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

1999-0151
Application I. D. Number

10/25/1999
Application Date

V.P. Builders Inc.
Applicant

P.O. Box 41, Westbrook, ME 04098
Applicant's Mailing Address

Holm Ave Condos
Project Name/Description

166 - 190 Holm Ave, Portland Maine 04103
Address of Proposed Site

Sebago Technics
Consultant/Agent

270 C003,270-A-018&019
Assessor's Reference: Chart-Block-Lot

Agent Ph: 856-0277 Agent Fax: 856-2206
Applicant or Agent Daytime Telephone, Fax

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

R3
Zoning

Proposed Building square Feet or # of Units

Acreage of Site

Check Review Required:

☑ Site Plan (major/minor)
☐ Subdivision # of lots
☐ PAD Review
☐ 14-403 Streets Review
☐ Flood Hazard
☐ Shoreland
☐ HistoricPreservation
☐ DEP Local Certification
☐ Zoning Conditional Use (ZBA/PB)
☐ Zoning Variance
☑ Other 17 lots condos

Fees Paid: Site Plan $500.00 Subdivision $175.00 Engineer Review $7,358.33 Date 10/11/2001

Reviewer Kandi Talbot

Planning Approval Status:

☐ Approved
☑ Approved w/Conditions See Attached
☐ Denied

Approval Date 05/09/2000 Approval Expiration 05/09/2001 Extension to ☑ Additional Sheets Attached

☑ OK to Issue Building Permit — Kandi Talbot (signature) — 12/10/2001 (date)

Performance Guarantee ☑ Required* ☐ Not Required

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☑ Performance Guarantee Reduced	12/20/2001 (date)	$52,624.00 (remaining balance)	Jay Reynolds (signature)
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1 see Planning's conditions

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partment of Planning & Development
e D. Urban, Director

CITY OF PORTLAND

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Housing & Neighborhood Services

Alexander Q. Jaegerman, AICP
Planning

John N. Lufkin
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August 9, 2004

Mr. Cliff Plummer
VP Builders, Inc.
P.O. Box 41
Westbrook, ME 04098

RE: Holm Avenue Condominiums, Celebration Court
ID #1999-0151, CBL #270-C-3

Dear Mr. Plummer:

Thank you for addressing many of the items identified in my previous letter dated April 27, 2004. After revisiting the site a few weeks ago, the following is an updated list of site work that needs completion in order for the City to sign off on the Holm Ave./Celebration Court project:

1. There are a few mature trees that are dead as a result of construction. These have been assessed and identified by the City arborist and have yellow polka-dot flagging around them. These pose a threat to the buildings and must be removed. They are behind Units 1-4, and also next to Unit 6.

Behind #7

2. There are areas of the lawn that need to be re-seeded.

Behind #15

3. Minor regrading beside a few of the units needs to be done in order to allow positive drainage away from the foundations. These can be identified in the field again when your site excavator can return to complete the work.

4. Grading at daylight basements: After meeting with Gorham Sand and Gravel, it was confirmed with a laser level that there is positive pitch/slope away from the sliding doors. This area appears to be affected mostly by roof runoff. The City is requiring the installation of either item a or b, and item C:

   a. Stone drip edge installed along basement wall. or
   No/OK b. Gutters along rear roof line with splash guards.
   No c. Patio installation, which should improve sheet flow away from building if installed correctly.

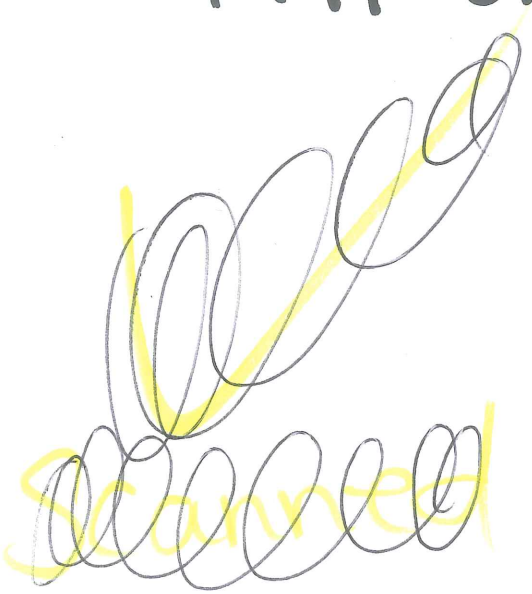
There were other items that have been identified as potentially deficient or incomplete. They include the following:

5. Drainage entering the dumpster enclosure/ice buildup: As explained to me at our meeting, this item may be resolved. I will wait until your defect guarantee (not submitted yet) expires to re-assess this item.
6. Puddling in the pavement: After consulting with an engineer, the amount of standing water (less than 2/10 of an inch measured one day after receiving 0.35" of rain) does not warrant any reconstructive measures. This situation, unfortunately, will add to the maintenance of the paved way during the winter. A way of correcting this is to shim the pavement with more asphalt, which has its advantages and disadvantages. Another recommendation is to add another structure to drain the area. At this time, the City does not require any action on this item, but

389 Congress Street • Portland, Maine 04101 • (207) 874-8721 • FAX 756-8258 • TTY 874-8936

270-C-3
170 Holm Ave.
Holm Ave. Condos
VP Builders

1999-0151



on Spreadsheet

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recommends working with the association to resolve their concerns.

7. Dead Trees: The City arborist identified trees that were dead that were outside the limits of work. Although they do not pose any safety issues, it is recommended that they be removed.
8. Grading in the rear of the properties/swale: It is my opinion that these areas are functioning correctly/as designed.

As stated previously, upon completion of items 1-4, a defect guarantee is required for the project.

If there are any questions, please contact me at 874-8632.

Sincerely,

Jay Reynolds
Development Review Coordinator

cc: Alexander Jaegerman, Planning Division Director
Sarah Hopkins, Development Review Services Manager
Jeff Tarling, City Arborist
Mr. Thomas Shaw, Gorham Sand and Gravel, 939 Parker Farm Road, Buxton, ME 04093
Anita Day, 7 Celebration Court, Portland, ME 04102

June 22, 2004

Fax To: Jay Reynolds

Fax From: Cliff Plummer
V.P. Builders Inc.

Regarding: Grading around Units
at Holm Place Condominium
Celebration Court
Portland, Maine

A reply is requested.

CAP

5 Pages including Cover

V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine 04098

June 22, 2004

Mr. Jay Reynolds
Development Review Coordintor
City of Portland, Maine
389 Congress Street
Portland, Maine 04101

Re : Holm Place Condominium, Celebration Court
ID # 1999-0151, CBL, # 270-C-3

Dear Mr. Reynolds :

V. P. Builders Inc. is writing you today to try to resolve an issue with grading that has come up in a Code Violation letter issued to V. P. Builders Inc. on June 8, 2004. The Code Violation I am referring to is found three times on the letter sent to V. P. Builders Inc. We are enclosing a copy of Mr. Michael Nugents letter for your review. The Code Violation as written states :

The Final Grading around the unit exceed the 1:12 allowance for the first 8 feet outside the building. (section 1813.7)

One of the Units mentioned in Mr. Nugent's letter is street address 15 Celebration Court or V. P. Builders Inc.'s Unit # 4 as delineated on the original site Plan. This is the Unit that we met together with the Unit owner Mr. Ben Hawkins, Mr. Tom Shaw and one of his employees and discussed grading for nearly an hour. As I am sure you will recall Tom Shaw from Gorham Sand and Gravel Inc. used a laser level to determine if there was proper grade away from the foundation In that conversation it was decided that yes there was a proper grade away from the foundations behind all of the Units that have a daylite basements – namely, Units 1, 2, 3, and 4 as shown on the Site Plan of Holm Place Condominium.

V. P. Builders Inc. considers all the Code Violations cited by Mr. Michael Nugent in his letter to be very serious, but in particular the Violations mentioned about grading. Both V. P. Builders Inc. and Gorham Sand and Gravel Inc. have been working with you completing all of the items on your April 27, 2004 letter and on June 7, 2004 V. P. Builders Inc. sent you a letter stating that all items had been completed. We have also discussed in detail grading issues in the Recreational Area delineated on the Site Plan and grading issues around the Units.

The Unit owners are aware of Mr. Nugent's issue with the grading and have instructed V. P. Builders Inc. not to install Patios in the rear of the Units until the grading issue is resolved. In other words, the Unit owners are expecting that the grade behind some of the Units will change.

V. P. Builders Inc. and Gorham Sand and Gravel Inc. need to hear from you in writing regarding the grading around the Units at Holm Place Condominium. It is our understanding that you are satisfied with the grading around these Units. At your site visit we discussed the minor grading behind some of the units you mentioned in your letter in # 8 and decided that the grading was adequate.

We look forward to hearing from you with regard to the grading issues that have been mentioned in Mr. Nugent's Code Violation Letter dated June 8, 2004.

Sincerely yours,

Clifford A. Plummer
President
V. P. Builders Inc.

Department Director
Lee D. Urban

Division Directors
Alexander Q. Jaegerman
Planning

John N. Lufkin
Economic Development

DEPARTMENT OF PLANNING AND DEVELOPMENT

June 8,2004

Clifford Plummer &
Patricia Verrill
40 Celebration Court
Portland, Maine 04102

Re: Code issues Celebration Court (270 C003) **Cert. Mail #7003 3110 0002 6062 0126**

Dear Mr. Plummer and Ms. Verrill,

I have been contacted by residents of the above project for the purpose of evaluating the completed construction to identify performance related code deficiencies. I performed a partial inspection of 3 units on 6/2/04. The units were 15, 28 and 32.

The following were code violations noted and the applicable sections of the Code:

Unit 28 – The foundation wall adjacent to the bulkhead has a crack that shows evidence of groundwater infiltration. (Section 1813.1 and Section 115. Workmanship)

The Second Floor Bathroom vents are terminated into the Attic Space without appropriate exhaust fitting to control the flow of moisture to the exterior of the building (Section 115. Workmanship)

The First Floor Bathroom vents are terminated into the basement without appropriate exhaust fitting to control the flow of moisture to the exterior of the building (Section 115. Workmanship)

The Basement floor has cracks that are increasing in numbers. (Section 115. Workmanship)

Grading → The Final Grading around the unit exceed the 1:12 allowance for the first 8 feet outside the building. (section 1813.7 Site Grading)

Unit 32-- The Basement floor has cracks that are increasing in numbers. (Section 115. Workmanship)

The Second Floor Bathroom vents are terminated into the Attic Space without appropriate exhaust fitting to control the flow of moisture to the exterior of the building (Section 115. Workmanship)

The First Floor Bathroom vents are terminated into the basement without appropriate exhaust fitting to control the flow of moisture to the exterior of the building (Section 115. Workmanship)

Grading → The Final Grading around the unit exceed the 1:12 allowance for the first 8 feet outside the building. (section 1813.7 Site Grading)

The Copper potable water piping is not grounded , electrically (N.E.C)

There is no attic access (Section 1211.2)

There is no handrail for the bulkhead stairs.

Unit 15-- The Second Floor Bathroom vents are terminated into the Attic Space without appropriate exhaust fitting to control the flow of moisture to the exterior of the building (Section 115. Workmanship)

The First Floor Bathroom vents are terminated into the basement without appropriate exhaust fitting to control the flow of moisture to the exterior of the building (Section 115. Workmanship)

The foundation wall has cracks that show evidence of groundwater infiltration. (Section 1813.1 and Section 115. Workmanship) These are significant cracks that appear to have structural implications.

Grading → The Final Grading around the unit exceed the 1:12 allowance for the first 8 feet outside the building. (section 1813.7 Site Grading)

There are spaces on each side of the Masonry Chimney where there is no weather proofing, you can see daylight from the basement and there is evidence of moisture . (Section 1404.3)

These conditions are consistent throughout the units and it is the City's position that all units that have these conditions must be brought into compliance, in a manner consistent with the time limits set forth in this notice.

It is required that the services of a structural engineer be obtained to perform an evaluation of the foundation systems to identify the source of the wall and floor cracks and insure that required repairs are done in an appropriate manner.

This is a notice of violation pursuant to Section 116.2 of the Code. A plan of correction shall be shall be submitted within 30 days of the date of this notice. This shall include a description of the work to be performed in each unit, who will be performing the work and the date it will be completed. This shall also include an agreement with an engineer to review the foundation systems as described above. All corrections must occur within 90 days of the date of this notice. Failure to comply will result in this office referring the matter to the City of Portland Corporation Counsel for legal action and possible civil penalties, as provided for in Section 1-15 of the Code.

Yours truly,

Michael J. Nugent
Manager of Inspection Services

V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine 04098

October 4, 2004

Mr. Jay Reynolds
Development Review Coordinator
Department of Planning & Development
389 Congress Street
Portland, Maine 04101

Re : Your Letter dated August 9, 2004 – Holm Avenue Condominiums, Celebration Court ID # 1999-0151, CBL # 270-C-3

Dear Mr. Reynolds :

V. P. Builders Inc. is in receipt of your updated list of site work items dated August 9, 2004. As you are aware your list of items Dated April 27, 2004 has been completed and inspected by you. The list dated August 9, 2004 is now complete. We will address each item on your list.

2 Behind #7

1. V. P. Builders Inc. has completed the work it will do with regard to the removal of trees within the limits of work.

Spotty Behind #15

2. V. P. Builders Inc. has completed the work it will do with regard to re-seeding the lawns at Holm Place Condominium.
3. V. P. Builders Inc. has had Gorham Sand and Gravel Inc. back to the site of Holm Place Condominium and they have done the minor re-grading discussed during your last visit.

No patios yet

4. Grading at daylight basements – V. P. Builders Inc. has installed stone drip edge along basement walls in all areas that did not have the stone drip edge already in place.
5. Drainage entering the dumpster enclosure - No action necessary.
6. Puddling in pavement – No Action necessary.
7. Dead Trees – V. P. Builders Inc. has completed the work it will do with regard to the removal of trees.
8. Grading in the rear of Units – No action is necessary.

I would be happy to meet you and view the items on your list that have been completed by our people. If you want me present when you revisit Holm Place Condominium please feel free to contact me on my cell phone 329-1261.

I look forward to meeting with you or hearing back from you as to whether all that we have done is satisfactory to you.

Sincerely yours,

Clifford A. Plummer President V. P. Builders Inc.

Clifford A. Plummer

From: "Alex Jaegerman " <AQJ@portlandmaine.gov>
To: <JAYJR@portlandmaine.gov>, <SH@portlandmaine.gov>
Date: Tue, Aug 3, 2004 4:08 PM
Subject: Re: Pavement/Puddling

OK, I'll yield to reason.

Alex.

>>> "Jay Reynolds" <JAYJR@portlandmaine.gov> 08/03/2004 3:22:35 PM >>>
I consulted another engineer on the matter. Please read the exerpt below and advise if the City should require repairs made to Holm Avenue PRUD that we looked at this morning.
Thanks.
Jay

My opinion is that the puddle should be over ¾" deep before anything is done. Most mix has 3/8 to ½" stone and does not will not pack tight if you are putting in a hole any shallower --- then there is the edges where the stone unravels. Looks like hell. If you use a sand mix or curb mix, because it is so thin, the pavement cools to fast and it does not stick (delaminates) to the pavement underneath. If you grind the pavement and the place mix back in the grind area, looks like a trench cut. You could try to grind an area that would drain the puddle, be the pavement would look like a cut. Overlaying the whole street for a small puddle may fix it, but that is costly. Most people, if they had to pony up their money ---- would live with it. In this weather, a puddle has a short life. Is the puddle in a driveway or at a walkway lead? If not (ice hazard), the problem is only cosmetic. ----- But then there is politics ----

V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine 04098

June 7, 2004

Mr. Jay Reynolds
Development Review Coordinator
City of Portland, Maine
389 Congress Street
Portland, Maine 04101

Re : Holm Place Condominium, Celebration Court
ID # 1999-0151, CBL # 270-C-3

Dear Mr. Reynolds :

We are addressing the items contained in your letter dated April 27, 2004. We also want to thank you for your site visit with myself and Mr. Tom Shaw of Gorham Sand and Gravel Inc. on May 19, 2004. All work on the list has been completed. At this time we will address each item on your list.

Item # 1 – Low area in the finish pavement - At your site visit it was my understanding that the area where the low spot exists is located where the pavement is flat. You and Tom Shaw agreed that if the area was heated and tried to be sloped that the low spot would just be moved to another location. Subsequently, it was decided that no action would be necessary to correct the low area.

Item # 2 – The Parking spaces :

a. Curbing/Wheel stops are in place.
b. The Parking lot is now striped.

Item # 3 – The crosswalk has been painted.

Item # 4 – Fencing - All fencing is installed at this time.

Item # 5 – The recreation area :

a. The proper SD – 8 piping was used in accordance with plans. The standing water in the recreational area was caused by a sump pump that had been pumping 4 to 5 thousand gallons of water on the surface a day all Spring. The pump has been connected to the drainage system now and standing water in the recreation area should be reduced to only times when there is a heavy rain which is exactly the way the plan was designed.
b. Benches – all benches are in place at this time.
c. Re-seeding – the entire recreation area was re-seeded.

Item # 6 – Silt/Sedimentation has been removed at this time from the pipe inlet.
Item # 7 - Silt fencing has been removed as requested.

Item # 8 – Minor re-grading behind a few of the units. All work that was requested has been completed.

We will be forwarding to you the necessary paper work for the performance guarantee as soon as possible.

Sincerely yours,

Clifford A. Plummer
President
V. P. Builders Inc.

Cc: Mr. Tom Shaw, Gorham Sand and Gravel
Anita Day, 7 Celebration Court, Portland, Maine

Department of Planning & Development
Lee D. Urban, Director

Division Directors
Mark B. Adelson
Housing & Neighborhood Services

Alexander Q. Jaegerman, AICP
Planning

John N. Lufkin
Economic Development

CITY OF PORTLAND

April 27, 2004

Mr. Cliff Plummer
VP Builders, Inc.
P.O. Box 41
Westbrook, ME 04098

RE: Holm Avenue Condominiums, Celebration Court
ID #1999-0151, CBL #270-C-3

Dear Mr. Plummer:

Upon request, a site visit was done in November of 2003 to identify remaining items to be completed for the Holm Ave./Celebration Court project. The following was noticed:

1. There is a low area in the finish pavement between catch basin #3 and #4. This should be corrected so that drainage is directed to either one of the catch basins.
2. The parking spaces:
    a. Need Curbing/Wheel stops to provide a safety barrier between the spaces and the walkway.
    b. Need to be striped.
3. The crosswalk needs to be striped as shown on the plan.
4. The fencing needs to be installed:
    a. Around the Recreation area.
    b. Around the Detention pond.
    c. Between units 13 and 14.
5. The recreation area:
    a. At the time of the site visit, had areas of standing water. These areas are in the vicinity of the underground drainage line (SD-8), which is proposed to be perforated pipe. Please provide documentation that this utility was installed according to plan and/or is functioning correctly.
    b. Install benches.
    c. Potentially needs minor re-seeding in the spring.
6. Silt/Sedimentation (due to construction of building 13/14) needs to be removed from the pipe inlet/rip-rap area.
7. The Silt fencing along the Northerly boundary line(s) can be removed at this time.
8. Minor regrading behind a few of the units needs to be done in order to allow positive drainage away from the foundations.

Upon completion of these items, a defect guarantee is required for the project. Attached are two sample forms that will assist in setting up this guarantee.

If there are any questions, please contact me at 874-8632.

Sincerely,

Jay Reynolds
Development Review Coordinator

HOLM PLACE CONDOMINIUM ASSOCIATION
c/o Anita Day, President
7 Celebration Court
Portland, ME 04102

May 18, 2004

Clifford Plummer
Patricia Verrill-Plummer
VP Builders, Inc.
P. O. Box 41
Westbrook, ME 04098

Re: Holm Place Condominiums Association

Dear Cliff and Pat:

The Board has been reviewing a number of matters that are within its normal course of business and also were brought to its attention by homeowners related to the construction of Holm Place Condominiums. These matters need to be addressed by you, as the builder, and are listed below.

1. Enclosed please find invoice dated July 30, 2003, paid by Jackie Hayes, Unit 7, 39 Celebration Court, for extermination of an ants nest. Ms. Hayes advises that she informed you on more than one occasion that she had continuing problems with ants in her home. Finally, Ms. Hayes was forced to call an exterminator to remedy the problem and was forced to pay $80 from her own pocket for this service. Because Ms. Hayes incurred this cost prior to this Board taking over in November, 2003, we are forwarding this bill to you for reimbursement to Ms. Hayes. Should Ms. Hayes continue to have problems with ants this summer of 2004, the Board will hire and pay for an exterminator.

2. At the first Association meeting in November, 2003, the Association was advised by Cliff that VP Builders would be attaching the sump pump in Unit 16, 33 Celebration Court to the main drain to eliminate the water draining onto the common area. We realize that you have taken steps to correct that problem, but request that you advise if the necessary work has been completed.

3. Please provide the Board with a copy of the final plans/drawings, as well as the Public Offering Statement, for Holm Place Condominiums.

4. Please provide the Board with the names, addresses and phone numbers of all contractors on this job, past and present (i.e., foundation, masons, excavators, street pavers, grading, plumbers, electricians, carpenters, siding, window installers, etc.).

5. Please provide the Board and homeowners with copies of all warranties (i.e., furnace, roof, siding, windows, doors, **etc.**) and specify who is the owner of each item (the Board or homeowner). This will aid the Board and homeowners in developing maintenance plans, i.e., 1 year, 5 years, 10 years, etc.

6. The Board is very concerned about the "sewer" odor coming from the drain between Units 10 and 11 and also in the basement of Unit 10 (32 and 28 Celebration Court). This could be an indication of a more serious problem and possible health hazard. The Board was advised that you took samples and had them tested, and we are requesting that you advise the name and address of the testing lab and provide us with the written copy of the results. Obviously, we will need more follow-up on this problem, and the City's Health Department and any consultants will need those results.

7. Many units still need patios and/or decks installed per the plans of the complex and homeowners' Buy/Sell contracts with you. In some instances, homeowners are waiting for you to install their patios prior to erecting a deck. Please advise the Board when patios and/or decks will be installed. Note, however, that patios for some of the units cannot be installed until the grading issues are addressed by you. Please provide the Board with the name, and address and phone number of the contractor(s) who will be installing the decks and patios.

8. Also at that November, 2003 meeting, Cliff advised the Association that in early Spring, 2004 the common areas would be graded, rototilled, reloamed and reseeded; and all lawns would be reloamed and reseeded. We were led to believe that all of this work would be done by professional contractors at no charge to the Association. As of this date, the work has not been done.

a. The lawns are a mess, with sand and salt left over from the winter. They have not been reloamed and the sand and salt have not been removed. Instead, Cliff personally broadcast grass seed onto patchy areas of some of the lawns directly over the sand and salt and then covered the seeds with hay. This is not what was promised and is unacceptable.

b. The common areas have not been graded, rototilled, reloamed and reseeded as promised. Water in the large common area behind Units 15 and 16 is still not draining properly. In conversations with Jay Reynolds, Development Review Coordinator of Portland's Department of Planning & Development, he advised the Association President that this area was too flat and not graded properly. The area would have to be regraded to allow the water to run toward the drain. The regrading was not done, although a fence has been erected. The grass in that area looks terrible and obviously will need to be rototilled, reloamed and reseeded after regrading.

c. There is a dead tree behind Unit 6, 20 Celebration Court, that needs to be removed. The homeowner advised you on several occasions that the tree is in bad condition, has created a dangerous condition and could fall onto the house. As of this date, the tree has not been removed.

d. At the November 2003 meeting, Cliff advised the Association that any plantings that did not survive the winter of 2003 would be replaced in the spring. So far, they have not been replaced.

e. At the November 2003 meeting, Cliff advised the Association that all common areas and areas behind the units would be cleared of dead trees and debris left over from construction. The area behind Units 9, 10, 11, 12 and 13 have large piles of debris and tree stumps. We understand that some of this debris, while technically not on Holm Place Condominiums property, was put there by you, the builder, during construction. All of that debris needs to be removed.

13 + 14 ?

f.. There is an erosion problem behind Units 14 and 15 caused by water runoff from the area behind Units 9, 10, 11 and 12. The water is channeling behind Units 14 and 15 toward the catch basin and eroding away the ground on both sides. A proper channel needs to be installed with rocks lining its sides and bottom.

g. The ground around Units 1, 2, 3 and 4 is graded toward, instead of away, from those Units and that needs to be rectified. Obviously, ground-level patios cannot be installed as long as this problem exists. Water accumulates so high behind Unit 4 that it spills over the base of the sliding door into the basement. Water puddles up instead of draining behind Unit 2 because the grade runs toward, not away from, the unit. The side slopes of these four units need to be cut back and retaining walls installed. Also the ground leading from the sliding doors to the edge of the property needs to be graded to slope away from, instead of toward, the units. The Association President discussed this matter with Jay Reynolds. He advised that, regardless of the plans, if the ground is not graded properly and flooding conditions exist, the builder has a responsibility to correct those problems including, if necessary, installation of retaining walls. Note: The owner of Unit 1 has personally started to cut back on the slopes, install retaining walls and regrade the ground to redirect the water flow.

I DID NOT SAY THAT!

h. Because of improper grading and runoff, water accumulates in front of the trash area. This caused a major and dangerous problem during the winter with ice build up and needs to be corrected as soon as possible. Also, because of this improper grading and runoff, the ground on the side of the trash area going into the drainage basin is eroding. The dirt around one of the evergreens is washing away exposing the roots and the tree is dying.

The Board is requesting the name, address and phone number of each contractor who will be completing items 8 a through h.

9. The following Unit Owners have brought their complaints directly to the Board for action because they have been unable to get a response from you. The Board has determined that these problems are under warranty and the responsibility of the builder and, therefore, turn these complaints over to you for immediate attention.

a. **Unit 4, 15 Celebration Court**, has advised the Board that the following problems exist and that you have refused to discuss or correct the problems:

* The cement northeast basement wall has two cracks, one horizontal and the other vertical, that could indicate a structural problem.

* Water is entering the basement from both sides of the chimney.

* There is an uncapped 4" pipe in the basement.

* There is seepage at the sewer pipe wall in the basement.

* The exterior siding on either side of the chimney is improperly installed allowing moisture and weather to penetrate the inside of the building.

* Many parts of the building exterior walls are missing the vinyl weather shield between the insulation and sheet rock.

* There is a cold air leak and draft by the front door.

* The back garage door is missing the kick plate and the metal finishing above the door.

b. **Unit 11, 28 Celebration Court**, has advised the Board that the following problems exist that need to be corrected. You advised the Unit Owners, in writing, that the cracks in the basement walls and floor and subsequent leaks were not your problem and they should take up these matters with the subcontractors. The Unit Owners did not have separate contracts with the subcontractors; you, the builder, hired the subcontractors. Therefore, you, the builder, are responsible for repair of these problems.

