

Listed below are key characters (in bold) for searching within this file.

Hold down the control key and select the “f” key. Enter either a key character from the list below or document name and select enter for a list of documents containing the search word you entered.

APL – all documents behind this target sheet pertain to the original application submitted by the Applicant.

REVIEW – all documents behind this target sheet pertain to those documents submitted to and from staff as part of the project review.

PBM1 – all documents behind this target sheet are any Planning Board memos with attachments that went to the Board.

PBR1 - all documents behind this target sheet are any Planning Board reports with attachments that went to the Board.

CC1 - all documents behind this target sheet are any City Council memos/reports that went to the City Council.

DRC1 - all documents behind this target sheet are those pertaining to the post review of the project by the Development Review Coordinator.

MISC1 - all documents behind this target sheet are those that may not be included in any of the categories above.

APL

REVIEW

CITY OF PORTLAND, MAINE

PLANNING BOARD

John H. Carroll, Chair
Jaimy Caron, Vice Chair
Kenneth M. Cole III
Cyrus Y. Hagge
Deborah Krichels
Erin Rodriguez
Mark Malone

September 16, 1999

John and Elliot Chamberland
ALC Development Corp.
258 Black Point Road
Scarborough, ME 04074

RE: Washington Crossing Condominiums, Sectional Recording and Site Plan Amendments

Dear ALC Development Corp.,

On (Date) September 14, 1999 the Portland Planning Board voted 7-0
on the following motions regarding the Washington Crossing Condominiums
subdivision/PRUD:

- A. That the plan is approved for Sectional Recording as shown on the Recording Plat.
- B. That the Site Plan amendments are in conformance with the Site Plan standards of the Portland Land Use Code.

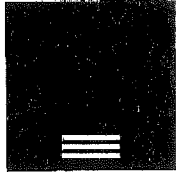
Approval is granted on the following condition:

- i. That the applicant provide deeds for all previously required drainage easements prior to the recording of the Plat.

The approval is based on the submitted plan and the findings related to site plan review standards as contained in Planning Board # 39-99, which is attached.

Please note the following provisions and requirements for all subdivision approvals:

1. Mylar copies of the construction drawing for the subdivision must be submitted to the Public Works Department prior to the release of the plat.
2. A performance guarantee covering the site improvements as well as an inspection fee payment of 1.7% of the guarantee amount must be submitted to and approved by the Planning Division and Public works prior to the recording of the subdivision plat. The subdivision approval is valid for three (3) years.



DELUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

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

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

MEMORANDUM

TO: Bill Needleman
FROM: Chris Earle, Construction Representative
Reviewed by Steve Bushey, P.E., Acting Development Review Coordinator
DATE: November 1, 2000
RE: Washington Crossing

On November 1, 2000, I visited Washington Crossing condos to assess the progress of this project in relation to a reduction in the performance guarantee. Based on the facts that:

1. Half the bituminous curb needs to be installed;
2. All the surface paving needs to be done;
3. All the lighting needs to be installed; and
4. 80% of the landscaping needs to be done

we recommend a reduction in the performance guarantee of only \$83,050.00.



Everett J. Prescott, Inc.

SERVICE DEPARTMENT

MANHOLE AND SEWER LINE ACCEPTANCE REPORT

Client: RISBARA BROS CONST.

Project Name: WASH. CROSSING

Address: P.O. BOX 485

Location: ALLEN AVE.

SCARBOROUGH ME. 04170

PORTLAND ME.

MANHOLE VACUUM TEST

LINE ACCEPTANCE TEST

Begin Vacuum -10

Ending Vacuum -9

Test time 5 min.

Passed Failed

Begin Vacuum -10

Ending Vacuum -9.5

Test time 5 min.

Passed Failed

Begin Vacuum -10

Ending Vacuum -10

Test time 5 min.

Passed Failed

Begin Vacuum -10

Ending Vacuum -10

Test time 5 min.

Passed Failed

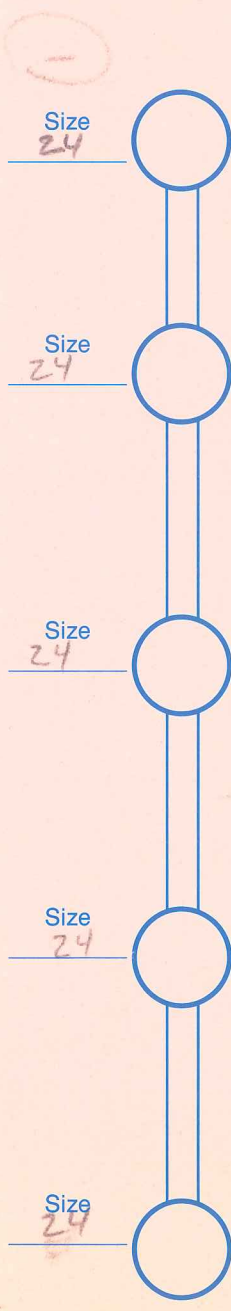
Begin Vacuum -10

Ending Vacuum -10

Test time 5 min.

Passed Failed

EJP Operator Ryan MORANG



Station No.	Pipe Size	Length	Test	Held	Dropped
1	8"	350'	5 lb. for 5 min.	5 lb. for 5 min.	0 lb. in. 5 min.
2	8"	100'	5 lb. for 5 min.	5 lb. for 5 min.	0 lb. in. 5 min.
3	8"	300'	5 lb. for 5 min.	5 lb. for 5 min.	0 lb. in. 5 min.
4	8"	108'	5 lb. for 5 min.	5 lb. for 5 min.	0 lb. in. 5 min.
5	8"		5 lb. for 5 min.	5 lb. for 5 min.	0 lb. in. 5 min.



September 7, 2001

CITY OF PORTLAND

John and Elliot Chamberlain
ALC Development Corp.
258 Black Point Road
Scarborough, ME 04074

RE: Washington Crossing Condominiums; Requirement to complete Phase One recreation and landscape amenities.

Dear ALC Development Corp.,

Thank you for meeting with the Planning Staff to discuss Phase Two of the Washington Crossing Condominium development. As was stated at the meeting, the Phase One amenities need to be completed in order that occupants of Phase One have access to a completed project, regardless of the status of Phase two. The Planning Office recognizes the need for your company to complete Phase Two road work prior to the end of the 2001 construction season, and appreciates that an autumn construction of the Phase One recreation field and associated landscaping would set your time table back.

As per our conversation and agreement in the Planning Office on September 7, 2001, the Planning Office will process the needed performance guarantee and permitting for Phase Two, with your agreement that the Phase One recreation field and associated landscaping will be completed prior to July 1, 2002.

Please sign and return this letter as an acknowledgement of our agreement. If there are any questions, please contact the planning staff.

Sincerely,


Alexander Jaegerman, Chief Planner

Seen and Agreed to by:

Elliot Chamberlain

John Chamberlain

CC: William B. Needelman, Senior Planner
Sarah Hopkins, Development Review Services Manager
Jay Reynolds, Development Review Coordinator

O:\PLAN\DEVREVW\ALLEN214\LETTERS\EC9-7-01.WBN

Tompkins, Clough, Hirshon & Langer, P.A.

Three Canal Plaza
Post Office Box 15060
Portland, Maine 04112

FAX COVER SHEET

resent 9/22
September 16, 1999

To: William Needelman – City of Portland 756-8250

Murrough H. O'Brien, Esq. 774-5018

Jon Campbell, Loan Officer, Peoples Heritage Bank

From: Lawrence R. Clough, Esq.

Tel: 207-874-6700

Fax: 207-874-6705

E-Mail lrclough@tchl.com

Total Number of Pages: _____

Message: Washington Crossing Condominium

I enclose the letter of credit form for this condominium project to be issued by Peoples based on the City's form.

I have not received the detailed construction cost breakdown from the developer, which should be coming in to me later today.

+ DEP Wetlands Approval

ATTENTION: This facsimile is confidential and may be attorney/client privileged. It contains confidential information intended for the person(s) above-named. The distribution, copying, or disclosure of the information contained in this facsimile is strictly prohibited. Please notify us immediately if you have received this facsimile by mistake and return the original facsimile to this office by U.S. Mail without making a copy of it in such case.

September 16, 1999

Joseph E. Gray, Jr., Director
CITY OF PORTLAND PLANNING AND URBAN DEVELOPMENT
389 Congress Street
Portland, Maine 04101

DRAFT

Re: Washington Crossing Condominium, Allen Avenue, Portland, Maine
\$330,000 Letter of Credit (Our #63647-742)

Peoples Heritage Bank hereby issues its Irrevocable Letter of Credit #63647-742 for the account of ALC Development Corporation as developer hereinafter referred to as the Developer, in the name of the City of Portland, Maine (the "City") in the aggregate amount of Three Hundred Forty-One Thousand Dollars (\$341,000.00).

The City, through its Director of Planning and Urban Development, may draw on this Letter of Credit by presentation of a sight draft and the original Letter of Credit and all amendments thereto, at the Bank's offices located at One Portland Square (3rd floor), Portland, Maine, accompanied by a certificate stating that:

- (1) the Developer has failed to complete by two years from the date of this letter of credit or by the expiration date of any temporary certificate of occupancy issued, whichever date comes first, at the Developer's expense, the work on the roads and other public improvements as set forth in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A; or
- (2) the Developer has failed to post the ten percent (10%) Defect Bond or Guarantee required by the Portland City Code Sections 14-501 and 15-525; or
- (3) the Developer has failed to notify the City for inspections.

In the event of the Bank's dishonor of the City of Portland's sight draft, the Bank shall inform the City of Portland in writing of the reason or reasons therefor within three (3) working days of the dishonor.

After all underground work in the public right of way has been completed and inspected to the satisfaction of the Department of Public Works, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electric conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or the City of Portland Director of Finances as provided in Section

Joseph E. Gray, Jr., Director
CITY OF PORTLAND PLANNING AND URBAN DEVELOPMENT
September 16, 1999
Page 2

Re: \$341,000 Letter of Credit

14-501 of the Portland City code may authorize the Bank, by written certification, to reduce the available amount of this letter of credit by a specified amount.

It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for period(s) of one (1) year each from the current expiration date hereof, or any future expiration date, unless at least sixty (60) days prior to any expiration date, the Bank notifies the Director of Planning and Urban Development by registered or certified mail at the above listed address that the Bank elects not to consider this Letter of Credit renewed for any such additional period.

In the event of such notice, the City may draw hereunder by presentation of a sight draft drawn on the Bank, accompanied by the original Letter of Credit and all amendments thereto, and a statement purportedly signed by the Director of Planning and Urban Development reading as follows:

This drawing results from notification that the Bank has elected not to renew its Letter of Credit #63647-742; or

This drawing results from the Developer's failure to timely complete to the satisfaction of the City the public improvements set forth in a certain Schedule of costs of Public Improvements dated [insert date]; or

This drawing results from the Developer's failure to post a ten percent (10%) Defect Guarantee or Bond as provided in Section 14-501 of the Portland City Code; or

This drawing results from the Developer's failure to notify the City of inspections.

This Letter of Credit will automatically expire upon the earlier of:

1. The Bank's receipt of a written notification from the City of Portland that said work as outlined in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A between the Developer and the City of Portland has been completed in accordance with the City of Portland specifications and the Bank's Letter of Credit #63647-742 may be canceled; or
2. The expiration date of September 14, 2001 [insert expiration date but not between the dates of September 15th and April 15th] or any automatically extended date as specified herein.

Partial drawings are permitted.

Joseph E. Gray, Jr., Director
CITY OF PORTLAND PLANNING AND URBAN DEVELOPMENT
September 16, 1999
Page 3

Re: \$341,000 Letter of Credit

We engage with you that drafts drawn under and in compliance with the terms of this credit will be duly honored if presented at our offices at identified above or before two years from the date hereof or any automatically extended date as specified herein.

Very truly yours,
Peoples Heritage Bank

DRAFT

By: _____
Its Duly Authorized

The City of Portland has accepted the providing of alternative security for the Developer's obligations to be performed pursuant to Section 14-501 and/or Section 14-525 of the Portland City Code.

Dated: September __, 1999

By: _____
Joseph E. Gray, Jr.
Its Duly Authorized Director
of Planning and Urban Development

Seen and Agreed to:
ALC DEVELOPMENT CORPORATION

By: _____
its President
Date: September __, 1999

Reviewed pursuant to Section 14-501 and/or Section 14-525, Portland City Code.

By: : _____
Director of Finance
Date: September __, 1999

By: : _____
Corporation Counsel
Date: September __, 1999

Joseph E. Gray, Jr., Director
CITY OF PORTLAND PLANNING AND URBAN DEVELOPMENT
September 16, 1999
Page 4

Re: \$341,000 Letter of Credit

Exhibit A
Schedule of Improvements

Perfilecomshrcross.doc
9/16/99 7:58 AM
Perfilecomshrcross.doc
9/16/99 7:58 AM

Bill - for your file

ALC DEVELOPMENT CORP
258 BLACK POINT RD
SCARBOROUGH, ME 04074

SALOMON SMITH BARNEY
SELECT
Client

1040

62-15/311

Date Sept 22, 1999

Pay to the Order of City of Portland \$ 7,722.50
Seventy Seven Hundred and Twenty Two Dollars

605 SALOMON SMITH BARNEY
FINANCIAL MANAGEMENT ACCOUNT™
PNC National Bank
Wilmington, DE

For

John Chamberla MP

⑆03⑆100157⑆ 1213304605⑆ 1040

DUPLICATE

GENERAL RECEIPT

CITY OF PORTLAND, MAINE

DEPARTMENT

DATE

RECEIVED FROM

ADDRESS

Planning
#1040
605 Black Point Rd.
Scarborough

9-22-99

UNIT	ITEM	REVENUE CODE	DOLLAR AMOUNT
	Eng fee		1935.50
	TRSP. fee		5797.00
	Job # 1998047		
	TOTAL		7732.50

CASH CHECK OTHER

1040

RECEIVED BY

J. Ozer

GPF INFORMATION SYSTEMS Box 878, Portland, ME 04104 (207) 774-1482
Commercial Printing • Business Forms • Advertising Specialties • Labels

200747 BP

FOGLIO INC.

Highway Const./Sitework/Residential
P.O. Box 308
Waterville, Maine 04087

March 5, 1998

Proposal submitted to: Chamberlain Construction
258 Black Point Road
Scarborough, ME 04074

RE: PROPOSAL FOR CONSTRUCTION OF WASHINGTON CROSSING CONDOMINIUMS PHASE I

Scope of work:

Install and maintain erosion control measures	\$1,400.00
Clear all trees necessary for the road construction	\$1,875.00
Stump and grub the R.O.W.	\$6,300.00
Rough grade to achieve proposed grades Import suitable fill as required	\$15,385.00
Install storm drainage	\$58,317.00
Install 4 catch basins	
Install 2 drain manholes	
Install +/- 554' of 12" SD	
Install +/- 23' of 15" SD	
Install one complete Vortech Model 9000	
Provide stone pipe bedding and select backfill	
Rip Rap pipe inlets/outlets as required	
Install sanitary sewer	\$64,281.00
Install +/- 1048' of 8" PVC sewer	
Install 7 sanitary manholes	
Install +/- 120' of 3" PVC forced sewer main	
Install 31 sewer service connections to be stubbed at edge of R.O.W.	
Construct forced main terminus @ SMH 7	
Provide pump around and traffic control for installation of SMH 1	
Provide temporary pavement patch as per City of Portland specs	
Provide stone pipe bedding and select backfill	
Install water main	\$67,132.00
Install +/- 1120' of 8" DIP	
Install one complete tapping sleeve and valve @ existing main in Allen Ave.	
Install 2 complete hydrant assemblies	
Install 1 complete 2" blow-off assembly	
Install 31-1" service connections with curb box @ edge of R.O.W.	
Provide 3-4" fire service connections stubbed @ edge of R.O.W.	
Provide sand pipe bedding and select backfill	
Provide one year maintenance bond to Portland Water District	
Provide temporary pavement patch as per City of Portland specs	

Phone: (207) 247-4186, 247-4461 Fax: (207) 247-6910

FOGLIO INC.
Highway Const./Sitework/Residential
P.O. Box 308
Waterboro, Maine 04097

Under ground electrical \$13,850.00

- Excavate and backfill for direct bury electrical, television, television cables
- Provide screened sand bedding and backfill
- Provide sched 40 PVC conduit at all pavement crossings
- Provide 5 fiberglass transformer pads
- Stub conduits for all service street crossings

~~Gas~~ Excavate and backfill for gas line to be installed by others \$10,150.00

- Provide screened sand bedding and backfill
- Provide temporary pavement patch as per City of Portland specs

~~Gravel~~ Place 1 1/2" of subbase gravel as per cross-section from Allen Ave. to Sta. 10+50 including parking areas \$24,760.00

- Place 3" of base gravel as per cross-section from Allen Ave. to Sta. 10+50 including parking areas
- Place 10" of subbase gravel as per cross-section from Allen Ave. to Sta. +/- 9+55

Paving \$42,060.00

- Finish grade road and walks prior to paving
- Place 3 1/2" of asphalt for road as per cross-section including parking areas
- Place 2" of asphalt for walks as per cross-section
- Place bituminous curbing
- Install granite curbing @ entrance radii
- NOTE: The paving is assumed to end at Sta. 10+00, stopping just before SMH 8 which will not be installed until Phase II construction.

Loam and seed all disturbed areas \$11,713.00

GENERAL NOTES:

- 1) The excavation and/or removal of ledge is excluded from this proposal.
- 2) All surplus material will be placed onsite at a location determined by Chamberlain Construction for later use during the individual units construction.
- 3) All permits and fees not listed above are excluded from this proposal. These may include, but are not limited to; City of Portland Street Opening; Portland Water District Inspection Costs; City of Portland Sanitary Inspection Costs; Central Maine Power Costs.
- 4) All necessary layout for construction is to be provided by others.

We propose to furnish material and labor in accordance with the above Scope of Work for the sum of:

Three hundred seventeen thousand two hundred twenty-four dollars and no cents.....(317,224.00)

This proposal may be withdrawn if not accepted within 30 days.

DELUCA

FOGLIO INC.
Highway Const./Sitework/Residential
 P.O. Box 308
 Waterboro, Maine 04087

Date: November 18, 1999

Invoice submitted to: *A.L.C. Development Corp.*
258 Black Point Road
Scarborough, Me. 04074

RE: Invoice # 1 for Washington Crossing Condominiums

<u>Item</u>	<u>Contract</u>	<u>Previous Billings</u>	<u>Current Billing</u>	<u>Balance</u>
<i>Erosion Control</i>	<i>1400.00</i>	<i>0</i>	<i>1400.00</i>	<i>0</i>
<i>Stump/Grub</i>	<i>6300.00</i>	<i>0</i>	<i>6300.00</i>	<i>2300.00</i>
<i>Rough Grade</i>	<i>15386.00</i>	<i>0</i>	<i>10400.00</i>	<i>4986.00</i>
<i>Storm Drain</i>	<i>55437.00</i>	<i>0</i>	<i>35417.00</i>	<i>20020.00</i>
<i>Sanitary Sewer</i>	<i>59072.00</i>	<i>0</i>	<i>51472.00</i>	<i>7600.00</i>
<i>Watermain</i>	<i>76262.00</i>	<i>0</i>	<i>50174.00</i>	<i>3600.00</i>
<i>T & E</i>	<i>13850.00</i>	<i>0</i>	<i>0</i>	<i>13850.00</i>
<i>Gravel</i>	<i>24760.00</i>	<i>0</i>	<i>0</i>	<i>24760.00</i>
<i>Paving</i>	<i>42060.00</i>	<i>0</i>	<i>0</i>	<i>42060.00</i>
Totals	294527.00	0	152863.00	141664.00

Phone: (207) 247-4186, 247-4461 Fax: (207) 247-6910

From: "Steve Bushey" <srbushey@maine.rr.com>
To: "william needleman" <wbn@ci.portland.me.us>
Date: Tue, Nov 30, 1999 4:14 PM
Subject: washington crossing perf. quarantine

Bill,

I have reviewed site conditions and the invoice #1 from Foglio construction. The Foglio invoice is for \$155,163 out of a contract amount of \$294,527. I would recommend release of 90% of their billing amount or \$139,646.70. I do not have a copy of the actual performance quarantine estimate for the project, therefore I am unaware of the full quarantine amount, although I assume it is for at least the Foglio contract amount or more. Foglio's work is only within the Delaware Court R.O.W. and does not include additional landscaping, service extensions into buildings or grading around the buildings. As we also discussed earlier this afternoon, Foglio has installed 2" dia. water service stubs instead of the 4" services shown on the drawings. This may need to be brought up to the Fire Dept. If you have any questions please call.
Steve

From: Gaylen McDougall
To: William Needleman
Date: Tue, Nov 30, 1999 4:31 PM
Subject: Re: Washington Crossing Condominiums

I will check with the state fire marshall to see what he has approved.
Mac

>>> William Needleman 11/30 3:20 PM >>>
Mac,

ALC Development has installed 2" service mains to sprinkle their condo buildings at 238 Allen Avenue. The plan showed 4" lines. Are 2" lines acceptable? They want a bond reduction, and the lines are in.
Thanks

Bill N

From: William Needleman
To: Steve Bushey
Subject: ALC Devel project at 238 Allen Ave: Light pole relocation

Elliot Chamberlain called to request a slight modification of his site plan for the Washington Crossing condos. He would like to shift one light pole from one side of the street to the other. The pole in question is the first pole in the development and would be relocated to the area in front of the sitting /play area. This would provide for better night use of the sitting area and would save the developer some money (the result would put all of the poles on the same side of the street.) I didn't have any problem with it, but if you think it should stay where it is, let me know as soon as possible. Thanks.

Bill

CC: Aqj

From: Nancy Knauber
To: William Needleman
Date: Tue, Feb 8, 2000 9:56 AM
Subject: Wshington Crossing

Todd Merkle has informed me this morning that if someone excavates in an area other than a street they don't need a Moratorium Waiver, so Alex Chamberland won't need one since he's digging in a Right of Way and not a street.

He will still need an Excavation License and a permit, he can pick those up from Carol Merritt her at 55 Portland St. His insurance company will need to send Carol information about his coverage; and Bill Bray will need to sign his application for the license. These activities may take a day or so.

PUBLIC WORKS - Issue

We may want to check the condition of the pipe he's tying into. I tend to remember, last year that someone told me it's in pretty bad shape.

CC: Anthony Lombardo, Bradley Roland, Carol Merritt,...



CITY OF PORTLAND

September 22, 1999

John Chamberland
ALC Development Corp.
258 Black Point Road
Scarborough, ME 04074

RE: Washington Crossing Condominiums; Installation of Cross Country Stormwater Pipe

Dear Elliot,

I wanted to touch base after our recent discussions regarding the installation of the cross country stormwater pipe at Washington Crossing. Public Works now says that as long as your insurance is in order and you are not looking for Cof O's you can install the pipe at your own schedule. They caution that pipes may not be installed in standing water and that pumping will be needed to insure proper installation and inspection. In the interest of doing as little violence to the wetland as possible, of facilitating construction, and allowing for runoff and erosion control during the spring melt and rains, we encourage you to install the pipe on frozen ground and as soon as possible. As stated above, no certificate of occupancy will be issued prior to completion of the stormwater system. You may want to touch base with Public Works to give them an updated schedule of construction. If you have any questions, please contact me at any time. Thank you.

Sincerely,

Bill Keedlums, Planner
Role Draft

cc:

Alexander Jaegerman, Chief Planner
Nancy Knauber, Public Works Inspections Officer
Steve Bushy, Development Review Coordinator

O:\PLAN\DEVREVW\ALLEN214\LETTERS\EC9-21.WBN

FOGLIO INC.*Highway Const./Sitework/Residential**P.O. Box 308**Waterboro, Maine 04087*

Date: November 18, 1999

Invoice submitted to: *A.L.C. Development Corp.*
258 Black Point Road
Scarborough, Me. 04074

RE: Invoice # 1 for Washington Crossing Condominiums

<i>Item</i>	<i>Contract</i>	<i>Previous Billings</i>	<i>Current Billing</i>	<i>Balance</i>
<i>Erosion Control</i>	<i>1400.00</i>	<i>0</i>	<i>1400.00</i>	<i>0</i>
<i>Stump/Grub</i>	<i>6300.00</i>	<i>0</i>	<i>6300.00</i>	<i>2300.00</i>
<i>Rough Grade</i>	<i>15386.00</i>	<i>0</i>	<i>10400.00</i>	<i>4986.00</i>
<i>Storm Drain</i>	<i>55437.00</i>	<i>0</i>	<i>35417.00</i>	<i>20020.00</i>
<i>Sanitary Sewer</i>	<i>59072.00</i>	<i>0</i>	<i>51472.00</i>	<i>7600.00</i>
<i>Watermain</i>	<i>76262.00</i>	<i>0</i>	<i>50174.00</i>	<i>3600.00</i>
<i>T & E</i>	<i>13850.00</i>	<i>0</i>	<i>0</i>	<i>13850.00</i>
<i>Gravel</i>	<i>24760.00</i>	<i>0</i>	<i>0</i>	<i>24760.00</i>
<i>Paving</i>	<i>42060.00</i>	<i>0</i>	<i>0</i>	<i>42060.00</i>
<i>Totals</i>	<i>294527.00</i>	<i>0</i>	<i>152863.00</i>	<i>141664.00</i>

Phone: (207) 247-4186, 247-4461 Fax: (207) 247-6910

From: "Steve Bushey" <srbushey@maine.rr.com>
To: "william needleman" <wbn@ci.portland.me.us>
Date: Mon, Dec 20, 1999 5:09 PM
Subject: Washington Crossing Perf. guarantee

Bill,

I have reviewed site conditions and the revised invoice #1 dated Dec. 16, 1999 from Foglio construction. The Foglio invoice is for \$203,277 out of a contract amount of \$294,527. I would recommend release of 90% of their billing amount or \$182,949.30. I do not have a copy of the actual performance guarantee estimate for the project, therefore I am unaware of the full guarantee amount, although I assume it is for at least the Foglio contract amount or more. Foglio's work is only within the Delaware Court R.O.W. and does not include additional landscaping, service extensions into buildings or grading around the buildings. If you have any questions please call.

Steve

ALC Dev. Corp.
Chamberlain Construction, Inc.
CUSTOM HOME BUILDERS
258 Black Point Rd
Scarborough, ME 04074
Tel: 207-883-1992
Fax 207-883-5908

FAX COVER SHEET

TO: Bill Needleman # 874-8716 756-8258
 FROM: John Chamberlain
 CC: Steve Bushy / DeLuca-Hoffman

Pages to follow: 3

Message: Washington Crossing Condo Assn.

Please find Bills from Foglio, Inc
 totaling \$84,460 and Landscaping
 bills totaling \$14,562. I have forwarded
 to Steve Bushy as well. Per previous
 conversations please proceed with reducing
 the letter of credit with Peoples Heritage
 Bank.

Regards

John Chamberlain

10-13-00

84 460
 14 562

99 022

428 050 - x = 75 000 + y
 75 000
83 050

148,050
 99,022
59,028
 (75,000)

FOGLIO INC.
Highway Const./Sitework/Residential
 P.O. Box 308
 Waterboro, Maine 04087

Date: September 28, 2000

Invoice submitted to: *A.L.C. Development Corp.*
 258 Black Point Road
 Scarborough, Me. 04074

RE: Invoice # 2 Washington Crossing Condominiums

<i>Item</i>	<i>Contract</i>	<i>Previous Billings</i>	<i>Current Billings</i>	<i>Balance</i>
<i>Erosion Control</i>	1400.00	1400.00	0	0
<i>Stump/Grub</i>	6300.00	6300.00	0	0
<i>Rough Grade</i>	15386.00	13500.00	1886.00	0
<i>Storm Drain</i>	55437.00	44437.00	11000.00	0
<i>Sanitary Sewer</i>	59072.00	56472.00	2600.00	0
<i>Watermain</i>	76262.00	66312.00	9950.00	0
<i>T & E</i>	13850.00	0	13850.00	0
<i>Gravel</i>	25880.00	14856.00	9304.00	1720.00
<i>Paving</i>	42060.00	0	26085.00	15975.00
<i>C.O. 1</i>	9785.00	0	9785.00	0
Totals	305,432.00	203,277.00	84,460.00	17,695.00

Phone: (207) 247-4186, 247-4461 Fax: (207) 247-6910

CHANGE ORDER

Change Order Number: 1

Date: September 29, 2000

Project Name: Washington Crossing Condominiums

Owner: A.L.C. Development Corp.

Contractor: Foglio Inc.

The following changes are hereby made to the Contract Documents:

Description of Change order

Change to fire services	-\$1,988.00
Add for stone/fabric & piping roadway	\$8,788.00
Add for stump removal	\$2,985.00

Change to Contract Price:

Original Contract Price	\$295,647.00
Total Amount of Previous Change Orders	\$0
Amount of This Change order	\$9,785.00
New Contract Price Including This Change Order	\$305,432.00

Change to Contract Time

The Time of Completion for the Original Contract Will Be Increased/Decreased by 0 Days.

Requested by: Douglas Foglio Jr
Vice President

Accepted by

Name: _____

Title: _____

K2 Landscape
66 Hearw Rd
Scarborough ME 04074

INVOICE

Invoice No.

Invoice Date 10-03-00

Customer No.

Bill To:

ALL Corp.
258 Black Point Rd
Scar ME 04074
207 883-1992 -

Ship To:

Salesman

Shipped Via

Terms

FOB

DAVID LAWE

Qty. Ordered

Qty. Shipped

Description

Unit

Amount

For Completion of the two Burms on
Allen Ave and the Stone Garden Circle
At Washington Crossings

TOTAL DUE

\$ 14,562

Orig. Contract \$ 19,768 (Wall-8400,Pavers-2932,Plants&Rec trees-8436)
Additions \$ 1,410 (Add'l \$ to increase wall size)
Total \$ 21,178 of which \$9,810 completed(wall & additions only)

Orig. Contract \$ 5,472 (Berm shrubs and mulch)
Additions \$ 700 (Add'l shrubs and mulch)
Total \$ 6,172 of which \$4,752 completed(Bal of 1,400 is Util Box)

TOMPKINS, CLOUGH, HIRSHON & LANGER, P.A.

Counselors at Law
Three Canal Plaza
P.O. Box 15060
Portland, Maine 04112-5060

DEC 10 1999

Bruce M. Tompkins
Lawrence R. Clough
David M. Hirshon
Leonard W. Langer
Marshall J. Tinkle*

Tel: (207) 874-6700
Fax: (207) 874-6705
E-Mail: lrclough@tchl.com

* also licensed in MA and DC

December 9, 1999

Penny Littell, Esq.
Legal Department
CITY OF PORTLAND
389 Congress Street
Portland, ME 04101

Re: Peoples Heritage Bank/ALC Development Corporation
Washington Crossing Condominium

Dear Randy:

I enclose the original Easement Deed as recorded in the Cumberland County Registry of Deeds in Book 15060, Page 155.

Sincerely,



Tanya J. Sherwood
Secretary to Lawrence R. Clough

/tjs

Enclosure

Cc: Richard A. Blake, Sr. V.P.

EASEMENT DEED

KNOW ALL PERSONS BY THESE PRESENTS, that **ALC Development Corporation**, a Maine corporation, with its principal place of business at Scarborough, County of Cumberland, and State of Maine, for consideration paid, grants to the **City of Portland**, the mailing address of which is 389 Congress Street, Portland, ME 04101, with warranty covenants, an easement in the real estate located in the City of Portland, County of Cumberland, and State of Maine, which real estate is more particularly described on Exhibit A attached hereto and incorporated by reference herein.

Grantor grants and conveys to Grantee an easement in the said real estate for the purposes of ground and surface water drainage and flowage, including the right to enter on the said real estate for purposes of maintenance, repair and construction through, under, over, along, across and on it.

IN WITNESS WHEREOF, ALC Development Corporation has caused this instrument to be executed by Elliott Chamberlain, its president duly authorized, this 22nd day of September 1999.

ALC DEVELOPMENT CORPORATION

By: Elliott Chamberlain
Elliott Chamberlain
Its President

STATE OF MAINE
CUMBERLAND, SS.

September 22, 1999

Then personally appeared before me Elliott Chamberlain, President of ALC Development Corporation, who acknowledged the foregoing instrument to be his free act and deed, and the free act and deed of the corporation.

Murrough H. O'Brien

Attorney

[Print Name:]

Murrough H. O'Brien

EXHIBIT A

A CERTAIN DRAINAGE EASEMENT situated westerly of Pennell Avenue, so-called, and northerly of Allen Avenue, so-called, in the City of Portland, County of Cumberland, State of Maine, being shown as 30 Foot Drainage Easement to City of Portland for Maintenance and Flowage on a plan entitled, "Master Plan of Washington Crossing Condominiums, Allen Avenue, Portland, Maine" for ALC Development Corporation, Scarborough, Maine; dated October 10, 1997; revised through August 13, 1999, by Sebago Technics, Inc., Westbrook, Maine, STI Job No. 97380, hereinafter referred to as "the plan"; said drainage easement being more particularly bounded and described as follows:

Beginning at a point in the easterly sideline of land now or formerly of the City of Portland, occupied by the Portland Arts and Technology High School, said point of beginning also being North 32° 20' 27" West, a distance of 157.09 feet from a found 1 inch pipe in the westerly line of the Grantor herein as shown on the plan;

Thence North 50° 04' 28" East, by and along land of the Grantor, a distance of 189.29 feet to a point;

Thence North 33° 49' 28" East, by and along land of the Grantor, a distance of 283.51 feet to a point;

Thence North 55° 28' 15" East, by and along land of the Grantor, a distance of 138.53 feet to a point in the westerly sideline of Pennell Avenue, said point being North 33° 53' 45" West, a distance of 20.0 feet from the northeasterly corner of land now or formerly of Amy Anderson and John Johnston as shown on the plan;

Thence North 33° 53' 45" West, by and along the westerly sideline of Pennell Avenue, a distance of 30.0 feet to a point at the southeasterly corner of land now or formerly of Edward and Elizabeth Flaherty;

Thence South 55° 28' 15" West, by and along the southerly line of said Flaherty, a distance of 100.01 feet to a point at the southwesterly corner of said Flaherty;

Thence North 33° 53' 45" West, by and along the westerly line of said Flaherty and by and along the westerly line of The Homesteads as shown on a subdivision plan recorded in the Cumberland County Registry of Deeds in Plan Book 14, Page 70, a distance of 1,497.84 to a point;

Thence North 82° 51' 47" West, by and along land of the Grantor, a distance of 111.06 feet to a point;

Exhibit A -- Page 2

Thence North $55^{\circ} 59' 37''$ East, by and along land of the Grantor, a distance of 83.77 feet to a point in the westerly line of The Homesteads and land now or formerly of Stuart Robinson as shown on the plan;

Thence North $33^{\circ} 53' 45''$ West, by and along the westerly line of The Homesteads, a distance of 30.0 feet to a point, said point being South $33^{\circ} 53' 45''$ East, a distance of 363.45 feet from a set iron rod at the northeasterly corner of the Grantor;

Thence South $55^{\circ} 59' 37''$ West, by and along land of the Grantor, a distance of 302.67 feet to a point;

Thence South $84^{\circ} 22' 40''$ East, by and along land of the Grantor, a distance of 164.76 feet to a point in the easterly sideline of said City of Portland;

Thence South $26^{\circ} 36' 17''$ East, by and along the easterly line of the City of Portland, a distance of 32.13 feet to a point, said point being North $26^{\circ} 36' 17''$ West, a distance of 128.06 feet from a set iron rod in the easterly line of the City of Portland as shown on the plan;

Thence North $84^{\circ} 22' 40''$ East, by and along land of the Grantor, a distance of 160.84 feet to a point;

Thence North $55^{\circ} 59' 37''$ East, a distance of 180.83 to a point;

Thence South $82^{\circ} 51' 47''$ East, a distance of 131.73 feet to a point;

Thence South $33^{\circ} 53' 45''$ East, by and along land of the Grantor, a distance of 1,484.51 feet to a point;

Thence South $55^{\circ} 28' 15''$ West, by and along land of the Grantor, a distance of 14.26 feet to a point;

Thence South $33^{\circ} 49' 28''$ West, by and along land of the Grantor, a distance of 284.97 feet to a point;

Thence South $50^{\circ} 04' 28''$ West, by and along land of the Grantor, a distance of 181.01 feet to a point in the easterly line of said City of Portland land;

Thence South $32^{\circ} 20' 27''$ East, by and along the easterly line of the City of Portland, a distance of 30.26 to the point of beginning.

Meaning and intending to describe a strip of land 30 feet in width, being a portion of the same premises conveyed to ALC Development Corporation by a deed recorded in the Cumberland Registry in Book 14132, Page 320.

Said easement area described herein conveyed together with the right perpetually to enter upon the strip for the purpose of maintaining, repairing, rebuilding, reconstruction and installing drainage pipes and structures.

The parcel herein described is subject to, and benefited by, but not limited to the easements and restrictions as noted on the plan; said plan to be recorded in the Cumberland County Registry of Deeds.

Bearings herein are magnetic north as referenced to the plan.

drainage
9-07-99

RECEIVED
RECORDED REGISTRY OF DEEDS
1999 SEP 22 PM 12: 04
CUMBERLAND COUNTY
John B O'Brien

238.13
05.13

ATT 1

AREA TO BE CONVERTED FROM CITY OF PORTLAND TO ALC DEVELOPMENT CORPORATION IS 4625 SF. (211 AC)

24' PAVED ROAD. SEE DETAIL SHEET 9

EASEMENT PORTLAND DISTRICT

BEGIN CUL-DE-SAC STA 19+2256.0
END CUL-DE-SAC STA 22+8845

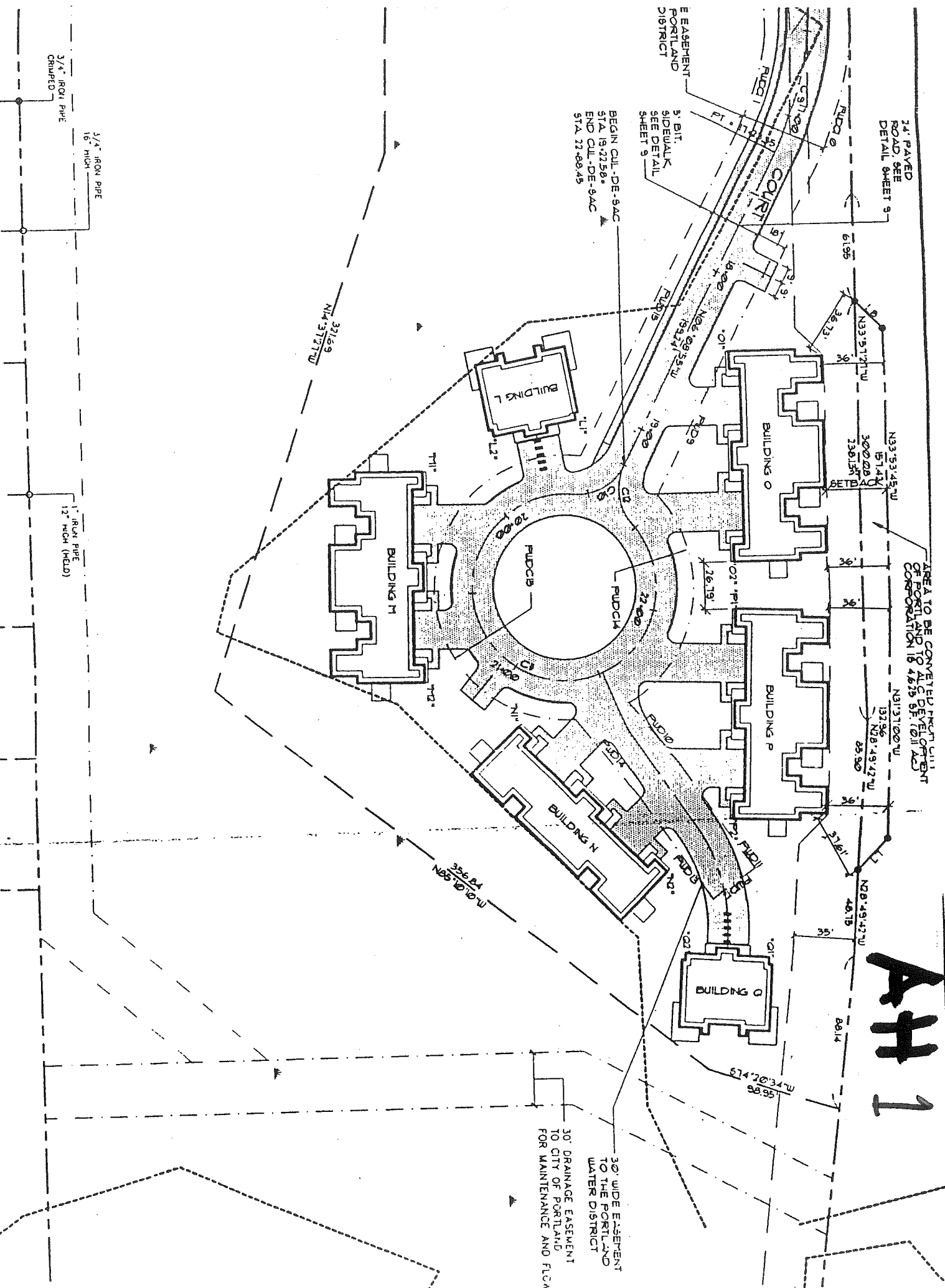
5' BIT. SIDEWALK SEE DETAIL SHEET 9

321.69
N14°37'27"W

3/4" IRON PIPE
16" HIGH

1" IRON PIPE
12" HIGH (HEAD)

30' WIDE EASEMENT TO THE PORTLAND WATER DISTRICT
30' DRAINAGE EASEMENT TO CITY OF PORTLAND FOR MAINTENANCE AND FLOWAGE



CHAMBERLAIN CONSTRUCTION
258 BLACK POINT RD.
SCARBOROUGH, ME 04074
207-883-1992-PHONE
207-883-5908-FAX

FACSIMILE COVER SHEET

DATE: 5/2/02

TO: Jay Reynolds

FROM: Elliott Chamberlain

OF PAGES INCLUDING COVER 3

COMMENTS:

Billing # 3 for Phase 2
Washington Crossing Roadwork.

Please Call if you have questions!

Thanks.

CHAMBERLAIN

Construction

CUSTOM BUILT HOMES

ALC Development
 258 Black Point Rd.
 Scarborough, ME 04074

Draw # 3
 May 2, 2002

PHASE 2 WASHINGTON CROSSING
COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE

ITEM	BUDGET	Rec. To Date	CURRENT DRAW	REMAINING BALANCE
STREET/SIDEWALK				
ROAD	\$ 90,800.00	\$ 28,000.00	\$ 50,000.00	\$ 12,900.00
GRANITE CURBING	\$ -			\$ -
SIDEWALKS	\$ 10,000.00		\$ -	\$ 10,000.00
ESPLANADES	\$ 13,200.00		\$ -	\$ 13,200.00
MONUMENTS	\$ -			\$ -
STREET LIGHTING	\$ 3,300.00		\$ -	\$ 3,300.00
OTHER	\$ 2,775.00		\$ -	\$ 2,775.00
EARTH WORK				
CUT	\$ 17,800.00	\$ 17,800.00		\$ -
FILL	\$ -		\$ -	\$ -
SANITARY SEWER				
MANHOLES	\$ 11,000.00	\$ 11,000.00		\$ -
PIPING	\$ 51,408.00	\$ 51,408.00	\$ -	\$ -
CONNECTIONS	\$ -		\$ -	\$ -
MAIN LINE PIPING	\$ -		\$ -	\$ -
PUMP STATIONS	\$ 23,000.00	\$ 11,500.00	\$ -	\$ 11,500.00
OTHER	\$ 1,000.00	\$ 1,000.00		\$ -
WATER MAIN	\$ 68,000.00	\$ 68,000.00	\$ -	\$ -
STORM DRAINAGE				
MANHOLES	\$ 6,150.00	\$ 6,150.00	\$ -	\$ -
CATCH BASINS	\$ 14,700.00	\$ 14,700.00	\$ -	\$ -
PIPING	\$ 49,770.00	\$ 49,770.00	\$ -	\$ -
DETENTION BASINS	\$ -		\$ -	\$ -
STORMWATER UNITS	\$ 25,000.00	\$ 25,000.00	\$ -	\$ -
OTHER	\$ 1,000.00	\$ 1,000.00	\$ -	\$ -

CHAMBERLAIN

CHAMBERLAIN
Construction
CUSTOM BUILT HOMES

CHAMBERLAIN

Page 2 Cont'd.

	BUDGET	PREV. DRAW	CURRENT DRAW	REM. BAL.
SITE LIGHTING	\$ 2,100.00	\$ -	\$ -	2,100.00
EROSION CONTROL				
SILT FENCE	\$ 3,500.00	\$ -	\$ -	3,500.00
CHECK DAMS	\$ -	\$ -	\$ -	-
RIPE INLET/OUTLET PROTECTION	\$ -	\$ -	\$ -	-
LEVEL LIP SPREADER	\$ -	\$ -	\$ -	-
SLOPE STABILIZATION	\$ -	\$ -	\$ -	-
GEOTEXTILE	\$ -	\$ -	\$ -	-
HAY BALE BARRIERS	\$ -	\$ -	\$ -	-
CATCH BASIN INLET PROTECTION	\$ 1,000.00	\$ -	\$ -	1,000.00
RECREATION & OPEN SPACE	\$ -	\$ -	\$ -	-
LANDSCAPING	\$ 5,000.00	\$ -	\$ -	5,000.00
MISCELLANEOUS				
UNDERGROUND UTILITIES	\$ 14,000.00	\$ -	\$ 14,000.00	-
GRAND TOTAL	\$ 414,603.00	\$ 285,328.00	\$ 64,000.00	65,275.00

EXTRAS

CHANGE ORDER #1	\$ 1,440.00
LEDGE REMOVAL	
CHANGE ORDER #2	\$ 770.00
ADD CELLAR DRAIN IN 4 BUILDING:	\$ 64,000.00
GRAND TOTAL DUE	

OK 5-14
 [Signature]

From: William Needleman
To: Hank Dresch; Jeff Tarling ; Randy Stewart; Sara...
Subject: Re: Mtg at ALC Condos

Hank:

The School Department's position on the ALC proposal is understandable. Could you write a letter to John Chamberlain outlining the administration's disposition regarding the transfer of property at the PATHS facility? I know that the applicants will have more questions than I can answer and they may wish to lobby to continue the conversation. Their address is:

John and Elliot Chamberlain
Chamberlain Construction
258 Black Point Road
Scarborough, ME 04074

I appreciate the time and thought that you have given the Chamberlain's proposal. Please call at any time. Thanks.

Bill

>>> Hank Dresch 12/10 7:40 AM >>>
Bill,

Considering the issue we are having with development of the Jack site regarding the berm, which we were advised was something that we could alter at our will in the future, the School Department is very reluctant to give up ownership or control of the property at PATHS. There is too much uncertainty in our potential use of this site to not retain ownership at this time.

Hank

>>> William Needleman 12/07/01 08:25AM >>>
To All:

As of yet, only Hank has responded with a preferred meeting time for the ALC meeting. Please respond to ALL with a preferred time. If you do not intend to come, let me know and I'll stop bugging you. Thanks.

Bill

>>> Hank Dresch 12/06 10:21 AM >>>
Bill,

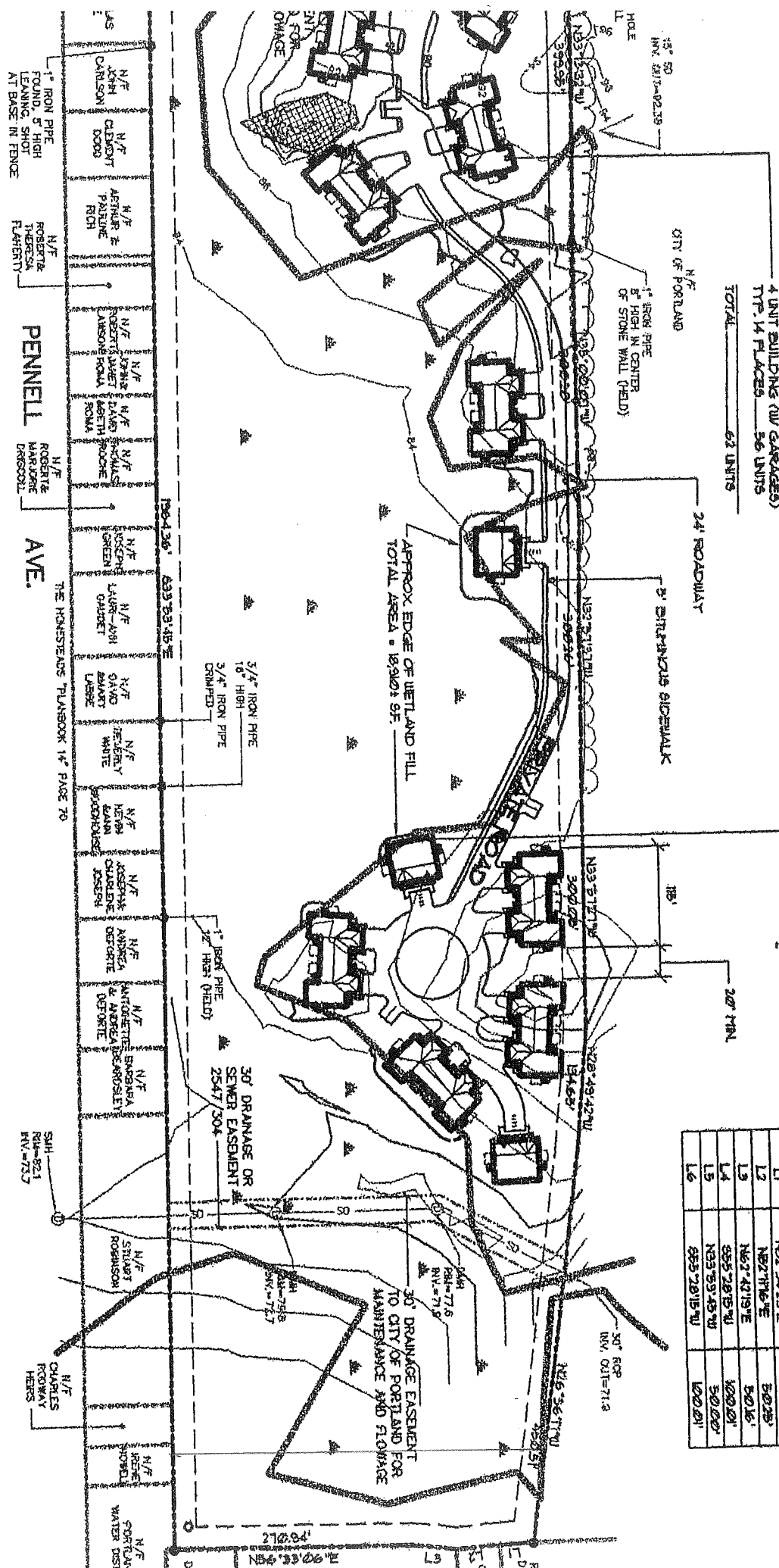
Sorry to not have responded sooner. Thought I'd already sent something back. Monday at 10:30 would work best for me, but I could also make Tuesday.

Hank

>>> William Needleman 12/03/01 10:30AM >>>
Re. Meeting to view proposed foundation impacts on vegetated buffer and existing mature trees.
Opportunity to discuss specifics and concerns with the applicant.

Suggested meeting times: Monday 12-10, 10:30 to 12:00 or
Tuesday 12-11, 1:00

4 UNIT BUILDINGS (W/ GARAGES)
 TYP. 14 PLACES 56 UNITS
 TOTAL 63 UNITS



LINE	DIRECTION	DISTANCE
L1	N82°24'29"E	40.27'
L2	N82°17'07"E	50.29'
L3	N82°42'19"E	50.18'
L4	S85°28'05"W	100.20'
L5	N83°59'45"W	50.20'
L6	S85°28'19"W	100.20'

1. ALL INFORMATION ON THIS PLAN IS BASED ON THE RECORDS OF THE CITY OF PORTLAND AND THE PORTLAND WATER DISTRICT. THE CITY OF PORTLAND AND THE PORTLAND WATER DISTRICT MAKE NO WARRANTY AS TO THE ACCURACY OF THE INFORMATION ON THIS PLAN.

2. DESCRIPTION OF MONUMENTATION HAVING BEEN ARE MAGNETIC NORTH OF 1986, REFERENCED TO THE MONUMENTATION NOT HELD.

3. REPORT BEING LIMITED TO THE NOTES AS

4. PRIOR TO ANY BIDDING, THE APPLICANT AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF PORTLAND AND FIRE DEPARTMENT AND CODE ENFORCEMENT DEPARTMENT.

5. NET RESIDENTIAL CALCULATIONS:

TOTAL LOT AREA	16.09 AC
- STORAGE DETENTION AREA OUTSIDE OF WETLANDS	0 AC
- EXISTING WATERCOURSES	0 AC
- ACCESSIBLE AREAS	13.00 AC
- WETLANDS	0.79 AC
- AREAS ENCUMBERED BY EXISTING EASEMENTS OUTSIDE WETLANDS	0 AC
- SLOPES OF 25% OR GREATER	0 AC
TOTAL	12.30 AC
- 20% OF SUBTOTAL	2.46 AC
NET RESIDENTIAL LAND AREA	9.84 AC
MAXIMUM NO. OF UNITS ALLOWED AT 16,500 SF	63 UNITS
NUMBER OF UNITS PROPOSED	63 UNITS

6. OPEN SPACE REQUIREMENTS:
 2000 SF MINIMUM
 2000 SF OF WHICH A MINIMUM OF 5000 SF (50% MIN) SHALL BE A MULTI-PURPOSE MOULDED FIELD.

7. OPEN SPACE PROVIDED:
 2000 SF

Corporation Counsel

Gary C. Wood



CITY OF PORTLAND

Associate Counsel

Charles A. Lane
Elizabeth L. Boynton
Donna M. Katsiaficas
Penny Littell

January 28, 2003

Lawrence Clough, Esq.
Tompkins, Clough Hirshon & Langer, PA
3 Canal Plaza-P.O. Box 15060
Portland, ME 04112-3200

Dear Larry:

Enclosed please find the executed deed and Transfer Tax Form for the property the City sold to ALC Development on Allen Avenue. When you record the deed, would you be so kind as to inform us of the Book and Page number?

Thank you for your attention to this matter.

Sincerely,

Penny Littell
Associate Corporation Counsel

cc: William Needleman

O:\OFFICE\PENNY\Letters 2003\Clough012703.doc

Corporation Counsel, 389 Congress Street, Portland,
Maine 04101
(207) 874-8480 fax (207) 874-8497

City of Portland

Re-Send

Fax

To: Ed Suslovic **From:** Elizabeth L. Boynton,
Associate Corporation Counsel

Fax: 541-4757 **Pages:** 7 (including cover)

Phone: **Date:** 11/13/02

Re: P&S with ALC Development **CC:** Penny Littell; William Needleman

Urgent **For Review** **Please Comment** **Please Reply** **Please Recycle**

This facsimile transmission is confidential, and may be privileged and is intended for the use of the addressee only. If you are not the addressee (or a person responsible for delivering this transmission to the addressee), DO NOT use this transmission in any way, but promptly contact the sender by telephone.

Penny Littell is out of the office today, but we need to finalize the City Council's agenda for 11/18. I am attaching a copy of the draft P & S agreement which she previously did for your review, and if acceptable, signature by ALC Development. The only substantive changes I made were referencing Attachment 2, and the contingency of required approval by the City Council. I used no later than December 4 for approval on the chance that it might be postponed for some reason from this Monday's November 18th meeting. If that happened, it would come back as unfinished business on December 4.

It is the City's practice to have agreements signed by the outside party prior to City Council action. The agenda package needs to be copied tomorrow afternoon. Thus, I would appreciate it if you could return a signed copy to me as soon as possible, or if there is some problem, let me know as soon as possible. Thank you in advance for your cooperation. I may be reached at 874-8480.

PURCHASE AND SALE AGREEMENT

THIS AGREEMENT for the purchase and sale of real estate made as of the ____ day of _____, 2002 by and between the **CITY OF PORTLAND**, a body politic and corporate located at 389 Congress Street, Portland, Maine (hereinafter referred to as "**CITY**"), and **ALC DEVELOPMENT CORPORATION** of _____, Portland in Cumberland County, Maine (hereinafter referred to as "**BUYER**").

WITNESSETH:

WHEREAS, CITY is the owner of real estate presently comprising a portion of the Portland Arts and Technical High School campus located on Allen Avenue in Portland, Maine.

WHEREAS, BUYER desires to acquire a portion of the property, sixteen (16) feet by three hundred and thirty (330) feet, adjacent to the **BUYER'S** Allen Avenue development known as Washington Crossing Condominiums, as delineated on Attachment 1 attached hereto and made a part hereof (hereinafter the "Property"); and

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

1. **SALE.**

CITY agrees to sell the Property to **BUYER**, and **BUYER** agrees to purchase the Property in accordance with the provisions hereof.

2. **CONSIDERATION.**

The purchase price for the Property shall be Eight Thousand Dollars (\$8,000.00), which amount shall be paid at the closing set forth in Paragraph 7 hereof but subject to the terms of Paragraph 6 hereof.

3. **TITLE.**

Title to the Property shall be conveyed by Quitclaim Deed, without covenant, and shall be free of **CITY** liens.

4. **POSSESSION.**

Full possession of the Property will be given at the transfer of title.

5. **RISK OF LOSS.**

The risk of loss or damage to the Property by fire or otherwise, until transfer of title hereunder, is assumed by **CITY**. The Property is to be delivered in substantially the same condition as of the date of this Agreement.

6. **OTHER CONDITIONS.**

This Purchase and Sale Agreement is subject to and conditioned upon:

- a. the **CITY** reserving for itself, its successors and assigns, an easement over said land to be used for all lawful purposes including but not limited to a road, driveway, trail etc.; and
- b. **BUYER**, and its successors and assigns, agree to maintain the land as a No-Cut Buffer strip running with the land except that, in the case of a fallen tree or other condition which might effect the health, welfare or safety of the public or the inhabitants of the Washington Crossing Condominium, minimal cutting may be permitted to correct such condition; and
- c. **BUYER** shall convey on the date of closing an easement of 100 feet, at the northwesterly portion of its property, on which a twelve foot trail may be constructed to benefit the public, to Portland Trails a not-for-profit corporation located in the City of Portland. The location of such easement shall be as provided on Attachment 2; and
- d. Approval by the Portland City Council no later than December 4, 2002. In the event such approval is not obtained by said date, this Agreement shall be void and neither party shall have any liability nor further obligations hereunder.

7. **CLOSING.**

The closing shall be held at Portland City Hall at a time mutually agreeable to the parties within thirty (30) days of the date of this purchase and sale agreement.

8. **BINDING EFFECT.**

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

9. **ENTIRE AGREEMENT.**

This Agreement represents the entire and complete Agreement and understanding between the parties and supersedes any prior Agreement or understanding, written or oral, between the parties with respect to the acquisition or exchange of the Property.

10. **HEADINGS AND CAPTIONS.**

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

11. **GOVERNING LAW.**

This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Maine.

12. **NOTICE.**

Any notice required or permitted under this Agreement shall be deemed sufficient if mailed with first class postage affixed or delivered in person to:

FOR THE CITY: City of Portland
ATTN: CITY MANAGER
389 Congress Street
Portland, ME 04101

With a copy to: Lee Urban, Director of Economic Development
City of Portland
389 Congress Street
Portland ME 04101

FOR THE BUYER: ALC Development Corporation

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

CITY OF PORTLAND

WITNESS

By: _____
Joseph E. Gray, Jr.
Its City Manager

ALC DEVELOPMENT CORPORATION

WITNESS

By: _____

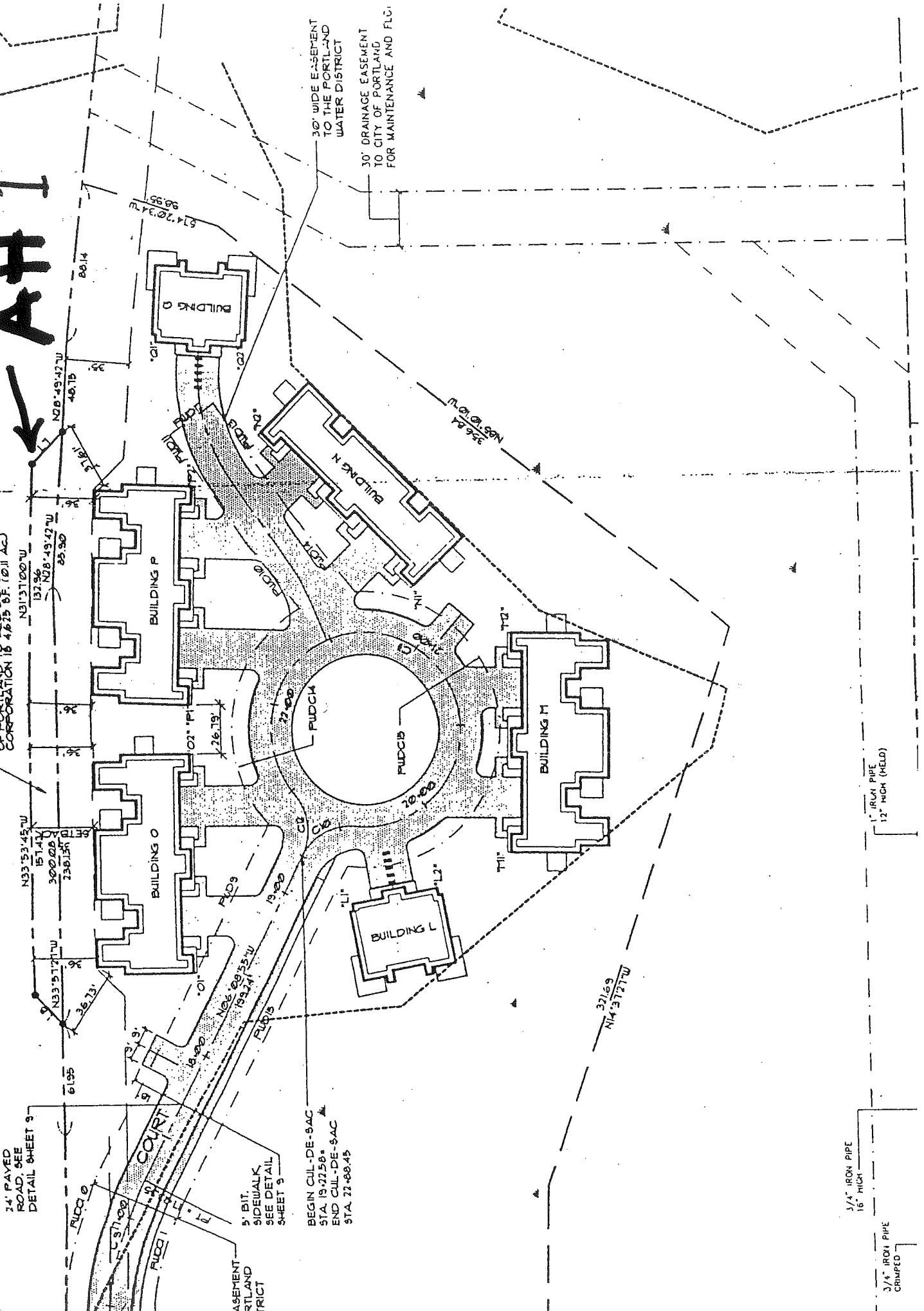
Printed name: _____

Its: _____

238.13
85.13

AH1

AREA TO BE CONVERTED FROM UTIL
OF PORTLAND WATER AND LIGHT DEVELOPMENT
CORPORATION IS 4.75 SF. (211 AC)



30' WIDE EASEMENT
TO THE PORTLAND
WATER DISTRICT

30' DRAINAGE EASEMENT
TO CITY OF PORTLAND
FOR MAINTENANCE AND FL.

34' PAVED
ROAD. SEE
DETAIL SHEET 9

5' BIT
SIDEWALK.
SEE DETAIL
SHEET 9

EASEMENT
PORTLAND
DISTRICT

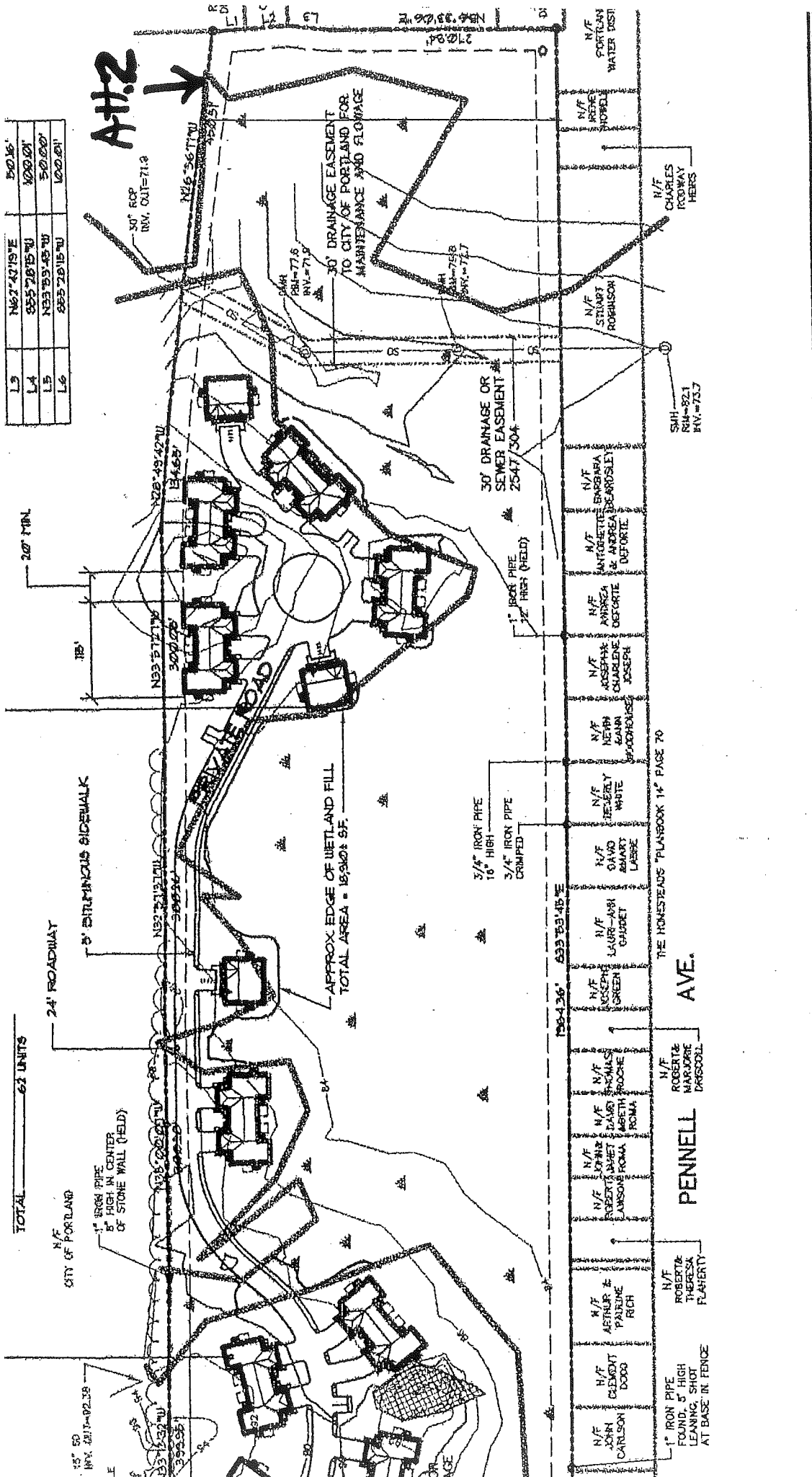
BEGIN CUL-DE-SAC
STA. 19+72.56
END CUL-DE-SAC
STA. 22+88.45

3/4" IRON PIPE
16" HIGH

3/4" IRON PIPE
CRUMPED

1" IRON PIPE
12" HIGH (HELD)

L3	N62°47'57"E	50.16'
L4	S55°28'15"W	100.01'
L5	N33°53'45"W	50.020'
L6	S55°28'15"W	100.01'



- WERE PERFORMED IN CONFORMANCE WITH THE LICENSE FOR PROFESSIONAL LAND SURVEYORS OF PRACTICE, CATEGORY 1, CONDITION 2
- PORT BEING LIMITED TO THE NOTES AS SHOWN ON MONUMENTATION NOT HELD. DESCRIPTION OR MONUMENTATION HAVING SURVEY MAGNETIC NORTH OF 1896, REFERENCED TO AN IRON ARREAR FOUND. 5\"/>

12. NET RESIDENTIAL CALCULATIONS:

TOTAL LOT AREA	26.09 AC.
- STORAGE WATER DETENTION AREA OUTSIDE OF WETLANDS	0 AC.
- EXISTING WATER COURSES	0 AC.
- INACCESSIBLE AREAS	0 AC.
- WETLANDS	13.10 AC.
- AREAS ENCUMBERED BY EXISTING EASEMENTS OUTSIDE WETLANDS	0.19 AC.
- SLOPES OF 15% OR GREATER	0 AC.
SUBTOTAL	13.10 AC.
- 2.0% OF SUBTOTAL	2.56 AC.
NET RESIDENTIAL LAND AREA	10.54 AC. (446,054 SF.)
MAXIMUM NO. OF UNITS ALLOWED AT 1/6,000 SF.	63 UNITS
NUMBER OF UNITS PROPOSED	62 UNITS

13. OPEN SPACE REQUIREMENTS:
300 SF/UNIT
5000 SF/AC
BE A MULTI-PURPOSE MOWED FIELD.

14. OPEN SPACE PROVIDED:

Tompkins, Clough, Hirshon & Langer, P.A.
Three Canal Plaza
Post Office Box 15060
Portland, Maine 04101

Fax Cover Sheet

Date: November 15, 2002

To: **Elizabeth Boynton**

874-8497

cc: Elliott Chamberlain
Ed Suslovic

883-6955
541-4757

From: Lawrence R. Clough, Esq.
Voice: 207-874-6700
Fax: 207-874-6705

Total Number of Pages including this Cover Sheet: 7

Message:

Re: ALC Development Corp. and City of Portland Agreement, my comments.

ATTENTION: This facsimile is confidential and may be attorney/client privileged. It contains confidential information intended for the person(s) above-named. The distribution, copying, or disclosure of the information contained in this facsimile is strictly prohibited. Please notify us immediately if you have received this facsimile by mistake and return the original facsimile to this office by U.S. Mail without making a copy of it in such case.

PURCHASE AND SALE AGREEMENT

THIS AGREEMENT for the purchase and sale of real estate made as of the ___ day of _____, 2002 by and between the CITY OF PORTLAND, a body politic and corporate located at 389 Congress Street, Portland, Maine (hereinafter referred to as "CITY"), and ALC DEVELOPMENT CORPORATION of 1022 Portland Road, Saco ME 04072 Portland in Cumberland County, Maine (hereinafter referred to as "BUYER").

WITNESSETH:

WHEREAS, CITY is the owner of real estate presently comprising a portion of the Portland Arts and Technical High School campus located on Allen Avenue in Portland, Maine.

WHEREAS, BUYER desires to acquire a portion of the ^{City's} ^{measuring approximately} ~~sixteen (16)~~ ^{three hundred eighty (380)} feet by three hundred and thirty (330) feet, adjacent to the BUYER'S Allen Avenue development known as Washington Crossing Condominiums, as ^{more particularly depicted on the cross hatched areas} delineated on Attachment 1 attached hereto and made a part hereof (hereinafter the "Property"); and

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

1. SALE.

CITY agrees to sell the Property to BUYER, and BUYER agrees to purchase the Property in accordance with the provisions hereof.

2. CONSIDERATION.

The purchase price for the Property shall be Eight Thousand Dollars (\$8,000.00), which amount shall be paid at the closing set forth in Paragraph 7 hereof but subject to the terms of Paragraph 6 hereof.

3. TITLE.

Title to the Property shall be conveyed by Quitclaim Deed, without covenant, and shall be free of CITY liens.

If Buyer gives written notice prior to the closing that title to the Property is not good and marketable, then Buyer may terminate this Agreement.

4. POSSESSION.

Full possession of the Property will be given at the transfer of title.

5. RISK OF LOSS.

The risk of loss or damage to the Property by fire or otherwise, until transfer of title hereunder, is assumed by CITY. The Property is to be delivered in substantially the same condition as of the date of this Agreement.

6. OTHER CONDITIONS.

This Purchase and Sale Agreement is subject to and conditioned upon:

a. the CITY reserving for itself, its successors and assigns, an access easement over said land to be used for all lawful purposes including but not limited to a road, driveway, trail etc.; and

but not the construction of any buildings

construction of

b. BUYER, and its successors and assigns, agree to maintain the land as a No-Cut Buffer strip running with the land except that, in the case of a fallen tree or other condition which might effect the health, welfare or safety of the public or the inhabitants of the Washington Crossing Condominium, minimal cutting may be permitted to correct such condition; and

in length over an unimproved area

c. BUYER shall convey on the date of closing an easement of 100 feet at the northwesterly portion of its property, on which a twelve foot trail may be constructed to benefit the public, to Portland Trails a not-for-profit corporation located in the City of Portland. The location of such easement shall be as provided on Attachment 2; and

d. Approval by the Portland City Council no later than December 4, 2002. In the event such approval is not obtained by said date, this Agreement shall be void and neither party shall have any liability nor further obligations hereunder.

7. CLOSING.

The closing shall be held at Portland City Hall at a time mutually agreeable to the parties within thirty (30) days of the date of this purchase and sale agreement.

8. BINDING EFFECT.

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

9. ENTIRE AGREEMENT.

This Agreement represents the entire and complete Agreement and understanding between the parties and supersedes any prior Agreement or understanding, written or oral, between the parties with respect to the acquisition or exchange of the Property.

10. HEADINGS AND CAPTIONS.

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

11. GOVERNING LAW.

This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Maine.

12. NOTICE.

Any notice required or permitted under this Agreement shall be deemed sufficient if mailed with first class postage affixed or delivered in person to:

FOR THE CITY: City of Portland
ATTN: CITY MANAGER
389 Congress Street
Portland, ME 04101

With a copy to: Lee Urban, Director of Economic Development
City of Portland
389 Congress Street
Portland ME 04101

FOR THE BUYER: ALC Development Corporation

1022 Portland Road, Saco, ME

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

ME 0407 2

CITY OF PORTLAND

WITNESS

By: _____
Joseph E. Gray, Jr.
Its City Manager

NOV-13-2002 14:43

CITY OF PORTLAND

2078748497 P. 05/07

Contract P&S/ALC. P&S.
11.13.02

ALC DEVELOPMENT CORPORATION

WITNESS

By: _____

Printed name: _____

Its: _____

NOV-13-2002 14:43

CITY OF PORTLAND

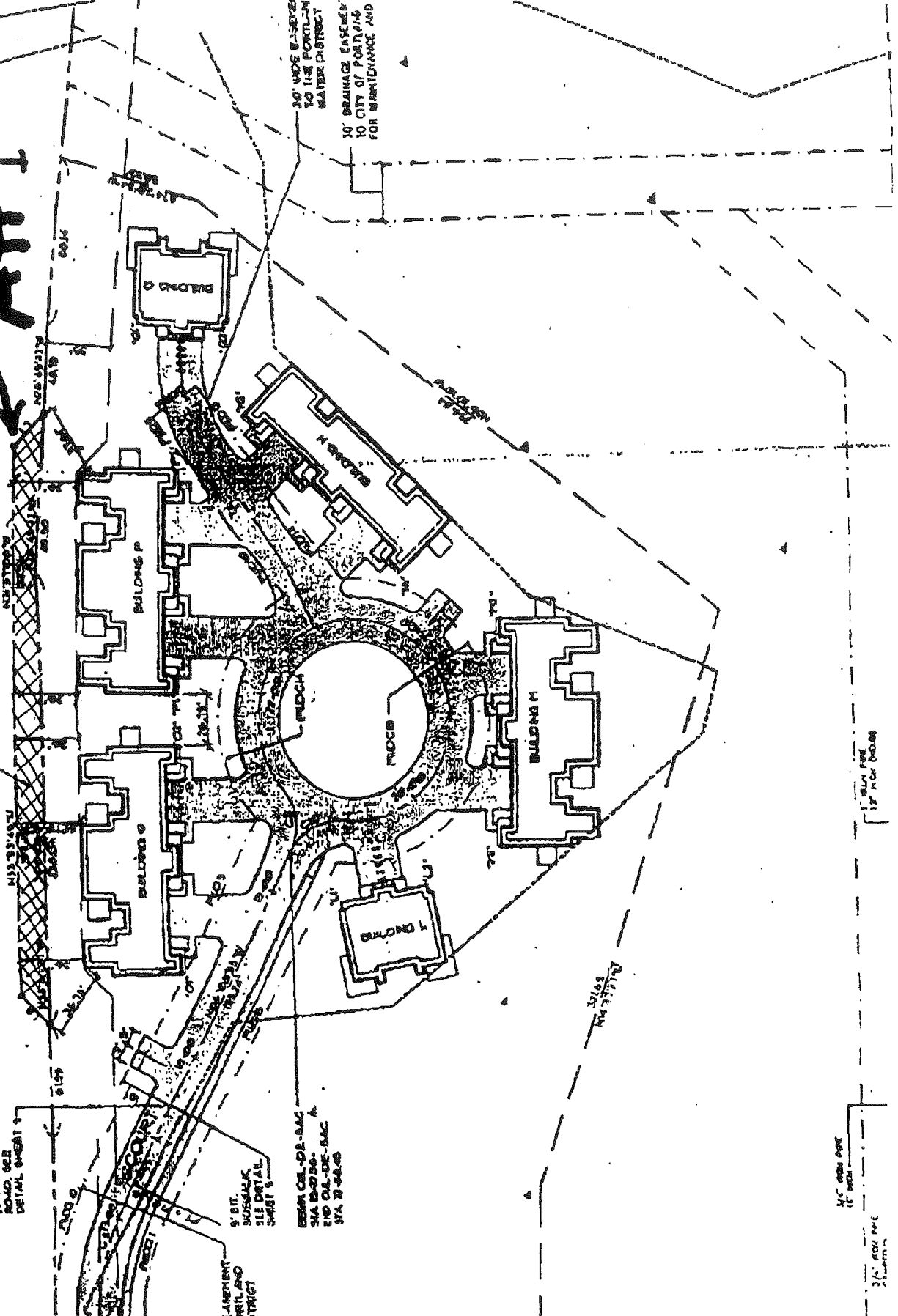
2078748497

P. 06/87

230.12
05.

AH1

AREA TO BE CONVEYED WITH
EXEMPTION FROM 12.5% EXCISE TAX



1" PAVED ROAD SEE DETAIL SHEET 9

9" BIT. SUBSALIK SEE DETAIL SHEET 8

SEWER OIL-DE-SAC VIA 12" DIA. SAC 12" DIA. SAC VIA 12" DIA. SAC

LAWNMENT TRAIL AND STRIP

1/2" ASPHALT 12" WIDE

3/4" ASPHALT 12" WIDE

NOV-11-2002 05:20PM

TEL 2078748497

IDJEDSUSLOVICREALESTATE

PAGE: 006 R#1004

Portland Public Schools

Administrative Offices
331 Veranda Street, Portland, Maine 04103-5599
207-874-8100



SEP 21 2002
Lee Wilson

To: Joe Gray, City Manager
From: Mary Jo O'Connor, Superintendent *mjo*
Date: September 20, 2002
CC: Michelle Hendrich, Chair, School Committee
William Needleman, Planning Department

The School Department and School Committee have reviewed the subject request by ALC Development Corporation to acquire a sixteen (16) by three hundred thirty (330) foot strip of land from the City. This land is shown on ALC Development Corporation drawing attached hereto. A metes and bounds description for this strip will be provided by ALC Development Corporation for inclusion in the deed.

There is no objection on the part of the School Department or School Committee to the sale of this strip of land provided the City retains for itself an easement over the strip which may be used for all legal purposes, including but not limited to a public pedestrian trail, installation of a driveway/roadway, a buffer strip, utility purposes, etc.

The Portland School Committee strongly urges the City to receive the highest negotiable price reflecting this parcel's current and future value to both the developer and the City of Portland.

From: Jill Duson <jduson@perkinsthompson.com>
To: "ldu@ci.portland.me.us" <ldu@ci.portland.me.us>
Date: Tue, Oct 8, 2002 1:35 PM

Lee: please relay to the Planning staff my appreciation for the attention paid to the development happening on and abutting my street - Pennell Avenue. I have been able to say to my neighbors, without hesitation "don't worry, the city staff is on top of things".

I particularly wanted to express interest and support of the work on securing a pedestrian easement across the rear of the PATHS property to preserve the unofficial connection to the Portland Trails network. Many people access the trail network at the end of our dead-end street.

I would appreciate receiving a copy of the material that Bill is preparing on this matter for review by at the Community Development Committee's meeting on October 9th.

Jill -774-2635, ext. 291

P.S. Is there a directory of city e-mail addresses ???

Department of Planning & Development
Lee D. Urban, Director



CITY OF PORTLAND

Division Directors
Mark B. Adelson
Housing & Neighborhood Services

Alexander Q. Jaegerman, AICP
Planning

John N. Lufkin
Economic Development

To: Chair Cloutier and Members of the Community Development Committee
From: Bill Needelman, Senior Planner
Date: 10-9-02
Re: ALC Development Proposal
Draft Agreement Language

Penny Littell of the City Corporation Counsel's Office provides the following draft agreement language for the Committee's review.

Recommend approval of the transfer of property for \$ _____, provided that the following conditions are satisfied:

1. The City retains an easement for all legal purposes over that portion of the land being transferred; and
2. That ALC deed to Portland Trails a public pedestrian / trail easement over the ALC property. Said easement shall be sufficiently wide (but not greater than _____ feet) to accommodate a trail, and shall lie within one hundred (100) feet of the northwesterly property line (for its entire length); meaning and intending provide an easement area sufficient to connect, by trail, the PATHS property to the Portland Water District easement and the paper streets abutting the ALC property, all as more particularly shown on Exhibit A. The exact location of the trail shall be determined by Portland Trails.

October 8, 2002

William Needleman
Senior Planner
City of Portland
389 Congress Street
Portland, ME 04101



Dear Bill:

Portland Trails is pleased to submit this letter expressing our great interest in preserving a possible trail corridor linking the Portland Arts and Technical High School facility and its on-site trail network to the emerging hub of trails centered around the Lyseth and Lyman Moore schools in North Deering. Specifically, we are seeking to secure a trail easement located within the portion of the Washington Crossing development to the north and northwest of the drainage easement at the northerly end of the parcel. Such an easement would allow for future links to Pennell and Sparhawk Streets.

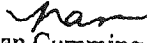
Several years ago Portland Trails had conversations with the developers of Washington Crossing about our interest in securing a trail easement within the Washington Crossing parcel to allow us to link the North Deering trail networks. While no specific agreements were reached, Portland Trails viewed these conversations as friendly and constructive.

In the days leading up to this evening's meeting, Jeff Sommer, a Portland Trails board member, left a message with Ed Suslovic's office regarding Portland Trails' continued interest in reaching an agreement regarding trail access and easements. However, no discussion has yet resulted from this contact. Therefore, Portland Trails is taking this opportunity to express our great interest in securing pedestrian access and a trail easement for the portion of the Washington Crossing Condominiums parcel that lies to the north-northwest of the drainage easement to the north of the road and building sites.

If possible, Portland Trails would also like to secure a trail connection from Washington Crossing to the PATHS property, allowing access to the PATHS campus and trail network from the Washington Crossing private road. This link might be placed approximately $\frac{3}{4}$ miles down the private road where the road lies adjacent to the PATHS property line and in an area where no residential units are located nearby. We believe that such a connection would serve as an amenity to Washington Crossing residents, allowing easy access to PATHS' park-like campus and trail network.

Thank you for your consideration of this matter.

Sincerely,


Nan Cumming
Executive Director

Officers

David Littell
President
Jeff Sommer
Vice President
Elizabeth Ehrenfeld
Vice President
Jennifer Stewart
Treasurer
William Sweeney
Secretary

Trustees

Colin Baker
Roger Berle
Peter Cooley
Don Deshens
Tony Donovan
Richard A. Henry
Tom Jewell, Co-Founder
Bob Krug
Janice Mitchell
Mike Musca
Cheri Musgrave
Elizabeth Nolan
Christina White
Clarkson Woodward

Advisory Trustees

Timothy Brooks
Abigail King Diggins
Bruce Hyman
Susy Kist
Wendell Large
Burnham Martin
J. Peter Monroe
Phil Poirier
Eliza Cope Nolan
Walter Rumery
Mike Saxl
Nathan Smith, Co-Founder
Richard Spencer, Co-Founder
Phil Thompson
Lois Winter

Executive Director

Nan Cumming

Dear Sir,

You requested a letter about my back lawn. Since the new construction my back lawn seems to be a lot of water, more then before. I would like this problem taken ^{care} of, with out any more damage to trees out back.

Thanks Very Much,
Robert Faherty
68 Pennell Ave
Portland.

APRIL 1999

WE, THE TAXPAYERS OF PORTLAND, MAINE AND RESIDENTS OF PENNELL AVENUE, FEEL THAT AT THIS TIME OUR SEWER SYSTEM SHOULD BE REPLACED DUE TO ITS SMALL SIZE AND THE FACT THAT CONDOMINIUMS ARE PLANNING TO BE BUILT BEHIND PENNELL AVENUE, IT CANNOT TAKE ANY MORE FLOW AT THIS TIME.

ALSO, WE FEEL THAT PENNELL AVENUE SHOULD BE REPAIRED DUE TO ITS HEAVY TRAFFIC FLOW FROM HENNESSEY DRIVE AND CYPRESS STREET.

<u>NAME</u>	<u>ADDRESS</u>	<u>Phone</u>
Mr + Mrs Paul Rom	80 Pennell Ave	797 95 79
Mr + Mrs Richards	122 Pennell Ave	797-9589
Jill Dason	101 Pennell Ave.	878 0769
Steph Meller	110 Pennell Ave	797-8969
Thomas A. Foley	157 Pennell Ave	878-8457
Beverly White	110 Pennell Ave	797-8964
Thomas F. Rankin	84 Pennell Ave	797 9045
Joseph H. Green	92 Pennell Ave	797-2889
RICHARD BRICHETTO	96- PENNELL AVE	797-5368
Amy Hill	116 Pennell Ave	878-7767
Svetlana Shkolnik	97 Pennell Ave	878-2753
Bill McCullum	75 PENNELL AVE	797-0283
Ann Dubail	65 Pennell Ave	878-2792
Jody Brindley	63 PENNELL AVE	878-0693
Patsy Pearson	47 PENNELL AVE.	797-0513
Mr + Mrs Betty Hunt	43 Pennell Ave	878-3504
James A. Cunningham	35 Pennell	797-0634
Charlie + Georgia Young	21 Pennell Ave	797-4762
Allen Hill	19 Pennell Ave	797-8708
Marian Fuler	7 Pennell Ave	797-1633
Mary J. Baucher	16 Pennell Ave	797-6954
John Johnston	20 Pennell Ave	878-2378

APRIL 1999

WE, THE TAXPAYERS OF PORTLAND, MAINE AND RESIDENTS OF PENNELL AVENUE, FEEL THAT AT THIS TIME OUR SEWER SYSTEM SHOULD BE REPLACED DUE TO ITS SMALL SIZE AND THE FACT THAT CONDOMINIUMS ARE PLANNING TO BE BUILT BEHIND PENNELL AVENUE, IT CANNOT TAKE ANY MORE FLOW AT THIS TIME.

ALSO, WE FEEL THAT PENNELL AVENUE SHOULD BE REPAIRED DUE TO ITS HEAVY TRAFFIC FLOW FROM HENNESSEY DRIVE AND CYPRESS STREET.

NAME

ADDRESS

Mr & Mrs Edward J. Hickey	28 Pennell Ave	797-4114
Mr & Mrs. Arthur Rich	40 Pennell Ave	797-2951
Charloty H. H. H.	107 Pennell Ave	797-3657
Bob Faherty	68 Pennell	799-6702
Dave Sherman	72 Pennell Ave	878-9429
Karen M. Hunter	88 Pennell Ave.	878-2417
Ralph Aubrey	91 Pennell Ave	797-6812
Laura H. H.	104 Pennell Ave	878-3280
Paula Labrecque	79 Pennell Ave.	878-0432
Beth Bergeron	87 Pennell Ave	878-2685
John + Janet Roman	76 Pennell Ave	797-6705
Liz C. H.	40 Pennell Avenue	875-4997



CITY OF PORTLAND

April 15, 1999

Mr. Robert Faherty
68 Pennell Ave.
Portland, ME 04103

Dear Mr. Faherty,

Thank you for calling this office with your concerns with the Washington Crossing Codominium project in your neighborhood. Please feel free to contact us if you have any further concerns. The Developer is the ALC Development Corp. 258 Black Point Road, Scarborough ME 04074.

A handwritten signature in cursive script, appearing to read "Bill Needelman".

William B. Needelman, Planner

Mr. Shawn M. Frank, P.E.
Sebego Technics
12 Westbrook Commons
Westbrook, Me 04098-1339

Dear Mr. Frank

As per our conversation on February 10, 1999, I have listed a number of questions concerning the Washington Crossing condominium PRUD on Allen Ave. Additionally, having further reviewed the PRUD standards, I have a comment about the orientation of some of the buildings. With regards to your Tier 2 wetlands alteration permit from DEP, be aware that this project may be impacting a stream as defined by Natural Resources Protection Act, thus triggering a full NRPA permit.

*Fire Safety:

1. Raymond Court is a street name that has conflicts with other approved city streets and will have to be changed.
2. Hydrant installation will be coordinated with the Portland Water District.
3. Please supply a fire safety narrative.
4. No hand rails are shown on the building elevations.

*PRUD standards:

As part of the Site Plan code, a PRUD is to be designed to "complement and accentuate natural topography, vegetation, stream, water features, and other existing features of the site." Additionally, a PRUD is intended to consider the neighborhood setting in which it is entering as part of a unifying design scheme. As submitted, this development appears to be a generic response to a wet site. To conform to the design elements of the PRUD standards, you may want find a unifying theme to tie this development to the site. The former farm land setting of this part of Deering, the forested character of the site as it is now, or the adjacent residential neighborhood of Pennell St. are all elements which you could look to for design clues. Landscaping and recreational space should be designed as an integrated part of the development. Finally, the PRUD standards require consideration of solar orientation as an element of building siting. As submitted, many of the interior units will receive very little sun light as a result of both the building orientation and shading from the end units and the garages. Allowing building orientation to vary (as submitted, all buildings are square to the road) to account for sun light may be a suggestion worth considering. While this design makes efforts to minimize wetland impacts, wetland avoidance does not constitute adherence to the design standards.

If you have any questions, please contact me at any time. My Telephone Number is 874-8722.

Sincerely,

William B. Needelman,



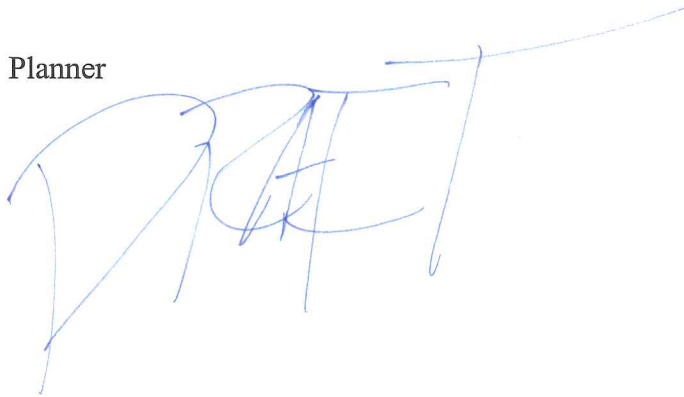
April 15, 1999

Mr. Robert Faherty
68 Pennell Ave.
Portland, ME 04103

Dear Mr. Faherty,

Thank you for calling this office with your concerns with the Washington Crossing Condominium project in your neighborhood. Please feel free to contact us if you have any further concerns. The Developer is the ALC Development Corp. 258 Black Point Road, Scarborough ME 04074.

William B. Needelman, Planner

A handwritten signature in blue ink, appearing to read 'W. B. Needelman', with a long horizontal line extending to the right from the end of the signature.

September 13, 1999

Joseph E. Gray
Director of Planning & Urban Development
City Hall, 4th Floor
389 Congress Street
Portland, ME 04101

Dear Mr. Gray:

I live at 257 Allen Avenue and am very concerned about the proposed 62-dwelling unit development at 214-218 Allen Avenue. I have two major concerns about this project.

The first issue is my concern about filling and paving a large open field that now acts to absorb rainwater. I am sure you must be aware that there is a pond and a large wetland on the property and that open water and cattails are visible from the street. The wetlands and swampy area act to absorb storm water during heavy rains. There is a major problem with storm water runoff in our area and I regularly have several inches of water in my basement after a good rain and in spring when the snow melts. I am sure most of my neighbors have the similar problem. Also, I have enjoyed hearing the peepers on warm spring nights and shall miss all the wildlife that uses that meadow.

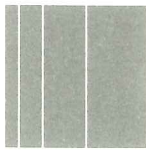
The second major issue in the area is the additional traffic 62 dwelling units will generate. I estimate at least 100 additional cars exiting from the development and making their way along Allen Avenue. As it is, I very frequently have to wait several minutes before I can leave my driveway. Trying to cross Allen Avenue at almost any time is a matter of taking your life in your hands. My child and another child on our side of Allen Avenue now attend school at Lyman Moore Middle School and I worry about them getting across either Allen Avenue and/or Washington Avenue.

Recently a great deal of new development has been proposed for our neighborhood and it may be time to take a longer look at the total impact the various projects will have in the future in this part of Portland.

Thank you for the chance to voice my concerns.

Sincerely,

Susanne Willard



SebagoTechnics
Engineering & Planning for the Future

March 30, 1998
97380

Richard Knowland, Senior Planner
City of Portland
389 Congress Street
Portland, ME 04101

Allen Avenue Apartments

Dear Rick:

Attached are six (6) copies of the sketch plan for Allen Avenue Apartments. These plans are for planning staff review and comment.

The proposal envisions 62 attached apartments clustered at the southeasterly portion of the site. The remainder of the property will remain undeveloped and available as open space. A typical apartment cluster consists of four attached two-story units without garages. Buildings will be wood frame construction on concrete slabs. Three of the four-unit buildings (Nos. 2, 9 and 13) will have one-story handicap apartments representing 5% of the total number. Building No. 6 will incorporate two apartment units, an office, laundry, and maintenance/storage space.

All units will be sprinklered and, therefore, one point of ingress/egress is proposed from Allen Avenue. The development will be landscaped to provide effective as well as visually attractive buffers between the units and from abutting properties. Walkways between buildings and parking lots and internal circulation will be asphalt.

The daycare building, located at the entrance near Allen Avenue, will have a play yard within a wood fence enclosure along a portion of the site perimeter.

We anticipate more than one stormwater treatment pond on the site and three schematic areas are identified. The site will be serviced by municipal utilities, and we are proposing underground services. Fire hydrants will be every 500 feet. Traffic and geotechnical analyses and reports are pending.

Mr. Knowland

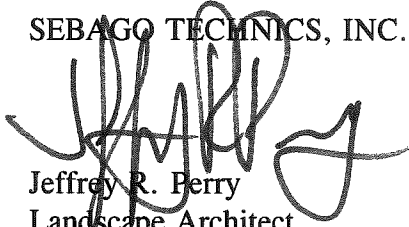
-2-

March 30, 1998

I look forward to your comments following staff review. Please call if you have any questions.

Sincerely,

SEBAGO TECHNICS, INC.

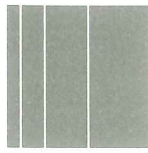


Jeffrey R. Perry
Landscape Architect

JRP:jc

Enc.

cc: John and Elliott Chamberlain



SebagoTechnics
Engineering & Planning for the Future

July 31, 1998
97380

Richard Knowland, Senior Planner
Planning Department
City of Portland
389 Congress Street
Portland, ME 04103

Allen Avenue Condominiums

Dear Rick:

Please find attached a rendered sketch plan and seven copies for the above referenced project. These plans are submitted for staff review and comment in anticipation of the workshop scheduled for August 11, 1998 at 3:30 P.M.

The proposal envisions 12 buildings (housing 58 condominiums) clustered at the southerly portion of the site. Other site improvements include a tennis court and sidewalk/path system connecting interior units with the public sidewalk along Allen Avenue. The layout of buildings and improvements is designed to minimize on-site wetlands impact. The remainder of property will remain undeveloped and available as open space. No road connections other than to Allen Avenue are anticipated.

There are two building types shown: 4-unit and 5-unit. The 4-unit building consists of two-story townhouses with internal garages. The outside dimension of the 4-unit building along the long axis is 104 feet. The 5-unit building is similar to the 4-unit; however, the central (5th) unit does not have a garage, and three surface parking spaces are provided. The 5-unit measures 130 feet along the long axis.

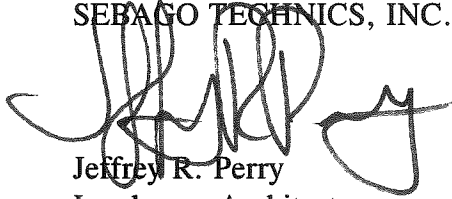
All buildings will be fully sprinklered, wood-frame construction with a 4'± crawl space/storage area accessed by an exterior bulkhead. The minimum distance between buildings of 16' will be maintained.

We anticipate more than one stormwater treatment pond on the site and two schematic areas are identified. The site will be serviced by municipal utilities and we are proposing underground services.

I look forward to your comments following staff review. In the interim, please call with any questions.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read 'JRP', with a stylized flourish extending to the right.

Jeffrey R. Perry
Landscape Architect

JRP:dlf/jc

Enc.

cc: John and Elliott Chamberlain, ALC Development Corp.



CITY OF PORTLAND

12 May 1999

Mr. Jeffrey R. Perry,
Landscape Architect,
Sebago Technics,
P.O. B. 1339,
Westbrook, Maine 04098-1339

RE: Sanitary Sewer Capacity to Handle Anticipated Wastewater Flows, from the Proposed "Washington Crossing" Condominiums, to the City Sewer System, and the Sewage Treatment Facilities, of the Portland Water District.

Dear Mr. Perry:

The existing twenty-four inch diameter vitrified clay sanitary sewer pipe, located in Allen Avenue, and the Portland Water District sewage treatment facilities, in the City of Portland, have adequate capacity to transport and treat the anticipated wastewater flows of 11,160 GPD, from your proposed subdivision, to be located at #214 Allen Avenue, City of Portland.

<u>Proposed Wastewater Flows from the Proposed Subdivision</u>	
Proposed Sixty-two Dwelling Units @ 180 GPD/Unit	= 11,160 GPD
Total Proposed Increase in Wastewater Flows for this Project	= 11,160 GPD

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

Sincerely,
CITY OF PORTLAND
Frank Brancely
Frank J. Brancely, BA, MA.
Senior Engineering Technician

FJB

- cc: Joseph E. Gray, Director, Department of Planning & Urban Development, City of Portland
- William Needleman, Planner, Dept. of Planning & Urban Development, City of Portland
- Katherine A. Staples, PE, City Engineer, City of Portland
- Bradley A. Roland, PE, Environmental Projects Engineer, City of Portland
- Anthony W. Lombardo, PE, Project Engineer, City of Portland
- Stephen K. Harris, Assistant Engineer, City of Portland
- Desk file



AUG 19 1999

William J. Bray
Director

CITY OF PORTLAND

July 23, 1999

Mr. Eliot Chamberlain
ALC Development Corporation
258 Black Point Road
Scarborough, ME 04074

**RE: "AGREEMENT" FOR THE PROPOSED CITY OF PORTLAND STORM SEWER
EASEMENT & STORM SEWER INSTALLATION.....Washington Crossing
Condominiums**

Dear Mr. Chamberlain:

The purpose of this letter is to summarize the resolution and conditions of the " storm sewer and easement agreement" reached by both you and the City, during our phone conversation on July 22, 1999.

Your condominium development, off Allen Avenue in Portland, was approved by the City of Portland Planning Board in June 1999. One of the conditions of approval was the granting of a thirty (30) feet wide drainage easement to the City of Portland, located along the northeasterly boundary of your property. In addition, you were required to negotiate with Public Works to determine financial contributions, by both yourself and the City, towards the cost of installing a proposed storm sewer.

The following information summarizes the terms our agreement:

1. The proposed drainage easement shall be located along the northeasterly boundary of your property.
2. The proposed drainage easement shall be thirty (30) feet wide.
3. ALC Development Corp. shall utilize their own engineer to produce written, legal description of the proposed easement. This shall be reviewed by the City of Portland's corporation counsel.
4. ALC Development Corp. must guarantee that an existing stand of trees and vegetation will remain as a buffer between this property and the abutting property owners on Pennell Avenue.
5. ALC Development will utilize its own contractor to install the proposed storm drain system as specified on the plan by Sebago Technics, Inc. entitled: MASTER PLAN of WASHINGTON CROSSING CONDOMINIUMS for ALC DEVELOPMENT CORP., with revision date June 22, 1999.
6. The proposed storm drain system shall be installed according to City of Portland Technical and Design Standards and will consist of the following: 1650 linear feet of 24" diameter HDPE pipe (ADS ProLink Ultra ST or approved equivalent); a total of six (6) Type "A" drain manholes with frames and covers and precast channels; the inlet end of the first run of pipe shall be installed with riprap inlet protection; the connection into the existing City drain manhole, for the final run of pipe, shall be core drilled and witnessed by a City of Portland Public Works inspector. A Public Works inspector will, otherwise, make periodic inspections throughout the installation of this system.

7. The City of Portland agrees to contribute a maximum of \$60,000 towards the construction of this proposed storm drain. Payment shall be made by the City with the following conditions:
- a. A final and satisfactory inspection of the proposed storm system is performed and completed by Public Works and a written letter of acceptance of this improvement is then issued by Portland Public Works.
 - b. The applicant and developer, ALC Development Corp., must submit to Portland Public Works, for review, an itemized list and corresponding cost for the construction activities necessary to complete the installation of the proposed storm drain

Please review the terms of our agreement, listed above. If you have any questions or require more information, I can be reached at 874-8848.

ACCEPTANCE OF AGREEMENT

I, Mr. Eliot Chamberlain, representing ALC DEVELOPMENT CORP. of 258 Black Point Road in Scarborough, Maine, fully understand and agree to the terms and conditions stated in this letter.

Eliot Chamberlain
SIGNATURE

8-18-99
DATE

Sincerely,

CITY OF PORTLAND

Anthony W. Lombardo
Anthony W. Lombardo, P.E., Project Engineer

pc: William J. Bray, P.E., Director of Public Works
Bruce A. Bell, Operations Manager
Katherine A. Staples, P.E., City Engineer
Penny Littel, Corporation Counsel

From: Penny Littell
To: William Needleman
Date: Tue, Sep 14, 1999 11:50 AM
Subject: Washington Crossing

"Phases I and II of this subdivision project, have been approved by the Planning Board as sectional recordings pursuant to Portland City Code section 14-495(h). After appropriate filing of the Master Plan and the Phase I Recording Plat in the Cumberland County Registry of Deeds, Phase I shall be constructed as the initial phase of the project, while Phase II shall not be constructed unless and until the Phase II recording plat is timely filed in the Cumberland County Registry of Deeds pursuant to Portland City Code section 14-495(h)."

Note for Master
Plan

PUBLIC WORKS ENGINEERING
MEMORANDUM

To: Bill Needelman Senior Planner

From: Anthony Lombardo, P.E., Project Engineer

Date: March 2, 19998

Subject: Washington Crossing Condos....ALC Development Corp.

The following comments were generated during Public Works Engineering review of proposed Condo development off Allen Ave. The plans and application were dated February 18, 1999.

The "stormwater management" report does not include a summary page. This summary page should clearly specify the pre and post- development results of the stormwater model.

The enclosed "post-development" watershed map does not identify all of the structures (i.e. ponds, reaches, etc.) utilized in the HydroCAD stormwater printout sheets. The report and corresponding map should be identical in this respect.

The applicant has responded satisfactorily to all other items identified in my previous review memo.

856-2206

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Land Quality Control
State House Station 17
Augusta, Maine 04333
Tel: (207) 287-2111

FOR DEP USE

#L- _____
Date Received _____

NOTIFICATION OF APPLICATION ACCEPTANCE
MUNICIPAL REVIEW OF DEVELOPMENT
(38 M.R.S.A. Section 489-A)

This form is to be used by a registered municipality to notify the Department upon the acceptance of an application for review pursuant to 38 M.R.S.A. Section 489-A. This form must be received by the Department within 14 days of acceptance of an application. The municipality must also submit one copy of the project application and one copy of the record of review and action.

If the application which is the subject of this notice should subsequently be amended during the review process, this form should also be used to submit notice to the Department of the amendment.

Municipality: Portland

Contact Person: William B. Needleman

Address and Phone: _____ 879-8722

Project Applicant: ALC Development Corp.

Address and Phone: 258 Bank Point Road, Scarborough, ME 04074

Title of Project: Washington Crossing Condominiums

Date Accepted as Complete By Municipality: 2/8/99

I. Type of Project for which permit is sought: (Check One)

Subdivision as described in section 482, subsection 5 of more than 20 acres but less than 100 acres;

Structure as described in section 482, subsection 6, paragraph B, in excess of 3 acres but less than 7 acres;

Excavation on more than 5 acres of land for borrow, topsoil, clay or silt, whether alone or in combination as described in section 482, subsection 2-B.

DRAFT
FOR FILE

I. Description of Project. (Include number of units or lots, parcel size, footprint, etc.) *60 unit condominium project built on 26.09 acres. 13.1 acres of the parcel is wetland. There is 4.38 of proposed impervious surface.*

II. Submit as attachments to this form:

- A. One copy of complete application filed with municipality (include site plans);
- B. Identification of any outside review agents or consultants who will be performing reviews of any aspect of the application;
- C. One copy of the legal notices served by the municipality.

NOTE: APPLICANT IS ADVISED TO REVIEW THE NATURAL RESOURCES PROTECTION ACT 38 M.R.S.A. SECTIONS 480-A THROUGH 480-U (N.R.P.A.) TO ENSURE CONSISTENCY WITH THAT LAW. THE MUNICIPALITY'S DELEGATED REVIEW AUTHORITY PURSUANT TO 38 M.R.S.A. SECTION 489-A DOES NOT EXTEND TO THE N.R.P.A. IF AN N.R.P.A. PERMIT IS NECESSARY IT MUST BE OBTAINED FROM THE DEPARTMENT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

Town or City of: Portland

DATE: 2/25/98

By: _____

Print Name: William B. Needleman

and Title: Planner

SEBAGO TECHNICS, INC.
 12 Westbrook Common
 P.O. Box 1339
 WESTBROOK, ME 04098-1339

LETTER OF TRANSMITTAL

Phone (207) 856-0277 FAX (207) 856-2206

TO

PLANNING DEPARTMENT
 CITY OF PORTLAND
 389 CONGRESS ST.
 PORTLAND, ME 04103

DATE	8/5/98	JOB NO.	97380
ATTENTION	RICK KNOWLTON		
RE:	ALLEN AVENUE CONDOMINIUMS		

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

- Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
1			CONTRACT FOR SALE OF REAL ESTATE

THESE ARE TRANSMITTED as checked below:

- For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment _____
 FOR BIDS DUE _____ 19 _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO _____

SIGNED: JEFF PERRY

If enclosures are not as noted, kindly notify us at once.

ERA HOME SELLERS
Contract For Sale of Real Estate

Date Aug 19 19 97

RECEIVED OF ALC Inc. whose mailing address is P.O. Box 9421, Unit 19E, Scarborough as earnest hereinafter called the "Purchaser," the sum of (\$) money and in part payment on account of the purchase price of the real estate at Land at 24th Mar. Ave in the town/city of Scarborough, in the County of Cumberland, State of Maine, currently owned by Norwig, hereinafter called the "Seller," described as follows: 25 plus acres

More fully described at said County's Register of Deeds in Book _____ Page _____ The following items of personal property to be included in this sale: All existing storm and screen windows, shades and/or blinds, shutters, curtain rods, electrical fixtures at Land Only

The Total purchase price being (\$)

Payment to be made as follows: See Addendum

Said deposit is received, subject to the following conditions:

1. DEPOSIT: That ERA Home Sellers shall hold said earnest money or deposit and act as escrow agent until transfer of title; this offer shall be valid until Saturday (Day) 8/23/97 (Date) 1pm (AM/PM) and, in the event of the Seller's non-acceptance, this deposit shall be promptly returned to the Purchaser.

2. TITLE: That a good and sufficient deed showing good and merchantable title, shall be delivered to the Purchaser, and it is agreed that if transaction shall be closed and the Purchaser shall pay the purchase price as provided herein and execute all papers necessary for the completion of their purchase within 365 days from the EFFECTIVE DATE of this contract. However, should the title prove defective, then the Seller shall have a reasonable time, not to exceed 30 days after due notice of such defect, unless otherwise agreed to by both parties, to remedy the title, after which time, if such defect is not corrected so that there is a merchantable title, then the Purchaser may, at Purchaser's option withdraw said deposit and be relieved from all obligations hereunder. The Seller(s) hereby agree(s) to make a good-faith effort to cure any title defect during such period.

3. DEED: That the property shall be conveyed by Warranty deed, and shall be free and clear of all encumbrances except easements of record, restrictive covenants of record, and usual public utilities servicing the property. Seller represents that their use of the real estate complies with current zoning ordinances.

4. POSSESSION/OCCUPANCY: That full possession will be given immediately upon transfer of title, unless otherwise agreed to in writing by both Purchaser and Seller.

5. PRORATIONS: That the following items shall be pro-rated as of transfer of title. Real Estate Taxes as per the municipality in which the Real Estate is located. Metered utilities, such as water & sewer, and electricity shall be paid by the Seller through the date of closing. Fuel: yes no ; Rents: yes no ; Association Fees: yes no ; Other: yes no

6. TRANSFER TAX: That Purchaser and Seller will each pay their transfer tax as required by the State.

7. RISK: That the risk of loss or damage to said premises by fire or otherwise, until transfer of title hereunder, is assumed by the Seller. The above described property to be delivered in substantially the same condition as of the date of this Contract, reasonable wear and tear excepted. The Purchaser shall have the right to inspect the premises for compliance within 24 hours prior to the delivery of the deed.

8. FINANCING: That this contract is Subject to Purchaser obtaining financing upon terms and conditions prevailing for an approved See Addendum mortgage from an established lending institution for _____ % of the purchase price. The Seller agrees to pay no more than _____ points, which may be used as points and/or closing cost.

a. The Purchaser is under a good-faith obligation to actively seek and accept financing on the above described terms and shall make application for said mortgage within seven (7) days of the Effective Date of this Contract. The Purchaser acknowledges that a breach of this good-faith obligation will be breach of this contract.

b. The Purchaser is to provide a written statement from the lender within fifteen (15) days of the Effective Date, stating that the Purchaser has made application and based upon the information given and subject to verification, is qualified for the loan requested. The Purchaser shall obtain his/her loan commitment within _____ days of the Seller's final acceptance of this agreement.

c. If either of these conditions is not met within said time periods, the Seller may declare this contract null and void, and the earnest money shall be returned to the Purchaser.

9. INSPECTIONS: That this contract is subject to the following inspections with results being satisfactory to the Purchaser.

TYPE OF INSPECTION	YES	NO	RESULTS REPORTED TO SELLER		TYPE OF INSPECTION	YES	NO	RESULTS REPORTED TO SELLER	
			_____	_____				_____	_____
a. Overall Building	_____	_____	Within _____ days	_____	f. Lead Paint	_____	_____	Within _____ days	_____
b. Septic System	_____	_____	Within _____ days	_____	g. Termite	_____	_____	Within _____ days	_____
c. Radon Air Quality	_____	_____	Within _____ days	_____	h. Underground Storage Tanks	_____	_____	Within _____ days	_____
d. Radon Water	_____	_____	Within _____ days	_____	i. Other	_____	_____	Within _____ days	_____
e. Asbestos	_____	_____	Within _____ days	_____	j. Other	_____	_____	Within _____ days	_____

All inspections will be done by qualified licensed inspectors chosen and paid for by the Purchaser. If the result of any inspection unsatisfactory to the Purchaser, he/she may at their option, by notifying the seller in writing within the specified number of days, declare contract null and void and any earnest money deposit shall be returned to the Purchaser, unless Seller, at his/her expense, agrees in writing to rectify any substantial problem(s) prior to closing or unless other arrangements are negotiated and agreed to in writing. The term substantial refers to any individual defect which will reasonably cost \$500 or more. In the event that the Purchaser does not notify the Seller that inspection is unsatisfactory within the time period set forth above, this contingency shall be deemed to have been waived by the Purchaser with respect to that inspection. It is understood that in the absence of the inspection(s) listed above, the Purchaser is relying completely upon their own opinion as to the condition of the property.

10. DEFAULT: That in the event of a default by Purchaser, Seller may employ all legal and equitable remedies including, without limitation, termination of this Contract and forfeiture by Purchaser of the earnest money. In the event of a default by Seller, Purchaser may employ all legal and equitable remedies including, without limitation, termination of this Contract and return to Purchaser of the earnest money. In the event of default, the escrow agent will not release the earnest money without a written authorization signed by both parties, or other evidence satisfactory to escrow agent, that the defaulted party has forfeited its rights to the earnest money deposit.

[Handwritten signatures]

11. AGENCY DISCLOSURE: That the Buyer and Seller acknowledge the following agency relationships:

Phil Marshall and ERA Home Sellers represent Seller exclusively
 Listing Agent Company Seller and Buyer

Matthew Chamberlain and ERA Home Sellers represent Seller exclusively
 Selling Agent Company Seller and Buyer
 Buyer exclusively

12. TIME: That time is an essential part of this agreement, and that all covenants and agreements herein contained shall extend to and be obligatory upon the heirs, executors, administrators and assigns of respective parties.

13. WATER: That if the water supply to the premises is private, Seller, at Seller's expense, will supply a recent satisfactory water supply test conforming to the minimum requirements of the State Bureau of Health within N/A days of the effective date of this contract.

14. MEDIATION: That any dispute or claim arising out of or relating to this Contract or the property addressed in this Contract shall be submitted to mediation in accordance with the Maine Residential Real Estate Mediation Rules of the American Arbitration Association. This clause shall survive the closing of this transaction.

15. WRITTEN AGREEMENT: That this Contract completely expresses the obligation of the parties, and this Contract is entered into by each party after opportunity for reasonable investigation, neither party relying on any statement or representations not contained in this Contract made by the other or on his behalf. This Contract will be construed according to the laws of the State of Maine.

16. ERA BUYER PROTECTION PLAN: That the above described property is to be covered by a one year ERA service contract at a cost of \$ N/A to be paid for by N/A. Purchaser acknowledges receipt of BPP coverage agreement.

17. PROFESSIONAL ADVICE: Buyer and Seller acknowledge Agent's advice to seek legal, tax, and other professional advice relating to this transaction.

18. AGENCY CONFIDENTIALITY: Buyer and Seller understand that the terms of this contract are confidential, but authorize the Agent(s) to disclose information to the parties' attorneys, lenders, appraisers, inspectors and others necessary for the purpose of closing this transaction.

19. ADDENDUM for continuation of Contract yes no

A COPY OF THE CONTRACT IS TO BE RECEIVED BY ALL PARTIES, AND BY SIGNATURE, RECEIPT OF A COPY IS HEREBY ACKNOWLEDGED. WHEN FULLY EXECUTED THIS IS A BINDING CONTRACT. IF NOT FULLY UNDERSTOOD, CONSULT AN ATTORNEY.

I hereby agree to purchase the above described property at the price and upon the terms and conditions set forth above. This agreement may be signed on any number of identical counterparts, such as faxed copy, with the same binding effect as if the signatures were on one instrument.

Matthew Chamberlain 8/19/97 Matthew Chamberlain 8/19/97
 Witness Date Purchaser soc. sec. # Date

Witness Date Purchaser soc. sec. # Date

The Seller(s) hereby accepts the offer and agrees to deliver the premises at the price and upon the terms and conditions above stated. The Seller(s) further agree to pay the Broker for services as stated in the listing agreement. In the event said earnest money or deposit is forfeited by Purchaser(s), one half thereof shall be paid to Broker and the remainder to Seller(s) provided, however, that the Broker's portion shall not exceed the full amount of the commission specified.

Phil Marshall 8/23/97 James B. Koppert 005-22-0530 8/23/97
 Witness Date Seller soc. sec. # Date

To all u Robert S. Brown 007-22-2878 8/23/97
 Witness Date Seller soc. sec. # Date

Four u James S. Brown 006-18-3857 8/23/97
 Witness Date Seller soc. sec. # Date

Broker

To-Broker August 2
 Effective Date (Final Acceptance Date)



ERA HOME SELLERS

ADDENDUM TO PURCHASE AGREEMENT

In reference to the agreement of sale between Estate of Abring (Sellers) and
ALL Inc (Purchasers)
 Dated 8/19/97 covering the real property known as
Land only at 246 Allen Ave

The undersigned seller and purchaser hereby agree to the following:

Buyer will deposit [REDACTED] at time of acceptance of offer. Buyer will pay an additional [REDACTED] per month for 12 months totaling [REDACTED] for a grand total of a [REDACTED] earnest money deposit, which will be non refundable and held by ERA Home Sellers. Buyer will finance remaining balance on or before one year. Seller will hold title to land until financed. Buyer will assume all risks for approval process. All parties agree that this offer excludes house and out buildings on property together with a lot size-200' Front x 150 Deep totaling ³⁷⁵⁰⁰ ~~30,000~~ s.f. Buyer reserves the right to have any professional, ^{33000 sf} related to the developing process to have access to the said property and be able to conduct relative testing, at buyers liability.

*200
BLW
ASAD
Rm.*

*2510
BLW
220' 1620
Rm.*

The agreement herein, upon its execution by both parties, is hereby made an integral part of the aforementioned agreement of sale.

Jim B. Kraet
Barbara R. Clark
~~Seller~~
James A. Abring
~~Seller~~
Elliott Chan Park
~~Buyer~~

8/23/97
8/23/97
 Date
8/23/97
 Date
8/19/97
 Date

F. Marshall
to all four (4)
 Witness
[Signature]
 Witness

Sellers

Date

Witness

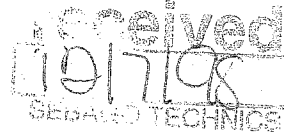


STATE OF MAINE
DEPARTMENT OF CONSERVATION
159 HOSPITAL STREET
93 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0093

ANGUS S. KING, JR.
GOVERNOR

RONALD B. LOVAGLIO
COMMISSIONER

December 3, 1998



Jeffrey R. Perry
Sebago Technics
PO Box 1339
Westbrook, ME 04098-1339

Re: Rare or exemplary features review, Allen Avenue Apartments, Portland, Maine.

Dear Mr. Perry:

I have searched the Natural Areas Division's Biological and Conservation Data System files in response to your request of November 9, 1998 for information on the presence of rare or unique botanical features documented from the vicinity of the project site in the town of Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

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

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

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



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


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

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

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

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

Sincerely,



Emily M. Chase
Information Specialist

Enclosures



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

ANGUS S. KING, JR.
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

March 16, 1999



Mr. Jeffrey R. Perry
Sebago Technics
P.O. Box 1339
Westbrook, Maine 04098-1339

Re: Allen Avenue Condos, Portland, Maine -- MHPC #511

Dear Mr. Perry:

Thank you for submitting additional information relating to the subject project. We have, in addition, made a site inspection of the property to evaluate the setting of the two-story frame house (variously known as the Hugh Barbour or Noring House) that is located on Allen Avenue immediately adjacent to the project's northeast boundary.

According to a recent article in the *Portland Monthly Magazine*, the Hugh Barbour House was constructed in 1770. We have not verified the accuracy of this information, and we have not conclusively determined whether it is eligible or ineligible for nomination to the National Register of Historic Places. Nonetheless, it is reasonable to conclude that the house is of late eighteenth or early nineteenth century origin, and that it may be among the oldest buildings in the North Deering area of Portland.

The setting of the Barbour House has changed dramatically since its construction. What was formerly farm land is overgrown or has been subdivided for residential lots, and a new school complex has been constructed to the southwest. For this reason, it is our opinion that although the proposed development will have an impact on the context of the Barbour House, it does not constitute an adverse effect. We strongly urge you, however, to preserve the row of mature trees along the property's south boundary as a means to buffer the new construction from the existing dwelling.

If you have any questions relating to this matter, please do not hesitate to contact Dana Vaillancourt of my staff.

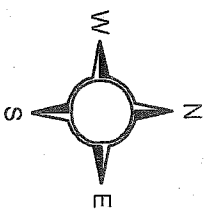
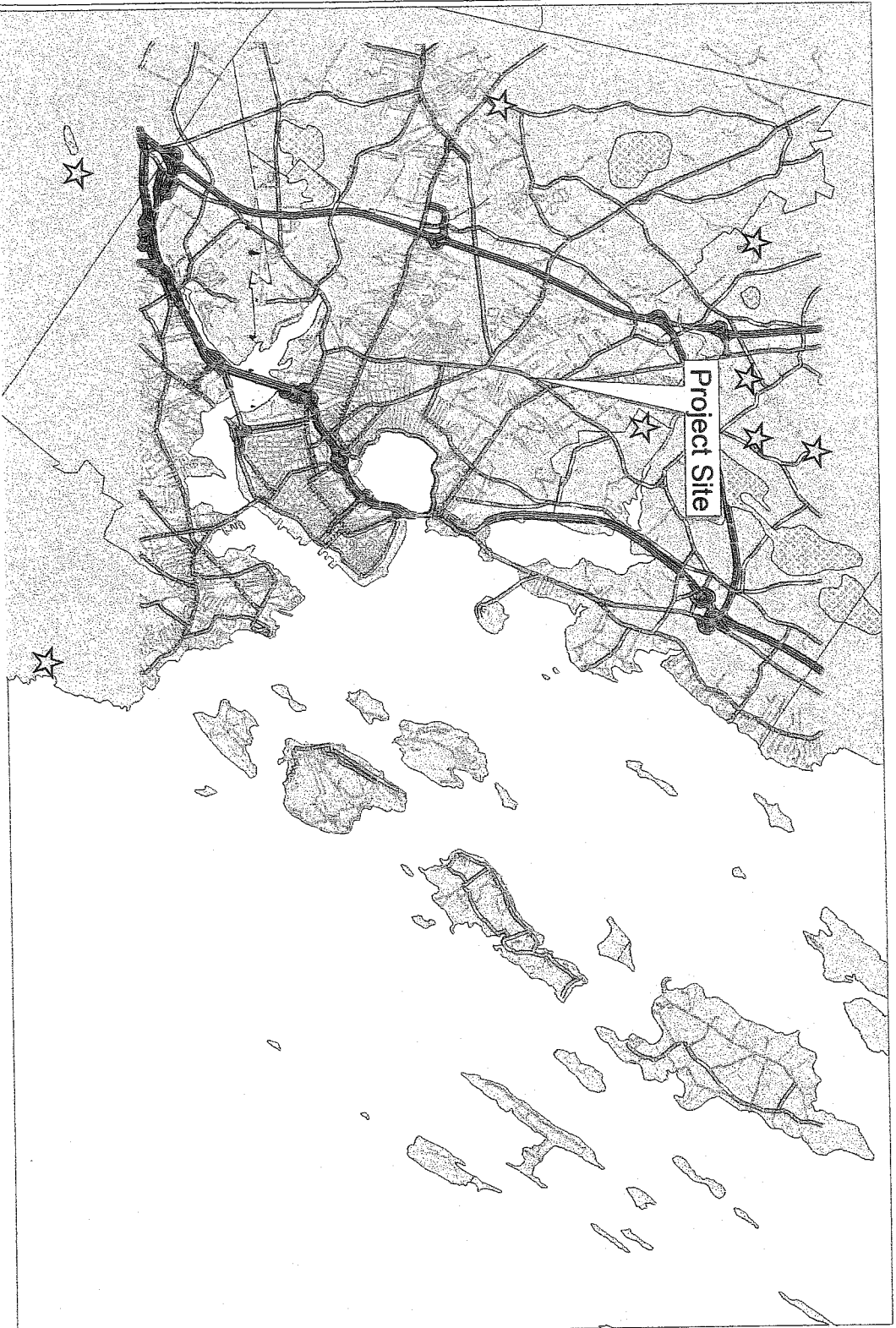
Sincerely,


Earle G. Shettleworth, Jr.
Director

IF&W Report - Allen Avenue Apartments - Portland

Request for Information - Jeffrey Perry

11/17/1998



- Inland/Coastal Bird and Waterfowl Habitats
- Animal Species (BCD)
- Deer Wintering Areas - (NRPWA)
- Lakes and Ponds
- Rivers
- Streams
- Roads
 - Dual Highway
 - Primary Highway
 - Secondary Highway
 - Light Duty Road
 - Unimproved Road
 - Trail
- IP&W Region
 - A
 - B
 - C
 - D
 - E
 - F
 - G



Department of Inland Fisheries and Wildlife

(207) 657-2345

Biologist Notes

No Identified Habitats
Associated With This Site

**Allen Avenue
Abutters List**

Map/Block/Lot	Current Owner / Mailing Address
343-C-14 and 15	Henry R. Noring and June B. Durost, et al. 246 Allen Avenue Portland, ME 04103
344-D-1 and 2B	Robert C. Baade 260 Allen Avenue Portland, ME 04103
344-D-2	Mary J. and Michael D. Boucher, JTS 16 Pennell Avenue Portland, ME 04103
344-D-4	Amy S. Anderson and John J. Johnston, JTS 20 Pennell Avenue Portland, ME 04103
344-D-5	Henry R. Noring and June B. Durost, et al. 246 Allen Avenue Portland, ME 04103
344-D-6 and 7	Edward J. and Elizabeth C. Flaherty, JTS 28 Pennell Avenue Portland, ME 04103
344-D-8, 9 and 10	Matthew S. Douglas and Gloria L. Blake, JTS 40 Pennell Avenue Portland, ME 04103
344-D-11	Velma I. Carlson 48 Pennell Avenue Portland, ME 04103
344-D-13	Clement I. Dodd 56 Pennell Avenue Portland, ME 04103
344-D-14 and 15	Arthur F. Rich, Jr. and Pauline I. Rich, JTS 60 Pennell Avenue Portland, ME 04103
344-D-16 and 29	Robert Linwood and Theresa M. Flaherty, JTS 68 Pennell Avenue Portland, ME 04103
344-D-17	Robert H. Lawson 23 Rolling Hills Drive Standish, ME 04084

Allen Avenue**Abutters List**

(continued)

Map/Lot	Current Owner / Mailing Address
344-D-18	John P. & Janet F. Roma, JTS 76 Pennell Avenue Portland, ME 04103
344-D-19	David & Beth Roma 80 Pennell Avenue Portland, ME 04103
344-D-20	Thomas F. Roch, Jr. 84 Pennell Avenue Portland, ME 04103
344-D-21	Robert F. & Marjorie L. Driscoll, JTS 88 Pennell Avenue Portland, ME 04103
344-D-22	Joseph H. Green and M. A. Madeline, JTS 92 Pennell Avenue Portland, ME 04103
344-D-23 and 24	Lauri-Ann Gaudet 96 Pennell Avenue Portland, ME 04103
344-D-25	David J. & Mary J. Labby, JTS 104 Pennell Avenue Portland, ME 04103
344-D-27	Beverly A. White 110 Pennell Avenue Portland, ME 04103
347-A-2	John A. Hill and Amy L. MacDuffie 116 Pennell Avenue Portland, ME 04103
347-A-3	Richard N. & Karen D. Murrin 122 Pennell Avenue Portland, ME 04103
347-A-5	Andrea Deforte 670 Allen Avenue Portland, ME 04103
347-A-7	Andrea & Antoinette Deforte 670 Allen Avenue Portland, ME 04103
347-A-8	Barbara M. Beardsley 1092 Washington Avenue Portland, ME 04103

Allen Avenue**Abutters List**

(continued)

Map/Lot	Current Owner / Mailing Address
347-A-9 to 16	Robin Louise Medina and Scott Emerson Robinson 1208 Hillsboro Ct. Fallston, MD 21047
347-A-17	Charles B. Rodway Heirs c/o Charles Rodway, Jr. 1023 Washington Avenue Portland, ME 04103
347-A-18	Irene I. Nowell 3 Hall Ct. Portland, ME 04101
347-A-19 to 21	Portland Water District 225 Douglass Street Portland, ME 04102
349-H-1, 2, 14, 15, 16	Frank Didonato 87 Skylark Road Portland, ME 04103
349-H-3	Iona C. Hashey Heirs 81 Gray Road Falmouth, ME 04105
349-G-4 and F-6 to 17	Richard L. Duplisa and A. Christine Monahan P. O. Box 8738 Portland, ME 04104

Mr. Shawn M. Frank, P.E.
Sebago Technics
12 Westbrook Commons
Westbrook, Me 04098-1339

Dear Mr. Frank

As per our conversation on February 10, 1999, I have listed a number of questions concerning the Washington Crossing condominium PRUD on Allen Ave. Additionally, having further reviewed the PRUD standards, I have a comment about the orientation of some of the buildings. With regards to your Tier 2 wetlands alteration permit from DEP, be aware that this project may be impacting a stream as defined by Natural Resources Protection Act, thus triggering a full NRPA permit.

***Fire Safety:**

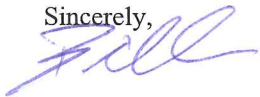
1. Raymond Court is a street name that has conflicts with other approved city streets and will have to be changed.
2. Hydrant installation will be coordinated with the Portland Water District.
3. Please supply a fire safety narrative.
4. No hand rails are shown on the building elevations.

***PRUD standards:**

As part of the Site Plan code, a PRUD is to be designed to "complement and accentuate natural topography, vegetation, stream, water features, and other existing features of the site." Additionally, a PRUD is intended to consider the neighborhood setting in which it is entering as part of a unifying design scheme. As submitted, this development appears to be a generic response to a wet site. To conform to the design elements of the PRUD standards, you may want find a unifying theme to tie this development to the site. The former farm land setting of this part of Deering, the forested character of the site as it is now, or the adjacent residential neighborhood of Pennell St. are all elements which you could look to for design clues. Landscaping and recreational space should be designed as an integrated part of the development. Finally, the PRUD standards require consideration of solar orientation as an element of building siting. As submitted, many of the interior units will receive very little sun light as a result of both the building orientation and shading from the end units and the garages. Allowing building orientation to vary (as submitted, all buildings are square to the road) to account for sun light may be a suggestion worth considering. While this design makes efforts to minimize wetland impacts, wetland avoidance does not constitute adherence to the design standards.

If you have any questions, please contact me at any time. My Telephone Number is 874-8722.

Sincerely,



William B. Needelman, Planner

CC. Alex Jeagarman

O:\PLAN\DEVREVW\ALLEN214\LETTERS\FRANK.WBN

City of Portland Planning Department

389 Congress Street, 4th Floor
Portland, ME 04101
207-874-8721 or 207-874-8719
Fax: 207-756-8258

FAX TRANSMISSION COVER SHEET

Date:

3/2

To:

Shawn Frank

From:

Bill Neel

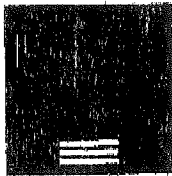
Fax:

856-2206

Re:

Engineering review of ALC,
Washington Crossing from
Jim Wendell

YOU SHOULD RECEIVE 5 PAGE(S),
INCLUDING THIS COVER SHEET.
IF YOU DO NOT RECEIVE ALL THE PAGES,
PLEASE CALL 207-874-8721 or 207-874-8719.



DELUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 3
SOUTH PORTLAND, MAINE 04106
TEL. 207 775 1121
FAX 207 879 0896

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

MEMORANDUM

TO: Bill Needelman, Planner
FROM: Jim Wendel, PE, Development Review Coordinator
DATE: February 26, 1999
RE: Site Plan Review
Washington Crossing
Allen Avenue

A review of the submission dated 2/5/99, Revision E, has been completed. Our comments are:

1. What is the ownership status of the easement in the northeasterly end of the parcel? The easement references the easement being granted to C. H. Hanson & Co. Does this entity exist and have interest in the easement? Should this easement be conveyed to the City?
2. Since there is no recorded drainage easement for the PATHS drainage system, recommend that a drainage easement be provided. We recommend the easement provide maintenance and flowage rights to PATHS.
3. We recommend that granite transition pieces be provided to allow an appropriate transition from the vertical granite to the two bituminous curb types and to prevent snowplowing vehicles from being damaged.
4. What surface material will be used for the walks to the tennis courts? The drafting line type used suggests a surface other than pavement.
5. We recommend that the road profile at the Allen Avenue entrance be revised to maintain gutter flow in Allen Avenue; as currently designed, Allen Avenue drainage will enter the project.
6. We recommend that the plan show the locations for the transformers.
7. There appear to be a couple of locations where there is interference between two storm drain manholes and the sanitary sewer pipe; the locations are at DMH-1 and at DMH-3.
8. For clarity, we recommend that a note be placed on the plan that indicates that the pavement cross slope within the cul-de-sac drains runoff to the outside edge.

