354-A-3 2004-0263

12 Rice Street

Driveway and Pavement Exp.

Alpine Realty Corp.

Scanned ✓

on Spreadsheet

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM
Planning Copy

2004-0263
Application I. D. Number

12/22/2004
Application Date

Alpine Realty Corp
Applicant

120 Exchange St , Portland , ME 04101
Applicant's Mailing Address

Driveway and Pavement Expansion
Project Name/Description

12 Rice St, Portland, Maine
Address of Proposed Site

Consultant/Agent

Agent Ph: Agent Fax:
Applicant or Agent Daytime Telephone, Fax

354 A003001
Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): ☐ New Building ☐ Building Addition ☐ Change Of Use ☐ Residential ☐ Office ☐ Retail
☐ Manufacturing ☐ Warehouse/Distribution ☑ Parking Lot ☐ Other (specify) _____

Proposed Building square Feet or # of Units | Acreage of Site | IM Zoning

Check Review Required:

☑ Site Plan (major/minor)
☐ Subdivision # of lots _____
☐ PAD Review
☐ 14-403 Streets Review
☐ Flood Hazard
☐ Shoreland
☐ HistoricPreservation
☐ DEP Local Certification
☐ Zoning Conditional Use (ZBA/PB)
☐ Zoning Variance
☐ Other _____

Fees Paid: Site Pla $400.00 Subdivision _____ Engineer Review _____ Date 12/30/2004

Planning Approval Status:

Reviewer _____

☐ **Approved**
☐ **Approved w/Conditions** See Attached
☐ **Denied**

Approval Date _____ Approval Expiration _____ Extension to _____ ☐ Additional Sheets Attached

☐ OK to Issue Building Permit _____ signature _____ date _____

Performance Guarantee ☐ **Required*** ☐ **Not Required**

* No building permit may be issued until a performance guarantee has been submitted as indicated below

☐ Performance Guarantee Accepted	date	amount	expiration date
☐ Inspection Fee Paid	date	amount	
☐ Building Permit Issue	date		
☐ Performance Guarantee Reduced	date	remaining balance	signature
☐ Temporary Certificate of Occupancy	date	☐ Conditions (See Attached)	expiration date
☐ Final Inspection	date	signature	
☐ Certificate Of Occupancy	date		
☐ Performance Guarantee Released	date	signature	
☐ Defect Guarantee Submitted	submitted date	amount	expiration date
☐ Defect Guarantee Released	date	signature	

19970048
I. D. Number

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM
ADDENDUM

Leonard, Jane
Applicant

8/7/97
Application Date

118 Seaborne Dr, Yarmouth, ME 04096
Applicant's Mailing Address

Revere St 83-85
Project Name/Description

SAA
Consultant/Agent

83- 85 Revere St
Address of Proposed Site

124-J-001
Assessor's Reference: Chart-Block-Lot

Applicant or Agent Daytime Telephone, Fax

Planning Conditions for Approval

- see DRC's comments

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
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☐ Office ☐ Retail ☐ Manufacturing ☐ Warehouse/Distribution ☐ Parking Lot ☒ Other (specify) Curb Cut

Proposed Building square Feet or # of Units | Acreage of Site | Zoning

Check Review Required:

☒ Site Plan (major/minor)
☐ Subdivision # of lots ____
☐ PAD Review
☐ 14-403 Streets Review
☐ Flood Hazard
☐ Shoreland
☐ HistoricPreservation
☐ DEP Local Certification
☐ Zoning Conditional Use (ZBA/PB)
☐ Zoning Variance
☐ Other ____

Fees Paid: Site Plan $300.00 Subdivision ____ Engineer Review ____ Date: 8/7/97

DRC Approval Status: Reviewer Jim Wendel

☐ **Approved**
☒ **Approved w/Conditions** see attached
☐ **Denied**

Approval Date 9/4/97 Approval Expiration 9/4/98 Extension to ____ ☒ Additional Sheets Attached

☒ Condition Compliance Jim Wendel (signature) 9/4/97 (date)

Performance Guarantee ☐ **Required*** ☐ **Not Required**

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☐ Inspection Fee Paid	date	amount	
☐ Building Permit	date		
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DRC Conditions for Approval

- remove any stockpile of snow before March 1 of each year.
- a wood guardrail shall be installed from the stockade fence to Revere Street, set in about a foot from the property line.
- the 4" ditch sahll be maintained continuously to ensure drainage flows down the driveway and not onto the abuttor's property.

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

4. The Development Review Coordinator (874-8300 ext. 8722) must be notified five (5) working days prior to date required for final site inspection. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact the Planning Staff.

Sincerely,

Joseph E. Gray, Jr.
Director of Planning and Urban Development

cc: Alexander Jaegerman, Chief Planner
Kandice Talbot, Planner
P. Samuel Hoffses, Chief of Building Inspections
Marge Schmuckal, Zoning Administrator
Kathi Staples PE, City Engineer
Development Review Coordinator
William Bray, Deputy Director/City Traffic Engineer
Jeff Tarling, City Arborist
Natalie Burns, Associate Corporation Counsel
Lt. Gaylen McDougall, Fire Prevention
Mary Gresik, Building Permit Secretary
Kathleen Brown, Director of Economic Development
Susan Doughty, Assessor's Office
Approval Letter File

CITY OF PORTLAND

APPROVED SITE PLAN

SUBJECT TO DEPARTMENTAL CONDITIONS

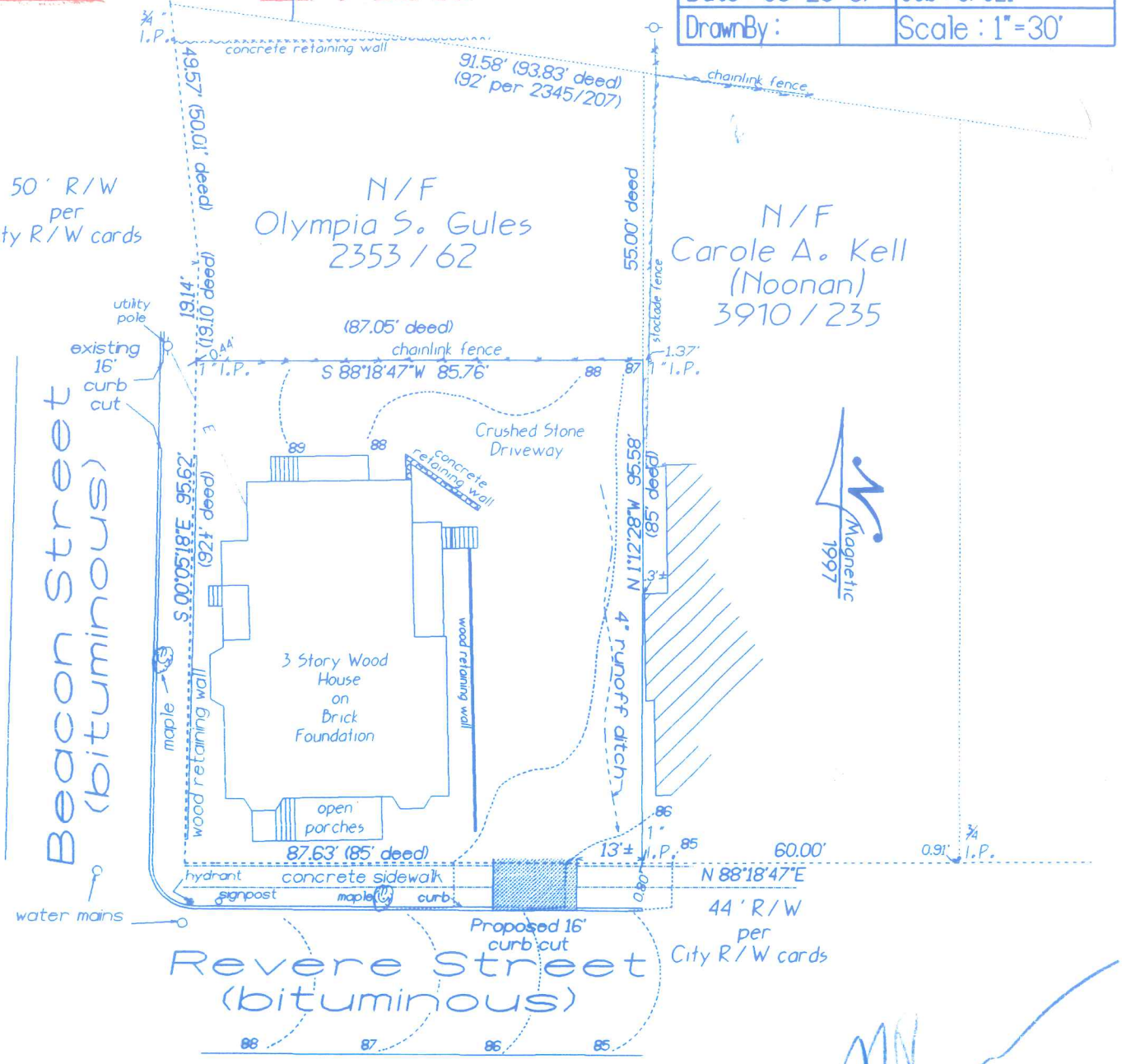
DATE OF APPROVAL 9/4/97

BOUNDARY SURVEY

83-85 Revere Street
Portland, Maine
for
Jane Leonard
Seaborne Drive
Yarmouth, Maine

BRUCE R. BOWMAN, Inc.
Professional Land Surveyor
Box 12A Cumberland, Maine (207) 829-3959 fax 829-3522

Date : 08-28-97	Job : 97021
DrawnBy :	Scale : 1" = 30'



I HEREBY CERTIFY that this survey conforms to the Maine Board of Licensure for Professional Land Surveyors, Category I, Condition III

From: Alex Jaegerman
To: kcote
Date: 9/5/97 9:36am
Subject: Jane Leonard 773-1990 ext. 159 -Reply

Kandi- You might want to confer with Rick, Jim or me to go over the conditions of approval. There should be no snow storage along the property line, (snow should be removed from the lot), and a wood guard rail should be installed from the stocade fence to Revere Street, set in about a foot from the property line. The 4" ditch is sufficient to drain, but there should be a condition that the ditch be maintained continuously to ensure drainage flows down the driveway and not onto the abuttor's lot. (I'm not positive the guardrail is essential, but it seemed a good idea at yesterday's meeting.) Please call Jane Leonard back.

Alex.

>>> Jennifer Dorr (Kandi Talbot) 09/04/97 04:30pm >>>
Please call her after 5:00 and leave a message on her machine as to the outcome of her issues that were taken up at this morning's staff meeting (regarding the curb cut)

August 5, 1997
118 Seaborne Drive
Yarmouth, Maine

The following is a request for a driveway curb cut at 83-85 Revere Street, Portland, Maine. Sidewalk improvements are currently underway with plans to block off this Revere Street access with a granite curbing.

The property is owned by George and Jane Leonard of Yarmouth, and has been owned by Jane since April 1979.

The building is a six-family with two bedroom units that are fully rented. The majority of the tenants own two cars.

For at least thirty years, and probably longer,[observation while formerly living in the neighborhood] tenants have driven over a low curbing from the parking lot onto Revere Street. There exists a curb cut at the Beacon Street entrance to the parking lot.

We submit that not granting this could create a traffic hazzard, as cars will find it necessary to back out of a driveway close to the Beacon/ Revere Street intersection. Winter plowing will be a nightmare. We are seeking a traffic pattern through our lot, not unlike that which exists at the Portland Public Works own office building.

The current parking entrance and exit system works well, please grant our request. We have waited eighteen long years for the crumbling sidewalk to be replaced. It will be an unhappy conclusion if, as a result, our parking lot is blocked.

George and Jane Leonard

From: Marge Schmuckal
To: kcote
Date: 8/7/97 11:20am
Subject: 83-85 Revere Street -

Kandi,
I checked our microfiche on this address and it does show that prior to 1957 (1924 & 1939) six dwelling units were in that building. So they are legally grandfathered for 6 units.

would require 2 spaces

From: Marge Schmuckal
To: kcote
Date: 8/7/97 11:20am
Subject: 83-85 Revere Street -

Kandi,
I checked our microfiche on this address and it does show that prior to 1957 (1924 & 1939) six dwelling units were in that building. So they are legally grandfathered for 6 units.

would require 12 spaces

From: Marge Schmuckal
To: kcote
Date: 8/7/97 11:28am
Subject: 83-85 Revere Street - even more

Kandi,
The next door neighbor who complained is Carol Noonan at 79 Revere Street (774-6633). Like I said, she is very concerned about the run-off into her property. Also the cars park directly under her windows, which sounds kind of close, maybe too close. But we can't really tell until we get a site plan with the proper information on it.

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM

I. D. Number

Leonard, Jane
Applicant

8/7/97
Application Date

118 Seaborne Dr, Yarmouth, ME 04096
Applicant's Mailing Address

Revere St 83-85
Project Name/Description

SAA
Consultant/Agent

83- 85 Revere St
Address of Proposed Site

Applicant or Agent Daytime Telephone, Fax

124-J-001
Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): ☐ New Building ☐ Building Addition ☐ Change Of Use ☐ Residential
☐ Office ☐ Retail ☐ Manufacturing ☐ Warehouse/Distribution ☐ Parking Lot ☒ Other (specify) Curb Cut

Proposed Building square Feet or # of Units | Acreage of Site | Zoning

Check Review Required:

☒ Site Plan (major/minor) ☐ Subdivision # of lots ☐ PAD Review ☐ 14-403 Streets Review
☐ Flood Hazard ☐ Shoreland ☐ HistoricPreservation ☐ DEP Local Certification
☐ Zoning Conditional Use (ZBA/PB) ☐ Zoning Variance ☐ Other

Fees Paid: Site Plan $300.00 Subdivision Engineer Review Date: 8/7/97

Planning Approval Status: Reviewer Kandice Talbot

☐ Approved ☒ Approved w/Conditions See Attached ☐ Denied

Approval Date 9/4/97 Approval Expiration 9/4/98 Extension to

☒ OK to Issue Building Permit Kandice Talbot (signature) 9/4/97 (date) ☐ Additional Sheets Attached

Performance Guarantee ☐ Required* ☐ Not Required

* No building permit may be issued until a performance guarantee has been submitted as indicated below

☐ Performance Guarantee Accepted	date	amount	expiration date
☐ Inspection Fee Paid	date	amount	
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☐ Performance Guarantee Reduced	date	remaining balance	signature
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DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207 775 1121
FAX 207 879 0896

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION
- TRAFFIC STUDIES AND MANAGEMENT

December 21, 2004

Ms. Sarah Hopkins
Planning Department
City of Portland
389 Congress Street
Portland, Maine 04101

Subject: Minor Site Plan Amendment Application
Capricorn Products - 1 Rice Street CBL #354-A-003

Dear Sarah:

On behalf of Capricorn Products, DeLuca-Hoffman Associates, Inc. has prepared the accompanying Minor Site Plan application materials for review and approval by the Portland Planning Authority. Attached please find nine (9) copies of a Site Plan Amendment Application for the subject project, and a check in the amount of $400.00 for the Capricorn Products site work improvements as shown on the attached drawings. The proposal includes the construction of a new driveway opening off Riverside Industrial Parkway and paving to allow improved truck and delivery access to the north side of the building.