* The basement wall is leaking water because of a crack.

* The bulkhead door is rotting from improper drainage water damage because of unpainted trim.

* Other unpainted areas that have been brought to your attention that have not been corrected.

Note: The above two complaints are being brought to you because the owners have written directly to the Board requesting action. However, you were previously put on notice of these and other numerous Unit Owner complaints that are under warranty and need to be addressed by you.

The Board is requesting the name, address and phone number of each contractor who will be completing items listed in 9 a, b and c.

Since we are almost at the end of May, and many of the items listed in this letter have existed for quite some time, the Board looks to you to complete these items within the next thirty (30) days. We further request that we receive from you, in writing, within five (5) days of your receipt of this letter, your plan for completion of these items. Thank you.

Truly yours,

Holm Place Condominiums Association Board

By: Anita Day, President
Pamela LePage, Secretary
Jocelyn Chase, Treasurer
Steve Obremski
Forest Barter

Certified Mail #7001 2510 0002 9558 2001, RRR

cc: Jay Reynolds, Development Review Coordinator for
Portland Department of Planning & Development
Michael Nugent, Manager, Inspection Services Program
Kevin Carroll, District Inspector/Code Enforcement
Timothy Norton, Esquire

7 Celebration Court
Portland, ME 04102

May 21, 2004

Michael Nugent, Manager
Inspection Services Program
Planning & Development Department
389 Congress Street
Portland, ME 04101

Re: Holm Place Condominiums

Dear Mike:

Thank you very much for taking the time to speak with me this afternoon regarding the problems the Unit Owners at Holm Place Condominiums are having with the builder. You suggested a meeting of the Unit Owners with you and Jay Reynolds and advised that you would need to inspect of the properties. You would then be in a position to guide us further as to what appropriate action should be taken by the Unit Owners and your office.. I will contact the Unit Owners this weekend and get back to you with suggested dates for the meeting.

Again, thank you for your time and courtesy in this matter.

Truly yours,

Anita Day

cc: Jay Reynolds, Development Review Coordinator for
Portland Department of Planning & Development
Kevin Carroll, District Inspector/Code Enforcement
Timothy Norton, Esquire

April 27, 2004

Mr. Cliff Plummer
VP Builders, Inc.
P.O. Box 41
Westbrook, ME 04098

RE: Holm Avenue Condominiums, Celebration Court
ID #1999-0151, CBL #270-C-3

Dear Mr. Plummer:

Upon request, a site visit was done in November of 2003 to identify remaining items to be completed for the Holm Ave./Celebration Court project. The following was noticed:

1. There is a low area in the finish pavement between catch basin #3 and #4. This should be corrected so that drainage is directed to either one of the catch basins. OK, As-IS
2. The parking spaces:
   a. Need Curbing/Wheel stops to provide a safety barrier between the spaces and the walkway.
   b. Need to be striped.
3. The crosswalk needs to be striped as shown on the plan.
4. The fencing needs to be installed:
   a. Around the Recreation area. ✓
   b. Around the Detention pond. ✓
   c. Between units 13 and 14. ✓
5. The recreation area:
   a. At the time of the site visit, had areas of standing water. These areas are in the vicinity of the underground drainage line (SD-8), which is proposed to be perforated pipe. Please provide documentation that this utility was installed according to plan and/or is functioning correctly. OK
   b. Install benches. ✓
   c. Potentially needs minor re-seeding in the spring. ✓
6. Silt/Sedimentation (due to construction of building 13/14) needs to be removed from the pipe inlet/rip-rap area. ✓
7. The Silt fencing along the Northerly boundary line(s) can be removed at this time. ✓
8. Minor regrading behind a few of the units needs to be done in order to allow positive drainage away from the foundations. ✱

Upon completion of these items, a defect guarantee is required for the project. Attached are two sample forms that will assist in setting up this guarantee.

If there are any questions, please contact me at 874-8632.

Sincerely,

Jay Reynolds
Development Review Coordinator

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MATTHEW C. DYER, ESQ.
150 HOLM AVENUE
PORTLAND, ME 04102

May 10, 2004

City of Portland
Code Enforcement Department
389 Congress Street
Portland, ME 04101

Re: Celebration Court Development

Dear Sir or Madam:

I own residential property which abuts the Celebration Court condominium development off Holm Avenue in Portland. I had the opportunity to attend some of the Planning Board meetings concerning the construction of this development, and at the time of the proposed construction I reviewed the site plan which was eventually approved by the Board.

I distinctly recall that the site plan required the developer to construct a privacy fence around the perimeter of the property. This has not happened, nor has any appropriate vegetative screening been planted. As a result, I look directly into my new neighbors' backyards from my bedroom window. In addition, at least some of my new neighbors (adults I might add) have been interfering with the quiet use and enjoyment of my property by approaching my property and destroying my efforts at landscaping. I have had to post my property, which is something I would have considered inconceivable just a short time ago.

It seems to me that it would be best for both the abutting landowners, and the development, if they would simply construct the privacy fence that the site plan contemplated. I trust that your office will see that this is done.

Thank you for your cooperation in this matter. I you have any questions, please do not hesitate to contact me. During the day I may be reached at 207-784-1558.

Sincerely,

Matthew C. Dyer
Attorney at Law

MCD:me

From: Anthony Lombardo
To: Kandi Talbot
Date: Tue, Apr 11, 2000 1:06 PM
Subject: HOLM PLACE.....4/11/00

Kandi,
I have reviewed the plans dated 3/29/00 and have the following comments:

1. The proposed sanitary sewer main will be accepted by the City of Portland with the following revisions:
   a. An additional manhole installed where the two(2) laterals services from Units 5 & 6 intersect.
   b. An additional manhole installed where the two(2) laterals services from Units 7 & 8 intersect.

2. The applicant needs to specify granite to bituminous slope transition curb at entrance to this development.

3. This development will be assessed a sewer connection fee for connection into the City's sewer main in Holm Ave. and an additional fee will be charged for each individual Unit connection to the proposed main. This fee is equivalent to $25 for each connection.

4. I have reviewed the revised stormwater calculations and find them meet the City's requirements with the exception of Steve Bushey's comments.

Sebago Technics

Engineering & Planning for the Future

April 11, 2000
99103

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

Holm Place

Dear Members of the Board:

On behalf of VP Builders, I am requesting that the Holm Place application be tabled from tonight's meeting. We will be resubmitting a revised package for review at the April 25th Planning Board meeting.

We are sorry for any inconvenience this may cause in your schedule.

Thank you for your patience.

Sincerely,

SEBAGO TECHNICS, INC.

Matthew W. Ek

Matthew W. Ek, PLS
Project Manager

MWE:mwe/jc

cc: VP Builders

From: "Steve Bushey" <srbushey@maine.rr.com>
To: "Kandi Talbot" <KCOTE@ci.portland.me.us>
Date: Mon, Apr 10, 2000 9:54 AM
Subject: holm place

Kandi,
I have reviewed the latest submission for the Holm Place development by Sebago Technics and provide the following comments for staff and Planning Board review:

1. The stormwater report and analysis has been improved based on our earlier comments however several items must be clarified. First, the Pre and Post development plans need to be revised to clarify the correct Study Pts. The Study Pt labels are backwards on the plans.

2. The Hydrocad computations should be rerun to include a reach routing from predevelopment area #11 to the study point in the eastern corner. The summary table on Page 4 on the report appears to simply add together the peak discharges for study points #1 & #2 which is incorrect. Due to timing differences it is necessary to reach route the flows from area #11 to the easterly study point in order to determine the actual peak flows at that point. This is true for the postdevelopment condition also. While I do not expect large differences in the results, I do feel it is necessary to have the computations as accurate and correctly done as possible.

3. The computations show that the proposed recreational space in the middle of the development is intended to provide temporary stormwater detention. This appears acceptable from a technical view as they have provided catch basins and underdrain pipe to keep the area drained and dry during non rainfall periods. My only caution is that a condition of approval should be placed to keep the owner/applicant responsible over the long term for maintenance of the space and responsible for providing alternative measures in the event the area does not function properly and remains too wet to use.

4. The applicant's engineer should provide an explanation of the routing methodology for the post-dev. pond #12. I am confused about the use of a 3" orifice and were it is within the structure. Also the computations for the pond should account for the catch basin grate as a control structure. This may influence the storage comp. and result in more or less actual storage occurring.

5. The stormwater report provides no explanation of the water quality treatment being provided by the proposed drainage systems and ponds. For the benefit of staff and the Planning Board this should be addressed by the applicant's engineer.

6. Section V - Stormwater Management Standards of the City's Technical design standards recommends that a five foot bench be provided around a very small ponds perimeter. The proposed pond is shallow however, Staff and the Board should determine if they want a bench or not around the basin. No bench has been provided on the current plan.

7. A drainage maintenance agreement must be prepared and executed by the applicant.

8. the applicant's engineer must provide computations for the detention pond emergency spillway.

9. The plans show a small structure near the proposed detention pond outlet. What will happen to this structure? It is in the way of the proposed outlet.

10. The grading plan should be modified to include sufficient spot grades around structures, buildings and the recreational area. In particular, the area in the vicinity of CB 5 and the sidewalk should have spot grades to insure grades are adequate to keep the detained stormwater within the recreational area from spilling over into the driveway during peak rainfalls.

11. The grading around Unit #1 will result in an exposed foundation of almost 10 feet. Staff and the Board should review this issue and determine if this is a concern or not. The result will be that the rear areas behind units 1-4 will difficult to maintain or the during construction the fill limits will actually extend closer to the wetlands. The applicant should also provide a statement to how equipment will avoid work within the wetland areas or how equipment will be temporarily operated in these areas.

12. The grading behind units 10-12 will result in poor drainage conditions. The engineer should review this area and revise accordingly.

13.The engineer should review the utility layout and perhaps revise the water main layout to avoid the multiple crossings of the sewer and storm drain in the vicinity of SMH-1 and SS-3. In one location along SS-3 all three pipes cross at the same point. This will not work.

14. The applicant should provide confirmation from CMP as to the approved Transformer locations. It seems that most often transformers for SFR are always placed differently in the field than as shown on the plans.

15. The City's Public Works Dept. should provide a letter regarding sewer capacity and possible impact fees.

16. Overall the utility plan has a significant number of potentially conflicting pipe locations and that as a result many changes would/will be made during construction. This should be reviewed by the engineer and changes made or else a condition of approval made requiring certified as-built plans upon completion.

17. The subdivision plan should be signed and sealed by a licensed surveyor prior to final approval.

18. All abutting landowners should be identified on the plans.

19. Curb transition stones should be provided between granite and bituminous curb.

20. A riprap outlet should be shown for the SD-16

21. How will long term access to the detention basin be provided for cleaning and sediment removal. the pond is small and will likely need to be excavated every two years?

22. A sanitary manhole should be provided in front of units 5-6.

23. Is there natural gas service proposed for the development?

24. Are any hydrants proposed onsite?

25. Where will secondary power for the lights be coming from and controlled?

I look forward to the staff and Board review. If you have any questions please contact this office.

CC: "Tony Lombardo" <AWL@ci.portland.me.us>, "alex jae...

Name of Private Drive
Photometrics - house shield
Detention Pond
Dumpster
Light at Holm Ave
Height of Light
Distance from RQS
Landscaping

Sebago Technics
Engineering & Planning for the Future

*Fence

present dumpster
owner's house -

March 29, 2000
99103

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

Holm Place

Dear Members of the Board:

On behalf of VP Builders, I am pleased to submit the final site plan for Holm Place.

Since our meeting on February 1st we had soils test pits dug and studied to reevaluate the soils for stormwater management. This has changed the Stormwater Management Plan. The revised stormwater plan is attached in this submission. The utilities have been modified to relocate the fire hydrant and to suit the storm drain modifications. The drives and buildings have retained the same alignments.

The following are the written statements requested in Section 14-525 of the Ordinance:

14-525 (c)(1) We are proposing to construct 16 condominium units in a total of 8 buildings, together with the driveway and utilities for these units.

14-525 (c)(2) Each proposed unit will be a cape style home with an attached one car garage. The unit is approximately 26 x 34 with a 15 x 24 garage; a typical unit is shown on the site plan. Elevation views and possible interior layouts of the units were attached to the previous submission.

14-525 (c)(3) There is an abandoned sewer pipe that crosses our driveway entrance. Its easement abuts the easterly side of our project and crosses the driveway access. We are proposing easements for electrical, telephone and cable lines, as well as the eight inch water main and fire hydrant.

14-525 (c)(4) Solid waste disposal will utilize the dumpster on the northerly side of the driveway. A private waste hauler will be hired to haul and monitor frequency needed for pickup of dumpster waste.

14-525 (c)(5) Availability of utility letters were provided in the preliminary submission.

14-525 (c)(6) See the attached stormwater management report.

14-525 (c)(7) The construction sequence is listed on the Erosion and Sediment Control Plan in note d.

14-525 (c)(8) A Maine Department of Environmental Protection Stormwater Permit is required for quantity. We are requesting that the City of Portland use their review authority and complete this permit review.

14-525 (c)(9) A letter of financial capacity will be forwarded to the Board as soon as possible. The construction estimates are being completed with the latest drawings to allow an accurate financial capacity letter. VP Builders has extensive technical capacity and has been in the construction business for sixteen years. They have completed many subdivisions, and home construction projects involving road and utility construction. Specific examples are available upon request.

14-525 (c)(10) We have enclosed a copy of the purchase and sale agreement from Martelle to VP Builders, as well as the Martelles' deed to show title, right, or interest in the property.

14-525 (c)(11) No unusual natural area, wildlife and fisheries habitats, or archaeological sites are located on or near this project site.

14-521 (c)(12) Upon acceptance of this project a CADD.DXF electronic copy of the drawings will be provided to the City.

14-525 (c)(13) This residential development will utilize the City's recycling programs for their recyclable waste.

Following are responses to the review comments in a memo from DeLuca-Hoffman Associates, Inc. to the City of Portland Planning staff dated January 25, 2000:

Review of the Stormwater Management Plan

1. The stormwater report and plans have been stamped by a professional engineer.
2. The watershed plans are at a scale of 1"=60'.
3. Information has been provided to clarify the subcatchment areas and time of concentration flow paths.
4. Test pits have been conducted on this site to better identify the types of soil in the vicinity of the proposed development.
5. See comment #4.
6. The stormwater models have been revised in both the pre and post-development conditions to provide a more continuous analysis from the subcatchments to the Study Point.

7. The time of concentration flow paths have been revised accordingly.
8. The HydroCAD calculations have been revised accordingly.
9. The time of concentration flow path for Subcatchment 2 more accurately follows the topography of the area.
10. The time of concentration flow path for Subcatchments 10 and 11 as identified in the model reflects the conditions shown on the Site Plan.
11. The time of concentration flow paths for Subcatchments 12 and 14 are more accurately representative of the subcatchment area and correspond with the Site Plan and post-development watershed plan.
12. The information for the ponds in the stormwater model is consistent with the information as shown on the Site Plans.
13. The detention pond (Pond 100) has a permanent pool to provide for the accumulation of sediment.
14. The stormwater management system of the Maine Turnpike (Exit 8) area provides for runoff from the ramp to drain inward to the center where it channelizes and flows along the outer edge of the roadway prior to entering the existing stream channel which flows adjacent to this site. The stormwater management system for this development has been designed to control the peak rates of runoff in most storm events so that the Holm Avenue area, in general, and Capisic Brook should not be negatively impacted by this development.

Review of the Plan Set

To the best of our knowledge, the existing stream channel is an unnamed tributary to Capisic Brook.

The erosion control provisions, including the location of silt fence, have been revised on the plan set.

During our last meeting the Board requested traffic trip generation rates. We utilized the Institute of Traffic Engineering, Trip Generation Manual, 6th Edition to calculate the following rates:

Daily: Trip Generation Rate is 5.86 / dwelling unit (50% in / 50% out)
16 units x 5.86 = 94 trips (47 in / 47 out)

AM Peak: Trip Generation Rate is .44 trips/unit/hour (17 % in / 83% out)
16 units x .44 = 7 trips (1 in / 6 out)

PM Peak: Trip Generation Rate is .54 trips/unit/hour (67 % in / 33% out)
16 units x .54 = 9 trips (6 in / 3 out)

We have enclosed a lighting design plan from Cooper Lighting to detail our lighting design.

We look forward to meeting with you at your next regularly scheduled meeting for final review of this project. In the interim, if you require additional information or have any questions, please do not hesitate to contact me.

Thank you for your consideration of this project.

Sincerely,

SEBAGO TECHNICS, INC.

Matthew W. Ek

Matthew W. Ek, PLS
Project Manager

MWE:mwe/jc
Enc.

cc: VP Builders

PURCHASE AND SALE AGREEMENT

May 13, 1999 (DATE)

May 17, 1999 Effective Date

The use of days in this agreement refers to calendar days from the effective date

RECEIVED OF: V.P. Builders Inc. and assigns (hereinafter called "Buyer") the sum of ($ 5,000) Five thousand dollars as earnest money and in part payment of the purchase price of the following described real estate, situated in municipality of Portland County of Cumberland State of Maine located at Certain lot of land located on Holm Avenue consisting of approximately 4 Acres +/- with 50' wide access as per attached Addendum A.***.

Being (all / part of X) the property at the above address owned by Peter P. and Suzanne Martelle (hereinafter called "Seller") and described at said County's Registry of Deeds Book 8730* Page 108*.

FIXTURES: The parties agree that all fixtures, including but not limited to existing storm and screen windows, shades and/or blinds, shutters, curtain rods and electrical fixtures are included with the sale except for the following:

PERSONAL PROPERTY: The following items of personal property are included with the sale at no additional cost and in as is condition with no warranties:

*Book 7100, Page 299

The TOTAL purchase price being ($ 155,000.00) One hundred and fifty five thousand dollars dollars to be paid as follows: Five thousand dollars with this contract and balance at closing.

The purchase price balance shall be paid in cash, certified funds or bank check at closing.

This Purchase and Sale Agreement is subject to the following conditions:

1. EARNEST MONEY/ACCEPTANCE: Rob Gregory Esq. shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until May 15, 1999 (date) 9:00 ~~AM~~/PM; and, in the event of Seller's non-acceptance, this earnest money shall be returned promptly to Buyer.

2. TITLE & CLOSING: That a deed, conveying good and merchantable title in accordance with standards adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on November 13, 1999 (closing date) or before if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 days, from the time seller is notified of the 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, Buyer may, at Buyer's option, withdraw said earnest money and be relieved from all obligations. Seller hereby agrees to make a good-faith effort to cure any title defect during such period.

3. DEED: That the property shall be conveyed by a Warranty deed, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not adversely affect the continued current use of the property.

4. POSSESSION/OCCUPANCY: Possession/occupancy of premises shall be given to Buyer immediately at closing unless otherwise agreed in writing.

5. RISK OF LOSS: Until the closing, the risk of loss or damage to said premises by fire or otherwise, is assumed by Seller. Said premises shall then be broom clean and in substantially the same condition as at present, excepting reasonable use and wear. Buyer shall have the right to view the property within 24 hours prior to closing for the purpose of determining that the premises are in substantially the same condition as on the date of this contract.

6. PRORATIONS: The following items, where applicable shall be prorated as of the date of closing: fuel (cash price as of date of closing), rent, real estate taxes (based on municipality's fiscal year), association fees, (other). Metered utilities such as electricity, water and sewer will be paid through the date of closing by Seller. Buyer and Seller will each pay their transfer tax as required by State of Maine.

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7. INSPECTIONS: Buyer is encouraged to seek information from professionals regarding any specific issue or concern.

Agent makes no warranties regarding the condition, permitted use or value of Sellers' real or personal property. This contract is subject to the following inspections, with results being satisfactory to Buyer:

TYPE OF INSPECTION	YES	NO	RESULTS REPORTED TO SELLER	TYPE OF INSPECTION	YES	NO	RESULTS REPORTED TO SELLER
a. General Building		x	Within ____ days	f. Asbestos Air Quality		x	Within ____ days
b. Sewage Disposal		x	Within ____ days	g. Lead Paint		x	Within ____ days
c. Water Quality		x	Within ____ days	h. Pests		x	Within ____ days
d. Water Quantity		x	Within ____ days	i. Radon Air Quality		x	Within ____ days
e. Radon Water Quality		x	Within ____ days	j. ____			Within ____ days

All inspections will be done by inspectors chosen and paid for by Buyer. If the result of any inspection or other condition specified herein is unsatisfactory to Buyer, Buyer may declare the contract null and void by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If Buyer does not notify Seller that an inspection is unsatisfactory within the time period set forth above, this contingency is waived by Buyer. In the absence of inspection(s) mentioned above, Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

8. FINANCING: This contract is subject to Buyer obtaining an approved Commercial mortgage of ____ % of the purchase price, at an interest rate not to exceed ____ % and amortized over a period of ____ years.

a. This contract is subject to a written statement from the lender, within ____ (____) days of the Effective Date, that Buyer has made application.
b. This contract is subject to final loan approval within ____ days of the Effective Date.
c. If either of these conditions is not met within said time periods, Seller may declare this contract null and void, and the earnest money shall be returned to Buyer.
d. Buyer is under a good-faith obligation to seek and accept financing on the above-described terms. Buyer acknowledges that a breach of this good-faith obligation will be a breach of this contract.
e. Buyer agrees to pay no more than 0 points. Seller agrees to pay $ 0 toward points and/or Buyer's closing costs.

9. AGENCY DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following agency relationships:

The N/A (Listing Agent) of ____ (Agency) represents ____.

The N/A (Selling Agent) of ____ (Agency) represents ____.

When the transaction involves Disclosed Dual Agency, the parties acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the parties acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

10. MEDIATION: 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 the transaction.

11. DEFAULT: In the event of default by the Buyer, Seller may employ all legal and equitable remedies, including without limitation, termination of this contract and forfeiture by Buyer of the earnest money. In the event of a default by Seller, Buyer may employ all legal and equitable remedies, including without limitation, termination of this contract and return to Buyer of the earnest money. The escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller.

12. PRIOR STATEMENTS: Any representations, statements and agreements are not valid unless contained herein. This agreement completely expresses the obligations of the parties.

13. HEIRS/ASSIGNS: This agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the respective parties.

14. COUNTERPARTS: This agreement may be signed on any number of identical counterparts, such as a faxed copy, with the same binding effect as if the signatures were on one instrument. Original or faxed signatures are binding.

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15. ADDENDA: Check as many as apply - [ ] Lead Paint [ ] Property Disclosure [ ] Other:
Total Addenda Pages: 1 None

16. EFFECTIVE DATE: This contract is a binding contract when signed by both Buyer and Seller and when that fact has been communicated to all parties or to their Agents.

17. 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. Parties authorize agents to receive copy of entire closing statements.

18. OTHER CONDITIONS:

This contract is contingent upon the Purchaser obtaining Planning Board approval from the city of Portland for a minimum of 14 condominium units w/attached garages. Purchaser to be responsible for all costs of Planning Bd. Approval including any survey, topographical, and/or infrastructure design.
Seller acknowledges that Purchasers are licensed real estate brokers.
***excluding the house, shed and garage and land in crossed out area of Addendum A

A copy of this contract is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.

Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Bureau of Taxation.

BUYER C.P. Builders Inc. — 01-0418855 SS# OR TAXPAYER ID#

BUYER — SS# OR TAXPAYER ID#

Buyer's Mailing Address is P O Box 41, Westbrook, Maine

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement. If the earnest money is forfeited by Buyer, it shall be distributed as follows:

Signed this 13th day of May, 1999

SELLER Peter P. Martelle — 005-52-9106 SS# OR TAXPAYER ID#

SELLER Suzanne G. Martelle — 024-44-7499 SS# OR TAXPAYER ID#

Seller's Mailing address is 8 Poe Street, Portland, Maine 04102

Offer reviewed and refused on

SELLER

SELLER

EXTENSION: The time for the performance of this contract is extended until February 2F, 2000 DATE

BUYER DATE SELLER DATE

BUYER DATE SELLER DATE

Maine Association of REALTORS®/Rev. 8/98
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CENTURY 21 Northeast Associates

547 Main Street
Westbrook, Maine 04092

Contract Extension

Sellers: Peter P. and Suzanne G. Martelle

Purchaser: V.P. Builders Inc.

Contract Date: May 17, 1999

Property: Certain lot of land located on Holm Avenue consisting of approximately 4 Acres +/-

The time for Extension of the Purchase and Sale Agreement is Hereby Extended until April 30, 2000.

_____ _____

V.P. Builders Inc Date

_____ _____

Peter P. Martelle Suzanne G. Martelle

017565 BK8730PG0110

KNOW ALL MEN BY THESE PRESENTS

THAT, the Maine Turnpike Authority, a body corporate and politic, duly created by virtue of an Act of the Legislature of the State of Maine, Chapter 69 of the Private and Special Laws of 1941, as amended, and continued in existence under Title 23, M.R.S.A., Chapter 24, and having an office at Augusta in the County of Kennebec and State of Maine, in consideration of One ($1.00) Dollar and other valuable considerations, paid by Peter P. Martelle and Suzanne G. Martelle of 9 Poe Street, Portland, Maine 04101

the receipt whereof it does hereby acknowledge, does hereby grant unto the said Peter P. Martelle and Suzanne G. Martelle, their heirs and assigns forever, a certain lot or parcel of land situated in the City of Portland, County of Cumberland and State of Maine

and being shown on a Maine Turnpike Authority Plan entitled "Maine Turnpike Authority, Maine Turnpike, Section 2-Portland to Augusta, City of Portland, Cumberland County", dated January 1989 and being Supplemental Sheet No. 17,
and being as more particularly bounded and described on Exhibit "A" attached hereto and by this reference made a part hereof.

To Have and To Hold the Same, together with all the privileges and appurtenances thereunto belonging to the said Peter P. Martelle and Suzanne G. Martelle as joint tenants, their heirs and assigns forever.

IN WITNESS WHEREOF, the Maine Turnpike Authority, has caused these presents to be executed in its behalf by Robert K. Pacios, Its Chairman , and its corporate seal to be affixed by Abraham Leibowitz , its Secretary and Treasurer, both hereunto duly authorized this 23rd day of March , in the year of our Lord one thousand nine hundred and eighty-nine .

MAINE TURNPIKE AUTHORITY

By: Robert K. Pacios
Robert K. Pacios
Its Chairman

SEAL

ATTEST:

Abraham Leibowitz
Its Secretary and Treasurer

State of Maine
County of Cumberland, ss.

March 23, 1989

Before me appeared Robert K. Pacios , to me personally known, who, being by me duly sworn did say that he is the Chairman of the Maine Turnpike Authority, and that the seal affixed is the corporate seal of said Maine Turnpike Authority, and that these presents were signed and sealed in behalf of and by authority of said Maine Turnpike Authority, and said Robert K. Pacios acknowledged said instrument to be his free act and deed, in said capacity, and the free act and deed of said Maine Turnpike Authority.