DeLUCA HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

9. The "typical drive apron detail" should be revised to provide a 1" lip at the street line; this is the City's standard.
10. We recommend that the typical section label the type of bituminous curb; i.e., "cape cod" and "type 3, mold 1".
11. The width of the riprap culvert inlet/outlet needs to be added to the detail.
12. A construction sequence and anticipated construction schedule need to be provided.
13. We recommend that a treated timber weir be provided across the emergency spillway for the detention basin. This is necessary to maintain the proper elevation of the ponded water by preventing excess outflow through the porous 14" thick riprap.
14. Recommend that a temporary construction width be identified for the installation of the 24" storm drain that crosses the wetland and connects to the combined system. It is assumed that this potential disturbed area is part of the NRPA permit application for the total area of disturbed wetland. Construction notes should be provided as to how this area will be restored.
15. The stormwater management report does not meet the standard:
 - a. The detention basin will not operate as intended; the analysis has not included approximately 27 acres of off-site watershed. This area includes a large portion of the PATHS campus and a small area of Plymouth Street. This area should be modeled as a series of ponds; there are several impoundment/culvert systems in the area that will act as detention basins. The area identified in the report to be draining to the detention basin is approximately 8 acres; the off-site area is over three times greater than the analysis used. The off-site area was identified during a site walk and is shown on Figure 3 - System 2 of the Combined Sewer Overflow Study prepared by the Army Corps of Engineers.
 - b. We recommend that a new outlet control structure be provided. The two culverts are beyond their useful life; they are heavily rusted and the outlet end of the lower pipe is significantly damaged. Also a trash rack should be provided for the new control structure.
 - c. The analysis for the Presumpscot River subwatershed does not combine and complete the routing to study point 2.
 - d. The inlet flow characteristics of the 24" storm drain outfall pipe to the existing manhole of the cross-country run are very awkward; Public Works may require a different alignment.

DeLUCA HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

- e. We recommend that the travel path component data for the time of concentration calculation for proposed subcatchments 2, 3, 5 and 20 be reviewed; we could not recreate all the lengths of the various components.
- f. We recommend that the detailed area calculations that were used for the TSS analysis be provided. We could not recreate those area values.
- g. HydroCAD calculations need to be provided that show that the emergency spillway is able to convey the 25-year storm event. To achieve this the computations should model the basin as being full.
- h. To properly analyze the impacts of the added proposed flow into the cross-country combined sewer, we recommend that the watershed contributing to this system be analyzed and added to the applicant's engineer's stormwater model. Capacity of the lower section of this system should be checked.

Should you have any questions, please call.

A L C DEVELOPMENT CORP.

258 Black Point Road
Scarborough, ME 04074
Tel: (207) 883-1992 Fax: (207) 883-5908

9/21/99

To: William Needleman

Re: Washington Crossing
Phase I Tree Cutting

Listed below are the areas of Washington Crossing earmarked for tree cutting in Phase I:

- 1) Drainage area abutting Pennell St. This is a 30 ft. area for which we will try to maintain a 10 ft. buffer of existing trees between Pennell St. residents and the drainage area.
- 2) The road in the back half of phase I as well as all building envelopes.
- 3) A 25 ft. section surrounding the buildings in order to maneuver equipment.

Jeff Tarling, City Arborist, visited the site on 9/21/99 to review building locations and tree save areas. Several buildings may be shifted slightly in order to save certain trees.

Please let me know if you need any additional information.

Regards,

John Chamberlain

City of Portland Planning Department

389 Congress Street, 4th Floor
Portland, ME 04101
207-874-8721 or 207-874-8719
Fax: 207-756-8258

FAX TRANSMISSION COVER SHEET

Date: 9/25/99

To: Elliot Chamberlain D me

Company: A.C.

Fax #: 555-555-5908

From: Bill Chamberlain

RE: Tree Cutting Policy

YOU SHOULD RECEIVE _____ PAGE(S),
INCLUDING THIS COVER SHEET.
IF YOU DO NOT RECEIVE ALL THE PAGES,
PLEASE CALL 207-874-8721 OR 207-874-8719.



CITY OF PORTLAND

September 22, 1999

John and Elliot Chamberland
ALC Development Corp.
258 Black Point Road
Scarborough, ME 04074

RE: Washington Crossing Condominiums; Planning Authority Permission to begin tree removal.

Dear ALC Development Corp.,

This letter is in response to your request for permission to do limited tree cutting prior to the City's acceptance of the performance guarantee for Phase One of Washington Crossing condominiums. City Planning Authority grants permission to engage in the work as described in your letter dated 9/21/99, excepting any areas identified on site or on the approved site plan as "tree save." See attached.

No other permits will be needed for the purpose of tree clearing in the designated area. All other development and /or construction will require performance guarantees and will be carried out according to the approved site plan. Tree clearing will require sedimentation and erosion control as outlined on the approved site plan and best practices management.

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
William B. Needelman, Planner
Development Review Coordinator
Jeff Tarling, City Arborist
Inspection Department

O:\PLAN\DEVREVW\ALLEN214\LETTERS\EC9-21.WBN

A L C DEVELOPMENT CORP.

258 Black Point Road
Scarborough, ME 04074
Tel: (207) 883-1992 Fax: (207) 883-5908

9/21/99

To: William Needleman


Re: Washington Crossing
Phase I Tree Cutting

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- 1) Drainage area abutting Pennell St. This is a 30 ft. area for which we will try to maintain a 10 ft. buffer of existing trees between Pennell St. residents and the drainage area.
- 2) The road in the back half of phase I as well as all building envelopes.
- 3) A 25 ft. section surrounding the buildings in order to maneuver equipment.

Jeff Tarling, City Arborist, visited the site on 9/21/99 to review building locations and tree save areas. Several buildings may be shifted slightly in order to save certain trees.

Please let me know if you need any additional information.

Regards,

John Chamberlain



CITY OF PORTLAND

June 1, 1998

Jeff Perry
Sebago Technics
12 Westbrook Common
P.O. Box 1339
Westbrook ME 04098

Dear Jeff:

Below is a list of comments generated from the sketch plan of the Allen Avenue Apartment project proposed by ALC Development Corp.

1. Traffic . . . Has a traffic report been undertaken for this site? Larry Ash, City Traffic Engineer, should be consulted prior to this study being initiated.
2. The site plan needs a sidewalk that will connect from individual buildings to the main roadway and then to Allen Avenue.
3. Although the cover letter indicates the number of dwellings, the site plan does not. The typical number of units in each building should be shown.
4. A note regarding the fire sprinklers needs to be shown on the plan.
5. The maximum building length in the R-3 zone is 100 feet.
6. Show open space calculations, and dimensions and land areas of recreation facilities.
7. Show minimum setbacks of buildings that are close to one another.
8. Indicate the total number of parking spaces provided, and required by zoning.
9. It appears that a number of units are within five feet of a sidewalk. This is way too close, for it is reminiscent of a motel use, as compared to a residential structure. Setbacks should be increased accordingly. Also, trees should be introduced between the sidewalk and the building to soften the facade and the large amount of blacktop in front of each building.
10. Building orientation . . . The rear facade of Building #1 faces the street. This is not desirable. It should be reoriented to face the front. Since the rear facade is lacking in any significant architectural detail, you should look at design techniques to create visual interest, particularly along building

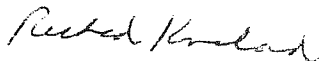
O:\PLANDEVRE\WALLENAPTJPERRY.LEC

corners.

11. Do the sides of the buildings have windows? A plan view of the typical building side should be shown, with windows. For residential structures to have any character at all, there must be windows. The windows should be of appropriate size and proportion.
12. Facade . . . Several facade issues are discussed in comment numbers 10 and 11. Each building is typically about 100 feet long and is composed of the four repetitive unit elements along the facade. While the two middle units are indented, providing some relief, it is extremely repetitive and institutional looking. Some other design techniques should be explored to introduce more variation and design character along the facade, as well as providing some variation among other buildings. In short, the buildings should be treated as one integrated designed facade, rather than as four individual facades.
13. As a Planned Residential Unit Development (PRUD), the proposed development must address the PRUD standards in the site plan ordinance (sec. 14-526(14)). These standards include (a) design relationship to site (b) internal design character and relationship to surrounding neighborhood (c) recreation and open space. Comments #9 to 12 touch on issues arising from standards b and c.

This letter summarizes staff comments to date. We can talk in more detail about the points raised in this letter, particularly the PRUD standards. Should you have any questions, please call me at 874-8300, x 8725. A reminder that the applicant should formally apply at the Building Inspection Department (Room 315) for site plan and subdivision review. Attached is a copy of related fees. Seven (7) copies of the plans will be required.

Sincerely,



Richard Knowland
Senior Planner

cc: Joseph E. Gray, Jr., Director of Planning and Urban Development
Alexander Jaegerman, Chief Planner

Portland Planning Office
 Development Review and Rezoning Fee Schedule
 Effective July 1998

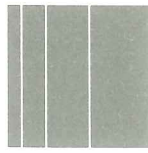
FEES:

- Major Development \$450.00
 (More than 10,000 sq. ft.)
 (Parking area - 50 spaces or more)
- Minor Development \$400.00
 (Less than 10,000 sq. ft.)
- Engineering Fee Assessed by Engineer
- Inspection Fee 1.7% of Performance Guarantee or as assessed by
 Planning or Public Works Engineer, but minimum
 of \$300.00
- Single Family \$150.00
 Inspection Fee \$100.00
- Subdivision Fee \$25.00/lot
- PRUD \$450.00 + \$25.00/lot
- Building Permit Fee \$25.00 for the first \$1,000.00
 (\$5.00 per additional \$1,000.00)
 (Based on cost of work - estimated
 cost of labor and materials)

	<u>1-25 Units</u>	<u>26-50 Units</u>	<u>51-75 Units</u>	<u>75 & Over</u>
Residential Zones	\$350.00	\$400.00	\$450.00	\$500.00
Nonresidential Zones	\$350.00	\$400.00	\$450.00	\$500.00
	0-15,000 sq. ft. or 0-5 acres (which- ever is less)	15,000-30,000 sq. ft. or 6-10 acres (which- ever is less)	30,000-45,000 sq. ft. or 10-15 acres (which- ever is less)	45,000-60,000 sq. ft. or 15-20 acres (which- ever is less)

- Legal Advertisements percent of total bill
 (one for workshop and one for public hearing)
- Notices 40 cents each
 (one for workshop and one for public hearing)
- Text Amendments \$300.00

ATTACHMENT C



SebagoTechnics
Engineering & Planning for the Future

October 7, 1998
98380

Richard Knowland, Senior Planner
City of Portland
389 Congress Street
Portland, ME 04101

Allen Avenue Apartments

Dear Rick:

The attached sketch plan is in response to the Planning Board's comments at the August 11, 1998 workshop. Specifically, we have realigned the layout and extended the internal roadway another 300' ± into the site.

The current plan consists of fourteen 4-unit buildings and two 2-unit buildings for a total of 60 two-bedroom apartments. All units will be fully sprinklered and have enclosed garages with one off-street parking space. In addition, ten additional parking spaces are provided throughout the development.

Recreational elements include two tennis courts (14,400 square feet) and a 9,000 square foot mowed recreation field. The 23,400 square feet of open space/recreation shown exceeds the minimum required for 60 units (18,000 square feet) as outlined in the PRUD provisions. These elements will be linked with a paved sidewalk.

We are requesting the sketch plan be placed on the October 27, 1998 workshop of the Planning Board. I look forward to your comments following staff review. In the interim, please call with any questions.

Sincerely,

SEBAGO TECHNICS, INC.



Jeffrey R. Perry
Landscape Architect

JRP:jc
Enc.

cc: John and Elliott Chamberlain

**CITY OF PORTLAND, MAINE
MEMORANDUM**

TO: Chair Carroll and Members of the Portland Planning Board
FROM: Richard Knowland, Senior Planner
DATE: August 11, 1998
SUBJECT: Allen Avenue Apartments; A.L.C. Development Corp., Vicinity of 214-238 Allen Avenue

A.L.C. Development Corp. requests workshop review for a 58 dwelling condominium development in the vicinity of 214-238 Allen Avenue (next to Portland Arts and Technology High School.) The 26.2 acre parcel is zoned R-3 except for a 100-foot R-5 strip along Allen Avenue. The development is proposed as a Planned Residential Unit Development (PRUD) and will be subject to site plan and subdivision review. Site plans, building elevations and background information are shown as Attachments A, B and C. It is anticipated that additional workshops will be required.

Site Features

The site is approximately 480 feet wide and 2,400 feet long. According to the site plan, 13 acres or one-half of the site is wetlands. The wetlands (see site plans) are located primarily in the rear half of the site, with a large pocket near Allen Avenue. The wetland line is shown on the site plan as a dotted line. According to calculations submitted by the applicant, the net residential land area (per zoning ordinance definition) for this property, yields 9.53 acres or 63 dwelling units. The applicant is proposing 58 dwellings.

Two existing drainage/sewer easements are shown on the plan. Drainage will be an important issue, given the amount of stormwater that currently flows through this site, as well as the new impervious surfaces created by this development. The site is downhill from the Portland Arts and Technology High School campus. The applicant anticipates having two detention basins.

Dwelling Unit Type

The development consists of a 4-unit (103 feet long) and a 5-unit building (130 feet long.) There will be 12 buildings. Facade elevations are shown as Attachment B. The structures will be two-story townhouse style with a 4-foot high crawl space for storage. All of the units will have garages, except for the center unit in the five-unit building which will have three parking spaces. The only variety in building elevations is between the 4-unit and 5-unit buildings.

Access and Roadway

Access is proposed from Allen Avenue. No other street connections are proposed. The Transportation Plan and subdivision ordinance encourages the connection of streets. The applicant does have 50 feet of street frontage along Pennell Avenue, but has a large wetland directly adjacent to it.

A second road, Oramel Avenue, is also adjacent to the site. This is an undeveloped paper street which connects into Skylark Road and eventually Pennell Avenue and Hennessy Drive. Oramel Avenue is about 1,200 feet from the nearest point of the applicant's roadway system (by the tennis court).

At first glance, it seems unlikely that either street is a viable candidate for a roadway (auto) connection given the presence of wetlands and the present configuration of this development. At a minimum, both Pennell Avenue and Uramil Avenue should have provisions for a pedestrian and bicycle trail providing connections to the surrounding street network. Preferably these trails should have a public easement.

The interior roadway is planned to be privately owned and maintained. It will be 24 feet wide.

Traffic

A traffic impact analysis will need to be submitted for review. At the writing of this memo, this report has not been submitted.

Planned Residential Unit Development Standards

As a PRUD, this development must meet the PRUD design standards in the site plan ordinance. These standards include (A) Design relationship to site; (B) Internal design character and relationship to surrounding neighborhood; (C) Recreation and open space. The Board will need to make a judgement whether this development meets these standards.

The siting and orientation of building clusters are limited by the presence of wetlands. Only a fraction of the total site is being used, which has implications on the density and layout of the development. With a very limited visual differentiation between buildings (5-unit vs. 4-unit), and the tight clustering of buildings, this results in a "cookie-cutter" design scheme. The 58 residential dwellings (exclusive of the tennis courts) are clustered in an upland area of about 6.8 acres which means the residential density is focused on 25% of the site.

A tennis court is shown on the plan. The revised PRUD amendments require 300 sq. ft. of active recreation space per dwelling. For this development, 17,400 sq. ft of active open space land area will be required. The plan will need to include more active recreation features to address this standard. This open space should be fully integrated into the plan.

Fire

A development of 58 dwellings normally requires two access roads or a single access road and an emergency access lane for fire access. Under the Technical and Design Standards and Guidelines, an applicant may also provide one access road and installation of an N.F.P.A. #13D sprinkler system in every dwelling unit.

Since the developer is proposing only one access, the submission indicates that all buildings will be fully sprinkled.

Wetland/Drainage

Half of the 26-acre site is composed of wetlands. The specific areas of wetland disturbance and the amount

of disturbance should be highlighted on the plan. This information will be helpful in determining the useable rear yard spaces of dwellings that are adjacent to wetlands. The type of DEP wetland permit should also be indicated.

Attachments:

- A. Site Plan
- B. Building Elevation
- C. Background Information

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Carroll and Members of the Portland Planning Board
FROM: William Needelman
DATE: February 23, 1999
RE: Allen Avenue Condos, Vicinity of 214-238 Allen Avenue

Introduction

This is the third workshop scheduled for a proposed condominium development in the vicinity of 214-238 Allen Avenue which is next to Portland Arts and Technology High School (PATHS.) ALC Development Corp. is the developer. The 26.2 acre parcel is zoned R-3 except for a 100-foot R-5 strip along Allen Avenue. The development is proposed as a Planned Residential Development (PRUD) and will be subject to site plan and subdivision review. The revised site plan is shown as Attachment 1.

As many issues have already been addressed in the previous workshops on this project, this memo will concentrate on new and outstanding questions concerning Fire Safety, Drainage and Stormwater, Wetlands, and adherence to the PRUD Standards. See previous staff memo, Attachment 2..

Traffic

Outstanding traffic issues have been resolved to the satisfaction of city traffic engineer, Larry Ash.

Access and Roadway

The alignment of roads and sidewalks are basically unchanged from the previous submissions and no further provisions for pedestrian access to the undeveloped portions of the parcel have been proposed.

Fire Safety

The street name, Raymond Court, will be changed due to conflict with an existing city street.

The applicant proposes fully sprinkled buildings and three new hydrants will be installed. Fire Safety has asked for an assessment of the turnaround radius to guarantee emergency vehicle access at the end of the development. The applicant has agreed to provide information to Fire Safety as requested.

Drainage

The subject parcel presents serious drainage concerns, as nearly half of its total area is delineated wetland and is the receiving area for a large amount of stormwater from the PATHS facility. In its predevelopment state, the parcel drains into two separate watersheds; the southern one third of the property draining easterly into a

Vortex

culvert onto Pennell Ave. and the northern two thirds draining westerly into a drainage easement. The applicant has provided complete stormwater calculations for both pre and post development conditions and Public Works and planning's Development Review engineer are in the process of reviewing this information.

The development proposes to fill 17,000 sq. ft. of wetland and constrain the outflow structure at Pennell Ave. to provide storm water detention. Planning staff has concerns that the wetlands delineations provided may be an optimistic view of the conditions as observed during site visits. State DEP will review the project under NRPA and should provide additional clarity to the wetlands delineation.

PRUD Standards

As a PRUD, this development must meet the PRUD design standards in the site plan ordinance. These standards include (A) **Design relationship to site**, including topography, vegetation, and solar orientation; (B) **Internal design character and relationship to surrounding neighborhood**; (C) **Recreation and open space**. The Board will need to make a judgement whether this development meets these standards.

The applicant intends that the forested nature of the site should provide the unifying element tying this proposal to the site. See Attachment 4.4. Staff has several concerns regarding this project's compliance with the PRUD design standards.

Standard A. Design relationship to Site:

The present design presents all of the buildings square to the road, with the garage doors projecting toward the street, and each garage door having a full paved driveway to the street. Optimizing automobile access to the buildings presents two problems: (1) The prominence of the garages cuts off interaction between the buildings and the neighborhood and seems in conflict with the intentions of retaining a forested character for the site. (2) The projecting garages will shade the interior units, a problem aggravated by north/south alignment of many of the buildings. If the garages could be moved to the sides of the buildings where some of the buildings could share driveways, and if some buildings were realigned to achieve greater access to the sun, or to accommodate natural features, Standard A may be better served.

The applicant intends to save some trees within the built area and has agreed in principle to make adjustments during the construction process to save individual trees. City arborist and planning staff feel that significant trees should be mapped prior to construction to maximize saving of valuable trees. Additionally, the applicant is amenable to added plantings to supplement retained vegetation and to use local tree species.

Standard B. Internal Design Character and Relationship to Neighborhood:

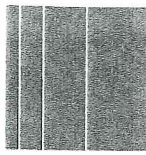
The applicant intends that the project stand apart from the adjacent neighborhoods on Pennell Ave. and Allen Ave. and rely on the isolated nature of the forest for its internal design character, see Attachment 4.4. As a neighborhood on its own, staff feels that the building should relate well to each other and their layout should accommodate as many natural features as is reasonable.

Standard C:

As there are open field recreation areas adjacent on the PATHS facility, perhaps the mowed grass recreation area requirement should be waved to accommodate a treed recreation area with some fixed amenities (benches, playground, etc...)

Attachments:

1. Plans
2. October 27, 1998 Memo
3. Written Statement from Applicant
4. Correspondence with Applicant
5. Stormwater Report Intro.
6. Watershed Maps
7. Elevations



SebagoTechnics
Engineering & Planning for the Future

Rick Knowland

Att. 3

February 8, 1999
97380

Richard Knowland, Senior Planner
City of Portland
389 Congress Street
Portland, ME 04101

**Washington Crossing Condominiums, A 60-Unit Planned Residential Unit Development
Allen Avenue, ALC Development Corporation**

Dear Rick:

On behalf of ALC Development Corporation, we are pleased to submit seven (7) copies of the enclosed plans and associated stormwater management information for their proposed Washington Crossing Condominium PRUD off Allen Avenue. As you will recall, the Planning Board reviewed a sketch plan of this project at their workshop on October 27, 1998. Since that time, we have completed all of the field work and have designed the site in terms of utilities, grading, drainage and landscaping as depicted within the enclosed plan set. We would like to present the updated plans to the Planning Board at their workshop meeting scheduled for February 23, 1999.

At their original workshop, the Planning Board discussed the layout of the project and their concerns regarding stormwater management. The final layout of the buildings are shown within the plan set. This layout has been adjusted slightly to minimize the wetland impact associated with this development. The building composition is unchanged consisting of fourteen 4-unit buildings and two 2-unit buildings for a total of 60 units. The layout, as shown, is less congested to the front portion of the site and more evenly distributes the buildings within the upland areas. Due to the presence of wetlands on the property, the majority of the development will occur along the westerly portion of the site away from the abutting single-family homes along Pennell Avenue. Enclosed within the plans are elevations and floor plans for the two building types proposed for the development.

Stormwater runoff from the developed project will be directed to two areas. The front portion of the site along Allen Avenue and extending approximately 900 feet along the proposed access roadway will be directed toward the existing wetland area which outlets to the municipal system within Pennell Avenue. The berm along the easterly property line will be upgraded to provide additional detention and an emergency spillway. The two existing 12 inch culverts which outlet the wetland will have orifice plates installed at their inlets such that the culvert inlets will be reduced to 6 inch. These smaller outlets will detain the runoff within the wetland area so as to maintain peak rates at or below pre-developed levels. All roadway runoff and the majority of the developed areas will be directed through a stormwater treatment tank prior to outletting to the existing wetland area.

AH.3.1

The proposed roadway runoff and the majority of the runoff from the remaining developed areas will be intercepted by a series of catch basins and transported via subsurface storm drains. These drains will be directed to a treatment tank to remove grit and wastes and then connected to the existing municipal storm drain system crossing the northerly portion of the site. Due to this proposed connection, the back half of the property will actually produce less runoff to the abutting properties to the east after development than currently exists.

The enclosed plan set depicts proposed landscaping of the project as well as utility connections and infrastructure design. The applicant proposes to develop the project in two phases as shown. The phase line roughly coincides with the end of the sanitary system that can flow via gravity into the municipal main within Allen Avenue. The remaining units will flow to a pump station near the recreational field which will pump the sanitary flow to the gravity system. Municipal water will be extended to service the project. Three hydrants are proposed along the access road and all of the buildings will be sprinklered. Natural gas will be connected to heat the units.

We look forward to meeting with the Planning Board at their workshop on February 23, 1999 to discuss the updated proposal. In the interim, please call with any questions or if you require additional information. Thank you for your consideration.

Sincerely,

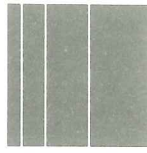
SEBAGO TECHNICS, INC.



Shawn M. Frank, P.E.
Project Manager

SMF:jc
Enc.

cc: John & Elliott Chamberlain, ALC Development Corp.



SebagoTechnics
Engineering & Planning for the Future

March 25, 1999
97280

Mr. William Needelman, Planner
City of Portland
389 Congress Street
Portland, Maine 04101

Washington Crossing Condominiums, Allen Avenue
ALC Development Corporation

Dear Bill:

On behalf of ALC Development Corporation, we are pleased to submit the enclosed plans for a 62-unit condominium project, Washington Crossing, off Allen Avenue. The development proposal consists of fourteen 4-unit buildings and three 2-unit buildings on the 26 acre site. The buildings will be accessed via a new private roadway which will be 1,920 feet long prior to culminating in a cul-de-sac. The units will be serviced by municipal water, sewer, and gas service extended from Allen Avenue. Electrical, telephone and cable service will be installed underground.

As you will recall, a workshop meeting was held with the Planning Board on February 23, 1999 to discuss the development proposal. A number of concerns were raised by Board Members regarding the layout of the buildings and the proposed elevation of the units. The applicant has retained the services of Gawron Architects to revise the proposed building elevations as shown on the enclosed plans. We have also relocated some of the buildings to provide a more open entrance at Allen Avenue and to assure that not all of the units are square to the roadway. Additionally, we have revised the proposed recreational facility. As one of the main elements of this plan is to retain as many trees as possible, creating a large, grassed field by cutting an area containing many trees was contrary to the design grade.

The original location of the tennis courts also appeared to require cutting of too many trees. As such, we are now proposing a small public park that will contain a garden, pavers and a boardwalk. The boardwalk will provide views of the wetland area without impacting it and will also provide access to the large field area located behind the existing home. By utilizing this area for recreational facilities, the plan takes advantage of the existing physical features of the site by retaining existing tree growth to the greatest extent possible.

We have been working closely with the Public Works Department regarding the stormwater management system. We are currently proposing the system as originally submitted. We will meet with the Development Review Coordinator and Public Works directly to finalize the details of the system. We have also walked the site with a member of the U.S. Army Corps of Engineers to review the delineation of the wetlands. He stated that the wetland delineation was satisfactory and will provide a letter to that effect. We will forward this letter to you upon receipt. Based upon the final grading plan and the agreement with the Army Corps regarding the wetland delineation, an application is being finalized to the DEP for the proposed wetland fill. Upon submission, we will attempt to schedule a site walk with DEP staff and yourself.

We are hopeful that we have addressed the issues and concerns raised during the review of the project. Upon your review of these plans, however, please call with any questions or if you require additional information. Thank you for your consideration.

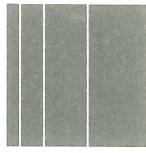
Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in cursive script, appearing to read "Shawn M. Frank".

Shawn M. Frank, P.E.
Project Manager

SMF:dlf



Sebago Technics
Engineering & Planning for the Future

April 6, 1999
97380

William Needelman, Planner
City of Portland
389 Congress Street
Portland, ME 04101

Washington Crossing Condominiums, Allen Avenue – ALC Development Corporation

Dear Bill:

This letter is in response to the engineering review comments as contained in a memorandum to you from Deluca-Hoffman Associates dated February 26, 1999. The following responses correspond to the numbered comments contained within that memorandum:

1. The applicant will convey rights of flowage and maintenance rights within the referenced drainage easement as noted on the plan.
2. The plans note that the referenced drainage easement is to be provided to the City of Portland for maintenance and flowage rights.
3. The plans depict the transition curbs from the granite to the bituminous as requested.
4. Based upon various discussions with the client and staff, the tennis courts are no longer proposed in order to maintain the natural physical features of the property in this area.
5. The road profile has been revised at the intersection with Allen Avenue to assure that the gutter flow on Allen Avenue does not impact this project.
6. The transformer pad locations are shown on the plan and profile drawings.
7. The two referenced drainage manholes have been slightly relocated to eliminate the potential pipe conflicts.
8. A note on the plan and profile sheet showing the cul-de-sac area states that the pavement will be super elevated to the outside curb within the cul-de-sac.
9. The typical drive apron detail has been revised to provide a 1" lip.

10. The curb has been labeled as requested on the road section detail.
11. The width of the riprap culvert inlet/outlet has been added as requested.
12. Enclosed is the proposed construction schedule and sequence.
13. The treated timber weir has been added to the emergency spillway.
14. The installation of a utility line within a wetland area is not considered an "impact" under NRPA. As no filling is proposed, the construction area will quickly re-establish natural wetland vegetation after the installation of the subsurface storm drain line.
15.
 - a. We have worked closely with the Development Review Coordinator and Public Works to define the off-site watershed contributing to the site. We believe that the enclosed revised calculations include all off-site contributing areas.
 - b. The existing culvert outlets are now proposed to be replaced in kind.
 - c. We have revised the calculations for the watershed to the rear of the site to combine the surface runoff with the piped runoff for comparison to the existing flows.
 - d. The proposed storm drain connection anticipates matching the crown elevations of the existing 30" RCP with the new 18" HDPE without constructing a channel. The actual connection will be made in accordance with the requirements of Public Works.
 - e. We have reviewed and corrected the times of concentration as follows:
 - Subcatchment 2 – Tc along driveway of Building A and along curb to CB-1.
 - Subcatchment 3 – Tc from driveway of Building B and along curb to CB-2.
 - Subcatchment 5 – Tc from driveway of Building F and along curb to CB-3.
 - Subcatchment 20 – Tc from woods behind Building H across undisturbed wetland areas.
 - f. Enclosed are copies of the completed treatment calculations.
 - g. The enclosed calculations include the 25-year storm event for the outlet structure.
 - h. The connection to the existing system has been proposed in accordance with a suggestion from Public works. It is our understanding that Public Works is currently performing a more detailed analysis of the system to assure that the system is adequately sized.

We are hopeful that we have addressed the engineering review comments such that the project can be approved. Upon your review of this letter, please call with any questions or if you require additional information. Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "Shawn M. Frank". The signature is written in a cursive, flowing style.

Shawn M. Frank, P.E.
Project Manager

SMF:jc
Enc.

cc: ALC Development Corporation

**CITY OF PORTLAND, MAINE
MEMORANDUM**

TO: Chair Carroll and Members of the Portland Planning Board
FROM: Richard Knowland, Senior Planner
DATE: October 27, 1998
RE: Allen Avenue Apartments; ALC Development Corp., Vicinity of 214-238 Allen Avenue

A second workshop as been scheduled for a proposed condominium development in the vicinity of 214-238 Allen Avenue which is next to Portland Arts and Technology High School (PATHS.) ALC Development Corp. is the developer. The 26.2 acre parcel is zoned R-3 except for a 100-foot R-5 strip along Allen Avenue. The development is proposed as a Planned Residential Development (PRUD) and will be subject to site plan and subdivision review. The revised site plan is shown as Attachment A. See previous staff memo.

At the Board's August 11th workshop, the Board expressed a number of concerns such as density, layout, access and traffic.

Since the initial August 11th meeting, the applicant has submitted a traffic report and made several revisions to the plan. The revisions are summarized below:

- The development layout has been **spread out to reduce the apparent density** within building clusters. This has been accomplished by extending some building clusters approximately 1,000 feet to the east.
- Rather than having a mix of five unit and four unit buildings, all of the buildings will have four units except for two buildings that will have two units. Previously there were 12 buildings, now there are 16 buildings.
- The number of dwellings has increased from 58 to 60.
- Two tennis courts and a recreation field (60' by 150') are shown on the plan. The applicant indicates that the combined land area of the facilities (23,400 sq. ft.) exceeds the PRUD active recreation standard (18,000 sq. ft.) for 60 units.

Traffic

The applicant has submitted a traffic report from Wilbur Smith Associates (see Attachment D.) Traffic issues are important since the development will have direct access to Allen Avenue.

A summary of the traffic report findings are shown below:

- The proposed 60 unit apartment development is expected to generate 398 daily vehicles, 31 vehicles (5 entering/26 exiting) during the AM peak hour, and 37 vehicles (25 entering/12 exiting) during the PM peak hour.
- At the proposed site drive on Allen Avenue, capacity analyses results indicate movements entering the site will operate with little delay, while exiting movements will experience long delays during peak periods.
- Evaluation of accident data in the vicinity of the project was preformed for the most recent 3-year period from the MDOT. Results indicate Allen Avenue in the vicinity of the project site does not meet the criteria for a High Accident Location.
- An evaluation of sight distance at the proposed driveway was performed and indicates acceptable conditions will be provided.
- The need for auxiliary turn lanes at the proposed site drive was performed. Results indicate dedicated left and right turn lanes are not recommended.

Larry Ash, City Traffic Engineer, is in the process of reviewing the report.

Access and Roadway

Access is proposed from Allen Avenue. No other street connections are proposed. The applicant does have 50 feet of street frontage along Pennell Avenue but a large wetland is directly adjacent to it.

A second road, Oramel Avenue, is also adjacent to the site. This is an undeveloped paper street which connects into Skylark Road and eventually Pennell Avenue and Hennessy Drive. Oramel Avenue is about 530 feet from the nearest point of the applicant's roadway system.

At first glance, it seems unlikely that either street is a viable candidate for a roadway (auto) connection given the presence of wetlands unless the Board wanted the roadway extended to Oramel Avenue. At a minimum, Oramel Avenue should have provisions for a pedestrian and bicycle trail providing connections to the surrounding street network. Preferably these trails should have a public easement. Perhaps this could be integrated into the PATHS trail system.

The interior roadway is planned to be privately owned and maintained. It will be 24 feet wide.

Fire

A development of 60 dwellings normally requires two access roads or a single access road and an emergency access lane for fire access. Under the Technical and Design Standards and Guidelines, an applicant may also provide one access road and installation of an N.F.P.A. #13D sprinkler system in every dwelling unit.

Since the developer is proposing only one access, the submission indicates that all buildings will be fully sprinkled.

Wetland/Drainage

Half of the 26-acre site is composed of wetlands. The specific areas of wetland disturbance and regrading should be shown on the plan. This information will be helpful in determining the useable rear yard spaces of dwellings that are adjacent to wetlands. Several of the buildings have very limited rear yards. The type of DEP wetland permit should also be indicated.

Drainage will be a critical element of this project, given the amount of stormwater that currently flows through this site as well as new impervious surfaces created by this development. The site is downhill from PATHS campus. Earlier the applicant indicated that two detention basins will be constructed on site although there appears to be a limited amount of land area for such purposes. A drainage plan and stormwater calculations will need to be submitted.

Planned Residential Unit Development Standards

As a PRUD, this development must meet the PRUD design standards in the site plan ordinance. These standards include (A) Design relationship to site; (B) Internal design character and relationship to surrounding neighborhood; (C) Recreation and open space. The Board will need to make a judgement whether this development meets these standards.

Landscaping

A landscaping plan will need to be submitted for the development. The new tennis courts should have landscaping to buffer it from the adjacent neighborhood. One tennis court at its closest point is 60 feet from the property line. Lighting the tennis courts could pose a compatibility issue for nearby residents.

Attachments:

- A. Revised Site Plan
- B. Building Elevations
- C. Background Information
- D. Traffic Report

June 1, 1998

Jeff Perry
Sebago Technics
12 Westbrook Common
P.O. Box 1339
Westbrook ME 04098

Dear Jeff:

Below is a list of comments generated from the sketch plan of the Allen Avenue Apartment project proposed by ALC Development Corp.

1. Traffic . . . Has a traffic report been undertaken for this site? Larry Ash, City Traffic Engineer, should be consulted prior to this study being initiated.
2. The site plan needs a sidewalk that will connect from individual buildings to the main roadway and then to Allen Avenue.
3. Although the cover letter indicates the number of dwellings, the site plan does not. The typical number of units in each building should be shown.
4. A note regarding the fire sprinklers needs to be shown on the plan.
5. The maximum building length in the R-3 zone is 100 feet.
6. Show open space calculations, and dimensions and land areas of recreation facilities.
7. Show minimum setbacks of buildings that are close to one another.
8. Indicate the total number of parking spaces provided, and required by zoning.
9. It appears that a number of units are within five feet of a sidewalk. This is way too close, for it is reminiscent of a motel use, as compared to a residential structure. Setbacks should be increased accordingly. Also, trees should be introduced between the sidewalk and the building to soften the facade and the large amount of blacktop in front of each building.
10. Building orientation . . . The rear facade of Building #1 faces the street. This is not desirable. It should be reoriented to face the front. Since the rear facade is lacking in any significant

architectural detail, you should look at design techniques to create visual interest, particularly along building corners.

11. Do the sides of the buildings have windows? A plan view of the typical building side should be shown, with windows. For residential structures to have any character at all, there must be windows.

The windows should be of appropriate size and proportion.

12. Facade . . . Several facade issues are discussed in comment numbers 10 and 11. Each building is typically about 100 feet long and is composed of the four repetitive unit elements along the facade. While the two middle units are indented, providing some relief, it is extremely repetitive and institutional looking. Some other design techniques should be explored to introduce more variation and design character along the facade, as well as providing some variation among other buildings. In short, the buildings should be treated as one integrated designed facade, rather than as four individual facades.

13. As a Planned Residential Unit Development (PRUD), the proposed development must address the

PRUD standards in the site plan ordinance (sec. 14-526(14)). These standards include (a) design relationship to site (b) internal design character and relationship to surrounding neighborhood (c) recreation and open space. Comments #9 to 12 touch on issues arising from standards b and c.

This letter summarizes staff comments to date. We can talk in more detail about the points raised in this letter, particularly the PRUD standards. Should you have any questions, please call me at 874-8300, x 8725. A reminder that the applicant should formally apply at the Building Inspection Department (Room 315) for site plan and subdivision review. Attached is a copy of related fees. Seven (7) copies of the plans will be required.

Sincerely,

Richard Knowland
Senior Planner

cc: Joseph E. Gray, Jr., Director of Planning and Urban Development
Alexander Jaegerman, Chief Planner

Issue points for AHC

Subdivision: Will be phasing effect permitting - ^{marked 0-2} two stages or single

Site Plan Standards: Minimize (to extent possible) disturbance of sig. vegetation

Prod Issues: Prod Standards See Below

Wumpster/Trash pickup

The DRUD should include a site plan. Design go submitted date not accommodated early. Very negative on vegetative setback. Wetlands

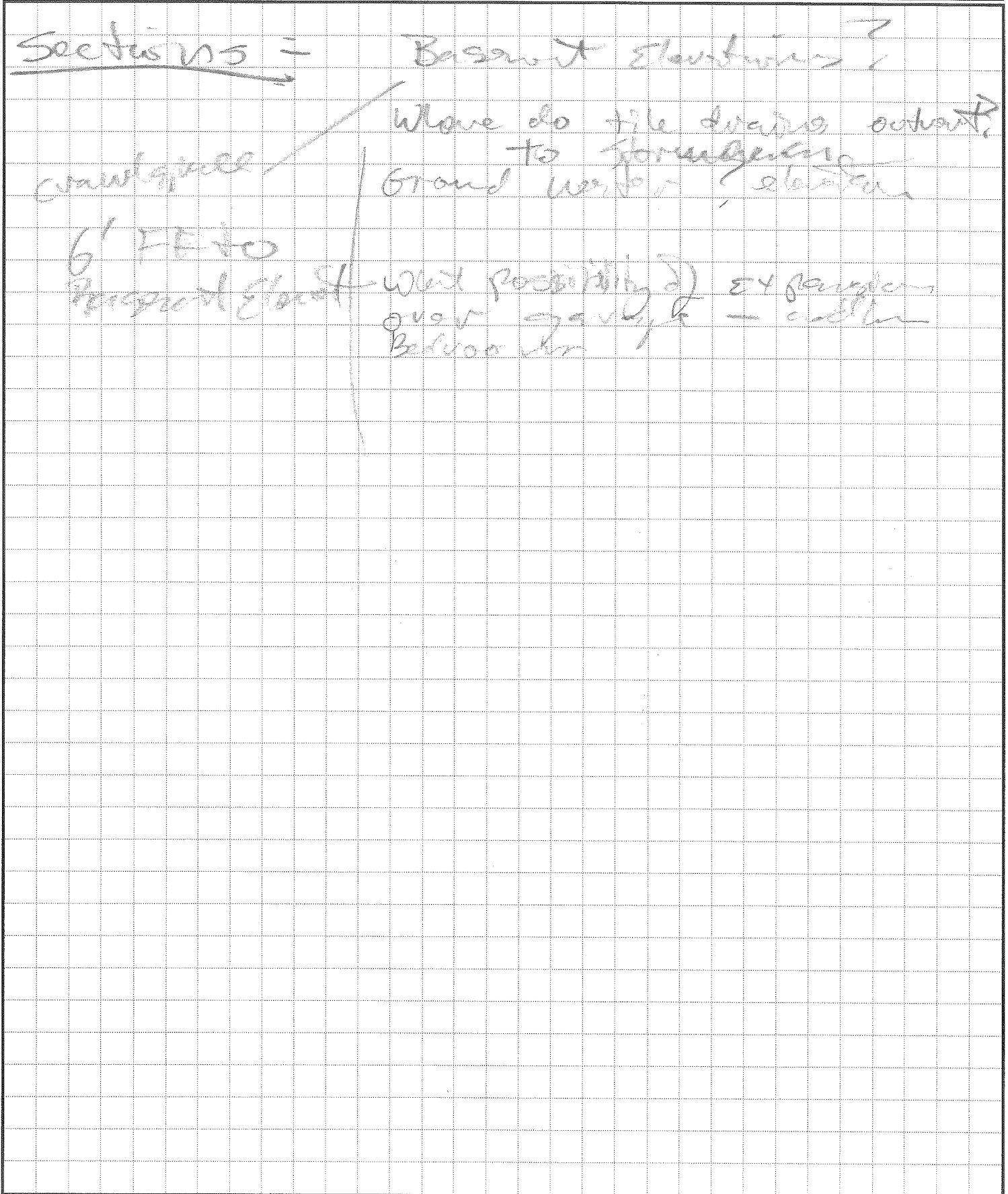
- Wetland forest: Not a wetland
- Rock outcrop: more natural filling to become open features? Lowland - distinct

Drainage/wetlands issues

Wetlands affidavit permits to be submitted before issuance of a building permit

Provide time frame for permit

Need a wider view of the wetland issues - Upward slope gradient. Can not understand





CITY OF PORTLAND

Mr. Shawn M. Frank, P.E.
Sebago Technics
12 Westbrook Commons
Westbrook, Me 04098-1339

Dear Mr. Frank

As per our conversation on February 10, 1999, I have listed a number of questions concerning the Washington Crossing condominium PRUD on Allen Ave. Additionally, having further reviewed the PRUD standards, I have a comment about the orientation of some of the buildings. With regards to your Tier 2 wetlands alteration permit from DEP, be aware that this project may be impacting a stream as defined by Natural Resources Protection Act, thus triggering a full NRPA permit.

*Fire Safety:

1. Raymond Court is a street name that has conflicts with other approved city streets and will have to be changed.
2. Hydrant installation will be coordinated with the Portland Water District.
3. Please supply a fire safety narrative.
4. No hand rails are shown on the building elevations.

*PRUD standards:

As part of the Site Plan code, a PRUD is to be designed to "complement and accentuate natural topography, vegetation, stream, water features, and other existing features of the site." Additionally, a PRUD is intended to consider the neighborhood setting in which it is entering as part of a unifying design scheme. As submitted, this development appears to be a generic response to a wet site. To conform to the design elements of the PRUD standards, you may want find a unifying theme to tie this development to the site. The former farm land setting of this part of Deering, the forested character of the site as it is now, or the adjacent residential neighborhood of Pennell St. are all elements which you could look to for design clues. Landscaping and recreational space should be designed as an integrated part of the development. Finally, the PRUD standards require consideration of solar orientation as an element of building siting. As submitted, many of the interior units will receive very little sun light as a result of both the building orientation and shading from the end units and the garages. Allowing building orientation to vary (as submitted, all buildings are square to the road) to account for sun light may be a suggestion worth considering. While this design makes efforts to minimize wetland impacts, wetland avoidance does not constitute adherence to the design standards.

If you have any questions, please contact me at any time. My Telephone Number is 874-8722.

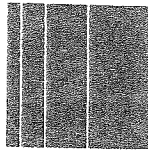
Sincerely,

William B. Needelman, Planner

CC. Alex Jeagarman

O:\PLAN\DEVREVW\ALLEN214\LETTERS\FRANK.WBN

good letter - include as an attachment to P&Bd Wkshp memo. Also, given the open meadow on adjacent P&Bd campus, maybe the rectangular recreational park should be kept forested



SebagoTechnics
Engineering & Planning for the Future

March 25, 1999
97280

Mr. William Needelman, Planner
City of Portland
389 Congress Street
Portland, Maine 04101

Washington Crossing Condominiums, Allen Avenue
ALC Development Corporation

Dear Bill:

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The original location of the tennis courts also appeared to require cutting of too many trees. As such, we are now proposing a small public park that will contain a garden, pavers and a boardwalk. The boardwalk will provide views of the wetland area without impacting it and will also provide access to the large field area located behind the existing home. By utilizing this area for recreational facilities, the plan takes advantage of the existing physical features of the site by retaining existing tree growth to the greatest extent possible.

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We are hopeful that we have addressed the issues and concerns raised during the review of the project. Upon your review of these plans, however, please call with any questions or if you require additional information. Thank you for your consideration.

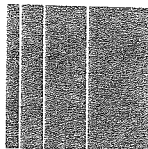
Sincerely,

SEBAGO TECHNICS, INC.



Shawn M. Frank, P.E.
Project Manager

SMF:dlf



SebagoTechnics
Engineering & Planning for the Future

March 25, 1999
97280

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City of Portland
389 Congress Street
Portland, Maine 04101

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ALC Development Corporation

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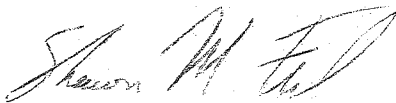
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Sincerely,

SEBAGO TECHNICS, INC.



Shawn M. Frank, P.E.
Project Manager

SMF:dif

MURROUGH H. O'BRIEN, ESQ.

Attorney at Law

P. O. Box 370, Portland, Maine 04112

207-774-4130

207-774-5018 (FAX)

1-800-427-4130 (Toll Free in Maine)

To :
Planning
for file
Condo Docs as
affect City - ok
7/15/99
PL.

May 5, 1999

MAY 05 1999

12:55 p.m.

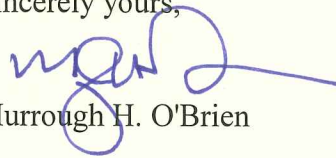
Penny Littell, Esq.
Corporation Counsel's Office
City Hall
389 Congress Street
Portland, ME 04101

RE: Washington Crossing

Dear Ms. Littell:

On behalf of my client, ALC Development Corporation, please find enclosed for your review and response a proposed Declaration for Washington Crossing Condominium together with the property description.

Sincerely yours,



Murrough H. O'Brien

Enclosures

cc: John V. Chamberlain (w/encl)

ORIGINAL HAND DELIVERED

Call Murrough

**DECLARATION OF
WASHINGTON CROSSING CONDOMINIUM**

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**DECLARATION OF
WASHINGTON CROSSING CONDOMINIUM**

**ARTICLE 1
DECLARATION OF CONDOMINIUM PROPERTY**

THIS DECLARATION ("Declaration") is executed by ALC Development Corporation ("Declarant") pursuant to the Maine Condominium Act, chapter 31 of Title 33 of the Maine Revised Statutes of 1964, as amended ("Act").

1.1 Declaration of Property. The Declarant is owner in fee simple of the land in the City of Portland, County of Cumberland and State of Maine described in Schedule A, all buildings and improvements to be constructed on it, and all easements, rights, privileges and appurtenances belonging to it ("Property") and hereby submits the Property to the provisions of the Act, and creates a condominium as defined in Section 1601-103(7) of the Act ("Condominium"). The name of the Condominium is WASHINGTON CROSSING CONDOMINIUM. The name of the Association is WASHINGTON CROSSING CONDOMINIUM ASSOCIATION. The Condominium is located in the City of Portland, County of Cumberland, and State of Maine, and its address is 1 Raymond Court, Portland, Maine, 04103.

1.2. Defined Terms. As provided in Section 1601-103 of the Act, capitalized terms, not otherwise defined in this Declaration, or on the Plat and Plans, shall have the same meanings as specified in the Act.

1.3. Interpretation. In the event of any conflict or discrepancy between this Declaration, the Bylaws, and the Plat and Plans, the provisions of this Declaration shall govern the Bylaws and the Plat and Plans.

**ARTICLE 2
DESCRIPTION OF PROPERTY**

2.1. Description of the Property. A legal description of the Property included in the Condominium is set forth in Schedule A. The location and dimensions of the Property included in the Condominium are depicted on the Condominium Site Plan ("Plat"), and a reduced copy is attached to this Declaration as Schedule B.

2.2 Location and Dimensions of Buildings and Units. "Building" means any building erected or to be erected on the Property containing one or more Units, as well as other improvements comprising a part of a building or intended to be used for purposes

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incidental to the use of a building. The location and dimensions of the Buildings and other improvements to be erected on the Property, including Common Elements, and Special Common Elements, are shown on the Plat as depicted on Schedule B. The location and dimension of each Unit, together with appurtenant Common Elements and Limited Common Elements, is depicted on the Unit Floor Plans ("Plans"), a reduced copy of which is attached to this Declaration as Schedule C.

2.3. Recorded Plat and Plans. The original Plat and Plans are to be recorded with this Declaration in the Plan Books of the Cumberland County Registry of Deeds.

2.4. Condominium Documents. "Condominium Documents" mean this Declaration, the Plat, the Plans, the Bylaws, and the Rules and Regulations adopted by the Executive Board or a committee designated by the Executive Board, and all amendments.

ARTICLE 3 DESCRIPTION OF CONDOMINIUM UNITS

3.1. Description of the Units. "Unit" means a part of the Property designated for any type of separate ownership or occupancy, which has a direct exit to Common Elements leading to Raymond Court. The "size" of each Unit is the number of square feet of usable floor space as shown on the Plans. The Declarant intends to create sixty-two (62) Units in Buildings of two and four Units each and in which each Unit is constructed adjacent and contiguous to at least one other Unit. See also Schedule C.

3.2. Creation of Units. Reference is made to Schedule D for the identifying number and size of each Unit created by this Declaration, and to the Plat and Plans for a description of each Unit created by this Declaration, including each Unit's identifying number, the locations and dimensions of the vertical boundaries and horizontal boundaries of each Unit, the Common Elements to which the Unit has direct access, and any other information necessary to identify the Unit.

3.3. Unit Boundaries. The boundaries of each Unit created by this Declaration are as shown on the Plat and Plans, and shall consist of.

3.3(a) *Horizontal Boundary:* The upper boundary of a Unit is the horizontal or angled plane of the unfinished bottom surface of the roof truss framing line or the horizontal or angled plane of the unfinished lower edge of the roof rafter framing line. The lower boundary of each Unit is the horizontal plane of the top surface of the unfinished wood subflooring of the Unit (**the bottom surface of the concrete slab underlying the crawl space below the ground floor of the Unit**).

3.3(b) *Vertical Boundaries:* The vertical boundaries of each Unit shall be the vertical planes at the stud line at the back surface of the gypsum-board, sheetrock, or other wall

materials forming its exterior or common walls, extended to the intersections with each other and with the other Unit boundaries of a Unit in the same Building.

3.3(c) *Interior Finish.* The Unit shall include all lath, furring, wallboard, plasterboard, plaster, paneling, tiles, wallpaper, paint, finished flooring and any other materials constituting any part of the finished surfaces thereon located within the boundaries of the Unit.

3.3(d) *Mechanical.* The Unit shall include the heating and ventilating apparatus, duct work, and heating flues located within the boundaries of the Unit.

3.3(e) *Limited Common Elements.* Any part of the heating and ventilating apparatus, duct work, and heating flues located outside the boundary of the Unit, but serving only one Unit, shall be a Limited Common Element appurtenant to the Unit it serves. If any hot water heater components, chimney, chute, flue, duct, wire, conduit, bearing wall, bearing column, stairway, or any other fixture lies partially within and partially outside the designated boundaries of a Unit, any portion thereof serving only that Unit is a Limited Common Element allocated solely to that Unit, and any portion thereof serving more than one Unit or any portion of the Common Elements is a part of the Common Elements. The windows serving each Unit are Limited Common Elements allocated to the Unit they serve.

3.3(f) *Interior Space.* All other spaces, interior partitions and other fixtures and improvements within the boundaries of a Unit are a part of the Unit.

3.3(g) *Exterior Trim.* Any shutters, awnings, window boxes, doorsteps, stoops, porches and all exterior doors and windows or other fixtures designed to serve a single Unit, but located outside the Unit's boundaries, are Limited Common Elements allocated exclusively to that Unit.

3.4. **Allocated Interest.** "Allocated Interests" mean (a) the Common Element Interest, (b) the Common Expense Liability and (c) the Votes in the Association, allocated to each Unit pursuant to this Declaration. The Allocated Interests allocated to each Unit are listed in Schedule C. "Common Element Interest" means the percentage of undivided interest in the Common Elements appurtenant to each Unit. "Common Expense Liability" means the allocation to each Unit of the respective liability for Common Expenses.

The Common Expense Liability allocated to the Unit is a percentage equal to the Common Element Interest appurtenant to the respective Unit. The Allocated Interests appurtenant to each Unit are a percentage determined by the following formula:

$$\frac{\text{usable square feet in Unit}}{\text{total square feet in all Units}}$$

3.5. Alterations by Unit Owner. Subject to any applicable provisions of the Bylaws or the Rules and Regulations of the Association, a Unit Owner may make nonstructural improvements and alterations to the interior of her or his Unit. However, no Unit Owner may make any improvements or alterations or do any work whatsoever which would impair the structural integrity or mechanical systems of the Building, lessen the support of any portion of the Condominium, or jeopardize the soundness or safety of the Property. No Unit Owner shall alter any of the Common Elements or paint or otherwise change the appearance of the Common Elements (including the Limited Common Elements) or paint or otherwise change the exterior appearance of his or her Unit (including, but not limited to, the exterior surfaces of doors leading to a Common Element) or any other portion of the Condominium, without the prior written approval of the Executive Board of the Association or a committee appointed by the Board pursuant to the Bylaws.

ARTICLE 4

COMMON ELEMENTS, LIMITED COMMON ELEMENTS

4.1. Common Elements. "Common Elements" mean all portions of the Condominium other than the Units. The Common Elements are shown on the Plat and Plans, and include, but are not limited to, the grounds surrounding each Building, all trees and shrubs on the Property, Raymond Court and its sidewalks, the Recreation Field, and the Tennis Courts. Common Elements also include "Special Common Elements", which are those Common Elements the use of which by Unit Owners, occupants, tenants, guests, visitors and invitees, is limited or restricted by this Declaration or by action of the Executive Board. Special Common Elements are the wetland and drainage areas on the Property and the Pump Station.

4.2. Allocation of Limited Common Elements. "Limited Common Elements" mean those portions of the Common Elements where the exclusive use is reserved as an appurtenance to one or more, but fewer than all, of the Units as allocated by this Declaration. The location and dimension of all Limited Common Elements are hereby allocated as described on the Plat and Plans, except for the portions of the Property described as Limited Common Elements pursuant to Section 1602-102(2) and (4) of the Act, and in Section 3.3(e). The allocation of Limited Common Elements to the Units cannot be altered except in compliance with Section 1602-108(b) of the Act, and with the written consent at the Owners and Mortgagees of record of the Units affected by the reallocation of Limited Common Elements.

4.3. Common Elements to Remain Undivided. The Common Element Interest of a Unit shall be inseparable from each Unit, and any conveyance, lease, devise or other disposition and any mortgage or other encumbrance of any Unit shall include the Common Element Interest, whether or not expressly referred to in the instrument making such transfer. The Common Elements shall remain undivided and no action for partition or division of any part shall be permitted, unless otherwise provided by law and permitted by this Declaration.

4.4. Use of Common Elements. Except where such use may otherwise be limited by this Declaration, the Bylaws or by the Executive Board pursuant to its powers, each Unit Owner, occupant, tenant, guest, visitor and invitee may use the Common Element in common with all other Unit Owners and their occupants, tenants, guests, visitors and invitees, in accordance with the purposes for which they are intended, without hindering or encroaching upon the lawful rights of the other Unit Owners, upon the following terms:

4.4(a) Parking of motor vehicles by Unit Owners, occupants, tenants, guests, visitors, and invitees shall be only in spaces adjacent to each Unit and designated as a Limited Common Element and in the Common Elements designated for parking. The spaces in the Common Elements designated as spaces for parking shall be used by the Unit Owners on "first come, first served" basis, except as the Executive Board may otherwise determine. No unattended vehicle shall be left in such a manner as to impede the passage of traffic or to impair access to driveway or parking areas.

4.4(b) Unit Owners shall not erect fences, signs, canopies, clotheslines or other structures, plant or remove trees or shrubs, materially alter the grading or landscaping, or do any other thing which affects the appearance from the exterior of the Building or grounds including Limited Common Elements, except as provided in this Declaration or with the written permission of the Executive Board or a committee established by the Board.

4.4(c) No signs of any character shall be erected, posted or displayed upon, in, from or about any Unit or Common Element, without the prior written approval of the Executive Board, or a committee designated by the Executive Board, except for such signs as may be posted by the Declarant for the promotional or marketing purposes described in Paragraph 8.5., the Bylaws, or any rules promulgated in writing by the Association. This subparagraph shall not apply to a Mortgagee in possession of a Unit as a result of foreclosure, judicial sale or a proceeding in lieu of foreclosure. The Executive Board shall have sole authority to erect the exterior sign or signs approved by the City of Portland. The Executive Board may also erect a publicly displayed, adequately-sized, directional and identifying sign(s) declaring the name and location of each occupant of the Units.

4.4(d) No Unit Owner shall obstruct any of the Common Elements nor shall any Unit Owner place anything on any of the Common Elements (except those areas designated for parking by the Condominium Documents or the Executive Board) without the approval of the Executive Board or a committee designated by the Executive Board.

4.4(e) Neither the Executive Board, the Association, any Unit Owner, nor the Declarant shall be considered a bailee of any personal property stored on the Common Elements (including vehicles parked on the Common Elements), whether or not exclusive possession of the particular area is given to a Unit Owner for storage or parking purposes.

None of them shall be responsible for the security of such personal property or for any loss or damage thereto, whether or not due to negligence, except to the extent covered by insurance in excess of any applicable deductible.

ARTICLE 5
WASHINGTON CROSSING CONDOMINIUM ASSOCIATION

5.1. The Association. "Association" means the association of the Unit Owners organized pursuant to Section 1603-101 of the Act as a nonprofit corporation under the Maine Non Profit Corporation Act. The membership of the Association at all times shall consist exclusively of all Unit Owners, or, following any termination of the Condominium as provided in Section 1602-118 of the Act, of all former Unit Owners entitled to distributions of proceeds under said Section 1602-118, or their heirs, successors or assigns, but shall not include persons having an interest in a Unit solely as security for an obligation. Each Unit Owner shall automatically become a member of the Association as long as she or he continues as a Unit Owner, and upon the termination of the interest of the Unit Owner in the Condominium, his or her membership and any interest in the common funds of the Association shall be transferred and inure to the next Unit Owner or Owners succeeding him in interest. The Association shall have all the powers granted pursuant to its Bylaws, and to Section 1601-102 of the Act, including the powers to assign its right to future income.

5.2. Executive Board Powers; Declarant Control Period. Except as otherwise provided in Section 1603-103(b) of the Act, the Executive Board may act on behalf of the Association, shall have all of the powers necessary for the administration of the affairs of the Association. The affairs of the Association shall be governed by an Executive Board, composed of no less than three (3) and no more than seven (7) natural persons. Prior to the Transition Election provided for by subparagraph 5.2.(a), the Executive Board shall be composed of three (3) natural persons. "Declarant Control Period" means the entire time period which extends from the date of the recording of this Declaration until the earlier of (a) five (5) years following the conveyance of the first Unit to a Purchaser or (b) sixty (60) days after the conveyance to Purchasers of Units with at least 75% of the Allocated Interests. The Declarant shall have the right during the Declarant Control Period to appoint, remove and replace from time to time any and all members of the Executive Board, and officers of the Association, without the necessity of obtaining resignations. The appointees of the Declarant need not be Unit Owners. After the Transition Election, all members at the Executive Board shall be Unit Owners or spouses of Unit Owners, or in the case of a Unit Owner which is a corporation, partnership, trust or estate, a designated agent thereof. The transition from Declarant-appointed members of the Executive Board to Unit Owners other than the Declarant shall occur as follows:

5.2(a) No later than the earlier of (a) sixty (60) days after the conveyance of Units with 75% of the Allocated Interest to Purchasers or (b) five (5) years following conveyance of the first Unit to a Purchaser, or at such earlier date as the Declarant in its

sole discretion shall specify, the Transition Meeting of the Association and Transition Election shall be held at which all of the members of the Executive Board and officers of the Association appointed by the Declarant shall resign, and the Unit owners, including the Declarant if the Declarant owns one or more Units, shall thereupon elect no less than three (3) and no more than five (5) successor members of the Executive Board to act in the place and stead of those resigning.

5.2(b) The Declarant may voluntarily surrender the right to appoint and remove officers and members of the Executive Board before termination of the Declarant Control Period, but in that event it may require, for the duration of the Declarant Control Period, that specified actions of the Association or Executive Board, as described in a recorded instrument executed by the Declarant, be approved by the Declarant before such actions can become effective.

5.3. **Voting.** The Votes in the Association allocated to a Unit can only be cast as a unit and cannot be split. If a Unit is owned of record by one person, that Unit Owner's right to vote shall be established by the record title to the Unit. If ownership of a Unit is in more than one person, the person who shall be entitled to cast the Votes allocated to that Unit shall be the person named in a certificate executed by all of the Owners of such Unit and filed with the Secretary of the Association. If ownership of a Unit is in a corporation, partnership, trust or estate, the officer or employee of that corporation, partner of that partnership, trustee of that trust, or representative of that estate, entitled to cast the Votes allocated to such Unit, shall be designated in a certificate for that purpose executed by the president or a vice president of that corporation, and attested to by the secretary or clerk of that corporation; by all the partners of that partnership; by all the beneficiaries of that trust; or by either all the devisees of that estate or by order of the probate court, and filed with the Secretary of the Association. Such certificates of multiple owners, corporations, partnership, trusts or estates shall be valid until revoked by a subsequent certificate similarly executed and filed with the Secretary of the Association. Wherever the vote, approval or disapproval of a Unit Owner is required by this Declaration or the Act, such vote, approval or disapproval shall be made only by the person who would be entitled pursuant to such certificate to cast at any meeting of the Association the Vote allocated to such Unit. If the person named or designated in said certificate for a particular Unit shall be absent from a meeting of the Association, no person may cast the Vote allocated to that Unit at the meeting except a person with a properly executed written proxy from the designated person, although the presence at the meeting of a non-named or non-designated co-Owner or member, officer or employee of such Owner shall be counted in determining whether a quorum is present. If a multiple Owner of a Unit (that is not a partnership, trust, estate or corporation) has failed to file said certificate with the Secretary of the Association and only one of the multiple owners is present at a meeting of the Association, he or she shall be entitled to cast at the meeting all the Votes allocated to that Unit without establishing the concurrence of the absent Owners just as though that person were the sole Owner of the Unit. If a multiple Owner of a Unit (that is not a partnership, trust, estate or corporation) has failed to file said certificate with the Secretary, and if more than one Owner of that Unit is present at the meeting, the Votes

allocated to that Unit may be cast only in accordance with the agreement of a majority of the multiple Owners present at the meeting. Such majority agreement shall be conclusively presumed if any one of those multiple Owners shall cast the Vote allocated to the Unit, without protest being promptly made to the person presiding over the meeting by any other Owners of that Unit. In the event of any proposed actions to terminate the Condominium pursuant to Section 1602-118 of the Act; change the Allocated Interests appurtenant to any Unit or change the boundaries of a Unit; merge or consolidate the Condominium with another condominium; convey or subject to a security interest any portion of the Common Elements; or use any proceeds of property insurance required to be maintained by the Association pursuant to this Declaration for purposes other than repair and restoration of the damaged Property in accordance with this Declaration, the Plats and Plans, and the Bylaws, then an Eligible Mortgage Holder shall have the right, but not the obligation, in place of the Owner of the Unit subject to the Mortgage held by such eligible Mortgage Holder, to cast the Votes allocated to that Unit or to waive or withhold any consent required of such Unit Owner for such action by delivering written notice to the Association, with a copy to the Unit Owner prior to or at the time of the taking of the proposed action, which notice shall be sent by prepaid United States mail, return receipt requested, or by delivery in hand. Failure of the Eligible Mortgage Holder to exercise such rights shall constitute a waiver of them, and shall not preclude the Unit Owner voting. In no event shall more Votes be cast with respect to any Unit than are allocated to that Unit pursuant to this Declaration. "Majority Vote" or "Majority of Unit Owners" shall mean a vote by the Owners of those Units to which are allocated more than 50% of the Votes in the Association that are cast in person or by proxy at any meeting of the Association at which a quorum is present in person or by proxy. Except as otherwise provided, any specified percentage of Unit Owners means a vote by the Owners of those Units to which are allocated the same specified percentage of the Votes in the Association that are cast in person or by proxy at any meeting of the Association at which a quorum is present in person or by proxy, and for all voting purposes, each Unit Owner shall have a vote equal to the Votes in the Association allocated to his Unit. The approval by a specific percentage of Eligible Mortgage Holders is based upon one (1) vote for each Mortgage held.

5.4. Notice To Unit Owners. All notices, demands, bills and statements or other communications affecting the Condominium shall be given to Unit Owners by the Association in writing and shall be delivered personally, securing a written receipt, or sent by United States mail, postage prepaid. If such notification is of a default or lien, then it shall be sent by registered or certified United States mail, return receipt requested, postage prepaid, addressed to the Unit Owner at the address which the Unit Owner shall designate in writing and file with the Secretary of the Association, or if no such address is so designated, the address of the Unit of such Unit Owner who is the record owner thereof.

5.5. Notice to the Association. All notices, demands, statements or other communications affecting the Condominium given by the Unit Owners to the Association shall be in writing, and shall be deemed to delivered personally, securing a written receipt

therefor, or sent by United States mail, postage prepaid, return receipt requested, addressed to the Association at the principal office of the managing agent, if any, and to the Secretary of the Association at the Secretary's address.

5.6. Notice To Eligible Mortgage Holder. All notices, demands, statements or other communications affecting the Condominium given by the Association to any Eligible Mortgage Holder shall be in writing and shall be if delivered personally, securing a written receipt, or sent by United States mail, postage prepaid, addressed to the Eligible Mortgage Holder at the address identified pursuant to Article 9 when it became an Eligible Mortgage Holder.

ARTICLE 6 ASSOCIATION ASSESSMENTS ON UNIT OWNERS

6.1. Allocation and Payment of Assessments of Common Expenses. Common Expenses include, but are not limited to (a) the cost of maintenance, management, operation, repair, renovation, restoration and replacement of (i) the Common Elements and (ii) such Limited Common Elements and such parts of the Units as to which pursuant to this Declaration it is the responsibility of the Association to maintain, repair and replace; (b) the cost of all insurance premiums on all policies of insurance required to be or which have been obtained by the Executive Board pursuant to the provisions of this Declaration and the fees and disbursements of the Insurance Trustee, if any; (c) such amounts as the Executive Board may deem necessary to provide for general operating reserve funds, reserve funds for replacements and contingencies, and such other reserve funds as may be required by the Bylaws or as the Executive Board may deem necessary to compensate for any deficits in receipts over expenses for the previous fiscal year; (e) the charges and fees for energy, electricity, heat, water, electricity, gas and sewer services, furnished to the Condominium to the extent not separately metered to individual Units and charged to individual Unit Owners; and (f) such other costs and expenses that may be declared by the Act, by this Declaration, by the Bylaws, or by the Executive Board, to be Common Elements of the administration, operation, maintenance and repair of the Condominium and the Property and the rendering to Unit Owners of all related services.

"Limited Common Expenses" mean (a) the Common Expenses associated with the maintenance, repair or replacement of a Limited Common Element which shall be assessed against the Units to which that Limited Common Element is assigned in proportion to the relative Common Expense Liabilities of such Units as between themselves, as the Executive Board may periodically determine, and (b) the Common Expenses for services benefiting fewer than all the Units, which are assessed exclusively against the Units benefited in accordance with the use of such services as permitted by Section 1603-115(c) of the Act. **It is expressly declared that all expenses for the administration, operation, maintenance and repair of the Condominium and the Property shall be borne by the Unit Owners, by means of assessments as set forth herein, and that the City of Portland shall have no responsibility whatsoever to provide services in connection with such administration, operation, maintenance**

*trash removal,
snow plow services*

and repair, including, but not limited to, services involving plowing, trash collection and the lighting of Raymond Court.

The total amount of Common Expenses shall be assessed against the Units in the following proportions.

6.1(a) The Common Expenses that are not assessed as Limited Common Expenses shall be assessed against all the Units in proportion to the relative Common Expense Liabilities of all the Units, as provided in Paragraph 3.4 and Schedule D.

6.1(b) Subject to subparagraph 6.1(c); if a Limited Common Expense benefits more than a single Unit, that Limited Common Expense shall be assessed solely against all the Units benefited in proportion to the relative Common Expense liabilities of such Units as between themselves, as the Executive Board may periodically determine; if a Limited Common Expense only benefits a single Unit, that Limited Common Expense shall be assessed solely against the Unit benefited, as the Executive Board shall determine; the costs of insurance shall be assessed against Units in proportion to risk, as determined by standard insurance industry underwriting practices and if a Limited Common Expense is associated with the maintenance, repair or replacement of a Limited Common Element, that Limited Common Expense shall be assessed solely against all the Units to which that Limited Common Element is allocated in proportion to the relative Common Expense Liabilities of such Units as between themselves, as the Executive Board shall determine.

6.1(c) Gas for heating, electricity, water and telephone services shall be supplied by the public utility company serving the area directly to each Unit through a separate meter, and each Unit Owner shall be required to pay the bills for heat, air conditioning, electricity and telephone services consumed or used in his or her Unit promptly after the bills therefor are rendered. Any heat, air conditioning or electricity serving the Common Elements, including the Limited Common Elements, shall be on one Common Elements meter, and the Executive Board shall promptly pay all bills for heat, air conditioning and electricity consumed on the Common Elements and Limited Common Elements as a Common Expense assessable to all the owners of Units. Water and sewer services supplied to the Units and to the Common Elements shall be supplied by the water and sewer districts serving the area to the Units and Common Elements through one or more building meters, and the Executive Board shall pay or cause to be paid as a Common Expense assessable to all the Unit Owners all charges for water and sewer services consumed in the Units and on the Common Elements, together with all related water and sewer charges arising therefrom, promptly after the bills therefor are rendered.

6.1(d) The Declarant shall not be liable for any assessments for any Units until after the Association makes its first Common Expense assessment.

6.2. Payment of and Lien for Assessments.

6.2(a) Each Unit Owner shall pay to the Association or its authorized representative: (i) on the first day of each month, or on such other date that the Association may determine in writing, one-twelfth (1/12th) of the Common Expenses including Limited Common Expenses, and revised Common Expenses including revised Limited Common Expenses, assessed on an annual basis against his Unit in the proportions required in Paragraph 6.1.; and (ii) all special assessments, any other sum duly levied against the Unit pursuant to this Declaration, the Bylaws or the Act, including Limited Common Expenses assessed against Unit Owners for maintenance, repair or replacement of a Limited Common Element pursuant to Paragraph 6.1., fines, penalties and fees as provided by this Declaration, the Bylaws or the Act, all interest and late charges and legal fees and other costs of collection thereof. If for any reason the Association shall revise the annual budget of the Association and the Common Expenses or any component are increased, then commencing on the first day of the first month subsequent to the adoption of such revised budget each Unit Owner shall pay to the Association or its authorized representative such revised annual Common Expenses, including Limited Common Expenses, assessed against his Unit in the proportions required in Paragraph 6.1.

6.2(b) The total annual assessment levied against each Unit for Common Expenses, Limited Common Expenses, revised Common Expenses, revised Limited Common Expenses, any special assessment, other sums duly levied against the Unit pursuant to this Declaration, the Bylaws, or the Act, all interest and late charges, all legal fees and other costs of collection thereof, and all fines, penalties and fees as provided in this Declaration or the Bylaws: (i) shall constitute the personal liability of the Owner of the Unit so assessed; and (ii) shall, until fully paid, constitute a lien against the Unit in favor of the Association as provided in Section 1603-116 of the Act. Such lien shall, with respect to annual assessments and revised annual assessments, be effective on the first day of each fiscal year of the Association as to the full amount of the annual assessment or revised annual assessment, and, as to special assessments and other sums duly levied including Limited Common Expenses assessed against a Unit Owner for maintenance, repair or replacement of a Limited Common Element pursuant to Paragraph 6.1, interest and late charges, legal fees, costs of collection, fines, penalties and fees as described in subparagraph 6.2(a), on the first day of the next month which begins more than ten (10) days after delivery to the Unit Owner of notice of such special assessment or levy. In any case where an assessment against a Unit Owner is payable in installments, upon a default by such Unit Owner in the timely payment of any two consecutive installments, the maturity of the remaining total of the unpaid installments of such assessments may be accelerated at the option of the Executive Board, and the entire balance of the assessment may be declared due and payable in full by the service of notice to such effect upon the defaulting Unit Owner by the Executive Board or its representative. Such lien is prior to all other liens and encumbrances on a Unit except (a) liens and encumbrances recorded before the recordation of this Declaration, (b) a first Mortgage recorded before or after the date on which the assessment sought to be enforced becomes delinquent, and (c) liens for real estate taxes and other governmental assessments or charges against the Units; provided, however, that such lien is not subject to the provisions of 14 M.R.S.A. Section

4651 and 18-A M.R.S.A. Section 2-201, et seq., as they or their equivalents may be amended or modified from time to time.

6.2(c) The lien for assessments described in subparagraph 6.2(b) may be enforced and foreclosed by the Association in like manner as a mortgage on real estate as provided in section 1603-116(a) of the Act, or by any other means presently or hereafter provided by law or in equity. A suit to recover a money judgment for unpaid assessments, interest, penalties, and costs of collection may be maintained against the Unit Owner personally without foreclosing or waiving the lien securing such assessments, and a foreclosure may be maintained notwithstanding the pendency of any suit to recover a money judgment.

6.3. Reduction of Expenses and Surplus Funds. All receipts from payments, fees or charges for the use, rental, operation, or allocation as a Reserved Common Element, of any and all Common Elements, shall be applied first to reduce the Common Expense relating to the use of that Common Element giving rise to such Common Expense, and any excess shall be applied to Common Expenses generally. All receipts from any assessments for Limited Common Expenses shall be applied first to reduce the Limited Common Expense relating to the service afforded to the Unit benefited and any excess shall then be applied to Common Expenses generally. Any amounts accumulated from assessments for Common Expenses, income from interest on reserves, and income from the operation of the Common Elements in excess of the amount required for actual Common Expenses and any payment of reserves, shall be credited to each Unit Owner in proportion to their respective Common Expense Liabilities to reduce until exhausted the next monthly installment due from Unit Owners.

ARTICLE 7

MAINTENANCE RESPONSIBILITIES AND USE RESTRICTIONS

7.1. Maintenance of Common Elements. The Association shall be responsible for the maintenance, repair and replacement (unless in the opinion of the Executive Board such expense was necessitated by the negligence, misuse or neglect of a Unit Owner) of all of the Common Elements whether located inside or outside of the Units, the cost of which shall be charged to the Unit Owners as a Common Expense, except as otherwise provided in Paragraph 6.1 with regard to Limited Common Elements. The maintenance, repair and replacement of Common Elements located within a Unit, or for which the Unit Owner is otherwise responsible, to the extent required for the functioning of or for connecting utilities to the Property and Units, shall be furnished by the Association as part of the Common Expenses or, if fewer than all of the Units are benefited, as part of the Limited Common Expenses.

7.2. Maintenance of Limited Common Elements. The Association shall maintain, repair and replace all Limited Common Elements as required by this Declaration and shall assess as a Limited Common Expense the Common Expenses associated with the maintenance, repair or replacement of each Limited Common Element (except for

Common Expenses associated with structural repairs or replacements) against the Units to which the Limited Common Element is assigned in proportion to the relative Common Expense Liabilities of such Units as between themselves. The Association shall also have the right to assess an individual Unit for Limited Common Expenses applicable to such Unit, if the Limited Common Expense is incurred due to the negligence, neglect or misconduct of the Owner of such Unit, or if the item giving rise to the expense shall be for the benefit of that Unit only. A Unit Owner shall maintain windows allocated to his Unit as a Limited Common Element, including interior washing and necessary replacements with substitutions of similar color, size, quality and style, except that the Association shall wash the exterior windows and assess the Unit therefor as a Limited Common Expense. The Association shall be responsible for all structural repairs and replacements of all Limited Common Elements, except for windows, whose costs shall be assessed to all Unit Owners as a Common Expense, unless such repair or replacement shall be necessitated by the negligence, neglect or misconduct of fewer than all of the Unit Owners, in which case such cost shall be assessed to the Unit Owners responsible as a Limited Common Expense.

7.3. Maintenance of Unit. Each Unit Owner shall keep and maintain her or his Unit and its equipment, appliances and appurtenances in good order, condition and repair and in a clean and sanitary condition, whether such maintenance and repair shall be structural or nonstructural. Each Unit Owner shall do all redecorating, painting and varnishing which may at any time be necessary to maintain the good appearance and condition of such Unit. The Unit Owner shall maintain the interior surface of windows in the Unit, including periodic washing. No Unit Owner shall throw any dirt, debris or other substance from the Unit onto the Common Elements or Limited Common Elements, except in designated trash disposal areas. Each Unit Owner shall be responsible for all damage to any other Units or to the Common Elements resulting from his failure or negligence to make any of the repairs required by this Article. Each Unit Owner shall perform his responsibility in such manner as shall not unreasonably disturb or interfere with the other Unit Owners. Each Unit Owner shall promptly report to the Executive Board or the managing agent any defect or need for repairs for which the Association is responsible.

7.4. Liability of Owner. Each Unit Owner shall be liable, and the Association shall have a lien against his Unit for, all costs of maintaining, repairing or replacing any portion of another Unit or of the Common Elements including Limited Common Elements such as windows, to the extent that such costs are caused by or attributable to such Unit Owner's act, neglect or carelessness or by that of such Unit Owner's guests, employees, agents, lessees, invitees, or their pets. The Association shall have the right to repair any damage so caused, to cure or correct the cause of the damage and to maintain or replace such damaged Unit or Common Element to the extent the Association deems necessary and appropriate. Such liability shall include any increase in fire insurance rates occasioned by use, misuse, occupancy, or abandonment of any Unit or its appurtenances. Nothing herein contained, however, shall be construed to modify any waiver by insurance companies of rights of subrogation against such Unit Owner.

7.5. Chart of Maintenance Responsibilities. The Units and Common Elements shall be maintained and repaired by each Unit Owner and the Association in accordance with the provisions of Section 1602-137(a) of the Act, and pursuant to the Chart of Maintenance Responsibilities attached as **Schedule E**.

7.6. Use and Occupancy Restrictions on Units. Each Unit shall be occupied and used subject to the following restrictions:

7.6(a) No Unit shall be used or occupied other than for residential purposes. Nothing in this Declaration or the Bylaws shall be construed to prohibit the Declarant from exercising any easements and Special Declarant Rights reserved by the Declarant pursuant to Article 8 for purposes set forth therein, including promotional, marketing or display purposes, from using any appropriate portion of the Common Elements for exercising these reserved rights, for settlement of sales of Units and for customer service purposes, or from leasing Units owned by Declarant as provided in this Declaration.

7.6(b) Nothing shall be done or kept in any Unit or in the Common Elements which will increase the rate of insurance for the Property, or any part thereof, without the prior written consent of the Executive Board. No Unit Owner shall permit anything to be done or kept in his Unit or in the Common Elements which will result in the cancellation of insurance on the Property, or any part thereof, or which would be in violation of any law, regulation or administrative ruling. No waste may be committed on or to the Common Elements.

7.6(c) No Unit shall be used so as to create a nuisance or an unreasonable interference with the peaceful possession or proper use of any other Unit or the Common Elements.

7.6(d) No owner or occupant of any Unit shall carry on, or permit to be carried on, any practice which unreasonably interferes with the quiet enjoyment and proper use of another Unit or the Common Elements by the Owner or occupant of any other unit, or which creates or results in a hazard or nuisance on the Property.

7.6(e) The maintenance, keeping, boarding and/or raising of animals, laboratory animals, livestock, poultry or reptiles of any kind, regardless of number, shall be and is prohibited within any Unit or upon the Common Elements. The foregoing notwithstanding, each Unit Owner or occupant may keep within such Unit a reasonable number of household pets subject to any rules and regulations as established by the Executive Board.

7.6(f) The Unit Owner shall not remove the acoustical, sound-deadening, or fire-resistant material from the walls, floors or ceilings of his Unit without replacing the same with acoustical, sound-deadening, or fire resistant materials of equal or greater sound-deadening or fire-resistant ratings or qualities. Additional major appliances may not be

installed in a Unit without the prior written consent of the Executive Board or a committee appointed by the Executive Board.

7.6(g) Trash, garbage and other waste shall be kept only in sanitary containers and shall be disposed of in such manner as may be prescribed in rules and regulations established by the Executive Board. No articles of personal property belonging to any Unit Owner shall be stored in any portion of the Common Elements.

7.6(h) No Unit Owner shall overload the electrical wiring in the Building. No Unit Owner shall operate any machinery, appliances, accessories or equipment in such a manner as to cause, in the judgment of the Executive Board, or a committee designated by the Executive Board, as appropriate, any unreasonable disturbance or make any alterations, repairs or modifications to or connection with the electrical or plumbing systems without the prior written consent of the Executive Board or a committee designated by the Executive Board, as appropriate.

7.7. Leasing Restrictions. No Unit shall be rented for transient or hotel purposes. No Unit shall be leased, subleased, or licensed with other than a written lease, sublease or license, requiring the lessee, sublessee or licensee to comply with the Condominium Documents and Rules and Regulations of the Association.

7.8. Voluntary Resale of Units. No Unit Owner including the Declarant shall be liable for the payment of any part of the Common Expenses assessed against his Unit subsequent to the date of recordation of a conveyance in fee of such Unit by the Owner. In a voluntary transfer of a Unit, the grantee of the Unit shall be jointly and severally liable with the grantor for all unpaid assessments and special assessments for Common Expenses made by the Executive Board against the grantor up to the time of the recordation of grantor's transfer, without prejudice to the grantee's right to recover from the grantor the amounts paid by the grantee therefor.

7.9. Right of First Refusal. A Unit Owner has the right to sell his Unit or give a lease containing an option to purchase, provided he gives notice of the bona fide terms of any proposed sale or lease option to the immediately contiguous Unit Owner(s) and to the Executive Board and obtains their approval for the sale or lease. The failure of the immediately contiguous Unit Owner(s) and the Executive Board to approve or disapprove such proposed sale or lease within fifteen (15) days after receiving notice shall be deemed to constitute approval. The exercise of the right of prior approval shall first belong to the immediately contiguous Unit Owners and then to the Board. If an immediately contiguous Unit Owner(s) disapprove(s) the transaction, such Unit Owner(s) must give the seller or leasing Unit Owner and the Executive Board written notice, within fifteen (15) days after notice of the proposed sale or lease, of his intention to purchase or lease the Unit on the sale terms or other terms more favorable to the Owner of the Unit proposed for sale or lease. In the event more than one of the immediately contiguous Unit Owners agrees to undertake such purchase or lease within the aforementioned fifteen (15) day period, the sale or lease shall be made to the immediately contiguous Unit

Owner who has been the Owner of an immediately contiguous Unit for the longest period of time. If no immediately contiguous Unit Owner disapproves of the transaction, but the Executive Board disapproves of the transaction, it shall within fifteen (15) days after making its decision known, produce a purchaser or lessee approved by it who will accept the transaction upon terms as favorable to the Unit Owner as the terms stated in the notice to the Board. If the Board does not produce such a purchaser or lessee within the fifteen (15) day period, the Unit Owner shall have the right to complete such sale or lease on the terms submitted.

The Executive Board, or its designee, may elect to purchase or lease such Unit on behalf of all of the Unit Owners, provided that approval for such purchase or lease is obtained from Unit Owners of the Units to which are allocated no less than 67% of the Votes in the Association, excluding the Votes allocated to the Unit to be sold or leased. In the event the Executive Board does not have sufficient funds on hand for such purchase or lease from working capital, it may either borrow such funds and/or assume an existing indebtedness secured by the Unit, provided such borrowing is secured only by a mortgage, or may assess the Unit Owners in proportion to their respective Common Expenses Liabilities, or the Board may use any combination of these methods to undertake the acquisition.

In the event a contiguous Unit Owner or the Board shall notify the selling Unit Owner of its disapproval of the sale or lease of the Unit then, within fifteen (15) days of such notification, the contiguous Unit Owner or the purchaser or lessee supplied by the Board shall execute a contract to sell or lease pertaining to such Unit, at the purchase price and other terms set forth in the contract to sell supplied with the notice of transfer, or on other terms more favorable to the Owner of the Unit. The closing of sale of the Unit or the date of the commencement of the term of lease shall be the same as set forth in the contract to sell or lease included in the notice of intention to sell the Unit, provided that the contiguous Unit Owner, Board, or its designee shall have at least 30 days from its disapproval to close.

7.9(a) Any sale, voluntary transfer, conveyance or lease which is not authorized by the terms of this Declaration or for which authorization has not been obtained pursuant to the terms of this Paragraph 7.9 is voidable and may be voided in any action brought by an immediately contiguous Unit Owner or the Executive Board.

7.9(b) A Unit Owner intending to make a transfer, sale or lease of the Unit or any part thereof, or interest therein, shall give notice to all immediately contiguous Unit Owners and to the Executive Board of such intention. He shall furnish at that time, for the information of the immediately contiguous Unit Owners and the Board: (a) the name and address of the intended grantee or lessee; (b) a statement of all of the terms of the transaction; (c) an executed copy of the proposed contract to sell or lease; and (d) such other information as the immediately contiguous Unit Owners or the Executive Board may reasonably require. Such notice, when given, shall constitute a representation, warranty and an offer to sell or lease to such immediately contiguous Unit Owner or to

any purchaser or lessee produced by the Board and a representation that the Unit Owner believes the offer to be bona fide in all respects.

7.9(c) Where the immediately contiguous Unit Owners and the Board have not acted on a transaction, or where the Board has acted but has not yet produced a purchaser within the fifteen (15) day period permitted, the Unit Owner may withdraw his offer to sell or lease. When at least one immediately contiguous Unit Owner has agreed to purchase or lease as provided above, or the Board has produced a purchaser or a lessee who fulfills the requirements set forth above and the purchaser or lessee so agrees, a binding contract shall be deemed to have come into existence and the Unit Owner shall be bound to consummate the transaction with such immediately contiguous Unit Owner or, if none, with such purchaser or lessee furnished by the Board in accordance with the terms thereof.

7.9(d) The failure of the immediately Contiguous Unit Owners or the Board to act on a notice given to it within fifteen (15) days shall be deemed to constitute approval of the sale or lease.

7.9(e) The right of prior refusal shall not be applicable to the following:

(1) A mortgage deed, or foreclosure or other judicial sale of Units or a conveyance by the Owner of a Unit to a Mortgagee in lieu of foreclosure; and any subsequent sale, lease or sublease by a Mortgagee, provided that unrelated persons acquiring the Unit from the Mortgagee shall be subject to this right of first refusal upon resale;

(2) The sale, lease or sublease from a Unit Owner to a partnership or a corporation in which the Unit Owner is a partner or principal stockholder; from a partnership or corporate Owner to the partners or stockholders thereof; from partners who are Owners to new partners; from one co-Owner to another;

(3) A conveyance from a Unit Owner by will or intestate succession;

(4) Transfers without consideration in connection with any estate planning or tax planning of any Owner;

(5) Initial sales from Declarant to the Unit Owners.

ARTICLE 8 EASEMENTS

8.1. Utilities, Pipes and Conduits. Each Unit Owner shall have an easement, in common with all other Unit Owners, to use all pipes, wires, ducts, cables, conduits, public utility lines and other Common Elements serving his Unit and located in any of the other Units. Each Unit shall be subject to an easement in favor of other Unit Owners to

use the pipes, ducts, cables, wires, conduits, public utility lines and other Common Elements serving such other Units and located in such Unit. The Association and its Executive Board shall have the right to grant to third parties additional permits, licenses and easements over and through the Common Elements for utilities, ways, and other purposes reasonably necessary or useful for the proper maintenance and operation of the Condominium.

8.2. Access. Each Unit Owner shall have an easement, in common with all other Unit Owners, to use the entrances, exits and other Common Elements as a means of access to and from the Property and Allen Avenue, the adjoining public street. The Executive Board may adopt rules for this use, but shall not establish any rules and regulations depriving any Unit Owner of reasonable access to and from his Unit, the Property and Common Elements, and the adjoining public street.

8.3. Condominium Association and Executive Board Access. Declarant reserves in favor of itself, the Association and its Executive Board, officers, agents and employees, and the managing agent and every other person authorized by the Executive Board, the irrevocable right and easement to have access to each Unit as provided in Section 1603-107(a) of the Act for the inspection, maintenance, repair or replacement of any of the Common Elements and Limited Common Elements in the Unit or accessible from the Unit or for making any addition or improvements to it; or to make repairs to any Unit, the Common Elements or the Limited Common Elements, if such repairs are reasonably necessary for public safety or to prevent damage to any other Unit or Units, the Common Elements or the Limited Common Elements; or to abate any violation of law, orders, rules or regulations of the Association or of any governmental authorities having jurisdiction thereof. In case of an emergency, such right of entry shall be immediate whether or not the Unit Owner is present at the time.

8.4. Encroachments. Each Unit shall have an easement to the extent necessary for structural and subjacent support over every other Unit and over the Common Elements, and each Unit and the Common Elements shall be subject to an easement for structural and lateral support in favor of every other Unit. If any portion of the Common Elements or Limited Common Elements hereafter encroach upon any Unit, or if any Unit hereafter encroaches upon any other Unit or upon any portion of the Common Elements or Limited Common Elements, as a result of settling or shifting of any Building or Buildings in which they are located, or otherwise than as a result of the purposeful or negligent act or omission of the Owner of the encroaching Unit, or of the Association in the case of encroachments by the Common Elements or Limited Common Elements, then a valid easement appurtenant to the encroaching Units, Common Elements or Limited Common Elements for the encroachment and for the maintenance of the same shall exist for so long as the encroachment shall exist. In the event that the Building shall be partially destroyed as a result of fire or other casualty or as a result of a taking by the power of, or in the nature of, eminent domain or by an action or deed in lieu of condemnation, and then is rebuilt, encroachments of a portion or portions of the Common Elements or Limited Common Elements upon any Unit or of any Unit upon any other Unit or upon

any portion of the Common Elements or Limited Common Elements, due to such rebuilding, shall be permitted, and valid easements appurtenant to the encroaching Units, Common Elements or Limited Common Elements for such encroachments and the maintenance thereof shall exist so long as the Building as so rebuilt shall stand.

8.5. Declarant's Easement for Marketing. The Declarant reserves the right, for the marketing of its Units to use the Common Elements and Limited Common Elements for access for itself, its officers, employees, agents, contractors and subcontractors, and for prospective purchasers of Units, including the right to park in parking spaces. The Declarant also reserves the right to use any Units owned or leased by the Declarant as models, management offices, sales offices for this project or customer service offices, and the right to relocate the same from time to time within the Property. The Declarant further reserves the right to maintain on the Property such advertising signs as may comply with applicable governmental regulations, which may be placed in any location on the Property and may be relocated or removed, all at the sole discretion of the Declarant. The Declarant shall have the right to erect on the Common Elements temporary offices for models, sales, management, customer service and similar purposes, which may be relocated or removed, all at the sole discretion of Declarant and which may be of such types and sizes as Declarant may deem appropriate.

8.6. Declarant's Easements for Construction. The Declarant reserves the Special Declarant Right and easement, for the construction of the Units, Common Elements, Limited Common Element and other improvements of the Condominium, to enter the Property for purposes of construction, reconstruction, maintenance, repair, renovation, replacement or correction of the Units or Common Elements. This easement shall include, without limitation, the right of vehicular and pedestrian access, the right to park motor vehicles and to engage in construction and marketing activities, including the movement and storage of building materials and equipment. This easement also expressly includes the right to cut and remove any trees, bushes, or shrubbery, to grade and remove the soil, or to take any other action reasonably necessary to achieve this purpose, following which the Declarant shall restore the affected property as closely to its original condition as practicable. The Declarant reserves the rights to sell the removed timber and soil, and retain the proceeds thereof. Furthermore, the Declarant reserves an easement in the Units and Common Elements pursuant to Section 1602-116 of the Act for the purpose of discharging Declarant's obligations and exercising the Special Declarant Rights reserved pursuant to this Declaration or on the Plats.

8.7. Declarant's Easement to Correct Drainage. Declarant reserves an easement on, over and under those portions of the Common Elements, not located within a Building, for the purpose of maintaining and correcting drainage of surface water in order to maintain reasonable standards of health, safety and appearance. The reservation of this right does not and shall not result in the imposition of an obligation.

8.8. Declarant's Right to Connect With Utilities. The Declarant further reserves an easement to connect with and make use of utility lines, wires, pipes and conduits located

on the Property for construction purposes on the Property (Declarant shall be responsible for the cost of any services), and to use the Common Elements for access and construction activities, and for the storage of construction materials and equipment used in the completion of the Units and Common Elements.

8.9. Declarant's Right to Grant Easements. The Declarant shall have the right, until the Declarant has conveyed all Units in the Condominium to Purchasers, to grant and reserve easements and rights-of-way through, under, over and across the Property for construction purposes, and for the installation, maintenance and inspection of the lines and appurtenances for public or private water, sewer, drainage, gas, electricity, telephone, cable and other utilities. The Units and Common Elements shall be, and are hereby, made subject to easements in favor of the Declarant described in Section 8, appropriate utility and service companies and governmental agencies or authorities for such utility and service lines and equipment as may be necessary or desirable to serve any portion of the Property. The easements: created in this Paragraph shall include, without limitation, rights of Declarant, or the providing utility or service company or governmental agency or authority, to install, lay, maintain, repair, relocate and replace pipes and conduits, water mains and pipes, sewer and drain lines, telephone wires and equipment, television equipment and facilities (cable or otherwise), heating systems, ventilation systems, electric wires, conduits and equipment and ducts and vents over, under, through, along and on the Units and Common Elements.

8.10. Limitation. The easements reserved by Declarant in Paragraphs 8.5, 8.6, 8.7, 8.8 and 8.9 shall continue until the Declarant has conveyed all Units in the Condominium to Purchasers. These Paragraphs shall not be amended without the written consent of the Declarant.

8.11. Common Elements Easement In Favor of Unit Owners. The Common Elements (including, but not limited to, the Limited Common Elements) shall be and are hereby made subject to the following easements in favor of the Units benefited:

a) For the installation, repair, maintenance, use, removal and/or replacement of pipes, ducts, heating and air conditioning systems, electrical, telephone and other communication wiring and cables and all other utility lines and conduits which are a part of or serve any Unit and which pass across or through a portion of the Common Elements.

(b) For the installation, repair, maintenance, use, removal and/or replacement of lighting fixtures, electrical receptacles, panel boards and other electrical installations which are a part of or serve any Unit but which encroach into a part of a Common Elements adjacent to such Unit; provided that the installation, repair, maintenance, use, removal or replacement of any such item does not unreasonably interfere with the common use of any part of the Common Elements, adversely affect either the thermal or acoustical character of the Building or impair or structurally weaken the Building.

(c) For driving and removing nails, screws, bolts and other attachment devices into the Unit side surface of the studs which support the dry wall or plaster perimeter walls bounding the Unit, the bottom surface of finer joists above the Unit and the top surface of the floor joists below the Unit to the extent such nails, screws, bolts and other attachment devices may encroach into a part of a Common Element adjacent to such Unit; provided that any such action will not unreasonably interfere with the common use of any part of the Common Elements, adversely affect either the thermal or acoustical character of the building or impair or structurally weaken the building.

8.12. **Transfer of Special Declarant Rights.** Declarant reserves the right to transfer any or all reserved Special Declarant Rights in accordance with Section 1603-104 of the Act.

ARTICLE 9
RIGHTS OF MORTGAGE LENDERS ON UNITS

9.1. **Right to Mortgage.** Each Unit Owner shall have the right to mortgage or encumber his own respective Unit together with its appurtenant Allocated Interests.

9.2. **Identification of Mortgagee.** A Unit Owner who mortgages his Unit shall notify the Executive Board in writing of the name and address of his Mortgage(s).

9.3. **Mortgage Foreclosure.** Any holder of a first mortgage or a Unit that obtains title to the Unit pursuant to the remedies provided in the Mortgage, or through a completed foreclosure of the Mortgage, or through deed in lieu of foreclosure, shall take the Unit, with the appurtenant Allocated Interests, thereto free of any claims for unpaid assessments for Common Expenses, interest and costs levied against such Unit, which accrued prior to the acquisition of title to such Unit by the Mortgagee, other than the proportionate share of the Common Expenses which become due and payable from and after the date on which the Mortgagee shall acquire title to the Unit through a completed foreclosure or deed in lieu of foreclosure.

9.4. **Notices to Eligible Mortgage Holder.** "Eligible Mortgage Holder" means the holder of record of a recorded first Mortgage encumbering a Unit in the Condominium, which has delivered written notice to the Association, by prepaid United States Mail, return receipt requested, or by delivery in hand securing a receipt therefor, stating: (1) the name and address of the holder of the Mortgage, (2) the name and address of the Owner of the Unit encumbered by such Mortgage, (3) the identifying number of such Unit, and (4) containing a statement that such Mortgage is a recorded first Mortgage. The Association shall send written notice, by prepaid United States mail to each Eligible Mortgage Holder of the following proposed actions, within a reasonable period prior to the taking of any of such proposed actions, but no later than the time that notice thereof is given to Unit Owners: (a) any condemnation loss or any casualty loss which affects a material portion of the Condominium, or any Unit on which there is a first Mortgage held, insured or guaranteed by such Eligible Mortgage Holder ("material" means five percent

(5%) or more); (b) any lapse, cancellation or material modification of any insurance policy or fidelity bond maintained by the Association; (c) the proposed use of any proceeds of Property insurance, required to be obtained and maintained by the Association pursuant to this Declaration, for purposes other than repair, replacement and restoration of the Property substantially in accordance with this Declaration, the Bylaws, the Plats and Plans, and the original elevations, building plans and specifications; (d) the adoption by the Executive Board of any proposed budget, the date of the meeting of Unit Owners scheduled to consider ratification of such proposed budget, and a summary of the proposed budget; (e) any proposed action which would require the consent of a specified percentage of Eligible Mortgage Holders as specified in Paragraph '9.5; (f) the termination of the Condominium; (g) a change in the Allocated Interests appurtenant to any Unit, a change in the boundaries of a Unit, or the subdivision of a Unit; (h) the merger or consolidation of the Condominium with another condominium; (i) the conveyance or subjection to a security interest of any portion of the Common Elements. The Association shall also send written notice of any delinquency in the payment of assessments for Common Expenses or any other charges owed by an Owner of a Unit, or any other default in the performance or payment by a Unit Owner of any obligation under this Declaration, the Bylaws or any rules and regulations of the Association, to the Eligible Mortgage Holder of the Mortgage to which such Owner's Unit is subject, which notice must be given as soon as reasonably possible, but in no event later than sixty (60) days after the occurrence of such delinquency or default. The Association shall also send written notice to each Eligible Mortgage Holder of any consideration of any proposed action concerning any delinquency in the payment of assessments for Common Expenses or any other charges owed by an Owner of a Unit, or concerning any other default in the performance or payment by a Unit Owner of any obligation under this Declaration, the Bylaws or any Rules and Regulations of the Association.

9.5. Mortgagee Approval Rights.

9.5(a) The prior written approval of at least sixty-seven percent (67%) of the Unit Owners and sixty-seven (67%) percent of the Eligible Mortgage Holders shall be required to: (a) terminate or abandon the Condominium for reasons other than substantial destruction or condemnation of the Condominium and (b) abandon, partition, subdivide, encumber, sell or transfer any of the Common Elements, except for granting easements for utilities or other public purposes consistent with the intended use of the Common Elements.

9.5(b) The prior written approval of at least fifty-one (51%) percent of the Eligible Mortgage Holders and sixty-seven percent (67%) of the Unit Owners shall be required for the termination or abandonment of the condominium as a result of condemnation or substantial loss to the Units, Common Elements, or both.

9.5(c) The prior written approval of at least sixty-seven (67%) percent of the Eligible Mortgage Holders shall be required to alter or change the Allocated Interests.

9.5(d) The prior written approval of at least sixty-seven (67%) percent of the Eligible Mortgage Holders shall be required to use property insurance and eminent domain proceeds resulting from losses to any Condominium Property (whether to Units or to Common Elements) for other than the repair, replacement, restoration or the Property substantially in accordance with this Declaration, the Bylaws, the Plats and Plans, and the original elevation thereof and the original building plans and specifications.

9.6. Voting and Other Rights of Eligible Mortgage Holders. In the event of any default by a Unit Owner in payment of assessments or performance of obligations pursuant to the Condominium Documents, as more fully described in Paragraph 9.4., clause (j), the Eligible Mortgage Holder of the Mortgage on such Owner's Unit shall have the right but not the obligation to cure such default. Notwithstanding any provision of Paragraph 9.3. to the contrary, in the event of any proposed actions to (1) terminate the Condominium pursuant to Section 1602-118 of the Act; (2) change the Allocated Interests appurtenant to any Unit or change the boundaries of a Unit; (3) merge or consolidate the Condominium with another condominium; (4) convey or subject to a security interest any portion of the Common Elements; or (5) use any proceeds of property insurance required to be maintained by the Association pursuant to this Declaration for purposes other than repair and restoration of the damaged Property in accordance with this Declaration, the Plats and Plans, the Bylaws, the original elevation thereof and original building plans and specifications therefor, then: an Eligible Mortgage Holder shall have the right, but not the obligation, in place of the Owner of the Unit subject to the Mortgage held by such Eligible Mortgage Holder, to cast the Votes allocated to that Unit or to give or withhold any consent required of such Unit Owner for such action by delivering written notice to the Association with a copy to the Unit Owner prior to or at the time of the taking of the proposed action, which notice shall be sent by prepaid United States mail, return receipt requested, or by delivery in hand; failure of the Eligible Mortgage Holder to so exercise such right shall constitute a waiver thereof and shall not preclude the Unit Owner from exercising such right. In no event shall more Votes be cast with respect to any Unit than are allocated to that Unit pursuant to this Declaration. An Eligible Mortgage Holder, or its representative, shall have the right to attend meetings of the Association and Executive Board for the purposes of discussing the termination of the Condominium, a change in the Allocated Interest of a Unit, a change in the boundaries of a Unit or a subdivision of a Unit, the merger or consolidation of the Condominium with another condominium, the conveyance or subjection to a security interest or any portion of the Common Elements, the proposed use of any proceeds of hazard insurance for purposes other than the repair or restoration of the damaged Property, or the adoption of any proposed budget by the Executive Board.

9.7. Mortgagee Priority. No provision of the Condominium Documents shall be deemed or construed to give a Unit Owner, or any other person, priority over the rights of any Eligible Mortgage Holder pursuant to its Mortgage in the case of a distribution to Unit owners of insurance proceeds or condemnation awards for losses to or a taking of Units, Common Elements. or both.

ARTICLE 10
INSURANCE

10.1. **Policies.** No later than the time of the first conveyance of a Unit to a person other than the Declarant, the Executive Board on behalf of the Association, shall obtain, and maintain as a Common Expense, the policies of insurance described in Paragraphs 10.2., 10.4. and 10.5. to the extent such policies shall be reasonably available from reputable insurance companies. To the extent that this insurance is not reasonably available as described in the preceding sentence, the Executive Board on behalf of the Association shall give written notice of that fact to the Unit Owners and the Eligible Mortgage Holders of Mortgages of their Units by hand delivery securing a receipt therefor, or by prepaid United States mail, return receipt requested. To the extent that any of this insurance in the future becomes no longer available, the Association shall obtain as a substitution the most comparable insurance available. The Executive Board or the Association is hereby irrevocably appointed as attorney-in-fact for each Unit Owner and for each Mortgagee and Eligible Mortgage Holder and for each owner of any other interest in the Property, for the purpose of purchasing and maintaining this insurance, for the collection and disposition of any insurance, including distribution to any Insurance Trustee pursuant to the Insurance Trust Agreement, and Section 1603-113(e) of the Act, for the negotiation of losses and execution of releases of liability, and for the execution of all documents, and performance of all other acts necessary to accomplish these purposes.

10.2. **Property Insurance.** The Executive Board shall obtain and maintain, as a Common Expense, a blanket-type or master standard form of "all-risk" fire insurance policy, with extended coverage, vandalism, malicious mischief, windstorm, sprinkler leakage (if applicable), debris removal, cost of demolition and water damage endorsements, issued by an insurance company authorized to do business in the State of Maine, insuring as a single entity the entire Property, EXCEPT the land, foundations, excavations, and other similar items customarily excluded from property insurance policies. The policy shall cover the Units and the heating, ventilating and air conditioning equipment included as part of the Unit, but not the furniture, wallcoverings, furnishings or other personal property supplied or installed by Unit Owners. It shall also cover the Limited Common Elements and other Common Elements, together with all service equipment and machinery contained in the Property, and the fixtures, supplies and common personal property belonging to the Association. The policy shall cover the interests of, and name as insureds, the Association, the Executive Board, and all Unit Owners and their Mortgagees as their insurable interests may appear. Such blanket or master policy shall be in an amount equal to one hundred percent (100%) of the then current full replacement cost of the Property (exclusive of the land, excavations, foundations and other similar items customarily excluded from such coverage), without deduction for depreciation, which amount to be redetermined annually by the Executive Board, with the assistance of the insurance company affording such coverage. The policy shall contain a standard Maine Mortgage Clause in favor of each Mortgagee of a Unit, whether or not named therein, with provision that the proceeds of loss, if any, shall first

be payable to each Mortgagee as its insurable interest may appear, subject, however, to the loss payment and adjustment provisions in favor of the Insurance Trustee or Association contained in Paragraph 10.3., subparagraph 10.2.d., the Bylaws and Section 1603-113(e) of the Act. This blanket or master hazard insurance policy may, at the option of the Executive Board, contain such "deductible" provision as the Executive Board shall reasonably deem appropriate. Such policy shall also contain the following provisions:

10.2(a) The following endorsements (or their equivalent): (a) "no control", meaning that coverage shall not be prejudiced by any act or neglect of any occupant or Unit Owner or their agents, when such act or neglect is not within the control of the insured, or the Unit Owners collectively, nor by any failure of the insured, or the Unit Owners collectively, to comply with any warranty or condition with regard to any portion of the Condominium over which the insured, or the Unit Owners collectively, have no control; (b) "Construction Code Endorsement" or "increased cost of construction"; and (c) "agreed amount" or elimination of co-insurance clause.

10.2(b) That any "no other insurance" clause must expressly exclude individual Unit Owners' policies from its operation, so that the physical damage policy purchased by the Executive Board shall be deemed primary coverage and any individual Unit Owners' policies shall be deemed excess coverage, and in no event shall the insurance coverage obtained and maintained by the Executive Board hereunder provide for or be brought into contribution with insurance purchased by individual Unit Owners or their Mortgagees; and

10.2(c) The recognition of any Insurance Trust Agreement whereby the Executive Board may designate in writing an Insurance Trustee to hold any insurance proceeds in trust for disbursement, as provided in Paragraph 10.3.

10.3. Losses, Adjustment and Payment; Insurance Trustee. Any loss covered by the insurance policy described in Paragraph 10.2 shall be adjusted with the Association by its Executive Board, but the insurance proceeds for said loss shall be payable to the Insurance Trustee designated for that purpose as provided in the Bylaws and Section 1603-113(e) of the Act, or otherwise to the Association, and not to any Mortgagee. The Insurance Trustee or the Association shall hold any insurance proceeds in trust for Unit Owners, Mortgagees and other lien holders as their interests may appear. Subject to the provisions of this Paragraph, the Bylaws and Section 1603-113(e) of the Act, the proceeds shall be disbursed first for the repair or restoration of the damage to the Property and Unit Owners, Mortgagees and other lien holders are not entitled to receive payment of any portion of the proceeds, unless there is a surplus of proceeds after the damaged Common Elements and Units have been repaired or restored, the decision has been made not to repair or restore the damage as provided in Section 1603-113(h) of the Act, or the Condominium is terminated.

10.4. Liability Insurance. The Executive Board shall obtain and maintain, as a Common Expense, comprehensive general public liability insurance (including medical payments insurance) and property damage insurance in such limits as the Board may from time to time determine, insuring each Executive Board member, the managing agent, each Unit Owner and the Declarant against any liability to the public or to the Unit Owners (and their invitees, agents and employees) covering all occurrences commonly insured against for death, bodily injury or property damage, arising out of the maintenance, ownership or use of the Common Elements, and for any legal liability resulting from suits or actions related to employment contracts to which the Association is a party. Such insurance shall be issued on a comprehensive liability basis and shall contain: (a) a cross liability endorsement, under which the rights of a named insured under the policy shall not be prejudiced with respect to his action against another named insured; (b) hired and non-owned vehicle coverage; (c) a "severability of interest" endorsement, which shall preclude the insurer from denying liability to a Unit Owner because of negligent acts of the Association or of another Unit Owner; and (d) a broad form liability extension endorsement including "personal injury", contractual liability, host liquor liability and other coverage commonly included in such broad form endorsement. The Executive Board shall review such limits once each year, but in no event shall such insurance be less than one million dollars (\$1,000,000.00) covering all claims for bodily injury or property damage arising out of one occurrence.

10.5. Other Insurance. The Executive Board shall obtain and maintain as a Common Expense:

10.5(a) to the extent available, "directors' and officers'" liability insurance, to satisfy indemnification obligations of the Association provided in Paragraph 11.2;

10.5(b) workers' compensation insurance, if and to the extent necessary to meet the requirements of law; and

10.5(c) such other insurance as the Executive Board may determine or as may be requested by a majority of the Unit Owners.

10.6. Memoranda, Cancellation, Additional Required Provisions. All insurers that shall issue an insurance policy or policies under this Article shall issue certificates or memoranda of insurance to the Association, and, upon request, to any Unit Owner or Mortgagee. All such insurers issuing the policy may not cancel (including cancellation for non-payment of premium), substantially modify, or refuse to renew such policy or policies until twenty (20) days after notice of the proposed cancellation of non-renewal has been mailed to the Association, the managing agent, each Unit Owner and each Mortgagee to whom a certificate or memorandum of insurance has been issued at their respective last known addresses. All policies under Paragraph 10.2 and 10.4 shall in addition contain the following provisions or features:

10.6(a) The insurer waives any right to claim, by way of subrogation, against the Declarant, the Association, the Executive Board, the managing agent or the Unit Owners, and their respective agents, employees, guests and, in the case of the Unit Owners, the members of their households;

10.6(b) The Declarant, so long as Declarant shall own any Unit, shall be protected by all such policies as a Unit Owner.

10.6(c) Each Unit Owner is an insured person under the policy, with respect to liability arising out of his ownership of an undivided interest in the Common Elements or membership in the Association;

10.6(d) The insurer waives its right to subrogation under the policy against any Unit Owner of the Condominium or members of his household;

10.6(e) No act or omission by any Unit Owner, unless acting within the scope of his authority on behalf of the Association, will void the policy or be a condition to recovery under the policy; and

10.6(f) If, at the time of a loss under the policy, there is other insurance in the name of a Unit Owner covering the same risk covered by the policy, the Association's policy provides primary insurance.

10.7. **Separate Insurance.** Each Unit Owner shall have the right, at his own expense, to obtain insurance for his own Unit and for his own benefit and to obtain insurance coverage upon his personal property and for his personal liability as well as upon any improvements made by him to his Unit under coverage normally called "improvements and betterments coverage"; provided, however, that no Unit Owner shall be entitled to exercise his right to acquire or maintain such insurance coverage which would decrease the amount which the Executive Board, on behalf of all Unit Owners may realize under any insurance policy maintained by the Board, or to cause any insurance coverage maintained by the Board to be brought into contribution with insurance coverage obtained by a Unit Owner. All such policies shall contain waivers of subrogation. Any Unit Owner who obtains an individual insurance policy covering any portion of the Condominium, other than improvements and betterments made by such Owner at this expense, and personal property belonging to such Owner, shall file a copy of such individual policy or policies with the Executive Board within thirty (30) days after the purchase of such insurance. Such Unit Owner shall also promptly notify the Executive Board in writing in the event such policy is canceled. Each Unit Owner shall notify the Executive Board in writing of all structural improvements made by the Unit Owner to his Unit; provided, however, that this sentence shall not be construed as an authorization to Unit Owners to make structural improvements to Units otherwise than in accordance with this Declaration, the Bylaws and rules and regulations promulgated by the Executive Board. Any premium increase caused by such improvements may be assessed to the Owner of the improved Unit. No Unit Owner shall be entitled to receive insurance

proceeds for the repair, restoration or rebuilding of any such improvements not so reported to the Executive Board, unless otherwise consented to by unanimous vote of the Executive Board.

10.6. Unit Owner's Liability Insurance. Each Unit Owner, shall obtain and maintain general liability insurance in a minimum amount of **One Million Dollars (\$1,000,000.00)** and shall provide a certificate of insurance to the Executive Board for each term of coverage at least two (2) weeks prior to the expiration date of the current term of such insurance.

**ARTICLE 11
LIMITATION OF EXECUTIVE BOARD LIABILITY**

11.1. Limited Liability of the Executive Board. The Executive Board and its members, in their capacity as members, officers and employees shall have limited liability. Specifically, they:

11.1(a) Shall not be liable for the failure of any service to be obtained by the Executive Board and paid for by the Association, or for any injury or damage to persons or property caused by the elements or by another Unit Owner or person on the Property, or resulting from electricity, gas, water, rain, dust or sand which may leak or flow from the outside or from any part of the Building, or from any of its pipes, drains, conduits, appliances, or equipment, or from any other place, unless in each instance, such injury or damage has been caused by the willful misconduct or gross negligence of the Association or the Executive Board;

11.1(b) Shall not be liable to the Unit Owners, as a result of the performance of the Executive Board members' duties, for any mistake of judgment, negligence or otherwise, except for the Executive Board members' own willful misconduct or gross negligence;

11.1(c) Shall have no personal liability in contract to a Unit Owner or any other person or entity, under any agreement, check, contract, deed, lease, mortgage, instrument or transaction entered into by them on behalf of the Executive Board or the Association, in the performance of the Executive Board members' duties;

11.1(d) Shall not be liable to a Unit Owner, or such Unit Owner's tenants, employees, agents or guests, for loss or damage caused by theft of or damage to personal property left by such Unit Owner or his tenants, employees, agents or guests in a Unit, or in or on the Common Elements or Limited Common Elements, except for the Executive Board members' own willful misconduct or gross negligence;

11.1(e) Shall have no personal liability in tort, to a Unit Owner or any other person or entity, direct or imputed, by virtue of acts performed by or for them, except for the

Executive Board members' own willful misconduct or gross negligence in the performance of their duties; and

11.1(f) Shall have no personal liability arising out of the use, misuse or condition of the Building, or which might in any other way be assessed against or imputed to the Executive Board members, as a result of or by virtue of their performance of their duties, except for the Executive Board members' own willful misconduct or gross negligence.

11.2. Indemnification. Each member of the Executive Board, in his capacity as an Executive Board member, officer or both, shall be indemnified by the Association against all expenses and liabilities, including attorney's fees, reasonably incurred by or imposed upon him in connection with any proceeding in which he may become involved by reason of his being or having been a member and/or officer of the Executive Board, or any settlement of any such proceeding, whether or not he is an Executive Board member, officer or both at the time such expenses are incurred, except in such cases wherein such Executive Board member and/or officer is adjudged guilty of willful misconduct or gross negligence in the performance of his duties; provided that, the indemnification with respect to any criminal action or proceeding is permitted only if such Executive Board member and/or officer had no reasonable cause to believe his conduct was unlawful. The indemnification by the Unit Owners set forth in this Paragraph shall be paid by the Association on behalf of the Unit Owners and shall constitute a Common Expense and shall be assessed and collectible as such. Such right of indemnification shall not be deemed exclusive of any other rights to which such Executive Board member and/or officer may be entitled as a matter of law or agreement or by vote of the Unit Owners or otherwise.

11.3. Defense of Claims. Complaints brought against the Association, the Executive Board or the officers, employees or agents thereof in their respective capacities as such, or the Condominium as a whole, shall be directed to the Executive Board of the Association, which shall promptly give written notice thereof to the Unit Owners and the Eligible Mortgage Holders and the Mortgagees of Units, and such complaints shall be defended by the Association. The Unit Owners shall have no right to participate in such defense other than through the Association.

ARTICLE 12 AMENDMENTS

Except in the case of amendments to this Declaration by the Declarant according to this Declaration, and except in cases of amendments to this Declaration that may be unilaterally executed and recorded by the Association as described in Sections 1601-107, Eminent Domain, 16-2-108(c), Allocation of Limited Common Elements, 1602-112(a), Relocation of Boundaries Between Adjoining Units, 1602-113, Subdivision of Units and 1602-117(a), Amendment of Declaration, of the Act, and except in cases of amendments to this Declaration that may be made by certain Unit Owners, as described in Sections

1602-108(b), Reallocation of Limited Common Elements, 1602-112(a), Relocation of Boundaries Between Adjoining Units, 1602-113(b), Subdivision of Units, or 1602-118(b) of the Act, and subject to the other provisions of this Declaration and of the Act this Declaration, the Plats and the Plans may be amended as follows:

12.1. **Before Any Conveyance.** Prior to the conveyance of any Unit by the Declarant to a Unit Owner (other than as security for an obligation), the Declarant shall have the right to amend and reamend this Declaration in any manner that the Declarant may deem appropriate.

12.2. **After First Conveyance.** After the first conveyance of Unit by a Declarant to a Unit Owner, the terms of the following subparagraphs shall apply to the amendment of this Declaration:

12.2(a) *Notice.* Notice of the subject matter of a proposed amendment shall be included in the notice of any meeting of the Executive Board or Association in which a proposed amendment is considered, and shall be served upon all Unit Owners and upon all and Eligible Mortgage Holders.

12.2(b) *Resolution.* An amendment may be proposed by either the Executive Board or by Unit Owners holding in the aggregate no less than forty (40%) percent of the votes in the Association. No resolution of the Executive Board adopting a proposed amendment or the proposed amendment itself shall be effective, unless it has been adopted at a meeting of the Association duly called and held in accordance with the Bylaws by the affirmative vote of at least sixty-seven (67%) percent in voting interest of the Unit Owners and then executed and recorded as provided in subparagraph 12.2.5. Nevertheless, subject to Article 9 governing the rights of Eligible Mortgage Holders, and subject to the other provisions of this Declaration and the Act, the affirmative vote of at least fifty-one percent (51%) in voting interest of the Unit Owners shall be sufficient to amend the following provisions: **Paragraphs 7.1., 7.2., 7.3., and 7.5., and Schedule E.**

12.2(c) *Agreement.* In the alternative, an amendment may be made by an agreement signed by the record Owners of Units to which are allocated 100% of the Votes in the Association in the manner required for the execution of a deed and acknowledged by at least one of them, and such amendment shall be effective when certified and recorded as provided in subparagraph 12.2.(e).

12.2(d) *Proviso.* Provided, however, that except as otherwise permitted by the Act and provided in this Declaration, no amendment may change the Allocated Interests allocated to a Unit, or the uses to which any Unit is restricted, without the unanimous consent of the Unit Owners and the consent of Eligible Mortgage Holders of Mortgages on Units to which at least two-thirds of the Votes in the Association are allocated. No amendment of this Declaration shall make any change which would in any way affect any of the rights, privileges, powers and options of the Declarant, its successors or assigns.

unless the Declarant, or its successors or assigns, shall join in the execution of such amendment.

12.2(e) *Execution and Recording.* A copy of each amendment shall be attached to or included with a certificate, certifying that the amendment was duly adopted, which certificate shall be executed and acknowledged by such officer or officers of the Association and/or member or members of the Executive Board designated for that purpose by the Bylaws. The amendment shall be effective when such certificate and copy of the Amendment are recorded.

12.2(f) *Notice and Challenge.* No action to challenge the validity of an amendment to this Declaration adopted by the Association pursuant to this Article may be brought more than one year after such amendment is recorded. After each amendment to this Declaration adopted pursuant to this Article has been recorded, notice thereof shall be sent to all Unit Owners and to all Eligible Mortgage Holders at the address last furnished to the Executive Board, but failure to send such notices shall not affect the validity of such amendment.

ARTICLE 13 GENERAL PROVISIONS

13.1. **Applicability.** This Declaration shall be applicable to the Property. All present and future Owners and tenants, their guests, licensees, servants, agents, and any other person or persons that shall be permitted to use a Unit or the Common Elements, shall be subject to this Declaration, the Bylaws and to such rules and regulations as may be issued by the Executive Board. Ownership, rental or occupancy of any of the Units in the Condominium (other than possession by a Mortgagee prior to either of the completion of foreclosure or the acceptance of a deed to the Unit subject to the Mortgage held by such Mortgagee) or the acceptance of a deed or conveyance (other than as security for a debt) or the entering into of an occupancy or lease of any Unit shall signify that the provisions of this Declaration and the Bylaws, the rules and regulations of the Condominium and the decisions of the Executive Board are accepted and ratified by such Owner, tenant or occupant, and all of such provisions shall be deemed to be covenants running with the land, and shall bind any person having at any time any interest or estate in such Unit.

13.2. **Compliance -- Rules.**

13.2(a) Each Unit Owner shall be governed by and shall comply strictly with the terms, covenants, conditions and restrictions of this Declaration, Bylaws and the rules and regulations adopted pursuant thereto.

13.2(b) The Executive Board shall have the power to adopt, amend and enforce compliance with such reasonable rules and regulations relative to the operation, use and occupancy of the Units and the Common Elements, consistent with the provisions of this

Declaration and the Act including, but not limited to, the appointment of such committees and the enactment and enforcement of such enforcement procedures and penalties for violations as the Executive Board shall deem appropriate. Any such rules and regulations shall be adopted or amended, by means of appropriate resolutions duly approved by the Executive Board in accordance with the Bylaws. A copy of such rules and regulations and copies of any amendment thereto shall be delivered or mailed to each Owner or occupant of a Unit promptly after the adoption thereof, and shall become binding upon all Owners, their successors in title and assigns, and occupants.

13.2(c) Failure by a Unit Owner to comply with the terms of this Declaration, the Bylaws and the rules and regulations adopted pursuant thereto, shall entitle the Executive Board to (a) sue for the recovery of damages, (b) sue for injunctive relief and/or (c) enter the Unit in which, or as to which, such violation or breach exists and summarily to abate and remove, at the expense of the defaulting Unit Owner, any structure, thing or condition that may exist therein contrary to the intent and meaning of the provisions hereof, and the Executive Board shall not be deemed guilty in any manner of trespass when enforcing these terms, provided, however, that the Executive Board must institute appropriate judicial proceedings before they may alter or demolish any items of construction. Such relief shall not be exclusive of other remedies provided by law. In any proceeding arising because of an alleged failure of a Unit Owner to comply with the terms of the Condominium Documents and rules and regulations adopted pursuant thereto, as the same may be amended from time to time, the Executive Board, if the prevailing party, shall be entitled to recover the costs of the proceeding and reasonable attorney's fees.

13.2(d) The failure of the Executive Board to enforce any covenant, restriction or other provision of the Act, the Condominium Documents or the rules and regulations adopted pursuant thereto, shall not constitute a waiver of the right to do so thereafter.

13.3. **Eminent Domain.** If all or part of the Common Elements shall be taken or condemned by any authority having the power of eminent domain, the Association shall notify the Owners and Eligible Mortgage Holders of the Units affected, and shall represent the Unit Owners in any condemnation proceedings or in negotiations, settlements and agreements with the condemning authority. Any award shall be paid to the Association for the use and benefit of the Unit Owners and their Mortgagees as their interests may appear. The Association shall divide any portion or the award not used for any restoration or repair among the Unit Owners and their Mortgagees, as their interests may appear, in proportion to their Allocated Interests in the Common Elements prior to such taking or condemnation, but the portion of the award attributable to the acquisition of any Limited Common Element shall be equally divided among the Owners of the Units to which such Limited Common Element was allocated at the time of such taking or condemnation and their Mortgagees, as their interests may appear. Each Unit Owner appoints the Association as attorney-in-fact for the purposes described in this paragraph. Notwithstanding anything to the contrary in this Paragraph 13.3., lien holders on any Unit, Common Element or Limited Common Element, shall have a lien on any such awards in order of priority of their respective liens.

Signed, Sealed and Delivered ALC DEVELOPMENT CORPORATION - Declarant
in the presence of

_____ By: _____

Its

STATE OF MAINE
County of Cumberland

1999

Personally appeared the above-named _____, President of ALC Development Corporation and acknowledged the foregoing Declaration to be his free act and deed in his corporate capacity, and the free act and deed of the corporation.

Before me,

Notary Public/Attorney at Law

My Commission Expires: _____

rev. 1-30-99/decwhole
rev 4-3-99/decrev99
renamed **decr99a**
rev 4-15-99
spell check 4-30-99
proofed/rev 5-5-99

EXHIBIT A

A CERTAIN LOT OR PARCEL OF LAND situated northwesterly of Allen Avenue in the City of Portland, County of Cumberland, State of Maine, being shown on a plan entitled, "Existing Conditions Plan of Allen Avenue Property, Portland, Maine" for ALC Development Corporation, Scarborough, Maine; dated April 17, 1998; revised through August 6, 1998, by Sebago Technics, Inc., Westbrook, Maine; Job No. 97380; hereinafter referred to as "the plan"; said lot being more particularly bounded and described as follows:

Beginning at a point in the northwesterly sideline of said Allen Avenue at the northeasterly corner of land now or formerly of the City of Portland, Portland Arts & Technology High School, said point being witnessed by a 12 inch by 12 inch granite monument 26 inches high as shown on the plan;

Thence North $31^{\circ} 43' 47''$ West, by and along the City of Portland, a distance of 293.59 feet to a found 1 inch iron pipe;

Thence North $32^{\circ} 20' 27''$ West, by and along the City of Portland, a distance of 300.68 feet to a point;

Thence North $33^{\circ} 04' 37''$ West, by and along the City of Portland, a distance of 99.25 feet to a found drill hole in a stone wall as shown on the plan;

Thence North $33^{\circ} 13' 32''$ West, by and along the City of Portland, a distance of 399.95 feet to a found 1 inch iron pipe in a stone wall;

Thence North $35^{\circ} 00' 07''$ West, by and along the City of Portland, a distance of 300.20 feet to a point;

Thence North $32^{\circ} 57' 37''$ West, by and along the City of Portland, a distance of 300.26 feet to a point;

Thence North $33^{\circ} 57' 27''$ West, by and along the City of Portland, a distance of 300.08 feet to a point;

Thence North $28^{\circ} 49' 42''$ West, by and along the City of Portland, a distance of 134.65 feet to a point;

Thence North $26^{\circ} 36' 17''$ West, by and along the City of Portland, a distance of 450.51 feet to a set iron rod in the southerly line of land now or formerly of Richard Duplessie as shown on the plan;

Thence North $52^{\circ} 34' 29''$ East, by and along the southerly line of said Duplessie, a distance of 40.12 feet to a point in the westerly line of a paper street called Oramell

Avenue as shown on a plan of Portland Highlands recorded in the Cumberland County Registry of Deeds in Plan Book 16, Page 10;

Thence North 52° 11' 16" East, by and along the southerly terminus of said Oramell Avenue, a distance of 50.25 feet to a point at the easterly sideline of said Oramell Avenue; said point also being at the southwesterly corner of land now or formerly of Frank Didonato;

Thence North 62° 42' 19" East, by and along the southerly line of said Didonato, a distance of 50.16 feet to a point;

Thence North 56° 33' 06" East, by and along the southerly line of said Didonato and by and along the southerly line of land now or formerly of Santo Didonato, a distance of 270.94 feet to a set iron rod in the westerly line of land now or formerly of Portland Water District as shown on the plan;

Thence South 33° 53' 45" East, by and along the southwesterly line of the Homesteads as shown on a plan recorded in the Cumberland Registry in Plan Book 14, Page 70, passing through several found iron pipes as shown on the plan, a distance of 1,964.36 to a point at the southwesterly corner of land now or formerly of Edward and Elizabeth Flaherty.

Thence North 55° 28' 15" East, by and along the southerly line of said Flaherty, a distance of 100.01 feet to a point in the southwesterly sideline of Pennell Avenue, so called;

Thence South 33° 53' 45" East, by and along the southwesterly sideline of said Pennell Avenue, a distance of 50.0 feet to a point in the northeasterly corner of land now or formerly of Amy Anderson and John Johnston;

Thence South 55° 28' 15" West, by and along the northerly line of said Anderson and Johnston, a distance of 100.01 feet to a found 3/4 inch iron pipe;

Thence South 33° 53' 45" East, by and along the southwesterly line of said Anderson and Johnston, and by and along the southwesterly line of land now or formerly of Michael and Mary Boucher, a distance of 150.28 feet to a found No. 5 rebar as shown on the plan; said found rebar also being at the northwesterly corner of land now or formerly of Francis Baade;

Thence South 29° 12' 04" West, by and along land of the Grantor herein, a distance of 273.83 feet to a set iron rod;

Thence South 54° 18' 23" East, by and along land of the Grantor herein, a distance of 151.07 feet to a set iron rod in the northwesterly sideline of said Allen Avenue;

Thence South 31° 36' 41" West, by and along the northwesterly sideline of Allen Avenue, a distance of 343.54 feet to the point of beginning.

Meaning and intending to describe a parcel of land containing 26.09 acres, more or less, being a portion of the same premises conveyed to Henry R. Noring, June B. Durost, Barbara L. Welch and Robert F. Noring by a deed of distribution dated December 26, 1990, and recorded in the Cumberland Registry in Book 9446, Page 348.

The parcel herein described is subject to and benefited by, but not limited to, all of the easements, rights-of-way and restrictions as noted on the plan.

Bearings herein are magnetic north of 1986.

bbdes
8-24-98
9-07-98





45192-19-23

4-28-94

Att. 3

From: Larry Ash
To: William Needleman
Date: Thu, Apr 15, 1999 9:21 am
Subject: Washington Crossing

Bill: With regard to the proposed development at 214 Allen Avenue I believe the traffic review presented by Tom Errico of Wilbur-Smith and Associates is complete and that the development will not have a significant impact on traffic using Allen Ave.

Traffic DPW

**Site Review Pre-Application
Multi-Family/Attached Single Family Dwellings/Two-Family Dwelling
or Commercial Structures and Additions Thereto**

In the interest of processing your application in the quickest possible manner, please complete the Information below for Site Plan Review

NOTEIf 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.**

A.L.C. Development Corp.

October 21, 1998

Applicant
258 Black Point Road Scarborough ME 04074

Application Date
Allen Ave. Apartments

Applicant's Mailing Address
Sebago Technics Inc. Jeff Perry

Project Name/Description

246 Allen Avenue

Consultant/Agent
(207) 856-0277/ (207) 856-2206 FAX

Address Of Proposed Site
3430 Lots 14, 15 & 344 D5

Applicant/Agent Daytime telephone and FAX

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 Other(Specify) _____

60 Apartments

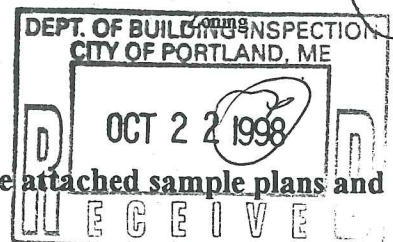
26.09ac

R-3 & R-5

Proposed Building Square Footage and /or # of Units

Acreeage of Site

320
89747



You must include the following with you application:

- 1) A Copy of Your Deed or Purchase and Sale Agreement
- 2) 7 sets of Site Plan packages containing the information found in the attached sample plans and checklist.

(Section 14-522 of the Zoning Ordinance outlines the process, copies are available for review at the counter, photocopies are \$ 0.25 per page)

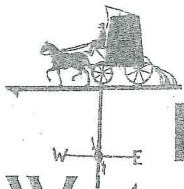
I hereby certify that I am the Owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if an approval for the proposed project or use 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 approval at any reasonable hour to enforce the provisions of the codes applicable to this approval.

Signature of applicant: [Signature] Date: 10/22/98

Site Review Fee: Major \$500.00 Minor 400.00

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

Subdivision 1,500-
Site Plan 450-



Portland Water District

225 Douglass St. • P.O. Box 3553 • Portland, ME 04104-3553

RECEIVED
11/25/98
SEBAGO TECHNICS

Att. 4

(207) 774-5961
FAX (207) 761-8307
www.pwd.org

November 23, 1998

Mr. Jeffrey R. Perry
Sebago Technics
12 Westbrook Common, P.O. Box 1339
Westbrook, Maine 04098-1339

Re: Allen Avenue Apartments

Dear Mr. Perry:

The Portland Water District has a 12" water main in Allen Avenue, Portland, near the proposed site. A test on a nearby hydrant produced the following results: static pressure 54psi; pito pressure 39psi; with a flow of 1048gpm. With these results in mind, the District feels we have a healthful and sufficient capacity available to serve this proposed project and meet all normal fire protection and domestic water service demands.

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

Sincerely,

PORTLAND WATER DISTRICT

David W. Coffin, PLS
Engineering Supervisor

Att. 5

SITE

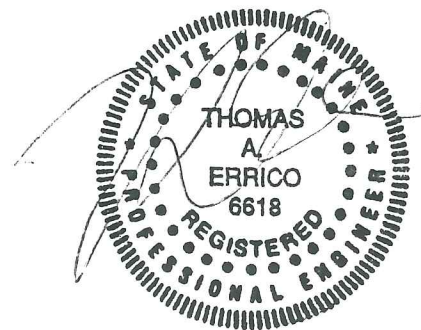


Efficiency of Maine Arterials, Maine Department of Transportation, driveways shall be located to achieve the required sight distance measured in each direction along the arterial while maintaining adequate distances from adjacent driveways and intersections. For a road with a posted speed limit of 35MPH, 350 feet of sight distance should be provided in both directions. Based on field measurements, approximately 650 feet of sight is available in the southerly direction and approximately 425 feet in the northerly direction. Accordingly, acceptable conditions will be provided.