The development was granted Site Plan approval by the Planning Authority on May 6, 2004. Subsequently, a revised Minor Site Plan application was submitted on August 20, 2004 to address minor modifications made to the site plan during construction. The current application is for additional work now contemplated by the owner. The principal purpose of the additional driveway entrance and paving is to improve truck access to the overhead door on the north side of the building. As currently configured, truck access is less than ideal, requiring multiple turning movements and truck circulation through the parking lot for access to the overhead door at the north side. The current tenant's needs are more than originally considered and therefore the owner is seeking to improve access conditions by installing a new driveway opening and paving additional area within which trucks may maneuver in and out of the loading area.

The site currently is accessed from openings along Rice Street. The proposed driveway will be located off Riverside Industrial Parkway, approximately 400 feet north of the Rice Street intersection. The driveway has been designed to meet the following standards in accordance with Section III of the City's Technical and Design Standards and Guidelines:

- Section III, Part 2 (b) – the driveway width will be 30 feet.
- Section III, Part 2 (c) – Granite curb with a radius of 50 feet will be installed to match into the street.
- Section III, Part 2 (d) – the new pavement area has been designed to allow turning movements of a semi-trailer truck (WB-50) in and out of the north side of the site.
- Section III, Part (e) (2) – the driveway has been located approximately 400 feet from the intersection of Rice Street.
- Section III, Part (f) – the site currently has driveway access off Rice Street. The proposed driveway will be the first and only driveway off Riverside Industrial Parkway. The applicant requests a waiver of the limitation of only one driveway allowed for ingress and egress as provided in this section.

The proposed work will result in increased stormwater runoff. An update to the previously completed stormwater assessment has been completed and is included with this submission. Stormwater runoff will be collected in a shallow swale and controlled for peak discharge as well as treated for water quality improvement. The new swale supplements the stormwater functions already provided by a small basin recently constructed at the front of the site.

Revised HydroCAD computations have been completed to supplement the original drainage report prepared for the original site plan application submitted and approved in the Spring of 2004. The following table summarizes the pre and post-development flow rates at the point of analysis, which is the City's drainage system in Riverside Industrial Parkway.

Flow Rates at Point of Interest Peak Flow Rate in cfs			
POI #	**Storm Event**	**Pre-development**	**Post-development**
	2-Year	7.77	7.91
1	10-Year	13.45	13.31
	25-Year	16.13	15.89

The updated computations and a copy of the post-development watershed plan accompany this submission.

An updated erosion control narrative also accompanies this submission.

No additional work related to utilities is proposed with the current development activity.

The following statements are provided in accordance with Section 14-525 (c):

(1) The proposed development activity includes the construction of a new access driveway off Riverside Industrial Parkway and the construction of new paved area to improve truck access to the north side of the existing building and access to an existing overhead door loading area.

(2) The project parcel size is 190,575 SF or 4.375 acres.

(3) There are no known easements or encumbrances on the property.

(4) The project will generate a small amount of construction debris that will be disposed of at the Riverside Street disposal facility or other approved location. After completion, operations from the buildings are expected to generate only a small amount of solid waste that will continue to be disposed of in onsite dumpsters that are emptied on a weekly basis by an area trash hauler.

(5) Public water, sewer, and power, all of which are currently servicing the site and the existing building. The proposed development activity warrants no further improvements to utility services. No capacity issues currently exist on the property for water or power. The use of the buildings for industrial/warehouse space does not result in excess wastewater flows to the system.

(6) The project will maintain the existing drainage patterns to the extent practicable. The majority of the runoff from the site ultimately discharges to the existing collection system in Riverside Industrial Parkway. Postdevelopment stormwater discharges will not significantly increase as a result of onsite temporary storage areas to control peak flows and to provide water quality treatment.

(7) Erosion control measures including silt barriers, inlet sediment barriers, inlet and outlet riprap channels, vegetative swales, and stormwater discharge riprap aprons will be provided. The project includes constructing new paved and gravel surfaces. The work is anticipated to begin and be completed as soon as approvals are granted. Paving will take place in the spring.

(8) The project is subject to a Minor Site Plan review by the Portland Planning Authority.

(9) Alpine Realty Corp. has previously provided evidence of financial capacity to undertake their activities on the property. It is apparent the applicant has sufficient capacity to undertake the project.

(10) A copy of the deed was previously provided to the Planning Authority supporting right, title or interest in the property.

(11) The site contains no unusual natural areas, wildlife or fisheries habitats or archaeological sites.

(12) DeLuca-Hoffman Associates, Inc. will provide CADD.DXF files to the department upon final approval of the plan.

(13) The proposed project will generate only a modest amount of recyclable materials. Paper and cardboard are collected and containerized for removal by area paper and cardboard recyclers such as W. M. Goodman & Sons. This material will continue to be collected inside the buildings in plastic containers supplied by the collection vendors. The materials will be collected on a regular basis and removed from the site by a selected vendor.

We trust the accompanying plans and narratives meet the City's requirements and will allow the Planning Authority to approve the proposed activities.

Please contact our office with any questions regarding this matter.

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Stephen Bushey, P.E.
Senior Engineer

DDA/sq/JN2472.01/Hopkins-12-16-04

Enclosures: 9 copies – Site Plan Amendment Application
9 copies – Drawing Sheet C-1
Check in the amount of $400.00

c: John Wise, Alpine Realty, with enclosures
John Shields, Archetype, P.A., with enclosures

City of Portland Site Plan Application

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

Address of Proposed Development: 1 Rice Street		**Zone:** IM
Total Square Footage of Proposed Structure: ----	**Square Footage of Lot:**	
Tax Assessor's Chart, Block & Lot: Chart# 354 Block# A Lot# 003	**Property owner's mailing address:** Alpine Realty Corp., 120 Exchange St. Portland, ME 04101	**Telephone #:** c/o DeLuca-Hoffman 207-775-1121
Consultant/Agent, mailing address, phone # & contact person: DeLuca-Hoffman Assoc., Inc. 778 Main St., Ste. 8 South Portland, ME 04106 207-775-1121	**Applicant's name, mailing address, telephone #/Fax#/Pager#:** Alpine Realty Corp., 120 Exchange St. Portland, ME 04101	**Project name:** Driveway and Pavement Expansion

Proposed Development (check all that apply)

___New Building ___Building Addition ___Change of Use ___Residential ___Office ___Retail ___Manufacturing
___Warehouse/Distribution __X_Parking lot
___Subdivision ($500.00) + amount of lots____ ($25.00 per lot) $_____
___Site Location of Development ($3,000.00)
(except for residential projects which shall be $200.00 per lot_____)
___Traffic Movement ($1,000.00) ___Stormwater 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)

Minor Site Plan Review

_X_Less than 10,000 sq. ft. ($400.00)
___After-the-fact Review ($1,000.00 + applicable application fee)

Plan Amendments

___Planning Staff Review ($250.00)
___Planning Board Review ($500.00)

- Please see next page –

Who billing will be sent to: (Company, Contact Person, Address, Phone #)

Alpine Realty Corp.
120 Exchange Street
Portland ME 04101 Attn: John Wise

Submittals shall include (9) 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 check list

Amendment to Plans: Amendment applications should include 6 separate packets of the above (a, b, & c)

ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM

Section 14-522 of the Zoning Ordinance outlines the process; copies are available at the counter at .50 per page (8.5 x11) you may also visit the web site: ci.portland.me.us chapter 14

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.

Signature of applicant:	**Date:** 12/21/04

This application is for site review ONLY, a building Permit application and associated fees will be required prior to construction.

Development in Portland

The City of Portland has instituted the following fees to recover the costs of reviewing development proposals under the Site Plan and Subdivision ordinances: application fee; engineering fee; and inspection fee. Performance and defect guarantees are also required by ordinance to cover all site work proposed.

The **Application Fee** covers general planning and administrative processing costs, and is paid at the time of application.

The Planning Division is required to send notices to neighbors upon receipt of an application and prior to public meetings. The applicant will be billed for mailing and advertisement costs. Applicants for development will be charged an **Engineering Review Fee.** This fee is charged by the Planning Division for review of on-site improvements of a civil engineering nature, such as storm water management as well as the engineering analysis of related improvements within the public right-of-way, such as public streets and utility connections, as assessed by the Department of Public Works. The Engineering Review fee must be paid before a building permit can be issued. Monthly invoices are sent out by the Planning Division on a monthly basis to cover engineering costs.

A **Performance Guarantee** will be required following approval of development plans. This guarantee covers all required improvements within the public right-of-way, plus certain site improvements such as landscaping, paving, and drainage improvements. The Planning Division will provide a cost estimate form for figuring the amount of the performance guarantee, as well as sample form letters to be filled out by a financial institution.

An **Inspection Fee** must also be submitted to cover inspections to ensure that sites are developed in accordance with the approved plan. The inspection fee is 2.0% of the performance guarantee amount, or as assessed by the planning or public works engineer. The minimum inspection fee is $300 for development, unless no site improvements are proposed. Public Works inspects work within the City right-of-way and Planning inspects work within the site including pipe-laying and connections. (The contractor must work with inspectors to coordinate timely inspections, and should provide adequate notice before inspections, especially in the case of final inspection.)

Upon completion of a development project, the performance guarantee is released, and a **Defect Guarantee** in the amount of 10% of the performance guarantee must be provided. The Defect Guarantee will be released after a year.

Other reimbursements to the City include actual or apportioned costs for advertising and mailed notices. All fees shall be paid prior to the issuance of any building permit.

For more information on the fees or review process, please call the Planning Division at 874-8719 or 874-8721.

City Of Portland Site Plan Checklist

~~1 Rice Street~~ 12 RICE STREET

Project Name, Address of Project — Application Number

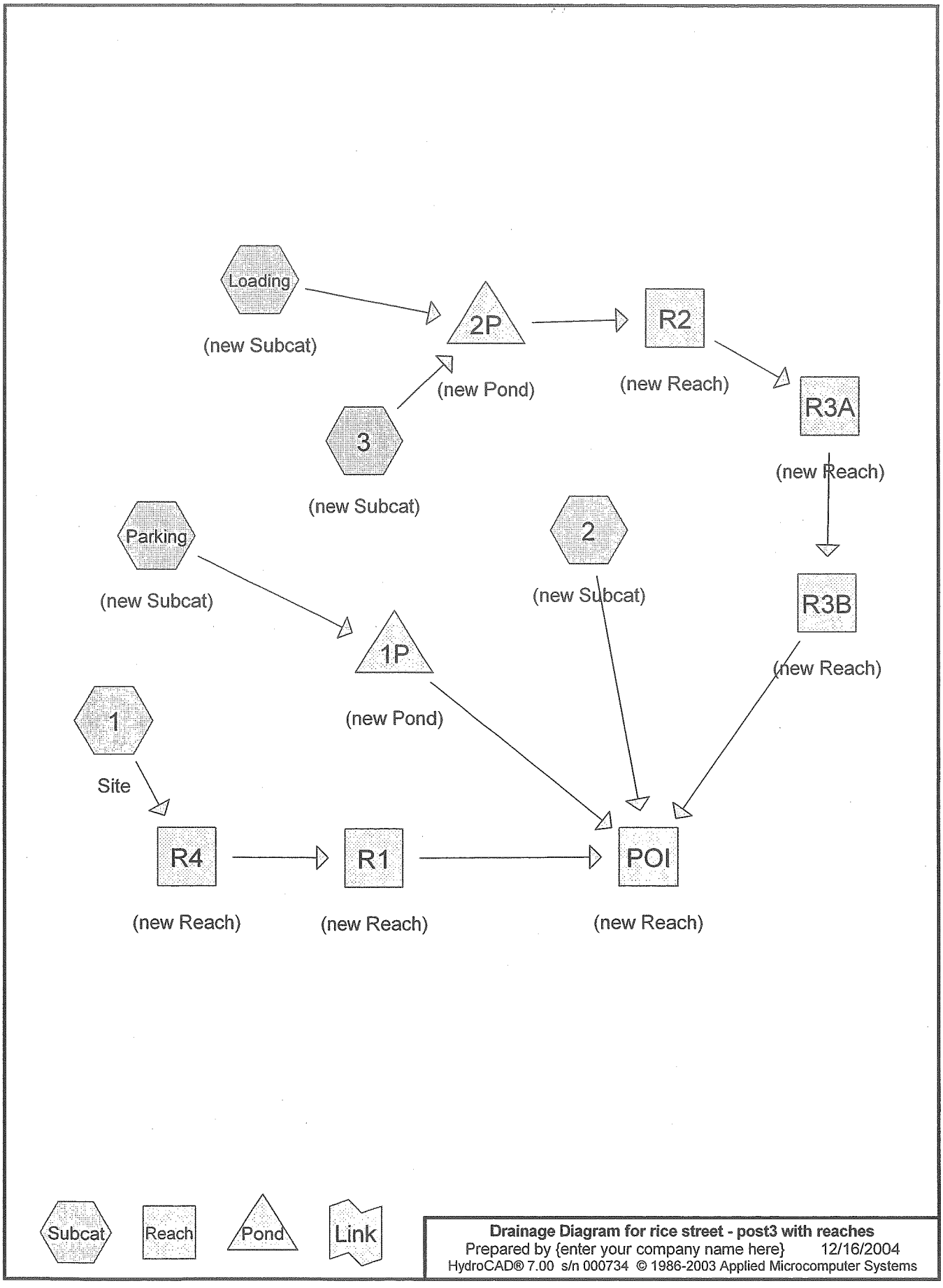
Submitted () & Date	Item	Required Information	Section 14-525 (b,c)
	(1)	Standard boundary survey (stamped by a registered surveyor, at a scale of not less than 1 inch to 100 feet and including:	1
X	(2)	Name and address of applicant and name of proposed development	a
X	(3)	Scale and north points	b
X	(4)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

N/A	(43)	A list of all state and federal regulatory approvals to which the development may be subject to	8
x	(44)	The status of any pending applications	8
x	(45)	Anticipated timeframe for obtaining such permits	h8
N/A	(46)	A letter of non jurisdiction	h8
Prev. submitted	(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; and
- a noise study;
- an environmental impact study;
- a sun shadow study;
- a study of particulates and any other noxious emissions;
- a wind impact analysis.