Before me,

SEAL

Daniel O Harriman
Name

DANIEL O HARRIMAN
NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES AUGUST 11, 1994

We hereby certify the land described in the foregoing deed, acquired by the Maine Turnpike Authority in the acquisition of the Right-of-Way for the Maine Turnpike, and that the sale of this land will not affect the Maintenance and Operation of the Turnpike, and the conveyance of the same by this document is approved.

Howard, Needles, Tammen & Bergendoff
Consulting Engineers

By: Roland A. Lavallee
Roland A. Lavallee

Approved as to form

Attorney Eric Stauffer

Maine Turnpike Authority
to
Peter P. & Suzanne G. Martelle

EXHIBIT "A"

Beginning at a point three hundred seventy-five (375) feet easterly from and as measured along a line at right angles to the Maine Turnpike survey base line at Sta.2416+00, said point being marked by a rebar;

Thence N 18° 06' E four hundred fifty and no hundredths (450.00) feet to a point, said point being three hundred seventy-five (375) feet easterly from and as measured along a line at right angles to the Maine Turnpike survey base line at Sta.2420+50, and is marked by a rebar;

Thence S 66° 43' 28" E three hundred eighty-eight and no hundredths (388.00) feet to a point in the westerly line of land now of Peter and Suzanne Martelle (7100-299), said point also being seven hundred sixty-one and forty-two hundredths (761.42) feet easterly from and as measured along a line at right angles to the Maine Turnpike survey base line at Sta.2420+15, said point to be marked by a rebar;

Thence S 27° 25' 28" W along the westerly line of land of said Martelle and the westerly lines of land now or formerly of Joseph Marzilli and Howard & Suzanne Doucette four hundred twenty-seven and twenty-five hundredths (427.25) feet to an iron pipe found marking the corner of land between said Doucette and land now or formerly Janice Beaumier;

Thence N 70° 42' 23" W three hundred seventeen and twenty-six hundredths (317.26) feet to the point of beginning.

Excepting from the above described lot all land now owned by the said Peter and Suzanne Martelle contained within said lot and described within a deed recorded in the Cumberland County Registry of Deeds, Book 7100, page 299.

Said lot or parcel conveyed herein contains about 1.74 acres.

Meaning and intending to convey a portion of the premises acquired by the Maine Turnpike Authority by the following deeds:

1. Warranty Deed of Hans H. Holm dated July 27, 1954 and recorded in the Cumberland County Registry of Deeds, Book 2191, page 131.

2. Warranty Deed of Alphonse Laflamme dated March 3, 1955 and recorded in the Cumberland County Registry of Deeds, Book 2220, page 460.

RECEIVED
RECORDED REGISTRY OF DEEDS
1989 APR 25 AM 8:52
CUMBERLAND COUNTY

Form 1

Soil Profile/Classification Information

(for DEP Site Location of Development Application)

Page ___ of ___

Project name: New Place

Applicant name: [illegible]

Project location (municipality): Durham

Exploration symbol: TP1 — Test pit ☐ Boring

Depth of Organic Horizon above Mineral Soil: ___

Depth (inches)	Texture	Consistency	Color	Mottling
0	[illegible]	[illegible]	[illegible]	
10	[illegible]	[illegible]	[illegible]	
20	[illegible]	[illegible]	[illegible]	
30	[illegible]	[illegible]	[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]

DEPTH OF LOW MINERAL SOIL SURFACE (inches)

S.H. — Soil: [illegible] Classification: [illegible] Slope: [illegible] Limiting Factor: [illegible] ☐ Groundwater ☐ Pervious Layer ☐ Bedrock

C.S.S. — Soil Series/phase name: [illegible] ☐ hydric ☐ non-hydric

Exploration symbol: TP2 — Test pit ☐ Boring

Depth of Organic Horizon above Mineral Soil: ___

Depth (inches)	Texture	Consistency	Color	Mottling
0	[illegible]	[illegible]	[illegible]	
10	[illegible]	[illegible]	[illegible]	
20	[illegible]	[illegible]	[illegible]	
30	[illegible]	[illegible]	[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]

DEPTH OF LOW MINERAL SOIL SURFACE (inches)

S.H. — Soil: [illegible] Classification: [illegible] Slope: [illegible] Limiting Factor: [illegible] ☐ Groundwater ☐ Pervious Layer ☐ Bedrock

C.S.S. — Soil Series/phase name: [illegible] ☐ hydric ☐ non-hydric

Exploration symbol: TP3 — Test pit ☐ Boring

Depth of Organic Horizon Above Mineral Soil: ___

Depth (inches)	Texture	Consistency	Color	Mottling
0	[illegible]	[illegible]	[illegible]	
10	[illegible]	[illegible]	[illegible]	
20	[illegible]	[illegible]	[illegible]	
30	[illegible]	[illegible]	[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]

DEPTH OF LOW MINERAL SOIL SURFACE (inches)

S.H. — Soil: [illegible] Classification: [illegible] Slope: [illegible] Limiting Factor: [illegible] ☐ Groundwater ☐ Pervious Layer ☐ Bedrock

C.S.S. — Soil Series/phase name: [illegible] ☐ hydric ☐ non-hydric

Exploration symbol: TP4 — Test pit ☐ Boring

Depth of Organic Horizon Above Mineral Soil: ___

Depth (inches)	Texture	Consistency	Color	Mottling
0	[illegible]	[illegible]	[illegible]	
10	[illegible]	[illegible]	[illegible]	
20	[illegible]	[illegible]	[illegible]	
30	[illegible]	[illegible]	[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]

DEPTH OF LOW MINERAL SOIL SURFACE (inches)

S.H. — Soil: [illegible] Classification: [illegible] Slope: [illegible] Limiting Factor: [illegible] ☐ Groundwater ☐ Pervious Layer ☐ Bedrock

C.S.S. — Soil Series/phase name: [illegible] ☐ hydric ☐ non-hydric

Soil Evaluation Performed by a Professional Engineer or a Registered Soil Scientist

S.E. — signature: [illegible] Date: [illegible]

same printed/typed: [illegible] Cert. #: [illegible]

C.S.S. — signature: [illegible] Date: 2/25/19

same printed/typed: [illegible] Cert. #: 218

MARK C. HAMPTON 218 Registered Professional Soil Scientist

TYPE:

CATALOG #:

McGRAW-EDISON®

DESCRIPTION

Dayform Traditionaire outdoor luminaires display the old-fashioned charm of traditional area lighting, enhancing any setting with a distinctive styling. Graced with a visually appealing design form during the day, surroundings are well-lighted and safe at night. U.L. listed for wet locations. CSA certified.

APPLICATION

As a decorative luminaire, the Dayform Traditionaire tastefully complements the architectural and environmental design of estates, parks, motels, restaurants, apartments, churches, institutions and roadways.

SPECIFICATION FEATURES

A···Cupola

Decorative cupola conceals optional photocontrol.

B···Optics

Specular aluminum reflector is available in three distributions.

C···Cover

Hinged, die-cast aluminum cover has steel hinge pins and captive cover-retaining screws.

D···Lens Panels

Injection-molded contoured acrylic lens panels are standard. (Polycarbonate is optional.)

E···Ballast Cover

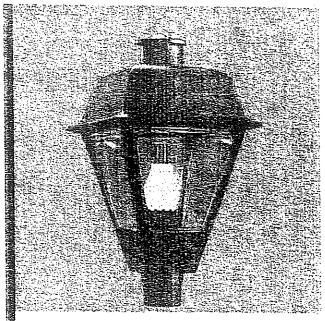
Aluminum ballast cover supports a decorative glass chimney.

F···Housing

Single-piece, die-cast aluminum housing has integral base and lens supports and is finished in black polyester powder-coat.

G···Mounting

Integral self-aligning pole top fitter fits 3" O.D. poles or vertical tenons.

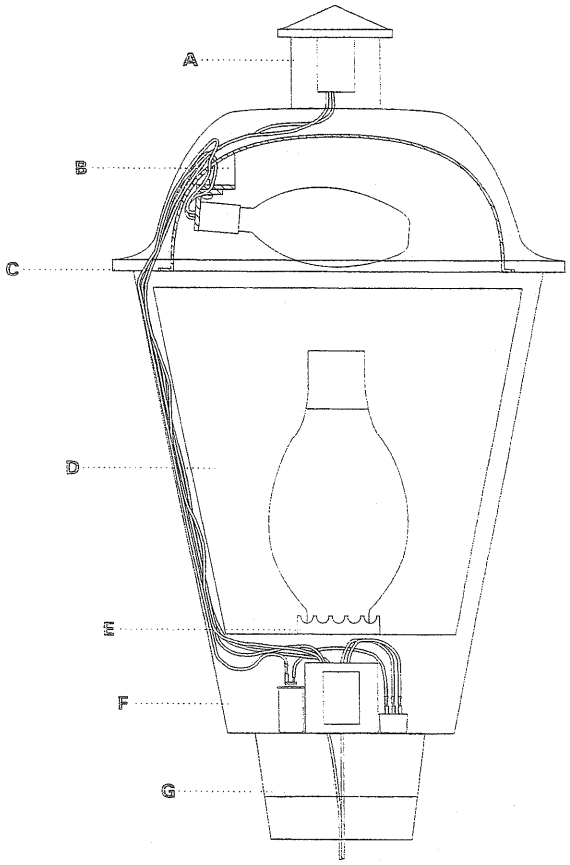


TRDDAYFORM TRADITIONAIRE

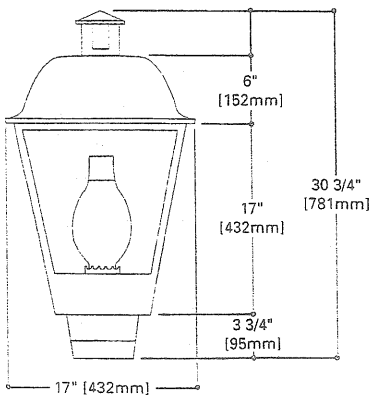
50-175W

High Pressure Sodium
Metal Halide

AREA LIGHT



DIMENSIONS



ENERGY DATA

High Reactance Ballast Input Watts

50W HPS HPF (66 Watts)
70W HPS NPF/HPF (95 Watts)
100W HPS NPF/HPF (130 Watts)
100W MH HPF (129 Watts)
150W HPS HPF (190 Watts)

CWA Ballast Input Watts

175W MH HPF (210 Watts)

Catalog Number Logic

1st & 2nd Digits = Product Family	3rd Digit= Mounting	4th Digit= Distribution	5th digit= Lamp Type	6th Digit = Lamp Wattage
TR=Traditionaire	1=Post Top 2=Pendant	2=Asymmetric IES Type III 3=Symmetric IES Type V	1=, 5= } Merc. 2=, 8=, 9= } HPS 3= Met. Hal.	0= 50 1= 70 2=100 3=150/175 4=250 4=250

Catalog Number Asymmetric	Symmetric	Lamp Wattage	Lamp Type	Ballast Type	Voltage	Net Wt. (Lbs.)	Shipping Volume (Cu. Ft.)
TR1281	TR1381	70	HPS	Hi-Reac.	120	20	5.62
TR1282	TR1382	100	HPS	React.	120	20	1/carton
TR1282	TR1382	100	HPS	Hi-Reac.	120	20	
TR1283	TR1383	150	HPS	React	120	20	
TR1283	TR1383	150	HPS	Hi-Reac.	120	20	
TR1224	TR1324	250	HPS	CWA	120	20	
TR1263	TR1363	175	Merc	Hi-Reac.	120	20	
TR1213	TR1313	250	Merc.	CWA	120	20	
TR1233	TR1333	175	MH	CWA	120	20	
TR1234	TR1334	250	MH	CWA	120	20	

Lamps not included.

Options (add as suffix)

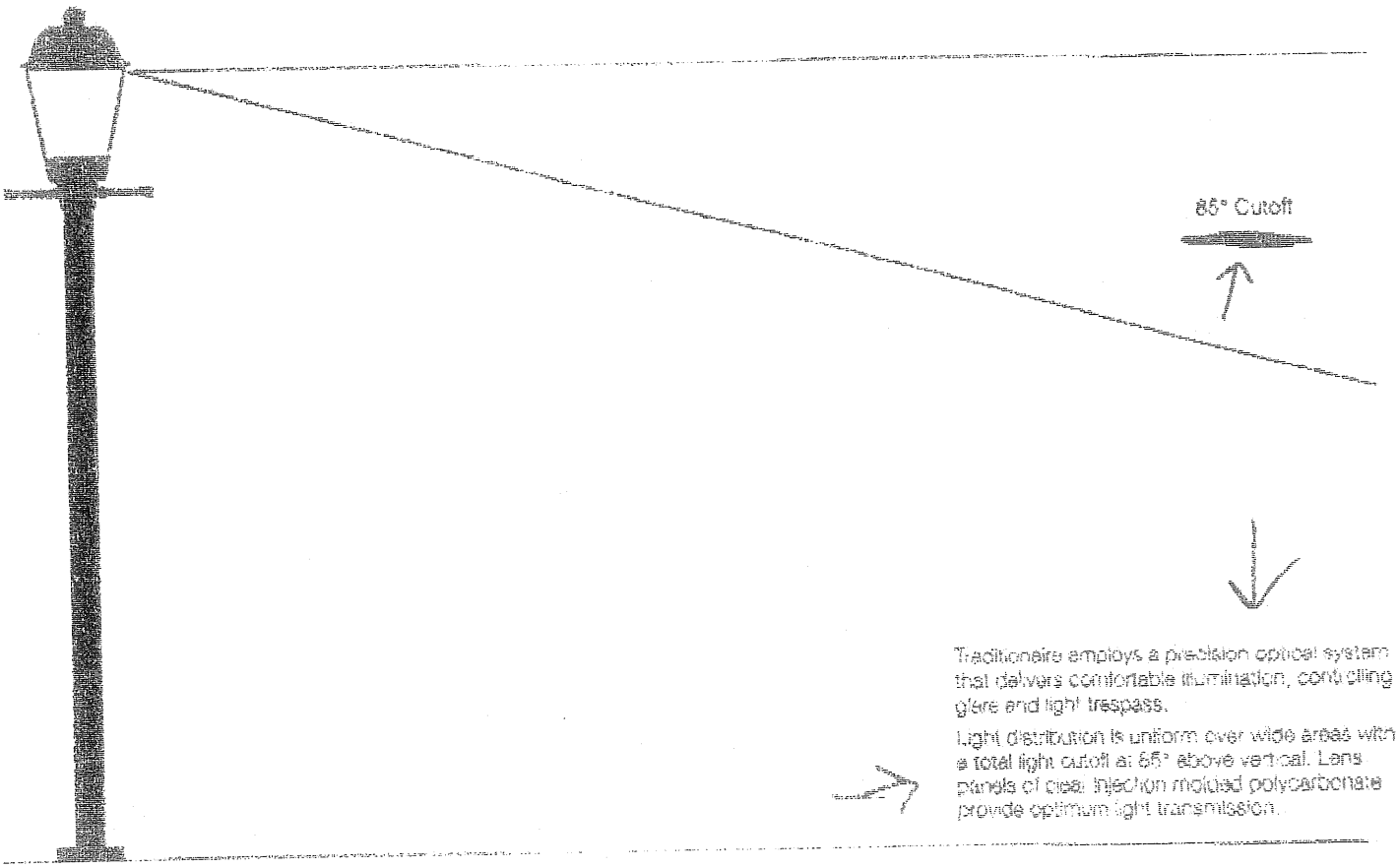
- **R** Photocontrol receptacle, NEMA standard twist-lock type.
- **V** Polycarbonate refractor panels.

Accessories (order separately)

TA1BK Decorative Ladder Rest (field installed)

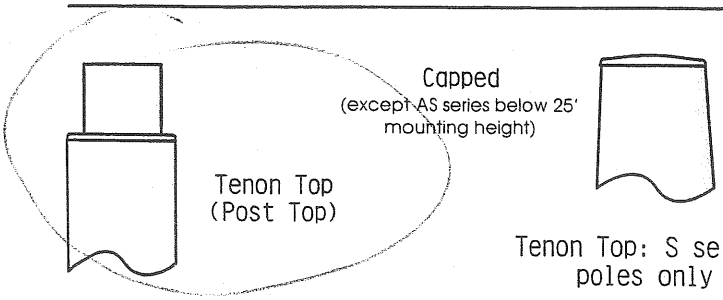
To: Jeff Ring

Performance and Efficiency



Traditionaire employs a precision optical system that delivers controllable illumination, controlling glare and light trespass.

Light distribution is uniform over wide areas with a total light cutoff at 85° above vertical. Lens panels of clear injection molded polycarbonate provide optimum light transmission.

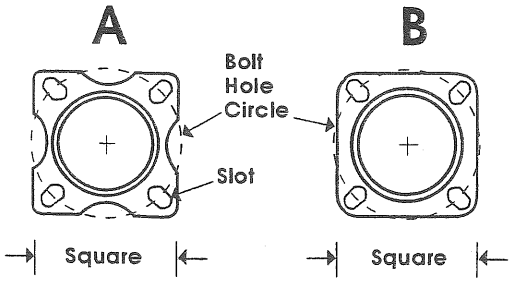


Tenon Top: S series poles only

TENONS: $2^3/_8$" (3") 4" - if pole dimensions permit. Tenons are 6061-T6 aluminum or hot dipped galvanized steel and are available in all standard sizes; for other optional tenons, contact factory. Post top fixtures, flood lights, or bullhorns mount with ease.

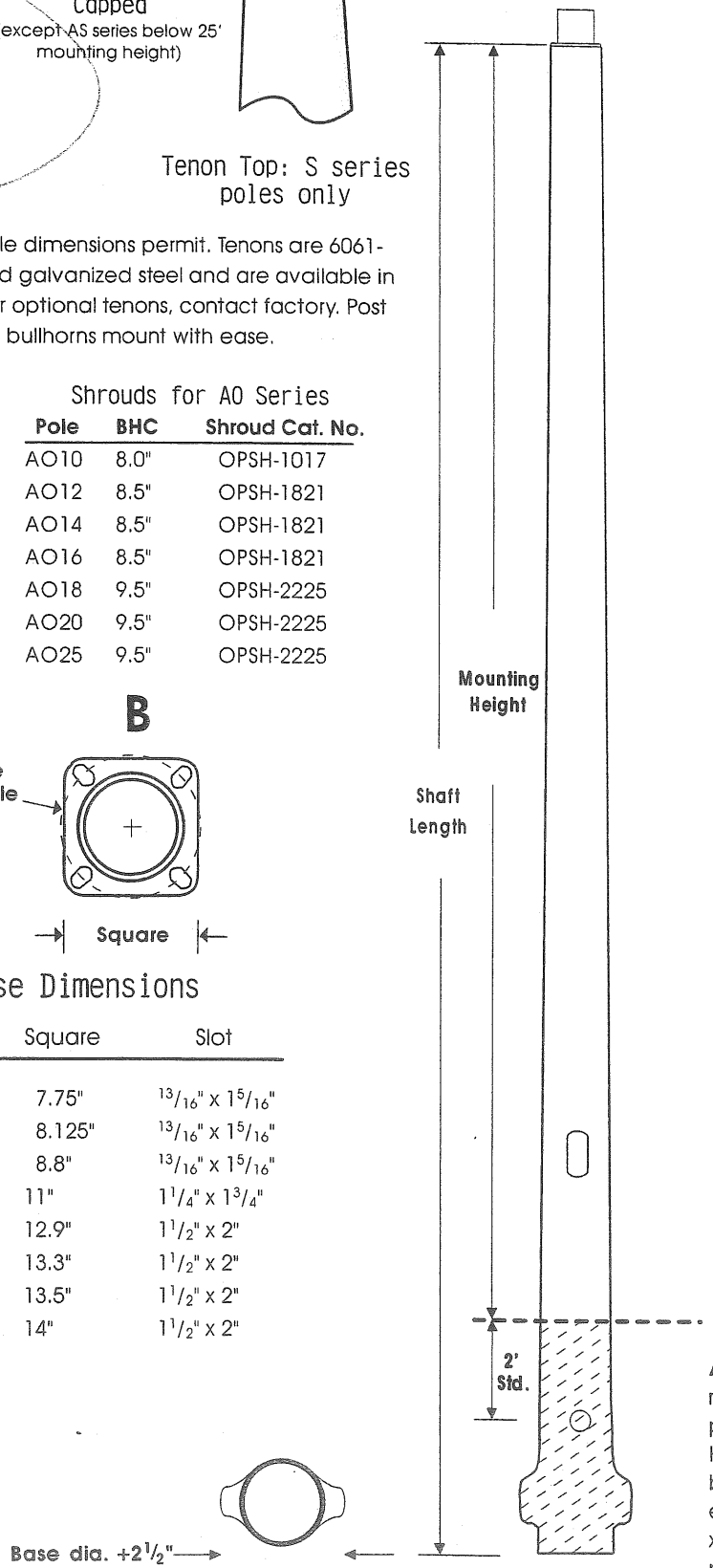
Shrouds for AO Series

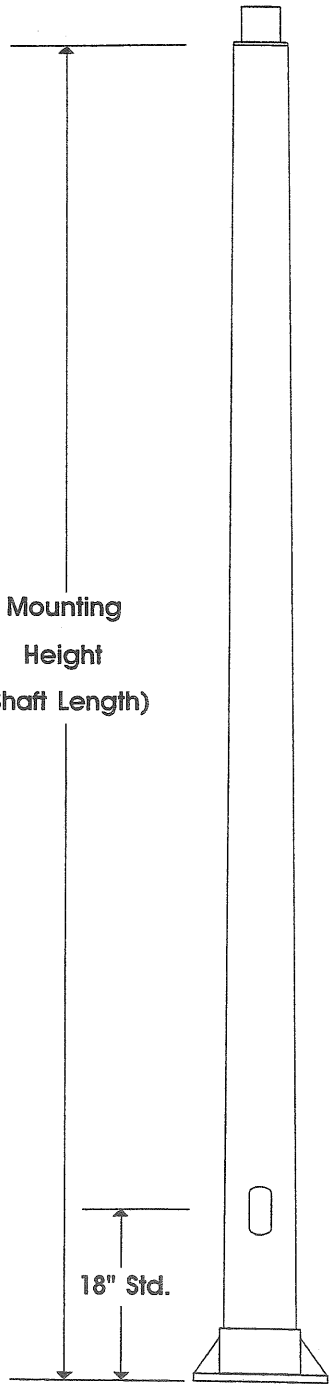
Pole	BHC	Shroud Cat. No.
AO10	8.0"	OPSH-1017
AO12	8.5"	OPSH-1821
AO14	8.5"	OPSH-1821
AO16	8.5"	OPSH-1821
AO18	9.5"	OPSH-2225
AO20	9.5"	OPSH-2225
AO25	9.5"	OPSH-2225



Anchor Base Dimensions

Bolt Hole Circle	Drawing	Square	Slot
8"	A	7.75"	$^{13}/_{16}$" x $1^5/_{16}$"
8.5"	A	8.125"	$^{13}/_{16}$" x $1^5/_{16}$"
9.5"	A	8.8"	$^{13}/_{16}$" x $1^5/_{16}$"
11.5"	B	11"	$1^1/_4$" x $1^3/_4$"
14"	B	12.9"	$1^1/_2$" x 2"
14.5"	B	13.3"	$1^1/_2$" x 2"
15"	B	13.5"	$1^1/_2$" x 2"
15.5"	B	14"	$1^1/_2$" x 2"





ANCHOR BASE: Cast A356-T6 aluminum, polyurethane coated to match pole color.
Hot dipped galvanized steel anchor bolts complete with nuts (2) and washers (2) are supplied standard - ($^5/_8$" x 21" x 3", I" x 30" x 4", or $1^1/_4$" x 36" x 6" depending on the pole specified).

For poles with one, two or more arms, see Mast Arm Poles.

Round Tapered Composite Poles

Anchor Base and Direct Burial

Capped and Tenon Top

AA, AB, AC, AD, AH, AO, and AS series

- Mounting heights to 47'
- Natural or smooth finish
- Seven standard colors - pigments integrated into the resin
- UV- and weather-resistant pigmented polyurethane coating
- Tenon Top (Post Top), or Capped (except AS series below 25' mounting height)
- EPA ratings are the same for capped or tenon top poles.
- Poles can be predrilled for bolt-on side mount fixture(s), arms, etc. (except AS series below 25' mounting height).
- Composite shrouds (1- or 2-piece) optional. Optional bolt covers available for some styles
- Poles are individually ID tagged.

BA, BB, BC, BD, BH, BO, and BS series

- Mounting heights to 40'
- Natural or smooth finish
- Seven standard colors - pigments integrated into the resin
- UV- and weather-resistant pigmented polyurethane coating
- Tenon Top (Post Top), or Capped (except BS series below 25' mounting height).
- EPA ratings are the same for capped or tenon top poles.
- Poles can be predrilled for bolt-on side mount fixture(s), arms, etc. (except BS series below 25' mounting height).
- Poles are individually ID tagged

- Direct Burial style for fast, easy installation
- Improved ground line appearance
- Anti-rotation flare structurally integrated into pole base during manufacture
- Shakespeare fiberglass won't rust, rot, or corrode in the ground, and insects won't eat it.
- No concrete foundations or anchor bolts

	Page
Tenon Top Poles	20
Capped or Tenon Top	22
Mast Arm Poles	25
Breakaway Poles	43
Breakaway Mast Arm Poles	47

Series:

AA	BA
AB	BB
AC	BC
AD	BD
AH	BH
AO	BO
AS	BS

Standard Handhole: $2^1/_2$" x 5" oval.
Optional: 4" x 6" or 4" x 12" handholes, depending on pole dimensions; for other handhole options, contact factory. Handhole covers are fiberglass composite, polyurethane coated to match pole color.

Shakespeare calculates all EPA recommendations based on poles with handholes, and in accordance with AASHTO standards, allowing for a 30% gust factor for all wind ratings, including 120mph.

For applications requiring extremely large loads and extra height, ask for information on the new Shakespeare Transmission and Distribution poles - up to 70', and capable of large luminaires typical of sports stadiums and the like.