- A determination on the need for auxiliary turn lanes at the site drive was performed according to criteria contained in the MDOT Highway Design Guide and the City of Portland Technical and Design Standards and Guidelines. Based upon the projected traffic demand, dedicated left and right turn lanes entering the site are **not** recommended.
- Based upon the existing width of Allen Avenue and the City of Portland Technical and Design Standards and Guidelines, it is recommended that the driveway radii be 20 feet.

SECTION 9– CONCLUSIONS/RECOMMENDATIONS

1. The proposed 60 unit apartment development is expected to generate 398 daily vehicles, 31 vehicles (5 entering/26 exiting) during the AM peak hour, and 37 vehicles (25 entering/12 exiting) during the PM peak hour
2. At the proposed site drive on Allen Avenue, capacity analyses results indicate movements entering the site will operate with little delay, while exiting movements will experience long delays during peak periods.
3. Evaluation of accident data in the vicinity of the project was performed for the most recent 3-year period from the MDOT. Results indicate Allen Avenue in the vicinity of the project site does not meet the criteria for a High Accident Location.
4. An evaluation of sight distance at the proposed driveway was performed and indicates acceptable conditions will be provided.
5. The need for auxiliary turn lanes at the proposed site drive was performed. Results indicate dedicated left and right turn lanes are **not** recommended.



AH.7

97380

STORMWATER MANAGEMENT PLAN

Washington Crossing Condominiums 62-Unit Planned Residential Unit Development Allen Avenue Portland, Maine

General

This Stormwater Management Plan has been prepared to evaluate the pre and post-development conditions associated with the proposed Washington Crossing Condominiums on Allen Avenue in Portland, Maine. Washington Crossing will be a 62-unit condominium development with associated roadway and utility infrastructure. Access to the condominiums will be from a proposed private roadway extending northwesterly into the site, from Allen Avenue, approximately 1,900 feet in length prior to culminating in a cul-de-sac.

Site Characteristics

The project site is located on approximately 26 acres of woods, including a large area of forested wetlands, with some open brush areas near Allen Avenue. The surrounding area includes residential developments along Pennell Avenue to the north and Allen Avenue to the east, the Portland Arts and Technology High School (PATHS) to the south, and undeveloped land to the west. Existing site topography consists of gentle to moderate slopes, with areas of steeper slopes near the northwesterly corner.

Stormwater runoff from the easterly one-third of the site drains into an existing wetland, which also collects runoff from the PATHS site. This wetland currently functions as a detention pond, with outflow released through two 12" diameter CMP culverts stacked on top of each other. Stormwater from the remainder of the site generally drains northwesterly, through the wetlands, outletting into a tributary to the Presumpscot River. A subsurface storm drain system crosses the northwesterly corner of the site and also outlets to the same tributary of the Presumpscot River.

Soils

Soils information was obtained from the Cumberland County Medium Intensity Soil Survey. The soil survey maps the predominant soils within the area of the proposed development as Scantic silt loam, with a hydrologic soils group of "D" and Belgrade very fine sandy loam, with a hydrologic soils group of "B". Other soils found within the site area and within the off-site contributing areas consist of Buxton silt loam and Hollis fine sandy loam, both with a hydrologic soils group of "D".

WS-10: Approximately 4.96 acres of the original WS-10, including woods, brush and the existing developed house lot on Allen Avenue. This watershed also includes the back half of the first seven buildings. Runoff flows either in the form of sheet flow or through drainage swales into the existing wetland/detention pond before leaving the site at Study Point #1. Link 1, consisting of the 22 acres of off-site contributing area from PATHS and Plymouth Avenue, is included as outletting to the wetland area.

WS-11: Approximately 0.69 acres of grass and undisturbed tree growth areas, as well as a portion of one new building. Runoff from this watershed will drain through a grassed swale prior to entering a culvert beneath the private road, outletting into the wetlands. This culvert also serves to transport off-site runoff from the rear of PATHS into the existing forested wetlands which flows to Study Point #2.

WS-12 through WS-18: Approximately 2.12 acres of development, including the remainder of the road, portions of seven buildings, and associated landscaped areas. These watersheds also include small areas of undisturbed tree growth. All runoff from these watersheds is transported through a series of subsurface storm drains into a stormwater treatment structure prior to outletting into the existing subsurface storm drain system, which crosses the westerly portion of the site. This storm drain system then outlets just off the project parcel, near Study Point #2, into the tributary to the Presumpscot River.

WS-20: Approximately 16.17 acres of the original WS-20, including the forested wetlands, as well as the back half of seven buildings and one two-unit building and driveway, and a tennis court and associated walkways. Runoff flows either in the form of sheet flow or through drainage swales into the existing wetlands before leaving the site at Study Point #2.

Stormwater Management

Stormwater from the first approximately 920 feet of the new roadway, and half of the first seven buildings will be collected and transported via a series of catch basins and subsurface storm drains. This drainage system will connect to a subsurface stormwater treatment tank to provide removal of suspended solids, grit, etc. prior to outletting into the wetlands.

Outflow from these wetlands is currently controlled by a small berm and two 12" diameter culverts stacked on top of each other. The two existing culverts will be replaced by two new 12 inch culverts. The berm at the outlet will be repaired as necessary, and an emergency spillway will be constructed to handle flows from the larger rain events, such as the 100-year storm. The wetland area has sufficient capacity to temporarily detain runoff from the 2, 10 and 25-year storm events.

Runoff from the majority of the remaining developed portion of the site will be collected and transported via a series of catch basins and subsurface storm drains. This drainage system will connect to a subsurface stormwater treatment box to provide removal of suspended solids, grit, etc. The outlet from this stormwater treatment box will be connected into the existing subsurface storm drain system along the northwesterly portion of the site. Runoff will flow

through this system for approximately 370' prior to outletting into the tributary of the Presumpscot River. Runoff from the remainder of this site will continue to flow through the forested wetlands before concentrating into the tributary of the Presumpscot River.

The following table lists the calculated peak rates of runoff for the various storm events:

Watershed Analysis Summary				
Storm Event		2-Year, 24-Hour	10-Year, 24-Hour	25-Year, 24-Hour
Study Point #1	Pre	3.95 cfs	5.47 cfs	5.81 cfs
	Post	4.34 cfs	5.63 cfs	6.17 cfs
Study Point #2	Pre	3.43 cfs	10.18 cfs	13.89 cfs
	Post	3.93 cfs	11.06 cfs	14.96 cfs

Summary

Due to the size of the existing wetland area that serves as a detention basin prior to outletting to the municipal system within Pennell Avenue, the increase in peak rates of runoff into the wetland are dissipated prior to outletting the wetland. The outlet will be reconstructed to provide new culverts and a riprapped emergency spillway for larger storm events.

No detention is proposed for the rear of the site. The majority of the proposed development will be collected in a series of catch basins and connected to the existing municipal system via a subsurface storm drain system.

Treatment will be provided to the collected runoff for both watersheds via two proposed treatment tanks. These tanks have been accepted by the Maine Department of Environmental Protection to provide 80 percent TSS removal rates.

Other drainage provision will include a specific grading plan and erosion and sediment control measures to be implemented throughout the construction cycle. Incorporation of the above mentioned drainage provisions for the proposed subdivision will adequately address stormwater runoff such that no significant adverse impacts are anticipated either to the Presumpscot River or its tributary, or the subsurface drainage system in the Allen Avenue area.

Prepared by:

SEBAGO TECHNICS, INC.



Shawn M. Frank, P.E.
Project Manager

SMF:jc
April 6, 1999a



Sebago Technics
Engineering & Planning for the Future

Handwritten mark resembling a stylized 'u' or 'm' with a diagonal line.

Handwritten vertical text: 6.7.15.97

Handwritten blue text: ATT. 8

April 13, 1998
97380

City of Portland
Public Works Department
Sewer Operations
55 Portland Street
Portland, ME 04101

Sewer Capacity - Allen Avenue Apartments, Portland

Gentlemen:

We are currently preparing the City of Portland's Site Plan Application for the above referenced project. I wish to request your review of the Sewer Department's capacity to service the proposed multi-family project. Attached is a location map.

The project will consist of 62 apartments (59 three-bedroom and 3 two-bedroom units), a daycare facility (44 children), and an office/laundry building with 6 washing machines.

If you have any questions or need additional information, please contact me.

Sincerely,

SEBAGO TECHNICS, INC.

Jeffrey R. Perry
Landscape Architect

JRP:jc
Enc.

7-2-98

PUBLIC WORKS ENGINEERING
MEMORANDUM

To: Rick Knowland, Senior Planner

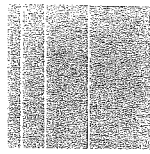
From: Anthony Lombardo, P.E., Project Engineer

Date: February 12, 1999

Subject: Washington Crossing Condos....ALC Development Corp.

The following comments were generated during Public Works Engineering review of proposed Condo development off Allen Ave. The plans and application were dated February 8, 1999.

- *The application package does not include any utility capacity letters, including a sewer capacity letter from the Environmental Engineering Division of Public Works.*
- *Public Works is requesting, for our review, the submittal of sanitary sewer pump calculations, force main sizing, wet well sizing and any supporting documentation.*
- *Sheet 10 of 11 of the plan set does not specify any elevation information related to the "pump station detail".*
- *The stormwater narrative received at Public Works did not include any HydroCAD stormwater modeling printouts and there was no summary of the results of the applicant's calculations. Public Works would like to receive a complete set of stormwater calculations and supporting materials, including pre and post development watershed maps.*
- *Public Works is requesting copies of the required NRPA Tier 2 permit application that must be filed with MDEP, as a result of the filling of wetlands in excess of 15,000 square feet.*
- *Public Works is requesting the applicant close up the two (2) curb openings along the Allen Ave. frontage of this development site. New curb and sidewalk should be installed in both locations.*



Sebago Technics
Engineering & Planning for the Future

April 8, 1999
97380

William Goodwin, Wastewater Engineer
Public Works Department
City of Portland
55 Portland Street
Portland, ME 04101

Sanitary Sewer Service, Washington Crossing Condominiums, Allen Avenue

Dear Mr. Goodwin:

On behalf of ALC Development Corporation, we respectfully request the Portland Public Works Department to provide sanitary service to the above referenced project. The planned project consists of sixty-two two-bedroom apartments. Based upon the Maine State Plumbing Code, the project will generate between 11,160 GPD and 18,600 GPD of sanitary effluent, with an average estimated flow of 14,880 GPD.

Due to the topography of the site and the proximity of existing sanitary sewer service, a pump station is proposed to service a portion of the development. Effluent from the pump station will connect to a gravity line on site that will connect to the existing 24" line in Allen Avenue abutting the Portland Arts and Technology School. This pump station, force main and gravity system will remain privately owned and maintained. Enclosed is the plan set for the project.

Please call with any questions or comments. Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.

For Jeffrey R. Perry
Landscape Architect

JRP/SMF:jc
Enc.

cc: ALC Development Corporation

Peoples Heritage Bank
One Portland Square
P.O. Box 9540
Portland, ME 04112-9540

1-800-462-3666
Tel: 207-761-8500
Internet: www.peoplesheritage.com

Att. 9

April 5, 1999



City of Portland
Planning Department
Portland, ME

RE: 60 Unit Condominium project, Allen Avenue, Portland, ME

To Whom it May Concern:

I have worked with ALC Development, John and Elliott Chamberlain on several projects similar to the proposed project referenced above. These projects were completed on time and the construction loans advanced to ALC Development were repaid in a timely manner.

Although the Bank has not committed to financing this project, I believe a financing package can be arranged.

If you need further information, Please contact me at 828-7273.

Sincerely,

A handwritten signature in black ink, appearing to read "Jonathan M. Campbell".

Jonathan M. Campbell
Commercial Loan Officer

AHC Notes from SITE WALK

Wetland (Portion of PFOIE as I identified from
Wetlands Inventory, Rulshime, Inc. -
Board listed "Saturated Flooded")

Field indicators generally follow the wetland
lines, though some "upland" areas may
well be wetland?

The North westerly portion of
ditch through stream to Presumpt
River and

The South westerly section of
ditch from a culvert to Pennell St into
Fall brook water shed

The uplands of the South westerly (Allen Ave)
Section is largely fill (waste asphalt, concrete
consolidation debris) all land from the toe
slope to properties of Pennell St are wet.

even from the proposed tennis courts to
Dr. Howe due on more natural upland,
though the line is indistinct.

Forested area to the N. of the wetland
and of significant value (by City Standards)

Notes for meeting with ALC. 3/4/99

RE. Washington Crossing as related to PRUD standards.

Allen Ave.:

Buildings on Allen Ave. should relate to the neighborhood (both the Noring Farm and the 19th cen and early 20th cen development across the St... Buildings should present a public face

Buildings along the interior road way;

Building should create a pedestrian friendly environment and de-emphasize the garages.

Recreational Spaces:

The Rec spaces should be integrated with the tennis courts. Provide playground if possible.

Landscaping:

Lighting should be shaded.

Tennis courts should be screened internally and externally (cedars will work within the wet areas.

S.A.H.

Planning & Urban Development



Joseph E. Gray Jr.
Director

CITY OF PORTLAND

April 21, 1999

Mr. Shawn M. Frank, P.E.
Sebago Technics
12 Westbrook Commons
Westbrook, Me 04098-1339

Re: ALC stormwater capacity meeting at Public Works

Dear Shawn,

This is a note to follow up on our Wednesday afternoon meeting with Public Works concerning the stormwater capacity of the combined sewer at Pennell Avenue. From my perspective, I noted five possible options for ALC to consider to allow the Washington Crossing Condo project to move forward, in light of the sewer situation at Pennell Avenue. As you know, a degradation of sewer service for Pennell Avenue is not an option. The five options posited are listed below in the order in which they were discussed.

1. ALC installs a stormwater pipe and catchment system on the easterly side of its own property, at ALC's expense. This system would take water from the southerly end of the property, diverting it from the Pennell Ave combined sewer system, and outletting into the existing drainage in the north of the property. This option may require additional DEP permitting.
2. ALC provides funds and/or technical assistance for the sewer separation and reconstruction of Pennell Ave. ALC's assistance would speed the completion of the Pennell Ave. work and would solve ALC's drainage problem. Public Works Engineer, Anthony Lombardo is checking on the feasibility of this option from Public Work's point of view.
3. ALC increase the retention of stormwater on its property to offset sewer capacity needs at a ratio (5to 1?) acceptable to Public Works. This option may require additional berms along the Pennell Ave. back lot lines and additional DEP permitting.
4. ALC waits until Public Works has completed the sewer separation on Pennell Ave. and resubmits this project with a greatly simplified stormwater management problem.
5. ALC and the City coordinate on the funding and construction of a stormwater pipe and catchment system on the easterly side of ALC's parcel. This system would function similarly to Option 1. but would be within a City drainage easement and be available to receive stormwater from the Pennell Ave. street and basement drains. Negotiating Option 5. would be complex, as the benefit to the City is unknown, and stormwater separation costs will still have to be expended as part of a Pennell Ave. reconstruction.

O:\PLANDEVREVV\ALLEN214\LETTERS\SF1-21.WBN

Traffic Impact Study
Allen Avenue Apartment Project

Portland, Maine

October 1998

Prepared For:

A.L.C. Development Corp.
258 Black Point Road
Scarborough, Maine 04074

Prepared By:

Wilbur Smith Associates
Engineers•Economists•Planners
107 India Street
Portland, Maine 04101

Table of Contents

Section 1: Introduction

Section 2: Data Collection

Section 3: Existing/Future Traffic Volumes

Section 4: Site Generated Traffic

Section 5: Build Traffic Volumes

Section 6: Intersection Analysis

Section 7: Safety Analysis

Section 8: Driveway Design Considerations

Section 9: Conclusions/Recommendations

SECTION 1 - INTRODUCTION

A.L.C Development Corp. retained Wilbur Smith Associates (WSA) to prepare a Traffic Impact Study in conjunction with the proposed construction of 60 apartment units on Allen Avenue in Portland, Maine. The proposed project is located on the West Side of Allen Avenue between the Arts & Technology High School and Pennell Avenue (See Figure 1). Access to the site will be provided by one-curb openings on Allen Avenue.

The purpose of this study is to evaluate the potential impact the proposed project will have on the existing transportation system in the vicinity of the project. Specifically, this study estimates the additional traffic expected and evaluates the operational and safety conditions expected at the site drive. It should be noted that the study scope was based upon input from the City of Portland Traffic Engineer.

SECTION 2 - DATA COLLECTION

The Maine Department of Transportation (MDOT) provided the following information:

- Accident Data for the most recent 3 year period for roads in the vicinity of the project.
- Statewide Group Mean Factors

WSA collected the following information:

- Turning movement volumes during the weekday AM and PM peak hours at the Allen Avenue/Arts & Technology High School intersection.
- A field inventory of roadway conditions, sight distance, signage, pavement markings, etc.

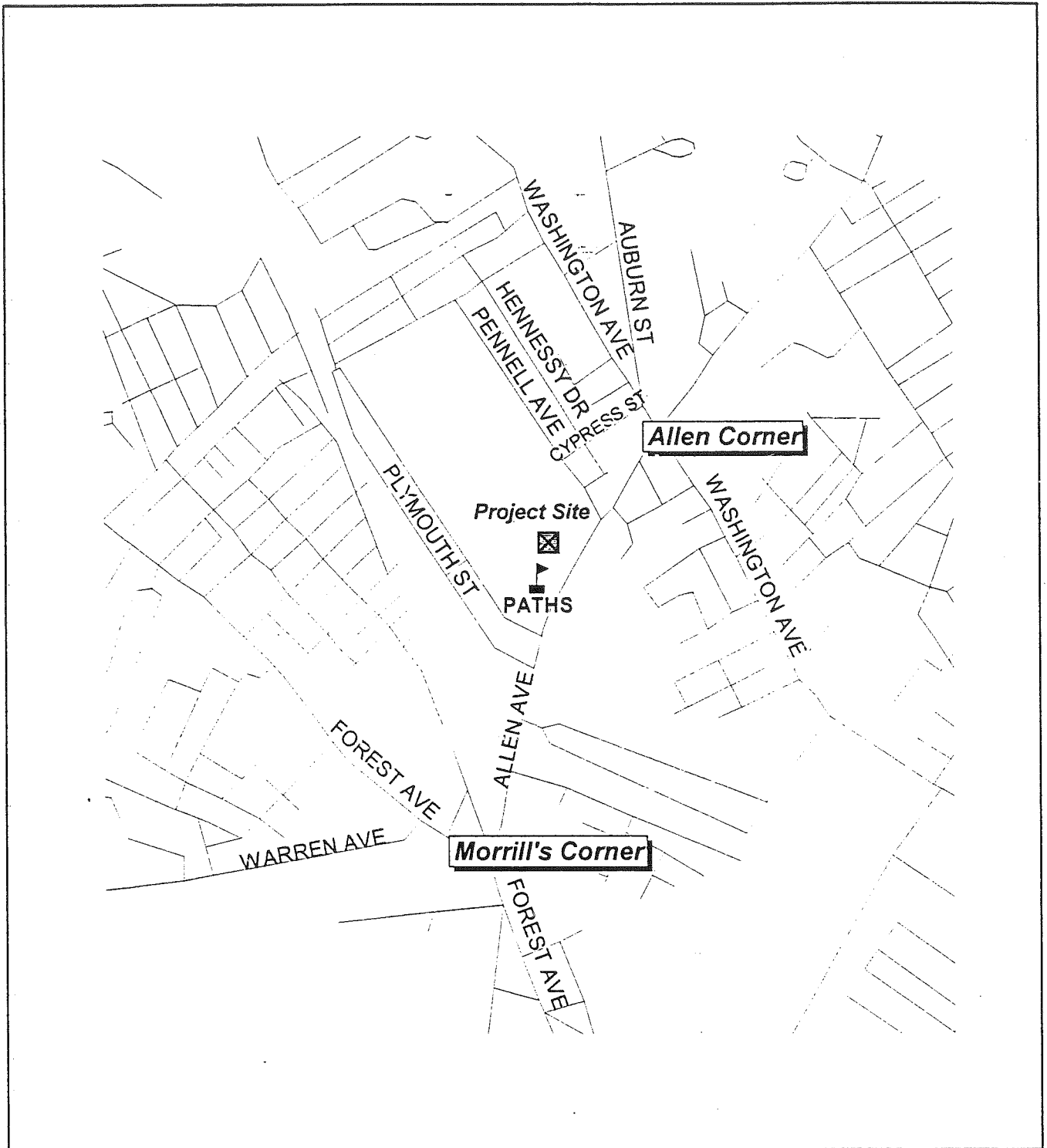
Sebago Technics provided the following information:

- Site plan dated September 25, 1998

SECTION 3 - EXISTING/FUTURE TRAFFIC VOLUMES

The primary purpose of this study is to show what effect the proposed project will have on the local transportation system. In general, the critical time period for a given project is directly associated with peaking characteristics of both the project-related traffic and the area transportation system. For this study, traffic conditions during the Weekday AM and PM peak hours will be evaluated.

The primary focus of traffic operations is at the proposed site drive on Allen Avenue. Accordingly, a traffic volume count was conducted at the nearby Allen Avenue/Arts & Technology High School intersection to quantify traffic levels traveling past the proposed



Allen Avenue Apartment Project
Site Location Map

City of Portland, Maine

D-5

site during the AM and PM peak hours. The counts were conducted on Tuesday, October 6, 1998 between 4:00 and 6:00PM and on Wednesday, October 7, 1998 between 7:00 and 9:00AM. Results of the count indicate the AM peak hour occurred between 7:15 and 8:15AM, while the PM peak hour occurred between 4:30 and 5:30PM.

Design Hour Volume

The traffic pattern on any highway shows considerable variation in traffic volumes during different hours of the day and in hourly volumes throughout the year. It must be determined which of these hourly traffic volumes should be used for analysis and design. It would be wasteful to predicate the design on the (maximum) peak hour traffic of the year, yet the use of the average hourly traffic would result in an inadequate design. The hourly traffic volume used in design should not be exceeded very often or by very much. On the other hand, it should not be so high that traffic would rarely be great enough to make full use of the facility. Based upon the relationship between highest hourly volumes and daily traffic volumes, it has been concluded that the hourly traffic used in design should be the 30th Highest Hour Volume, or sometimes called Design Hour Volume.

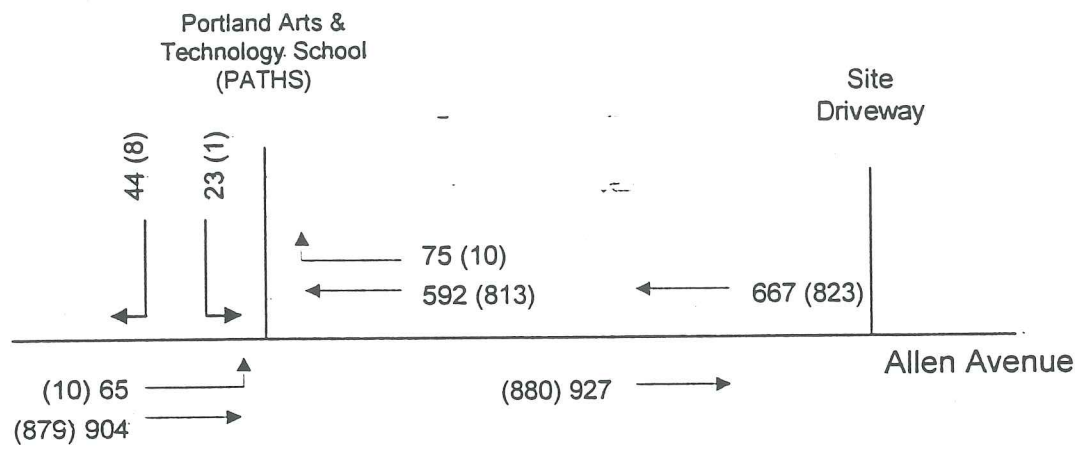
For this study, the Design Hour Volumes were estimated from factors developed by the Maine Department of Transportation. According to the 1998 Weekly Group Mean Factors, traffic volumes counted during the first week of October should be increased by 7 percent to estimate Design Hour conditions.

Figure 2 presents the 1998 Design Hour traffic volumes during the AM and PM peak hours on Allen Avenue.

Base Conditions

No-Build traffic volumes (without the proposed development) were developed for the anticipated opening year of the project (1999). In order to estimate traffic volumes during the No-Build condition, it is important to incorporate traffic generated by other developments in the study area. This is important because conditions associated with nearby developments may generate traffic that impact roadways being studied. Based upon our knowledge of the study area, no significant proposed developments exist in the vicinity of the project. Additionally, 1998 existing traffic should be increased to account for normal background growth. MDOT historical volume data indicates traffic has grown by approximately 2 percent annually. Accordingly, the 1999 No-Build traffic volumes were estimated by adjusting the 1998 Design Hour volumes by 2 percent.

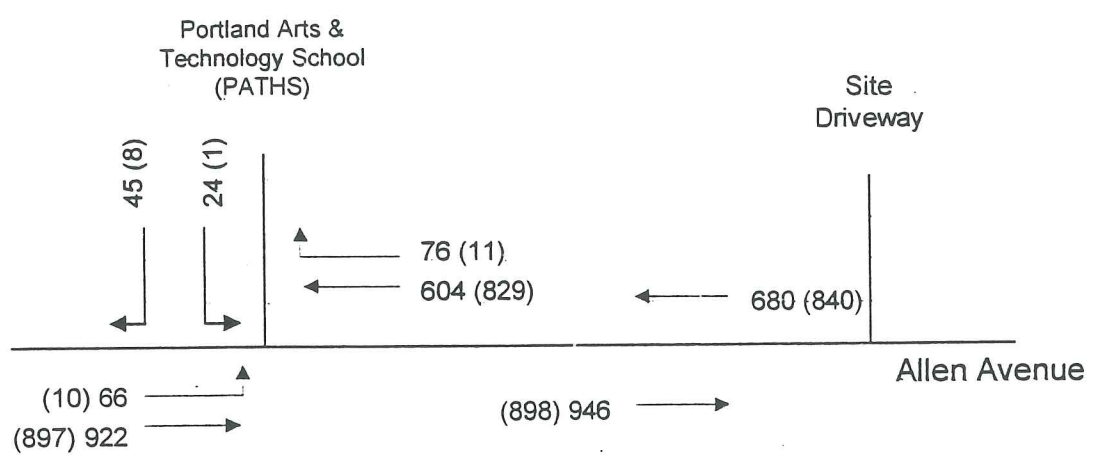
Figure 3 presents the 1999 No-Build traffic volumes.



1998 Design Hour Traffic Volumes

xxx - AM Peak Hour
(xxx) - PM Peak Hour

Figure 2



1999 No-Build Traffic Volumes

xxx - AM Peak Hour
(xxx) - PM Peak Hour

Figure 3

Allen Avenue Apartment Project

City of Portland

SECTION 4 – SITE GENERATION TRAFFIC

Traffic generated from the proposed development was based upon traffic generation rates contained in the publication, TRIP GENERATION, Institute of Transportation Engineers. According to Land Use Code 220– Apartment, 6.63 trips per dwelling unit can be expected on a weekday. During the AM peak hour, 0.51 trips per dwelling unit can be expected, while 0.62 trips per dwelling unit can be expected during the PM peak hour. The proposed project is expected to contain 60 apartment units and the following table summarizes the estimated daily, AM peak hour, and PM peak hour trip generation.

	ENTER	EXIT	TOTAL
Daily	199	199	398
AM Peak Hour	5	26	31
PM Peak Hour	25	12	37

Distribution of the site-generated traffic was based upon proposed access/egress plans and existing travel patterns in the vicinity of the project. Figure 4 presents the site generated traffic volumes during the Weekday AM and PM peak hours.

SECTION 5 – BUILD TRAFFIC VOLUMES

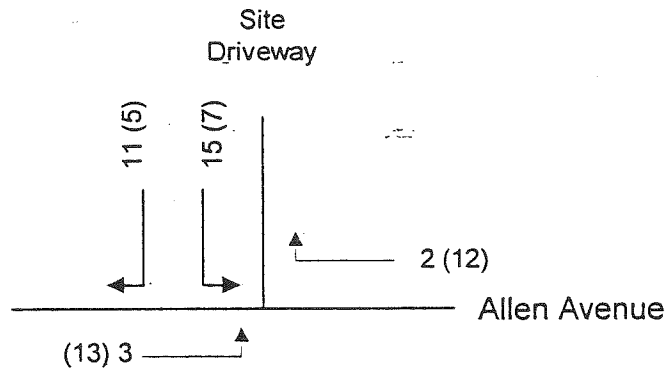
The Build Traffic Volumes within the study area were estimated for the 1999 condition. The Build Volumes were estimated by adding the site-generated traffic depicted on Figure 4 to the 1999 No-Build Traffic Volumes presented on Figure 3. Figure 5 presents the 1999 Build Traffic Volumes during the Weekday PM peak hour.

SECTION 6 – INTERSECTION ANALYSIS

To evaluate the impact of traffic generated by the proposed development, capacity analyses, per procedures contained in the 1994 Highway Capacity Manual, Transportation Research Board, were performed at the proposed Allen Avenue/Site Drive intersection for the 1999 Build condition.

The standard used to evaluate traffic operating conditions of the transportation system is referred to as the Level of Service (LOS). This is a qualitative assessment of the quantitative effect of factors such as speed, volume of traffic, geometric features, traffic interruptions, delays, and freedom to maneuver.

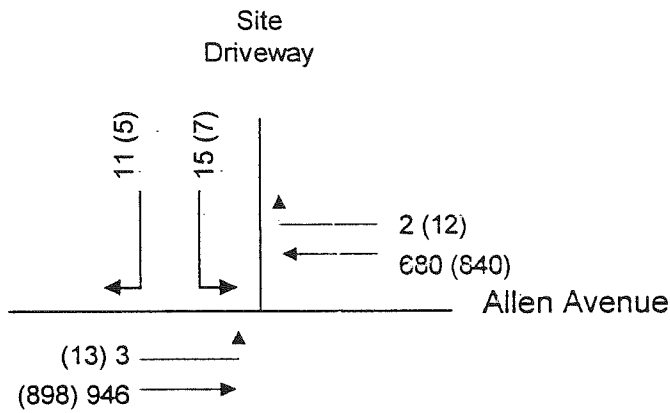
Unsignalized intersection LOS is based on vehicular delay. The LOS procedure computes capacity for each movement that has a conflict, based upon the critical time gap required to complete the maneuver and the volume of traffic that is opposing the movement. The following table describes the relationship between delay and LOS.



Site Generated Traffic Volumes

xxx - AM Peak Hour
(xxx) - PM Peak Hour

Figure 4



1999 Build Traffic Volumes

xxx - AM Peak Hour
(xxx) - PM Peak Hour

Figure 5

Allen Avenue Apartment Project

City of Portland

Unsignalized Intersection Level of Service Criteria

Level of Service	Average Delay (seconds)
A	≤5.0
B	> 5 and ≤10
C	> 10 and ≤20
D	> 20 and ≤30
E	> 30 and ≤45
F	> 45

The results of the unsignalized capacity analyses are presented in the following table.

1999 Build Capacity Analyses Results Allen Avenue/Site Drive

Movement	AM Peak Hour		PM Peak Hour	
	LOS	Delay	LOS	Delay
Left/Right From Site	E	32.1	E	37.1
Left From Allen Avenue	A	4.7	B	6.5
Overall	A	0.5	A	0.3

As indicated in the above table, movements entering the site will operate with little delay, while movements exiting the site will experience long delays during peak periods

SECTION 7 – SAFETY ANALYSIS

Accident data in the vicinity of the project was obtained from the MDOT for the most recent available 3-year period (1995-1997). MDOT considers a location with a Critical Rate Factor of 1.0 and 8 accidents over a three-year period as a High Accident Location. According to the MDOT data, 12 accidents were reported on Allen Avenue between Pennell Avenue and Plymouth Street with a Critical Rate Factor of 0.48.

Based upon the above information, Allen Avenue in the vicinity of the project site does not meet the MDOT criteria for a High Accident.

SECTION 8 – DRIVEWAY DESIGN CONSIDERATIONS

In conjunction with the proposed access drive, several design issues were reviewed to ensure that safe and efficient traffic conditions will be provided in the future. Issues that were reviewed and discussed in detail below included sight distance, provision of auxiliary turn lanes, and entrance radii.

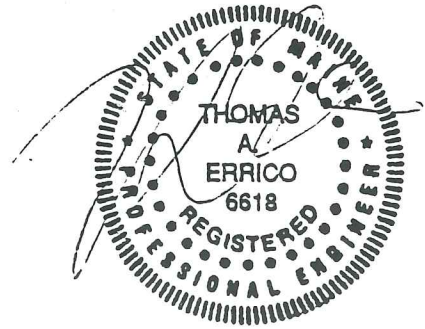
- An evaluation of sight distance for vehicles exiting the proposed driveway was performed. According to the publication, Access Management Improving the

Efficiency of Maine Arterials, Maine Department of Transportation, driveways shall be located to achieve the required sight distance measured in each direction along the arterial while maintaining adequate distances from adjacent driveways and intersections. For a road with a posted speed limit of 35MPH, 350 feet of sight distance should be provided in both directions. Based on field measurements, approximately 650 feet of sight is available in the southerly direction and approximately 425 feet in the northerly direction. Accordingly, acceptable conditions will be provided.

- A determination on the need for auxiliary turn lanes at the site drive was performed according to criteria contained in the MDOT Highway Design Guide and the City of Portland Technical and Design Standards and Guidelines. Based upon the projected traffic demand, dedicated left and right turn lanes entering the site are **not** recommended.
- Based upon the existing width of Allen Avenue and the City of Portland Technical and Design Standards and Guidelines, it is recommended that the driveway radii be 20 feet.

SECTION 9– CONCLUSIONS/RECOMMEDATIONS

1. The proposed 60 unit apartment development is expected to generate 398 daily vehicles, 31 vehicles (5 entering/26 exiting) during the AM peak hour, and 37 vehicles (25 entering/12 exiting) during the PM peak hour
2. At the proposed site drive on Allen Avenue, capacity analyses results indicate movements entering the site will operate with little delay, while exiting movements will experience long delays during peak periods.
3. Evaluation of accident data in the vicinity of the project was performed for the most recent 3-year period from the MDOT. Results indicate Allen Avenue in the vicinity of the project site does not meet the criteria for a High Accident Location.
4. An evaluation of sight distance at the proposed driveway was performed and indicates acceptable conditions will be provided.
5. The need for auxiliary turn lanes at the proposed site drive was performed. Results indicate dedicated left and right turn lanes are **not** recommended.



APPENDIX

CAPACITY ANALYSES

=====

Wilbur Smith Associates
 135 College Street
 P.O Box 9412
 New Haven, CT 06534-0412
 Ph: (203) 865-2191

=====

Streets: (N-S) Allen Avenue (E-W) Site Drive
 Major Street Direction.... NS
 Length of Time Analyzed... 60 (min)
 Analyst..... TAE
 Date of Analysis..... 10/14/98
 Other Information.....1999 Build AM Peak Hour
 Two-way Stop-controlled Intersection

=====

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	0	0	1	< 0	0	> 0	< 0	0	0	0
Stop/Yield			N			N						
Volumes	3	946		680	2		15		11			
PHF	.87	.87		.93	.93		.9		.9			
Grade		0		0				0				
MC's (%)	0						0		0			
SU/RV's (%)	0						0		0			
CV's (%)	2						2		2			
PCE's	1.02						1.02		1.02			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)		732
Potential Capacity: (pcph)		589
Movement Capacity: (pcph)		589
Prob. of Queue-Free State:		0.98
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)		733
Potential Capacity: (pcph)		767
Movement Capacity: (pcph)		767
Prob. of Queue-Free State:		1.00
TH Saturation Flow Rate: (pcphpl)		1700
RT Saturation Flow Rate: (pcphpl)		
Major LT Shared Lane Prob. of Queue-Free State:		0.99
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)		1822
Potential Capacity: (pcph)		93
Major LT, Minor TH Impedance Factor:		0.99
Adjusted Impedance Factor:		0.99
Capacity Adjustment Factor due to Impeding Movements		0.99
Movement Capacity: (pcph)		92

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	17	92 >	141	32.1	0.8	E	32.1
EB R	12	589 >					
NB L	3	767		4.7	0.0	A	0.0

Intersection Delay = 0.5 sec/veh

=====

Wilbur Smith Associates
 135 College Street
 P.O Box 9412
 New Haven, CT 06534-0412
 Ph: (203) 865-2191

=====

Streets: (N-S) Allen Avenue (E-W) Site Drive
 Major Street Direction.... NS
 Length of Time Analyzed... 60 (min)
 Analyst..... TAE
 Date of Analysis..... 10/14/98
 Other Information.....1999 Build PM Peak Hour
 Two-way Stop-controlled Intersection

=====

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	0	0	1	< 0	0	> 0	< 0	0	0	0
Stop/Yield			N			N						
Volumes	13	898		840	12		7		5			
PHF	.92	.92		.85	.85		.9		.9			
Grade		0		0				0				
MC's (%)	0						0		0			
SU/RV's (%)	0						0		0			
CV's (%)	2						2		2			
PCE's	1.02						1.02		1.02			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB

Conflicting Flows: (vph)		995
Potential Capacity: (pcph)		434
Movement Capacity: (pcph)		434
Prob. of Queue-Free State:		0.99

Step 2: LT from Major Street	SB	NB

Conflicting Flows: (vph)		1002
Potential Capacity: (pcph)		571
Movement Capacity: (pcph)		571
Prob. of Queue-Free State:		0.98
TH Saturation Flow Rate: (pcphpl)		1700
RT Saturation Flow Rate: (pcphpl)		
Major LT Shared Lane Prob. of Queue-Free State:		0.94

Step 4: LT from Minor Street	WB	EB

Conflicting Flows: (vph)		1985
Potential Capacity: (pcph)		75
Major LT, Minor TH Impedance Factor:		0.94
Adjusted Impedance Factor:		0.94
Capacity Adjustment Factor due to Impeding Movements		0.94
Movement Capacity: (pcph)		71

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	8	71 >	111	37.1	0.4	E	37.1
EB R	6	434 >					
NB L	14	571		6.5	0.0	B	0.1

Intersection Delay = 0.3 sec/veh

ACCIDENT DATA

MAINE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING

TINACC30

ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL
STUDY PERIOD: FROM MONTH 01 YEAR 1995 TO MONTH 12 YEAR 1997

INPUT COMMENTS

REQUEST: ALLEN AVE FROM FOREST AVE TO WASHINGTON
TOWN : PORTLAND

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	EXCLUDE LAST	DISTANCE
0100X	05	07290	1	0.00	07446	07479	1 0.00

MAINE DEPARTMENT OF TRANSPORTATION
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ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	INJURY K	INJURY A	INJURY B	INJURY C	INJURY PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	CRITI RATE	CRF
05	07446	POR, ALLEN	GOODRIDGE AVE	2	6		0	0	0	0	6	0.0		7.239	0.28	0.49	0.00
05	07447	POR, ALLEN	RR ING 83	2	1		0	0	1	0	0	100.0		7.336	0.05	0.49	0.00
05	07448	POR, ALLEN	WOODLAWN AVE.	2	3		0	0	0	1	2	33.3		7.701	0.13	0.48	0.00
05	07449	POR, ALLEN	AVE, HARVARD S	2	1		0	0	0	0	1	0.0		7.817	0.04	0.48	0.00
05	07450	POR, ALLEN	AVE, PLYMOUTH	2	4		0	0	1	0	3	25.0		8.087	0.16	0.48	0.00
05	07451	POR, ALLEN	PENELL AVE.	2	1		0	0	0	0	1	0.0		8.230	0.04	0.47	0.00
05	07452	POR, ALLEN	AVE, KNIGHT ST	2	1		0	0	0	0	1	0.0		8.203	0.04	0.47	0.00
05	07453	POR, ALLEN	AVE, ABBOTT ST	2	11		0	0	0	5	6	45.5		8.325	0.44	0.47	0.00
														62.938	0.15	0.33	0.00

NODE SUBTOTALS-

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ACCIDENT SUMMARY II - CHARACTERISTICS

ACCIDENT TYPE *	ST ROAD *	TYPE OF LOCATION						TOTAL	INJURY DATA		
		AT INTERSECTION	DRIVE BRIDGE INTER	UN	UN	UN	UN		SEV CODE	INJURY ACCIDENTS	NUMBER OF INJURIES
		3-LEG	4-LEG	5-LEG	WAYS	CHANGE	KNOWN				
OBJECT IN ROAD	0	0	0	0	0	0	0	0	0	0	
REAR END/SIDESWIPE	12	8	1	0	10	0	0	31	0	0	
HEAD-ON/SIDESWIPE	2	3	0	0	1	0	0	6	10	11	
INTERSECTION MOVEMENT	0	9	1	0	22	0	0	32	14	22	
PEDESTRIANS	0	0	0	0	0	0	0	0	0	0	
TRAIN	0	0	0	0	0	0	0	0	50	0	
RAN OFF ROAD	2	0	1	0	1	0	0	4	74	33	
ANIMAL	0	0	0	0	0	0	0	0	0	0	
SLED/BIKE	1	0	0	0	0	0	0	1	0	0	
FIXED OBJECT	0	0	0	0	0	0	0	0	0	0	
NON COLLISION	0	0	0	0	0	0	0	0	0	0	
UNKNOWN	0	0	0	0	0	0	0	0	0	0	
TOTAL	17	20	3	0	34	0	0	74	0	0	

FIXED OBJECT STRUCK

CONSTRUCTION BARRICADES	TRAFFIC SIGNAL	R/R CROSSING	LIGHT POLE	UTILITY POLE	SIGN POST	MAIL BOXES	OTHER POLES/POSTS	FIRE PLUG/PARK METER	TREE/SHRUBBERY	CRASH CUSHION	MEDIAN SAFETY BARRIER	BRIDGE PIERS	OTHER GUARDRAILS	FENCING NOT BARRIER	CULVERT HEADWALL	EMBANKMENT/DITCH	BUILDING WALL	ROCK OUTCROPPING/LEDGE	OTHER	UNKNOWN	TOTAL
1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4

TRAFFIC CONTROL DEVICES

TRAFFIC SIG STOP/GO	TRAFFIC SIG FLASHING	OVERHEAD FLASHERS	ALL WAY STOP	STOP SIGN/OTHER	YIELD SIGN	CURVE SIGN	OFFICER /SCHOOL PAT	SCHOOL BUS STOP ARM	SCHOOL ZONE SIGN	R/R CROSSING DEVICE	NO PASSING ZONE	NONE	OTHER	UNKNOWN	TOTAL
5	0	0	0	11	0	0	1	0	0	2	2	54	1	0	74

ROAD CHARACTER

LEVEL STRAIGHT	LEVEL CURVED	ON GRADE STRAIGHT	ON GRADE CURVED	TOP OF HILL STRAIGHT	TOP OF HILL CURVED	BOTTOM OF HILL STRAIGHT	BOTTOM OF HILL CURVED	UNKNOWN	TOTAL
70	1	3	0	0	0	0	0	0	74

MAINE DEPARTMENT OF TRANSPORTATION
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ACCIDENT SUMMARY II - CHARACTERISTICS

CONTRIBUTING FACTOR *	APPARENT * *					TYPE OF UNIT					TOTAL
	DR 1	DR 2	DR 3	DR 4	DR 5	DR 1	DR 2	DR 3	DR 4	DR 5	
HUMAN FACTORS	45	19	1	0	0	70	69	1	0	0	140
NO IMPROPER DRIVING	8	20	0	0	0	3	1	0	0	0	4
FAIL TO YIELD R-WAY	3	0	0	0	0	1	0	0	0	0	1
ILLEGAL UNSAFE SPEED	3	7	0	0	0	0	0	0	0	0	0
FOLLOW TOO CLOSE	0	0	0	0	0	0	0	0	0	0	0
DISREGARD TRAF CONTROL	0	0	0	0	0	0	0	0	0	0	0
DRIVING LEFT OF CENTER	0	3	0	0	0	0	0	0	0	0	0
IMPROPER PASSING	0	1	0	0	0	0	0	0	0	0	0
IMPROPER LANE CHANGE	0	0	0	0	0	0	0	0	0	0	0
IMPROPER START/STOP	2	1	0	0	0	0	0	0	0	0	0
IMPROPER TURN	0	0	0	0	0	0	0	0	0	0	0
UNSAFE BACKING	0	0	0	0	0	0	0	0	0	0	0
NO PROPER SIGNAL	2	0	0	0	0	0	0	0	0	0	0
IMPEDING TRAFFIC	0	0	0	0	0	0	0	0	0	0	0
DRIVER INATTENTION	4	12	0	0	0	74	70	1	0	0	145
DRIVER INEXPERIENCE	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIAN VIOLATION	0	0	0	0	0	0	0	0	0	0	0
PHYSICAL IMPAIRMENT	1	0	0	0	0	0	0	0	0	0	0
VISION OBSCURED GLASS	0	0	0	0	0	0	0	0	0	0	0
VISION OBSCURED LIGHT	1	0	0	0	0	0	0	0	0	0	0
VISION OBSCURED OTHER	2	3	0	0	0	0	0	0	0	0	0
OTHER HUMAN FACTOR	1	2	0	0	0	0	0	0	0	0	0
DEFECTIVE BRAKES	0	1	0	0	0	0	0	0	0	0	0
HIT & RUN	0	0	0	0	0	0	0	0	0	0	0
VEHICULAR FACTORS	0	0	0	0	0	0	0	0	0	0	0
DEFECTIVE TIRE	0	0	0	0	0	0	0	0	0	0	0
DEFECTIVE LIGHTS	0	0	0	0	0	0	0	0	0	0	0
INADEQUATE WINDSHIELD	0	0	0	0	0	0	0	0	0	0	0
OVERSIZE/OVERWEIGHT	0	0	0	0	0	16	1	0	0	0	17
OTHER VEHICLE DEFECT	0	0	0	0	0	18	0	0	0	0	18
UNKNOWN	2	1	0	0	0	16	0	0	0	0	16
TOTAL	74	70	1	0	0	74	70	1	0	0	145
AGE											
9-UNDER	0	0	0	0	0	0	0	0	0	0	0
10-14	1	0	0	0	0	0	0	0	0	0	1
15-19	16	1	0	0	0	16	1	0	0	0	17
20-24	18	0	0	0	0	18	0	0	0	0	18
25-29	16	0	0	0	0	16	0	0	0	0	16
30-39	30	0	0	0	0	30	0	0	0	0	30
40-49	23	0	0	0	0	23	0	0	0	0	23
50-59	15	0	0	0	0	15	0	0	0	0	15
60-69	10	0	0	0	0	10	0	0	0	0	10
70-79	8	0	0	0	0	8	0	0	0	0	8
80-OVER	5	0	0	0	0	5	0	0	0	0	5
UNKNOWN	2	0	0	0	0	2	0	0	0	0	2
TOTAL	144	1	0	0	0	144	1	0	0	0	145

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ACCIDENT SUMMARY II - CHARACTERISTICS

WEATHER	LIGHT CONDITION *	R O A D S U R F A C E										TOTAL				
		DRY	WET	SNOW SAND	ICE SAND	MUD	DEBRIS	OIL	SNOW	ICE	OTHER					
CROSS WINDS (0)	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DUSK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SAND/DUST (0)	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DUSK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLOUDY (8)	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6
OTHER (0)	DUSK	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	DARK-LIGHTS	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROAD SURFACE TOTALS		44	16	5	6	0	0	0	0	0	0	3	0	0	0	74

MAINE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING

TINACC30

ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL
STUDY PERIOD: FROM MONTH 01 YEAR 1995 TO MONTH 12 YEAR 1997

INPUT COMMENTS

REQUEST: ALLEN AVE FROM FOREST AVE TO WASHINGTON
TOWN : PORTLAND

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
0100X	05	07290	1	0.00	.07446	07479	1	0.00

MAINE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING

TINACC30

LINK DETAIL

TOWN#	STREET NAME OR ROUTE #	LOW NODE	HIGH NODE	DISTANCE	TOTAL ACCIDENTS	INJURY ACCIDENTS				TOTAL ACCIDENTS	A C C I D E N T			R E P O R T			N U M B E R S			
						K	A	B	C		P	D								
05170	ALLEN AVE	07290	07446	0.1	1	0	0	0	0	1	199504265	199644804	199700164	199717782						
		07446	07447	0.1	4	0	0	1	3	199541972	199734043	199736694								
		07447	07448	0.1	3	0	1	0	2	199632410	199528375									
		07448	07449	0.1	2	0	0	0	2	199527233	199632843	199700209								
		07449	07450	0.1	3	0	0	1	2	199513409	199528154	199614036	199644672	199702013						
		07450	07451	0.1	11	0	2	3	6	199500984	199703448	199706278	199706899	199709796	199710193					
										199740582										
							1	0	1	0	0	199621695								
				07452	07453	0.1	1	0	0	0	1	199718801								
				07453	07479	0.0	1	0	0	0	1	199642141								
						0.1	19	0	4	3	12	199511087	199515416	199518724	199534599	199542916				
										199540099	199600625	199600734	199602226	199607954						
										199634809	199620555	199639717	199621265	199643599						
										199704955	199732642	199736164	199736772							

TOTALS- 46 0 0 8 8 30

Time	7-9 AM 10/7/98			
	South	South-Left	North	North-Rt. Right
7:00-7:15	119	7	93	2
7:15-7:30	202	6	143	15
7:30-7:45	231	11	147	8
7:45-8:00	231	31	139	29
8:00-8:15	181	13	124	18
8:15-8:30	172	6	155	8
8:30-8:45	198	3	126	10
8:45-9:00	163	8	131	16
Total	1497	85	1058	106

Time	TOTALS	Included in count	TRUCKS	BIKES	Pedestrians		Accr.Allen	Peak
					Allen-S	Allen-N		
7:00-8:00	229	22	1	0	0	3	1460	
7:15-8:15	377	20	0	0	1	0	1891 PEAK	
7:30-8:30	403	24	0	2	0	2	1560	
7:45-8:45	451	31	1	0	0	0	1498	
8:00-9:00	360	28	1	0	0	0	1376	
	346	33	0	1	0	0		
	341	15	0	0	1	3		
	329	28	0	2	1	0		
Total	2836	201	3	5	3	8		

There were about 3-5 gaps of over a minute each quarter hour. Most were between 10-30 seconds. A few were up to 2 minutes, mostly buses trying to get out and not taking any chances.

INTERSECTION AT 196 ALLEN AVE./VOC. SCHOOL

Time	Allen Avenue			School Drive			10/6/98	
	South	South-Rt	North	North-Left	Right	Left	4-5 PM	10/6/98
4:00-4:15	176	3	187	3	8	9		
4:15-4:30	169	1	183	0	2	3		
4:30-4:45	223	3	198	1	1	1		
4:45-5:00	155	3	225	0	2	0		
5:00-5:15	202	2	186	2	2	0		
5:15-5:30	180	1	212	6	2	0		
5:30-5:45	168	9	203	21	2	4		
5:45-6:00	177	16	160	18	8	3		
Total	1450	38	1554	51	27	20		

There were almost 3.5 gaps of over a minute each quarter hour. Most were between 10-30 seconds. A few were up to 2 minutes, mostly buses trying to get out and not taking any chances.

TOTALS Included In count

Time	TRUCKS	BIKES	Pedestrians		PEAK
			Allen-S	Allen-N	
4:00-5:00	18	2	0	1	1556
4:15-5:15	11	1	0	1	1564
4:30-5:30	13	0	0	0	1607 PEAK
4:45-5:45	10	0	0	0	1587
5:00-6:00	5	1	0	2	1584
Total	74	6	4	4	

Worksheets for Evaluating Stormwater BMPs

Worksheet 1. Identifying Subwatersheds

Step 1. Identify and characterize significant subwatersheds within the development site. Since no receiving water should receive stormwater that has not received the prescribed net level of treatment (% TSS Removal), areas which drain to different rivers, streams or brooks; lakes or ponds; or coastal waters should be delineated and evaluated discreetly. This means that if the entire developed site drained directly to a single stream it could all be treated as one watershed, but if half of it drained to stream "x" and the other half to stream "y", two separate watersheds must be delineated and two separate analyses performed. Delineate each subwatershed in the development site and complete the following table. Indicate whether the development is a residential subdivision or nonsubdivision.

Sub-wtshd ID	Receiving Waterbody	Type of Development subd, nonsub	Total Area (Acres)	Wetland Area (Acres)	Develop-able Area total-wet
A	COMBINED SEWER SYSTEM → BAY COVE	NONSUBDIVISION	8.20	1.72	6.48
B	TRIBUTARY TO PRESUMPT RIVER	NONSUBDIVISION	19.00	11.52	7.48

For subwatersheds which drain directly or indirectly to sensitive lakes or ponds see Phosphorus Control in Lake Watersheds: a Technical Guide for Evaluating New Development (DEP, 1992).

For subwatersheds which do not drain directly or indirectly to sensitive lakes or ponds go to Worksheet 2

Worksheets for Evaluating Stormwater BMPs

Worksheet 2. Determining the Required Level of Treatment

Note: This worksheet is meant to be used on subwatersheds which *do not* drain directly or indirectly to *sensitive lakes or ponds*.

Step 2. Determine the required level of stormwater treatment for each sub watershed.

a. Residential subdivisions:

(1). For subdivisions with an existing impervious surface road or with new or upgraded roads with less than 4,000 sq. ft. of additional impervious surface the required level of stormwater treatment is **15% TSS removal**.

(2). For subdivisions with new or upgraded roads greater than 4,000 sq. ft. new impervious surface the required level of stormwater treatment is **40% TSS removal**.

b. Non subdivision development: Complete the following table by:

(1). Calculating the % imperviousness for each subwatershed by dividing the area within the subwatershed which will be **impervious** (definition in Sect 5.2.2) after development by the total developable area within the subwatershed and multiplying by 100.

$$\% \text{ Impervious} = (\text{Impervious Area} / \text{Developable Area}) \times (100)$$

(2). Using the curve in figure ? to determine the required % TSS removal.

Sub-wtshd ID	Type of Development subd, nonsub	Imperv. Area (Acres)	Develop. Area (Acres)	% Imper-vious	% TSS Removal <small>SLIDING SCALE</small> (fig. ?) <i>5.1</i>
A	NONSUBDIVISION	1.95	6.48	30%	40%
B	NONSUBDIVISION	2.43	7.48	32%	43%

Next Step: Complete Worksheet 3a + 3b (residential subdivision) or 3c (non-subdivision) for each subwatershed.

Worksheets for Evaluating Stormwater BMPs

Worksheet 3c. Determining Net % TSS Removal for Non-Subdivisions

Step 3a. Determine the Net Weighted % TSS Removal in each Subwatershed. Complete the following table for each subwatershed by:

- dividing the impervious area within the subwatershed into subareas to which the same BMPs are being applied
- calculating the % of Total Impervious Area for each subarea by dividing the subarea's impervious area by the total impervious area in the subwatershed (from **Worksheet 2**) and multiplying by 100
- multiplying the % of Total Impervious Area by the Net BMP % TSS Removal Efficiency (see note) for the BMP(s) being applied to the subarea
- adding the products to get the Net weighted % TSS Removal for the subwatershed.

Compare this to the prescribed % TSS removal for the subwatershed in **Worksheet 2**.

If only one BMP is applied to a subarea the Net BMP % TSS Removal Efficiency is equal to the % TSS removal efficiency for the BMP. If more than one BMP are applied in series, the Net BMP % TSS Removal Efficiency for the suite of BMPs is calculated as follows:

$$\text{Net BMP \% Removal Eff.} = 100[1 - \{(1-r_1) \times (1-r_2) \times \dots \times (1-r_n)\}]$$

where r_n is the removal efficiency of each BMP expressed as a fraction.

Subwatershed A. (COMBINED SYSTEM)

Subarea ID	% Total Imperv. Area	X	Net BMP % TSS Removal	X 0.01 =	BMP Notes
1-6	67.6	X	80	54.08	
10	32.4	X	0	0	
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			
Totals	100%		Net Weighted % TSS Removal for Subwatershed	= 54.08	

Worksheets for Evaluating Stormwater BMPs

Worksheet 3c. Determining Net % TSS Removal for Non-Subdivisions

Step 3a. Determine the Net Weighted % TSS Removal in each Subwatershed. Complete the following table for each subwatershed by:

- dividing the impervious area within the subwatershed into subareas to which the same BMPs are being applied
- calculating the % of **Total Impervious Area** for each subarea by dividing the subarea's impervious area by the total impervious area in the subwatershed (from **Worksheet 2**) and multiplying by 100
- multiplying the % of **Total Impervious Area** by the **Net BMP % TSS Removal Efficiency** (see note) for the BMP(s) being applied to the subarea
- adding the products to get the **Net weighted % TSS Removal** for the subwatershed.

Compare this to the prescribed % TSS removal for the subwatershed in **Worksheet 2**.

If only one BMP is applied to a subarea the **Net BMP % TSS Removal Efficiency** is equal to the % TSS removal efficiency for the BMP. If more than one BMP are applied in series, the **Net BMP % TSS Removal Efficiency** for the suite of BMPs is calculated as follows:

$$\text{Net BMP \% Removal Eff.} = 100[1 - \{(1-r_1) \times (1-r_2) \times \dots \times (1-r_n)\}]$$

where r_n is the removal efficiency of each BMP expressed as a fraction.

Subwatershed B. (TRIBUTARY TO PRESUMMIT RIVER)

Subarea ID	% Total Imperv. Area	X	Net BMP % TSS Removal	X 0.01 =	BMP Notes
<u>11</u>	<u>2.3</u>	X	<u>0</u>	<u>0</u>	
<u>12-18</u>	<u>59.8</u>	X	<u>80</u>	<u>47.84</u>	
<u>20</u>	<u>37.9</u>	X	<u>0</u>	<u>0</u>	
		X		X 0.01 =	
		X		X 0.01 =	
		X		X 0.01 =	
		X		X 0.01 =	
		X		X 0.01 =	
		X		X 0.01 =	
		X		X 0.01 =	
		X		X 0.01 =	
Totals	<u>100%</u>		Net Weighted % TSS Removal for Subwatershed	<u>= 47.84</u>	



CITY OF PORTLAND

12 May 1999

Mr. Jeffrey R. Perry,
Landscape Architect,
Sebago Technics,
P.O. B. 1339,
Westbrook, Maine 04098-1339

RE: Sanitary Sewer Capacity to Handle Anticipated Wastewater Flows, from the Proposed "Washington Crossing" Condominiums, to the City Sewer System, and the Sewage Treatment Facilities, of the Portland Water District.

Dear Mr. Perry:

The existing twenty-four inch diameter vitrified clay sanitary sewer pipe, located in Allen Avenue, and the Portland Water District sewage treatment facilities, in the City of Portland, have adequate capacity to transport and treat the anticipated wastewater flows of 11,160 GPD, from your proposed subdivision, to be located at #214 Allen Avenue, City of Portland.

Proposed Wastewater Flows from the Proposed Subdivision

Proposed Sixty-two Dwelling Units @ 180 GPD/Unit	= 11,160 GPD
Total Proposed Increase in Wastewater Flows for this Project	= 11,160 GPD

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

Sincerely,
CITY OF PORTLAND

Frank J. Brancely, BA, MA.
Senior Engineering Technician

FJB

cc: Joseph E. Gray, Director, Department of Planning & Urban Development, City of Portland
William Needleman, Planner, Dept. of Planning & Urban Development, City of Portland
Katherine A. Staples, PE, City Engineer, City of Portland
Bradley A. Roland, PE, Environmental Projects Engineer, City of Portland
Anthony W. Lombardo, PE, Project Engineer, City of Portland
Stephen K. Harris, Assistant Engineer, City of Portland
Desk file



STATE OF MAINE
17 State House Station
Augusta, ME 04333

Tier 1 / Tier 2 Decision

Applicant Name & Address:

ALC Development
258 Black Point Road
Scarborough ME 04074

DEP Project Number: 99-818-S

CORPS Permit Number:

Project Location: Allen Avenue, Portland

Description of Work: Fill approximately 16,504 square feet of forested freshwater wetlands for the construction of a 62-unit condominium project, Washington Crossing, off Allen Avenue in Portland.

Permit for:	<input type="checkbox"/> Tier 1	<input checked="" type="checkbox"/> Tier 2
Date of Joint Review:		
DEP Decision:	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Denied (see attached letter)
CORPS Action:	<input type="checkbox"/> Approved ²	<input checked="" type="checkbox"/> Review pending, contact ACOE, Maine Project Office for further information, 623-8367.
	<input type="checkbox"/> enclosed	
	<input type="checkbox"/> pending (see below)	

Approval Pending: The Corps, Maine Project office, is in the process of reviewing the project. The final decision will be forthcoming directly from their regional office headquarters.

Special Conditions: No additional wetland fill for lot development is authorized.

Standard Conditions:

- Approval from both the DEP and the Army Corps of Engineers is required in order to proceed with your project. This permit is good for two (2) years from the date signed and is transferable only with prior approval from the Department.
- The project must be completed according to the plans in the application. Any change in the project plans must be reviewed and approved by the Department.
- Properly installed erosion control measures must be installed prior to beginning the project, and all disturbed soil should be stabilized immediately upon project completion.
- A copy of this approval will be sent to the City of PORTLAND. Department approval of your activity does not supersede or substitute the need for any necessary local approvals.

This decision satisfies the Water Quality Certification requirement.

Please note the attached sheet for guidance on appeal procedures. If you have any questions regarding this, please contact Dawn Hallowell at 207-822-6300.


MARTHA G. KIRKPATRICK, COMMISSIONER

SEPTEMBER 14, 1999
DATE

cc: file
Shawn Frank, Sebago Technics
ACOE, Maine Project Office



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ANGUS S. KING, JR.
GOVERNOR

EDWARD O. SULLIVAN
COMMISSIONER

April 8, 1999

William Needleman, Planner
City of Portland
389 Congress Street
Portland, ME 04101

RE: Washington Crossing Condominiums
DEP #L-19909-87-B-D

Dear Mr. Needleman,

The Department has received the application of ALC Development for a Site Location of Development permit. Based on a cursory review of the application, the Department has decided not to exert jurisdiction over this project.

Please call me if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Alexander Wong".

Alexander Wong, Project manager
Division of Land Resource Regulation
Bureau of Land and Water Quality

cc: file

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 764-1507

RECEIVED DEP - SMRO
1999 AUG 20 PM 3:16

DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT BY RULE NOTIFICATION FORM
(For use with DEP Regulation, Chapter 305)

PLEASE TYPE OR PRINT IN BLACK INK ONLY (3 COPIES, PLEASE BEAR DOWN)

Name of Applicant:		ALC Development Corp.		Name of Owner:		ALC Development Corp.	
Mailing Address:		258 Black Point Road		Town/City:		Scarborough	
State:	Maine	Zip Code:	04074	Daytime Telephone No: (Include area code)		(207) 883-1992	
Name of Wetland, Water Body or Stream:				unnamed Forested Wetland			
Detailed Directions to Site:				on Allen Ave. abutting the east side of the Portland Arts and Technology High School.			
Town/City:	Portland	Map #:	343/344D	Lot #:	14, 15/5	County:	Cumberland
Description of Project:				Development of a 62 unit condominium project and related infrastructure improvements			
Part of a larger project?						Yes	No
						X	

(CHECK ONE) This project: does does not involve work below mean low water.

I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Regulation, Chapter 305. I have a copy of PBR Sections checked below. I have read and will comply with all of the standards.

- | | | |
|---|---|---|
| <input type="checkbox"/> Sec. (2) Soil Disturbance | <input type="checkbox"/> Sec. (8) Shoreline stabilization | <input type="checkbox"/> Sec. (14) Piers, Wharves & Pilings |
| <input type="checkbox"/> Sec. (3) Intake Pipes | <input checked="" type="checkbox"/> Sec. (9) Utility Crossing | <input type="checkbox"/> Sec. (15) Public Boat Ramps |
| <input type="checkbox"/> Sec. (4) Replacement of Structures | <input type="checkbox"/> Sec. (10) Stream Crossing | <input type="checkbox"/> Sec. (16) Coastal Sand Dune Projects |
| <input type="checkbox"/> Sec. (5) REPEALED | <input type="checkbox"/> Sec. (11) State Transportation Facilities | <input type="checkbox"/> Sec. (17) Transfers/Permit Extension |
| <input type="checkbox"/> Sec. (6) Movement of Rocks or Vegetation | <input type="checkbox"/> Sec. (12) Restoration of Natural Areas | <input type="checkbox"/> Sec. (18) Maintenance Dredging |
| <input type="checkbox"/> Sec. (7) Outfall Pipes | <input type="checkbox"/> Sec. (13) F&W Creation/Enhance/Water Quality Improvement | |

I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules. I also understand that **this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.**

I have attached all of the following required submittals. **NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS:**

- Attach** a check for \$50 (non-refundable) made payable to: "Treasurer, State of Maine".
- Attach** a U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked.
- Attach** photographs showing existing site conditions (unless not required under standards).

Signature of Applicant:		Date:	8/20/99
-------------------------	---	-------	---------

Keep the bottom copy as a record of permit. Send the form with attachments via certified mail to the Maine Dept. of Environmental Protection at the appropriate regional office listed below. The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Permits are valid for two years. **Work carried out in violation of any standard is subject to enforcement action.**

AUGUSTA DEP
STATE HOUSE STATION 17
AUGUSTA, ME 04333-0017
(207)287-2111

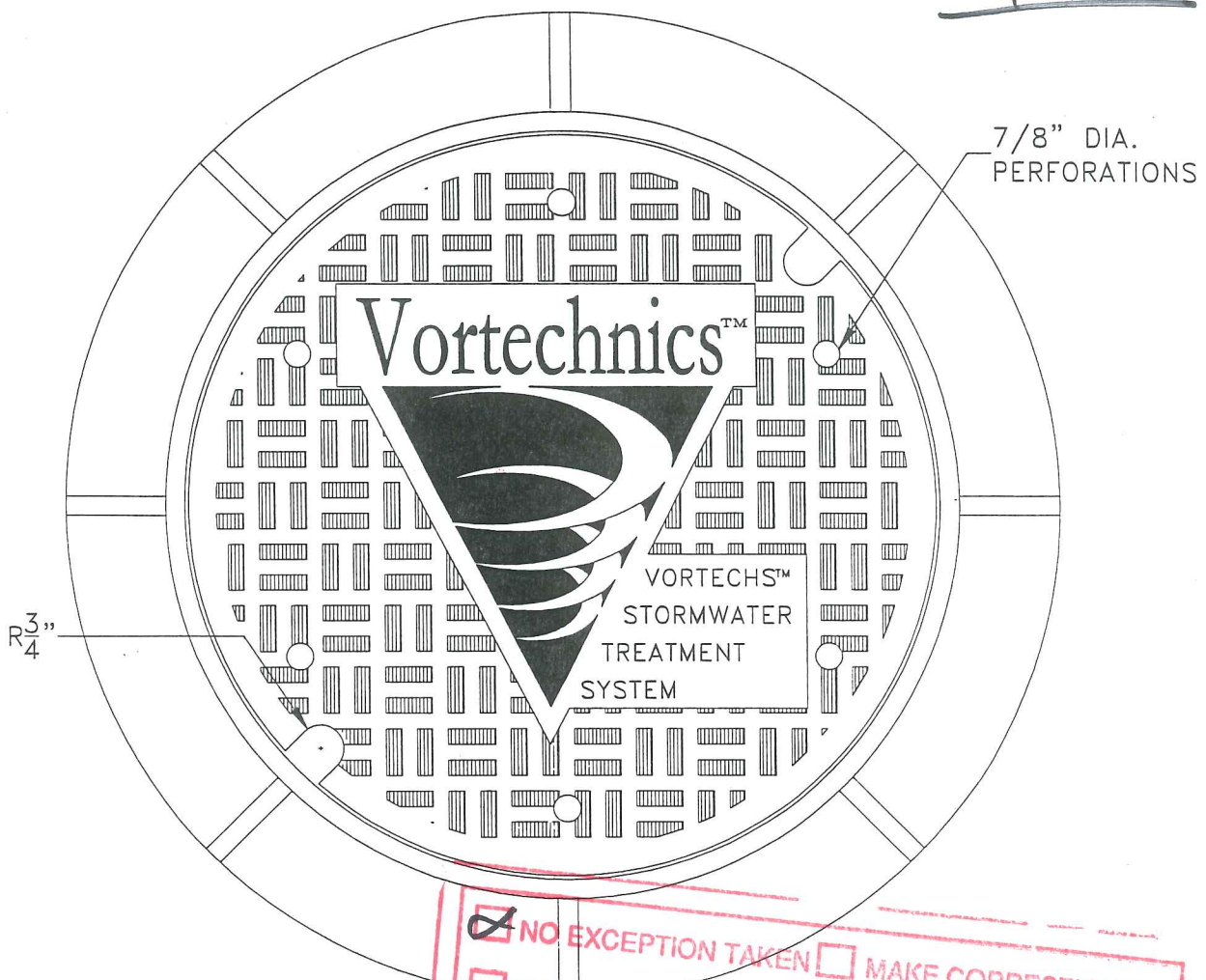
PORTLAND DEP
312 CANCO ROAD
PORTLAND, ME 04103
(207)822-6300

BANGOR DEP
106 HOGAN ROAD
BANGOR, ME 04401
(207)941-4570

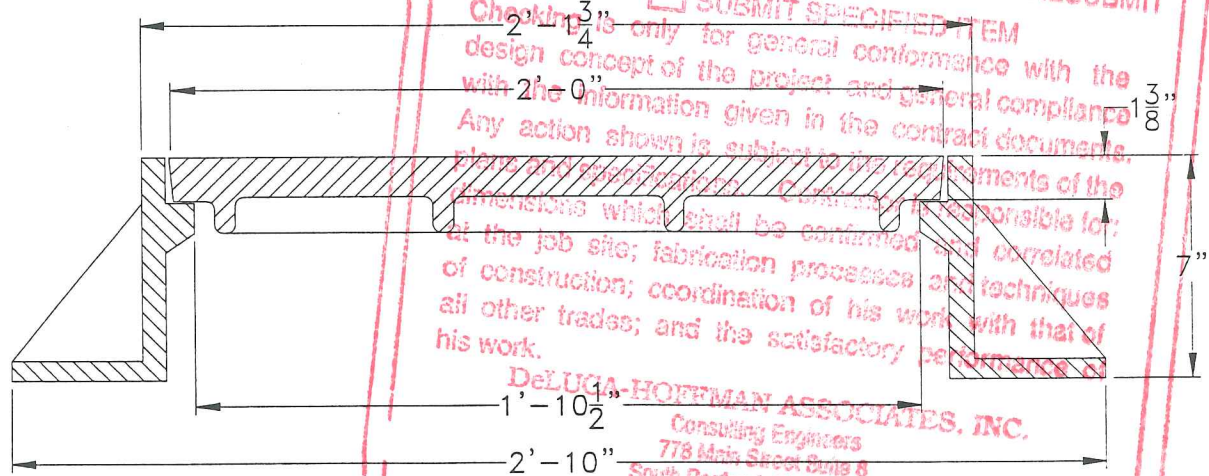
PRESQUE ISLE DEP
1235 CENTRAL DRIVE
PRESQUE ISLE, ME 04769
(207)764-0477

OFFICE USE ONLY	Ck.#	Date	Staff	Staff	After Photos
PBR #	FP		Acc. Date	Def. Date	

City Copy



MATERIAL: Gray iron ASTM A48-83,
CL.30B (AASHTO M105-82)



NO EXCEPTION TAKEN MAKE CORRECTIONS NOTED
 REJECTED REVISE AND RESUBMIT
 SUBMIT SPECIFIED ITEM

Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for: dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his work with that of all other trades; and the satisfactory performance of his work.

DeLUCA-HOFFMAN ASSOCIATES, INC.
 Consulting Engineers
 778 Main Street Buis B
 South Portland, Maine 04106
 (207) 775-1121

10/13/99 By *SD*

This drawing shows the general configuration of the casting or castings to be supplied. Dimensions are approximate and may vary. Drawings should not be scaled where there are no dimensions shown.

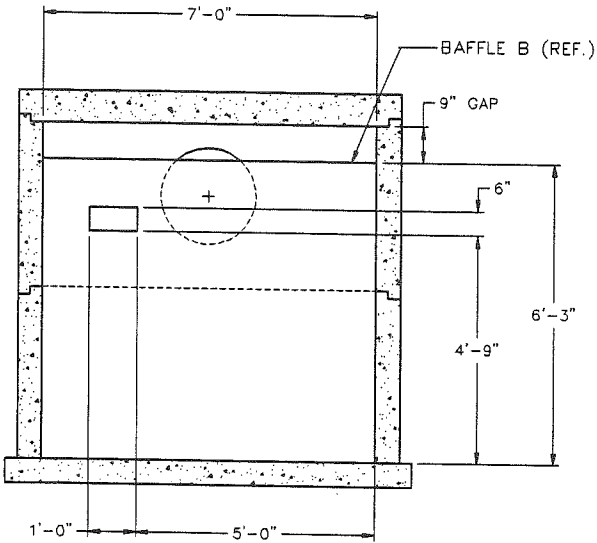
Weight of casting(s), when shown, is based on final dimensions and is estimated only.

There are no representations made concerning the suitability of the design of the materials specified since the manufacturer has no control whatsoever upon final construction or installation of the product herein set forth.



VORTECHS SYSTEM - 24" DIA. MH FRAME AND COVER
 AASHTO HS20-44 HIGHWAY LOADING

DATE: 3/03/99	SCALE: NONE	FILE NAME: CMPBL7	DRAWN BY: NDG	CHECKED BY: KJM/TRA
---------------	-------------	-------------------	---------------	---------------------



SECTION C-C

NOTE: ORIFICE PLATE TO BE SUPPLIED BY VORTECHNICS AND INSTALLED ON THE INLET FACE OF BAFFLE "B" BY THE PRECASTER. PLATE OPENING IS TO BE CENTERED HORIZ. & VERT. OVER CONCRETE OPENING.

DESIGN NOTES:

1. CONCRETE MINIMUM STRENGTH - 5000 PSI @ 28 DAYS
2. STEEL REINFORCEMENT - ASTM A-615, GRADE 60, 1" COVER
3. DESIGN LOADING - AASHTO HS20-44
4. CONSTRUCTION JOINT - SEALED W/1" DIA. BUTYL RUBBER
5. DESIGN SPECIFICATION - ACI 318 & AASHTO LOAD FACTOR DESIGN METHOD

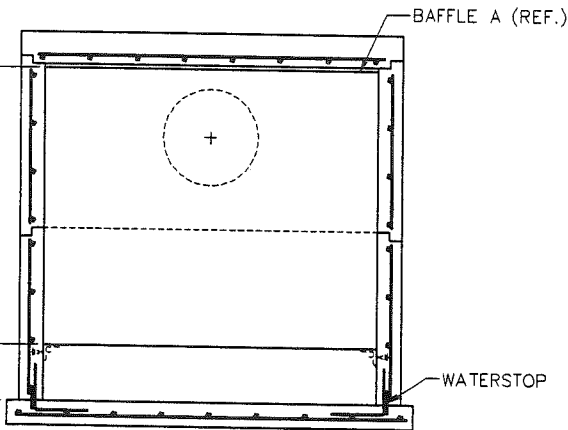
ASSUMPTIONS:

1. GROUND WATER @ 3'-6" BELOW FINISHED GRADE
2. EARTH COVER 0'-0" MIN. 5'-0" MAX.
3. 2'-0" LIVE LOAD SURCHARGE APPLIED TO 8'-0" DEPTH
4. LIVE LOAD IMPACT 0" TO 1'-0" COVER I=30%
5. COEFFICIENT OF ACTIVE EARTH PRESSURE $K_a=0.33$
6. DRY EARTH DENSITY 120 PCF
 DRY EARTH LATERAL PRESSURE= $120 (.33)= 39.6$ PSF
7. SATURATED EARTH DENSITY 120 PCF
 120 PCF - 62.4= 57.6 PCF
 57.6 PCF (.33)= 19.0 PSF
 SATURATED EARTH LATERAL PRESSURE= $19.0 + 62.4= 81.4$ PSF
8. TANK WILL FILL COMPLETELY WITH WATER IN DESIGN STORM.

GENERAL NOTES:

1. INTERNAL ALUMINUM COMPONENTS SHALL BE FABRICATED OF ALUMINUM ALLOY 5052-H32 IN ACCORDANCE WITH ASTM B209.
2. STEEL REINFORCEMENT MAY VARY FROM THAT SHOWN. FINAL CONSTRUCTION SHALL MEET HS20-44 DESIGN CRITERIA. ALL BARS CUT BY OPENINGS TO BE REPLACED (1/2 ON EACH SIDE OF OPENING).
3. MANHOLE RISERS, GRADE RINGS OR BLOCK REQUIRED BETWEEN THE TOP OF THE VORTECHS SYSTEM AND THE BASE OF THE MANHOLE FRAMES SHALL BE THE RESPONSIBILITY OF OTHERS AND SHALL BE PROVIDED ACCORDING TO ALL APPLICABLE STANDARDS.

(3) 24" DIA. x 7" H. MANHOLE FRAMES AND PERFORATED COVERS SHALL BE PROVIDED BY VORTECHNICS.



SECTION B-B

APPROXIMATE WEIGHTS:

- TOP SLAB = 6 TONS
- BARREL SECTION = 6 TONS
- BASE SECTION = 13 TONS (INCLUDES BAFFLES)

GCN

**WASHINGTON CROSSING CONDOMINIUMS
 PORTLAND, ME
 STORMWATER TREATMENT SYSTEM No.1
 VORTECHS™ MODEL 5000 U.S. PATENT No. 5,759,415**

REVISIONS



41 Evergreen Drive
 Portland, ME 04103
 Tel.: 207-878-3662
 Fax: 207-878-8307

SCALE:	1/4" = 1'-0"
DRAWN BY:	REC
CHECKED BY:	NDG
FILE NAME:	1134S1
DATE:	09/02/99

EASEMENT DEED

KNOW ALL PERSONS BY THESE PRESENTS, that ALC Development Corporation, a Maine corporation, with its principal place of business at Scarborough, County of Cumberland, and State of Maine, for consideration paid, grants to the City of Portland, the mailing address of which is 389 Congress Street, Portland, ME 04101, with warranty covenants, an easement in the real estate located in the City of Portland, County of Cumberland, and State of Maine, which real estate is more particularly described on Exhibit A attached hereto and incorporated by reference herein.

Grantor grants and conveys to Grantee an easement in the said real estate for the purposes of ground and surface water drainage and flowage, including the right to enter on the said real estate for purposes of maintenance, repair and construction through, under, over, along, across and on it.

IN WITNESS WHEREOF, ALC Development Corporation has caused this instrument to be executed by Elliott Chamberlain, its president duly authorized, this 22nd day of September 1999.

ALC DEVELOPMENT CORPORATION

By:



Elliott Chamberlain

Its President

STATE OF MAINE
CUMBERLAND, SS.

September 22, 1999

Then personally appeared before me Elliott Chamberlain, President of ALC Development Corporation, who acknowledged the foregoing instrument to be his free act and deed, and the free act and deed of the corporation.



Attorney

[Print Name:]

Murrough H. O'Brien

EXHIBIT A

A CERTAIN DRAINAGE EASEMENT situated westerly of Pennell Avenue, so-called, and northerly of Allen Avenue, so-called, in the City of Portland, County of Cumberland, State of Maine, being shown as 30 Foot Drainage Easement to City of Portland for Maintenance and Flowage on a plan entitled, "Master Plan of Washington Crossing Condominiums, Allen Avenue, Portland, Maine" for ALC Development Corporation, Scarborough, Maine; dated October 10, 1997; revised through August 13, 1999, by Sebago Technics, Inc., Westbrook, Maine, STI Job No. 97380, hereinafter referred to as "the plan"; said drainage easement being more particularly bounded and described as follows:

Beginning at a point in the easterly sideline of land now or formerly of the City of Portland, occupied by the Portland Arts and Technology High School, said point of beginning also being North 32° 20' 27" West, a distance of 157.09 feet from a found 1 inch pipe in the westerly line of the Grantor herein as shown on the plan;

Thence North 50° 04' 28" East, by and along land of the Grantor, a distance of 189.29 feet to a point;

Thence North 33° 49' 28" East, by and along land of the Grantor, a distance of 283.51 feet to a point;

Thence North 55° 28' 15" East, by and along land of the Grantor, a distance of 138.53 feet to a point in the westerly sideline of Pennell Avenue, said point being North 33° 53' 45" West, a distance of 20.0 feet from the northeasterly corner of land now or formerly of Amy Anderson and John Johnston as shown on the plan;

Thence North 33° 53' 45" West, by and along the westerly sideline of Pennell Avenue, a distance of 30.0 feet to a point at the southeasterly corner of land now or formerly of Edward and Elizabeth Flaherty;

Thence South 55° 28' 15" West, by and along the southerly line of said Flaherty, a distance of 100.01 feet to a point at the southwesterly corner of said Flaherty;

Thence North 33° 53' 45" West, by and along the westerly line of said Flaherty and by and along the westerly line of The Homesteads as shown on a subdivision plan recorded in the Cumberland County Registry of Deeds in Plan Book 14, Page 70, a distance of 1,497.84 to a point;

Thence North 82° 51' 47" West, by and along land of the Grantor, a distance of 111.06 feet to a point;

Thence North 55° 59' 37" East, by and along land of the Grantor, a distance of 83.77 feet to a point in the westerly line of The Homesteads and land now or formerly of Stuart Robinson as shown on the plan;

Thence North 33° 53' 45" West, by and along the westerly line of The Homesteads, a distance of 30.0 feet to a point, said point being South 33° 53' 45" East, a distance of 363.45 feet from a set iron rod at the northeasterly corner of the Grantor;

Thence South 55° 59' 37" West, by and along land of the Grantor, a distance of 302.67 feet to a point;

Thence South 84° 22' 40" East, by and along land of the Grantor, a distance of 164.76 feet to a point in the easterly sideline of said City of Portland;

Thence South 26° 36' 17" East, by and along the easterly line of the City of Portland, a distance of 32.13 feet to a point, said point being North 26° 36' 17" West, a distance of 128.06 feet from a set iron rod in the easterly line of the City of Portland as shown on the plan;

Thence North 84° 22' 40" East, by and along land of the Grantor, a distance of 160.84 feet to a point;

Thence North 55° 59' 37" East, a distance of 180.83 to a point;

Thence South 82° 51' 47" East, a distance of 131.73 feet to a point;

Thence South 33° 53' 45" East, by and along land of the Grantor, a distance of 1,484.51 feet to a point;

Thence South 55° 28' 15" West, by and along land of the Grantor, a distance of 14.26 feet to a point;

Thence South 33° 49' 28" West, by and along land of the Grantor, a distance of 284.97 feet to a point;

Thence South 50° 04' 28" West, by and along land of the Grantor, a distance of 181.01 feet to a point in the easterly line of said City of Portland land;

Thence South 32° 20' 27" East, by and along the easterly line of the City of Portland, a distance of 30.26 to the point of beginning.

Meaning and intending to describe a strip of land 30 feet in width, being a portion of the same premises conveyed to ALC Development Corporation by a deed recorded in the Cumberland Registry in Book 14132, Page 320.

Said easement area described herein conveyed together with the right perpetually to enter upon the strip for the purpose of maintaining, repairing, rebuilding, reconstruction and installing drainage pipes and structures.

The parcel herein described is subject to, and benefited by, but not limited to the easements and restrictions as noted on the plan; said plan to be recorded in the Cumberland County Registry of Deeds.

Bearings herein are magnetic north as referenced to the plan.

drainage
9-07-99

RECEIVED
RECORDED REGISTRY OF DEEDS
1999 SEP 22 PM 12: 04
CUMBERLAND COUNTY
John B. Abner

Planning & Urban Development



Joseph E. Gray Jr.
Director

CITY OF PORTLAND

September 22, 1999

John and Elliot Chamberland
ALC Development Corp.
258 Black Point Road
Scarborough, ME 04074

RE: Washington Crossing Condominiums; Planning Authority Permission to begin tree removal.

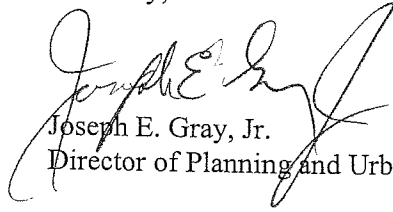
Dear ALC Development Corp.,

This letter is in response to your request for permission to do limited tree cutting prior to the City's acceptance of the performance guarantee for Phase One of Washington Crossing condominiums. City Planning Authority grants permission to engage in the work as described in your letter dated 9/21/99, excepting any areas identified on site or on the approved site plan as "tree save." See attached.

No other permits will be needed for the purpose of tree clearing in the designated area. All other development and /or construction will require performance guarantees and will be carried out according to the approved site plan. Tree clearing will require sedimentation and erosion control as outlined on the approved site plan and best practices management.

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
William B. Needelman, Planner
Development Review Coordinator
Jeff Tarling, City Arborist
Inspection Department

O:\PLANDEVREVV\ALLEN214\LETTERS\EC9-21.WBN

A L C DEVELOPMENT CORP.

258 Black Point Road
Scarborough, ME 04074
Tel: (207) 883-1992 Fax: (207) 883-5908

9/21/99

To: William Needleman


Re: Washington Crossing
Phase I Tree Cutting

Listed below are the areas of Washington Crossing earmarked for tree cutting in Phase I:

- 1) Drainage area abutting Pennell St. This is a 30 ft. area for which we will try to maintain a 10 ft. buffer of existing trees between Pennell St. residents and the drainage area.
- 2) The road in the back half of phase I as well as all building envelopes.
- 3) A 25 ft. section surrounding the buildings in order to maneuver equipment.

Jeff Tarling, City Arborist, visited the site on 9/21/99 to review building locations and tree save areas. Several buildings may be shifted slightly in order to save certain trees.

Please let me know if you need any additional information.

Regards,

John Chamberlain

WILBUR
SMITH
ASSOCIATES

ENGINEERS • ECONOMISTS • PLANNERS

107 INDIA STREET • PORTLAND, ME • 04101-3406 • (207) 871-1785 • FAX (207) 871-5825

October 19, 1998

Mr. Larry Ash
Traffic Engineer
City of Portland
55 Portland Street
Portland, ME 04101

Subject: Allen Avenue Apartment Project

Dear Larry:

Per Rick Knowland's request, please find one (1) copy of the Traffic Impact Study for the proposed Allen Avenue Apartment project. It is our hope that you can review and comment on the project before the October 27, 1998 Planning Board Meeting.

Should you have any questions, or if I can be of any assistance, please call me.

Sincerely,


WILBUR SMITH ASSOCIATES

Thomas A. Errico, P.E.
Senior Transportation Engineer

Cc: Richard Knowland, Planning Department (w/report)
Jeff Perry, Sebago Technics (w/o report)

Traffic Impact Study
Allen Avenue Apartment Project

Portland, Maine

October 1998

Prepared For:

A.L.C. Development Corp.
258 Black Point Road
Scarborough, Maine 04074

Prepared By:

Wilbur Smith Associates
Engineers•Economists•Planners
107 India Street
Portland, Maine 04101

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SECTION 1 – INTRODUCTION

A.L.C Development Corp. retained Wilbur Smith Associates (WSA) to prepare a Traffic Impact Study in conjunction with the proposed construction of 60 apartment units on Allen Avenue in Portland, Maine. The proposed project is located on the West Side of Allen Avenue between the Arts & Technology High School and Pennell Avenue (See Figure 1). Access to the site will be provided by one-curb openings on Allen Avenue.

The purpose of this study is to evaluate the potential impact the proposed project will have on the existing transportation system in the vicinity of the project. Specifically, this study estimates the additional traffic expected and evaluates the operational and safety conditions expected at the site drive. It should be noted that the study scope was based upon input from the City of Portland Traffic Engineer.

SECTION 2 – DATA COLLECTION

The Maine Department of Transportation (MDOT) provided the following information:

- Accident Data for the most recent 3 year period for roads in the vicinity of the project.
- Statewide Group Mean Factors

WSA collected the following information:

- Turning movement volumes during the weekday AM and PM peak hours at the Allen Avenue/Arts & Technology High School intersection.
- A field inventory of roadway conditions, sight distance, signage, pavement markings, etc.

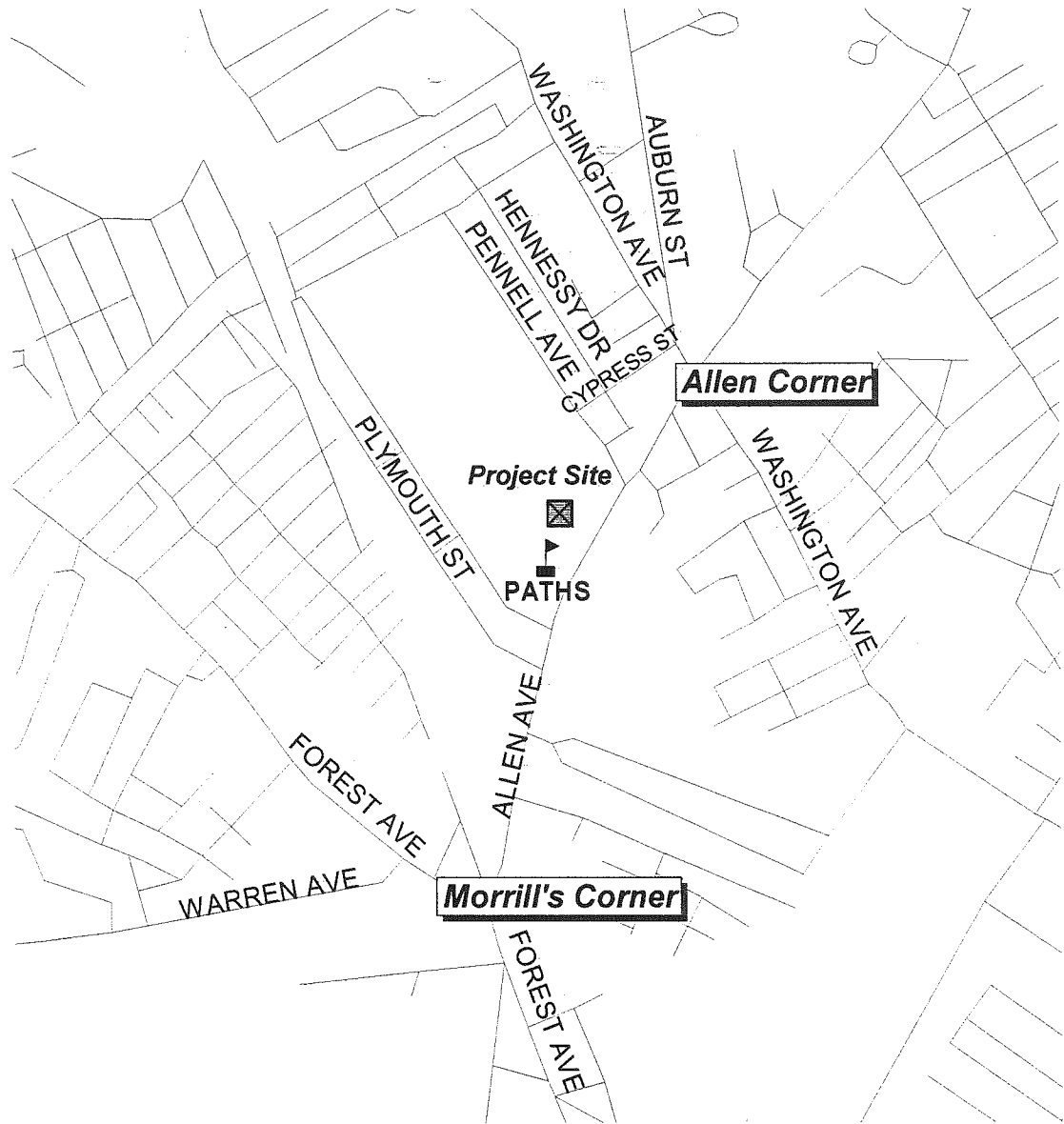
Sebago Technics provided the following information:

- Site plan dated September 25, 1998

SECTION 3 – EXISTING/FUTURE TRAFFIC VOLUMES

The primary purpose of this study is to show what effect the proposed project will have on the local transportation system. In general, the critical time period for a given project is directly associated with peaking characteristics of both the project-related traffic and the area transportation system. For this study, traffic conditions during the Weekday AM and PM peak hours will be evaluated.

The primary focus of traffic operations is at the proposed site drive on Allen Avenue. Accordingly, a traffic volume count was conducted at the nearby Allen Avenue/Arts & Technology High School intersection to quantify traffic levels traveling past the proposed



Allen Avenue Apartment Project
Site Location Map

City of Portland, Maine

site during the AM and PM peak hours. The counts were conducted on Tuesday, October 6, 1998 between 4:00 and 6:00PM and on Wednesday, October 7, 1998 between 7:00 and 9:00AM. Results of the count indicate the AM peak hour occurred between 7:15 and 8:15AM, while the PM peak hour occurred between 4:30 and 5:30PM.

Design Hour Volume

The traffic pattern on any highway shows considerable variation in traffic volumes during different hours of the day and in hourly volumes throughout the year. It must be determined which of these hourly traffic volumes should be used for analysis and design. It would be wasteful to predicate the design on the (maximum) peak hour traffic of the year, yet the use of the average hourly traffic would result in an inadequate design. The hourly traffic volume used in design should not be exceeded very often or by very much. On the other hand, it should not be so high that traffic would rarely be great enough to make full use of the facility. Based upon the relationship between highest hourly volumes and daily traffic volumes, it has been concluded that the hourly traffic used in design should be the 30th Highest Hour Volume, or sometimes called Design Hour Volume.

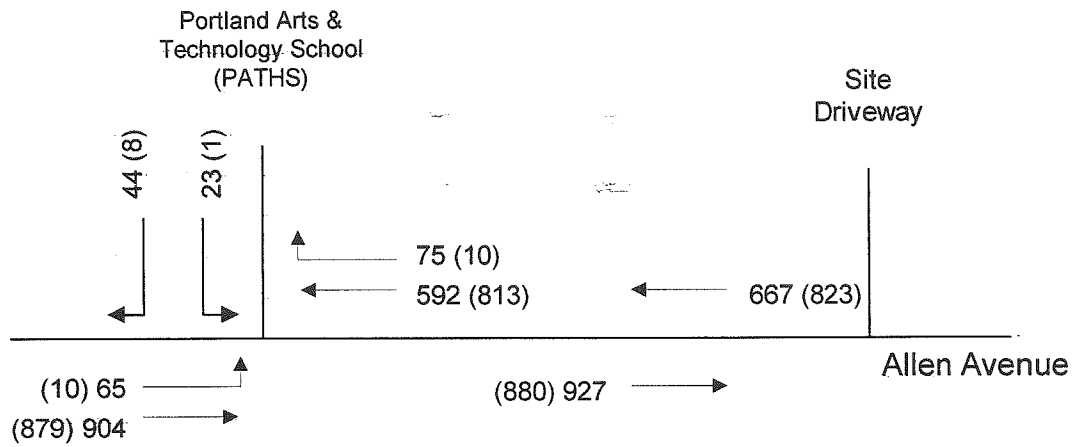
For this study, the Design Hour Volumes were estimated from factors developed by the Maine Department of Transportation. According to the 1998 Weekly Group Mean Factors, traffic volumes counted during the first week of October should be increased by 7 percent to estimate Design Hour conditions.

Figure 2 presents the 1998 Design Hour traffic volumes during the AM and PM peak hours on Allen Avenue.

Base Conditions

No-Build traffic volumes (without the proposed development) were developed for the anticipated opening year of the project (1999). In order to estimate traffic volumes during the No-Build condition, it is important to incorporate traffic generated by other developments in the study area. This is important because conditions associated with nearby developments may generate traffic that impact roadways being studied. Based upon our knowledge of the study area, no significant proposed developments exist in the vicinity of the project. Additionally, 1998 existing traffic should be increased to account for normal background growth. MDOT historical volume data indicates traffic has grown by approximately 2 percent annually. Accordingly, the 1999 No-Build traffic volumes were estimated by adjusting the 1998 Design Hour volumes by 2 percent.

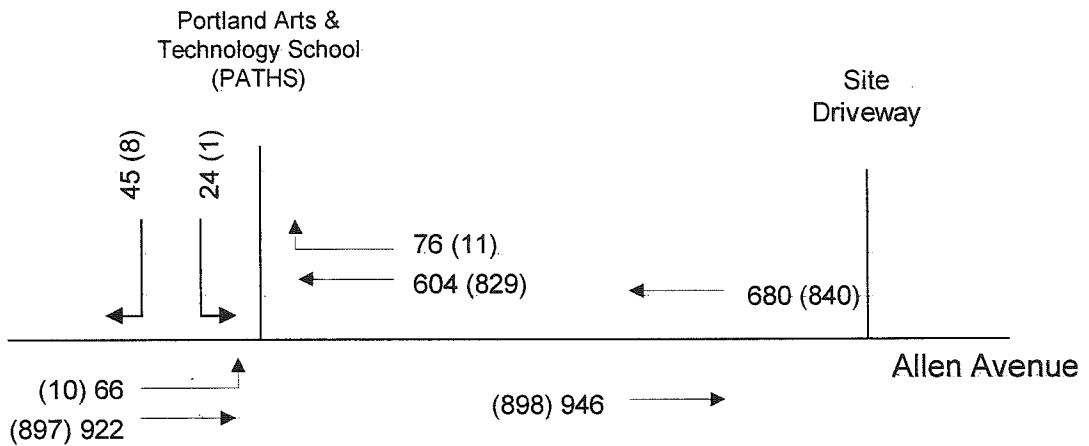
Figure 3 presents the 1999 No-Build traffic volumes.



1998 Design Hour Traffic Volumes

xxx - AM Peak Hour
 (xxx) - PM Peak Hour

Figure 2



1999 No-Build Traffic Volumes

xxx - AM Peak Hour
 (xxx) - PM Peak Hour

Figure 3

Allen Avenue Apartment Project

City of Portland

SECTION 4 – SITE GENERATION TRAFFIC

Traffic generated from the proposed development was based upon traffic generation rates contained in the publication, TRIP GENERATION, Institute of Transportation Engineers. According to Land Use Code 220– Apartment, 6.63 trips per dwelling unit can be expected on a weekday. During the AM peak hour, 0.51 trips per dwelling unit can be expected, while 0.62 trips per dwelling unit can be expected during the PM peak hour. The proposed project is expected to contain 60 apartment units and the following table summarizes the estimated daily, AM peak hour, and PM peak hour trip generation.

	ENTER	EXIT	TOTAL
Daily	199	199	398
AM Peak Hour	5	26	31
PM Peak Hour	25	12	37

Distribution of the site-generated traffic was based upon proposed access/egress plans and existing travel patterns in the vicinity of the project. Figure 4 presents the site generated traffic volumes during the Weekday AM and PM peak hours.

SECTION 5 – BUILD TRAFFIC VOLUMES

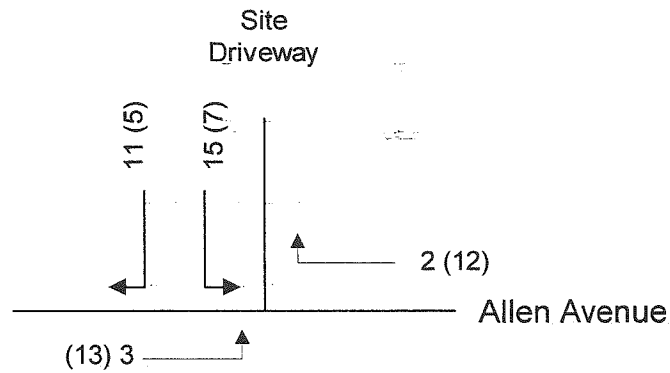
The Build Traffic Volumes within the study area were estimated for the 1999 condition. The Build Volumes were estimated by adding the site-generated traffic depicted on Figure 4 to the 1999 No-Build Traffic Volumes presented on Figure 3. Figure 5 presents the 1999 Build Traffic Volumes during the Weekday PM peak hour.

SECTION 6 – INTERSECTION ANALYSIS

To evaluate the impact of traffic generated by the proposed development, capacity analyses, per procedures contained in the 1994 Highway Capacity Manual, Transportation Research Board, were performed at the proposed Allen Avenue/Site Drive intersection for the 1999 Build condition.

The standard used to evaluate traffic operating conditions of the transportation system is referred to as the Level of Service (LOS). This is a qualitative assessment of the quantitative effect of factors such as speed, volume of traffic, geometric features, traffic interruptions, delays, and freedom to maneuver.

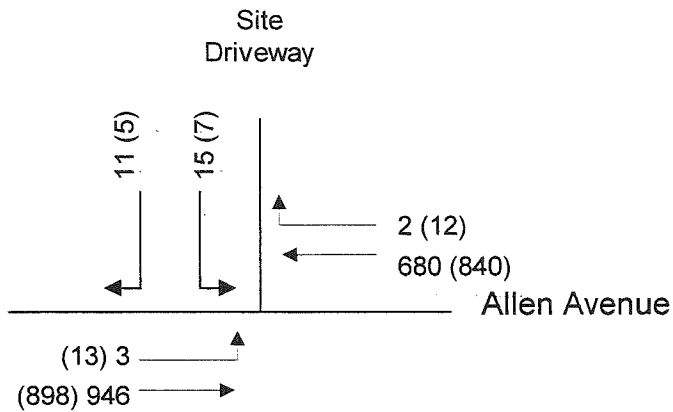
Unsignalized intersection LOS is based on vehicular delay. The LOS procedure computes capacity for each movement that has a conflict, based upon the critical time gap required to complete the maneuver and the volume of traffic that is opposing the movement. The following table describes the relationship between delay and LOS.



Site Generated Traffic Volumes

xxx - AM Peak Hour
 (xxx) - PM Peak Hour

Figure 4



1999 Build Traffic Volumes

xxx - AM Peak Hour
 (xxx) - PM Peak Hour

Figure 5

Allen Avenue Apartment Project

City of Portland

Unsignalized Intersection Level of Service Criteria

Level of Service	Average Delay (seconds)
A	≤5.0
B	> 5 and ≤10
C	> 10 and ≤20
D	> 20 and ≤30
E	> 30 and ≤45
F	> 45

The results of the unsignalized capacity analyses are presented in the following table.

1999 Build Capacity Analyses Results Allen Avenue/Site Drive

Movement	AM Peak Hour		PM Peak Hour	
	LOS	Delay	LOS	Delay
Left/Right From Site	E	32.1	E	37.1
Left From Allen Avenue	A	4.7	B	6.5
Overall	A	0.5	A	0.3

As indicated in the above table, movements entering the site will operate with little delay, while movements exiting the site will experience long delays during peak periods

SECTION 7 – SAFETY ANALYSIS

Accident data in the vicinity of the project was obtained from the MDOT for the most recent available 3-year period (1995-1997). MDOT considers a location with a Critical Rate Factor of 1.0 and 8 accidents over a three-year period as a High Accident Location. According to the MDOT data, 12 accidents were reported on Allen Avenue between Pennell Avenue and Plymouth Street with a Critical Rate Factor of 0.48.

Based upon the above information, Allen Avenue in the vicinity of the project site does not meet the MDOT criteria for a High Accident.

SECTION 8 – DRIVEWAY DESIGN CONSIDERATIONS

In conjunction with the proposed access drive, several design issues were reviewed to ensure that safe and efficient traffic conditions will be provided in the future. Issues that were reviewed and discussed in detail below included sight distance, provision of auxiliary turn lanes, and entrance radii.

- An evaluation of sight distance for vehicles exiting the proposed driveway was performed. According to the publication, Access Management Improving the

APPENDIX

CAPACITY ANALYSES

=====
 Wilbur Smith Associates
 135 College Street
 P.O Box 9412
 New Haven, CT 06534-0412
 Ph: (203) 865-2191
 =====

Streets: (N-S) Allen Avenue (E-W) Site Drive
 Major Street Direction.... NS
 Length of Time Analyzed... 60 (min)
 Analyst..... TAE
 Date of Analysis..... 10/14/98
 Other Information.....1999 Build AM Peak Hour
 Two-way Stop-controlled Intersection
 =====

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	0	0	1	< 0	0	> 0	< 0	0	0	0
Stop/Yield			N			N						
Volumes	3	946		680	2		15		11			
PHF	.87	.87		.93	.93		.9		.9			
Grade		0		0				0				
MC's (%)	0						0		0			
SU/RV's (%)	0						0		0			
CV's (%)	2						2		2			
PCE's	1.02						1.02		1.02			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		WB	EB
Conflicting Flows: (vph)			732
Potential Capacity: (pcph)			589
Movement Capacity: (pcph)			589
Prob. of Queue-Free State:			0.98
Step 2: LT from Major Street		SB	NB
Conflicting Flows: (vph)			733
Potential Capacity: (pcph)			767
Movement Capacity: (pcph)			767
Prob. of Queue-Free State:			1.00
TH Saturation Flow Rate: (pcphpl)			1700
RT Saturation Flow Rate: (pcphpl)			
Major LT Shared Lane Prob. of Queue-Free State:			0.99
Step 4: LT from Minor Street		WB	EB
Conflicting Flows: (vph)			1822
Potential Capacity: (pcph)			93
Major LT, Minor TH Impedance Factor:			0.99
Adjusted Impedance Factor:			0.99
Capacity Adjustment Factor due to Impeding Movements			0.99
Movement Capacity: (pcph)			92

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	17	92 >	141	32.1	0.8	E	32.1
EB R	12	589 >					
NB L	3	767		4.7	0.0	A	0.0

Intersection Delay = 0.5 sec/veh

=====

Wilbur Smith Associates
 135 College Street
 P.O Box 9412
 New Haven, CT 06534-0412
 Ph: (203) 865-2191

=====

Streets: (N-S) Allen Avenue (E-W) Site Drive
 Major Street Direction.... NS
 Length of Time Analyzed... 60 (min)
 Analyst..... TAE
 Date of Analysis..... 10/14/98
 Other Information.....1999 Build PM Peak Hour
 Two-way Stop-controlled Intersection

=====

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	0	0	1	< 0	0	> 0	< 0	0	0	0
Stop/Yield			N			N						
Volumes	13	898			840	12	7		5			
PHF	.92	.92			.85	.85	.9		.9			
Grade		0			0			0				
MC's (%)	0						0		0			
SU/RV's (%)	0						0		0			
CV's (%)	2						2		2			
PCE's	1.02						1.02		1.02			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

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Step 1: RT from Minor Street          WB          EB
-----
Conflicting Flows: (vph)                995
Potential Capacity: (pcph)              434
Movement Capacity: (pcph)               434
Prob. of Queue-Free State:              0.99
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Step 2: LT from Major Street          SB          NB
-----
Conflicting Flows: (vph)                1002
Potential Capacity: (pcph)              571
Movement Capacity: (pcph)               571
Prob. of Queue-Free State:              0.98
TH Saturation Flow Rate: (pcphpl)      1700
RT Saturation Flow Rate: (pcphpl)
Major LT Shared Lane Prob.
of Queue-Free State:                    0.94
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Step 4: LT from Minor Street          WB          EB
-----
Conflicting Flows: (vph)                1985
Potential Capacity: (pcph)              75
Major LT, Minor TH
Impedance Factor:                       0.94
Adjusted Impedance Factor:               0.94
Capacity Adjustment Factor
due to Impeding Movements                0.94
Movement Capacity: (pcph)               71
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Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	8	71 >	111	37.1	0.4	E	37.1
EB R	6	434 >					
NB L	14	571		6.5	0.0	B	0.1

Intersection Delay = 0.3 sec/veh

ACCIDENT DATA

MAINE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING

TINACC30

ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL
STUDY PERIOD: FROM MONTH 01 YEAR 1995 TO MONTH 12 YEAR 1997

INPUT COMMENTS

REQUEST: ALLEN AVE FROM FOREST AVE TO WASHINGTON
TOWN : PORTLAND

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
0100X	05	07290	1	0.00	07446	07479	1	0.00

MAINE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING

TINACC30

ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	INJURY K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	CRITI RATE	CRF
05	07446	POR, ALLEN	GOODRIDGE AVE	2	6		0	0	0	0	6	0.0		7.239	0.28	0.49	0.00
05	07447	POR, ALLEN	RR ING 83	2	1		0	0	1	0	0	100.0		7.336	0.05	0.49	0.00
05	07448	POR, ALLEN	WOODLAWN AVE.	2	3		0	0	0	1	2	33.3		7.701	0.13	0.48	0.00
05	07449	POR, ALLEN	AVE, HARVARD S	2	1		0	0	0	0	1	0.0		7.817	0.04	0.48	0.00
05	07450	POR, ALLEN	AVE, PLYMOUTH	2	4		0	0	1	0	3	25.0		8.087	0.16	0.48	0.00
05	07451	POR, ALLEN	PENELL AVE.	2	1		0	0	0	0	1	0.0		8.230	0.04	0.47	0.00
05	07452	POR, ALLEN	AVE, KNIGHT ST	2	1		0	0	0	0	1	0.0		8.203	0.04	0.47	0.00
05	07453	POR, ALLEN	AVE, ABBOTT ST	2	11		0	0	0	5	6	45.5		8.325	0.44	0.47	0.00
					28		0	0	2	6	20	28.6		62.938	0.15	0.33	0.00

NODE SUBTOTALS-

MAINE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING

TINACC30

ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	CRITL RATE	CRF
05170	07290	07446	ALLEN AVE	2	1	0.02	0	0	0	0	1	0.0	0.00144	231.48	696.46	0.00	
	07446	07447		2	4	0.05	0	0	0	1	3	25.0	0.00361	369.34	549.58	0.00	
	07447	07448		2	3	0.10	0	0	1	0	2	32.3	0.00745	134.23	460.62	0.00	
	07448	07449		2	2	0.09	0	0	0	2	0	0.0	0.00692	96.34	468.61	0.00	
	07449	07450		2	3	0.10	0	0	0	1	2	33.3	0.00792	126.26	454.17	0.00	
	07450	07451		2	12	0.28	0	0	3	3	6	50.0	0.02282	175.28	364.98	0.00	
	07451	07452		2	0	0.03	0	0	0	0	0	0.0	0.00245	0.00	607.08	0.00	
	07452	07453		2	1	0.09	0	0	0	0	1	0.0	0.00734	45.41	462.21	0.00	
	07453	07479		2	20	0.07	0	0	4	3	13	35.0	0.00584	1141.55	487.89	2.34	
			LINK SUBTOTALS-		46	0.83	0	0	8	8	30	34.8	0.06579	233.06	309.08	0.00	
			GRAND TOTALS-		74	0.83	0	0	10	14	50	32.4	0.06579	62.938	548.27	0.68	

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ACCIDENT SUMMARY II - CHARACTERISTICS

DAY OF WEEK	H O U R O F D A Y												TOTAL												
	12	1	2	3	4	5	6	7	8	9	10	11		12											
MONDAY	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5
TUESDAY	0	0	0	0	0	1	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	8
WEDNESDAY	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	9
THURSDAY	0	0	0	0	0	0	0	1	0	1	1	3	2	1	1	0	0	0	0	0	0	0	0	0	13
FRIDAY	0	0	0	0	0	0	0	0	0	1	1	3	0	1	1	0	2	2	0	0	0	0	0	0	14
SATURDAY	0	0	0	0	0	0	0	1	1	0	1	3	3	1	1	0	2	1	0	0	0	0	1	0	18
SUNDAY	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	1	1	0	0	1	2	3	2	4	5	9	9	5	5	6	6	3	1	2	1	1	0	74

YEAR	---A M---												---P M---												TOTAL
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
JANUARY	15	2	2	3	3	3	10	3	10	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
FEBRUARY	4	0	0	1	1	1	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
MARCH	6	1	1	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
APRIL	3	2	2	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MAY	5	1	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
JUNE	5	1	1	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUGUST	5	2	2	1	1	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
SEPTEMBER	7	2	2	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
OCTOBER	6	1	1	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
NOVEMBER	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
DECEMBER	12	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	74	16	16	24	24	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
TOTAL %	100	22	22	32	32	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46

* * *

YEAR

* * *

TYPE OF UNIT	TOTAL
2-DOOR	29
4-DOOR	68
CONVERTIBLE	1
STATION WG	5
VAN	17
PICKUP TR	22
TRUCK	0
TR TRAILER	0
SEMI TRAIL	0
SEMI TANK	0
BUS	0
SCHOOL BUS	0
MOTOR HOME	0
MOTORCYCLE	0
MOPED	1
MOTOR BIKE	0
BICYCLE	1
SNOWMOBILE	0
ATV	0
UNKNOWN	1
TOTAL	145

TYPE OF UNIT	TOTAL
2ADT	0
3ASU	0
4ASU	0
2ASA	0
2ATA	0
3ASA	0
3ATR	0
3ATA	0
4ATA	0
2AT1A2ATR	0
3AT1A2ATR	0
3AT2A2ATR	0
3AT2A3R	0
3AT2A3F	0
3AT2A4ATR	0
3AND4A	0
5AXLE	0
6OR7AX	0

MAINE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING

TINACC30

ACCIDENT SUMMARY II - CHARACTERISTICS

ACCIDENT TYPE	ST ROAD	CURV ROAD	TYPE OF LOCATION						UN KNOWN	TOTAL	INJURY DATA		
			AT 3-LEG	INTERSECTION 4-LEG	DRIVE BRIDGE	INTER CHANGE	SEV CODE	INJURY ACCIDENTS			NUMBER OF INJURIES		
OBJECT IN ROAD	0	0	0	0	0	0	0	0	0	K	0	0	
REAR END/SIDESWIPE	12	0	8	1	0	0	0	0	31	A	0	0	
HEAD-ON/SIDESWIPE	2	0	3	0	0	1	0	0	6	B	10	11	
INTERSECTION MOVEMENT	0	0	9	1	0	22	0	0	32	C	14	22	
PEDESTRIANS	0	0	0	0	0	0	0	0	0	PD	50		
TRAIN	0	0	0	0	0	0	0	0	0	TOTAL	74	33	
RAN OFF ROAD	2	0	0	1	0	1	0	0	4				
ANIMAL	0	0	0	0	0	0	0	0	0				
SLED/BIKE	1	0	0	0	0	0	0	0	1				
FIXED OBJECT	0	0	0	0	0	0	0	0	0				
NON COLLISION	0	0	0	0	0	0	0	0	0				
UNKNOWN	0	0	0	0	0	0	0	0	0				
TOTAL	17	0	20	3	0	34	0	0	74				

FIXED OBJECT STRUCK

CONSTRUCTION BARRICADES	TRAFFIC CONTROL DEVICES			ROAD CHARACTER		
	TRAFFIC SIGNAL	TRAFFIC SIG STOP/GO	TRAFFIC SIG FLASHING	LEVEL STRAIGHT	LEVEL CURVED	ON GRADE STRAIGHT
R/R CROSSING	0	0	0	0	0	0
LIGHT POLE	1	0	0	5	0	0
UTILITY POLE	1	0	0	0	0	0
SIGN POST	1	0	0	0	0	0
MAIL BOXES	0	0	0	11	0	0
OTHER POLES/POSTS	0	0	0	0	0	0
FIRE PLUG/PARK METER	0	0	0	0	0	0
TREE/SHRUBBERY	1	0	0	0	0	0
CRASH CUSHION	0	0	0	0	0	0
MEDIAN SAFETY BARRIER	0	0	0	1	0	0
BRIDGE PIERS	0	0	0	1	0	0
OTHER GUARDRAILS	0	0	0	0	0	0
FENCING NOT BARRIER	0	0	0	2	0	0
CULVERT HEADWALL	0	0	0	54	0	0
EMBANKMENT/DITCH	0	0	0	1	0	0
BUILDING WALL	0	0	0	0	0	0
ROCK OUTCROPPING/LEDGE	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
UNKNOWN	0	0	0	0	0	0
TOTAL	4	0	0	74	0	74

MAINE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING

TINACC30

ACCIDENT SUMMARY II - CHARACTERISTICS

APPARENT CONTRIBUTING FACTOR * *	DR 1	DR 2	DR 3	DR 4	DR 5	DR OTHER	TOTAL	DR 1	DR 2	DR 3	DR 4	DR 5	DR OTHER	TOTAL
HUMAN FACTORS														
NO IMPROPER DRIVING	45	19	1	0	0	0	65	70	69	1	0	0	0	140
FAIL TO YIELD R-WAY	8	20	0	0	0	0	28	3	1	0	0	0	0	4
ILLEGAL UNSAFE SPEED	3	0	0	0	0	0	3	1	0	0	0	0	0	1
FOLLOW TOO CLOSE	3	7	0	0	0	0	10	0	0	0	0	0	0	0
DISREGARD TRAF CONTROL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DRIVING LEFT OF CENTER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IMPROPER PASSING	0	3	0	0	0	0	3	0	0	0	0	0	0	0
IMPROPER LANE CHANGE	0	1	0	0	0	0	1	0	0	0	0	0	0	0
IMPROPER START/STOP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IMPROPER TURN	2	1	0	0	0	0	3	0	0	0	0	0	0	0
UNSAFE BACKING	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NO PROPER SIGNAL	2	0	0	0	0	0	2	0	0	0	0	0	0	0
IMPEDING TRAFFIC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DRIVER INATTENTION	4	12	0	0	0	0	16	74	70	1	0	0	0	145
DRIVER INEXPERIENCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIAN VIOLATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHYSICAL IMPAIRMENT	1	0	0	0	0	0	1	0	0	0	0	0	0	0
VISION OBSCURED GLASS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VISION OBSCURED LIGHT	1	0	0	0	0	0	1	0	0	0	0	0	0	0
VISION OBSCURED OTHER	2	3	0	0	0	0	5	0	0	0	0	0	0	0
OTHER HUMAN FACTOR	1	2	0	0	0	0	3	0	0	0	0	0	0	0
DEFECTIVE BRAKES	0	1	0	0	0	0	1	0	0	0	0	0	0	0
HIT & RUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VEHICULAR FACTORS														
DEFECTIVE TIRE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEFECTIVE LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INADEQUATE WINDSHIELD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OVERSIZE/OVERWEIGHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER VEHICLE DEFECT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNKNOWN	2	1	0	0	0	0	3	0	0	0	0	0	0	0
TOTAL	74	70	1	0	0	0	145	74	70	1	0	0	0	145
TYPE OF UNIT														
AGE														
9-UNDER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-14	1	0	0	0	0	0	1	0	0	0	0	0	0	1
15-19	16	1	0	0	0	0	17	1	0	0	0	0	0	17
20-24	18	0	0	0	0	0	18	0	0	0	0	0	0	18
25-29	16	0	0	0	0	0	16	0	0	0	0	0	0	16
30-39	30	0	0	0	0	0	30	0	0	0	0	0	0	30
40-49	23	0	0	0	0	0	23	0	0	0	0	0	0	23
50-59	15	0	0	0	0	0	15	0	0	0	0	0	0	15
60-69	10	0	0	0	0	0	10	0	0	0	0	0	0	10
70-79	8	0	0	0	0	0	8	0	0	0	0	0	0	8
80-OVER	5	0	0	0	0	0	5	0	0	0	0	0	0	5
UNKNOWN	2	0	0	0	0	0	2	0	0	0	0	0	0	2
TOTAL	144	1	0	0	0	0	144	1	0	0	0	0	0	145

MAINE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING

TINACC30

ACCIDENT SUMMARY II - CHARACTERISTICS

WEATHER	LIGHT * CONDITION *	R O A D S U R F A C E										TOTAL				
		DRY	WET	SNOW SAND	ICE SAND	MUD	DEBRIS	OIL	SNOW	ICE	OTHER					
CROSS WINDS	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(0)	DAYLIGHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DUSK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SAND/DUST	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(0)	DAYLIGHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DUSK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLOUDY	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(8)	DAYLIGHT	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6
	DUSK	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	DARK-LIGHTS	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(0)	DAYLIGHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DUSK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROAD SURFACE TOTALS		44	16	5	6	0	0	0	3	0	0	0	0	0	0	74

MAINE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING

TINACC30

ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL
STUDY PERIOD: FROM MONTH 01 YEAR 1995 TO MONTH 12 YEAR 1997

INPUT COMMENTS

REQUEST: ALLEN AVE FROM FOREST AVE TO WASHINGTON
TOWN : PORTLAND

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
0100X	05	07290	1	0.00	07446	07479	1	0.00

MAINE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING

TINACC30

LINK DETAIL

TOWN#	STREET NAME OR ROUTE #	LOW NODE	HIGH NODE	DISTANCE	TOTAL ACCIDENTS	INJURY ACCIDENTS			TOTAL ACCIDENTS	A C C I D E N T	R E P O R T	N U M B E R S	
						K	A	B					C
05170	ALLEN AVE	07290	07446	0.1	1	0	0	0	0	1	1995042365		
		07446	07447	0.1	4	0	0	0	1	3	199541972	199717782	
		07447	07448	0.1	3	0	0	1	0	2	199632410	199736694	
		07448	07449	0.1	2	0	0	0	0	2	199527233	199528375	
		07449	07450	0.1	3	0	0	0	1	2	199513409	199700209	
		07450	07451	0.1	11	0	0	2	3	6	199500984	199614036	199644672
											199703448	199706278	199709796
											199740582		199710193
											199621695		
											199718801		
		07452	07453	0.1	1	0	0	0	0	1	199518724	199534599	
		07453	07479	0.0	1	0	0	0	0	1	199642141	199602226	
				0.1	19	0	0	4	3	12	199511087	199600625	199602226
											199540099	199600734	199607954
									199634809	199639717	199621265		
									199704955	199732642	199736772		

TOTALS- 46 0 0 0 8 8 30

INTERSECTION AT 196 ALLEN AVE./VOC. SCHOOL

Time	Allen Avenue		School Driveway		North-Rt.		Peak
	South	North	Right	Left	North	South	
7:00-7:15	119	93	2	4	15	4	1460
7:15-7:30	202	143	15	9	8	3	1581 PEAK
7:30-7:45	231	147	8	3	15	6	1560
7:45-8:00	231	139	29	15	14	10	1498
8:00-8:15	181	124	18	14	8	1	1376
8:15-8:30	172	155	8	4	10	2	
8:30-8:45	198	126	10	2	16	7	
8:45-9:00	163	131	16	4	55	35	
Total	1497	1058	106	55			

TOTALS	Included In count	TRUCKS		BIKES	Pedestrians		Accr.Allen	Peak
		TRUCKS	BIKES		Allen-S	Allen-N		
229	22	1	1	0	0	3	7:00-8:00	
377	20	0	0	0	1	0	7:15-8:15	
403	24	0	0	2	0	2	7:30-8:30	
461	31	1	1	0	0	0	7:45-8:45	
360	28	1	1	0	0	0	8:00-9:00	
346	33	0	0	1	0	0		
341	15	0	0	0	1	3		
329	28	0	0	2	1	0		
2836	201	3	3	5	3	8		

There were about 3-5 gaps of over a minute each quarter hour. Most were between 10-30 seconds. A few were up to 2 minutes, mostly busses trying to get out and not taking any chances.

INTERSECTION AT 196 ALLEN AVE./VOC. SCHOOL

Time	4-6 PM				10/6/98	
	Allen Avenue		School Driveway		Right	Left
	South	South-Rt	North	North-Left	Right	Left
4:00-4:15	176	3	187	3	8	9
4:15-4:30	169	1	183	0	2	3
4:30-4:45	223	3	198	1	1	1
4:45-5:00	155	3	225	0	2	0
5:00-5:15	202	2	186	2	2	0
5:15-5:30	180	1	212	6	2	0
5:30-5:45	166	9	203	21	2	4
5:45-6:00	177	16	160	18	8	3
Total	1450	38	1554	51	27	20

There were about 3-5 gaps of over a minute each quarter hour. Most were between 10:30 seconds. A few were up to 2 minutes, mostly busses trying to get out and not taking any chances.

Time	Included In count		Pedestrians		PEAK
	TRUCKS	BIKES	Allen-S	Allen-N	
4:00-5:00	18	2	0	1	1556
4:15-5:15	11	1	0	1	1564
4:30-5:30	13	0	0	0	1607 PEAK
4:45-5:45	10	0	0	0	1587
5:00-6:00	5	1	0	2	1584
TOTALS	407	8	0	0	
	407	5	1	0	
	382	4	0	0	
	3140	74	4	4	

TURNING MOVEMENT DATA SHEETS

STATE DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

TABLE 10

STATE ROUTES

ROUTE	SECTION	DATE	TIME	TYPE	ACQUISITION	TOTAL	ACQUISITION	PERCENTAGE	DATE	ACQUISITION	DATE		
05170	ALSOON AVE	07380	07446	0.1	1	0	0	0	1	100504305	100700164	100717783	
		07426	07447	0.1	4	0	0	1	3	100511873	100736604		
		07447	07440	0.1	3	0	0	1	2	100512410	100734043		
		07448	07449	0.1	3	0	0	0	2	100537233	100528476		
		07449	07450	0.1	3	0	0	0	2	100513409	100538844	100700300	
		07450	07451	0.1	11	0	0	2	6	100500904	100528154	100644673	
											100703348	100706278	100709706
											100740503		100710104
											100541800		
											100710001		
07454	07470	07454	07470	0.1	1	0	0	0	1	10053141			
										100511007	100511416	100544500	
										100540000	100500524	100544500	
									100540000	100500524	100544500		
									100703348	100740503	100740503		
									100703348	100740503	100740503		

TOTAL 30 0 0 0 0 0

TURNING MOVEMENT DATA SHEETS

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INTERSECTION AT 196 ALLEN AVE./VOC. SCHOOL

Time	7-9 AM				10/7/98	
	South	South-Left	North	North-Rt.	School Driveway	LEFT
7:00-7:15	119	7	93	2	4	4
7:15-7:30	202	6	143	15	9	2
7:30-7:45	231	11	147	8	3	3
7:45-8:00	181	13	139	29	15	6
8:00-8:15	172	6	124	18	14	10
8:15-8:30	198	3	165	8	4	1
8:30-8:45	163	8	128	10	2	2
8:45-9:00	149	8	131	16	4	7
Total	1497	85	1058	106	55	35

There were about 3-5 gaps of over a minute each quarter hour.

Time	TOTALS	Included in count			Accr.
		TRUCKS	BIKES	Pedest.	
7:00-7:15	229	22	1	0	0
7:15-7:30	377	20	0	0	3
7:30-7:45	403	24	0	0	1
7:45-8:00	461	31	1	2	1
8:00-8:15	360	28	1	0	0
8:15-8:30	346	33	1	0	2
8:30-8:45	341	15	0	1	0
8:45-9:00	328	28	0	0	0
Total	2836	201	3	6	8

Most were between 10-30 seconds. A few were up to 2 minutes, mostly busses trying to get out and not taking any chances.

INTERSECTION AT 188 ALLEN AVE./VOC. SCHOOL

Time	Allen Avenue				4-8 PM School Driveway			TOTALS	Included in count	TRUCKS	BIKES	Pedestrians		PEAK
	South	South-Rt	North	North-Left	Right	Left	Allen-S					Allen-N		
4:00-4:15	178	3	187	3	8	9	386	10	2	0	0	0	1	4:00-5:00
4:15-4:30	169	1	183	0	2	3	358	11	1	0	0	0	1	4:15-5:15
4:30-4:45	223	3	188	1	1	1	427	13	0	0	0	0	0	4:30-5:30
4:45-5:00	166	3	226	0	2	0	388	10	0	0	0	0	0	4:45-5:45
5:00-5:15	202	2	186	2	2	0	394	6	1	0	0	2	0	5:00-6:00
5:15-5:30	180	1	212	6	2	0	401	8	0	0	3	0	0	
5:30-5:45	168	4	203	21	2	4	407	6	0	0	1	0	0	
5:45-6:00	177	16	160	18	8	3	382	4	2	0	0	0	0	
Total	1450	38	1554	51	27	20	3140	74	6	4	4	4	4	

There were about 3-5 gaps of over a minute each quarter hour. Most were between 10-30 seconds. A few were up to 2 minutes, mostly busses trying to get out and not taking any chances.

STORMWATER MANAGEMENT PLAN

Washington Crossing Condominiums 62-Unit Planned Residential Unit Development Allen Avenue Portland, Maine

General

This Stormwater Management Plan has been prepared to evaluate the pre and post-development conditions associated with the proposed Washington Crossing Condominiums on Allen Avenue in Portland, Maine. Washington Crossing will be a 62-unit condominium development with associated roadway and utility infrastructure. Access to the condominiums will be from a proposed private roadway extending northwesterly into the site, from Allen Avenue, approximately 1,900 feet in length prior to culminating in a cul-de-sac.

Site Characteristics

The project site is located on approximately 26 acres of woods, including a large area of forested wetlands, with some open brush areas near Allen Avenue. The surrounding area includes residential developments along Pennell Avenue to the north and Allen Avenue to the east, the Portland Arts and Technology High School (PATHS) to the south, and undeveloped land to the west. Existing site topography consists of gentle to moderate slopes, with areas of steeper slopes near the northwesterly corner.

Stormwater runoff from the easterly one-third of the site drains into an existing wetland, which also collects runoff from the PATHS site. This wetland currently functions as a detention pond, with outflow released through two 12" diameter CMP culverts stacked on top of each other. Stormwater from the remainder of the site generally drains northwesterly, through the wetlands, outletting into a tributary to the Presumpscot River. A subsurface storm drain system crosses the northwesterly corner of the site and also outlets to the same tributary of the Presumpscot River.

Soils

Soils information was obtained from the Cumberland County Medium Intensity Soil Survey. The soil survey maps the predominant soils within the area of the proposed development as Scantic silt loam, with a hydrologic soils group of "D" and Belgrade very fine sandy loam, with a hydrologic soils group of "B". Other soils found within the site area and within the off-site contributing areas consist of Buxton silt loam and Hollis fine sandy loam, both with a hydrologic soils group of "D".

Watershed Descriptions

In order to evaluate drainage characteristics in the pre and post-development conditions, a quantitative analysis was performed to determine peak rates of runoff for the 2, 10 and 25-year, 24-hour, Type III storm events. Runoff calculations were performed following the methodology outlined in the USDA Soil Conservation Service "Urban Hydrology for Small Watersheds, Technical Release # 55" and HydroCAD Stormwater Management Systems.

As described in the following, two overall watersheds were analyzed in both the pre and post-development conditions. Included with these two watersheds are contributing areas to the south of the site consisting of PATHS and areas along Plymouth Avenue. In the post-development conditions, the on-site watersheds were broken down into sub-watersheds associated with the proposed stormwater conveyance system of catch basins and storm drains. Two discharge points were selected for both the pre and post-development conditions. Study point #1 is the outlet of the stacked 12" CMP culverts draining the wetlands on the eastern portion of the site. Study point #2 was chosen to be along the property boundary near the westerly corner of the site, where the wetlands flow into the tributary to the Presumpscot River.

Pre-Development Conditions

WS-10: Consists of the 8.42 acres of on-site area of mostly woods and brush, with the exception of one developed house lot on Allen Avenue. This watershed area includes the wetland/detention pond which outlets at Study Point #1. Link 1, which consists of the 22 acres of off-site contributing area from PATHS and Plymouth Avenue, is included as outletting to the wetland area.

WS-20: Approximately 18.05 acres of undeveloped woods, including a large area of forested wetlands. This watershed outlets at Study Point #2.

Post-Development Conditions

Watershed 10 was divided into seven subcatchment areas; Watershed 20 was divided into nine subcatchment areas. This was done to analyze the effects of the road, buildings and other impervious surfaces and associated grading, as well as to size all culverts and subsurface storm drains.

WS-1 through WS-6: Approximately 3.24 acres of development, including the first 920 feet of road, portions of the first seven buildings, and associated landscaped areas. These watersheds also include small areas of undisturbed tree growth. All runoff from these watersheds is transported through a series of subsurface storm drains into a stormwater treatment structure prior to outletting into the existing wetland/detention pond before leaving the site at Study Point #1.

WS-10: Approximately 4.96 acres of the original WS-10, including woods, brush and the existing developed house lot on Allen Avenue. This watershed also includes the back half of the first seven buildings. Runoff flows either in the form of sheet flow or through drainage swales into the existing wetland/detention pond before leaving the site at Study Point #1. Link 1, consisting of the 22 acres of off-site contributing area from PATHS and Plymouth Avenue, is included as outletting to the wetland area.

WS-11: Approximately 0.69 acres of grass and undisturbed tree growth areas, as well as a portion of one new building. Runoff from this watershed will drain through a grassed swale prior to entering a culvert beneath the private road, outletting into the wetlands. This culvert also serves to transport off-site runoff from the rear of PATHS into the existing forested wetlands which flows to Study Point #2.

WS-12 through WS-18: Approximately 2.12 acres of development, including the remainder of the road, portions of seven buildings, and associated landscaped areas. These watersheds also include small areas of undisturbed tree growth. All runoff from these watersheds is transported through a series of subsurface storm drains into a stormwater treatment structure prior to outletting into the existing subsurface storm drain system, which crosses the westerly portion of the site. This storm drain system then outlets just off the project parcel, near Study Point #2, into the tributary to the Presumpscot River.

WS-20: Approximately 16.17 acres of the original WS-20, including the forested wetlands, as well as the back half of seven buildings and one two-unit building and driveway, and a tennis court and associated walkways. Runoff flows either in the form of sheet flow or through drainage swales into the existing wetlands before leaving the site at Study Point #2.

Stormwater Management

Stormwater from the first approximately 920 feet of the new roadway, and half of the first seven buildings will be collected and transported via a series of catch basins and subsurface storm drains. This drainage system will connect to a subsurface stormwater treatment tank to provide removal of suspended solids, grit, etc. prior to outletting into the wetlands.

Outflow from these wetlands is currently controlled by a small berm and two 12" diameter culverts stacked on top of each other. The two existing culverts will be replaced by two new 12 inch culverts. The berm at the outlet will be repaired as necessary, and an emergency spillway will be constructed to handle flows from the larger rain events, such as the 100-year storm. The wetland area has sufficient capacity to temporarily detain runoff from the 2, 10 and 25-year storm events.

