other than the default of Seller, Seller shall retain the Earnest Money Deposit without limitation of any other legal or equitable remedy.

9. Contingencies.

a. The obligations of the Buyer under this contract are subject to the following contingencies:

The buyer shall submit for and receive approval for a plan to the City of Portland. This plan shall depict a sign visible from Route 295, the building location, and eighty 10'x20' parking spaces. These are the minimum requirements of the buyer. The final plan shall be satisfactory to the buyer.

b. The obligations of Seller under this Agreement are subject to the following contingencies:

The total purchase price of is based on for the land and for the earthwork, which is made a part of this agreement. The two pieces of this total price are inseparable. A scope of work will be produced once the buyer clarifies the amount of earthwork required with engineered plans and specifications. Said scope of work must be satisfactory to STJ, Inc. The Seller reserves the right to review final plans for the site. Seller further reserves the right to renegotiate the earthwork portion of sale price, or void this entire purchase and sale agreement if the earthwork portion of this agreement goes beyond the cost of the good faith estimate made at this time.

10. Entire Agreement. This Agreement constitutes the entire agreement between the Seller and the Buyers. There are no agreements, understandings, warranties or representations between Buyers and Seller except as set forth herein. This agreement cannot be amended except by written agreement of Buyers and Seller.

11. Construction. This Agreement shall be governed by and construed by the laws of the State of Maine. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining

provisions.

12. Time. Time is of the essence of this Agreement.

13. Binding Effect. This Agreement will inure to the benefit of and bind the respective successors and assigns of Seller and Buyers.

IN WITNESS WHEREOF, the parties hereto have signed this instrument on the dates shown below.

_____ Date: 9/11/07 SSN: 004/176/1843

_____ Date: 9/11/07 SSN: 024-42-1576

trust Mark Johnson Date: 9/11/07 SSN: 006-76-4640

_____ Date: _____ SSN: _____

Doc#: 41183 Bk:22789 Pg: 161

WARRANTY DEED

469 Doten, LLC, a Maine Limited Liability Company, with a place of business in Freeport, Maine for consideration paid grant to STJ, Inc. of Buxton, York County, Maine with WARRANTY COVENANTS, the land in Portland, Cumberland, State of Maine.

As described in Exhibit A attached hereto and
incorporated herewith

In witness whereof 469 Doten, LLC has caused this instrument to be executed by Michael Doten and Steven Doten, its members thereunto duly authorized this 2nd day of June, 2005.

469 DOTEN, LLC

by: Michael Doten
its member

469 DOTEN, LLC

by: Steven Doten
its member

MAINE REAL ESTATE TAX PAID

STATE OF MAINE
CUMBERLAND, ss.

June 6, 2005

Then personally appeared the above named Michael Doten and Steven Doten and acknowledged the foregoing instrument to be their free act and deed in their said capacity and the free act and deed of said limited liability company.

Before me,

Notary Public

Typed name of Notary: NANCY B. DUNN

NOTARY PUBLIC, STATE OF MAINE
MY COMMISSION EXPIRES DEC. 22, 2006

SEAL

Doc#: 41183 Bk:22789 Pg: 162

EXHIBIT A

A certain lot or parcel of land located on the easterly side of Presumpscot Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at a point on the easterly sideline of Presumpscot Street, being the southwesterly corner of land now or formerly of Sawdust Investments, LLC as recorded in the Cumberland County Registry of Deeds in Book 17173, Page 310; thence south 83°03'24" east a distance of 410.90 feet by said Sawdust Investments, to a point at the center of a metal culvert running under the Canadian National Railroad; thence south by said Canadian National Railroad land on a curve to the right with a radius of 5,729.65 feet and an arc distance of 358.24 feet to a rebar and land of Interstate Brands Corp., as recorded in said Registry Book 13543, Page 188; thence, North 61°37'27" West a distance of 392.19 feet by said land of Interstate Brands Corp. to the easterly side of Presumpscot Street; thence North 02°51'03" East a distance of 213.98 feet by said easterly sideline of Presumpscot Street to the point of beginning.

Reference is made to Boundary Survey for 469 Presumpscot Street, LLC, by Back Bay Boundary, Inc., dated March 6, 2003, and recorded in said Registry Plan Book 204, Page 626.

Being a portion of the premises conveyed by deed of the City of Portland, dated September 7, 2004 and recorded in said Registry of Deeds in Book 21786, Page 254.

Deed reference: Warranty deed from 469 Presumpscot Street, LLC to 469 Doten, LLC dated April 1, 2005 and recorded at Book 22485, Page 85.

Received
Recorded Register of Deeds
Jun 23,2005 09:07:19A
Cumberland County
John B OBrien

Exhibit 7

Parking Analysis

07548

Exhibit 7

Parking Analysis

The proposed site will not be catering to retail trade, so the required parking per the City of Portland's Standards for Off-Street Parking (Sec. 14-332-L) is "one parking space for each one thousand square feet of floor area or major fraction thereof." The total area of the proposed building is 18,448 square feet (15 employees) thus making the minimum parking requirement to be 19 parking spaces. The proposed development will provide 73 parking spaces. These parking spaces will be used for customers, employees and automobile storage.

The proposed site will meet the City of Portland's requirement for off-street parking.

Exhibit 8

Stormwater Management

STORMWATER MANAGEMENT REPORT

Moody's Collision Center
Presumpscot Street
Portland, Maine

November 16, 2007

General

This Stormwater Management Report has been prepared for Moody's Collision Center, Inc. to present the results of a stormwater runoff analysis for the proposed development located on Presumpscot Street in Portland. The project includes a 18,448 square foot auto body repair shop and associated parking and landscaping areas, located on the 2.57-acre parcel.

The site is currently mostly gravel covered and void of any vegetation. Scrub brush vegetation is evident along the northern and southern perimeter of the property. A small grass strip separates the gravel cover from the existing Presumpscot Street edge of pavement on the western side of the property.

The project site is located within the watershed of the Presumpscot River. The Presumpscot River drains to the ocean. The Presumpscot River in not defined as a watershed most at risk from new development or an urban impaired stream by the Maine Department of Environmental Protection (MDEP).

The proposed drainage infrastructure for the project includes catch basins, riprap protected outlets and a stormwater treatment unit to treat the runoff from the proposed parking area.

Site Characteristics

The project site occupies a 2.57-acre parcel in Portland (Cumberland County), Maine. The parcel abuts Presumpscot Street to the west, undeveloped wooded areas to the north and south and railroad tracks to the east. The majority of the project site is currently gravelly concrete processed soil void of any vegetation. Some sparse vegetation is located around the perimeter of the parcel. A man-made, approximate 3 to 1, fill slope in the eastern portion of the property directs runoff from the gravel area easterly to an onsite wetland adjacent to the existing railroad property. A raised railroad bed impounds water in the eastern portion of the site. A 60" culvert located at the northerly property corner conveys stormwater runoff underneath the railroad bed to the Presumpscot River and ultimately the ocean. The majority of the project site is tributary to this eastern drainage area.

The watershed maps attached to this report depict the general drainage patterns and infrastructure in the project area.

Soils

Soil classifications within the project area were referenced from the Cumberland County Medium Intensity Soil Survey. The soil is comprised of Hollis find sandy loam, Buxton silt loam, and Tidal Marsh. The soils within the project site are considered Hydraulic Soil Group (HSG) D. For stormwater modeling purposes the on-site gravel areas were considered gravel fill Hydraulic Soil Group (HSG) C soils and onsite wetland areas were considered Hydraulic Soil Group (HSG) D soils.

Drainage Characteristics and Study Points

Two study points have been established to evaluate pre-development and post-development runoff associated with the project site.

Study Point 1 is located along the northwestern property boundary. Runoff from the project site leaves the property and enters the abutting property to the north. Runoff from this area is then conveyed easterly to the 60" culvert located in the northeast corner of the property. The northwestern portion of the parcel is tributary to this Study Point in the pre-developed and post-development conditions. Subcatchment 1 (pre-development) and Subcatchment 10 (post-development) are tributary to Study Point 1. It should be noted that in the post-development condition the tributary area to this Study Point is reduced.

Study Point 2 is located at the northeastern corner of the property where runoff from the project site and abutting site is conveyed via a 60" culvert underneath the railroad bed. Subcatchments 2 (pre-development) and 20, 30, 40, 50 and 60 (post-development) are tributary to Study Point 2.

Stormwater Quantity Management

In order to evaluate drainage characteristics in pre- and post-development conditions, a quantitative analysis was performed to determine peak rates of runoff for the 2, 10, and 25-year storm events. Runoff calculations were performed following the methodology outlined in the Natural Resource Conservation Service USDA Soil Conservation Service's "Urban Hydrology for Small Watersheds, Technical Release #55" and HydroCAD Stormwater Modeling System software.

A Type III rainfall distribution was applied in accordance with MDEP and NRCS Standards. The 24-hour rainfall values utilized in the hydrologic model for Cumberland County are as follows.

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

In the post-development condition, Subcatchments 10, 20, 30, 40, 50 and 60 represent areas proposed for development.

The subcatchment areas and times of concentration of the post-development watersheds vary from the existing conditions based on the proposed site development and grading. Table 1 summarizes the results of the hydrologic analysis of the project under pre-development and post-development conditions.

Table 1 - Stormwater Runoff Summary Table
Pre-Development vs. Post-Development

Study Point	Total Watershed Area (Ac)		Avg. Weighted Curve No. (Cn)		Peak Rates of Runoff (cfs)					
					2-Year		10-Year		25-Year	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
SP1	0.28	0.11	87	95	0.6	0.3	1.1	0.5	1.3	0.6
SP2	2.42	2.60	88	91	5.8	6.5	10.7	11.2	13.0	13.5

The results of the analysis at Study Point 1 indicate the peak rates of runoff in the developed condition will be less than the pre-developed condition for the 2-year, 10-year, 25-year storm events. The decrease in post-development runoff at Study Point 1 is a result of a reduction of the area tributary to this Study Point.

The results of the analysis at Study Point 2 indicate in increase in the peak rate of runoff for all three storm events. The model indicates a 0.7 cfs increase in the 2-year storm event, a 0.5 increase in the 10-year storm event, and a 0.5 increase in the 25-year storm event. The increase in runoff at this study point is a result of the change from a gravel surface to the impervious parking and roof top areas.

Stormwater Permitting

Existing ground cover on the project site mostly is comprised of gravel surface void of any vegetation. The Maine Department of Environmental Protection (MDEP) considers this existing impervious surface if it was in existence as of November 2005. As such, even though the project will create approximately 1.5 acres of impervious rooftop and pavement areas only the areas not previously gravel covered are considered new impervious areas for permitting threshold purposes. As a result, his project will create only 0.26 acres of new impervious area associated with the development. Based on less than one acre of impervious area and less than 5 acres of developed area the project will be required to obtain a Stormwater Permit-by-Rule from the Maine Department of Environmental Protection.

Stormwater Quality

Since the project will result in the creation of more than 25 parking spaces, the project will be required to provide on-site treatment for runoff from the parking areas prior to discharging to the receiving waters. Stormwater treatment for the project's impervious area is treated utilizing a 4' diameter Hydro International treatment unit. The unit has been sized to treat the first one-inch of runoff from the project's proposed paved and rooftop impervious areas. Supporting calculations are attached with this submission.

Summary

As indicated in the Stormwater analysis the peak rate of runoff in the developed condition will be less than the pre-development peak rates of runoff at Study Point 1.

As indicated in the analysis the peak rate of runoff in the developed condition will be greater than the pre-development runoff for all three storm events at Study Point 2. Since the increase in the peak rate of runoff is conveyed via a 60" culvert to the Presumpscot River and ultimately the ocean we are requesting an exemption from the requirement to provide detention for the increase in runoff as defined in the City of Portland, Technical and Design Standards and Guidelines, Section V, B. As such, we are not proposing any detention facilities on our attached plan set.

Stormwater runoff from the proposed impervious areas of the site will be treated utilizing a 4' diameter Hydro International stormwater treatment unit to meet the City's requirement for treating parking areas. The unit has been sized to treat the first inch of runoff off the proposed impervious areas.