Other comments:


Loading
(new Subcat)
2P
(new Pond)
R2
(new Reach)
R3A
(new Reach)
3
(new Subcat)
Parking
(new Subcat)
2
(new Subcat)
R3B
(new Reach)
1P
(new Pond)
1
Site
R4
(new Reach)
R1
(new Reach)
POI
(new Reach)
Subcat
Reach
Pond
Link
Drainage Diagram for rice street - post3 with reaches
Prepared by {enter your company name here} 12/16/2004
HydroCAD® 7.00 s/n 000734 © 1986-2003 Applied Microcomputer Systems

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: Site Runoff Area=22,848 sf Runoff Depth=1.77"
Flow Length=110' Tc=24.8 min CN=89 Runoff=0.72 cfs 0.077 af

Subcatchment 2: (new Subcat) Runoff Area=117,307 sf Runoff Depth=2.13"
Flow Length=760' Tc=3.2 min CN=93 Runoff=7.46 cfs 0.478 af

Subcatchment 3: (new Subcat) Runoff Area=3,300 sf Runoff Depth=2.41"
Flow Length=160' Tc=1.5 min CN=96 Runoff=0.23 cfs 0.015 af

Subcatchment Loading: (new Subcat) Runoff Area=34,000 sf Runoff Depth=1.70"
Flow Length=150' Tc=13.5 min CN=88 Runoff=1.30 cfs 0.110 af

Subcatchment Parking: (new Subcat) Runoff Area=20,960 sf Runoff Depth=2.13"
Flow Length=140' Tc=2.0 min CN=93 Runoff=1.35 cfs 0.085 af

Reach POI: (new Reach) Inflow=7.91 cfs 0.758 af
Outflow=7.91 cfs 0.758 af

Reach R1: (new Reach) Peak Depth=0.16' Max Vel=1.9 fps Inflow=0.71 cfs 0.077 af
n=0.030 L=400.0' S=0.0225 '/' Capacity=5.58 cfs Outflow=0.70 cfs 0.077 af

Reach R2: (new Reach) Peak Depth=0.11' Max Vel=1.2 fps Inflow=0.32 cfs 0.120 af
n=0.024 L=320.0' S=0.0094 '/' Capacity=6.27 cfs Outflow=0.32 cfs 0.119 af

Reach R3A: (new Reach) Peak Depth=0.20' Max Vel=2.8 fps Inflow=0.32 cfs 0.119 af
D=12.0" n=0.013 L=130.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.32 cfs 0.119 af

Reach R3B: (new Reach) Peak Depth=0.18' Max Vel=2.7 fps Inflow=0.32 cfs 0.119 af
D=18.0" n=0.013 L=380.0' S=0.0100 '/' Capacity=10.50 cfs Outflow=0.32 cfs 0.119 af

Reach R4: (new Reach) Peak Depth=0.37' Max Vel=2.3 fps Inflow=0.72 cfs 0.077 af
D=15.0" n=0.013 L=75.0' S=0.0033 '/' Capacity=3.73 cfs Outflow=0.71 cfs 0.077 af

Pond 1P: (new Pond) Peak Elev=78.51' Storage=1,520 cf Inflow=1.35 cfs 0.085 af
Outflow=0.16 cfs 0.085 af

Pond 2P: (new Pond) Peak Elev=79.33' Storage=2,293 cf Inflow=1.39 cfs 0.126 af
Outflow=0.32 cfs 0.120 af

Total Runoff Area = 4.555 ac Runoff Volume = 0.766 af Average Runoff Depth = 2.02"

Subcatchment 1: Site

Runoff = 0.72 cfs @ 12.34 hrs, Volume= 0.077 af, Depth= 1.77"

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

Area (sf)	CN	Description
11,632	98	impervious
3,240	79	Woods, Fair, HSG D
7,976	80	>75% Grass cover, Good, HSG D
22,848	89	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	80	0.0100	0.1		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.00"
0.3	30	0.0100	1.5		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
24.8	110	Total			

Subcatchment 2: (new Subcat)

Runoff = 7.46 cfs @ 12.05 hrs, Volume= 0.478 af, Depth= 2.13"

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

Area (sf)	CN	Description
84,420	98	imp
12,895	79	Woods, Fair, HSG D
19,992	80	>75% Grass cover, Good, HSG D
117,307	93	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	60	0.0100	0.9		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.8	220	0.0100	4.5	3.56	**Circular Channel (pipe),** Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
1.3	480	0.0100	5.9	10.50	**Circular Channel (pipe),** Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013
3.2	760	Total			

Subcatchment 3: (new Subcat)

Runoff = 0.23 cfs @ 12.02 hrs, Volume= 0.015 af, Depth= 2.41"

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

Area (sf)	CN	Description
3,000	98	Imp
300	80	>75% Grass cover, Good, HSG D
3,300	96	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	50	0.0100	0.9		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.6	110	0.0050	2.8	1.55	**Circular Channel (pipe),** Diam= 10.0" Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013
1.5	160	Total			

Subcatchment Loading: (new Subcat)

Runoff = 1.30 cfs @ 12.19 hrs, Volume= 0.110 af, Depth= 1.70"

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

Area (sf)	CN	Description
14,720	98	Paved parking & roofs
8,640	79	Woods
10,640	80	Lawn D
34,000	88	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0200	0.1		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.00"
0.8	100	0.0100	2.0		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
13.5	150	Total			

Subcatchment Parking: (new Subcat)

Runoff = 1.35 cfs @ 12.03 hrs, Volume= 0.085 af, Depth= 2.13"

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

Area (sf)	CN	Description
15,440	98	Paved parking & roofs
5,520	80	>75% Grass cover, Good, HSG D
20,960	93	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	100	0.0100	1.0		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.3	40	0.0100	2.0		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.0	140	Total			

Reach POI: (new Reach)

Inflow Area = 4.555 ac, Inflow Depth = 2.00"
Inflow = 7.91 cfs @ 12.05 hrs, Volume= 0.758 af
Outflow = 7.91 cfs @ 12.05 hrs, Volume= 0.758 af, Atten= 0%, Lag= 0.0 min

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

Reach R1: (new Reach)

Inflow Area = 0.525 ac, Inflow Depth = 1.77"
Inflow = 0.71 cfs @ 12.36 hrs, Volume= 0.077 af
Outflow = 0.70 cfs @ 12.46 hrs, Volume= 0.077 af, Atten= 2%, Lag= 5.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.9 fps, Min. Travel Time= 3.4 min
Avg. Velocity = 0.7 fps, Avg. Travel Time= 9.6 min

Peak Depth= 0.16' @ 12.40 hrs
Capacity at bank full= 5.58 cfs
2.00' x 0.50' deep channel, n= 0.030 Length= 400.0' Slope= 0.0225 '/'
Side Slope Z-value= 2.0 '/'

Reach R2: (new Reach)

Inflow Area = 0.856 ac, Inflow Depth = 1.68"
Inflow = 0.32 cfs @ 12.70 hrs, Volume= 0.120 af
Outflow = 0.32 cfs @ 12.84 hrs, Volume= 0.119 af, Atten= 0%, Lag= 8.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.2 fps, Min. Travel Time= 4.5 min
Avg. Velocity = 0.6 fps, Avg. Travel Time= 8.3 min

Peak Depth= 0.11' @ 12.76 hrs
Capacity at bank full= 6.27 cfs
Inlet Invert= 77.00', Outlet Invert= 74.00'
2.00' x 0.50' deep channel, n= 0.024 Length= 320.0' Slope= 0.0094 '/'
Side Slope Z-value= 5.0 '/'

Reach R3A: (new Reach)

Inflow Area = 0.856 ac, Inflow Depth = 1.67"
Inflow = 0.32 cfs @ 12.84 hrs, Volume= 0.119 af
Outflow = 0.32 cfs @ 12.86 hrs, Volume= 0.119 af, Atten= 0%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.8 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.6 fps, Avg. Travel Time= 1.3 min

Peak Depth= 0.20' @ 12.85 hrs
Capacity at bank full= 3.56 cfs
Inlet Invert= 74.00', Outlet Invert= 72.70'
12.0" Diameter Pipe n= 0.013 Length= 130.0' Slope= 0.0100 '/'

Reach R3B: (new Reach)

Inflow Area = 0.856 ac, Inflow Depth = 1.67"
Inflow = 0.32 cfs @ 12.86 hrs, Volume= 0.119 af
Outflow = 0.32 cfs @ 12.93 hrs, Volume= 0.119 af, Atten= 0%, Lag= 4.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.7 fps, Min. Travel Time= 2.4 min
Avg. Velocity = 1.6 fps, Avg. Travel Time= 4.0 min

Peak Depth= 0.18' @ 12.89 hrs
Capacity at bank full= 10.50 cfs
Inlet Invert= 72.70', Outlet Invert= 68.90'
18.0" Diameter Pipe n= 0.013 Length= 380.0' Slope= 0.0100 '/'

Reach R4: (new Reach)

Inflow Area = 0.525 ac, Inflow Depth = 1.77"
Inflow = 0.72 cfs @ 12.34 hrs, Volume= 0.077 af
Outflow = 0.71 cfs @ 12.36 hrs, Volume= 0.077 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.3 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.0 fps, Avg. Travel Time= 1.3 min

Peak Depth= 0.37' @ 12.35 hrs
Capacity at bank full= 3.73 cfs
Inlet Invert= 77.75', Outlet Invert= 77.50'
15.0" Diameter Pipe n= 0.013 Length= 75.0' Slope= 0.0033 '/'

Pond 1P: (new Pond)

Inflow Area = 0.481 ac, Inflow Depth = 2.13"
Inflow = 1.35 cfs @ 12.03 hrs, Volume= 0.085 af
Outflow = 0.16 cfs @ 12.56 hrs, Volume= 0.085 af, Atten= 88%, Lag= 31.3 min
Primary = 0.16 cfs @ 12.56 hrs, Volume= 0.085 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 78.51' @ 12.56 hrs Surf.Area= 1,126 sf Storage= 1,520 cf
Plug-Flow detention time= 91.1 min calculated for 0.085 af (99% of inflow)
Center-of-Mass det. time= 87.3 min (848.3 - 761.1)

#	Invert	Avail.Storage	Storage Description
1	76.00'	6,018 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	160	0	0
77.00	416	288	288
78.00	896	656	944
79.00	1,344	1,120	2,064
80.00	1,984	1,664	3,728
81.00	2,595	2,290	6,018

#	Routing	Invert	Outlet Devices
1	Primary	76.00'	**2.0" Vert. Orifice/Grate** C= 0.600
2	Primary	78.97'	**6.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.16 cfs @ 12.56 hrs HW=78.51' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.16 cfs @ 7.5 fps)
└—**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 2P: (new Pond)

Inflow Area = 0.856 ac, Inflow Depth = 1.76"
Inflow = 1.39 cfs @ 12.18 hrs, Volume= 0.126 af
Outflow = 0.32 cfs @ 12.70 hrs, Volume= 0.120 af, Atten= 77%, Lag= 31.0 min
Primary = 0.32 cfs @ 12.70 hrs, Volume= 0.120 af

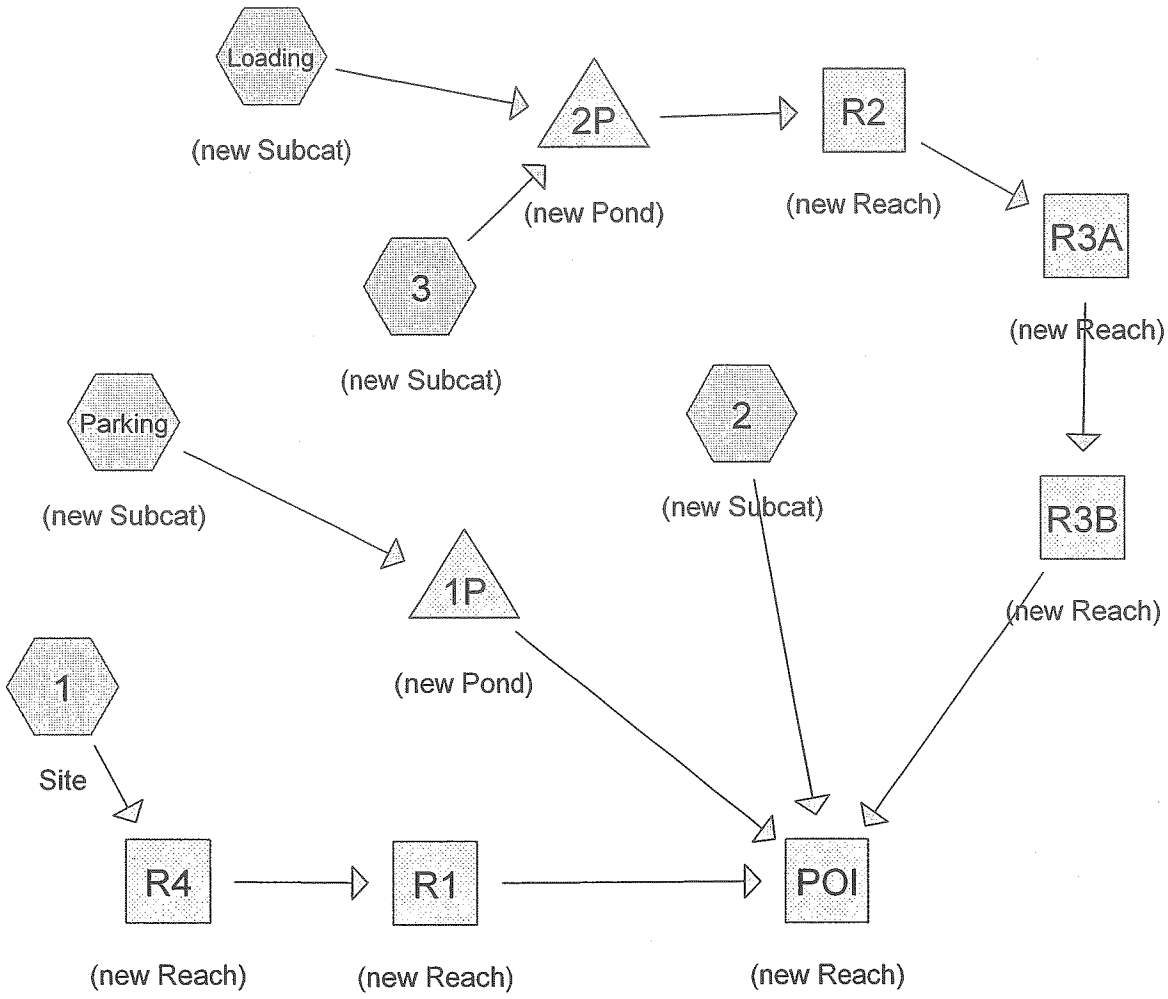
Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 79.33' @ 12.70 hrs Surf.Area= 2,132 sf Storage= 2,293 cf
Plug-Flow detention time= 95.0 min calculated for 0.120 af (95% of inflow)
Center-of-Mass det. time= 78.1 min (862.5 - 784.4)