Runoff from the majority of the remaining developed portion of the site will be collected and transported via a series of catch basins and subsurface storm drains. This drainage system will connect to a subsurface stormwater treatment box to provide removal of suspended solids, grit, etc. The outlet from this stormwater treatment box will be connected into the existing subsurface storm drain system along the northwesterly portion of the site. Runoff will flow

through this system for approximately 370' prior to outletting into the tributary of the Presumpscot River. Runoff from the remainder of this site will continue to flow through the forested wetlands before concentrating into the tributary of the Presumpscot River.

The following table lists the calculated peak rates of runoff for the various storm events:

Watershed Analysis Summary				
Storm Event		2-Year, 24-Hour	10-Year, 24-Hour	25-Year, 24-Hour
Study Point #1	Pre	3.95 cfs	5.47 cfs	5.81 cfs
	Post	4.34 cfs	5.63 cfs	6.17 cfs
Study Point #2	Pre	3.43 cfs	10.18 cfs	13.89 cfs
	Post	3.93 cfs	11.06 cfs	14.96 cfs

Summary

Due to the size of the existing wetland area that serves as a detention basin prior to outletting to the municipal system within Pennell Avenue, the increase in peak rates of runoff into the wetland are dissipated prior to outletting the wetland. The outlet will be reconstructed to provide new culverts and a riprapped emergency spillway for larger storm events.

No detention is proposed for the rear of the site. The majority of the proposed development will be collected in a series of catch basins and connected to the existing municipal system via a subsurface storm drain system.

Treatment will be provided to the collected runoff for both watersheds via two proposed treatment tanks. These tanks have been accepted by the Maine Department of Environmental Protection to provide 80 percent TSS removal rates.

Other drainage provision will include a specific grading plan and erosion and sediment control measures to be implemented throughout the construction cycle. Incorporation of the above mentioned drainage provisions for the proposed subdivision will adequately address stormwater runoff such that no significant adverse impacts are anticipated either to the Presumpscot River or its tributary, or the subsurface drainage system in the Allen Avenue area.

Prepared by:

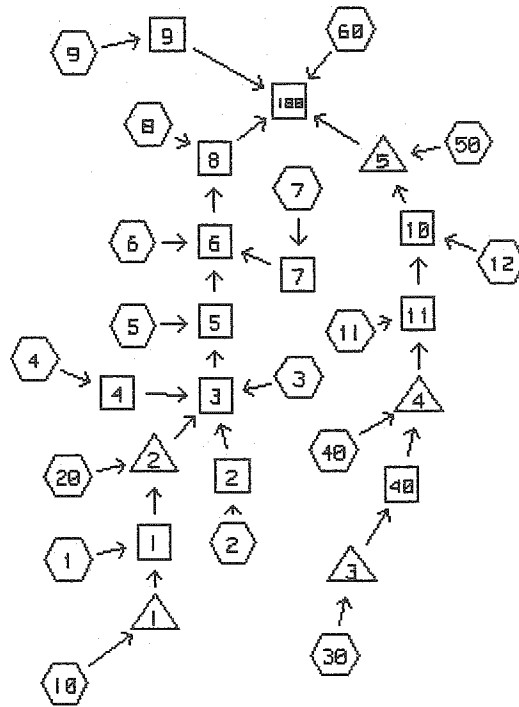
SEBAGO TECHNICS, INC.



Shawn M. Frank, P.E.
Project Manager

SMF:jc
April 6, 1999a

WATERSHED ROUTING



SUBCATCHMENT



REACH



POND



LINK

SUBCATCHMENT 1 WS-1: AREA TO CB-1

PEAK= .32 CFS @ 12.00 HRS, VOLUME= .02 AF

ACRES	CN	
.10	98	IMPERVIOUS

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 114.5 - EL 114	.9
Smooth surfaces	n=.011 L=50' P2=3 in s=.01 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 114 - EL 111	1.0
Paved	Kv=20.3282 L=160' s=.019 '/' V=2.8 fps	
Total Length= 210 ft		Total Tc= 1.9

SUBCATCHMENT 2 WS-2: AREA TO CB-2

PEAK= 2.01 CFS @ 12.29 HRS, VOLUME= .21 AF

ACRES	CN	
.85	98	IMPERVIOUS
.40	80	GOOD LAWN: D SOILS
.07	70	FAIR WOODS: D SOILS
1.32	91	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 112 - EL 110	22.2
Woods: Light underbrush	n=.4 L=100' P2=3 in s=.02 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 110 - EL 105	.6
Unpaved	Kv=16.1345 L=120' s=.042 '/' V=3.31 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 105 - EL 104.5	.2
Paved	Kv=20.3282 L=30' s=.017 '/' V=2.65 fps	
Total Length= 250 ft		Total Tc= 23.0

SUBCATCHMENT 3 WS-3: AREA TO CB-3

PEAK= .63 CFS @ 12.00 HRS, VOLUME= .04 AF

ACRES	CN	
.16	98	IMPERVIOUS
.05	80	GOOD LAWN: D SOILS
.21	94	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 110 - EL 106	1.1
Smooth surfaces	n=.011 L=110' P2=3 in s=.036 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 106 - EL 103.5	.4
Paved	Kv=20.3282 L=80' s=.031 '/' V=3.58 fps	
Total Length= 190 ft		Total Tc= 1.5

SUBCATCHMENT 4

WS-4: AREA TO CB-4

PEAK= .97 CFS @ 12.24 HRS, VOLUME= .09 AF

ACRES	CN	
.29	98	IMPERVIOUS
.38	80	GOOD LAWN: D SOILS
.67	88	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 103.5 - EL 102.4	18.7
Grass: Dense n=.24 L=100' P2=3 in s=.011 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	EL 102.4 - EL 102.1	.7
Paved Kv=20.3282 L=60' s=.005 '/' V=1.44 fps		
Total Length= 160 ft		Total Tc= 19.4

SUBCATCHMENT 5

WS-5: AREA TO CB-5

PEAK= 1.92 CFS @ 12.22 HRS, VOLUME= .18 AF

ACRES	CN	
.52	98	IMPERVIOUS
.76	80	GOOD LAWN: D SOILS
.04	70	FAIR WOODS: D SOILS
1.32	87	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 105 - EL 104.5	5.6
Woods: Light underbrush n=.4 L=20' P2=3 in s=.025 '/'		
TR-55 SHEET FLOW	EL 104.5 - EL 98	11.5
Grass: Dense n=.24 L=120' P2=3 in s=.054 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	EL 98 - EL 93.5	.3
Unpaved Kv=16.1345 L=70' s=.064 '/' V=4.08 fps		
Total Length= 210 ft		Total Tc= 17.4

SUBCATCHMENT 6 WS-6: AREA TO CB-6

PEAK= .84 CFS @ 12.27 HRS, VOLUME= .08 AF

ACRES	CN		SCS TR-20 METHOD
.03	98	IMPERVIOUS	TYPE III 24-HOUR
.77	80	GOOD LAWN: D SOILS	RAINFALL= 3.0 IN
.08	70	FAIR WOODS: D SOILS	SPAN= 5-20 HRS, dt=.05 HRS
.88	80		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 96 - EL 92	18.1
Grass: Dense	n=.24 L=150' P2=3 in s=.027 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 92 - EL 91.8	1.2
Woodland	Kv=5 L=30' s=.007 '/' V=.42 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 91.8 - EL 91.5	1.1
Unpaved	Kv=16.1345 L=70' s=.004 '/' V=1.02 fps	
Total Length= 250 ft		Total Tc= 20.4

SUBCATCHMENT 7 WS-7: AREA TO CB-7

PEAK= 1.77 CFS @ 12.38 HRS, VOLUME= .20 AF

ACRES	CN		SCS TR-20 METHOD
.16	98	IMPERVIOUS	TYPE III 24-HOUR
1.75	80	GOOD LAWN: D SOILS	RAINFALL= 3.0 IN
.09	70	FAIR WOODS: D SOILS	SPAN= 5-20 HRS, dt=.05 HRS
2.00	81		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 102 - EL 99	25.9
Woods: Light underbrush	n=.4 L=130' P2=3 in s=.023 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 99 - EL 92.5	1.9
Unpaved	Kv=16.1345 L=280' s=.023 '/' V=2.45 fps	
Total Length= 410 ft		Total Tc= 27.8

SUBCATCHMENT 8 WS-8: AREA TO CB-8

PEAK= .23 CFS @ 12.00 HRS, VOLUME= .02 AF

ACRES	CN		SCS TR-20 METHOD
.07	98	IMPERVIOUS	TYPE III 24-HOUR
			RAINFALL= 3.0 IN
			SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 91 - EL 90	1.3
Smooth surfaces	n=.011 L=80' P2=3 in s=.0125 '/'	

SUBCATCHMENT 9 WS-9: AREA TO CB-9

PEAK= 2.93 CFS @ 12.01 HRS, VOLUME= .20 AF

ACRES	CN		SCS TR-20 METHOD
.89	98	IMPERVIOUS	TYPE III 24-HOUR
.02	80	GOOD LAWN: D SOILS	RAINFALL= 3.0 IN
.91	98		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 94 - EL 92	1.3
Smooth surfaces	n=.011 L=100' P2=3 in s=.02 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 92 - EL 90.5	.8
Paved	Kv=20.3282 L=115' s=.013 '/' V=2.32 fps	
Total Length= 215 ft		Total Tc= 2.1

SUBCATCHMENT 10 WS-10: AREA TO POND 1

PEAK= 2.08 CFS @ 12.38 HRS, VOLUME= .24 AF

ACRES	CN		SCS TR-20 METHOD
.50	98	IMPERVIOUS	TYPE III 24-HOUR
1.24	80	GOOD LAWN: D SOILS	RAINFALL= 3.0 IN
.61	70	FAIR WOODS: D SOILS	SPAN= 5-20 HRS, dt=.05 HRS
2.35	81		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 117.5 - EL 113	26.1
Woods: Light underbrush	n=.4 L=150' P2=3 in s=.03 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 113 - EL 107	1.8
Woodland	Kv=5 L=120' s=.05 '/' V=1.12 fps	
Total Length= 270 ft		Total Tc= 27.9

SUBCATCHMENT 11 WS-11: AREA TO CB-11

PEAK= .65 CFS @ 12.00 HRS, VOLUME= .04 AF

ACRES	CN		SCS TR-20 METHOD
.18	98	IMPERVIOUS	TYPE III 24-HOUR
.03	80	GOOD LAWN: D SOILS	RAINFALL= 3.0 IN
.21	95		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 98 - EL 97.5	.9
Smooth surfaces	n=.011 L=50' P2=3 in s=.01 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 97.5 - EL 96.5	.6
Paved	Kv=20.3282 L=80' s=.0125 '/' V=2.27 fps	
Total Length= 130 ft		Total Tc= 1.5

SUBCATCHMENT 12 WS-12: AREA TO CB-10

PEAK= .60 CFS @ 12.00 HRS, VOLUME= .04 AF

<u>ACRES</u>	<u>CN</u>		
.16	98	IMPERVIOUS	SCS TR-20 METHOD TYPE III 24-HOUR RAINFALL= 3.0 IN SPAN= 5-20 HRS, dt=.05 HRS
.04	80	GOOD LAWN: D SOILS	
.20	94		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 96 - EL 95.5	.9
Smooth surfaces	n=.011 L=50' P2=3 in s=.01 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 95.5 - EL 95	.8
Paved	Kv=20.3282 L=80' s=.006 '/' V=1.57 fps	
Total Length= 130 ft		Total Tc= 1.7

SUBCATCHMENT 20 WS-20: AREA TO POND 2

PEAK= .39 CFS @ 12.28 HRS, VOLUME= .04 AF

<u>ACRES</u>	<u>CN</u>		
.03	98	IMPERVIOUS	SCS TR-20 METHOD TYPE III 24-HOUR RAINFALL= 3.0 IN SPAN= 5-20 HRS, dt=.05 HRS
.26	80	GOOD LAWN: D SOILS	
.20	70	FAIR WOODS: D SOILS	
.49	77		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 111 - EL 106	3.4
Grass: Dense	n=.24 L=40' P2=3 in s=.125 '/'	
TR-55 SHEET FLOW	EL 106 - EL 101	17.2
Woods: Light underbrush	n=.4 L=110' P2=3 in s=.046 '/'	
Total Length= 150 ft		Total Tc= 20.6

SUBCATCHMENT 30 WS-30: AREA TO POND 3 @ SCHOOL WALKWAY

PEAK= 5.93 CFS @ 12.59 HRS, VOLUME= .83 AF

<u>ACRES</u>	<u>CN</u>		
1.98	98	IMPERVIOUS	SCS TR-20 METHOD TYPE III 24-HOUR RAINFALL= 3.0 IN SPAN= 5-20 HRS, dt=.05 HRS
3.76	80	GOOD LAWN: D SOILS	
2.15	70	FAIR WOODS: D SOILS	
7.89	82		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 111 - EL 109	36.1
Woods: Light underbrush	n=.4 L=150' P2=3 in s=.0133 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 109 - EL 100	7.6
Woodland	Kv=5 L=360' s=.025 '/' V=.79 fps	
Total Length= 510 ft		Total Tc= 43.7

SUBCATCHMENT 40

WS-40: AREA TO POND 4 @ SCHOOL ACCESS

PEAK= 1.24 CFS @ 12.38 HRS, VOLUME= .14 AF

ACRES	CN	
.10	98	IMPERVIOUS
1.31	80	GOOD LAWN: D SOILS
1.41	81	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 106 - EL 102	8.5
Grass: Dense n=.24 L=80' P2=3 in s=.05 '/'		
TR-55 SHEET FLOW	EL 102 - EL 100	18.3
Grass: Dense n=.24 L=120' P2=3 in s=.0167 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	EL 100 - EL 96	1.5
Unpaved Kv=16.1345 L=200' s=.02 '/' V=2.28 fps		
Total Length= 400 ft		Total Tc= 28.3

SUBCATCHMENT 50

WS-50: AREA TO POND 50 @ SCHOOL WALK

PEAK= 1.81 CFS @ 12.23 HRS, VOLUME= .19 AF

ACRES	CN	
.85	98	IMPERVIOUS
.07	80	GOOD LAWN: D SOILS
.92	97	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 95 - EL 90	19.4
Grass: Dense n=.24 L=170' P2=3 in s=.029 '/'		

SUBCATCHMENT 60

WS-60: AREA TO CB-100 OUTLET TO PROJECT

PEAK= 1.31 CFS @ 12.30 HRS, VOLUME= .14 AF

ACRES	CN	
.22	98	IMPERVIOUS
1.00	80	GOOD LAWN: D SOILS
1.22	83	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 93 - EL 90	20.4
Grass: Dense n=.24 L=150' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	EL 90 - EL 88	2.4
Unpaved Kv=16.1345 L=220' s=.009 '/' V=1.53 fps		
Total Length= 370 ft		Total Tc= 22.8

REACH 1 15" RCP FROM CB-1

Qin = 1.84 CFS @ 12.53 HRS, VOLUME= .25 AF
 Qout= 1.83 CFS @ 12.54 HRS, VOLUME= .25 AF, ATTEN= 0%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	15" PIPE	PEAK DEPTH= .36 FT
.1	.1	.21	n= .012	PEAK VELOCITY= 6.2 FPS
.3	.2	.87	LENGTH= 70 FT	TRAVEL TIME = .2 MIN
.4	.3	1.94	SLOPE= .02 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	8.29		2 x FINER ROUTING
1.0	1.1	9.67		
1.1	1.2	10.55		
1.2	1.2	10.65		
1.2	1.2	10.55		
1.3	1.2	9.90		

REACH 2 12" RCP FROM CB-2

Qin = 2.01 CFS @ 12.29 HRS, VOLUME= .21 AF
 Qout= 2.00 CFS @ 12.29 HRS, VOLUME= .21 AF, ATTEN= 1%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .38 FT
.1	0.0	.13	n= .012	PEAK VELOCITY= 7.2 FPS
.2	.1	.53	LENGTH= 100 FT	TRAVEL TIME = .2 MIN
.3	.2	1.20	SLOPE= .025 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	5.11		2 x FINER ROUTING
.8	.7	5.97		
.9	.7	6.50		
.9	.8	6.56		
1.0	.8	6.50		
1.0	.8	6.10		

REACH 3 15" RCP FROM CB-3

Qin = 4.44 CFS @ 12.36 HRS, VOLUME= .63 AF
 Qout= 4.43 CFS @ 12.37 HRS, VOLUME= .63 AF, ATTEN= 0%, LAG= .6 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	15" PIPE	PEAK DEPTH= .46 FT
.1	.1	.30	n= .012	PEAK VELOCITY= 10.7 FPS
.3	.2	1.26	LENGTH= 200 FT	TRAVEL TIME = .3 MIN
.4	.3	2.83	SLOPE= .0425 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	12.08		2 x FINER ROUTING
1.0	1.1	14.10		
1.1	1.2	15.38		
1.2	1.2	15.52		
1.2	1.2	15.38		
1.3	1.2	14.43		

REACH 4 12" RCP FROM CB-4

Qin = .97 CFS @ 12.24 HRS, VOLUME= .09 AF
 Qout= .96 CFS @ 12.25 HRS, VOLUME= .09 AF, ATTEN= 1%, LAG= .5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .33 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 4.2 FPS
.2	.1	.34	LENGTH= 70 FT	TRAVEL TIME = .3 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 5 15" RCP FROM CB-5

Qin = 6.05 CFS @ 12.30 HRS, VOLUME= .81 AF
 Qout= 6.03 CFS @ 12.32 HRS, VOLUME= .81 AF, ATTEN= 0%, LAG= 1.1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .84 FT
.1	.1	.16	n= .012	PEAK VELOCITY= 6.9 FPS
.3	.2	.67	LENGTH= 210 FT	TRAVEL TIME = .5 MIN
.4	.3	1.50	SLOPE= .012 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	6.42		2 x FINER ROUTING
1.0	1.1	7.49		
1.1	1.2	8.17		
1.2	1.2	8.25		
1.2	1.2	8.17		
1.3	1.2	7.67		

REACH 6 15" RCP FROM CB-6

Qin = 8.53 CFS @ 12.33 HRS, VOLUME= 1.10 AF
 Qout= 8.52 CFS @ 12.33 HRS, VOLUME= 1.10 AF, ATTEN= 0%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .96 FT
.1	.1	.19	n= .012	PEAK VELOCITY= 8.4 FPS
.3	.2	.80	LENGTH= 30 FT	TRAVEL TIME = .1 MIN
.4	.3	1.79	SLOPE= .017 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	7.64		2 x FINER ROUTING
1.0	1.1	8.92		
1.1	1.2	9.72		
1.2	1.2	9.81		
1.2	1.2	9.72		
1.3	1.2	9.12		

TYPE III 24-HOUR RAINFALL= 3.0 IN

Prepared by sebagotechnics inc

2 Apr 99

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REACH 7 12" RCP FROM CB-7

Qin = 1.77 CFS @ 12.38 HRS, VOLUME= .20 AF
 Qout= 1.77 CFS @ 12.39 HRS, VOLUME= .20 AF, ATTEN= 0%, LAG= .8 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .42 FT
.1	0.0	.10	n= .012	PEAK VELOCITY= 5.6 FPS
.2	.1	.40	LENGTH= 140 FT	TRAVEL TIME = .4 MIN
.3	.2	.89	SLOPE= .014 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.82		2 x FINER ROUTING
.8	.7	4.46		
.9	.7	4.87		
.9	.8	4.91		
1.0	.8	4.87		
1.0	.8	4.57		

REACH 8 15" RCP FROM CB-8

Qin = 8.57 CFS @ 12.33 HRS, VOLUME= 1.11 AF
 Qout= 8.55 CFS @ 12.34 HRS, VOLUME= 1.11 AF, ATTEN= 0%, LAG= .5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .79 FT
.1	.1	.24	n= .012	PEAK VELOCITY= 10.5 FPS
.3	.2	1.03	LENGTH= 120 FT	TRAVEL TIME = .2 MIN
.4	.3	2.29	SLOPE= .028 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	9.80		2 x FINER ROUTING
1.0	1.1	11.45		
1.1	1.2	12.48		
1.2	1.2	12.60		
1.2	1.2	12.48		
1.3	1.2	11.71		

REACH 9 12" RCP FROM CB-9

Qin = 2.93 CFS @ 12.01 HRS, VOLUME= .20 AF
 Qout= 2.73 CFS @ 12.02 HRS, VOLUME= .20 AF, ATTEN= 7%, LAG= .7 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .52 FT
.1	0.0	.11	n= .012	PEAK VELOCITY= 6.9 FPS
.2	.1	.45	LENGTH= 220 FT	TRAVEL TIME = .5 MIN
.3	.2	1.01	SLOPE= .018 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	4.34		2 x FINER ROUTING
.8	.7	5.06		
.9	.7	5.52		
.9	.8	5.57		
1.0	.8	5.52		
1.0	.8	5.18		

REACH 10 12" RCP FROM CB-10 ON ACCESS DR.

Qin = 2.52 CFS @ 12.93 HRS, VOLUME= 1.00 AF
Qout= 2.52 CFS @ 12.94 HRS, VOLUME= 1.00 AF, ATTEN= 0%, LAG= .3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .54 FT
.1	0.0	.09	n= .012	PEAK VELOCITY= 5.8 FPS
.2	.1	.38	LENGTH= 40 FT	TRAVEL TIME = .1 MIN
.3	.2	.85	SLOPE= .0125 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.61		2 x FINER ROUTING
.8	.7	4.22		
.9	.7	4.60		
.9	.8	4.64		
1.0	.8	4.60		
1.0	.8	4.32		

REACH 11 12" RCP FROM CB-11 ON ACCESS DR.

Qin = 2.48 CFS @ 12.94 HRS, VOLUME= .96 AF
Qout= 2.48 CFS @ 12.95 HRS, VOLUME= .96 AF, ATTEN= 0%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .43 FT
.1	0.0	.13	n= .012	PEAK VELOCITY= 7.6 FPS
.2	.1	.53	LENGTH= 40 FT	TRAVEL TIME = .1 MIN
.3	.2	1.20	SLOPE= .025 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	5.11		2 x FINER ROUTING
.8	.7	5.97		
.9	.7	6.50		
.9	.8	6.56		
1.0	.8	6.50		
1.0	.8	6.10		

REACH 40 REACH 40: GRASSED SWALE TO POND 4

Qin = 2.03 CFS @ 13.40 HRS, VOLUME= .80 AF
Qout= 2.03 CFS @ 13.44 HRS, VOLUME= .80 AF, ATTEN= 0%, LAG= 2.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	10' x 2' CHANNEL	STOR-IND+TRANS METHOD
0.0	0.0	0.00	SIDE SLOPE= .2 '/'	PEAK DEPTH= .11 FT
.2	2.2	3.72	n= .04	PEAK VELOCITY= 1.7 FPS
.4	4.8	12.31	LENGTH= 100 FT	TRAVEL TIME = 1.0 MIN
.6	7.8	25.26	SLOPE= .02 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	12.3	48.74		2 x FINER ROUTING
1.2	19.2	91.46		
1.6	28.8	160.68		
2.0	40.0	252.36		

REACH 100

CB & 15" RCP OUTFALL TO PROJECT SITE

Qin = 13.09 CFS @ 12.33 HRS, VOLUME= 2.61 AF
Qout= 5.14 CFS @ 12.00 HRS, VOLUME= 2.61 AF, ATTEN= 61%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.1	.1	.11
.3	.2	.45
.4	.3	1.01
.9	.9	4.31
1.0	1.1	5.03
1.1	1.2	5.48
1.2	1.2	5.53
1.2	1.2	5.48
1.3	1.2	5.14

15" PIPE
n= .012
LENGTH= 170 FT
SLOPE= .0054 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= 1.25 FT
PEAK VELOCITY= 4.7 FPS
TRAVEL TIME = .6 MIN
SPAN= 5-20 HRS, dt=.05 HRS
2 x FINER ROUTING

POND 1

POND 1: 15" CMP @ SCHOOL DRIVE

Qin = 2.08 CFS @ 12.38 HRS, VOLUME= .24 AF
 Qout= 1.80 CFS @ 12.53 HRS, VOLUME= .23 AF, ATTEN= 13%, LAG= 9.3 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
107.0	0	0	0
108.0	4500	2250	2250
109.0	8730	6615	8865

STOR-IND METHOD
 PEAK STORAGE = 1593 CF
 PEAK ELEVATION= 107.7 FT
 FLOOD ELEVATION= 109.0 FT
 START ELEVATION= 107.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 28.2 MIN (.23 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	107.0'	15" CULVERT n=.024 L=20' S=.025'/' Ke=.5 Cc=.9 Cd=.6

POND 2

POND 2: CENTER OF CIRCLE, SCHOOL DR.

Qin = 2.11 CFS @ 12.50 HRS, VOLUME= .29 AF
 Qout= 2.05 CFS @ 12.58 HRS, VOLUME= .29 AF, ATTEN= 3%, LAG= 4.5 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
101.0	0	0	0
102.0	2480	1240	1240
104.0	6430	8910	10150

STOR-IND METHOD
 PEAK STORAGE = 876 CF
 PEAK ELEVATION= 101.7 FT
 FLOOD ELEVATION= 104.0 FT
 START ELEVATION= 101.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 13.6 MIN (.29 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	101.0'	15" CULVERT n=.012 L=50' S=.07'/' Ke=.5 Cc=.9 Cd=.6

POND 3

POND 3: SCHOOL WALKWAY

Qin = 5.93 CFS @ 12.59 HRS, VOLUME= .83 AF
 Qout= 2.03 CFS @ 13.40 HRS, VOLUME= .80 AF, ATTEN= 66%, LAG= 48.6 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
99.5	0	0	0
100.0	6200	1550	1550
101.0	18910	12555	14105

STOR-IND METHOD
 PEAK STORAGE = 13280 CF
 PEAK ELEVATION= 100.9 FT
 FLOOD ELEVATION= 101.0 FT
 START ELEVATION= 99.5 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 83.4 MIN (.8 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	99.5'	12" CULVERT n=.024 L=70' S=.007'/' Ke=.5 Cc=.9 Cd=.6

POND 4

POND 4: SCHOOL ACCESS DRIVE

Qin = 2.54 CFS @ 12.76 HRS, VOLUME= .94 AF
 Qout= 2.43 CFS @ 12.96 HRS, VOLUME= .92 AF, ATTEN= 4%, LAG= 12.1 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
95.0	0	0	0
96.0	4800	2400	2400
97.0	15350	10075	12475

STOR-IND METHOD
 PEAK STORAGE = 2186 CF
 PEAK ELEVATION= 95.9 FT
 FLOOD ELEVATION= 97.0 FT
 START ELEVATION= 95.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 17.7 MIN (.92 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	95.0'	12" CULVERT n=.012 L=40' S=.0625'/' Ke=.5 Cc=.9 Cd=.6

POND 5

POND 5 @ SCHOOL WALKWAY

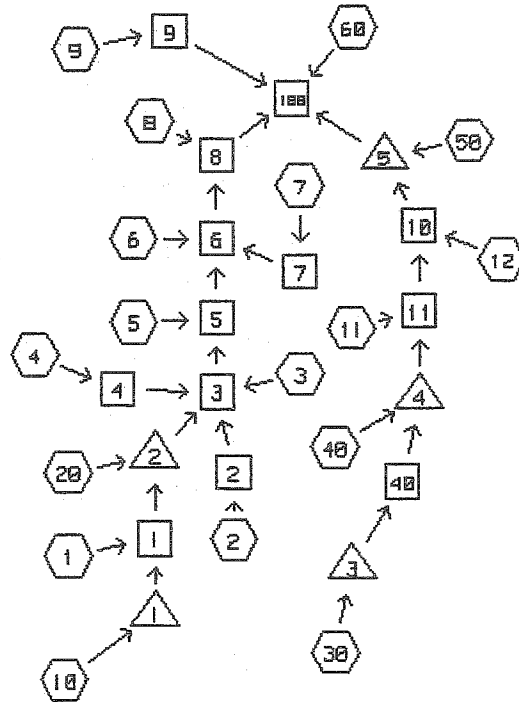
Qin = 3.20 CFS @ 12.30 HRS, VOLUME= 1.19 AF
 Qout= 2.80 CFS @ 13.01 HRS, VOLUME= 1.17 AF, ATTEN= 13%, LAG= 42.4 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
90.0	930	0	0
91.0	5425	3178	3178
92.0	8370	6898	10075

STOR-IND METHOD
 PEAK STORAGE = 3529 CF
 PEAK ELEVATION= 91.1 FT
 FLOOD ELEVATION= 92.0 FT
 START ELEVATION= 90.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 23.9 MIN (1.17 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	90.0'	12" CULVERT n=.012 L=80' S=.0125'/' Ke=.5 Cc=.9 Cd=.6

WATERSHED ROUTING



SUBCATCHMENT



REACH



POND



LINK

SUBCATCHMENT 1 WS-1: AREA TO CB-1

PEAK= .51 CFS @ 12.00 HRS, VOLUME= .03 AF

ACRES	CN
.10	98

IMPERVIOUS

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 114.5 - EL 114	.9
Smooth surfaces	n=.011 L=50' P2=3 in s=.01 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 114 - EL 111	1.0
Paved	Kv=20.3282 L=160' s=.019 '/' V=2.8 fps	
Total Length= 210 ft		Total Tc= 1.9

SUBCATCHMENT 2 WS-2: AREA TO CB-2

PEAK= 3.51 CFS @ 12.28 HRS, VOLUME= .38 AF

ACRES	CN
.85	98
.40	80
.07	70
1.32	91

IMPERVIOUS
 GOOD LAWN: D SOILS
 FAIR WOODS: D SOILS

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 112 - EL 110	22.2
Woods: Light underbrush	n=.4 L=100' P2=3 in s=.02 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 110 - EL 105	.6
Unpaved	Kv=16.1345 L=120' s=.042 '/' V=3.31 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 105 - EL 104.5	.2
Paved	Kv=20.3282 L=30' s=.017 '/' V=2.65 fps	
Total Length= 250 ft		Total Tc= 23.0

SUBCATCHMENT 3 WS-3: AREA TO CB-3

PEAK= 1.04 CFS @ 12.00 HRS, VOLUME= .07 AF

ACRES	CN
.16	98
.05	80
.21	94

IMPERVIOUS
 GOOD LAWN: D SOILS

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 110 - EL 106	1.1
Smooth surfaces	n=.011 L=110' P2=3 in s=.036 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 106 - EL 103.5	.4
Paved	Kv=20.3282 L=80' s=.031 '/' V=3.58 fps	
Total Length= 190 ft		Total Tc= 1.5

SUBCATCHMENT 4 WS-4: AREA TO CB-4

PEAK= 1.78 CFS @ 12.24 HRS, VOLUME= .18 AF

ACRES	CN	
.29	98	IMPERVIOUS
.38	80	GOOD LAWN: D SOILS
.67	88	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 103.5 - EL 102.4	18.7
Grass: Dense	n=.24 L=100' P2=3 in s=.011 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 102.4 - EL 102.1	.7
Paved	Kv=20.3282 L=60' s=.005 '/' V=1.44 fps	
Total Length= 160 ft		Total Tc= 19.4

SUBCATCHMENT 5 WS-5: AREA TO CB-5

PEAK= 3.58 CFS @ 12.21 HRS, VOLUME= .34 AF

ACRES	CN	
.52	98	IMPERVIOUS
.76	80	GOOD LAWN: D SOILS
.04	70	FAIR WOODS: D SOILS
1.32	87	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 105 - EL 104.5	5.6
Woods: Light underbrush	n=.4 L=20' P2=3 in s=.025 '/'	
TR-55 SHEET FLOW	EL 104.5 - EL 98	11.5
Grass: Dense	n=.24 L=120' P2=3 in s=.054 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 98 - EL 93.5	.3
Unpaved	Kv=16.1345 L=70' s=.064 '/' V=4.08 fps	
Total Length= 210 ft		Total Tc= 17.4

SUBCATCHMENT 6 WS-6: AREA TO CB-6

PEAK= 1.81 CFS @ 12.26 HRS, VOLUME= .18 AF

ACRES	CN		SCS TR-20 METHOD
.03	98	IMPERVIOUS	TYPE III 24-HOUR
.77	80	GOOD LAWN: D SOILS	RAINFALL= 4.7 IN
.08	70	FAIR WOODS: D SOILS	SPAN= 5-20 HRS, dt=.05 HRS
.88	80		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 96 - EL 92	18.1
Grass: Dense	n=.24 L=150' P2=3 in s=.027 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 92 - EL 91.8	1.2
Woodland	Kv=5 L=30' s=.007 '/' V=.42 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 91.8 - EL 91.5	1.1
Unpaved	Kv=16.1345 L=70' s=.004 '/' V=1.02 fps	
Total Length= 250 ft		Total Tc= 20.4

SUBCATCHMENT 7 WS-7: AREA TO CB-7

PEAK= 3.73 CFS @ 12.36 HRS, VOLUME= .42 AF

ACRES	CN		SCS TR-20 METHOD
.16	98	IMPERVIOUS	TYPE III 24-HOUR
1.75	80	GOOD LAWN: D SOILS	RAINFALL= 4.7 IN
.09	70	FAIR WOODS: D SOILS	SPAN= 5-20 HRS, dt=.05 HRS
2.00	81		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 102 - EL 99	25.9
Woods: Light underbrush	n=.4 L=130' P2=3 in s=.023 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 99 - EL 92.5	1.9
Unpaved	Kv=16.1345 L=280' s=.023 '/' V=2.45 fps	
Total Length= 410 ft		Total Tc= 27.8

SUBCATCHMENT 8 WS-8: AREA TO CB-8

PEAK= .36 CFS @ 12.00 HRS, VOLUME= .02 AF

ACRES	CN		SCS TR-20 METHOD
.07	98	IMPERVIOUS	TYPE III 24-HOUR
			RAINFALL= 4.7 IN
			SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 91 - EL 90	1.3
Smooth surfaces	n=.011 L=80' P2=3 in s=.0125 '/'	

SUBCATCHMENT 9 WS-9: AREA TO CB-9

PEAK= 4.63 CFS @ 12.01 HRS, VOLUME= .31 AF

ACRES	CN	
.89	98	IMPERVIOUS
.02	80	GOOD LAWN: D SOILS
.91	98	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 94 - EL 92	1.3
Smooth surfaces	n=.011 L=100' P2=3 in s=.02 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 92 - EL 90.5	.8
Paved	Kv=20.3282 L=115' s=.013 '/' V=2.32 fps	
Total Length= 215 ft		Total Tc= 2.1

SUBCATCHMENT 10 WS-10: AREA TO POND 1

PEAK= 4.38 CFS @ 12.36 HRS, VOLUME= .49 AF

ACRES	CN	
.50	98	IMPERVIOUS
1.24	80	GOOD LAWN: D SOILS
.61	70	FAIR WOODS: D SOILS
2.35	81	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 117.5 - EL 113	26.1
Woods: Light underbrush	n=.4 L=150' P2=3 in s=.03 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 113 - EL 107	1.8
Woodland	Kv=5 L=120' s=.05 '/' V=1.12 fps	
Total Length= 270 ft		Total Tc= 27.9

SUBCATCHMENT 11 WS-11: AREA TO CB-11

PEAK= 1.05 CFS @ 12.00 HRS, VOLUME= .07 AF

ACRES	CN	
.18	98	IMPERVIOUS
.03	80	GOOD LAWN: D SOILS
.21	95	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 98 - EL 97.5	.9
Smooth surfaces	n=.011 L=50' P2=3 in s=.01 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 97.5 - EL 96.5	.6
Paved	Kv=20.3282 L=80' s=.0125 '/' V=2.27 fps	
Total Length= 130 ft		Total Tc= 1.5

SUBCATCHMENT 12 WS-12: AREA TO CB-10

PEAK= .99 CFS @ 12.00 HRS, VOLUME= .06 AF

ACRES	CN	
.16	98	IMPERVIOUS
.04	80	GOOD LAWN: D SOILS
.20	94	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 96 - EL 95.5	.9
Smooth surfaces	n=.011 L=50' P2=3 in s=.01 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 95.5 - EL 95	.8
Paved	Kv=20.3282 L=80' s=.006 '/' V=1.57 fps	

Total Length= 130 ft Total Tc= 1.7

SUBCATCHMENT 20 WS-20: AREA TO POND 2

PEAK= .90 CFS @ 12.27 HRS, VOLUME= .09 AF

ACRES	CN	
.03	98	IMPERVIOUS
.26	80	GOOD LAWN: D SOILS
.20	70	FAIR WOODS: D SOILS
.49	77	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 111 - EL 106	3.4
Grass: Dense	n=.24 L=40' P2=3 in s=.125 '/'	
TR-55 SHEET FLOW	EL 106 - EL 101	17.2
Woods: Light underbrush	n=.4 L=110' P2=3 in s=.046 '/'	

Total Length= 150 ft Total Tc= 20.6

SUBCATCHMENT 30 WS-30: AREA TO POND 3 @ SCHOOL WALKWAY

PEAK= 12.23 CFS @ 12.57 HRS, VOLUME= 1.71 AF

ACRES	CN	
1.98	98	IMPERVIOUS
3.76	80	GOOD LAWN: D SOILS
2.15	70	FAIR WOODS: D SOILS
7.89	82	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 111 - EL 109	36.1
Woods: Light underbrush	n=.4 L=150' P2=3 in s=.0133 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 109 - EL 100	7.6
Woodland	Kv=5 L=360' s=.025 '/' V=.79 fps	

Total Length= 510 ft Total Tc= 43.7

SUBCATCHMENT 40

WS-40: AREA TO POND 4 @ SCHOOL ACCESS

PEAK= 2.61 CFS @ 12.37 HRS, VOLUME= .30 AF

ACRES	CN	
.10	98	IMPERVIOUS
1.31	80	GOOD LAWN: D SOILS
1.41	81	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 106 - EL 102	8.5
Grass: Dense n=.24 L=80' P2=3 in s=.05 '/'		
TR-55 SHEET FLOW	EL 102 - EL 100	18.3
Grass: Dense n=.24 L=120' P2=3 in s=.0167 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	EL 100 - EL 96	1.5
Unpaved Kv=16.1345 L=200' s=.02 '/' V=2.28 fps		
Total Length= 400 ft		Total Tc= 28.3

SUBCATCHMENT 50

WS-50: AREA TO POND 50 @ SCHOOL WALK

PEAK= 2.88 CFS @ 12.23 HRS, VOLUME= .31 AF

ACRES	CN	
.85	98	IMPERVIOUS
.07	80	GOOD LAWN: D SOILS
.92	97	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 95 - EL 90	19.4
Grass: Dense n=.24 L=170' P2=3 in s=.029 '/'		

SUBCATCHMENT 60

WS-60: AREA TO CB-100 OUTLET TO PROJECT

PEAK= 2.64 CFS @ 12.29 HRS, VOLUME= .28 AF

ACRES	CN	
.22	98	IMPERVIOUS
1.00	80	GOOD LAWN: D SOILS
1.22	83	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 93 - EL 90	20.4
Grass: Dense n=.24 L=150' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	EL 90 - EL 88	2.4
Unpaved Kv=16.1345 L=220' s=.009 '/' V=1.53 fps		
Total Length= 370 ft		Total Tc= 22.8

REACH 1 15" RCP FROM CB-1

Qin = 3.64 CFS @ 12.54 HRS, VOLUME= .52 AF
 Qout= 3.63 CFS @ 12.54 HRS, VOLUME= .52 AF, ATTEN= 0%, LAG= .3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .51 FT
.1	.1	.21	n= .012	PEAK VELOCITY= 7.7 FPS
.3	.2	.87	LENGTH= 70 FT	TRAVEL TIME = .2 MIN
.4	.3	1.94	SLOPE= .02 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	8.29		2 x FINER ROUTING
1.0	1.1	9.67		
1.1	1.2	10.55		
1.2	1.2	10.65		
1.2	1.2	10.55		
1.3	1.2	9.90		

REACH 2 12" RCP FROM CB-2

Qin = 3.51 CFS @ 12.28 HRS, VOLUME= .38 AF
 Qout= 3.49 CFS @ 12.29 HRS, VOLUME= .38 AF, ATTEN= 0%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .53 FT
.1	0.0	.13	n= .012	PEAK VELOCITY= 8.2 FPS
.2	.1	.53	LENGTH= 100 FT	TRAVEL TIME = .2 MIN
.3	.2	1.20	SLOPE= .025 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	5.11		2 x FINER ROUTING
.8	.7	5.97		
.9	.7	6.50		
.9	.8	6.56		
1.0	.8	6.50		
1.0	.8	6.10		

REACH 3 15" RCP FROM CB-3

Qin = 8.94 CFS @ 12.31 HRS, VOLUME= 1.23 AF
 Qout= 8.89 CFS @ 12.32 HRS, VOLUME= 1.23 AF, ATTEN= 1%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .70 FT
.1	.1	.30	n= .012	PEAK VELOCITY= 12.6 FPS
.3	.2	1.26	LENGTH= 200 FT	TRAVEL TIME = .3 MIN
.4	.3	2.83	SLOPE= .0425 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	12.08		2 x FINER ROUTING
1.0	1.1	14.10		
1.1	1.2	15.38		
1.2	1.2	15.52		
1.2	1.2	15.38		
1.3	1.2	14.43		

REACH 4 12" RCP FROM CB-4

Qin = 1.78 CFS @ 12.24 HRS, VOLUME= .18 AF
 Qout= 1.77 CFS @ 12.24 HRS, VOLUME= .18 AF, ATTEN= 1%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .46 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 5.0 FPS
.2	.1	.34	LENGTH= 70 FT	TRAVEL TIME = .2 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 5 15" RCP FROM CB-5

Qin = 12.03 CFS @ 12.29 HRS, VOLUME= 1.57 AF
 Qout= 8.08 CFS @ 12.12 HRS, VOLUME= 1.57 AF, ATTEN= 33%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= 1.25 FT
.1	.1	.16	n= .012	PEAK VELOCITY= 7.1 FPS
.3	.2	.67	LENGTH= 210 FT	TRAVEL TIME = .5 MIN
.4	.3	1.50	SLOPE= .012 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	6.42		2 x FINER ROUTING
1.0	1.1	7.49		
1.1	1.2	8.17		
1.2	1.2	8.25		
1.2	1.2	8.17		
1.3	1.2	7.67		

REACH 6 15" RCP FROM CB-6

Qin = 13.02 CFS @ 12.33 HRS, VOLUME= 2.17 AF
 Qout= 9.26 CFS @ 12.05 HRS, VOLUME= 2.17 AF, ATTEN= 29%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= 1.25 FT
.1	.1	.19	n= .012	PEAK VELOCITY= 8.4 FPS
.3	.2	.80	LENGTH= 30 FT	TRAVEL TIME = .1 MIN
.4	.3	1.79	SLOPE= .017 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	7.64		2 x FINER ROUTING
1.0	1.1	8.92		
1.1	1.2	9.72		
1.2	1.2	9.81		
1.2	1.2	9.72		
1.3	1.2	9.12		

REACH 7 12" RCP FROM CB-7

Qin = 3.73 CFS @ 12.36 HRS, VOLUME= .42 AF
 Qout= 3.71 CFS @ 12.37 HRS, VOLUME= .42 AF, ATTEN= 0%, LAG= .7 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .68 FT
.1	0.0	.10	n= .012	PEAK VELOCITY= 6.5 FPS
.2	.1	.40	LENGTH= 140 FT	TRAVEL TIME = .4 MIN
.3	.2	.89	SLOPE= .014 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.82		2 x FINER ROUTING
.8	.7	4.46		
.9	.7	4.87		
.9	.8	4.91		
1.0	.8	4.87		
1.0	.8	4.57		

REACH 8 15" RCP FROM CB-8

Qin = 9.63 CFS @ 12.07 HRS, VOLUME= 2.19 AF
 Qout= 9.36 CFS @ 12.05 HRS, VOLUME= 2.19 AF, ATTEN= 3%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .85 FT
.1	.1	.24	n= .012	PEAK VELOCITY= 10.6 FPS
.3	.2	1.03	LENGTH= 120 FT	TRAVEL TIME = .2 MIN
.4	.3	2.29	SLOPE= .028 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	9.80		2 x FINER ROUTING
1.0	1.1	11.45		
1.1	1.2	12.48		
1.2	1.2	12.60		
1.2	1.2	12.48		
1.3	1.2	11.71		

REACH 9 12" RCP FROM CB-9

Qin = 4.63 CFS @ 12.01 HRS, VOLUME= .31 AF
 Qout= 4.32 CFS @ 12.02 HRS, VOLUME= .31 AF, ATTEN= 7%, LAG= .7 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .71 FT
.1	0.0	.11	n= .012	PEAK VELOCITY= 7.4 FPS
.2	.1	.45	LENGTH= 220 FT	TRAVEL TIME = .5 MIN
.3	.2	1.01	SLOPE= .018 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	4.34		2 x FINER ROUTING
.8	.7	5.06		
.9	.7	5.52		
.9	.8	5.57		
1.0	.8	5.52		
1.0	.8	5.18		

REACH 10

12" RCP FROM CB-10 ON ACCESS DR.

Qin = 3.77 CFS @ 14.15 HRS, VOLUME= 2.02 AF
 Qout= 3.77 CFS @ 14.15 HRS, VOLUME= 2.02 AF, ATTEN= 0%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .73 FT
.1	0.0	.09	n= .012	PEAK VELOCITY= 6.2 FPS
.2	.1	.38	LENGTH= 40 FT	TRAVEL TIME = .1 MIN
.3	.2	.85	SLOPE= .0125 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.61		2 x FINER ROUTING
.8	.7	4.22		
.9	.7	4.60		
.9	.8	4.64		
1.0	.8	4.60		
1.0	.8	4.32		

REACH 11

12" RCP FROM CB-11 ON ACCESS DR.

Qin = 3.72 CFS @ 14.17 HRS, VOLUME= 1.96 AF
 Qout= 3.72 CFS @ 14.17 HRS, VOLUME= 1.96 AF, ATTEN= 0%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .56 FT
.1	0.0	.13	n= .012	PEAK VELOCITY= 8.3 FPS
.2	.1	.53	LENGTH= 40 FT	TRAVEL TIME = .1 MIN
.3	.2	1.20	SLOPE= .025 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	5.11		2 x FINER ROUTING
.8	.7	5.97		
.9	.7	6.50		
.9	.8	6.56		
1.0	.8	6.50		
1.0	.8	6.10		

REACH 40

REACH 40: GRASSED SWALE TO POND 4

Qin = 3.58 CFS @ 13.46 HRS, VOLUME= 1.62 AF
 Qout= 3.57 CFS @ 13.50 HRS, VOLUME= 1.62 AF, ATTEN= 0%, LAG= 2.1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	10' x 2' CHANNEL	STOR-IND+TRANS METHOD
0.0	0.0	0.00	SIDE SLOPE= .2 '/'	PEAK DEPTH= .19 FT
.2	2.2	3.72	n= .04	PEAK VELOCITY= 1.7 FPS
.4	4.8	12.31	LENGTH= 100 FT	TRAVEL TIME = 1.0 MIN
.6	7.8	25.26	SLOPE= .02 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	12.3	48.74		2 x FINER ROUTING
1.2	19.2	91.46		
1.6	28.8	160.68		
2.0	40.0	252.36		

REACH 100

CB & 15" RCP OUTFALL TO PROJECT SITE

Qin = 17.48 CFS @ 12.06 HRS, VOLUME= 5.07 AF

Qout= 5.14 CFS @ 11.75 HRS, VOLUME= 4.03 AF, ATTEN= 71%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.1	.1	.11
.3	.2	.45
.4	.3	1.01
.9	.9	4.31
1.0	1.1	5.03
1.1	1.2	5.48
1.2	1.2	5.53
1.2	1.2	5.48
1.3	1.2	5.14

15" PIPE

n= .012

LENGTH= 170 FT

SLOPE= .0054 FT/FT

STOR-IND+TRANS METHOD

PEAK DEPTH= 1.25 FT

PEAK VELOCITY= 4.8 FPS

TRAVEL TIME = .6 MIN

SPAN= 5-20 HRS, dt=.05 HRS

2 x FINER ROUTING

POND 1 POND 1: 15" CMP @ SCHOOL DRIVE

Qin = 4.38 CFS @ 12.36 HRS, VOLUME= .49 AF
 Qout= 3.58 CFS @ 12.54 HRS, VOLUME= .49 AF, ATTEN= 18%, LAG= 10.9 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
107.0	0	0	0
108.0	4500	2250	2250
109.0	8730	6615	8865

STOR-IND METHOD
 PEAK STORAGE = 2843 CF
 PEAK ELEVATION= 108.1 FT
 FLOOD ELEVATION= 109.0 FT
 START ELEVATION= 107.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 21.6 MIN (.48 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	107.0'	15" CULVERT n=.024 L=20' S=.025'/' Ke=.5 Cc=.9 Cd=.6

POND 2 POND 2: CENTER OF CIRCLE, SCHOOL DR.

Qin = 4.26 CFS @ 12.44 HRS, VOLUME= .61 AF
 Qout= 4.01 CFS @ 12.63 HRS, VOLUME= .60 AF, ATTEN= 6%, LAG= 11.4 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
101.0	0	0	0
102.0	2480	1240	1240
104.0	6430	8910	10150

STOR-IND METHOD
 PEAK STORAGE = 1620 CF
 PEAK ELEVATION= 102.1 FT
 FLOOD ELEVATION= 104.0 FT
 START ELEVATION= 101.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 10.3 MIN (.6 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	101.0'	15" CULVERT n=.012 L=50' S=.07'/' Ke=.5 Cc=.9 Cd=.6

POND 3 POND 3: SCHOOL WALKWAY

Qin = 12.23 CFS @ 12.57 HRS, VOLUME= 1.71 AF
 Qout= 3.58 CFS @ 13.46 HRS, VOLUME= 1.62 AF, ATTEN= 71%, LAG= 53.6 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
99.5	0	0	0
100.0	6200	1550	1550
101.0	18910	12555	14105

STOR-IND METHOD
 PEAK STORAGE = 31138 CF
 PEAK ELEVATION= 102.4 FT
 FLOOD ELEVATION= 101.0 FT
 START ELEVATION= 99.5 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 114.6 MIN (1.62 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	99.5'	12" CULVERT n=.024 L=70' S=.007'/' Ke=.5 Cc=.9 Cd=.6

POND 4

POND 4: SCHOOL ACCESS DRIVE

Qin = 4.51 CFS @ 12.41 HRS, VOLUME= 1.92 AF
 Qout= 3.68 CFS @ 14.20 HRS, VOLUME= 1.89 AF, ATTEN= 18%, LAG= 107.1 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
95.0	0	0	0
96.0	4800	2400	2400
97.0	15350	10075	12475

STOR-IND METHOD
 PEAK STORAGE = 6904 CF
 PEAK ELEVATION= 96.4 FT
 FLOOD ELEVATION= 97.0 FT
 START ELEVATION= 95.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 23.9 MIN (1.89 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	95.0'	12" CULVERT n=.012 L=40' S=.0625'/' Ke=.5 Cc=.9 Cd=.6

POND 5

POND 5 @ SCHOOL WALKWAY

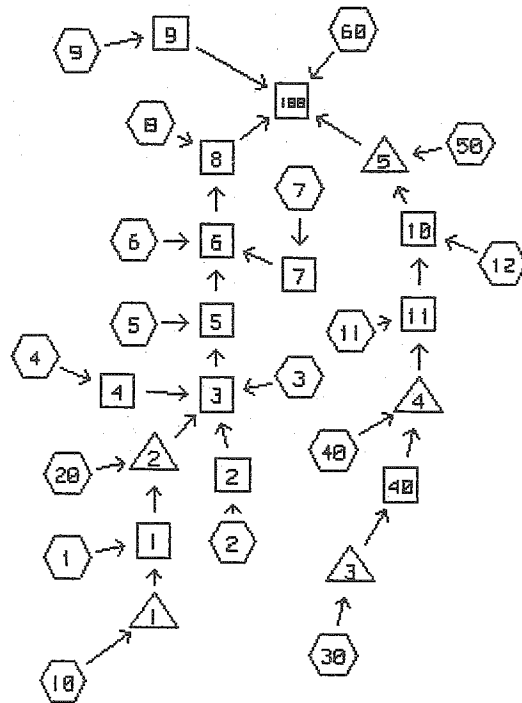
Qin = 5.97 CFS @ 12.27 HRS, VOLUME= 2.33 AF
 Qout= 3.98 CFS @ 14.23 HRS, VOLUME= 2.29 AF, ATTEN= 33%, LAG= 117.7 MIN


ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
90.0	930	0	0
91.0	5425	3178	3178
92.0	8370	6898	10075

STOR-IND METHOD
 PEAK STORAGE = 7392 CF
 PEAK ELEVATION= 91.6 FT
 FLOOD ELEVATION= 92.0 FT
 START ELEVATION= 90.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 28 MIN (2.29 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	90.0'	12" CULVERT n=.012 L=80' S=.0125'/' Ke=.5 Cc=.9 Cd=.6

WATERSHED ROUTING



 SUBCATCHMENT

 REACH

 POND

 LINK

TYPE III 24-HOUR RAINFALL= 5.5 IN

Prepared by sebage technics inc

2 Apr 99

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SUBCATCHMENT 1 WS-1: AREA TO CB-1

PEAK= .60 CFS @ 12.00 HRS, VOLUME= .04 AF

ACRES	CN
.10	98

 IMPERVIOUS

 SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 5.5 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 114.5 - EL 114	.9
Smooth surfaces	n=.011 L=50' P2=3 in s=.01 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 114 - EL 111	1.0
Paved	Kv=20.3282 L=160' s=.019 '/' V=2.8 fps	
Total Length= 210 ft		Total Tc= 1.9

SUBCATCHMENT 2 WS-2: AREA TO CB-2

PEAK= 4.20 CFS @ 12.28 HRS, VOLUME= .46 AF

ACRES	CN
.85	98
.40	80
.07	70
1.32	91

 IMPERVIOUS
 GOOD LAWN: D SOILS
 FAIR WOODS: D SOILS

 SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 5.5 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 112 - EL 110	22.2
Woods: Light underbrush	n=.4 L=100' P2=3 in s=.02 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 110 - EL 105	.6
Unpaved	Kv=16.1345 L=120' s=.042 '/' V=3.31 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 105 - EL 104.5	.2
Paved	Kv=20.3282 L=30' s=.017 '/' V=2.65 fps	
Total Length= 250 ft		Total Tc= 23.0

SUBCATCHMENT 3 WS-3: AREA TO CB-3

PEAK= 1.23 CFS @ 12.00 HRS, VOLUME= .08 AF

ACRES	CN
.16	98
.05	80
.21	94

 IMPERVIOUS
 GOOD LAWN: D SOILS

 SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 5.5 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 110 - EL 106	1.1
Smooth surfaces	n=.011 L=110' P2=3 in s=.036 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 106 - EL 103.5	.4
Paved	Kv=20.3282 L=80' s=.031 '/' V=3.58 fps	
Total Length= 190 ft		Total Tc= 1.5

SUBCATCHMENT 4

WS-4: AREA TO CB-4

PEAK= 2.16 CFS @ 12.24 HRS, VOLUME= .22 AF

ACRES	CN	
.29	98	IMPERVIOUS
.38	80	GOOD LAWN: D SOILS
.67	88	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 5.5 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 103.5 - EL 102.4	18.7
Grass: Dense	n=.24 L=100' P2=3 in s=.011 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 102.4 - EL 102.1	.7
Paved	Kv=20.3282 L=60' s=.005 '/' V=1.44 fps	
Total Length= 160 ft		Total Tc= 19.4

SUBCATCHMENT 5

WS-5: AREA TO CB-5

PEAK= 4.37 CFS @ 12.21 HRS, VOLUME= .42 AF

ACRES	CN	
.52	98	IMPERVIOUS
.76	80	GOOD LAWN: D SOILS
.04	70	FAIR WOODS: D SOILS
1.32	87	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 5.5 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 105 - EL 104.5	5.6
Woods: Light underbrush	n=.4 L=20' P2=3 in s=.025 '/'	
TR-55 SHEET FLOW	EL 104.5 - EL 98	11.5
Grass: Dense	n=.24 L=120' P2=3 in s=.054 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 98 - EL 93.5	.3
Unpaved	Kv=16.1345 L=70' s=.064 '/' V=4.08 fps	
Total Length= 210 ft		Total Tc= 17.4

SUBCATCHMENT 6 WS-6: AREA TO CB-6

PEAK= 2.29 CFS @ 12.26 HRS, VOLUME= .23 AF

ACRES	CN		
.03	98	IMPERVIOUS	SCS TR-20 METHOD TYPE III 24-HOUR RAINFALL= 5.5 IN SPAN= 5-20 HRS, dt=.05 HRS
.77	80	GOOD LAWN: D SOILS	
.08	70	FAIR WOODS: D SOILS	
.88	80		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 96 - EL 92	18.1
Grass: Dense	n=.24 L=150' P2=3 in s=.027 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 92 - EL 91.8	1.2
Woodland	Kv=5 L=30' s=.007 '/' V=.42 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 91.8 - EL 91.5	1.1
Unpaved	Kv=16.1345 L=70' s=.004 '/' V=1.02 fps	
Total Length= 250 ft		Total Tc= 20.4

SUBCATCHMENT 7 WS-7: AREA TO CB-7

PEAK= 4.69 CFS @ 12.36 HRS, VOLUME= .53 AF

ACRES	CN		
.16	98	IMPERVIOUS	SCS TR-20 METHOD TYPE III 24-HOUR RAINFALL= 5.5 IN SPAN= 5-20 HRS, dt=.05 HRS
1.75	80	GOOD LAWN: D SOILS	
.09	70	FAIR WOODS: D SOILS	
2.00	81		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 102 - EL 99	25.9
Woods: Light underbrush	n=.4 L=130' P2=3 in s=.023 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 99 - EL 92.5	1.9
Unpaved	Kv=16.1345 L=280' s=.023 '/' V=2.45 fps	
Total Length= 410 ft		Total Tc= 27.8

SUBCATCHMENT 8 WS-8: AREA TO CB-8

PEAK= .43 CFS @ 12.00 HRS, VOLUME= .03 AF

ACRES	CN		
.07	98	IMPERVIOUS	SCS TR-20 METHOD TYPE III 24-HOUR RAINFALL= 5.5 IN SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 91 - EL 90	1.3
Smooth surfaces	n=.011 L=80' P2=3 in s=.0125 '/'	

TYPE III 24-HOUR RAINFALL= 5.5 IN

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2 Apr 99

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SUBCATCHMENT 9

WS-9: AREA TO CB-9

PEAK= 5.43 CFS @ 12.01 HRS, VOLUME= .37 AF

ACRES	CN	
.89	98	IMPERVIOUS
.02	80	GOOD LAWN: D SOILS
.91	98	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 94 - EL 92	1.3
Smooth surfaces	n=.011 L=100' P2=3 in s=.02 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 92 - EL 90.5	.8
Paved	Kv=20.3282 L=115' s=.013 '/' V=2.32 fps	
Total Length= 215 ft		Total Tc= 2.1

SUBCATCHMENT 10

WS-10: AREA TO POND 1

PEAK= 5.51 CFS @ 12.36 HRS, VOLUME= .63 AF

ACRES	CN	
.50	98	IMPERVIOUS
1.24	80	GOOD LAWN: D SOILS
.61	70	FAIR WOODS: D SOILS
2.35	81	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 117.5 - EL 113	26.1
Woods: Light underbrush	n=.4 L=150' P2=3 in s=.03 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 113 - EL 107	1.8
Woodland	Kv=5 L=120' s=.05 '/' V=1.12 fps	
Total Length= 270 ft		Total Tc= 27.9

SUBCATCHMENT 11

WS-11: AREA TO CB-11

PEAK= 1.24 CFS @ 12.00 HRS, VOLUME= .08 AF

ACRES	CN	
.18	98	IMPERVIOUS
.03	80	GOOD LAWN: D SOILS
.21	95	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 98 - EL 97.5	.9
Smooth surfaces	n=.011 L=50' P2=3 in s=.01 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 97.5 - EL 96.5	.6
Paved	Kv=20.3282 L=80' s=.0125 '/' V=2.27 fps	
Total Length= 130 ft		Total Tc= 1.5

TYPE III 24-HOUR RAINFALL= 5.5 IN

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SUBCATCHMENT 12

WS-12: AREA TO CB-10

PEAK= 1.17 CFS @ 12.00 HRS, VOLUME= .08 AF

ACRES	CN	
.16	98	IMPERVIOUS
.04	80	GOOD LAWN: D SOILS
.20	94	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 96 - EL 95.5	.9
Smooth surfaces	n=.011 L=50' P2=3 in s=.01 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 95.5 - EL 95	.8
Paved	Kv=20.3282 L=80' s=.006 '/' V=1.57 fps	
Total Length= 130 ft		Total Tc= 1.7

SUBCATCHMENT 20

WS-20: AREA TO POND 2

PEAK= 1.16 CFS @ 12.26 HRS, VOLUME= .12 AF

ACRES	CN	
.03	98	IMPERVIOUS
.26	80	GOOD LAWN: D SOILS
.20	70	FAIR WOODS: D SOILS
.49	77	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 111 - EL 106	3.4
Grass: Dense	n=.24 L=40' P2=3 in s=.125 '/'	
TR-55 SHEET FLOW	EL 106 - EL 101	17.2
Woods: Light underbrush	n=.4 L=110' P2=3 in s=.046 '/'	
Total Length= 150 ft		Total Tc= 20.6

SUBCATCHMENT 30

WS-30: AREA TO POND 3 @ SCHOOL WALKWAY

PEAK= 15.32 CFS @ 12.57 HRS, VOLUME= 2.15 AF

ACRES	CN	
1.98	98	IMPERVIOUS
3.76	80	GOOD LAWN: D SOILS
2.15	70	FAIR WOODS: D SOILS
7.89	82	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 111 - EL 109	36.1
Woods: Light underbrush	n=.4 L=150' P2=3 in s=.0133 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 109 - EL 100	7.6
Woodland	Kv=5 L=360' s=.025 '/' V=.79 fps	
Total Length= 510 ft		Total Tc= 43.7

TYPE III 24-HOUR RAINFALL= 5.5 IN

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SUBCATCHMENT 40

WS-40: AREA TO POND 4 @ SCHOOL ACCESS

PEAK= 3.28 CFS @ 12.36 HRS, VOLUME= .38 AF

ACRES	CN	
.10	98	IMPERVIOUS
1.31	80	GOOD LAWN: D SOILS
1.41	81	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 106 - EL 102	8.5
Grass: Dense n=.24 L=80' P2=3 in s=.05 '/'		
TR-55 SHEET FLOW	EL 102 - EL 100	18.3
Grass: Dense n=.24 L=120' P2=3 in s=.0167 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	EL 100 - EL 96	1.5
Unpaved Kv=16.1345 L=200' s=.02 '/' V=2.28 fps		
Total Length= 400 ft		Total Tc= 28.3

SUBCATCHMENT 50

WS-50: AREA TO POND 50 @ SCHOOL WALK

PEAK= 3.39 CFS @ 12.23 HRS, VOLUME= .37 AF

ACRES	CN	
.85	98	IMPERVIOUS
.07	80	GOOD LAWN: D SOILS
.92	97	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 95 - EL 90	19.4
Grass: Dense n=.24 L=170' P2=3 in s=.029 '/'		

SUBCATCHMENT 60

WS-60: AREA TO CB-100 OUTLET TO PROJECT

PEAK= 3.29 CFS @ 12.29 HRS, VOLUME= .34 AF

ACRES	CN	
.22	98	IMPERVIOUS
1.00	80	GOOD LAWN: D SOILS
1.22	83	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 93 - EL 90	20.4
Grass: Dense n=.24 L=150' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	EL 90 - EL 88	2.4
Unpaved Kv=16.1345 L=220' s=.009 '/' V=1.53 fps		
Total Length= 370 ft		Total Tc= 22.8

TYPE III 24-HOUR RAINFALL= 5.5 IN

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REACH 4 12" RCP FROM CB-4

Qin = 2.16 CFS @ 12.24 HRS, VOLUME= .22 AF
 Qout= 2.15 CFS @ 12.24 HRS, VOLUME= .22 AF, ATTEN= 1%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .53 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 5.2 FPS
.2	.1	.34	LENGTH= 70 FT	TRAVEL TIME = .2 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 5 15" RCP FROM CB-5

Qin = 14.47 CFS @ 12.26 HRS, VOLUME= 1.94 AF
 Qout= 7.67 CFS @ 12.10 HRS, VOLUME= 1.94 AF, ATTEN= 47%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	15" PIPE	PEAK DEPTH= 1.25 FT
.1	.1	.16	n= .012	PEAK VELOCITY= 7.1 FPS
.3	.2	.67	LENGTH= 210 FT	TRAVEL TIME = .5 MIN
.4	.3	1.50	SLOPE= .012 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	6.42		2 x FINER ROUTING
1.0	1.1	7.49		
1.1	1.2	8.17		
1.2	1.2	8.25		
1.2	1.2	8.17		
1.3	1.2	7.67		

REACH 6 15" RCP FROM CB-6

Qin = 14.42 CFS @ 12.33 HRS, VOLUME= 2.70 AF
 Qout= 9.82 CFS @ 12.01 HRS, VOLUME= 2.70 AF, ATTEN= 32%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	15" PIPE	PEAK DEPTH= 1.25 FT
.1	.1	.19	n= .012	PEAK VELOCITY= 8.4 FPS
.3	.2	.80	LENGTH= 30 FT	TRAVEL TIME = .1 MIN
.4	.3	1.79	SLOPE= .017 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	7.64		2 x FINER ROUTING
1.0	1.1	8.92		
1.1	1.2	9.72		
1.2	1.2	9.81		
1.2	1.2	9.72		
1.3	1.2	9.12		

TYPE III 24-HOUR RAINFALL= 5.5 IN

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REACH 7

12" RCP FROM CB-7

Qin = 4.69 CFS @ 12.36 HRS, VOLUME= .53 AF
 Qout= 4.67 CFS @ 12.37 HRS, VOLUME= .53 AF, ATTEN= 0%, LAG= .8 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .85 FT
.1	0.0	.10	n= .012	PEAK VELOCITY= 6.6 FPS
.2	.1	.40	LENGTH= 140 FT	TRAVEL TIME = .4 MIN
.3	.2	.89	SLOPE= .014 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.82		2 x FINER ROUTING
.8	.7	4.46		
.9	.7	4.87		
.9	.8	4.91		
1.0	.8	4.87		
1.0	.8	4.57		

REACH 8

15" RCP FROM CB-8

Qin = 10.24 CFS @ 12.01 HRS, VOLUME= 2.73 AF
 Qout= 10.07 CFS @ 12.01 HRS, VOLUME= 2.73 AF, ATTEN= 2%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	15" PIPE	PEAK DEPTH= .90 FT
.1	.1	.24	n= .012	PEAK VELOCITY= 10.7 FPS
.3	.2	1.03	LENGTH= 120 FT	TRAVEL TIME = .2 MIN
.4	.3	2.29	SLOPE= .028 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	9.80		2 x FINER ROUTING
1.0	1.1	11.45		
1.1	1.2	12.48		
1.2	1.2	12.60		
1.2	1.2	12.48		
1.3	1.2	11.71		

REACH 9

12" RCP FROM CB-9

Qin = 5.43 CFS @ 12.01 HRS, VOLUME= .37 AF
 Qout= 5.05 CFS @ 12.02 HRS, VOLUME= .37 AF, ATTEN= 7%, LAG= .7 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .83 FT
.1	0.0	.11	n= .012	PEAK VELOCITY= 7.5 FPS
.2	.1	.45	LENGTH= 220 FT	TRAVEL TIME = .5 MIN
.3	.2	1.01	SLOPE= .018 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	4.34		2 x FINER ROUTING
.8	.7	5.06		
.9	.7	5.52		
.9	.8	5.57		
1.0	.8	5.52		
1.0	.8	5.18		

TYPE III 24-HOUR RAINFALL= 5.5 IN

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REACH 10

12" RCP FROM CB-10 ON ACCESS DR.

Qin = 4.42 CFS @ 14.37 HRS, VOLUME= 2.51 AF
 Qout= 4.42 CFS @ 14.38 HRS, VOLUME= 2.51 AF, ATTEN= 0%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .85 FT
.1	0.0	.09	n= .012	PEAK VELOCITY= 6.3 FPS
.2	.1	.38	LENGTH= 40 FT	TRAVEL TIME = .1 MIN
.3	.2	.85	SLOPE= .0125 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.61		2 x FINER ROUTING
.8	.7	4.22		
.9	.7	4.60		
.9	.8	4.64		
1.0	.8	4.60		
1.0	.8	4.32		

REACH 11

12" RCP FROM CB-11 ON ACCESS DR.

Qin = 4.37 CFS @ 14.40 HRS, VOLUME= 2.44 AF
 Qout= 4.37 CFS @ 14.40 HRS, VOLUME= 2.44 AF, ATTEN= 0%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .62 FT
.1	0.0	.13	n= .012	PEAK VELOCITY= 8.5 FPS
.2	.1	.53	LENGTH= 40 FT	TRAVEL TIME = .1 MIN
.3	.2	1.20	SLOPE= .025 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	5.11		2 x FINER ROUTING
.8	.7	5.97		
.9	.7	6.50		
.9	.8	6.56		
1.0	.8	6.50		
1.0	.8	6.10		

REACH 40

REACH 40: GRASSED SWALE TO POND 4

Qin = 4.36 CFS @ 13.47 HRS, VOLUME= 2.02 AF
 Qout= 4.36 CFS @ 13.49 HRS, VOLUME= 2.02 AF, ATTEN= 0%, LAG= 1.5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	10' x 2' CHANNEL	STOR-IND+TRANS METHOD
0.0	0.0	0.00	SIDE SLOPE= .2 '/'	PEAK DEPTH= .21 FT
.2	2.2	3.72	n= .04	PEAK VELOCITY= 1.8 FPS
.4	4.8	12.31	LENGTH= 100 FT	TRAVEL TIME = .9 MIN
.6	7.8	25.26	SLOPE= .02 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	12.3	48.74		2 x FINER ROUTING
1.2	19.2	91.46		
1.6	28.8	160.68		
2.0	40.0	252.36		

REACH 100

CB & 15" RCP OUTFALL TO PROJECT SITE

Qin = 19.52 CFS @ 12.02 HRS, VOLUME= 6.27 AF

Qout= 5.26 CFS @ 11.57 HRS, VOLUME= 4.21 AF, ATTEN= 73%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.1	.1	.11
.3	.2	.45
.4	.3	1.01
.9	.9	4.31
1.0	1.1	5.03
1.1	1.2	5.48
1.2	1.2	5.53
1.2	1.2	5.48
1.3	1.2	5.14

15" PIPE

n= .012

LENGTH= 170 FT

SLOPE= .0054 FT/FT

STOR-IND+TRANS METHOD

PEAK DEPTH= 1.25 FT

PEAK VELOCITY= 4.8 FPS

TRAVEL TIME = .6 MIN

SPAN= 5-20 HRS, dt=.05 HRS

2 x FINER ROUTING

POND 1 **POND 1: 15" CMP @ SCHOOL DRIVE**

Q_{in} = 5.51 CFS @ 12.36 HRS, VOLUME= .63 AF
 Q_{out} = 4.25 CFS @ 12.57 HRS, VOLUME= .62 AF, ATTEN= 23%, LAG= 12.7 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
107.0	0	0	0
108.0	4500	2250	2250
109.0	8730	6615	8865

STOR-IND METHOD
 PEAK STORAGE = 3788 CF
 PEAK ELEVATION= 108.2 FT
 FLOOD ELEVATION= 109.0 FT
 START ELEVATION= 107.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 20.9 MIN (.62 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	107.0'	15" CULVERT n=.024 L=20' S=.025'/' Ke=.5 Cc=.9 Cd=.6

POND 2 **POND 2: CENTER OF CIRCLE, SCHOOL DR.**

Q_{in} = 5.04 CFS @ 12.47 HRS, VOLUME= .77 AF
 Q_{out} = 4.62 CFS @ 12.69 HRS, VOLUME= .76 AF, ATTEN= 8%, LAG= 13.4 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
101.0	0	0	0
102.0	2480	1240	1240
104.0	6430	8910	10150

STOR-IND METHOD
 PEAK STORAGE = 2270 CF
 PEAK ELEVATION= 102.2 FT
 FLOOD ELEVATION= 104.0 FT
 START ELEVATION= 101.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 10.2 MIN (.76 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	101.0'	15" CULVERT n=.012 L=50' S=.07'/' Ke=.5 Cc=.9 Cd=.6

POND 3 **POND 3: SCHOOL WALKWAY**

Q_{in} = 15.32 CFS @ 12.57 HRS, VOLUME= 2.15 AF
 Q_{out} = 4.36 CFS @ 13.47 HRS, VOLUME= 2.02 AF, ATTEN= 72%, LAG= 54.1 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
99.5	0	0	0
100.0	6200	1550	1550
101.0	18910	12555	14105

STOR-IND METHOD
 PEAK STORAGE = 40177 CF
 PEAK ELEVATION= 103.1 FT
 FLOOD ELEVATION= 101.0 FT
 START ELEVATION= 99.5 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 122.7 MIN (2.02 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	99.5'	12" CULVERT n=.024 L=70' S=.007'/' Ke=.5 Cc=.9 Cd=.6

POND 4

POND 4: SCHOOL ACCESS DRIVE

Qin = 5.37 CFS @ 12.45 HRS, VOLUME= 2.39 AF
 Qout= 4.32 CFS @ 14.43 HRS, VOLUME= 2.36 AF, ATTEN= 20%, LAG= 118.8 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
95.0	0	0	0
96.0	4800	2400	2400
97.0	15350	10075	12475

STOR-IND METHOD
 PEAK STORAGE = 10528 CF
 PEAK ELEVATION= 96.8 FT
 FLOOD ELEVATION= 97.0 FT
 START ELEVATION= 95.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 30.1 MIN (2.36 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	95.0'	12" CULVERT n=.012 L=40' S=.0625'/' Ke=.5 Cc=.9 Cd=.6

POND 5

POND 5 @ SCHOOL WALKWAY

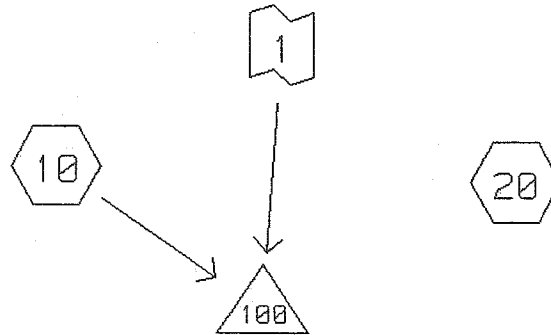
Qin = 6.90 CFS @ 12.23 HRS, VOLUME= 2.88 AF
 Qout= 4.58 CFS @ 14.89 HRS, VOLUME= 2.83 AF, ATTEN= 34%, LAG= 159.5 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
90.0	930	0	0
91.0	5425	3178	3178
92.0	8370	6898	10075

STOR-IND METHOD
 PEAK STORAGE = 9877 CF
 PEAK ELEVATION= 92.0 FT
 FLOOD ELEVATION= 92.0 FT
 START ELEVATION= 90.0 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 31.6 MIN (2.83 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	90.0'	12" CULVERT n=.012 L=80' S=.0125'/' Ke=.5 Cc=.9 Cd=.6

WATERSHED ROUTING



SUBCATCHMENT 10 Eastern Portion of Site (Incl exist house)

PEAK= 3.89 CFS @ 12.34 HRS, VOLUME= .45 AF

ACRES	CN		SCS TR-20 METHOD
2.99	77	Woods - "D"	TYPE III 24-HOUR
1.10	55	Woods - "B"	RAINFALL= 3.0 IN
1.21	61	Open - "B"	SPAN= 5-20 HRS, dt=.05 HRS
2.17	73	Brush - "D"	
.61	48	Brush - "B"	
.34	98	Impervious	
8.42	70		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 95 to 90	18.6
Woods: Light underbrush	n=.4 L=117' P2=3 in s=.0427 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 90 to 84	4.1
Woodland	Kv=5 L=208' s=.0288 '/' V=.85 fps	
Total Length= 325 ft		Total Tc= 22.7

SUBCATCHMENT 20 Central & Western Portion of Site

PEAK= 4.25 CFS @ 13.41 HRS, VOLUME= 1.03 AF

ACRES	CN		SCS TR-20 METHOD
6.27	55	Woods - "B"	TYPE III 24-HOUR
11.78	77	Woods - "D"	RAINFALL= 3.0 IN
.90	98	OFF-SIE IMPERVIOUS (PATHS)	SPAN= 5-20 HRS, dt=.05 HRS
18.95	71		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 95 to 89.5	28.0
Woods: Light underbrush	n=.4 L=170' P2=3 in s=.0324 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 89.5 to 84	5.1
Woodland	Kv=5 L=235' s=.0234 '/' V=.76 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 84 to 80	51.0
Woodland	Kv=5 L=979' s=.0041 '/' V=.32 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 80 to 78	12.4
Woodland	Kv=5 L=302' s=.0066 '/' V=.41 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 78 to 74	.9
Woodland	Kv=5 L=67' s=.0597 '/' V=1.22 fps	
Total Length= 1753 ft		Total Tc= 97.4

TYPE III 24-HOUR RAINFALL= 3.0 IN

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POND 100

Wetlands behind existing house

Qin = 9.04 CFS @ 12.34 HRS, VOLUME= 3.05 AF
 Qout= 3.95 CFS @ 16.50 HRS, VOLUME= 1.98 AF, ATTEN= 56%, LAG= 249.7 MIN
 Qpri= 3.39 CFS @ 16.50 HRS, VOLUME= 1.88 AF
 Qsec= .57 CFS @ 16.50 HRS, VOLUME= .10 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)	STOR-IND METHOD
81.9	12458	0	0	PEAK STORAGE = 66545 CF
82.0	18853	1566	1566	PEAK ELEVATION= 83.8 FT
83.0	33486	26170	27735	FLOOD ELEVATION= 84.6 FT
84.0	66525	50006	77741	START ELEVATION= 81.9 FT
84.5	88220	38686	116427	SPAN= 5-20 HRS, dt=.05 HRS
				2 x FINER ROUTING
				Tdet= 187.8 MIN (1.98 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	81.9'	12" CULVERT n=.024 L=20' S=.0085'/' Ke=.5 Cc=.9 Cd=.6
2	S	83.4'	12" CULVERT n=.024 L=15' S=.04'/' Ke=.5 Cc=.9 Cd=.6

Primary Discharge

└─1=Culvert

Secondary Discharge

└─2=Culvert

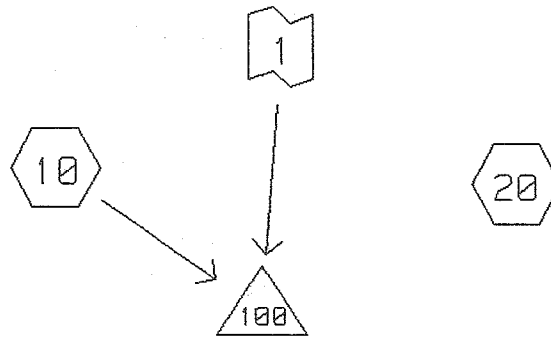
LINK 1

OFF-SITE WS RUNOFF

Qout= 5.14 CFS @ 12.00 HRS, VOLUME= 2.61 AF, SPAN= 5-20 HRS, dt=.05 HRS

REACH 100 from 97380 - WASHINGTON X'ING: OFF-SITE WS
"CB & 15" RCP OUTFALL TO PROJECT SITE"

WATERSHED ROUTING



SUBCATCHMENT 10

Eastern Portion of Site (Incl exist house)

PEAK= 11.11 CFS @ 12.31 HRS, VOLUME= 1.16 AF

ACRES	CN		SCS TR-20 METHOD
2.99	77	Woods - "D"	TYPE III 24-HOUR
1.10	55	Woods - "B"	RAINFALL= 4.7 IN
1.21	61	Open - "B"	SPAN= 5-20 HRS, dt=.05 HRS
2.17	73	Brush - "D"	
.61	48	Brush - "B"	
.34	98	Impervious	
8.42	70		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 95 to 90	18.6
Woods: Light underbrush	n=.4 L=117' P2=3 in s=.0427 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90 to 84	4.1
Woodland	Kv=5 L=208' s=.0288 '/' V=.85 fps	
Total Length= 325 ft		Total Tc= 22.7

SUBCATCHMENT 20

Central & Western Portion of Site

PEAK= 11.77 CFS @ 13.31 HRS, VOLUME= 2.64 AF

ACRES	CN		SCS TR-20 METHOD
6.27	55	Woods - "B"	TYPE III 24-HOUR
11.78	77	Woods - "D"	RAINFALL= 4.7 IN
.90	98	OFF-SIE IMPERVIOUS (PATHS)	SPAN= 5-20 HRS, dt=.05 HRS
18.95	71		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 95 to 89.5	28.0
Woods: Light underbrush	n=.4 L=170' P2=3 in s=.0324 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 89.5 to 84	5.1
Woodland	Kv=5 L=235' s=.0234 '/' V=.76 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 84 to 80	51.0
Woodland	Kv=5 L=979' s=.0041 '/' V=.32 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 80 to 78	12.4
Woodland	Kv=5 L=302' s=.0066 '/' V=.41 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 78 to 74	.9
Woodland	Kv=5 L=67' s=.0597 '/' V=1.22 fps	
Total Length= 1753 ft		Total Tc= 97.4

TYPE III 24-HOUR RAINFALL= 4.7 IN

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POND 100

Wetlands behind existing house

Qin = 16.25 CFS @ 12.31 HRS, VOLUME= 5.19 AF
 Qout= 5.47 CFS @ 20.00 HRS, VOLUME= 3.26 AF, ATTEN= 66%, LAG= 461.5 MIN
 Qpri= 3.85 CFS @ 20.00 HRS, VOLUME= 2.50 AF
 Qsec= 1.62 CFS @ 20.00 HRS, VOLUME= .76 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)	STOR-IND METHOD
81.9	12458	0	0	PEAK STORAGE = 84317 CF
82.0	18853	1566	1566	PEAK ELEVATION= 84.1 FT
83.0	33486	26170	27735	FLOOD ELEVATION= 84.6 FT
84.0	66525	50006	77741	START ELEVATION= 81.9 FT
84.5	88220	38686	116427	SPAN= 5-20 HRS, dt=.05 HRS 2 x FINER ROUTING Tdet= 191.8 MIN (3.26 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	81.9'	12" CULVERT n=.024 L=20' S=.0085'/' Ke=.5 Cc=.9 Cd=.6
2	S	83.4'	12" CULVERT n=.024 L=15' S=.04'/' Ke=.5 Cc=.9 Cd=.6

Primary Discharge

└─1=Culvert

Secondary Discharge

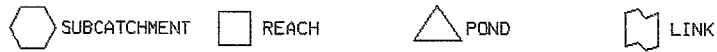
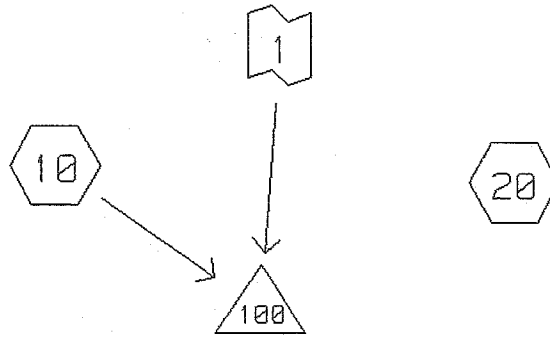
└─2=Culvert

LINK 1 OFF-SITE WS RUNOFF

Qout= 5.14 CFS @ 11.75 HRS, VOLUME= 4.03 AF, SPAN= 5-20 HRS, dt=.05 HRS

REACH 100 from 97380 - WASHINGTON X'ING: OFF-SITE WS
"CB & 15" RCP OUTFALL TO PROJECT SITE"

WATERSHED ROUTING



TYPE III 24-HOUR RAINFALL= 5.5 IN

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SUBCATCHMENT 10 Eastern Portion of Site (Incl exist house)

PEAK= 14.99 CFS @ 12.30 HRS, VOLUME= 1.56 AF

ACRES	CN		SCS TR-20 METHOD
2.99	77	Woods - "D"	TYPE III 24-HOUR
1.10	55	Woods - "B"	RAINFALL= 5.5 IN
1.21	61	Open - "B"	SPAN= 5-20 HRS, dt=.05 HRS
2.17	73	Brush - "D"	
.61	48	Brush - "B"	
.34	98	Impervious	
8.42	70		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 95 to 90	18.6
Woods: Light underbrush	n=.4 L=117' P2=3 in s=.0427 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90 to 84	4.1
Woodland	Kv=5 L=208' s=.0288 '/' V=.85 fps	
Total Length= 325 ft		Total Tc= 22.7

SUBCATCHMENT 20 Central & Western Portion of Site

PEAK= 15.81 CFS @ 13.30 HRS, VOLUME= 3.52 AF

ACRES	CN		SCS TR-20 METHOD
6.27	55	Woods - "B"	TYPE III 24-HOUR
11.78	77	Woods - "D"	RAINFALL= 5.5 IN
.90	98	OFF-SIE IMPERVIOUS (PATHS)	SPAN= 5-20 HRS, dt=.05 HRS
18.95	71		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 95 to 89.5	28.0
Woods: Light underbrush	n=.4 L=170' P2=3 in s=.0324 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 89.5 to 84	5.1
Woodland	Kv=5 L=235' s=.0234 '/' V=.76 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 84 to 80	51.0
Woodland	Kv=5 L=979' s=.0041 '/' V=.32 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 80 to 78	12.4
Woodland	Kv=5 L=302' s=.0066 '/' V=.41 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 78 to 74	.9
Woodland	Kv=5 L=67' s=.0597 '/' V=1.22 fps	
Total Length= 1753 ft		Total Tc= 97.4

POND 100

Wetlands behind existing house

Qin = 20.13 CFS @ 12.30 HRS, VOLUME= 5.76 AF
 Qout= 5.81 CFS @ 17.68 HRS, VOLUME= 3.73 AF, ATTEN= 71%, LAG= 322.8 MIN
 Qpri= 3.95 CFS @ 17.68 HRS, VOLUME= 2.71 AF
 Qsec= 1.86 CFS @ 17.68 HRS, VOLUME= 1.02 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
81.9	12458	0	0
82.0	18853	1566	1566
83.0	33486	26170	27735
84.0	66525	50006	77741
84.5	88220	38686	116427

STOR-IND METHOD
 PEAK STORAGE = 89403 CF
 PEAK ELEVATION= 84.2 FT
 FLOOD ELEVATION= 84.6 FT
 START ELEVATION= 81.9 FT
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING
 Tdet= 191.6 MIN (3.73 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	81.9'	12" CULVERT n=.024 L=20' S=.0085'/' Ke=.5 Cc=.9 Cd=.6
2	S	83.4'	12" CULVERT n=.024 L=15' S=.04'/' Ke=.5 Cc=.9 Cd=.6

Primary Discharge
 └─1=Culvert

Secondary Discharge
 └─2=Culvert

TYPE III 24-HOUR RAINFALL= 5.5 IN

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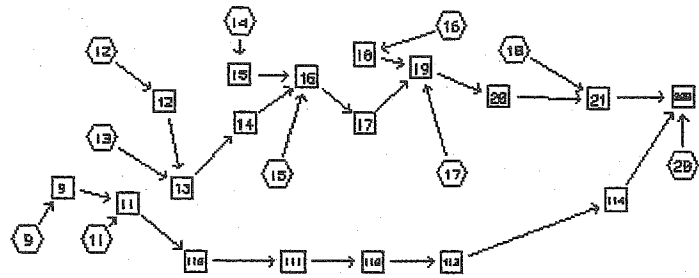
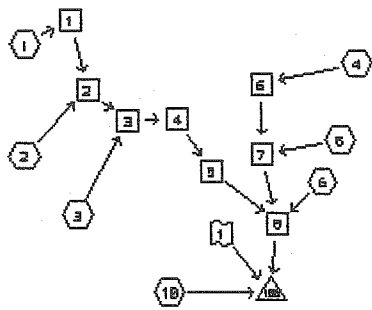
LINK 1

OFF-SITE WS RUNOFF

Qout= 5.26 CFS @ 11.57 HRS, VOLUME= 4.21 AF, SPAN= 5-20 HRS, dt=.05 HRS

REACH 100 from 97380 - WASHINGTON X'ING: OFF-SITE WS
"CB & 15" RCP OUTFALL TO PROJECT SITE"

WATERSHED ROUTING



SUBCATCHMENT



REACH



POND



LINK

TYPE III 24-HOUR RAINFALL= 3.0 IN

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SUBCATCHMENT 1 SE portion of site around bldg A

PEAK= .17 CFS @ 12.81 HRS, VOLUME= .03 AF

ACRES	CN		SCS TR-20 METHOD
.11	98	Impervious	TYPE III 24-HOUR
.57	61	Grass - B	RAINFALL= 3.0 IN
.27	55	Woods - B	SPAN= 5-20 HRS, dt=.05 HRS
.95	64		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 91.2 to 90	45.1
Grass: Bermuda n=.41 L=150' P2=3 in s=.008 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90 to 88	4.8
Woodland Kv=5 L=160' s=.0125 '/' V=.56 fps		
Total Length= 310 ft		Total Tc= 49.9

SUBCATCHMENT 2 Raymond Court, Sta. 0+00 to 4+70, Lt

PEAK= .75 CFS @ 12.04 HRS, VOLUME= .05 AF

ACRES	CN		SCS TR-20 METHOD
.24	98	Impervious	TYPE III 24-HOUR
.06	61	Grass - B	RAINFALL= 3.0 IN
.30	91		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 91.25 - EL 90.6	1.4
Smooth surfaces n=.011 L=75' P2=3 in s=.0087 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90.60 - EL 89.63	2.5
Paved Kv=20.3282 L=224' s=.0056 '/' V=1.52 fps		
Total Length= 299 ft		Total Tc= 3.9

SUBCATCHMENT 3 Raymond Court, Sta. 0+00 to 4+70, Rt.

PEAK= 1.29 CFS @ 12.03 HRS, VOLUME= .08 AF

ACRES	CN		SCS TR-20 METHOD
.41	98	Impervious	TYPE III 24-HOUR
.12	61	Grass - B	RAINFALL= 3.0 IN
.53	90		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El 91.5 - EL 90.7	.6
Smooth surfaces n=.011 L=40' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	EL 90.7 - EL 89.63	2.6
Paved Kv=20.3282 L=236' s=.0056 '/' V=1.52 fps		
Total Length= 276 ft		Total Tc= 3.2

TYPE III 24-HOUR RAINFALL= 3.0 IN

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SUBCATCHMENT 4

Area behind bldg F

PEAK= .85 CFS @ 12.16 HRS, VOLUME= .07 AF

ACRES	CN		SCS TR-20 METHOD
.11	98	Impervious	TYPE III 24-HOUR
.15	77	Woods - D	RAINFALL= 3.0 IN
.40	80	Grass - D	SPAN= 5-20 HRS, dt=.05 HRS
.01	61	Grass - B	
.67	82		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 96.5 to 93	11.6
Woods: Light underbrush	n=.4 L=70' P2=3 in s=.05 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 93 to 87	.1
Grassed Waterway	Kv=15 L=24' s=.25 '/' V=7.5 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 87 to 86	1.5
Grassed Waterway	Kv=15 L=120' s=.0083 '/' V=1.37 fps	
Total Length= 214 ft		Total Tc= 13.2

SUBCATCHMENT 5

Raymond Court, Sta. 4+70 to 9+20, Lt.

PEAK= .96 CFS @ 11.99 HRS, VOLUME= .06 AF

ACRES	CN		SCS TR-20 METHOD
.22	98	Impervious	TYPE III 24-HOUR
.12	80	Grass - D	RAINFALL= 3.0 IN
.34	92		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 90 - EL 89.5	.7
Smooth surfaces	n=.011 L=36' P2=3 in s=.0133 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 88 to 86	.2
Grassed Waterway	Kv=15 L=40' s=.05 '/' V=3.35 fps	
Total Length= 76 ft		Total Tc= .9

TYPE III 24-HOUR RAINFALL= 3.0 IN

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SUBCATCHMENT 6

Raymond Court, Sta 4+70 to 9+20, Rt.

PEAK= 1.06 CFS @ 12.10 HRS, VOLUME= .08 AF

ACRES	CN	
.36	98	Impervious
.09	80	Grass - D
.45	94	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 91.66 to 91.36	7.0
Grass: Bermuda	n=.41 L=20' P2=3 in s=.015 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 91.36 to 90.71	.1
Paved	Kv=20.3282 L=15' s=.043 '/' V=4.22 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90.71 to 88.17	2.0
Paved	Kv=20.3282 L=248' s=.01 '/' V=2.03 fps	
Total Length= 283 ft		Total Tc= 9.1

SUBCATCHMENT 9

OFF-SITE AREA TO CB-9

PEAK= 2.95 CFS @ 12.00 HRS, VOLUME= .19 AF

ACRES	CN	
.90	98	IMPERVIOUS

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 112 - EL 109	1.3
Smooth surfaces	n=.011 L=120' P2=3 in s=.025 '/'	

TYPE III 24-HOUR RAINFALL= 3.0 IN

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SUBCATCHMENT 10

Eastern Portion of Site (Incl exist house)

PEAK= 4.19 CFS @ 12.13 HRS, VOLUME= .34 AF

ACRES	CN		SCS TR-20 METHOD
.43	77	Woods - D	TYPE III 24-HOUR
.35	55	Woods - B	RAINFALL= 3.0 IN
.68	61	Grass - B	SPAN= 5-20 HRS, dt=.05 HRS
1.58	73	Brush - D	
.23	48	Brush - B	
.72	98	Impervious	
.97	80	Grass - D	
4.96	74		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 91.3 to 90	7.6
Grass: Bermuda	n=.41 L=35' P2=3 in s=.037 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90 to 88	1.6
Grassed Waterway	Kv=15 L=160' s=.0125 '/' V=1.68 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 88 to 84	.9
Woodland	Kv=5 L=65' s=.0615 '/' V=1.24 fps	
Total Length= 260 ft		Total Tc= 10.1

SUBCATCHMENT 11

Area near bldg I (includes off-site)

PEAK= 1.44 CFS @ 12.36 HRS, VOLUME= .16 AF

ACRES	CN		SCS TR-20 METHOD
.30	98	Impervious	TYPE III 24-HOUR
.19	55	Woods - B	RAINFALL= 3.0 IN
.13	61	Grass - B	SPAN= 5-20 HRS, dt=.05 HRS
.25	77	Woods - D	
.91	80	Grass - D	
1.78	79		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 108 - EL 102	23.2
Woods: Light underbrush	n=.4 L=150' P2=3 in s=.04 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El 102 - EL 88	3.3
Woodland	Kv=5 L=240' s=.058 '/' V=1.2 fps	
Total Length= 390 ft		Total Tc= 26.5

TYPE III 24-HOUR RAINFALL= 3.0 IN

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SUBCATCHMENT 12 Raymond Court, Sta 9+20 to 11+90, Lt

PEAK= .42 CFS @ 12.02 HRS, VOLUME= .03 AF

ACRES	CN		SCS TR-20 METHOD
.14	98	Impervious	TYPE III 24-HOUR
.06	61	Grass - B	RAINFALL= 3.0 IN
.04	55	Woods - B	SPAN= 5-20 HRS, dt=.05 HRS
.24	82		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 91.5 to 90.65	.6
Smooth surfaces	n=.011 L=40' P2=3 in s=.02 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 90.65 to 88.57	2.0
Paved	Kv=20.3282 L=226' s=.009 '/' V=1.93 fps	
Total Length= 266 ft		Total Tc= 2.6

SUBCATCHMENT 13 Raymond Court, Sta 9+20 to 11+90, Rt

PEAK= .52 CFS @ 12.02 HRS, VOLUME= .03 AF

ACRES	CN		SCS TR-20 METHOD
.16	98	Impervious	TYPE III 24-HOUR
.04	61	Grass - B	RAINFALL= 3.0 IN
.20	91		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 91.16 to 90.78	.6
Smooth surfaces	n=.011 L=32' P2=3 in s=.012 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 90.78 to 88.57	2.2
Paved	Kv=20.3282 L=249' s=.009 '/' V=1.93 fps	
Total Length= 281 ft		Total Tc= 2.8

SUBCATCHMENT 14 Raymond Court, Sta 11+90 to 14+70, Lt

PEAK= .22 CFS @ 12.06 HRS, VOLUME= .01 AF

ACRES	CN		SCS TR-20 METHOD
.08	98	Impervious	TYPE III 24-HOUR
.06	61	Grass - B	RAINFALL= 3.0 IN
.14	82		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 90.5 to 88.65	3.6
Grass: Bermuda	n=.41 L=21' P2=3 in s=.088 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 88.65 to 86.16	2.0
Paved	Kv=20.3282 L=241' s=.01 '/' V=2.03 fps	
Total Length= 262 ft		Total Tc= 5.6

SUBCATCHMENT 15

Raymond Court, Sta 11+90 to 14+70, Rt

PEAK= .53 CFS @ 12.06 HRS, VOLUME= .04 AF

<u>ACRES</u>	<u>CN</u>		SCS TR-20 METHOD
.17	98	Impervious	TYPE III 24-HOUR
.03	61	Grass - B	RAINFALL= 3.0 IN
.02	80	Grass - D	SPAN= 5-20 HRS, dt=.05 HRS
<u>.22</u>	<u>91</u>		

<u>Method</u>	<u>Comment</u>	<u>Tc (min)</u>
TR-55 SHEET FLOW	E1. 89 to 88.6	3.4
Grass: Bermuda	n=.41 L=12' P2=3 in s=.033 '/'	
TR-55 SHEET FLOW	E1. 88.6 to 88.5	.5
Smooth surfaces	n=.011 L=35' P2=3 in s=.021 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 88.5 to 86.16	1.7
Paved	Kv=20.3282 L=215' s=.011 '/' V=2.13 fps	
Total Length= 262 ft		Total Tc= 5.6

SUBCATCHMENT 16

Raymond Court, Sta 14+70 to cul-de-sac, Lt

PEAK= .54 CFS @ 12.20 HRS, VOLUME= .05 AF

<u>ACRES</u>	<u>CN</u>		SCS TR-20 METHOD
.19	98	Impervious	TYPE III 24-HOUR
.11	80	Grass - D	RAINFALL= 3.0 IN
.02	61	Grass - B	SPAN= 5-20 HRS, dt=.05 HRS
<u>.32</u>	<u>90</u>		

<u>Method</u>	<u>Comment</u>	<u>Tc (min)</u>
TR-55 SHEET FLOW	E1. 86.25 to 86	14.9
Grass: Bermuda	n=.41 L=35' P2=3 in s=.007 '/'	
TR-55 SHEET FLOW	E1. 86 to 85.27	.5
Smooth surfaces	n=.011 L=35' P2=3 in s=.021 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 85.27 to 84.68	1.3
Paved	Kv=20.3282 L=110' s=.005 '/' V=1.44 fps	
Total Length= 180 ft		Total Tc= 16.7

SUBCATCHMENT 17 Raymond Court, Sta 14+70 to cul-de-sac, Rt

PEAK= .58 CFS @ 12.01 HRS, VOLUME= .04 AF

ACRES	CN
.17	98
.02	80
.19	96

Impervious
 Grass - D

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 85.79 to 85.43	.2
Smooth surfaces	n=.011 L=12' P2=3 in s=.03 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 85.43 to 84.68	2.1
Paved	Kv=20.3282 L=170' s=.0045 '/' V=1.36 fps	

Total Length= 182 ft Total Tc= 2.3

SUBCATCHMENT 18 Cul-de-sac

PEAK= .76 CFS @ 12.50 HRS, VOLUME= .10 AF

ACRES	CN
.53	98
.28	61
.81	85

Impervious
 Grass - B

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.0 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 85.5 to 85.38	36.2
Grass: Bermuda	n=.41 L=57' P2=3 in s=.002 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 85.38 to 84.76	1.5
Paved	Kv=20.3282 L=128' s=.0048 '/' V=1.41 fps	

Total Length= 185 ft Total Tc= 37.7

TYPE III 24-HOUR RAINFALL= 3.0 IN

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5 Apr 99

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SUBCATCHMENT 20

Central & Northeast Portion of Site

PEAK= 3.29 CFS @ 13.31 HRS, VOLUME= .77 AF

ACRES	CN		SCS TR-20 METHOD
.92	98	Impervious	TYPE III 24-HOUR
3.58	55	Woods - B	RAINFALL= 3.0 IN
9.47	77	Woods - D	SPAN= 5-20 HRS, dt=.05 HRS
1.50	61	Grass - B	
.70	8	Grass - D	
16.17	69		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 88 - EL 84	27.3
Woods: Light underbrush	n=.4 L=150' P2=3 in s=.0267 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 84 - EL 82	42.6
Woodland	Kv=5 L=700' s=.003 '/' V=.27 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 82 - EL 78	12.4
Woodland	Kv=5 L=380' s=.0105 '/' V=.51 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 78 - EL 72	5.4
Woodland	Kv=5 L=250' s=.024 '/' V=.77 fps	
Total Length= 1480 ft		Total Tc= 87.7

TYPE III 24-HOUR RAINFALL= 3.0 IN

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REACH 1 INLET PIPE TO CB-1

Qin = .17 CFS @ 12.81 HRS, VOLUME= .03 AF
 Qout= .17 CFS @ 12.82 HRS, VOLUME= .03 AF, ATTEN= 0%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .13 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 2.6 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 2 PIPE FROM CB-1 TO CB-2

Qin = .75 CFS @ 12.04 HRS, VOLUME= .08 AF
 Qout= .74 CFS @ 12.04 HRS, VOLUME= .08 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .30 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 3.8 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 3 PIPE FROM CB-2 TO DMH-1

Qin = 2.02 CFS @ 12.03 HRS, VOLUME= .16 AF
 Qout= 1.94 CFS @ 12.04 HRS, VOLUME= .16 AF, ATTEN= 4%, LAG= .8 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	15" PIPE	PEAK DEPTH= .53 FT
.1	.1	.10	n= .012	PEAK VELOCITY= 3.9 FPS
.3	.2	.43	LENGTH= 118 FT	TRAVEL TIME = .5 MIN
.4	.3	.97	SLOPE= .005 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	4.14		2 x FINER ROUTING
1.0	1.1	4.84		
1.1	1.2	5.27		
1.2	1.2	5.32		
1.2	1.2	5.27		
1.3	1.2	4.95		

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REACH 4 PIPE FROM DMH-1 TO DMH-2

Q_{in} = 1.94 CFS @ 12.04 HRS, VOLUME= .16 AF
 Q_{out} = 1.90 CFS @ 12.05 HRS, VOLUME= .16 AF, ATTEN= 2%, LAG= .3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .44 FT
.1	.1	.15	n= .012	PEAK VELOCITY= 5.0 FPS
.3	.2	.61	LENGTH= 90 FT	TRAVEL TIME = .3 MIN
.4	.3	1.37	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	5.86		2 x FINER ROUTING
1.0	1.1	6.84		
1.1	1.2	7.46		
1.2	1.2	7.53		
1.2	1.2	7.46		
1.3	1.2	7.00		

REACH 5 PIPE FROM DMH-2 TO CB-4

Q_{in} = 1.90 CFS @ 12.05 HRS, VOLUME= .16 AF
 Q_{out} = 1.84 CFS @ 12.06 HRS, VOLUME= .16 AF, ATTEN= 3%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .45 FT
.1	.1	.13	n= .012	PEAK VELOCITY= 4.7 FPS
.3	.2	.57	LENGTH= 106 FT	TRAVEL TIME = .4 MIN
.4	.3	1.26	SLOPE= .0085 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	5.40		2 x FINER ROUTING
1.0	1.1	6.31		
1.1	1.2	6.88		
1.2	1.2	6.94		
1.2	1.2	6.88		
1.3	1.2	6.45		

REACH 6 INLET PIPE TO CB-3

Q_{in} = .85 CFS @ 12.16 HRS, VOLUME= .07 AF
 Q_{out} = .84 CFS @ 12.17 HRS, VOLUME= .07 AF, ATTEN= 0%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .31 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 4.0 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

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REACH 7 PIPE FROM CB-3 TO CB-4

Qin = 1.36 CFS @ 12.01 HRS, VOLUME= .13 AF
 Qout= 1.35 CFS @ 12.01 HRS, VOLUME= .13 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .49 FT
.1	0.0	.06	n= .012	PEAK VELOCITY= 3.6 FPS
.2	.1	.24	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.53	SLOPE= .005 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	2.29		2 x FINER ROUTING
.8	.7	2.67		
.9	.7	2.91		
.9	.8	2.94		
1.0	.8	2.91		
1.0	.8	2.73		

REACH 8 OUTLET PIPE FROM CB-4

Qin = 4.03 CFS @ 12.06 HRS, VOLUME= .38 AF
 Qout= 4.01 CFS @ 12.07 HRS, VOLUME= .37 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	18" PIPE	PEAK DEPTH= .73 FT
.2	.1	.17	n= .012	PEAK VELOCITY= 4.7 FPS
.3	.3	.70	LENGTH= 30 FT	TRAVEL TIME = .1 MIN
.5	.4	1.58	SLOPE= .005 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
1.1	1.3	6.74		2 x FINER ROUTING
1.2	1.5	7.87		
1.4	1.7	8.58		
1.4	1.7	8.66		
1.5	1.8	8.58		
1.5	1.8	8.05		

REACH 9 OFF-SITE PIPE FROM CB-9

Qin = 2.95 CFS @ 12.00 HRS, VOLUME= .19 AF
 Qout= 2.87 CFS @ 12.00 HRS, VOLUME= .19 AF, ATTEN= 3%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	15" PIPE	PEAK DEPTH= .30 FT
.1	.1	.46	n= .012	PEAK VELOCITY= 12.7 FPS
.3	.2	1.94	LENGTH= 180 FT	TRAVEL TIME = .2 MIN
.4	.3	4.33	SLOPE= .1 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	18.53		2 x FINER ROUTING
1.0	1.1	21.63		
1.1	1.2	23.59		
1.2	1.2	23.80		
1.2	1.2	23.58		
1.3	1.2	22.13		

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REACH 11

CROSS CULVERT FOR OFF-SITE FLOWS

Qin = 3.28 CFS @ 12.00 HRS, VOLUME= .36 AF
 Qout= 3.21 CFS @ 12.01 HRS, VOLUME= .36 AF, ATTEN= 2%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	18" PIPE	PEAK DEPTH= .62 FT
.2	.1	.18	n= .012	PEAK VELOCITY= 4.6 FPS
.3	.3	.75	LENGTH= 54 FT	TRAVEL TIME = .2 MIN
.5	.4	1.67	SLOPE= .0056 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
1.1	1.3	7.13		2 x FINER ROUTING
1.2	1.5	8.32		
1.4	1.7	9.08		
1.4	1.7	9.16		
1.5	1.8	9.08		
1.5	1.8	8.52		

REACH 12

PIPE FROM CB-5 TO CB-6

Qin = .42 CFS @ 12.02 HRS, VOLUME= .03 AF
 Qout= .41 CFS @ 12.02 HRS, VOLUME= .03 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .22 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 3.2 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 13

PIPE FROM CB-6 TO DMH-3

Qin = .93 CFS @ 12.02 HRS, VOLUME= .06 AF
 Qout= .89 CFS @ 12.03 HRS, VOLUME= .06 AF, ATTEN= 5%, LAG= .5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .34 FT
.1	0.0	.07	n= .012	PEAK VELOCITY= 3.7 FPS
.2	.1	.29	LENGTH= 72 FT	TRAVEL TIME = .3 MIN
.3	.2	.65	SLOPE= .0075 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	2.80		2 x FINER ROUTING
.8	.7	3.27		
.9	.7	3.56		
.9	.8	3.60		
1.0	.8	3.56		
1.0	.8	3.34		

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REACH 14

PIPE FROM DMH-3 TO CB-8

Qin = .89 CFS @ 12.03 HRS, VOLUME= .06 AF
 Qout= .84 CFS @ 12.05 HRS, VOLUME= .06 AF, ATTEN= 5%, LAG= 1.5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		
0.0	0.0	0.00	12" PIPE	STOR-IND+TRANS METHOD
.1	0.0	.08	n= .012	PEAK DEPTH= .32 FT
.2	.1	.33	LENGTH= 192 FT	PEAK VELOCITY= 3.9 FPS
.3	.2	.73	SLOPE= .0094 FT/FT	TRAVEL TIME = .8 MIN
.7	.6	3.13		SPAN= 5-20 HRS, dt=.05 HRS
.8	.7	3.66		2 x FINER ROUTING
.9	.7	3.99		
.9	.8	4.03		
1.0	.8	3.99		
1.0	.8	3.74		

REACH 15

PIPE FROM CB-7 TO CB-8

Qin = .22 CFS @ 12.06 HRS, VOLUME= .01 AF
 Qout= .22 CFS @ 12.06 HRS, VOLUME= .01 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		
0.0	0.0	0.00	12" PIPE	STOR-IND+TRANS METHOD
.1	0.0	.08	n= .012	PEAK DEPTH= .15 FT
.2	.1	.34	LENGTH= 20 FT	PEAK VELOCITY= 2.8 FPS
.3	.2	.76	SLOPE= .01 FT/FT	TRAVEL TIME = .1 MIN
.7	.6	3.23		SPAN= 5-20 HRS, dt=.05 HRS
.8	.7	3.77		2 x FINER ROUTING
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 16

PIPE FROM CB-8 TO DMH-4

Qin = 1.59 CFS @ 12.06 HRS, VOLUME= .11 AF
 Qout= 1.50 CFS @ 12.07 HRS, VOLUME= .11 AF, ATTEN= 5%, LAG= 1.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		
0.0	0.0	0.00	15" PIPE	STOR-IND+TRANS METHOD
.1	.1	.11	n= .012	PEAK DEPTH= .45 FT
.3	.2	.45	LENGTH= 154 FT	PEAK VELOCITY= 3.8 FPS
.4	.3	1.02	SLOPE= .0055 FT/FT	TRAVEL TIME = .7 MIN
.9	.9	4.35		SPAN= 5-20 HRS, dt=.05 HRS
1.0	1.1	5.07		2 x FINER ROUTING
1.1	1.2	5.53		
1.2	1.2	5.58		
1.2	1.2	5.53		
1.3	1.2	5.19		

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REACH 17

PIPE FROM DMH-4 TO CB-10

Qin = 1.50 CFS @ 12.07 HRS, VOLUME= .11 AF
 Qout= 1.45 CFS @ 12.09 HRS, VOLUME= .11 AF, ATTEN= 3%, LAG= .8 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	15" PIPE	PEAK DEPTH= .41 FT
.1	.1	.13	n= .012	PEAK VELOCITY= 4.2 FPS
.3	.2	.54	LENGTH= 116 FT	TRAVEL TIME = .5 MIN
.4	.3	1.20	SLOPE= .0077 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	5.14		2 x FINER ROUTING
1.0	1.1	6.00		
1.1	1.2	6.54		
1.2	1.2	6.61		
1.2	1.2	6.54		
1.3	1.2	6.14		

REACH 18

PIPE FROM CB-9 TO CB-10

Qin = .54 CFS @ 12.20 HRS, VOLUME= .05 AF
 Qout= .53 CFS @ 12.21 HRS, VOLUME= .05 AF, ATTEN= 0%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .25 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 3.5 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 19

PIPE FROM CB-10 TO DMH-5

Qin = 2.24 CFS @ 12.07 HRS, VOLUME= .20 AF
 Qout= 2.16 CFS @ 12.11 HRS, VOLUME= .20 AF, ATTEN= 3%, LAG= 2.5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	18" PIPE	PEAK DEPTH= .52 FT
.2	.1	.17	n= .012	PEAK VELOCITY= 4.0 FPS
.3	.3	.70	LENGTH= 284 FT	TRAVEL TIME = 1.2 MIN
.5	.4	1.58	SLOPE= .005 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
1.1	1.3	6.74		2 x FINER ROUTING
1.2	1.5	7.87		
1.4	1.7	8.58		
1.4	1.7	8.66		
1.5	1.8	8.58		
1.5	1.8	8.05		

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REACH 20

PIPE FROM DMH-5 TO CB-11

Qin = 2.16 CFS @ 12.11 HRS, VOLUME= .20 AF
 Qout= 2.15 CFS @ 12.12 HRS, VOLUME= .20 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	18" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .52 FT
.2	.1	.17	n= .012	PEAK VELOCITY= 4.0 FPS
.3	.3	.70	LENGTH= 28 FT	TRAVEL TIME = .1 MIN
.5	.4	1.58	SLOPE= .005 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
1.1	1.3	6.74		2 x FINER ROUTING
1.2	1.5	7.87		
1.4	1.7	8.58		
1.4	1.7	8.66		
1.5	1.8	8.58		
1.5	1.8	8.05		

REACH 21

PIPE FROM CB-11 TO CITY SYSTEM

Qin = 2.45 CFS @ 12.13 HRS, VOLUME= .29 AF
 Qout= 2.43 CFS @ 12.16 HRS, VOLUME= .29 AF, ATTEN= 1%, LAG= 1.8 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	18" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .41 FT
.2	.1	.30	n= .012	PEAK VELOCITY= 6.1 FPS
.3	.3	1.25	LENGTH= 270 FT	TRAVEL TIME = .7 MIN
.5	.4	2.80	SLOPE= .0158 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
1.1	1.3	11.98		2 x FINER ROUTING
1.2	1.5	13.98		
1.4	1.7	15.25		
1.4	1.7	15.39		
1.5	1.8	15.24		
1.5	1.8	14.30		

REACH 110

Outlet from cross-culvert thru wetlands

Qin = 3.21 CFS @ 12.01 HRS, VOLUME= .36 AF
 Qout= 2.50 CFS @ 12.18 HRS, VOLUME= .35 AF, ATTEN= 22%, LAG= 10.6 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	40' x 1.5' CHANNEL	STOR-IND+TRANS METHOD
0.0	0.0	0.00	SIDE SLOPE= .01 ' / '	PEAK DEPTH= .17 FT
.2	8.3	1.86	n= .1	PEAK VELOCITY= .3 FPS
.3	21.0	6.97	LENGTH= 97 FT	TRAVEL TIME = 6.3 MIN
.5	38.2	15.90	SLOPE= .004 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.6	67.4	34.32		2 x FINER ROUTING
.9	117.0	72.18		
1.2	192.0	140.31		
1.5	285.0	238.12		

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REACH 111

Flow thru wetlands

Qin = 2.50 CFS @ 12.18 HRS, VOLUME= .35 AF
 Qout= 2.37 CFS @ 12.29 HRS, VOLUME= .35 AF, ATTEN= 5%, LAG= 6.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	40' x 1.5' CHANNEL	PEAK DEPTH= .08 FT
.2	8.3	4.47	SIDE SLOPE= .01 '/'	PEAK VELOCITY= .5 FPS
.3	21.0	16.72	n= .1	TRAVEL TIME = 2.7 MIN
.5	38.2	38.13	LENGTH= 87 FT	SPAN= 5-20 HRS, dt=.05 HRS
.6	67.4	82.30	SLOPE= .023 FT/FT	2 x FINER ROUTING
.9	117.0	173.07		
1.2	192.0	336.46		
1.5	285.0	570.99		

REACH 112

Flow thru wetlands

Qin = 2.37 CFS @ 12.29 HRS, VOLUME= .35 AF
 Qout= 1.14 CFS @ 14.21 HRS, VOLUME= .33 AF, ATTEN= 52%, LAG= 115.5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	40' x 1.5' CHANNEL	PEAK DEPTH= .09 FT
.2	8.3	1.89	SIDE SLOPE= .01 '/'	PEAK VELOCITY= .2 FPS
.3	21.0	7.06	n= .1	TRAVEL TIME = 71.3 MIN
.5	38.2	16.10	LENGTH= 979 FT	SPAN= 5-20 HRS, dt=.05 HRS
.6	67.4	34.75	SLOPE= .0041 FT/FT	2 x FINER ROUTING
.9	117.0	73.07		
1.2	192.0	142.06		
1.5	285.0	241.08		

REACH 113

Flow thru wetlands

Qin = 1.14 CFS @ 14.21 HRS, VOLUME= .33 AF
 Qout= 1.08 CFS @ 14.79 HRS, VOLUME= .32 AF, ATTEN= 5%, LAG= 34.4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	30' x 1.5' CHANNEL	PEAK DEPTH= .10 FT
.2	5.3	1.64	SIDE SLOPE= .03 '/'	PEAK VELOCITY= .3 FPS
.3	12.0	5.59	n= .1	TRAVEL TIME = 16.1 MIN
.5	20.3	11.85	LENGTH= 302 FT	SPAN= 5-20 HRS, dt=.05 HRS
.6	33.2	23.72	SLOPE= .0066 FT/FT	2 x FINER ROUTING
.9	54.0	46.37		
1.2	84.0	84.70		
1.5	120.0	137.31		

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REACH 114

Flow thru wetlands

Qin = 1.08 CFS @ 14.79 HRS, VOLUME= .32 AF
 Qout= 1.07 CFS @ 14.91 HRS, VOLUME= .32 AF, ATTEN= 0%, LAG= 7.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	30' x 1.5' CHANNEL	PEAK DEPTH= .11 FT
.2	4.7	1.49	SIDE SLOPE= .1 '/'	PEAK VELOCITY= .3 FPS
.3	9.9	4.82	n= .1	TRAVEL TIME = 3.5 MIN
.5	15.5	9.66	LENGTH= 67 FT	SPAN= 5-20 HRS, dt=.05 HRS
.6	23.5	18.10	SLOPE= .006 FT/FT	2 x FINER ROUTING
.9	35.1	32.75		
1.2	50.4	55.32		
1.5	67.5	83.90		

REACH 200

Not described

Qin = 3.93 CFS @ 13.25 HRS, VOLUME= 1.39 AF
 Qout= 3.93 CFS @ 13.25 HRS, VOLUME= 1.39 AF, ATTEN= 0%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		- METHOD
				PEAK DEPTH= 0.00 FT
				PEAK VELOCITY= 0.0 FPS
				TRAVEL TIME = 0.0 MIN
				SPAN= 5-20 HRS, dt=.05 HRS

POND 100

Wetlands behind existing house

Qin = 13.13 CFS @ 12.11 HRS, VOLUME= 3.32 AF
 Qout= 4.34 CFS @ 16.49 HRS, VOLUME= 2.20 AF, ATTEN= 67%, LAG= 262.9 MIN
 Qpri= 4.34 CFS @ 16.49 HRS, VOLUME= 2.20 AF
 Qsec= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)	STOR-IND METHOD
81.9	12450	0	0	PEAK STORAGE = 70753 CF
82.0	18853	1565	1565	PEAK ELEVATION= 83.9 FT
83.0	33486	26170	27735	FLOOD ELEVATION= 84.6 FT
84.0	66525	50006	77740	START ELEVATION= 81.9 FT
84.5	88220	38686	116426	SPAN= 5-20 HRS, dt=.05 HRS 2 x FINER ROUTING Tdet= 190.3 MIN (2.2 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	81.9'	12" CULVERT n=.024 L=20' S=.0085'/' Ke=.5 Cc=.9 Cd=.6
2	P	83.4'	12" CULVERT n=.024 L=15' S=.04'/' Ke=.5 Cc=.9 Cd=.6
3	S	84.2'	10' BROAD-CRESTED RECTANGULAR WEIR Q=C L H ^{1.5} C=3.32, 3.32, 3.32, 3.32, 0, 0, 0, 0

Primary Discharge

- └─1=Culvert
- └─2=Culvert

Secondary Discharge

- └─3=Broad-Crested Rectangular Weir

LINK 1 OFF-SITE WS RUNOFF

Qout= 5.14 CFS @ 12.00 HRS, VOLUME= 2.61 AF, SPAN= 5-20 HRS, dt=.05 HRS

REACH 100 from 97380 - WASHINGTON X'ING: OFF-SITE WS
"CB & 15" RCP OUTFALL TO PROJECT SITE"

TYPE III 24-HOUR RAINFALL= 4.7 IN

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SUBCATCHMENT 1 SE portion of site around bldg A

PEAK= .62 CFS @ 12.72 HRS, VOLUME= .10 AF

ACRES	CN	
.11	98	Impervious
.57	61	Grass - B
.27	55	Woods - B
.95	64	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.7 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 91.2 to 90	45.1
Grass: Bermuda	n=.41 L=150' P2=3 in s=.008 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90 to 88	4.8
Woodland	Kv=5 L=160' s=.0125 '/' V=.56 fps	
Total Length= 310 ft		Total Tc= 49.9

SUBCATCHMENT 2 Raymond Court, Sta. 0+00 to 4+70, Lt

PEAK= 1.30 CFS @ 12.04 HRS, VOLUME= .09 AF

ACRES	CN	
.24	98	Impervious
.06	61	Grass - B
.30	91	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.7 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 91.25 - EL 90.6	1.4
Smooth surfaces	n=.011 L=75' P2=3 in s=.0087 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90.60 - EL 89.63	2.5
Paved	Kv=20.3282 L=224' s=.0056 '/' V=1.52 fps	
Total Length= 299 ft		Total Tc= 3.9

SUBCATCHMENT 3 Raymond Court, Sta. 0+00 to 4+70, Rt.

PEAK= 2.28 CFS @ 12.02 HRS, VOLUME= .15 AF

ACRES	CN	
.41	98	Impervious
.12	61	Grass - B
.53	90	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.7 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El 91.5 - EL 90.7	.6
Smooth surfaces	n=.011 L=40' P2=3 in s=.02 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 90.7 - EL 89.63	2.6
Paved	Kv=20.3282 L=236' s=.0056 '/' V=1.52 fps	
Total Length= 276 ft		Total Tc= 3.2

TYPE III 24-HOUR RAINFALL= 4.7 IN

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SUBCATCHMENT 4 Area behind bldg F

PEAK= 1.74 CFS @ 12.16 HRS, VOLUME= .15 AF

ACRES	CN	
.11	98	Impervious
.15	77	Woods - D
.40	80	Grass - D
.01	61	Grass - B
.67	82	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 96.5 to 93	11.6
Woods: Light underbrush	n=.4 L=70' P2=3 in s=.05 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 93 to 87	.1
Grassed Waterway	Kv=15 L=24' s=.25 '/' V=7.5 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 87 to 86	1.5
Grassed Waterway	Kv=15 L=120' s=.0083 '/' V=1.37 fps	
Total Length= 214 ft		Total Tc= 13.2

SUBCATCHMENT 5 Raymond Court, Sta. 4+70 to 9+20, Lt.

PEAK= 1.63 CFS @ 11.99 HRS, VOLUME= .10 AF

ACRES	CN	
.22	98	Impervious
.12	80	Grass - D
.34	92	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 90 - EL 89.5	.7
Smooth surfaces	n=.011 L=36' P2=3 in s=.0133 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 88 to 86	.2
Grassed Waterway	Kv=15 L=40' s=.05 '/' V=3.35 fps	
Total Length= 76 ft		Total Tc= .9

TYPE III 24-HOUR RAINFALL= 4.7 IN

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SUBCATCHMENT 6 Raymond Court, Sta 4+70 to 9+20, Rt.