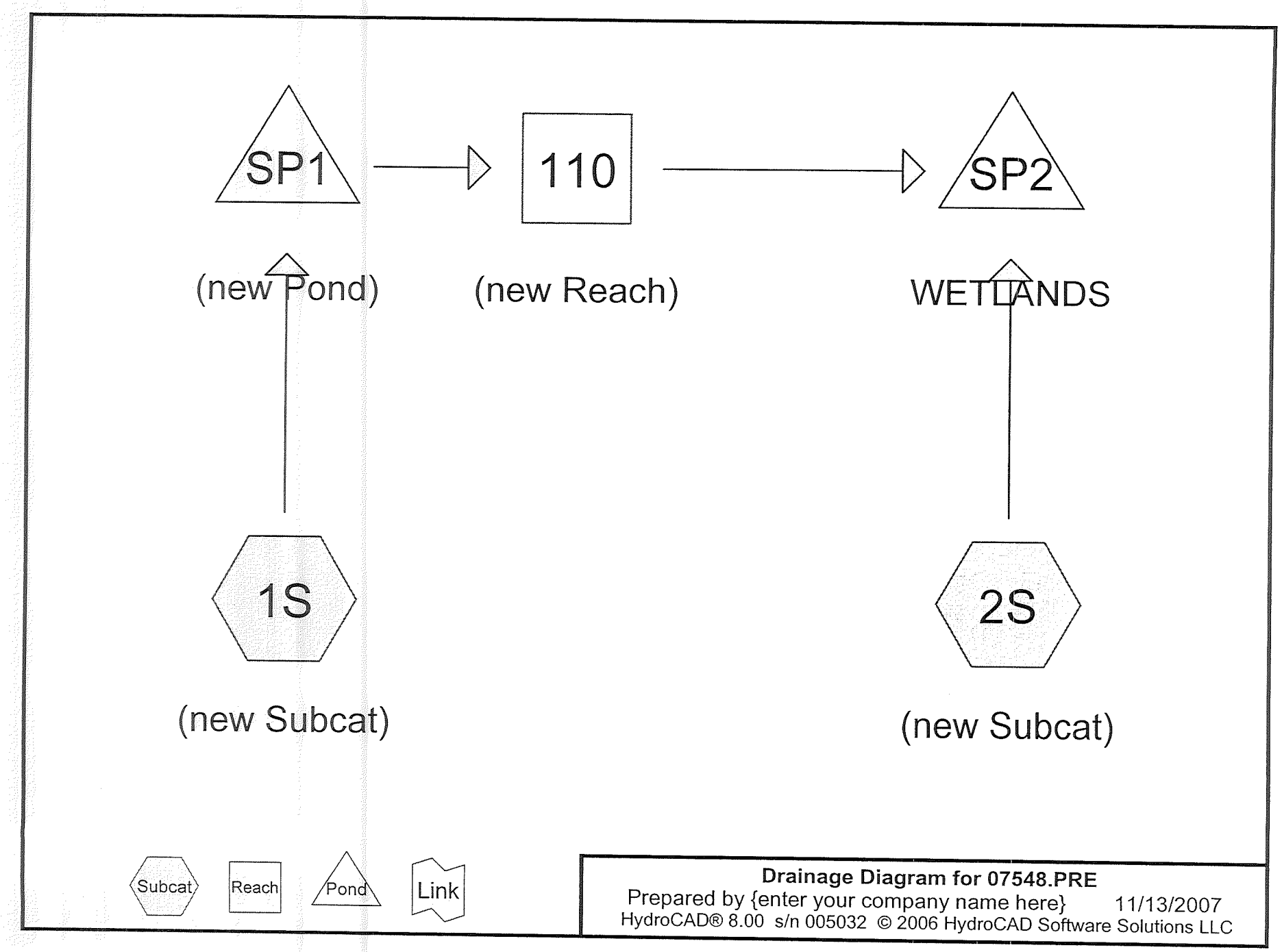
An Erosion & Sedimentation Control Plan will be implemented to address erosion and sediment control during construction and the post-construction stabilization of the site. These construction requirements have been developed following Best Management Practice guidelines and have been placed directly on the design plans for construction reference.

Prepared by:

SEBAGO TECHNICS, INC.

Anthony P. Panciocco, P.E.
Senior Project Engineer

APP:app/dlf/jc
November 16, 2007



Drainage Diagram for 07548.PRE

Prepared by {enter your company name here} 11/13/2007

Time span=1.00-48.00 hrs, dt=0.01 hrs, 4701 points x 4
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: (new Subcat)
Runoff Area=0.280 ac Runoff Depth=1.74"
Flow Length=214' Tc=5.0 min CN=87 Runoff=0.59 cfs 0.041 af

Subcatchment 2S: (new Subcat)
Runoff Area=2.420 ac Runoff Depth=1.82"
Flow Length=521' Tc=5.0 min CN=88 Runoff=5.34 cfs 0.367 af

Reach 110: (new Reach)
Avg. Depth=0.03' Max Vel=1.50 fps Inflow=0.59 cfs 0.041 af
n=0.040 L=432.0' S=0.1500 '/' Capacity=176.99 cfs Outflow=0.52 cfs 0.041 af

Pond SP1: (new Pond)
Inflow=0.59 cfs 0.041 af
Primary=0.59 cfs 0.041 af

Pond SP2: WETLANDS
Inflow=5.80 cfs 0.407 af
Primary=5.80 cfs 0.407 af

Subcatchment 1S: (new Subcat)

Runoff = 0.59 cfs @ 12.07 hrs, Volume= 0.041 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.00"

Area (ac)	CN	Description
0.060	98	ROAD
0.130	89	GRAVEL FILL
0.090	77	Brush, Fair, HSG D
0.280	87	Weighted Average
0.220		Pervious Area
0.060		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	16	0.0200	0.92		**Sheet Flow, A TO B** Smooth surfaces n= 0.011 P2= 3.00"
3.9	52	0.0570	0.22		**Sheet Flow, B TO C** Grass: Short n= 0.150 P2= 3.00"
0.6	146	0.0320	4.31	56.08	**Trap/Vee/Rect Channel Flow, C TO D** Bot.W=3.00' D=1.00' Z= 10.0 '/' Top.W=23.00' n= 0.042
0.2					**Direct Entry,**
5.0	214	Total			

Subcatchment 2S: (new Subcat)

Runoff = 5.34 cfs @ 12.07 hrs, Volume= 0.367 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.00"

Area (ac)	CN	Description
2.210	89	GRAVEL FILL
0.210	73	Brush, Good, HSG D
2.420	88	Weighted Average
2.420		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	150	0.0700	2.38		**Sheet Flow, A TO B** Smooth surfaces n= 0.011 P2= 3.00"
0.5	136	0.0600	4.97		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	72	0.3330	9.29		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.8	163	0.0100	1.50		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.6					**Direct Entry,**
5.0	521	Total			

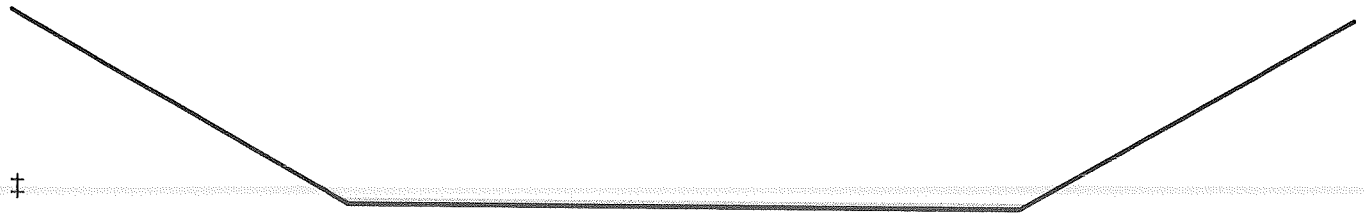
Reach 110: (new Reach)

Inflow Area = 0.280 ac, Inflow Depth = 1.74" for 2-YR event
Inflow = 0.59 cfs @ 12.07 hrs, Volume= 0.041 af
Outflow = 0.52 cfs @ 12.12 hrs, Volume= 0.041 af, Atten= 13%, Lag= 2.6 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 1.50 fps, Min. Travel Time= 4.8 min
Avg. Velocity = 0.69 fps, Avg. Travel Time= 10.5 min

Peak Storage= 148 cf @ 12.12 hrs, Average Depth at Peak Storage= 0.03'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 176.99 cfs

10.00' x 1.00' deep channel, n= 0.040
Side Slope Z-value= 5.0 '/' Top Width= 20.00'
Length= 432.0' Slope= 0.1500 '/'
Inlet Invert= 0.00', Outlet Invert= -64.80'



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Pond SP1: (new Pond)

Inflow Area = 0.280 ac, Inflow Depth = 1.74" for 2-YR event
Inflow = 0.59 cfs @ 12.07 hrs, Volume= 0.041 af
Primary = 0.59 cfs @ 12.07 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4

Pond SP2: WETLANDS

Inflow Area = 2.700 ac, Inflow Depth = 1.81" for 2-YR event
Inflow = 5.80 cfs @ 12.08 hrs, Volume= 0.407 af
Primary = 5.80 cfs @ 12.08 hrs, Volume= 0.407 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4

Time span=1.00-48.00 hrs, dt=0.01 hrs, 4701 points x 4
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: (new Subcat)
Runoff Area=0.280 ac Runoff Depth=3.29"
Flow Length=214' Tc=5.0 min CN=87 Runoff=1.10 cfs 0.077 af

Subcatchment 2S: (new Subcat)
Runoff Area=2.420 ac Runoff Depth=3.38"
Flow Length=521' Tc=5.0 min CN=88 Runoff=9.76 cfs 0.683 af

Reach 110: (new Reach)
Avg. Depth=0.05' Max Vel=1.93 fps Inflow=1.10 cfs 0.077 af
n=0.040 L=432.0' S=0.1500 '/' Capacity=176.99 cfs Outflow=1.00 cfs 0.077 af

Pond SP1: (new Pond)
Inflow=1.10 cfs 0.077 af
Primary=1.10 cfs 0.077 af

Pond SP2: WETLANDS
Inflow=10.68 cfs 0.759 af
Primary=10.68 cfs 0.759 af

Time span=1.00-48.00 hrs, dt=0.01 hrs, 4701 points x 4
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

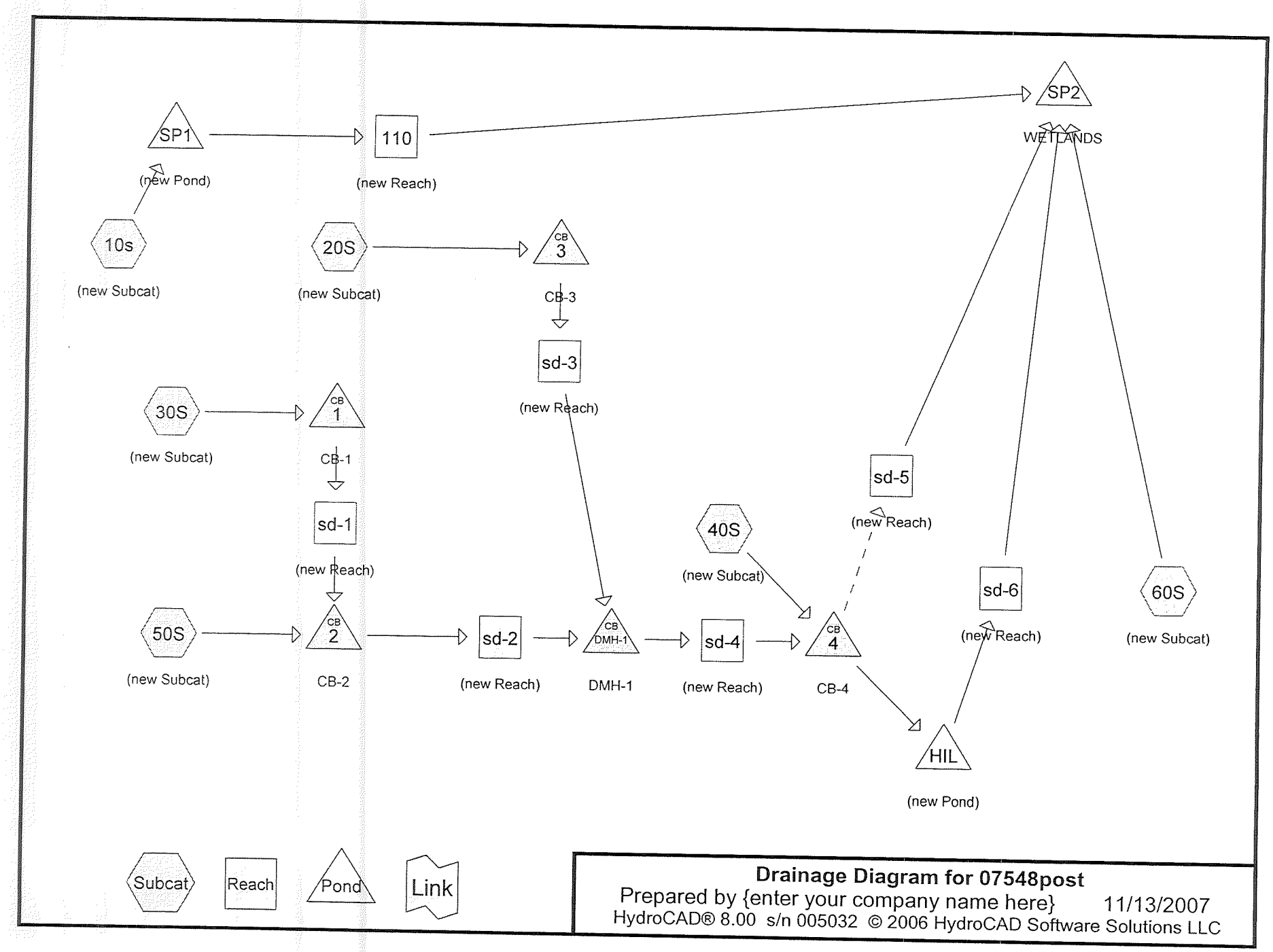
Subcatchment 1S: (new Subcat)
Runoff Area=0.280 ac Runoff Depth=4.04"
Flow Length=214' Tc=5.0 min CN=87 Runoff=1.34 cfs 0.094 af

Subcatchment 2S: (new Subcat)
Runoff Area=2.420 ac Runoff Depth=4.15"
Flow Length=521' Tc=5.0 min CN=88 Runoff=11.84 cfs 0.836 af

Reach 110: (new Reach)
Avg. Depth=0.06' Max Vel=2.10 fps Inflow=1.34 cfs 0.094 af
n=0.040 L=432.0' S=0.1500 '/' Capacity=176.99 cfs Outflow=1.23 cfs 0.094 af

Pond SP1: (new Pond)
Inflow=1.34 cfs 0.094 af
Primary=1.34 cfs 0.094 af

Pond SP2: WETLANDS
Inflow=12.99 cfs 0.930 af
Primary=12.99 cfs 0.930 af


SP1
(new Pond)
110
(new Reach)
SP2
WETLANDS
10s
(new Subcat)
20S
(new Subcat)
CB 3
CB-3
sd-3
(new Reach)
30S
(new Subcat)
CB 1
CB-1
sd-1
(new Reach)
sd-5
(new Reach)
40S
(new Subcat)
sd-6
(new Reach)
60S
(new Subcat)
50S
(new Subcat)
CB 2
CB-2
sd-2
(new Reach)
CB DMH-1
DMH-1
sd-4
(new Reach)
CB 4
CB-4
HIL
(new Pond)
Subcat
Reach
Pond
Link
Drainage Diagram for 07548post
Prepared by {enter your company name here} 11/13/2007
HydroCAD® 8.00 s/n 005032 © 2006 HydroCAD Software Solutions LLC

Time span=1.00-48.00 hrs, dt=0.01 hrs, 4701 points x 4
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10s: (new Subcat)
Runoff Area=0.110 ac Runoff Depth=2.45"
Flow Length=203' Tc=5.0 min CN=95 Runoff=0.31 cfs 0.022 af