#	Invert	Avail.Storage	Storage Description
1	78.00'	6,752 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
78.00	1,184	0	0
79.00	1,920	1,552	1,552
80.00	2,560	2,240	3,792
81.00	3,360	2,960	6,752

#	Routing	Invert	Outlet Devices
1	Primary	78.00'	**4.0" x 25.0' long Culvert** CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 77.88' S= 0.0048 '/' n= 0.013 Cc= 0.900
2	Primary	80.50'	**10.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.32 cfs @ 12.70 hrs HW=79.33' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.32 cfs @ 3.7 fps)
└—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)



Subcat Reach Pond Link

Drainage Diagram for rice street - post3 with reaches
Prepared by {enter your company name here} 12/16/2004

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: Site Runoff Area=22,848 sf Runoff Depth=3.27"
Flow Length=110' Tc=24.8 min CN=89 Runoff=1.29 cfs 0.143 af

Subcatchment 2: (new Subcat) Runoff Area=117,307 sf Runoff Depth=3.69"
Flow Length=760' Tc=3.2 min CN=93 Runoff=12.54 cfs 0.828 af

Subcatchment 3: (new Subcat) Runoff Area=3,300 sf Runoff Depth=3.98"
Flow Length=160' Tc=1.5 min CN=96 Runoff=0.37 cfs 0.025 af

Subcatchment Loading: (new Subcat) Runoff Area=34,000 sf Runoff Depth=3.18"
Flow Length=150' Tc=13.5 min CN=88 Runoff=2.38 cfs 0.207 af

Subcatchment Parking: (new Subcat) Runoff Area=20,960 sf Runoff Depth=3.69"
Flow Length=140' Tc=2.0 min CN=93 Runoff=2.26 cfs 0.148 af

Reach POI: (new Reach) Inflow=13.31 cfs 1.335 af
Outflow=13.31 cfs 1.335 af

Reach R1: (new Reach) Peak Depth=0.22' Max Vel=2.4 fps Inflow=1.29 cfs 0.143 af
n=0.030 L=400.0' S=0.0225 '/' Capacity=5.58 cfs Outflow=1.27 cfs 0.142 af

Reach R2: (new Reach) Peak Depth=0.13' Max Vel=1.3 fps Inflow=0.43 cfs 0.223 af
n=0.024 L=320.0' S=0.0094 '/' Capacity=6.27 cfs Outflow=0.43 cfs 0.222 af

Reach R3A: (new Reach) Peak Depth=0.24' Max Vel=3.1 fps Inflow=0.43 cfs 0.222 af
D=12.0" n=0.013 L=130.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.43 cfs 0.221 af

Reach R3B: (new Reach) Peak Depth=0.21' Max Vel=2.9 fps Inflow=0.43 cfs 0.221 af
D=18.0" n=0.013 L=380.0' S=0.0100 '/' Capacity=10.50 cfs Outflow=0.43 cfs 0.221 af

Reach R4: (new Reach) Peak Depth=0.51' Max Vel=2.8 fps Inflow=1.29 cfs 0.143 af
D=15.0" n=0.013 L=75.0' S=0.0033 '/' Capacity=3.73 cfs Outflow=1.29 cfs 0.143 af

Pond 1P: (new Pond) Peak Elev=79.32' Storage=2,599 cf Inflow=2.26 cfs 0.148 af
Outflow=0.49 cfs 0.144 af

Pond 2P: (new Pond) Peak Elev=80.25' Storage=4,542 cf Inflow=2.53 cfs 0.232 af
Outflow=0.43 cfs 0.223 af

Total Runoff Area = 4.555 ac Runoff Volume = 1.351 af Average Runoff Depth = 3.56"

Subcatchment 1: Site

Runoff = 1.29 cfs @ 12.33 hrs, Volume= 0.143 af, Depth= 3.27"

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

Area (sf)	CN	Description
11,632	98	impervious
3,240	79	Woods, Fair, HSG D
7,976	80	>75% Grass cover, Good, HSG D
22,848	89	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	80	0.0100	0.1		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.00"
0.3	30	0.0100	1.5		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
24.8	110	Total			

Subcatchment 2: (new Subcat)

Runoff = 12.54 cfs @ 12.05 hrs, Volume= 0.828 af, Depth= 3.69"

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

Area (sf)	CN	Description
84,420	98	imp
12,895	79	Woods, Fair, HSG D
19,992	80	>75% Grass cover, Good, HSG D
117,307	93	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	60	0.0100	0.9		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.8	220	0.0100	4.5	3.56	**Circular Channel (pipe),** Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
1.3	480	0.0100	5.9	10.50	**Circular Channel (pipe),** Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013
3.2	760	Total			

Subcatchment 3: (new Subcat)

Runoff = 0.37 cfs @ 12.02 hrs, Volume= 0.025 af, Depth= 3.98"

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

Area (sf)	CN	Description
3,000	98	Imp
300	80	>75% Grass cover, Good, HSG D
3,300	96	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	50	0.0100	0.9		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.6	110	0.0050	2.8	1.55	**Circular Channel (pipe),** Diam= 10.0" Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013
1.5	160	Total			

Subcatchment Loading: (new Subcat)

Runoff = 2.38 cfs @ 12.18 hrs, Volume= 0.207 af, Depth= 3.18"

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

Area (sf)	CN	Description
14,720	98	Paved parking & roofs
8,640	79	Woods
10,640	80	Lawn D
34,000	88	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0200	0.1		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.00"
0.8	100	0.0100	2.0		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
13.5	150	Total			

Subcatchment Parking: (new Subcat)

Runoff = 2.26 cfs @ 12.03 hrs, Volume= 0.148 af, Depth= 3.69"

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

Area (sf)	CN	Description
15,440	98	Paved parking & roofs
5,520	80	>75% Grass cover, Good, HSG D
20,960	93	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	100	0.0100	1.0		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.3	40	0.0100	2.0		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.0	140	Total			

Reach POI: (new Reach)

Inflow Area = 4.555 ac, Inflow Depth = 3.52"
Inflow = 13.31 cfs @ 12.05 hrs, Volume= 1.335 af
Outflow = 13.31 cfs @ 12.05 hrs, Volume= 1.335 af, Atten= 0%, Lag= 0.0 min

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

Reach R1: (new Reach)

Inflow Area = 0.525 ac, Inflow Depth = 3.27"
Inflow = 1.29 cfs @ 12.35 hrs, Volume= 0.143 af
Outflow = 1.27 cfs @ 12.43 hrs, Volume= 0.142 af, Atten= 1%, Lag= 4.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.4 fps, Min. Travel Time= 2.8 min
Avg. Velocity = 0.8 fps, Avg. Travel Time= 8.2 min

Peak Depth= 0.22' @ 12.38 hrs
Capacity at bank full= 5.58 cfs
2.00' x 0.50' deep channel, n= 0.030 Length= 400.0' Slope= 0.0225 '/'
Side Slope Z-value= 2.0 '/'

Reach R2: (new Reach)

Inflow Area = 0.856 ac, Inflow Depth = 3.12"
Inflow = 0.43 cfs @ 12.81 hrs, Volume= 0.223 af
Outflow = 0.43 cfs @ 12.94 hrs, Volume= 0.222 af, Atten= 0%, Lag= 7.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.3 fps, Min. Travel Time= 4.1 min
Avg. Velocity = 0.8 fps, Avg. Travel Time= 6.4 min

Peak Depth= 0.13' @ 12.87 hrs
Capacity at bank full= 6.27 cfs
Inlet Invert= 77.00', Outlet Invert= 74.00'
2.00' x 0.50' deep channel, n= 0.024 Length= 320.0' Slope= 0.0094 '/'
Side Slope Z-value= 5.0 '/'

Reach R3A: (new Reach)

Inflow Area = 0.856 ac, Inflow Depth = 3.11"
Inflow = 0.43 cfs @ 12.94 hrs, Volume= 0.222 af
Outflow = 0.43 cfs @ 12.96 hrs, Volume= 0.221 af, Atten= 0%, Lag= 1.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.1 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 2.1 fps, Avg. Travel Time= 1.1 min

Peak Depth= 0.24' @ 12.94 hrs
Capacity at bank full= 3.56 cfs
Inlet Invert= 74.00', Outlet Invert= 72.70'
12.0" Diameter Pipe n= 0.013 Length= 130.0' Slope= 0.0100 '/'

Reach R3B: (new Reach)

Inflow Area = 0.856 ac, Inflow Depth = 3.10"
Inflow = 0.43 cfs @ 12.96 hrs, Volume= 0.221 af
Outflow = 0.43 cfs @ 13.02 hrs, Volume= 0.221 af, Atten= 0%, Lag= 3.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.9 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 2.0 fps, Avg. Travel Time= 3.2 min

Peak Depth= 0.21' @ 12.98 hrs
Capacity at bank full= 10.50 cfs
Inlet Invert= 72.70', Outlet Invert= 68.90'
18.0" Diameter Pipe n= 0.013 Length= 380.0' Slope= 0.0100 '/'

Reach R4: (new Reach)

Inflow Area = 0.525 ac, Inflow Depth = 3.27"
Inflow = 1.29 cfs @ 12.33 hrs, Volume= 0.143 af
Outflow = 1.29 cfs @ 12.35 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.8 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.1 fps, Avg. Travel Time= 1.1 min

Peak Depth= 0.51' @ 12.34 hrs
Capacity at bank full= 3.73 cfs
Inlet Invert= 77.75', Outlet Invert= 77.50'
15.0" Diameter Pipe n= 0.013 Length= 75.0' Slope= 0.0033 '/'

Pond 1P: (new Pond)

Inflow Area = 0.481 ac, Inflow Depth = 3.69"
Inflow = 2.26 cfs @ 12.03 hrs, Volume= 0.148 af
Outflow = 0.49 cfs @ 12.42 hrs, Volume= 0.144 af, Atten= 78%, Lag= 22.9 min
Primary = 0.49 cfs @ 12.42 hrs, Volume= 0.144 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 79.32' @ 12.42 hrs Surf.Area= 1,550 sf Storage= 2,599 cf
Plug-Flow detention time= 112.5 min calculated for 0.144 af (98% of inflow)
Center-of-Mass det. time= 102.1 min (851.7 - 749.6)

#	Invert	Avail.Storage	Storage Description
1	76.00'	6,018 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	160	0	0
77.00	416	288	288
78.00	896	656	944
79.00	1,344	1,120	2,064
80.00	1,984	1,664	3,728
81.00	2,595	2,290	6,018

#	Routing	Invert	Outlet Devices
1	Primary	76.00'	**2.0" Vert. Orifice/Grate** C= 0.600
2	Primary	78.97'	**6.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.49 cfs @ 12.42 hrs HW=79.32' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.19 cfs @ 8.7 fps)
└─**2=Orifice/Grate** (Orifice Controls 0.30 cfs @ 2.0 fps)

Pond 2P: (new Pond)

Inflow Area = 0.856 ac, Inflow Depth = 3.25"
Inflow = 2.53 cfs @ 12.18 hrs, Volume= 0.232 af
Outflow = 0.43 cfs @ 12.81 hrs, Volume= 0.223 af, Atten= 83%, Lag= 37.8 min
Primary = 0.43 cfs @ 12.81 hrs, Volume= 0.223 af

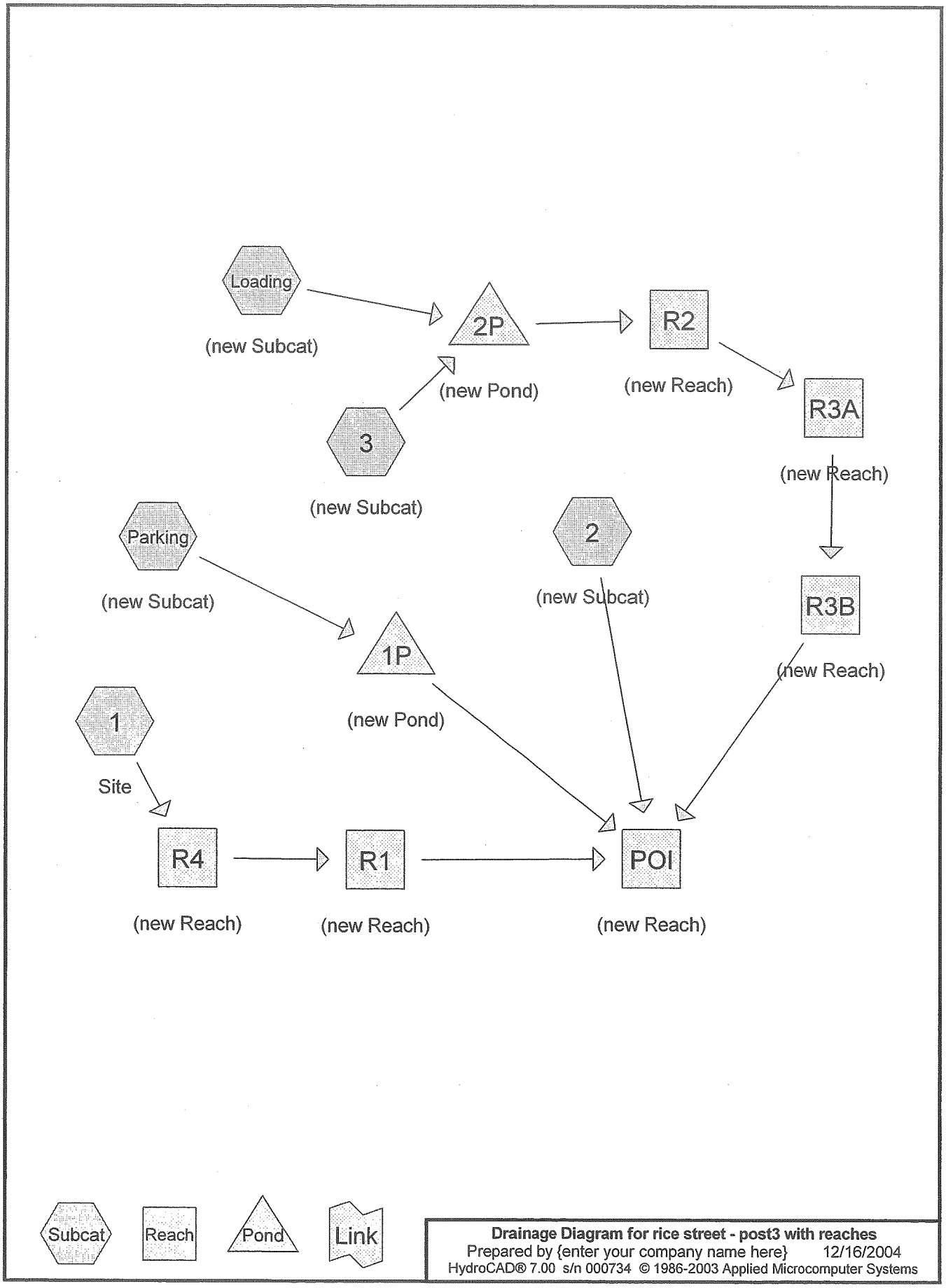
Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 80.25' @ 12.81 hrs Surf.Area= 2,763 sf Storage= 4,542 cf
Plug-Flow detention time= 124.0 min calculated for 0.223 af (96% of inflow)
Center-of-Mass det. time= 108.7 min (879.6 - 770.9)