PEAK= 1.76 CFS @ 12.10 HRS, VOLUME= .14 AF

ACRES	CN
.36	98
.09	80
.45	94

Impervious
Grass - D

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.7 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 91.66 to 91.36	7.0
Grass: Bermuda	n=.41 L=20' P2=3 in s=.015 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 91.36 to 90.71	.1
Paved	Kv=20.3282 L=15' s=.043 '/' V=4.22 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90.71 to 88.17	2.0
Paved	Kv=20.3282 L=248' s=.01 '/' V=2.03 fps	
Total Length= 283 ft		Total Tc= 9.1

SUBCATCHMENT 9 OFF-SITE AREA TO CB-9

PEAK= 4.66 CFS @ 12.00 HRS, VOLUME= .31 AF

ACRES	CN
.90	98

IMPERVIOUS

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.7 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 112 - EL 109	1.3
Smooth surfaces	n=.011 L=120' P2=3 in s=.025 '/'	

TYPE III 24-HOUR RAINFALL= 4.7 IN

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SUBCATCHMENT 10

Eastern Portion of Site (Incl exist house)

PEAK= 10.57 CFS @ 12.12 HRS, VOLUME= .81 AF

<u>ACRES</u>	<u>CN</u>		SCS TR-20 METHOD
.43	77	Woods - D	TYPE III 24-HOUR
.35	55	Woods - B	RAINFALL= 4.7 IN
.68	61	Grass - B	SPAN= 5-20 HRS, dt=.05 HRS
1.58	73	Brush - D	
.23	48	Brush - B	
.72	98	Impervious	
.97	80	Grass - D	
<u>4.96</u>	<u>74</u>		

<u>Method</u>	<u>Comment</u>	<u>Tc (min)</u>
TR-55 SHEET FLOW	El. 91.3 to 90	7.6
Grass: Bermuda	n=.41 L=35' P2=3 in s=.037 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90 to 88	1.6
Grassed Waterway	Kv=15 L=160' s=.0125 '/' V=1.68 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 88 to 84	.9
Woodland	Kv=5 L=65' s=.0615 '/' V=1.24 fps	
Total Length= 260 ft		Total Tc= 10.1

SUBCATCHMENT 11

Area near bldg I(includes off-site)

PEAK= 3.17 CFS @ 12.35 HRS, VOLUME= .35 AF

<u>ACRES</u>	<u>CN</u>		SCS TR-20 METHOD
.30	98	Impervious	TYPE III 24-HOUR
.19	55	Woods - B	RAINFALL= 4.7 IN
.13	61	Grass - B	SPAN= 5-20 HRS, dt=.05 HRS
.25	77	Woods - D	
.91	80	Grass - D	
<u>1.78</u>	<u>79</u>		

<u>Method</u>	<u>Comment</u>	<u>Tc (min)</u>
TR-55 SHEET FLOW	El. 108 - EL 102	23.2
Woods: Light underbrush	n=.4 L=150' P2=3 in s=.04 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El 102 - EL 88	3.3
Woodland	Kv=5 L=240' s=.058 '/' V=1.2 fps	
Total Length= 390 ft		Total Tc= 26.5

TYPE III 24-HOUR RAINFALL= 4.7 IN

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SUBCATCHMENT 12 Raymond Court, Sta 9+20 to 11+90, Lt

PEAK= .86 CFS @ 12.02 HRS, VOLUME= .05 AF

ACRES	CN		SCS TR-20 METHOD
.14	98	Impervious	TYPE III 24-HOUR
.06	61	Grass - B	RAINFALL= 4.7 IN
.04	55	Woods - B	SPAN= 5-20 HRS, dt=.05 HRS
.24	82		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 91.5 to 90.65	.6
Smooth surfaces	n=.011 L=40' P2=3 in s=.02 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 90.65 to 88.57	2.0
Paved	Kv=20.3282 L=226' s=.009 '/' V=1.93 fps	
Total Length= 266 ft		Total Tc= 2.6

SUBCATCHMENT 13 Raymond Court, Sta 9+20 to 11+90, Rt

PEAK= .89 CFS @ 12.02 HRS, VOLUME= .06 AF

ACRES	CN		SCS TR-20 METHOD
.16	98	Impervious	TYPE III 24-HOUR
.04	61	Grass - B	RAINFALL= 4.7 IN
.20	91		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 91.16 to 90.78	.6
Smooth surfaces	n=.011 L=32' P2=3 in s=.012 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 90.78 to 88.57	2.2
Paved	Kv=20.3282 L=249' s=.009 '/' V=1.93 fps	
Total Length= 281 ft		Total Tc= 2.8

SUBCATCHMENT 14 Raymond Court, Sta 11+90 to 14+70, Lt

PEAK= .46 CFS @ 12.06 HRS, VOLUME= .03 AF

ACRES	CN		SCS TR-20 METHOD
.08	98	Impervious	TYPE III 24-HOUR
.06	61	Grass - B	RAINFALL= 4.7 IN
.14	82		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 90.5 to 88.65	3.6
Grass: Bermuda	n=.41 L=21' P2=3 in s=.088 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 88.65 to 86.16	2.0
Paved	Kv=20.3282 L=241' s=.01 '/' V=2.03 fps	
Total Length= 262 ft		Total Tc= 5.6

TYPE III 24-HOUR RAINFALL= 4.7 IN

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SUBCATCHMENT 15 Raymond Court, Sta 11+90 to 14+70, Rt

PEAK= .91 CFS @ 12.06 HRS, VOLUME= .06 AF

ACRES	CN		SCS TR-20 METHOD
.17	98	Impervious	TYPE III 24-HOUR
.03	61	Grass - B	RAINFALL= 4.7 IN
.02	80	Grass - D	SPAN= 5-20 HRS, dt=.05 HRS
.22	91		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 89 to 88.6	3.4
Grass: Bermuda	n=.41 L=12' P2=3 in s=.033 '/'	
TR-55 SHEET FLOW	E1. 88.6 to 88.5	.5
Smooth surfaces	n=.011 L=35' P2=3 in s=.021 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 88.5 to 86.16	1.7
Paved	Kv=20.3282 L=215' s=.011 '/' V=2.13 fps	
Total Length= 262 ft		Total Tc= 5.6

SUBCATCHMENT 16 Raymond Court, Sta 14+70 to cul-de-sac, Lt

PEAK= .95 CFS @ 12.20 HRS, VOLUME= .09 AF

ACRES	CN		SCS TR-20 METHOD
.19	98	Impervious	TYPE III 24-HOUR
.11	80	Grass - D	RAINFALL= 4.7 IN
.02	61	Grass - B	SPAN= 5-20 HRS, dt=.05 HRS
.32	90		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 86.25 to 86	14.9
Grass: Bermuda	n=.41 L=35' P2=3 in s=.007 '/'	
TR-55 SHEET FLOW	E1. 86 to 85.27	.5
Smooth surfaces	n=.011 L=35' P2=3 in s=.021 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 85.27 to 84.68	1.3
Paved	Kv=20.3282 L=110' s=.005 '/' V=1.44 fps	
Total Length= 180 ft		Total Tc= 16.7

TYPE III 24-HOUR RAINFALL= 4.7 IN

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SUBCATCHMENT 17 Raymond Court, Sta 14+70 to cul-de-sac, Rt

PEAK= .94 CFS @ 12.01 HRS, VOLUME= .06 AF

ACRES	CN		SCS TR-20 METHOD
.17	98	Impervious	TYPE III 24-HOUR
.02	80	Grass - D	RAINFALL= 4.7 IN
.19	96		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 85.79 to 85.43	.2
Smooth surfaces	n=.011 L=12' P2=3 in s=.03 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 85.43 to 84.68	2.1
Paved	Kv=20.3282 L=170' s=.0045 '/'	
	V=1.36 fps	
Total Length= 182 ft		Total Tc= 2.3

SUBCATCHMENT 18 Cul-de-sac

PEAK= 1.48 CFS @ 12.49 HRS, VOLUME= .19 AF

ACRES	CN		SCS TR-20 METHOD
.53	98	Impervious	TYPE III 24-HOUR
.28	61	Grass - B	RAINFALL= 4.7 IN
.81	85		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 85.5 to 85.38	36.2
Grass: Bermuda	n=.41 L=57' P2=3 in s=.002 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 85.38 to 84.76	1.5
Paved	Kv=20.3282 L=128' s=.0048 '/'	
	V=1.41 fps	
Total Length= 185 ft		Total Tc= 37.7

TYPE III 24-HOUR RAINFALL= 4.7 IN

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SUBCATCHMENT 20

Central & Northeast Portion of Site

PEAK= 9.76 CFS @ 13.18 HRS, VOLUME= 2.08 AF

ACRES	CN	
.92	98	Impervious
3.58	55	Woods - B
9.47	77	Woods - D
1.50	61	Grass - B
.70	8	Grass - D
16.17	69	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.7 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 88 - EL 84	27.3
Woods: Light underbrush	n=.4 L=150' P2=3 in s=.0267 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 84 - EL 82	42.6
Woodland	Kv=5 L=700' s=.003 '/' V=.27 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 82 - EL 78	12.4
Woodland	Kv=5 L=380' s=.0105 '/' V=.51 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 78 - EL 72	5.4
Woodland	Kv=5 L=250' s=.024 '/' V=.77 fps	

Total Length= 1480 ft Total Tc= 87.7

REACH 1 INLET PIPE TO CB-1

Qin = .62 CFS @ 12.72 HRS, VOLUME= .10 AF
 Qout= .62 CFS @ 12.72 HRS, VOLUME= .10 AF, ATTEN= 0%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .27 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 3.6 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 2 PIPE FROM CB-1 TO CB-2

Qin = 1.36 CFS @ 12.04 HRS, VOLUME= .19 AF
 Qout= 1.36 CFS @ 12.04 HRS, VOLUME= .19 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .40 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 4.6 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 3 PIPE FROM CB-2 TO DMH-1

Qin = 3.61 CFS @ 12.03 HRS, VOLUME= .33 AF
 Qout= 3.48 CFS @ 12.04 HRS, VOLUME= .33 AF, ATTEN= 4%, LAG= .7 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .77 FT
.1	.1	.10	n= .012	PEAK VELOCITY= 4.4 FPS
.3	.2	.43	LENGTH= 118 FT	TRAVEL TIME = .4 MIN
.4	.3	.97	SLOPE= .005 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	4.14		2 x FINER ROUTING
1.0	1.1	4.84		
1.1	1.2	5.27		
1.2	1.2	5.32		
1.2	1.2	5.27		
1.3	1.2	4.95		

TYPE III 24-HOUR RAINFALL= 4.7 IN

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REACH 4

PIPE FROM DMH-1 TO DMH-2

Q_{in} = 3.48 CFS @ 12.04 HRS, VOLUME= .33 AF
 Q_{out} = 3.40 CFS @ 12.05 HRS, VOLUME= .33 AF, ATTEN= 2%, LAG= .3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .60 FT
.1	.1	.15	n= .012	PEAK VELOCITY= 5.8 FPS
.3	.2	.61	LENGTH= 90 FT	TRAVEL TIME = .3 MIN
.4	.3	1.37	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	5.86		2 x FINER ROUTING
1.0	1.1	6.84		
1.1	1.2	7.46		
1.2	1.2	7.53		
1.2	1.2	7.46		
1.3	1.2	7.00		

REACH 5

PIPE FROM DMH-2 TO CB-4

Q_{in} = 3.40 CFS @ 12.05 HRS, VOLUME= .33 AF
 Q_{out} = 3.31 CFS @ 12.05 HRS, VOLUME= .33 AF, ATTEN= 3%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .63 FT
.1	.1	.13	n= .012	PEAK VELOCITY= 5.4 FPS
.3	.2	.57	LENGTH= 106 FT	TRAVEL TIME = .3 MIN
.4	.3	1.26	SLOPE= .0085 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	5.40		2 x FINER ROUTING
1.0	1.1	6.31		
1.1	1.2	6.88		
1.2	1.2	6.94		
1.2	1.2	6.88		
1.3	1.2	6.45		

REACH 6

INLET PIPE TO CB-3

Q_{in} = 1.74 CFS @ 12.16 HRS, VOLUME= .15 AF
 Q_{out} = 1.74 CFS @ 12.16 HRS, VOLUME= .15 AF, ATTEN= 0%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .46 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 4.9 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

TYPE III 24-HOUR RAINFALL= 4.7 IN

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REACH 7

PIPE FROM CB-3 TO CB-4

Q_{in} = 2.52 CFS @ 12.01 HRS, VOLUME= .25 AF
 Q_{out} = 2.51 CFS @ 12.01 HRS, VOLUME= .25 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .76 FT
.1	0.0	.06	n= .012	PEAK VELOCITY= 3.9 FPS
.2	.1	.24	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.53	SLOPE= .005 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	2.29		2 x FINER ROUTING
.8	.7	2.67		
.9	.7	2.91		
.9	.8	2.94		
1.0	.8	2.91		
1.0	.8	2.73		

REACH 8

OUTLET PIPE FROM CB-4

Q_{in} = 7.24 CFS @ 12.06 HRS, VOLUME= .72 AF
 Q_{out} = 7.20 CFS @ 12.07 HRS, VOLUME= .72 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	18" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= 1.11 FT
.2	.1	.17	n= .012	PEAK VELOCITY= 5.1 FPS
.3	.3	.70	LENGTH= 30 FT	TRAVEL TIME = .1 MIN
.5	.4	1.58	SLOPE= .005 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
1.1	1.3	6.74		2 x FINER ROUTING
1.2	1.5	7.87		
1.4	1.7	8.58		
1.4	1.7	8.66		
1.5	1.8	8.58		
1.5	1.8	8.05		

REACH 9

OFF-SITE PIPE FROM CB-9

Q_{in} = 4.66 CFS @ 12.00 HRS, VOLUME= .31 AF
 Q_{out} = 4.55 CFS @ 12.00 HRS, VOLUME= .31 AF, ATTEN= 2%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .39 FT
.1	.1	.46	n= .012	PEAK VELOCITY= 14.4 FPS
.3	.2	1.94	LENGTH= 180 FT	TRAVEL TIME = .2 MIN
.4	.3	4.33	SLOPE= .1 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	18.53		2 x FINER ROUTING
1.0	1.1	21.63		
1.1	1.2	23.59		
1.2	1.2	23.80		
1.2	1.2	23.58		
1.3	1.2	22.13		

TYPE III 24-HOUR RAINFALL= 4.7 IN

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REACH 11

CROSS CULVERT FOR OFF-SITE FLOWS

Qin = 5.64 CFS @ 12.01 HRS, VOLUME= .66 AF
 Qout= 5.53 CFS @ 12.01 HRS, VOLUME= .66 AF, ATTEN= 2%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	18" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .88 FT
.2	.1	.18	n= .012	PEAK VELOCITY= 5.2 FPS
.3	.3	.75	LENGTH= 54 FT	TRAVEL TIME = .2 MIN
.5	.4	1.67	SLOPE= .0056 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
1.1	1.3	7.13		2 x FINER ROUTING
1.2	1.5	8.32		
1.4	1.7	9.08		
1.4	1.7	9.16		
1.5	1.8	9.08		
1.5	1.8	8.52		

REACH 12

PIPE FROM CB-5 TO CB-6

Qin = .86 CFS @ 12.02 HRS, VOLUME= .05 AF
 Qout= .85 CFS @ 12.02 HRS, VOLUME= .05 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .31 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 4.0 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 13

PIPE FROM CB-6 TO DMH-3

Qin = 1.74 CFS @ 12.02 HRS, VOLUME= .11 AF
 Qout= 1.68 CFS @ 12.02 HRS, VOLUME= .11 AF, ATTEN= 4%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .49 FT
.1	0.0	.07	n= .012	PEAK VELOCITY= 4.4 FPS
.2	.1	.29	LENGTH= 72 FT	TRAVEL TIME = .3 MIN
.3	.2	.65	SLOPE= .0075 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	2.80		2 x FINER ROUTING
.8	.7	3.27		
.9	.7	3.56		
.9	.8	3.60		
1.0	.8	3.56		
1.0	.8	3.34		

REACH 14 PIPE FROM DMH-3 TO CB-8

Qin = 1.68 CFS @ 12.02 HRS, VOLUME= .11 AF
 Qout= 1.59 CFS @ 12.04 HRS, VOLUME= .11 AF, ATTEN= 5%, LAG= 1.2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .44 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 4.7 FPS
.2	.1	.33	LENGTH= 192 FT	TRAVEL TIME = .7 MIN
.3	.2	.73	SLOPE= .0094 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.13		2 x FINER ROUTING
.8	.7	3.66		
.9	.7	3.99		
.9	.8	4.03		
1.0	.8	3.99		
1.0	.8	3.74		

REACH 15 PIPE FROM CB-7 TO CB-8

Qin = .46 CFS @ 12.06 HRS, VOLUME= .03 AF
 Qout= .46 CFS @ 12.06 HRS, VOLUME= .03 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .23 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 3.3 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 16 PIPE FROM CB-8 TO DMH-4

Qin = 2.95 CFS @ 12.05 HRS, VOLUME= .21 AF
 Qout= 2.81 CFS @ 12.06 HRS, VOLUME= .21 AF, ATTEN= 5%, LAG= .8 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .65 FT
.1	.1	.11	n= .012	PEAK VELOCITY= 4.4 FPS
.3	.2	.45	LENGTH= 154 FT	TRAVEL TIME = .6 MIN
.4	.3	1.02	SLOPE= .0055 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	4.35		2 x FINER ROUTING
1.0	1.1	5.07		
1.1	1.2	5.53		
1.2	1.2	5.58		
1.2	1.2	5.53		
1.3	1.2	5.19		

TYPE III 24-HOUR RAINFALL= 4.7 IN

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REACH 17

PIPE FROM DMH-4 TO CB-10

Qin = 2.81 CFS @ 12.06 HRS, VOLUME= .21 AF
 Qout= 2.72 CFS @ 12.07 HRS, VOLUME= .21 AF, ATTEN= 3%, LAG= .6 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.1	.1	.13
.3	.2	.54
.4	.3	1.20
.9	.9	5.14
1.0	1.1	6.00
1.1	1.2	6.54
1.2	1.2	6.61
1.2	1.2	6.54
1.3	1.2	6.14

15" PIPE
 n= .012
 LENGTH= 116 FT
 SLOPE= .0077 FT/FT

STOR-IND+TRANS METHOD
 PEAK DEPTH= .57 FT
 PEAK VELOCITY= 5.0 FPS
 TRAVEL TIME = .4 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

REACH 18

PIPE FROM CB-9 TO CB-10

Qin = .95 CFS @ 12.20 HRS, VOLUME= .09 AF
 Qout= .94 CFS @ 12.20 HRS, VOLUME= .09 AF, ATTEN= 0%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.1	0.0	.08
.2	.1	.34
.3	.2	.76
.7	.6	3.23
.8	.7	3.77
.9	.7	4.11
.9	.8	4.15
1.0	.8	4.11
1.0	.8	3.86

12" PIPE
 n= .012
 LENGTH= 20 FT
 SLOPE= .01 FT/FT

STOR-IND+TRANS METHOD
 PEAK DEPTH= .33 FT
 PEAK VELOCITY= 4.1 FPS
 TRAVEL TIME = .1 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

REACH 19

PIPE FROM CB-10 TO DMH-5

Qin = 4.08 CFS @ 12.07 HRS, VOLUME= .36 AF
 Qout= 3.93 CFS @ 12.10 HRS, VOLUME= .36 AF, ATTEN= 4%, LAG= 2.2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.17
.3	.3	.70
.5	.4	1.58
1.1	1.3	6.74
1.2	1.5	7.87
1.4	1.7	8.58
1.4	1.7	8.66
1.5	1.8	8.58
1.5	1.8	8.05

18" PIPE
 n= .012
 LENGTH= 284 FT
 SLOPE= .005 FT/FT

STOR-IND+TRANS METHOD
 PEAK DEPTH= .73 FT
 PEAK VELOCITY= 4.7 FPS
 TRAVEL TIME = 1.0 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

TYPE III 24-HOUR RAINFALL= 4.7 IN

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REACH 20

PIPE FROM DMH-5 TO CB-11

Qin = 3.93 CFS @ 12.10 HRS, VOLUME= .36 AF
 Qout= 3.91 CFS @ 12.10 HRS, VOLUME= .36 AF, ATTEN= 0%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.17
.3	.3	.70
.5	.4	1.58
1.1	1.3	6.74
1.2	1.5	7.87
1.4	1.7	8.58
1.4	1.7	8.66
1.5	1.8	8.58
1.5	1.8	8.05

18" PIPE

n= .012
 LENGTH= 28 FT
 SLOPE= .005 FT/FT

STOR-IND+TRANS METHOD

PEAK DEPTH= .72 FT
 PEAK VELOCITY= 4.6 FPS
 TRAVEL TIME = .1 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

REACH 21

PIPE FROM CB-11 TO CITY SYSTEM

Qin = 4.55 CFS @ 12.12 HRS, VOLUME= .55 AF
 Qout= 4.46 CFS @ 12.14 HRS, VOLUME= .55 AF, ATTEN= 2%, LAG= 1.4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.30
.3	.3	1.25
.5	.4	2.80
1.1	1.3	11.98
1.2	1.5	13.98
1.4	1.7	15.25
1.4	1.7	15.39
1.5	1.8	15.24
1.5	1.8	14.30

18" PIPE

n= .012
 LENGTH= 270 FT
 SLOPE= .0158 FT/FT

STOR-IND+TRANS METHOD

PEAK DEPTH= .56 FT
 PEAK VELOCITY= 7.4 FPS
 TRAVEL TIME = .6 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

REACH 110

Outlet from cross-culvert thru wetlands

Qin = 5.53 CFS @ 12.01 HRS, VOLUME= .66 AF
 Qout= 4.63 CFS @ 12.16 HRS, VOLUME= .66 AF, ATTEN= 16%, LAG= 9.2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	8.3	1.86
.3	21.0	6.97
.5	38.2	15.90
.6	67.4	34.32
.9	117.0	72.18
1.2	192.0	140.31
1.5	285.0	238.12

40' x 1.5' CHANNEL

SIDE SLOPE= .01 '/'

n= .1
 LENGTH= 97 FT
 SLOPE= .004 FT/FT

STOR-IND+TRANS METHOD

PEAK DEPTH= .23 FT
 PEAK VELOCITY= .3 FPS
 TRAVEL TIME = 5.3 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

TYPE III 24-HOUR RAINFALL= 4.7 IN

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REACH 111

Flow thru wetlands

Qin = 4.63 CFS @ 12.16 HRS, VOLUME= .66 AF
 Qout= 4.40 CFS @ 12.27 HRS, VOLUME= .66 AF, ATTEN= 5%, LAG= 6.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	40' x 1.5' CHANNEL SIDE SLOPE= .01 '/' n= .1 LENGTH= 87 FT SLOPE= .023 FT/FT	STOR-IND+TRANS METHOD PEAK DEPTH= .15 FT PEAK VELOCITY= .5 FPS TRAVEL TIME = 2.7 MIN SPAN= 5-20 HRS, dt=.05 HRS 2 x FINER ROUTING
0.0	0.0	0.00		
.2	8.3	4.47		
.3	21.0	16.72		
.5	38.2	38.13		
.6	67.4	82.30		
.9	117.0	173.07		
1.2	192.0	336.46		
1.5	285.0	570.99		

REACH 112

Flow thru wetlands

Qin = 4.40 CFS @ 12.27 HRS, VOLUME= .66 AF
 Qout= 2.33 CFS @ 14.02 HRS, VOLUME= .62 AF, ATTEN= 47%, LAG= 105.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	40' x 1.5' CHANNEL SIDE SLOPE= .01 '/' n= .1 LENGTH= 979 FT SLOPE= .0041 FT/FT	STOR-IND+TRANS METHOD PEAK DEPTH= .16 FT PEAK VELOCITY= .2 FPS TRAVEL TIME = 65.4 MIN SPAN= 5-20 HRS, dt=.05 HRS 2 x FINER ROUTING
0.0	0.0	0.00		
.2	8.3	1.89		
.3	21.0	7.06		
.5	38.2	16.10		
.6	67.4	34.75		
.9	117.0	73.07		
1.2	192.0	142.06		
1.5	285.0	241.08		

REACH 113

Flow thru wetlands

Qin = 2.33 CFS @ 14.02 HRS, VOLUME= .62 AF
 Qout= 2.24 CFS @ 14.44 HRS, VOLUME= .61 AF, ATTEN= 4%, LAG= 25.5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	30' x 1.5' CHANNEL SIDE SLOPE= .03 '/' n= .1 LENGTH= 302 FT SLOPE= .0066 FT/FT	STOR-IND+TRANS METHOD PEAK DEPTH= .17 FT PEAK VELOCITY= .4 FPS TRAVEL TIME = 14.1 MIN SPAN= 5-20 HRS, dt=.05 HRS 2 x FINER ROUTING
0.0	0.0	0.00		
.2	5.3	1.64		
.3	12.0	5.59		
.5	20.3	11.85		
.6	33.2	23.72		
.9	54.0	46.37		
1.2	84.0	84.70		
1.5	120.0	137.31		

TYPE III 24-HOUR RAINFALL= 4.7 IN

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REACH 114

Flow thru wetlands

Qin = 2.24 CFS @ 14.44 HRS, VOLUME= .61 AF
 Qout= 2.23 CFS @ 14.52 HRS, VOLUME= .60 AF, ATTEN= 0%, LAG= 4.8 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	4.7	1.49
.3	9.9	4.82
.5	15.5	9.66
.6	23.5	18.10
.9	35.1	32.75
1.2	50.4	55.32
1.5	67.5	83.90

30' x 1.5' CHANNEL
 SIDE SLOPE= .1 '/'
 n= .1
 LENGTH= 67 FT
 SLOPE= .006 FT/FT

STOR-IND+TRANS METHOD
 PEAK DEPTH= .18 FT
 PEAK VELOCITY= .4 FPS
 TRAVEL TIME = 2.9 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

REACH 200

Not described

Qin = 11.06 CFS @ 13.15 HRS, VOLUME= 3.23 AF
 Qout= 11.06 CFS @ 13.15 HRS, VOLUME= 3.23 AF, ATTEN= 0%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
---------------	---------------------	----------------

- METHOD
 PEAK DEPTH= 0.00 FT
 PEAK VELOCITY= 0.0 FPS
 TRAVEL TIME = 0.0 MIN
 SPAN= 5-20 HRS, dt=.05 HRS

TYPE III 24-HOUR RAINFALL= 4.7 IN

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POND 100

Wetlands behind existing house

Qin = 22.51 CFS @ 12.11 HRS, VOLUME= 5.57 AF
 Qout= 5.63 CFS @ 18.39 HRS, VOLUME= 3.58 AF, ATTEN= 75%, LAG= 377.1 MIN
 Qpri= 5.63 CFS @ 18.39 HRS, VOLUME= 3.58 AF
 Qsec= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)	STOR-IND METHOD
81.9	12450	0	0	PEAK STORAGE = 86696 CF
82.0	18853	1565	1565	PEAK ELEVATION= 84.1 FT
83.0	33486	26170	27735	FLOOD ELEVATION= 84.6 FT
84.0	66525	50006	77740	START ELEVATION= 81.9 FT
84.5	88220	38686	116426	SPAN= 5-20 HRS, dt=.05 HRS 2 x FINER ROUTING Tdet= 192.6 MIN (3.57 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	81.9'	12" CULVERT n=.024 L=20' S=.0085'/' Ke=.5 Cc=.9 Cd=.6
2	P	83.4'	12" CULVERT n=.024 L=15' S=.04'/' Ke=.5 Cc=.9 Cd=.6
3	S	84.2'	10' BROAD-CRESTED RECTANGULAR WEIR Q=C L H ^{1.5} C=3.32, 3.32, 3.32, 3.32, 0, 0, 0, 0

Primary Discharge

- └─1=Culvert
- └─2=Culvert

Secondary Discharge

- └─3=Broad-Crested Rectangular Weir

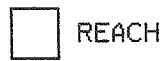
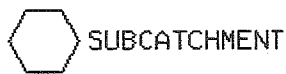
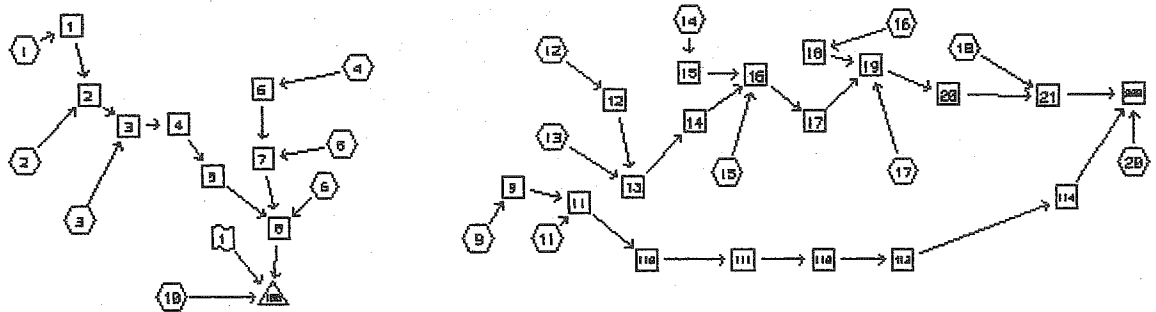
LINK 1

OFF-SITE WS RUNOFF

Qout= 5.14 CFS @ 11.75 HRS, VOLUME= 4.03 AF, SPAN= 5-20 HRS, dt=.05 HRS

REACH 100 from 97380 - WASHINGTON X'ING: OFF-SITE WS
"CB & 15" RCP OUTFALL TO PROJECT SITE"

WATERSHED ROUTING



TYPE III 24-HOUR RAINFALL= 5.5 IN

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SUBCATCHMENT 1 SE portion of site around bldg A

PEAK= .89 CFS @ 12.70 HRS, VOLUME= .14 AF

ACRES	CN		SCS TR-20 METHOD
.11	98	Impervious	TYPE III 24-HOUR
.57	61	Grass - B	RAINFALL= 5.5 IN
.27	55	Woods - B	SPAN= 5-20 HRS, dt=.05 HRS
.95	64		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 91.2 to 90	45.1
Grass: Bermuda	n=.41 L=150' P2=3 in s=.008 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90 to 88	4.8
Woodland	Kv=5 L=160' s=.0125 '/' V=.56 fps	
Total Length= 310 ft		Total Tc= 49.9

SUBCATCHMENT 2 Raymond Court, Sta. 0+00 to 4+70, Lt

PEAK= 1.55 CFS @ 12.04 HRS, VOLUME= .11 AF

ACRES	CN		SCS TR-20 METHOD
.24	98	Impervious	TYPE III 24-HOUR
.06	61	Grass - B	RAINFALL= 5.5 IN
.30	91		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 91.25 - EL 90.6	1.4
Smooth surfaces	n=.011 L=75' P2=3 in s=.0087 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90.60 - EL 89.63	2.5
Paved	Kv=20.3282 L=224' s=.0056 '/' V=1.52 fps	
Total Length= 299 ft		Total Tc= 3.9

SUBCATCHMENT 3 Raymond Court, Sta. 0+00 to 4+70, Rt.

PEAK= 2.74 CFS @ 12.02 HRS, VOLUME= .18 AF

ACRES	CN		SCS TR-20 METHOD
.41	98	Impervious	TYPE III 24-HOUR
.12	61	Grass - B	RAINFALL= 5.5 IN
.53	90		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El 91.5 - EL 90.7	.6
Smooth surfaces	n=.011 L=40' P2=3 in s=.02 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 90.7 - EL 89.63	2.6
Paved	Kv=20.3282 L=236' s=.0056 '/' V=1.52 fps	
Total Length= 276 ft		Total Tc= 3.2

TYPE III 24-HOUR RAINFALL= 5.5 IN

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SUBCATCHMENT 4

Area behind bldg F

PEAK= 2.18 CFS @ 12.16 HRS, VOLUME= .18 AF

ACRES	CN		SCS TR-20 METHOD
.11	98	Impervious	TYPE III 24-HOUR
.15	77	Woods - D	RAINFALL= 5.5 IN
.40	80	Grass - D	SPAN= 5-20 HRS, dt=.05 HRS
.01	61	Grass - B	
.67	82		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL. 96.5 to 93	11.6
Woods: Light underbrush	n=.4 L=70' P2=3 in s=.05 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL. 93 to 87	.1
Grassed Waterway	Kv=15 L=24' s=.25 '/' V=7.5 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL. 87 to 86	1.5
Grassed Waterway	Kv=15 L=120' s=.0083 '/' V=1.37 fps	
Total Length= 214 ft		Total Tc= 13.2

SUBCATCHMENT 5

Raymond Court, Sta. 4+70 to 9+20, Lt.

PEAK= 1.94 CFS @ 11.99 HRS, VOLUME= .12 AF

ACRES	CN		SCS TR-20 METHOD
.22	98	Impervious	TYPE III 24-HOUR
.12	80	Grass - D	RAINFALL= 5.5 IN
.34	92		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 90 - EL 89.5	.7
Smooth surfaces	n=.011 L=36' P2=3 in s=.0133 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL. 88 to 86	.2
Grassed Waterway	Kv=15 L=40' s=.05 '/' V=3.35 fps	
Total Length= 76 ft		Total Tc= .9

TYPE III 24-HOUR RAINFALL= 5.5 IN

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SUBCATCHMENT 6 Raymond Court, Sta 4+70 to 9+20, Rt.

PEAK= 2.09 CFS @ 12.10 HRS, VOLUME= .17 AF

ACRES	CN
.36	98
.09	80
.45	94

Impervious
Grass - D

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 91.66 to 91.36	7.0
Grass: Bermuda	n=.41 L=20' P2=3 in s=.015 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 91.36 to 90.71	.1
Paved	Kv=20.3282 L=15' s=.043 '/' V=4.22 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 90.71 to 88.17	2.0
Paved	Kv=20.3282 L=248' s=.01 '/' V=2.03 fps	
Total Length= 283 ft		Total Tc= 9.1

SUBCATCHMENT 9 OFF-SITE AREA TO CB-9

PEAK= 5.47 CFS @ 12.00 HRS, VOLUME= .37 AF

ACRES	CN
.90	98

IMPERVIOUS

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 112 - EL 109	1.3
Smooth surfaces	n=.011 L=120' P2=3 in s=.025 '/'	

TYPE III 24-HOUR RAINFALL= 5.5 IN

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SUBCATCHMENT 10

Eastern Portion of Site (Incl exist house)

PEAK= 13.86 CFS @ 12.12 HRS, VOLUME= 1.06 AF

ACRES	CN		SCS TR-20 METHOD
.43	77	Woods - D	TYPE III 24-HOUR
.35	55	Woods - B	RAINFALL= 5.5 IN
.68	61	Grass - B	SPAN= 5-20 HRS, dt=.05 HRS
1.58	73	Brush - D	
.23	48	Brush - B	
.72	98	Impervious	
.97	80	Grass - D	
4.96	74		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 91.3 to 90	7.6
Grass: Bermuda n=.41 L=35' P2=3 in s=.037 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 90 to 88	1.6
Grassed Waterway Kv=15 L=160' s=.0125 '/' V=1.68 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 88 to 84	.9
Woodland Kv=5 L=65' s=.0615 '/' V=1.24 fps		
Total Length= 260 ft		Total Tc= 10.1

SUBCATCHMENT 11

Area near bldg I(includes off-site)

PEAK= 4.03 CFS @ 12.34 HRS, VOLUME= .45 AF

ACRES	CN		SCS TR-20 METHOD
.30	98	Impervious	TYPE III 24-HOUR
.19	55	Woods - B	RAINFALL= 5.5 IN
.13	61	Grass - B	SPAN= 5-20 HRS, dt=.05 HRS
.25	77	Woods - D	
.91	80	Grass - D	
1.78	79		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 108 - EL 102	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	E1 102 - EL 88	3.3
Woodland Kv=5 L=240' s=.058 '/' V=1.2 fps		
Total Length= 390 ft		Total Tc= 26.5

TYPE III 24-HOUR RAINFALL= 5.5 IN

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SUBCATCHMENT 12 Raymond Court, Sta 9+20 to 11+90, Lt

PEAK= 1.07 CFS @ 12.02 HRS, VOLUME= .07 AF

ACRES	CN		SCS TR-20 METHOD
.14	98	Impervious	TYPE III 24-HOUR
.06	61	Grass - B	RAINFALL= 5.5 IN
.04	55	Woods - B	SPAN= 5-20 HRS, dt=.05 HRS
.24	82		

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 91.5 to 90.65	.6
Smooth surfaces	n=.011 L=40' P2=3 in s=.02 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 90.65 to 88.57	2.0
Paved	Kv=20.3282 L=226' s=.009 '/' V=1.93 fps	
Total Length= 266 ft		Total Tc= 2.6

SUBCATCHMENT 13 Raymond Court, Sta 9+20 to 11+90, Rt

PEAK= 1.07 CFS @ 12.02 HRS, VOLUME= .07 AF

ACRES	CN		SCS TR-20 METHOD
.16	98	Impervious	TYPE III 24-HOUR
.04	61	Grass - B	RAINFALL= 5.5 IN
.20	91		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 91.16 to 90.78	.6
Smooth surfaces	n=.011 L=32' P2=3 in s=.012 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 90.78 to 88.57	2.2
Paved	Kv=20.3282 L=249' s=.009 '/' V=1.93 fps	
Total Length= 281 ft		Total Tc= 2.8

SUBCATCHMENT 14 Raymond Court, Sta 11+90 to 14+70, Lt

PEAK= .58 CFS @ 12.06 HRS, VOLUME= .04 AF

ACRES	CN		SCS TR-20 METHOD
.08	98	Impervious	TYPE III 24-HOUR
.06	61	Grass - B	RAINFALL= 5.5 IN
.14	82		SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	E1. 90.5 to 88.65	3.6
Grass: Bermuda	n=.41 L=21' P2=3 in s=.088 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	E1. 88.65 to 86.16	2.0
Paved	Kv=20.3282 L=241' s=.01 '/' V=2.03 fps	
Total Length= 262 ft		Total Tc= 5.6

SUBCATCHMENT 15

Raymond Court, Sta 11+90 to 14+70, Rt

PEAK= 1.09 CFS @ 12.06 HRS, VOLUME= .08 AF

ACRES	CN			
.17	98	Impervious		SCS TR-20 METHOD
.03	61	Grass - B		TYPE III 24-HOUR
.02	80	Grass - D		RAINFALL= 5.5 IN
.22	91			SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 89 to 88.6	3.4
Grass: Bermuda	n=.41 L=12' P2=3 in s=.033 '/'	
TR-55 SHEET FLOW	El. 88.6 to 88.5	.5
Smooth surfaces	n=.011 L=35' P2=3 in s=.021 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 88.5 to 86.16	1.7
Paved	Kv=20.3282 L=215' s=.011 '/' V=2.13 fps	
Total Length= 262 ft		Total Tc= 5.6

SUBCATCHMENT 16

Raymond Court, Sta 14+70 to cul-de-sac, Lt

PEAK= 1.14 CFS @ 12.20 HRS, VOLUME= .11 AF

ACRES	CN			
.19	98	Impervious		SCS TR-20 METHOD
.11	80	Grass - D		TYPE III 24-HOUR
.02	61	Grass - B		RAINFALL= 5.5 IN
.32	90			SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 86.25 to 86	14.9
Grass: Bermuda	n=.41 L=35' P2=3 in s=.007 '/'	
TR-55 SHEET FLOW	El. 86 to 85.27	.5
Smooth surfaces	n=.011 L=35' P2=3 in s=.021 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 85.27 to 84.68	1.3
Paved	Kv=20.3282 L=110' s=.005 '/' V=1.44 fps	
Total Length= 180 ft		Total Tc= 16.7

TYPE III 24-HOUR RAINFALL= 5.5 IN

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SUBCATCHMENT 17

Raymond Court, Sta 14+70 to cul-de-sac, Rt

PEAK= 1.11 CFS @ 12.01 HRS, VOLUME= .07 AF

ACRES	CN	
.17	98	Impervious
.02	80	Grass - D
.19	96	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 5.5 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 85.79 to 85.43	.2
Smooth surfaces	n=.011 L=12' P2=3 in s=.03 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 85.43 to 84.68	2.1
Paved	Kv=20.3282 L=170' s=.0045 '/' V=1.36 fps	
Total Length= 182 ft		Total Tc= 2.3

SUBCATCHMENT 18

Cul-de-sac

PEAK= 1.83 CFS @ 12.49 HRS, VOLUME= .24 AF

ACRES	CN	
.53	98	Impervious
.28	61	Grass - B
.81	85	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 5.5 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	El. 85.5 to 85.38	36.2
Grass: Bermuda	n=.41 L=57' P2=3 in s=.002 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	El. 85.38 to 84.76	1.5
Paved	Kv=20.3282 L=128' s=.0048 '/' V=1.41 fps	
Total Length= 185 ft		Total Tc= 37.7

SUBCATCHMENT 20

Central & Northeast Portion of Site

PEAK= 13.33 CFS @ 13.17 HRS, VOLUME= 2.80 AF

ACRES	CN	
.92	98	Impervious
3.58	55	Woods - B
9.47	77	Woods - D
1.50	61	Grass - B
.70	8	Grass - D
16.17	69	

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 5.5 IN
 SPAN= 5-20 HRS, dt=.05 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	EL 88 - EL 84	27.3
Woods: Light underbrush	n=.4 L=150' P2=3 in s=.0267 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 84 - EL 82	42.6
Woodland	Kv=5 L=700' s=.003 '/' V=.27 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 82 - EL 78	12.4
Woodland	Kv=5 L=380' s=.0105 '/' V=.51 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	EL 78 - EL 72	5.4
Woodland	Kv=5 L=250' s=.024 '/' V=.77 fps	
Total Length= 1480 ft		Total Tc= 87.7

TYPE III 24-HOUR RAINFALL= 5.5 IN

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REACH 1 INLET PIPE TO CB-1

Qin = .89 CFS @ 12.70 HRS, VOLUME= .14 AF
 Qout= .89 CFS @ 12.70 HRS, VOLUME= .14 AF, ATTEN= 0%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .32 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 4.1 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 2 PIPE FROM CB-1 TO CB-2

Qin = 1.68 CFS @ 12.04 HRS, VOLUME= .24 AF
 Qout= 1.67 CFS @ 12.04 HRS, VOLUME= .24 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .45 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 4.9 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 3 PIPE FROM CB-2 TO DMH-1

Qin = 4.38 CFS @ 12.03 HRS, VOLUME= .42 AF
 Qout= 4.22 CFS @ 12.04 HRS, VOLUME= .42 AF, ATTEN= 4%, LAG= .7 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .89 FT
.1	.1	.10	n= .012	PEAK VELOCITY= 4.5 FPS
.3	.2	.43	LENGTH= 118 FT	TRAVEL TIME = .4 MIN
.4	.3	.97	SLOPE= .005 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	4.14		2 x FINER ROUTING
1.0	1.1	4.84		
1.1	1.2	5.27		
1.2	1.2	5.32		
1.2	1.2	5.27		
1.3	1.2	4.95		

TYPE III 24-HOUR RAINFALL= 5.5 IN

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REACH 4 PIPE FROM DMH-1 TO DMH-2

Qin = 4.22 CFS @ 12.04 HRS, VOLUME= .42 AF
 Qout= 4.13 CFS @ 12.05 HRS, VOLUME= .42 AF, ATTEN= 2%, LAG= .3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		
0.0	0.0	0.00	15" PIPE	STOR-IND+TRANS METHOD
.1	.1	.15	n= .012	PEAK DEPTH= .69 FT
.3	.2	.61	LENGTH= 90 FT	PEAK VELOCITY= 6.1 FPS
.4	.3	1.37	SLOPE= .01 FT/FT	TRAVEL TIME = .2 MIN
.9	.9	5.86		SPAN= 5-20 HRS, dt=.05 HRS
1.0	1.1	6.84		2 x FINER ROUTING
1.1	1.2	7.46		
1.2	1.2	7.53		
1.2	1.2	7.46		
1.3	1.2	7.00		

REACH 5 PIPE FROM DMH-2 TO CB-4

Qin = 4.13 CFS @ 12.05 HRS, VOLUME= .42 AF
 Qout= 4.02 CFS @ 12.05 HRS, VOLUME= .42 AF, ATTEN= 3%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		
0.0	0.0	0.00	15" PIPE	STOR-IND+TRANS METHOD
.1	.1	.13	n= .012	PEAK DEPTH= .71 FT
.3	.2	.57	LENGTH= 106 FT	PEAK VELOCITY= 5.6 FPS
.4	.3	1.26	SLOPE= .0085 FT/FT	TRAVEL TIME = .3 MIN
.9	.9	5.40		SPAN= 5-20 HRS, dt=.05 HRS
1.0	1.1	6.31		2 x FINER ROUTING
1.1	1.2	6.88		
1.2	1.2	6.94		
1.2	1.2	6.88		
1.3	1.2	6.45		

REACH 6 INLET PIPE TO CB-3

Qin = 2.18 CFS @ 12.16 HRS, VOLUME= .18 AF
 Qout= 2.17 CFS @ 12.16 HRS, VOLUME= .18 AF, ATTEN= 0%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		
0.0	0.0	0.00	12" PIPE	STOR-IND+TRANS METHOD
.1	0.0	.08	n= .012	PEAK DEPTH= .53 FT
.2	.1	.34	LENGTH= 20 FT	PEAK VELOCITY= 5.2 FPS
.3	.2	.76	SLOPE= .01 FT/FT	TRAVEL TIME = .1 MIN
.7	.6	3.23		SPAN= 5-20 HRS, dt=.05 HRS
.8	.7	3.77		2 x FINER ROUTING
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

TYPE III 24-HOUR RAINFALL= 5.5 IN

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REACH 7

PIPE FROM CB-3 TO CB-4

Qin = 3.08 CFS @ 12.01 HRS, VOLUME= .31 AF
 Qout= 2.73 CFS @ 12.05 HRS, VOLUME= .31 AF, ATTEN= 12%, LAG= 2.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.1	0.0	.06
.2	.1	.24
.3	.2	.53
.7	.6	2.29
.8	.7	2.67
.9	.7	2.91
.9	.8	2.94
1.0	.8	2.91
1.0	.8	2.73

12" PIPE

n= .012
 LENGTH= 20 FT
 SLOPE= .005 FT/FT

STOR-IND+TRANS METHOD

PEAK DEPTH= 1.00 FT
 PEAK VELOCITY= 3.9 FPS
 TRAVEL TIME = .1 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

REACH 8

OUTLET PIPE FROM CB-4

Qin = 8.67 CFS @ 12.07 HRS, VOLUME= .90 AF
 Qout= 8.61 CFS @ 12.07 HRS, VOLUME= .90 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.17
.3	.3	.70
.5	.4	1.58
1.1	1.3	6.74
1.2	1.5	7.87
1.4	1.7	8.58
1.4	1.7	8.66
1.5	1.8	8.58
1.5	1.8	8.05

18" PIPE

n= .012
 LENGTH= 30 FT
 SLOPE= .005 FT/FT

STOR-IND+TRANS METHOD

PEAK DEPTH= 1.35 FT
 PEAK VELOCITY= 5.2 FPS
 TRAVEL TIME = .1 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

REACH 9

OFF-SITE PIPE FROM CB-9

Qin = 5.47 CFS @ 12.00 HRS, VOLUME= .37 AF
 Qout= 5.33 CFS @ 12.00 HRS, VOLUME= .37 AF, ATTEN= 2%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.1	.1	.46
.3	.2	1.94
.4	.3	4.33
.9	.9	18.53
1.0	1.1	21.63
1.1	1.2	23.59
1.2	1.2	23.80
1.2	1.2	23.58
1.3	1.2	22.13

15" PIPE

n= .012
 LENGTH= 180 FT
 SLOPE= .1 FT/FT

STOR-IND+TRANS METHOD

PEAK DEPTH= .41 FT
 PEAK VELOCITY= 15.2 FPS
 TRAVEL TIME = .2 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

TYPE III 24-HOUR RAINFALL= 5.5 IN

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REACH 11

CROSS CULVERT FOR OFF-SITE FLOWS

Qin = 6.77 CFS @ 12.01 HRS, VOLUME= .81 AF
 Qout= 6.65 CFS @ 12.01 HRS, VOLUME= .81 AF, ATTEN= 2%, LAG= .2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	18" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= 1.00 FT
.2	.1	.18	n= .012	PEAK VELOCITY= 5.3 FPS
.3	.3	.75	LENGTH= 54 FT	TRAVEL TIME = .2 MIN
.5	.4	1.67	SLOPE= .0056 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
1.1	1.3	7.13		2 x FINER ROUTING
1.2	1.5	8.32		
1.4	1.7	9.08		
1.4	1.7	9.16		
1.5	1.8	9.08		
1.5	1.8	8.52		

REACH 12

PIPE FROM CB-5 TO CB-6

Qin = 1.07 CFS @ 12.02 HRS, VOLUME= .07 AF
 Qout= 1.06 CFS @ 12.02 HRS, VOLUME= .07 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .35 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 4.3 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 13

PIPE FROM CB-6 TO DMH-3

Qin = 2.13 CFS @ 12.02 HRS, VOLUME= .14 AF
 Qout= 2.06 CFS @ 12.02 HRS, VOLUME= .14 AF, ATTEN= 4%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .56 FT
.1	0.0	.07	n= .012	PEAK VELOCITY= 4.5 FPS
.2	.1	.29	LENGTH= 72 FT	TRAVEL TIME = .3 MIN
.3	.2	.65	SLOPE= .0075 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	2.80		2 x FINER ROUTING
.8	.7	3.27		
.9	.7	3.56		
.9	.8	3.60		
1.0	.8	3.56		
1.0	.8	3.34		

TYPE III 24-HOUR RAINFALL= 5.5 IN

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REACH 14 PIPE FROM DMH-3 TO CB-8

Qin = 2.06 CFS @ 12.02 HRS, VOLUME= .14 AF
 Qout= 1.94 CFS @ 12.04 HRS, VOLUME= .14 AF, ATTEN= 6%, LAG= 1.2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .50 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 4.9 FPS
.2	.1	.33	LENGTH= 192 FT	TRAVEL TIME = .6 MIN
.3	.2	.73	SLOPE= .0094 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.13		2 x FINER ROUTING
.8	.7	3.66		
.9	.7	3.99		
.9	.8	4.03		
1.0	.8	3.99		
1.0	.8	3.74		

REACH 15 PIPE FROM CB-7 TO CB-8

Qin = .58 CFS @ 12.06 HRS, VOLUME= .04 AF
 Qout= .57 CFS @ 12.06 HRS, VOLUME= .04 AF, ATTEN= 1%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	12" PIPE	PEAK DEPTH= .26 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 3.6 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 16 PIPE FROM CB-8 TO DMH-4

Qin = 3.60 CFS @ 12.05 HRS, VOLUME= .25 AF
 Qout= 3.43 CFS @ 12.06 HRS, VOLUME= .25 AF, ATTEN= 5%, LAG= .8 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)		STOR-IND+TRANS METHOD
0.0	0.0	0.00	15" PIPE	PEAK DEPTH= .75 FT
.1	.1	.11	n= .012	PEAK VELOCITY= 4.6 FPS
.3	.2	.45	LENGTH= 154 FT	TRAVEL TIME = .6 MIN
.4	.3	1.02	SLOPE= .0055 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	4.35		2 x FINER ROUTING
1.0	1.1	5.07		
1.1	1.2	5.53		
1.2	1.2	5.58		
1.2	1.2	5.53		
1.3	1.2	5.19		

TYPE III 24-HOUR RAINFALL= 5.5 IN

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REACH 17

PIPE FROM DMH-4 TO CB-10

Qin = 3.43 CFS @ 12.06 HRS, VOLUME= .25 AF
 Qout= 3.32 CFS @ 12.07 HRS, VOLUME= .25 AF, ATTEN= 3%, LAG= .6 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	15" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .65 FT
.1	.1	.13	n= .012	PEAK VELOCITY= 5.2 FPS
.3	.2	.54	LENGTH= 116 FT	TRAVEL TIME = .4 MIN
.4	.3	1.20	SLOPE= .0077 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.9	.9	5.14		2 x FINER ROUTING
1.0	1.1	6.00		
1.1	1.2	6.54		
1.2	1.2	6.61		
1.2	1.2	6.54		
1.3	1.2	6.14		

REACH 18

PIPE FROM CB-9 TO CB-10

Qin = 1.14 CFS @ 12.20 HRS, VOLUME= .11 AF
 Qout= 1.14 CFS @ 12.20 HRS, VOLUME= .11 AF, ATTEN= 0%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	12" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .36 FT
.1	0.0	.08	n= .012	PEAK VELOCITY= 4.4 FPS
.2	.1	.34	LENGTH= 20 FT	TRAVEL TIME = .1 MIN
.3	.2	.76	SLOPE= .01 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.7	.6	3.23		2 x FINER ROUTING
.8	.7	3.77		
.9	.7	4.11		
.9	.8	4.15		
1.0	.8	4.11		
1.0	.8	3.86		

REACH 19

PIPE FROM CB-10 TO DMH-5

Qin = 4.95 CFS @ 12.06 HRS, VOLUME= .44 AF
 Qout= 4.76 CFS @ 12.10 HRS, VOLUME= .44 AF, ATTEN= 4%, LAG= 2.2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	18" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .82 FT
.2	.1	.17	n= .012	PEAK VELOCITY= 4.8 FPS
.3	.3	.70	LENGTH= 284 FT	TRAVEL TIME = 1.0 MIN
.5	.4	1.58	SLOPE= .005 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
1.1	1.3	6.74		2 x FINER ROUTING
1.2	1.5	7.87		
1.4	1.7	8.58		
1.4	1.7	8.66		
1.5	1.8	8.58		
1.5	1.8	8.05		

TYPE III 24-HOUR RAINFALL= 5.5 IN

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5 Apr 99

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REACH 20

PIPE FROM DMH-5 TO CB-11

Qin = 4.76 CFS @ 12.10 HRS, VOLUME= .44 AF
 Qout= 4.74 CFS @ 12.10 HRS, VOLUME= .44 AF, ATTEN= 0%, LAG= .1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	18" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .82 FT
.2	.1	.17	n= .012	PEAK VELOCITY= 4.8 FPS
.3	.3	.70	LENGTH= 28 FT	TRAVEL TIME = .1 MIN
.5	.4	1.58	SLOPE= .005 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
1.1	1.3	6.74		2 x FINER ROUTING
1.2	1.5	7.87		
1.4	1.7	8.58		
1.4	1.7	8.66		
1.5	1.8	8.58		
1.5	1.8	8.05		

REACH 21

PIPE FROM CB-11 TO CITY SYSTEM

Qin = 5.54 CFS @ 12.12 HRS, VOLUME= .68 AF
 Qout= 5.44 CFS @ 12.14 HRS, VOLUME= .68 AF, ATTEN= 2%, LAG= 1.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	18" PIPE	STOR-IND+TRANS METHOD
0.0	0.0	0.00		PEAK DEPTH= .62 FT
.2	.1	.30	n= .012	PEAK VELOCITY= 7.8 FPS
.3	.3	1.25	LENGTH= 270 FT	TRAVEL TIME = .6 MIN
.5	.4	2.80	SLOPE= .0158 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
1.1	1.3	11.98		2 x FINER ROUTING
1.2	1.5	13.98		
1.4	1.7	15.25		
1.4	1.7	15.39		
1.5	1.8	15.24		
1.5	1.8	14.30		

REACH 110

Outlet from cross-culvert thru wetlands

Qin = 6.65 CFS @ 12.01 HRS, VOLUME= .81 AF
 Qout= 5.58 CFS @ 12.16 HRS, VOLUME= .81 AF, ATTEN= 16%, LAG= 9.2 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)	40' x 1.5' CHANNEL	STOR-IND+TRANS METHOD
0.0	0.0	0.00	SIDE SLOPE= .01 '/'	PEAK DEPTH= .26 FT
.2	8.3	1.86	n= .1	PEAK VELOCITY= .3 FPS
.3	21.0	6.97	LENGTH= 97 FT	TRAVEL TIME = 5.1 MIN
.5	38.2	15.90	SLOPE= .004 FT/FT	SPAN= 5-20 HRS, dt=.05 HRS
.6	67.4	34.32		2 x FINER ROUTING
.9	117.0	72.18		
1.2	192.0	140.31		
1.5	285.0	238.12		

TYPE III 24-HOUR RAINFALL= 5.5 IN

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REACH 111

Flow thru wetlands

Qin = 5.58 CFS @ 12.16 HRS, VOLUME= .81 AF
 Qout= 5.40 CFS @ 12.25 HRS, VOLUME= .81 AF, ATTEN= 3%, LAG= 5.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	8.3	4.47
.3	21.0	16.72
.5	38.2	38.13
.6	67.4	82.30
.9	117.0	173.07
1.2	192.0	336.46
1.5	285.0	570.99

40' x 1.5' CHANNEL
 SIDE SLOPE= .01 '/'
 n= .1
 LENGTH= 87 FT
 SLOPE= .023 FT/FT

STOR-IND+TRANS METHOD
 PEAK DEPTH= .16 FT
 PEAK VELOCITY= .6 FPS
 TRAVEL TIME = 2.5 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

REACH 112

Flow thru wetlands

Qin = 5.40 CFS @ 12.25 HRS, VOLUME= .81 AF
 Qout= 3.08 CFS @ 13.88 HRS, VOLUME= .76 AF, ATTEN= 43%, LAG= 97.5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	8.3	1.89
.3	21.0	7.06
.5	38.2	16.10
.6	67.4	34.75
.9	117.0	73.07
1.2	192.0	142.06
1.5	285.0	241.08

40' x 1.5' CHANNEL
 SIDE SLOPE= .01 '/'
 n= .1
 LENGTH= 979 FT
 SLOPE= .0041 FT/FT

STOR-IND+TRANS METHOD
 PEAK DEPTH= .18 FT
 PEAK VELOCITY= .3 FPS
 TRAVEL TIME = 59.3 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

REACH 113

Flow thru wetlands

Qin = 3.08 CFS @ 13.88 HRS, VOLUME= .76 AF
 Qout= 2.97 CFS @ 14.26 HRS, VOLUME= .75 AF, ATTEN= 4%, LAG= 22.9 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	5.3	1.64
.3	12.0	5.59
.5	20.3	11.85
.6	33.2	23.72
.9	54.0	46.37
1.2	84.0	84.70
1.5	120.0	137.31

30' x 1.5' CHANNEL
 SIDE SLOPE= .03 '/'
 n= .1
 LENGTH= 302 FT
 SLOPE= .0066 FT/FT

STOR-IND+TRANS METHOD
 PEAK DEPTH= .20 FT
 PEAK VELOCITY= .4 FPS
 TRAVEL TIME = 12.8 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

TYPE III 24-HOUR RAINFALL= 5.5 IN

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REACH 114

Flow thru wetlands

Q_{in} = 2.97 CFS @ 14.26 HRS, VOLUME= .75 AF
 Q_{out} = 2.96 CFS @ 14.33 HRS, VOLUME= .75 AF, ATTEN= 0%, LAG= 4.5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	4.7	1.49
.3	9.9	4.82
.5	15.5	9.66
.6	23.5	18.10
.9	35.1	32.75
1.2	50.4	55.32
1.5	67.5	83.90

30' x 1.5' CHANNEL
 SIDE SLOPE= .1 '/'
 n= .1
 LENGTH= 67 FT
 SLOPE= .006 FT/FT

STOR-IND+TRANS METHOD
 PEAK DEPTH= .22 FT
 PEAK VELOCITY= .4 FPS
 TRAVEL TIME = 2.6 MIN
 SPAN= 5-20 HRS, dt=.05 HRS
 2 x FINER ROUTING

REACH 200

Not described

Q_{in} = 14.97 CFS @ 13.14 HRS, VOLUME= 4.22 AF
 Q_{out} = 14.97 CFS @ 13.14 HRS, VOLUME= 4.22 AF, ATTEN= 0%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
---------------	---------------------	----------------

- METHOD
 PEAK DEPTH= 0.00 FT
 PEAK VELOCITY= 0.0 FPS
 TRAVEL TIME = 0.0 MIN
 SPAN= 5-20 HRS, dt=.05 HRS

TYPE III 24-HOUR RAINFALL= 5.5 IN

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5 Apr 99

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POND 100

Wetlands behind existing house

Qin = 27.18 CFS @ 12.11 HRS, VOLUME= 6.17 AF
 Qout= 6.16 CFS @ 16.08 HRS, VOLUME= 4.09 AF, ATTEN= 77%, LAG= 238.2 MIN
 Qpri= 6.09 CFS @ 16.08 HRS, VOLUME= 4.08 AF
 Qsec= .06 CFS @ 16.08 HRS, VOLUME= .01 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)	STOR-IND METHOD
81.9	12450	0	0	PEAK STORAGE = 93669 CF
82.0	18853	1565	1565	PEAK ELEVATION= 84.2 FT
83.0	33486	26170	27735	FLOOD ELEVATION= 84.6 FT
84.0	66525	50006	77740	START ELEVATION= 81.9 FT
84.5	88220	38686	116426	SPAN= 5-20 HRS, dt=.05 HRS 2 x FINER ROUTING Tdet= 192.7 MIN (4.07 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	81.9'	12" CULVERT n=.024 L=20' S=.0085'/' Ke=.5 Cc=.9 Cd=.6
2	P	83.4'	12" CULVERT n=.024 L=15' S=.04'/' Ke=.5 Cc=.9 Cd=.6
3	S	84.2'	10' BROAD-CRESTED RECTANGULAR WEIR Q=C L H ^{1.5} C=3.32, 3.32, 3.32, 3.32, 0, 0, 0, 0

Primary Discharge

- └─1=Culvert
- └─2=Culvert

Secondary Discharge

- └─3=Broad-Crested Rectangular Weir

TYPE III 24-HOUR RAINFALL= 5.5 IN

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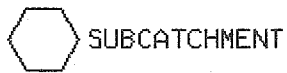
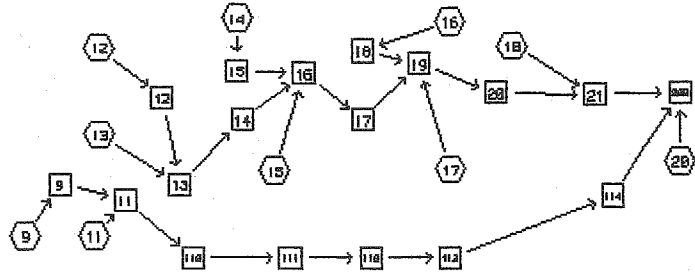
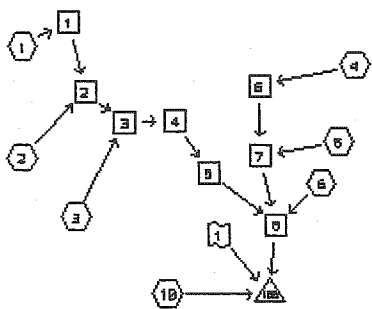
LINK 1

OFF-SITE WS RUNOFF

Qout= 5.26 CFS @ 11.57 HRS, VOLUME= 4.21 AF, SPAN= 5-20 HRS, dt=.05 HRS

REACH 100 from 97380 - WASHINGTON X'ING: OFF-SITE WS
"CB & 15" RCP OUTFALL TO PROJECT SITE"

WATERSHED ROUTING



25 year with pond all ready full.

TYPE III 24-HOUR RAINFALL= 5.5 IN

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6 Apr 99

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POND 100

Wetlands behind existing house

Qin = 27.18 CFS @ 12.11 HRS, VOLUME= 6.17 AF
 Qout= 7.29 CFS @ 13.79 HRS, VOLUME= 6.22 AF, ATTEN= 73%, LAG= 101.1 MIN
 Qpri= 6.45 CFS @ 13.79 HRS, VOLUME= 6.00 AF
 Qsec= .84 CFS @ 13.79 HRS, VOLUME= .22 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)	STOR-IND METHOD
81.9	12450	0	0	PEAK STORAGE = 99397 CF
82.0	18853	1565	1565	PEAK ELEVATION= 84.3 FT
83.0	33486	26170	27735	FLOOD ELEVATION= 84.6 FT
84.0	66525	50006	77740	START ELEVATION= 84.2 FT
84.5	88220	38686	116426	SPAN= 5-20 HRS, dt=.05 HRS 2 x FINER ROUTING Tdet= 212.1 MIN (4.08 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	81.9'	12" CULVERT n=.024 L=20' S=.0085'/' Ke=.5 Cc=.9 Cd=.6
2	P	83.4'	12" CULVERT n=.024 L=15' S=.04'/' Ke=.5 Cc=.9 Cd=.6
3	S	84.2'	10' BROAD-CRESTED RECTANGULAR WEIR Q=C L H ^{1.5} C=3.32, 3.32, 3.32, 3.32, 0, 0, 0, 0

Primary Discharge

- └─1=Culvert
- └─2=Culvert

Secondary Discharge

- └─3=Broad-Crested Rectangular Weir

25 year storm with pond Full

SEBAGO TECHNICS, INC.

12 Westbrook Common
 P.O. Box 1339
 WESTBROOK, ME 04098-1339

LETTER OF TRANSMITTAL

Hand Delivered

Phone (207) 856-0277 FAX (207) 856-2206

TO City of Portland
389 Congress Street
Portland, ME 04101

DATE <i>4-1-99</i>	JOB NO. <i>97380</i>
ATTENTION <i>Bill Needleman, Planner</i>	
RE: <i>Washington Crossing Condominiums</i> <i>ALC Development Corp.</i>	

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

- Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
<i>2</i>			<i>Draft Association Docs.</i>

THESE ARE TRANSMITTED as checked below:

- For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment _____
 FOR BIDS DUE _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO _____

SIGNED: *Shawn T. P.*

If enclosures are not as noted, kindly notify us at once.

D R A F T

BYLAWS OF WASHINGTON CROSSING CONDOMINIUM ASSOCIATION

ARTICLE I

Introductory Provisions

1.1. **Unit Ownership.** The land located on the northwesterly side of Allen Avenue, in the city of Portland, Cumberland County, Maine, together with all improvements to be constructed thereon, has been or will be submitted to the provisions of the Maine Condominium Act, chapter 31 of Title 32 of the Maine Revised Statutes of 1964, as amended (the "Act"), by the Declaration of Washington Crossing Condominium (the "Declaration"), a copy of which is to be recorded in the Cumberland County Registry of Deeds, and declared as a condominium to be known as Washington Crossing Condominium (hereinafter called the "Condominium". These Bylaws have been adopted as required by Section 1603-106 of the Act to govern this Unit Owner Association of the Condominium (hereinafter called the "Association").

1.2. **Name.** The name of this Association is WASHINGTON CROSSING CONDOMINIUM ASSOCIATION.

1.3. **Applicability of Bylaws.** These Bylaws are applicable to the use and occupancy of the Units and the Condominium Property. All present and future owners, mortgagees, lessees, licensees and occupants of the Units, their employees, agents, contractors and guests, and any other persons who use the Condominium Property in any manner are subject to these Bylaws, and to the Rules and Regulations established by the Executive Board of the Association.

1.4. **Office.** The principal office of the Association and the Executive Board shall be located at _____, _____, Maine, or at any other location that the Executive Board may designate.

1.5. **Corporation Law.** Except where other laws are referred to in these Bylaws, the Association shall be governed by the provisions of the Maine Nonprofit Corporation Act, Title 13-B of the Maine Revised Statutes of 1964, as amended ("the Nonprofit Corporation Act") and the "Board Directors" described in the Nonprofit Corporation Act shall be referred to as the Executive Board.

1.6. **Nonprofit Status.** The Association is not organized for profit, and no property or profit thereof shall inure to the benefit of any person except in furtherance of the

nonprofit-making purposes of the Association, or in the course of acquiring, constructing and providing management, maintenance or care of the Condominium Property.

1.7. **Definitions.** Capitalized terms shall have the meanings specified in these Bylaws. Where there is no definition in these Bylaws, capitalized terms shall have the definitions set forth in the Declaration, or if not in the Declaration, then in the Act.

ARTICLE 2 The Association

2.1. **Composition.** The Association has been organized as a nonprofit corporation pursuant to the Nonprofit Corporation Act. The Association shall consist of all Unit Owners acting as a group in accordance with the Act, the Declaration and these Bylaws. Following any termination of the Condominium pursuant to the Act, the Association shall consist of all former Unit Owners entitled to distributions of proceeds, or their heirs, successors or assigns, but shall not include anyone having an interest in a Unit solely as security for an obligation. The terms "member" and "Owner" appearing in these Bylaws are interchangeable.

2.2. **Interests Not Transferable.** The membership of each Unit Owner shall not be transferable. The membership of each Unit Owner shall terminate upon a sale or transfer (other than by mortgage) of the ownership interest of the Owner in each Unit. The membership and any interest in the reserve funds and other common funds shall automatically transfer to the next Owner. The Association may, but shall not be required to, issue certificates or other evidence of membership.

2.3. **Powers and Duties.** The Association shall have the following purposes, powers and duties: to

(a) adopt and amend these Bylaws and Rules and Regulations for use of the Units and the use and operation of the Association and the Condominium Property, provided that the initial Executive Board shall have the power to adopt these Bylaws;

(b) adopt and amend budgets for revenues, expenditures and reserves, and collect assessments for Common Expenses from Unit Owners;

(c) hire and terminate managing agents and other employees, agents and independent contractors;

(d) institute, defend or intervene in litigation or administrative proceedings in its own name, or on behalf of two or more Unit Owners, on matters affecting the Condominium or affecting warranty claims to Common Elements;

(e) make contracts and incur liabilities relating to the purposes of the Association;

(f) regulate the use, maintenance, repair, replacement and modification of the Common Elements;

(g) make additional improvements to the Common Elements;

(h) acquire, hold; encumber and convey in its own name any interest in real or personal property provided that the Common Elements may be conveyed as a security interest only pursuant to Section 1603-112 of the Act, and subject to the prior approval of Eligible Mortgage Holders as described in Article 9 of the Declaration;

(i) grant easements and licenses on the Common Elements;

(j) impose charges for the use of the Common Elements and for services provided to Unit Owners;

(k) impose charges for late payment of assessments and, after notice and an opportunity to be heard, impose reasonable fines for violations of these Bylaws and rules and regulations of the Association;

(l) impose reasonable charges for the preparation of statements of membership and Resale Certificates;

(m) provide for the indemnification of its officers and Executive Board and maintain directors' and officers' liability insurance;

(n) exercise all other powers that may be exercised in the State of Maine by corporations organized pursuant to the Act; and

(o) exercise any other powers necessary and proper for the operation of the Condominium by the Association.

These responsibilities shall be performed by the Executive Board or Manager as set forth in these Bylaws.

2.4. Meeting of Members. Meetings of the membership shall be held at the principal office of the Association, or anywhere in Portland, South Portland, Scarborough or Westbrook that may be specified in the notice of the meeting.

2.5. Annual Meetings. The annual meetings of the members shall be held between thirty (30) and sixty (60) days prior to the beginning of each fiscal year, but not on a legal holiday. At the annual meetings, the budget shall be considered and the Executive Board shall be elected by ballot of the members in accordance with the provisions of Article 3. The members shall also transact any other business that may properly come before them.

2.6. Special Meetings:

(a) The Secretary shall call a special meeting of the Association if directed to do so by resolution of the Executive Board, or by a petition signed and presented to the Secretary by at least fifty percent (50%) of the Unit Owners then in existence. The notice of any special meeting shall state the time, place and purpose of the meeting. The meeting shall be held no earlier than fourteen (14) days and no later than forty-five (45) days after receipt by the Secretary of the resolution or petition. No business shall be transacted at a special meeting, except as stated in the notice, unless at least fifty percent (50%) of the Unit Owners at the meeting consent.

(b) Within sixty (60) days after conveyance of _____ (____) Units to Unit Owners, or within five (5) years of conveying the first Unit, whichever occurs first, or at any earlier date that Declarant may specify, a special meeting of the Association and a special election shall be held. At this meeting, the Officers and Directors of the Association shall resign, and the Owners shall set the number of Directors for the upcoming year, and elect a new Executive Board from the qualified people described in Section 3.1. All Owners, including the Declarant as Owner of one or more Units, may vote at this special election. The term of Directors of the Board elected at this special election shall be for three years, two years, and one year unless different terms are agreed to by all Directors. The two Directors receiving the most votes each have a three year term, the two Directors with the second most votes each will have a two year term, and the Director with the fewest votes will have a one year term.

2.7. Notice of Meetings. It shall be the duty of the Secretary to give Notice of each annual or special meeting including: (a) the time and place of the meeting; (b) the items on the agenda for that meeting; (c) a description of the general nature of any proposed amendment to these Bylaws; (d) the figures for any proposed budget changes; and (e) a brief description of the reasons for any proposal to remove a member of the Executive Board or any Officer. The Notice shall be mailed to the Registered Address of each Owner, including the Declarant, at least fourteen (14) days, but no more than forty-five (45) days, prior to the meeting. If the Secretary fails or neglects to give Notice, then any other officer may do so.

2.8. Quorum. The presence, either in person or by written proxy, of the Owners of Units with at least sixty percent (60%) of the voting interests shall constitute a quorum for the transaction of business at all meetings of the Association.

2.9. Adjournment of Meetings. If there is no quorum at any meeting of members, then those members who are present may adjourn the meeting to a time no more than thirty (30) days in the future.

2.10. Votes in Association. Votes shall be allocated to Unit Owners in the same proportion as their interest in the Common Elements, described in Section 3.5 and schedule C of the Declaration.

2.11. Voting.

(a) Single Owner. If a Unit is owned of record by one person, that Owner's right to cast the Vote for that Unit shall be established by the record title to the Unit.

(b) Multiple Owners. If ownership of a Unit is in more than one person, the person who shall be entitled to cast the vote for that Unit shall be the person named in the latest certificate signed by all of the Owners of the Unit and filed with the Secretary of the Association. If individual multiple Owners of a Unit have not filed a certificate with the Secretary, and only one of the Owners is present at a meeting of the Association, he shall be entitled to cast the Vote allocated to that Unit. If individual multiple Owners of a Unit have not filed a certificate with the Secretary, and if more than one Owner is present at a meeting, the Vote allocated to that Unit may be cast only with the agreement of a majority of the Owners present at the meeting.

(c) Other Owners. If ownership of a Unit is in a corporation, partnership, trust or estate, then the person entitled to cast the Vote for that such Unit shall be designated in a certificate filed with the Secretary of the Association, and signed by (1) the President or a Vice-President and attested by the Secretary or Clerk of the corporation; (2) all general partners of the partnership; (3) all trustees and beneficiaries (other than minors or incompetents) of the trust, or (4) either the personal representative and all devisees of the estate or by order of Probate Court.

(d) Declarant. If the Declarant owns or holds title to one or more Units any person designated by the Declarant shall have the right to cast the votes for those Units.

(e) Certificates. These certificates of multiple owners, corporations, partnerships, trusts and estates shall be valid until revoked by a subsequent certificate similarly executed and filed with the Secretary. Wherever the vote of an Owner is required by these Bylaws, or the Act, the vote shall be made only by the person designated on the certificate, or his written proxy if proxies are authorized on the certificate.

(f) Eligible Mortgage Holders. In the event of proposed action to terminate the condominium pursuant to Section 1602-118, to change boundaries of a Unit, to subdivide a Unit other than the Divisible Unit, merge or consolidate the Condominium with another condominium, convey a security interest in the Common Elements, or use any property damage insurance proceeds for any purpose other than for repair or restoration of the damaged property, then any Eligible Mortgage Holder shall have the right, but not the obligation, to cast the vote for the Unit. Eligible Mortgage Holders shall be given notice of any meetings to consider such action, and their failure to exercise this right shall be a waiver of it.

2.12. **Majority Vote Required.** Unless these Bylaws require a different vote, each issue presented at a meeting shall be determined by a vote of a majority of Owners present at the meeting. The term "majority" shall mean more than fifty percent (50%).

2.13. **Informal Action.** Any action, which is required or permitted to be taken at a meeting of the members, may be taken without a meeting only if a written consent to the action is signed by all the members. The Secretary shall file all written consents with the records of the Association meetings.

2.14. **Proxies.** A vote may be cast in person or by written proxy filed with the Secretary before the time of the meeting. A proxy may be revoked only by giving the person presiding over the meeting a written notice of revocation from the person signing the proxy. No proxy shall be valid for more than six (6) months. A proxy is void if it is not dated.

2.15. **Order of Business.** The order of business at all meetings of the members shall be as stated in the Notice.

2.16. **Rules.** At all meetings of the Association the most recent edition of Robert's Rules of Order shall be followed, except in the event of a conflict with the Bylaws, which shall govern.

ARTICLE 3 Executive Board

3.1. **Number and Qualifications.** The affairs of the Association shall be governed by an Executive Board of Directors referred to in these Bylaws as "Executive Board", composed of no less than three (3) and no more than five (5) persons. Prior to the special election provided for by Section 2.6(b), the Executive Board shall be composed of three (3) persons who are nominated, removed and replaced by the Declarant. After the special election, Directors shall be Owners, spouses of Owners, or in the case of an Owner which is a corporation, partnership, trust or estate, an agent for that purpose which is signed and filed with the Secretary as described in Section 2.11(c).

3.2. **Election and Term of Office.** At the annual meetings of the Association after the special election, the Association shall set the number of Directors for the upcoming year, and an election of the Director(s) whose term(s) is (are) vacant shall be held. The term of office of all Directors shall be three (3) years, with staggered terms established so that at least one (1) Director shall be elected each year. Any Director may serve an unlimited number of terms to succeed himself.

3.3. **Veto Rights.** The Declarant may voluntarily surrender the right to appoint and remove officers of the Association and members of the Executive Board, before termination of the Declarant Control Period. If so, Declarant may require, for the duration

of the Declarant Control Period, that specified actions of the Association or Executive Board, as described in a recorded instrument executed by the Declarant, be approved in writing by the Declarant before such actions can become effective.

3.4. Powers and Duties. The Executive Board shall have the powers and duties necessary for the administration of the Association and shall have all powers and duties referred to in the Act. The powers and duties of the Executive Board shall also include, but not be limited to, the following:

(a) The power and duty to determine the Common Expenses of the Condominium and the Common and Special Assessments to each Unit;

(b) The power and duty to make assessments against Owners to defray the expenses of the Condominium and to establish the methods of collecting such assessments from the Owners;

(c) The power and duty to provide for the operation, care, upkeep, maintenance and repair of all Condominium Property;

(d) The power and duty to hire and dismiss the personnel necessary for the maintenance, operation, repair and replacement of the Condominium Property and services provided Owners, and to pay for the equipment, supplies and material used by such personnel in the performance of their duties;

(e) The power to make and amend Rules and Regulations covering the details of the operation and use of the Condominium Property and Units;

(f) The power to open bank accounts and deposit and invest funds on behalf of the Association;

(g) The power and duty to make repairs, additions and improvements to the Condominium Property, in accordance with these Bylaws;

(h) The power to enforce by legal means the provisions of the Declaration, these Bylaws, and the Rules and Regulations;

(i) The power and duty to obtain and carry insurance against casualties and liabilities, as provided in the Bylaws, and adjust and settle any insurance claims;

(j) The power and duty to pay the cost of all authorized services rendered to the Association;

(k) The power to borrow money on behalf of the Association when necessary in connection with the operation, maintenance and repair of Condominium Property; provided, however, that the written consent of the Owners of at least at 67% of all

existing votes in the Association shall be required for the Executive Board to borrow any sum in excess of Two Thousand Five Hundred Dollars (\$2,500.00);

(l) The power to do all acts consistent with these Bylaws which the Executive Board may be authorized to do by resolution of the Association; and

(m) The power to acquire units from Unit Owners, and sell and mortgage units on behalf of the Association.

3.5. Delegation of Powers to Manager. The Executive Board may employ a "Manager" at a compensation established by the Executive Board. The Executive Board may delegate to the Manager all of the powers granted to the Executive Board by these Bylaws except the power: (a) to adopt the annual budget; (b) to make any assessments; (c) to adopt, repeal or amend Rules and Regulations of the Association; (d) to open Association bank accounts; (e) to borrow money on behalf of the Association; or (f) any other item that it shall be unlawful to delegate.

3.6. Removal or Resignation of Directors. At any regular or special meeting of the Association, any one or more of the Directors of the Executive Board may be removed with or without cause by the affirmative vote of Owners of 67% of the votes in the Association. Any director whose removal has been proposed shall be given at least ten (10) days written notice by the Secretary of the time, place and purpose of the meeting, and shall be given an opportunity to be heard at the meeting. A successor Director may then be elected by the Association to fill the vacancy created. A Director of the Executive Board may resign at any time by written notice delivered to the Secretary, and shall automatically resign upon transfer of title to his Unit.

3.7. Vacancies. Except as set forth in Section 3.1 and Section 3.6, vacancies in the Executive Board caused by any reason other than the removal of a Director by a vote of the Owners, shall be filled by a vote of a majority of the remaining Directors at a special meeting of the Executive Board held promptly after the vacancy occurs, even though the Directors present at that meeting may constitute less than a quorum. If less than two (2) Directors remain on the Executive Board, or the two members cannot agree on a new Director, then the Association shall elect the new Director(s). Each person elected shall be a Director of the Executive Board for the remainder of the term of the Director being replaced.

3.8. Organizational Meeting. An organizational Annual Meeting of the Executive Board shall follow each annual meeting of the Association within ten (10) days, at the time and place fixed by the President (the outgoing President) at the annual meeting at which the Executive Board was elected. No notice to the new Directors shall be necessary to legally hold such meeting, if a majority of the Executive Board Directors are present at the Meeting.

3.9. **Regular Meetings.** Regular meetings of the Executive Board may be held at such time and place as shall be determined by a majority of the Directors, but meetings shall be held at least once every six (6) months during each fiscal year. Written notice of regular meetings of the Executive Board shall be mailed by the Secretary to each Director at least seven (7) days prior to the meeting.

3.10. **Special Meetings.** Special meetings of the Executive Board may be called by the President on at least three (3) business days written notice given by the Secretary to each Director by telegraph or hand delivery, which notice shall state the time, place and purpose of the meeting. Special meetings of the Executive Board shall be called by the President or Secretary within ten (10) days of a written request from at least two (2) Directors of the Executive Board.

3.11. **Waiver of Notice.** Any Director may at any time, in writing, waive notice of any meeting of the Executive Board, and the waiver shall be equivalent to the receipt of the notice. Attendance by a member at any meeting of the Executive Board shall constitute a waiver of notice by him of the time, place and purpose of such meeting, unless the sole purpose of the member's attendance is to protest the holding of the meeting. If all members are present at any meeting of the Executive Board, no notice shall be required and any business may be transacted at the meeting.

3.12. **Quorum of the Executive Board.** At all meetings of the Executive Board, if two (2) Directors are present at the beginning of any meeting, then a quorum exists for the transaction of business. If a Director leaves from a meeting at which a quorum was originally present, the votes of a majority of the Directors remaining at the meeting shall constitute a binding decision of the Executive Board. If one (1) Director is present at any meeting, he may adjourn the meeting to another time. At any adjourned meeting at which a quorum is present, any business, which might have been transacted at the meeting originally called, may be transacted without further notice. One or more Directors of the Executive Board may participate in and be counted for quorum purposes at any meeting by means of conference telephone or similar communication equipment by which all Directors participating in the meeting can hear each other.

3.13. **Compensation.** No Director of the Executive Board shall receive any compensation from the Association for acting as such, but may be reimbursed for any expenses incurred in the performance of his duties.

3.14. **Conduct of Meetings.** The President shall preside over all meetings of the Executive Board and the Secretary shall keep a minute book of the Executive Board meetings, recording in it all resolutions adopted by the Executive Board and all transactions and proceedings occurring at such meetings. The latest edition of Robert's Rules of Order shall govern the conduct of the meetings of the Executive Board, to the extent not in conflict with these Bylaws.

3.15. **Action Without Meeting.** Any action by the Executive Board, which is required or permitted to be taken at a Directors meeting, may be taken without a meeting if all of the Directors on the Executive Board consent in writing to the action. Any such written consent shall be filed with the minutes of the proceedings of the Executive Board.

3.16. **Validity of Contracts with Interested Executive Board Members.** A contract or other transaction between the Association and one or more of its Directors, or between the Association and any corporation, partnership or association in which one or more of the Directors is a director or officer, or is financially interested, shall be voidable by the Association. If a full disclosure of the Director's interest is made in writing and is noted in the minutes, then the Executive Board may approve the contract or transaction, in good faith, by an affirmative vote of two (2) disinterested Directors. An interested Director may be counted in determining the quorum at any meeting of the Executive Board which approves a contract or transaction described in this paragraph.

ARTICLE 4

Officers

4.1. **Designation.** The officers of the Association shall be the President, the Vice-President, the Secretary, the Treasurer, and the Clerk, all of whom shall be elected by the Executive Board. The Executive Board may also appoint an Assistant Treasurer, and a Assistant Secretary if it wants to. The President and Treasurer shall be Directors and the Vice-President shall be a Director and/or Unit Owner. Any other officer need not be an Owner or Director. An officer, other than the President, may hold more than one office.

4.2. **Election of Officers.** The officers of the Association shall be elected annually by the Executive Board at the Annual Meeting of the Board, and shall hold office at the pleasure of the Executive Board.

4.3. **Removal and Replacement of Officers.** Upon the affirmative vote of a majority of all members of the Executive Board, any officer may be removed, either with or without cause, and a successor may be elected at any meeting of the Executive Board called for that purpose.

4.4. **President and Vice-President.**

(a) The President shall be the chief executive officer of the Association, shall preside at all meetings of the Association and of the Executive Board, and shall have all of the general powers and duties which are incident to the office of president of a nonprofit corporation organized under the Act. The President shall resign if he is no longer a member of the Executive Board.

(b) The Vice-President shall take the place of the President, and perform the duties of the President, whenever the President shall be absent or unable to act. If neither the

President nor the Vice-President is able to act, the Executive Board shall appoint some other member of the Executive Board to act in the place of the President, on an interim basis. The Vice-president shall also perform such other duties as may be given to him by the Executive Board or by the President.

4.5. **Secretary.** The Secretary shall keep the minutes of all meetings of the Association, minutes of all meetings of the Executive Board, maintain a register setting forth the address to which all notices to Owners and Directors shall be delivered, maintain a register of certificates filed pursuant to Sections 2.11(e) and 3.1, and, in general, perform all the duties incident to the office of secretary of a nonprofit corporation organized under the Act.

4.6. **Treasurer.** The Treasurer shall be responsible for the safekeeping of Association funds, for keeping full and accurate financial records showing all receipts and disbursements, and, in general, shall perform all the duties incident to the office of treasurer of a nonprofit corporation organized under the Act.

4.7. **Clerk.** The clerk shall be the individual listed as the registered Agent with the State of Maine Secretary of State, and shall have all powers and duties of a clerk or registered agent under the Act.

4.8. **Execution of Documents.** All agreements, contracts, deeds, leases, checks, notes and other instruments of the Association shall be executed by the President, Vice-President, Secretary or Treasurer of the Association, as authorized by the Executive Board.

4.9. **Compensation of Officers.** No officer who is also a Director of the Executive Board shall receive any compensation from the Association for acting as such officer, but may be reimbursed for any out-of-pocket expenses incurred in performing his duties; provided, however, that the Secretary and Treasurer may be compensated for their services if the Executive Board determines such compensation to be appropriate.

ARTICLE 5 Association Finances

5.1. **Fiscal Year.** The fiscal year of the Association shall begin on January 1st of each year. The date of the fiscal year may be changed by the Executive Board.

5.2. Preparation and Approval of Budget

(a) No later than 90 days prior to each fiscal year, the Executive Board shall adopt an annual budget for the upcoming fiscal year of the Association, containing an estimate of the total amount of Association Expenses anticipated in the upcoming fiscal year. The budget shall include such amounts as the Executive Board may consider necessary to

provide capital to the reserve funds described in Section 5.6. The proposed budget shall also include any known special assessments.

(b) Upon adoption, the Executive Board shall mail such budget to each Owner. The Executive Board shall schedule the ratification of the budget at the annual meeting of the Association whenever possible. Otherwise, a special meeting may be called as set forth in these Bylaws. Unless owners of at least 51% of the vote in the Association reject or revise the proposed budget, that budget is ratified irrespective of whether a quorum is present at the meeting. If the budget is rejected at the meeting, the last budget ratified shall continue as the budget for the Association until such time as the Owners ratify a subsequent budget proposed by the Executive Board.

(c) The budget adopted pursuant to this paragraph shall constitute the basis for determining each Owner's assessments for Common Expenses and shall automatically take effect at the beginning of the fiscal year for which it is adopted. Any increases or decreases in the total annual Common Expense for each Unit resulting from a change in the Budget at the Ratification Meeting shall be balanced with the next Common Expense payment due.

5.3. **Assessment of Common Expenses.** The total amount of the estimated funds for Common Expenses shall be assessed against each of the Owners in the same percentage as each Owner has in the Common Elements, and shall be a lien as described in Section 5.12.

5.4. **Special Assessments.** The Executive Board may make special assessments to any Owners for any service or expense benefitting that Owner only or for damage to Common and Limited Common Elements done by a Unit Owner or its agents, accompanied by a statement in writing giving the amount and reasons for it. All Owners so notified shall be obligated to pay the assessment as directed by the Executive Board. These assessments shall be a lien as described in Section 5.12.

5.5. **End of Fiscal Year.** Prior to the annual meeting, the Executive Board shall prepare an itemized accounting for the past fiscal year of the Common Expenses actually incurred and paid, an accounting of all amounts collected, and a statement of all reserve balances. Any shortage with regard to Common Expenses, after application of such reserves as the Executive Board may determine, shall be assessed promptly against the Owners and shall be payable either in full with payment of the next assessment due, or in one or more special assessments, as the Executive Board may determine.

5.6. **Reserves.** The Executive Board shall build up and maintain reasonable reserves for working capital, including:

(a) A general operating reserve fund for current Common Expenses, known as the "Working Capital Fund"; and

(b) A reserve fund for contingencies, replacements, capital improvements, expenses of repair and replacement in the amount of the applicable deductibles on property insurance policies carried by the Association, and other items which cannot be expected to occur on a regular basis, known as the "General Reserve Fund";

(c) Additional funds may be created by the Association for specified purposes authorized by these Bylaws.

The Working Capital Fund, General Reserve Fund, and other funds shall be common funds of the Association, and shall be deposited in an account with a banking institution whose accounts are insured by an agency of the United States of America. Extraordinary expenditures which may become necessary during the year and which are not originally included in the annual budget shall be charged first against the General Reserve Fund. If the reserves are deemed to be inadequate by the Executive Board for any reason, the Executive Board may at any time levy a further assessment, which shall be assessed against all Owners equally and shall be payable in a lump sum or in installments as the Board may determine.

5.7. **Initial Capital Payment.** The Declarant, as the agent of the Executive Board, will collect from each initial Owner at the closing of each Unit, an "initial capital payment" to apply equally to the Working Capital Fund and General Reserve Fund. The Declarant will deliver the funds to the Treasurer. The Working Capital Fund may be used for initial equipment, supplies, organizational and other start-up costs, and for other purposes as the Executive Board may determine.

5.8. **Effect of Failure to Prepare or Adopt Budget.** The failure of the Executive Board to prepare a budget for any fiscal year shall not constitute a waiver or release of an Owner's obligation to pay his share of the Common Expenses, whenever the assessments are determined. In the absence of any annual budget or adjusted budget, each Owner shall continue to pay assessments at the rate established for the previous fiscal year.

5.9. **Accounts; Audits.** All books and records of the Association shall be kept under the direction of the Treasurer and in accordance with customary accounting principles and practices. Any Owner shall have the right to give written notice to the Association, and cause the records and books of the Association to be audited and a financial statement of the Association prepared, at the expense of the Owner. The Executive Board may have its own audited statements prepared.

5.10. **Payment Obligations.** Each Owner shall pay to the Association, or its authorized representative, all assessments as the Executive Board may direct, and all interest, charges for late payment, legal fees and other costs of collection.

5.11. **Interest; Acceleration.** In the event of a default by an Owner in paying any sum assessed against his unit, which continues for more than fifteen (15) days, interest shall be imposed on the principal amount unpaid, from the date when due until paid, at a rate of

interest to be established annually by the Executive Board, which shall not exceed eighteen percent (18%) per annum. In any case where an assessment against an Owner is unpaid for more than sixty (60) days from its due date, the entire balance of all assessments and other charges may be declared due and payable by the Executive Board or its representative.

5.12. **Lien for Assessments.** All assessments, interest, charges for late payments, legal fees and other costs of collection shall constitute a lien against the Unit, in favor of the Association, as provided in Section 1603-116 of the Act, until fully paid. This lien is prior to all other liens and encumbrances on a Unit except, (a) liens and encumbrances recorded before the recording of the Declaration, (b) a first Mortgage held by an Eligible Mortgage Holder, and (c) liens for real estate taxes assessed against the Units.

5.13. **Enforcement.** The lien for assessments described in Section 5.12 may be enforced and foreclosed by the Association like a mortgage on real estate, as provided in Section 1603-116 of the Act, or by any other means provided by law or in equity. A suit to recover a money judgment for unpaid assessments, interest, penalties, and costs of collection may be maintained against the Owner personally, without foreclosing or waiving the lien securing such assessments, and a foreclosure may be maintained notwithstanding any suit to recover a money judgment.

5.14. **Exemption, Waiver and Setoff.** No Owner may exempt himself from liability for Common Expenses by waiver of the enjoyment of the right to use any of the Association Property or by abandonment of his Unit or otherwise. The obligation to pay assessments for Common Expenses is absolute and unconditional, and shall not be subject to set-offs or counterclaims.

5.15. **Collection of Assessments.** The Executive Board shall take prompt action to collect any assessment for Common Expenses due from any owner which remains unpaid for more than ninety (90) days from the due date for payment, together with any interest and charges as provided in Sections 5.10. and 5.11.

ARTICLE 6

Condominium Property, Maintenance and Its Repair

6.1. **Condominium Property.** All Condominium Property listed in this Article shall be referred to in these Bylaws as "Condominium Property", and shall be owned by the Unit Owners subject, however, to all rights of Declarant and other restrictions set forth in the Declaration, this Article, and these Bylaws. The Condominium Property shall include all Common Elements and Limited Common Elements and any other interest in real estate or any other improvements acquired by the Association or the Unit Owners in common.

6.2. **Maintenance.** The Executive Board shall determine the scope of all landscaping and maintenance of the Condominium Property.

6.3. **Insurance.** The Executive Board shall maintain hazard and liability insurance for the Condominium Property and its improvements in the amounts that the Board determines are appropriate. A copy of all insurance policies shall be available to Owners upon written request.

6.4. **When Repair and Reconstruction are Required.** If Condominium Property is damaged or destroyed due to fire, other casualty, or the exercise of the power of eminent domain, the Executive Board shall promptly arrange for and supervise its prompt repair, unless (a) the Condominium is terminated, or (b) the repair would be illegal under any state or local health, safety, land-use or environmental statute, code or ordinance.

6.5. **Procedure for Repair.** If repair is required pursuant to Paragraph 6.4:

(a) **Cost Estimates.** The Executive Board shall promptly obtain detailed estimates of the cost of repairing the Condominium Property, which may also include professional fees and premiums for whatever bonds the Executive Board determines to be necessary.

(b) **Assessments.** If the net proceeds of insurance, eminent domain awards, and any appropriate reserve funds, if any, are not sufficient to pay the estimated or actual costs of repair any excess costs shall be deemed a Common Expense, and a special assessment levied by the Executive Board.

6.6. **Damage or Destruction: No Repair or Replacement.** If the Condominium Property is not repaired:

(a) The insurance proceeds and any eminent domain awards for the damaged Condominium Property shall be used to restore the damaged area to a condition determined by the Executive Board;

(b) The remainder of the insurance proceeds and any eminent domain awards shall be distributed to all the Owners and mortgagees, as their insurable interest may appear, in proportion to their respective shares.

6.7. **Mortgagee Priority.** No provision of the Condominium documents shall be construed to give an Owner, or any other person, priority over the rights of any mortgagee pursuant to its Mortgage, in the case of a distribution to Owners of insurance proceeds or eminent domain awards for losses of Condominium Property.

ARTICLE 7

Administration of Condominium

7.1. **Establishment of Rules and Regulations.** The Executive Board shall have the power to adopt, amend and enforce compliance with any reasonable Rules and

Regulations relative to the operation, use and occupancy of the Association Property and Units and the provisions of these Bylaws. A copy of all such Rules and Regulations shall be delivered or mailed to each Owner promptly after adoption, and shall be binding upon all Owners, occupants and their successors.

7.2. **Changes to Common Elements.** Except during the Declarant Control Period, whenever the Executive Board determines that the Common Elements require additions, alterations or improvements costing in excess of Two Thousand Dollars (\$2,000.00), the making of such additions, alterations or improvements requires a vote of a majority of Unit Owners. The Executive Board shall assess all Unit Owners benefited for the cost of this work as a Common Expense or Limited Common Expense. Any additions, alterations or improvement costing less than Two Thousand Dollars (\$2,000.00) may be made by the Executive Board without approval of the Unit Owners, and the cost of this work shall constitute a Common Expense or Limited Common Expense. If, in the opinion of two (2) of the Directors of the Executive Board, such additions, alterations or improvements are exclusively or almost exclusively for the benefit of the Unit Owners requesting the work, the Unit Owners requesting the work shall be assessed in such proportion as they jointly approve or, if they are unable to agree thereon, in such proportion as may be determined by the Executive Board.

7.3. **Changes by Unit Owners.** Subject to the terms of Paragraph 3.7 of the Declaration (nonstructural improvements and alterations to the interior of a Unit), no Unit Owner shall make any structural addition, or structural alteration or improvement in or to his Unit without the prior written consent of the Executive Board. No Unit Owner shall: paint or alter the exterior of his Unit, including the doors and windows; paint or alter the exterior of any Building; erect any fences, signs, canopies, clotheslines, or other structures; plant or remove trees, shrubs or other vegetation; alter the grading or landscaping; or do any other thing which affects the appearance from the exterior of the Building or grounds, including landscaped Common Elements, without the prior written consent of the Executive Board. The Executive Board shall be obligated to answer any written request by a Unit Owner for approval of a proposed structural addition, alteration or improvement to a Unit, within forty-five (45) days after receipt of the request. Failure to do so shall constitute a consent by the Executive Board to the proposed structural addition, alteration or improvement. The answer to such written request shall be in writing, and shall state the reason(s) for denial or approval of the request. If any application to any governmental authority for a permit to make any such structural addition, alteration or improvement in or to any Unit requires execution by the Association, and if consent has been given by the Executive Board, then the application shall be executed on behalf of the Association by an authorized officer. However, there shall be no liability on the part of the Board or the Association to any contractor, subcontractor or materialman on account of such addition, alteration or improvement, or to any person having a claim for injury to person or damage to property arising therefrom. Subject to the written approval of any Eligible Mortgage Holder, the Executive Board and any Unit Owner affected, any Unit may be subdivided or may be altered so as to relocate the boundaries between such Unit and any adjoining Units. The Secretary shall record any necessary Amendment to the Declaration to effect such action

as provided in sections 1602-113 or 1602-112 of the Act at the expense of the Unit Owners involved. The provisions of this paragraph shall not apply to Units owned by Declarant and to additions, alterations, improvements, deletions and/or changes to the Common Elements made by Declarant until one (1) year after all Units have been conveyed to Purchasers or the expiration of any applicable periods for warranty-related work, whichever occurs later.

7.4. **Fines.** The Executive Board may impose reasonable fines against Owners for violations of the Rules and Regulations or the Bylaws. After notice is given to the Owner, each day a violation continues is a separate violation. If a Owner requests a hearing in writing before the fine is imposed, the imposition of the fine shall be suspended until the hearing is held. Fines are special Assessments and shall be collected as such.

7.5. **Appeal and Hearing Procedure; Actions by Owners.** No Owner shall have the right to commence any suit at law or in equity, or take any other action, except after following the procedures established in this section, and as may be established by the Executive Board by Rule or Regulation. The Executive Board shall hear appeals from Owners from (a) the decisions of the Executive Board and (b) the enactment of Bylaws and Rules and Regulations of the Association. Any decision must be appealed within sixty (60) days of written notice of the decision. The Executive Board shall hold a hearing on any appeal within thirty (30) days after receipt by the Executive Board of a written notice of appeal from an Owner. A decision shall be issued in writing by the Executive Board within ten (10) days after the conclusion of the hearing. In hearings before the Executive Board, all parties shall be entitled to be represented by counsel. Any action by an Owner against any other Owner or resident, or the Association, arising out of any terms of these Bylaws or the Association Rules or Regulations, shall be subject to the same procedures.

7.6. **Noncompliance.** The failure of a Owner to comply with these Bylaws and the Rules and Regulations of the Association shall entitle the Association and/or Executive Board to all remedies provided at law or in equity and also to the following relief:

(a) **Suits.** The Executive Board may (1) sue for the recovery of damages, (2) sue for injunctive relief or (3) sue to enter the Unit on which a violation exists, and remove any condition that may exist in violation, at the expense of the defaulting Owner.

(b) **Costs and Attorney's Fees.** In any proceeding arising because of an alleged failure of a Owner to comply with the terms of these Bylaws or Rules and Regulations, if the Executive Board is the prevailing party, it shall be entitled to recover its costs of the proceeding, including reasonable attorney's fees.

ARTICLE 8
Records of Ownership

8.1. **Record of Ownership.** Every Owner shall promptly file written evidence of title to his Unit with the Secretary, and the Secretary shall maintain this information as the "Ownership File" for the Association. All Eligible Mortgage Holders, and their addresses, shall also be listed in the "Ownership File."

8.2. **Registered Address.** Each Owner shall also file a mailing address with the Secretary, which shall be listed in the Ownership File.

8.3. **Availability of Information.** The Association shall make current copies of these Bylaws, the Rules and Regulations and other books, records and financial statements of the Association available to all Owners and to the holders, insurers and guarantors of the first mortgage on any Unit. "Available" means available for inspection during normal business hours, or offering of true copies.

ARTICLE 9 Amendments

9.1. **Notice.** Notice of any proposed amendment, including a brief summary and copy of any text changes, shall be included in the notice of any meeting of the Association in which a proposed amendment is considered.

9.2. **Resolution.** An amendment may be proposed by either the Executive Board or by the Owners of _____ () Units. Except as otherwise specifically provided in these Bylaws, no proposed amendment shall be effective unless it has been adopted at a meeting of the Association held in accordance with these Bylaws, and approved by the affirmative vote of the Owners of at least 67% of the votes in the Association.

9.3. **Agreement.** In the alternative, an amendment may be made by an agreement signed by the Owners of all Units, in which case such amendment shall become effective when signed by all owners.

9.4. **Execution.** A copy of each amendment shall be attached to or included with a certificate, certifying that the amendment was duly adopted, which shall be executed by the President, Vice President or Treasurer, and attested by the Secretary or Clerk. The amendment shall be effective when the certificate and copy of the amendment are executed, attested, and filed with the Association Corporate Record Book.

ARTICLE 10 Miscellaneous

10.1. **Corporate Seal.** The Association may have a seal in circular form having within its circumference the words:

WASHINGTON CROSSING
CONDOMINIUM ASSOCIATION
1999
MAINE

10.2. Remedies Cumulative. All rights, remedies and privileges granted to the Executive Board or an Owner pursuant to any terms of these Bylaws shall be cumulative, and the exercise of any one or more shall not constitute an election of remedies nor shall it preclude any party from exercising other rights, remedies or privileges.

10.3. Gender and Number. The use of the singular number in these Bylaws shall include the plural, the plural the singular, and the use of one gender shall be applicable to both genders.

10.4. Severability. The invalidity of any provision of these Bylaws shall not impair or affect the validity, enforceability or effect of the remainder of these Bylaws. If any provision is held to be invalid, then all of the other provisions of these Bylaws shall continue in full force and effect as if such invalid provision had never been included.

D R A F T

END END END END END

bylaws
rev to 12-22-98
rev 1-2-99
rev 1-7-99

From: Larry Ash
To: Rick Knowland
Date: Mon, Oct 26, 1998 8:59 AM
Subject: Allen Avenue Apartments

Rick: Regarding the above project I have the following concerns:

1. With no turning lanes and parking allowed on Allen Ave. then a turning vehicle may back up traffic forever. Traffic is already heavy on Allen Ave and the available gaps is small for turning vehicles.
2. A pedestrian crossing signal may be something to consider due to the number of pedestrians/students(?) crossing in this vicinity.
3. I believe a collision diagram would be beneficial in determining what and where problems have occurred on Allen Ave in this vicinity. Please ask that it be provided as part of the traffic study.

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PBM1

CITY OF PORTLAND, MAINE
Communication to the Planning Board

TO: Chair Carroll and Members of the Portland Planning Board

FROM: William Needelman, Planner

DATE: December 14, 1999

RE: Allen Avenue Condos, Vicinity of 214-238 Allen Avenue: Building changes.

ALC Development has submitted a revised set of plans of the buildings for their Washington Crossing Condominium project. This project is approved, bonded, and currently under construction. The applicant asks for staff approval for these changes. Chair Carroll and Chief Planner, Alex Jaegerman, have reviewed the conceptual building plans and layout alterations and agree that staff review is sufficient unless the Board should request a hearing.

The approved building designs can not be built as the applicant did not have ownership of the plans which are the copyrighted property of a competing developer. Applicant architect, Stan Gawron has prepared a new set of conceptual plans which the applicant intends to substitute for the approved plans.

The approved plans consist of four-unit buildings in Phase 1. and four and two-unit buildings in Phase 2. Currently, only Phase 1. is bonded for construction and the applicant has only submitted revised designs for the four-unit building.

The approved plans have four and two-unit buildings which consist of a full two story central mass flanked by one and a half story "wings." In the approved plans, garage doors face the street on the four unit structures and project 12 feet in front of the building. The revised plans are entirely one and a half stories with crossed gables. Garage doors are to be positioned between and behind the units, resulting in longer buildings. On the positive side, the revised building facade presents the dwelling entry more prominently and recesses the garage doors. This responds well to previous encouragement by staff to revise the design to enhance the orientation and relationship of the building to the roadway. The trade off of these longer buildings involves closer spacing of the units along the street. The previously approved plan shows 30-50 foot spacing, while spacing in the revised plan is in the 20 to 30 foot range.

Additionally, the applicant has indicated that the curving roads and cul-de-sac found in Phase 2. will require a shortening of the concept building shown, and that revised plans for a three-unit building will be submitted in the near future.

A revised layout plan has been submitted for Phase 1. showing only four-unit buildings. The applicant has indicated that they need a three-unit building to shorten the footprint of some buildings to better fit the curving layout of the site. The applicant intends to further amend the plan by mixing some three-unit buildings into both phases. While building layout will need to be adjusted to accommodate changes, no additional wetlands filling or amenities changes are

foreseen. The total number of units is not proposed to change, though there may be shifting of units between the phases. Subject to final details, it would be staff's intent to approve these changes. If the Board requests review, the item will likely be scheduled for the first meeting in February

- Attachments:
1. New concept building plans.
 2. Current building plans
 3. New concept building layout, Phase 1.
 4. Current layout, Phase 1.

A# C

PLANNING BOARD REPORT #14-99

WASHINGTON CROSSING CONDOS
VICINITY OF 214-238 ALLEN AVENUE
ALC DEVELOPMENT CORPORATION, APPLICANT

Submitted to:

Portland Planning Board
Portland, Maine

April 13, 1999

I. INTRODUCTION

The ALC Development Corporation proposes a 62-unit condominium residential development in the vicinity of 214-238 Allen Avenue, adjacent to the Portland Arts and Technology High School (PATHS). The 26.2-acre parcel is zoned R-5. for 100 feet along Allen Avenue and R-3 for the remainder. Half of the parcel has been delineated as wetland. The development is a Planned Residential Unit Development (PRUD), and will be subject to subdivision, sit plan, and site location of development review under delegated authority. See revised plan, Attachment 1. See previous staff memo, Attachment 2.

II. STAFF REVIEW

A. SUBDIVISION

1. Water and Air Pollution.

Washington Crossing is not expected to result in water and air pollution, pending ? review of combined sewer capacity. See Subdivision, section 6.

2./3. Water Supply

Portland Water District indicates that there is a 12" supply in Allen Avenue which will provide a healthful and sufficient supply of water for anticipated fire safety and domestic needs. See Attachment 4.1.

4. Soil Erosion

The applicant has submitted an erosion and sedimentation control plan which is consistent with Best Practices Management.

5. Traffic/Parking

Vehicle access to the site is proposed from Allen Avenue onto a 24-foot wide private road extended 1920 feet tot a cul-de-sac turnaround. The road is to be paved with bituminous surface, with bituminous curbing with granite transitions to Allen Avenue. Bituminous sidewalks are proposed for the westerly sideline.

Connection to the paper street at the north of the property are not proposed, due to wetlands impact.

In October, 1998, Wilbur Smith Associates prepared a Traffic Impact Study for this site, based on a 60-unit development. This study concluded that Allen Avenue in the vicinity of this site does not meet MDOT criteria for a high accident area. Adequate siting distances along Allen Avenue are available.

While cars exiting this development at peak hours can expect long delays, cars entering from Allen Avenue should experience little delay. See Traffic Study Conclusions, Attachment 6.

Parking will be provided by attached garages for all of the four-unit buildings and on the driveways in front of the two-unit buildings. Visitor parking will be provided on five 2-lot turnouts, in the driveways, and along the westerly side of the private road.

6. Stormwater

The site currently contains two watersheds; one draining the southeasterly one-third of the property, and the second draining the northwesterly two-thirds of the property. The southerly watershed drains off stormwater from the Plymouth Street and PATHS area, retaining water in a cat'o-nine-tail wetland, and outflowing through stacked 12-inch culverts onto Pennell Avenue. The northerly watershed takes water from PATHS and a portion of Pennell Avenue and drains westerly off-site to a tributary of the Presumpscott River. Drainage easements cross the subject parcel at both outflow points. See Attachment 7.

Wetlands dominate the easterly half of the property. A representative of the Army Corp of Engineers has walked the site, and is comfortable with the present wetland delineation.

The applicant has recently supplied an updated stormwater management plan, and staff is in the process of review.

Significant stormwater flow exits the site onto Pennell Avenue, and neighborhood concerns have been raised as to the capacity of the combined sanitary/stormwater sewer to handle additional flowage. The applicant requested a capacity letter from Public Works in April of 1998, but did not receive a response. In February of 1999, Public Works requested utility capacity letters from the applicant, including sanitary sewer capacity, but the applicant has only recently sent an updated request for capacity analysis from Public Works.

As combined sewer capacity is integral to stormwater management in this area, a complete review and resolution of this matter must be completed. The Board may want to condition approval or to table the stormwater and sewer discussion of this project until the engineering study has been revised and reviewed. See correspondence Attachments #8.

7. Sanitary and Solid Wastes

Solid waste will be the responsibility of the condo association, as should be noted on the plan and contained within the condo association documents.

Sanitary sewer is proposed to be served by a gravity feed 8-inch pipe running along the first 900 feet of the proposed road, with the rear portion of the development being served by a force main relying on a duplex pump. As stated in Section #6, capacity is still an unanswered question.

8. Scenic Beauty, Aesthetics

The site is currently largely wooded with extensive emergent and forested wetlands. As the applicant proposes to minimize impacts on the 13 acres of wetlands, the visual impact of development will be mitigated. Rare and endangered plants, and significant historical sites are not expected to be impacted.

9. Land Development Plan

The proposed development does not attempt to connect with other streets or with adjacent neighborhoods due to the constraints of the wetlands. Public pedestrian trails connecting through this property have not been addressed.

10. Financial and Technical Capacity

The applicant has produced a letter of reference from a loan officer from Peoples Heritage Bank which states that the developers have worked successfully with Peoples Heritage on similar projects the past. See Attachment 9.

11-15. Wetlands

The subject parcel contains over 13 acres of identified wetlands. This development proposes to fill approximately 17,000 sq. ft. of this area, and add additional stormwater to the remainder. Staff's review to date does not foresee unreasonable impacts on the areas to remain wild, or on groundwater. The Maine DEP will need to permit the filling and will provide an additional layer of review.

The development is not on an identified flood hazard area.

B. SITE PLAN

1/2. See Subdivision, Section 5

3. Building Impact

The proposed buildings are 1 1/2- to 2-story residences that will not unduly impact neighboring areas.

4. Diminution of Value to Neighborhood

The siting of the buildings on the westerly side of the property, and by retaining the wooded wetlands as a buffer, this design minimizes the impact of the building on the Pennell Avenue neighbors.

5. Utility Capacity

See Subdivision , Sections 6 and 7

6. Landscaping

The applicant proposed to plant a greater than required number of trees on site and proposed to save as many existing trees as possible. The forest areas of the upland contain a significant number of large trees. The applicant has agreed to work with city staff to identify and protect as many trees as possible, but as the development concentrates in the area of heaviest forestation, the majority of mature upland trees will be lost.

7. Soils and Drainage

See Subdivision, Section 6.

8. Lighting

The landscape plan shows light fixtures installed along the road and cul-de-sac. Details indicate a colonial fixture on a tapered pole. The applicant indicates that the poles will be 12 feet tall or less, and that the fixtures will be low-wattage and be shaded in the direction of the perimeter. Photometrics have not been provided.

9. Fire

The name of the private road has not been provided.

Due to the single access, all units will be fully sprinklered. Three new hydrants will also be installed.

To ensure fire equipment access, parking should be restricted to the west side of the private road and no parking should be allowed on the cul-de-sac. Additionally, the applicant needs to provide proof of adequate turning radius at the cul-de-sac.

10. Off Premises Infrastructure

The development's design reflects the isolated nature of the site, and does not attempt to connect with other street or pedestrian rights of way. The off-site combined sewer capacity /infrastructure is addressed in Subdivision, Section 6.

11-13. Not Applicable

14. PRUD

A. Design in Relationship to Site

The proposed design attempts to minimize wetlands impacts by concentrating development on the uplands. This necessitates a high degree of impact on the forested uplands. The developer has altered the recreation areas by eliminating the tennis courts, replacing them with a multi-use field adjacent to the southerly wetland. Along with some additional landscaping and a boardwalk, the revised layout is somewhat more sympathetic to the site.

B. Internal Design Character and Relationship to Surrounding Neighborhood

This development attempts to use its forested character to separate it from the Allen Avenue and Pennell Avenue neighbors. The ? character of the development and architecture was the subject of criticism by the Board at the February workshop. The Board and staff were concerned with the prominence of the garage doors on the front of the buildings.

The applicant met several times with staff to discuss this project. The revised buildings proposed are similar to the old design with considerably more detail. While staff feels that the revised elevations are an improvement over the previous designs, the garage doors are still the dominant element of the four-unit buildings. Garages have been eliminated from the two-unit buildings.

The buildings are proposed to be vinyl sided with asphalt shingled roof and double hung windows.

C. Recreation and Open Space

The revised site plan eliminates the tennis courts and provides an open field on the end of the development. The field will be accessed by way of a garden with a play structure and a boardwalk through the wetland.

1. External Buffers

The applicant has not provided adequate screening around the recreation field from the Allen Avenue and Pennell Avenue neighbors.

2. Internal Buffers

The landscape plan indicates generous interior buffers.

3. Passive Recreation Space

The developer proposes a landscaped garden space at the southern end of the development with a boardwalk to the wetlands. Residents may also use the PATHS land adjacent to the west.

4. Active Recreation Space

A multi purpose field of 17,600 sq. ft. is proposed as described above.

15. Private Open Space

Units are provided with decks and front yards and most will have open space to the rear. Wetlands limit the utility of some of this open space.

III. MOTIONS FOR THE BOARD TO CONSIDER

Based on the material submitted and the analysis contained in Planning Report #14-99 the Board finds that the Washington Crossing R-3 PRUD meets the standards for Subdivision, Site Plan, PRUD, and Site Location of Development subject to the following conditions of approval:

Conditions for Approval:

1. That the applicant provide for staff review and approval an updated stormwater management plan which accounts for down stream capacity within the combined sewer system.
2. That the condominium association documents be revised to the approval of Corporation Counsel.
3. That the developer grant to the City rights of flow and maintenance over the two drainage courses as shown and noted on the site plan.
4. That final approval of this development be conditioned on the approval of Maine DEP's review of a Natural Resource Protection Act Permit for wetland filling.
5. That parking be restricted to the east side of the proposed road, and that no parking be permitted on the cul de sac. Signage shall be provided and installed at the developer's expense.
6. That the tree save areas as shown on the plan are later identified on the site be mapped and protected prior to the start of construction. Tree protection methods shall be submitted and approved by the City Arborist prior to construction.
7. That the inner radius of the cul de sac be satisfactory for the access of City fire equipment, and that the road name be acceptable to City fire.
8. That the recreation field be screened with appropriate vegetation to be approved by staff.

9. That a photometric plan for lighting be submitted for staff review and approval.

Alternate Motion: Given the number of outstanding issues, an alternate motion for the Board to consider would be to table this project to allow additional analysis to resolve the conditions of approval.

Attachments:

1. Plans
2. Previous Memo
3. Background Information
4. Water Capacity Letter
5. Vicinity Aerial Photo
6. Traffic Study Conclusion
7. Stormwater Report
8. Utility Capacity Correspondence
9. Financial Capacity

AMENDMENT TO REPORT #14-99 WASHINGTON CROSSING CONDOMINIUMS

ALC DEVELOPMENT CORP.

RE: UNFINISHED BUSINESS: STORMWATER CAPACITY

Submitted to:

Portland Planning Board
Portland, Maine

May 11, 1999

I. Background

On April 13, 1999, the Planning Board voted to table the project due to concerns of combined sewer capacity in the Pennell Avenue area. The applicant's engineer had proposed for stormwater exiting the subject parcel to enter the combined sewer at the southerly end of Pennell Avenue, as it does in the pre-development condition. Pennell Avenue has historically had a problem with sewer water surcharging on to the street into basements during storm events. While the proposed development would not be contributing large amounts of additional stormwater to the combined system, the 62 units will be adding sanitary flow to Allen Avenue, aggravating the down-stream conditions at Pennell.

I. Proposals

As described in the April 13, 1999 report, the subject parcel is impacted by two watersheds: one draining the southerly one third of the property onto Pennell Ave. and into the combined sewer, and the other draining the northerly two thirds into a drainage easement accessing a tributary of the Presumpscot River. The southerly watershed is the subject of greatest concern, draining land from a portion of Plymouth St., across the PATHS facility, onto the subject parcel through a drainage easement, out flowing onto Pennell Avenue, and into the combined sewer system. As a means to address the sewer capacity, the applicant will have to block the outflow of the southerly watershed, diverting the water into the northerly watershed, bypassing the Pennell Avenue combined sewer all together.

Two options have been presented as a means to address the problem.

1. That Public Works and the applicant cooperate in the planning, design, and cost of an underground pipe and catchment system running along the easterly boundary to divert stormwater from the southerly drainage easement to the northerly drainage easement. This shared system will carry water from the subject parcel and will be available to Public Works for solving drainage problems during the reconstruction of Pennell Avenue. The details of this plan have not been formalized, but Publics Works Engineering is strongly in favor of this option.
2. That the applicant regrade the wetlands along the easterly boundary to achieve the same result as option 1. but with surface flow. The applicant has been exploring permitting needs with the DEP and Army Corps, and has indicated that the surface ditch option is their preference.

Formal engineering drainage studies for the two options have not been presented at this time.

Planning staff and Public Works require that a City drainage easement be granted with either option as a means to guarantee flowage and to allow for City improvements to the drainage conditions in the future.

III. Impacts

If a ditch, Option 2., were to be utilized, a greater, but as yet undetermined impact would be imposed on the forested wetlands along the easterly boundary. Additionally, if the ditch option is taken, the City may in the near future install a system resembling Option 1. as a means to improve the conditions on Pennell Avenue, resulting in redundant efforts and additional impacts on the wetlands.

At the time of the writing of this amended report, these issues were still in discussion between Public Works, Planning, and the applicant's engineers.

IV. Motions for the Board to Consider

1. That the applicant and the City Public Works agree to a resolution for the above stated stormwater issues subject to Planning engineering review.
2. Same
3. That the developer grant to the City rights of flow and maintenance over the two drainage courses as shown and noted on the site plan. Also that the developer grant an additional drainage easement, for flow, maintenance and construction of pipe and catchment, connecting the above two easements along the easterly boundary.
- 4-9. Same as Report #14-99

To be amended upon resolution of the above issues, prior to the May 11, 1999 meeting.

Attachments

- A. Correspondence with applicant.
- B. Traffic memo from Larry Ash, City Traffic Engineer
- C. Planning Board Report #14-99, dated April 13, 1999

APRIL 1999

WE, THE TAXPAYERS OF PORTLAND, MAINE AND RESIDENTS OF PENNELL AVENUE, FEEL THAT AT THIS TIME OUR SEWER SYSTEM SHOULD BE REPLACED DUE TO ITS SMALL SIZE AND THE FACT THAT CONDOMINIUMS ARE PLANNING TO BE BUILT BEHIND PENNELL AVENUE, IT CANNOT TAKE ANY MORE FLOW AT THIS TIME.

ALSO, WE FEEL THAT PENNELL AVENUE SHOULD BE REPAIRED DUE TO ITS HEAVY TRAFFIC FLOW FROM HENNESSEY DRIVE AND CYPRESS STREET.

<u>NAME</u>	<u>ADDRESS</u>	<u>Phone</u>
Mr + Mrs Paul Rom	80 Pennell Ave	797 95 79
Mr & Mrs Richard Jones	122 PENNELL AVE	797-9589
Jill Dason	101 Pennell Ave.	878 0769
Steph Miller	110 Pennell Ave	797-8967
Thomas A. Foley	117 Pennell Ave	878-8457
Beverly White	110 Pennell Ave	797-8964
Thomas F. Kelley	84 Pennell Ave	797 9045
Joseph H. Luen	92 Pennell Ave	797-2889
RICHARD BRICHETTO	96- PENNELL AVE	797-5368
Amy Hill	116 Pennell Ave	878-7767
Svetlana Shealnik	97 Pennell Ave	878-2753
Bill McCullum	75 PENNELL AVE	797-0283
Ann Dubois	65 Pennell Ave	878-2792
Jody Brinsep	63 PENNELL AVE	878-0693
Patsy Lannon	47 PENNELL AVE.	797-0513
Mr + Mrs Bill Land	43 Pennell Ave.	878-3504
James A. Cunningham	35 Pennell	797-0634
Charlie & Georgia Young	21 Pennell Ave	797-4762
Allen Hill	19 Pennell Ave.	797-8708
Martin Fisher	7 Pennell Ave	797-1633
Mary J. Bucher	16 Pennell Ave	797-6954
John Johnston	20 Pennell Ave	878-2378

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NAME

ADDRESS

Mr & Mrs Edward J. Hahit	28 Pennell Ave	797-4114
Mr & Mrs. Arthur Rich	40 Pennell Ave	797-2951
Charlotte & Thomas	107 Pennell Ave	797-3657
Bob Faherty	68 Pennell	799-6202
Dave Sherman	72 Pennell Ave	878-9429
Karen M. Hunter	88 Pennell Ave.	878-2417
Ralph Aubrey	91 Pennell Ave	797-6812
Linda Noble	104 Pennell Ave	878-3280
Paula Labrecque	79 Pennell Ave.	878-0432
Beth Bergeron	87 Pennell Ave	878-2655
John + Janet Roman	76 Pennell Ave	797-6705
Lia C. Hill	40 Pennell Avenue	875-4997



CITY OF PORTLAND

April 21, 1999

Mr. Shawn M. Frank, P.E.
Sebago Technics
12 Westbrook Commons
Westbrook, Me 04098-1339

Re: ALC stormwater capacity meeting at Public Works

Dear Shawn,

This is a note to follow up on our Wednesday afternoon meeting with Public Works concerning the stormwater capacity of the combined sewer at Pennell Avenue. From my perspective, I noted five possible options for ALC to consider to allow the Washington Crossing Condo project to move forward, in light of the sewer situation at Pennell Avenue. As you know, a degradation of sewer service for Pennell Avenue is not an option. The five options posited are listed below in the order in which they were discussed.

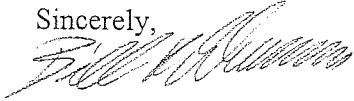
1. ALC installs a stormwater pipe and catchment system on the easterly side of its own property, at ALC's expense. This system would take water from the southerly end of the property, diverting it from the Pennell Ave combined sewer system, and outletting into the existing drainage in the north of the property. This option may require additional DEP permitting.
2. ALC provides funds and/or technical assistance for the sewer separation and reconstruction of Pennell Ave. ALC's assistance would speed the completion of the Pennell Ave. work and would solve ALC's drainage problem. Public Works Engineer, Anthony Lombardo is checking on the feasibility of this option from Public Work's point of view.
3. ALC increase the retention of stormwater on its property to offset sewer capacity needs at a ratio (5to 1?) acceptable to Public Works. This option may require additional berms along the Pennell Ave. back lot lines and additional DEP permitting.
4. ALC waits until Public Works has completed the sewer separation on Pennell Ave. and resubmits this project with a greatly simplified stormwater management problem.
5. ALC and the City coordinate on the funding and construction of a stormwater pipe and catchment system on the easterly side of ALC's parcel. This system would function similarly to Option 1. but would be within a City drainage easement and be available to receive stormwater from the Pennell Ave. street and basement drains. Negotiating Option 5. would be complex, as the benefit to the City is unknown, and stormwater separation costs will still have to be expended as part of a Pennell Ave. reconstruction.

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City Planning, Public Works, and the applicant's consulting engineers agreed to cooperate to achieve the best possible option for this complicated situation.

If you have any questions, please contact me at any time. My Telephone Number is 874-8722.

Sincerely,



William B. Needelman, Planner

CC. ✓ Alex Jeagarman, Chief Planner
Antony Lombardo, Public Works
Dave Peterson, Public Works

Att. 3

From: Larry Ash
To: William Needleman
Date: Thu, Apr 15, 1999 9:21 am
Subject: Washington Crossing

Bill: With regard to the proposed development at 214 Allen Avenue
I believe the traffic review presented by Tom Errico of Wilbur-Smith and Associates is complete and that the
development will not have a significant impact on traffic using Allen Ave.

AH. C

PLANNING BOARD REPORT #14-99

WASHINGTON CROSSING CONDOS
VICINITY OF 214-238 ALLEN AVENUE
ALC DEVELOPMENT CORPORATION, APPLICANT

Submitted to:

Portland Planning Board
Portland, Maine

April 13, 1999

I. INTRODUCTION

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II. STAFF REVIEW

A. SUBDIVISION

1. Water and Air Pollution.

Washington Crossing is not expected to result in water and air pollution, pending ? review of combined sewer capacity. See Subdivision, section 6.

2./3. Water Supply

Portland Water District indicates that there is a 12" supply in Allen Avenue which will provide a healthful and sufficient supply of water for anticipated fire safety and domestic needs. See Attachment 4.1.

4. Soil Erosion

The applicant has submitted an erosion and sedimentation control plan which is consistent with Best Practices Management.

5. Traffic/Parking

Vehicle access to the site is proposed from Allen Avenue onto a 24-foot wide private road extended 1920 feet tot a cul-de-sac turnaround. The road is to be paved with bituminous surface, with bituminous curbing with granite transitions to Allen Avenue. Bituminous sidewalks are proposed for the westerly sideline.

Connection to the paper street at the north of the property are not proposed, due to wetlands impact.

In October, 1998, Wilbur Smith Associates prepared a Traffic Impact Study for this site, based on a 60-unit development. This study concluded that Allen Avenue in the vicinity of this site does not meet MDOT criteria for a high accident area. Adequate siting distances along Allen Avenue are available.

While cars exiting this development at peak hours can expect long delays, cars entering from Allen Avenue should experience little delay. See Traffic Study Conclusions, Attachment 6.

Parking will be provided by attached garages for all of the four-unit buildings and on the driveways in front of the two-unit buildings. Visitor parking will be provided on five 2-lot turnouts, in the driveways, and along the westerly side of the private road.

6. Stormwater

The site currently contains two watersheds; one draining the southeasterly one-third of the property, and the second draining the northwesterly two-thirds of the property. The southerly watershed drains off stormwater from the Plymouth Street and PATHS area, retaining water in a cat'o-nine-tail wetland, and outflowing through stacked 12-inch culverts onto Pennell Avenue. The northerly watershed takes water from PATHS and a portion of Pennell Avenue and drains westerly off-site to a tributary of the Presumpscott River. Drainage easements cross the subject parcel at both outflow points. See Attachment 7.

Wetlands dominate the easterly half of the property. A representative of the Army Corp of Engineers has walked the site, and is comfortable with the present wetland delineation.

The applicant has recently supplied an updated stormwater management plan, and staff is in the process of review.

Significant stormwater flow exits the site onto Pennell Avenue, and neighborhood concerns have been raised as to the capacity of the combined sanitary/stormwater sewer to handle additional flowage. The applicant requested a capacity letter from Public Works in April of 1998, but did not receive a response. In February of 1999, Public Works requested utility capacity letters from the applicant, including sanitary sewer capacity, but the applicant has only recently sent an updated request for capacity analysis from Public Works.

As combined sewer capacity is integral to stormwater management in this area, a complete review and resolution of this matter must be completed. The Board may want to condition approval or to table the stormwater and sewer discussion of this project until the engineering study has been revised and reviewed. See correspondence Attachments #8.

7. Sanitary and Solid Wastes

Solid waste will be the responsibility of the condo association, as should be noted on the plan and contained within the condo association documents.

Sanitary sewer is proposed to be served by a gravity feed 8-inch pipe running along the first 900 feet of the proposed road, with the rear portion of the development being served by a force main relying on a duplex pump. As stated in Section #6, capacity is still an unanswered question.

8. Scenic Beauty, Aesthetics

The site is currently largely wooded with extensive emergent and forested wetlands. As the applicant proposes to minimize impacts on the 13 acres of wetlands, the visual impact of development will be mitigated. Rare and endangered plants, and significant historical sites are not expected to be impacted.

9. Land Development Plan

The proposed development does not attempt to connect with other streets or with adjacent neighborhoods due to the constraints of the wetlands. Public pedestrian trails connecting through this property have not been addressed.

10. Financial and Technical Capacity

The applicant has produced a letter of reference from a loan officer from Peoples Heritage Bank which states that the developers have worked successfully with Peoples Heritage on similar projects the past. See Attachment 9.

11-15. Wetlands

The subject parcel contains over 13 acres of identified wetlands. This development proposes to fill approximately 17,000 sq. ft. of this area, and add additional stormwater to the remainder. Staff's review to date does not foresee unreasonable impacts on the areas to remain wild, or on groundwater. The Maine DEP will need to permit the filling and will provide an additional layer of review.

The development is not on an identified flood hazard area.

B. SITE PLAN

1/2. See Subdivision, Section 5

3. Building Impact

The proposed buildings are 1 1/2- to 2-story residences that will not unduly impact neighboring areas.

4. Diminution of Value to Neighborhood

The siting of the buildings on the westerly side of the property, and by retaining the wooded wetlands as a buffer, this design minimizes the impact of the building on the Pennell Avenue neighbors.

5. Utility Capacity

See Subdivision , Sections 6 and 7

6. Landscaping

The applicant proposed to plant a greater than required number of trees on site and proposed to save as many existing trees as possible. The forest areas of the upland contain a significant number of large trees. The applicant has agreed to work with city staff to identify and protect as many trees as possible, but as the development concentrates in the area of heaviest forestation, the majority of mature upland trees will be lost.

7. Soils and Drainage

See Subdivision, Section 6.

8. Lighting

The landscape plan shows light fixtures installed along the road and cul-de-sac. Details indicate a colonial fixture on a tapered pole. The applicant indicates that the poles will be 12 feet tall or less, and that the fixtures will be low-wattage and be shaded in the direction of the perimeter. Photometrics have not been provided.

9. Fire

The name of the private road has not been provided.

Due to the single access, all units will be fully sprinklered. Three new hydrants will also be installed.

To ensure fire equipment access, parking should be restricted to the west side of the private road and no parking should be allowed on the cul-de-sac. Additionally, the applicant needs to provide proof of adequate turning radius at the cul-de-sac.

10. Off Premises Infrastructure

The development's design reflects the isolated nature of the site, and does not attempt to connect with other street or pedestrian rights of way. The off-site combined sewer capacity /infrastructure is addressed in Subdivision, Section 6.

11-13. Not Applicable

14. PRUD

A. Design in Relationship to Site

The proposed design attempts to minimize wetlands impacts by concentrating development on the uplands. This necessitates a high degree of impact on the forested uplands. The developer has altered the recreation areas by eliminating the tennis courts, replacing them with a multi-use field adjacent to the southerly wetland. Along with some additional landscaping and a boardwalk, the revised layout is somewhat more sympathetic to the site.

B. Internal Design Character and Relationship to Surrounding Neighborhood

This development attempts to use its forested character to separate it from the Allen Avenue and Pennell Avenue neighbors. The ^{character} character of the development and architecture was the subject of criticism by the Board at the February workshop. The Board and staff were concerned with the prominence of the garage doors on the front of the buildings.

The applicant met several times with staff to discuss this project. The revised buildings proposed are similar to the old design with considerably more detail. While staff feels that the revised elevations are an improvement over the previous designs, the garage doors are still the dominant element of the four-unit buildings. Garages have been eliminated from the two-unit buildings.

The buildings are proposed to be vinyl sided with asphalt shingled roof and double hung windows.

C. Recreation and Open Space

The revised site plan eliminates the tennis courts and provides an open field on the end of the development. The field will be accessed by way of a garden with a play structure and a boardwalk through the wetland.

1. External Buffers

The applicant has not provided adequate screening around the recreation field from the Allen Avenue and Pennell Avenue neighbors.

2. Internal Buffers

The landscape plan indicates generous interior buffers.

3. Passive Recreation Space

The developer proposes a landscaped garden space at the southern end of the development with a boardwalk to the wetlands. Residents may also use the PATHS land adjacent to the west.

4. Active Recreation Space

A multi purpose field of 17,600 sq. ft. is proposed as described above.

15. Private Open Space

Units are provided with decks and front yards and most will have open space to the rear. Wetlands limit the utility of some of this open space.

III. MOTIONS FOR THE BOARD TO CONSIDER

Based on the material submitted and the analysis contained in Planning Report #14-99 the Board finds that the Washington Crossing R-3 PRUD meets the standards for Subdivision, Site Plan, PRUD, and Site Location of Development subject to the following conditions of approval:

Conditions for Approval:

1. That the applicant provide for staff review and approval an updated stormwater management plan which accounts for down stream capacity within the combined sewer system.
2. That the condominium association documents be revised to the approval of Corporation Counsel.
3. That the developer grant to the City rights of flow and maintenance over the two drainage courses as shown and noted on the site plan.
4. That final approval of this development be conditioned on the approval of Maine DEP's review of a Natural Resource Protection Act Permit for wetland filling.
5. That parking be restricted to the east side of the proposed road, and that no parking be permitted on the cul de sac. Signage shall be provided and installed at the developer's expense.
6. That the tree save areas as shown on the plan are later identified on the site be mapped and protected prior to the start of construction. Tree protection methods shall be submitted and approved by the City Arborist prior to construction.
7. That the inner radius of the cul de sac be satisfactory for the access of City fire equipment, and that the road name be acceptable to City fire.
8. That the recreation field be screened with appropriate vegetation to be approved by staff.

9. That a photometric plan for lighting be submitted for staff review and approval.

Alternate Motion: Given the number of outstanding issues, an alternate motion for the Board to consider would be to table this project to allow additional analysis to resolve the conditions of approval.

Attachments:

1. Plans
2. Previous Memo
3. Background Information
4. Water Capacity Letter
5. Vicinity Aerial Photo
6. Traffic Study Conclusion
7. Stormwater Report
8. Utility Capacity Correspondence
9. Financial Capacity

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Carroll and Members of the Portland Planning Board
FROM: William Needelman
DATE: February 23, 1999
RE: Allen Avenue Condos, Vicinity of 214-238 Allen Avenue

Introduction

This is the third workshop scheduled for a proposed condominium development in the vicinity of 214-238 Allen Avenue which is next to Portland Arts and Technology High School (PATHS.) ALC Development Corp. is the developer. The 26.2 acre parcel is zoned R-3 except for a 100-foot R-5 strip along Allen Avenue. The development is proposed as a Planned Residential Development (PRUD) and will be subject to site plan and subdivision review. The revised site plan is shown as Attachment 1.

As many issues have already been addressed in the previous workshops on this project, this memo will concentrate on new and outstanding questions concerning Fire Safety, Drainage and Stormwater, Wetlands, and adherence to the PRUD Standards. See previous staff memo, Attachment 2..

Traffic

Outstanding traffic issues have been resolved to the satisfaction of city traffic engineer, Larry Ash.

Access and Roadway

The alignment of roads and sidewalks are basically unchanged from the previous submissions and no further provisions for pedestrian access to the undeveloped portions of the parcel have been proposed.

Fire Safety

The street name, Raymond Court, will be changed due to conflict with an existing city street.

The applicant proposes fully sprinkled buildings and three new hydrants will be installed. Fire Safety has asked for an assessment of the turnaround radius to guarantee emergency vehicle access at the end of the development. The applicant has agreed to provide information to Fire Safety as requested.

Drainage

The subject parcel presents serious drainage concerns, as nearly half of its total area is delineated wetland and is the receiving area for a large amount of stormwater from the PATHS facility. In its predevelopment state, the parcel drains into two separate watersheds; the southern one third of the property draining easterly into a

Vortex

culvert onto Pennell Ave. and the northern two thirds draining westerly into a drainage easement. The applicant has provided complete stormwater calculations for both pre and post development conditions and Public Works and planning's Development Review engineer are in the process of reviewing this information.

The development proposes to fill 17,000 sq. ft. of wetland and constrain the outflow structure at Pennell Ave. to provide storm water detention. Planning staff has concerns that the wetlands delineations provided may be an optimistic view of the conditions as observed during site visits. State DEP will review the project under NRPA and should provide additional clarity to the wetlands delineation.

PRUD Standards

As a PRUD, this development must meet the PRUD design standards in the site plan ordinance. These standards include (A) Design relationship to site, including topography, vegetation, and solar orientation; (B) Internal design character and relationship to surrounding neighborhood; (C) Recreation and open space. The Board will need to make a judgement whether this development meets these standards.

The applicant intends that the forested nature of the site should provide the unifying element tying this proposal to the site. See Attachment 4.4. Staff has several concerns regarding this project's compliance with the PRUD design standards.

Standard A. Design relationship to Site:

The present design presents all of the buildings square to the road, with the garage doors projecting toward the street, and each garage door having a full paved driveway to the street. Optimizing automobile access to the buildings presents two problems: (1) The prominence of the garages cuts off interaction between the buildings and the neighborhood and seems in conflict with the intentions of retaining a forested character for the site. (2) The projecting garages will shade the interior units, a problem aggravated by north/south alignment of many of the buildings. If the garages could be moved to the sides of the buildings where some of the buildings could share driveways, and if some buildings were realigned to achieve greater access to the sun, or to accommodate natural features, Standard A may be better served.

The applicant intends to save some trees within the built area and has agreed in principle to make adjustments during the construction process to save individual trees. City arborist and planning staff feel that significant trees should be mapped prior to construction to maximize saving of valuable trees. Additionally, the applicant is amenable to added plantings to supplement retained vegetation and to use local tree species.

Standard B. Internal Design Character and Relationship to Neighborhood:

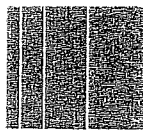
The applicant intends that the project stand apart from the adjacent neighborhoods on Pennell Ave. and Allen Ave. and rely on the isolated nature of the forest for its internal design character, see Attachment 4.4. As a neighborhood on its own, staff feels that the building should relate well to each other and their layout should accommodate as many natural features as is reasonable.

Standard C:

As there are open field recreation areas adjacent on the PATHS facility, perhaps the mowed grass recreation area requirement should be waved to accommodate a treed recreation area with some fixed amenities (benches, playground, etc...)

Attachments:

1. Plans
2. October 27, 1998 Memo
3. Written Statement from Applicant
4. Correspondence with Applicant
5. Stormwater Report Intro.
6. Watershed Maps
7. Elevations



SebagoTechnics
Engineering & Planning for the Future

Rick Knowland

AH. 3

February 8, 1999
97380

Richard Knowland, Senior Planner
City of Portland
389 Congress Street
Portland, ME 04101

**Washington Crossing Condominiums, A 60-Unit Planned Residential Unit Development
Allen Avenue, ALC Development Corporation**

Dear Rick:

On behalf of ALC Development Corporation, we are pleased to submit seven (7) copies of the enclosed plans and associated stormwater management information for their proposed Washington Crossing Condominium PRUD off Allen Avenue. As you will recall, the Planning Board reviewed a sketch plan of this project at their workshop on October 27, 1998. Since that time, we have completed all of the field work and have designed the site in terms of utilities, grading, drainage and landscaping as depicted within the enclosed plan set. We would like to present the updated plans to the Planning Board at their workshop meeting scheduled for February 23, 1999.

At their original workshop, the Planning Board discussed the layout of the project and their concerns regarding stormwater management. The final layout of the buildings are shown within the plan set. This layout has been adjusted slightly to minimize the wetland impact associated with this development. The building composition is unchanged consisting of fourteen 4-unit buildings and two 2-unit buildings for a total of 60 units. The layout, as shown, is less congested to the front portion of the site and more evenly distributes the buildings within the upland areas. Due to the presence of wetlands on the property, the majority of the development will occur along the westerly portion of the site away from the abutting single-family homes along Pennell Avenue. Enclosed within the plans are elevations and floor plans for the two building types proposed for the development.

Stormwater runoff from the developed project will be directed to two areas. The front portion of the site along Allen Avenue and extending approximately 900 feet along the proposed access roadway will be directed toward the existing wetland area which outlets to the municipal system within Pennell Avenue. The berm along the easterly property line will be upgraded to provide additional detention and an emergency spillway. The two existing 12 inch culverts which outlet the wetland will have orifice plates installed at their inlets such that the culvert inlets will be reduced to 6 inch. These smaller outlets will detain the runoff within the wetland area so as to maintain peak rates at or below pre-developed levels. All roadway runoff and the majority of the developed areas will be directed through a stormwater treatment tank prior to outletting to the existing wetland area.

AH.3.1

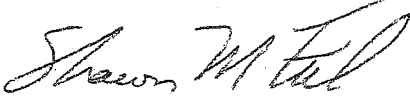
The proposed roadway runoff and the majority of the runoff from the remaining developed areas will be intercepted by a series of catch basins and transported via subsurface storm drains. These drains will be directed to a treatment tank to remove grit and wastes and then connected to the existing municipal storm drain system crossing the northerly portion of the site. Due to this proposed connection, the back half of the property will actually produce less runoff to the abutting properties to the east after development than currently exists.

The enclosed plan set depicts proposed landscaping of the project as well as utility connections and infrastructure design. The applicant proposes to develop the project in two phases as shown. The phase line roughly coincides with the end of the sanitary system that can flow via gravity into the municipal main within Allen Avenue. The remaining units will flow to a pump station near the recreational field which will pump the sanitary flow to the gravity system. Municipal water will be extended to service the project. Three hydrants are proposed along the access road and all of the buildings will be sprinklered. Natural gas will be connected to heat the units.

We look forward to meeting with the Planning Board at their workshop on February 23, 1999 to discuss the updated proposal. In the interim, please call with any questions or if you require additional information. Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.

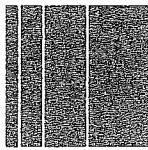


Shawn M. Frank, P.E.
Project Manager

SMF:jc

Enc.

cc: John & Elliott Chamberlain, ALC Development Corp.



SebagoTechnics
Engineering & Planning for the Future

March 25, 1999
97280

Mr. William Needelman, Planner
City of Portland
389 Congress Street
Portland, Maine 04101

Washington Crossing Condominiums, Allen Avenue
ALC Development Corporation

Dear Bill:

On behalf of ALC Development Corporation, we are pleased to submit the enclosed plans for a 62-unit condominium project, Washington Crossing, off Allen Avenue. The development proposal consists of fourteen 4-unit buildings and three 2-unit buildings on the 26 acre site. The buildings will be accessed via a new private roadway which will be 1,920 feet long prior to culminating in a cul-de-sac. The units will be serviced by municipal water, sewer, and gas service extended from Allen Avenue. Electrical, telephone and cable service will be installed underground.

As you will recall, a workshop meeting was held with the Planning Board on February 23, 1999 to discuss the development proposal. A number of concerns were raised by Board Members regarding the layout of the buildings and the proposed elevation of the units. The applicant has retained the services of Gawron Architects to revise the proposed building elevations as shown on the enclosed plans. We have also relocated some of the buildings to provide a more open entrance at Allen Avenue and to assure that not all of the units are square to the roadway. Additionally, we have revised the proposed recreational facility. As one of the main elements of this plan is to retain as many trees as possible, creating a large, grassed field by cutting an area containing many trees was contrary to the design grade.