NOMINAL MOUNTING HEIGHT (Ft.)	SHAFT LENGTH (Ft.)	POLE WEIGHT (Lbs.)	POLE DIAMETER SHAFT TOP (In.)	POLE DIAMETER SHAFT BASE (In.)	STANDARD HANDHOLE LOCATION FROM BASE (In.)	SUGGESTED MAXIMUM TOTAL LOADING TOTAL WEIGHT (Lbs.)	80 MPH EPA* (Sq. Ft.)	90 MPH EPA* (Sq. Ft.)	100 MPH EPA* (Sq. Ft.)	120 MPH EPA* (Sq. Ft.)	BOLT HOLE CIRCLE (In.)	BASIC CATALOG NUMBER	COMMENT
10' to 20' mounting heights													
10**	13	23	2.9	5.0	54	150	16.3	12.5	9.9	6.7		**BS13**	Not available Capped
12**	15	25	2.9	5.3	54	150	10.7	7.9	6.1	4.1		**BS15**	Not available Capped
14**	18	29	2.9	5.7	66	150	9.7	7.1	5.6	3.7		**BS18**	Not available Capped
16**	20	38	2.9	6.1	66	100	7.3	5.3	4.2	2.7		**BS20**	Not available Capped
20**	24	44	2.9	6.6	66	100	6.1	4.6	3.5	2.2		**BS24**	Not available Capped

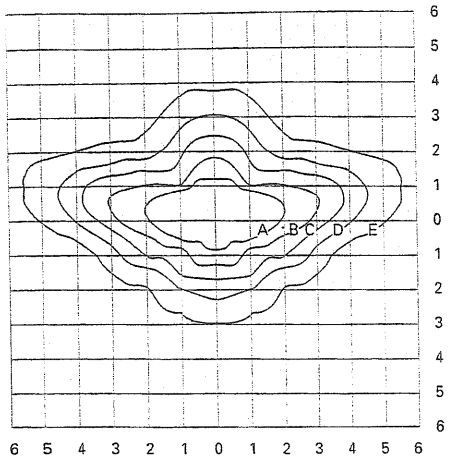
**Not available capped - do not use BS series below 25' mounting height for side mount applications, or with tenon mounted arms, or for multiple fixture applications - Use BO series, instead.

unbelievable - Hub?

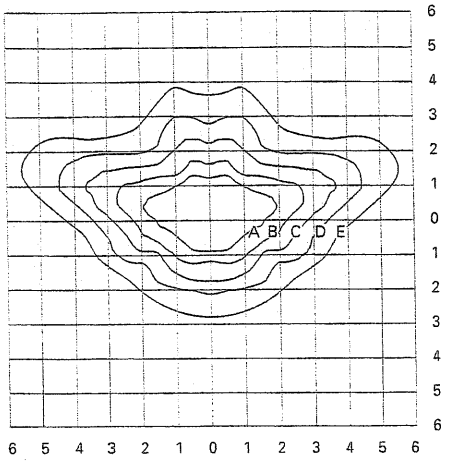
2-2-00
SEBAGO TECHNICS

All EPA calculations are based on poles with handholes.
* All EPA recommendations, including 120mph, are calculated per AASHTO standards and include a 30% gust factor.

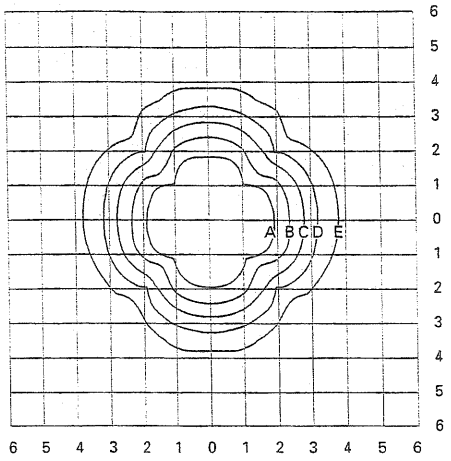
PHOTOMETRICS



TRD-1
TRD3483
150-Watt HPS, Type II Distribution
16,000-Lumen Clear Lamp



TRD-2
TRD3683
150-Watt HPS, Type III Distribution
16,000-Lumen Clear Lamp



TRD-3
TRD3383
150-Watt HPS, Type V Distribution
16,000-Lumen Clear Lamp

Footcandle Table

Select mounting height and read across for footcandle values of each isofootcandle line. Grids are numbered in units of mounting height.

Mounting Height	Footcandle Values for isofootcandle Lines				
	A	B	C	D	E
15'	2.00	1.00	0.50	0.25	0.10
20'	1.00	0.50	0.25	0.13	0.05
25'	0.50	0.25	0.13	0.06	0.02

ORDERING INFORMATION

SAMPLE NUMBER: TRD34801

TRD **3** ☐ ☐ ☐ ☐ ☐ ☐

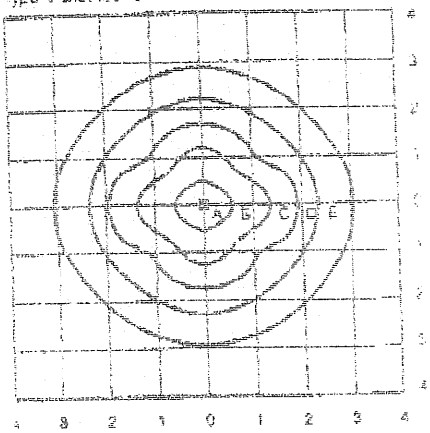
- **Product Family**: TRD=Dayform Traditionaire
- **Mounting**: 3=Post-Top
- **Distribution**: 3=Type V; 4=Type II; 6=Type III
- **Lamp Type**: 3=MH; 8=HPS
- **Lamp Wattage**: 0=50; 1=70; 2=100; 3=150; 4=175
- **Voltage**: 1=120; 2=208; 3=240; 4=277; 5=480; 7=Dual-Tap; 8=Triple-Tap wired 347; 9=Multi-Tap wired 277
- **Options (add as suffix)**: R=Photocontrol receptacle; V=Polycarbonate refractor panels
- **Accessories (order separately)**: TA1BK=Decorative ladder rest (field installed)

Catalog Number Type II	Type III	Type V	Lamp Wattage	Lamp Type/Base[1]	Ballast Type/ Power Factor	Voltage	Net Wt. (Lbs.)	Shipping Volume (Cu.Ft.)
TRD34801	TRD36801	TRD33801	50	HPS/Mogul	Hi-React./HPF	120	20	5.82
TRD34811	TRD36811	TRD33811	70	HPS/Mogul	Hi-React./HPF	120	20	5.82
TRD34821	TRD36821	TRD33821	100	HPS/Mogul	Hi-React./HPF	120	20	5.82
TRD34831	TRD36831	TRD33831	150	HPS/Mogul	Hi-React./HPF	120	20	5.82
TRD34321	TRD36321	TRD33321	100	MH/Mogul	Hi-React./HPF	120	22	5.82
TRD34341	TRD36341	TRD33341	175	MH/Mogul	CWA/HPF	120	22	5.82

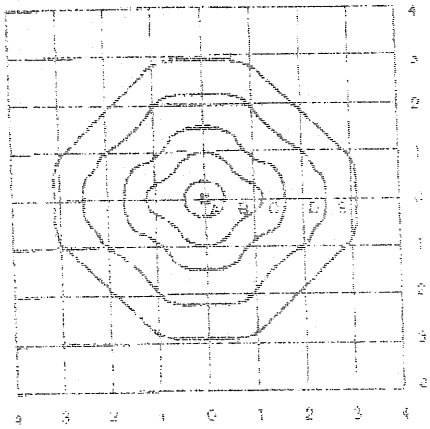
NOTES: [1] Lamps not included.

NOTE: Specifications and Dimensions subject to change without notice.

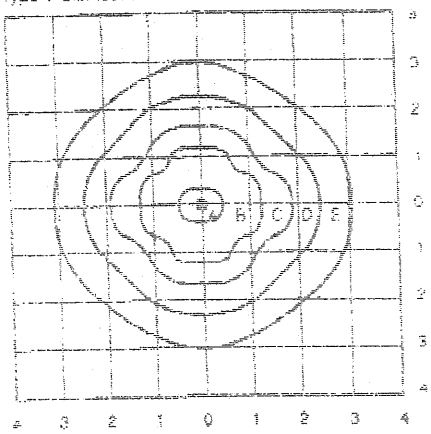
TR-1
Catalog Number TR1834
250-Watt HPS
30,000-Lumen Clear Lamp
Type V Distribution



TR-2
Catalog Number TR1883
150-Watt HPS
16,000-Lumen Clear Lamp
Type V Distribution



TR-3
Catalog Number TR1834
250-Watt Meta Halide
20,500-Lumen Clear Lamp
Type V Distribution



Footcandle Table for TR-1

Select mounting height and read across for footcandle values of each isofootcandle line.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
15'	5.54	2.77	1.39	0.69	0.28
20'	3.12	1.56	0.78	0.39	0.16
25'	2.00	1.00	0.50	0.25	0.10

Footcandle Table for TR-2, TR-3

Select mounting height and read across for footcandle values of each isofootcandle line.

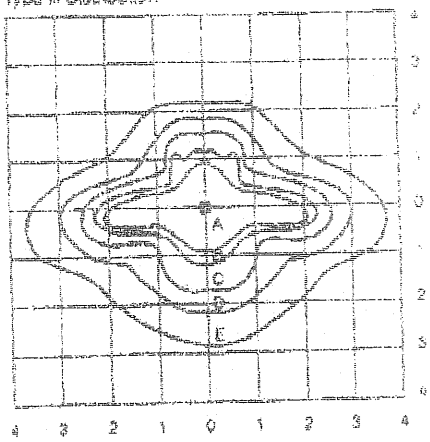
Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
15'	3.54	1.77	0.89	0.44	0.18
20'	2.00	1.00	0.50	0.25	0.10
25'	1.26	0.64	0.32	0.16	0.06

Proration Table

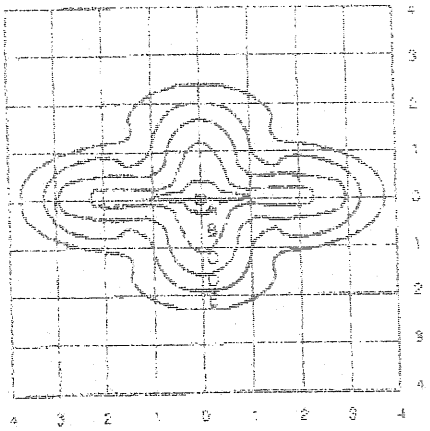
Multiply all footcandle values shown on footcandle plots and tables by the proration factor shown for the corresponding lamp to be used.

Lamp Designation	Watts	Lumens	Proration Factor
LU150MED	150	16,000	1.000
LU100MED	100	9,600	0.594
LU70MED	70	5,800	0.363
LU50MED	50	4,000	0.250
MH175MED	175	14,000	1.000
MH100MED	100	8,500	0.610

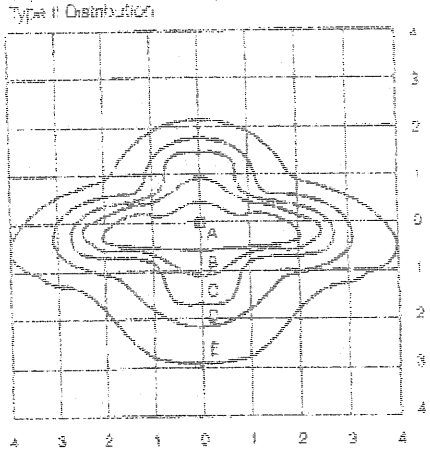
TR-4
Catalog Number TR1824
250-Watt HPS
20,500-Lumen Clear Lamp
Type III Distribution



TR-5
Catalog Number TR1883
150-Watt HPS
16,000-Lumen Clear Lamp
Type II Distribution



TR-6
Catalog Number TR1834
250-Watt Meta Halide
20,500-Lumen Clear Lamp
Type II Distribution



Footcandle Table for TR-4

Select mounting height and read across for footcandle values of each isofootcandle line.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
15'	5.54	2.77	1.39	0.69	0.28
20'	3.12	1.56	0.78	0.39	0.16
25'	2.00	1.00	0.50	0.25	0.10

Footcandle Table for TR-5, TR-6

Select mounting height and read across for footcandle values of each isofootcandle line.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
15'	3.54	1.77	0.89	0.44	0.18
20'	2.00	1.00	0.50	0.25	0.10
25'	1.26	0.64	0.32	0.16	0.06

Proration Table

Multiply all footcandle values shown on footcandle plots and tables by the proration factor shown for the corresponding lamp to be used.

Lamp Designation	Watts	Lumens	Proration Factor
LU150MED	150	16,000	1.000
LU100MED	100	9,600	0.594
LU70MED	70	5,800	0.363
LU50MED	50	4,000	0.250
MH175MED	175	14,000	1.000
MH100MED	100	8,500	0.610

Sebago Technics

Engineering & Planning for the Future

STORMWATER RUNOFF EVALUATION

Holm Place Condominiums
Holm Avenue
Portland, Maine

prepared for

V. P. Builders
P. O. Box 41
Westbrook, ME 04098

March 2000

One Chabot Street PO Box 1589 Westbrook, Maine 04098-1589 207-856-0277 Fax 207-856-2206

STORMWATER RUNOFF EVALUATION/ EROSION AND SEDIMENTATION CONTROL PLAN

Holm Place Condominiums
Portland, Maine

General

The following stormwater runoff evaluation has been prepared for V. P. Builders, Inc. to evaluate stormwater runoff and erosion control for the proposed Holm Place Condominiums in Portland, Maine. The Holm Place Condominiums will be a 16 unit residential development with an associated roadway utility infrastructure. The entire development will encompass a land area of approximately 3.65 acres. Access to the development will be from a private drive which connects directly onto Holm Avenue approximately one-third mile northeasterly of the intersection of Holm Avenue and Brighton Avenue.

Site Characteristics

The current condition of the project area is predominately wooded consisting of hardwood tree growth covering the majority of the land, with some open brush/meadow areas near the end of the existing driveway to the property. The surrounding area includes a residential neighborhood along both sides of Holm Avenue, with the Maine Turnpike bordering the western rear of the project. A tree buffer exists between the project's property and the actual Turnpike and a parcel of undeveloped land abuts northeasterly of the development which is wooded. Terrain in the development area varies from gentle to steep slopes at the northeasterly end. The northerly portion of the project slopes towards a deep ravine area in association with an upper tributary of Capisic Brook which drains easterly and eventually crosses Holm Avenue by a box culvert. The entire portion of the condo development and adjacent properties against the Turnpike also drain in a northeasterly direction toward the ravine via channels and culvert flows. All of the site's drainage eventually crosses Holm Avenue and joins into Capisic Brook, which eventually discharges into Fore River and Casco Bay.

The enclosed pre-development watershed map and USGS topographical map depict the general drainage characteristics and infrastructure in the project area.. During site reconnaissance of this site, no erosion or ponding were observed in the pre-development condition.

Soils

Soil classifications within the project area were based upon test pit information. The majority of the site is comprised of Swanton somewhat poorly drained soils which are classified as hydrologic group D.

One small area, which was previously filled with material excavated from construction in the surrounding areas, was classified as Croghan moderately well drained soils with a hydrologic group C. Off-site watersheds to the south consist of Swanton fine sandy loams which are classified as a hydrologic Group D soils. The soils are noted for a high water table, even though they can have a high permeability. This condition creates a poorly draining soil which can be associated with wetlands.

Stormwater Management

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

As described in the following, three watersheds were analyzed in the pre-development condition, and six watersheds in the post-developed condition. Due to the topography of the site and the nature of the stream near the site's northeasterly property line, two separate study points were evaluated. Study Point 1 was chosen to be the point where the majority of the site runoff enters the stream. Study Point 2 is a point approximately 230 feet northwesterly of Study Point 1.

The pre-developed condition considered one off-site watershed which flows through the site, plus two on-site watersheds.

WS-1 consists of the off-site area (2.6 acres) contributing to the site's runoff by draining runoff across the property by ditch and culvert flows. The area appears to be an abandoned road network or discontinued streets. The area abuts to the northbound off-ramp to Exit 8 of the Maine Turnpike and gently slopes to the proposed site. The existing roadways, now grown over with trees, provide channels for runoff to travel toward the site and the need for an 18" culvert to cross approximately half of the site.

WS-10 consists of 3.23 acres of the site for the proposed condominium project. The land is well vegetated with young hardwood growth and is currently not subject to erosion, even though it banks along a deep ravine and tributary subject to flooding on Holm Avenue. The parcel does contain one area of filled debris just behind the neighboring homes. This small area is believed to be a spoils area from recent road construction and repairs from the October 1996 flood. All runoff travels northeasterly to the stream prior to crossing Holm Avenue through a box culvert.

WS-11 consists of 0.42 acre of woodland in the northern corner of the site. Runoff flows northeasterly towards the stream prior to combining with the runoff from WS-10.

Watershed 1 remains the same in the post-development condition as in the pre-developed condition. Watersheds 10, and 12 through 14 are composite watersheds of the same watershed areas labeled as Watershed 10 in the pre-development condition and all outlet to Study Point 1. Watershed 11 outlets to Study Point 2.

WS-10 is the center of the proposed condominium project that includes the entrance drive, majority of driveways, and some roof-top portions. Approximately two-thirds of this watershed is pavement. Flows are sheet and shallow flows across green areas to a catch basin and storm drain system. The area has been regraded to provide positive drainage away form the residential units, while maximizing travel times prior to entering the storm drain system. All flows enter the proposed detention pond to be located along the eastern corner of the property to the north of the Holm Place main entrance.

WS-14 comprises the area along the southeastern and southern property lines between the existing woods and rear of the condominiums to be constructed on that side of the property. The area is treed along the property to provide some visual buffer, and grassed for lawns and drainage ditches. A long ditch collects from the condominium's rear side and directs runoff following the property line easterly to the main entrance drive. From there, it is conveyed by culvert to the storm system and detention pond. This ditch also collects off-site flows to the detention pond.

WS-12 consists of the western corner of the site which is proposed to be approximately four residential units, lawn and tree save areas, as well as the recreational area. Flows are redirected westerly across the units' rear side and then northerly to a gentle graded grassed swale which outlets to a 12" culvert adjacent to the recreational area sidewalk. The recreational area has been graded to a lower elevation and the culverts sized so that in larger storm events the field will act as temporary detention. The culvert directly enters the site's storm drain system and detention pond.

WS-13 consists of the small area of driveway and lawns between Units 2, 3, 4 and 5. Flows are directed into the catch basins and storm drain system, which outlets directly into the detention pond.

WS-11 is the portion of the site not developed along the western sideline and also the condominium units along the land above the stream bank. The area includes lawns, roofs, woods generally along the slope to the bank, and some wetlands associated with the stream/tributary. This watershed outlets to Study Point 2 as in the pre-developed condition.

STORMWATER DETENTION ANALYSIS

Holm Place Condominiums
Holm Avenue
Portland, Maine

Project Area 3.65 Acres

Watershed	Avg. CN	Acres	Tc min.	Peak Runoff (cfs) 2-Year	10-Year	25-Year	100-Year
Pre-Development							
1	77	2.60	27.0	1.84	4.26	5.48	7.36
10	72	3.23	25.0	1.69	4.46	5.93	8.23
Study Point 1				3.29	8.31	10.89	14.92
11	77	0.42	12.8	0.39	0.91	1.17	1.57
Study Point 2				0.39	0.91	1.17	1.57
Sum of Flows				3.70	9.20	12.10	16.50
Post-Development							
1	77	2.60	27.9	1.84	4.26	5.48	7.36
10	90	0.95	1.4	2.20	3.86	4.64	5.79
14	85	0.69	7.7	1.10	2.12	2.60	3.33
12	83	0.90	16.3	1.09	2.18	2.72	3.52
13	91	0.18	1.4	0.43	0.75	0.89	1.11
Study Point 1				3.05	5.63	6.37	7.28
11	81	0.94	46.4	0.65	1.36	1.72	2.25
Study Point 2				0.65	1.36	1.72	2.25
Sum of Flows				3.70	7.00	8.10	9.50
Net Change Sum of Flows				**-0-**	**-2.20**	**-4.00**	**-7.00**

The following analysis describes how the impervious increase of the proposed site and the related increase in peak runoff rates were designed to meet the existing, or lessen the overall peak rates of runoff of the site. Unfortunately, the downstream areas of the site are subject to flooding in relatively small rain events (5-year occurrence, or less). To comply with the analysis prepared for the City of Portland – "The Capisic Brook Greenbelt/Stormwater Abatement Study" by CH2M Hill, we must meet the stormwater quantity requirements to not further aggravate a current problem. The proposed property is not subject to flooding, but the stream adjacent to the northern property line winds through some densely populated neighborhoods and is prone to exceeding its banks and flooding in storms greater than 4.0"/24-hr. Although the report recommends large storage volumes for detention, it concedes no areas large enough in the Holm Avenue/Taft Avenue area are available to have any significant reduction of flooding. We hope to control our proposed site runoff to not further aggravate the area's watershed with the construction of a catch basin/storm drain system and detention pond.

Stormwater runoff modeling suggests that the peak rates of runoff in the developed condition will be the same or less than the pre-developed runoff rate within the ravine where the site's last discharge enters. Due to the compact development, the entire site showed slight increases because of the change of ground cover from woods to lawn and pavement. However, construction of a detention outlet control with the roadway infrastructure allowed the proposed site to drain similar to the manner that the site drains currently. We have either designed the driveways lower than the surrounding grades, or have provided yard drains to promote front yard sheet flow to the streets and installed drainage infrastructure.

The proposed detention system which was designed to utilize an area above the ravine will use an outlet control structure to store runoff temporarily and meet the pre-development peak flow rates as required. An outlet structure was designed with staged storage outlets consisting of two 4" orifices, one 18" x 4" slot orifice, and a 36" weir to control the site and provide an overflow. The pipes entering and discharging were significantly oversized to pass, if necessary, storm runoff from events such as the 100-year or less probability of occurrence.

In addition to the outlet structure and outlet pipe, an emergency riprap spillway was provided to assure the pond can outlet in the event the outlet is clogged or the storm rainfall is too great to pass all of the water through the control structure. We intend to make no revisions to the existing ravine other than installing a stilling basin located downstream of the outlet structure. Due to the work involved and location of adjacent wetlands, some slopes may be steepened with riprap which will be available from on-site excavation to stabilize constructed slopes and not further impact wetlands.

POND SUMMARY TABLE				
	2-Year Peak Discharge	**10-Year Peak Discharge**	**25-Year Peak Discharge**	**100-Year Peak Discharge**
Discharge at Ravine (cfs)	3.05	5.63	6.37	7.28
Peak Elevation at Detention Pond (Ft.) *	56.5	57.6	58.0	58.7
* Emergency Spillway Crest = 58.8 Ft.				

The Stormwater Management Plan for the Holm Place Condominium project will also include an Erosion and Sedimentation Control Plan placing emphasis on the installation of sedimentation barriers and revegetation to minimize erosion potential from development activities during and after construction. The Erosion Control Plan has been placed directly on the design plans to include locations of erosion control provisions (i.e., silt fence, hay bale barriers, riprap aprons, embankment), along with a narrative and construction details for reference by the contractor during construction.

In an effort to emphasize the requirements, a pre-construction meeting will be required as indicated in the erosion control notes between the owner, City and engineer to review critical aspects and sequencing of construction activities. The erosion control measures are to be monitored throughout construction by the contractor, with maintenance and repairs performed on a regular basis as directed by the erosion control plan.

Summary

The preceding stormwater runoff evaluation has been prepared to evaluate pre and post-development conditions of the proposed Holm Place Condominium development project located off Holm Avenue in Portland. The analysis reviewed pre and post-development watersheds and compared peak rates of runoff at common discharge points to assess stormwater infrastructure needs. Based upon the analysis and review of the site, we make the following recommendations:

1. Implementation of a site specific erosion and sedimentation control plan placing emphasis on times of disturbance and, during construction, installation of appropriate erosion control measures and revegetation of the site and project completion. A specific erosion control plan with notation has been placed directly on the subdivision plans along with supporting details. These measures should be followed by the selected contractor throughout project construction.

2. A pre-construction meeting should be held between the owner, contractor and City representative to review scheduling and critical components of the stormwater management and erosion control plan. The contractor should provide the owner and City with a construction schedule outlining the sequence of events.

3. The proposed site should utilize existing tree vegetation on slopes, natural channels, and stabilize all slopes with either riprap or erosion control blankets. This will lessen erosion of disturbed areas from the development activity and lessen the impact on abutters and the environment by providing stabilized soil conditions which will decrease both erosion and sedimentation of the upper reaches of the Capisic Brook Watershed.

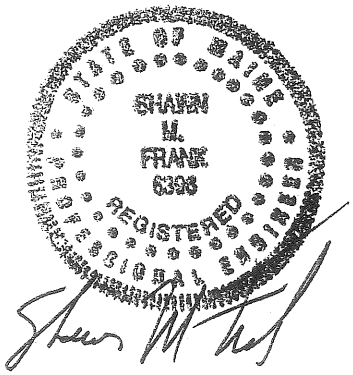
The proposed drainage system should not aggravate the existing flooding situations downstream to the Holm Avenue box culvert or associated tributaries. We are currently aware of the drainage and related flooding problems with the culvert or drainage infrastructure downstream. Therefore, we were careful not to discharge more than allowed by the pre-development peak runoff rates.

Prepared by:

SEBAGO TECHNICS, INC.

Jennifer L. Williams
Project Engineer

JLW:jc
March 29, 2000



To: Joseph Gray
Director of Planning and Urban Development
City of Portland

MR. Gray,

Twenty five years ago I bought a home at 158 Holm Ave, ajacent to the so called development being planned, with the thought that it was a fairly quiet Street with trees and glimpes of nature that my children could see without being out in the country. My children are grown now, but other familys have moved here with children and maybe thought about this area in the same light as I did. This whole street and the surrounding neighborhood, except for Saganore village and the units on Dole Court, are Single family houses. People walk and jog and visit with friends and neighbors. Most nights are pretty peaceful even though we are close to the turnpike and the shopping center across the street. I lived on this Street when I was a child. where the shopping center is was a big field which had a driving range. At the end of the street was dirt road and woods. I'm not against progress and I know people have to live somewhere. But look around, All Single houses live both sides of the Street. TO go through all the noise of cutting down trees, SCRAPING up the Earth,

destroying one of the few green and wild areas left in the city, just for the sake of greed is just not right. At one side of this person's or corporations land is a brook which sometimes overflows in a very heavy rain. In back of my house is a little stream which no doubt empties into said brook, which if you followed it down empties into Capsic Pond. If this project is allowed to go through, I will be left looking in my back yard at another example of the lack of consideration to which most of these projects are given. They are pushed through so fast that by the time anyone realizes what is happening, it's too late. All for the sake of a few more tax dollars or a lot more tax dollars.

When Bath Iron works was being pushed, we in this area were lead to believe that the Old Barrow Center was to be used to house the sailors. When that didn't happen, most people were relived. All I'm trying to say is, that a project of this type doesn't belong here. If they wanted to build two or three houses, that would certainly be better than building grotesque multiple dwellings. Plus one could preserve the peacefulness of the area. Please don't let greed and the thought of a tax bonanza influence your decision.