#	Invert	Avail.Storage	Storage Description
1	78.00'	6,752 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
78.00	1,184	0	0
79.00	1,920	1,552	1,552
80.00	2,560	2,240	3,792
81.00	3,360	2,960	6,752

#	Routing	Invert	Outlet Devices
1	Primary	78.00'	**4.0" x 25.0' long Culvert** CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 77.88' S= 0.0048 '/' n= 0.013 Cc= 0.900
2	Primary	80.50'	**10.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.43 cfs @ 12.81 hrs HW=80.25' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.43 cfs @ 5.0 fps)
└—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)


Loading
(new Subcat)
2P
(new Pond)
R2
(new Reach)
R3A
(new Reach)
3
(new Subcat)
Parking
(new Subcat)
2
(new Subcat)
R3B
(new Reach)
1P
(new Pond)
1
Site
R4
(new Reach)
R1
(new Reach)
POI
(new Reach)
Subcat
Reach
Pond
Link
Drainage Diagram for rice street - post3 with reaches
Prepared by {enter your company name here} 12/16/2004
HydroCAD® 7.00 s/n 000734 © 1986-2003 Applied Microcomputer Systems

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: Site Runoff Area=22,848 sf Runoff Depth=4.00"
Flow Length=110' Tc=24.8 min CN=89 Runoff=1.56 cfs 0.175 af

Subcatchment 2: (new Subcat) Runoff Area=117,307 sf Runoff Depth=4.43"
Flow Length=760' Tc=3.2 min CN=93 Runoff=14.90 cfs 0.994 af

Subcatchment 3: (new Subcat) Runoff Area=3,300 sf Runoff Depth=4.72"
Flow Length=160' Tc=1.5 min CN=96 Runoff=0.44 cfs 0.030 af

Subcatchment Loading: (new Subcat) Runoff Area=34,000 sf Runoff Depth=3.91"
Flow Length=150' Tc=13.5 min CN=88 Runoff=2.89 cfs 0.254 af

Subcatchment Parking: (new Subcat) Runoff Area=20,960 sf Runoff Depth=4.43"
Flow Length=140' Tc=2.0 min CN=93 Runoff=2.69 cfs 0.178 af

Reach POI: (new Reach) Inflow=15.89 cfs 1.607 af
Outflow=15.89 cfs 1.607 af

Reach R1: (new Reach) Peak Depth=0.25' Max Vel=2.5 fps Inflow=1.56 cfs 0.175 af
n=0.030 L=400.0' S=0.0225 '/' Capacity=5.58 cfs Outflow=1.54 cfs 0.174 af

Reach R2: (new Reach) Peak Depth=0.18' Max Vel=1.6 fps Inflow=0.85 cfs 0.270 af
n=0.024 L=320.0' S=0.0094 '/' Capacity=6.27 cfs Outflow=0.82 cfs 0.269 af

Reach R3A: (new Reach) Peak Depth=0.33' Max Vel=3.7 fps Inflow=0.82 cfs 0.269 af
D=12.0" n=0.013 L=130.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.81 cfs 0.268 af

Reach R3B: (new Reach) Peak Depth=0.28' Max Vel=3.5 fps Inflow=0.81 cfs 0.268 af
D=18.0" n=0.013 L=380.0' S=0.0100 '/' Capacity=10.50 cfs Outflow=0.80 cfs 0.267 af

Reach R4: (new Reach) Peak Depth=0.56' Max Vel=2.9 fps Inflow=1.56 cfs 0.175 af
D=15.0" n=0.013 L=75.0' S=0.0033 '/' Capacity=3.73 cfs Outflow=1.56 cfs 0.175 af

Pond 1P: (new Pond) Peak Elev=79.52' Storage=2,935 cf Inflow=2.69 cfs 0.178 af
Outflow=0.72 cfs 0.171 af

Pond 2P: (new Pond) Peak Elev=80.56' Storage=5,460 cf Inflow=3.06 cfs 0.284 af
Outflow=0.85 cfs 0.270 af

Total Runoff Area = 4.555 ac Runoff Volume = 1.630 af Average Runoff Depth = 4.29"

Subcatchment 1: Site

Runoff = 1.56 cfs @ 12.33 hrs, Volume= 0.175 af, Depth= 4.00"

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

Area (sf)	CN	Description
11,632	98	impervious
3,240	79	Woods, Fair, HSG D
7,976	80	>75% Grass cover, Good, HSG D
22,848	89	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	80	0.0100	0.1		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.00"
0.3	30	0.0100	1.5		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
24.8	110	Total			

Subcatchment 2: (new Subcat)

Runoff = 14.90 cfs @ 12.05 hrs, Volume= 0.994 af, Depth= 4.43"

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

Area (sf)	CN	Description
84,420	98	imp
12,895	79	Woods, Fair, HSG D
19,992	80	>75% Grass cover, Good, HSG D
117,307	93	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	60	0.0100	0.9		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.8	220	0.0100	4.5	3.56	**Circular Channel (pipe),** Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
1.3	480	0.0100	5.9	10.50	**Circular Channel (pipe),** Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013
3.2	760	Total			

Subcatchment 3: (new Subcat)

Runoff = 0.44 cfs @ 12.02 hrs, Volume= 0.030 af, Depth= 4.72"

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

Area (sf)	CN	Description
3,000	98	Imp
300	80	>75% Grass cover, Good, HSG D
3,300	96	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	50	0.0100	0.9		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.6	110	0.0050	2.8	1.55	**Circular Channel (pipe),** Diam= 10.0" Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013
1.5	160	Total			

Subcatchment Loading: (new Subcat)

Runoff = 2.89 cfs @ 12.18 hrs, Volume= 0.254 af, Depth= 3.91"

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

Area (sf)	CN	Description
14,720	98	Paved parking & roofs
8,640	79	Woods
10,640	80	Lawn D
34,000	88	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0200	0.1		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.00"
0.8	100	0.0100	2.0		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
13.5	150	Total			

Subcatchment Parking: (new Subcat)

Runoff = 2.69 cfs @ 12.03 hrs, Volume= 0.178 af, Depth= 4.43"

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

Area (sf)	CN	Description
15,440	98	Paved parking & roofs
5,520	80	>75% Grass cover, Good, HSG D
20,960	93	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	100	0.0100	1.0		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.3	40	0.0100	2.0		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.0	140	Total			

Reach POI: (new Reach)

Inflow Area = 4.555 ac, Inflow Depth = 4.23"
Inflow = 15.89 cfs @ 12.05 hrs, Volume= 1.607 af
Outflow = 15.89 cfs @ 12.05 hrs, Volume= 1.607 af, Atten= 0%, Lag= 0.0 min

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

Reach R1: (new Reach)

Inflow Area = 0.525 ac, Inflow Depth = 4.00"
Inflow = 1.56 cfs @ 12.34 hrs, Volume= 0.175 af
Outflow = 1.54 cfs @ 12.42 hrs, Volume= 0.174 af, Atten= 1%, Lag= 4.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.5 fps, Min. Travel Time= 2.7 min
Avg. Velocity = 0.9 fps, Avg. Travel Time= 7.5 min

Peak Depth= 0.25' @ 12.38 hrs
Capacity at bank full= 5.58 cfs
2.00' x 0.50' deep channel, n= 0.030 Length= 400.0' Slope= 0.0225 '/'
Side Slope Z-value= 2.0 '/'

Reach R2: (new Reach)

Inflow Area = 0.856 ac, Inflow Depth = 3.79"
Inflow = 0.85 cfs @ 12.63 hrs, Volume= 0.270 af
Outflow = 0.82 cfs @ 12.74 hrs, Volume= 0.269 af, Atten= 4%, Lag= 6.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.6 fps, Min. Travel Time= 3.4 min
Avg. Velocity = 0.9 fps, Avg. Travel Time= 5.9 min

Peak Depth= 0.18' @ 12.68 hrs
Capacity at bank full= 6.27 cfs
Inlet Invert= 77.00', Outlet Invert= 74.00'
2.00' x 0.50' deep channel, n= 0.024 Length= 320.0' Slope= 0.0094 '/'
Side Slope Z-value= 5.0 '/'

Reach R3A: (new Reach)

Inflow Area = 0.856 ac, Inflow Depth = 3.76"
Inflow = 0.82 cfs @ 12.74 hrs, Volume= 0.269 af
Outflow = 0.81 cfs @ 12.76 hrs, Volume= 0.268 af, Atten= 0%, Lag= 1.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.7 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 2.2 fps, Avg. Travel Time= 1.0 min

Peak Depth= 0.33' @ 12.74 hrs
Capacity at bank full= 3.56 cfs
Inlet Invert= 74.00', Outlet Invert= 72.70'
12.0" Diameter Pipe n= 0.013 Length= 130.0' Slope= 0.0100 '/'

Reach R3B: (new Reach)

Inflow Area = 0.856 ac, Inflow Depth = 3.76"
Inflow = 0.81 cfs @ 12.76 hrs, Volume= 0.268 af
Outflow = 0.80 cfs @ 12.81 hrs, Volume= 0.267 af, Atten= 1%, Lag= 3.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.5 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 2.1 fps, Avg. Travel Time= 3.0 min

Peak Depth= 0.28' @ 12.78 hrs
Capacity at bank full= 10.50 cfs
Inlet Invert= 72.70', Outlet Invert= 68.90'
18.0" Diameter Pipe n= 0.013 Length= 380.0' Slope= 0.0100 '/'

Reach R4: (new Reach)

Inflow Area = 0.525 ac, Inflow Depth = 4.00"
Inflow = 1.56 cfs @ 12.33 hrs, Volume= 0.175 af
Outflow = 1.56 cfs @ 12.34 hrs, Volume= 0.175 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.9 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.2 fps, Avg. Travel Time= 1.0 min

Peak Depth= 0.56' @ 12.34 hrs
Capacity at bank full= 3.73 cfs
Inlet Invert= 77.75', Outlet Invert= 77.50'
15.0" Diameter Pipe n= 0.013 Length= 75.0' Slope= 0.0033 '/'

Pond 1P: (new Pond)

Inflow Area = 0.481 ac, Inflow Depth = 4.43"
Inflow = 2.69 cfs @ 12.03 hrs, Volume= 0.178 af
Outflow = 0.72 cfs @ 12.35 hrs, Volume= 0.171 af, Atten= 73%, Lag= 19.2 min
Primary = 0.72 cfs @ 12.35 hrs, Volume= 0.171 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 79.52' @ 12.35 hrs Surf.Area= 1,679 sf Storage= 2,935 cf
Plug-Flow detention time= 105.7 min calculated for 0.171 af (96% of inflow)
Center-of-Mass det. time= 91.5 min (837.9 - 746.4)

#	Invert	Avail.Storage	Storage Description
1	76.00'	6,018 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	160	0	0
77.00	416	288	288
78.00	896	656	944
79.00	1,344	1,120	2,064
80.00	1,984	1,664	3,728
81.00	2,595	2,290	6,018

#	Routing	Invert	Outlet Devices
1	Primary	76.00'	**2.0" Vert. Orifice/Grate** C= 0.600
2	Primary	78.97'	**6.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.72 cfs @ 12.35 hrs HW=79.52' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.19 cfs @ 8.9 fps)
└—**2=Orifice/Grate** (Orifice Controls 0.52 cfs @ 2.7 fps)

Pond 2P: (new Pond)

Inflow Area = 0.856 ac, Inflow Depth = 3.98"
Inflow = 3.06 cfs @ 12.18 hrs, Volume= 0.284 af
Outflow = 0.85 cfs @ 12.63 hrs, Volume= 0.270 af, Atten= 72%, Lag= 26.9 min
Primary = 0.85 cfs @ 12.63 hrs, Volume= 0.270 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 80.56' @ 12.63 hrs Surf.Area= 3,011 sf Storage= 5,460 cf
Plug-Flow detention time= 130.6 min calculated for 0.270 af (95% of inflow)
Center-of-Mass det. time= 112.6 min (879.1 - 766.5)

#	Invert	Avail.Storage	Storage Description
1	78.00'	6,752 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
78.00	1,184	0	0
79.00	1,920	1,552	1,552
80.00	2,560	2,240	3,792
81.00	3,360	2,960	6,752

#	Routing	Invert	Outlet Devices
1	Primary	78.00'	**4.0" x 25.0' long Culvert** CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 77.88' S= 0.0048 '/' n= 0.013 Cc= 0.900
2	Primary	80.50'	**10.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.83 cfs @ 12.63 hrs HW=80.56' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.47 cfs @ 5.3 fps)
└—**2=Broad-Crested Rectangular Weir** (Weir Controls 0.37 cfs @ 0.6 fps)

EROSION AND SEDIMENTATION CONTROL REPORT

ALPINE REALTY CORP.
SITE WORK RELATED TO A NEW DRIVEWAY AND TRUCK ACCESS AREA
RIVERSIDE INDUSTRIAL PARKWAY AND RICE STREET
PORTLAND, MAINE

Prepared for:

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December 2004

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Attachments

EROSION AND SEDIMENTATION CONTROL REPORT

Introduction

DeLuca-Hoffman Associates, Inc. has been retained as a consultant to Alpine Realty Corp. to prepare an Erosion and Sedimentation Control Report for a new driveway and truck maneuvering area at the northeast corner of Rice Street and Riverside Industrial Parkway. The existing building requires additional paved area for truck delivery access. The addition of this driveway and pavement surfaces will result in an increase in the impervious coverage and a need for stormwater management. The proposed development activity is located on the north side of the lot as shown on the accompanying site plan

This narrative contains the Erosion and Sedimentation Control Report for this project.