Subcatchment 20S: (new Subcat)
Runoff Area=0.370 ac Runoff Depth=2.77"
Flow Length=280' Tc=5.0 min CN=98 Runoff=1.11 cfs 0.085 af

Subcatchment 30S: (new Subcat)
Runoff Area=0.250 ac Runoff Depth=2.25"
Flow Length=71' Tc=5.0 min CN=93 Runoff=0.67 cfs 0.047 af

Subcatchment 40S: (new Subcat)
Runoff Area=0.770 ac Runoff Depth=2.55"
Flow Length=196' Tc=5.0 min CN=96 Runoff=2.23 cfs 0.164 af

Subcatchment 50S: (new Subcat)
Runoff Area=0.300 ac Runoff Depth=2.25"
Flow Length=73' Tc=5.4 min CN=93 Runoff=0.79 cfs 0.056 af

Subcatchment 60S: (new Subcat)
Runoff Area=0.910 ac Runoff Depth=1.38"
Flow Length=388' Tc=4.9 min CN=82 Runoff=1.52 cfs 0.105 af

Reach 110: (new Reach)
Avg. Depth=0.02' Max Vel=1.14 fps Inflow=0.31 cfs 0.022 af
n=0.040 L=468.0' S=0.1500 '/' Capacity=176.99 cfs Outflow=0.25 cfs 0.022 af

Reach sd-1: (new Reach)
Avg. Depth=0.33' Max Vel=2.91 fps Inflow=0.67 cfs 0.047 af
D=12.0" n=0.012 L=115.0' S=0.0052 '/' Capacity=2.79 cfs Outflow=0.66 cfs 0.047 af

Reach sd-2: (new Reach)
Avg. Depth=0.42' Max Vel=4.55 fps Inflow=1.45 cfs 0.103 af
D=12.0" n=0.012 L=221.0' S=0.0100 '/' Capacity=3.86 cfs Outflow=1.44 cfs 0.103 af

Reach sd-3: (new Reach)
Avg. Depth=0.44' Max Vel=3.28 fps Inflow=1.11 cfs 0.085 af
D=12.0" n=0.012 L=220.0' S=0.0050 '/' Capacity=2.73 cfs Outflow=1.10 cfs 0.085 af

Reach sd-4: (new Reach)
Avg. Depth=0.39' Max Vel=9.06 fps Inflow=2.53 cfs 0.189 af
D=12.0" n=0.012 L=67.0' S=0.0433 '/' Capacity=8.03 cfs Outflow=2.53 cfs 0.189 af

Reach sd-5: (new Reach)
Avg. Depth=0.46' Max Vel=6.65 fps Inflow=2.72 cfs 0.036 af
D=15.0" n=0.012 L=11.0' S=0.0182 '/' Capacity=9.44 cfs Outflow=2.72 cfs 0.036 af

Reach sd-6: (new Reach)
Avg. Depth=0.39' Max Vel=7.08 fps Inflow=2.01 cfs 0.317 af
D=12.0" n=0.012 L=23.0' S=0.0261 '/' Capacity=6.23 cfs Outflow=2.01 cfs 0.317 af

Pond 1: CB-1
Peak Elev=40.27' Inflow=0.67 cfs 0.047 af
Outflow=0.67 cfs 0.047 af

Pond 2: CB-2
Peak Elev=39.79' Inflow=1.45 cfs 0.103 af
Outflow=1.45 cfs 0.103 af

Pond 3: CB-3
Peak Elev=38.63' Inflow=1.11 cfs 0.085 af
Outflow=1.11 cfs 0.085 af

Pond 4: CB-4
Peak Elev=35.57' Inflow=4.73 cfs 0.352 af
Primary=2.01 cfs 0.317 af Secondary=2.72 cfs 0.036 af Outflow=4.73 cfs 0.352 af

Pond DMH-1: DMH-1
Peak Elev=37.74' Inflow=2.53 cfs 0.189 af
Outflow=2.53 cfs 0.189 af

Pond HIL: (new Pond)
Inflow=2.01 cfs 0.317 af
Primary=2.01 cfs 0.317 af

Pond SP1: (new Pond)
Inflow=0.31 cfs 0.022 af
Primary=0.31 cfs 0.022 af

Pond SP2: WETLANDS
Inflow=6.47 cfs 0.479 af
Primary=6.47 cfs 0.479 af

Subcatchment 10s: (new Subcat)

Runoff = 0.31 cfs @ 12.07 hrs, Volume= 0.022 af, Depth= 2.45"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YEAR Rainfall=3.00"

Area (ac)	CN	Description
0.090	98	ROAD AND SIDEWALK
0.020	80	>75% Grass cover, Good, HSG D
0.110	95	Weighted Average
0.020		Pervious Area
0.090		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	16	0.0200	0.92		**Sheet Flow, A TO B** Smooth surfaces n= 0.011 P2= 3.00"
1.2	134	0.0400	1.86		**Sheet Flow, B TO C** Smooth surfaces n= 0.011 P2= 3.00"
0.2	53	0.0400	4.06		**Shallow Concentrated Flow, C TO D** Paved Kv= 20.3 fps
3.3					**Direct Entry,**
5.0	203	Total			

Subcatchment 20S: (new Subcat)

Runoff = 1.11 cfs @ 12.07 hrs, Volume= 0.085 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YEAR Rainfall=3.00"

Area (ac)	CN	Description
0.370	98	Paved parking & roofs
0.370		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	150	0.0310	1.72		**Sheet Flow, A TO B** Smooth surfaces n= 0.011 P2= 3.00"
0.6	130	0.0300	3.52		**Shallow Concentrated Flow, B TO C** Paved Kv= 20.3 fps
2.9					**Direct Entry,**
5.0	280	Total			

Subcatchment 30S: (new Subcat)

Runoff = 0.67 cfs @ 12.07 hrs, Volume= 0.047 af, Depth= 2.25"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YEAR Rainfall=3.00"

Area (ac)	CN	Description
0.180	98	Paved parking & roofs
0.070	80	>75% Grass cover, Good, HSG D
0.250	93	Weighted Average
0.070		Pervious Area
0.180		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	23	0.0170	0.12		**Sheet Flow, A TO B** Grass: Short n= 0.150 P2= 3.00"
0.7	48	0.0200	1.15		**Sheet Flow, B TO C** Smooth surfaces n= 0.011 P2= 3.00"
1.0					**Direct Entry,**
5.0	71	Total			

Subcatchment 40S: (new Subcat)

Runoff = 2.23 cfs @ 12.07 hrs, Volume= 0.164 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YEAR Rainfall=3.00"

Area (ac)	CN	Description
0.700	98	Paved parking & roofs
0.070	80	>75% Grass cover, Good, HSG D
0.770	96	Weighted Average
0.070		Pervious Area
0.700		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	28	0.0700	0.21		**Sheet Flow, A TO B** Grass: Short n= 0.150 P2= 3.00"
1.6	122	0.0170	1.30		**Sheet Flow, B TO C** Smooth surfaces n= 0.011 P2= 3.00"
0.3	46	0.0200	2.87		**Shallow Concentrated Flow, C TO D** Paved Kv= 20.3 fps
0.9					**Direct Entry,**
5.0	196	Total			

Subcatchment 50S: (new Subcat)

Runoff = 0.79 cfs @ 12.08 hrs, Volume= 0.056 af, Depth= 2.25"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YEAR Rainfall=3.00"

Area (ac)	CN	Description
0.210	98	Paved parking & roofs
0.090	80	>75% Grass cover, Good, HSG D
0.300	93	Weighted Average
0.090		Pervious Area
0.210		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	36	0.0170	0.13		**Sheet Flow, A TO B** Grass: Short n= 0.150 P2= 3.00"
0.6	37	0.0200	1.09		**Sheet Flow, B TO C** Smooth surfaces n= 0.011 P2= 3.00"
5.4	73	Total			

Subcatchment 60S: (new Subcat)

Runoff = 1.52 cfs @ 12.08 hrs, Volume= 0.105 af, Depth= 1.38"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YEAR Rainfall=3.00"

Area (ac)	CN	Description
0.560	80	>75% Grass cover, Good, HSG D
0.140	91	RIP RAP (GRAVEL HSG D)
0.210	80	>75% Grass cover, Good, HSG D
0.910	82	Weighted Average
0.910		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	50	0.0560	0.22		**Sheet Flow, A TO B** Grass: Short n= 0.150 P2= 3.00"
0.5	338	0.0870	10.82	216.31	**Trap/Vee/Rect Channel Flow, B TO C** Bot.W=0.00' D=2.00' Z= 5.0 '/' Top.W=20.00' n= 0.040
0.5					**Direct Entry,**
4.9	388	Total			

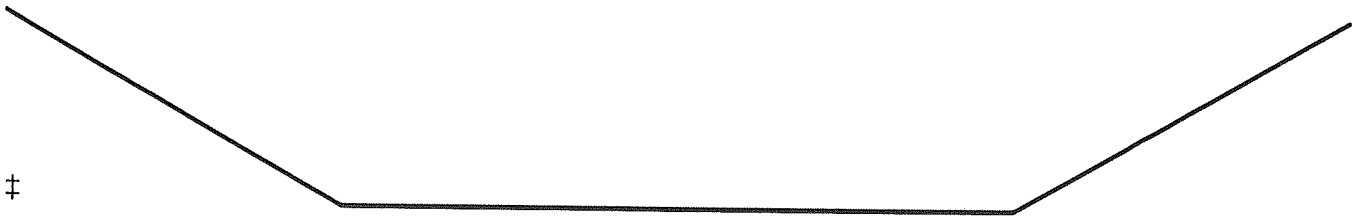
Reach 110: (new Reach)

Inflow Area = 0.110 ac, Inflow Depth = 2.45" for 2-YEAR event
Inflow = 0.31 cfs @ 12.07 hrs, Volume= 0.022 af
Outflow = 0.25 cfs @ 12.12 hrs, Volume= 0.022 af, Atten= 19%, Lag= 3.2 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 1.14 fps, Min. Travel Time= 6.9 min
Avg. Velocity = 0.67 fps, Avg. Travel Time= 11.6 min

Peak Storage= 104 cf @ 12.12 hrs, Average Depth at Peak Storage= 0.02'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 176.99 cfs

10.00' x 1.00' deep channel, n= 0.040
Side Slope Z-value= 5.0 '/' Top Width= 20.00'
Length= 468.0' Slope= 0.1500 '/'
Inlet Invert= 0.00', Outlet Invert= -70.20'



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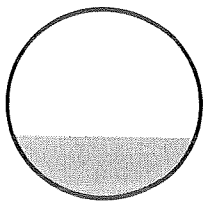
Reach sd-1: (new Reach)

Inflow Area = 0.250 ac, Inflow Depth = 2.25" for 2-YEAR event
Inflow = 0.67 cfs @ 12.07 hrs, Volume= 0.047 af
Outflow = 0.66 cfs @ 12.08 hrs, Volume= 0.047 af, Atten= 1%, Lag= 0.5 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 2.91 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 0.95 fps, Avg. Travel Time= 2.0 min

Peak Storage= 26 cf @ 12.08 hrs, Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 2.79 cfs

12.0" Diameter Pipe, n= 0.012
Length= 115.0' Slope= 0.0052 '/'
Inlet Invert= 39.80', Outlet Invert= 39.20'



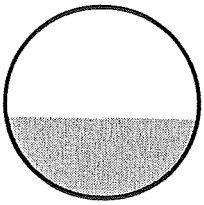
Reach sd-2: (new Reach)

Inflow Area = 0.550 ac, Inflow Depth = 2.25" for 2-YEAR event
Inflow = 1.45 cfs @ 12.08 hrs, Volume= 0.103 af
Outflow = 1.44 cfs @ 12.09 hrs, Volume= 0.103 af, Atten= 1%, Lag= 0.6 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 4.55 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.49 fps, Avg. Travel Time= 2.5 min

Peak Storage= 70 cf @ 12.09 hrs, Average Depth at Peak Storage= 0.42'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.86 cfs

12.0" Diameter Pipe, n= 0.012
Length= 221.0' Slope= 0.0100 '/'
Inlet Invert= 39.10', Outlet Invert= 36.89'



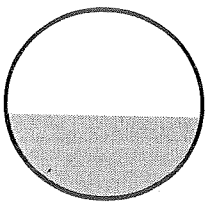
Reach sd-3: (new Reach)

Inflow Area = 0.370 ac, Inflow Depth = 2.77" for 2-YEAR event
Inflow = 1.11 cfs @ 12.07 hrs, Volume= 0.085 af
Outflow = 1.10 cfs @ 12.08 hrs, Volume= 0.085 af, Atten= 2%, Lag= 0.8 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 3.28 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.07 fps, Avg. Travel Time= 3.4 min

Peak Storage= 73 cf @ 12.08 hrs, Average Depth at Peak Storage= 0.44'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 2.73 cfs

12.0" Diameter Pipe, n= 0.012
Length= 220.0' Slope= 0.0050 '/'
Inlet Invert= 38.00', Outlet Invert= 36.90'



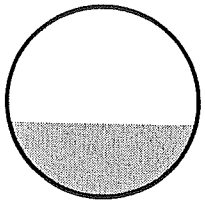
Reach sd-4: (new Reach)

Inflow Area = 0.920 ac, Inflow Depth = 2.46" for 2-YEAR event
Inflow = 2.53 cfs @ 12.09 hrs, Volume= 0.189 af
Outflow = 2.53 cfs @ 12.09 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 9.06 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.82 fps, Avg. Travel Time= 0.4 min

Peak Storage= 19 cf @ 12.09 hrs, Average Depth at Peak Storage= 0.39'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 8.03 cfs

12.0" Diameter Pipe, n= 0.012
Length= 67.0' Slope= 0.0433 '/'
Inlet Invert= 36.80', Outlet Invert= 33.90'



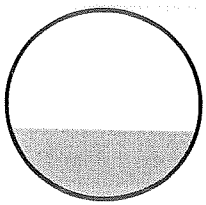
Reach sd-5: (new Reach)