Thank you

Howard Ouellette

PS I hope that you will take the time to read this and the come out and see for yourself whats involved.

From: Jeff Tarling
To: Kandi Talbot
Date: Mon, Feb 14, 2000 4:34 PM
Subject: Holm Place

Kandi,

I reviewed the Holm Place Landscape Plan.... **concerns:** lack of rear buffering, trees, shrubs or fences, particularly, along the Maine Turnpike property line. the City has received complaints from other residential areas along the Turnpike concerning the high traffic noise in the past, it would be beneficial to have a visual and sight barrier for any residential property along the Turnpike.

Recommend - fencing along rear, Maine Turnpike property line and / or buffering Austrian Pine or Arborvitae, shrub material... berm?
Show any existing vegetation save areas and add additional buffering as needed.

The proposed shade and ornamental trees and unit landscaping looks good, the rear buffering, and saving existing vegetation needs to be addressed.

Jeff Tarling

1-31-00

TO: Planning Board

FROM: J Rogan

RE: Holm Avenue Proposed Condos

We strongly oppose additional construction on Holm Avenue. VP Builders recently built two houses at the top of the street and now want to take this remaining wooded area, cut down 95% of the trees and vegetation and turn it into a commercial venture.

The driveway of the proposed construction site is directly across from our driveway. This past November, a truck turning into that driveway could not make the turn and drove over our lawn and a neighbor's lawn.

Why would anyone in any area want to swap an environmentally pleasing area with condominiums that could potentially cause more flooding and increased traffic risks for pedestrians?

Please see a copy of the attached letter which was sent to the Traffic Engineer.

Respectfully.

Jim & Jane Rogan

Engineer Review and Site Inspection Fee Invoice Worksheet

Address: ***Holm Place…..16 unit Condominium on Holm Ave.....DATE:1/26/00***

Engineering Review

To be filled out by Development Review Coordinator and Public Works at time of application.

Planning	**Public Works**
# of Hours Estimated: (Private Improvements)	**# of Hours Estimated: (Public Improvements)**
Field Work _____	Field Work ***1.0***
Memos/Corresp. _____	Memos/Corresp. _____ ***3.0***
Review/Analysis _____ ***3.0***	Review/Analysis
Meetings/phone calls _____ ***1.0***	Meetings/phone calls
Total Hours _____ at _____ per hour	Total Hours ***8.0*** at ***$35*** per hour
Review Fee (Private): $ _____ ***$280***	Review Fee (Public): $
_____	_____
Development Review Coordinator Signature	Public Works Engineer Signature

Site Inspection

To be filled out by DRC and Public Works at time of Performance Guarantee approval.

Planning	**Public Works**
____ Accept 1.7% of Private Improvements P.G. P.G.	**___ Accept 1.7% of Private Improvements**
$ _____ (dollar amount)	**$ _____ (dollar amount)**
# of Hours Estimated:	**# of Hours Estimated:**
Field Work _____	Field Work _____
Memos/Corresp. _____	Memos/Corresp. _____

Review/Analysis _____

_____

Meetings/phone calls _____

Total Hours _____ at _____ per hour

Alternate Inspection Fee (Private): $ _____

_____

Development Review Coordinator Signature

Review/Analysis

Meetings/phone calls _____

Total Hours _____ at _____ per hour

Alternate Inspection Fee (Public): $ _____

_____

Public Works Engineer Signature

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Caron and Members of the Portland Planning Board

FROM: Kandice Talbot, Planner

DATE: January 25, 2000

SUBJECT: PRUD, V. P. Builders, Inc.
Vicinity of 166 Holm Avenue

V. P. Builders, Inc. is proposing a 16-unit condominium development in the vicinity of 166 Holm Avenue. The site is located between Holm Avenue and the Maine Turnpike. The site is 3.65 acres and zoned R-3. The development is proposed as a Planned Residential Unit Development (PRUD) and will be subject to site plan and subdivision review.

Zoning

The applicant is allowed 17 units based on the net residential area, which is 113,602 sq. ft. Previously, the applicant had proposed eight buildings containing two units and one single unit building. However, PRUD's can only consist of horizontally attached dwelling units, so the one single unit building can not be allowed. The applicant has now reduced the number of units to 16 units.

Zoning requires that all units be separated by 25 ft and the recreational area be at least 25 ft. from all residential units. Units 6, 15, and 16 are closer than 25 ft. from the recreational area. The applicant will have to revise the plans accordingly.

Drainage and Utilities

The applicant is proposing that all units will be served by public water, sewer, gas and underground electric. The applicant has provided utility letters from Portland Water District and Portland Sewer Division.

The site is predominantly wooded. There is a deep ravine north of the site, which is in association with an upper tributary of Capisic Brook which drains easterly and eventually crosses Holm Avenue by a box culvert. The entire site drains in a northeasterly direction toward the ravine via channels and culvert flows. All of the site's drainage eventually crosses Holm Avenue and joins into Capisic Book, which eventually discharges into Fore River and Casco Bay.

The applicant is proposing a detention pond to be located along the eastern corner of the property to the north of the Holm Place main entrance. The applicant is also proposing a catch basin/storm drain system located around the site. The site's runoff will sheet flow to the catch basin system around the property and then outlet into the proposed detention pond.

The Capisic Brook Greenbelt/Stormwater Abatement Study states that the downstream areas of the site are subject to flooding in relatively small rain events. To comply with the Capisic Brook analysis, the stormwater from this site must not further aggravate the current problem. The Development Review Coordinator and the Public Works Engineer are currently reviewing the stormwater report, which is included as Attachment 3.

Dwelling Unit Type

The development consists of eight 2-unit buildings. The applicant has provided elevations except for the rear elevation. The rear elevation will be submitted prior to the Public Hearing. The buildings will consist of 2 units, with attached garages between the two units. The applicant will be offering a choice of floor plans. Depending on which floor plan is chosen, there will also be an option of two dormers, a full dormer or a "cape-style" dormer. The elevations and floor plans are included as Attachment 8.

Access

Access will be from Holm Avenue. Asphalt curb is proposed at the radius of the drive. Staff is recommending that granite curb be installed at the radius of the drive. The applicant is providing a sidewalk from Holm Avenue to connect to the recreational area.

The Traffic Engineer is recommending that a traffic analysis be provided. The Traffic Engineer's memo is included as Attachment 4. The applicant indicated at the previous workshop that there will be 16 trips per peak hour. The Traffic Engineer does not believe the number of trips will have a significant impact on either Brighton Avenue or Holm Avenue.

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 PRUD regulations require 300 sq. ft. of active recreation space per dwelling unit, with a minimum 6,000 sq. ft. required. The applicant is proposing a 9,900 sq. ft. recreation area which is more than adequate for the number of units. The applicant is proposing the active recreation area in the center of the site. The applicant is also proposing a fence around the recreation area.

Buffers/Landscaping/Preservation

The site is currently heavily vegetated and the applicant is proposing to preserve as much vegetation as possible. The applicant is proposing a number of Hemlock, Flowering Crab, and Green Ash around the site. Proposed in front of the buildings are Rhododendrons and Wintercreeper.

The applicant is proposing a 6 ft. high cedar fence along the entrance drive which is to provide a buffer for the residential units along Holm Avenue. The landscape plan is currently being reviewed by the City Arborist.

Lighting and Signage

The applicant is proposing eight (8) street lights along the driveways. These lights are typical Town and Country light fixtures which is proposed on 18 ft. high poles. Staff is recommending that the light poles be lowered to 15 - 16 ft. high with cutoff fixtures. Also, the applicant should provide a lighting photometric plan.

The site plan shows a project sign on the northerly side of the entrance drive. The applicant will need to submit a detail of the proposed sign.

Condominium Documents

The applicant will need to submit condominium by-laws prior to the Public Hearing for review and approval by Corporation Counsel.

Attachments

1. Letter from Applicant
2. Utility Letters
3. Stormwater Report Narrative
4. Traffic Engineer's Memo
5. Fire Department's Memo
6. Letters from Area Residents
7. Site Plans
8. Elevations

PUBLIC WORKS ENGINEERING MEMORANDUM

To: Kandi Talbot, Senior Planner
From: Anthony Lombardo, P.E., Project Engineer
Date: January 25, 2000
Subject: Holm Place....16 Unit Condominium Development

The following comments were generated during Public Works Engineering review of material submitted by Sebago Technics on behalf of V.P. Builders. The application and plans are dated January 18, 2000.

Stormwater Report & Supporting Materials

I have read this report and reviewed the supporting calculations and have the following related comments:

1. The applicant uses the Cumberland County Medium Intensity Soil Survey as a source for describing existing soil conditions. This would typically be a fairly accurate assumption, however, recent reconstruction of Holm Ave., by the City, and other residential development on Holm Ave., has proven that existing soil conditions are much different. My own experience on this street, within the vicinity of the proposed development, has been that the native soils are comprised more of less permeable silty and clayey soils. This would significantly impact the results of the stormwater study. As a result, Public Works is requesting the applicant perform several (at least ten) tests pits throughout the development site to determine "actual" existing soil conditions.
2. The labeling of subcatchments is extremely confusing. Offsite watersheds are not labeled the same in the pre-developed and post-developed condition.
3. The routing diagram in both the pre- and post-developed condition needs to be modified. In the pre-developed condition, Reach 1 is not defined in length or shape. The routing diagram specifies the northwesterly offsite-contributing watershed travelling through Reach 1, but in fact this watershed (specified as #3) must traverse two "reaches" prior to arriving at the "study point". In the post-developed condition, the routing diagram is again flawed in the evaluating and modeling subcatchments 2 & 13 and the arrival of runoff at "study point #1".
4. The "watershed maps" provided utilize an inaccurate and ineffective drawing scale. As a result, much of the supporting data used with stormwater model can not be measured accurately from these maps.
5. Information represented on the "site plan", relative to the stormwater management plan, does not match information in the supporting calculations and model.
6. Not much detailed discussion is provided in the narrative regarding the design and function of the detention pond.
7. The narrative is deficient in discussions regarding the increase in volume of runoff from the development site and the resulting downstream impact. Even this inaccurate model of the watershed indicates an almost 100% increase in the volume of runoff generated from this

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CONSULTING ENGINEERS

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

MEMORANDUM

DATE: January 25, 2000

TO: Kandi Talbot, City of Portland, Planning

FROM: DeLuca-Hoffman Associates, Inc.

SUBJECT: Review of Proposed Holm Place PRUD, Holm Avenue, Portland

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The application for the proposed Holm Place PRUD was reviewed for conformance with the City of Portland Land Use Ordinance provisions and standard engineering practice. In general, omissions or issues only are listed.

REVIEW OF SUBMITTAL VS. WRITTEN STATEMENT REQUIREMENTS OF SECTION 14-521 OF PORTLAND LAND USE CODE

The only written statements submitted with this application are the stormwater management report (14-521 (c)(6)) and availability of utility facilities (14-521 (c)(5)). No other written statements were submitted. Some of the written statements can be inferred from notes and features shown on the Site Plan. Significant information which is not provided is as follows:

1. 14-521 (c)(2). There is no information on the individual sizes or types of proposed housing units on this site.
2. 14-521 (c)(3). The presence of existing or proposed easements on the site is not discussed.
3. 14-521 (c)(4). There is no information on solid waste disposal for this site.
4. 14-521 (c)(7). No construction sequence was provided.
5. 14-521 (c)(8). No information on required permits or approvals was provided.
6. 14-521 (c)(9). No information on technical and financial capacity was provided.
7. 14-521 (c)(10). No title or interest was provided.
8. 14-521 (c)(11). No narrative on the presence of unusual natural features on site was provided.
9. 14-521 (c)(13). No narrative on the amount of recyclable material generation for the site was provided.

General Comments:

It is recommended that the applicant provide written statements on these items as required by the Land Use Ordinance.

12. The information for Ponds 10 and 12 identified in the model does not match the information shown on the Site Plan.
13. The stormwater management pond (Pond 10) apparently has a permanent pool area. The function and necessity of this area are not discussed in the stormwater narrative. There are no calculations provided which demonstrate that this inlet pipe will not be a restricting factor on the outlet control structure. The inlet pipe of this structure also is apparently higher than the orifice elevations within the outlet control structure. The model does not reflect this feature.
14. There is no discussion of stormwater systems adjacent to the project site in the stormwater narrative and their potential impact to the project site. These systems include the Holm Avenue area and the Maine Turnpike off-ramp area.

General Comments:

The stormwater model provided for this project does not generally match the conditions shown on the site plan. The survey information upon which the model is based also appears to be incomplete. Several assumptions were made in this model which are not practical for the site conditions and are inconsistent with standard engineering practice. It would be appropriate to require the applicant to modify the stormwater model to more accurately reflect the pre- and postdevelopment site conditions and generate a stormwater management plan from this information.

REVIEW OF THE PLAN SET

1. The Site Plan does not identify all of the features shown. It appears that the following features are or will be present on the site: dumpster enclosure, mailboxes, development sign, light poles, an existing structure and other features. The nature of "LCE" areas and accompanying line type are also not identified.
2. Capisic Brook is not identified on the plan set. Are there any setback requirements from this stream?
3. The layout information is generally inadequate to ensure that the proposed features will be constructed as intended. Additional layout is recommended.
4. The survey plan generally does not provide adequate information on the presence and nature of abutting features. This factor makes it difficult to evaluate the impacts of the project on abutting properties. In general, the limits of clearing and grading are not complete and do not reflect a measured approach to the development. It appears that careful layout of features could produce more substantial buffers to abutting properties.
5. The erosion control provisions do not appear adequate and are shown on a plan already showing grading and utility features. The location of silt fence appears haphazard and incomplete. Stone check dams appear to be required by the plans, but are not identified and there is no detail specifying their use. The location of the stabilized construction entrance is not shown on the plans. It would be appropriate to generate a plan which separates utility features from grading and erosion control features.

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JOB 1900.24
SHEET NO. _____ OF _____
CALCULATED BY JTA DATE 1/25/00
CHECKED BY _____ DATE _____
SCALE _____

HOLM PLACE REVIEW
SECTION 14-525 FINAL SITE PLAN

b) CONTENTS

	REQD	PROV'D
1) BOUNDARY SURVEY	APPLICANT	O.K.
	SCALE / NO	O.K.
	BOUNDARIES	O.K.
	TOTAL LAND AREA	O.K.
	TOPO	O.K.

2) PLANS

SHEET 2
- DEFINE LCE
- DEFINE —··— LINETYPE
- DEFINE SHADING
- DIFF. SHADING FOR SIDEWALK?
- WHAT IS STRUCTURE AT NE CORNER
- WHAT IS EX. STRUCTURE AT NE CORNER
- IS STREAM?

SHEET 3
- NO LAYOUT INFO
- CAPE COD ON SO. SIDE OF ENTRANCE WHY?
- TRANSITION STONE FOR GRANITE TO BIT?
- PAVEMENT BUILDUP } MARKED PER GUIDELINES
- SIDEWALK BUILDUP }
- NEW PYLON SIGN?
- WHAT IS NATURE OF ABUTTING FEATURES?
- BUFFER TO MTA
- PROPOSED CLEARING LIMITS?

SHEET 4
- GRADING INCOMPLETE
- SILT FENCE COVERAGE POOR
- CLEARING LIMITS POOR OR POORLY DEFINED
- ~~8" SD~~
- STONE CHECK DAMS? NO LABEL, NO DETAIL
- INLET / OUTLETS?

SHEET 6

PRODUCT 204-1 (Single Sheets) 205-1 (Padded)

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JOB 1900.20
SHEET NO. _____ OF _____
CALCULATED BY SDA DATE 1/25/00
CHECKED BY _____ DATE _____
SCALE _____

HOLM PLACE

REVIEW FOR SPACE AND BULK SECT. 14-86 TO 14-91

ITEM	REQ'D	PROV'D
R-3 RESIDENTIAL ZONE	PRUD HORIZ. - ATTACHED HOUSING UNITS	PRUD ∴ ALLOWED USE
DIM. REQMTS		
(1) MIN. LOT SIZE	REQ'D 6500 SF	3.65 AC = 158,994 SF ∴ CONFORMS
(2) MIN. LOT AREA/UNIT	6500 SF/UNIT OF NET LAND AREA PER 14-49	PER NET LAND CALCS ON SHEET 2, 114,733 SF/6500 SF/UNIT => 17.65 UNITS ∴ 16 UNITS PROPOSED
(3) MIN. STREET FRONTAGE	50 FT	50 FT ∴ CONFORMS
(4) MIN YARD DIMENSIONS	a) FRONT YARD 25 FT	25 FT ∴ CONFORMS
	(b) REAR YARD <100 SF STRUCTURE 25 FT	25 FT ∴ CONFORMS
	(c) SIDE YARD 2 STORY 14 FT	19 FT MEAS. TO DECK 25 FT SHOWN ON PLANS ∴ CONFORMS
(5) MAX LOT COVERAGE	25% OF LOT AREA	158,994 SF * .25 = 39748.5 SF FOR 16 UNITS @ 1,252 SF => 20,032 SF ∴ CONFORMS
(6) MAX LOT WIDTH	75 FT	450 FT TYP ∴ CONFORMS
(7) MAX STRUCTURE HT	35 FT	NOT PROVIDED
(8) MAX # OF UNITS/BUILDING (PRUD SPACES OR LESS)	TWO	TWO ∴ CONFORMS
(9) N/A		
(10) MAX LENGTH OF BLDG (PRUD) W/ INTERNAL GARAGES	140 FT	83 FT +/- ∴ CONFORMS
(11) MIN PRUD SIDE SETBACK	25 FT	25 FT + TO BLDG DECK @ 19 FT

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JOB 1900.24
SHEET NO. ____ OF ____
CALCULATED BY LDA DATE 1/25/00
CHECKED BY ____ DATE ____
SCALE ____

SPACE & BULK REGION CONTD

(12)	MIN DIST. BETWEEN PRUD BUILDINGS	16 FT	17 FT ∴ CONFORMS
(14)	MIN RECREATION OPEN SPACE AREA	300 SF/UNIT 6000 SF MIN ET	300 * 16 => 4800 SF ⇒ 6000 SF MIN 9,900 SF ∴ CONFORMS
(15)	PRUD HABITABLE AREA BELOW GRADE		NONE PROPOSED

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JOB 1900.24 OF

SHEET NO. CALCULATED BY JTM DATE 1/25/00

CHECKED BY DATE

SCALE

PRE

1) WOODS - GOOD SCS WARNING?

2) WINDSOR → HIGH INTENSITY SOILS?
No SWANTON USED ON SITE; MED INTENS SHOWS PROJECT NOT LOCATED CORRECTLY?

3) MAP DOESN'T SHOW ALL OF OFF SITE WATERSHEDS
SHEET FLOW L = 150' TOO LONG T_c = 42.6 MIN TOO LONG

1
2
3

~~DONE~~

4) PRE PLAN SHOWS SHALLOW CONC. IN (1) SHOULD BE TRAVEL TIME

5) FLOW PATHS NOT CONTINUOUS TO STUDY POINT
HOW DOES (2)/(3) GET TO STUDY POINT?

POST

6) (2) PRE = (1) POST SHALLOW CONC. L'S SAME? BUT SHOWS IN (1) PRE ALSO, SLOPE GOES FROM 0.03 TO 0.02

7) (3) PRE / (3) POST FLOW PATH NOT PHYSICAL

8) NO SWANTON ON SITE?

9) WATERSHED MAPS NOT TO SCALE

10) (10) POST SHEET FLOW; CROSSED DRIVE
GRASS SHEET FLOW; TOO LONG → DITCH
SHALLOW CONC. SLOPE WRONG .0228 CALC 0.020
CIRC. CHANNEL SLOPE WRONG .007 PLANS 0.01

11) (11) TIME OF CONC. ~~FLOWS~~ PATH POORLY LAID OUT
SHEET FLOW - SLOPE TOO ↓
- L TOO SHORT

12) (12) TRAVEL FLOW PATH THROUGH WOODS BOGUS

PRODUCT 204-1 (Single Sheets) 205-1 (Padded)

DeLUCA-HOFFMAN ASSOCIATES, INC.
Consulting Engineers
778 Main Street Suite 8
SOUTH PORTLAND, MAINE 04106
(207) 775-1121
FAX (207) 879-0896

JOB 1900.24
SHEET NO. _____ OF _____
CALCULATED BY JDA DATE 11/25/00
CHECKED BY _____ DATE _____
SCALE _____

13) (13) FLOW PATH BOGUS 4:1 SLOPE OF SHEET FLOW?
NO WAY

CALC SHOWS 2 SCF
PLOT SHOWS SCF / CF
HOW CONNECTED TO STUDY POINT?

14) POND 10 NO OUTLET PIPE → STORAGE IN POND? ALWAYS WET MOSQUITOS?

TAKING CREDIT FOR AREA BELOW OUTLET PIPE

INLET INVERT 54.62 ORIFICE INV. 54.5
SPILLWAY CREST 58.5 ~~NOT IN MODEL~~

PRODUCT 204-1 (Single Sheets) 205-1 (Padded)

1-20-00

TO: L. Ash

FROM: Jim & Jane Rogan

RE: Proposed Holm Avenue Condominiums

We are very concerned about this proposed community taking over this quiet neighborhood traffic-wise. There are so many negatives about the above proposal but we will address only possible traffic issues.

First, their driveway (VP Builders) is directly across from our driveway at 169 Holm Ave. We estimate that there will be 40+ cars going in and out of that one driveway (not to mention off street parking). There are many small children in that area.

As you probably know it is difficult getting in and out of the traffic on Brighton Avenue as it is. We have traffic from the development at the end of Holm Ave. We have traffic going in and out of the Barron Center, the Loring House and the Holden Agency.

Please ask VPB to present you with in depth details of their plans and, Mr. Ash, please come visit this site yourself and see the confusion and congestion it will cause. Thank you for your consideration.

Jim + Jane Rogan

From: Larry Ash
To: Kandi Talbot
Date: Thu, Jan 13, 2000 11:35 AM
Subject: Re: Holm Avenue PRUD

I don't think the number of trips will have a significant impact on either Brighton or Holm Ave. However, over time we can keep records of all these developments and the accumulated number of trips. At some time in the future we will need to be able to refer to some number of trips and the accumulated number will at some time be important.

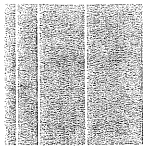
>>> Kandi Talbot 01/13 9:12 AM >>>
Another quick question.....are you requesting number of trips because of traffic on Holm Avenue or traffic on Brighton Avenue? The PB was curious as to why trip info was requested.

>>> Larry Ash 01/13 6:04 AM >>>
Kandi: just a memo that says how many trips during the peak hour and what is the source of their estimate.

>>> Kandi Talbot 01/12 3:20 PM >>>
A while back when I pulled out the proposed 17-unit PRUD on Holm Avenue who had said that they needed a traffic study.

The applicant is stating that they will only have 16 trips per peak hour. They want to know what type of traffic analysis you need and what it should entail. Do you want site distance, etc.?

Please let me know so I can relay this to the applicant. Thank you.



Sebago Technics

Engineering & Planning for the Future

STORMWATER RUNOFF EVALUATION

Holm Place Condominiums
Holm Avenue
Portland, Maine

prepared for

V. P. Builders
P. O. Box 41
Westbrook, ME 04098

January 2000

One Chabot Street P.O. Box 1589 Westbrook, Maine 04098-1589 207-856-0277 Fax 207-856-2206

STORMWATER RUNOFF EVALUATION/ EROSION AND SEDIMENTATION CONTROL PLAN

Holm Place Condominiums
Portland, Maine

General

The following stormwater runoff evaluation has been prepared for V. P. Builders, Inc. to evaluate stormwater runoff and erosion control for the proposed Holm Place Condominiums in Portland, Maine. The Holm Place Condominiums will be a 16 unit residential development with an associated roadway utility infrastructure. The entire development will encompass a land area of approximately 3.65 acres. Access to the development will be from a private drive which connects directly onto Holm Avenue approximately one-third mile northeasterly of the intersection of Holm Avenue and Brighton Avenue.

Site Characteristics

The current condition of the project area is predominately wooded consisting of hardwood tree growth covering the majority of the land, with some open brush/meadow areas near the end of the existing driveway to the property. The surrounding area includes a residential neighborhood along both sides of Holm Avenue, with the Maine Turnpike bordering the western rear of the project. A tree buffer exists between the project's property and the actual Turnpike and a parcel of undeveloped land abuts northeasterly of the development which is wooded. Terrain in the development area varies from gentle to steep slopes at the northeasterly end. The northerly portion of the project slopes towards a deep ravine area in association with an upper tributary of Capisic Brook which drains easterly and eventually crosses Holm Avenue by a box culvert. The entire portion of the condo development and adjacent properties against the Turnpike also drain in a northeasterly direction toward the ravine via channels and culvert flows. All of the site's drainage eventually crosses Holm Avenue and joins into Capisic Brook, which eventually discharges into Fore River and Casco Bay.

The enclosed pre-development watershed map and USGS topographical map depict the general drainage characteristics and infrastructure in the project area.. During site reconnaissance of this site, no erosion or ponding were observed in the pre-development condition.

Soils

Soil classifications within the project area were referenced from the Cumberland County Medium Intensity Soil Survey. The majority of the site is comprised of Windsor loamy sand soils.

The Windsor soil series consists of dark brown to yellowish brown, loamy sand. The soils are excessively drained and are generally deep and gentle to moderately sloped. Permeability for the Windsor soil series is very high and the soil is noted for its terraced locations adjacent to streams or rivers. The soil is classified as a hydrologic Group A. The Windsor soils are predominately glacial outwash deposits located adjacent to rivers and can be subject to clay lenses or stratified layers of silt. Off-site watersheds to the south consist of Swanton fine sandy loams which are classified as a hydrologic Group D soils. The soils are noted for a high water table, even though they can have a high permeability. This condition creates a poorly draining soil which can be associated with wetlands.

Stormwater Management

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

As described in the following, three watersheds were analyzed in the pre-development condition, and six watersheds in the post-developed condition. A common discharge point was selected for both the pre and post-developed conditions. Due to the unique location of the development adjacent to a stream tributary, we chose the end of the ravine outletting adjacent to the stream as the study point for a runoff discharge rate.

The pre-developed condition considered two off-site watersheds which contribute to the ravine which crosses the proposed project site plus the proposed site as its own watershed.

WS-1 consists of 3.65 acres which is the entire parcel for the proposed condominium project. The land is well vegetated with young hardwood growth and is currently not subject to erosion, even though it banks along a deep ravine and tributary subject to flooding on Holm Avenue. The parcel does contain one area of filled debris just behind the neighboring homes. This small area is believed to be a spoils area from recent road construction and repairs from the October 1996 flood. All runoff travels northeasterly to the stream prior to crossing Holm Avenue through a box culvert.