The original location of the tennis courts also appeared to require cutting of too many trees. As such, we are now proposing a small public park that will contain a garden, pavers and a boardwalk. The boardwalk will provide views of the wetland area without impacting it and will also provide access to the large field area located behind the existing home. By utilizing this area for recreational facilities, the plan takes advantage of the existing physical features of the site by retaining existing tree growth to the greatest extent possible.

We have been working closely with the Public Works Department regarding the stormwater management system. We are currently proposing the system as originally submitted. We will meet with the Development Review Coordinator and Public Works directly to finalize the details of the system. We have also walked the site with a member of the U.S. Army Corps of Engineers to review the delineation of the wetlands. He stated that the wetland delineation was satisfactory and will provide a letter to that effect. We will forward this letter to you upon receipt. Based upon the final grading plan and the agreement with the Army Corps regarding the wetland delineation, an application is being finalized to the DEP for the proposed wetland fill. Upon submission, we will attempt to schedule a site walk with DEP staff and yourself.

We are hopeful that we have addressed the issues and concerns raised during the review of the project. Upon your review of these plans, however, please call with any questions or if you require additional information. Thank you for your consideration.

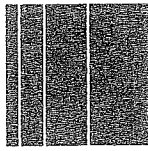
Sincerely,

SEBAGO TECHNICS, INC.



Shawn M. Frank, P.E.
Project Manager

SMF:dif



SebagoTechnics
Engineering & Planning for the Future

April 6, 1999
97380

William Needelman, Planner
City of Portland
389 Congress Street
Portland, ME 04101

Washington Crossing Condominiums, Allen Avenue - ALC Development Corporation

Dear Bill:

This letter is in response to the engineering review comments as contained in a memorandum to you from Deluca-Hoffman Associates dated February 26, 1999. The following responses correspond to the numbered comments contained within that memorandum:

1. The applicant will convey rights of flowage and maintenance rights within the referenced drainage easement as noted on the plan.
2. The plans note that the referenced drainage easement is to be provided to the City of Portland for maintenance and flowage rights.
3. The plans depict the transition curbs from the granite to the bituminous as requested.
4. Based upon various discussions with the client and staff, the tennis courts are no longer proposed in order to maintain the natural physical features of the property in this area.
5. The road profile has been revised at the intersection with Allen Avenue to assure that the gutter flow on Allen Avenue does not impact this project.
6. The transformer pad locations are shown on the plan and profile drawings.
7. The two referenced drainage manholes have been slightly relocated to eliminate the potential pipe conflicts.
8. A note on the plan and profile sheet showing the cul-de-sac area states that the pavement will be super elevated to the outside curb within the cul-de-sac.
9. The typical drive apron detail has been revised to provide a 1" lip.

10. The curb has been labeled as requested on the road section detail.
11. The width of the riprap culvert inlet/outlet has been added as requested.
12. Enclosed is the proposed construction schedule and sequence.
13. The treated timber weir has been added to the emergency spillway.
14. The installation of a utility line within a wetland area is not considered an "impact" under NRPA. As no filling is proposed, the construction area will quickly re-establish natural wetland vegetation after the installation of the subsurface storm drain line.
15.
 - a. We have worked closely with the Development Review Coordinator and Public Works to define the off-site watershed contributing to the site. We believe that the enclosed revised calculations include all off-site contributing areas.
 - b. The existing culvert outlets are now proposed to be replaced in kind.
 - c. We have revised the calculations for the watershed to the rear of the site to combine the surface runoff with the piped runoff for comparison to the existing flows.
 - d. The proposed storm drain connection anticipates matching the crown elevations of the existing 30" RCP with the new 18" HDPE without constructing a channel. The actual connection will be made in accordance with the requirements of Public Works.
 - e. We have reviewed and corrected the times of concentration as follows:
 - Subcatchment 2 – Tc along driveway of Building A and along curb to CB-1.
 - Subcatchment 3 – Tc from driveway of Building B and along curb to CB-2.
 - Subcatchment 5 – Tc from driveway of Building F and along curb to CB-3.
 - Subcatchment 20 – Tc from woods behind Building H across undisturbed wetland areas.
 - f. Enclosed are copies of the completed treatment calculations.
 - g. The enclosed calculations include the 25-year storm event for the outlet structure.
 - h. The connection to the existing system has been proposed in accordance with a suggestion from Public works. It is our understanding that Public Works is currently performing a more detailed analysis of the system to assure that the system is adequately sized.

We are hopeful that we have addressed the engineering review comments such that the project can be approved. Upon your review of this letter, please call with any questions or if you require additional information. Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "Shawn M. Frank". The signature is written in a cursive, flowing style.

Shawn M. Frank, P.E.
Project Manager

SMF:jc
Enc.

cc: ALC Development Corporation



11/25/98
SEBAGO TECHNICS

Att. 4

225 Douglass St. • P.O. Box 3553 • Portland, ME 04104-3553

(207) 774-5961
FAX (207) 761-8307
www.pwd.org

November 23, 1998

Mr. Jeffrey R. Perry
Sebago Technics
12 Westbrook Common, P.O. Box 1339
Westbrook, Maine 04098-1339

Re: Allen Avenue Apartments

Dear Mr. Perry:

The Portland Water District has a 12" water main in Allen Avenue, Portland, near the proposed site. A test on a nearby hydrant produced the following results: static pressure 54psi; pito pressure 39psi; with a flow of 1048gpm. With these results in mind, the District feels we have a healthful and sufficient capacity available to serve this proposed project and meet all normal fire protection and domestic water service demands.

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

Sincerely,

PORTLAND WATER DISTRICT

David W. Coffin, PLS
Engineering Supervisor

A4.5

SITE

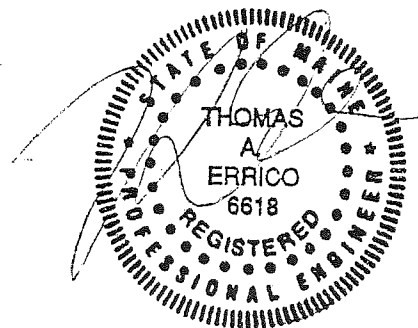


Efficiency of Maine Arterials, Maine Department of Transportation, driveways shall be located to achieve the required sight distance measured in each direction along the arterial while maintaining adequate distances from adjacent driveways and intersections. For a road with a posted speed limit of 35MPH, 350 feet of sight distance should be provided in both directions. Based on field measurements, approximately 650 feet of sight is available in the southerly direction and approximately 425 feet in the northerly direction. Accordingly, acceptable conditions will be provided.

- A determination on the need for auxiliary turn lanes at the site drive was performed according to criteria contained in the MDOT Highway Design Guide and the City of Portland Technical and Design Standards and Guidelines. Based upon the projected traffic demand, dedicated left and right turn lanes entering the site are **not** recommended.
- Based upon the existing width of Allen Avenue and the City of Portland Technical and Design Standards and Guidelines, it is recommended that the driveway radii be 20 feet.

SECTION 9– CONCLUSIONS/RECOMMEDATIONS

1. The proposed 60 unit apartment development is expected to generate 398 daily vehicles, 31 vehicles (5 entering/26 exiting) during the AM peak hour, and 37 vehicles (25 entering/12 exiting) during the PM peak hour
2. At the proposed site drive on Allen Avenue, capacity analyses results indicate movements entering the site will operate with little delay, while exiting movements will experience long delays during peak periods.
3. Evaluation of accident data in the vicinity of the project was performed for the most recent 3-year period from the MDOT. Results indicate Allen Avenue in the vicinity of the project site does not meet the criteria for a High Accident Location.
4. An evaluation of sight distance at the proposed driveway was performed and indicates acceptable conditions will be provided.
5. The need for auxiliary turn lanes at the proposed site drive was performed. Results indicate dedicated left and right turn lanes are **not** recommended.



AH.7

97380

STORMWATER MANAGEMENT PLAN

Washington Crossing Condominiums 62-Unit Planned Residential Unit Development Allen Avenue Portland, Maine

General

This Stormwater Management Plan has been prepared to evaluate the pre and post-development conditions associated with the proposed Washington Crossing Condominiums on Allen Avenue in Portland, Maine. Washington Crossing will be a 62-unit condominium development with associated roadway and utility infrastructure. Access to the condominiums will be from a proposed private roadway extending northwesterly into the site, from Allen Avenue, approximately 1,900 feet in length prior to culminating in a cul-de-sac.

Site Characteristics

The project site is located on approximately 26 acres of woods, including a large area of forested wetlands, with some open brush areas near Allen Avenue. The surrounding area includes residential developments along Pennell Avenue to the north and Allen Avenue to the east, the Portland Arts and Technology High School (PATHS) to the south, and undeveloped land to the west. Existing site topography consists of gentle to moderate slopes, with areas of steeper slopes near the northwesterly corner.

Stormwater runoff from the easterly one-third of the site drains into an existing wetland, which also collects runoff from the PATHS site. This wetland currently functions as a detention pond, with outflow released through two 12" diameter CMP culverts stacked on top of each other. Stormwater from the remainder of the site generally drains northwesterly, through the wetlands, outletting into a tributary to the Presumpscot River. A subsurface storm drain system crosses the northwesterly corner of the site and also outlets to the same tributary of the Presumpscot River.

Soils

Soils information was obtained from the Cumberland County Medium Intensity Soil Survey. The soil survey maps the predominant soils within the area of the proposed development as Scantic silt loam, with a hydrologic soils group of "D" and Belgrade very fine sandy loam, with a hydrologic soils group of "B". Other soils found within the site area and within the off-site contributing areas consist of Buxton silt loam and Hollis fine sandy loam, both with a hydrologic soils group of "D".

Watershed Descriptions

In order to evaluate drainage characteristics in the pre and post-development conditions, a quantitative analysis was performed to determine peak rates of runoff for the 2, 10 and 25-year, 24-hour, Type III storm events. Runoff calculations were performed following the methodology outlined in the USDA Soil Conservation Service "Urban Hydrology for Small Watersheds, Technical Release # 55" and HydroCAD Stormwater Management Systems.

As described in the following, two overall watersheds were analyzed in both the pre and post-development conditions. Included with these two watersheds are contributing areas to the south of the site consisting of PATHS and areas along Plymouth Avenue. In the post-development conditions, the on-site watersheds were broken down into sub-watersheds associated with the proposed stormwater conveyance system of catch basins and storm drains. Two discharge points were selected for both the pre and post-development conditions. Study point #1 is the outlet of the stacked 12" CMP culverts draining the wetlands on the eastern portion of the site. Study point #2 was chosen to be along the property boundary near the westerly corner of the site, where the wetlands flow into the tributary to the Presumpscot River.

Pre-Development Conditions

WS-10: Consists of the 8.42 acres of on-site area of mostly woods and brush, with the exception of one developed house lot on Allen Avenue. This watershed area includes the wetland/detention pond which outlets at Study Point #1. Link 1, which consists of the 22 acres of off-site contributing area from PATHS and Plymouth Avenue, is included as outletting to the wetland area.

WS-20: Approximately 18.05 acres of undeveloped woods, including a large area of forested wetlands. This watershed outlets at Study Point #2.

Post-Development Conditions

Watershed 10 was divided into seven subcatchment areas; Watershed 20 was divided into nine subcatchment areas. This was done to analyze the effects of the road, buildings and other impervious surfaces and associated grading, as well as to size all culverts and subsurface storm drains.

WS-1 through WS-6: Approximately 3.24 acres of development, including the first 920 feet of road, portions of the first seven buildings, and associated landscaped areas. These watersheds also include small areas of undisturbed tree growth. All runoff from these watersheds is transported through a series of subsurface storm drains into a stormwater treatment structure prior to outletting into the existing wetland/detention pond before leaving the site at Study Point #1.

WS-10: Approximately 4.96 acres of the original WS-10, including woods, brush and the existing developed house lot on Allen Avenue. This watershed also includes the back half of the first seven buildings. Runoff flows either in the form of sheet flow or through drainage swales into the existing wetland/detention pond before leaving the site at Study Point #1. Link 1, consisting of the 22 acres of off-site contributing area from PATHS and Plymouth Avenue, is included as outletting to the wetland area.

WS-11: Approximately 0.69 acres of grass and undisturbed tree growth areas, as well as a portion of one new building. Runoff from this watershed will drain through a grassed swale prior to entering a culvert beneath the private road, outletting into the wetlands. This culvert also serves to transport off-site runoff from the rear of PATHS into the existing forested wetlands which flows to Study Point #2.

WS-12 through WS-18: Approximately 2.12 acres of development, including the remainder of the road, portions of seven buildings, and associated landscaped areas. These watersheds also include small areas of undisturbed tree growth. All runoff from these watersheds is transported through a series of subsurface storm drains into a stormwater treatment structure prior to outletting into the existing subsurface storm drain system, which crosses the westerly portion of the site. This storm drain system then outlets just off the project parcel, near Study Point #2, into the tributary to the Presumpscot River.

WS-20: Approximately 16.17 acres of the original WS-20, including the forested wetlands, as well as the back half of seven buildings and one two-unit building and driveway, and a tennis court and associated walkways. Runoff flows either in the form of sheet flow or through drainage swales into the existing wetlands before leaving the site at Study Point #2.

Stormwater Management

Stormwater from the first approximately 920 feet of the new roadway, and half of the first seven buildings will be collected and transported via a series of catch basins and subsurface storm drains. This drainage system will connect to a subsurface stormwater treatment tank to provide removal of suspended solids, grit, etc. prior to outletting into the wetlands.

Outflow from these wetlands is currently controlled by a small berm and two 12" diameter culverts stacked on top of each other. The two existing culverts will be replaced by two new 12 inch culverts. The berm at the outlet will be repaired as necessary, and an emergency spillway will be constructed to handle flows from the larger rain events, such as the 100-year storm. The wetland area has sufficient capacity to temporarily detain runoff from the 2, 10 and 25-year storm events.

Runoff from the majority of the remaining developed portion of the site will be collected and transported via a series of catch basins and subsurface storm drains. This drainage system will connect to a subsurface stormwater treatment box to provide removal of suspended solids, grit, etc. The outlet from this stormwater treatment box will be connected into the existing subsurface storm drain system along the northwesterly portion of the site. Runoff will flow

through this system for approximately 370' prior to outletting into the tributary of the Presumpscot River. Runoff from the remainder of this site will continue to flow through the forested wetlands before concentrating into the tributary of the Presumpscot River.

The following table lists the calculated peak rates of runoff for the various storm events:

Watershed Analysis Summary				
Storm Event		2-Year, 24-Hour	10-Year, 24-Hour	25-Year, 24-Hour
Study Point #1	Pre	3.95 cfs	5.47 cfs	5.81 cfs
	Post	4.34 cfs	5.63 cfs	6.17 cfs
Study Point #2	Pre	3.43 cfs	10.18 cfs	13.89 cfs
	Post	3.93 cfs	11.06 cfs	14.96 cfs

Summary

Due to the size of the existing wetland area that serves as a detention basin prior to outletting to the municipal system within Pennell Avenue, the increase in peak rates of runoff into the wetland are dissipated prior to outletting the wetland. The outlet will be reconstructed to provide new culverts and a riprapped emergency spillway for larger storm events.

No detention is proposed for the rear of the site. The majority of the proposed development will be collected in a series of catch basins and connected to the existing municipal system via a subsurface storm drain system.

Treatment will be provided to the collected runoff for both watersheds via two proposed treatment tanks. These tanks have been accepted by the Maine Department of Environmental Protection to provide 80 percent TSS removal rates.

Other drainage provision will include a specific grading plan and erosion and sediment control measures to be implemented throughout the construction cycle. Incorporation of the above mentioned drainage provisions for the proposed subdivision will adequately address stormwater runoff such that no significant adverse impacts are anticipated either to the Presumpscot River or its tributary, or the subsurface drainage system in the Allen Avenue area.

Prepared by:

SEBAGO TECHNICS, INC.



Shawn M. Frank, P.E.
Project Manager

SMF:jc
April 6, 1999a



SebagoTechnics
Engineering & Planning for the Future

in

6/15/98

Att. 8

April 13, 1998
97380

City of Portland
Public Works Department
Sewer Operations
55 Portland Street
Portland, ME 04101

Sewer Capacity - Allen Avenue Apartments, Portland

Gentlemen:

We are currently preparing the City of Portland's Site Plan Application for the above referenced project. I wish to request your review of the Sewer Department's capacity to service the proposed multi-family project. Attached is a location map.

The project will consist of 62 apartments (59 three-bedroom and 3 two-bedroom units), a daycare facility (44 children), and an office/laundry building with 6 washing machines.

If you have any questions or need additional information, please contact me.

Sincerely,

SEBAGO TECHNICS, INC.

Jeffrey R. Perry
Landscape Architect

JRP:jc
Enc.

PUBLIC WORKS ENGINEERING
MEMORANDUM

To: Rick Knowland, Senior Planner

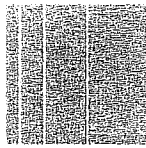
From: Anthony Lombardo, P.E., Project Engineer

Date: February 12, 19998

Subject: Washington Crossing Condos....ALC Development Corp.

The following comments were generated during Public Works Engineering review of proposed Condo development off Allen Ave. The plans and application were dated February 8, 1999.

- The application package does not include any utility capacity letters, including a sewer capacity letter from the Environmental Engineering Division of Public Works.
- Public Works is requesting, for our review, the submittal of sanitary sewer pump calculations, force main sizing, wet well sizing and any supporting documentation.
- Sheet 10 of 11 of the plan set does not specify any elevation information related to the "pump station detail".
- The stormwater narrative received at Public Works did not include any HydroCAD stormwater modeling printouts and there was no summary of the results of the applicant's calculations. Public Works would like to receive a complete set of stormwater calculations and supporting materials, including pre and post development watershed maps.
- Public Works is requesting copies of the required NRPA Tier 2 permit application that must be filed with MDEP, as a result of the filling of wetlands in excess of 15,000 square feet.
- Public Works is requesting the applicant close up the two (2) curb openings along the Allen Ave. frontage of this development site. New curb and sidewalk should be installed in both locations.



SebagoTechnics
Engineering & Planning for the Future

April 8, 1999
97380

William Goodwin, Wastewater Engineer
Public Works Department
City of Portland
55 Portland Street
Portland, ME 04101

Sanitary Sewer Service, Washington Crossing Condominiums, Allen Avenue

Dear Mr. Goodwin:

On behalf of ALC Development Corporation, we respectfully request the Portland Public Works Department to provide sanitary service to the above referenced project. The planned project consists of sixty-two two-bedroom apartments. Based upon the Maine State Plumbing Code, the project will generate between 11,160 GPD and 18,600 GPD of sanitary effluent, with an average estimated flow of 14,880 GPD.

Due to the topography of the site and the proximity of existing sanitary sewer service, a pump station is proposed to service a portion of the development. Effluent from the pump station will connect to a gravity line on site that will connect to the existing 24" line in Allen Avenue abutting the Portland Arts and Technology School. This pump station, force main and gravity system will remain privately owned and maintained. Enclosed is the plan set for the project.

Please call with any questions or comments. Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.

For Jeffrey R. Perry
Landscape Architect

JRP/SMF:jc
Enc.

cc: ALC Development Corporation

Peoples Heritage Bank

One Portland Square
P.O. Box 9540
Portland, ME 04112-9540

1-800-462-3666
Tel: 207-761-8500
Internet: www.peoplesheritage.com

AH.9

April 5, 1999



City of Portland
Planning Department
Portland, ME

RE: 60 Unit Condominium project, Allen Avenue, Portland, ME

To Whom it May Concern:

I have worked with ALC Development, John and Elliott Chamberlain on several projects similar to the proposed project referenced above. These projects were completed on time and the construction loans advanced to ALC Development were repaid in a timely manner.

Although the Bank has not committed to financing this project, I believe a financing package can be arranged.

If you need further information, Please contact me at 828-7273.

Sincerely,

A handwritten signature in black ink, appearing to read "Jonathan M. Campbell".

Jonathan M. Campbell
Commercial Loan Officer

City of Portland Planning Department

389 Congress Street, 4th Floor
Portland, ME 04101
207-874-8721 or 207-874-8719
Fax: 207-756-8258

FAX TRANSMISSION COVER SHEET

Date: 2-14-00

To: Shawn Frank

Company: Sebago

Fax #: 856-2206

From: Bill Needleman

RE: Note For ALC Plan

YOU SHOULD RECEIVE 2 PAGE(S),
INCLUDING THIS COVER SHEET.
IF YOU DO NOT RECEIVE ALL THE PAGES,
PLEASE CALL 207-874-8721 OR 207-874-8719.

ALTERATIONS TO ORIGINAL APPROVED RECORDING PLAT HAVE BEEN APPROVED BY THE CITY OF PORTLAND DEPARTMENT OF PLANNING AND URBAN DEVELOPMENT IN COMPLIANCE WITH SECTION 14-496(3) OF THE SUBDIVISION ORDINANCE.

DIRECTOR OF PLANNING AND URBAN DEVELOPMENT

DATE: _____

RECORDED: BK _____ CHART _____

original

PLANNING BOARD REPORT #39-99

**SECTIONAL RECORDING and AMENDMENT
OF A PREVIOUSLY APPROVED PLAN,
WASHINGTON CROSSING CONDOS
VICINITY OF 214-238 ALLEN AVENUE
ALC DEVELOPMENT CORPORATION, APPLICANT**

Submitted to:

Portland Planning Board
Portland, Maine

September 14, 1999

I. INTRODUCTION

The ALC Development Corporation proposes to phase a 62-unit condominium residential development in the vicinity of 214-238 Allen Avenue. On May 11, 1999, the Planning Board approved this project as a single phased development. The applicant wishes to phase the project into two sections to be recorded separately. Additionally, the applicant wishes to amend the recreation area of the plan to comply with Maine DEP wetlands concerns.

The 26.2-acre parcel is zoned R-5. for 100 feet along Allen Avenue and R-3 for the remainder. Half of the parcel has been delineated as wetland. The development is a Planned Residential Unit Development (PRUD), and was approved for subdivision, site plan, and site location of development review under delegated authority. See revised plan, Attachment 3.

Under Portland code 14-495(h) *Sectional Recordings* of the Subdivision Ordinance, see Attachment 2, the Board may approve the dividing of a subdivision into two or more phases and may impose conditions to insure the orderly development of the plan.

The proposed phasing scheme will separate the projects into a 9 building, 36 unit Phase 1 and an 8 building, 26 unit Phase 2.

Phase 1 is drawn to stop at the watershed divide between the front and rear of the property. This is a rational separation point from the stand point of utility function, stormwater management, and ammentities development. Gravity fed sewers will serve Phase 1 which, additionally, contains all necessary drainage features designed to alleviate persistent stormwater problems at Pennell Avenue.

Phase 2 contains the housing approved for the rear of the property. Development of the second Phase will require the private sewer pump system to serve the sanitary needs of the housing. Stormwater management for Phase 2 is separate from Phase 1 by virtue of the natural watershed divide and no part of Phase 2 needs to be developed for the function of Phase 1 or the newly designed pipe and catchment system running along the easterly boundary.

Staff has reviewed the phases as they relate the previously approved project, and how the phasing will perform as stand alone projects.

II. STAFF REVIEW

A. SUBDIVISION

1. Water and Air Pollution.

Washington Crossing is not expected to result in water and air pollution and phasing will not effect previous review.

2./3. Water Supply

Unaffected by phasing.

4. Soil Erosion

The applicant has submitted an erosion and sedimentation control plan which is consistent with Best Practices Management.

5. Traffic/Parking

Unaffected by phasing with the exception of a paved turnaround on the easterly side of the road which is to be signed no parking.

6. Stormwater

The site currently contains two watersheds; one draining the southeasterly one-third of the property, and the second draining the northwesterly two-thirds of the property. The southerly watershed drains off site stormwater from the Plymouth Street and PATHS area, retaining water in a cat'o-nine-tail wetland, and outflowing through stacked 12-inch culverts onto Pennell Avenue. The northerly watershed takes water from PATHS and a portion of Pennell Avenue and drains westerly off-site to a tributary of the Presumpscott River. Drainage easements cross the subject parcel at both outflow points. The applicant and City Public Works have agreed to a design for connecting the two existing drainage easements, as part of the previous approval.

Phasing is designed to take advantage of the watershed condition. Phase 1 contains all needed stormwater management infrastructure for the function of Phase 1 and the new systems needed to alleviate stormwater problems at Pennell Avenue.

7. Sanitary and Solid Wastes

Sanitary sewer is as described above, with Phase 1 using gravity, and Phase 2 needing a private pump system

8. Scenic Beauty, Aesthetics

Clearing on Phase 2 will not be allowed until full development is proposed. Otherwise, unaffected by phasing.

9. Land Development Plan

Unaffected by phasing

10. Financial and Technical Capacity

Simplified by Phasing.

11-15. Wetlands

Unaffected by Phasing

B. SITE PLAN

1/2. See Subdivision, Section 5

3. Building Impact

Unaffected by Phasing.

4. Diminution of Value to Neighborhood

Unaffected by Phasing.

5. Utility Capacity

See Subdivision , Sections 6 and 7

6. Landscaping

Phase 1 contains the recreation field and the sculpture area proposed for the development. The previously approved board walk over the wetlands has been replaced with a bituminous sidewalk around the perimeter of the wetlands at the request of the Maine DEP. The side walk modification represents the only site amendment to this plan which was not part of a condition of approval from the May 11 meeting.

7. Soils and Drainage

See Subdivision, Section 6.

8. Lighting

Unaffected by phasing

9. Fire

Unaffected by phasing

10. Off Premises Infrastructure

Unaffected by phasing.

11-13. Not Applicable

14. PRUD

C. Recreation and Open Space

As stated above the access to the recreation field has been modified to a bituminous sidewalk as a means to minimize wetlands impacts.

15. Private Open Space

Unaffected by phasing.

III. MOTIONS FOR THE BOARD TO CONSIDER

Based on the material submitted and the analysis contained in Planning Report #39-99 the Board finds that the Washington Crossing R-3 PRUD;

A. Is approved for Sectional Recording as shown on the Recording Plat

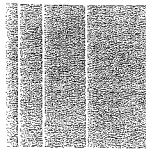
B. That the Site Plan amendments are in conformance with the Site Plan standards of the Portland Land Use Code.

Potential Condition of Approval:

i. That the applicant provide deeds for all previously required drainage easements prior to the recording of the Plat.

Attachments:

1. Applicant's Written Statement
2. 14-495(h) of the Portland Code
3. Revised Plans



SebagoTechnics
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AH. 1.1

August 12, 1999
97380

William Needelman, Planner
City of Portland
389 Congress Street
Portland, ME 04101

Washington Crossing Condominiums, 214 Allen Avenue, ALC Development Corporation

Dear Bill:

On behalf of ALC Development Corporation, we are pleased to submit seven (7) copies of the enclosed revised plans for Washington Crossing Condominiums to allow for phasing of the development into two phases of construction. As proposed, Phase 1 construction would consist of the following:

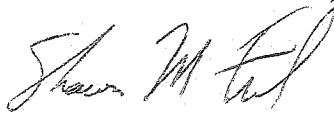
1. Delaware Court road construction to Station 10+50 to include a temporary turnaround to City standards, and a wooden guard rail at the terminus of the roadway with reflectors.
2. Construction of condominium buildings A, B, C, D, E, F G, H and I.
3. Associated utility installation to the proposed terminus of Delaware Court to provide water, sanitary sewer, and electrical/telephone service to the referenced units.
4. Installation of the public space as depicted on the plans, including the observation deck, wooden boardwalk to the recreational area, and the fence/landscaping buffer along the perimeter of the recreational area.
5. Installation of the subsurface storm drain system along the northerly property line of the project site. In accordance with a condition of the original approval, the applicant and the Public Works Department have agreed on the installation of this system to intercept the runoff from a portion of this project and properties to the south prior to it inletting into the combined system servicing Pennell Avenue. This new system will connect to the existing City storm drain system.
6. All landscaping, fencing and other site improvements shown on the plans within the limits of Phase 1.

As you review the proposed phasing of the project, please note that the phase line occurs at the natural topographical break in the land. All of the units proposed within Phase 1 will be serviced by gravity sewer service extended from Allen Avenue. The roadway runoff from this plan will be directed into the Vortech treatment unit proposed between units D and E. At the same time, all of the required improvements and amenities, including the recreational field, public space, and cross-country storm drain system will be completed as part of the first phase.

We are hopeful that we have supplied the information required to allow this request for phasing to be presented to the Planning Board. Upon your review of the enclosed material, however, please call with any questions or if you require additional information. Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.



Shawn M. Frank, P.E.
Project Manager

SMF:jc
Enc.

cc: Elliott Chamberlain, ALC Development Corporation

the building authority, one (1) copy on mylar sent to the public works authority, one (1) to the assessor's office and one (1) to the subdivider.

- (4) Unless the subdivider shall record his or her approved recording plat within three (3) years after the planning board has approved the subdivision plat, the recording plat approval shall become null and void. The preceding sentence notwithstanding, if the planning board's initial approval of a subdivision is based in part upon the granting of a variance from any of the applicable subdivision approval standards, no such variance shall be valid unless that fact shall be expressly noted on the face of the recording plat and shall be noted in a certificate, each of which shall conform to 30-A M.R.S.A. Section 4406, and such recording plat or such certificate or both of them are recorded in the Cumberland County Registry of Deeds within ninety (90) days of final subdivision approval.

(h) *Sectional recordings*: Following subdivision plat approval, the planning board may permit the subdivision to be divided into two (2) or more sections for recording purposes subject to any conditions that the board deems necessary in order to insure the orderly development of the plan. The applicant may seek approval of and record a sectional recording plat with the county registry of deeds only if the section constitutes at least twenty (20) percent of the total number of lots contained in the approval plat and, in addition, shows the entire tract or parcel. In these circumstances, if the first section of the plat has been recorded within three (3) years after planning board approval, subdivision plat approval of the remaining sections of the plat shall remain in effect for five (5) years after planning board approval.

(Code 1968, § 603.6; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79; Ord. No. 692-81, 5-18-81; Ord. No. 123-85, 10-7-85; Ord. No. 127-87, §§ 2-4, 2-18-87; Ord. No. 94-88, 7-19-88; Ord. No. 155-89, §§ 3, 4, 11-20-89)

Editor's note—Ord. No. 94-88, adopted July 19, 1988, amended § 14-495(g)(4) to read as herein set out. See also the editors note to Art. III of this chapter for additional provisions relative to Ord. No. 94-88.

Sec. 14-496. Plat requirements.

Each and every modification of the information required to be shown on the plat in this section shall be applied for in writing by the subdivider. The decision of the planning board on such request shall be final.

- (1) *Information on subdivision plat*. The following information shall be shown on one (1) subdivision plat unless otherwise indicated:
- a. Date, north point, title and graphic scale. Scale shall not be more than sixty (60) feet to the inch unless lots are more than an acre, but in no event more than one hundred (100) feet to the inch;
 - b. Based on a recent survey by the subdivider, existing contours at two (2) feet intervals or as otherwise required by the public works authority. Existing structures which are to remain will be delineated;
 - c. Names of proposed streets, width of rights-of-way, and typical cross section reservation, and depth of construction materials;

CC1

KAREN A. GERAGHTY (MAYOR) (2)
PETER E. O'DONNELL (1)
NATHAN H. SMITH (3)
CHERYL A. LEEMAN (4)
JAY M. HIBBARD (5)

JAMES F. CLOUTIER (A/L)
PHILIP J. DAWSON (A/L)
JILL C. DUSON (A/L)
NICHOLAS M. MAVODONES (A/L)

AGENDA
REGULAR CITY COUNCIL MEETING
EVENING SESSION
NOVEMBER 18, 2002

The Portland City Council will hold a regular City Council meeting at 7:30 p.m. in the City Council Chambers, City Hall. The Honorable Karen A. Geraghty, Mayor, will preside.

PLEDGE OF ALLEGIANCE:

ROLL CALL:

Special Meeting of the Corporator of the Downtown Portland Corporation - Sponsored by Karen A. Geraghty, Mayor.

A special meeting of the Corporator of the Downtown Portland Corporation will be held by the City Council November 18, 2002, at 7:30 p.m. in City Council Chambers to appoint a member to the Downtown Portland Corporation.

Order 97-02/03 Order Appointing Director to Downtown Portland (Tab 1) Corporation - Sponsored by the Appointments Committee, Jill C. Duson, Chair.

This order appoints Troy Murphy to the Downtown Portland Corporation with a term ending 9/30/03.

Five affirmative votes are required for passage after public comment.

APPROVAL OF MINUTES OF PREVIOUS MEETING:

(Tab 2) November 4, 2002

PROCLAMATIONS:

Proc 15-02/03 Proclamation Honoring Detective Cheryl Holmes as Police (Tab 3) Officer of the Month for October 2002 - Sponsored by Karen A. Geraghty, Mayor.

CONSENT ITEMS:

Order 98-02/03 Order Amending Traffic Schedule Re: Hillis Street - (Tab 4) Sponsored by the Public Safety Committee, Councilor Philip J. Dawson, Chair.

For several years the residents have had a problem with Deering High School students parking all day on Hillis Street. Residents have complained of access problems, as well as availability of parking for themselves.

Last year the City Council expanded the areas for which streets are eligible for a residential parking sticker, and Hillis Street is now eligible.

If Hillis Street has hourly parking, residents would be exempt from the restriction if a sticker is displayed on their vehicles.

Residents of Hillis Street were surveyed recently regarding the proposal for one-hour parking. Residents overwhelmingly support the establishment of one-hour parking 8:00 a.m. to 4:00 p.m. school days only on Hillis Street and being eligible for a residential parking sticker.

Staff recommends approval of one-hour parking on Hillis Street. The Public Safety Committee has reviewed this proposal and voted unanimously in favor of the one-hour parking 8:00 a.m. to 4:00 p.m. school days only.

Five affirmative votes are required for passage after public comment.

**Order 99-02/03 Order Approving City-State Agreement with Maine
(Tab 5) Department of Transportation Re: Morrill's Corner Traffic Signals - Sponsored by
Joseph E. Gray, Jr., City Manager.**

The city will receive funding from the Maine Department of Transportation to widen Forest Avenue at Morrill's Corner and upgrade the traffic signals. The proposed widening will be between the railroad tracks that cross Forest Avenue and Warren Avenue. This project will add one lane so that there will then be two through lanes in each direction and also a dedicated left turn lane. The widening will only be on the inbound side of Forest Avenue.

The project is expected to begin this winter with the utility adjustments which should take a couple of weeks with minimal impact to traffic flow. The widening would then commence in the spring with traffic being impacted and a detour being necessary for three to four weeks. The entire widening will take approximately two months to complete.

A concept agreement was signed in August, but now the funding has been finalized and is included in a modified City-State agreement.

City share funds have been appropriated through CIP account #C02401. The city share or contribution will be 11.66% and amounts to \$241,697.

Five affirmative votes are required for passage after an opportunity for public comment.

LICENSES:

**Order 100-02/03 Order Granting Municipal Officer's Approval of: Super
(Tab 6) Chinese Buffet, Inc., d/b/a Maine Super Buffet, 1140 Brighton Ave. Restaurant with
Liquor. New City and State License - Sponsored by Linda C. Cohen, City Clerk.**

Five affirmative votes are required for passage after public comment.

**Order 101-02/03 Order Granting Municipal Officer's Approval of: Family
(Tab 7) Thai Food, Inc., d/b/a Family Thai Food, 803 Forest Avenue. Existing Business Adding
Special Entertainment with Dance.**

Five affirmative votes are required for passage after public comment.

APPOINTMENTS:

**Order 102-02/03 Order Appointing Member of Friends of the Parks
(Tab 8) Commission - Sponsored by the Appointments Committee, Councilor Jill C. Duson, Chair.**

This order appoints Marc Lamontagne to the Friends of the Parks for a term ending 6/30/05.

Five affirmative votes are required for passage after public comment.

BUDGET ITEMS:

UNFINISHED BUSINESS:

Order 90-02/03 Order Amending the Portland City Code Chapter 17 Article II
(Tab 9) (Offenses Against Public Peace) RE: Noisy Motorcycles - Sponsored by the Public Safety Committee, Philip J. Dawson, Chair.

The proposed ordinance is modeled on a New Hampshire statute. It gives the City an objective measure of offensive noise levels from motorcycles that will be much more enforceable than the applicable State law (29-A MRSA §1912 Mufflers - attached) which focuses on the type of exhaust systems that are on motorcycles.

The objective measure in the proposed ordinance is established in Sec. 17-20(c), which prohibits a person from operating a motorcycle which has a measured noise level of more than 106 decibels in any zone at any time. The noise level is measured by a decibel meter 20 inches from the exhaust pipe with the meter at a 45 degree angle while the engine is operating at 2800 RPM for one- and two-cylinder motorcycles and 3500 RPM for any motorcycle with three or more cylinders in any zone at any time. The limit of 106 decibels was taken as a fairly generous measure from a number of ordinances around the country that establish similar levels.

A separate decibel limit of 70 decibels is established for residential zones between the hours of 10:00 p.m. and 7:00 a.m., and the measurement of the decibels in this timeframe is not controlled by the proximity or angle of the decibel meter or the revolutions of the motorcycle engine. The decibel limit is set at 70 as measured from any location.

The penalties under the ordinance can be assessed against either the owner or the operator of the motorcycle that violates the decibel limits. For a first violation the operator and/or the owner receives a warning.

For second and subsequent offenses, the fines go up from \$100 to \$250 to \$500 for a fourth or subsequent offense.

On October 9th the Public Safety Committee voted 3-0 to send this item to the Council with a recommendation for passage.

This item must be read on two separate days. It was given a first reading on October 21st. At the November 4th Council meeting this item was postponed to the November 18th Council meeting. Public comment on this item has been given. Five affirmative votes are required for passage.

Order 94-02/03 Order Adopting Report Entitled "Housing: Sustaining (Tab 10) Portland's Future" as Part of City's Comprehensive Plan - Sponsored by Councilor Nicholas Mavodones, Jr. and Councilor Nathan Smith, Co-Chairs of the Housing Comprehensive Plan Advisory Committee.

In February 2001, then-Mayor Cheryl Leeman appointed 27 members to the Housing Comprehensive Plan Advisory Committee to develop an up-to-date housing element of the city's Comprehensive Plan. Councilors Nicholas Mavodones, Jr., and Nathan Smith co-chaired the Advisory Committee and guided the development of Housing: Sustaining Portland's Future. The new plan is intended to replace Portland's current housing policy document titled Housing Strategies for the 90's, which was adopted in 1993. The Housing Comprehensive Plan Advisory Committee and the city are seeking the City Council's adoption of Housing: Sustaining Portland's Future as an element of Portland's Comprehensive Plan.

Housing: Sustaining Portland's Future is a plan intended to provide policy guidance for addressing housing issues and increasing Portland's housing stock over the next decade. A proposed Community Vision is contained within the plan. The plan has an overarching Housing Goal with six policies and accompanying objectives and actions that are included in the agenda backup material.

On September 24, 2002, the Planning Board voted 6-1 to communicate to the City Council its broad agreement with the general goal and vision articulated in the report but to not recommend adoption of the report as part of the Comprehensive Plan at that time due to reasons summarized in the Planning Board report #57-02 which is included in the backup.

Changes to the city's Comprehensive Plan only require one reading; however, in order to give the public more time for review, this item was postponed to the November 18th meeting.

Five affirmative votes are required for passage after public comment.

Order 95-02/03 Order Contributing \$25,000 to Stroudwater Village (Tab 11) Association for the "Campaign for the Corner" Land Purchase at 1305 Westbrook Street - Sponsored by Councilor Nathan H. Smith, Mayor Karen A. Geraghty, Councilor James F. Cloutier, Councilor Nicholas M. Mavodones, and Councilor Jill C. Duson.

The "Campaign for the Corner" is a fundraising effort by the Stroudwater Village Association. The Association borrowed \$80,000 with the assistance of Portland Trails to purchase land that is part of a knoll in the historic Stroudwater section.

The land is adjacent to a small city park that has a unique view of the Fore River Estuary. The Village Association and its campaign have already raised \$15,000 towards the \$80,000 goal and is requesting that the city contribute \$25,000 towards the goal.

The parcel in question is 1305 Westbrook Street and is situated at the intersection with Congress Street. It is 0.4 acres in size and is included in the 0.9 acres designated as Land Bank S-B-2. Residents and passerby alike have long considered the open space to be part of the corner park, owned by the city, as the two parcels combined appear to be one knoll.

This item must be read on two separate days. It was given a first reading on November 4th. Five affirmative votes are required for passage after public comment.

RESOLUTIONS:

Resolve 6-02/03 Resolution Endorsing the Visit of the Freedom Schooner (Tab 12) *Amistad* to Portland From May 9 to May 15, 2003 - Sponsored by Councilor Jill C. Duson, Mayor Karen A. Geraghty, Councilor Nathan H. Smith, Councilor Nicholas M. Mavodones, and Councilor James F. Cloutier.

This Resolution endorses and approves the visit of the Freedom Schooner *Amistad* to Portland from May 9 to May 15, 2003.

Five affirmative votes are required for passage after public comment.

Resolve 7-02/03 Resolution Providing for Property Tax Relief - Sponsored (Tab 13) by Councilor Cheryl A. Leeman.

The unaudited city budget figures for FY02 (July 1, 2001 - June 30, 2002) show an unexpected increase in the city's fund balance of \$1,895,809. Of that amount \$286,371 are attributable to savings in the school budget. The savings in the school budget do not lapse but by operation of state law are carried over into the school department's next budget for allocation.

At the Council meeting on September 18th and October 21st, the Council tabled to the Finance Committee a proposal by Councilor Hibbard to designate \$1.3 million of the unexpected surplus to a property tax relief program that would work by sending rebates on a pro rata basis to residential homeowners who qualify for the state's homestead exemption. This proposal by Councilor Leeman calls for the surplus to be set aside in a reserve account for property tax relief and used for that purpose unless the Council determines otherwise in the FY04 budget, which will be set in May of 2003, or unless, prior to that time, seven members of the Council declare an emergency and appropriate the funds to pay for the costs related to the emergency.

Five affirmative votes are required for passage after public comment.

COMMUNICATIONS:**ORDERS:**

Order 103-02/03 Order Approving Procedural Rules of the Police Citizen (Tab 14) Review Subcommittee of the Civil Service Commission - Sponsored by Dr. Robert McAfee, Chair, Police Citizen Review Subcommittee of the Civil Service Commission.

The Police Citizen Review Subcommittee has been meeting monthly since early summer and has finalized proposed rules of procedure. Under the ordinance, these rules must be approved by the City Council prior to becoming final.

Simultaneously with consideration of the rules, the Subcommittee has had several training sessions and has been reviewing closed IA reports in order to ensure that it can meet the reporting requirements under the ordinance, beginning in 2003.

The rules generally follow the ordinance, specifying the process for access to the IA reports, handling conflicts of interest, for handling a citizen request for review of his or her complaint if the complaint does not fall under the mandatory review standard (i.e., excessive force, civil rights violation or criminal

conduct) and spells out the confidentiality requirements under state law.

As a result of the Maine Labor Relations Board ruling, the jurisdiction of the Subcommittee is limited to a review of the Internal Affairs' investigative process of cases which have been finally closed. It is an "audit" process only, after the fact, and only as to internal procedures, not as to outcome of the case. Because these investigative reports involve allegations of misconduct by an officer, the specific cases will generally need to be discussed in executive session, with any final decisions discussed and made in public. The issue of public discussion and public comment has been the subject of substantial comment and discussion by the Subcommittee. The rules strike a balance between the need for confidential handling of these reports with allowing an opportunity for public comment and discussion of the Subcommittee's decisions.

Other matters that the Subcommittee takes up that are not confidential will also be done in public with an opportunity for public comment.

The Subcommittee decided on October 22 to send these rules to the November 18 City Council meeting for approval.

Five affirmative votes are required for passage after public comment.

Order 104-02/03 Order Holding Public Hearing on Amending the FY 1999 and (Tab 15) FY 2002 Consolidated Housing and Community Development Plans Re: Reallocation of CDBG Funds for Peaks Island Playground - Sponsored by Joseph E. Gray, Jr., City Manager.

A public hearing will be held by the City Council on an Amendment to the FY 1999 (City FY 2002) and FY 2002 (City FY 2003) Consolidated Housing and Community Development Plans to reallocate \$39,760 in Community Development Block Grant (CDBG) funds from the Eastern Promenade Walkways Project (FY 1999 Plan) to the Peaks Island Playground Project (FY 2002 Plan).

Five affirmative votes are required for passage after public comment.

Order 105-02/03 Order Reallocating and Appropriating \$39,760 in Housing and (Tab 16) Community Development Funds and Amending the FY 1999 and FY 2002 Consolidated HCD Plans Re: Peaks Island Playground - Sponsored by Joseph E. Gray, Jr., City Manager.

Action on this item amends the 1999 and 2002 Consolidated Housing and Community Development Plans so \$39,759.26 of 1999 CDBG funds currently allocated to the Eastern Promenade Walkways Project are reallocated and appropriated to the 2002 Peaks Island Playground and school site. This reallocation of funds will insure a more comprehensive improvement of the playground and school site.

The additional work includes currently excluded but needed items such as irrigation for the reconstructed lawn play area, repairs to the perimeter fence, higher quality play equipment and sodding of the lawn play area to insure successful establishment and immediate usability by the community. This project needs to be completed this year in anticipation of HUD releasing updated census information related to Peaks Island.

Five affirmative votes are required for passage after public comment.

Order 106-02/03 Order Approving Purchase and Sale Agreement with ALC (Tab 17) Development Company - Sponsored by the Community Development Committee,

Councilor James F. Cloutier, Chair.

The ALC Development Company is in the process of building the second phase of a 62-unit condominium adjacent to the PATHS facility on Allen Avenue. In order to accommodate larger units within two buildings toward the rear of the property, the developers are requesting to purchase a +/- 300-foot by 16-foot, 4625 square foot strip of city land.

The School Department, the School Committee, the Parks Department and the Community Development Committee have reviewed the sale of property and have provided their conditional approvals.

The Parks Department, the Planning Division and the Community Development Committee, in the course of their review, recognize the potential of the ALC site to provide a pedestrian trail link between the PATHS trail system and existing and planned trails in the Pennell Avenue neighborhood.

Thus, the sale is conditioned upon the developer, ALC, transferring a pedestrian trail easement over another portion of their property to Portland Trails as part of their purchase of city land at the PATHS facility. In addition, the City will retain an easement over the property being sold to ALC.

The developers have agreed to pay the City \$8,000 for the City property, with the easement back to the City and a separate easement to Portland Trails. The developers will gain eight additional bedrooms spread over eight units, potentially providing a significant increase in both sales and taxable value.

At their meeting on October 9th, the Housing Committee voted to recommend approval of this item to the full City Council.

Five affirmative votes are required for passage after public comment.

**Order 107-02/03 Order Approving Grant of City Property in Vicinity of
(Tab 18) Lyseth and Lyman Moore Schools - Sponsored by Councilor Nathan H. Smith, Chair.**

Anthony and Pamela Procida own property and live at 15 Applebee Circle off of Summit Street in North Deering. Their back yard abuts a linear strip of city property that connects Allen Avenue with the grounds of the Lyseth and Lyman Moore schools.

Children going to school now routinely access the trail from Applebee Circle by walking across the Procida's side yard and back yard. The Procida's asked the City to sell a portion of the City's property so that they could plant shrubs and erect a fence to discourage kids from crossing their property to the trail.

The Housing Committee considered the Procida's request at two meetings. The Committee brings forward two alternate orders related to the disposition of City property near Lyseth School:

Option A: An order authorizing sale of the property with conditions Selling price based on the assessed value per square foot

Option B: An order granting an easement for use of the property with conditions

Whether through sale or easement, the city would retain the right to terminate whatever interest might be conveyed to the Procidas if it deems that the property were needed for municipal interest.

Five affirmative votes are required for passage after public comment.

**Order 108-02/03 Order Approving Easement Over City Property in Vicinity of
(Tab 19) Lyseth and Lyman Moore Schools - Sponsored by Councilor Phillip J. Dawson.**

Five affirmative votes are required for passage after public comment.

AMENDMENTS:

REQUEST FOR EXECUTIVE SESSION:

**CITY OF PORTLAND, MAINE
CITY COUNCIL AGENDA REQUEST FORM**

TO: Linda Cohen, City Clerk
FROM: Alexander Jaegerman, Director of Planning Division
DATE: October 23, 2001
SUBJECT: Agenda Request

- 1) Council Meeting at which action is requested: First reading on November 4, 2002
Council action on November 18, 2002
- 2) Can action be taken at a later date? YES NO

I. SUMMARY OF ISSUE

The ALC Development Company is in the process of building the second phase of a 62-unit condominium development adjacent to the PATHS facility on Allen Avenue. In order to accommodate larger units within two buildings toward the rear of the property, the developers are requesting to purchase a +/- 300-foot by 16 foot, 4625 square foot strip of City land. The School Department, the School Committee, the Parks Department and the Community Development Committee have reviewed the sale of property and have provided their conditional approvals.

The Parks Department, the Planning Division and the Community Development Committee, in the course of their review, recognize the potential of the ALC site to provide a pedestrian trail link between the PATHS trail system and existing and planned trails in the Pennell Avenue neighborhood. It is recommended that the developer, ALC, transfer a pedestrian trail easement to Portland Trails as part of their purchase of City land at the PATHS facility.

For a more complete description of the proposal, the interdepartmental review and trail potential please refer to the Council Memo.

II. REASON FOR SUBMISSION (What issue/problem will this address?)

In the course of marketing their units, ALC finds that 2 bedroom condos are difficult to sell and two of the projects four-unit buildings include only two bedrooms. These buildings, located along the PATHS property line at the north end of the site, are tightly constrained by the property line set back on the west and existing wetlands on the east. The developers would like to expand the units to three bedrooms, necessitating an

encroachment into the 35' setback.

III. **INTENDED RESULT** (How does it resolve the issue/problem?)

By purchasing a 16' strip of land, the units could be enlarged, and the set back requirements satisfied. The total number of residential units would remain the same at 62.

IV. **FINANCIAL IMPACT**

The developers have suggested offers ranging from \$8000 without a Portland Trails easement to \$5000 with the easement. The assessing office has difficulty estimating the value due to a lack of comparables; but, using a straight square foot multiplier of the value of back lot land, the market value could be less than the \$5000 offer. The developers will gain eight additional bedrooms spread over eight units, potentially providing a significant increase in both sales and taxable value. The School Committee recommends that the City negotiate the highest possible price for this land.

V. **STAFF ANALYSIS & RECOMMENDATION**

As Stated above, if the sale is conditioned on (1) the City retaining a broad use easement over the strip of land, and (2) the developer granting a trail easement to Portland Trails, Staff, the School Committee and the Community Development Committee recommend the transfer of property.

Attachments:

CDC Planning Memo including correspondence from:

Parks Department
School Administration
Portland Trails

**CITY OF PORTLAND, MAINE
MEMORANDUM**

TO: Councilor Cloutier and Members of the Community Development Committee
FROM: Bill Needelman, Senior Planner
DATE: October 3, 2002
RE: October 9, 2002 CDC Meeting

ALC Development proposal to purchase a strip of City property from the PATHS facility

Introduction

The ALC Development Company is in the process of building the second phase of a 62-unit condominium development adjacent to the PATHS facility on Allen Avenue. In order to accommodate larger units within two buildings toward the rear of the property, the developers are requesting to purchase a 4625 square foot strip of City land. The School Department, the School Committee, and the Parks Department have reviewed the sale of property and have provided their conditional approvals. The City Council has the final authority to negotiate the sale of the property.

Summary

The developers have been approved for 62 units with the Washington Crossing condominium project and the project is now significantly complete. The project is comprised of two, three and four unit buildings arranged along a meandering culdesac road. Please see the Attached Washington Crossing Condominium Site Plan; attachment #3.

In the course of marketing their units, ALC finds that 2 bedroom condos are difficult to sell and two of the projects four unit buildings include only two bedrooms. These buildings, located along the PATHS property line at the north end of the site, are tightly constrained by the property line set back on the west and existing wetlands on the east. The developers would like to expand the units to three bedrooms, necessitating an encroachment into the 35' setback. By purchasing a 16' strip of land, the units could be enlarged, and the set back requirements satisfied. The total number of residential units would remain the same at 62. Please see the attached plan of proposed parcel included as attachment #4.

School Administration Approval

The School Administration and the School Committee have reviewed the proposal and find that the loss of the strip of property will not interfere with the future use or value of the PATHS property. The School Committee makes this recommendation subject to the City retaining an easement for future use of the strip for pedestrian, roadway, utility, or any other legal uses.

The School Committee also urges the City to negotiate for the highest possible price for the land. Please see School Administration memo included as attachment #1.

Parks Department Approval

The Parks and Recreation Department has also reviewed the proposal and provides the following comments regarding their approval of the land sale. Please see the attached memo from Parks Director, Denise Albert; attachment #2. The Parks Department recommends the following:

1. That the parcel of land sold to ALC be maintained by the grantee (the developer and its Association) as a No-Cut Buffer strip running with the land, except that the grantor (the City) reserves the right to cut all or a portion of the strip should the need arise in the future; and
2. That the City retain an easement in this property; and
3. ALC and the Homeowner's / Neighborhood Association convey an easement for trail purposes to be used by the general public, which location shall be jointly determined by ALC, the City and Portland Trails with the purpose of providing connections to adjacent easements and paper streets.

Trail Potential

The Planning Staff has met with representatives of Portland Trails regarding the proposal. Also, during the course of development, Portland Trails has met with the developers to discuss the possibility of linking existing trail networks through the ALC property. The ALC property is fortuitously located between the PATHS facility and existing paper streets and utility rights of way, providing an attractive link in the trail network between currently separated parts of the City. A trail easement, located near to the northerly boundary line of the ALC property, would allow this linkage, while maintaining a reasonable separation from the future condominium residents in the area.

The Parks Department's condition #3 recognizes the potential importance of trail connections in this portion of the City. Additionally, in support of conditioning the sale of the PATHS strip to acquiring a trail easement, Portland Trails will provide a statement regarding their interest in this area prior to the October 9th meeting. Please see the attached aerial photo for a larger context view of the properties; attachment #5 (note that the proposed strip is shown in highlight.)

Attachments:

1. School Administration Memo
2. Parks Director Memo
3. Washington Crossing Condominium Site Plan
4. Plan of proposed parcel for sale (the strip)
5. Aerial Photo

Portland Public Schools

AH 1

Administrative Offices
331 Veranda Street, Portland, Maine 04103-5599
207-874-8100



To: Joe Gray, City Manager
From: Mary Jo O'Connor, Superintendent *mgoc*
Date: September 20, 2002
CC: Michelle Hendrich, Chair, School Committee
William Needleman, Planning Department

The School Department and School Committee have reviewed the subject request by ALC Development Corporation to acquire a sixteen (16) by three hundred thirty (330) foot strip of land from the City. This land is shown on ALC Development Corporation drawing attached hereto. A metes and bounds description for this strip will be provided by ALC Development Corporation for inclusion in the deed.

There is no objection on the part of the School Department or School Committee to the sale of this strip of land provided the City retains for itself an easement over the strip which may be used for all legal purposes, including but not limited to a public pedestrian trail, installation of a driveway/roadway, a buffer strip, utility purposes, etc.

The Portland School Committee strongly urges the City to receive the highest negotiable price reflecting this parcel's current and future value to both the developer and the City of Portland.

Denise Clavette Albert, CPRP
Director, Parks & Recreation

Joseph E. Gray, Jr.
City Manager



CITY OF PORTLAND

To: Bill Needleman
From: Denise Clavette Albert, CPRP
Date: October 2, 2002
Re: ALC Purchase of City Property

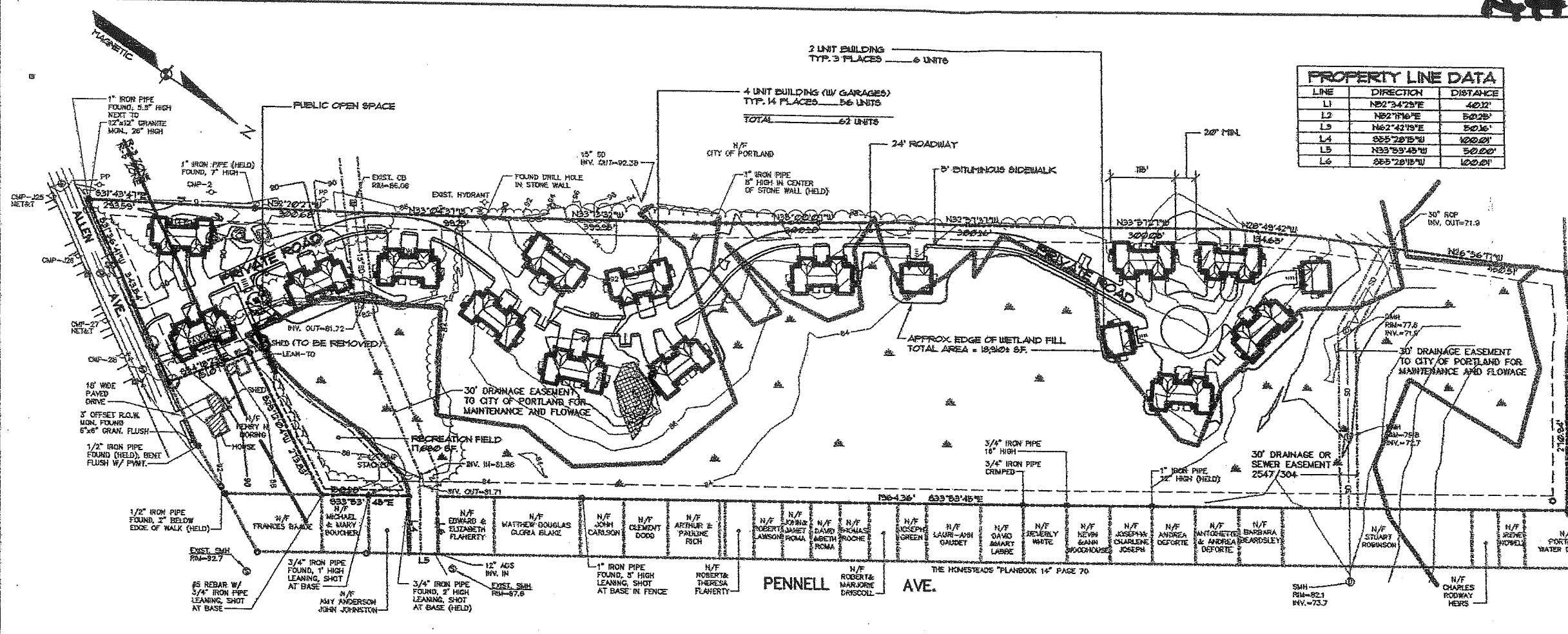
DA

This memo is to confirm prior discussions and correspondence regarding Parks and Recreation's input for the approval of ALC's (the developer) purchase of a sixteen foot strip of property presently included within the PATHS campus and owned by the City. This parcel would allow the developer the necessary setback for construction of three bedroom as opposed to two bedroom units.

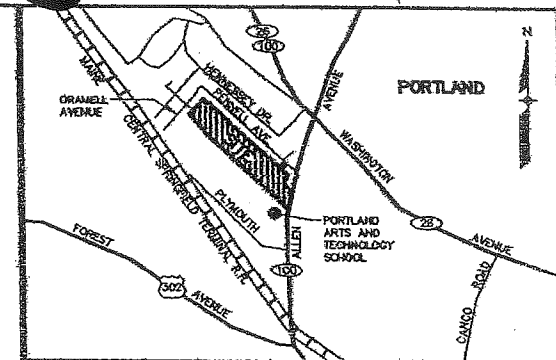
With the following conditions attached, I am in agreement that the sale of this property would not impede the future park, recreational or school use of the remaining property:

1. That the parcel of land sold to ALC be maintained by the grantee (the developer and its Association) as a No-Cut Buffer strip running with the land, except that the grantor (the City) reserves the right to cut all or a portion of the strip should the need arise in the future; and
2. That the City retain an easement in this property; and
3. ALC and the Homeowner's / Neighborhood Association convey an easement for trail purposes to be used by the general public, which location shall be jointly determined by ALC, the City and Portland Trails with the purpose of providing connections to adjacent easements and paper streets.

Feel free to contact me, should you need additional information.



LINE	DIRECTION	DISTANCE
L1	N82°34'29"E	40.02'
L2	N82°19'06"E	50.28'
L3	N62°42'19"E	50.16'
L4	S85°28'15"W	100.00'
L5	N83°53'45"W	50.00'
L6	S85°28'15"W	100.00'



EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	DRILLHOLE	---
C1/L1	CURVILINE NO.	C1/L1
---	BUILDING	---
---	WETLANDS	---
---	EDGE WETLAND SIGN	---
---	ROCK OUTCROP	---
---	EDGE PAVEMENT	---
---	GRAVEL ROAD	---
---	CURVILINE	---
---	TREELINE	---
---	CONTOURS	---
---	GAS	---
---	WATER	---
---	SEWER	---
---	STORM DRAIN	---
---	UNDERGROUND ELEC. & TEL.	---
---	GATE VALVE	---
---	LIGHT POLE	---
---	UTILITY POLE	---
---	HYDRANT	---
---	CATCH BASIN	---
---	MANHOLE	---
---	DECIDUOUS TREE	---

GENERAL NOTES

- RECORD OWNER OF THE PROPERTY IS ALC DEVELOPMENT CORPORATION IN ACCORDANCE WITH A DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS, PORTLAND, MAINE IN BOOK 1482, PAGE 320.
- THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND ASSESSOR'S PLAN NO. 349, BLOCK C, SHOWN AS LOTS M AND B, AND ASSESSOR'S BLOCK NO. 344, BLOCK D, LOT B.
- TOTAL AREA = 136,656 SQUARE FEET, OR 26.09 ACRES.
- PLAN REFERENCES:
 - PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR CITY OF PORTLAND, PORTLAND REGIONAL VOCATIONAL SCHOOL BY H. I. AND E. C. JORDAN, SURVEYORS, DATED 1913, REVISED THROUGH AUGUST 23, 1978 ON FILE AT THE CITY OF PORTLAND ENGINEER'S OFFICE IN FILE NO. 706/A.
 - PLAN OF LAND OF HENRY NORRIS, ALLEN AVENUE, PORTLAND, MAINE FOR BRAD GATE ASSOCIATES DATED MAY 11, 1987 BY CIVIL CONSULTANTS ENGINEERS AND PLANNERS, SOUTH BERWICK, MAINE. PLAN IS UNRECORDED AND ON FILE AT CIVIL CONSULTANTS IN JOB FILE 88-218.
 - CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS, RIGHT-OF-WAY PLAN FOR PORTLAND REGIONAL VOCATIONAL TECHNICAL SCHOOL STORM SEWER BY THE CITY OF PORTLAND ENGINEERING DEPARTMENT DATED AUGUST 6, 1978, AN UNRECORDED PLAN ON FILE AT THE CITY OF PORTLAND ENGINEERING DEPARTMENT IN PLAN FILE NO. 668-3.
 - PORTLAND HIGHLANDS, PORTLAND, CUMBERLAND COUNTY, MAINE OWNED BY HR LOUD LAND COMPANY, INC. FORMERLY OWNED BY GEORGE F. REED DATED JULY 22, 1924 BY ERNEST W. BRANCH, CIVIL ENGINEER, QUINCY, MASSACHUSETTS, RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 16, PAGE 10.
 - THE HOMESTEADS, PORTLAND, MAINE OWNED BY THE CITY AND SUBURBAN LAND TRUST, PROVIDENCE, RHODE ISLAND, SURVEYED BY E. C. JORDAN & COMPANY, CIVIL ENGINEERS, PORTLAND, MAINE DATED SEPTEMBER 1921, RECORDED IN SAID REGISTRY IN PLAN BOOK 14, PAGE 12.
- SUBJECT TO:
 - AN EASEMENT GRANTED BY HENRY N. AND BLANCHE D. NORRIS TO C. H. HANSON & CO., INC. AS DESCRIBED IN AN EASEMENT DEED DATED NOVEMBER 23, 1960 AND RECORDED IN SAID REGISTRY IN BOOK 2847, PAGE 304, SAID EASEMENT BEING A 30 FOOT WIDE STRIP OF LAND AS SHOWN HEREON CROSSING THE NORTHEASTERLY END OF THE PARCEL. THE PURPOSE OF SAID EASEMENT IS FOR THE CONSTRUCTION OF SURFACE WATER DRAINS OR SEWERS, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIP AT ANY AND ALL TIMES IN ORDER TO CONSTRUCT, MAINTAIN, REPAIR, REBUILD, OR RECONSTRUCT THE SAME.
 - A STORM SEWER EASEMENT 30 FEET IN WIDTH AS SHOWN HEREON CROSSING THE SOUTHERLY END OF THE PARCEL, SAID 30 FOOT WIDE STORM SEWER EASEMENT SHOWN ON THE PLAN REFERENCED IN NOTE 4C. NO RECORD EASEMENT DEED FOR THIS EASEMENT WAS FOUND IN SAID REGISTRY.
- THIS PLAN AND SURVEY WERE PERFORMED IN CONFORMANCE WITH THE MAINE STATE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS, STANDARDS OF PRACTICE, CATEGORY 1, CONDITION 2 WITH EXCEPTIONS:
 - SURVEYOR'S REPORT BEING LIMITED TO THE NOTES AS SHOWN HEREON.
 - NO DETAILS DRAWN ON MONUMENTATION NOT HELD.
 - NO NEW DEED DESCRIPTION OR MONUMENTATION HAVING BEEN SET TO DATE.
- BEARINGS SHOWN HEREON ARE MAGNETIC NORTH OF 1986, REFERENCED TO PLAN 4E.
- ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1988 ESTABLISHED BY USING ASHTEC Z-12-GPS DUAL FREQUENCY RECEIVERS.
- THIS PLAN MAY BE SUBJECT TO REVISION UPON RECEIPT OF A TITLE OPINION.
- THE PROPERTY IS LOCATED IN THE R-3 AND R-3 ZONES.
- SPACE AND BULK REQUIREMENTS:

R-3 ZONE	MINIMUM LOT SIZE	6,000 SF.
	MINIMUM STREET FRONTAGE	50-FT.
	MINIMUM FRONT YARD	25-FT.
	MINIMUM REAR YARD	25-FT.
	MINIMUM SIDE YARD (1 STORY)	5-FT.
	(1 1/2 STORY)	5-FT.
	(2 STORY)	14-FT.
	(2 1/2 STORY)	16-FT.
	MAXIMUM LOT COVERAGE	25%
	MINIMUM LOT WIDTH	75-FT.
	MINIMUM STRUCTURE HEIGHT	10-FT.
	MINIMUM LOT AREA PER DWELLING UNIT	6,000 SF. NET LAND AREA
- R-3 ZONE:

	MINIMUM LOT SIZE	6,000 SF.
	MINIMUM STREET FRONTAGE	50-FT.
	MINIMUM FRONT YARD	25-FT.
	MINIMUM REAR YARD	25-FT.
	MINIMUM SIDE YARD (1 STORY)	5-FT.
	(1 1/2 STORY)	5-FT.
	(2 STORY)	14-FT.
	(2 1/2 STORY)	14-FT.
	MINIMUM DISTANCE BETWEEN BUILDING	16-FT.
	MAXIMUM LOT COVERAGE	40%
	MINIMUM LOT WIDTH (MULTIPLIED)	50-FT.
	(OTHER USES)	60-FT.
	MAXIMUM STRUCTURE HEIGHT	35-FT.
	MAXIMUM LENGTH OF STRUCTURE	140-FT. W/ INTERNAL GARAGES
- NET RESIDENTIAL CALCULATIONS:

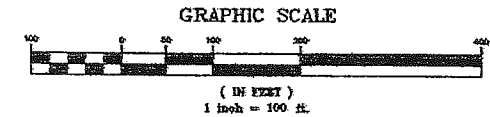
TOTAL LOT AREA	26.09 Ac.
- STORMWATER DETENTION AREA OUTSIDE OF WETLANDS	0 Ac.
- EXISTING WATERCOURSES	0 Ac.
- INACCESSIBLE AREAS	0 Ac.
- WETLANDS	13.10 Ac.
- AREAS ENCLOSED BY EXISTING EASEMENTS OUTSIDE WETLANDS	0.15 Ac.
- SLOPES OF 25% OR GREATER	0 Ac.
SUBTOTAL	8.80 Ac.
- 20% OF SUBTOTAL	1.76 Ac.
NET RESIDENTIAL LAND AREA	10.28 Ac. (446,054 SF.)
MAXIMUM NO. OF UNITS ALLOWED AT 1/6,000 SF.	68 UNITS
NUMBER OF UNITS PROPOSED	67 UNITS
- OPEN SPACE REQUIREMENTS:

300 SF/UNIT	300x67 = 20,100 SF.
MINIMUM OF 6,000 SF. (50% MIN.) MUST BE A MULTI-PURPOSE FLOODED FIELD.	
- OPEN SPACE PROVIDED:

PUBLIC OPEN SPACE	6,684 SF.
RECREATION FIELD	17,680 SF.
TOTAL	24,364 SF.
- THE PRIVATE ROAD WILL BE BUILT TO CITY OF PORTLAND STANDARDS FOR MATERIALS AND CROSS-SECTIONAL DEPTHS. IT SHALL BE THE RESPONSIBILITY OF THE WASHINGTON CROSSING OWNERS, ASSOCIATION FOR MAINTENANCE, REPAIR OF THE ROADWAY AND SIDEWALK, AND SNOW REMOVAL.
- THE ENTIRE SITE SHALL BE DEVELOPED AND/OR MAINTAINED AS DEPICTED ON THE SITE/PLANNING PLAN. APPROVAL OF THE PLANNING AUTHORITY OR PLANNING BOARD SHALL BE REQUIRED FOR ANY ALTERATIONS TO OR DEVIATIONS FROM THE APPROVED SITE PLAN, INCLUDING WITHOUT LIMITATION, TOPOGRAPHY, DRAINAGE, LANDSCAPING, RETENTION OF WOODED OR LAWN AREAS, ACCESS, SIZE, LOCATION AND SURFACING OF PARKING AREAS, AND LOCATION AND SIZE OF BUILDINGS.
- AS PART OF THIS APPLICATION, A SEPARATE LANDSCAPING PLAN HAS BEEN SUBMITTED FOR REVIEW IN LIEU OF THE REQUIREMENT OF TWO TREES PER UNIT. ALL LANDSCAPING SHALL MEET THE CITY'S ARBORICULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE AND LANDSCAPE DESIGN GUIDELINES. THE DEVELOPER MAY CONTRACT FOR THE PLACEMENT OF LANDSCAPING, BUT SHALL REMAIN LIABLE TO THE CITY OF PORTLAND FOR FINANCIAL OBLIGATION FOR COMPLIANCE WITH CITY ORDINANCES AND APPROVALS. SUCH FINANCIAL OBLIGATION SHALL BE NEITHER TRANSFERABLE NOR WAIVERABLE BY THE DEVELOPER.
- THE ACTIVE RECREATION AREA SHALL BE FOR THE USE OF ALL THE HOMEOWNERS ASSOCIATIONS BOUNDED BY AGREEMENT, OR DOCUMENTS, TO WASHINGTON CROSSING CONDOMINIUMS.
- ALL ELECTRIC, TELEPHONE AND CABLE T.V. SERVICES SHALL BE UNDERGROUND AND IN CONFORMANCE WITH CENTRAL MAINE POWER CO., BELL ATLANTIC TELEPHONE CO. AND TIME WARNER CABLE T.V. CO. STANDARDS.

LINE	DIRECTION	DISTANCE
L1	N82°34'29"E	40.02'
L2	N82°19'06"E	50.28'
L3	N62°42'19"E	50.16'
L4	S85°28'15"W	100.00'
L5	N83°53'45"W	50.00'
L6	S85°28'15"W	100.00'

APPROVAL:
CITY OF PORTLAND
PLANNING BOARD



REV.	BY	DATE	STATUS
G	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
F	SMF	2-25-99	REVISE SITE PLAN SUBMISSION TO CITY
E	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
D	JRP	1-28-99	LAYOUT REVISIONS
C	JRP	9-25-98	RESUBMITTED FOR PLANNING BOARD REVIEW
B	JRP	4-21-98	LAYOUT REVISIONS
A	JRP	3-27-98	PLANNING STAFF REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

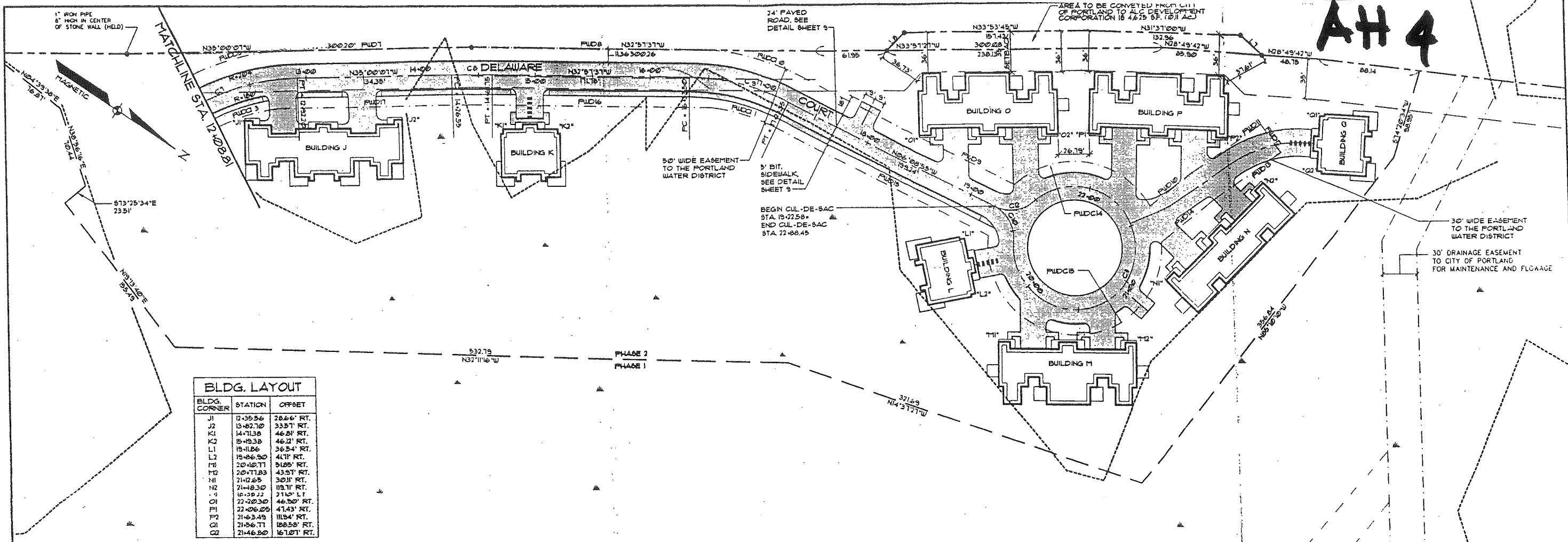
MASTER PLAN
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE
FOR:
ALC. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04091-1110

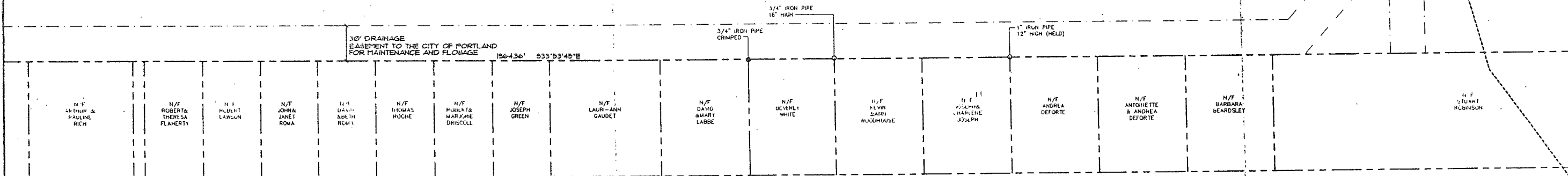
DESIGN BY:	JLW/SMF
DRAWN BY:	JTH
CHECKED BY:	SMF
DATE:	10-10-97
SCALE:	1"=100'
FIELD BK:	599
PROJ. NO.:	97380
DRAWING:	97380MP

238.13
85.8

AH 4



BLDG. CORNER	STATION	OFFSET
J1	12+35.56	28.66' RT.
J2	13+02.70	33.51' RT.
K1	14+13.58	46.81' RT.
K2	15+49.38	46.12' RT.
L1	18+11.86	36.54' RT.
L2	19+06.90	44.11' RT.
M1	20+40.71	51.85' RT.
M2	20+71.83	43.51' RT.
M3	21+42.65	30.11' RT.
M4	21+48.30	15.11' RT.
N1	16+39.22	21.10' LT.
O1	22+20.30	46.50' RT.
P1	22+06.05	41.43' RT.
P2	21+63.49	11.34' RT.
Q1	21+56.71	10.55' RT.
Q2	21+46.80	16.10' RT.



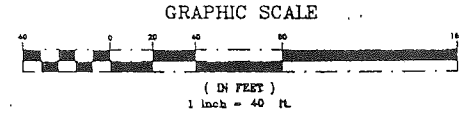
PENNELL AVE.

CURVE	LENGTH	RADIUS	DELTA
C1	177.71	192.00	53°01'49"
C2	39.21	988.00	02°02'30"
C3	89.85	192.00	76°48'42"
C10	36.03	30.00	68°48'40"
C11	293.81	53.00	317°31'19"
C12	36.03	30.00	68°48'40"

LINE	DIRECTION	DISTANCE
PUD1	N35°00'01"W	113.19'
PUD2	N32°51'31"W	210.59'
PUD3	N06°08'55"W	205.91'
PUD4	S72°1'53"E	46.40'
PUD5	S68°31'31"E	13.29'
PUD6	S21°28'29"W	30.00'
PUD7	S68°31'31"E	12.33'
PUD8	S72°1'53"E	51.91'
PUD9	N06°08'55"W	205.91'
PUD10	N32°51'31"W	208.03'
PUD11	N35°00'01"W	110.63'

CURVE	LENGTH	RADIUS	DELTA
PUDC3	73.40	217.00	19°22'52"
PUDC10	80.70	217.00	21°18'32"
PUDC11	59.86	167.00	20°32'18"
PUDC13	54.24	167.00	18°36'31"
PUDC14	136.96	75.00	104°31'39"
PUDC15	250.54	75.00	191°23'42"

LINE	DIRECTION	DISTANCE
L1	N57°34'29"E	40.12'
L2	N52°11'16"E	50.25'
L3	N62°42'19"E	50.16'
L4	S55°28'15"W	100.01'
L5	N33°53'45"W	50.00'
L6	S55°28'15"W	100.01'
L7	S11°06'15"W	25.00'
L8	N18°53'45"W	22.19'



STATE OF MAINE
COUNTY SS REGISTRY OF DEEDS
RECEIVED _____ 19____
AT _____ M. AND RECORDED IN _____
PLAN BOOK _____ PAGE _____ REGISTER
ATTEST _____

ALTERATIONS TO ORIGINAL APPROVED RECORDING PLAT HAVE BEEN APPROVED BY THE CITY OF PORTLAND DEPARTMENT OF PLANNING AND URBAN DEVELOPMENT IN COMPLIANCE WITH SECTION 14-456(3) OF THE SUBDIVISION ORDINANCE.

DIRECTOR OF PLANNING AND URBAN DEVELOPMENT
DATE: _____
RECORDED: BOOK _____ CHART _____

REV.	BY	DATE	STATUS
G	SMF	12-09-01	REVISED EASEMENT
F	SMF	2-11-00	RESUBMIT TO CITY STAFF FOR REVIEW
E	SMF	1-14-00	REVISE BUILDING FOOTPRINTS, DRIVEWAYS
D	SMF	7-23-99	REVISE PER CONDITIONS OF APPROVAL
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

AMENDED SITE PLAN: DELAWARE COURT
OF:
WASHINGTON CROSSING CONDOMINIUMS
(STA. 12+08.81 TO STA. 22+88.45)
ALLEN AVENUE
PORTLAND, MAINE
FOR:
A.L.C. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

Sebago Technics
Engineering & Planning for the Future
ONE CHABOT STREET
WESTBROOK, ME 04098-1339
TEL (207) 856-0277

DESIGN BY	A.W./SMF
DRAWN BY	TFH
CHECKED BY	SMF
DATE	11-4-98
SCALE	AS SHOWN
FIELD BK.	599
PROJ. NO.	97380
DRAWING	97380S2

SHEET 4 OF 11

AH 5

APPROX. LOCATION OF
STRIP



DRC1

**CITY OF PORTLAND, MAINE
ENGINEERING REVIEW FORM**

Address of Proposed Site 214-238 Allen Avenue Date 9-22-99
Project Description Washington Crossing Job # 19980147
Applicant ACC Development Co.
Applicant's Mailing Address 258 Blackpoint Rd., Scarborough

Site Review
(Planning Department)

Review Engineer: Jim Wendel
Number of Estimated Hours: 26.63
Cost Per Hour: 48.00
Total Amount: 1278.00

Right-of-Way Review
(Public Works Department)

Review Engineer: Tony Lombardo
Number of Estimated Hours: 18.5
Cost Per Hour: 35.00
Total Amount: 647.50

An engineering fee has been assessed in the amount of 1925.50 for the review of your project located at 214 Allen Ave.

Please make check payable to the City of Portland. The check should be submitted along with this form to the Portland Planning Department, City of Portland, 4th Floor, 389 Congress Street, Portland, ME 04101. Attn: Bill Needleman

Office Use Only

Invoice Date: 9/22/99

Received: 9/22/99

date

Planning Revenue Code: 101366011.9-04

Public Works Revenue Code: 101316011.9-PV

cc: Applicant - white
Planner - blue
Engineer - green
Public Works - yellow
Financial Officer - pink
Review/Inspection Fee File - golden

CHAMBERLAIN CONSTRUCTION
258 BLACK POINT RD.
SCARBOROUGH, ME 04074
207-883-1992-PHONE
207-883-5908-FAX

FACSIMILE COVER SHEET

DATE: 5/2/02
TO: Jay Reynolds
FROM: Elliott Chamberlain

OF PAGES INCLUDING COVER 6

COMMENTS:
Jay, I know you need this
information for the bill I just faxed
you.
Again, Call if you have questions.



• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

Letter Of Transmittal

To: Chamberlain Construction
Attn: Elliot Chamberlain
258 Blackpoint Road
Scarborough, ME 04074

Date: April 29, 2002
Project No: 02-0347
Subject: Delaware Court

- We are sending you: [X] Attached [] Under Separate Cover
[] Investigation Report [] Prints [] Samples
[X] Laboratory Test Report(s) [] Copy of Letter(s) [] Invoice
[] Field Test Report(s) [] Specifications [] Other

Description: REPORT OF MOISTURE DENSITY TESTS S-1 & S-2

These are transmitted as checked below:

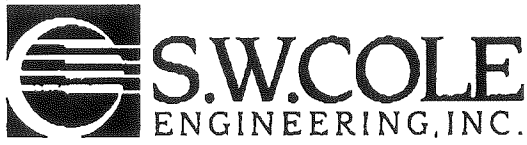
- [X] For your information [X] For your use
[X] As requested [] Returned

Remarks:

Copy to:

S. W. COLE ENGINEERING, INC.

BY: [Signature]
Roger E. Domingo



• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

**REPORT OF MOISTURE DENSITY TEST
(No Gradation Performed)**

PROJECT #	02-0347	SAMPLE #	1	DATE:	4/25/02
PROJECT:	DELAWARE COURT-PORTLAND				
CLIENT:	CHAMBERLAIN CONSTRUCTION				
MATERIAL SOURCE:	PORTLAND SAND & GRAVEL	MATERIAL:	GRAVEL		
	ASTM:	D-1557			
	METHOD:	C			
	MAXIMUM DENSITY	134.5	PCF		
	OPTIMUM MOISTURE CONTENT	5.4	%		

Corporate Office

RANGOR, ME: Six Liberty Drive, Bangor, ME 04401, Tel (207) 848-5714, Fax (207) 848-2403, E-Mail info@swcole.com, www.swcole.com

GRAY, ME: 286 Portland Road, P.O. Box 378, Gray, ME 04039-0378, Tel (207) 657-2866, Fax (207) 657-2840, E-Mail infogray@swcole.com

CARIBOU, ME: 91 Water St., P.O. Box 220, Caribou, ME 04736-0220, Tel (207) 498-1511, Fax (207) 496-1501, E-Mail info@caribou@swcole.com

AUGUSTA, ME: 555 Eastern Ave., Augusta, ME, Tel (207) 626-0600, Fax (207) 626-0700, E-Mail info@augusta@swcole.com

SOMERSWORTH, NH: 360 Rte. 108, Suite 208, Somersworth, NH, 03878-1584, Tel (603) 692-0088, Fax (603) 692-0044, E-Mail info@somersworth@swcole.com



• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

REPORT OF MOISTURE DENSITY TEST (No Gradation Performed)

PROJECT #	02-0347	SAMPLE #	2	DATE:	4/25/02
PROJECT:	DELAWARE COURT-PORTLAND				
CLIENT:	CHAMBERLAIN CONSTRUCTION				
MATERIAL SOURCE:	TAMBRANDS/WINDHAM	MATERIAL:	GRAVEL		
ASTM: D-1557 METHOD: C					
MAXIMUM DENSITY 138.2 PCF OPTIMUM MOISTURE CONTENT 7.0 %					

Corporate Office

BANGOR, ME: Six Liberty Drive, Bangor, ME 04401, Tel (207) 848-5714, Fax (207) 848-2403, E-Mail info@swcole.com, www.swcole.com
 GRAY, ME: 286 Portland Road, P.O. Box 378, Gray, ME 04039-0378, Tel (207) 857-2888, Fax (207) 657-2840, E-Mail infogray@swcole.com
 CARIBOU, ME: 91 Water St., P.O. Box 220, Caribou, ME 04736-0220, Tel (207) 496-1511, Fax (207) 496-1501, E-Mail [info@caribou@swcole.com](mailto:info@caribou.swcole.com)
 AUGUSTA, ME: 555 Eastern Ave., Augusta, ME, Tel (207) 828-0800, Fax (207) 828-0700, E-Mail infoaugusta@swcole.com
 SOMERSWORTH, NH: 350 Rte. 108, Suite 208, Somersworth, NH, 03878-1884, Tel (603) 692-0088, Fax (603) 692-0044, E-Mail [info@somersworth@swcole.com](mailto:info@somersworth.swcole.com)



• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

Letter Of Transmittal

To: Chamberlain Construction
 Attn: Elliot Chamberlain
 258 Blackpoint Road
 Scarborough, ME 04074

Date: April 29, 2002
Project No: 02-0347
Subject: Delaware Court

- We are sending you:** Attached Under Separate Cover
- Investigation Report Prints Samples
- Laboratory Test Report(s) Copy of Letter(s) Invoice
- Field Test Report(s) Specifications Other

Description: FIELD DENSITY TESTS #1 - #12

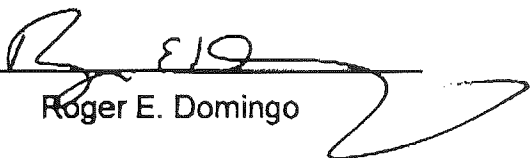
These are transmitted as checked below:

- For your information For your use
- As requested Returned

Remarks:

Copy to:

S. W. COLE ENGINEERING, INC.

BY: 
 Roger E. Domingo

S.W. COLE, ENGINEERING, INC.

PROJECT: Delaware Court
 CLIENT: Chamberlain Construction

JOB NUMBER: 020347
 PAGE 1

FIELD DENSITY TEST RESULTS

TEST #	TEST DATE	TECH INIT	TEST LOCATION	ELEV FEET	DEPTH INCHES	SAMPLE/CURVE #	--- IN PLACE ---		COMPACTION PERCENT	REQUIRED COMPACTION
							MOISTURE CONTENT PERCENT	DRY DENSITY PCF		
1	4/25/2002	DMR	MAIN ROADWAY STA 11 + 50 5'R	99.6	12	1	4.6	133.2	99.0	95.0
2	4/25/2002	DMR	MAIN ROADWAY STA 12 + 50 CL	99.6	12	1	2.5	135.1	100.4	95.0
3	4/25/2002	DMR	MAIN ROADWAY STA 13 + 50 6'L	99.6	12	1	4.1	134.3	99.8	95.0
4	4/25/2002	DMR	MAIN ROADWAY STA 14 + 50 7'R	99.6	12	1	3.3	134.0	99.6	95.0
5	4/25/2002	DMR	MAIN ROADWAY STA 15 + 50 CL	99.6	12	1	3.2	133.0	98.8	95.0
6	4/25/2002	DMR	MAIN ROADWAY STA 16 + 50 4'L	99.6	12	2	4.6	133.3	96.4	95.0
7	4/25/2002	DMR	MAIN ROADWAY STA 17 + 50 6'R	99.6	12	2	3.7	133.5	96.6	95.0
8	4/25/2002	DMR	MAIN ROADWAY STA 18 + 50 CL	99.6	12	2	3.9	131.4	95.0	95.0
9	4/25/2002	DMR	MAIN ROADWAY STA 19 + 50 6'L	99.6	12	2	4.1	133.1	96.3	95.0
10	4/25/2002	DMR	MAIN ROADWAY STA 20 + 50 4'R	99.6	12	2	3.5	131.3	95.0	95.0
11	4/25/2002	DMR	MAIN ROADWAY STA 21 + 50 CL	99.6	12	2	3.4	133.7	96.7	95.0
12	4/25/2002	DMR	MAIN ROADWAY STA 22 + 50 4'L	99.6	12	2	3.4	132.5	95.8	95.0

ELEVATION NOTES:

- 1) ASSM FIN GRADE 100'

COMMENTS:

LABORATORY COMPACTION TEST REFERENCE

SAMPLE/CURVE #	DATE RECEIVED	SAMPLE SOURCE	SOIL DESCRIPTION	TYPE OF TEST	METHOD	OPTIMUM MOISTURE CONTENT PERCENT	MAXIMUM DRY DENSITY PCF
1	4/25/2002	PORTLAND S & G	GRAVEL	ASTM D-1557	C	5.4	134.5
2	4/25/2002	TANDBERG PIT	GRAVEL	ASTM D-1557	C	7.0	138.2

COMMENTS:



225 Douglass St. • P.O. Box 3553 • Portland, ME 04104-3553

(207) 774-5961
FAX (207) 761-8329
www.pwd.org

February 12, 2002

Elliot Chamberlain
ALC Development Co.
258 Black Point Rd.
Scarborough, Me. 04074

Re: Washington Crossing-Phase II

Elliott:

The water main and service installations for Washington Crossing, Delaware Court is complete and both phase I & II has passed pressure and bacteria tests. Phase I of the project has passed final inspection and the water main and services are active.

Before the water main and services can be activated for phase II a final inspection is all that is necessary. This involves operating all valves, hydrants and services to make sure they are in good working order and everything is up to grade. Once the final inspection is made the water main, hydrant(s), and services can be activated. This work can be accomplished by our inspector in a couple hours.

Base coat on the road is not required to do a final inspection. You only need service boxes, gate boxes and hydrants up to base grade. Let me know when you are ready to have the final inspection done for Phase II.

Sincerely,

A handwritten signature in cursive script that reads "Jim Pandiscio".

Jim Pandiscio
MEANS Coordinator

**CHAMBERLAIN CONSTRUCTION
258 BLACK POINT RD.
SCARBOROUGH, ME 04074
207-883-1992-PHONE
207-883-5908-FAX**

FACSIMILE COVER SHEET

DATE: 5/2/02

TO: Jay Reynolds

FROM: Elliott Chamberlain

OF PAGES INCLUDING COVER 2

COMMENTS:

Finance Department



Duane G. Kline
Director

CITY OF PORTLAND

February 4, 2002

Peoples Heritage Bank
Letter of Credit Department
P.O. Box 9540
Portland, ME 04112-9540

Re: Washington Crossing Condominium, Allen Avenue
Letter of Credit #67271

This is to inform you that I am authorizing a reduction in the above-named letter of credit by the amount of \$37,000, which should leave a balance remaining of \$129,272.

If you require any further information, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "DKK", written over a horizontal line.

Duane G. Kline
Finance Director

DGK.jlb

pc: Jay Reynolds, Development Review Coordinator
Bill Needleman, Planner

Finance Department



Duane G. Kline
Director

CITY OF PORTLAND

November 7, 2000

Jonathan M. Campbell
Peoples Heritage Bank
P.O. Box 9540
Portland, ME 04112-9540

Re: Washington Crossing Condominium, Allen, Avenue, Portland, Maine
Irrevocable Letter of Credit #63647-742

Dear Mr. Campbell:

This is to inform you that I am authorizing the reduction of the above-named letter of credit by the amount of \$83,050.00, which should leave a balance remaining of \$75,000.

If you require any further information, please let me know.

Sincerely,

Duane G. Kline
Finance Director

DGK,jlb

pc: ✓ Joseph Gray, Director of Planning & Urban Development
Kandi Talbot, Planner

Finance Department

Duane G. Kline
Director



CITY OF PORTLAND

January 3, 2000

Jonathan M. Campbell
Peoples Heritage Bank
P.O. Box 9540
Portland, ME 04112-9540

Re: Washington Crossing Condominium, Allen Avenue, Portland, Maine
Irrevocable Letter of Credit #63647-742

Dear Mr. Campbell:

This is to inform you that I am authorizing the reduction of the above-named letter of credit by the amount of \$182,949.30, which should leave a balance remaining of \$158,050.70.

If you require any further information, please let me know.

Sincerely,

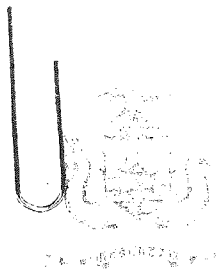
Duane G. Kline
Finance Director

DGK,jlb

pc: Joseph Gray, Director of Planning & Urban Development
 William Needelman, Planner

Finance Department

Duane G. Kline
Director



CITY OF PORTLAND

December 6, 2001

Peoples Heritage Bank
Letter of Credit Department
P.O. Box 9540
Portland, ME 04112-9540

Re: Washington Crossing Condominium, Allen Avenue
Letter of Credit #67271

This is to inform you that I am authorizing a reduction in the above-named letter of credit by the amount of \$248,328, which should leave a balance remaining of \$166,272.

Please feel free to call my assistant, Jennifer Babcock, if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Ellen Sanborn", with a long horizontal line extending to the right.

Ellen Sanborn
Assistant Finance Director

pc: Jay Reynolds, Development Review Coordinator
Bill Needleman, Planner

Planning & Urban Development



CITY OF PORTLAND

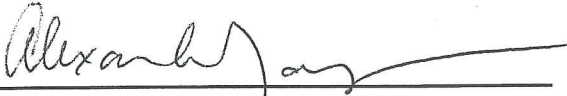
TO: Duane Kline, Finance Department
FROM: Alexander Jaegerman, Chief Planner
DATE: November 28, 2001
SUBJECT: Request for Reduction of Performance Guarantee
Washington Crossing Phase II, Allen Ave.
ID# (1998-0147) Lead CBL# (343C014)

A request by A.L.C. Development Corporation has been made for a reduction of Letter of Credit # 67271 for Washington Crossing, phase II.

Original Sum	\$ 414,600.00
<u>Reduction Amount</u>	<u>\$ 248,328.00</u>
Remaining Sum	\$ 166,272.00

This is the first reduction for the project.

Approved:



Alexander Jaegerman
Chief Planner

cc: Sarah Hopkins, Development Review Services Manager
Jay Reynolds, Development Review Coordinator
✓ William Needleman, Planner
Todd Merkle, Public Works
Code Enforcement
File

O:\PLAN\CORRESP\DRC\PERFORM\WASHINGTONCROSSING1.DOC

Planning & Urban Development



Alexander Jaegerman
Planning Director

CITY OF PORTLAND

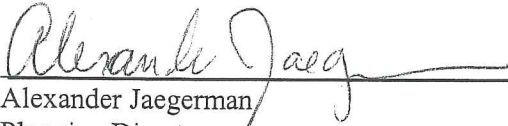
TO: Duane Kline, Finance Department
FROM: Alexander Jaegerman, Chief Planner
DATE: January 31, 2002
SUBJECT: Request for Reduction of Performance Guarantee
Washington Crossing Phase II, Allen Ave.
ID# (1998-0147) Lead CBL# (343C014)

A request by A.L.C. Development Corporation has been made for a reduction of Letter of Credit # 67271 for Washington Crossing, phase II.

Original Sum	\$ 414,600.00
First Reduction	\$ 248,328.00
<u>This Reduction Amount</u>	<u>\$ 37,000.00</u>
Remaining Sum	\$ 129,272.00

This is the second reduction for the project.

Approved:


Alexander Jaegerman
Planning Director

cc: Sarah Hopkins, Development Review Services Manager
Jay Reynolds, Development Review Coordinator
✓ William Needleman, Senior Planner
Todd Merkle, Public Works
Code Enforcement
File

O:\PLAN\CORRESP\DRC\PERFORM\WASHINGTONCROSSING2.DOC



CITY OF PORTLAND
Planning and Urban Development Department

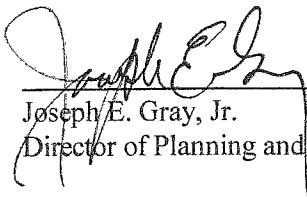
MEMORANDUM

TO: Duane Kline, Finance Department
FROM: Joseph E. Gray, Jr., Director of Planning and Urban Development
DATE: November 2, 2000
SUBJECT: Request for Reduction of Performance Guarantee

A request by Washington Crossing, 214-238 Allen Avenue has been made for a reduction in the performance guarantee amount by \$83,050.00.

Current Amount	\$158,050.00
Reduction Amount	<u>\$ 83,050.00</u>
Remaining Sum	\$ 75,000.00

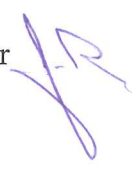
Approved:



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

cc: Kandi Talbot, Planner
Code Enforcement
Jim Wendel, Development Review Coordinator

TO: Inspections

FROM: Jay Reynolds, Development Review Coordinator 

DATE: October 18, 2001

RE: C. of O. for # 59-65 Delaware Court/Building E/Washington Crossing
Lead CBL (343C014); Id# (1998-0147)

After visiting # 59-65 Delaware Court, I have the following comments:

All site work complete.

At this time, I recommend issuing a Permanent Certificate of Occupancy.

Please contact me if you have any questions or comments.
Thank You.

Cc: Sarah Hopkins, Development Review Services Manager
Mike Nugent, Inspection Services Manager
file

File: O:\drc\washcrossing1.doc



CITY OF PORTLAND
Planning and Urban Development Department

MEMORANDUM

TO: Duane Kline, Finance Department

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

DATE: December 27, 1999

SUBJECT: Washington Crossing Condominiums, 214 Allen Avenue
Reduction of Performance Guarantee

The performance guarantee for the Washington Crossing Condominiums can be reduced by \$182,949.30, as per the Development Review Coordinator.

Approved: Joseph E. Gray (WBK)
Joseph E. Gray, Jr.
Director of Planning and Urban Development

cc: Alexander Jaegerman, Chief Planner
William B. Needelman, Planner
Code Enforcement
Steve Bushey, Development Review Coordinator

Department of Planning & Development
Lee D. Urban, Director



CITY OF PORTLAND

Division Directors
Mark B. Adelson
Housing & Neighborhood Services

Alexander Q. Jaegerman, AICP
Planning

John N. Lufkin
Economic Development

TO: Duane Kline, Finance Department

FROM: Alexander Jaegerman, Planning Division Director

DATE: May 14, 2002

SUBJECT: Request for Reduction of Performance Guarantee
Washington Crossing Phase II, Allen Ave.
ID# (1998-0147) Lead CBL# (343C014)

A request by A.L.C. Development Corporation has been made for a reduction of Letter of Credit # 67271 for Washington Crossing, phase II.

Original Sum	\$ 414,600.00
First Reduction	\$ 248,328.00
Second Reduction	\$ 37,000.00
This Reduction Amount	\$ 64,000.00
Remaining Sum	\$ 65,272.00

This is the third reduction for the project.

Approved: 
Alexander Jaegerman
Planning Division Director

cc: Sarah Hopkins, Development Review Services Manager
✓ Jay Reynolds, Development Review Coordinator
William Needleman, Senior Planner
Todd Merkle, Public Works
Code Enforcement
File

O:\PLAN\CORRESP\DRC\PERFORM\WASHINGTONCROSSING3.DOC

Finance Department



Duane G. Kline
Director

CITY OF PORTLAND

May 17, 2002

Peoples Heritage Bank
Letter of Credit Department
P.O. Box 9540
Portland, ME 04112-9540

Re: Washington Crossing Condominium, Allen Avenue
Letter of Credit #67271

This is to inform you that I am authorizing the reduction of the above-named letter of credit by the amount of \$64,000, which should leave a balance of \$65,272 remaining.

If you require any further information, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Kline', is written over the typed name.

Duane G. Kline
Finance Director

DGK.jlb

pc: Jay Reynolds, Development Review Coordinator

CHAMBERLAIN CONSTRUCTION
259 BLACK POINT RD.
SCARBOROUGH, ME 04074
207-883-1992-PHONE
207-883-5908-FAX

756-8258

FACSIMILE COVER SHEET

DATE: 10-16-01

TO: Bill Needlman

FROM: Elliott Chamberlain

OF PAGES INCLUDING COVER 3

COMMENTS:

Bill, Please call ASAP
450-5205 cell
797-8466 Jobsite
883-1992 - office

Jay, For your Review

OK, 10-17-01
J.R.

Bill

Department of Planning and Urban Development
SUBDIVISION/SITE DEVELOPMENT

COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE

Name of Project: Washington Crossing Date: 10-15-01

Address/Location: Delaware Court - Phase 2

Developer: ABC Development

Form of Performance Guarantee: Letter of Credit

Type of Development: Subdivision _____ Site Plan (Major/Minor) Condo Site

TO BE FILLED OUT BY THE APPLICANT:

Item:	PUBLIC			PRIVATE		
	Quantity	Unit Cost	Subtotal	Quantity	Unit Cost	Subtotal
1. STREET/SIDEWALK						
Road						90,900
Granite Curbing						10,000
Sidewalks						13,200
Espalmandas						3,300
Monuments						
Street Lighting						
Street Opening Repairs						
Other						2,775
2. EARTH WORK						
Cur						
Fill						17,800
3. SANITARY SEWER						
Manholes						
Piping				5	2200	11,000
Connections				1836	28 PF	51,408
Main Line Piping						
House Sewer Service Piping						
Pump Stations						
Other						
4. WATER MAINS						
						23,000
						1,000
						68,000
5. STORM DRAINAGE						
Manholes						
Catchbasins						
Piping				3	2050	6,150
Detention Basin				7	2100	14,700
Stormwater Quality Units				1422	35 PF	49,710
Other						
						25,000
						1,000

2,300

1,400

5,200

6. SITE LIGHTING					
7. EROSION CONTROL				<u>3</u>	<u>700</u>
Silt Fence					<u>2,100</u>
Check Dams					
Ripe Inlet/Outlet Protection					<u>3,500</u>
Level Lip Spreader					
Slope Stabilization					
Geotextile					
Hay Bale Barriers					
Catch Basin Inlet Protection					
8. RECREATION AND OPEN SPACE AMENITIES					<u>1,000</u>
9. LANDSCAPING (Attach breakdown of plant materials, quantities, and unit costs)					<u>5,000</u>
10. MISCELLANEOUS <i>Utilities underground</i>					<u>14,000</u>
TOTAL:					<u>414,603</u>
GRAND TOTAL:					<u>414,603</u>

INSPECTION FEE (to be filled out by the City)

	<u>PUBLIC</u>	<u>PRIVATE</u>	<u>TOTAL</u>
A: 2.0% of totals:	<u>Ø</u>	<u>8,292.06</u>	<u>8,292.06</u>
or			
B: Alternative Assessment:			
Assessed by:	<u>JA</u> (name)	<u>JR</u> (name)	<u>JR</u>

**CHAMBERLAIN CONSTRUCTION
258 BLACK POINT RD.
SCARBOROUGH, ME 04074
207-883-1992-PHONE
207-883-5908-FAX**

FACSIMILE COVER SHEET

DATE:

11.27.01

TO:

Jay Reynolds

FROM:

Elliott Chamberlain

OF PAGES INCLUDING COVER

3

COMMENTS:

Billing for Phase 2 Washington
Crossing

CHAMBERLAIN

Construction

CUSTOM BUILT HOMES

ALC Development
258 Black Point Rd.
Scarborough, ME 04074

Draw #1
November 26, 2001

PHASE 2 WASHINGTON CROSSING
COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE

ITEM	BUDGET	CURRENT DRAW	REMAINING BAL.
STREET/SIDEWALK			
ROAD	\$ 90,900.00	\$ -	\$ 90,900.00
GRANITE CURBING	\$ -	\$ -	\$ -
SIDEWALKS	\$ 10,000.00	\$ -	\$ 10,000.00
ESPLANADES	\$ 13,200.00	\$ -	\$ 13,200.00
MONUMENTS	\$ -	\$ -	\$ -
STREET LIGHTING	\$ 3,300.00	\$ -	\$ 3,300.00
STREET OPENING REPAIRS	\$ -	\$ -	\$ -
OTHER	\$ 2,775.00	\$ -	\$ 2,775.00
EARTH WORK			
CUT	\$ 17,800.00	\$ 17,800.00	\$ -
FILL	\$ -	\$ -	\$ -
SANITARY SEWER			
MANHOLES	\$ 11,000.00	\$ 11,000.00	\$ -
PIPING	\$ 51,408.00	\$ 49,108.00	\$ 2,300.00
CONNECTIONS	\$ -	\$ -	\$ -
MAIN LINE PIPING	\$ -	\$ -	\$ -
HOUSE SEWER SERVICE PIPING	\$ -	\$ -	\$ -
PUMP STATIONS	\$ 23,000.00	\$ 11,500.00	\$ 11,500.00
OTHER	\$ 1,000.00	\$ 1,000.00	\$ -
WATER MAIN	\$ 68,000.00	\$ 66,600.00	\$ 1,400.00
STORM DRAINAGE			
MANHOLES	\$ 6,150.00	\$ 3,550.00	\$ 2,600.00
CATCH BASINS	\$ 14,700.00	\$ 12,000.00	\$ 2,700.00
PIPING	\$ 49,770.00	\$ 49,770.00	\$ -
DETENTION BASINS	\$ -	\$ -	\$ -
STORMWATER QUALITY UNITS	\$ 25,000.00	\$ 25,000.00	\$ -
OTHER	\$ 1,000.00	\$ 1,000.00	\$ -

CHAMBERLAIN

Peoples Heritage Bank, N.A.

One Portland Square
P.O. Box 9540
Portland, ME 04112-9540

800-462-3666
Tel: 207-761-8500

FINAL COPY

October 19, 2001



CITY OF PORTLAND
ATTN PLANNING AND URBAN DEVELOPMENT
389 Congress Street
Portland, Maine 04101

Re: Washington Crossing Condominium, Allen Avenue, Portland, Maine
\$414,600 Letter of Credit (Our #67271)

Peoples Heritage Bank, N.A. hereby issues its Irrevocable Letter of Credit #67271 for the account of ALC DEVELOPMENT CORPORATION as developer hereinafter referred to as the Developer, in the name of the City of Portland, Maine (the "City") in the aggregate amount of FOUR HUNDRED FOURTEEN THOUSAND SIX HUNDRED DOLLARS (\$414,600.00).

The City, through its Director of Planning and Urban Development, may draw on this Letter of Credit by presentation of a sight draft and the original Letter of Credit and all amendments thereto, at the Bank's offices located at One Portland Square (3rd floor), Portland, Maine, accompanied by a certificate stating that:

- (1) the Developer has failed to complete by two years from the date of this letter of credit, at the Developer's expense, the work on the improvements as set forth in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A; or
- (2) the Developer has failed to post the ten percent (10%) Defect Guarantee required by the Portland City Code Sections 14-501 and 15-525; or
- (3) the Developer has failed to notify the City for inspections.

In the event of the Bank's dishonor of the City of Portland's sight draft, the Bank shall inform the City of Portland in writing of the reason or reasons therefor within three (3) working days of the dishonor.

After all underground work in the public right of way has been completed and inspected to the satisfaction of the Department of Public Works, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electric conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or the City of Portland Director of Finance as provided

Re: \$414,600 Letter of Credit

in Section 14-501 of the Portland City code may authorize the Bank, by written certification, to reduce the available amount of this letter of credit by a specified amount.

It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for period(s) of one (1) year each from the current expiration date hereof, or any future expiration date, unless at least **sixty (60)** days prior to any expiration date, the Bank notifies the Finance Director by registered or certified mail at the above listed address that the Bank elects not to consider this Letter of Credit renewed for any such additional period.

In the event of such notice, the City may draw hereunder by presentation of a sight draft drawn on the Bank, accompanied by the original Letter of Credit and all amendments thereto, and a statement purportedly signed by the Director of Planning and Urban Development reading as follows:

This drawing results from notification that the Bank has elected not to renew this Letter of Credit; or

This drawing results from the Developer's failure to timely complete to the satisfaction of the City the improvements set forth in a certain Schedule of costs of Public Improvements attached hereto as Exhibit A; or

This drawing results from the Developer's failure to post a ten percent (10%) Defect Guarantee or Bond as provided in Section 14-501 of the Portland City Code; or

This drawing results from the Developer's failure to notify the City of inspections.

This Letter of Credit will automatically expire upon the earlier of:

1. The Bank's receipt of a written notification from the City of Portland that said work as outlined in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A between the Developer and the City of Portland has been completed in accordance with the City of Portland specifications and this Letter of Credit may be canceled; or
2. The expiration date of **September 15, 2003** or any automatically extended date as specified herein.

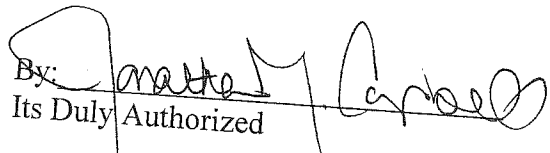
Partial drawings are permitted.

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT
October 19, 2001
Page 3

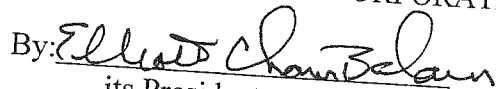
Re: \$414,600 Letter of Credit

We engage with you that drafts drawn under and in compliance with the terms of this credit will be duly honored if presented at our offices at identified above or before two years from the date hereof or any automatically extended date as specified herein.

Very truly yours,
Peoples Heritage Bank, N.A.


By: 
Its Duly Authorized


Seen and Agreed to:
ALC DEVELOPMENT CORPORATION

By: 
its President

Date: October 19, 2001

SEE ATTACHED EXHIBIT A


Asst. Corp Counsel
10/22/01


Planning Director
10/22/01

Department of Planning and Urban Development
SUBDIVISION/SITE DEVELOPMENT



COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE

Name of Project: Washington Crossing Date: 10-15-01

Address/Location: Delaware Court - Phase 2

Developer: ABC Development

Form of Performance Guarantee: Letter of Credit

Type of Development: Subdivision _____ Site Plan (Major/Minor) Condo Site

TO BE FILLED OUT BY THE APPLICANT:

Item:	PUBLIC			PRIVATE		
	Quantity	Unit Cost	Subtotal	Quantity	Unit Cost	Subtotal
1. STREET/SIDEWALK						
Road						
Granite Curbing						
Sidewalks						90900
Esplanades						10,000
Monuments						13,200
Street Lighting						3,300
Street Opening Repairs						2,775
Other						
2. EARTH WORK						17,800
Cut						
Fill						
3. SANITARY SEWER						
Manholes						
Piping						
Connections				5	2200	11,000
Main Line Piping				1836	28 PF	51,408
House Sewer Service Piping						
Pump Stations						
Other						
4. WATER MAINS						23,000
Manholes						1,000
Catchbasins						68,000
Piping						
Detention Basin				3	2050	6,150
Stormwater Quality Units				7	2100	14,700
Other				1422	35 PF	49,770
						25,000
						1,000

6. SITE LIGHTING									
7. EROSION CONTROL									
Silt Fence									
Check Dams									
Ripe Inlet/Outlet Protection									3,500
Level Lip Spreader									
Slope Stabilization									
Geotextile									
Hay Bale Barriers									
Catch Basin Inlet Protection									
8. RECREATION AND OPEN SPACE AMENITIES									4,000
9. LANDSCAPING (Attach breakdown of plant materials, quantities, and unit costs)									5,000
10. MISCELLANEOUS									
Utilities underground									14,000
TOTAL:									
GRAND TOTAL:									414,603

INSPECTION FEE (to be filled out by the City)

	PUBLIC	PRIVATE	TOTAL
A: 2.0% of totals:	_____	_____	_____
or			
B: Alternative Assessment:	_____	_____	_____
Assessed by:	_____	_____	_____
	(name)	(name)	

Tompkins, Clough, Hirshon & Langer, P.A.
Three Canal Plaza
Post Office Box 15060
Portland, Maine 04101

Fax Cover Sheet

Date: October 16, 2001

To: Penny Littell, Esq.

756-8258

cc: Jon Campbell, Comm. Loan Officer
Murrough O'Brien, Esq.

761-8660

774-5018

From: Lawrence R. Clough, Esq.
Voice: 207-874-6700
Fax: 207-874-6705

Total Number of Pages including this Cover Sheet: 16

Message:

Re: Peoples Heritage Bank/ALC Development/Washington Crossing Condo.

ATTENTION: This facsimile is confidential and may be attorney/client privileged. It contains confidential information intended for the person(s) above-named. The distribution, copying, or disclosure of the information contained in this facsimile is strictly prohibited. Please notify us immediately if you have received this facsimile by mistake and return the original facsimile to this office by U.S. Mail without making a copy of it in such case.

TOMPKINS, CLOUGH, HIRSHON & LANGER, P.A.

Counselors at Law
Three Canal Plaza
P.O. Box 15060
Portland, Maine 04112-5060

Bruce M. Tompkins
Lawrence R. Clough
David M. Hirshon
Leonard W. Langer
Marshall J. Tinker

Tel: (207) 874-6700
Fax: (207) 874-6705
E-Mail: lrclough@tchl.com

* also licensed in MA and DC

October 16, 2001

Via Telecopier

Penny Littell, Esq.
CITY OF PORTLAND
389 Congress Street
Portland, ME 04101

Re: Peoples Heritage Bank/ALC Development Corporation
Washington Crossing Condominium

Dear Penny:

I enclose a revised letter of credit blacklined to show the changes, together with a copy of the City Site Plan Approval and also a copy of the required drainage easement to the City as recorded in Book 15060, Page 155, which I believe satisfies the deed requirements.

I also enclose a copy of the Schedule of Values which I believe had been sent to the Bill Needleman, and which would become an exhibit to the letter of credit.

Sincerely yours,



Lawrence R. Clough

LRC/tjo

Enclosure

cc: Jonathan Campbell, Comm. Loan Officer (w/enc.)
Murrough H. O'Brien, Esq. (w/enc.)
(via telecopier)

October __, 2001

CITY OF PORTLAND
ATTN PLANNING AND URBAN DEVELOPMENT
389 Congress Street
Portland, Maine 04101

Re: Washington Crossing Condominium, Allen Avenue, Portland, Maine
\$420,000 Letter of Credit (Our # _____)

Peoples Heritage Bank, N.A. hereby issues its Irrevocable Letter of Credit # _____ for the account of ALC Development Corporation as developer hereinafter referred to as the Developer, in the name of the City of Portland, Maine (the "City") in the aggregate amount of Four Hundred Twenty Thousand Dollars (\$420,000.00).

The City, through its Director of Planning and Urban Development, may draw on this Letter of Credit by presentation of a sight draft and the original Letter of Credit and all amendments thereto, at the Bank's offices located at One Portland Square (3rd floor), Portland, Maine, accompanied by a certificate stating that:

- (1) the Developer has failed to complete by two years from the date of this letter of credit ~~or by the expiration date of any temporary certificate of occupancy issued, whichever date comes first,~~ at the Developer's expense, the work on the roads and other public improvements as set forth in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A; or
- (2) the Developer has failed to post the ten percent (10%) Defect Bond or Guarantee required by the Portland City Code Sections 14-501 and 15-525; or
- (3) the Developer has failed to notify the City for inspections.
- (4) the Developer has failed to deliver to the City a deed containing the metes and bounds description of any streets, easement or other improvements to be deeded to the City pursuant to the Site Plan Subdivision Approval dated May 11, 1999 to the extent not heretofore provided.

In the event of the Bank's dishonor of the City of Portland's sight draft, the Bank shall inform the City of Portland in writing of the reason or reasons therefor within three (3) working days of the dishonor.

CITY OF PORTLAND
 PLANNING AND URBAN DEVELOPMENT

October __, 2001

Page 2

Re: \$420,000 Letter of Credit

After all underground work in the public right of way has been completed and inspected to the satisfaction of the Department of Public Works, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electric conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or the City of Portland Director of Finances as provided in Section 14-501 of the Portland City Code may authorize the Bank, by written certification, to reduce the available amount of this letter of credit by a specified amount.

It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for period(s) of one (1) year each from the current expiration date hereof, or any future expiration date, unless at least sixty (60) days prior to any expiration date, the Bank notifies the ~~Finance Director of Planning and Urban Development~~ by registered or certified mail at the above listed address that the Bank elects not to consider this Letter of Credit renewed for any such additional period.

In the event of such notice, the City may draw hereunder by presentation of a sight draft drawn on the Bank, accompanied by the original Letter of Credit and all amendments thereto, and a statement purportedly signed by the Director of Planning and Urban Development reading as follows:

This drawing results from notification that the Bank has elected not to renew this Letter of Credit; or

This drawing results from the Developer's failure to timely complete to the satisfaction of the City the ~~public~~ improvements set forth in a certain Schedule of costs of Public Improvements dated ~~{insert date}~~ _____, 2001; or

This drawing results from the Developer's failure to post a ten percent (10%) Defect Guarantee or Bond as provided in Section 14-501 of the Portland City Code; or

This drawing results from the Developer's failure to deliver required deeds to the City, to the extent not heretofore provided; or

This drawing results from the Developer's failure to notify the City of inspections.

This Letter of Credit will automatically expire upon the earlier of:

1. The Bank's receipt of a written notification from the City of Portland that said work as outlined in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A between the Developer and the City of Portland

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT

October __, 2001

Page 3

Re: \$420,000 Letter of Credit

has been completed in accordance with the City of Portland specifications and this Letter of Credit may be canceled; or

- 2. The expiration date of October 15, 2003 [insert expiration date but not between the dates of September 15th and April 15th] or any automatically extended date as specified herein.

~~Partial drawings are permitted.~~

We engage with you that drafts drawn under and in compliance with the terms of this credit will be duly honored if presented at our offices at identified above or before two years from the date hereof or any automatically extended date as specified herein.

Very truly yours,
Peoples Heritage Bank, N.A.

By: _____
Its Duly Authorized

~~The City of Portland has accepted the providing of alternative security for the Developer's obligations to be performed pursuant to Section 14-501 and/or Section 14-525 of the Portland City Code.~~

Dated: October __, 2001 By: _____

Its Duly Authorized Director
of Planning and Urban Development

Seen and Agreed to:
ALC DEVELOPMENT CORPORATION

By: _____
its President

Date: October __, 2001

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT

October ____, 2001

Page 4

Re: \$420,000 Letter of Credit

Reviewed pursuant to Section 14-501 and/or Section 14-525, Portland City Code.

By: _____
Director of Finance

By: _____
Corporation Counsel

Date: October ____, 2001

Date: October ____, 2001

SEE ATTACHED EXHIBIT A

Ltr. Credit Wash. Cross-City Credit West-Cross-City
10/16/01 1:12 PM 10/16/01 2:31 PM

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT

October __, 2001

Page 5

Re: \$420,000 Letter of Credit

Exhibit A
Schedule of Costs of Public Improvements

Ltr.Credit.Wash.C.086214-Credit.Wash-Green.doc
10/16/01 2:15 PM 4042412:21 PM

8761 8660

761 8660
PEOPLES HERITAGE

07/23/99 16:01 P.005/016

May 25, 1999

Returned to sender, remailed to new address June 23, 1999

John and Elliot Chamberland
ALC Development Corp.
258 Black Point Road
Scarborough, ME 04074

RE: Washington Crossing Condominiums

Dear ALC Development Corp.,

On (Date) May 11, 1999 the Portland Planning Board voted 7-0
on the following motions regarding the Washington Crossing Condominiums
subdivision/PRUD:

1. That the plan was in conformance with the Subdivision Review and Site Plan Ordinance of the City Land Use Code with the following condition(s):

A. Subdivision:

1. That the applicant submit for review and approval from City Public Works and Planning a plan for design, engineering, cost sharing and construction of an underground stormwater pipe and catchment system running along the easterly boundary of the subject parcel. This system will be designed to remove stormwater away from the Pennell Avenue combined sewer system, directing stormwater to the drainage easement at the northerly end of the property. The system shall provide capacity for sanitary flow in the combined sewer system and subject to review and approval of the Planning Development Review Coordinator.

2. That the developer grant to the City rights of flow and maintenance over the two drainage courses as shown and noted on the site plan. Also, that the developer grant an additional drainage easement, for flow and maintenance, running along

O:\PLANDEVREVWALLEN21\LETTERS\5-25.APR

0761 8660

761 8660
PEOPLES HERITAGE

07/23/99 16:01 P.006/016

the easterly boundary, connecting the above two easements.

- 3. That final approval of this development be conditioned on the approval of Maine DEP's review of a Natural Resource Protection Act Permit for wetland filling.

B. Site Plan, FRUD, Site Location of Development, subject to the following conditions,

- 1. That the condominium association documents be revised to the approval of Corporation Counsel.
- 2. That parking be restricted to the west side of the proposed road, and that no parking be permitted on the cul de sac. Signage shall be provided and installed at the developer's expense. *initial*
- 3. That the tree save areas as shown on the plan, or later identified on the site, be mapped and protected prior to the start of construction. Tree protection methods shall be submitted and approved by the City Arborist prior to construction.
- 4. That the inner radius of the cul de sac be satisfactory for the access of City fire equipment, and that the road name be acceptable to City fire.
- 5. That the recreation field be fenced and screened with appropriate vegetation to be approved by staff.

The approval is based on the submitted plan and the findings related to site plan review standards as contained in Planning Board # 14-99, which is attached.

Please note the following provisions and requirements for all subdivision approvals:

- 1. Mylar copies of the construction drawing for the subdivision must be submitted to the Public Works Department prior to the release of the plat.
- 2. A performance guarantee covering the site improvements as well as an inspection fee payment of 1.7% of the guarantee amount must be submitted to and approved by the Planning Division and Public works prior to the recording of the subdivision plat. The subdivision approval is valid for three (3) years.
- 3. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
- 4. Prior to construction, a preconstruction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building

O:\PLANDEV\REVW\ALLEN214\LETTERS\5-25.APR

0761 8660

761 8660
PEOPLES HERITAGE

07/23/99 16:01 P.007/016

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 preconstruction 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.)
7. 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 is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions regarding the Board's actions, please contact the planning staff

Sincerely,

S/

John H. Carroll, Chair
Portland Planning Board

cc: Joseph E. Gray, Jr., Director of Planning and Urban Development
Alexander Jaegerman, Chief Planner
Senior Planner
P. Samuel Hoffses, Building Inspector
Marge Schmuskal, Zoning Administrator
Tony Lombardo, Project Engineer
Development Review Coordinator
William Bray, Director of Public Works
Jeff Tarling, City Arborist
Penny Littell, Associate Corporation Counsel
Lt. Gaylen McDougall, Fire Prevention
Inspection Department
Kathleen Brown, Director of Economic Development
Susan Doughty, Assessor's Office
Approval Letter File

O:\PLANORVREVW\ALLEN214\LETTERS\5-25.APR

JUL 14 1999 9:36AM P
PHONE NO. : 207 774 5018

FROM : O'BRIEN

0070149

BK 15060 PG 155

EASEMENT DEED

KNOW ALL PERSONS BY THESE PRESENTS, that ALC Development Corporation, a Maine corporation, with its principal place of business at Scarborough, County of Cumberland, and State of Maine, for consideration paid, grants to the City of Portland, the mailing address of which is 389 Congress Street, Portland, ME 04101, with warranty covenants, an easement in the real estate located in the City of Portland, County of Cumberland, and State of Maine, which real estate is more particularly described on Exhibit A attached hereto and incorporated by reference herein.

Grantor grants and conveys to Grantee an easement in the said real estate for the purposes of ground and surface water drainage and flowage, including the right to enter on the said real estate for purposes of maintenance, repair and construction through, under, over, along, across and on it.

IN WITNESS WHEREOF, ALC Development Corporation has caused this instrument to be executed by Elliott Chamberlain, its president duly authorized, this 22nd day of September 1999.

ALC DEVELOPMENT CORPORATION

By: Elliott Chamberlain
Elliott Chamberlain
Its President

STATE OF MAINE
CUMBERLAND, SS.

September 22, 1999

Then personally appeared before me Elliott Chamberlain, President of ALC Development Corporation, who acknowledged the foregoing instrument to be his free act and deed, and the free act and deed of the corporation.

Murrough H. O'Brien
Attorney

[Print Name:] Murrough H. O'Brien

BK 1506 PG 156

EXHIBIT A

A CERTAIN DRAINAGE EASEMENT situated westerly of Pennell Avenue, so-called, and northerly of Allen Avenue, so-called, in the City of Portland, County of Cumberland, State of Maine, being shown as 30 Foot Drainage Easement to City of Portland for Maintenance and Flowage on a plan entitled, "Master Plan of Washington Crossing Condominiums, Allen Avenue, Portland, Maine" for ALC Development Corporation, Scarborough, Maine; dated October 10, 1997; revised through August 13, 1999, by Sebago Technics, Inc., Westbrook, Maine, STI Job No. 97380, hereinafter referred to as "the plan"; said drainage easement being more particularly bounded and described as follows:

Beginning at a point in the easterly sideline of land now or formerly of the City of Portland, occupied by the Portland Arts and Technology High School, said point of beginning also being North 32° 20' 27" West, a distance of 157.09 feet from a found 1 inch pipe in the westerly line of the Grantor herein as shown on the plan;

Thence North 50° 04' 28" East, by and along land of the Grantor, a distance of 189.29 feet to a point;

Thence North 33° 49' 28" East, by and along land of the Grantor, a distance of 283.51 feet to a point;

Thence North 55° 28' 15" East, by and along land of the Grantor, a distance of 138.53 feet to a point in the westerly sideline of Pennell Avenue, said point being North 33° 53' 45" West, a distance of 20.0 feet from the northeasterly corner of land now or formerly of Amy Anderson and John Johnston as shown on the plan;

Thence North 33° 53' 45" West, by and along the westerly sideline of Pennell Avenue, a distance of 30.0 feet to a point at the southeasterly corner of land now or formerly of Edward and Elizabeth Flaherty;

Thence South 55° 28' 15" West, by and along the southerly line of said Flaherty, a distance of 100.01 feet to a point at the southwesterly corner of said Flaherty;

Thence North 33° 53' 45" West, by and along the westerly line of said Flaherty and by and along the westerly line of The Homesteads as shown on a subdivision plan recorded in the Cumberland County Registry of Deeds in Plan Book 14, Page 70, a distance of 1,497.84 to a point;

Thence North 82° 51' 47" West, by and along land of the Grantor, a distance of 111.06 feet to a point;

Exhibit A -- Page 2

Thence North 55° 59' 37" East, by and along land of the Grantor, a distance of 83.77 feet to a point in the westerly line of The Homesteads and land now or formerly of Stuart Robinson as shown on the plan;

Thence North 33° 53' 45" West, by and along the westerly line of The Homesteads, a distance of 30.0 feet to a point, said point being South 33° 53' 45" East, a distance of 363.45 feet from a set iron rod at the northeasterly corner of the Grantor;

Thence South 55° 59' 37" West, by and along land of the Grantor, a distance of 302.67 feet to a point;

Thence South 84° 22' 40" East, by and along land of the Grantor, a distance of 164.76 feet to a point in the easterly sideline of said City of Portland;

Thence South 26° 36' 17" East, by and along the easterly line of the City of Portland, a distance of 32.13 feet to a point, said point being North 26° 36' 17" West, a distance of 128.06 feet from a set iron rod in the easterly line of the City of Portland as shown on the plan;

Thence North 84° 22' 40" East, by and along land of the Grantor, a distance of 160.84 feet to a point;

Thence North 55° 59' 37" East, a distance of 180.83 to a point;

Thence South 82° 51' 47" East, a distance of 131.73 feet to a point;

Thence South 33° 53' 45" East, by and along land of the Grantor, a distance of 1,484.51 feet to a point;

Thence South 55° 28' 15" West, by and along land of the Grantor, a distance of 14.26 feet to a point;

Thence South 33° 49' 28" West, by and along land of the Grantor, a distance of 284.97 feet to a point;

Thence South 50° 04' 28" West, by and along land of the Grantor, a distance of 181.01 feet to a point in the easterly line of said City of Portland land;

Thence South 32° 20' 27" East, by and along the easterly line of the City of Portland, a distance of 30.26 to the point of beginning.

Meaning and intending to describe a strip of land 30 feet in width, being a portion of the same premises conveyed to ALC Development Corporation by a deed recorded in the Cumberland Registry in Book 14132, Page 320.

Exhibit A -- Page 3

BK 15-60 PG 158

Said easement area described herein conveyed together with the right perpetually to enter upon the strip for the purpose of maintaining, repairing, rebuilding, reconstruction and installing drainage pipes and structures.

The parcel herein described is subject to, and benefited by, but not limited to the easements and restrictions as noted on the plan; said plan to be recorded in the Cumberland County Registry of Deeds.

Bearings herein are magnetic north as referenced to the plan.

drainage
9-07-99

RECEIVED
RECORDED REGISTRY OF DEEDS

1999 SEP 22 PM 12: 04

CUMBERLAND COUNTY

John B. O'Brien

FROM : ALC DEV.

FAX NO. : 7978466

Oct. 16 2001 09:43AM P1

Department of Planning and Urban Development
SUBDIVISION/SITE DEVELOPMENT

Larry Clough

COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE

Name of Project: Washington Crossing

Date: 10-15-01

Address/Location: Delaware Court - Phase 2

Developer: ABC Development

Form of Performance Guarantee: Letter of Credit

Type of Development: Subdivision _____ Site Plan (Major/Minor) Condo Site

TO BE FILLED OUT BY THE APPLICANT:

Item:	PUBLIC			PRIVATE		
	Quantity	Unit Cost	Subtotal	Quantity	Unit Cost	Subtotal
1. STREET/SIDEWALK						
Road						90,900
Granite Curbing						10,000
Sidewalks						13,200
Expanses						3,300
Monuments						
Street Lighting						
Street Opening Repairs						
Other						2,775
2. EARTH WORK						
Cut						
Fill						17,800
3. SANITARY SEWER						
Manholes						
Piping				5	2200	11,000
Connections				1836	28 PF	51,408
Main Line Piping						
House Sewer Service Piping						
Pump Stations						
Other				1		23,000
						1,000
4. WATER MAINS						
						68,000
5. STORM DRAINAGE						
Manholes						
Catchbasins						
Piping				3	2050	6,150
Detention Basin				7	2100	14,700
Stormwater Quality Units				1422	35 PF	49,770
Other				1		25,000
						1,000

FROM : ALC DEU.

FAX NO. : 7978466

Oct. 16 2001 09:43AM P2

6. SITE LIGHTING

3 700 2,100

7. EROSION CONTROL

- Silt Fence
- Check Dams
- Ripe Inlet/Outlet Protection
- Level Lip Spreader
- Slope Stabilization
- Geotextile
- Hay Bale Barriers
- Catch Basin Inlet Protection

3,500

8. RECREATION AND OPEN SPACE AMENITIES

1,000

9. LANDSCAPING

(Attach breakdown of plant materials, quantities, and unit costs)

5,000

10. MISCELLANEOUS

Utilities underground

14,000

TOTAL:

GRAND TOTAL:

414,603

INSPECTION FEE (to be filled out by the City)

	<u>PUBLIC</u>	<u>PRIVATE</u>	<u>TOTAL</u>
A: 2.0% of totals:	_____	_____	_____
or			
B: Alternative Assessment:	_____	_____	_____
Assessed by:	_____	_____	_____
	(name)	(name)	

CHAMBERLAIN CONSTRUCTION
259 BLACK POINT RD.
SCARBOROUGH, ME 04074
207-883-1992-PHONE
207-883-5908-FAX

756-8258

FACSIMILE COVER SHEET

DATE: 10-16-01

TO: Bill Needlman

FROM: Elliott Chamberlain

OF PAGES INCLUDING COVER 3

COMMENTS:

Bill, Please call ASAP
450-5205 cell
797-8466 Jobsite
883-1992 - office

Department of Planning and Urban Development
SUBDIVISION/SITE DEVELOPMENT

COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE

Name of Project: Washington Crossing

Date: 10-15-01

Address/Location: Delaware Court - Phase 2

Developer: ALC Development

Form of Performance Guarantee: Letter of Credit

Type of Development: Subdivision _____ Site Plan (Major/Minor) Condo Site

TO BE FILLED OUT BY THE APPLICANT:

Item:	PUBLIC			PRIVATE		
	Quantity	Unit Cost	Subtotal	Quantity	Unit Cost	Subtotal
1. STREET/SIDEWALK						
Road						
Granite Curbing						
Sidewalks						90,900
Esplanades						
Monuments						10,000
Street Lighting						13,200
Street Opening Repairs						
Other						3,300
2. EARTH WORK						2,775
Cur						
Fill						17,800
3. SANITARY SEWER						
Manholes						
Piping						
Connections				5	2200	11,000
Main Line Piping				1836	28 PF	51,408
House Sewer Service Piping						
Pump Stations						
Other						
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5. STORM DRAINAGE						68,000
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Piping				3	2050	6,150
Detention Basin				7	2100	14,700
Stormwater Quality Units				1422	35 PF	49,770
Other				1		
						25,000
						1,000

6. SITE LIGHTING

7. EROSION CONTROL

- Silt Fence
- Check Dams
- Ripe Inlet/Outlet Protection
- Level Lip Spreader
- Slope Stabilization
- Geotextile
- Hay Bale Barriers
- Catch Basin Inlet Protection

8. RECREATION AND OPEN SPACE AMENITIES

9. LANDSCAPING
(Attach breakdown of plant materials, quantities, and unit costs)

10. MISCELLANEOUS

TOTAL:

GRAND TOTAL:

Utilities underground

3 700 2,100

3,500

4,000

5,000

14,000

414,603

INSPECTION FEE (to be filled out by the City)

	<u>PUBLIC</u>	<u>PRIVATE</u>	<u>TOTAL</u>
A: 2.0% of totals:	_____	_____	_____
or			
B: Alternative Assessment:	_____	_____	_____
Assessed by:	_____	_____	_____
	(name)	(name)	

TOMPKINS, CLOUGH, HIRSHON & LANGER, P.A.