Inflow = 2.72 cfs @ 12.08 hrs, Volume= 0.036 af
Outflow = 2.72 cfs @ 12.08 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 6.65 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 4.44 fps, Avg. Travel Time= 0.0 min

Peak Storage= 4 cf @ 12.08 hrs, Average Depth at Peak Storage= 0.46'
Bank-Full Depth= 1.25', Capacity at Bank-Full= 9.44 cfs

15.0" Diameter Pipe, n= 0.012
Length= 11.0' Slope= 0.0182 '/'
Inlet Invert= 33.80', Outlet Invert= 33.60'



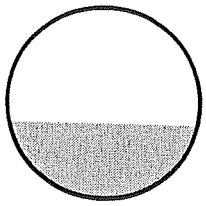
Reach sd-6: (new Reach)

Inflow Area = 1.690 ac, Inflow Depth = 2.25" for 2-YEAR event
Inflow = 2.01 cfs @ 12.08 hrs, Volume= 0.317 af
Outflow = 2.01 cfs @ 12.08 hrs, Volume= 0.317 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 7.08 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.81 fps, Avg. Travel Time= 0.1 min

Peak Storage= 7 cf @ 12.08 hrs, Average Depth at Peak Storage= 0.39'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 6.23 cfs

12.0" Diameter Pipe, n= 0.012
Length= 23.0' Slope= 0.0261 '/'
Inlet Invert= 34.20', Outlet Invert= 33.60'



Pond 1: CB-1

Inflow Area = 0.250 ac, Inflow Depth = 2.25" for 2-YEAR event
Inflow = 0.67 cfs @ 12.07 hrs, Volume= 0.047 af
Outflow = 0.67 cfs @ 12.07 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min
Primary = 0.67 cfs @ 12.07 hrs, Volume= 0.047 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 40.27' @ 12.07 hrs
Flood Elev= 42.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	39.80'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.66 cfs @ 12.07 hrs HW=40.27' TW=40.13' (Dynamic Tailwater)
↑—**1=Orifice/Grate** (Orifice Controls 0.66 cfs @ 1.82 fps)

Pond 2: CB-2

Inflow Area = 0.550 ac, Inflow Depth = 2.25" for 2-YEAR event
Inflow = 1.45 cfs @ 12.08 hrs, Volume= 0.103 af
Outflow = 1.45 cfs @ 12.08 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min
Primary = 1.45 cfs @ 12.08 hrs, Volume= 0.103 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4

Peak Elev= 39.79' @ 12.08 hrs
Flood Elev= 42.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	39.10'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.45 cfs @ 12.08 hrs HW=39.79' TW=39.52' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Orifice Controls 1.45 cfs @ 2.50 fps)

Pond 3: CB-3

Inflow Area = 0.370 ac, Inflow Depth = 2.77" for 2-YEAR event
Inflow = 1.11 cfs @ 12.07 hrs, Volume= 0.085 af
Outflow = 1.11 cfs @ 12.07 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.0 min
Primary = 1.11 cfs @ 12.07 hrs, Volume= 0.085 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 38.63' @ 12.08 hrs
Flood Elev= 41.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	38.00'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.11 cfs @ 12.07 hrs HW=38.63' TW=38.44' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Orifice Controls 1.11 cfs @ 2.13 fps)

Pond 4: CB-4

Inflow Area = 1.690 ac, Inflow Depth = 2.50" for 2-YEAR event
Inflow = 4.73 cfs @ 12.08 hrs, Volume= 0.352 af
Outflow = 4.73 cfs @ 12.08 hrs, Volume= 0.352 af, Atten= 0%, Lag= 0.0 min
Primary = 2.01 cfs @ 12.08 hrs, Volume= 0.317 af
Secondary = 2.72 cfs @ 12.08 hrs, Volume= 0.036 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 35.57' @ 12.08 hrs
Flood Elev= 39.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	33.80'	**8.0" Vert. Orifice/Grate** C= 0.600
#2	Device 3	35.30'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 1.6' Crest Height
#3	Secondary	33.80'	**15.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=2.01 cfs @ 12.08 hrs HW=35.57' TW=0.00' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Orifice Controls 2.01 cfs @ 5.76 fps)

Secondary OutFlow Max=2.72 cfs @ 12.08 hrs HW=35.57' TW=34.26' (Dynamic Tailwater)
└─**3=Orifice/Grate** (Passes 2.72 cfs of 6.31 cfs potential flow)
└─**2=Sharp-Crested Rectangular Weir** (Weir Controls 2.72 cfs @ 1.72 fps)

Pond DMH-1: DMH-1

Inflow Area = 0.920 ac, Inflow Depth = 2.46" for 2-YEAR event
Inflow = 2.53 cfs @ 12.09 hrs, Volume= 0.189 af
Outflow = 2.53 cfs @ 12.09 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary = 2.53 cfs @ 12.09 hrs, Volume= 0.189 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 37.74' @ 12.09 hrs
Flood Elev= 41.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	36.80'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=2.53 cfs @ 12.09 hrs HW=37.74' TW=37.19' (Dynamic Tailwater)
↑—**1=Orifice/Grate** (Orifice Controls 2.53 cfs @ 3.30 fps)

Pond HIL: (new Pond)

Inflow Area = 1.690 ac, Inflow Depth = 2.25" for 2-YEAR event
Inflow = 2.01 cfs @ 12.08 hrs, Volume= 0.317 af
Primary = 2.01 cfs @ 12.08 hrs, Volume= 0.317 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4

Pond SP1: (new Pond)

Inflow Area = 0.110 ac, Inflow Depth = 2.45" for 2-YEAR event
Inflow = 0.31 cfs @ 12.07 hrs, Volume= 0.022 af
Primary = 0.31 cfs @ 12.07 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4

Pond SP2: WETLANDS

Inflow Area = 2.710 ac, Inflow Depth = 2.12" for 2-YEAR event
Inflow = 6.47 cfs @ 12.08 hrs, Volume= 0.479 af
Primary = 6.47 cfs @ 12.08 hrs, Volume= 0.479 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4

Time span=1.00-48.00 hrs, dt=0.01 hrs, 4701 points x 4
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10s: (new Subcat)
Runoff Area=0.110 ac Runoff Depth=4.12"
Flow Length=203' Tc=5.0 min CN=95 Runoff=0.51 cfs 0.038 af

Subcatchment 20S: (new Subcat)
Runoff Area=0.370 ac Runoff Depth>4.46"
Flow Length=280' Tc=5.0 min CN=98 Runoff=1.76 cfs 0.138 af

Subcatchment 30S: (new Subcat)
Runoff Area=0.250 ac Runoff Depth=3.90"
Flow Length=71' Tc=5.0 min CN=93 Runoff=1.12 cfs 0.081 af

Subcatchment 40S: (new Subcat)
Runoff Area=0.770 ac Runoff Depth=4.23"
Flow Length=196' Tc=5.0 min CN=96 Runoff=3.60 cfs 0.272 af

Subcatchment 50S: (new Subcat)
Runoff Area=0.300 ac Runoff Depth=3.90"
Flow Length=73' Tc=5.4 min CN=93 Runoff=1.32 cfs 0.098 af

Subcatchment 60S: (new Subcat)
Runoff Area=0.910 ac Runoff Depth=2.81"
Flow Length=388' Tc=4.9 min CN=82 Runoff=3.12 cfs 0.213 af

Reach 110: (new Reach)
Avg. Depth=0.03' Max Vel=1.39 fps Inflow=0.51 cfs 0.038 af
n=0.040 L=468.0' S=0.1500 '/' Capacity=176.99 cfs Outflow=0.43 cfs 0.038 af

Reach sd-1: (new Reach)
Avg. Depth=0.44' Max Vel=3.35 fps Inflow=1.12 cfs 0.081 af
D=12.0" n=0.012 L=115.0' S=0.0052 '/' Capacity=2.79 cfs Outflow=1.11 cfs 0.081 af

Reach sd-2: (new Reach)
Avg. Depth=0.57' Max Vel=5.19 fps Inflow=2.44 cfs 0.179 af
D=12.0" n=0.012 L=221.0' S=0.0100 '/' Capacity=3.86 cfs Outflow=2.42 cfs 0.179 af

Reach sd-3: (new Reach)
Avg. Depth=0.58' Max Vel=3.68 fps Inflow=1.76 cfs 0.138 af
D=12.0" n=0.012 L=220.0' S=0.0050 '/' Capacity=2.73 cfs Outflow=1.74 cfs 0.138 af

Reach sd-4: (new Reach)
Avg. Depth=0.51' Max Vel=10.31 fps Inflow=4.16 cfs 0.317 af
D=12.0" n=0.012 L=67.0' S=0.0433 '/' Capacity=8.03 cfs Outflow=4.15 cfs 0.317 af

Reach sd-5: (new Reach)
Avg. Depth=0.69' Max Vel=8.01 fps Inflow=5.59 cfs 0.108 af
D=15.0" n=0.012 L=11.0' S=0.0182 '/' Capacity=9.44 cfs Outflow=5.59 cfs 0.108 af

Reach sd-6: (new Reach)
Avg. Depth=0.40' Max Vel=7.18 fps Inflow=2.12 cfs 0.480 af
D=12.0" n=0.012 L=23.0' S=0.0261 '/' Capacity=6.23 cfs Outflow=2.12 cfs 0.480 af

Pond 1: CB-1
Peak Elev=40.43' Inflow=1.12 cfs 0.081 af
Outflow=1.12 cfs 0.081 af

Pond 2: CB-2
Peak Elev=40.09' Inflow=2.44 cfs 0.179 af
Outflow=2.44 cfs 0.179 af

Pond 3: CB-3
Peak Elev=38.84' Inflow=1.76 cfs 0.138 af
Outflow=1.76 cfs 0.138 af

Pond 4: CB-4
Peak Elev=35.73' Inflow=7.71 cfs 0.588 af
Primary=2.12 cfs 0.480 af Secondary=5.59 cfs 0.108 af Outflow=7.71 cfs 0.588 af

Pond DMH-1: DMH-1
Peak Elev=38.52' Inflow=4.16 cfs 0.317 af
Outflow=4.16 cfs 0.317 af

Pond HIL: (new Pond)
Inflow=2.12 cfs 0.480 af
Primary=2.12 cfs 0.480 af

Pond SP1: (new Pond)
Inflow=0.51 cfs 0.038 af
Primary=0.51 cfs 0.038 af

Pond SP2: WETLANDS
Inflow=11.21 cfs 0.839 af
Primary=11.21 cfs 0.839 af

Time span=1.00-48.00 hrs, dt=0.01 hrs, 4701 points x 4
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10s: (new Subcat)
Runoff Area=0.110 ac Runoff Depth=4.92"
Flow Length=203' Tc=5.0 min CN=95 Runoff=0.60 cfs 0.045 af

Subcatchment 20S: (new Subcat)
Runoff Area=0.370 ac Runoff Depth>5.26"
Flow Length=280' Tc=5.0 min CN=98 Runoff=2.06 cfs 0.162 af

Subcatchment 30S: (new Subcat)
Runoff Area=0.250 ac Runoff Depth=4.69"
Flow Length=71' Tc=5.0 min CN=93 Runoff=1.33 cfs 0.098 af

Subcatchment 40S: (new Subcat)
Runoff Area=0.770 ac Runoff Depth=5.03"
Flow Length=196' Tc=5.0 min CN=96 Runoff=4.24 cfs 0.323 af

Subcatchment 50S: (new Subcat)
Runoff Area=0.300 ac Runoff Depth=4.69"
Flow Length=73' Tc=5.4 min CN=93 Runoff=1.57 cfs 0.117 af

Subcatchment 60S: (new Subcat)
Runoff Area=0.910 ac Runoff Depth=3.53"
Flow Length=388' Tc=4.9 min CN=82 Runoff=3.90 cfs 0.268 af

Reach 110: (new Reach)
Avg. Depth=0.03' Max Vel=1.51 fps Inflow=0.60 cfs 0.045 af
n=0.040 L=468.0' S=0.1500 '/' Capacity=176.99 cfs Outflow=0.52 cfs 0.045 af

Reach sd-1: (new Reach)
Avg. Depth=0.49' Max Vel=3.50 fps Inflow=1.33 cfs 0.098 af
D=12.0" n=0.012 L=115.0' S=0.0052 '/' Capacity=2.79 cfs Outflow=1.32 cfs 0.098 af

Reach sd-2: (new Reach)
Avg. Depth=0.64' Max Vel=5.39 fps Inflow=2.90 cfs 0.215 af
D=12.0" n=0.012 L=221.0' S=0.0100 '/' Capacity=3.86 cfs Outflow=2.88 cfs 0.215 af

Reach sd-3: (new Reach)
Avg. Depth=0.64' Max Vel=3.81 fps Inflow=2.06 cfs 0.162 af
D=12.0" n=0.012 L=220.0' S=0.0050 '/' Capacity=2.73 cfs Outflow=2.04 cfs 0.162 af

Reach sd-4: (new Reach)
Avg. Depth=0.56' Max Vel=10.73 fps Inflow=4.91 cfs 0.377 af
D=12.0" n=0.012 L=67.0' S=0.0433 '/' Capacity=8.03 cfs Outflow=4.91 cfs 0.377 af

Reach sd-5: (new Reach)
Avg. Depth=0.79' Max Vel=8.38 fps Inflow=6.84 cfs 0.148 af
D=15.0" n=0.012 L=11.0' S=0.0182 '/' Capacity=9.44 cfs Outflow=6.84 cfs 0.148 af

Reach sd-6: (new Reach)
Avg. Depth=0.42' Max Vel=7.30 fps Inflow=2.25 cfs 0.552 af
D=12.0" n=0.012 L=23.0' S=0.0261 '/' Capacity=6.23 cfs Outflow=2.25 cfs 0.552 af