WS-2 consists of the off-site area (2.6 acres) contributing to the site's runoff by draining runoff across the property by ditch and culvert flows. The area appears to be an abandoned road network or discontinued streets. The area abuts to the northbound off-ramp to Exit 8 of the Maine Turnpike and gently slopes to the proposed site. The existing roadways, now grown over with trees, provide channels for runoff to travel toward the site and the need for an 18" culvert to cross approximately half of the site.

WS-3 includes a small sliver of trees and young hardwoods which abut the Maine Turnpike's right-of-way. The area of just less than one acre drains parallel to the proposed site and enters just on the northerly end of the site prior to entering the adjacent stream.

Watersheds in the proposed development condition consist of Watersheds 10 through 13. The watersheds labeled 1 and 2 are the same as the watersheds labeled 2 and 3 in the pre-developed condition, respectively. Watersheds 10 through 13 are composite watersheds of the same watershed area labeled as Watershed 1 in the pre-development condition.

WS-10 is the center of the proposed condominium project that includes the entrance drive, majority of driveways, recreational area, and some roof-top portions. The site is evenly split between grass vegetation and pavement. Flows are sheet and shallow flows across green areas to a catch basin and storm drain system. The area has been regraded to provide positive drainage away form the residential units, while maximizing travel times prior to entering the storm drain system. All flows enter the proposed detention pond to be located along the eastern corner of the property to the north of the Holm Place main entrance.

WS-11 comprises the area along the southeastern and southern property lines between the existing woods and rear of the condominiums to be constructed on that side of the property. The area is treed along the property to provide some visual buffer, and grassed for lawns and drainage ditches. A long ditch collects from the condominium's rear side and directs runoff following the property line easterly to the main entrance drive. From there, it is conveyed by culvert to the storm system and detention pond. This ditch also collects off-site flows to the detention pond.

WS-12 consists of the western corner of the site which is proposed to be approximately four residential units, lawn, and tree save areas. Flows are redirected westerly across the units' rear side and then northerly to a gentle graded grassed swale which outlets to a 12" culvert adjacent to the recreational area sidewalk. The culvert directly enters the site's storm drain system and detention pond.

WS-13: The remaining watershed is the portion of the site not developed along the western sideline and also the condominium units along the land above the stream bank. The area includes lawns, roofs, woods generally along the slope to the bank, and some wetlands associated with the stream/tributary.

STORMWATER DETENTION ANALYSIS

Holm Place Condominiums
Holm Avenue
Portland, Maine

Project Area 3.65 Acres

Watershed	Avg. CN	Acres	Tc min.	2-Year Peak Runoff (cfs)	10-Year Peak Runoff (cfs)	25-year Peak Runoff (cfs)
Pre-Development						
1	31	3.65	42.60	0.00	0.00	0.02
2	77	2.60	27.00	1.84	4.26	5.48
3	39	0.91	0.91	0.00	0.02	0.06
Study Point 1				1.82	4.21	5.44
Post-Development						
1	77	2.60	27.9	1.84	4.26	5.48
2	39	0.91	35.5	0	0.02	0.06
10	68	1.57	8.8	0.83	2.55	3.48
11	55	0.69	7.7	0.05	0.46	0.75
12	50	0.45	16.1	0.01	0.13	0.25
13	42	0.94	44.3	0	0.04	0.11
Study Point 1				1.57	4.18	5.17
Net Change				**-0.25**	**-0.03**	**-0.27**

The following analysis describes how the impervious increase of the proposed site and the related increase in peak runoff rates were designed to meet the existing, or lessen the peak rates of runoff of the site. Unfortunately, the downstream areas of the site are subject to flooding in relatively small rain events (5-year occurrence, or less). To comply with the analysis prepared for the City of Portland – "The Capisic Brook Greenbelt/Stormwater Abatement Study" by CH2M Hill, we must meet the stormwater quantity requirements to not further aggravate a current problem. The proposed property is not subject to flooding, but the stream adjacent to the northern property line winds through some densely populated neighborhoods and is prone to exceeding its banks and flooding in storms greater than 4.0"/25-hr. Although the report recommends large storage volumes for detention, it concedes no areas large enough in the Holm Avenue/Taft Avenue area are available to have any significant reduction of flooding. We hope to control our proposed site runoff to not further aggravate the area's watershed with the construction of a catch basin/storm drain system and detention pond.

Stormwater runoff modeling suggests that the peak rates of runoff in the developed condition will be the same or less than the pre-developed runoff rate within the ravine where the site's last discharge enters. Due to the compact development, the entire site showed slight increases because of the change of ground cover from woods to lawn and pavement. However, construction of a detention outlet control with the roadway infrastructure allowed the proposed site to drain similar to the manner that the site drains currently. We have either designed the driveways lower than the surrounding grades, or have provided yard drains to promote front yard sheet flow to the streets and installed drainage infrastructure.

The proposed detention system which was designed to utilize an area above the ravine will use an outlet control structure to store runoff temporarily and meet the pre-development peak flow rates as required. An outlet structure was designed with staged storage outlets consisting of two 4" orifices, one 18" x 4" slot orifice, and a 36" weir to control the site and provide an overflow. The pipes entering and discharging were significantly oversized to pass, if necessary, storm runoff from events such as the 100-year or less probability of occurrence.

In addition to the outlet structure and outlet pipe, an emergency riprap spillway was provided to assure the pond can outlet in the event the outlet is clogged or the storm rainfall is too great to pass all of the water through the control structure. The improvements will decrease the peak discharges to the ravine by the respective amounts, the 2-year storm 13.7%, 0.25 cfs; 10-year storm 0.7%, 0.03 cfs; and finally the 25-year storm 5.0%, or 0.27 cfs. We intend to make no revisions to the existing ravine other than installing a stilling basin located downstream of the outlet structure. Due to the work involved and location of adjacent wetlands, some slopes may be steepened with riprap which will be available from on-site excavation to stabilize constructed slopes and not further impact wetlands.

POND SUMMARY TABLE			
	2-Year Peak Discharge	**10-Year Peak Discharge**	**25-Year Peak Discharge**
Discharge at Ravine (cfs)	1.57	4.18	5.17
Peak Elevation at Detention Pond (Ft. *	56.20	57.50	58.20
% Decrease of Peak Rate Below Pre-Developed Condition	6.5%	5.7%	7.4%
* Emergency Spillway Crest = 58.3 Ft.			

The Stormwater Management Plan for the Holm Place Condominium project will also include an Erosion and Sedimentation Control Plan placing emphasis on the installation of sedimentation barriers and revegetation to minimize erosion potential from development activities during and after construction. The Erosion Control Plan has been placed directly on the design plans to include locations of erosion control provisions (i.e., silt fence, hay bale barriers, riprap aprons, embankment), along with a narrative and construction details for reference by the contractor during construction.

In an effort to emphasize the requirements, a pre-construction meeting will be required as indicated in the erosion control notes between the owner, City and engineer to review critical aspects and sequencing of construction activities. The erosion control measures are to be monitored throughout construction by the contractor, with maintenance and repairs performed on a regular basis as directed by the erosion control plan.

Summary

The preceding stormwater runoff evaluation has been prepared to evaluate pre and post-development conditions of the proposed Holm Place Condominium development project located off Holm Avenue in Portland. The analysis reviewed pre and post-development watersheds and compared peak rates of runoff at common discharge points to assess stormwater infrastructure needs. Based upon the analysis and review of the site, we make the following recommendations:

1. Implementation of a site specific erosion and sedimentation control plan placing emphasis on times of disturbance and, during construction, installation of appropriate erosion control measures and revegetation of the site and project completion. A specific erosion control plan with notation has been placed directly on the subdivision plans along with supporting details. These measures should be followed by the selected contractor throughout project construction.

2. A pre-construction meeting should be held between the owner, contractor and City representative to review scheduling and critical components of the stormwater management and erosion control plan. The contractor should provide the owner and City with a construction schedule outlining the sequence of events.

3. The proposed site should utilize existing tree vegetation on slopes, natural channels, and stabilize all slopes with either riprap or erosion control blankets. This will lessen erosion of disturbed areas from the development activity and lessen the impact on abutters and the environment by providing stabilized soil conditions which will decrease both erosion and sedimentation of the upper reaches of the Capisic Brook Watershed.

The proposed drainage system should not aggravate the existing flooding situations downstream to the Holm Avenue box culvert or associated tributaries. We are currently aware of the drainage and related flooding problems with the culvert or drainage infrastructure downstream. Therefore, we were careful not to discharge more than allowed by the pre-development peak runoff rates.

Although not large enough for a measurable change, the site was over-detained by as much as 13% in the 2-year storm to reduce impacts on the adjacent receiving waters. This is consistent with the City's analysis of the Capisic Brook Watershed Study. In addition, we would implement erosion control and safety, while maintaining natural on-site vegetation where possible to limit visual impacts and disturbance.

Prepared by:

SEBAGO TECHNICS, INC.

James R. Seymour
Project Engineer

JRS:jc
January 20, 2000

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Carroll and Members of the Portland Planning Board

FROM: Kandice Talbot, Planner

DATE: December 14, 1999

SUBJECT: PRUD, V. P. Builders, Inc.
Vicinity of 166 Holm Avenue

V. P. Builders, Inc. is proposing a 17-unit condominium development in the vicinity of 166 Holm Avenue. The site is located between Holm Avenue and the Maine Turnpike. The site is 3.65 acres and zoned R-3. The development is proposed as a Planned Residential Unit Development (PRUD) and will be subject to site plan and subdivision review. A sketch plan is included as Attachment 3.

At this time the applicant has submitted a sketch plan of the site and is asking for the Board's comments, before they do a more detailed site plan.

Zoning

The applicant is proposing 17 units based on the net residential area, which is 113,602 sq. ft. The applicant is proposing eight buildings containing two units and one single unit building. However, PRUD's can only consist of horizontally attached dwelling units, so the one single unit building can not be allowed.

Drainage and Utilities

The applicant is proposing that all units will be served by public water, sewer, gas and underground electric. Utility capacity letters will need to be provided.

The sketch plan shows a stormwater management/treatment pond where drainage will flow, than outlet into the Capisic Brook Watershed. Recently, The Capisic Brook Greenbelt/Stormwater Abatement Study was adopted by the City. The Holm Avenue development is within the focus area. Attached is a map showing the Capisic Brook watershed area. The applicant will have to provide a stormwater management plan which meets the intent of the Capisic Brook Study.

Dwelling Unit Type

The development consists of eight 2-unit buildings and one single unit building. As mentioned above, the PRUD only allows attached units and the applicant will have to revise the plan accordingly. The applicant will provide elevations at the workshop meeting.

Access

Access will be from Holm Avenue. Granite curb is proposed at the radius of the drive. Staff is recommending that the applicant provide a sidewalk from the units to Holm Avenue and to the recreation area. The Traffic Engineer is recommending that a traffic analysis be provided.

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 revised PRUD amendments require 300 sq. ft. of active recreation space per dwelling unit, with a minimum 6,000 sq. ft. required. The applicant is proposing a 9,900 sq. ft. recreation area which is more than adequate for the number of units. The applicant is proposing the active recreation area in the center of the site. The applicant is also proposing a fence around the recreation area.

Buffers/Landscaping/Preservation

The site is currently heavily vegetated and the applicant is proposing to preserve as much vegetation as possible. The applicant shall submit a landscape and preservation plan for review by staff.

Attachments

1. Letter from Applicant
2. Capisic Brook Watershed Map
3. Sketch Plan

A+ 1

SebagoTechnics

Engineering & Planning for the Future

September 16, 1999
99103

Richard Knowland, Senior Planner
Department of Planning & Urban Development
City of Portland
389 Congress Street
Portland, ME 04101

Holm Avenue Condominium Project – V. P. Builders, Inc.

Dear Rick:

On behalf of V. P. Builders, Inc., we are pleased to submit seven (7) copies of the enclosed plans for a proposed condominium development on Holm Avenue. The entire parcel is located on approximately 3.65 acres and is situated in the Residential 3 District (R-3 Zone). V. P. Builders is proposing a 17 unit development pursuant to PRUD requirements and in accordance with the enclosed net residential land calculations. A recreation open space of 6,000 square feet and containing active recreational opportunities is proposed.

The applicant respectfully requests placement on the next available workshop agenda with the Planning Board to discuss the merits of this project. The enclosed sketch plan proposes nine buildings containing 17 three-bedroom condominium units with shared garages and related site improvements. Based upon discussions with the Planning Board and staff, the applicant will proceed with preliminary and final design of the development.

Upon your review of this letter and the enclosed sketch plans, please call with any questions or comments. We look forward to meeting with the Board and staff at their earliest convenience to discuss this project in more detail. Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.

William T. Conway

William T. Conway, R.L.A.
Vice President, Landscape Architecture

WTC:jc
Enc.

cc: V. P. Builders, Inc.

12 Westbrook Common P.O. Box 1339 Westbrook, Maine 04098-1339 207-856-0277 Fax 207-856-2206

99103

September 16, 1999

Net Residential Land Calculation

Total Area	=	159,166 SF
- 25% Slopes	=	7,200 SF
- Stormwater Area	=	6,400 SF
- Wetland Area	=	3,589 SF
Remainder	=	141,997 SF
- 20%	=	28,395 SF
Net Residential Area	=	113,602 SF
Allowable density @ 1 Unit Per 6,500 SF	=	17.47 Units

1b

SebagoTechnics

September 16, 1999
99103

Mr. David Coffin
Portland Water District
P. O. Box 3553
Portland, ME 04104-3553

Holm Avenue Condominiums, Portland, Maine

Dear Dave:

Per the request of the Portland Planning Department, we need to obtain a letter stating available service capacity for the proposed Holm Avenue Condominiums. The entire parcel is located on approximately 3.65 acres and is situated in the Residential 3 District (R-3 Zone). V. P. Builders is proposing a 17 unit development with each unit containing three bedrooms. This project will generate a water/sewer usage of 4,590 gallons per day.

Upon your review of this letter and the enclosed sketch plans, please call with any questions or comments. We look forward to receiving your letter at your earliest convenience. Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.

William T. Conway

William T. Conway, R.L.A.
Vice President, Landscape Architecture

WTC:jc
Enc.

cc: V. P. Builders, Inc.

1C

SebagoTechnics

September 16, 1999
99103

Mr. Frank Brancley
Public Works Department
City of Portland
55 Portland Street
Portland, ME 04101

Holm Avenue Condominiums, Portland, Maine

Dear Frank:

Per the request of the Portland Planning Department, we need to obtain a letter stating available service capacity for the proposed Holm Avenue Condominiums. The entire parcel is located on approximately 3.65 acres and is situated in the Residential 3 District (R-3 Zone). V. P. Builders is proposing a 17 unit development with each unit containing three bedrooms. This project will generate a water/sewer usage of 4,590 gallons per day.

Upon your review of this letter and the enclosed sketch plans, please call with any questions or comments. We look forward to receiving your letter at your earliest convenience. Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.

William T. Conway

William T. Conway, R.L.A.
Vice President, Landscape Architecture

WTC:jc
Enc.

cc: V. P. Builders, Inc.

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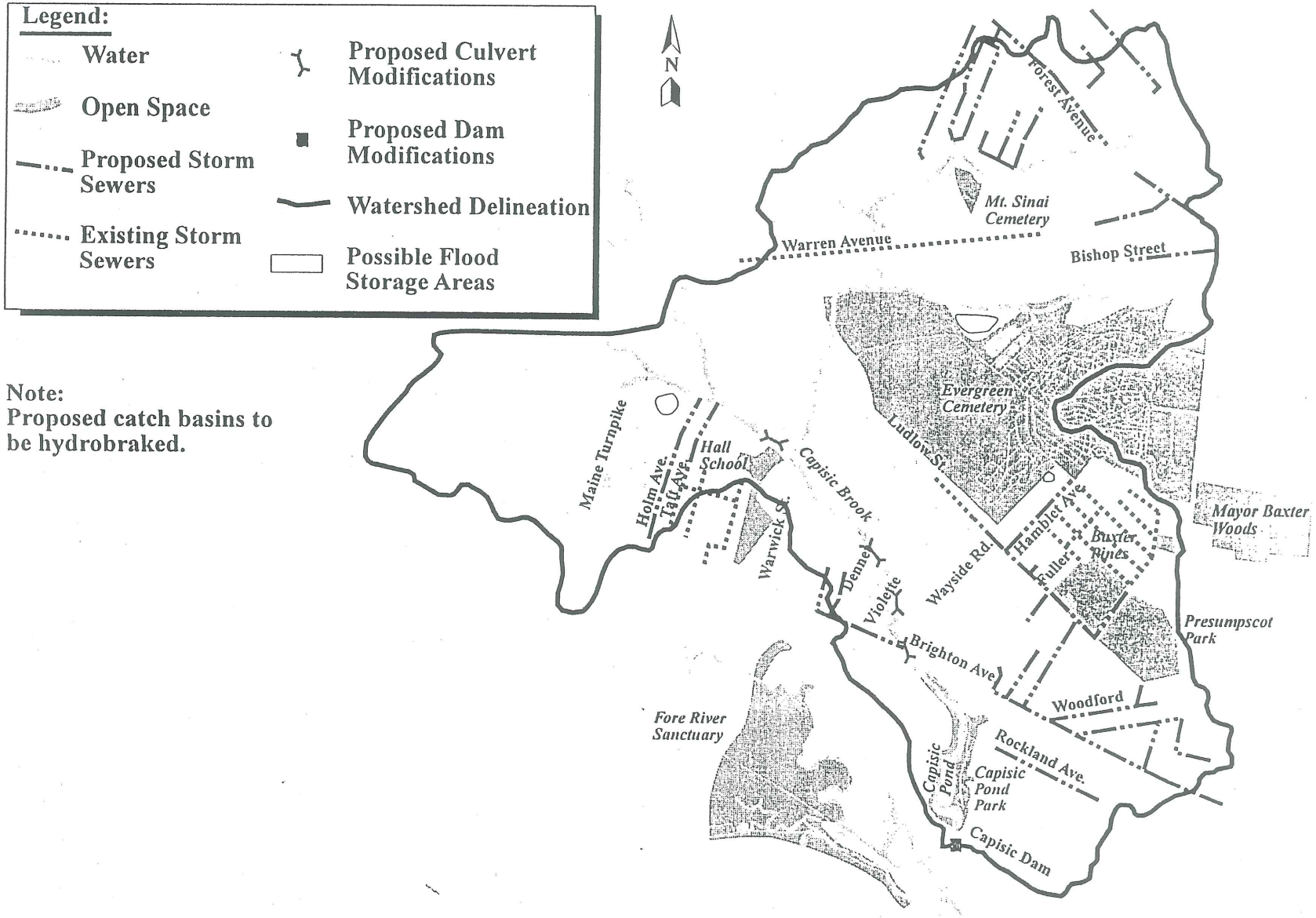

AH. 2

Figure 4-1
Flood and CSO Control Components
of the Limited Action Plan

Department of Public Works

William J. Bray
Director

99103

CITY OF PORTLAND

29 September 1999

Mr. William T. Conway, R.L.A.,
Vice President, Landscape Architecture,
Sebago Technics,
P.O. Box 1339,
Westbrook, Maine 04098-1339

RE: The Capacity of the City Sewer System, and The Portland Water District Sewage Treatment Facilities, to Handle an Anticipated Increase in Wastewater Flows, from the Proposed "Holm Avenue Condominiums," at 168 +/- Holm Avenue.

Dear Mr. Conway:

Both the existing fifteen inch diameter vitrified clay sanitary sewer pipe, in Holm Avenue, and The Portland Water District sewage treatment facilities, located off Marginal Way, have adequate capacity to transport and treat the anticipated wastewater flows of 4,590 GPD, from your proposed Planned Residential Unit Development (P.R.U.D.), to be located at 168 +/- Holm Avenue, City of Portland.

Anticipated Wastewater Flows from the Proposed Condominium

Proposed 17 Units @ 270 GPD/Unit	= 4,590 GPD
Total Proposed Increase in Wastewater Flows for this Project	**= 4,590 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
Richard Knowland, Senior 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

Received
10-4-99
SEBAGO TECHNICS

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Department of Public Works

William J. Bray
Director

CITY OF PORTLAND

29 September 1999

Mr. William T. Conway, R.L.A.,
Vice President, Landscape Architecture,
Sebago Technics,
P.O. Box 1339,
Westbrook, Maine 04098-1339

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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
Richard Knowland, Senior 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

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DEPARTMENT OF PLANNING & URBAN DEVELOPMENT

Billing for Legal Ads and Notices for Agenda's

Project Name: PRUD Review

Owners Name: VP Builders, Inc.

Address of Project: Holm Avenue

Division/Board: Planning Board Workshop - January 25, 2000

Number of Residential Notices Mailed Out: 232

% Amount of Legal Ad: 23.14

.40 x Number of Notices: 92.80

Total Amount Due: 115.94

Make checks payable to the ***City of Portland***, ATTN: Jennifer Dorr, 4th Floor, 389 Congress Street, Portland, Maine 04101.

PAID
7/20/00

Bill to: VP Builders
PO Box 41
Portland ME 04098

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER AND ORIGINAL DOCUMENT SECURITY SCREEN ON BACK WITH PADLOCK SECURITY ICON.

6907

V.P. BUILDERS INC.
P.O. BOX 41
WESTBROOK, MAINE 04098
(207) 854-1888

KEYBANK NATIONAL ASSOCIATION
PORTLAND, MAINE

52-60/112

7/18/'00

$ **115.94

PAY TO THE ORDER OF City of Portland

One Hundred Fifteen and 94/100**********

DOLLA
Security f
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City of Portland

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DEPARTMENT OF PLANNING & URBAN DEVELOPMENT

Billing for Legal Ads and Notices for Agenda's

Project Name: PRUD Review

Owners Name: VP Builders, Inc.

Address of Project: Holm Avenue

Division/Board: Planning Board Workshop - January 25, 2000

Number of Residential Notices Mailed Out: 232

% Amount of Legal Ad:	23.14
.40 x Number of Notices:	92.80
Total Amount Due:	115.94

Make checks payable to the ***City of Portland***, ATTN: Jennifer Dorr, 4th Floor, 389 Congress Street, Portland, Maine 04101.

Bill to: VP Builders
PO Box 41
Portland ME 04098

PD. 7/20/00

Mailed: January 20, 2000

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BYLAWS OF HOLM PLACE CONDOMINIUM ASSOCIATION A MAINE NON PROFIT CORPORATION

ARTICLE I

General Provisions

A. Applicability: These Bylaws provide for the governance of Holm Place Condominium Association pursuant to the requirements of Article 3 of the Maine Condominium Act ("the Act") of Title 33, Chapter 31 of the Maine Revised Statutes Annotated of 1964, as amended, for Holm Place Condominium, created under the Declaration of Condominium for Holm Place dated January 18, 2000 to be recorded at the Cumberland County Registry of Deeds. All Unit Owners, mortgagees, lessees and occupants of the Units are subject to these Bylaws

B. Office. The office of the Association and the Executive Board shall be located at the Condominium or at such other place as may be designated from time to time by the Executive Board.

ARTICLE II

The Association

A. Membership: The Association shall consist exclusively of all the Unit Owners, or following termination of the Condominium of all former Unit Owners entitled to distributions of proceeds under Section 1602-118 of the Act, or their heirs, successors or assigns, acting as a group in accordance with the Act, the Declaration and these Bylaws. Membership is transferable only as provided in the Declaration or these Bylaws. The membership of a Unit Owner shall terminate upon the conveyance, transfer or other disposition of his interest in the Unit, whereupon his membership and any interest in the assets of the Association shall automatically transfer to and be vested in the successor in ownership. Membership is otherwise non- transferable.

The Association shall have the responsibility of administering the Condominium, maintaining and repairing the Common Elements and Limited Common Elements of the Condominium, establishing the means and methods of collecting assessments and charges, arranging for the management of the Condominium and performing all of the other acts that may be required or permitted to be performed by the Association pursuant to the Act and the Declaration. The foregoing responsibilities shall be performed by the Executive Board or Managing Agent as more particularly set forth in these Bylaws.

C. Annual Meetings: The annual meetings of the Association shall be held on the first day of June off each year unless such date shall occur on a holiday, in which event the meeting shall be held on the succeeding day that is not a holiday. At annual meetings the Executive Board shall be elected by ballot of the Unit Owners in accordance with the requirements of Article III-C of these Bylaws (subject to the provisions of the Declaration) and such other business as may properly come before the meeting may be transacted.

D. Place of Meeting:. Meetings of the Association shall be held at the Condominium or at such other suitable place convenient to the Unit Owners as may be designated by the Executive Board.

E. Special Meetings: The President or Secretary shall call a special meeting of the Association if so directed by resolution of the Executive Board or upon a petition signed and presented to the Secretary by at least fifty percent (50%) of the votes allocated to Unit Owners.

F. Notice of Meeting: The Secretary shall give to each unit Owner a written notice of each annual, regularly scheduled or special meeting of the Association at least ten but not more than sixty days, prior to such meeting. The notice of any meeting must state the time and place of the meeting and the items on the agenda, including the general nature of any proposed amendment to the Declaration or Bylaws, any budget changes and any proposal to remove am member of the Executive Board or officer. The giving of a notice of meeting shall be in the manner provided for in Article IX-A of these Bylaws.

G. Quorum: Except as set forth above, the presence in person or by proxy of Unit owners of twenty percent (20%) or more of the Percentage Allocated interests (as defined in the Declaration) at the commencement of a meeting shall constitute a quorum at all meeting of the Unit Owners Association. If a meeting is adjourned pursuant to Article II-I below, the quorum at such second meeting shall be deemed present throughout any meeting of the Association if persons entitled to cast twenty percent (20%) of the votes which may be cast for the election of the Executive Board are present in person or by proxy at the beginning of the meeting.

H. Voting. Voting at all meetings of the Association shall be on a percentage basis and the percentages of the vote to which each unit Owner is entitled shall be the percentage Allocated interest assigned to each unit in the Declaration. If the Unit Owner is a corporation, joint venture, partnership or unincorporated association, the person who shall be entitled to cast the vote for such Unit shall be the person named in a certificate executed by such entity pursuant to its governing documents. If the unit Owner is a trust, the trustee or trustees shall be deemed to be the Owner for voting purposes. Where the ownership of a Unit is in more than one person, the person who shall be entitled to cast the vote of such Unit shall be the person named in a certificate executed by all of the owners of such Unit and filed with the Secretary, or in the absence of such named person from the meeting, the person who shall be entitled to cast the vote of such Unit shall be the person owning such Unit who is present. If more than one person owning such Unit is present, then such vote shall be cast only in accordance with their unanimous agreement pursuant to Section 1603-110(a) of the Act. There shall be deemed to be unanimous agreement if any one of the multiple owners casts the vote allocated to that Unit without protest being made promptly to the person presiding over the meeting by any of the other owners of the Unit. Such certificate shall be valid until revoked by a subsequent certificate similarly executed. Subject to the requirements of the Act, wherever the approval or disapproval of a Unit Owner is required by the Act, the Declaration or these Bylaws, such approval or disapproval shall be made only by the person who would be entitled to cast the vote of such Unit at any meeting of the Association. Except with respect to election of members of the Executive Board and except where a greater number is

required by the Act, the Declaration or these Bylaws, the owners of more than fifty percent (50%) of votes in the Association at one time at a duly convened meeting at which a quorum is present is required to adopt decisions at any meeting of the Association. In all elections for Executive Board members, each Unit Owner shall be entitled to cast for each vacancy to be filled at such election the number of votes, allocated to the Unit or units owned by such Unit Owner as provided in this Declaration. Those candidates for election receiving the greatest number of votes cast in such elections shall be elected. No votes allocated to a Unit owned by the Association may be cast. There shall be no cumulative or class voting.