Counselors at Law
Three Canal Plaza
P.O. Box 15060
Portland, Maine 04112-5060

Bruce M. Tompkins
Lawrence R. Clough
David M. Hirshon
Leonard W. Langer
Marshall J. Tinkle

Tel: (207) 874-6700
Fax: (207) 874-6705
E-Mail: lrclough@rchl.com

* also licensed in MA and DC

October 12, 2001

Via Telecopier

William Needleman, Director Planning Department
CITY OF PORTLAND
389 Congress Street
Portland, ME 04101

Re: ALC Development Corporation/Washington Crossing Condominium
Allen Avenue, Portland, Maine

Dear Bill:

I understand that ALC Development contemplates commencing construction on Phase II of the project, and accordingly I enclose a draft letter of credit which may be issued by Peoples Heritage Bank, N.A.

I understand that Elliott Chamberlain will be sending you the Schedule of Values which will need to be attached to the Letter of Credit.

Sincerely yours,



Lawrence R. Clough

LRC/tjo

Enclosure

cc: Jonathan M. Campbell, Comm. Loan Officer
Elliott and John Chamberlain
Murrough H. O'Brien, Esq.

October __, 2001

CITY OF PORTLAND
ATTN PLANNING AND URBAN DEVELOPMENT
389 Congress Street
Portland, Maine 04101

DRAFT

Re: Washington Crossing Condominium, Allen Avenue, Portland, Maine
\$420,000 Letter of Credit (Our # _____)

Peoples Heritage Bank, N.A. hereby issues its Irrevocable Letter of Credit # _____ for the account of ALC Development Corporation as developer hereinafter referred to as the Developer, in the name of the City of Portland, Maine (the "City") in the aggregate amount of Four Hundred Twenty Thousand Dollars (\$420,000.00).

The City, through its Director of Planning and Urban Development, may draw on this Letter of Credit by presentation of a sight draft and the original Letter of Credit and all amendments thereto, at the Bank's offices located at One Portland Square (3rd floor), Portland, Maine, accompanied by a certificate stating that:

- (1) the Developer has failed to complete by two years from the date of this letter of credit ~~or by the expiration date of any temporary certificate of occupancy issued; whichever date comes first~~, at the Developer's expense, the work on the roads and ~~other~~ public improvements as set forth in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A; or
- (2) the Developer has failed to post the ten percent (10%) Defect ~~Bond or~~ Guarantee required by the Portland City Code Sections 14-501 and 15-525; or
- (3) the Developer has failed to notify the City for inspections.
- (4) *the Developer has failed to deliver to the City a deed containing the notes & drawings to description of any streets, easement or other improvements required to be recorded to the City*
In the event of the Bank's dishonor of the City of Portland's sight draft, the Bank shall inform the City of Portland in writing of the reason or reasons therefor within three (3) working days of the dishonor.

After all underground work in the public right of way has been completed and inspected to the satisfaction of the Department of Public Works, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electric conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or the City of Portland Director of Finances as provided

CITY OF PORTLAND
 PLANNING AND URBAN DEVELOPMENT

October __, 2001

Page 2

DRAFT

Re: \$420,000 Letter of Credit

in Section 14-501 of the Portland City code may authorize the Bank, by written certification, to reduce the available amount of this letter of credit by a specified amount.

It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for period(s) of one (1) year each from the current expiration date hereof, or any future expiration date, unless at least sixty (60) days prior to any expiration date, the Bank notifies the ~~Director of Planning and Urban Development~~ ^{Finance} by registered or certified mail at the above listed address that the Bank elects not to consider this Letter of Credit renewed for any such additional period.

In the event of such notice, the City may draw hereunder by presentation of a sight draft drawn on the Bank, accompanied by the original Letter of Credit and all amendments thereto, and a statement purportedly signed by the Director of Planning and Urban Development reading as follows:

This drawing results from notification that the Bank has elected not to renew this Letter of Credit; or

This drawing results from the Developer's failure to timely complete to the satisfaction of the City the ~~public improvements~~ ^{work} set forth in a certain Schedule of costs of Public Improvements dated [insert date]; or

This drawing results from the Developer's failure to post a ten percent (10%) Defect Guarantee ~~or Bond~~ as provided in Section 14-501 of the Portland City Code;

^{OR}
 This drawing results from the Dev's failure to deliver required seeds to the City.

This drawing results from the Developer's failure to notify the City of inspections.

This Letter of Credit will automatically expire upon the earlier of:

1. The Bank's receipt of a written notification from the City of Portland that said work as outlined in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A between the Developer and the City of Portland has been completed in accordance with the City of Portland specifications and this Letter of Credit may be canceled; or
2. The expiration date of October 15, 2003 [insert expiration date but not between the dates of September 15th and April 15th] or any automatically extended date as specified herein.

Partial drawings are permitted.

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT

October __, 2001

Page 3

Re: \$420,000 Letter of Credit

DRAFT

We engage with you that drafts drawn under and in compliance with the terms of this credit will be duly honored if presented at our offices at identified above or before two years from the date hereof or any automatically extended date as specified herein.

Very truly yours,
Peoples Heritage Bank, N.A.

By: _____ **DRAFT** _____
Its Duly Authorized

The City of Portland has accepted the providing of alternative security for the Developer's obligations to be performed pursuant to Section 14-501 and/or Section 14-525 of the Portland City Code.

Dated: October __, 2001

By: _____
Its Duly Authorized Director
of Planning and Urban Development

Seen and Agreed to:
ALC DEVELOPMENT CORPORATION

By: _____
its President

Date: October __, 2001

Reviewed pursuant to Section 14-501 and/or Section 14-525, Portland City Code.

By: _____
Director of Finance

By: _____
Corporation Counsel

Date: October __, 2001

Date: October __, 2001

SEE ATTACHED EXHIBIT A

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT
October ____, 2001
Page 4

Re: \$420,000 Letter of Credit

Exhibit A
Schedule of Costs of Public Improvements

Ltr Credit Wash Cross.doc
10/12/01 2:31 PM

MODE = MEMORY TRANSMISSION

START=OCT-15 15:30

END=OCT-15 15:32

FILE NO.=232

STN NO.	COMM.	ABBR NO.	STATION NAME/TEL NO.	PAGES	DURATION
001	OK		98746705	007/007	00:01:00

-CITY OF PORTLAND -

***** -PLANNING DEPT. - ***** 2077568258- *****

City of Portland Planning Department

389 Congress Street, 4th Floor
Portland, ME 04101
(207)874-8721 or (207)874-8719
Fax: (207)756-8258

FAX TRANSMISSION COVER SHEET

Date: 10-15-01

To: Lawry Cough

Company: TCH & L

Fax #: 874-6705

From: Bill Medelman

RE: ALC letter of credit edits

Please Call with any questions

Bill N

874-8722

YOU SHOULD RECEIVE 7 PAGE(S),
INCLUDING THIS COVER SHEET.
IF YOU DO NOT RECEIVE ALL THE PAGES,
PLEASE CALL (207)874-8721 OR (207)874-8719.

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT

October __, 2001

Page 3

Re: \$420,000 Letter of Credit

DRAFT

We engage with you that drafts drawn under and in compliance with the terms of this credit will be duly honored if presented at our offices at identified above or before two years from the date hereof or any automatically extended date as specified herein.

Very truly yours,
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By: _____ **DRAFT** _____
Its Duly Authorized

The City of Portland has accepted the providing of alternative security for the Developer's obligations to be performed pursuant to Section 14-501 and/or Section 14-525 of the Portland City Code.

Dated: October __, 2001

By: _____
Its Duly Authorized Director
of Planning and Urban Development

Seen and Agreed to:
ALC DEVELOPMENT CORPORATION

By: _____
its President

Date: October __, 2001

Reviewed pursuant to Section 14-501 and/or Section 14-525, Portland City Code.

By: _____
Director of Finance

By: _____
Corporation Counsel

Date: October __, 2001

Date: October __, 2001

SEE ATTACHED EXHIBIT A

City of Portland Planning Department

389 Congress Street, 4th Floor
Portland, ME 04101
(207)874-8721 or (207)874-8719
Fax: (207)756-8258

FAX TRANSMISSION COVER SHEET

Date: 10-15-01
To: Larry Clough
Company: TCH & L
Fax #: 874-6705
From: Bill Abdelman
RE: ALC letter of credit edits

Please Call with any questions

Bill A
874-8722

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October __, 2001

CITY OF PORTLAND
ATTN PLANNING AND URBAN DEVELOPMENT
389 Congress Street
Portland, Maine 04101

DRAFT

Re: Washington Crossing Condominium, Allen Avenue, Portland, Maine
\$420,000 Letter of Credit (Our # _____)

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The City, through its Director of Planning and Urban Development, may draw on this Letter of Credit by presentation of a sight draft and the original Letter of Credit and all amendments thereto, at the Bank's offices located at One Portland Square (3rd floor), Portland, Maine, accompanied by a certificate stating that:

(1) the Developer has failed to complete by two years from the date of this letter of credit ~~or by the expiration date of any temporary certificate of occupancy issued, whichever date comes first,~~ at the Developer's expense, the work on the ~~roads and other public~~ improvements as set forth in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A; or

(2) the Developer has failed to post the ten percent (10%) Defect ~~Bond or~~ Guarantee required by the Portland City Code Sections 14-501 and 15-525; or

(3) the Developer has failed to notify the City for inspections.

(4) *the Developer has failed to deliver to the City a deed containing the metes + bounds to description of any streets, easement or other improvements required to be deeded to the City*
In the event of the Bank's dishonor of the City of Portland's sight draft, the Bank shall inform the City of Portland in writing of the reason or reasons therefor within three (3) working days of the dishonor.

After all underground work in the public right of way has been completed and inspected to the satisfaction of the Department of Public Works, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electric conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or the City of Portland Director of Finances as provided

TOMPKINS, CLOUGH, HIRSHON & LANGER, P.A.

Counselors at Law

Three Canal Plaza

P.O. Box 15060

Portland, Maine 04112-5060

Bruce M. Tompkins
Lawrence R. Clough
David M. Hirshon
Leonard W. Langer
Marshall J. Tinkle*

Tel: (207) 874-6700
Fax: (207) 874-6705
E-Mail: lrclough@rchl.com

* also licensed in MA and DC

October 12, 2001

Via Telecopier

William Needleman, Director Planning Department
CITY OF PORTLAND
389 Congress Street
Portland, ME 04101

Re: ALC Development Corporation/Washington Crossing Condominium
Allen Avenue, Portland, Maine

Dear Bill:

I understand that ALC Development contemplates commencing construction on Phase II of the project, and accordingly I enclose a draft letter of credit which may be issued by Peoples Heritage Bank, N.A.

I understand that Elliott Chamberlain will be sending you the Schedule of Values which will need to be attached to the Letter of Credit.

Sincerely yours,


Lawrence R. Clough

LRC/tjo

Enclosure

cc: Jonathan M. Campbell, Comm. Loan Officer
Elliott and John Chamberlain
Murrrough H. O'Brien, Esq.

Tompkins, Clough, Hirshon & Langer, P.A.

Three Canal Plaza
Post Office Box 15060
Portland, Maine 04101

OCT 15 2001

Fax Cover Sheet

Date: October 12, 2001

To: **Bill Needleman, Director**

756-8258

From: Lawrence R. Clough, Esq.
Voice: 207-874-6700
Fax: 207-874-6705

Total Number of Pages including this Cover Sheet: 6

Message:

Re: Peoples Heritage Bank Letter of Credit/ALC Development Corporation -
Washington Crossing Condo.

Penny, for your review

Bill N.

Bill - see edits, P.C.

ATTENTION: This facsimile is confidential and may be attorney/client privileged. It contains confidential information intended for the person(s) above-named. The distribution, copying, or disclosure of the information contained in this facsimile is strictly prohibited. Please notify us immediately if you have received this facsimile by mistake and return the original facsimile to this office by U.S. Mail without making a copy of it in such case.

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT

October __, 2001

Page 2

DRAFT

Re: \$420,000 Letter of Credit

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It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for period(s) of one (1) year each from the current expiration date hereof, or any future expiration date, unless at least sixty (60) days prior to any expiration date, the Bank notifies the ~~Director of Planning and Urban Development~~ by registered or certified mail at the above listed address that the Bank elects not to consider this Letter of Credit renewed for any such additional period.

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This drawing results from the Developer's failure to timely complete to the satisfaction of the City the ~~public~~ improvements set forth in a certain Schedule of costs of Public Improvements dated [insert date]; or

This drawing results from the Developer's failure to post a ten percent (10%) Defect Guarantee ~~or Bond~~ as provided in Section 14-501 of the Portland City Code;

*or
This drawing results from the Dev's failure to deliver required deeds to the City.*

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2. The expiration date of October 15, 2003 [insert expiration date but not between the dates of September 15th and April 15th] or any automatically extended date as specified herein.

Partial drawings are permitted.

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT

October __, 2001

Page 4

Re: \$420,000 Letter of Credit

Exhibit A
Schedule of Costs of Public Improvements

Ltr Credit Wash Cross.doc
10/12/01 2:31 PM

Tompkins, Clough, Hirshon & Langer, P.A.
Three Canal Plaza
Post Office Box 15060
Portland, Maine 04101

Fax Cover Sheet

Date: October 12, 2001

To: **Bill Needleman, Director**

756-8258

From: Lawrence R. Clough, Esq.
Voice: 207-874-6700
Fax: 207-874-6705

Total Number of Pages including this Cover Sheet: 6

Message:

Re: Peoples Heritage Bank Letter of Credit/ALC Development Corporation -
Washington Crossing Condo.

ATTENTION: This facsimile is confidential and may be attorney/client privileged. It contains confidential information intended for the person(s) above-named. The distribution, copying, or disclosure of the information contained in this facsimile is strictly prohibited. Please notify us immediately if you have received this facsimile by mistake and return the original facsimile to this office by U.S. Mail without making a copy of it in such case.

TOMPKINS, CLOUGH, HIRSHON & LANGER, P.A.

Counselors at Law

Three Canal Plaza

P.O. Box 15060

Portland, Maine 04112-5060

Bruce M. Tompkins
Lawrence R. Clough
David M. Hirshon
Leonard W. Langer
Marshall J. Tinkle*

Tel: (207) 874-6700
Fax: (207) 874-6705
E-Mail: lrclough@tchl.com

* also licensed in MA and DC

October 12, 2001

Via Telecopier

William Needleman, Director Planning Department
CITY OF PORTLAND
389 Congress Street
Portland, ME 04101

Re: ALC Development Corporation/Washington Crossing Condominium
Allen Avenue, Portland, Maine

Dear Bill:

I understand that ALC Development contemplates commencing construction on Phase II of the project, and accordingly I enclose a draft letter of credit which may be issued by Peoples Heritage Bank, N.A.

I understand that Elliott Chamberlain will be sending you the Schedule of Values which will need to be attached to the Letter of Credit.

Sincerely yours,


Lawrence R. Clough

LRC/tjo

Enclosure

cc: Jonathan M. Campbell, Comm. Loan Officer
Elliott and John Chamberlain
Murrrough H. O'Brien, Esq.

October ____, 2001

CITY OF PORTLAND
ATTN PLANNING AND URBAN DEVELOPMENT
389 Congress Street
Portland, Maine 04101

DRAFT

Re: Washington Crossing Condominium, Allen Avenue, Portland, Maine
\$420,000 Letter of Credit (Our # _____)

Peoples Heritage Bank, N.A. hereby issues its Irrevocable Letter of Credit # _____ for the account of ALC Development Corporation as developer hereinafter referred to as the Developer, in the name of the City of Portland, Maine (the "City") in the aggregate amount of Four Hundred Twenty Thousand Dollars (\$420,000.00).

The City, through its Director of Planning and Urban Development, may draw on this Letter of Credit by presentation of a sight draft and the original Letter of Credit and all amendments thereto, at the Bank's offices located at One Portland Square (3rd floor), Portland, Maine, accompanied by a certificate stating that:

- (1) the Developer has failed to complete by two years from the date of this letter of credit or by the expiration date of any temporary certificate of occupancy issued, whichever date comes first, at the Developer's expense, the work on the roads and other public improvements as set forth in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A; or
- (2) the Developer has failed to post the ten percent (10%) Defect Bond or Guarantee required by the Portland City Code Sections 14-501 and 15-525; or
- (3) the Developer has failed to notify the City for inspections.

In the event of the Bank's dishonor of the City of Portland's sight draft, the Bank shall inform the City of Portland in writing of the reason or reasons therefor within three (3) working days of the dishonor.

After all underground work in the public right of way has been completed and inspected to the satisfaction of the Department of Public Works, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electric conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or the City of Portland Director of Finances as provided

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT

October __, 2001

Page 2

DRAFT

Re: \$420,000 Letter of Credit

in Section 14-501 of the Portland City code may authorize the Bank, by written certification, to reduce the available amount of this letter of credit by a specified amount.

It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for period(s) of one (1) year each from the current expiration date hereof, or any future expiration date, unless at least sixty (60) days prior to any expiration date, the Bank notifies the Director of Planning and Urban Development by registered or certified mail at the above listed address that the Bank elects not to consider this Letter of Credit renewed for any such additional period.

In the event of such notice, the City may draw hereunder by presentation of a sight draft drawn on the Bank, accompanied by the original Letter of Credit and all amendments thereto, and a statement purportedly signed by the Director of Planning and Urban Development reading as follows:

This drawing results from notification that the Bank has elected not to renew this Letter of Credit; or

This drawing results from the Developer's failure to timely complete to the satisfaction of the City the public improvements set forth in a certain Schedule of costs of Public Improvements dated [insert date]; or

This drawing results from the Developer's failure to post a ten percent (10%) Defect Guarantee or Bond as provided in Section 14-501 of the Portland City Code; or

This drawing results from the Developer's failure to notify the City of inspections.

This Letter of Credit will automatically expire upon the earlier of:

1. The Bank's receipt of a written notification from the City of Portland that said work as outlined in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A between the Developer and the City of Portland has been completed in accordance with the City of Portland specifications and this Letter of Credit may be canceled; or
2. The expiration date of October 15, 2003 [insert expiration date but not between the dates of September 15th and April 15th] or any automatically extended date as specified herein.

Partial drawings are permitted.

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT
October __, 2001
Page 3

Re: \$420,000 Letter of Credit

DRAFT

We engage with you that drafts drawn under and in compliance with the terms of this credit will be duly honored if presented at our offices at identified above or before two years from the date hereof or any automatically extended date as specified herein.

Very truly yours,
Peoples Heritage Bank, N.A.

By: _____ **DRAFT** _____
Its Duly Authorized

The City of Portland has accepted the providing of alternative security for the Developer's obligations to be performed pursuant to Section 14-501 and/or Section 14-525 of the Portland City Code.

Dated: October __, 2001

By: _____
Its Duly Authorized Director
of Planning and Urban Development

Seen and Agreed to:
ALC DEVELOPMENT CORPORATION

By: _____
its President
Date: October __, 2001

Reviewed pursuant to Section 14-501 and/or Section 14-525, Portland City Code.

By: _____
Director of Finance

By: _____
Corporation Counsel

Date: October __, 2001

Date: October __, 2001

SEE ATTACHED EXHIBIT A

CITY OF PORTLAND
PLANNING AND URBAN DEVELOPMENT
October ____, 2001
Page 4

Re: \$420,000 Letter of Credit

Exhibit A
Schedule of Costs of Public Improvements

Ltr Credit Wash Cross.doc
10/12/01 2:31 PM

ALC Development
258 Black Point Rd.
Scarborough, ME 04074

Draw #2
January 19,2002

**PHASE 2 WASHINGTON CROSSING
COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE**

ITEM	BUDGET	Rec. To Date	CURRENT DRA	REMAINING BAL.
STREET/SIDEWALK				
ROAD	\$ 90,900.00	\$ -	\$ 28,000.00	\$ 62,900.00
GRANITE CURBING	\$ -			\$ -
SIDEWALKS	\$ 10,000.00		\$ -	\$ 10,000.00
ESPLANADES	\$ 13,200.00		\$ -	\$ 13,200.00
MONUMENTS	\$ -			\$ -
STREET LIGHTING	\$ 3,300.00		\$ -	\$ 3,300.00
OTHER	\$ 2,775.00		\$ -	\$ 2,775.00
EARTH WORK				
CUT	\$ 17,800.00	\$ 17,800.00		\$ -
FILL	\$ -		\$ -	\$ -
SANITARY SEWER				
MANHOLES	\$ 11,000.00	\$ 11,000.00		\$ -
PIPING	\$ 51,408.00	\$ 49,108.00	\$ 2,300.00	\$ -
CONNECTIONS	\$ -		\$ -	\$ -
MAIN LINE PIPING	\$ -		\$ -	\$ -
PUMP STATIONS	\$ 23,000.00	\$ 11,500.00	\$ -	\$ 11,500.00
OTHER	\$ 1,000.00	\$ 1,000.00		\$ -
WATER MAIN	\$ 68,000.00	\$ 68,600.00	\$ 1,400.00	\$ -
STORM DRAINAGE				
MANHOLES	\$ 6,150.00	\$ 3,550.00	\$ 2,600.00	\$ -
CATCH BASINS	\$ 14,700.00	\$ 12,000.00	\$ 2,700.00	\$ -
PIPING	\$ 49,770.00	\$ 49,770.00	\$ -	\$ -
DETENTION BASINS	\$ -		\$ -	\$ -
STORMWATER UNIT	\$ 25,000.00	\$ 25,000.00	\$ -	\$ -
OTHER	\$ 1,000.00	\$ 1,000.00	\$ -	\$ -

Page 2 Cont'd.

	BUDGET	PREV. DRAW	CURRENT DRA	REM. BAL.
SITE LIGHTING	\$ 2,100.00	\$ -	\$ -	\$ 2,100.00
EROSION CONTROL				
SILT FENCE	\$ 3,500.00	\$ -	\$ -	\$ 3,500.00
CHECK DAMS	\$ -	\$ -	\$ -	\$ -
RIPE INLET/OUTLET I	\$ -	\$ -	\$ -	\$ -
LEVEL LIP SPRADEI	\$ -	\$ -	\$ -	\$ -
SLOPE STABILIZATIC	\$ -	\$ -	\$ -	\$ -
GEOTEXTILE	\$ -	\$ -	\$ -	\$ -
HAY BALE BARRIERS	\$ -	\$ -	\$ -	\$ -
CATCH BASIN INLET	\$ 1,000.00	\$ -	\$ -	\$ 1,000.00
RECREATION & OPEI	\$ -	\$ -	\$ -	\$ -
LANDSCAPING	\$ 5,000.00	\$ -	\$ -	\$ 5,000.00
MISCELLANEOUS				
UNDERGROUND UTIL	\$ 14,000.00	\$ -	\$ -	\$ 14,000.00
GRAND TOTAL	\$ 414,603.00	\$ 248,328.00	\$ 37,000.00	\$ 129,275.00

EXTRAS

CHANGE ORDER #1	
LEDGE REMOVAL	\$ 1,440.00
CHANGE ORDER #2	
ADD CELLAR DRAIN I	\$ 770.00
GRAND TOTAL DUE	\$ 42,710.00

39,210.-

September 16, 1999

Joseph E. Gray, Jr., Director
CITY OF PORTLAND PLANNING AND URBAN DEVELOPMENT
389 Congress Street
Portland, Maine 04101

DRAFT

Re: Washington Crossing Condominium, Allen Avenue, Portland, Maine
\$341,000 ~~\$330,000~~ Letter of Credit (Our #63647-742)

Peoples Heritage Bank hereby issues its Irrevocable Letter of Credit #63647-742 for the account of ALC Development Corporation as developer hereinafter referred to as the Developer, in the name of the City of Portland, Maine (the "City") in the aggregate amount of Three Hundred Forty-One Thousand Dollars (\$341,000.00).

The City, through its Director of Planning and Urban Development, may draw on this Letter of Credit by presentation of a sight draft and the original Letter of Credit and all amendments thereto, at the Bank's offices located at One Portland Square (3rd floor), Portland, Maine, accompanied by a certificate stating that:

- (1) the Developer has failed to complete by two years from the date of this letter of credit or by the expiration date of any temporary certificate of occupancy issued, whichever date comes first, at the Developer's expense, the work on the roads and other public improvements as set forth in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A; or
- (2) the Developer has failed to post the ten percent (10%) Defect Bond or Guarantee required by the Portland City Code Sections 14-501 and 15-525; or
- (3) the Developer has failed to notify the City for inspections.

In the event of the Bank's dishonor of the City of Portland's sight draft, the Bank shall inform the City of Portland in writing of the reason or reasons therefor within three (3) working days of the dishonor.

After all underground work in the public right of way has been completed and inspected to the satisfaction of the Department of Public Works, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electric conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or the City of Portland Director of Finances as provided in Section

Joseph E. Gray, Jr., Director
CITY OF PORTLAND PLANNING AND URBAN DEVELOPMENT
September 16, 1999
Page 2

Re: \$341,000 Letter of Credit

14-501 of the Portland City code may authorize the Bank, by written certification, to reduce the available amount of this letter of credit by a specified amount.

It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for period(s) of one (1) year each from the current expiration date hereof, or any future expiration date, unless at least sixty (60) days prior to any expiration date, the Bank notifies the Director of Planning and Urban Development by registered or certified mail at the above listed address that the Bank elects not to consider this Letter of Credit renewed for any such additional period.

In the event of such notice, the City may draw hereunder by presentation of a sight draft drawn on the Bank, accompanied by the original Letter of Credit and all amendments thereto, and a statement purportedly signed by the Director of Planning and Urban Development reading as follows:

This drawing results from notification that the Bank has elected not to renew its Letter of Credit #63647-742; or

This drawing results from the Developer's failure to timely complete to the satisfaction of the City the public improvements set forth in a certain Schedule of costs of Public Improvements dated [insert date]; or

This drawing results from the Developer's failure to post a ten percent (10%) Defect Guarantee or Bond as provided in Section 14-501 of the Portland City Code; or

This drawing results from the Developer's failure to notify the City of inspections.

This Letter of Credit will automatically expire upon the earlier of:

1. The Bank's receipt of a written notification from the City of Portland that said work as outlined in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A between the Developer and the City of Portland has been completed in accordance with the City of Portland specifications and the Bank's Letter of Credit #63647-742 may be canceled; or
2. The expiration date of September 14, 2001 [insert expiration date but not between the dates of September 15th and April 15th] or any automatically extended date as specified herein.

Partial drawings are permitted.

Joseph E. Gray, Jr., Director
CITY OF PORTLAND PLANNING AND URBAN DEVELOPMENT
September 16, 1999
Page 3

Re: \$341,000 Letter of Credit

We engage with you that drafts drawn under and in compliance with the terms of this credit will be duly honored if presented at our offices at identified above or before two years from the date hereof or any automatically extended date as specified herein.

Very truly yours,
Peoples Heritage Bank

DRAFT

By: _____
Its Duly Authorized

The City of Portland has accepted the providing of alternative security for the Developer's obligations to be performed pursuant to Section 14-501 and/or Section 14-525 of the Portland City Code.

Dated: September ____, 1999

By: _____
Joseph E. Gray, Jr.
Its Duly Authorized Director
of Planning and Urban Development

Seen and Agreed to:
ALC DEVELOPMENT CORPORATION

By: _____
its President
Date: September ____, 1999

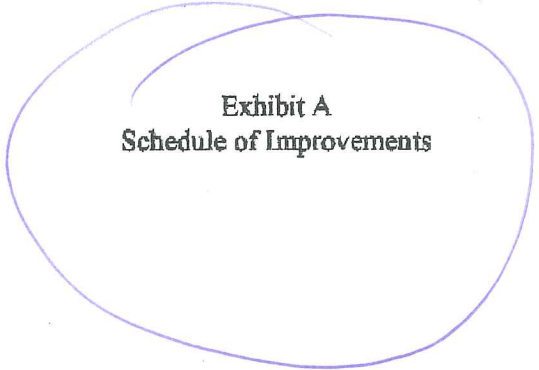
Reviewed pursuant to Section 14-501 and/or Section 14-525, Portland City Code.

By: : _____
Director of Finance
Date: September ____, 1999

By: : _____
Corporation Counsel
Date: September ____, 1999

Joseph E. Gray, Jr., Director
CITY OF PORTLAND PLANNING AND URBAN DEVELOPMENT
September 16, 1999
Page 4

Re: \$341,000 Letter of Credit



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9/16/99 7:58 AM
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9/16/99 7:58 AM

14-501 of the Portland City code may authorize the Bank, by written certification, to reduce the available amount of this letter of credit by a specified amount.

It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for period(s) of one (1) year each from the current expiration date hereof, or any future expiration date, unless at least sixty (60) days prior to any expiration date, the Bank notifies the Director of Planning and Urban Development by registered or certified mail at the above listed address that the Bank elects not to consider this Letter of Credit renewed for any such additional period.

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This drawing results from notification that the Bank has elected not to renew its Letter of Credit #63647-742; or

This drawing results from the Developer's failure to timely complete to the satisfaction of the City the public improvements set forth in a certain Schedule of costs of Public Improvements dated [insert date]; or

This drawing results from the Developer's failure to post a ten percent (10%) Defect Guarantee or Bond as provided in Section 14-501 of the Portland City Code; or

This drawing results from the Developer's failure to notify the City of inspections.

This Letter of Credit will automatically expire upon the earlier of:

1. The Bank's receipt of a written notification from the City of Portland that said work as outlined in a certain Schedule of Costs of Public Improvements attached hereto as Exhibit A between the Developer and the City of Portland has been completed in accordance with the City of Portland specifications and the Bank's Letter of Credit #63647-742 may be canceled; or
2. The expiration date of September 14, 2001[insert expiration date but not between the dates of September 15th and April 15th] or any automatically extended date as specified herein.

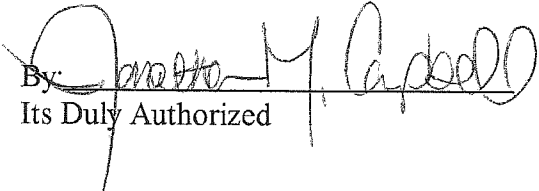
Partial drawings are permitted.

Joseph E. Gray, Jr., Director
CITY OF PORTLAND PLANNING AND URBAN DEVELOPMENT
September 16, 1999
Page 3

Re: \$341,000 Letter of Credit

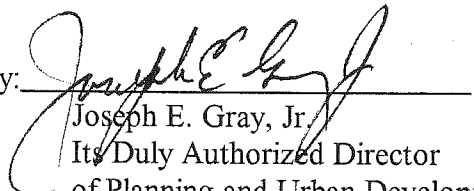
We engage with you that drafts drawn under and in compliance with the terms of this credit will be duly honored if presented at our offices at identified above or before two years from the date hereof or any automatically extended date as specified herein.

Very truly yours,
Peoples Heritage Bank


By: 
Its Duly Authorized

The City of Portland has accepted the providing of alternative security for the Developer's obligations to be performed pursuant to Section 14-501 and/or Section 14-525 of the Portland City Code.

Dated: September 22, 1999

By: 
Joseph E. Gray, Jr.
Its Duly Authorized Director
of Planning and Urban Development

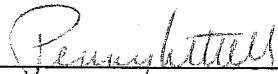
Seen and Agreed to:
ALC DEVELOPMENT CORPORATION

By: 
its President

Date: September 22, 1999

Reviewed pursuant to Section 14-501 and/or Section 14-525, Portland City Code.

By: _____
Director of Finance
Date: September __, 1999

By: 
Corporation Counsel
Date: September 23, 1999

Joseph E. Gray, Jr., Director
CITY OF PORTLAND PLANNING AND URBAN DEVELOPMENT
September 16, 1999
Page 4

Re: \$341,000 Letter of Credit

Exhibit A
Schedule of Costs of Public Improvements

Perlofewashcross
9/22/99 10:01 AM

Department of Planning and Urban Development
SUBDIVISION/SITE DEVELOPMENT

Exhibit A

COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE

Date 9-22-99

Name of Project Washing Crossing

Address/Location Allen Ave

Developer ABC Development Inc.

Form of Performance Guarantee Letter of Credit

Type of Development: Condos Subdivision Prud Site Plan (Major/Minor)

TO BE FILLED OUT BY APPLICANT:

Item	PUBLIC			PRIVATE		
	Quantity	Unit Cost	Subtotal	Quantity	Unit Cost	Subtotal
1. STREET/SIDEWALK						
Road				<u>1050'</u>	<u>91.28</u>	<u>95840</u>
Granite Curbing	<u>60</u>	<u>35</u>	<u>2100</u>			
Sidewalks				<u>1050</u>	<u>5.00</u>	<u>5250</u>
Esplanades				<u>1050</u>	<u>1.00</u>	<u>1050</u>
Monuments						
Street Lighting						
Other				<u>1</u>	<u>TOTAL</u>	<u>76260</u>
2. SANITARY SEWER						
Manholes	<u>1</u>	<u>6700</u>	<u>6700</u>	<u>7</u>	<u>2200</u>	<u>15400</u>
Piping	<u>40</u>	<u>62</u>	<u>2480</u>	<u>960</u>	<u>30.30</u>	<u>29092</u>
Connections				<u>9</u>	<u>600</u>	<u>5400</u>
Other						
3. STORM DRAINAGE						
Manholes				<u>2</u>	<u>2200</u>	<u>4400</u>
Catchbasins				<u>4</u>	<u>2000</u>	<u>8000</u>
Piping				<u>580</u>	<u>32.60</u>	<u>18917.80</u>
Detention Basin						
Other				<u>1</u>		<u>23000</u>
4. SITE LIGHTING						
5. EROSION CONTROL				<u>1</u>	<u>TOTAL</u>	<u>1400</u>
6. RECREATION AND OPEN SPACE AMENITIES				<u>1</u>	<u>TOTAL</u>	<u>10,000</u>

Description	PUBLIC			PRIVATE		
	Quantity	Unit Cost	Subtotal	Quantity	Unit Cost	Subtotal
LANDSCAPING (Attach breakdown of plant materials, quantities, and unit costs)				1	TOTAL	16000
MISCELLANEOUS (Underground Utilities)				1050'	13.00	13850
TOTAL:		11,280.00			323,867.00	
GRAND TOTAL:						

INSPECTION FEE (to be filled out by City)

	PUBLIC	PRIVATE	TOTAL
1.7% of totals:			
or			
Alternative Assessment:			
Processed by:	(name)	(name)	

To: Perf Guar File
From: P. Littell, Corp Counsel's Office
Date: 9/23/99
Re: Landscaping

Approved premised on discussion with Bill Needleman that the Landscaping guarantee will cover all landscaping including the cost of building landscaping. Originally, the developer wanted to exclude this from the estimate of improvements. I advised against it but Alex Jaegerman indicated that although we would not increase the amount to be posted, at the end of the day we would collect against the guarantee if all landscaping per the site plan were not completed. Bill will be making the required calls to notify the developer and will draft a memo explaining the situation in more detail.

Department of Planning & Development
Lee D. Urban, Director



CITY OF PORTLAND

Division Directors
Mark B. Adelson
Housing & Neighborhood Services

Alexander Q. Jaegerman, AICP
Planning

John N. Lufkin
Economic Development

October 1, 2003

John and Elliot Chamberlain
ALC Development Corp.
258 Black Point Road
Scarborough, ME 04074

RE: Washington Crossing Condominiums; Delaware Court

Dear ALC Development Corp.,

After an inspection of your project at Delaware Court, I noticed a few minor items that need to be addressed prior to placement of the final coat of asphalt. It is my understanding that you intend to pave phase one this season. The following items will need to be addressed prior to final paving:

1. Station 9+20 is shown on the plan as a high point in the pavement grades. Currently, drainage is not running along the gutter line in this area very well. Please shoot grades in this area to ensure final paving will better the drainage.
2. This situation is also present at both visitor-parking areas.
3. There are miscellaneous potholes and unpaved patches around utilities that should be paved with binder mix.
4. The pavement along the gutter line in front of #75-77 has cracked significantly. This area should be square cut out and repaved with binder mix.
5. This is also present in front of #61-63 Delaware Ct, and
6. Also in front of #27-29 Delaware Court.

Please contact me at 874-8632 if you have any questions or comments.

Sincerely,

A handwritten signature in black ink that reads "Jay Reynolds".

Jay Reynolds
Development Review Coordinator

CC: Sarah Hopkins, Development Review Services Manager
Correspondence File

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Department of Planning & Development
Lee D. Urban, Director



CITY OF PORTLAND

Bill
Division Directors
Mark B. Adelson
Housing & Neighborhood Services

Alexander Q. Jaegerman, AICP
Planning

John N. Lufkin
Economic Development

July 22, 2004

John and Elliot Chamberlain
ALC Development Corp.
258 Black Point Road
Scarborough, ME 04074

Geri Hirsch
Washington Crossing Condo Association
23 Delaware Court
Portland, ME 04103

RE: Washington Crossing Condominiums; Delaware Court

Dear John, Elliot, and Geri:

Thank you for meeting on site yesterday to resolve a few items prior to the completion of this project. Upon a walk through the site, there were three items that we agreed upon that result in field changes due to field conditions:

1. Because it is unrealistic that all the driveway and paved areas will direct drainage to the one catch basin, it was agreed that a second basin with 8" pipe be installed around station 21+60 (+/-).
2. Because of the buildout of the public space garden and the walkway's proximity to building B, the landscaping as shown on the plan is unattainable. It was agreed that 4 little leaf lindens be installed on the building C side of the circle, and a 2-3 foot wide planter edging be installed along the stone wall on the same side. This will allow for shading, aesthetic improvement, and will allow a view corridor toward the open space area.
3. The buildout of the parking area in front of the public space garden was not installed according to plan. It was agreed that the current buildout was acceptable to all parties.

The following items were noticed that need completion prior to the City signing off on the project:

1. Completion of items in the 10-01-03 letter (attached).
2. Sidewalk installation in Phase II.
3. Curb installation in Cul-de-sac, per plan.
4. Silt fence and erosion repair next to building J (under construction, needs immediate attention).
5. Broken curb at station 14+00 +/- needs replacement. New curb backed with material.
6. Landscaping around transformer pads and parking areas.

O:\plan\devreview\allen214\letters\completion07-22-04.doc

7. It was observed over the last 2 years, that silt was making its way into some of the catch basins. All CB's in Phase II should have the sumps cleaned.
8. Clean sediment buildup at the inlet that is piped to CB # 9.
9. Install parking spaces at station 18+00 and the spaces at 21+00.
10. Replace dead trees at buildings P and Q.
11. Remove 2"x4" utility markers in the lawn of #160.
12. Install landscaping in Cul-de-sac Island.
13. Loam and seed areas where grass did not catch.
14. Surface pave roadway and driveways in both phases
15. Remove silt fence upon completion.

I appreciate everyone's efforts to work together to attain a successful completion of your project.

Sincerely,

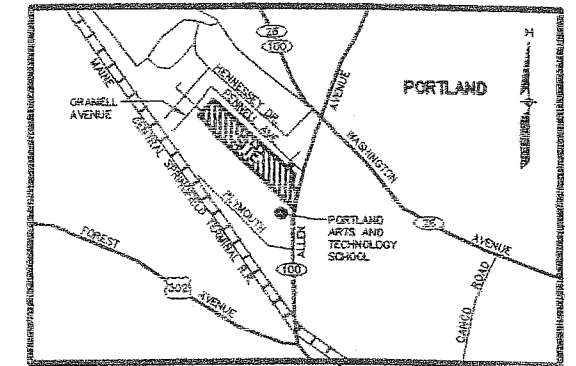


Jay Reynolds
Development Review Coordinator

CC: Lee Urban, Planning and Development Director
Alexander Jaegerman, Planning Division Director
Sarah Hopkins, Development Review Services Manager
William Needleman, Senior Planner
Correspondence File

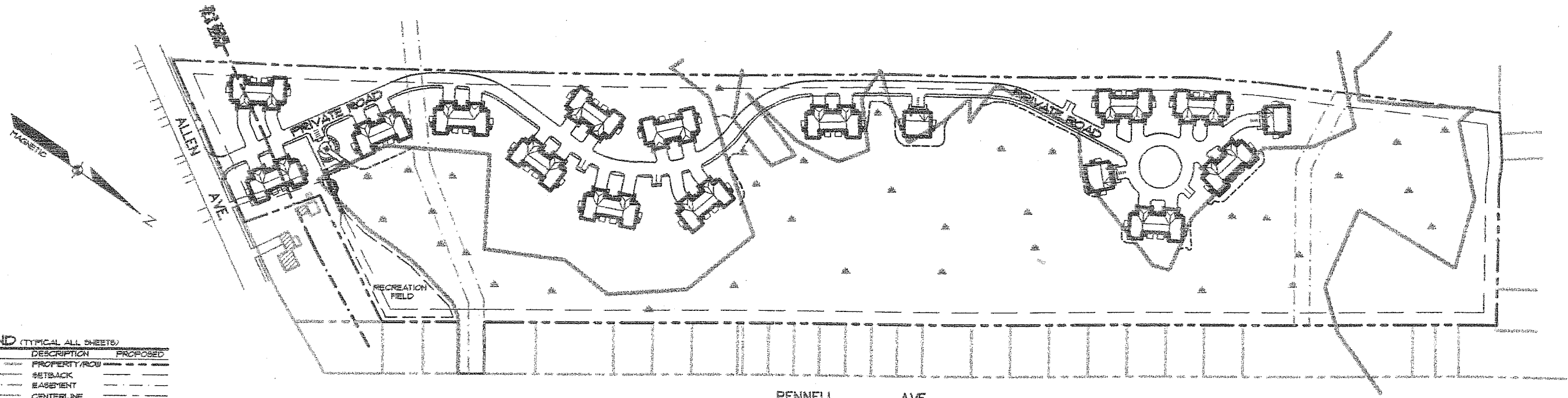
WASHINGTON CROSSING CONDOMINIUMS

A 62 UNIT PLANNED
RESIDENTIAL UNIT DEVELOPMENT
ALLEN AVENUE
PORTLAND, MAINE



LOCATION MAP

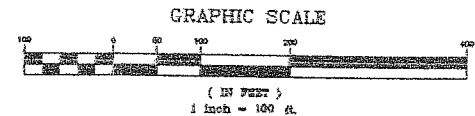
N.T.S.



LEGEND (TYPICAL ALL SHEETS)

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	CENTERLINE	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	CURVELINE NO.	---
---	C1/L1	---
---	BUILDING	---
---	WETLANDS	---
---	EDGE WETLAND	---
---	SKN	---
---	STREAM	---
---	ROCK OUTCROP	---
---	EDGE PAVEMENT	---
---	GRAVEL ROAD	---
---	CURVELINE	---
---	TREELINE	---
---	CONTOURS	---
---	GAS	---
---	WATER	---
---	SEWER	---
---	STORM DRAIN	---
---	FORCE MAIN	---
---	OVERHEAD ELEC. + TEL.	---
---	UNDERGROUND ELEC. + TEL.	---
---	GATE VALVE	---
---	LIGHT POLE	---
---	UTILITY POLE	---
---	HYDRANT	---
---	CATCH BASIN	---
---	MANHOLE	---
---	CULVERT	---
---	SPOT GRADE	---
---	CHAIN LINK FENCE	---
---	BARS WIRE FENCE	---
---	STOCKADE FENCE	---
---	STONE WALL	---
---	DECIDUOUS TREE	---
---	CONIFEROUS TREE	---
---	SILT FENCE	---
---	MATCH LINE	---

PENNELL AVE.



SHEET INDEX

- 1 COVER SHEET
- 2 MASTER PLAN
- 3 SITE PLAN 1
- 4 SITE PLAN 2
- 5 PLAN & PROFILE 1
- 6 PLAN & PROFILE 2
- 7 LANDSCAPE & LIGHTING PLAN 1
- 8 LANDSCAPE & LIGHTING PLAN 2
- 9 DETAILS 1
- 10 DETAILS 2
- 11 DETAILS 3

OWNER/APPLICANT: A.L.C. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

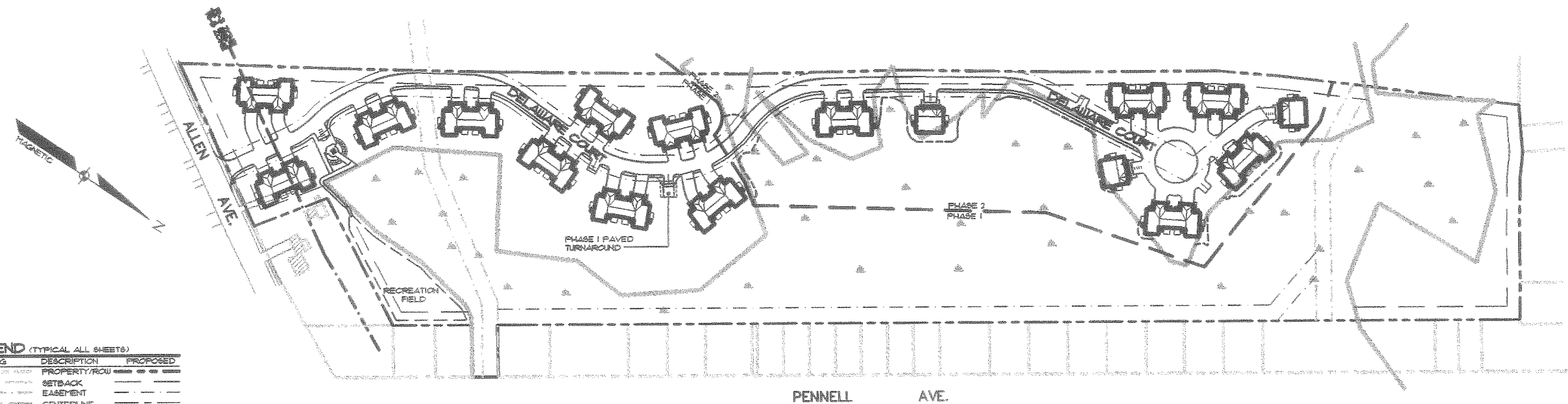
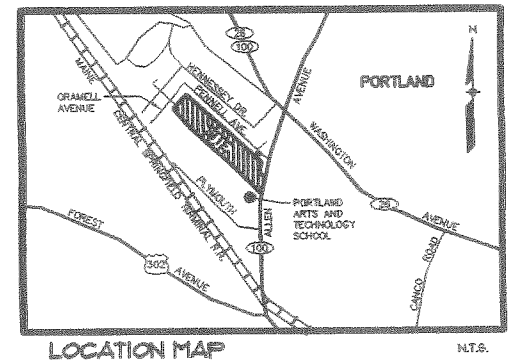
ENGINEER/SURVEYOR: SEBAGO TECHNICS, INC.

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04098-1539
TEL (207) 854-0277

WASHINGTON CROSSING CONDOMINIUMS

A 62 UNIT PLANNED RESIDENTIAL UNIT DEVELOPMENT

ALLEN AVENUE
PORTLAND, MAINE



LEGEND (TYPICAL ALL SHEETS)

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	CENTERLINE	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	C1/L1	---
---	CURVE/LINE NO.	---
---	BUILDING	---
---	WETLANDS	---
---	EDGE WETLAND SIGN	---
---	STREAM	---
---	ROCK OUTCROP	---
---	EDGE PAVEMENT	---
---	GRAVEL ROAD	---
---	CURBLINE	---
---	TREELINE	---
---	CONTOURS	---
---	GAS	---
---	WATER	---
---	SEWER	---
---	STORM DRAIN	---
---	FORCE MAIN	---
---	OVERHEAD ELEC. & TEL.	---
---	UNDERGROUND ELEC. & TEL.	---
---	GATE VALVE	---
---	LIGHT POLE	---
---	UTILITY POLE	---
---	HYDRANT	---
---	CATCH BASIN	---
---	MANHOLE	---
---	CULVERT	---
---	SPOT GRADE	---
---	CHAIN LINK FENCE	---
---	BARE WIRE FENCE	---
---	STOCKADE FENCE	---
---	STONE WALL	---
---	DECIDUOUS TREE	---
---	CONIFEROUS TREE	---
---	SILT FENCE	---
---	MATCH LINE	---

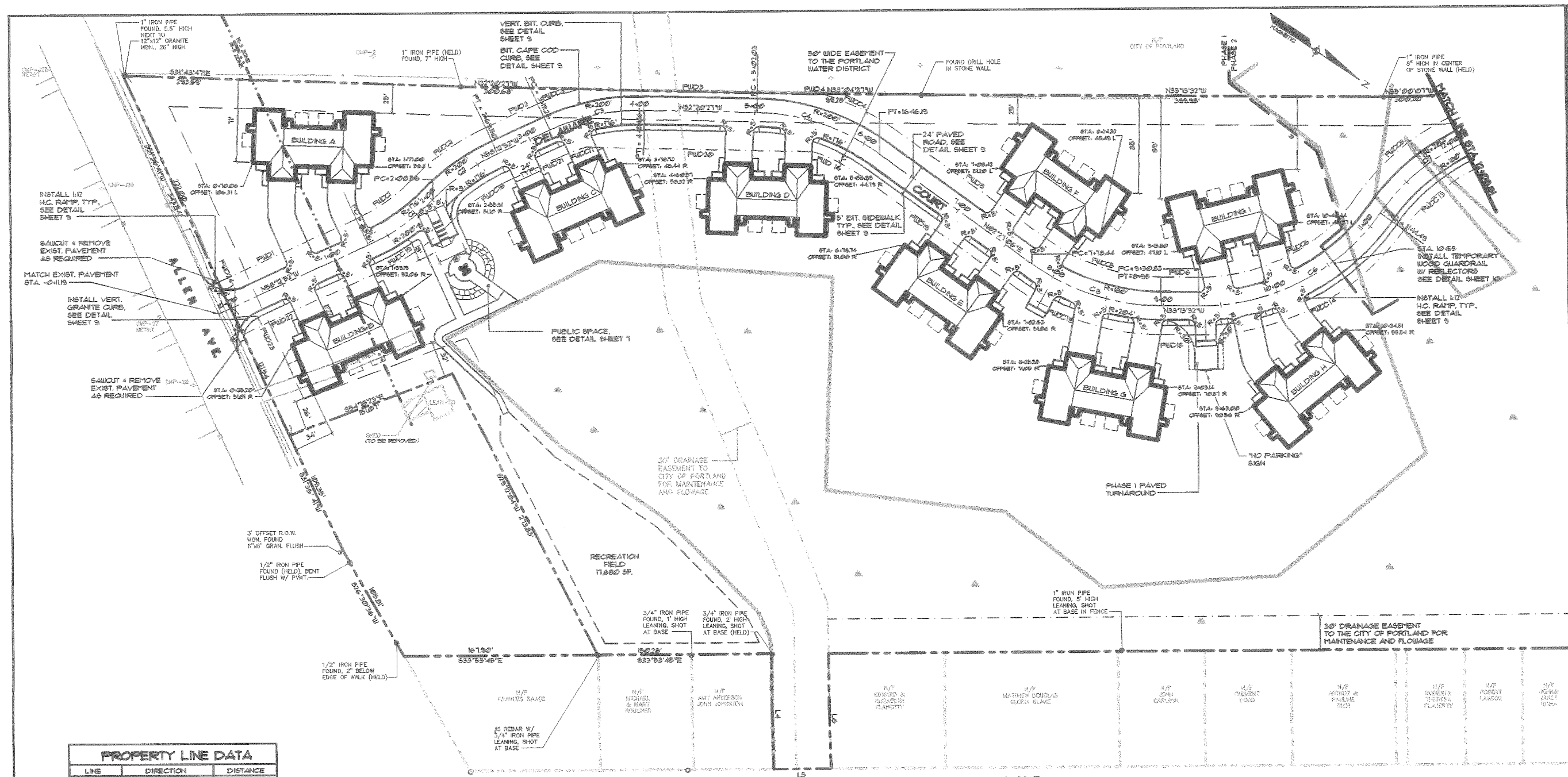
SHEET INDEX

- 1 COVER SHEET
- 2 MASTER PLAN
- 3 SITE PLAN: DELAWARE COURT (STA. -0+11.19 TO STA. 12+08.81)
- 4 SITE PLAN: DELAWARE COURT (STA. 12+08.80 TO STA. 22+08.45)
- 5 PLAN AND PROFILE: DELAWARE COURT (STA. -0+11.19 TO STA. 12+08.81)
- 6 PLAN AND PROFILE: DELAWARE COURT (STA. 12+08.80 TO STA. 22+08.45)
- 7 LANDSCAPE AND LIGHTING PLAN 1
- 8 LANDSCAPE AND LIGHTING PLAN 2
- 9 DETAILS 1
- 10 DETAILS 2
- 11 DETAILS 3

OWNER/APPLICANT: ALC DEVELOPMENT CORP.
 288 BLACK POINT ROAD
 SCARBOROUGH, MAINE 04074

ENGINEER/SURVEYOR: SEBAGO TECHNICS, INC.





PROPERTY LINE DATA

LINE	DIRECTION	DISTANCE
L1	N82°34'28"E	40.12'
L2	N82°11'16"E	50.23'
L3	N82°42'19"E	50.16'
L4	S55°28'15"W	100.01'
L5	N33°53'48"W	50.00'
L6	S55°28'15"W	100.01'

PROPERTY LINE CURVE DATA

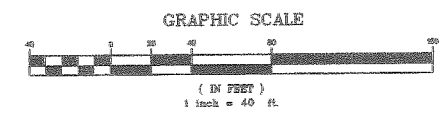
CURVE	LENGTH	RADIUS	DELTA
C1	68.94	100.00	21°00'40"
C2	68.94	100.00	21°00'40"
C3	84.80	100.00	25°52'28"
C4	114.16	100.00	34°41'33"
C5	119.96	100.00	36°42'38"
C6	183.86	100.00	54°48'24"
C7	171.71	100.00	53°01'49"

PUD EASEMENT CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
PUDC1	59.71	163.00	21°00'40"
PUDC2	78.11	210.00	21°00'40"
PUDC3	31.62	210.00	10°01'18"
PUDC4	71.44	210.00	19°15'04"
PUDC5	103.99	167.00	35°40'38"
PUDC6	59.14	167.00	54°48'24"
PUDC8	106.60	271.00	28°00'41"
PUDC9	87.04	167.00	28°00'41"
PUDC14	207.37	271.00	54°48'24"
PUDC15	100.17	271.00	35°40'38"
PUDC16	47.10	163.00	16°46'02"
PUDC17	22.33	163.00	07°50'54"
PUDC18	59.71	163.00	21°00'40"
PUDC19	78.11	210.00	21°00'40"

PUD EASEMENT DATA

LINE	DIRECTION	DISTANCE
PUD1	N82°12'52"W	131.69'
PUD2	N60°12'52"W	49.76'
PUD3	N32°20'21"W	198.91'
PUD4	N33°04'31"W	13.92'
PUD5	N02°21'06"E	162.26'
PUD6	N33°13'32"W	32.83'
PUD16	N33°13'32"W	32.83'
PUD19	N32°20'21"W	162.26'
PUD20	N32°20'21"W	198.78'
PUD21	N58°12'52"W	49.76'
PUD22	N58°12'52"W	131.69'
PUD23	S51°36'41"W	75.00'
PUD24	N51°36'41"W	75.00'



F	SMF	8-16-99	BOARDWALK REVISION, ADD PHASE 1 PAVED TURNAROUND
E	SMF	7-23-99	REVISE PER CONDITIONS OF APPROVAL
D	SMF	5-27-99	MOVE BUILDING 'C', SHIFT ROAD
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV:	BY:	DATE:	STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

SITE PLAN: DELAWARE COURT
(STA. -0+11.19 TO STA. 12+08.81)

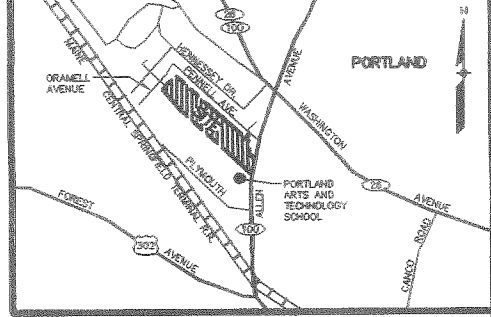
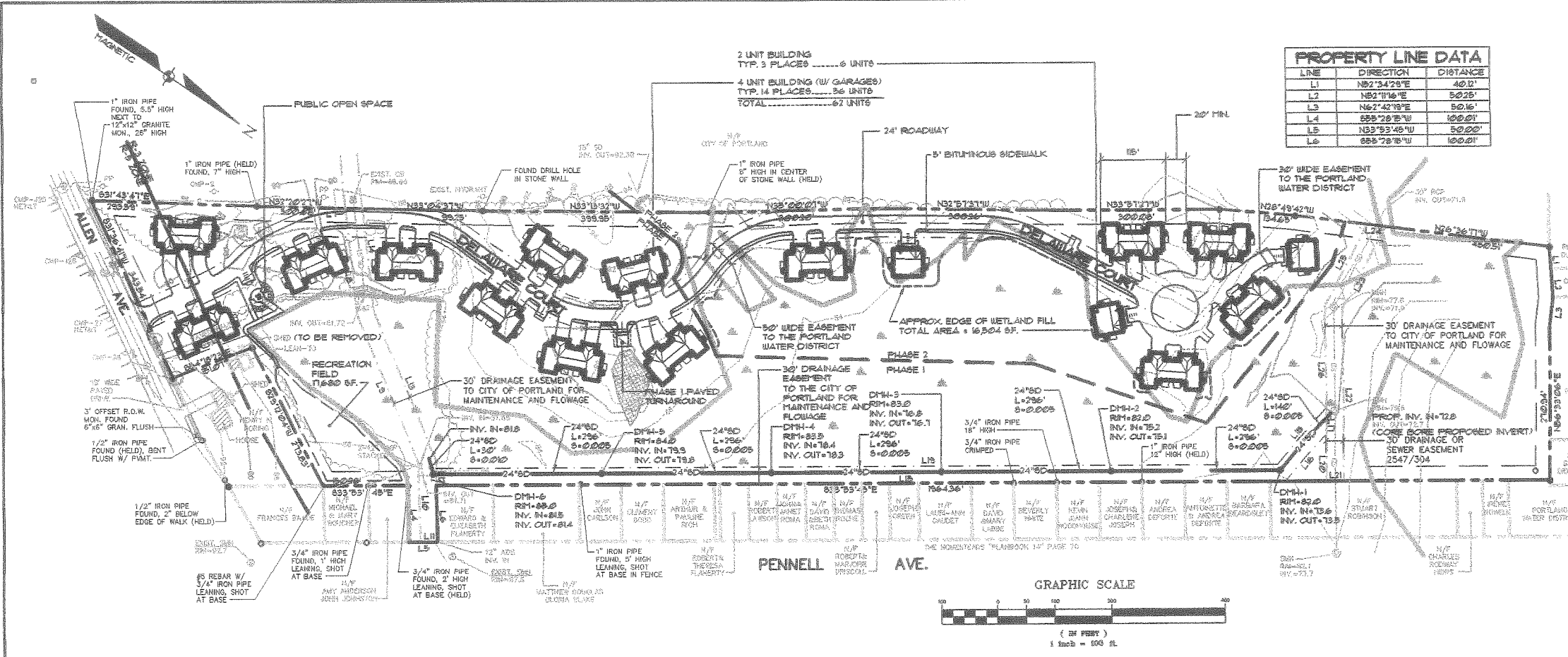
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE

FOR:
ALC DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

DESIGN BY: J.L.W./SMF
DRAWN BY: T.F.H.
CHECKED BY: SMF
DATE: 11-4-98
SCALE: 1"=40'
FIELD BK: 599
PROJ. NO: 97380
DRAWING: 97380S1

SHEET 3 OF 11

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04098-1339
TEL. (207) 858-0277



LOCATION MAP

LEGEND

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY ROW	---
---	SETBACK	---
---	EASEMENT	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	DRILL-HOLE	---
---	C/LI	---
---	BUILDING	---
---	CURVE/LINE NO.	---
---	WETLANDS	---
---	EDGE WETLAND	---
---	SIGN	---
---	ROCK CUTOFF/EDGE PAVEMENT	---
---	GRAVEL ROAD	---
---	CURVE/LINE	---
---	TREELINE	---
---	CONTOURS	---
---	GAS	---
---	WATER	---
---	SEWER	---
---	STORM DRAIN	---
---	UNDERGROUND ELEC. & TEL	---
---	GATE VALVE	---
---	LIGHT POLE	---
---	UTILITY POLE	---
---	HYDRANT	---
---	CATCH BASIN	---
---	MANHOLE	---
---	DECIDUOUS TREE	---

GENERAL NOTES

1. RECORD OWNER OF THE PROPERTY IS ALC DEVELOPMENT CORPORATION IN ACCORDANCE WITH A DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS, PORTLAND, MAINE IN BOOK 1412, PAGE 310.

2. THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND ASSESSOR'S PLAN NO. 343, BLOCK C, SHOWN AS LOTS 4 AND 5, AND ASSESSOR'S PLAN NO. 344, BLOCK D, LOT 5.

3. TOTAL AREA = 1,296,656 SQUARE FEET, OR 29.69 ACRES.

4. PLAN REFERENCES:

A. PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR CITY OF PORTLAND, PORTLAND REGIONAL VOCATIONAL SCHOOL BY H. I. AND E. C. JORDAN, SURVEYORS, DATED 1973, REVISED THROUGH AUGUST 22, 1975 ON FILE AT THE CITY OF PORTLAND ENGINEER'S OFFICE IN FILE NO. 10673.

B. PLAN OF LAND OF HENRY MORING, ALLEN AVENUE, PORTLAND, MAINE FOR BRAD GATE ASSOCIATES DATED MAY 11, 1971 BY CIVIL CONSULTANTS ENGINEERS AND PLANNERS, SOUTH BERNICK, MAINE. PLAN IS UNRECORDED AND ON FILE AT CIVIL CONSULTANTS IN JOB FILE 86-719.

C. CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS, RIGHT-OF-WAY PLAN FOR PORTLAND REGIONAL VOCATIONAL TECHNICAL SCHOOL STORM SEWER BY THE CITY OF PORTLAND ENGINEERING DEPARTMENT DATED AUGUST 6, 1975, AN UNRECORDED PLAN ON FILE AT THE CITY OF PORTLAND ENGINEERING DEPARTMENT IN PLAN FILE NO. 668-3.

D. PORTLAND HIGHLANDS, PORTLAND, CUMBERLAND COUNTY, MAINE OWNED BY MR. LOU LAND COMPANY, INC. FORMERLY OWNED BY GEORGE F. REED DATED JULY 22, 1924 BY ERNEST W. BRANCH, CIVIL ENGINEER, QUINCY, MASSACHUSETTS, RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 16, PAGE 10.

E. THE HOMESTEADS, PORTLAND, MAINE OWNED BY THE CITY AND SUBURBAN LAND TRUST, PROVIDENCE, RHODE ISLAND, SURVEYED BY E. C. JORDAN & COMPANY, CIVIL ENGINEERS, PORTLAND, MAINE DATED SEPTEMBER 1921, RECORDED IN SAID REGISTRY IN PLAN BOOK 14, PAGE 70.

5. SUBJECT TO:

A. AN EASEMENT GRANTED BY HENRY N. AND BLANCHE B. MORING TO C. H. HANSON & CO., INC. AS DESCRIBED IN AN EASEMENT DEED DATED NOVEMBER 23, 1969 AND RECORDED IN SAID REGISTRY IN BOOK 2847, PAGE 304. SAID EASEMENT BEING A 30 FOOT WIDE STRIP OF LAND AS SHOWN HEREON CROSSING THE NORTHEASTERN 1/2 OF THE PARCEL. THE PURPOSE OF SAID EASEMENT IS FOR THE CONSTRUCTION OF SURFACE WATER DRAINS OR SEWERS, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIP AT ANY AND ALL TIMES IN ORDER TO CONSTRUCT, MAINTAIN, REPAIR, REBUILD, OR RECONSTRUCT THE SAME.

B. A STORM SEWER EASEMENT 30 FEET IN WIDTH AS SHOWN HEREON CROSSING THE SOUTHERLY END OF THE PARCEL, SAID 30 FOOT WIDE STORM SEWER EASEMENT SHOWN ON THE PLAN REFERENCED IN NOTE 4C. NO RECORD EASEMENT DEED FOR THIS EASEMENT WAS FOUND IN SAID REGISTRY.

6. THIS PLAN AND SURVEY WERE PERFORMED IN CONFORMANCE WITH THE MAINE STATE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS, STANDARDS OF PRACTICE, CATEGORY 1, CONDITION 2 WITH EXCEPTIONS:

A. SURVEYOR'S REPORT BEING LIMITED TO THE NOTES AS SHOWN HEREON.

B. NO DETAILS DRAWN ON MONUMENTATION NOT HELD.

C. NO NEW DEED DESCRIPTION OR MONUMENTATION HAVING BEEN SET TO DATE.

7. BEARINGS SHOWN HEREON ARE MAGNETIC NORTH OF 1986, REFERENCED TO PLAN 4E.

8. ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1988 ESTABLISHED BY USING ASHTEC Z-17-GPS DUAL FREQUENCY RECEIVERS.

9. THIS PLAN MAY BE SUBJECT TO REVISION UPON RECEIPT OF A TITLE OPINION.

10. THE PROPERTY IS LOCATED IN THE R-3 AND R-3 ZONES.

11. SPACE AND BULK REQUIREMENTS:

R-3 ZONE:

MINIMUM LOT SIZE	6,500 SF.
MINIMUM STREET FRONTAGE	50-FT.
MINIMUM FRONT YARD	20-FT.
MINIMUM REAR YARD	20-FT.
MINIMUM SIDE YARD (1 STORY)	0-FT.
(1 1/2 STORY)	8-FT.
(2 STORY)	14-FT.
(3 1/4 STORY)	16-FT.
MAXIMUM LOT COVERAGE	25%
MINIMUM LOT WIDTH	15-FT.
MAXIMUM STRUCTURE HEIGHT	35-FT.
MINIMUM LOT AREA PER DWELLING UNIT	6,500 SF. NET LAND AREA

R-5 ZONE:

MINIMUM LOT SIZE	6,000 SF.
MINIMUM STREET FRONTAGE	50-FT.
MINIMUM FRONT YARD	20-FT.
MINIMUM REAR YARD	20-FT.
MINIMUM SIDE YARD (1 STORY)	0-FT.
(1 1/2 STORY)	8-FT.
(2 STORY)	12-FT.
(3 1/4 STORY)	14-FT.
MINIMUM DISTANCE BETWEEN BUILDINGS	16-FT.
MAXIMUM LOT COVERAGE	40%
MINIMUM LOT WIDTH (MULTI-FAMILY)	50-FT.
(OTHER USES)	60-FT.
MAXIMUM STRUCTURE HEIGHT	35-FT.
MAXIMUM LENGTH OF STRUCTURE	140-FT. W/ INTERNAL GARAGES

12. NET RESIDENTIAL CALCULATIONS:

TOTAL LOT AREA	76,075 Ac.
- STORMWATER DETENTION AREA	0 Ac.
- OUTSIDE OF WETLANDS	0 Ac.
- EXISTING WATERCOURSES	0 Ac.
- INACCESSIBLE AREAS	0 Ac.
- WETLANDS	13.0 Ac.
- AREAS ENCLOSED BY EXISTING EASEMENTS OUTSIDE WETLANDS	0.19 Ac.
- SLOPES OF 25% OR GREATER	0 Ac.
SUBTOTAL	6,205 Ac.
- 20% OF SUBTOTAL	1,241 Ac.
NET RESIDENTIAL LAND AREA	4,964 Ac. (446,254 SF.)
MAXIMUM NO. OF UNITS ALLOWED AT 60,000 SF.	68 UNITS
NUMBER OF UNITS PROPOSED	62 UNITS

13. OPEN SPACE REQUIREMENTS:

300 SF/AC = 16,000 SF. OF WHICH A MINIMUM OF 6,000 SF. (30% OF 20,000) MUST BE A MULTI-PURPOSE MOWED FIELD.

14. OPEN SPACE PROVIDED:

PUBLIC OPEN SPACE = 6,424 SF.

RECREATION FIELD = 17,600 SF.

TOTAL = 24,024 SF.

15. DELAWARE COURT WILL BE BUILT TO CITY OF PORTLAND STANDARDS FOR MATERIALS AND CROSS-SECTIONAL DEPTHS. IT SHALL BE THE RESPONSIBILITY OF THE WASHINGTON CROSSING OWNERS ASSOCIATION FOR MAINTENANCE, REPAIR OF THE ROADWAY AND SIDEWALK, AND SNOW REMOVAL.

16. THE ENTIRE SITE SHALL BE DEVELOPED AND/OR MAINTAINED AS DESCRIBED ON THE SITE PLANNING PLAN. APPROVAL OF THE PLANNING AUTHORITY OR PLANNING BOARD SHALL BE REQUIRED FOR ANY ALTERATIONS TO OR DEVIATIONS FROM THE APPROVED SITE PLAN, INCLUDING WITHOUT LIMITATION, TOPOGRAPHY, DRAINAGE, LANDSCAPING, RETENTION OF WOODED OR LAWN AREAS, ACCESS, SIZE, LOCATION AND SURFACES OF PARKING AREAS, AND LOCATION AND SIZE OF BUILDINGS.

17. AS PART OF THIS APPLICATION, A SEPARATE LANDSCAPING PLAN HAS BEEN SUBMITTED FOR REVIEW IN LIEU OF THE REQUIREMENT OF TWO TREES MINIMUM PER LOT/UNIT. ALL LANDSCAPING SHALL MEET THE CITY'S ARBORESCULPTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE AND LANDSCAPE DESIGN GUIDELINES. THE DEVELOPER MAY CONTRACT FOR THE PLACEMENT OF LANDSCAPING, BUT SHALL REMAIN LIABLE TO THE CITY OF PORTLAND FOR FINANCIAL OBLIGATION FOR CONFORMANCE WITH CITY ORDINANCES AND APPROVALS. SUCH FINANCIAL OBLIGATION SHALL BE NEITHER TRANSFERABLE NOR WAIVERABLE BY THE DEVELOPER.

18. THE ACTIVE RECREATION AREA SHALL BE FOR THE USE OF ALL THE HOMEOWNERS ASSOCIATIONS BOUND BY AGREEMENT, OR DOCUMENTS, TO WASHINGTON CROSSING CONDOMINIUMS.

19. ALL ELECTRIC TELEPHONE AND CABLE T.V. SERVICES SHALL BE UNDERGROUND AND IN CONFORMANCE WITH CENTRAL MAINE POWER CO., BELL ATLANTIC TELEPHONE CO. AND THE WARNER CABLE T.V. CO. STANDARDS.

20. ALL WATER MAINS, SERVICES AND ASSOCIATED APPURTENANCES SHALL BE IN CONFORMANCE WITH PORTLAND WATER DISTRICT STANDARDS.

21. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION BEST MANAGEMENT PRACTICES" PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991 OR LATEST EDITION. IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.

22. PRIOR TO ANY BLASTING, THE APPLICANT AND/OR CONTRACTOR SHALL ACQUIRE ALL NECESSARY BLASTING PERMITS FROM THE CITY OF PORTLAND FIRE DEPARTMENT AND CODE ENFORCEMENT DEPARTMENT.

23. PARKING SHALL BE RESTRICTED TO THE WEST SIDE OF DELAWARE COURT, AND NO PARKING SHALL BE PERMITTED ON THE OUL-DE-SAC. SIGNAGE SHALL BE PROVIDED AND INSTALLED AT THE DEVELOPER'S EXPENSE.

STATE OF MAINE

RECEIVED _____ COUNTY SS REGISTRY OF DEEDS

AT _____ h _____ m _____ A. AND RECORDED IN

PLAN BOOK _____ PAGE _____ REGISTER

ATTEST _____

APPROVAL -

CITY OF PORTLAND

PLANNING BOARD

_____ DATE _____

_____ CHAIRPERSON

EASEMENT LINE DATA

LINE	DIRECTION	DISTANCE
L1	N87°20'21"W	30.26'
L2	S82°04'28"W	103.23'
L3	S85°45'28"W	283.51'
L4	S88°28'18"W	190.91'
L5	S33°53'45"E	50.00'
L6	S85°28'18"W	44.26'
L7	S33°49'28"W	284.57'
L8	S05°04'28"W	191.01'
L9	S33°53'45"E	148.724'
L10	N82°01'41"W	110.64'
L11	S55°53'31"W	45.60'
L12	N87°51'41"W	191.73'
L13	S33°53'45"E	148.491'
L14	S85°53'31"W	89.11'
L15	S33°53'45"E	30.00'
L16	S85°53'31"W	302.61'
L17	S84°22'40"W	16.416'
L18	N06°36'11"W	32.13'
L19	S84°22'40"W	16.024'
L20	S85°53'31"W	180.23'

L	SMF	8-16-99	BOARDWALK REVISION, ADD PHASE 1 PAVED TURNAROUND
K	DRL	8-13-99	ADD RECORDING BLOCK
J	SMF	7-23-99	REVISE PER CONDITIONS OF APPROVAL
I	SMF	7-16-99	ADD DRAINAGE EASEMENT METES AND BOUNDS
H	SMF	6-22-99	ADD CROSS COUNTRY STORM DRAIN SYSTEM
G	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
F	SMF	2-25-99	REVISE SITE PLAN SUBMISSION TO CITY
E	SMF	2-5-98	SITE PLAN SUBMISSION TO CITY
D	JRP	1-28-99	LAYOUT REVISIONS
C	JRP	9-25-98	RESUBMITTED FOR PLANNING BOARD REVIEW
B	JRP	4-21-98	LAYOUT REVISIONS
A	JRP	3-27-98	PLANNING STAFF REVIEW

REV: BY: _____ DATE: _____ STATUS: _____

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MASTER PLAN

OF:

WASHINGTON CROSSING CONDOMINIUMS

ALLEN AVENUE
PORTLAND, MAINE

FOR: RECORD OWNER

ALC DEVELOPMENT CORP.

255 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

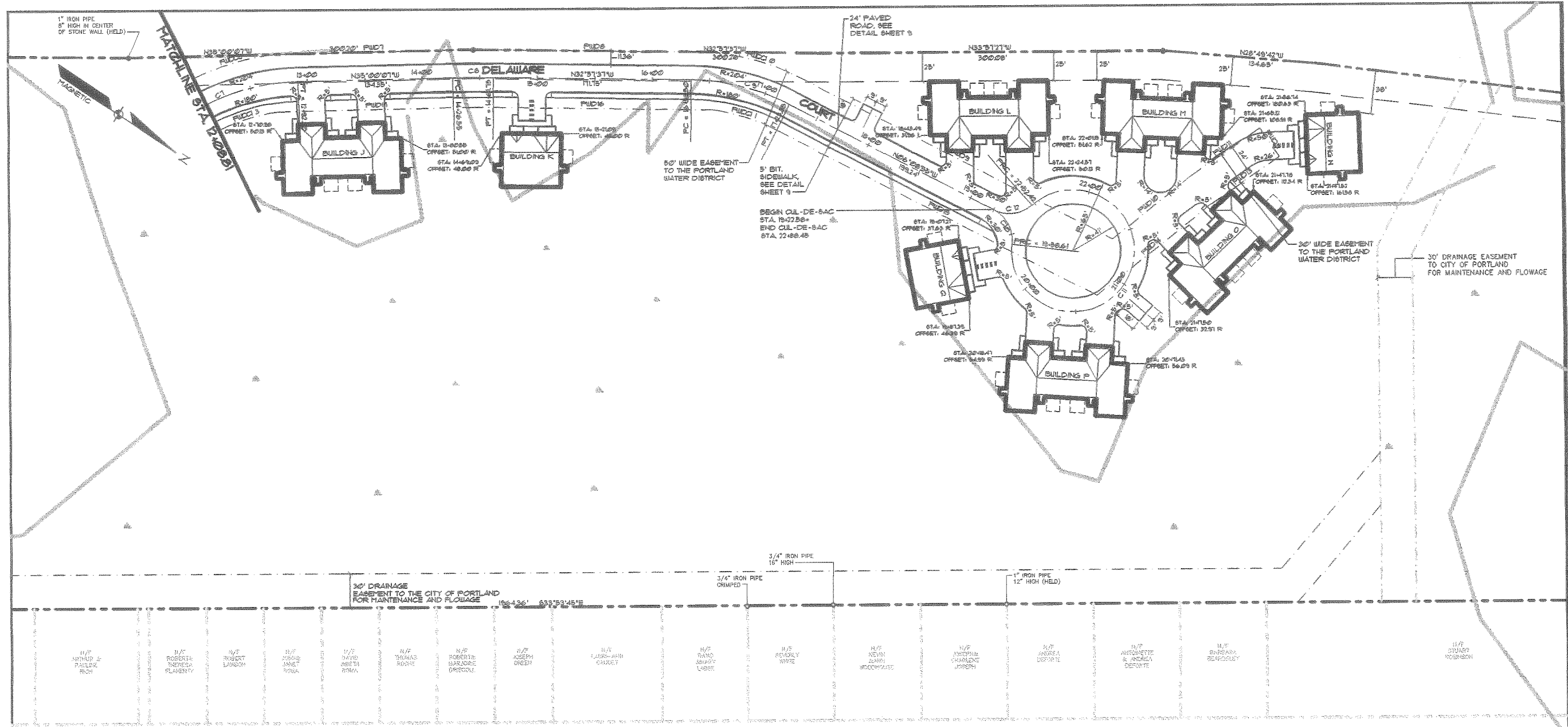
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DRAWN BY: TFH
CHECKED BY: SMF
DATE: 10-10-97
SCALE: 1"=100'
FIELD BK: 599
PROJ. NO: 97380
DRAWING: 97380MP

Sebago Technics

Engineering & Planning for the Future

12 WESTBROOK COMMON
WESTBROOK, NE 04098-1330
TEL. (207) 858-0277

SHEET 2 OF 11



PENNELL AVE.

CENTERLINE CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
C1	111.71	182.00	53°21'49"
C8	38.21	88.00	02°02'30"
C9	89.88	182.00	28°48'42"
C10	36.03	30.00	68°48'40"
C11	293.81	53.00	311°3'18"
C2	36.00	30.00	68°48'40"

PUD EASEMENT DATA

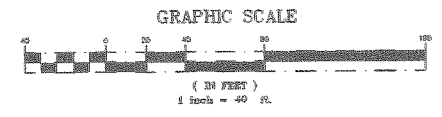
LINE	DIRECTION	DISTANCE
PUD1	N85°00'27\"/>	

PUD EASEMENT CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
PUDC3	13.40	211.00	15°22'52"
PUDC10	80.10	211.00	31°18'32"
PUDC11	55.86	161.00	20°32'18"
PUDC13	84.24	161.00	18°36'37"

PROPERTY LINE DATA

LINE	DIRECTION	DISTANCE
L1	N87°34'29\"/>	



D	SMF	7-23-99	REVISE PER CONDITIONS OF APPROVAL
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY

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SITE PLAN: DELAWARE COURT
(STA. 12+08.01 TO STA. 22+08.48)

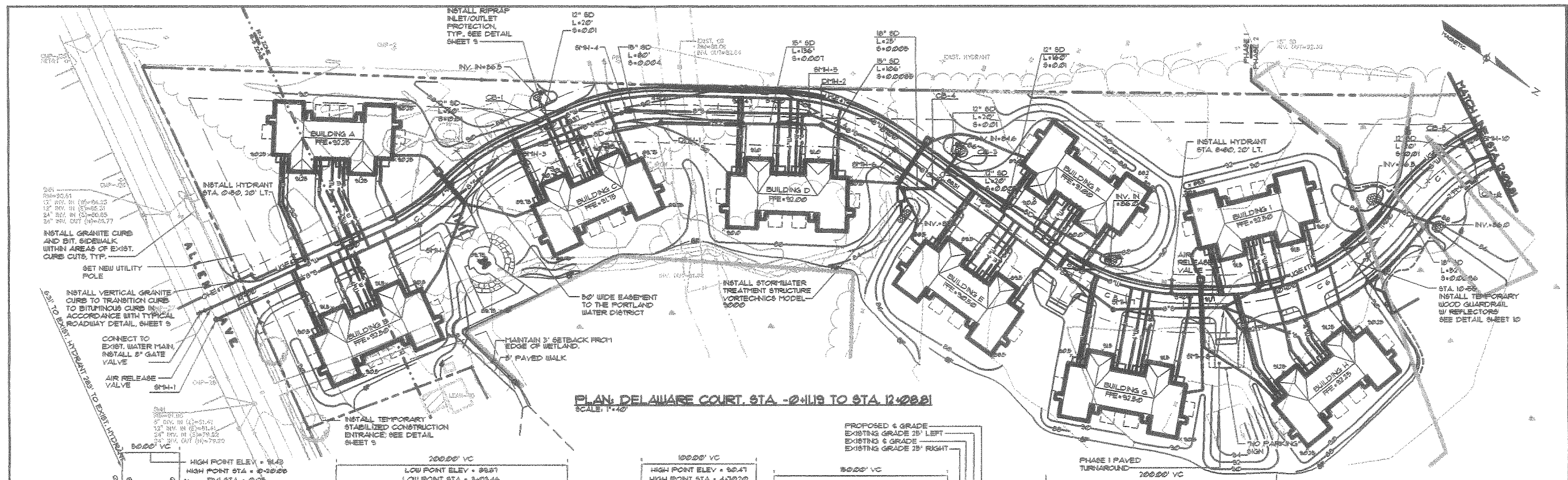
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE

FOR:
A.L.C. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

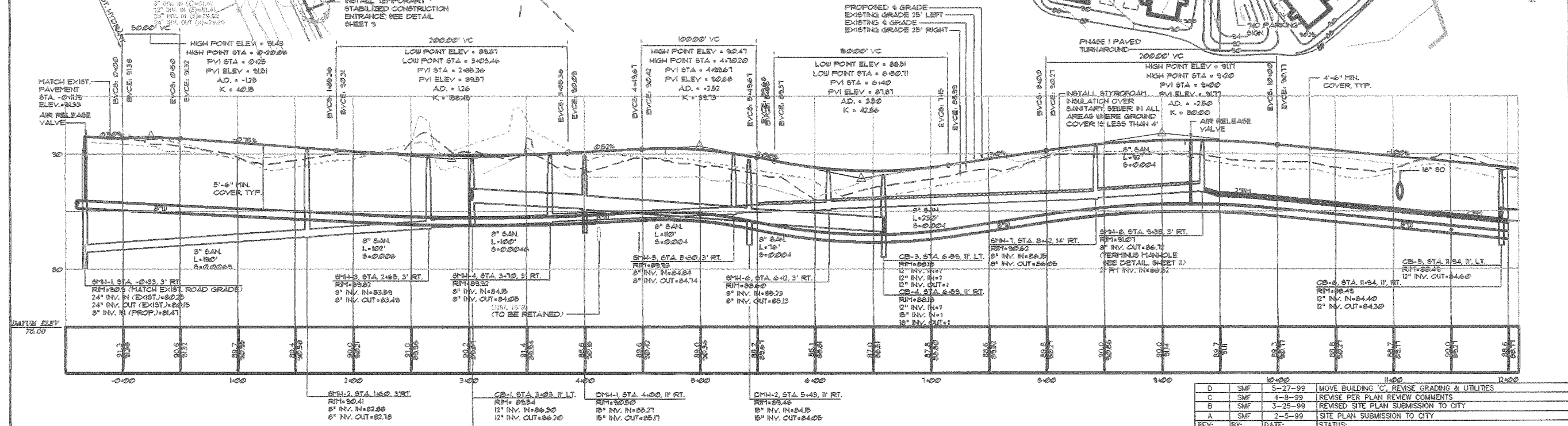
DESIGN BY: JLW/SMF
DRAWN BY: TTH
CHECKED BY: SMF
DATE: 11-4-98
SCALE: AS SHOWN
FIELD BK: 599
PROJ. NO: 97380
DRAWING: 97380S2

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04098-1339
TEL. (207) 858-0277

SHEET 4 OF 11



PLAN: DELAWARE COURT, STA. -0+11.9 TO STA. 12+08.81
SCALE: 1"=40'



PROFILE: DELAWARE COURT, STA. -0+11.9 TO STA. 12+08.81
SCALE: 1"=40' HORIZ. 1"=4' VERT.

PROPERTY LINE CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
C 1	68.34	183.20	21°00'42"
C 2	68.34	183.20	21°00'42"
C 3	84.32	183.20	25°52'28"
C 4	14.16	183.20	34°47'33"
C 5	18.56	183.20	35°42'38"
C 6	183.66	183.20	54°48'34"
C 7	171.71	183.20	53°01'48"

GENERAL NOTES:

- CATCH BASINS LOCATED ON THE SAME SIDE OF THE ROADWAY AS THE WATERMAIN SHALL BE INSTALLED WITH ECCENTRIC CONES. THE OFFSETS DEPICTED ON THESE PLANS ARE TO THE CENTER OF THE GRATE. THE STRUCTURE SHALL BE SET SUCH THAT THE MAJORITY OF THE STRUCTURE IS BEHIND THE CURB.
- THE 4" WATER SERVICE TO EACH BUILDING IS A COMMON FIRE SUPPRESSION SERVICE FOR THE SPRINKLER SYSTEM.
- THE INDIVIDUAL WATER SERVICES TO EACH UNIT SHALL BE 1/2" COPPER TUBING.
- THE COMMON SEWER SERVICES SHALL BE 6" PVC SDR 35 PIPE.
- ALL SUBSURFACE STORM DRAIN SHALL BE HDPE OR APPROVED EQUAL.

NO.	DATE	DESCRIPTION
H	8-31-99	REVISE UG&T LAYOUT PER CMP REVISIONS
G	8-16-99	BOARDWALK REVISION, ADD SILT FENCE, PH. I PAVED TURNAROUND
F	8-5-99	ADD WATER SERVICE TO ALL BUILDINGS
E	7-21-99	REVISE PER CONDITIONS OF APPROVAL

NO.	DATE	DESCRIPTION
D	5-27-99	MOVE BUILDING 'C', REVISE GRADING & UTILITIES
C	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	3-25-99	REVISED SITE PLAN SUBMISSION TO CITY
A	2-5-99	SITE PLAN SUBMISSION TO CITY

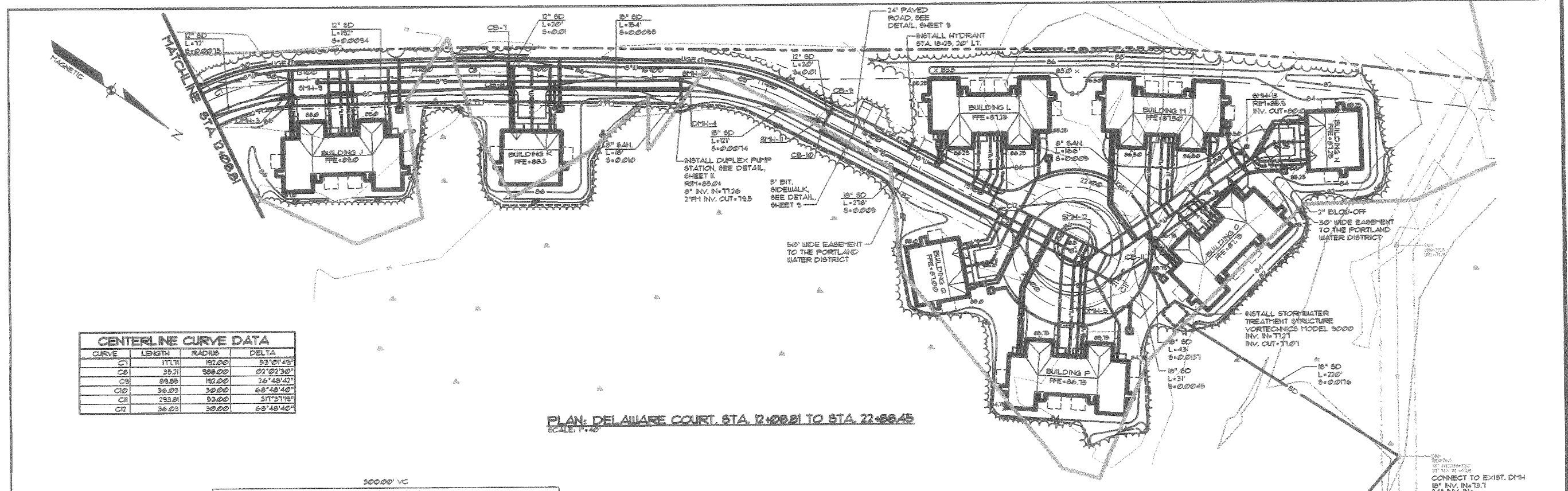
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PLAN & PROFILE: DELAWARE COURT
(STA. -0+11.9 TO STA. 12+08.81)
OF:
WASHINGTON CROSSING CONDOMINIUMS
PORTLAND, MAINE

FOR:
ALC DEVELOPMENT CORP.
256 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

DESIGN BY: J.W./SMF
DRAWN BY: TPH
CHECKED BY: SMF
DATE: 11-4-98
SCALE: 1"=40'
FIELD BK: 599
PROJ. NO: 97380
DRAWING: 97380P1
SHEET 5 OF 11

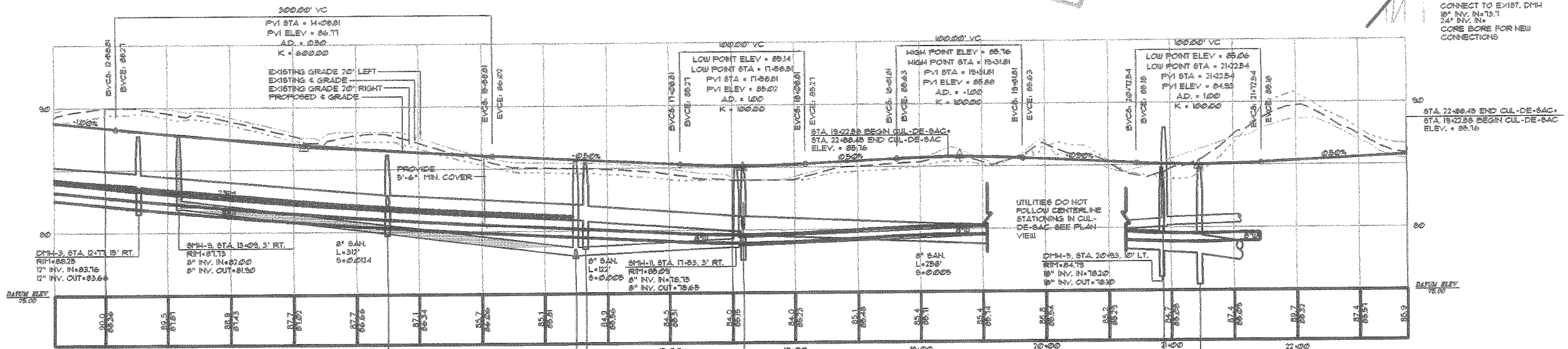
Sebago Technics
Engineering & Planning for the Future
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WESTBROOK, ME 04098-1339
TEL: (207) 856-0277



CENTERLINE CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
C1	171.11	192.00	53°01'49"
CB	39.21	300.00	03°02'30"
C3	89.85	192.00	26°48'42"
C10	36.03	30.00	68°48'40"
C11	293.81	93.00	317°31'18"
C12	36.03	30.00	68°48'40"

PLAN: DELAWARE COURT, STA. 12+08.81 TO STA. 22+88.45
SCALE: 1"=40'



PROFILE: DELAWARE COURT, STA. 12+08.81 TO STA. 22+88.45
SCALE: 1"=40' HORIZ.
1"=4' VERT.

- GENERAL NOTES:**
- CATCH BASINS LOCATED ON THE SAME SIDE OF THE ROADWAY AS THE WATERMAIN SHALL BE INSTALLED WITH ECCENTRIC CONES. THE OFFSETS DEPICTED ON THESE PLANS ARE TO THE CENTER OF THE GRATE. THE STRUCTURE SHALL BE SET SUCH THAT THE MAJORITY OF THE STRUCTURE IS BEHIND THE CURB.
 - THE 4" WATER SERVICE TO EACH BUILDING IS A COMMON FIRE SUPPRESSION SERVICE FOR THE SPRINKLER SYSTEM.
 - THE INDIVIDUAL WATER SERVICES TO EACH UNIT SHALL BE 1/2" COPPER TUBING.
 - THE CUL-DE-SAC IS SUPERELEVATED TO THE OUTSIDE CURB LINE.
 - THE COMMON SEWER SERVICES SHALL BE 6" PVC SDR 35 PIPE.
 - ALL SUBSURFACE STORM DRAIN SHALL BE HDPE OR APPROVED EQUAL.

C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	2-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY

REV: BY: DATE: STATUS:

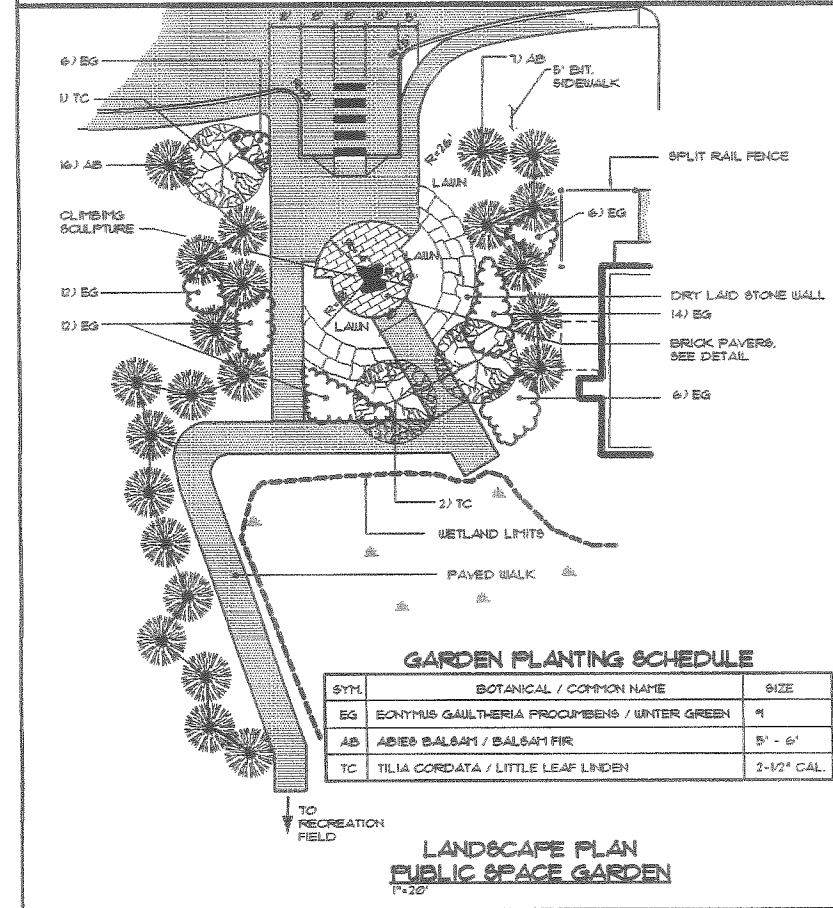
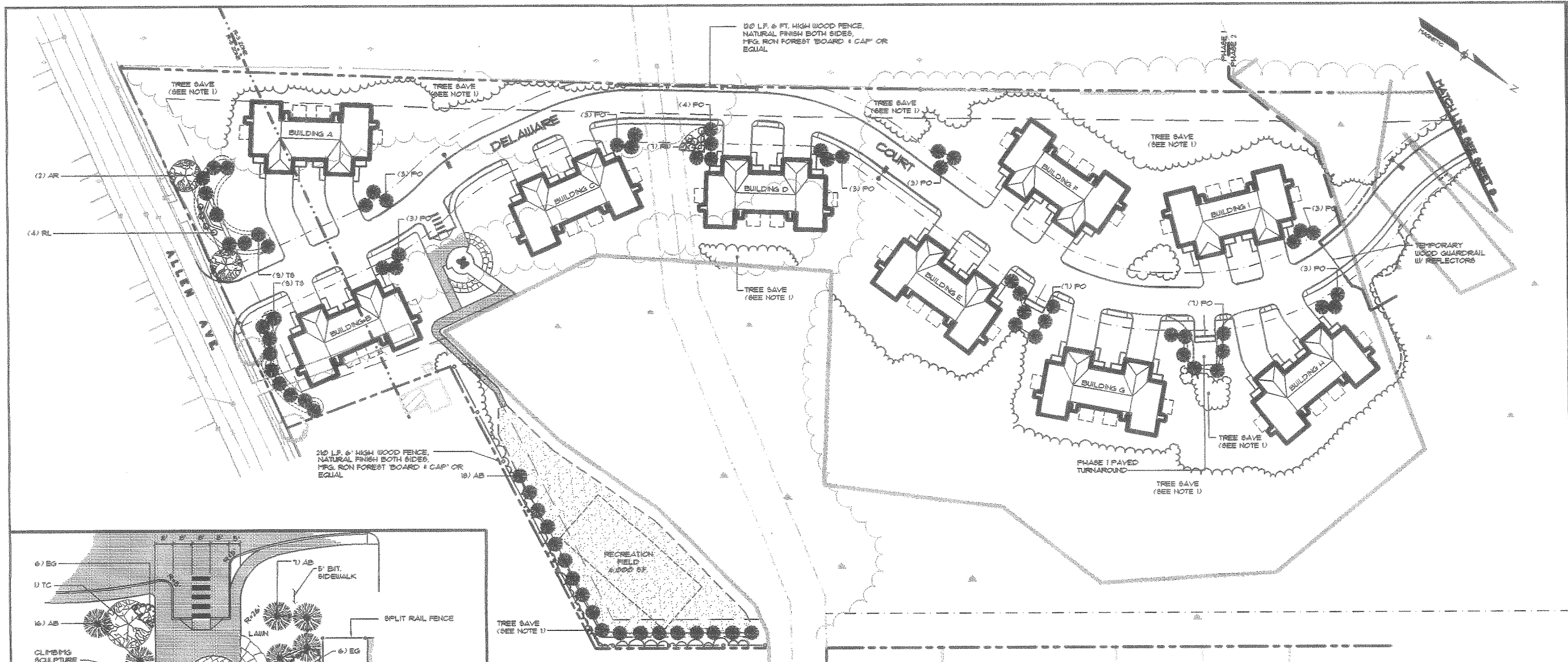
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PLAN & PROFILE: DELAWARE COURT
(STA. 12+08.81 TO STA. 22+88.45)
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE
FOR:
ALC DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

F	SMF	8-16-99	ADD SILT FENCE BEHIND BUILDINGS N, O, P
E	SMF	8-5-99	ADD WATER SERVICE TO ALL BUILDINGS
D	SMF	7-23-99	REVISE PER CONDITIONS OF APPROVAL

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WESTBROOK, ME 04098-1339
TEL (207) 896-0277

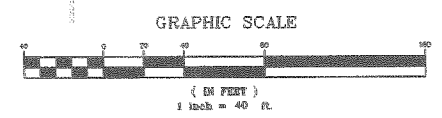
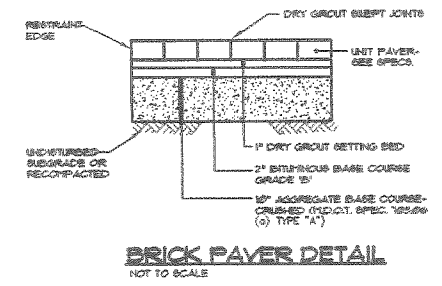
DESIGN BY: J.W./SMF
DRAWN BY: THF
CHECKED BY: SMF
DATE: 11-4-98
SCALE: AS SHOWN
FIELD BK: 599
PROJ. NO: 97380
DRAWING: 97380P2
SHEET 6 OF 11



STREETSCAPE PLANTING SCHEDULE

TREES			SHRUBS		
SYML	BOTANICAL / COMMON NAME	SIZE	SYML	BOTANICAL / COMMON NAME	SIZE
MC	MALUS KATHERINE / KATHERIN CRAB APPLE	1 1/2" - 2"	EA	EUONYMUS ALATUS / WINGED SPINDLETREE	2' - 2 1/2'
TC	TILIA CORDATA 'GREENSPIRE' / GREENSPIRE LINDEN	2 1/2" - 3"	RL	RHOODENDRON LAETEVIRENS / WILSON RHODODENDRON	10" - 12"
PA	FRAXINUS AMERICANA 'AUTUMN PURPLE' / AUTUMN PURPLE WHITE ASH	2 1/2" - 3"	RU	RHOODENDRON 'WINDBEAM' / WINDBEAM RHODODENDRON	"2
TO	TILIA OCCIDENTALIS 'PENDULA' / CEDAR	2' - 3'			
AB	ABIES BALSAMIA / BALSAM FIR	4' - 5'			
AR	ACER RUBRUM / RED MAPLE	2 1/2" - 3"			
PO	PICEA CHOROKA 'PENDULA' / SERBIAN SPRUCE	"2			
TS	TSUGA CANADENSIS 'SARGENTI' / WEeping HEMLOCK	2 1/2" - 2'			

- NOTES:**
- BEFORE CONSTRUCTION OF DEVELOPMENT BEGINS, THE APPLICANT WILL FLAG TREE SAVE AREAS AND NOTIFY THE CITY ARBORIST. AT THAT TIME, THE CITY ARBORIST WILL DETERMINE WHETHER THESE TREES MAY BE SAVED. PROTECTIVE BARRIERS SHALL BE ERECTED OUTSIDE THE DRIP-LINE OF THE INDIVIDUAL GROUPINGS OF TREES DESIGNATED FOR PRESERVATION PRIOR TO THE ONSET OF CONSTRUCTION.
 - SEE SHEET 8 FOR TYPICAL DUPLEX AND FOURPLEX PLANTINGS AND PLANTING SCHEDULE.
 - SEE SHEET 8 FOR PLANTING DETAILS.



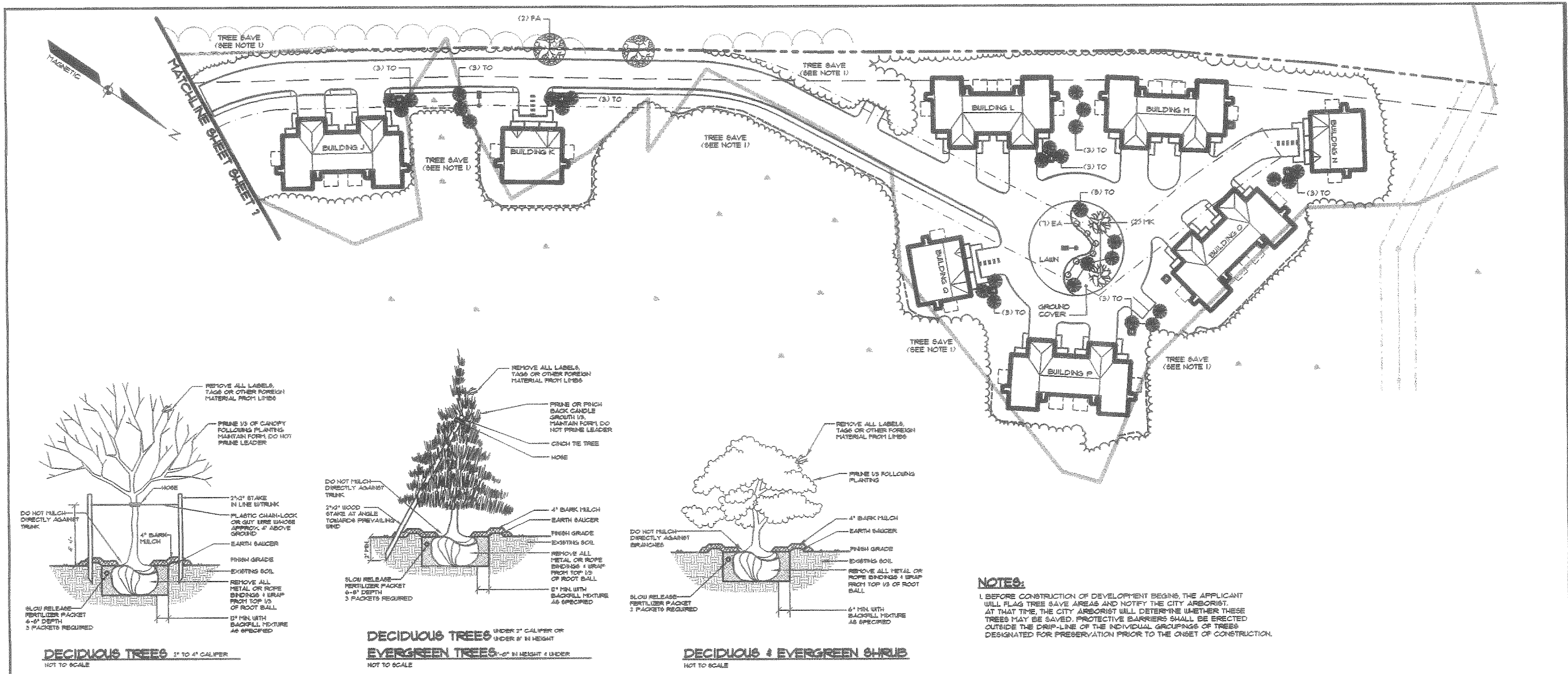
REV.	BY:	DATE:	STATUS:
F	SMF	8-16-99	BOARDWALK REVISION, ADD PHASE 1 PAVED TURNAROUND
E	SMF	7-23-99	REVISE PER CONDITIONS OF APPROVAL
D	SMF	5-27-99	MOVE BUILDING 'C', SHIFT ROAD
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	2-25-99	RESUBMIT SITE PLAN SUBMISSION TO CITY
A	SMF	2-3-99	SITE PLAN SUBMISSION TO CITY

LANDSCAPE & LIGHTING PLAN 1
 OF:
WASHINGTON CROSSING CONDOMINIUMS
 ALLEN AVENUE
 PORTLAND, MAINE

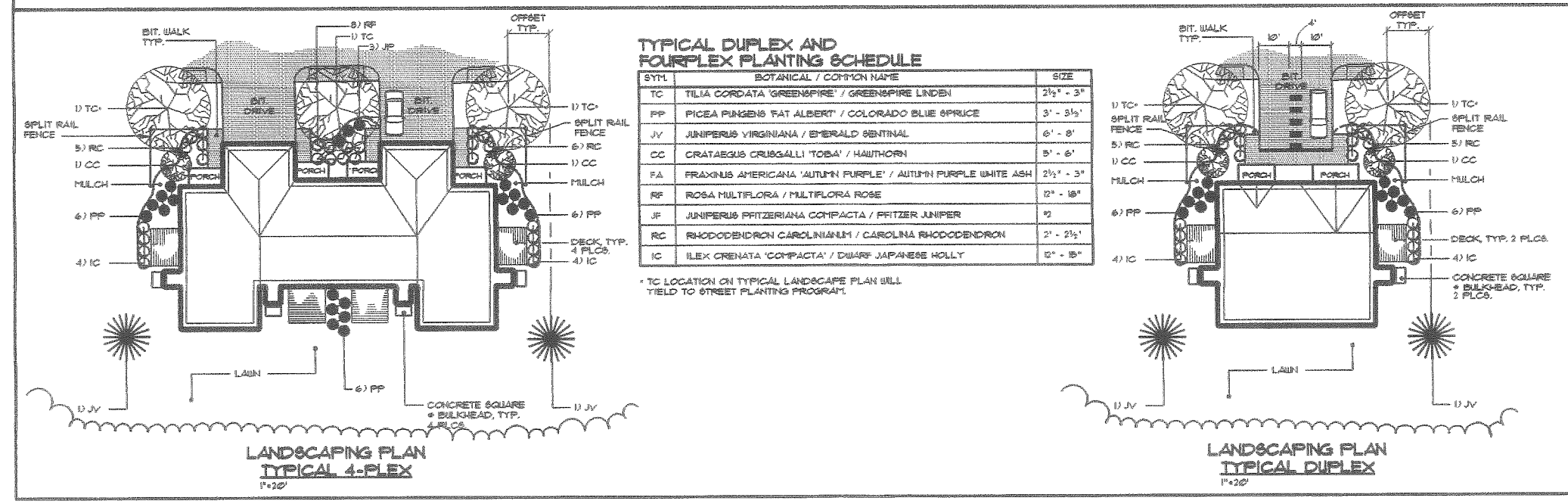
FOR:
ALC DEVELOPMENT CORP.
 258 BLACK POINT ROAD
 SCARBOROUGH, MAINE 04074

Sebago Technics
 Engineering & Planning for the Future
 12 WESTBROOK COMMON
 WESTBROOK, ME 04098-1139
 TEL (207) 856-0277

DESIGN BY: JRP
 DRAWN BY: TFH
 CHECKED BY: WTC
 DATE: 12-16-98
 SCALE: 1"=40'
 FIELD BK: 599
 PROJ. NO: 97380
 DRAWING: 97380L1
SHEET 7 OF 11



NOTES:
 1. BEFORE CONSTRUCTION OF DEVELOPMENT BEGINS, THE APPLICANT WILL FLAG TREE SAVE AREAS AND NOTIFY THE CITY ARBORIST. AT THAT TIME, THE CITY ARBORIST WILL DETERMINE WHETHER THESE TREES MAY BE SAVED. PROTECTIVE BARRIERS SHALL BE ERRECTED OUTSIDE THE DRIP-LINE OF THE INDIVIDUAL GROUPINGS OF TREES DESIGNATED FOR PRESERVATION PRIOR TO THE ONSET OF CONSTRUCTION.



GRAPHIC SCALE
 1 inch = 40 ft.

D	SMF	7-23-99	REVISE PER CONDITIONS OF APPROVAL
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY

REV: BY: DATE: STATUS:

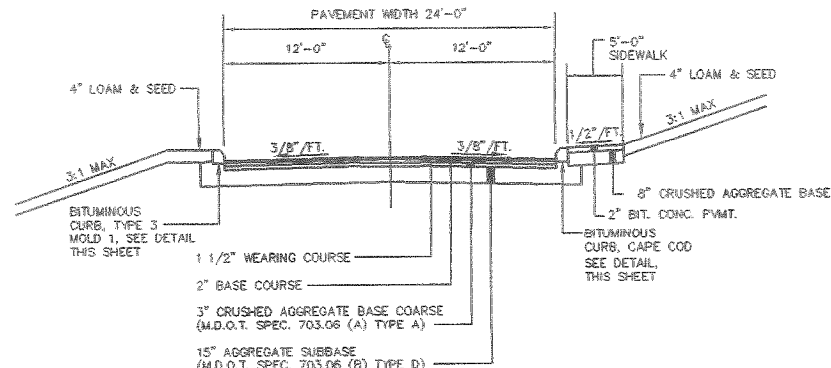
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LANDSCAPE & LIGHTING PLAN 2
 OF:
WASHINGTON CROSSING CONDOMINIUMS
 ALLEN AVENUE
 PORTLAND, MAINE

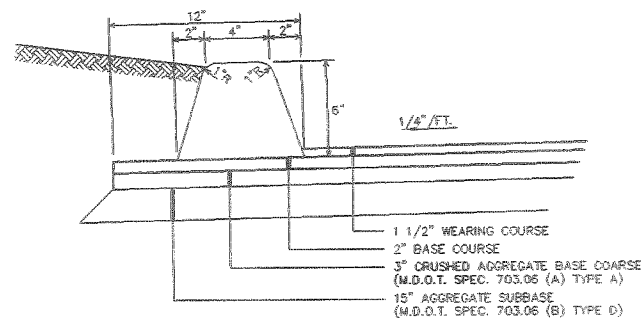
FOR:
ALC DEVELOPMENT CORP.
 258 BLACK POINT ROAD
 SCARBOROUGH, MAINE 04074

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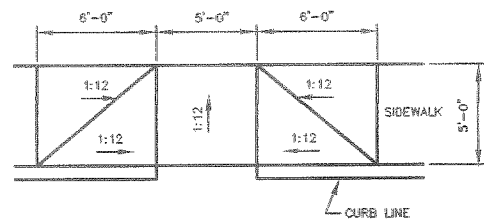
DESIGN BY: JRP
 DRAWN BY: TFH
 CHECKED BY: WTC
 DATE: 11-4-98
 SCALE: AS SHOWN
 FIELD BK: 599
 PROJ. NO: 97380
 DRAWING: 97380L2
SHEET 8 OF 11



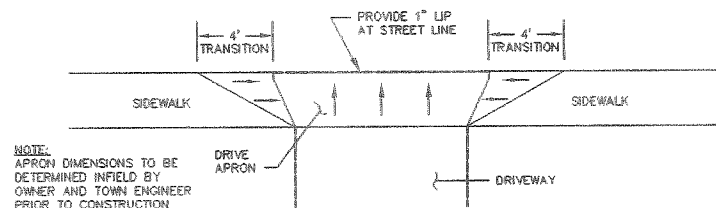
TYPICAL ROADWAY SECTION
NOT TO SCALE



BITUMINOUS CURB SECTION (TYPE 3, MOLD 1)
NOT TO SCALE

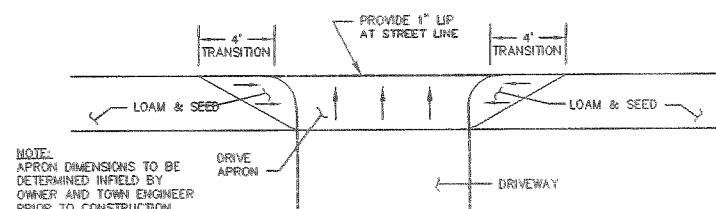


HANDICAP RAMP
NOT TO SCALE



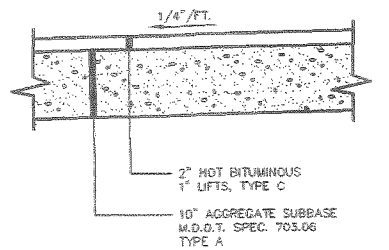
NOTE: APRON DIMENSIONS TO BE DETERMINED INFIELD BY OWNER AND TOWN ENGINEER PRIOR TO CONSTRUCTION

TYPICAL DRIVE APRON DETAIL WITH SIDEWALK
NOT TO SCALE

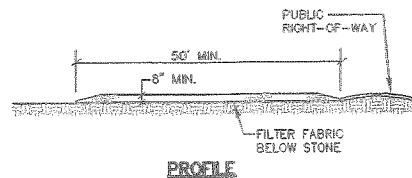


NOTE: APRON DIMENSIONS TO BE DETERMINED INFIELD BY OWNER AND TOWN ENGINEER PRIOR TO CONSTRUCTION

TYPICAL DRIVE APRON DETAIL WITHOUT SIDEWALK
NOT TO SCALE



BITUMINOUS SIDEWALK
NOT TO SCALE



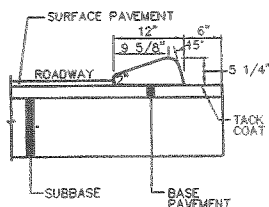
PROFILE



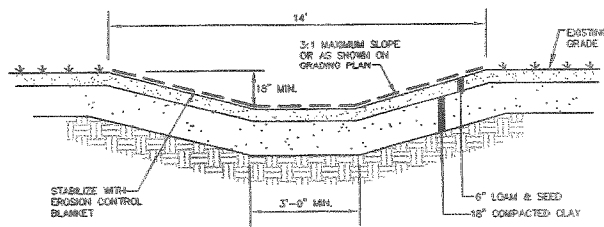
PLAN

- NOTES:
1. STONE SIZE- AASHTO DESIGNATION M43, SIZE NO. 2 (2 1/2" TO 1 1/2"). USE CRUSHED STONE.
 2. LENGTH- AS SHOWN ON PLANS, MIN. 50 FEET.
 3. THICKNESS- NOT LESS THAN EIGHT (8) INCHES.
 4. WIDTH- NOT LESS THAN FULL WIDTH OF ALL POINT OF INGRESS OR EGRESS.
 5. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

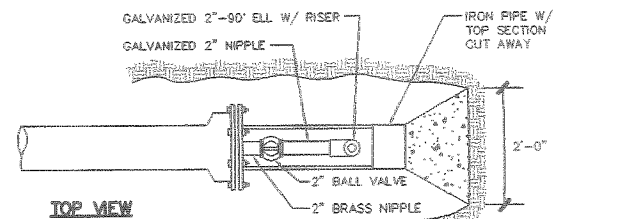
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



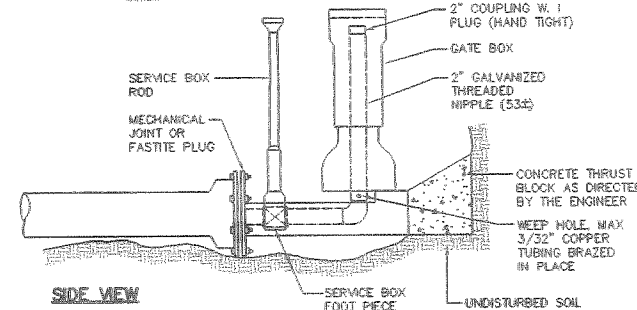
BITUMINOUS CAPE COD CURB
NOT TO SCALE



GRASSED SWALE
NOT TO SCALE

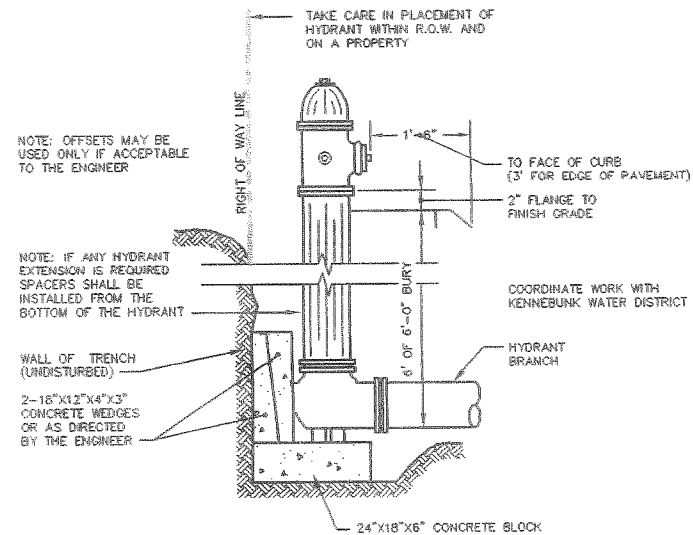


TOP VIEW

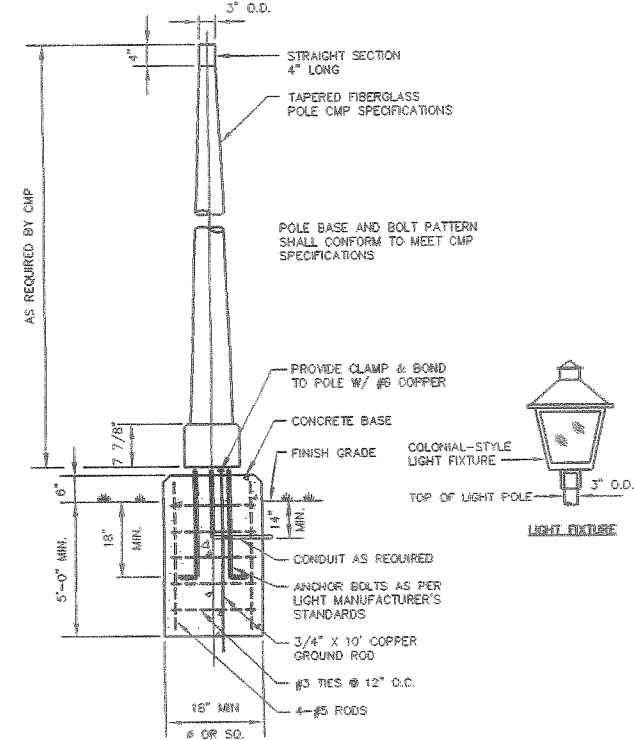


SIDE VIEW

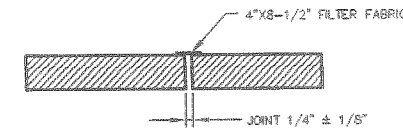
STANDARD 2" BLOW OFF
NOT TO SCALE



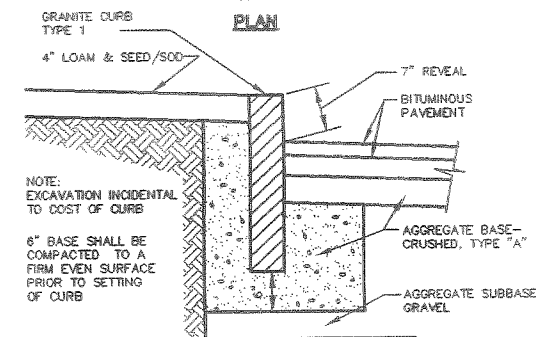
TYPICAL HYDRANT BLOCKING & REPLACEMENT
NOT TO SCALE



TYPICAL LIGHT POLE DETAIL
NOT TO SCALE



PLAN



SECTION

GRANITE CURB DETAIL
NOT TO SCALE

C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISED SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV. BY:	DATE:	STATUS:	

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DETAILS 1
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE
FOR:
ALC DEVELOPMENT CORP.
256 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

DESIGN BY:	JLW/SMF
DRAWN BY:	TFH
CHECKED BY:	SMF
DATE:	2-1-99
SCALE:	AS SHOWN
FIELD BK:	599
PROJ. NO.:	97380
DRAWING:	97380D1

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, NE 04096-1539
TEL. (207) 856-0277

Att. 3.11

EROSION & SEDIMENTATION CONTROL NOTES

A. Pre-Construction Phase

Prior to the beginning of any construction, hay bale barriers/Filter fabric fencing or erosion control berms shall be staked/installed across the slope(s), on the contour, at or just below the limits of clearing or grubbing, just above any adjacent property line or watercourse to protect against construction related erosion. The placement of all fences and hay bales shall be completed in accordance with guidelines established in Best Management Practices. This network is to be provided, installed and maintained by the contractor until all exposed slopes have at least 85%-90% vigorous perennial vegetative cover to prevent erosion.

The following erosion control measures shall be followed by the site contractor(s) throughout construction of this project.

B. Construction and Post-Construction Phase

1. Areas undergoing actual construction shall only expose that amount of mineral soil necessary for progressive and efficient site construction and shall not exceed 14 days. Areas that will not be completed (covered and/or finish graded) within fourteen (14) days of disturbances shall be anchored with temporary erosion control measures. Temporary erosion control shall include erosion control blanket, netting, or mulch on all slopes 15% or greater and as directed by the inspecting engineer and as shown on the design plans. If disturbed areas do not receive final seeding by September 15th of the year of construction, then all disturbed areas must be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 square feet and covered with erosion control mesh. All slopes greater than 8 percent and not vegetated by September 15th shall be covered with erosion control blanket. Mulch shall be applied at a rate so that the soil beneath it is not visible through the mulch. Mulch shall not be applied over snow cover. Snow must be removed prior to placing mulch.
2. At the start of construction, a stabilized construction entrance shall be installed. The construction entrance shall be maintained daily throughout construction to prevent material tracking onto public ways.
3. All topsoil shall be collected, stockpiled, seeded with Rye at 3 lbs./1,000 square feet, and mulched on site and re-used as required. Siltation fencing shall be placed down gradient from stockpiled loam. Loam shall be stockpiled at locations designated by the owner. Designated locations shall be determined prior to or at the pre-construction meeting.
4. All silt fences and/or hay bale barriers shall be installed according to this plan. These shall be maintained during development to remove sediment from runoff water. All the silt fences shall be inspected after any rainfall or runoff event, maintained and cleaned until all areas have at least 85%-90% vigorous perennial vegetative cover of grasses.
5. All areas shall be seeded in accordance with the following vegetation plan.
6. Hay bale barriers shall be placed around all catch basins until placement of road subbase gravel is completed.

C. Vegetation Plan

Revegetation measures shall commence immediately upon completion of construction. Disturbed areas shall be mulched and anchored prior to any storm event. If final seeding cannot be accomplished by September 15th, then all disturbed areas shall be hay mulched at a rate of 150 lbs. per 1,000 S. F. and seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 S.F. to provide winter protection. Hay mulch shall be secured with a suitable binder to include RMB plus and/or erosion control netting as directed by the owner/inspection engineer.

Revegetation measures shall consist of the following:

1. Four inches of loam will be spread over disturbed areas and smoothed, compacted and rolled to a uniform surface. Loam shall be free of subsoil, clay lumps, stones and other objects over 1" in diameter, and without weeds, roots or other objectionable material.
2. Agricultural limestone shall be spread at the rate of 3 tons per acre. 10-20-20 fertilizer shall be applied at a rate of 800 lbs./acre. These soil amendments shall be incorporated into the soil prior to final seeding.
3. Following seed bed preparation, swale areas, all areas and back slopes shall be seeded at a rate of 4 lbs./1,000 square feet to a mixture of 35% Creeping Red Fescue, 8% Red Top, 24% Kentucky Bluegrass, 10% Perennial Ryegrass, 20% Annual Ryegrass and 5% White Dutch Clover. The lawn areas will be seeded to a premium turf mixture of Bluegrass and/or Fescue; seeding rate of 3 lbs. per 1,000 square feet.
4. Hay mulch shall be applied to all disturbed areas at the rate of 150 lbs. per 1,000 square feet, or a hydro-application of asphalt, wood or paper fiber will be applied following seeding (50 lbs. of mulch material per 1,000 square feet for hydro applications). A suitable binder, such as RMB Plus and/or erosion control netting will be used on hay mulch for wind control.
5. All hay bales and/or filter fabric barriers will remain in place until seedings have become 85%-90% established and then removed within 10 days.

D. Erosion Control During Winter Construction

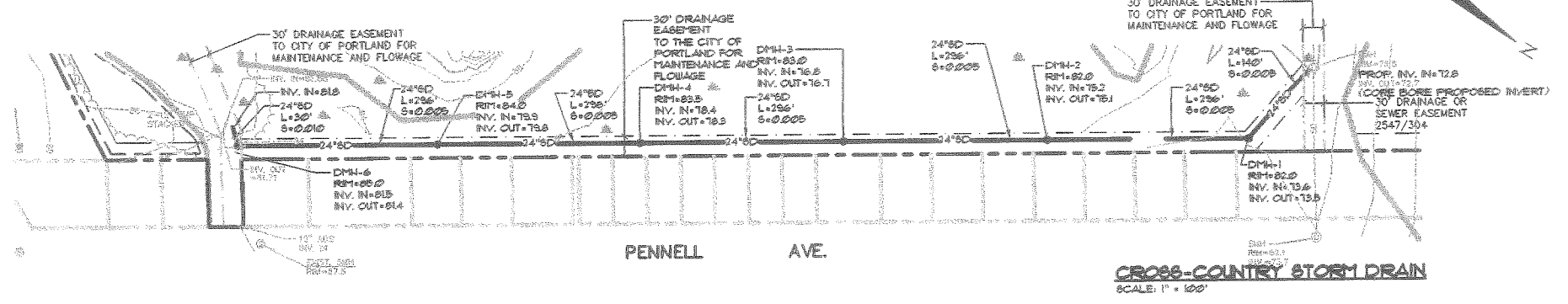
1. Winter Construction Period: November 1 Through April 15
2. Winter excavation and earthwork shall be completed such that no more than 1 acre of the site is without stabilization at any one time.

3. Exposed area shall be limited to allowing these areas to be mulched in one day prior to any snow event.
4. Continuation of earthwork operations on additional areas shall not begin until the exposed soil surface on the area being worked has been stabilized, such that no larger area of the site is without erosion control protection as listed in item 2 above.
5. An area shall be considered to have been stabilized when exposed surfaces have been either mulched with straw or hay at a rate of 150 lb. per 1,000 square feet (with or without seeding) or dormant seeded, mulched and adequately anchored surface is not visible through the mulch.
6. Between the dates of October 15 and April 1st, loam or seed will not be required. During periods of above freezing temperatures the slopes shall be fine graded and either protected with mulch or temporarily seeded and mulched until such time as the final treatment can be applied. If the date is after November 1st and if the exposed area has been loamed, final graded with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched. If construction continues during freezing weather, all exposed areas shall be continuously graded before freezing and the surface temporarily protected from erosion by the application of mulch. Slopes shall not be left unexposed over the winter or any other extended time of work suspension unless treated in the above manner. Until such time as weather conditions allow, ditches to be finished with the permanent surface treatment, erosion shall be controlled by the installation of bales of hay or stone check dams in accordance with the standard details show on the design drawings.
7. A.) Between the dates of November 1st and April 15th all mulch shall be anchored by either peg line, mulch netting, asphalt emulsion chemical, track or wood cellulose fiber.
B.) Mulch netting shall be used to anchor mulch in all drainage ways with a slope greater than 3% for slopes exposed to direct winds and for all other slopes greater than 8%.
C.) Mulch netting shall be used to anchor mulch in all drainage ways with a slopes greater than 15%. After October 1st the same applies for all slopes greater than 8%.
8. After November 1st the contractor shall apply dormant seeding for mulch and anchoring on all bare earth at the end of each working day.
9. During winter construction period all snow shall be removed from areas of seeding and mulching prior to placement.

E. Inspections/Monitoring

Maintenance measures shall be applied as needed during the entire construction cycle. After each rainfall, the site contractor shall perform a visual inspection of all installed erosion control measures and perform repairs as needed to insure their continuing function.

Following the temporary and/or final seedings, the contractor shall inspect the site semi-monthly until the seedings have been established. Established means a minimum of 85%-90% of areas vegetated with vigorous growth. Re-seeding shall be carried out by the contractor with follow-up inspections in the event of any failures until vegetation is adequately established.