Pond 1: CB-1
Peak Elev=40.50' Inflow=1.33 cfs 0.098 af
Outflow=1.33 cfs 0.098 af

Pond 2: CB-2
Peak Elev=40.33' Inflow=2.90 cfs 0.215 af
Outflow=2.90 cfs 0.215 af

Pond 3: CB-3
Peak Elev=38.95' Inflow=2.06 cfs 0.162 af
Outflow=2.06 cfs 0.162 af

Pond 4: CB-4
Peak Elev=35.93' Inflow=9.10 cfs 0.700 af
Primary=2.25 cfs 0.552 af Secondary=6.84 cfs 0.148 af Outflow=9.10 cfs 0.700 af

Pond DMH-1: DMH-1
Peak Elev=39.05' Inflow=4.91 cfs 0.377 af
Outflow=4.91 cfs 0.377 af

Pond HIL: (new Pond)
Inflow=2.25 cfs 0.552 af
Primary=2.25 cfs 0.552 af

Pond SP1: (new Pond)
Inflow=0.60 cfs 0.045 af
Primary=0.60 cfs 0.045 af

Pond SP2: WETLANDS
Inflow=13.46 cfs 1.013 af
Primary=13.46 cfs 1.013 af

Stormwater Quality Calculations

SEBAGO TECHNICS, INC.
1 Chabot Street
P.O. Box 1339
WESTBROOK, MAINE 04098
(207) 856-0277 FAX (207) 856-2206

JOB 07548 MOODY'S COLLISION
SHEET NO. _____ OF _____
CALCULATED BY APP DATE 11/14/07
CHECKED BY _____ DATE _____
SCALE _____

CALCULATIONS FOR HEIGHT OF BAFFLE IN CB-4

IMPERVIOUS AREA SUMMARY

(1) DETERMINE IMPERVIOUS SURFACE WQV

$$WQV = 1'' \left(\frac{1 ft}{12 in}\right)(1.5 AC)$$

$$WQV = 0.125 \text{ AC-FT}$$

DETERMINE RAINFALL TO PRODUCE 0.125 AC-FT OF RUNOFF FROM IMPERVIOUS AREA

⇒ PER HYDROCAD 07548 POST

1.35" RAINFALL PRODUCES 0.130 AC-FT OF RUNOFF FROM IMPERVIOUS SURFACE

→ SET BAFFLE AT ELEVATION OF WATER SURFACE IN CB-4 DURING THIS RAINFALL EVENT

∴ BAFFLE ELEV = 35.30

Time span=1.00-48.00 hrs, dt=0.01 hrs, 4701 points x 4
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10s: (new Subcat)
Runoff Area=0.110 ac Runoff Depth=0.87"
Flow Length=203' Tc=5.0 min CN=95 Runoff=0.12 cfs 0.008 af

Subcatchment 20S: (new Subcat)
Runoff Area=0.370 ac Runoff Depth=1.13"
Flow Length=280' Tc=5.0 min CN=98 Runoff=0.48 cfs 0.035 af

Subcatchment 30S: (new Subcat)
Runoff Area=0.250 ac Runoff Depth=0.74"
Flow Length=71' Tc=5.0 min CN=93 Runoff=0.22 cfs 0.015 af

Subcatchment 40S: (new Subcat)
Runoff Area=0.770 ac Runoff Depth=0.95"
Flow Length=196' Tc=5.0 min CN=96 Runoff=0.88 cfs 0.061 af

Subcatchment 50S: (new Subcat)
Runoff Area=0.300 ac Runoff Depth=0.74"
Flow Length=73' Tc=5.4 min CN=93 Runoff=0.27 cfs 0.018 af

Subcatchment 60S: (new Subcat)
Runoff Area=0.910 ac Runoff Depth=0.27"
Flow Length=388' Tc=4.9 min CN=82 Runoff=0.24 cfs 0.020 af

Reach 110: (new Reach)
Avg. Depth=0.01' Max Vel=0.71 fps Inflow=0.12 cfs 0.008 af
n=0.040 L=468.0' S=0.1500 '/' Capacity=176.99 cfs Outflow=0.08 cfs 0.008 af

Reach sd-1: (new Reach)
Avg. Depth=0.19' Max Vel=2.12 fps Inflow=0.22 cfs 0.015 af
D=12.0" n=0.012 L=115.0' S=0.0052 '/' Capacity=2.79 cfs Outflow=0.22 cfs 0.015 af

Reach sd-2: (new Reach)
Avg. Depth=0.24' Max Vel=3.35 fps Inflow=0.49 cfs 0.034 af
D=12.0" n=0.012 L=221.0' S=0.0100 '/' Capacity=3.86 cfs Outflow=0.48 cfs 0.034 af

Reach sd-3: (new Reach)
Avg. Depth=0.28' Max Vel=2.60 fps Inflow=0.48 cfs 0.035 af
D=12.0" n=0.012 L=220.0' S=0.0050 '/' Capacity=2.73 cfs Outflow=0.47 cfs 0.035 af

Reach sd-4: (new Reach)
Avg. Depth=0.23' Max Vel=6.85 fps Inflow=0.95 cfs 0.069 af
D=12.0" n=0.012 L=67.0' S=0.0433 '/' Capacity=8.03 cfs Outflow=0.94 cfs 0.069 af

Reach sd-5: (new Reach)
Avg. Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af
D=15.0" n=0.012 L=11.0' S=0.0182 '/' Capacity=9.44 cfs Outflow=0.00 cfs 0.000 af

Reach sd-6: (new Reach)
Avg. Depth=0.37' Max Vel=6.87 fps Inflow=1.80 cfs 0.130 af
D=12.0" n=0.012 L=23.0' S=0.0261 '/' Capacity=6.23 cfs Outflow=1.80 cfs 0.130 af

Pond 1: CB-1
Peak Elev=40.07' Inflow=0.22 cfs 0.015 af
Outflow=0.22 cfs 0.015 af

Pond 2: CB-2
Peak Elev=39.48' Inflow=0.49 cfs 0.034 af
Outflow=0.49 cfs 0.034 af

Pond 3: CB-3
Peak Elev=38.40' Inflow=0.48 cfs 0.035 af
Outflow=0.48 cfs 0.035 af

Pond 4: CB-4
Peak Elev=35.28' Inflow=1.80 cfs 0.130 af
Primary=1.80 cfs 0.130 af Secondary=0.00 cfs 0.000 af Outflow=1.80 cfs 0.130 af

Pond DMH-1: DMH-1
Peak Elev=37.30' Inflow=0.95 cfs 0.069 af
Outflow=0.95 cfs 0.069 af

Pond HIL: (new Pond)
Inflow=1.80 cfs 0.130 af
Primary=1.80 cfs 0.130 af

Pond SP1: (new Pond)
Inflow=0.12 cfs 0.008 af
Primary=0.12 cfs 0.008 af

Pond SP2: WETLANDS
Inflow=2.10 cfs 0.158 af
Primary=2.10 cfs 0.158 af

Subcatchment 10s: (new Subcat)

Runoff = 0.12 cfs @ 12.07 hrs, Volume= 0.008 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" RUNOFF Rainfall=1.35"

Area (ac)	CN	Description
0.090	98	ROAD AND SIDEWALK
0.020	80	>75% Grass cover, Good, HSG D
0.110	95	Weighted Average
0.020		Pervious Area
0.090		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	16	0.0200	0.92		**Sheet Flow, A TO B** Smooth surfaces n= 0.011 P2= 3.00"
1.2	134	0.0400	1.86		**Sheet Flow, B TO C** Smooth surfaces n= 0.011 P2= 3.00"
0.2	53	0.0400	4.06		**Shallow Concentrated Flow, C TO D** Paved Kv= 20.3 fps
3.3					**Direct Entry,**
5.0	203	Total			

Subcatchment 20S: (new Subcat)

Runoff = 0.48 cfs @ 12.07 hrs, Volume= 0.035 af, Depth= 1.13"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" RUNOFF Rainfall=1.35"

Area (ac)	CN	Description
0.370	98	Paved parking & roofs
0.370		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	150	0.0310	1.72		**Sheet Flow, A TO B** Smooth surfaces n= 0.011 P2= 3.00"
0.6	130	0.0300	3.52		**Shallow Concentrated Flow, B TO C** Paved Kv= 20.3 fps
2.9					**Direct Entry,**
5.0	280	Total			

Subcatchment 30S: (new Subcat)

Runoff = 0.22 cfs @ 12.08 hrs, Volume= 0.015 af, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" RUNOFF Rainfall=1.35"

Area (ac)	CN	Description
0.180	98	Paved parking & roofs
0.070	80	>75% Grass cover, Good, HSG D
0.250	93	Weighted Average
0.070		Pervious Area
0.180		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	23	0.0170	0.12		**Sheet Flow, A TO B** Grass: Short n= 0.150 P2= 3.00"
0.7	48	0.0200	1.15		**Sheet Flow, B TO C** Smooth surfaces n= 0.011 P2= 3.00"
1.0					**Direct Entry,**
5.0	71	Total			

Subcatchment 40S: (new Subcat)

Runoff = 0.88 cfs @ 12.07 hrs, Volume= 0.061 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" RUNOFF Rainfall=1.35"

Area (ac)	CN	Description
0.700	98	Paved parking & roofs
0.070	80	>75% Grass cover, Good, HSG D
0.770	96	Weighted Average
0.070		Pervious Area
0.700		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	28	0.0700	0.21		**Sheet Flow, A TO B** Grass: Short n= 0.150 P2= 3.00"
1.6	122	0.0170	1.30		**Sheet Flow, B TO C** Smooth surfaces n= 0.011 P2= 3.00"
0.3	46	0.0200	2.87		**Shallow Concentrated Flow, C TO D** Paved Kv= 20.3 fps
0.9					**Direct Entry,**
5.0	196	Total			

Subcatchment 50S: (new Subcat)

Runoff = 0.27 cfs @ 12.08 hrs, Volume= 0.018 af, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" RUNOFF Rainfall=1.35"

Area (ac)	CN	Description
0.210	98	Paved parking & roofs
0.090	80	>75% Grass cover, Good, HSG D
0.300	93	Weighted Average
0.090		Pervious Area
0.210		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	36	0.0170	0.13		**Sheet Flow, A TO B** Grass: Short n= 0.150 P2= 3.00"
0.6	37	0.0200	1.09		**Sheet Flow, B TO C** Smooth surfaces n= 0.011 P2= 3.00"
5.4	73	Total			

Subcatchment 60S: (new Subcat)

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af, Depth= 0.27"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" RUNOFF Rainfall=1.35"

Area (ac)	CN	Description
0.560	80	>75% Grass cover, Good, HSG D
0.140	91	RIP RAP (GRAVEL HSG D)
0.210	80	>75% Grass cover, Good, HSG D
0.910	82	Weighted Average
0.910		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	50	0.0560	0.22		**Sheet Flow, A TO B** Grass: Short n= 0.150 P2= 3.00"
0.5	338	0.0870	10.82	216.31	**Trap/Vee/Rect Channel Flow, B TO C** Bot.W=0.00' D=2.00' Z= 5.0 '/' Top.W=20.00' n= 0.040
0.5					**Direct Entry,**
4.9	388	Total			

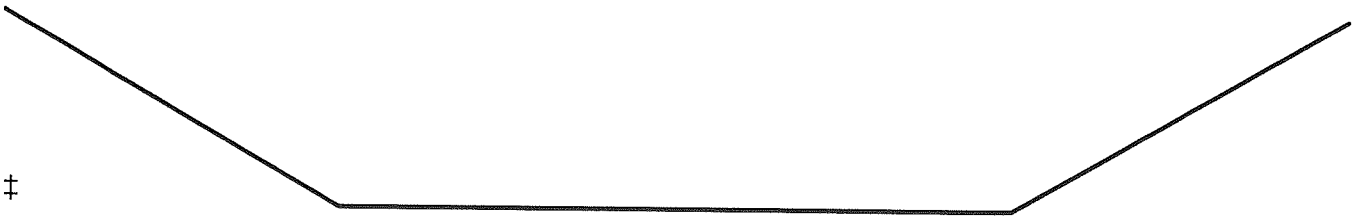
Reach 110: (new Reach)

Inflow Area = 0.110 ac, Inflow Depth = 0.87" for 1" RUNOFF event
Inflow = 0.12 cfs @ 12.07 hrs, Volume= 0.008 af
Outflow = 0.08 cfs @ 12.16 hrs, Volume= 0.008 af, Atten= 35%, Lag= 5.2 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 0.71 fps, Min. Travel Time= 11.0 min
Avg. Velocity = 0.67 fps, Avg. Travel Time= 11.7 min

Peak Storage= 50 cf @ 12.16 hrs, Average Depth at Peak Storage= 0.01'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 176.99 cfs

10.00' x 1.00' deep channel, n= 0.040
Side Slope Z-value= 5.0 '/' Top Width= 20.00'
Length= 468.0' Slope= 0.1500 '/'
Inlet Invert= 0.00', Outlet Invert= -70.20'



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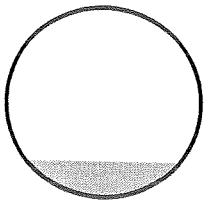
Reach sd-1: (new Reach)

Inflow Area = 0.250 ac, Inflow Depth = 0.74" for 1" RUNOFF event
Inflow = 0.22 cfs @ 12.08 hrs, Volume= 0.015 af
Outflow = 0.22 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 1%, Lag= 0.7 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 2.12 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 0.74 fps, Avg. Travel Time= 2.6 min

Peak Storage= 12 cf @ 12.09 hrs, Average Depth at Peak Storage= 0.19'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 2.79 cfs

12.0" Diameter Pipe, n= 0.012
Length= 115.0' Slope= 0.0052 '/'
Inlet Invert= 39.80', Outlet Invert= 39.20'



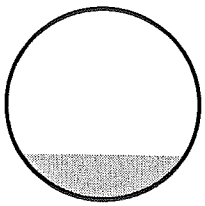
Reach sd-2: (new Reach)

Inflow Area = 0.550 ac, Inflow Depth = 0.74" for 1" RUNOFF event
Inflow = 0.49 cfs @ 12.08 hrs, Volume= 0.034 af
Outflow = 0.48 cfs @ 12.10 hrs, Volume= 0.034 af, Atten= 1%, Lag= 0.8 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 3.35 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.16 fps, Avg. Travel Time= 3.2 min