I. Proxies: Votes allocated to a Unit may be cast pursuant to a proxy duly executed by a Unit Owner. If a Unit is owned by more that one person, each owner of the Unit may vote or register protest to the casting of votes by other owners of the unit through a duly executed proxy. A Unit Owner may not revoke a proxy given pursuant to this Section except by actual notice of revocation to the person presiding over a meeting of the Association. A proxy is void if it is not dated or purports to be revocable without notice. A proxy terminates 11 months after its date, unless it specifies a shorter term.

J. Adjournment of Meetings: If at any meeting of the Association a quorum is not present, the Unit Owners entitled to cast a majority of the votes represented at such meeting may adjourn the meeting to such time after the time for which the original meeting was called as they shall agree.

K. Conduct of Meetings: The President (or in his absence, the Secretary) shall preside over all meetings of the Association and the Secretary shall keep the minutes of the meeting and record in a minute book all resolutions adopted at the meeting as well as a record of all transactions occurring at such meeting.

L. Powers: The unit Owners Association shall have all powers provided to such associations by law and by the Act, including, without limitation, the power to:

(1) Adopt and amend bylaws and rules and regulations;

(2) Adopt and amend budgets for revenues, expenditures and reserves and collect assessments for Common Expenses from Unit Owners;

(3) Hire and terminate managing agents and other employees, agents and independent contractors;

(4) Institute, defend, or intervene in litigation or administrative proceedings in its own name on behalf of itself or 2 or more Unit Owners on matters affecting the Condominium;

(5) Make contracts and incur liabilities;

(6) Regulate the use, maintenance, repair, replacement and modification of Common Elements, except as set forth in the Declaration;

(7) Cause additional improvements to be made as a part of the Common Elements, except as set forth in the Declaration;

(8) Acquire, hold, encumber and convey in its own name any right, title or interest to real or personal property, provided that Common Elements may be conveyed or subjected to a security interest only pursuant to Section 1603-112 of the Act;

(9) Grant easements, leases, licenses and concessions through or over the Common Elements:

(10) Impose charges for late payment of assessments and, after notice and an opportunity to be heard, levy reasonable fines for violations of the Declaration, Bylaws and Rules and Regulations of the Association;

(11) Impose reasonable charges for the preparation and recordation of amendments to the Declaration or statements of unpaid assessments:

(12) Provide for the indemnification of the officers and Executive Board and maintain liability insurance for them;

(13) Operate, maintain and repair the Common Elements and the Limited Common Elements;

(14) Exercise any other powers conferred by the Declaration;

(15) Exercise all other powers that may be exercised in this State by legal entities of the same type as the Association; and

(16) Exercise any other powers necessary and proper for the governance and operation of the Associations and the Condominium.

ARTICLE III

Executive Board

A. **Number and Qualification**: The affairs of the Association shall be governed by an Executive Board. The Executive Board shall be composed off two persons during the period of Declarant Control as set forth in the Declaration of Condominium for the Condominium. After termination of the period of Declarant control, the Executive Board shall be composed of two persons, a majority of whom shall be Unit Owners as required by Section 1603-103 (e) of the Act.

B. **Powers**: The Executive Board may act in all instances on behalf of the Association except as provided for in the Declaration, these Bylaws, and the Act (including without limitation, Section 1603-103 (b)).

C. **Election and Term of Office:** The election of members of the Executive Board shall be held at the annual meetings of the Association, subject to the provisions of the Declaration. Members of the Executive Board shall be elected by fifty-one percent (51%) of the votes cast at the annual meeting. The terms of office of any Executive Board member to be elected (except as set forth herein) shall be fixed at three years. The members of the Executive Board shall hold office until the earlier to occur of the election of their respective successors, their death, adjudication of in competency, removal, or resignation. An Executive Board member

may serve an unlimited number of terms and may succeed himself.

D. Removal or Resignation of Members of the Executive Board: At any regular or special meeting of the Association duly called, any one or more of the members of the Executive Board may be removed with or without cause by a majority of votes in the Association and a successor may then and there be elected to fill the vacancy thus created. Any Unit Owner proposing removal of a Board Member shall give notice thereof to the Secretary. Any Board member whose removal has been proposed by a Unit Owner shall be given at least ten days' 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 member of the Executive Board may resign at any time and, if he is a Unit Owner shall be deemed to have resigned upon transfer of title to his Unit.

E. Vacancies: Vacancies in the Executive Board caused by any reason other than the removal of a member by a vote of the Unit Owners shall be filled by a vote of a majority of the remaining members at a special meeting of the Executive Board held for such purpose promptly after the occurrence of any such vacancy. Each person so elected shall be a member of the Executive Board for the remainder of the term of the member being replaced and until a successor shall be elected at the next annual meeting of the Association at which such seat is to be filled

F. Regular Meetings: Regular meetings of the Executive Board shall be held on a regular basis at such time and place as shall be determined from time to time by a majority of the Board members. Notice of regular meeting of the Executive Board shall be given to each member, by mail or hand delivery, at least seven (7) days prior to the day named for such meeting.

G. Special Meetings: Special meetings of the Executive Board may be called by the President on at least five days' notice to each Board member, given by mail 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 in like manner and on like notice on the written request of at least two members of the Executive Board.

H. Waiver of Notice: Any member may at any time, in writing, waive notice of any meeting of the Executive Board, and such waiver shall be deemed equivalent to the giving of such 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. If all members are present at any meeting of the Executive Board, no notice shall be required and any business may be transacted at such meeting. Any action by the Executive Board required or permitted to be taken at any meeting may be taken without a meeting if all of the members of the Executive Board shall individually or collectively consent in writing to such action. Any such written consent shall be filed with the minutes of the proceedings of the Executive Board.

I. Quorum of the Executive Board: At all meetings of the Executive Board a majority of the members shall constitute a quorum for the transaction of business, and the votes of a majority of the members present at a meeting at which a quorum is present shall constitute the decision of the Executive Board. If at any meeting of the Executive Board there shall be less than a quorum present, the members present

must adjourn the meeting to a later time. At any reconvened 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 members 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 means of which all persons participating in the meeting can hear each other.

J. Compensation. No member 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; provided, however, that all such expenses must be authorized in advance by the Board.

K. 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 therein all resolutions adopted by the Executive Board and all transactions and proceedings occurring at such meetings.

L. Declarant Control: All of the provisions of this Article III are subject to the Special Declarant Rights and Declarant Control, all as more specifically set forth in Sections 6 and 7 of the Declaration, which rights, among other rights, give the Declarant during the period of Declarant Control the right to appoint and remove members of the Executive Board.

ARTICLE IV

Officers

A. Designation: The principal officers of the Association shall be the President and Secretary/Treasurer. The officers shall be elected by the Executive Board. The President and Secretary/Treasurer shall be members of the Executive Board. Any other officers may but need not be, Unit Owners or members of the Executive Board. An officer other than the President may hold more than one office.

B. Election of Offices: The officers of the Association shall be elected annually by a majority of all the members of the Executive Board at a regular meeting of the Board and shall hold office at the pleasure of the Executive Board

C. Removal 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, an a successor may be elected at any meeting of the Executive Board called for such purpose.

D. President: The president shall be the chief executive officer of the Association, preside at all meetings of the Association and of the Executive Board.

E. Secretary/Treasurer: The Secretary/Treasurer 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 Secretary/Treasurer 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 Secretary/Treasurer shall also perform such other duties as shall from time to time be delegated or

assigned him by the Executive Board or by the President. The Secretary/Treasurer shall keep the minutes of all meetings of the Association and of the Executive Board, have charge of such books and papers as the Executive Board may direct. The Secretary/Treasurer shall be responsible for financial and fiscal matters and shall maintain all books. records, ledgers, and checking accounts, relative thereto.

ARTICLE V

Common Expenses and Budgets

A. Fiscal Year: The fiscal year of the Association shall be the calendar year unless otherwise determined by the Executive Board.

B. Preparation and Approval of Budget: On or before the first day of November of each year (or sixty days before the beginning of the fiscal year if the fiscal year is other than the calendar year), the Executive Board shall adopt an annual budget for the Association containing an estimate of the total amount considered necessary to pay the cost of maintenance, management, operation, repair and replacement of the Common Elements and those parts of the Units as to which it is the responsibility of the Executive Board to maintain, repair and replace, and the cost of wages, materials, insurance premiums, services, supplies and other expenses that may be declared to be Common Expenses by the Act, the Declaration, these Bylaws or a resolution of the Association and which will be required during the ensuing fiscal year for the administration, operation, maintenance and repair of the Condominium and the rendering to the Unit Owners of all related services. Such budget shall also included such reasonable amounts as the Executive Board considers necessary to provide working capital, a general operating reserve and reserves for contingencies and replacements.

The budget shall segregate and allocate Limited Common Expenses among Unit Owners. Within 30 days after adoption of any proposed budget for the Condominium, the Executive Board shall provide a summary of the budget to all the Unit Owners, and shall set a date for a meeting of the Unit Owners to consider ratification of the budget not less than 14 nor more than 30 days after mailing of the summary. Unless at the ratification meeting unit Owners holding fifty-one (51%) of the votes in the Association reject the budget, the budget is ratified, whether or not a quorum is present. In the event the proposed budget is rejected, the budget last ratified by the Unit Owners shall be continued until such time as the Unit Owners ratify a subsequent budget proposed by the Executive Board.

The budget shall constitute the basis for determining each unit Owners' Assessments for Common Expenses and Limited Expenses of the Association and shall automatically take effect at the beginning of the fiscal year for which it is adopted, subject to article V-C-6 below.

The Executive Board shall make reasonable efforts to meet the deadlines set forth above, but compliance with such deadlines shall not be condition precedent to the effectiveness of any budget.

C. **Assessment and Payment of Common Expenses.**

1. **Common Expenses**. The Executive Board shall calculate the monthly assessments for Common Expenses against each Unit by multiplying (a) a total amount of the estimated funds required for the operation of the Condominium set forth in the budget adopted by the Executive Board for the fiscal year in questions by (b) the Percentage Allocated Interest (expressed in decimal form) allocated to such Unit, and dividing the resultant product by (c) the number of calendar months in such fiscal year. Such assessments shall be deemed to have been adopted and assessed on a monthly basis and not on an annual basis payable in monthly installments, shall be due and payable on the first day of each calendar month and shall be a lien against each Unit Owner's Unit as provided in the Act and Declaration. The assessments shall be made no later than thirty days (30) after the budget is adopted, except that the first assessment shall be made no later than sixty (60) days after first conveyance of a Unit to a Purchaser. Within ninety (90) days after the end of each fiscal year, the Executive Board shall prepare and deliver to each Unit Owner and to each record holder of a mortgage on a Unit who has registered an address with the Secretary an itemized accounting of the Common Expenses and funds received during such fiscal year less expenditures actually incurred and sums paid into reserves. Any net shortage with regard to Common Expenses, after application of such reserves as the Executive Board may determine, shall be assessed promptly against the Unit Owners in accordance with their Percentage Interest and shall be payable in one or more monthly assessments, as the Executive Board may determine.

2. **Limited Expenses**: Limited Expenses are those Common Expenses associated with the maintenance, repair or replacement of a limited Common Element and shall be assessed against the Unit or Units to which that Limited Common Element has been assigned.

3. **Reserves**: The Association shall build up and maintain reasonable reserves for working capital, operations, contingencies and replacements. Extraordinary expenditures not originally included in the annual budget which may become necessary during the year may be charged first against such reserves. If the reserves are deemed to be inadequate for any reason, including non-payment of any Unit Owner's' assessments, the Executive Board may at any time levy further assessments for Common Expense which shall be assessed against the Unit Owners according to their respective Percentage Allocated interest with regard to Common Expenses, and shall be payable in one or more monthly assessments as the Executive Board may determine.

4. **Further Assessments**: The Executive Board shall serve notice on all Unit Owners of any further assessments as permitted or required by the Act. The further assessments shall, unless otherwise specified in the notice, become effective with the next monthly assessment which is due more than ten days after delivery of such notice of further assessments. All Unit Owners so assessed shall be obligated to pay the amount of such monthly assessments. Such assessments shall be a lien as of the effective date as set forth in the preceding Sections.

5. **Initial Budget**: At or prior to the time assessment of Common Expenses commences, the Executive Board shall adopt the budget, as described in this Article, for the period commencing on the date the Executive Board determines that assessments shall begin and ending on the last day of the fiscal year during which such commencement date occurs. Assessments shall be levied and become a lien against the Unit Owners during such period as is provided in Article V-C above.

6. **Effect of Failure to Prepare or Adopt Budget**: The failure or delay of the Executive Board to prepare or adopt a budget for any fiscal year shall not constitute a waiver or release in any manner of a Unit Owner's obligation to pay his allocate share of the Common Expenses as herein provided whenever the same shall be determined and, in the absence of any annual budget or adjusted budget, each Unit Owner shall continue to pay each monthly assessment at the rate established for the previous fiscal year until the new annual or adjusted budget shall have been adopted.

7. **Accounts and Audits:** All sums collected by the Executive Board with respect to assessments against the Unit Owners or from any other source may be commingled into a single fund. All books and records of the Association shall be kept in accordance with good and accepted accounting practices.

8. **Limitations on Expenditure and Borrowing**: The power of the Executive Board to expend funds, incur expenses or borrow money on behalf of the Association is subject to the requirement that the consent of Unit Owners entitled to cast at least seventy five (75%) percent of the votes in the Association obtained at a meeting duly called and held for such purpose in accordance with the provisions of these Bylaws, shall be required to (I) expend funds or incur expenses that it is reasonably anticipated will cause the aggregate amount of actual expenses (including reserves) to exceed the approved budget by more than 10% after taking into account any projected increase in income, and (ii) to borrow money.

9. **Payment of Common Expenses:** Each Unit Owner shall pay the Common Expenses assessed by the Executive Board pursuant to the provisions of this Article V. No Unit Owner may exempt himself from liability for his contribution toward Common Expenses by waiver of the use or enjoyment of any of the Common Elements or by abandonment of his Unit. No Unit Owner 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 by him in fee of such Unit. The purchase of a Unit shall be jointly and severally liable with the selling Unit Owner for all unpaid assessments against the latter for his proportionate share of the Common Expenses up to the time of such recordation, without prejudice the purchaser's right to recover from the selling Unit Owner for all unpaid assessments against the latter for his proportionate share of the Common Expenses up to the time of such recordation. Nothing herein shall prejudice the purchaser's right to recover from the selling Unit Owner amounts paid by the purchaser. Any such purchaser shall be entitled to a statement setting forth the amount of the unpaid assessments against the selling Unit Owner within five days following a written request therefore to the Executive Board. Such purchaser shall not be liable for, nor shall the Unit conveyed be subject to a lien for, any unpaid assessments in excess of the amount set forth in such statements. Subject to the Act, each record holder of a mortgage on a Unit who comes into possession of a Unit by virtue of foreclosure or any purchaser

at a foreclosure sale, shall take the Unit free of any claims for unpaid assessments or charges against such Unit which accrue prior to the time such holder comes into possession thereof, except for claims for a pro rata share of such assessments or charges resulting from a pro rata reallocation of such assessments or charges to all Units including the mortgaged Unit.

10. Lien for Assessments: The total monthly assessment levied against each Unit for Common Expenses including Limited Common Expenses, revised common expenses including Limited Common Expenses, or any special assessment, and any other sums duly levied against the Unit pursuant to the Declaration, these Bylaws or the Act, including Limited Common Expenses assessed against Unit Owners for maintenance, repair or replacement of a Limited Common Element pursuant to Section 11 of the Declaration, all interest thereon and charges for late payment thereof and legal fees and other costs of collection thereof and fines, penalties and fees as provided in the Declaration or these Bylaws shall constitute the personal liability of the Owner of the unit so assessed and also shall, until fully paid, constitute a lien against the unit in favor of the Association from the date upon which such assessment or other such sum becomes due as provided in Section 1603-116 of the Act. Such lien shall, with respect to monthly assessments and revised monthly assessments, be effective on the first day of each month as to the full amount of the monthly assessment or revised monthly assessment, and, as to special assessments and other sums duly levied including Limited Common Expenses assessed against Unit Owners for maintenance repair or replacement of Limited Common Element, 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. 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 which the assessments 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. 4651 and 18-A M.R.S. A. 201, et.seq., as they or their equivalents may be amended or modified from time to time. The Association may impose an interest penalty for any payment for an assessment which is more than ten (10) days late.

11, Statement of Common Expenses: The Executive Board shall promptly provide any Unit Owner, contract purchaser or proposed mortgagee so requesting the same in writing with a written statement of all unpaid assessments for Common Expenses due from each Unit Owner as required by the Act, or the resale certificate and documents required by the terms of the Act.

ARTICLE VI

Compliance and Default

Each Unit Owner shall be governed by, and shall comply with all of the terms of the Declaration, these Bylaws, the Rules and Regulations of the Act, as any of the same may be amended from time to time.

A. Appeal and Hearing Procedure; Actions by Owners: No Unit Owner shall have the right to object, challenge, commence any suit at law or in equity to take any other action under any act, power or authority now in force or hereafter to be enacted except after following such procedures as are established in this Paragraph and as may be established by the Executive Board by rule or regulation consistent with the provisions of this paragraph. The Executive Board shall hear appeals from Unit Owners from (a) the determinations by the Executive Board on alleged violations of the Condominium Documents (other than violations with respect to assessment obligations) and (b) the enactment of rules and regulations of the Association. The Executive Board shall hold a hearing on any such appeal within thirty (30) days after the receipt by the Executive Board of a formal notice of appeal from a Unit 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. Unless the internal remedies provided by this Paragraph and such rules and regulations as may be promulgated by the Executive Board shall be expressly waived by the Association, or the Association fails or refuses to act after being requested in writing to do so, no action at law or in equity shall be commenced by any Unit Owner until such internal remedy is pursued to exhaustion. Any action by a Unit Owner against any other Unit Owner or resident or the Association arising out of any term, covenant or condition contained in the Condominium Documents or any rule or regulation made pursuant thereto shall be subject to the same procedures.

B. Noncompliance: Subject to prior compliance with the procedures established in Article VI-A hereof, the failure of a Unit Owner to comply with the Declaration, these Bylaws and the rules and regulations of the Association shall entitle the Association and Executive Board to the remedies provided herein and in the Act, none of which shall be exclusive of any other remedies:

(I.) **Suits**: Failure to comply with the terms of the Declaration, Bylaws and the rules and regulations adopted pursuant thereto, as the same may be amended from time to time, shall entitle the Association or and aggrieved Unit Owner to sue for the recovery of damages or for injunctive relief, or both. Such relief shall not be exclusive of other remedies provided by law.

(ii) **Costs and Attorney's Fees**: In any proceeding arising because of an alleged failure of a Unit Owner to comply with the terms of the Declaration, Bylaws or rules and regulations adopted pursuant thereto, the Executive Board, if the prevailing party, shall be entitled to recover the costs of the proceeding and reasonable attorney's fees.

ARTICLE VII

Amendments

A. Amendments to Bylaws: These Bylaws may be modified or amended only by vote of Unit Owners entitled to cast seventy five (75) percent of the votes in the Association, except as otherwise expressly set forth herein or in the Act. If any amendment is necessary in the judgment of the Executive Board to cure any ambiguity or to correct or supplement any provision of these Bylaws that is defective, missing or inconsistent with any other provision hereof, or with the Act of the

Declaration, then at any time and from time to time the Executive Board may effect an appropriate corrective amendment without the approval of the Unit Owners or the holders of and liens on all or any part of the Property, upon receipt by the Executive Board of an opinion from legal counsel to the effect that the proposed amendment is permitted by the terms of this sentence.

B. Approval of Mortgagees. The Declaration contains provisions concerning various rights and interest of record holders of mortgages on Units. Such provisions are to be construed as covenants for the protection of such holders on which they may rely in making loans secured by such mortgages. Accordingly, no amendment or modification of the Declaration of these Bylaws impairing or affecting such rights, priorities, remedies or interest of such a holder shall be adopted without prior written consent of such holders who have register an address with the Secretary.

C. Amendments to the Declaration: Any two officers or Executive Board members of the Association may prepare, execute, certify and record amendments to the Declaration on behalf of the Association.

ARTICLE VIII

Insurance

A. Policies: Commencing no later than the time of the first conveyance of a Unit other than as security for an obligation to a person other than the Declarant, the Executive Board on behalf of the Association shall obtain, or cause to be obtained, and shall maintain as a Common Expense, the policies of insurance described herein to the extent such policies shall be reasonably available from reputable insurance companies. To the extent that said insurance is not reasonably available, 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 therefore, or by prepaid United States mail, return receipt requested. To the extent that any of the insurance described herein shall become in the future no longer available, the Association shall obtain in substitution therefore such comparable insurance as shall then be available. The Executive Board of 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 Premises for the purpose of purchasing and maintaining the insurance described herein, the collection and appropriate disposition of the proceeds thereof with any bank or trust company authorized to do business in the State of Maine as trustee for all Unit Owners and their Mortgagees as their respective interest may appear (the "Insurance Trustee"), to hold any insurance proceeds in trust for disbursement as provided in Subparagraphs (C), (B) (3) and (B) (8) of this Article XIII, the negotiation of losses and execution of releases of liability, and the execution of all documents, and the performance of all other acts necessary to accomplish such purposes.

B. Property Insurance: The Executive Board shall obtain and maintain as a Common Expenses 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 Premises (exclusive of land, foundations, excavations, and other similar items customarily excluded from property insurance policies), including the Units (and the floor coverings, bathroom and kitchen fixtures initially installed therein by the Declarant and the replacements thereto installed by the Declarant but not including furniture, furnishings or their personal property supplied or installed by Unit Owners), Limited Common Elements and other Common Elements together with all air conditioning and heating equipment and other service equipment and machinery contained in the Premises and the fixtures, supplies and common personal property belonging to the Association and covering the interest of and naming as named insured, the Association, the Executive Board and all Unit Owners and their Mortgagees and their Mortgagees' successors and assigns, as their insurable interest may appear. To the extent reasonably available and required by the Federal National Mortgage Association, Federal Home Loan Mortgage Corporation, Veterans Administration, Federal Housing Administration or Maine State Housing Authority, such policy shall cover the fixtures, equipment and other personal property inside a Unit financed by a mortgage purchased by the Federal National Mortgage Association, Federal Home Loan Mortgage Corporation ,Veterans Administration, Federal Housing Authority , or Maine State Housing Authority; and if such required insurance is so provided, the Association may require such Unit Owner to pay the additional cost incurred by the Association in so insuring such Unit Owner's fixtures, equipment or other personal property. 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 Premises, such amount to be redetermined annually by the Executive Board with the assistance of the insurance company affording such coverage (exclusive of the land, excavations, foundations and other similar items customarily excluded from such coverage), without deduction for depreciation and shall contain a standard Maine Mortgagee Clause in favor of each Mortgagee of a Unit whether or not named therein with provisions that the proceeds of loss, if any, shall first be payable to the Insurance Trustee or Association. This blanket or master hazard insurance policy may, at the option of the Executive Board, contain a "deductible" provision in an amount to be annually determined by the Executive Board but not to exceed One Thousand Dollars ($1,000.00). Such policy shall also contain the following provisions so long as they are reasonably available from a reputable insurance company.

(1) The following endorsements (or their equivalent): (a) "no control" (to the effect 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) if appropriate "Construction Code Endorsement", "increased cost of construction'", "demolition" and "contingent liability from operation of building laws or codes" (c) "condominium replacement costs" (d) "agreed amount" or elimination of co-insurance clause; and (e) "inflation guard" endorsement.

(2) That any "no other insurance" clause expressly excluded 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.

(3) 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.

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

(5) 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.

(6) 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.

(7) 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 Subparagraphs (A) and (C) of this Article XIII.

C. Losses; Adjustment and Payments; Insurance Trustee: Any loss covered by the insurance policy described in Subparagraph (b) hereof 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 subparagraph (b) (8) 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 interest may appear. Subject to the provisions of this Subparagraph (C), the proceeds shall be disbursed first for the repair or restoration of the damage to the Premises, 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, or in the event the decisions has been made not to repair or restore the damage as provided in this Declaration, or in the event the Condominium is terminated.

D. Liability Insurance The Executive Board shall obtain and maintain as a Common Expense comprehensive general public liability insurance (including the so-called "broadening liability endorsement") 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 Owner and the Declarant against any liability to the public or to the Unit Owner (and their invitees, agents and employees) covering all occurrences commonly insured against for death, bodily injury or property damage arising out of, or incident to, the maintenance, ownership or use of the Common Elements and/or relating to 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: (I) 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: (ii) hired and

non-owned vehicle coverage, and (iii) 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. 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.

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

(1) Adequate fidelity coverage to protect against dishonest acts on the part of officers, members of the Executive Board, trustees and employees of the Association and all otherwise who handle, or are responsible for handling, funds of the Association, including the managing agent. Such fidelity bonds shall: (a) name the Association as an obligee; (b) be written in an amount not less than the greater of (I) one-quarter the total annual assessments for Common Expenses plus the Association's reserve funds for the year or such other amounts as may be required by the Federal National Mortgage Association (ii) the maximum funds in the custody of such persons handling the funds of the association; and (c) contain waivers of any defense based upon the exclusion of persons who serve without compensation from any definition of "employee" or similar expression;

(2) To the extent available, "directors' and officers" liability insurance to satisfy indemnification obligations of the Association;

(3) If required by any governmental or quasi-governmental agency, including without limitation the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation, flood insurance in accordance with the then applicable regulations of such agency;

(4) Workmen's Compensation Insurance if and to the extent necessary to meet the requirements of law; and

(5) Such other insurance as the Executive Board may determine or as may be requested from time to tome by a majority in voting interest of the Unit Owners.

F. Memoranda, Cancellation, Additional Required Provisions. All insurers that shall issue an insurance policy or policies under this Paragraph 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 or non-renewal has been mailed to the Executive Board, the managing agent, and each Mortgagee to whom a certificate or memorandum of insurance has been issued at their respective last know addresses..