REV.	BY:	DATE:	STATUS:
G	SMF	8-16-99	ADD CROSS COUNTRY STORM DRAIN SYSTEM DETAIL
F	SMF	7-23-99	REVISE PER CONDITIONS OF APPROVAL
E	SMF	5-27-99	MOVE BUILDING 'C' SHIFT ROAD
D	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
C	SMF	3-31-99	REVISE SPILLWAY, OUTLET CONTROL DETAILS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-3-99	SITE PLAN SUBMISSION TO CITY

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DETAILS 3
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE
FOR:
ALC DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

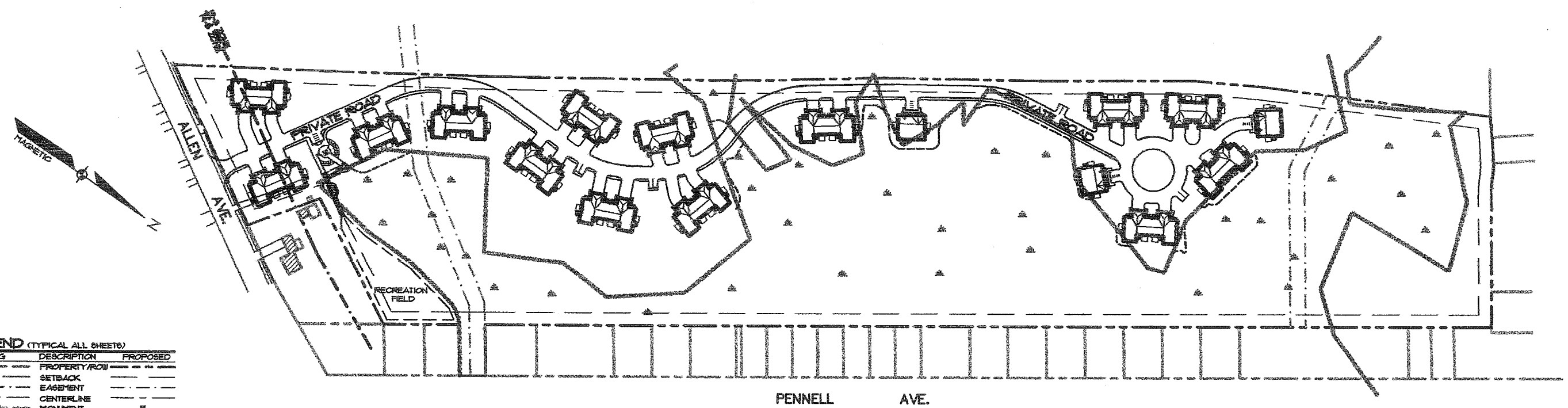
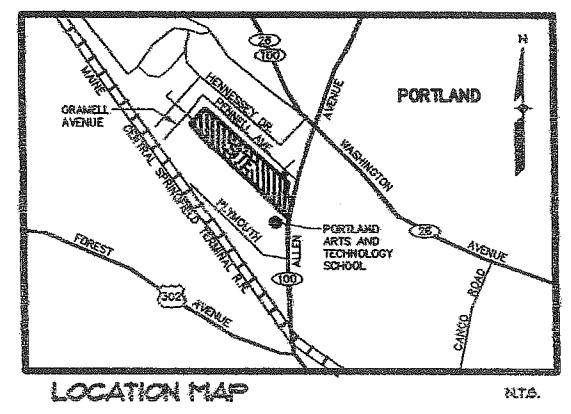


DESIGN BY:	SMF
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	2-1-99
SCALE:	AS SHOWN
FIELD BK:	598
FIELD NO.:	97380
DRAWING:	8738003
SHEET 11 OF 11	

WASHINGTON CROSSING CONDOMINIUMS

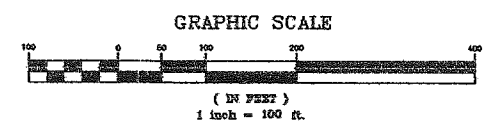
A 62 UNIT PLANNED RESIDENTIAL UNIT DEVELOPMENT

ALLEN AVENUE
PORTLAND, MAINE



LEGEND (TYPICAL ALL SHEETS)

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	CENTERLINE	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	CURVE/LINE NO.	---
---	BUILDINGS	---
---	WETLANDS	---
---	EDGE WETLAND SIGN	---
---	STREAM	---
---	ROCK OUTCROP	---
---	EDGE PAVEMENT	---
---	GRAVEL ROAD	---
---	CURVE/LINE	---
---	TREELINE	---
---	CONTOURS	---
---	GAS	---
---	WATER	---
---	SEWER	---
---	STORM DRAIN	---
---	FORCE MAIN	---
---	OVERHEAD ELEC. & TEL.	---
---	UNDERGROUND ELEC. & TEL.	---
---	GATE VALVE	---
---	LIGHT POLE	---
---	UTILITY POLE	---
---	HYDRANT	---
---	CATCH BASIN	---
---	MANHOLE	---
---	CULVERT	---
---	SPOT GRADE	---
---	CHAIN LINK FENCE	---
---	BARB WIRE FENCE	---
---	STOCKADE FENCE	---
---	STONE WALL	---
---	DECIDUOUS TREE	---
---	CONIFEROUS TREE	---
---	SILT FENCE	---
---	MATCH LINE	---



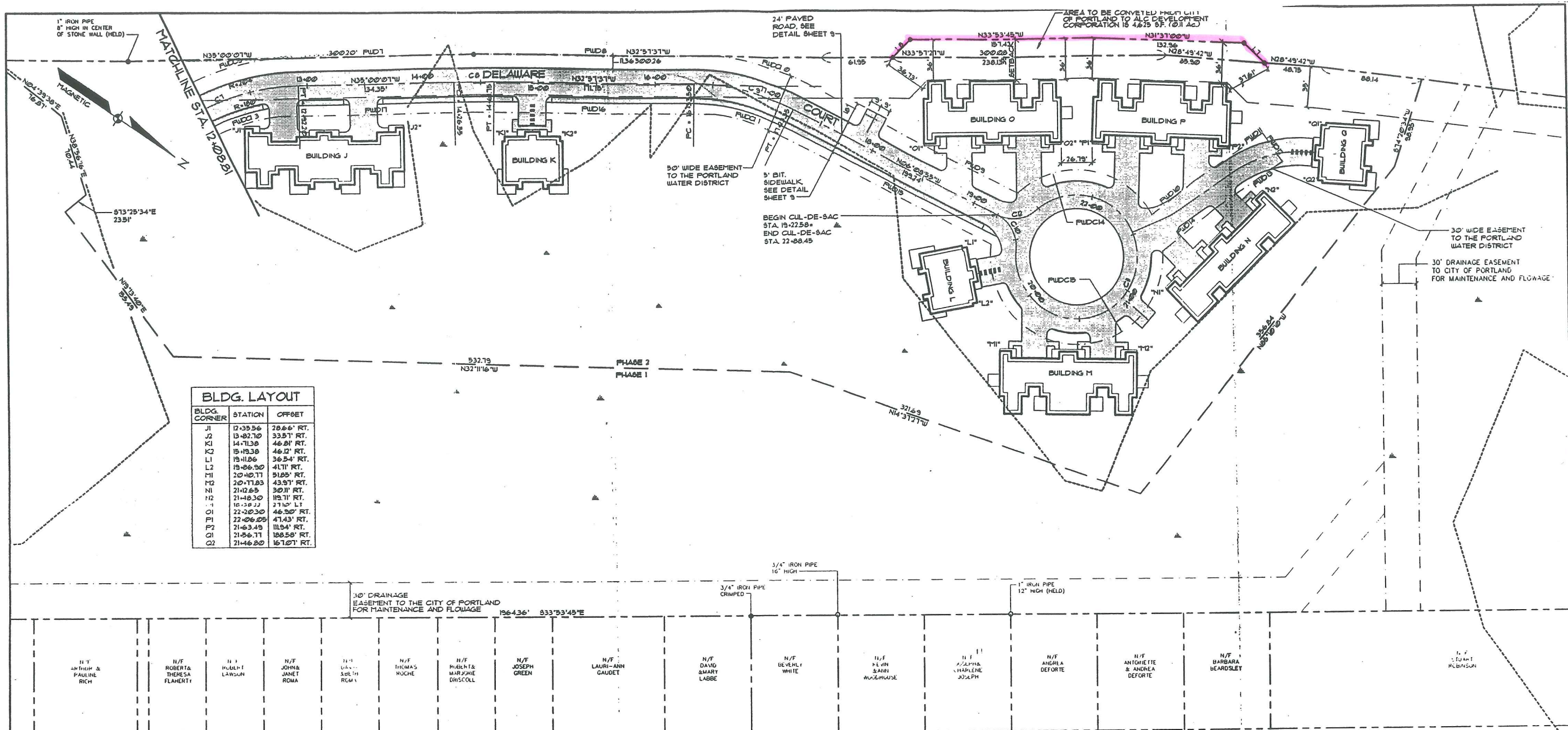
SHEET INDEX

- 1 COVER SHEET
- 2 MASTER PLAN
- 3 SITE PLAN 1
- 4 SITE PLAN 2
- 5 PLAN & PROFILE 1
- 6 PLAN & PROFILE 2
- 7 LANDSCAPE & LIGHTING PLAN 1
- 8 LANDSCAPE & LIGHTING PLAN 2
- 9 DETAILS 1
- 10 DETAILS 2
- 11 DETAILS 3

OWNER/APPLICANT: A.L.C. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

ENGINEER/SURVEYOR: SEBAGO TECHNICS, INC.





BLDG. LAYOUT		
BLDG. CORNER	STATION	OFFSET
J1	17-35.56	28.66' RT.
J2	13-82.70	33.51' RT.
K1	14-71.30	46.01' RT.
K2	15-19.30	46.12' RT.
L1	19-11.06	36.54' RT.
L2	19-86.90	41.11' RT.
M1	20-40.71	51.05' RT.
M2	20-17.03	43.91' RT.
N1	21-12.65	30.11' RT.
N2	21-48.30	19.11' RT.
O1	16-30.22	27.10' LT.
O2	22-20.30	46.30' RT.
P1	22-06.00	47.43' RT.
P2	21-63.49	11.94' RT.
Q1	21-56.71	108.58' RT.
Q2	21-46.80	167.01' RT.

OWNER	OWNER	OWNER	OWNER	OWNER	OWNER	OWNER	OWNER	OWNER	OWNER	OWNER	OWNER	OWNER	OWNER	OWNER	OWNER	OWNER
N/F JOHN & PAULINE RICH	N/F ROBERT & THERESA FLAHERTY	N/F HUBERT LAWSON	N/F JOHN & JANET ROMA	N/F GUY & GUY ROMA	N/F THOMAS ROCHE	N/F RUBEN & MARJORIE DISCOLL	N/F JOSEPH GREEN	N/F LAURI-ANN GAUDET	N/F DAVID SMARY LABBE	N/F DEVEHLY WHITE	N/F KENNETH WOODHOUSE	N/F ALPHINE WILKINS	N/F ANGELA DEFORTE	N/F ANTOINETTE & ANDREA DEFORTE	N/F BARBARA BEARDSLEY	N/F EDWARD HUBBARD

PENNELL AVE.

CENTERLINE CURVE DATA			
CURVE	LENGTH	RADIUS	DELTA
C1	111.71	192.00	53°01'49"
C2	35.21	966.00	02°02'30"
C3	89.25	192.00	26°48'42"
C10	36.03	30.00	68°48'40"
C11	293.81	93.00	31°31'19"
C12	36.03	30.00	68°48'40"

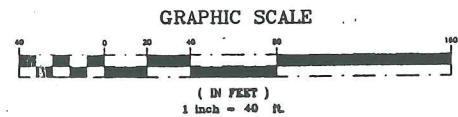
PUD EASEMENT DATA		
LINE	DIRECTION	DISTANCE
PUD1	N35°00'01"W	113.19'
PUD2	N37°51'31"W	210.59'
PUD3	N06°08'55"W	205.91'
PUD10	S72°15'3"E	46.40'
PUD11	S68°31'31"E	13.29'
PUD12	S21°28'29"W	30.00'
PUD13	S68°31'31"E	12.33'
PUD14	S72°15'3"E	57.91'
PUD15	N06°08'55"W	205.91'
PUD16	N37°51'31"W	208.03'
PUD17	N35°00'01"W	170.63'

PUD EASEMENT CURVE DATA			
CURVE	LENGTH	RADIUS	DELTA
PUDC9	13.40	211.00	19°22'52"
PUDC10	80.70	211.00	21°18'32"
PUDC11	59.86	167.00	20°32'18"
PUDC13	54.24	167.00	18°36'31"
PUDC14	136.96'	19.00'	104°31'39"
PUDC15	250.54'	19.00'	191°23'42"

PROPERTY LINE DATA		
LINE	DIRECTION	DISTANCE
L1	N57°34'29"E	40.12'
L2	N52°11'16"E	50.25'
L3	N62°42'19"E	50.16'
L4	S55°28'15"W	100.01'
L5	N33°53'45"W	50.00'
L6	S55°28'15"W	100.01'
L7	S11°06'15"W	25.00'
L8	N78°53'45"W	22.19'

ALTERATIONS TO ORIGINAL APPROVED RECORDING PLAT HAVE BEEN APPROVED BY THE CITY OF PORTLAND DEPARTMENT OF PLANNING AND URBAN DEVELOPMENT IN COMPLIANCE WITH SECTION 14-456(3) OF THE SUBDIVISION ORDINANCE.

DIRECTOR OF PLANNING AND URBAN DEVELOPMENT
 DATE: _____
 RECORDED: BOOK _____ CHART _____



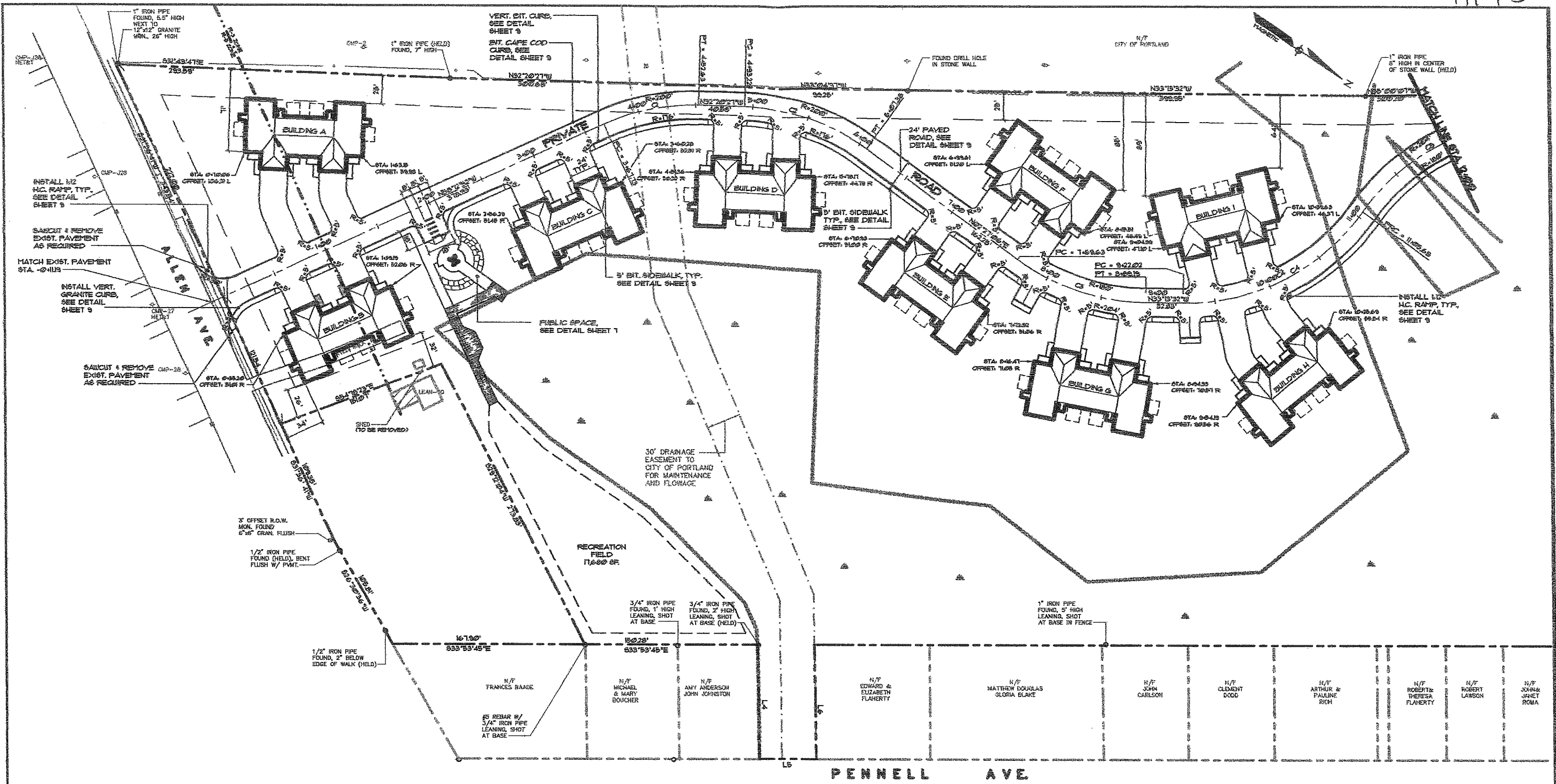
STATE OF MAINE
 COUNTY SS REGISTRY OF DEEDS
 RECEIVED _____ 19____
 AT _____ m. _____ AND RECORDED IN
 PLAN BOOK _____ PAGE _____ REGISTER

G	SMF	12-09-01	REVISED EASEMENT
F	SMF	2-11-00	RESUBMIT TO CITY STAFF FOR REVIEW
E	SMF	1-14-00	REVISE BUILDING FOOTPRINTS, DRIVEWAYS
D	SMF	7-23-99	REVISE PER CONDITIONS OF APPROVAL
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY

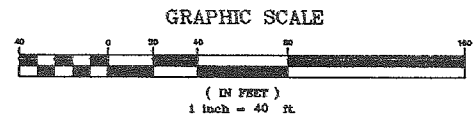
REV: BY: DATE: STATUS:
 THIS PLAN SHALL NOT BE ACCEPTED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.
AMENDED SITE PLAN: DELAWARE COURT
 (STA. 12+08.81 TO STA. 22+88.45)
WASHINGTON CROSSING CONDOMINIUMS
 ALLEN AVENUE
 PORTLAND, MAINE
 FOR:
A.L.C. DEVELOPMENT CORP.
 258 BLACK POINT ROAD
 SCARBOROUGH, MAINE 04074

Sebago Technics
 Engineering & Planning for the Future
 ONE CHABOT STREET
 WESTBROOK, ME 04098-1339
 TEL (207) 856-0277

DESIGN BY:	JLW/SMF
DRAWN BY:	TFH
CHECKED BY:	SMF
DATE:	11-4-99
SCALE:	AS SHOWN
FIELD NO.:	599
PROJ. NO.:	97330
DRAWING:	97330-02



CENTERLINE CURVE DATA			
CURVE	LENGTH	RADIUS	DELTA
C1	84.30	188.00	28°32'29"
C2	144.16	188.00	34°41'38"
C3	119.56	182.00	35°40'38"
C4	183.66	182.00	54°48'24"
C5	171.71	182.00	53°01'49"



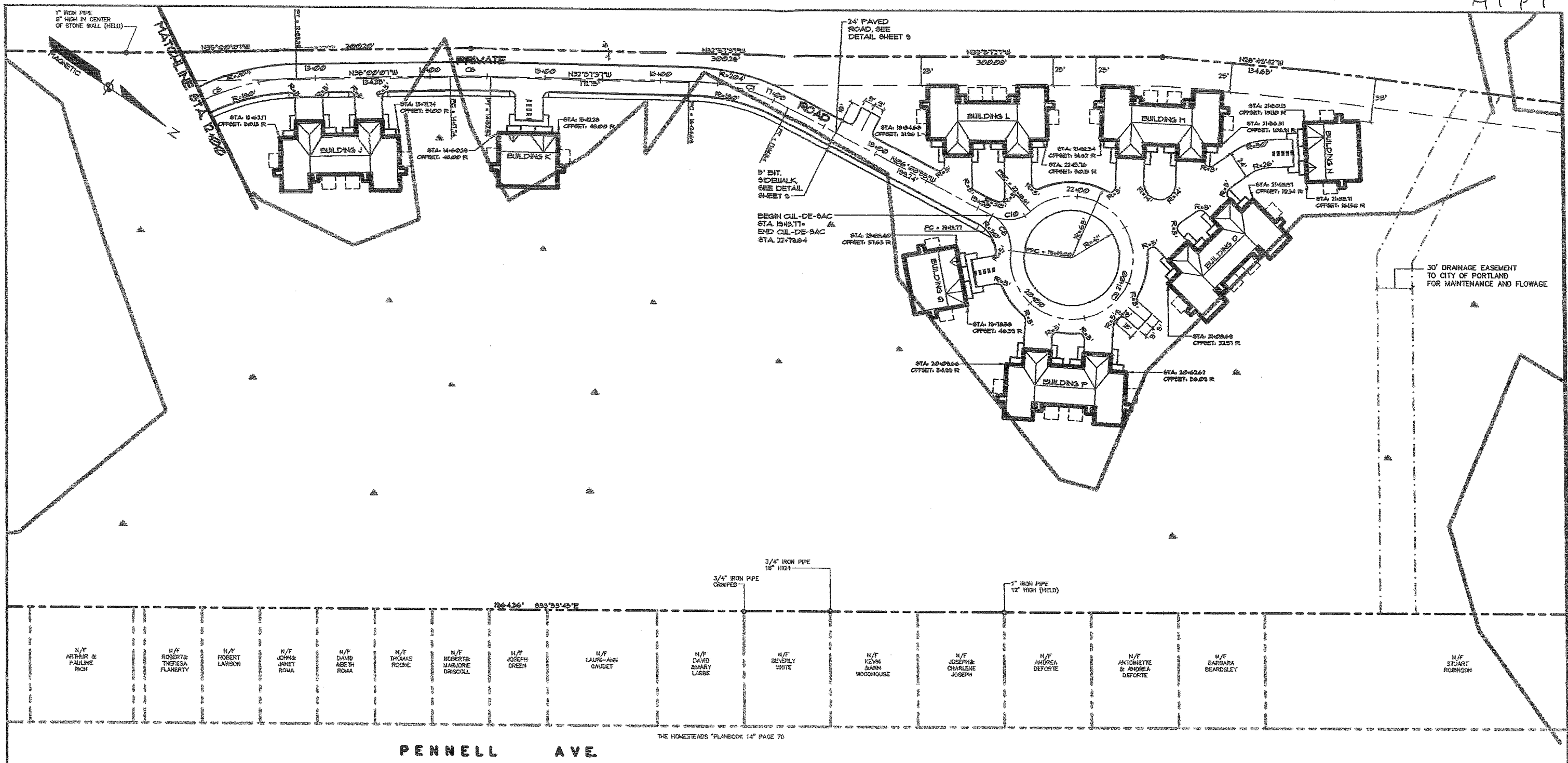
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV:	BY:	DATE:	STATUS:

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SITE PLAN (STA. -0+11.18 TO STA. 12+00)
 OF:
WASHINGTON CROSSING CONDOMINIUMS
 ALLEN AVENUE
 PORTLAND, MAINE
 FOR:
A.L.C. DEVELOPMENT CORP.
 258 BLACK POINT ROAD
 SCARBOROUGH, MAINE 04074

DESIGN BY:	J.W./SMF
DRAWN BY:	TFH
CHECKED BY:	SMF
DATE:	11-4-98
SCALE:	1"=40'
FIELD BK:	599
PROJ. NO:	97380
DRAWING:	97380S1

Sebago Technics
 Engineering & Planning for the Future
 12 WESTBROOK COMMON
 WESTBROOK, ME 04098-1339
 TEL (207) 856-0277



CENTERLINE CURVE DATA			
CURVE	LENGTH	RADIUS	DELTA
C5	171.71	192.00	53°01'49"
C6	35.21	999.00	02°02'30"
C7	89.86	192.00	26°48'42"
C8	36.03	30.00	68°48'46"
C9	793.81	53.00	311°31'15"
C10	36.03	30.00	68°48'46"

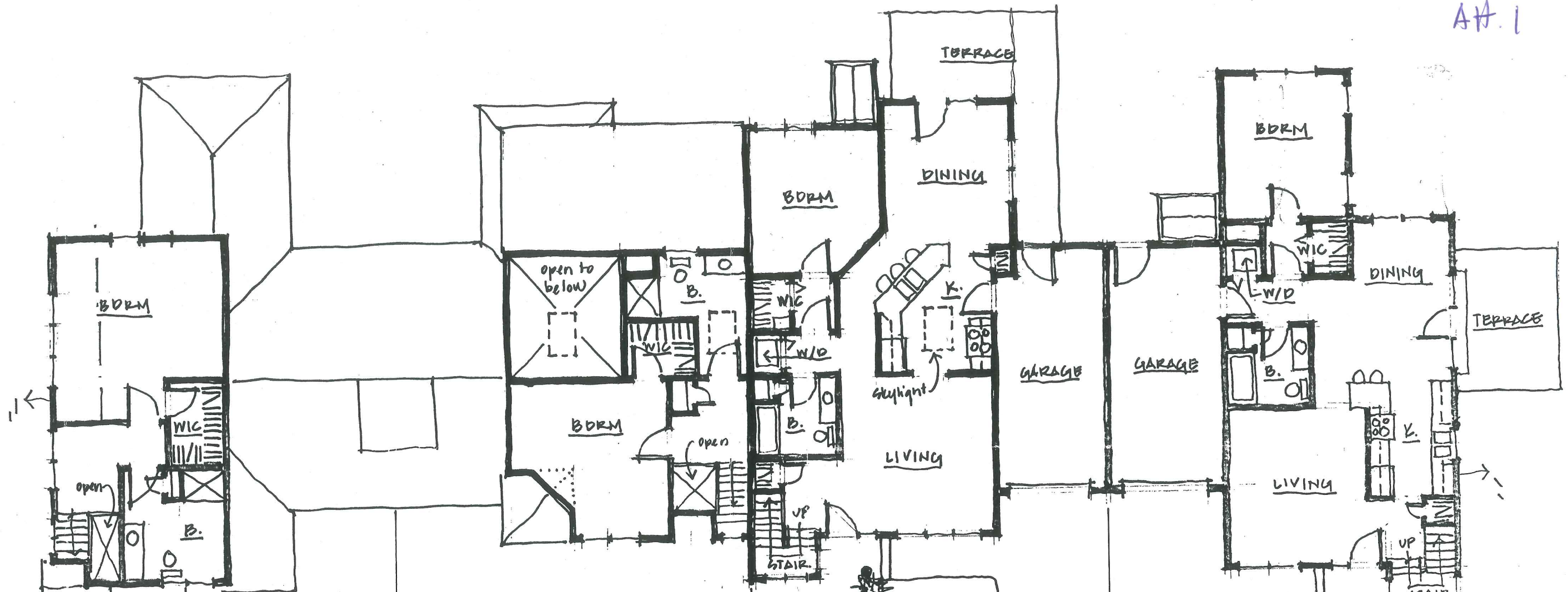
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV:	BY:	DATE:	STATUS:

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SITE PLAN 2 (STA. 12+00 TO STA. 22+79.64)
 OF:
WASHINGTON CROSSING CONDOMINIUMS
 ALLEN AVENUE
 PORTLAND, MAINE
 FOR:
A.L.C. DEVELOPMENT CORP.
 258 BLACK POINT ROAD
 SCARBOROUGH, MAINE 04074

Sebago Technics
 Engineering & Planning for the Future
 12 WESTBROOK COMMON
 WESTBROOK, ME 04098-1359
 TEL (207) 656-0277

DESIGN BY:	J.L.W./SMF
DRAWN BY:	TFH
CHECKED BY:	SMF
DATE:	11-4-98
SCALE:	AS SHOWN
FIELD BK:	599
PROJ. NO.:	97380
DRAWING:	97380S2



UNIT A 509 SF SECOND FLOOR
 UNIT B 574 SF SECOND FLOOR
 UNIT B 1,042 SF FIRST FLOOR
 UNIT A 1,192 SF FIRST FLOOR



UNIT A

UNIT B

UNIT B

UNIT A

FRONT ELEVATION

1/100=1'-0"

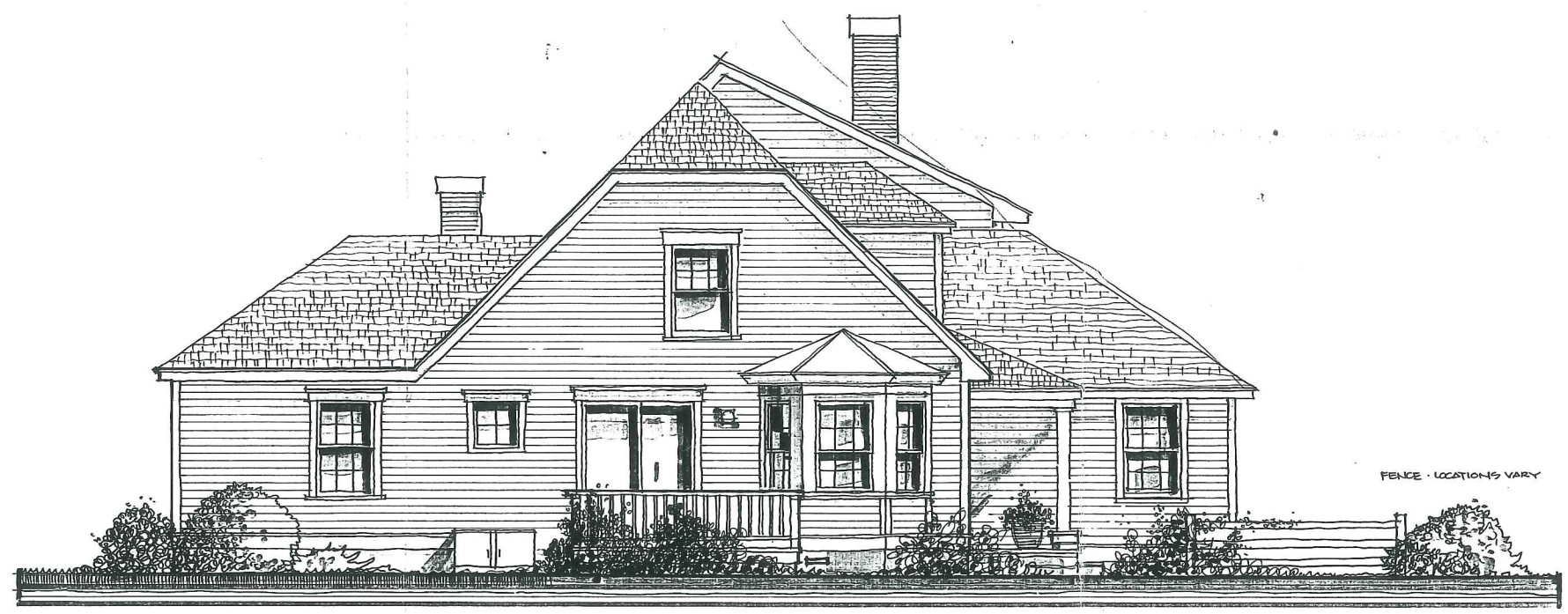
Att. 2.1



CLAPBOARD SIDING (VINYL)

FRONT ELEVATION

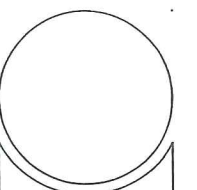
SCALE: 1/4" = 1'-0"



WOOD DECK / RAIL

END ELEVATION

SCALE: 1/4" = 1'-0"



GAWRON ARCHITECTS
 SCARBOROUGH, MAINE 04074
 207 883 6307 FAX 207 883 0361

NO.	DATE	REVISIONS DESCRIPTION

WASHINGTON CROSSING CONDOMINIUMS
 ALLEN AVENUE, PORTLAND, ME
 FOR: A.L.C. DEVELOPMENT CORPORATION
 BLACK POINT ROAD, SCARBOROUGH, ME

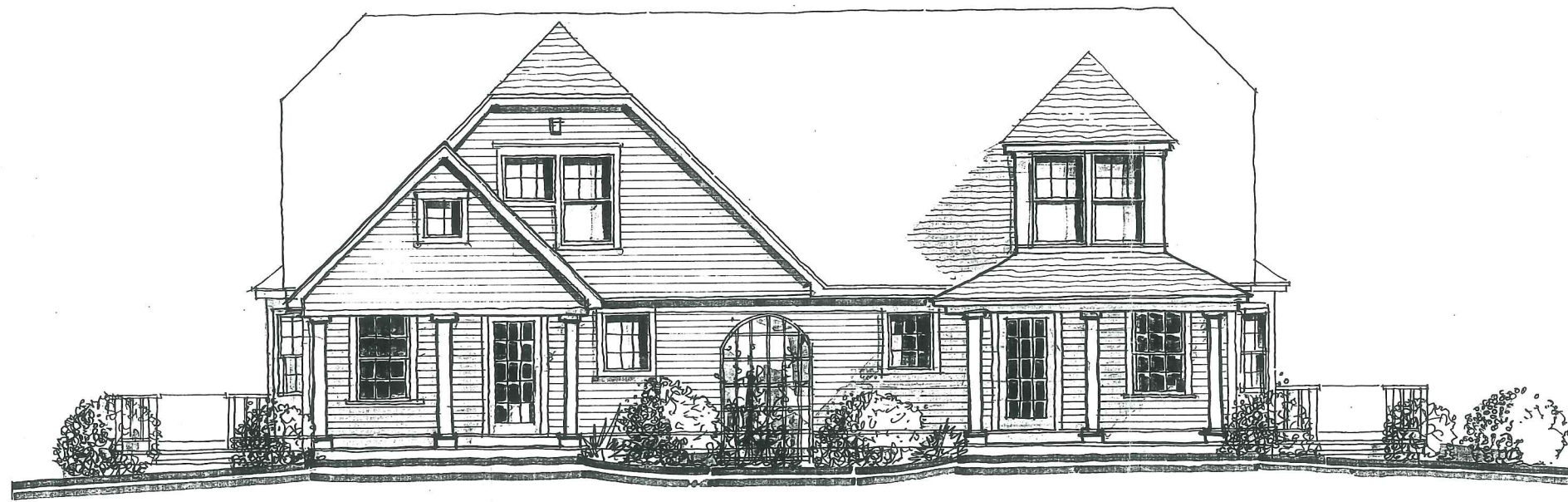
DRAWINGS THIS SHEET
 TYPICAL FOUR UNIT
 SCHEMATIC ELEVATIONS

NUMBER	DATE
021399	3-22-99
DRAWN	CHECKED
SWA	SWA

A1

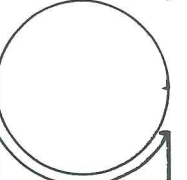
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Att. 2.2



FRONT ELEVATION

SCALE: 1/4" = 1'-0"



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SCARBOROUGH, MAINE 04074
207 883 6307 FAX 207 883 0361

NO.	DATE	REVISIONS DESCRIPTION

WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE, PORTLAND, ME

FOR:
A.L.C. DEVELOPMENT CORPORATION
BLACK POINT ROAD, SCARBOROUGH, ME

DRAWINGS THIS SHEET
TYPICAL TWO UNIT
SCHEMATIC ELEVATIONS

NUMBER	DATE
021379	3-22-99
DRAWN	CHECKED
swg	swg

A2

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Att. 3

N/F CITY OF PORTLAND

PHASE 1
PHASE 2



MATCH LINE STA. 12+00.00

ALLEN AVE.

DELAWARE COURT

PHASE 2
PHASE 1

BLDG. LAYOUT		
BLDG. CORNER	STATION	OFFSET
A1	0+49.94	104.05' LT.
A2	1+04.26	36.61' LT.
B1	0+25.55	38.26' RT.
B2	1+57.97	40.51' RT.
C1	2+35.72	38.57' RT.
C2	3+53.52	28.40' RT.
D1	4+43.88	57.93' RT.
D2	6+42.45	33.08' RT.
E1	6+58.12	50.72' RT.
E2	7+02.40	51.36' RT.
F1	6+07.88	33.56' LT.
F2	8+38.91	41.66' LT.
G1	8+41.25	65.78' RT.
G2	9+21.59	64.04' RT.
H1	9+43.84	59.93' RT.
H2	10+45.62	78.42' RT.
I1	9+02.15	49.90' LT.
I2	10+79.01	41.40' LT.

RECREATION FIELD
17,600 SF.

30' DRAINAGE EASEMENT
TO THE CITY OF PORTLAND FOR
MAINTENANCE AND FLOWAGE

N/F FRANCES BAIDE

N/F MICHAEL & MARY
BOUCHER

N/F AMY ANDERSON
JOHN JOHNSTON

N/F EDWARD &
ELIZABETH
FLAHERTY

N/F MATTHEW DOUGLAS
GLOPIA BLAKE

N/F JOAN
CARLSON

N/F CLEMENT
DODD

N/F ARTHUR &
PAULINE
RICH

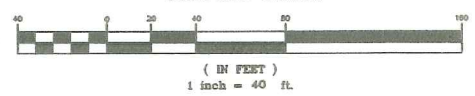
N/F ROBERT &
THERESA
FLAHERTY

N/F ROBERT
LAWSON

N/F JOHN &
JANET
ROMA

PENNELL AVE.

GRAPHIC SCALE



G	SMF	12-3-99	REVISE BLDG. FOOTPRINTS, DRIVEWAYS
F	SMF	8-16-99	BOARDWALK REVISION, ADD PHASE 1 PAVED TURNAROUND
E	SMF	7-23-99	REVISE PER CONDITIONS OF APPROVAL
D	SMF	5-27-99	MOVE BUILDING 'C', SHIFT ROAD
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV:	BY:	DATE:	STATUS:

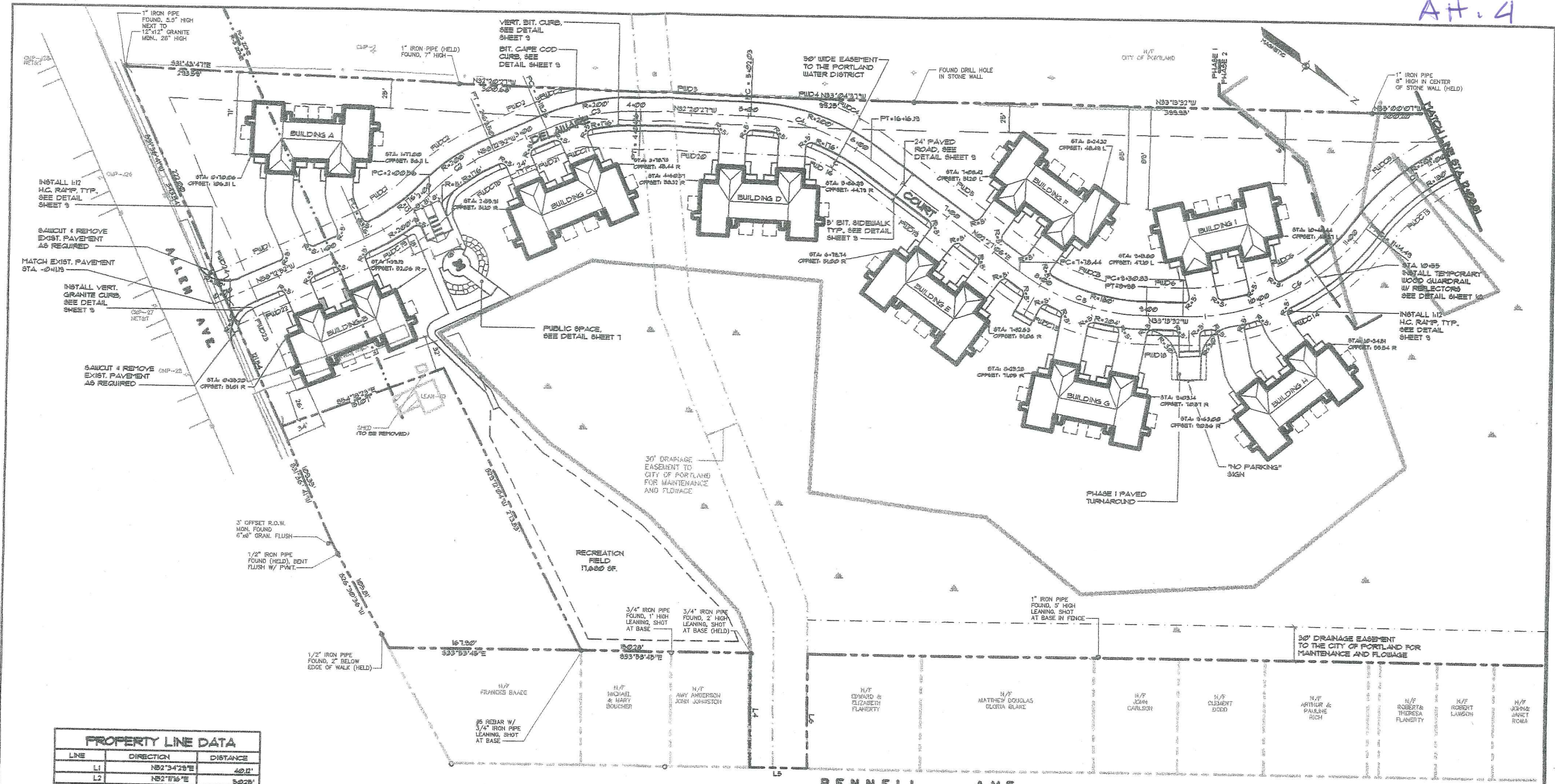
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SITE PLAN: DELAWARE COURT
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE
FOR:
ALC DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04098-1339
TEL (207) 856-0277

DESIGN BY: JLW/SMF
DRAWN BY: TFH
CHECKED BY: SMF
DATE: 11-4-98
SCALE: 1"=40'
FIELD BK: 599
PROJ. NO: 97380
DRAWING: 97380S1
SHEET 3 OF 11

AA.3.3
AA.4

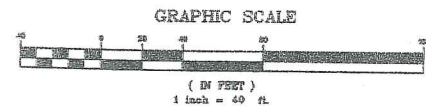


PROPERTY LINE DATA		
LINE	DIRECTION	DISTANCE
L1	N82°34'29"E	40.12'
L2	N82°17'16"E	50.25'
L3	N62°42'19"E	50.16'
L4	S55°28'15"W	100.01'
L5	N33°39'45"W	50.00'
L6	S55°29'15"W	100.01'

PROPERTY LINE CURVE DATA			
CURVE	LENGTH	RADIUS	DELTA
C 1	68.94	180.00	21°00'40"
C 2	68.94	180.00	21°00'40"
C 3	84.90	180.00	28°52'28"
C 4	84.16	180.00	34°47'33"
C 5	183.66	180.00	35°40'38"
C 6	183.66	180.00	54°48'24"
C 7	171.71	180.00	53°01'49"

PUD EASEMENT CURVE DATA			
CURVE	LENGTH	RADIUS	DELTA
PUDC1	59.71	163.00	21°00'40"
PUDC2	78.81	213.00	21°00'40"
PUDC3	37.63	213.00	10°07'15"
PUDC4	71.44	213.00	19°13'04"
PUDC5	103.39	167.00	35°40'38"
PUDC6	59.74	167.00	54°48'24"
PUDC8	106.60	217.00	28°08'41"
PUDC9	82.04	167.00	28°08'41"
PUDC14	70.13	217.00	54°48'24"
PUDC15	158.11	217.00	35°40'38"
PUDC16	47.70	163.00	16°46'01"
PUDC17	22.33	163.00	07°50'54"
PUDC18	95.71	163.00	21°00'40"
PUDC19	78.11	213.00	21°00'40"

PUD EASEMENT DATA		
LINE	DIRECTION	DISTANCE
PUD1	N88°12'52"W	131.63'
PUD2	N88°12'52"W	48.76'
PUD3	N82°04'21"W	158.51'
PUD4	N83°04'21"W	15.92'
PUD5	N82°17'16"E	162.25'
PUD6	N83°13'32"W	32.83'
PUD8	N83°13'32"W	32.83'
PUD9	N82°17'16"E	162.25'
PUD10	N82°04'21"W	128.75'
PUD11	N88°12'52"W	43.16'
PUD12	N88°12'52"W	131.64'
PUD13	S91°36'41"W	29.00'
PUD14	N81°36'41"E	29.00'



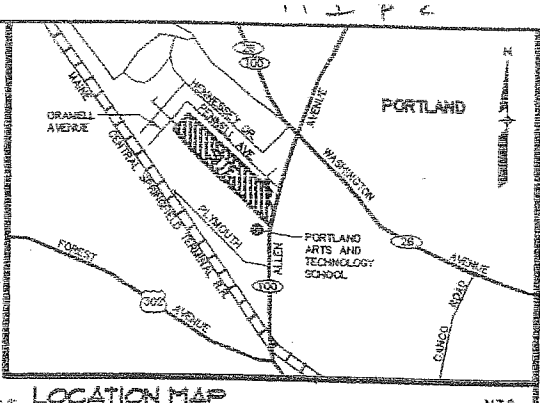
F	SMF	6-16-99	BOARDWALK REVISION, ADD PHASE 1 PAVED TURNAROUND
E	SMF	7-23-99	REVISE PER CONDITIONS OF APPROVAL
D	SMF	5-27-99	MOVE BUILDING 'C', SHIFT ROAD
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY

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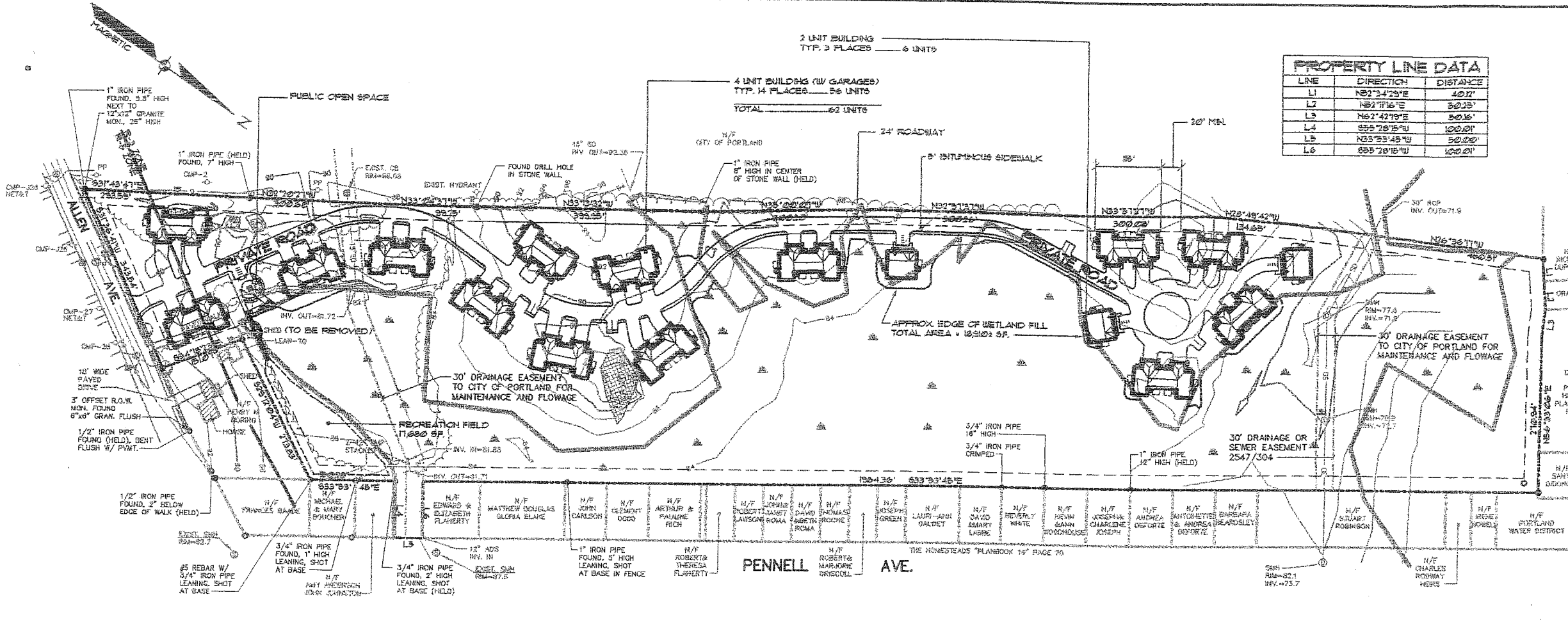
SITE PLAN: DELAWARE COURT
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE
FOR:
ALC DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04098-1339
TEL (207) 858-0277

DESIGN BY: J.W./SMF
DRAWN BY: SMF
CHECKED BY: SMF
DATE: 11-4-98
SCALE: 1"=40'
FIELD BK: 599
PROJ. NO: 97380
DRAWING: 97380S1
SHEET 3 OF 11



LINE	DIRECTION	DISTANCE
L1	N82°42'29"E	420.01'
L2	N82°11'16"E	300.25'
L3	N62°42'19"E	50.16'
L4	S55°28'15"W	120.01'
L5	N33°53'45"W	50.00'
L6	S55°28'15"W	120.01'



EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	DRILLHOLE	---
---	CURVE/LINE NO.	---
---	BUILDING	---
---	WETLANDS	---
---	EDGE WETLAND SIGN	---
---	ROCK CUT/CROP	---
---	EDGE PAVEMENT	---
---	GRAVEL ROAD	---
---	CURBLINE	---
---	TREELINE	---
---	CONTOURS	---
---	GAS	---
---	WATER	---
---	SEWER	---
---	STORM DRAIN	---
---	UNDERGROUND	---
---	ELEC. + TEL	---
---	GATE VALVE	---
---	LIGHT POLE	---
---	UTILITY POLE	---
---	HYDRANT	---
---	CATCH BASIN	---
---	MANHOLE	---
---	DECIDUOUS TREE	---

GENERAL NOTES

- RECORD OWNER OF THE PROPERTY IS ALC DEVELOPMENT CORPORATION IN ACCORDANCE WITH A DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS, PORTLAND, MAINE IN BOOK 1485, PAGE 310.
- THE PROPERTY IS LOCATED IN THE CITY OF PORTLAND ASSESSOR'S PLAN NO. 343, BLOCK C, SHEETS AS LOTS 14 AND 2, AND ASSESSOR'S PLAN NO. 344, BLOCK D, LOT 5.
- TOTAL AREA = 136,656 SQUARE FEET, OR 26.29 ACRES.
- PLAN REFERENCES:
 - PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR CITY OF PORTLAND, PORTLAND REGIONAL VOCATIONAL SCHOOL BY H. I. AND E. C. JORDAN, SURVEYORS, DATED 1913, REVISED THROUGH AUGUST 22, 1915 ON FILE AT THE CITY OF PORTLAND ENGINEER'S OFFICE IN FILE NO. 106/3.
 - PLAN OF LAND OF HENRY NORRIS, ALLEN AVENUE, PORTLAND, MAINE FOR BRAD GATE ASSOCIATES DATED MAY 11, 1961 BY CIVIL CONSULTANTS ENGINEERS AND PLANNERS, SOUTH BERWICK, MAINE. PLAN IS UNRECORDED AND ON FILE AT CIVIL CONSULTANTS IN JOB FILE 86-218.
 - CITY OF PORTLAND, MAINE, DEPARTMENT OF PUBLIC WORKS, RIGHT-OF-WAY PLAN FOR PORTLAND REGIONAL VOCATIONAL TECHNICAL SCHOOL STORM SEWER BY THE CITY OF PORTLAND ENGINEERING DEPARTMENT DATED AUGUST 6, 1975, AN UNRECORDED PLAN ON FILE AT THE CITY OF PORTLAND ENGINEERING DEPARTMENT IN PLAN FILE NO. 648-3.
 - PORTLAND HIGHLANDS, PORTLAND, CUMBERLAND COUNTY, MAINE OWNED BY HR LOWD LAND COMPANY, INC. FORMERLY OWNED BY GEORGE F. REED DATED JULY 22, 1924 BY ERNEST W. BRANCH, CIVIL ENGINEER, QUINCY, MASSACHUSETTS, RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 16, PAGE 10.
 - THE HOMESTEADS, PORTLAND, MAINE OWNED BY THE CITY AND SUBURBAN LAND TRUST, PROVIDENCE, RHODE ISLAND, SURVEYED BY E. C. JORDAN & COMPANY, CIVIL ENGINEERS, PORTLAND, MAINE DATED SEPTEMBER 1921, RECORDED IN SAID REGISTRY IN PLAN BOOK 14, PAGE 10.
- SUBJECT TO:
 - AN EASEMENT GRANTED BY HENRY H. AND BLANCHE B. NORRIS TO C. H. HANCOCK & CO., INC. AS DESCRIBED IN AN EASEMENT DEED DATED NOVEMBER 28, 1960 AND RECORDED IN SAID REGISTRY IN BOOK 2547, PAGE 304, SAID EASEMENT BEING A 30 FOOT WIDE STRIP OF LAND AS SHOWN HEREON CROSSING THE NORTHEASTERLY END OF THE PARCEL. THE PURPOSE OF SAID EASEMENT IS FOR THE CONSTRUCTION OF SURFACE WATER DRAINS OR SEWERS, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIP AT ANY AND ALL TIMES IN ORDER TO CONSTRUCT, MAINTAIN, REPAIR, REBUILD, OR RECONSTRUCT THE SAME.
 - A STORM SEWER EASEMENT 30 FEET IN WIDTH AS SHOWN HEREON CROSSING THE SOUTHERLY END OF THE PARCEL, SAID 30 FOOT WIDE STORM SEWER EASEMENT SHOWN ON THE PLAN REFERENCED IN NOTE 5C. NO RECORD EASEMENT DEED FOR THIS EASEMENT WAS FOUND IN SAID REGISTRY.
- THIS PLAN AND SURVEY WERE PERFORMED IN CONFORMANCE WITH THE MAINE STATE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS, STANDARDS OF PRACTICE, CATEGORY 1, CONDITION 2 WITH EXCEPTIONS:
 - SURVEYOR'S REPORT BEING LIMITED TO THE NOTES AS SHOWN HEREON.
 - NO DETAILS DRAWN ON MONUMENTATION NOT HELD.
 - NO NEW DEED DESCRIPTION OR MONUMENTATION HAVING BEEN SET TO DATE.
- BEARINGS SHOWN HEREON ARE MAGNETIC NORTH OF 1866, REFERENCED TO PLAN 4B.
- ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1988 ESTABLISHED BY USING ASHTEC I-2-GPS DUAL FREQUENCY RECEIVERS.
- THIS PLAN MAY BE SUBJECT TO REVISION UPON RECEIPT OF A TITLE OPINION.
- THE PROPERTY IS LOCATED IN THE R-3 AND R-5 ZONES.
- SPACE AND BULK REQUIREMENTS:

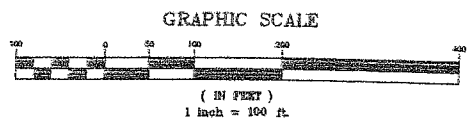
R-3 ZONE:	
MINIMUM LOT SIZE	6,500 SF.
MINIMUM STREET FRONTAGE	50'-FT.
MINIMUM FRONT YARD	25'-FT.
MINIMUM REAR YARD	25'-FT.
MINIMUM SIDE YARD (1 STORY)	5'-FT.
(1 1/2 STORY)	8'-FT.
(2 STORY)	14'-FT.
(2 1/2 STORY)	16'-FT.
MAXIMUM LOT COVERAGE	25%
MINIMUM LOT WIDTH	25'-FT.
MAXIMUM STRUCTURE HEIGHT	35'-FT.
MINIMUM LOT AREA PER DWELLING UNIT	6,500 SF. NET LAND AREA
R-5 ZONE:	
MINIMUM LOT SIZE	6,000 SF.
MINIMUM STREET FRONTAGE	50'-FT.
MINIMUM FRONT YARD	20'-FT.
MINIMUM REAR YARD	20'-FT.
MINIMUM SIDE YARD (1 STORY)	5'-FT.
(1 1/2 STORY)	8'-FT.
(2 STORY)	14'-FT.
(2 1/2 STORY)	16'-FT.
MINIMUM DISTANCE BETWEEN BUILDING	16'-FT.
MAXIMUM LOT COVERAGE	40%
MINIMUM LOT WIDTH (MULTIFLEX)	50'-FT.
(OTHER USES)	60'-FT.
MAXIMUM STRUCTURE HEIGHT	35'-FT.
MAXIMUM LENGTH OF STRUCTURE	140'-FT. W/ INTERNAL GARAGES

NET RESIDENTIAL CALCULATIONS:	
TOTAL LOT AREA	36.29 Ac.
- STORED WATER DETENTION AREA OUTSIDE OF WETLANDS	0 Ac.
- EXISTING WATERCOURSES	0 Ac.
- INACCESSIBLE AREAS	0 Ac.
- WETLANDS	13.20 Ac.
- AREAS ENCUMBERED BY EXISTING EASEMENTS OUTSIDE WETLANDS	0.19 Ac.
- SLOPES OF 25% OR GREATER	0 Ac.
SUBTOTAL	0.80 Ac.
- 20% OF SUBTOTAL	0.16 Ac.
NET RESIDENTIAL LAND AREA	10.28 Ac. (446,054 SF.)
MAXIMUM NO. OF UNITS ALLOWED AT 1/6,500 SF.	69 UNITS
NUMBER OF UNITS PROPOSED	62 UNITS

- OPEN SPACE REQUIREMENTS:
 - 300 SF/UNIT
 - 300x202 = 60,600 SF. OF WHICH A MINIMUM OF 6,000 SF. (50X100) MUST BE A MULTI-PURPOSE MOULDED FIELD.
- OPEN SPACE PROVIDED:
 - PUBLIC OPEN SPACE = 6,464 SF.
 - RECREATION FIELD = 17,680 SF.
 - TOTAL = 24,144 SF.
- THE PRIVATE ROAD WILL BE BUILT TO CITY OF PORTLAND STANDARDS FOR MATERIALS AND CROSS-SECTIONAL DEPTHS. IT SHALL BE THE RESPONSIBILITY OF THE WASHINGTON CROSSING OWNERS ASSOCIATION FOR MAINTENANCE, REPAIR OF THE ROADWAY AND SIDEWALK, AND SNOW REMOVAL.
- THE ENTIRE SITE SHALL BE DEVELOPED AND/OR MAINTAINED AS DEPICTED ON THE SITE-PLANNING PLAN. APPROVAL OF THE PLANNING AUTHORITY OR PLANNING BOARD SHALL BE REQUIRED FOR ANY ALTERATIONS TO OR DEVIATIONS FROM THE APPROVED SITE PLAN, INCLUDING WITHOUT LIMITATION TOPOGRAPHY, DRAINAGE, LANDSCAPING, RETENTION OF WOODED OR LAWN AREAS, ACCESS, SIZE, LOCATION AND SURFACING OF PARKING AREAS, AND LOCATION AND SIZE OF BUILDINGS.
- AS PART OF THIS APPLICATION, A SEPARATE LANDSCAPING PLAN HAS BEEN SUBMITTED FOR REVIEW IN LIEU OF THE REQUIREMENT OF TWO TREES PER MINIMUM PER LOT. ALL LANDSCAPING SHALL MEET THE CITY'S ARBORICULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE AND LANDSCAPE DESIGN GUIDELINES. THE DEVELOPER MAY CONTRACT FOR THE PLACEMENT OF LANDSCAPING BUT SHALL REMAIN LIABLE TO THE CITY OF PORTLAND FOR FINANCIAL OBLIGATION FOR COMPLIANCE WITH CITY ORDINANCES AND APPROVALS. SUCH FINANCIAL OBLIGATION SHALL BE NEITHER TRANSFERABLE NOR WAIVERABLE BY THE DEVELOPER.
- THE ACTIVE RECREATION AREA SHALL BE FOR THE USE OF ALL THE HOMEOWNERS ASSOCIATIONS BOUNDED BY AGREEMENT, OR DOCUMENTS, TO WASHINGTON CROSSING CONDOMINIUMS.
- ALL ELECTRIC, TELEPHONE AND CABLE T.V. SERVICES SHALL BE UNDERGROUND AND IN CONFORMANCE WITH CENTRAL MAINE POWER CO., BELL ATLANTIC TELEPHONE CO. AND TIME WARNER CABLE T.V. CO. STANDARDS.

APPROVAL:
CITY OF PORTLAND
PLANNING BOARD

DATE _____
 CLERK/PERSON _____



REV.	BY:	DATE:	STATUS:
G	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
F	SMF	2-25-99	REVISE SITE PLAN SUBMISSION TO CITY
E	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
D	JRP	1-28-99	LAYOUT REVISIONS
C	JRP	9-25-98	RESUBMITTED FOR PLANNING BOARD REVIEW
B	JRP	4-21-98	LAYOUT REVISIONS
A	JRP	3-27-98	PLANNING STAFF REVIEW

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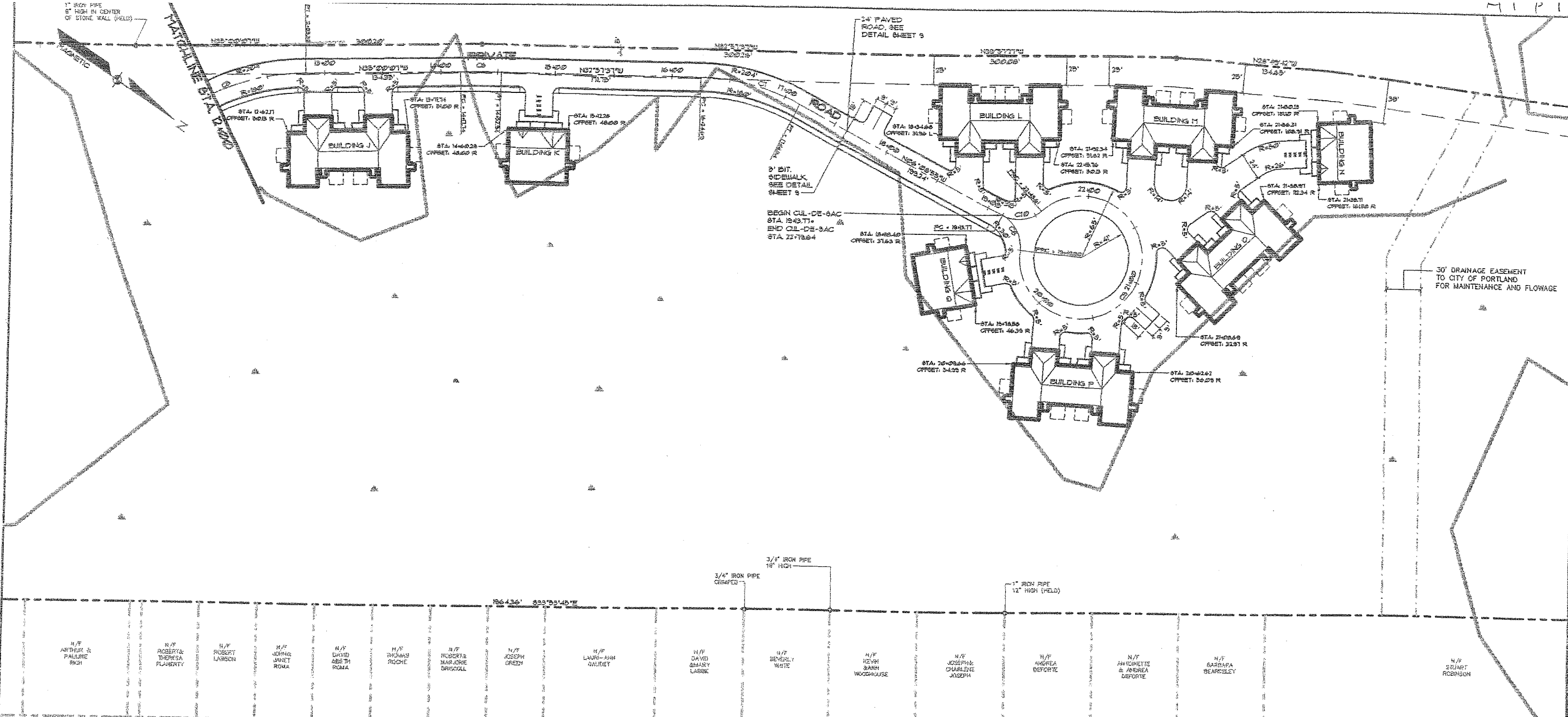
MASTER PLAN
 OF:
WASHINGTON CROSSING CONDOMINIUMS
 ALLEN AVENUE
 PORTLAND, MAINE

FOR:
A.L.C. DEVELOPMENT CORP.
 258 BLACK POINT ROAD
 SCARBOROUGH, MAINE 04074

DESIGN BY: J.W./SMF
 DRAWN BY: IFH
 CHECKED BY: SMF
 DATE: 10-10-97
 SCALE: 1"=100'
 FIELD BK: 599
 PROJ. NO: 97380
 DRAWING: 97380MP

Sebago Technics
 Engineering & Planning for the Future
 12 WESTBROOK COMMON
 WESTBROOK, ME 04098-1330
 TEL. (207) 855-0277

SHEET 2 OF 11



PENNELL AVE. THE HOMESTEADS "PLANBOOK 13" PAGE 70

CENTERLINE CURVE DATA			
CURVE	LENGTH	RADIUS	DELTA
C5	171.71	192.00	83°01'49"
C6	38.21	988.00	07°02'30"
C7	89.85	192.00	25°48'42"
C8	36.05	300.00	68°48'40"
C9	293.01	53.00	317°31'19"
C10	36.05	300.00	68°48'40"

C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV:	BY:	DATE:	STATUS:

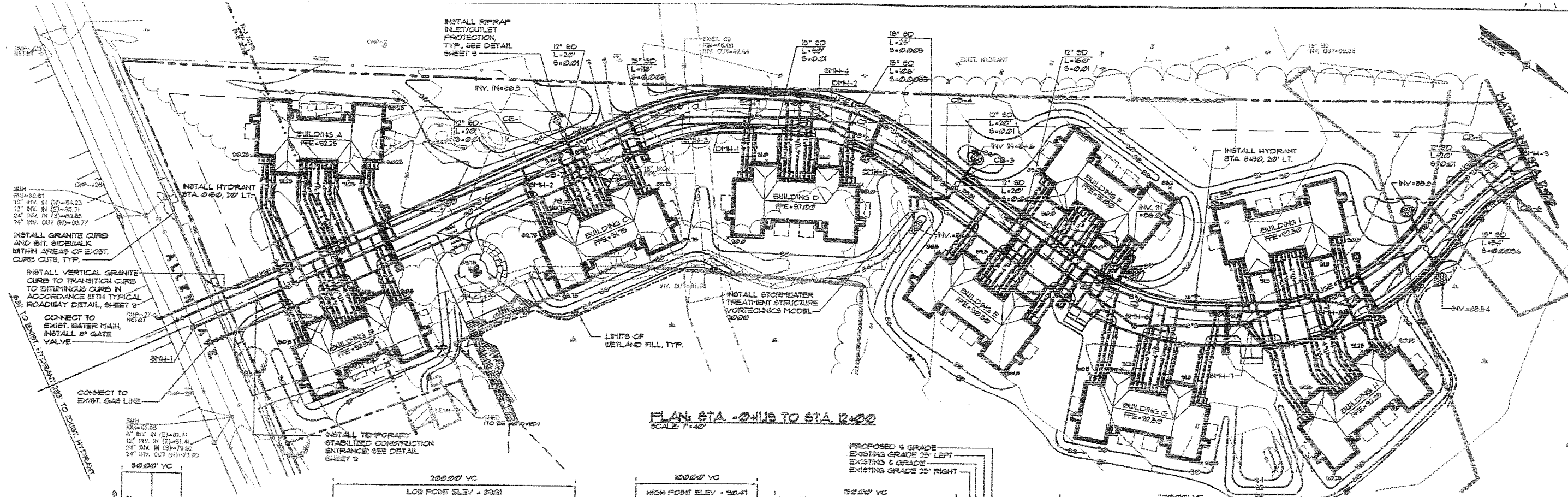
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SITE PLAN 2 (STA. 12+00 TO STA. 22+79.84)
 OF:
WASHINGTON CROSSING CONDOMINIUMS
 ALLEN AVENUE
 PORTLAND, MAINE

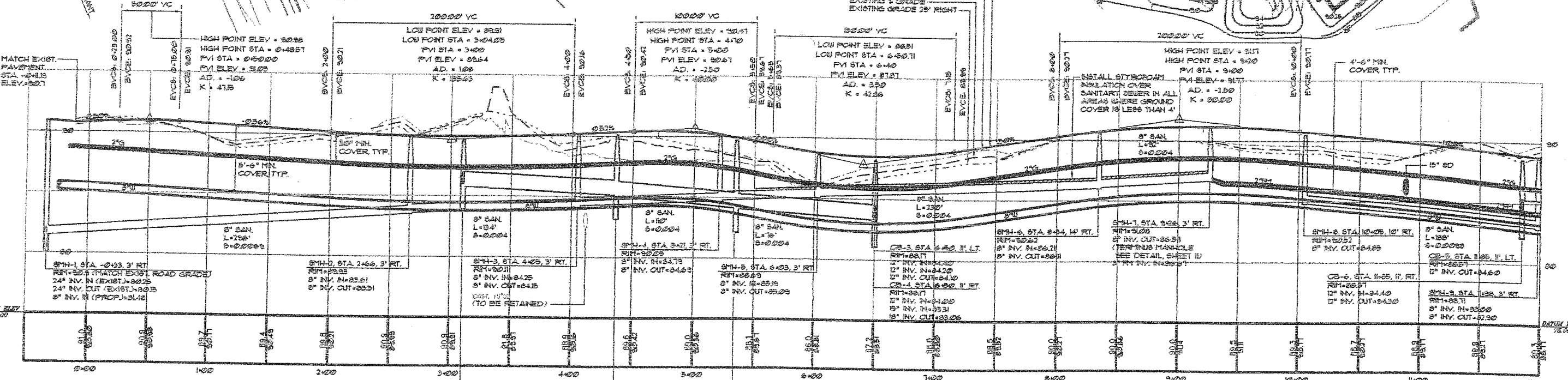
FOR:
A.L.C. DEVELOPMENT CORP.
 258 BLACK POINT ROAD
 SCARBOROUGH, MAINE 04074



DESIGN BY:	JLW/SMF
DRAWN BY:	TFH
CHECKED BY:	SMF
DATE:	11-4-98
SCALE:	AS SHOWN
FIELD BK:	599
PROJ. NO.:	97380
DRAWING:	97380S2



PLAN: STA. -0+11.9 TO STA. 12+00
SCALE: 1"=40'



PROFILE: STA. -0+11.9 TO STA. 12+00
SCALE: 1"=40' HORIZ., 1"=4' VERT.

CENTERLINE CURVE DATA			
CURVE	LENGTH	RADIUS	DELTA
C1	84.90	183.00	25°32'25"
C2	114.16	183.00	34°47'33"
C3	119.96	183.00	35°40'20"
C4	183.80	183.00	54°48'24"
C5	171.71	183.00	53°21'49"

- GENERAL NOTES:**
- CATCH BASINS LOCATED ON THE SAME SIDE OF THE ROADWAY AS THE WATERMAIN SHALL BE INSTALLED WITH ECCENTRIC CONES. THE OFFSETS DEPICTED ON THESE PLANS ARE TO THE CENTER OF THE GRATE. THE STRUCTURE SHALL BE SET SUCH THAT THE MAJORITY OF THE STRUCTURE IS BEHIND THE CURB.
 - THE 4" WATER SERVICE TO EACH BUILDING IS A COMMON FIRE SUPPRESSION SERVICE FOR THE SPRINKLER SYSTEM.
 - THE INDIVIDUAL WATER SERVICES TO EACH UNIT SHALL BE 1/2" COPPER TUBING.
 - THE INDIVIDUAL SEWER SERVICES SHALL BE 4" PVC SDR 35 PIPE.
 - ALL SUBSURFACE STORM DRAIN SHALL BE HOPE OR APPROVED EQUAL.

C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISED SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV.	BY:	DATE:	STATUS:

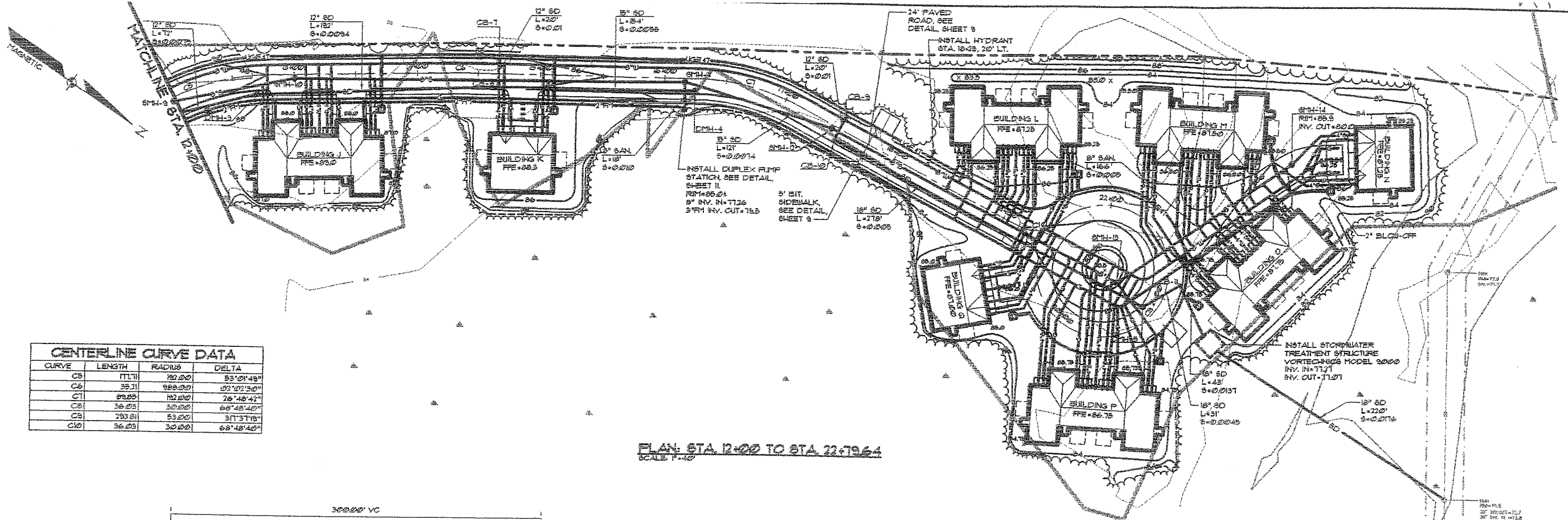
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PLAN & PROFILE 1 (STA. -0+11.9 TO STA. 12+00)
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE

FOR:
A.L.C. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

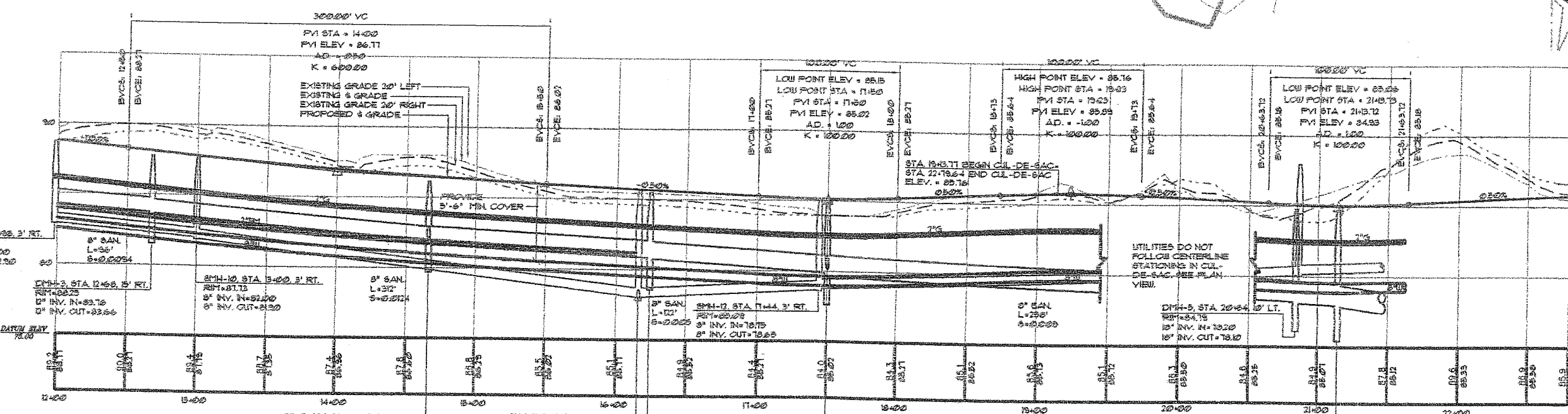
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Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04098-1339
TEL. (207) 856-0277

DESIGN BY:	J.W./SMF
DRAWN BY:	JFH
CHECKED BY:	SMF
DATE:	11-4-98
SCALE:	1"=40'
FIELD BK:	599
PROJ. NO.:	97380
DRAWING:	97380P1
SHEET 5 OF 11	



CENTERLINE CURVE DATA			
CURVE	LENGTH	RADIUS	DELTA
CS	171.11	120.00	55°01'49"
CS	35.31	288.00	02°20'30"
CT	89.25	112.00	76°48'42"
CS	36.05	30.00	68°48'40"
CS	293.21	53.00	317°31'19"
CO	36.05	30.00	68°48'40"

PLAN: STA 12+00 TO STA 22+79.64
SCALE: 1"=40'



PROFILE: STA 12+00 TO STA 22+79.64
SCALE: 1"=40' HORIZ.
1"=4' VERT.

- GENERAL NOTES:**
- CATCH BASINS LOCATED ON THE SAME SIDE OF THE ROADWAY AS THE WATERMAIN SHALL BE INSTALLED WITH ECCENTRIC CONES. THE OFFSETS DEPICTED ON THESE PLANS ARE TO THE CENTER OF THE GRATE. THE STRUCTURE SHALL BE SET SUCH THAT THE MAJORITY OF THE STRUCTURE IS BEHIND THE CURB.
 - THE 4" WATER SERVICE TO EACH BUILDING IS A COMMON FIRE SUPPRESSION SERVICE FOR THE SPRINKLER SYSTEM.
 - THE INDIVIDUAL WATER SERVICES TO EACH UNIT SHALL BE 1/2" COPPER TUBING.
 - THE CUL-DE-SAC IS SUPERELEVATED TO THE OUTSIDE CURVE LINE.
 - THE INDIVIDUAL SEWER SERVICES SHALL BE 4" PVC 3DR 35 PIPE.
 - ALL SUBSURFACE STORM DRAIN SHALL BE HDPE OR APPROVED EQUAL.

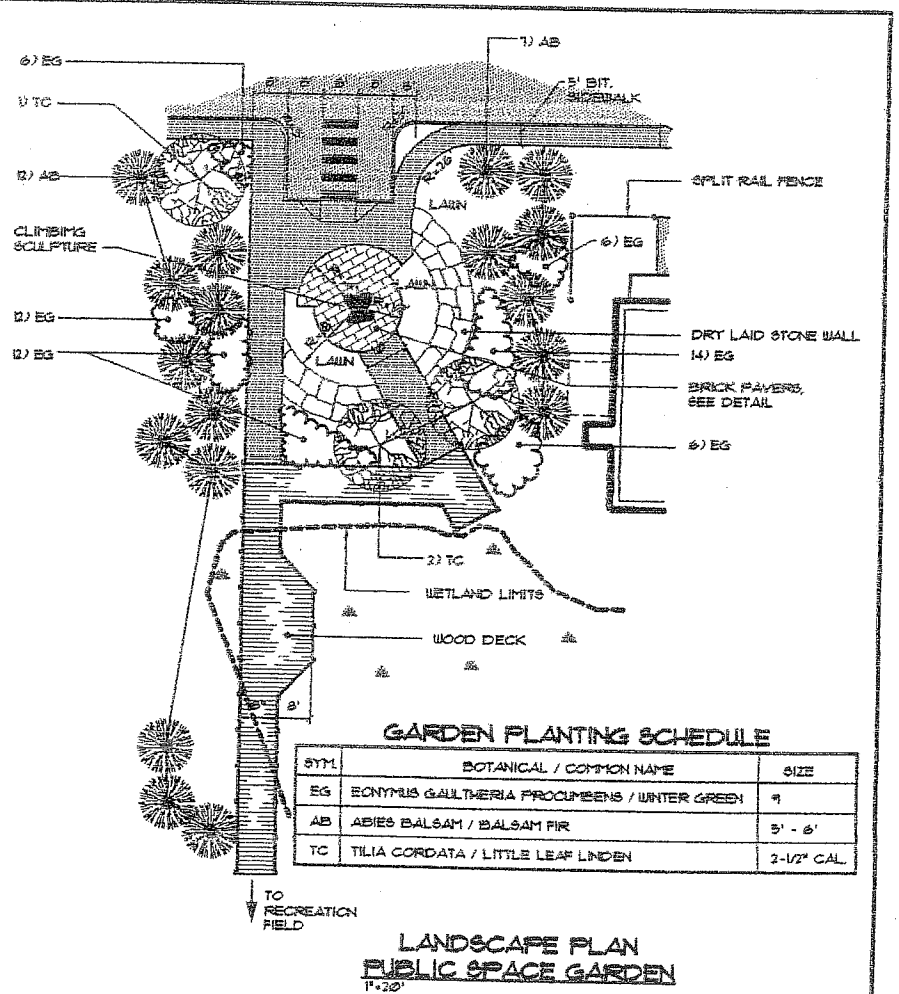
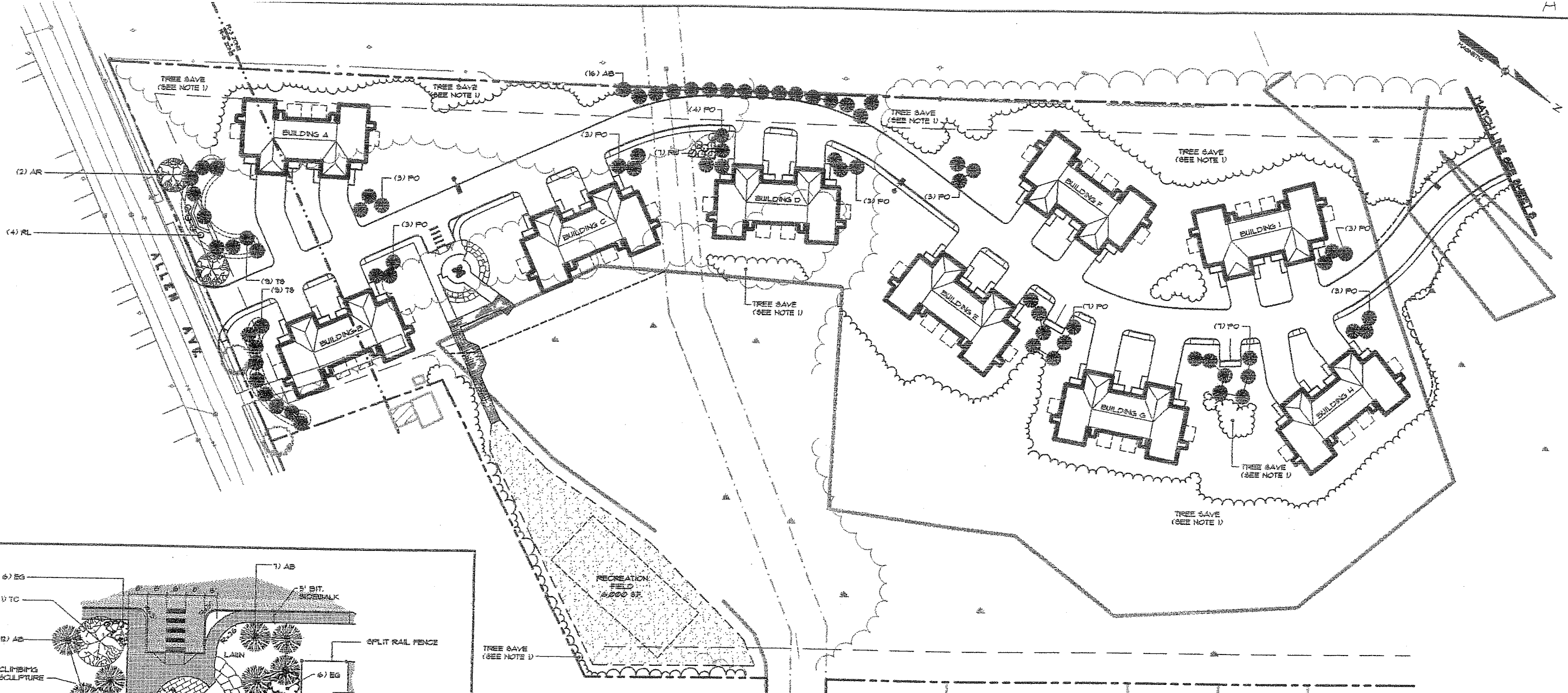
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	2-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV. BY:	DATE:	STATUS:	

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PLAN & PROFILE 2 (STA 12+00 TO STA 22+79.64)
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE
FOR:
A.L.C. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074



DESIGN BY:	JLW/SMF
DRAWN BY:	TFH
CHECKED BY:	SMF
DATE:	11-4-98
SCALE:	AS SHOWN
FIELD BK:	598
PRGJ. NO.:	97380
DRAWING:	97380P2
SHEET 6 OF 11	

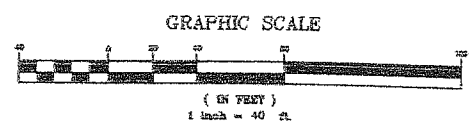
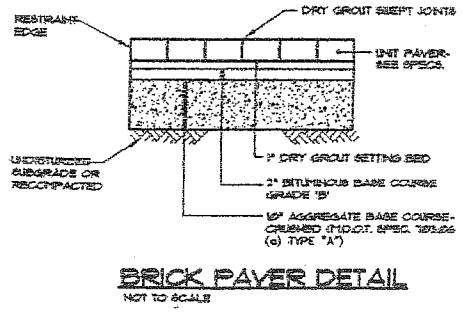


STREETSCAPE PLANTING SCHEDULE

TREES	BOTANICAL / COMMON NAME	SIZE	SHRUBS	BOTANICAL / COMMON NAME	SIZE
PK	MALUS KATHERINE / KATHERINE CRAB APPLE	2 1/2' - 3'	EA	EUONYMUS ALATUS / WINGED SPINDLETREE	2' - 2 1/2'
TC	TILIA CORDATA 'GREENSPIRE' / GREENSPIRE LINDEN	2 1/2' - 3'	RL	RHODODENDRON LAETEVIRENS / WILSON RHODODENDRON	10" - 12"
FA	FRAXINUS AMERICANA 'AUTUMN PURPLE' / AUTUMN PURPLE WHITE ASH	2 1/2' - 3'	RW	RHODODENDRON 'WINDBEAM' / WINDBEAM RHODODENDRON	5'
TO	THUJA OCCIDENTALIS 'PENDULA' / CEDAR	2' - 3'			
AB	ABIES BALSAMEA / BALSAM FIR	4' - 5'			
AR	ACER RUBRUM / RED MAPLE	2 1/2' - 3'			
PO	PICEA OMORICA 'PENDULA' / SERBIAN SPRUCE	2'			
TS	TSUGA CANADENSIS 'SARGENTI' / WEEPING HEMLOCK	2 1/2' - 3'			

NOTES:

- BEFORE CONSTRUCTION OF DEVELOPMENT BEGINS, THE APPLICANT WILL FLAG TREE SAVE AREAS AND NOTIFY THE CITY ARBORIST. AT THAT TIME, THE CITY ARBORIST WILL DETERMINE WHETHER THESE TREES MAY BE SAVED. PROTECTIVE BARRIERS SHALL BE ERRECTED OUTSIDE THE DRIP-LINE OF THE INDIVIDUAL GROUPINGS OF TREES DESIGNATED FOR PRESERVATION PRIOR TO THE ONSET OF CONSTRUCTION.
- SEE SHEET 8 FOR TYPICAL DUPLEX AND FOURPLEX PLANTINGS AND PLANTING SCHEDULE.
- SEE SHEET 8 FOR PLANTING DETAILS.



C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	2-25-99	RESUBMIT SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV:	BY:	DATE:	STATUS:

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LANDSCAPE & LIGHTING PLAN 1

OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE

FOR:
A.L.C. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

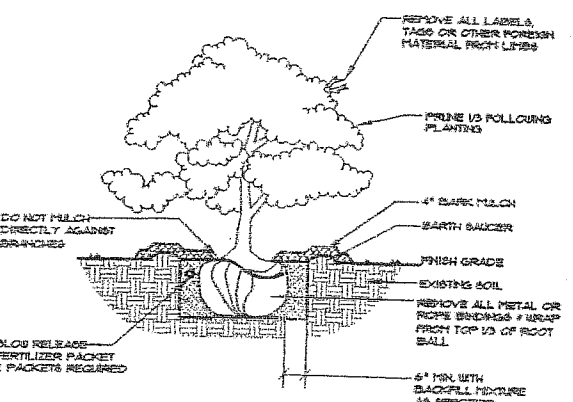
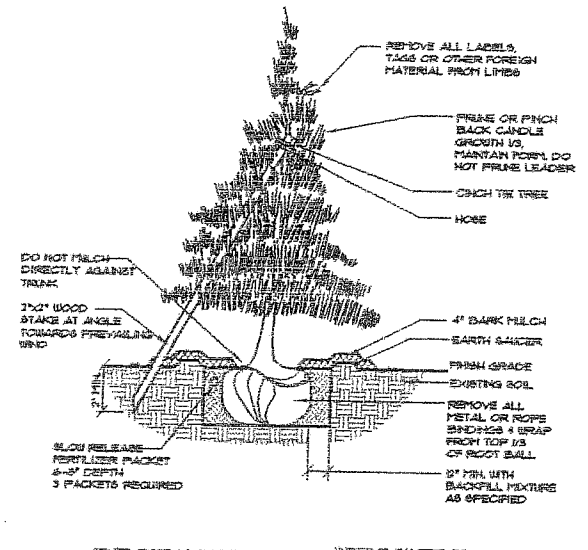
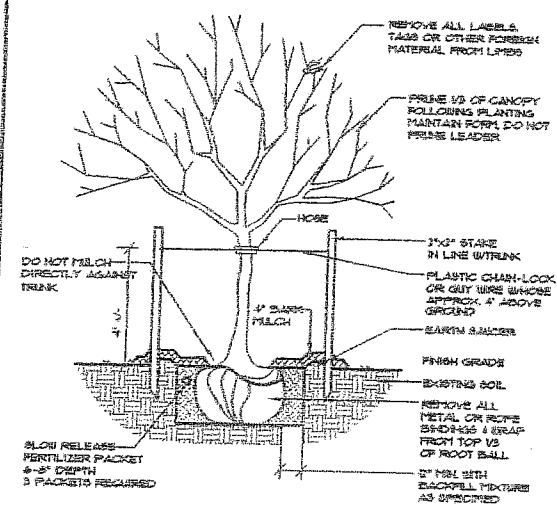
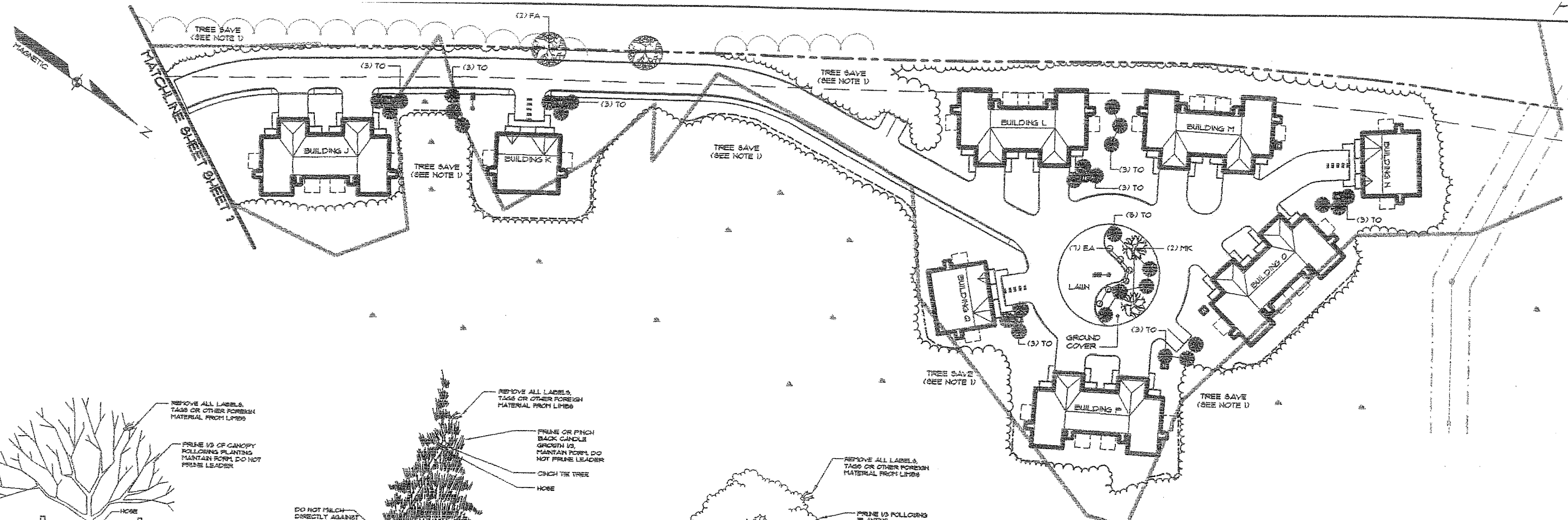
DESIGN BY: JRP
DRAWN BY: TFM
CHECKED BY: WTC
DATE: 12-16-98
SCALE: 1"=40'
FIELD BK: 599
PROJ. NO: 97380
DRAWING: 97380L1

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Engineering & Planning for the Future
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SHEET 7 OF 11

**LANDSCAPE PLAN
PUBLIC SPACE GARDEN**

1+20'

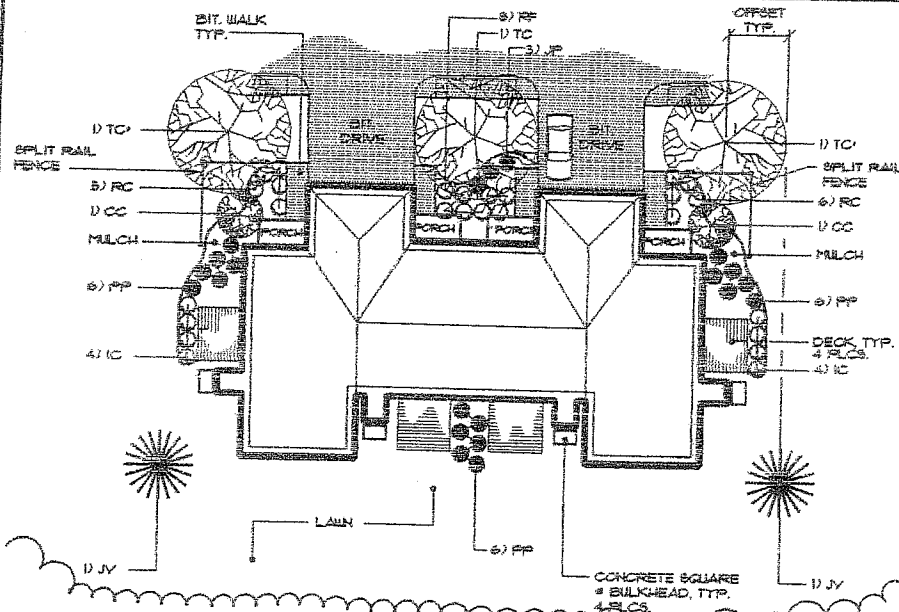


DECIDUOUS TREES 2" TO 4" CALIFER
NOT TO SCALE

DECIDUOUS TREES UNDER 2" CALIFER OR UNDER 6' IN HEIGHT
EVERGREEN TREES 3'-6" IN HEIGHT & UNDER
NOT TO SCALE

DECIDUOUS & EVERGREEN SHRUB
NOT TO SCALE

NOTES:
1. BEFORE CONSTRUCTION OF DEVELOPMENT BEGINS, THE APPLICANT WILL FLAG TREE SAVE AREAS AND NOTIFY THE CITY ARBORIST. AT THAT TIME, THE CITY ARBORIST WILL DETERMINE WHETHER THESE TREES MAY BE SAVED. PROTECTIVE BARRIERS SHALL BE ERRECTED OUTSIDE THE DRIP-LINE OF THE INDIVIDUAL GROUPINGS OF TREES DESIGNATED FOR PRESERVATION PRIOR TO THE ONSET OF CONSTRUCTION.

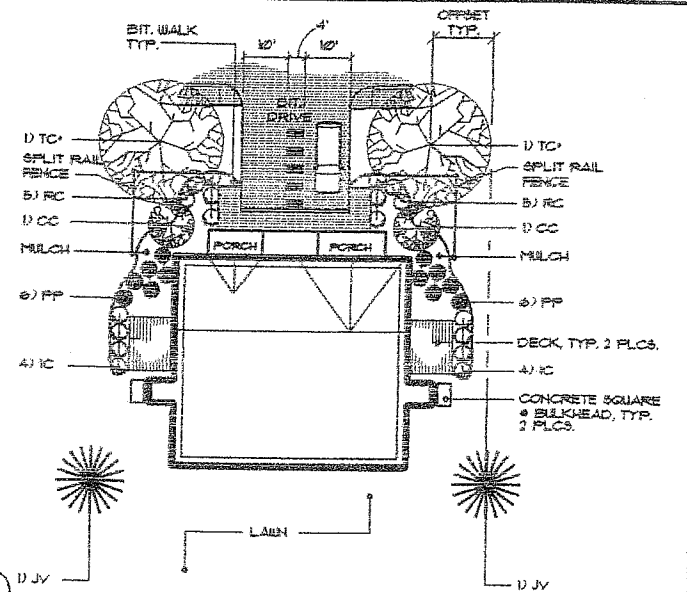


LANDSCAPING PLAN
TYPICAL 4-PLEX
1"=20'

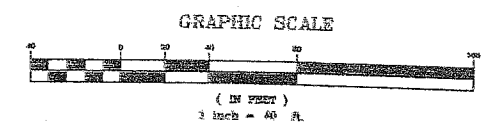
TYPICAL DUPLEX AND FOURPLEX PLANTING SCHEDULE

SYM	BOTANICAL / COMMON NAME	SIZE
TC	TILIA CORDATA 'GREENSPIRE' / GREENSPIRE LINDEN	2 1/2" - 3"
PP	FICIA FUNGUS 'PAT ALBERT' / COLORADO BLUE SPRUCE	3' - 3 1/2'
JV	JUNIPERUS VIRGINIANA / EMERALD SENTINAL	6' - 8'
CC	CRATAEGUS CRUGGALLI 'TOBA' / HAWTHORN	5' - 6'
FA	FRAXINUS AMERICANA 'AUTUMN PURPLE' / AUTUMN PURPLE WHITE ASH	2 1/2" - 3"
RF	ROSA MULTIFLORA / MULTIFLORA ROSE	12" - 18"
JF	JUNIPERUS FRITZERIANA COMPACTA / FRITZER JUNIPER	2'
RC	RHODODENDRON CAROLINIANUM / CAROLINA RHODODENDRON	2' - 2 1/2'
IC	ILEX CRENATA 'COMPACTA' / DWARF JAPANESE HOLLY	12" - 15"

* TC LOCATION ON TYPICAL LANDSCAPE PLAN WILL YIELD TO STREET PLANTING PROGRAM.



LANDSCAPING PLAN
TYPICAL DUPLEX
1"=20'



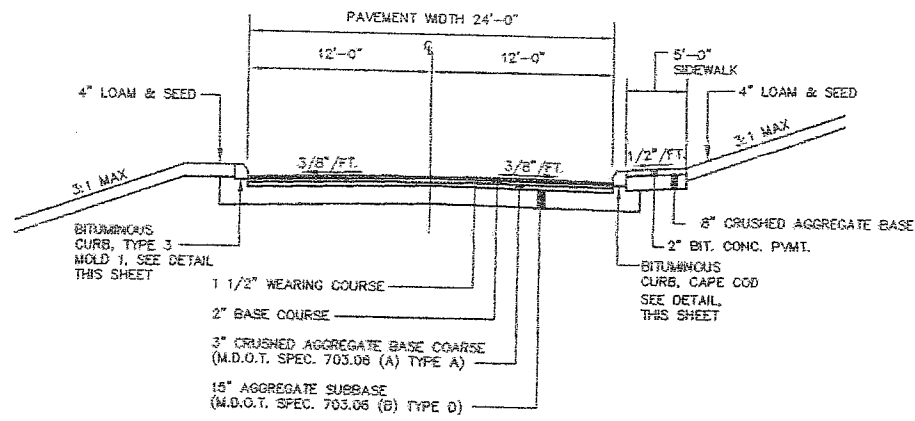
C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV. BY:	DATE:	STATUS:	

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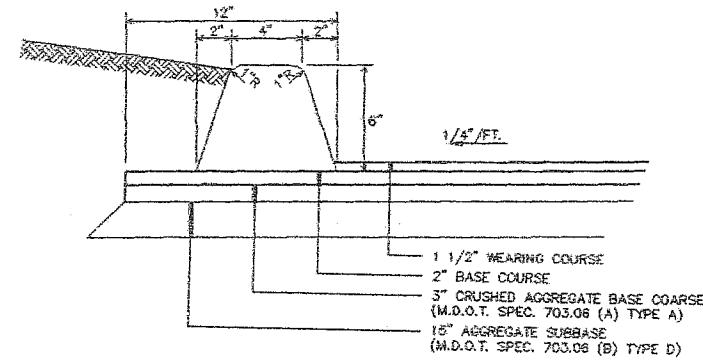
LANDSCAPE & LIGHTING PLAN 2
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE
FOR:
A.L.C. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04095-1339
TEL (207) 856-0277

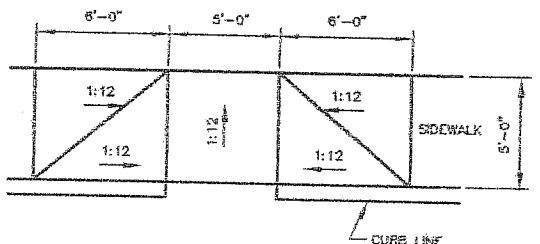
DESIGN BY:	JRP
DRAWN BY:	TFH
CHECKED BY:	WTC
DATE:	11-4-98
SCALE:	AS SHOWN
FIELD BK:	599
PROJ. NO:	97380
DRAWING:	97380L2
SHEET 8 OF 11	



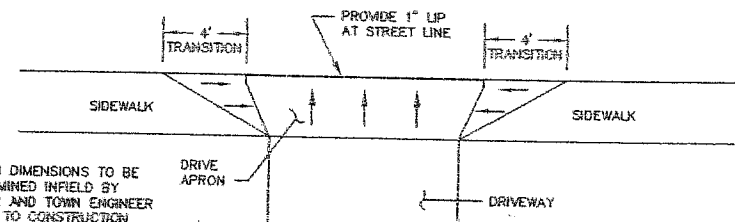
TYPICAL ROADWAY SECTION
NOT TO SCALE



BITUMINOUS CURB SECTION (TYPE 3, MOLD 1)
NOT TO SCALE

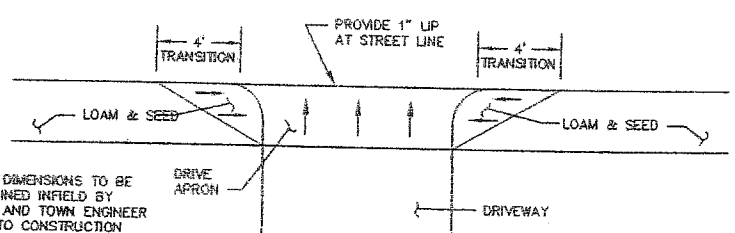


HANDICAP RAMP
NOT TO SCALE



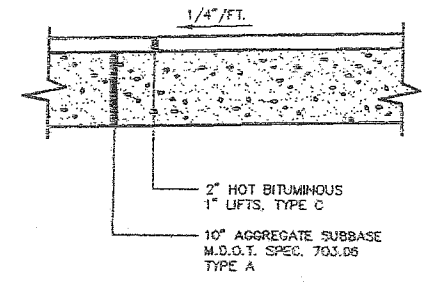
NOTE: APRON DIMENSIONS TO BE DETERMINED INFIELD BY OWNER AND TOWN ENGINEER PRIOR TO CONSTRUCTION

TYPICAL DRIVE APRON DETAIL WITH SIDEWALK
NOT TO SCALE

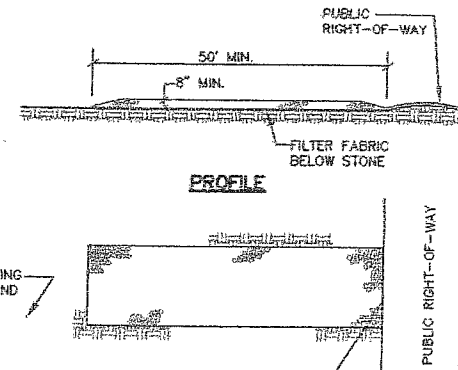


NOTE: APRON DIMENSIONS TO BE DETERMINED INFIELD BY OWNER AND TOWN ENGINEER PRIOR TO CONSTRUCTION

TYPICAL DRIVE APRON DETAIL WITHOUT SIDEWALK
NOT TO SCALE



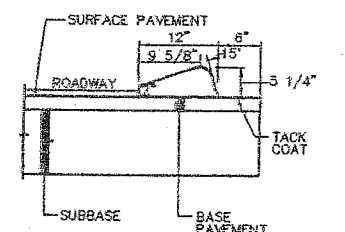
BITUMINOUS SIDEWALK
NOT TO SCALE



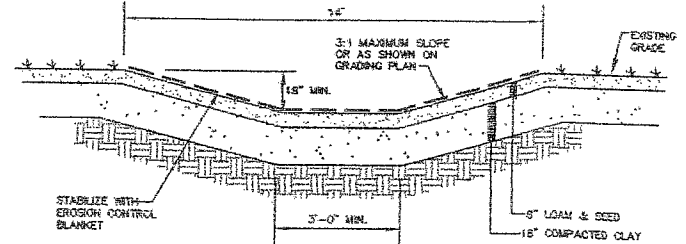
PLAN

- NOTES:
1. STONE SIZE- AASHO DESIGNATION M43, SIZE NO. 2 (2 1/2" TO 1 1/2"). USE CRUSHED STONE.
 2. LENGTH- AS SHOWN ON PLANS, MIN. 50 FEET.
 3. THICKNESS- NOT LESS THAN EIGHT (8) INCHES.
 4. WIDTH- NOT LESS THAN FULL WIDTH OF ALL POINT OF INGRESS OR EGRESS.
 5. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAROUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

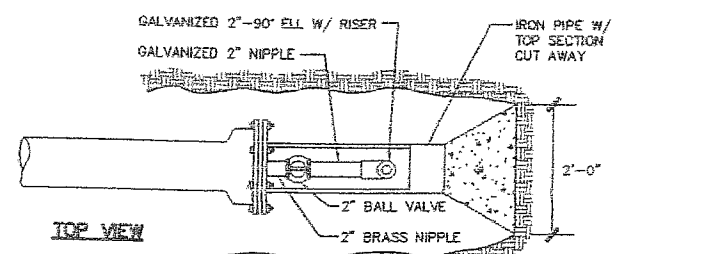
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



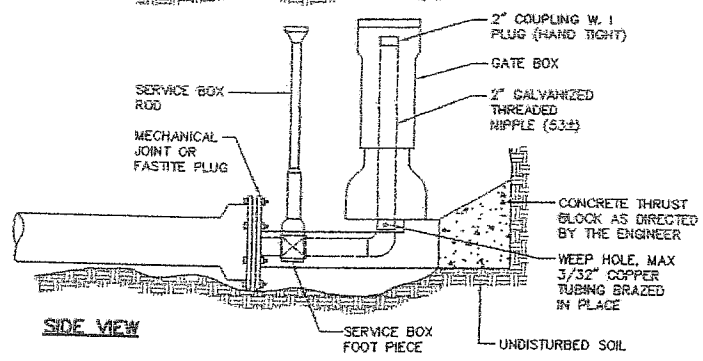
BITUMINOUS CAPE COD CURB
NOT TO SCALE



GRASSED SWALE
NOT TO SCALE



TOP VIEW



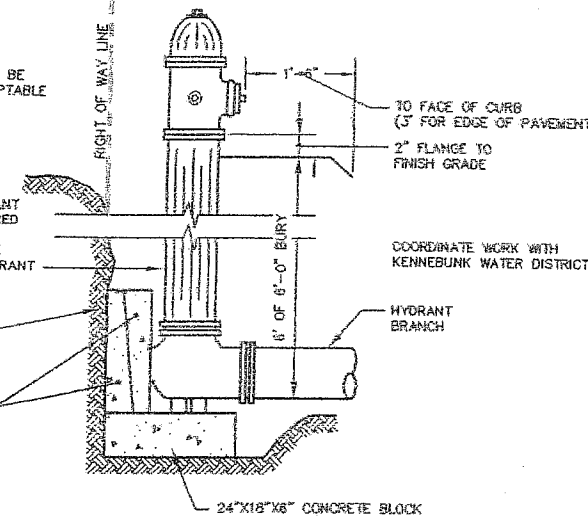
SIDE VIEW

STANDARD 2\"/>

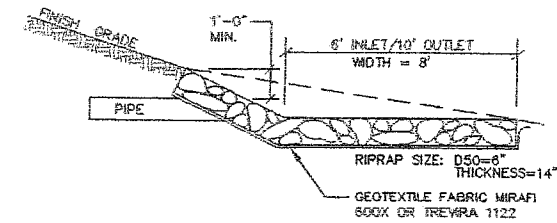
NOTE: OFFSETS MAY BE USED ONLY IF ACCEPTABLE TO THE ENGINEER

NOTE: IF ANY HYDRANT EXTENSION IS REQUIRED SPACERS SHALL BE INSTALLED FROM THE BOTTOM OF THE HYDRANT

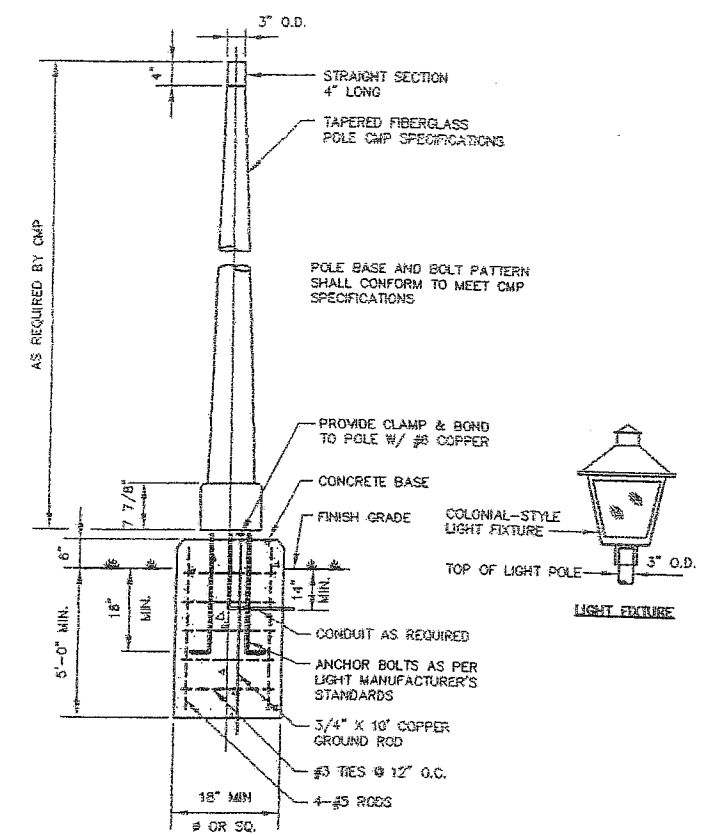
WALL OF TRENCH (UNDISTURBED) 2-18"x12"x4"x3" CONCRETE WEDGES OR AS DIRECTED BY THE ENGINEER



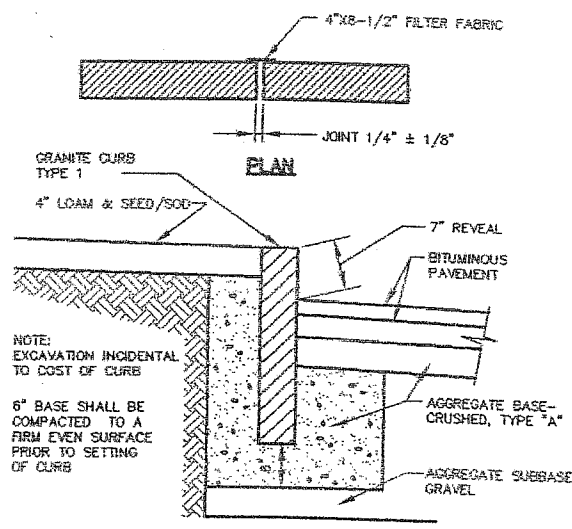
TYPICAL HYDRANT BLOCKING & REPLACEMENT
NOT TO SCALE



RIPRAP CULVERT INLET/OUTLET
NOT TO SCALE



TYPICAL LIGHT POLE DETAIL
NOT TO SCALE



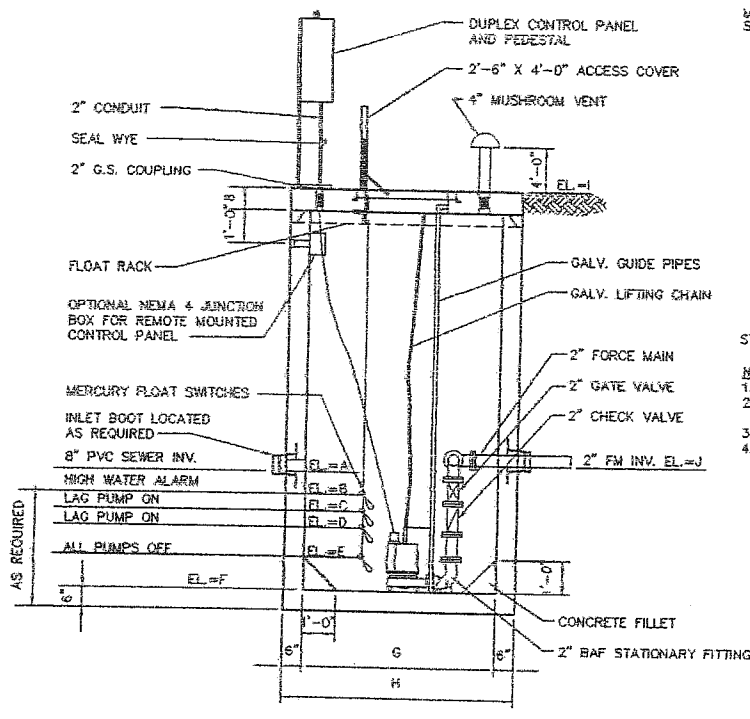
SECTION GRANITE CURB DETAIL
NOT TO SCALE

C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISED SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV:	BY:	DATE:	STATUS:

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DETAILS 1
OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE
FOR:
A.L.C. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

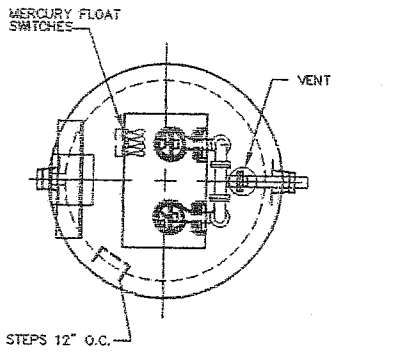
DESIGN BY:	JLW/SMF
DRAWN BY:	TFH
CHECKED BY:	SMF
DATE:	2-1-99
SCALE:	AS SHOWN
FIELD BK:	599
PROJ. NO.:	97380
DRAWING:	9738001



PUMP STATION DETAIL
NOT TO SCALE

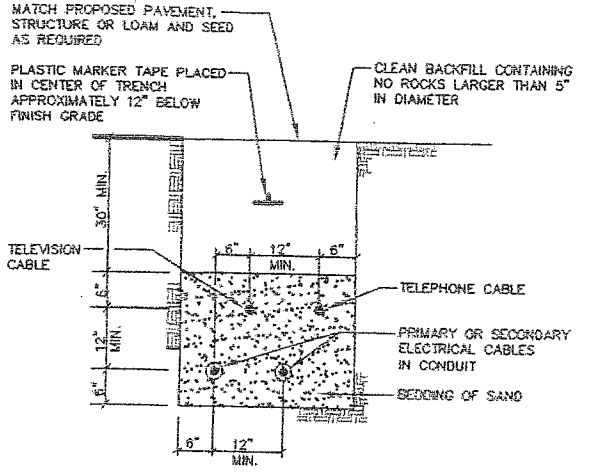
MEASUREMENT (ft.)									
A	B	C	D	E	F	G	H	I	J
77.28	78.28	75.76	75.26	74.28	73.28	6	7	85.0	79.5

PUMP STATION SCHEDULE

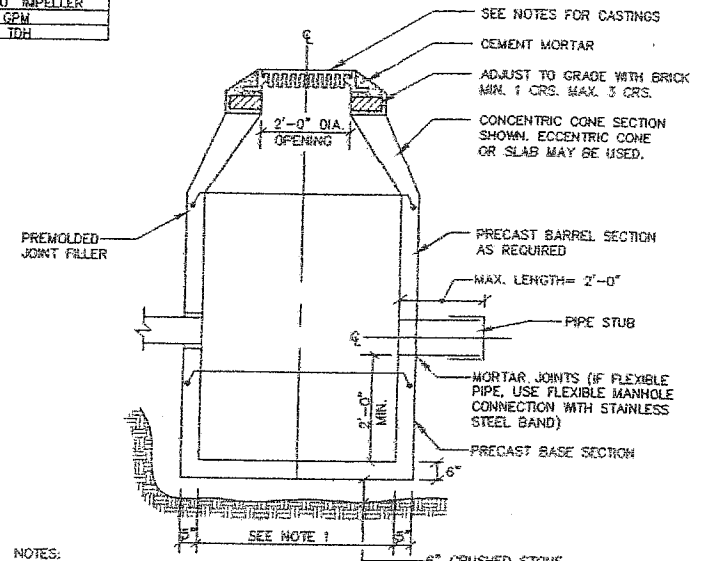


- NOTES:**
1. CONCRETE: 5,000 PSI AFTER 28 DAYS.
 2. REINFORCING: WALLS & FLOOR + X 4/4 X 4 W.W.M. SLAB TOP #5 @ 8" O.C.
 3. 4" FLANGED PIPING AND VALVES.
 4. AVAILABLE WITH DUAL DISCHARGE FOR PUMPING INTO SEPARATE FIELDS.

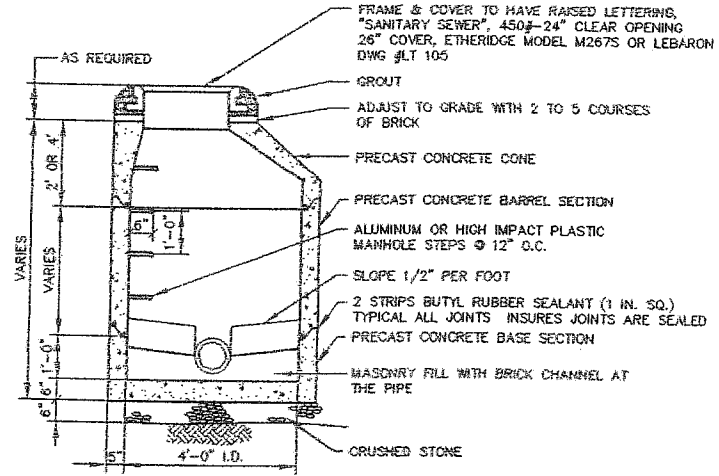
PUMP MODEL	
PUMP STA. 1	PEABODY BARNES
	SERIES 35E
	1.4 BHP
	1750 RPM
	6.00" IMPELLER
	35 GPM
	34" TDH



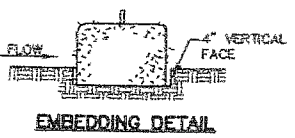
TYPICAL UNDERGROUND CABLE INSTALLATION
NOT TO SCALE



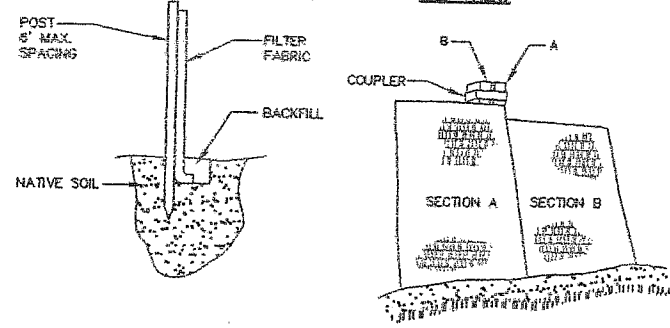
- NOTES:**
1. 4'-0" I.D. TYPICAL. SOME STRUCTURES MAY REQUIRE LARGER I.D. PROVIDE SHOP DRAWINGS.
 2. DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING.
 3. PIPE SIZES AND INVERTS AS NOTED ON PLANS.
 4. CATCH BASIN FRAME AND GRATE TO BE ETHERIDGE FOUNDRY M248G OR APPROVED EQUAL.
 5. DRAINAGE MANHOLE FRAME AND COVER TO BE ETHERIDGE FOUNDRY M248S OR APPROVED EQUAL. COVER SHALL BE MARKED "DRAIN".



PRECAST MANHOLE
NOT TO SCALE

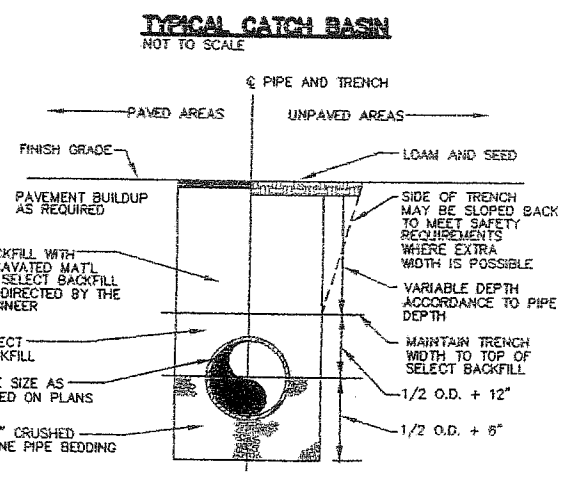


EMBEDDING DETAIL

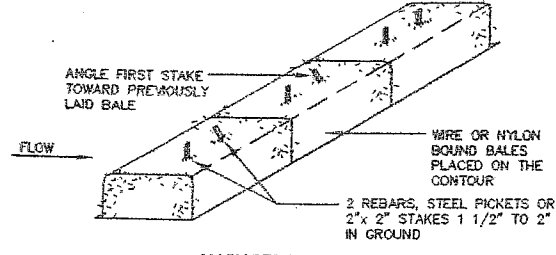


- INSTALLATION:**
1. EXCAVATE A 6"x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
 2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
 3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
 4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH. BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPANIED BY AN INTERCEPTION DITCH.
 5. JOIN SECTION AS SHOWN ABOVE.
 6. BARRIER SHALL BE MIRAFI SILT FENCE OR EQUAL.

SILT FENCE
NOT TO SCALE

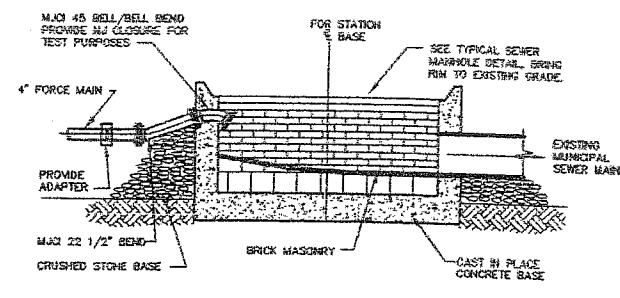


TYPICAL TRENCH SECTION
NOT TO SCALE



- NOTES:**
1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
 2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
 3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
 4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

HAY BALE BARRIER
NOT TO SCALE



FORCE MAIN TERMINUS MANHOLE
NOT TO SCALE

C	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
B	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV:	BY:	DATE:	STATUS:

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DETAILS 2

OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE

FOR:
A.L.C. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074

Sebago Technics
Engineering & Planning for the Future

12 WESTROCK COMMON
WESTROCK, ME 04098-1339
TEL (207) 255-0277

DESIGN BY:	J.W./SMF
DRAWN BY:	TFH
CHECKED BY:	SMF
DATE:	2-1-99
SCALE:	AS SHOWN
FIELD BK:	599
PROJ. NO.:	97380
DRAWING:	9738002
SHEET 10 OF 11	

EROSION & SEDIMENTATION CONTROL NOTES

A. Pre-Construction Phase

Prior to the beginning of any construction, hay bale barriers/filter fabric fencing or erosion control berms shall be staked/installed across the slope(s), on the contour, at or just below the limits of clearing or grubbing, just above any adjacent property line or watercourse to protect against construction related erosion. The placement of silt fences and hay bales shall be completed in accordance with guidelines established in Best Management Practices. This network is to be provided, installed and maintained by the contractor until all exposed slopes have at least 85%-90% vigorous perennial vegetative cover to prevent erosion.

The following erosion control measures shall be followed by the site contractor(s) throughout construction of this project.

B. Construction and Post-Construction Phase

- Areas undergoing actual construction shall only expose that amount of mineral soil necessary for progressive and efficient site construction and shall not exceed 14 days. Areas that will not be completed (covered and/or finish graded) within fourteen (14) days of disturbance shall be anchored with temporary erosion control measures. Temporary erosion control shall include erosion control blanket, netting, or mulch on all slopes 15% or greater and as directed by the inspecting engineer and as shown on the design plans. If disturbed areas do not receive final seeding by September 15th of the year of construction, then all disturbed areas must be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 square feet and covered with erosion control mesh. All slopes greater than 8 percent and not vegetated by September 15th shall be covered with erosion control blanket. Mulch shall be applied at a rate so that the soil beneath it is not visible through the mulch. Mulch shall not be applied over snow cover. Snow must be removed prior to placing mulch.
- At the start of construction, a stabilized construction entrance shall be installed. The construction entrance shall be maintained daily throughout construction to prevent material tracking onto public ways.
- All topsoil shall be collected, stockpiled, seeded with Rye at 3 lbs./1,000 square feet, and mulched on site and re-used as required. Siltation fencing shall be placed down gradient from stockpiled loam. Loam shall be stockpiled at locations designated by the owner. Designated locations shall be determined prior to or at the pre-construction meeting.
- All silt fences and/or hay bale barriers shall be installed according to this plan. These shall be maintained during development to remove sediment from runoff water. All the silt fences shall be inspected after any rainfall or runoff event, maintained and cleaned until all areas have at least 85%-90% vigorous perennial vegetative cover of grasses.
- All areas shall be seeded in accordance with the following vegetation plan.
- Hay bale barriers shall be placed around all catch basins until placement of road subbase gravel is completed.

C. Vegetation Plan

Revegetation measures shall commence immediately upon completion of construction. Disturbed areas shall be mulched and anchored prior to any storm event. If final seeding cannot be accomplished by September 15th, then all disturbed areas shall be hay mulched at a rate of 150 lbs. per 1,000 S.F. and seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 S.F. to provide winter protection. Hay mulch shall be secured with a suitable binder to include RMB plus and/or erosion control netting as directed by the owner/inspecting engineer.

Revegetation measures shall consist of the following:

- Four inches of loam will be spread over disturbed areas and smoothed, compacted and rolled to a uniform surface. Loam shall be free of subsoil, clay lumps, stones and other objects over 1" in diameter, and without weeds, roots or other objectionable material.
- Agricultural limestone shall be spread at the rate of 3 tons per acre. 10-20-20 fertilizer shall be applied at a rate of 800 lbs./acre. These soil amendments shall be incorporated into the soil prior to final seeding.
- Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 4 lbs./1,000 square feet to a mixture of 35% Creeping Red Fescue, 6% Red Top, 24% Kentucky Bluegrass, 10% Perennial Ryegrass, 20% Annual Ryegrass and 5% White Dutch Clover. The lawn areas will be seeded to a premium turf mixture of Bluegrass and/or Fescue; seeding rate at 3 lbs. per 1,000 square feet.
- Hay mulch shall be applied to all disturbed areas at the rate of 150 lbs. per 1,000 square feet, or a hydro-application of asphalt, wood or paper fiber will be applied following seeding (50 lbs. of mulch material per 1,000 square feet for hydro applications). A suitable binder, such as RMB Plus and/or erosion control netting will be used on hay mulch for wind control.
- All hay bale and/or filter fabric barriers will remain in place until seedings have become 85%-90% established and then removed within 10 days.

D. Erosion Control During Winter Construction

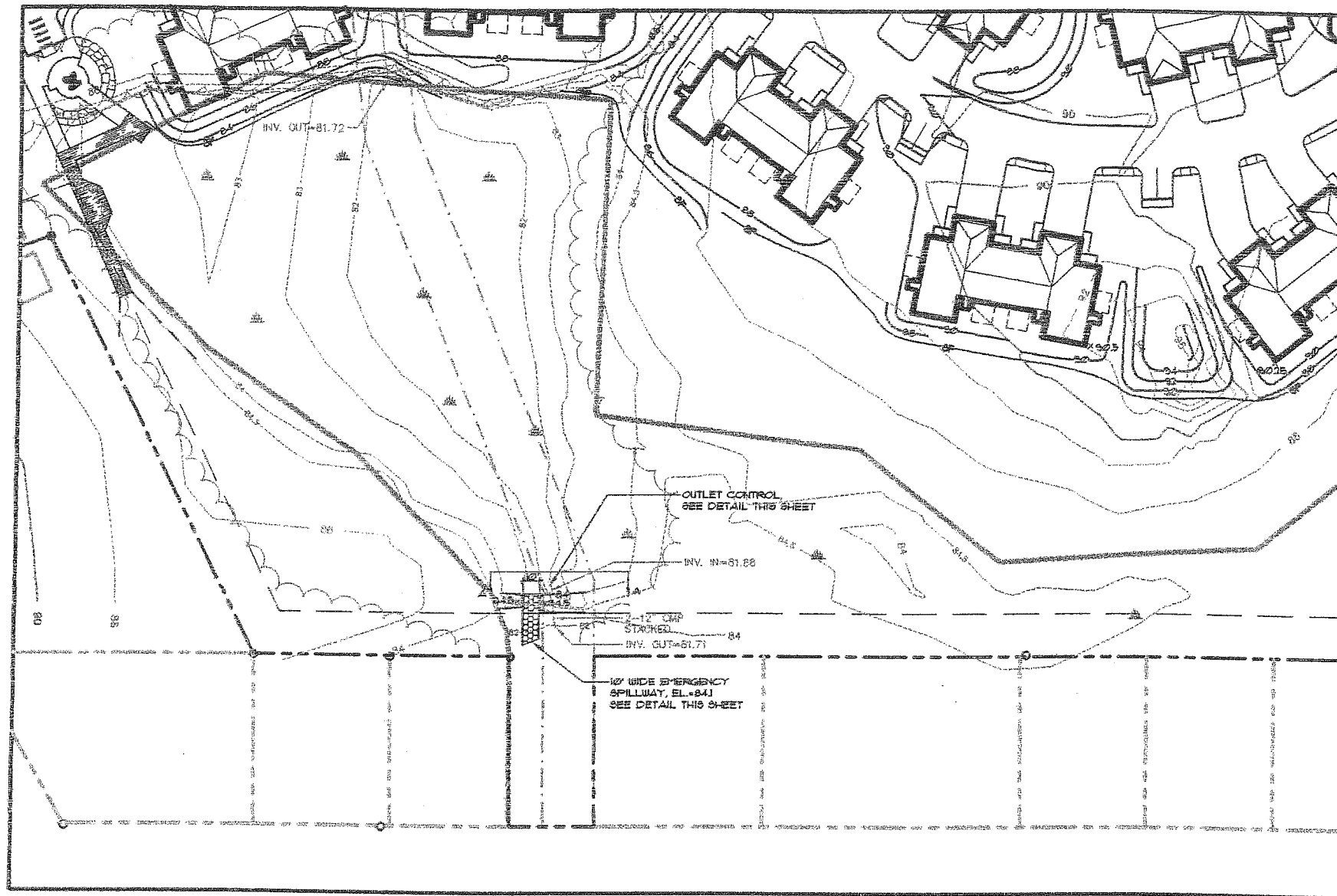
- Winter Construction Period: November 1 Through April 15
- Winter excavation and earthwork shall be completed such that no more than 1 acre of the site is without stabilization at any one time.

- Exposed area shall be limited to allowing these areas to be mulched in one day prior to any snow event.
- Continuation of earthwork operations on additional areas shall not begin until the exposed soil surface on the area being worked has been stabilized, such that no larger area of the site is without erosion control protection as listed in item 2 above.
- An area shall be considered to have been stabilized when exposed surfaces have been either mulched with straw or hay at a rate of 150 lb. per 1,000 square feet (with or without seeding) or dormant seeded, mulched and adequately anchored surface is not visible through the mulch.
- Between the dates of October 15 and April 1st, loam or seed will not be required. During periods of above freezing temperatures the slopes shall be fine graded and either protected with mulch or temporarily seeded and mulched until such time as the final treatment can be applied. If the date is after November 1st and if the exposed area has been loamed, final graded with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched. If construction continues during freezing weather, all exposed areas shall be continuously graded before freezing and the surface temporarily protected from erosion by the application of mulch. Slopes shall not be left unexposed over the winter or any other extended time of work suspension unless treated in the above manner. Until such time as weather conditions allow, ditches to be finished with the permanent surface treatment, erosion shall be controlled by the installation of bales of hay or stone check dams in accordance with the standard details show on the design drawings.
- A.) Between the dates of November 1st and April 15th all mulch shall be anchored by either peg line, mulch netting, asphalt emulsion chemical, track or wood cellulose fiber.
B.) Mulch netting shall be used to anchor mulch in all drainage ways with a slope greater than 2% for slopes exposed to direct winds and for all other slopes greater than 8%.
C.) Mulch netting shall be used to anchor mulch in all drainage ways with a slopes greater than 15%. After October 1st the same applies for all slopes greater than 8%.
- After November 1st the contractor shall apply dormant seeding for mulch and anchoring on all bare earth at the end of each working day.
- During winter construction period all snow shall be removed from areas of seeding and mulching prior to placement.

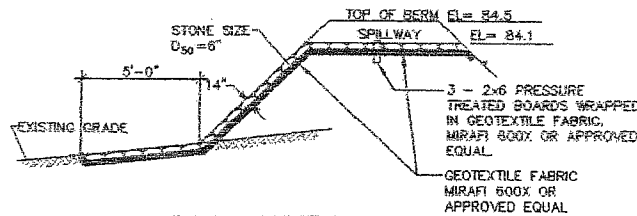
E. Inspections/Monitoring

Maintenance measures shall be applied as needed during the entire construction cycle. After each rainfall, the site contractor shall perform a visual inspection of all installed erosion control measures and perform repairs as needed to insure their continuing function.

Following the temporary and/or final seedings, the contractor shall inspect the site semi-monthly until the seedings have been established. Established means a minimum of 85%-90% of areas vegetated with vigorous growth. Reseeding shall be carried out by the contractor with follow-up inspections in the event of any failures until vegetation is adequately established.



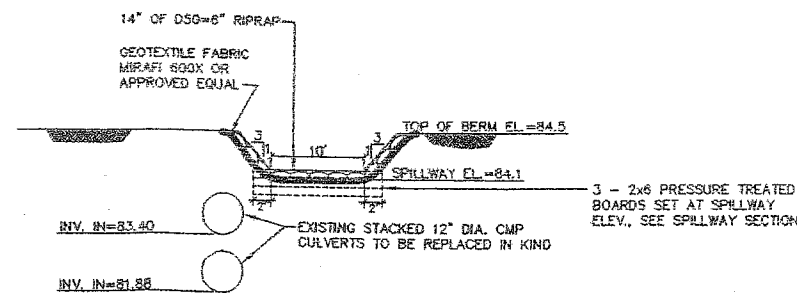
DETENTION POND DETAIL
SCALE: 1" = 40'



EMBANKMENT CONSTRUCTION

- CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPEC. 703.18.
- PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM DENSITY.
- INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
- LOAM, SEED, AND STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

SPILLWAY SECTION
NOT TO SCALE



OUTLET CONTROL DETAIL SECTION A-A
NOT TO SCALE

D	SMF	4-8-99	REVISE PER PLAN REVIEW COMMENTS
C	SMF	3-31-99	REVISE SPILLWAY, OUTLET CONTROL DETAILS
E	SMF	3-25-99	REVISE SITE PLAN SUBMISSION TO CITY
A	SMF	2-5-99	SITE PLAN SUBMISSION TO CITY
REV:	BY:	DATE:	STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

DETAILS 3

OF:
WASHINGTON CROSSING CONDOMINIUMS
ALLEN AVENUE
PORTLAND, MAINE
FOR:
A.L.C. DEVELOPMENT CORP.
258 BLACK POINT ROAD
SCARBOROUGH, MAINE 04074



DESIGN BY:	SMF
DRAWN BY:	NAL
CHECKED BY:	SMF
DATE:	2-1-99
SCALE:	AS SHOWN
FIELD BK:	598
PROJ. NO.:	97380
DRAWING:	97380D3
SHEET 11 OF 11	