Peak Storage= 32 cf @ 12.10 hrs, Average Depth at Peak Storage= 0.24'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.86 cfs

12.0" Diameter Pipe, n= 0.012
Length= 221.0' Slope= 0.0100 '/'
Inlet Invert= 39.10', Outlet Invert= 36.89'



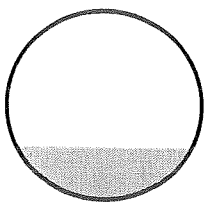
Reach sd-3: (new Reach)

Inflow Area = 0.370 ac, Inflow Depth = 1.13" for 1" RUNOFF event
Inflow = 0.48 cfs @ 12.07 hrs, Volume= 0.035 af
Outflow = 0.47 cfs @ 12.09 hrs, Volume= 0.035 af, Atten= 2%, Lag= 1.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 2.60 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 0.83 fps, Avg. Travel Time= 4.4 min

Peak Storage= 40 cf @ 12.09 hrs, Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 2.73 cfs

12.0" Diameter Pipe, n= 0.012
Length= 220.0' Slope= 0.0050 '/'
Inlet Invert= 38.00', Outlet Invert= 36.90'



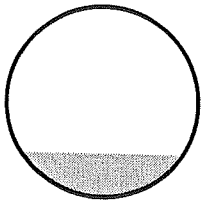
Reach sd-4: (new Reach)

Inflow Area = 0.920 ac, Inflow Depth = 0.90" for 1" RUNOFF event
Inflow = 0.95 cfs @ 12.09 hrs, Volume= 0.069 af
Outflow = 0.94 cfs @ 12.09 hrs, Volume= 0.069 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 6.85 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.14 fps, Avg. Travel Time= 0.5 min

Peak Storage= 9 cf @ 12.09 hrs, Average Depth at Peak Storage= 0.23'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 8.03 cfs

12.0" Diameter Pipe, n= 0.012
Length= 67.0' Slope= 0.0433 '/'
Inlet Invert= 36.80', Outlet Invert= 33.90'



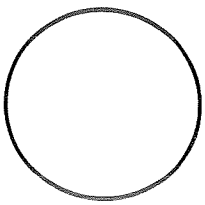
Reach sd-5: (new Reach)

Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 1.00 hrs, Average Depth at Peak Storage= 0.00'
Bank-Full Depth= 1.25', Capacity at Bank-Full= 9.44 cfs

15.0" Diameter Pipe, n= 0.012
Length= 11.0' Slope= 0.0182 '/'
Inlet Invert= 33.80', Outlet Invert= 33.60'



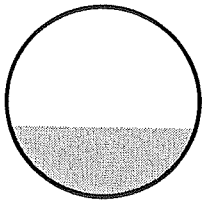
Reach sd-6: (new Reach)

Inflow Area = 1.690 ac, Inflow Depth = 0.92" for 1" RUNOFF event
Inflow = 1.80 cfs @ 12.08 hrs, Volume= 0.130 af
Outflow = 1.80 cfs @ 12.08 hrs, Volume= 0.130 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Max. Velocity= 6.87 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.13 fps, Avg. Travel Time= 0.2 min

Peak Storage= 6 cf @ 12.08 hrs, Average Depth at Peak Storage= 0.37'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 6.23 cfs

12.0" Diameter Pipe, n= 0.012
Length= 23.0' Slope= 0.0261 '/'
Inlet Invert= 34.20', Outlet Invert= 33.60'



Pond 1: CB-1

Inflow Area = 0.250 ac, Inflow Depth = 0.74" for 1" RUNOFF event
Inflow = 0.22 cfs @ 12.08 hrs, Volume= 0.015 af
Outflow = 0.22 cfs @ 12.08 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min
Primary = 0.22 cfs @ 12.08 hrs, Volume= 0.015 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 40.07' @ 12.08 hrs
Flood Elev= 42.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	39.80'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.22 cfs @ 12.08 hrs HW=40.07' TW=39.99' (Dynamic Tailwater)
↑—**1=Orifice/Grate** (Orifice Controls 0.22 cfs @ 1.33 fps)

Pond 2: CB-2

Inflow Area = 0.550 ac, Inflow Depth = 0.74" for 1" RUNOFF event
Inflow = 0.49 cfs @ 12.08 hrs, Volume= 0.034 af
Outflow = 0.49 cfs @ 12.08 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min
Primary = 0.49 cfs @ 12.08 hrs, Volume= 0.034 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4

Peak Elev= 39.48' @ 12.09 hrs
Flood Elev= 42.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	39.10'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.49 cfs @ 12.08 hrs HW=39.48' TW=39.34' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Orifice Controls 0.49 cfs @ 1.80 fps)

Pond 3: CB-3

Inflow Area = 0.370 ac, Inflow Depth = 1.13" for 1" RUNOFF event
Inflow = 0.48 cfs @ 12.07 hrs, Volume= 0.035 af
Outflow = 0.48 cfs @ 12.07 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min
Primary = 0.48 cfs @ 12.07 hrs, Volume= 0.035 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 38.40' @ 12.08 hrs
Flood Elev= 41.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	38.00'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.48 cfs @ 12.07 hrs HW=38.39' TW=38.28' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Orifice Controls 0.48 cfs @ 1.66 fps)

Pond 4: CB-4

Inflow Area = 1.690 ac, Inflow Depth = 0.92" for 1" RUNOFF event
Inflow = 1.80 cfs @ 12.08 hrs, Volume= 0.130 af
Outflow = 1.80 cfs @ 12.08 hrs, Volume= 0.130 af, Atten= 0%, Lag= 0.0 min
Primary = 1.80 cfs @ 12.08 hrs, Volume= 0.130 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 35.28' @ 12.08 hrs
Flood Elev= 39.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	33.80'	**8.0" Vert. Orifice/Grate** C= 0.600
#2	Device 3	35.30'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 1.6' Crest Height
#3	Secondary	33.80'	**15.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.80 cfs @ 12.08 hrs HW=35.28' TW=0.00' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Orifice Controls 1.80 cfs @ 5.16 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=33.80' TW=33.80' (Dynamic Tailwater)
└─**3=Orifice/Grate** (Controls 0.00 cfs)
└─**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond DMH-1: DMH-1

Inflow Area = 0.920 ac, Inflow Depth = 0.90" for 1" RUNOFF event
Inflow = 0.95 cfs @ 12.09 hrs, Volume= 0.069 af
Outflow = 0.95 cfs @ 12.09 hrs, Volume= 0.069 af, Atten= 0%, Lag= 0.0 min
Primary = 0.95 cfs @ 12.09 hrs, Volume= 0.069 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4
Peak Elev= 37.30' @ 12.09 hrs
Flood Elev= 41.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	36.80'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.94 cfs @ 12.09 hrs HW=37.30' TW=37.03' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Orifice Controls 0.94 cfs @ 2.41 fps)

Pond HIL: (new Pond)

Inflow Area = 1.690 ac, Inflow Depth = 0.92" for 1" RUNOFF event
Inflow = 1.80 cfs @ 12.08 hrs, Volume= 0.130 af
Primary = 1.80 cfs @ 12.08 hrs, Volume= 0.130 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4

Pond SP1: (new Pond)

Inflow Area = 0.110 ac, Inflow Depth = 0.87" for 1" RUNOFF event
Inflow = 0.12 cfs @ 12.07 hrs, Volume= 0.008 af
Primary = 0.12 cfs @ 12.07 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4

Pond SP2: WETLANDS

Inflow Area = 2.710 ac, Inflow Depth = 0.70" for 1" RUNOFF event
Inflow = 2.10 cfs @ 12.09 hrs, Volume= 0.158 af
Primary = 2.10 cfs @ 12.09 hrs, Volume= 0.158 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs / 4

Exhibit 9

Test Pit Log / Septic Design

07548

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services
Division of Health Engineering, 10 SHS
(207) 287-5672 Fax: (207) 287-3165

PROPERTY LOCATION

City, Town, or Plantation	Portland
Street or Road	Presumpscot Street
Subdivision, Lot #	

>> CAUTION: PERMIT REQUIRED - ATTACH IN SPACE BELOW <<

The Subsurface Wastewater Disposal System ***shall not*** be installed until a Permit is attached HERE by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

OWNER/APPLICANT INFORMATION

Name (last, first, MI): Moody, Shawn — ☒ Owner ☐ Applicant

Mailing Address of Owner/Applicant	200 Narragansett Street Gorham, ME 04038
Daytime Tel. #	(207) 839-2500

Municipal Tax Map # _____ Lot # _____

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

_____ Signature of Owner or Applicant _____ Date

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

_____ Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

☒ 1. First Time System
☐ 2. Replacement System
Type replaced: _____
Year installed: _____
☐ 3. Expanded System
☐ a. Minor Expansion
☐ b. Major Expansion
☐ 4. Experimental System
☐ 5. Seasonal Conversion

THIS APPLICATION REQUIRES

☒ 1. No Rule Variance
☐ 2. First Time System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 3. Replacement System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 4. Minimum Lot Size Variance
☐ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

☒ 1. Complete Non-engineered System
☐ 2. Primitive System (graywater & alt. toilet)
☐ 3. Alternative Toilet, specify: _____
☐ 4. Non-engineered Treatment Tank (only)
☐ 5. Holding Tank, _____ gallons
☐ 6. Non-engineered Disposal Field (only)
☐ 7. Separated Laundry System
☐ 8. Complete Engineered System (2000 gpd or more)
☐ 9. Engineered Treatment Tank (only)
☐ 10. Engineered Disposal Field (only)
☐ 11. Pre-treatment, specify: _____
☐ 12. Miscellaneous Components

SIZE OF PROPERTY

2.6 ☐ SQ. FT. ☒ ACRES

SHORELAND ZONING

☐ Yes ☒ No

DISPOSAL SYSTEM TO SERVE

☐ 1. Single Family Dwelling Unit, No. of Bedrooms: ____
☐ 2. Multiple Family Dwelling, No. of Units: _____
☒ 3. Other: auto body shop (specify)
Current Use ☐ Seasonal ☐ Year Round ☒ Undeveloped

TYPE OF WATER SUPPLY

☐ 1. Drilled Well ☐ 2. Dug Well ☐ 3. Private
☒ 4. Public ☐ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK

☒ 1. Concrete
☒ a. Regular
☐ b. Low Profile
☐ 2. Plastic
☐ 3. Other: _____
CAPACITY: 1,000 GAL.

DISPOSAL FIELD TYPE & SIZE

☐ 1. Stone Bed ☐ 2. Stone Trench
☒ 3. Proprietary Device
☒ a. cluster array ☐ c. Linear
☐ b. regular load ☒ d. H-20 load
☐ 4. Other: _____
SIZE: 1280 ☒ sq. ft. ☐ lin. ft.

GARBAGE DISPOSAL UNIT

☒ 1. No ☐ 2. Yes ☐ 3. Maybe
If Yes or Maybe, specify one below:
☐ a. multi-compartment tank
☐ b. ___ tanks in series
☐ c. increase in tank capacity
☐ d. Filter on Tank Outlet

DESIGN FLOW

300 gallons per day
BASED ON:
☒ 1. Table 501.1 (dwelling unit(s))
☐ 2. Table 501.2 (other facilities)
SHOW CALCULATIONS for other facilites
20 employees @ 15 gpd = 300 gpd
☐ 3. Section 503.0 (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE / CONDITION / DESIGN
8 / D / 3
at Observation Hole # TP-1
Depth 14 "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

☐ 1. Small---2.0 sq. ft. / gpd
☐ 2. Medium---2.6 sq. ft. / gpd
☐ 3. Medium---Large 3.3 sq. f.t / gpd
☒ 4. Large---4.1 sq. ft. / gpd
☐ 5. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

☐ 1. Not Required
☒ 2. May Be Required
☐ 3. Required
Specify only for engineered systems:
DOSE: _____ gallons

LATITUDE AND LONGITUDE
at center of disposal area
Lat. 43 d 41 m 54 s
Lon. -70 d 15 m 30 s

SITE EVALUATOR STATEMENT

I certify that on 10-23-07 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

Site Evaluator Signature	SE #	Date
	156	11-1-07

Sebago Technics — Engineering Expertise You Can Build On

Site Evaluator Name Printed	Telephone Number	E-mail Address
Walter P. Stinson	(207) 856-0277	wstinson@sebagotechnics.com

Note: Changes to or deviations from the design should be confirmed with the Site Evaluator.