The project is not in the watershed of a sensitive waterbody or non-attainment stream per DEP records.

Existing Site Conditions

The existing site is currently divided with the northerly portion being wooded or lawn and the southerly portion containing the existing building with a footprint of approximately 55,000 square feet and a paved service and parking area of about 26,900 square feet. The total lot size is approximately 190,575 square feet. The existing site conditions are depicted on the plans that accompany this report.

The site has very mild and featureless topography and generally drains in a westerly direction toward Riverside Industrial Parkway. A drainage ditch separates the lot from the Riverside Industrial Parkway. Elevations range from 84 to about 76 feet based upon information obtained from the original site plan. A storm drain that cuts across the site and enters a storm drain in the Riverside Industrial Parkway intercepts drainage from the roof and parking area. A portion of the site drains to the rear of the building where a shallow swale between the building and the neighboring railroad tracks collects water that enters into an open culvert that is connected to the closed system in Rice Street and ultimately the Riverside Industrial Parkway. Other drainage is intercepted by the front yard ditch and then enters the formal drainage system

The site is mapped on the medium intensity soils map as containing Scantic soils that are a hydrologic group D rating. Figures 1, 2, and 3 provide a location, USGS, and USDA soils map for the site.

DeLuca-Hoffman Associates, Inc. is not aware of any areas of existing erosion on the site or blockage that restricts existing drainage from entering the site from natural upstream areas.

14.0 Overview of Soil Erosion and Sedimentation Concerns

The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. The "K" value is frequently used with the universal soil loss equation. The higher values are indicative of the more erodible soils. The project area consists of the following soils based upon the USDA Cumberland County Soils Survey.

Soil Type	Soil Description	K Value
Scantic	Silt Loam	0.49

Based on a review of the K values, the onsite soils in the area where construction is focused are moderately to highly susceptible to erosion after the cover material is stripped.

The primary emphasis of the erosion and sedimentation control plan to be implemented for this project is as follows:

1. Planning the project to provide the ability to capture and eroded materials from the work area on the site;
2. Development of a careful construction sequence.
3. Rapid stabilization of denuded areas to minimize the period of soil exposure.
4. Rapid stabilization of drainage paths to avoid rill and gully erosion.
5. The use of on-site measures to capture initial sediment (hay bales/silt fence, etc.).
7 The provision for the pond to act as a sedimentation sump
8 The implementation of long-term measures for erosion/sediment and pollutant treatment through the construction of permanent water quality measures.

Description and Location of Limits of All Proposed Earth Movements

The proposed driveway, pavement area and a small detention area are a relatively small area of construction. As a result the duration of the work should be limited. The disturbed area is estimated at 0.4 acres and should involve less than 1,000 CY of excavation and earthwork.

Earthmoving activities will generally be to strip and grub the site, stockpile the loam for subsequent reuse, regrade and contour the land to support the proposed gravels of the pavement areas and to shape the subgrade for the stormwater storage area.

Stormwater will be sheeted overland and enter into a shallow impoundment where it will be controlled and temporarily contained prior to further discharge into the culvert opening at the rear of the site.

Existing and Proposed Drainage Features

The proposed grading will allow capture of the runoff from most of the new paved surface and convey it through the surface systems to the proposed dry swale.

The proposed drainage systems are being designed to have peak discharge rates at or below existing levels to avoid causing downstream erosion or flooding problems. The

control of the peak runoff rates is discussed in more detail in the Stormwater Management Report provided as part of this application.

Critical Areas

The critical areas of the site include the ditch along the frontage on Riverside Industrial Parkway.

Erosion/Sedimentation Control Devices

The Contractor as part of the site development will implement the following erosion and sediment control devices. These devices shall be installed as indicated on the plans or as described within this report. For further reference, see the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices.

1. Siltation fence shall be installed downslope of any disturbed areas to trap runoff borne sediments until the site is revegetated. The silt fence shall be installed per the detail provided in the plan set and inspected immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made immediately by the Contractor if there are any signs of erosion or sedimentation below the fence line. Proper placement of stakes and keying the bottom of the fabric into the ground is critical to the fence's effectiveness. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence, the barrier shall be replaced with a stone check dam.

2. Straw or hay mulch including hydroseeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed on slopes of less than 10 percent shall be anchored by applying water; mulch placed on slopes steeper than 10 percent shall be covered with a fabric netting and anchored with staples in accordance with the manufacturer's recommendations. Proposed drainage channels, which are to be revegetated, shall receive curlex blankets by American Excelsior or equal. Mulch application rates are provided in Attachment A of this section. Hay mulch shall be available on site at all times in order to provide immediate temporary stabilization when necessary. Where necessary for concentrated runoff to be conveyed down a slope, a temporary stone channel or pipe sluice shall be used to convey runoff down the slope.

3. Riprap slopes, ditch linings, stone check dams, hay bale barriers, and culvert outlet aprons are intended to reduce runoff velocities and protect denuded soil surfaces from concentrated flows. Installation details and stone sizes are provided in the construction plan set on the erosion control detail sheets.

4. A construction entrance will be constructed at all access points onto the site to prevent tracking of soil onto Rice Street or Riverside Industrial Parkway.

5. Stone sediment traps or a premanufactured SiltSack™ will be installed at catch basin inlets to prevent silt from entering the storm drain system. Installation details are provided in the plan set on the erosion control detail sheets.

6. Loam and seed is intended to serve as the primary permanent revegetative measure for all denuded areas not provided with other erosion control measures, such as riprap. Specific areas as shown on the landscape plan will receive sod. Application rates are provided in Attachment A of this section for temporary and permanent seeding in non-wetland areas.

7. Water will be the principal means to control fugitive dust.

14.1 Temporary Erosion/Sedimentation Control Measures

The following are planned as temporary erosion/sedimentation control measures during construction:

1. A crushed stone-stabilized construction entrance shall be placed at any construction access points from the existing parking lot or Riverside Industrial Parkway.

2. Siltation fence shall be installed along the downgradient side of the proposed improvement areas prior to work in these areas. The siltation fence will remain in place and properly maintained until the site is acceptably revegetated.

3. Temporary stockpiles of stumps, grubbings, or common excavation will be protected as follows:

   a) Temporary stockpiles shall not be located within 50 feet up gradient of the perimeter silt fence.

   b) Inactive stockpiles shall be stabilized within 5 days by either temporarily seeding the stockpile with a hydroseed method containing an emulsified mulch tackifier or by covering the stockpile with mulch. If necessary, mesh shall be installed to prevent wind from removing the mulch.

4. All denuded areas, which have been rough graded, shall receive mulch or erosion control mesh fabric within 14 days of initial disturbance of soil.

5. All soils disturbed between November 1 and April 1 will be covered with mulch within 5 days of disturbance, prior to any predicted storm event of the equivalent of ½" of equivalent rainfall in a 24-hour period, or prior to any work shutdown lasting more than 35 hours (including weekends and holidays). The mulch rate shall be double the normal rate.

6. For work which is conducted between November 1 and April 15 of any calendar year, all denuded areas will be covered with hay mulch, applied at twice the normal application rate and (in areas over 10% grade) anchored with a fabric netting. The time period for applying mulch shall be limited to 5 days for all areas or immediately in advance of a predicted rainfall event.

7. The access drive and Riverside Industrial Parkway shall be swept to control mud and dust as necessary.

8. Silt fencing with a maximum stake spacing of 6 feet should be used, unless the fence is supported by wire fence reinforcement of minimum 14 gauge and with a maximum mesh spacing of 6 inches, in which case stakes may be spaced a maximum of 10 feet apart. The bottom of the fence should be properly anchored a minimum of 6" per the plan detail and backfilled. Any silt fence identified by the owner or reviewing agencies, as not being properly installed during construction shall be immediately repaired in accordance with the installation details.

9. Storm drain catch basin inlet protection shall be provided through the use of stone sediment barriers or a premanufactured SiltSack™ as distributed by A. H. Harris Company, Portland, Maine. Stone sediment barrier installation details are provided in the plan set. The barriers or SiltSacks™ shall be inspected after each rainfall and repairs made as necessary, including the removal of sediment. Sediment shall be removed and the barrier or SiltSack™ restored to its original dimensions when the sediment has accumulated to ½ the design depth of the barrier. Sediment shall be removed from SiltSacksTM as necessary. Inlet protection shall be removed when the tributary drainage area has been stabilized.

10. All slopes over 4:1 shall receive erosion control mesh.

11. Slopes steeper than 3:1 shall receive reinforced turf unless rip rap or other nonvegetative stabilization measures are required by the contract.

12. Silt fence shall be installed as construction progresses.

13. Areas of visible erosion shall be stabilized with crushed stone. The Owner's representative in consultation with the engineer shall determine the size of the stone.

14. Catch basins shall all be installed with an opening 2'-6" below finish grade to receive a 4" underdrain with an end cap. A 3'-0" stub of underdrain surrounded by 6" of ¾" crushed stone and filter fabric shall be installed.

Standards for Stabilizing Sites for the winter

All construction activities occurring during winter conditions shall comply with the DEP standards including but not limited to, mulching rates, timing of exposed soils and measures to minimize erosion or sediment transport.

Permanent Erosion Control Measures

The following permanent erosion control measures have been designed as part of the Erosion/Sedimentation Control Plan:

1. All storm drain pipes shall have riprap aprons at their outlet to protect the outlet and receiving channel of the culverts from scour and deterioration. Installation details are provided in the plan set. The aprons shall be installed and stabilized prior to directing runoff to the tributary pipe or culvert. It is noted that all inlets and outlets over 18" in diameter are to have a flared concrete inlet and an aluminum bar rack. Pipes less than 18 inches in diameter are to have an HDPE flare. Riprap shall not be extended above the area shown on the plans.

2. All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.) will be loamed, limed, fertilized, mulched, and seeded. Fabric netting, anchored with staples, shall be placed over the mulch in areas where the finish grade slope is greater than 10 percent except in the areas with over 3:1 slopes where reinforced turf is required. Native topsoil shall be stockpiled and temporarily stabilized with seed and mulch and reused for final restoration when it is of sufficient quality. Where necessary, compost shall be added and blended to increase the organic content of the soil.

3. Catch basins shall be provided with sediment sumps for all outlet pipes that are 12" in diameter or greater.

Timing and Sequence of Erosion/Sedimentation Control Measures
The following construction sequence shall be required to insure the effectiveness of the erosion and sedimentation control measures are optimized.

Note: For all grading activities, the Contractor shall exercise extreme caution not to overexpose the site by limiting the disturbed area.

1. Install crushed stone-stabilized construction entrance at the point of entry
2. Install siltation fences
3. Clear and grub the work area and stockpile the loam
4. Construct the drainage swale and install inlet pipe and catch basin. Install silt fence or hay bale barriers inside the swale
5. Construct the new pavement areas
6. Install stone and hay bale check dams at any concentrated flow discharge points.
7. Install pavement as detailed on the site plans.
8. Loam, Lime, fertilize, seed and mulch all remaining disturbed and denuded areas.
9. Remove all accumulated sediment from silt barriers.
10. Review stability of the site. If a 75% catch of grass is achieved, remove all other temporary erosion control devices.

Soil will be considered disturbed if it does not have an established stand of vegetation covering at least 75% of the soil surface or has not been mulched with hay applied at a rate of 230-lb./1000 sq. ft.

14.2 Contracting Procedure

The Owner should provide this erosion control plan to any contractor engaged for the project and provide contract language stipulating the erosion control plan must be implemented during construction.

The Contractor should be required to submit a schedule that should be subject to the approval of the Owner.

The Contractor must install any added measures, which may be necessary to control erosion/sedimentation from the site and fugitive dust emissions dependent upon the actual site and weather conditions.

Provisions for Maintenance of the Erosion/Sedimentation Control Features

The water quality unit should be cleaned twice per year; the catch basin should be cleaned annually. If water is slow to drain from the pond, the control structure should be inspected to insure there is not debris clogging the orifices. During construction of the pond and parking lot of the project the Contractor should be required to perform the following

1. Inspection of this project work site on a weekly basis and after each significant rainfall event (0.5 inches or more within any consecutive 24 hour period) during construction until permanent erosion control measures have been properly installed and the site has been stabilized. Inspection of the project work site shall include:

   - Identification of proper erosion control measure installation in accordance with the erosion control detail sheet or as specified in this section.
   - Determine whether each erosion control measure is properly operating. If not, identify damage to the control device and determine remedial measures.
   - Identify areas that appear vulnerable to erosion and determine additional erosion control measures that should be used to improve conditions.
   - Inspect areas of recent seeding to determine percent catch of grass. A minimum catch of 75 percent is required prior to removal of erosion control measures.

   Accumulated silt/sediment should be removed when the depth of sediment reaches 50 percent of the barrier height. Accumulated silt/sediment should be removed from behind silt fencing when the depth of the sediment reaches 6 inches.

2. If inspection of the site indicates a change should be made to the erosion control plan, either to improve effectiveness or correct a site-specific deficiency, the inspector shall immediately implement the corrective measure and notify the owner of the change.

Once construction has been completed all catch basins, the water quality unit, the pond, and the outlet control structure should be cleaned.

Preconstruction Conference

Prior to any construction at the site, representatives of the Contractor, the City should meet with the Owner to discuss the scheduling of the site construction. On or before that meeting, the Contractor will prepare a detailed schedule and a marked-up site plan indicating areas and components of the work and key dates showing date of disturbance and completion of the work. Three copies of the schedule and marked-up site plan shall be provided to the Owner.

Attachments

Attachment A – Seeding Plan

Plan References

Sheets– Erosion/Sediment Control Plans and Details

ATTACHMENT A

SEEDING PLAN

SEEDING PLAN: LAWN AND OTHER AREAS

Project Alpine Realty pavement area expansion and new driveway

Site Location Riverside Industrial Parkway & Rice Street, Portland, Maine

X Permanent Seeding _____ Temporary Seeding

1. Area to be seeded: ½± acres, OR _____ M Sq. Ft.
2. Instructions on preparation of soil: Prepare a good seed bed for planting method used.
3. Apply lime as follows: _____ #/acres, OR 138#/M Sq. Ft.
4. Fertilize with _____ pounds of - - N-P-K/ac. OR
   18.4 pounds of 10 - 20 - 20 N-P-K/M Sq. Ft.
5. Method of applying lime and fertilizer: Spread and work into the soil before seeding.
6. Seed with the following mixture:

   45% Kentucky Bluegrass
   45% Creeping Red Fescue
   10% Perennial Ryegrass

When using small grain as nurse crop seed it at one-half the normal seeding rate.