07548

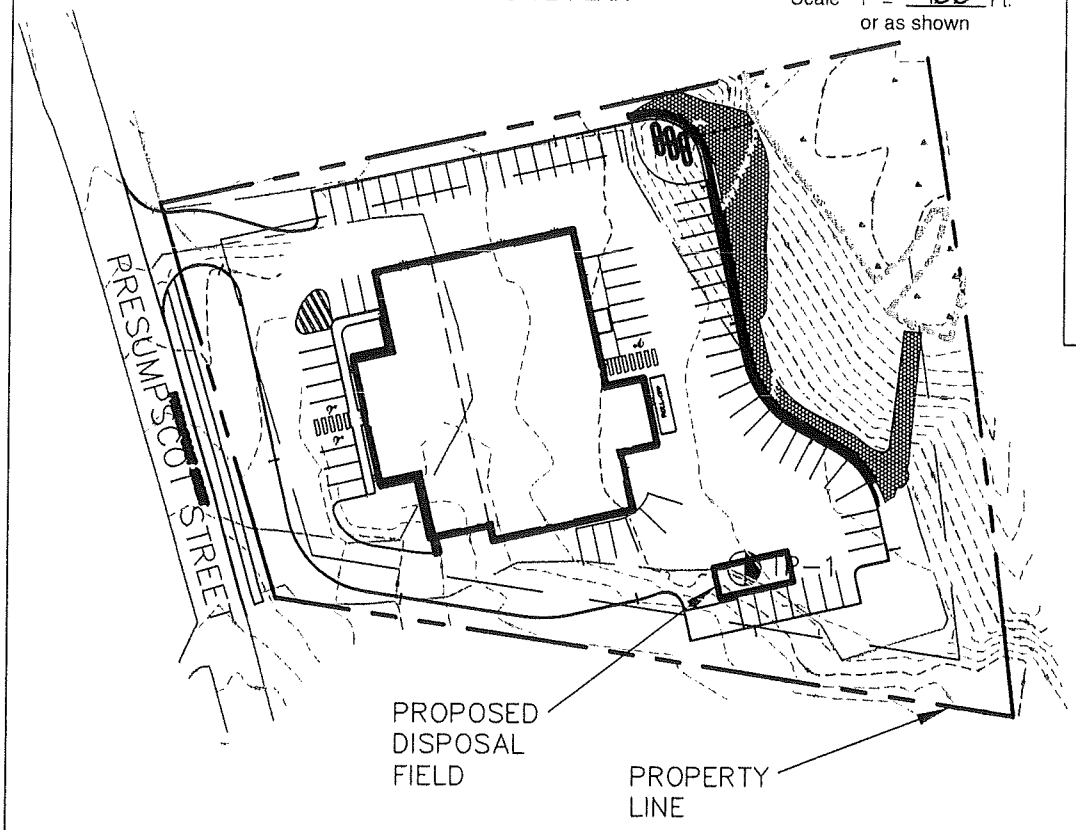
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services
Division of Health Engineering, 10 SHS
(207) 287-5672 FAX (207) 287-3165

Town, City ,Plantation	Street, Road, Subdivision	Owner or Applicant Name
Portland	Presumpscot Street	Moody, Shawn

SITE PLAN

Scale 1" = 100 Ft. or as shown

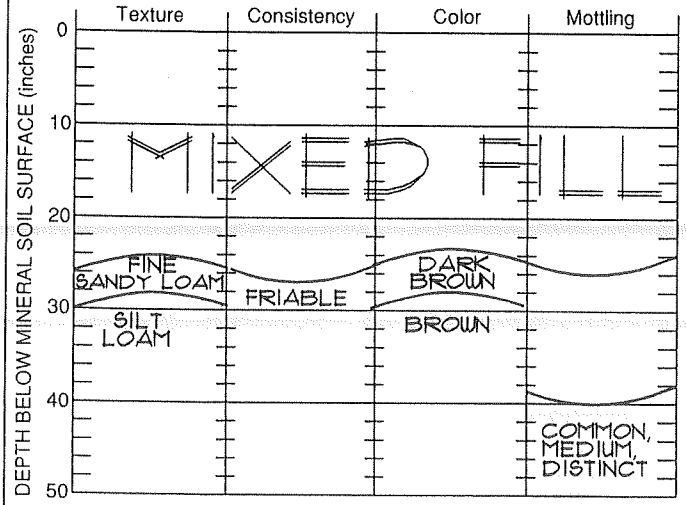


SITE LOCATION PLAN
(Map from Maine Atlas recommended)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP-1 ☒ Test pit ☐ Boring

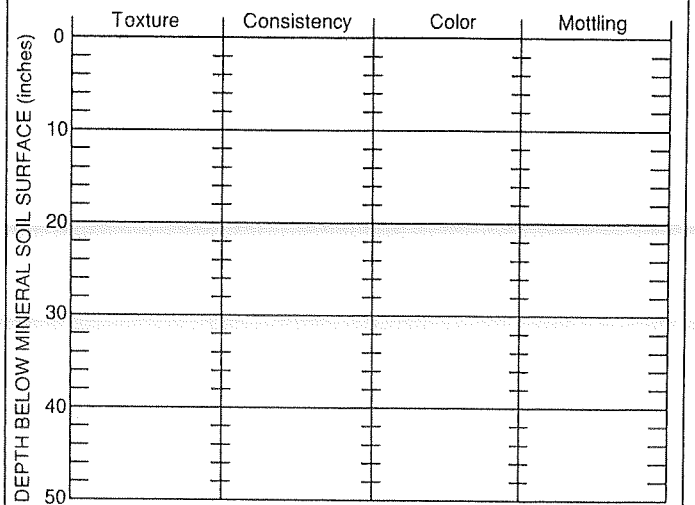
0-1 " Depth of Organic Horizon Above Mineral Soil



Soil Classification	Slope	Limiting Factor	
B Profile / D Condition	0-3 %	14 "	☒ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Observation Hole _____ ☐ Test pit ☐ Boring

_____ " Depth of Organic Horizon Above Mineral Soil



Soil Classification	Slope	Limiting Factor	
Profile / Condition	%	"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Site Evaluator Signature

156
SE #

11-1-07
Date

SEBAGO TECHNICS, INC.

07548

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services
Division of Health Engineering, 10 SHS
(207) 287-5672 FAX (207) 287-3165

Town, City ,Plantation	Street, Road, Subdivision	Owner or Applicant Name
Portland	Presumpscot Street	Moody, Shawn

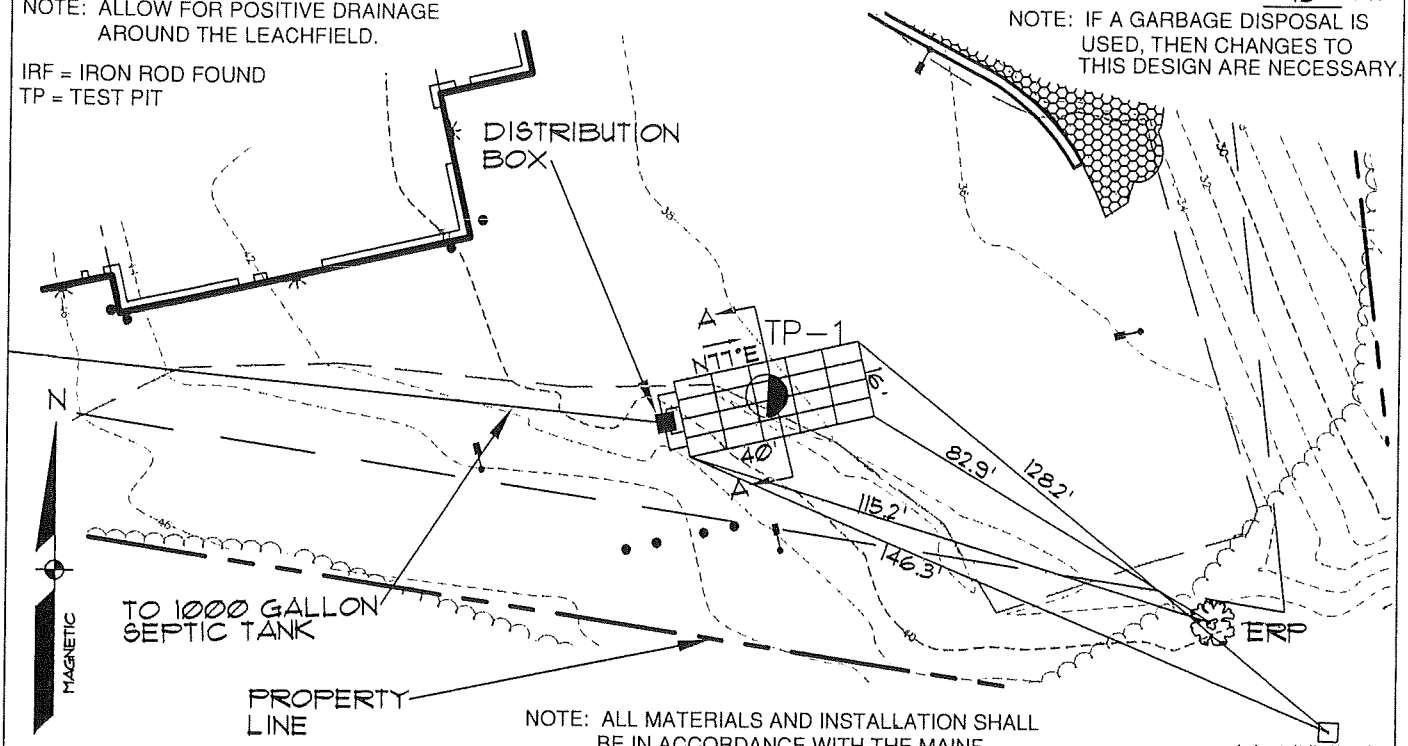
SUBSURFACE WASTEWATER DISPOSAL PLAN

Scale 1" = 40 FT.

NOTE: ALLOW FOR POSITIVE DRAINAGE AROUND THE LEACHFIELD.

IRF = IRON ROD FOUND
TP = TEST PIT

NOTE: IF A GARBAGE DISPOSAL IS USED, THEN CHANGES TO THIS DESIGN ARE NECESSARY.



PROPOSED DISPOSAL FIELD

4 ROWS OF 5 H-20 LOAD CONCRETE CHAMBERS

NOTE: ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE MAINE SUBSURFACE WASTEWATER DISPOSAL RULES DATED 10/02, AS AMENDED, AND SUPPLEMENTED BY THE ATTACHED GENERAL NOTES WHICH BECOME A PART OF THIS DESIGN.

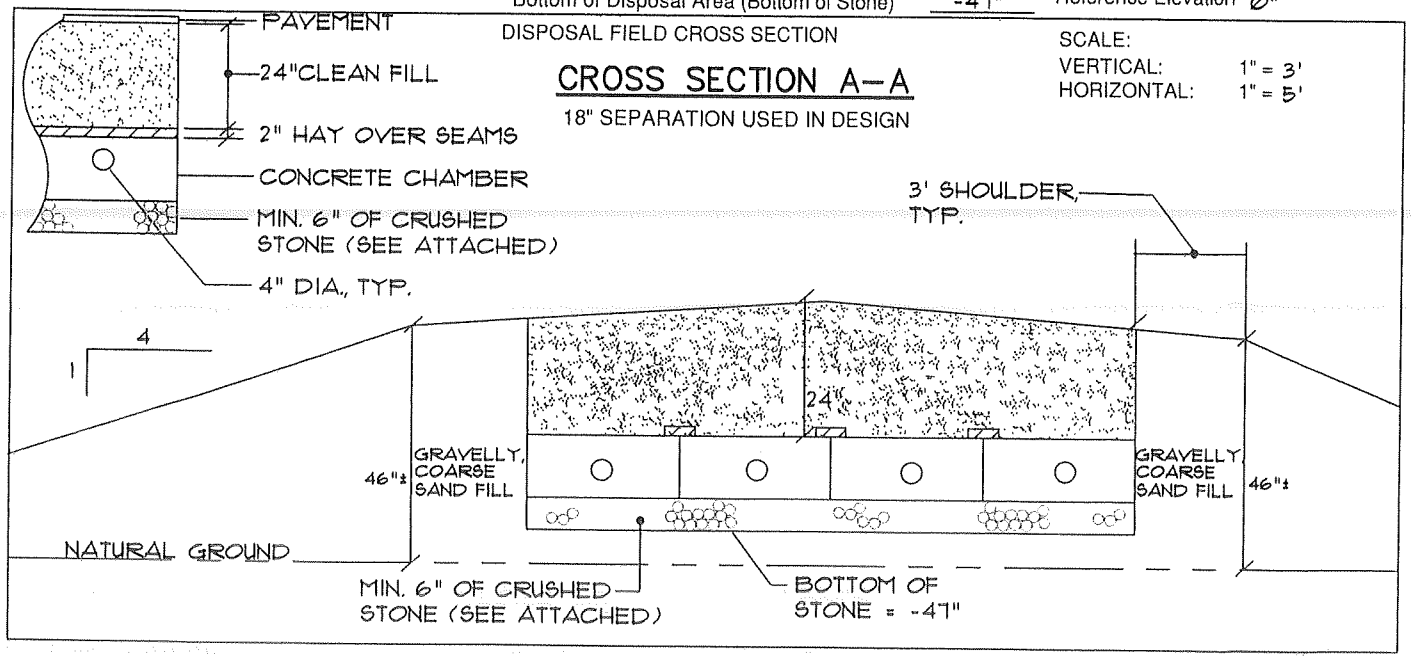
BACKFILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	46"±	Finished Grade Elevation	-5"	Location & Description Nail up 41" in a 20" R. Oak
Depth of Fill (Downslope)	46"±	Top of Distribution Pipe or Proprietary Device	-29"	
		Bottom of Disposal Area (Bottom of Stone)	-47"	Reference Elevation 0"

DISPOSAL FIELD CROSS SECTION

CROSS SECTION A–A

18" SEPARATION USED IN DESIGN

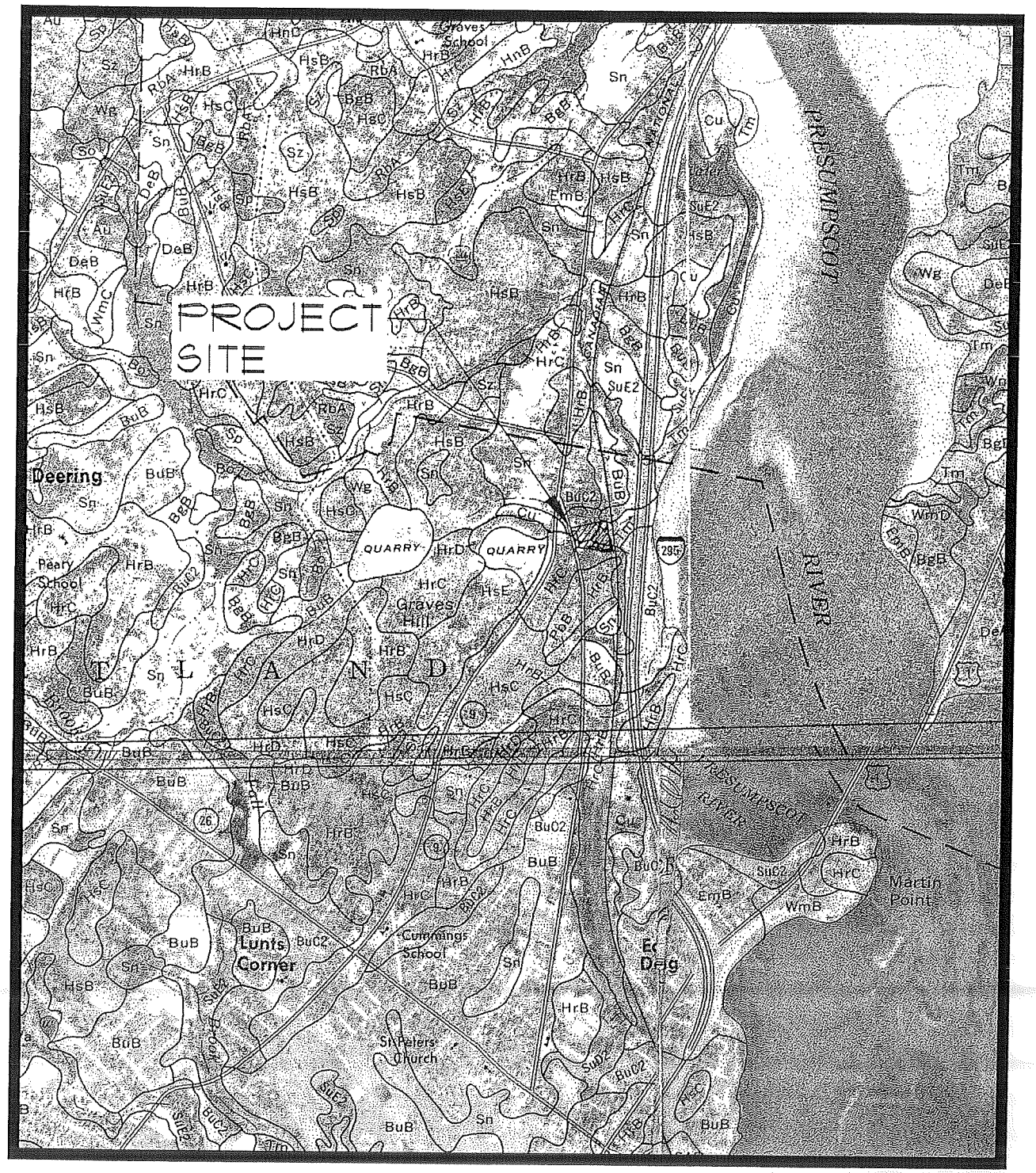
SCALE:
VERTICAL: 1" = 3'
HORIZONTAL: 1" = 5'



Site Evaluator Signature	SE #	Date	Page 3 of 3
	156	11-1-07	HHE-200 Rev. 10/02

Exhibit 10

Medium Intensity Soils Map



MEDIUM INTENSITY SOIL SURVEY

CUMBERLAND COUNTY

SHEET 76 & 82

SCALE 1:20,000

Sebago Technics
Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

Exhibit 11

Inland Fisheries Letter, Maine Historic Preservation Commission Letter, Maine Natural Areas Letter

John E. Baldacci
Governor

Roland D. Martin
Commissioner

DEPARTMENT OF INLAND FISHERIES AND WILDLIFE

Wildlife Division – Region A
358 Shaker Rd.
Gray, ME 04039
Phone: (207) – 657-2345 x 110
Fax: (207) – 657-2980
Scott.Lindsay@maine.gov

October 16, 2007

Jayson Haskell
Sebago Technics
One Chabot St.
P.O. Box 1339
Westbrook, ME 04098

Via: Electronic Mail

Dear Jayson,

You contacted this office requesting information on any wildlife habitat of management concern occurring at the site of a proposed Moody's Collision Center on Presumpscot St. in the City of Portland.

Based upon a review of the most current data available, there are no known essential or significant wildlife habitats, nor any documented occurrences of rare, threatened or endangered species at or adjacent to this property.. I am not aware of any significant vernal pools on this property, though no formal surveys have been conducted. Vernal pools of management concern include those showing documented reproduction of the following species; wood frog, spotted salamander, four-toed salamander, blue-spotted salamander and fairy shrimp. Considering the

Though most development does reduce the quantity and quality of wildlife habitat for a variety of species, a well designed development, at this location, that maintains undisturbed travel corridors and a diversity of cover types with as little site modification as feasible, would have minimal negative impact on regional wildlife goals and management objectives

Sincerely

Scott Lindsay

Scott Lindsay
Regional Wildlife Biologist

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JOHN ELIAS BALDACCI
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

October 24, 2007

RECEIVED
OCT 29 2007
SEBAGO TECHNICS

Jayson R. Haskell
Sebago Technics
P.O. Box 1339
Westbrook, ME 04098-1339

Project: MHPC #1812-07 – proposed business development; Moody's Collision Center, off Presumpscot St.
Town: Portland, ME

Dear Mr. Haskell:

In response to your recent request, I have reviewed the information received October 18, 2007 to initiate consultation on the above referenced project pursuant to the requirements of the City of Portland.

Based on the information submitted, I have concluded that the proposed project will have no effect upon historic properties [architectural or archaeological].

Please contact Kirk Mohney of my staff if we can be of further assistance in this matter.

Sincerely,

Earle G. Shettleworth, Jr.
State Historic Preservation Officer

PHONE: (207) 287-2132

FAX: (207) 287-2335

STATE OF MAINE
DEPARTMENT OF CONSERVATION
17 ELKINS LANE
93 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0093

JOHN ELIAS BALDACCI
GOVERNOR

PATRICK K. McGOWAN
COMMISSIONER

October 17, 2007

Jayson Haskell
Sebago Technics
One Chabot Street
PO Box 1339
Westbrook, ME 04098-1339

Re: Rare and exemplary botanical features, Proposed Moody's Collision Center, Job #07548, Portland, Maine.

Dear Mr. Haskell:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request of October 16, 2007 for information on the presence of rare or unique botanical features documented from the vicinity of the project site in the City of Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as

MAINE NATURAL AREAS PROGRAM
MOLLY DOCHERTY, DIRECTOR

PHONE: (207) 287-8044
FAX: (207) 287-8040
TTY: (207) 287-2213

well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

The Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $75.00 for our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire
Assistant Ecologist / Acting Information Manager
93 State House Station
Augusta, ME 04333-0093
207-287-8046

Lisa.St.Hilaire@maine.gov

Enclosures

Rare and Exemplary Botanical Features in the Project Vicinity

10/17/2007

Documented within a Four-Mile Radius of the Proposed Moody's Collision Center, Job #07548, Portland, Maine.

Scientific Name / Common Name	Last Seen	Global Rarity Rank	State Rarity Rank	State Protection Status	Habitat Description
Carex polymorpha Variable Sedge	1986-10-08	G3	S1	E	In Maine, habitat is between downslope seeps (with horsetails and wetland sedges) and upslope mixed oak/huckleberry forest. Preferred soil type is Deerfield Loamy Sand.
Kalmia latifolia Mountain-laurel	1985-08-01	G5	S2	SC	Rocky or gravelly woods and clearings, sometimes swamps.
Polygonum tenue Slender Knotweed	1902-09-07	G5	SH	PE	Dry open soil (chiefly acid)
Chimaphila maculata Spotted Wintergreen	1991-09	G5	S2	E	Dry woods.
Viola palmata Palmate-leaved Violet	1908	G5	SH	PE	Rich deciduous woods, shaded calcareous ledges, etc.
Carex polymorpha Variable Sedge	1911	G3	S1	E	In Maine, habitat is between downslope seeps (with horsetails and wetland sedges) and upslope mixed oak/huckleberry forest. Preferred soil type is Deerfield Loamy Sand.
Carex polymorpha Variable Sedge	1911-06-29	G3	S1	E	In Maine, habitat is between downslope seeps (with horsetails and wetland sedges) and upslope mixed oak/huckleberry forest. Preferred soil type is Deerfield Loamy Sand.

Rare and Exemplary Botanical Features in the Project Vicinity

10/17/2007

Documented within a Four-Mile Radius of the Proposed Moody's Collision Center, Job #07548, Portland, Maine.

Scientific Name / Common Name	Last Seen	Global Rarity Rank	State Rarity Rank	State Protection Status	Habitat Description
Allium canadense Wild Garlic	1918-07-16	G5	S2	SC	Alluvial woods, thickets, and meadows.
Allium tricoccum Wild Leek	1978-06-28	G5	S3	SC	Rich hardwood forests, usually alluvial.
Platanthera flava var. herbiola Pale Green Orchis	1907-07-05	G4T4Q	S2	SC	Swampy woods, bottomlands, swales, and wet shores.
Elymus hystrix Bottlebrush Grass	1905-09-13	G5	S3	T	Rich, rocky, or alluvial deciduous forests.
Phegopteris hexagonoptera Broad Beech Fern	1872-08	G5	S2	SC	Rich, often rocky, hardwood forests.
Eleocharis engelmannii Engelmann's Spikerush	1916-08-31	G4G5Q	SH	PE	Wet sand, peat or mud
Asplenium platyneuron Ebony Spleenwort	1910-06-06	G5	S2	SC	Rich partly forested slopes, rocky ledges, and dry, circumneutral outcrops.
Potamogeton vaseyi Vasey's Pondweed	1901-08-04	G4	S2	T	Quiet muddy or calcareous waters.

Rare and Exemplary Botanical Features in the Project Vicinity

10/17/2007

Documented within a Four-Mile Radius of the Proposed Moody's Collision Center, Job #07548, Portland, Maine.

Scientific Name / Common Name	Last Seen	Global Rarity Rank	State Rarity Rank	State Protection Status	Habitat Description
Adlumia fungosa Allegheny Vine	1860-10	G4	S1	T	Wet or recently burned woods, rocky wooded slopes.
Arabis missouriensis Missouri Rockcress	1905-06-11	G5?Q	S1	T	Circumneutral bluffs, ledges or rocky woods.
Suaeda calceoliformis American Sea-blite	1932-09-12	G5	S1	T	Rocky or gravelly saltmarshes and sea-strands.
Ranunculus ambigens Water-plantain Spearwort	1903-07-29	G4	SH	PE	Sloughs, ditches, and muddy swamps.
Suaeda maritima ssp. richii Rich's Sea-blite	1903-07-30	G5T3	S1	SC	Salt-marshes and sea-strands.
Hieracium venosum var. nudicaule Rattlesnake Hawkweed	1909-07	G5T4Q	S1	E	Dry open pine, or oak woods and barrens, usually in grassy openings.
Zannichellia palustris Horned Pondweed	1913-09-13	G5	S2	SC	Fresh, brackish or alkaline waters, and stream edges.
Aureolaria pedicularia Fern-leaved False Foxglove	1902-09-02	G5	S3	SC	Dry deciduous woods and clearings.

Rare and Exemplary Botanical Features in the Project Vicinity

10/17/2007

Documented within a Four-Mile Radius of the Proposed Moody's Collision Center, Job #07548, Portland, Maine.

Scientific Name / Common Name	Last Seen	Global Rarity Rank	State Rarity Rank	State Protection Status	Habitat Description
Polygala cruciata var. aquilonia Marsh Milkwort	1903-08-18	G5T4	SH	PE	Wet pinelands, savannas, peats, and sands.
Lobelia siphilitica Great Blue Lobelia	1905-09	G5	SX	PE	Rich low woods and swamps
Wolffia columbiana Columbia Water-meal	2002-08-04	G5	S2	T	Ponds, and still waters.
Lonicera dioica Mountain Honeysuckle	2002-06-06	G5	S1?	E	Rocky banks, dry woods and thickets.
Ilex laevigata Smooth Winterberry Holly	2005-08-21	G5	S3	SC	Wetlands, wooded swamps.
Lycopodiella alopecuroides Foxtail Bog-clubmoss	2002	G5	S1	SC	
Bartonia paniculata Screwstem	2001-09-01	G5	S1	T	Wet peat and sand.
Allium tricoccum Wild Leek	2003-06-17	G5	S3	SC	Rich hardwood forests, usually alluvial.

STATE RARITY RANKS

S1	Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
S2	Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
S3	Rare in Maine (20-100 occurrences).
S4	Apparently secure in Maine.
S5	Demonstrably secure in Maine.
SH	Known historically from the state, not verified in the past 20 years.
SX	Apparently extirpated from the state, loss of last known occurrence has been documented.
SU	Under consideration for assigning rarity status; more information needed on threats or distribution.
S#?	Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).

Note: State Rarity Ranks are determined by the Maine Natural Areas Program.

GLOBAL RARITY RANKS

G1	Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.
G2	Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
G3	Globally rare (20-100 occurrences).
G4	Apparently secure globally.
G5	Demonstrably secure globally.

Note: Global Ranks are determined by NatureServe.

STATE LEGAL STATUS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

E	ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.
T	THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

NON-LEGAL STATUS

SC	SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.
PE	Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.

Visit our website for more information on rare, threatened, and endangered species!
http://www.mainenaturalareas.org/docs/rare_plants/factsheets.php

Exhibit 12

Portland Fire Department Checklist

Exhibit 12

Portland Fire Department Checklist

1. **Name, address, telephone number of applicant**

The applicant for the project is:

Moody's Collision Center
200 Narragansett Street
Gorham, Maine
207-839-2500

2. **Name Address, telephone number of architect**

The project architect is:

Macleod Engineers
404 Maine Street
Gorham, Maine 04038
207-839-0890

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

The proposed project building should be classified as "moderate hazard storage" Group S-1.

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

The project will include 17,728 square feet of first floor space and 720 square feet of second floor space. Total square footage for the project will be 18, 448 square feet.

5. **Elevation of all structures**

Attached with this submission are elevations of the proposed building.

6. **Proposed fire protection of all structures**

The automatic fire protection sprinkler system will be an N.F.P.A. 13 Wet/dry combination system, 100% protected.

7. **Hydrant Locations**

There are no hydrants proposed as part of this project.

8. **Water main[s] size and location**

The project will utilize a 6-inch fire protection main and a 2-inch domestic service main. The locations of these water mains are shown on the Grading and Utility Sheets within the attached plan set.

9. **Access to any fire department connections**

At this time the fire department connection location has not been determined. The connection will be located as close to the sprinkler room as possible. Once the location has been determined this information will be forwarded to the City.

10. **Access to all structures [min 2 sides]**

The proposed project incorporates a loop drive which provides access to all sides of the building.

11. **A code summary shall be included referencing NFPA 1 and all fire department technical standards**

This will be provided at a later time.

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

There are no elevators proposed as part of this project.