7. Mulching instructions: Apply at the rate of _____ tons per acre. OR
   230 pounds per M. Sq. Ft.

Amount	Unit #	Tons, Etc.
8. TOTAL LIME.....	138	#/1000 sq. ft.
9. TOTAL FERTILIZER.....	13.8	#/1000 sq. ft.
10. TOTAL SEED.....	6 to 8	#/1000 sq. ft.
11. TOTAL MULCH.....	230	#/1000 sq. ft.
12. TOTAL other materials, seeds, etc.....	Compost is likely required	

13. REMARKS:

- Recommended seeding dates after August 15.
- For areas with slopes >10%, waterways, areas within 100 feet of the stream, and fall and winter erosion control areas, mulch netting shall be used per manufacturer's specifications.
- Fertilizer requirements shall be subject to actual test results of the topsoil used for the project. The Contractor shall be responsible for providing topsoil test results for pH and recommended fertilizer application rates to the owner
- All loam shall have compost or peat admixtures to raise the organic content to 8%.

TEMPORARY SEEDING PLAN

Project Alpine Realty pavement area expansion and new driveway

Site Location Riverside Industrial Parkway & Rice Street, Portland, Maine

_____ Permanent Seeding X Temporary Seeding

1. Area to be seeded: varies acres, OR _____ M Sq. Ft.
2. Instructions on preparation of soil: Prepare a good seed bed for planting method used.
3. Apply lime as follows: _____ #/acres, OR 138#/M Sq. Ft.
4. Fertilize with _____ pounds of - - N-P-K/ac. OR
   18.4 pounds of 10 - 20 - 20 N-P-K/M Sq. Ft.
5. Method of applying lime and fertilizer: Spread and work into the soil before seeding.
6. Seed with the following mixture:

   50% Perennial Ryegrass
   50% Winter Rye

   When using small grain as nurse crop seed it at one-half the normal seeding rate.

7. Mulching instructions: Apply at the rate of _____ tons per acre. OR
   180 pounds per M. Sq. Ft.

	Amount	Unit #	Tons, Etc.
8.	TOTAL LIME	138	#/1000 sq. ft.
9.	TOTAL FERTILIZER	18.4	#/1000 sq. ft.
10.	TOTAL SEED	6	#/1000 sq. ft.
11.	TOTAL MULCH	180	#/1000 sq. ft.
12.	TOTAL other materials, seeds, etc.		

13. REMARKS:

- The above seed mix is required in all temporarily disturbed wetland areas.
- Fertilizer requirements shall be subject to actual test results of the topsoil used for the project. The Contractor shall be responsible for providing topsoil test results for pH and recommended fertilizer application rates to the owner.

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207 775 1121
FAX 207 879 0896

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION
- TRAFFIC STUDIES AND MANAGEMENT

February 8, 2005

Ms. Kandi Talbot
Portland Planning Authority
389 Congress Street
Portland, Maine 04101

Subject: **Site Plan Amendment**
Alpine Realty
Rice Street
Response to Peer Review

Dear Kandi:

DeLuca-Hoffman Associates, Inc. has made revisions to the proposed site plan amendment based on comments we received by Greg Boulette at Sebago Technics. The accompanying plans reflect the following revisions and materials requested by Mr. Boulette:

1. Additional spot grades have been placed in the proposed pavement area to aid during construction.

2. A 4" riser has been added to the outlet pipe that will drain the small swale/collection basin. The riser will function in the event that the outlet pipe becomes clogged.

3. DeLuca-Hoffman Associates, Inc. has discussed with the owner Sebago Technics' suggestion to close off the drive aisle adjacent to the northwest corner of the building. The owner prefers to maintain the aisle and curbed island as designed; therefore no changes have been made to this area.

4. We have included copies of the pre and postdevelopment watershed plans for use with the updated stormwater computations that were originally submitted with the Site Plan amendment application.

5. Mr. Boulette asked about construction details. Construction details were not submitted with the Site Plan Amendment as is was our intention that the details submitted and approved with the original Site Plan application last year shall continue to apply to the current amendment activities. These details are already part of the City's records on this project.

We trust the accompanying materials are sufficient to allow continued review and approval of the applicant's Site Plan Amendment request. If you have any questions please call.

Sincerely

DeLUCA-HOFFMAN ASSOCIATES, INC.

Stephen Bushey, PE
Senior Engineer

SRB/sq/JN2472/Talbot-2-8-05

Attachments

c: Greg Boulette, Sebago Technics
John Wise, Alpine Realty

From: "Tom Errico" <terrico@wilbursmith.com>
To: "Ethan Boxer-Macomber" <EBM@portlandmaine.gov>
Date: 4/8/05 10:43:34 AM
Subject: Capricorn Products - Rice Street

Ethan-

I have reviewed truck maneuverability on the site as it relates to accessing and egressing the loading dock area. My review indicates that there will be adequate space for truck maneuvers.

Please call me if you have any questions.

Thomas A. Errico, P.E.

Senior Transportation Engineer

Wilbur Smith Associates

59 Middle Street

Portland, Maine 04043

(207) 871-1785 Phone

(207) 871-5825 Fax

CC: "Katherine Earley" <KAS@portlandmaine.gov>

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

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February 8, 2005

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Portland, Maine 04101

Subject: **Site Plan Amendment**
Alpine Realty
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Response to Peer Review

Dear Kandi:

DeLuca-Hoffman Associates, Inc. has made revisions to the proposed site plan amendment based on comments we received by Greg Boulette at Sebago Technics. The accompanying plans reflect the following revisions and materials requested by Mr. Boulette:

1. Additional spot grades have been placed in the proposed pavement area to aid during construction.

2. A 4" riser has been added to the outlet pipe that will drain the small swale/collection basin. The riser will function in the event that the outlet pipe becomes clogged.

3. DeLuca-Hoffman Associates, Inc. has discussed with the owner Sebago Technics' suggestion to close off the drive aisle adjacent to the northwest corner of the building. The owner prefers to maintain the aisle and curbed island as designed; therefore no changes have been made to this area.

4. We have included copies of the pre and postdevelopment watershed plans for use with the updated stormwater computations that were originally submitted with the Site Plan amendment application.

5. Mr. Boulette asked about construction details. Construction details were not submitted with the Site Plan Amendment as is was our intention that the details submitted and approved with the original Site Plan application last year shall continue to apply to the current amendment activities. These details are already part of the City's records on this project.

We trust the accompanying materials are sufficient to allow continued review and approval of the applicant's Site Plan Amendment request. If you have any questions please call.

Sincerely

DeLUCA-HOFFMAN ASSOCIATES, INC.

Stephen Bushey, PE
Senior Engineer

SRB/sq/JN2472/Talbot-2-8-05

Attachments

c: Greg Boulette, Sebago Technics
John Wise, Alpine Realty

Planning and Development Department
Lee D. Urban, Director

Planning Division
Alexander Jaegerman, Director

February 15, 2005

John Wise
Alpine Realty Group
120 Exchange Street
Portland, ME 04101

RE: Driveway and Pavement Expansion at 12 Rice Street
Application # 2004-0263 CBL# 354 A003001

Dear Mr. Wise:

The City of Portland Planning Division has received the above referenced application. Planning staff has conducted a preliminary review of the submitted plans. This letter is to summarize additional information and submittals which will be required in order for the application to be found complete as well as revisions which will be required to find the plans in conformance with applicable codes and standards.

1. Site Plan

A. Records indicate that some previously required parking lot stripping and landscaping may not have been completed. Please provide a narrative explaining any site improvements previously approved through site plan review, which have not been completed to date.

B. Please provide a **site plan based on a survey** performed and stamped by a licensed surveyor.

C. Please call out on the plan any **dumpsters** existing and proposed.

D. Please provide a detailed **lighting plan** in conformance with the City's exterior lighting standards including a photometric study based on the survey.

E. Please provide **typical construction details** for proposed curbing, culvert crossing at the project entry, proposed drainage infrastructure, light poles/fixtures, etc.

F. Please provide a **landscape plan** including existing and proposed plantings. Most of the north end of the site appears devoid of landscaping on the proposed plan. Please consider treatments here that would help to screen operations and visually soften the site from the right-of-way and abutting properties.

G. Please provide a justification for the +/- `24 wide driveway connection between the proposed loading area and the primary parking lot. Please consider closing this connection in favor of additional landscaping.

2. Zoning

A. Please provide an information table on the plan demonstrating general compliance with the dimensional standards of the IM zone.

B. Regarding the proposed `50 x `60 storage area, please provide a narrative describing the proposed storage use. Also, if necessary, please provide site plan revisions such as landscaping and/or fencing in compliance with §14-251 (e) and (f).

C. Please provide dimensions and details of the proposed loading dock so as to demonstrate conformance with the City's Off-Street Loading Ordinance, §14-351 - §14-353.

D. Please provide calculations of proposed impervious surface area on the site so as to demonstrate compliance with §14-250 (b).

3. Engineering

The City's consulting development review engineer, Greg Boulette, has reviewed the proposed plans and has submitted a February 2, 2005 memo, which you will find attached. Please provide plan revisions to address the concerns expressed in that memo.

I look forward to working with you and your design team through the review process. If you have any questions or concerns, please do not hesitate to contact me by telephone at 756-8083 or by email at ebm@portlandmaine.gov.

Sincerely,

Ethan Boxer-Macomber, Planner

Cc. Sarah Hopkins, Development Review Manager
Steve Bushey, P.E., DeLuca Hoffman Associates, Inc.

Sebago Technics
Engineering Expertise You Can Build On

04P263

TO: **Ethan Boxer-Macomber– Planner**

FROM: **Greg Boulette – Development Review Coordinator, Sebago Technics, Inc.**

RE: **Minor Site Plan Review: Capricorn Products – 1 Rice Street, Portland**

DATE: **February 2, 2005**

Sebago Technics has reviewed the Minor Site Plan application and supporting documentation for the proposed truck maneuvering area to be located at 1 Rice Street in the City of Portland. We respectfully offer the following short comments in outline format:

1. **Stormwater Management**

   A. Overall the stormwater modeling seems to work but watershed maps are needed so we can finalize our review.

   B. There seems to be a grading issue with the new proposed pond. In particular contour 82 is overlapping contour 81.

   C. How is the loading area draining. The grading in this area should be reviewed.

   D. The city will not permit a 6-inch storm drain as an outlet to the pond. We recommend a standpipe type outlet for staged overflows, the smaller orifice sizes such as the 6 inch can be encouraged. The actual outlet pipe shall be 12 inches minimum.

   E. The minimum allowed pipe size in Portland is 12 inches. We realize the issues with minimum cover in the loading area but believe the 2 inches of difference between a 12 and 10-inch pipe will not make a significant change in the condition. Is there an opportunity to lower the inverts to the back swale, adjacent to the railroad ditch, which would in turn lower all inverts to create more cover?

   F. The material of the cross culvert beneath the new entrance off Riverside Street needs to be specified. The City requires either PVC or concrete within their Right-of-Ways. We are aware that this culvert is on private property but because of minimal cover we suggest using concrete.

2. **Road Access/Circulation**

A. We question the need for two entrances to the new loading area. We feel that the entrance closest to the building could be closed and still allow better traffic movements.

3. **Utilities**

A We have discussed the lighting with the applicant and the only lights for this area are the existing building mounted lights above the overhead doors.

4. **Grading & Erosion Controls**

A. Erosion control measures such as a stabilized construction entrance, rip rap at culvert inlets and outlets and silt fences need to be shown on the plans.

5. **Landscaping**

A. There are 3 proposed white pines and 2 proposed red maples at the intersection of the new drive. Final landscaping requirements will be reviewed by Planning and the City Arborist.

Overall, the development appears to be near an approvable stage, assuming that the design is revised in accordance with the comments noted above. Please contact our office if you have any questions. I will leave the judgment for a conditional approval with staff.

GJB/jrs:

Sebago Technics
Engineering Expertise You Can Build On

04P263

TO: **Ethan Boxer-Macomber– Planner**

FROM: **Greg Boulette – Development Review Coordinator, Sebago Technics, Inc.**

RE: **Minor Site Plan Review: Capricorn Products – 1 Rice Street, Portland**

DATE: **February 2, 2005**

Sebago Technics has reviewed the Minor Site Plan application and supporting documentation for the proposed truck maneuvering area to be located at 1 Rice Street in the City of Portland. We respectfully offer the following short comments in outline format:

1. **Stormwater Management**

   A. Overall the stormwater modeling seems to work but watershed maps are needed so we can finalize our review.

   B. There seems to be a grading issue with the new proposed pond. In particular contour 82 is overlapping contour 81.

   C. How is the loading area draining. The grading in this area should be reviewed.

   D. The city will not permit a 6-inch storm drain as an outlet to the pond. We recommend a standpipe type outlet for staged overflows, the smaller orifice sizes such as the 6 inch can be encouraged. The actual outlet pipe shall be 12 inches minimum.

   E. The minimum allowed pipe size in Portland is 12 inches. We realize the issues with minimum cover in the loading area but believe the 2 inches of difference between a 12 and 10-inch pipe will not make a significant change in the condition. Is there an opportunity to lower the inverts to the back swale, adjacent to the railroad ditch, which would in turn lower all inverts to create more cover?

   F. The material of the cross culvert beneath the new entrance off Riverside Street needs to be specified. The City requires either PVC or concrete within their Right-of-Ways. We are aware that this culvert is on private property but because of minimal cover we suggest using concrete.

2. **Road Access/Circulation**

A. We question the need for two entrances to the new loading area. We feel that the entrance closest to the building could be closed and still allow better traffic movements.

3. **Utilities**

A We have discussed the lighting with the applicant and the only lights for this area are the existing building mounted lights above the overhead doors.

4. **Grading & Erosion Controls**

A. Erosion control measures such as a stabilized construction entrance, rip rap at culvert inlets and outlets and silt fences need to be shown on the plans.

5. **Landscaping**

A. There are 3 proposed white pines and 2 proposed red maples at the intersection of the new drive. Final landscaping requirements will be reviewed by Planning and the City Arborist.

Overall, the development appears to be near an approvable stage, assuming that the design is revised in accordance with the comments noted above. Please contact our office if you have any questions. I will leave the judgment for a conditional approval with staff.

GJB/jrs:

From: "Dwight Anderson" <danderson@DelucaHoffman.com>
To: "Sarah Hopkins (E-mail)" <sh@portlandmaine.gov>
Date: 1/3/05 5:21:48 PM
Subject: Capricorn Products

Sarah,

Please note that the Minor Site Plan Amendment Application submitted by our office on December 21st, 2004 was actually prepared for Alpine Realty Corp. not Capricorn Products and the address should have been 12 Rice Street not 1 Rice Street. Please advise us if you require additional information regarding this matter.
Sincerely,
Dwight D. Anderson, P.E.
DeLuca-Hoffman Associates, Inc.
778 Main Street Suite 8
South Portland, Maine 04106
Phone 207.775.1121
Facsimile 207.879.0896

CC: "John Wise" <johnwise@wrebrokers.com>, "Steve Bushey" <SBushey@DelucaHoffman.com>

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

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- SITE PLANNING AND DESIGN
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- CONSTRUCTION ADMINISTRATION
- TRAFFIC STUDIES AND MANAGEMENT

March 25, 2005

Mr. Ethan Boxer-Macomber, Planner
Portland Planning Authority
389 Congress Street
Portland, Maine 04101

Subject: **Site Plan Amendment**
Alpine Realty
Rice Street
Response to Planner Comments

Dear Ethan:

DeLuca-Hoffman Associates, Inc. has made revisions to the proposed site plan amendment based on comments we received in your letter dated February 15, 2005. The accompanying plans reflect the following revisions and materials requested:

1. SITE PLAN

Comment A:

"Records indicate that some previously required parking lot stripping and landscaping may not have been completed. Please provide a narrative explaining any site improvements previously approved through site plan review, which have not been completed to date."

Response:

The applicant had reviewed striping with Jay Reynolds on site this past summer. The striping of the entrance to the new parking lot off Rice Street was installed as shown on the attached plan. Additional striping will be added at the entrance to help define the entrance into the parking area as indicated. Existing landscape plantings are shown on the attached site plan. The City had previously requested that landscaping be provided between the proposed parking lot and Riverside Industrial Parkway. The landscaping was to include street trees to be reviewed and approved by the City Arborist. These trees have not yet been installed; however, proposed plantings are shown on the attached Landscape Plan.

Comment B:

*"Please provide a **site plan based on a survey** performed and stamped by a licensed surveyor."*

Response:

The survey plan stamped by a licensed surveyor is attached. ~~DON'T SEE IT~~ GOT IT.

Comment C:

*"Please call out on the plan any **dumpsters** existing and proposed."*

Response:

(1) Existing and proposed dumpsters have been added to the plans. NOT SCREENED

Comment D:

*"Please provide a detailed **lighting plan** in conformance with the City's exterior lighting standards including a photometric study based on the survey."*

Response:

(2) A lighting plan including a photometric study is being prepared and will be submitted to your office next week. 4/5/05 NOT IN YET.

Comment E:

*"Please provide **typical construction details** for proposed curbing, culvert crossing at the project entry, proposed drainage infrastructure, light poles/fixtures, etc."*

Response:

A Site Details sheet is attached. PROVIDED TO JIM S. FOR REVIEW 3/30/05

Comment F:

*"Please provide a **landscape plan** including existing and proposed plantings. Most of the north end of the site appears devoid of landscaping on the proposed plan. Please consider treatments here that would help to screen operations and visually soften the site from the right-of-way and abutting properties."*

Response:

(3) A landscaping plan showing existing and proposed plantings is attached. * FINAL LANDSCAPE

Comment G:

"Please provide a justification for the +/- '24 wide driveway connection between the proposed loading area and the primary parking lot. Please consider closing this connection in favor of additional landscaping."

Response:

The 24' wide drive connection has been eliminated.

2. ZONING

Comment A:

"Please provide an information table on the plan demonstrating general compliance with the dimensional standards of the IM zone."

Response:

An information table has been added to the attached layout plan.

Comment B:

"Regarding the proposed '50 x '60 storage area, please provide a narrative describing the proposed storage use. Also, if necessary, please provide site plan revisions such as landscaping and/or fencing in compliance with §14-251 (e) and (f)."

Response:

Empty pallets will be stored in the storage area. Any other materials stored in this area will be stored on pallets. Five foot high privacy fencing has been added around the storage area.

Comment C:

"Please provide dimensions and details of the proposed loading dock so as to demonstrate conformance with the City's Off-Street Loading Ordinance, §14-351 - §14-353."

Response:

Loading docks are not proposed at this end of the building. The City Off-Street Loading Ordinance requires two loading bays for a building this size. Seven bays are provided at the south end of the building.

Comment D:

"Please provide calculations of proposed impervious surface area on the site so as to demonstrate compliance with §14-250 (b)."

Response:

A maximum impervious area of 75 percent is allowed in the IM Zone. The total parcel area is 190,575 S.F. and the total impervious area with the proposed development complete is 121,372 S.F. resulting in 64 percent imperviousness for the site.

3. ENGINEERING

Greg Boulette's engineering comments were previously responded to by our office.

We trust the accompanying materials are sufficient to allow continued review and approval of the applicant's Site Plan Amendment request. If you have any questions please call.

Sincerely

DeLUCA-HOFFMAN ASSOCIATES, INC.

Dwight D. Anderson, P.E.
Senior Engineer

DDA/sgk/JN2472/Macomber 3-24-05 (Com Res)

Attachments: C-1 Layout & Grading Plan
C-2 Landscape Plan
C-3 Site Details
Survey Plan

c: John Wise, Alpine Realty

From: Kandi Talbot
To: Jay Reynolds; Marge Schmuckal; Sarah Hopkins
Date: 10/14/04 1:03:22 PM
Subject: Re: 1 Rice Street

Marge,

I am writing up the letter now telling them that they need to become compliant for the parking. I was looking through my files and I have a memo from you dated May 4th saying that based on their revised plans (which were the ones approved) they only needed a total of 63 parking spaces. I am attaching for your review. So, I am basing my letter on the May 4th decision of 63 parking spaces. If you feel that that is inaccurate please let me know. Thanks.

Kandi

>>> Marge Schmuckal 10/08/2004 9:42:53 AM >>>
My input is that the owner needs to know now that they are non-compliant and should be actively working toward compliance. Otherwise it will never become compliant.
Marge

>>> Jay Reynolds 10/08 8:56 AM >>>
I'm going to reduce the PG to about 20% in the meantime.....
Sarah, Marge, Do we let the non-compliance 'float' until the amendment comes in?
Jay

>>> Sarah Hopkins 10/07/2004 4:15:42 PM >>>
Let me know if you want me to call John Wise; I've soothed him before.

I feel responsible for the inadvertent loss of the three spaces because I asked Kandi to rush it through to show our responsiveness!

I'm sure we'll be able to take care ofit with the amendment. Seems like that whole site is paved.

-Sarah

>>> Jay Reynolds 10/07/2004 3:16:04 PM >>>
Their amendment only shows 66 spaces (I think they lost 3 with the paved side acces way. It gets worse though, they didn't install all of the spaces during construction. I've got them at around 58 +/-.
I've got a call into Deluca-Hoffman because the rumor has it they will be applying for another amendment (curb cut to Riverside Industrial). At some point, we need to address the lack of required parking, maybe this revision can correct things. They should be put on notice of site plan and parking non-compliance, shouldn't they?

As some of you may recall, this is John Wise, who was very difficult at the start of the project and began site work without all his approvals and submittals in.
Jay

>>> Marge Schmuckal 10/06/2004 12:10:07 PM >>>
Jay,
To answer your question about 1 Rice Street: My memo dated March 16, 2004 stated that 69 parking spaces were required for the mix of office and industrial uses in the building. What are they now

proposing?
Marge

CC: Alex Jaegerman; Penny Littell

review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

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

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

If you have any questions, please contact Ethan Boxer-Macomber, Planner at 756-8083 or ebm@portlandmaine.gov.

Sincerely,

Alexander Jaegerman
Planning Division Director

cc: Lee D. Urban, Planning and Development Department Director
Alexander Jaegerman, Planning Division Director
Sarah Hopkins, Development Review Services Manager
Ethan Boxer-Macomber, Planner
Jay Reynolds, Development Review Coordinator
Marge Schmuckal, Zoning Administrator
Inspections
Michael Bobinsky, Public Works Director
Traffic Division
Eric Labelle, City Engineer
Jeff Tarling, City Arborist
Penny Littell, Associate Corporation Counsel
Fire Prevention
Assessor's Office
Approval Letter File

Planning and Development Department
Lee D. Urban, Director

Planning Division
Alexander Jaegerman, Director

April 29, 2005

John Wise
Alpine Realty Group
120 Exchange Street
Portland, ME 04101

RE: Driveway and Pavement Expansion at 12 Rice Street
Application # 2004-0263 CBL# 354 A003001

Dear Mr. Wise:

On April 27, 2005 the Portland Planning Authority conditionally approved the above referenced minor site plan application based on site plans prepared by DeLuca-Hoffman Associates, Inc., dated December 2004 and last revised on March 25, 2005.

The approval includes the installation of a new curb cut on the Riverside Industrial Parkway and the installation of new parking areas, a delivery apron, and a `50 x `60 paved storage area. The approval is contingent on successful satisfaction of conditions contained in this letter.

Conditions of Approval:

1. All dumpsters and transformers, existing and proposed, shall be screened with a 5 foot opaque fence in accordance with the Site Plan ordinance and screened with evergreen vegetation in accordance with the City's arboricultural standards. This screening plan shall be subject to final review and approval by the Planning Authority and the City Arborist.

2. The existing dumpster to the West of the building's North loading bay shall be relocated to the East side of the proposed delivery apron.

3. The proposed landscape plan shall be revised and enhanced so as to add additional trees and shrubs in the following locations:

A. The open, pervious area to the South of the `50 x `60 paved storage area.
B. Curbed bulb-outs and islands in and around parking areas.
C. Open, pervious areas along the site's Riverside Industrial Parkway frontage.

These landscape revisions, including species placement and selection, shall be planned in consultation with the City Arborist and shall be subject to final review and approval by the City Arborist and the Planning Authority.

4. The applicant shall submit a lighting plan and photometric study in conformance with the City's exterior lighting standards for final review and approval by the Planning Authority.

5. The applicant shall submit a narrative to the Planning Division describing in detail all materials proposed to be stored in the proposed `50 x `60 storage area so as to demonstrate conformance with the site plan and IM zoning ordinances.

6. The applicant shall submit 7 sets of final plans to the Planning Authority reflecting satisfaction of conditions 1-5 above.

Standard Provisions and Requirements:

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

1. Where submission drawings are available in electronic form, the applicant shall submit any available electronic Autocad files (*.dwg), release 14 or greater, with seven (7) sets of the final plans.

2. A performance guarantee covering the site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

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

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

5. Prior to construction, a pre-construction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to

February 15, 2005

John Wise
Alpine Realty Group
120 Exchange Street
Portland, ME 04101

RE: Driveway and Pavement Expansion at 12 Rice Street
Application # 2004-0263 CBL# 354 A003001

Dear Mr. Wise:

The City of Portland Planning Division has received the above referenced application. Planning staff has conducted a preliminary review of the submitted plans. This letter is to summarize additional information and submittals which will be required in order for the application to be found complete as well as revisions which will be required to find the plans in conformance with applicable codes and standards.

1. Site Plan

A. Records indicate that some previously required parking lot stripping and landscaping may not have been completed. Please provide a narrative explaining any site improvements previously approved through site plan review, which have not been completed to date.

B. Please provide a **site plan based on a survey** performed and stamped by a licensed surveyor.

C. Please call out on the plan any **dumpsters** existing and proposed.

D. Please provide a detailed **lighting plan** in conformance with the City's exterior lighting standards including a photometric study based on the survey.

E. Please provide **typical construction details** for proposed curbing, culvert crossing at the project entry, proposed drainage infrastructure, light poles/fixtures, etc.

F. Please provide a **landscape plan** including existing and proposed plantings. Most of the north end of the site appears devoid of landscaping on the proposed plan. Please consider treatments here that would help to screen operations and visually soften the site from the right-of-way and abutting properties.

G. Please provide a justification for the +/- `24 wide driveway connection between the proposed loading area and the primary parking lot. Please consider closing this connection in favor of additional landscaping.

2. Zoning

A. Please provide an information table on the plan demonstrating general compliance with the dimensional standards of the IM zone.

B. Regarding the proposed `50 x `60 storage area, please provide a narrative describing the proposed storage use. Also, if necessary, please provide site plan revisions such as landscaping and/or fencing in compliance with §14-251 (e) and (f).

C. Please provide dimensions and details of the proposed loading dock so as to demonstrate conformance with the City's Off-Street Loading Ordinance, §14-351 - §14-353.

D. Please provide calculations of proposed impervious surface area on the site so as to demonstrate compliance with §14-250 (b).

3. Engineering

The City's consulting development review engineer, Greg Boulette, has reviewed the proposed plans and has submitted a February 2, 2005 memo, which you will find attached. Please provide plan revisions to address the concerns expressed in that memo.

I look forward to working with you and your design team through the review process. If you have any questions or concerns, please do not hesitate to contact me by telephone at 756-8083 or by email at ebm@portlandmaine.gov.

Sincerely,

Ethan Boxer-Macomber, Planner

Cc. Sarah Hopkins, Development Review Manager
Steve Bushey, P.E., DeLuca Hoffman Associates, Inc.

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

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- TRAFFIC STUDIES AND MANAGEMENT

February 8, 2005

Ms. Kandi Talbot
Portland Planning Authority
389 Congress Street
Portland, Maine 04101

Subject: **Site Plan Amendment**
Alpine Realty
Rice Street
Response to Peer Review

Dear Kandi:

DeLuca-Hoffman Associates, Inc. has made revisions to the proposed site plan amendment based on comments we received by Greg Boulette at Sebago Technics. The accompanying plans reflect the following revisions and materials requested by Mr. Boulette:

1. Additional spot grades have been placed in the proposed pavement area to aid during construction.

2. A 4" riser has been added to the outlet pipe that will drain the small swale/collection basin. The riser will function in the event that the outlet pipe becomes clogged.

3. DeLuca-Hoffman Associates, Inc. has discussed with the owner Sebago Technics' suggestion to close off the drive aisle adjacent to the northwest corner of the building. The owner prefers to maintain the aisle and curbed island as designed; therefore no changes have been made to this area.

4. We have included copies of the pre and postdevelopment watershed plans for use with the updated stormwater computations that were originally submitted with the Site Plan amendment application.

5. Mr. Boulette asked about construction details. Construction details were not submitted with the Site Plan Amendment as is was our intention that the details submitted and approved with the original Site Plan application last year shall continue to apply to the current amendment activities. These details are already part of the City's records on this project.

We trust the accompanying materials are sufficient to allow continued review and approval of the applicant's Site Plan Amendment request. If you have any questions please call.

Sincerely

DeLUCA-HOFFMAN ASSOCIATES, INC.

Stephen Bushey, PE
Senior Engineer

SRB/sq/JN2472/Talbot-2-8-05

Attachments

c: Greg Boulette, Sebago Technics
John Wise, Alpine Realty