All policies under this Article shall in addition contain the following provisions:

(1) 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 case of the Unit

owners, the members of their households;

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

G. Separate Insurance: Each Unit Owner shall have the right, at its own expense, to obtain insurance for its own Unit and for its own benefit and to obtain insurance coverage upon his personal property and for his personal liability as well as upon any improvements made by it to its Unit under coverage normally called "improvements and betterment's coverage" provided, however, that no Unit owner shall be entitled to exercise its right to acquire or maintain such insurance coverage so as to 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 betterment made by such Owner, at its expense and persona 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 improvements to his or her Unit (except Personal property other than fixtures) which exceed a total value of One Thousand Dollars ($1,000.00) within twenty (20) days after the commencement of construction of such improvements and, upon receipt of such notice, the Executive Board shall notify the insurer under any policy obtained pursuant to Paragraph (b) of this Article XIII of any such improvements. Any premium increase caused by such improvements may be assessed to the Owners 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

ARTICLE IX

Miscellaneous

A. Notices: All notices, demands, bills, statements or other communications under these Bylaws shall be in writing and shall be deemed to have been duly given if delivered personally or if sent by certified mail, return receipt request, postage prepaid, (I) if to a Unit Owner, at the address of the Unit Owner, or (ii) if to the Association or the Executive Board, at such address as shall be designated by notice in writing to the unit owners pursuant to this Section. If a Unit is owned by more than one person, each such Person who so designates a single address in writing to the Secretary shall be entitled to receive all notices hereunder.

B. Maintenance, Repair, Use and Occupancy Restrictions: The occupancy and use of the Units and Common Element shall be subject to the following restrictions:

(1) The Condominium shall be restricted to residential uses.

(2) None of the Condominium Units shall be further subdivided.

(3) No Unit Owner nor a lessee of any Unit Owner: (I) shall permit or suffer anything to be done or kept upon the property which will increase the rate of insurance on the property or on the contents thereof; (ii) shall obstruct or interfere with the rights of other occupants or annoy them by unreasonable noise or otherwise; (iii) shall commit or permit any nuisance or commit or suffer any immoral or illegal act to be committed anywhere in or upon the property; and (iv) shall cause or permit any noxious odors to emanate form any portion of the Premises.

(4) A Unit Owner may lease or sublease his Unit at any time and from time to time provided that the lease is in writing and is for a term of not less than six (6) months. A copy of each lease or sublease shall be furnished to the Executive Board upon request. The rights of any lessee or sublessee of the unit shall be subject to, and each such lessee or sublessee shall be bound by, the covenants, condition and restrictions set forth in the Declaration, Bylaws and Rules and Regulations, and a default thereunder shall constitute a default under the lease or sublease. The Unit owner shall provide any lessee or sublessee with a copy of the Rules and Regulations of the Condominium. The foregoing shall not impose any direct liability on any lessee or sublessee of a Unit to pay any Common Expense assessments on behalf of the Unit Owner unless so provided for in said lease or sublease.

(5) Reasonable rules and regulations, not in conflict with the provisions of this Declaration and the Bylaws of the Association, concerning the use and enjoyment of the Premises, may be promulgated from time to time by the Executive Board. Copies of the then current rules and regulations and any amendments thereto shall be furnished to all unit Owners by the Executive Board promptly after the adoption of such rules and regulations or any amendments thereto.

The Association is responsible for maintenance, repair and replacement of the Common Elements including but not limited to snow removal, lighting, curbside trash pickup and maintenance of the stormwater drainage system., and each Unit Owner is responsible for maintenance and repair of his Unit. Each Unit owner shall afford to the Association and the other Unit Owners, and to their agents or employees, access through his unit reasonably necessary for those purposes. If damage is inflicted on the Common Elements or any Unit through which access is taken, the Unit Owner responsible for the damage, or the Association if it is responsible, is liable for the prompt repair thereof.

Trash, garbage and other waste shall be kept only in sanitary containers and shall be disposed of in such manner as may be prescribed from time to time in rules and regulations established by the Executive Board. No articles of personal property belonging to any Unit Owners shall be stored in any portion of the Common Elements or areas except in the storage area specifically designated for the respective Unit Owner by the Executive Board or the managing agent.

No member shall overload the electrical wiring in the building or operate any machinery, appliances, accessories or equipment in such a manner as to cause, in the judgment of the Executive Board, any unreasonable disturbance or make any alterations, repairs or modifications to or in connections with the electrical or plumbing systems without the prior written consent of the Executive Board.

No member shall make structural changes to the unit without the approval of the Executive Board. Non-structural changes are permitted so long as they are made within the Unit.

C. The captions herein are inserted only as a matter of convenience and for reference, and in no way define, limit or describe the scope of these Bylaws or the intent of any provision thereof. The use of the masculine gender in these Bylaws shall be deemed to include the feminine and neuter genders and the use of the singular shall be deemed to include the plural, and vice versa, whenever the context so requires.

REACH ROUTING BY STOR-IND+TRANS METHOD

REACH NO.	DIAM (IN)	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPES (FT/FT)		n	LENGTH (FT)	SLOPE (FT/FT)	PEAK VEL. (FPS)	TRAVEL TIME (MIN)	PEAK Qout (CFS)
1	-	8.0	2.0	.33	.33	.035	300	.0100	1.9	2.6	5.63
10	-	20.0	2.0	.67	.67	.030	80	.0250	2.6	.5	5.17

POND ROUTING BY STOR-IND METHOD

POND NO.	START ELEV. (FT)	FLOOD ELEV. (FT)	PEAK ELEV. (FT)	PEAK STORAGE (AF)	PEAK FLOW Qin (CFS)	PEAK FLOW Qout (CFS)	PEAK FLOW Qpri (CFS)	PEAK FLOW Qsec (CFS)	Qout ATTEN. (%)	Qout LAG (MIN)
1	59.0	64.0	62.5	.04	5.63	4.69			17	10.8
12	58.0	64.0	58.2	0.00	.25	.24			1	.1
100	54.5	60.0	58.2	.19	6.44	5.00			22	29.9

Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 5.50 IN
Prepared by SEBAGO TECHNICS
HydroCAD 5.01 000643 (c) 1986-1998 Applied Microcomputer Systems

18 Jan 00

SUBCATCHMENT 1 Offsite Woods

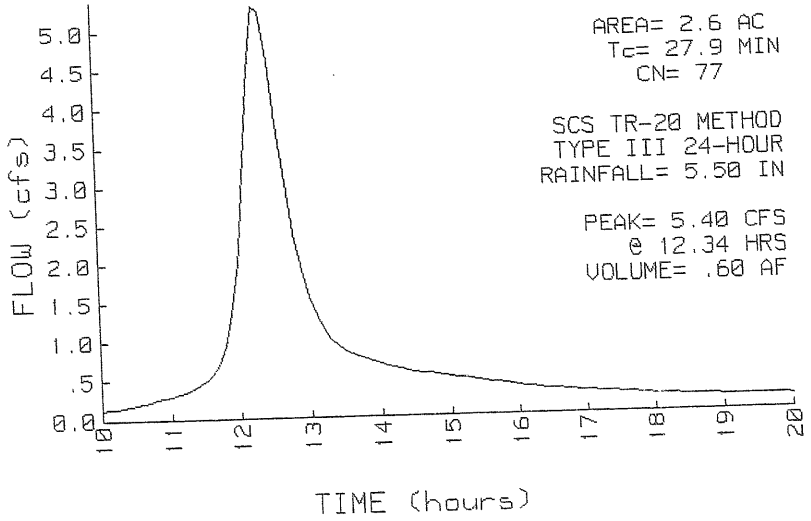
PEAK= 5.40 CFS @ 12.34 HRS, VOLUME= .60 AF

ACRES	CN	
2.60	77	woods good sg-d

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	4.7
Woodland Kv=5 L=200' s=.02 '/' V=.71 fps		
	Total Length= 350 ft	Total Tc= 27.9

SUBCATCHMENT 1 RUNOFF
Offsite Woods



Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 5.50 IN
Prepared by SEBAGO TECHNICS
HydroCAD 5.01 000643 (c) 1986-1998 Applied Microcomputer Systems

18 Jan 00

SUBCATCHMENT 2 Offsite to the west

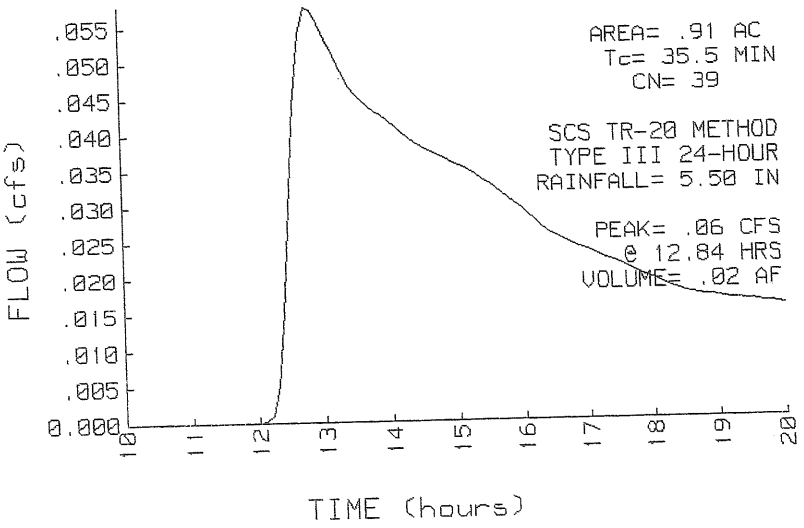
PEAK= .06 CFS @ 12.84 HRS, VOLUME= .02 AF

ACRES	CN	
.91	39	woods good a-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	26.1
Woods: Light underbrush n=.4 L=150' P2=3 in s=.03 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow	9.4
Woodland Kv=5 L=400' s=.02 '/' V=.71 fps		
	Total Length= 550 ft	Total Tc= 35.5

SUBCATCHMENT 2 RUNOFF
Offsite to the west



SUBCATCHMENT 10 99103 SUBCATCHMENT 1 (PROPOSED)

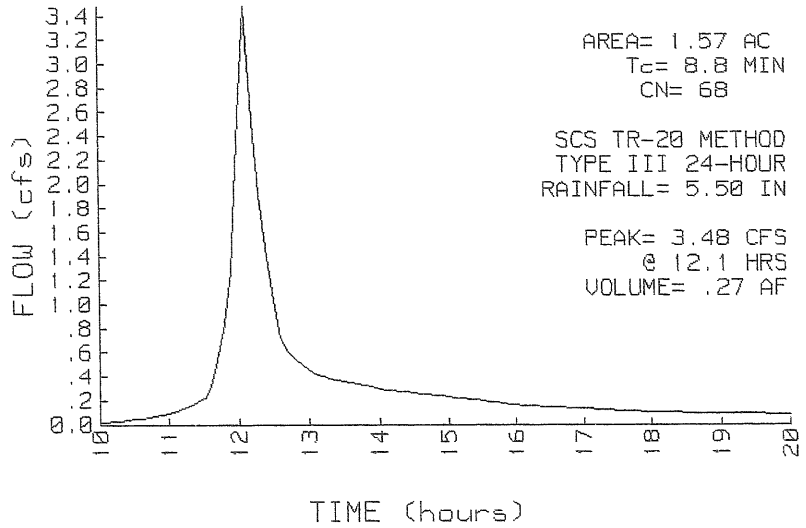
PEAK= 3.48 CFS @ 12.10 HRS, VOLUME= .27 AF

ACRES	CN	
.78	98	PAVED/ROOFS
.79	39	GRASS GOOD A-SOIL
1.57	68	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	DRIVEWAY FLOW	.9
Smooth surfaces n=.011 L=60' P2=3 in s=.016 '/'		
TR-55 SHEET FLOW	GRASS FLOW THRU FIELD EDGE	6.6
Grass: Short n=.15 L=60' P2=3 in s=.021 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	FLOW TO FIELD DRAIN	.4
Grassed Waterway Kv=15 L=60' s=.028 '/' V=2.51 fps		
CIRCULAR CHANNEL	STORM DRAIN	.9
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.007 '/' n=.011 V=4.49 fps L=232' Capacity=3.5 cfs		
	Total Length= 412 ft Total Tc=	8.8

SUBCATCHMENT 10 RUNOFF
99103 SUBCATCHMENT 1 (PROPOSED)



SUBCATCHMENT 11 SOUTHSIDE OF PROJECT

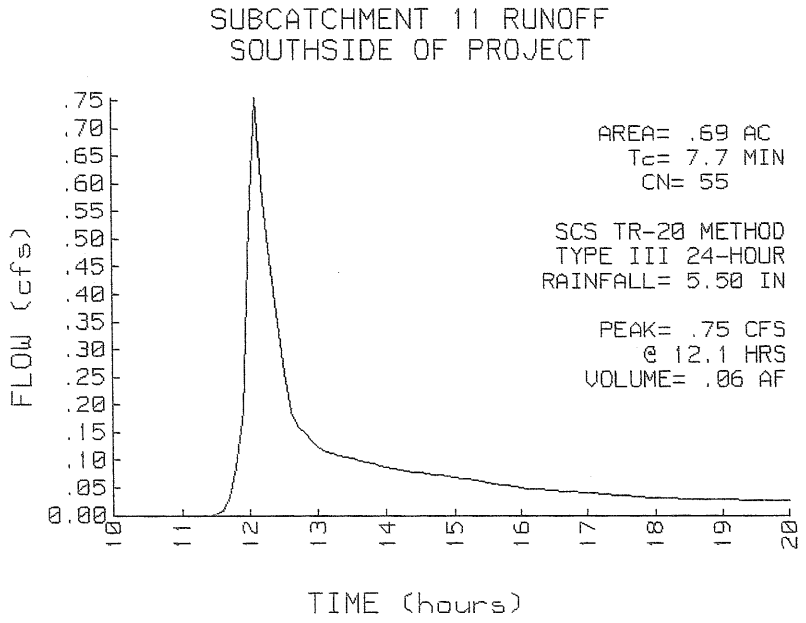
PEAK= .75 CFS @ 12.10 HRS, VOLUME= .06 AF

ACRES	CN	
.20	98	PAVING/ROOF
.11	30	WOODS GOOD A-SOIL
.38	39	GRASS GOOD A-SOIL
.69	55	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	LAWN SHEET FLOW	7.7

Grass: Short n=.15 L=50' P2=3 in s=.01 '/'



Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 5.50 IN
Prepared by SEBAGO TECHNICS 18 Jan 00
HydroCAD 5.01 000643 (c) 1986-1998 Applied Microcomputer Systems

SUBCATCHMENT 12 WESTERN CORNER OF SITE

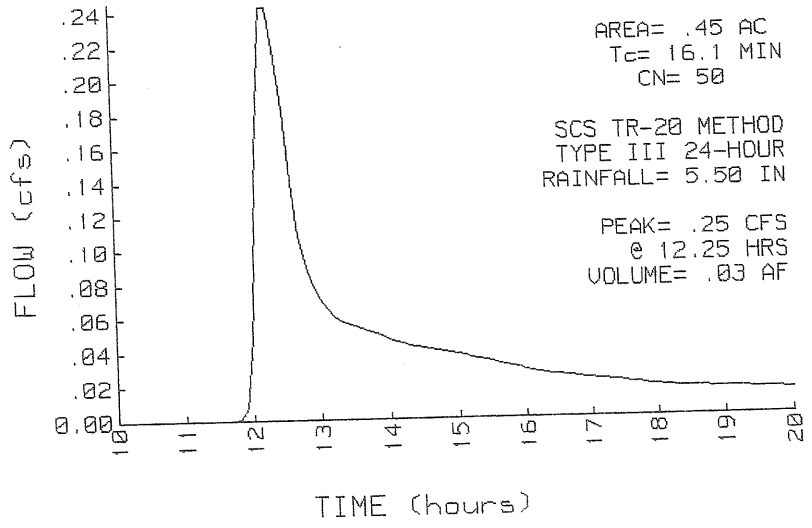
PEAK= .25 CFS @ 12.25 HRS, VOLUME= .03 AF

ACRES	CN	
.10	98	PAVED/ROOF
.10	30	WOODS GOOD A-SOIL
.25	39	GRASS GOOD A-SOIL
.45	50	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	WOODS FLOW	14.3
Woods: Light underbrush n=.4	L=50' P2=3 in s=.015 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	SHALLOW FLOW	1.8
Grassed Waterway Kv=15	L=190' s=.0132 '/' V=1.72 fps	
	Total Length= 240 ft Total Tc=	16.1

SUBCATCHMENT 12 RUNOFF
WESTERN CORNER OF SITE



SUBCATCHMENT 13 NORTHERN CORNER/END OF PROJECT

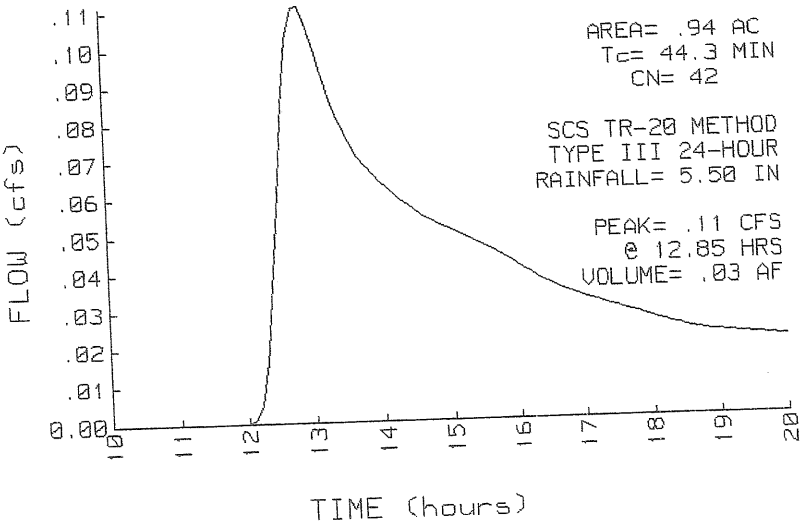
PEAK= .11 CFS @ 12.85 HRS, VOLUME= .03 AF

ACRES	CN	
.11	98	PAVED/ROOF
.45	30	WOODS GOOD A-SOIL
.38	39	GRASS GOOD A-SOIL
.94	42	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	WOODS FLOW ALONG PROPERTY	41.5
Woods: Light underbrush n=.4	L=120' P2=3 in s=.006 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	GRASS SWALE FLOW	.7
Grassed Waterway Kv=15	L=110' s=.027 '/' V=2.46 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	WOODS FLOW	2.1
Woodland Kv=5	L=110' s=.03 '/' V=.87 fps	
	Total Length= 340 ft	Total Tc= 44.3

SUBCATCHMENT 13 RUNOFF
NORTHERN CORNER/END OF PROJECT



REACH 1 SWALE ACROSS EAST PROP.LINE

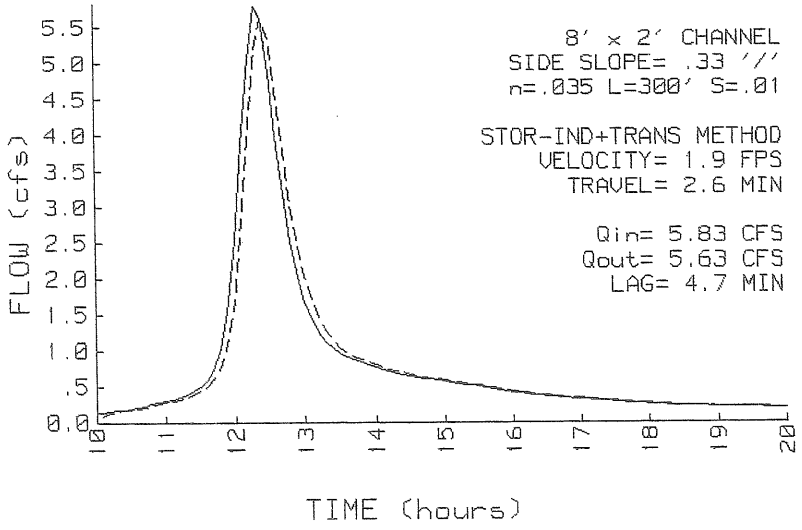
Qin = 5.83 CFS @ 12.33 HRS, VOLUME= .67 AF
Qout= 5.63 CFS @ 12.41 HRS, VOLUME= .67 AF, ATTEN= 3%, LAG= 4.7 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	2.38
.4	3.7	7.76
.6	5.9	15.71
.9	9.1	29.84
1.2	14.0	54.93
1.6	20.6	94.63
2.0	28.1	146.15

8' x 2' CHANNEL
SIDE SLOPE= .33 '/'
n= .035
LENGTH= 300 FT
SLOPE= .01 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .32 FT
PEAK VELOCITY= 1.9 FPS
TRAVEL TIME = 2.6 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 1 INFLOW & OUTFLOW
SWALE ACROSS EAST PROP.LINE



REACH 10 EXIST. STREAM/RECEIVING CHANNEL

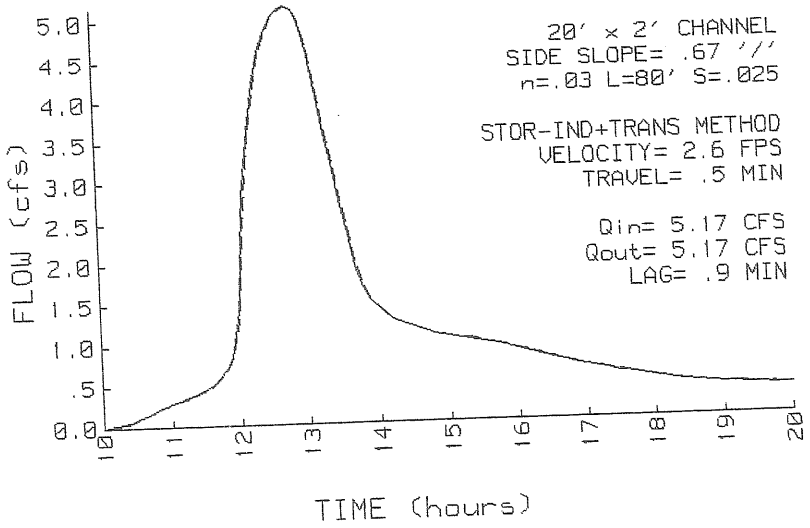
Qin = 5.17 CFS @ 12.79 HRS, VOLUME= 1.00 AF
Qout= 5.17 CFS @ 12.81 HRS, VOLUME= 1.00 AF, ATTEN= 0%, LAG= .9 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	4.1	10.73
.4	8.2	34.11
.6	12.5	67.18
.9	18.3	122.79
1.2	26.1	214.99
1.6	35.8	349.61
2.0	46.0	511.01

20' x 2' CHANNEL
SIDE SLOPE= .67 '/'
n= .03
LENGTH= 80 FT
SLOPE= .025 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .10 FT
PEAK VELOCITY= 2.6 FPS
TRAVEL TIME = .5 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 10 INFLOW & OUTFLOW
EXIST. STREAM/RECEIVING CHANNEL



POND 1 CULVERT UNDER DRIVE

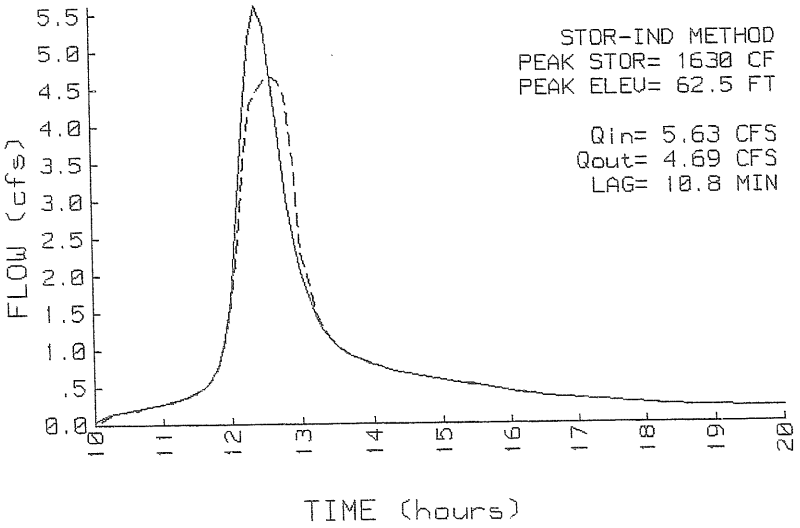
Qin = 5.63 CFS @ 12.41 HRS, VOLUME= .67 AF
Qout= 4.69 CFS @ 12.59 HRS, VOLUME= .67 AF, ATTEN= 17%, LAG= 10.8 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
57.0	20	0	0
58.0	50	35	35
60.0	150	200	235
62.0	330	480	715
64.0	3375	3705	4420

STOR-IND METHOD
PEAK STORAGE = 1630 CF
PEAK ELEVATION= 62.5 FT
FLOOD ELEVATION= 64.0 FT
START ELEVATION= 59.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
4 x FINER ROUTING
Tdet= 6 MIN (.66 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	59.0'	**12" CULVERT**
			n=.024 L=30' S=.005'/' Ke=.6 Cc=.9 Cd=.56

POND 1 INFLOW & OUTFLOW
CULVERT UNDER DRIVE



POND 100 DETENTION POND

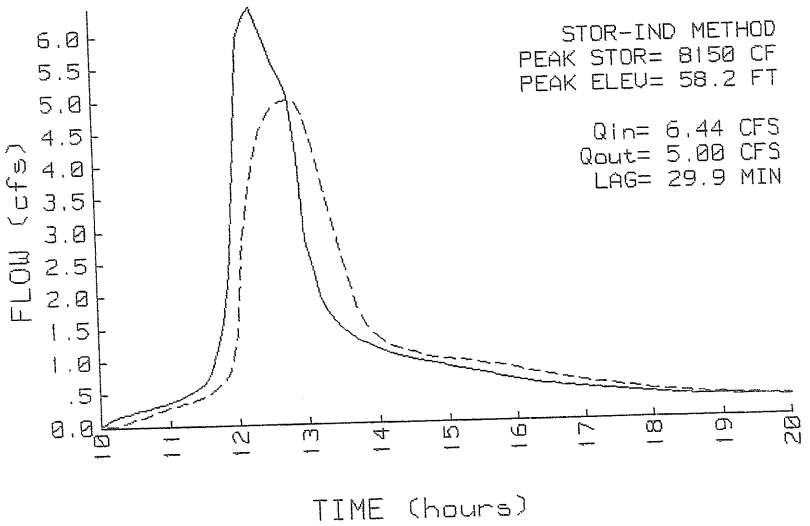
Qin = 6.44 CFS @ 12.28 HRS, VOLUME= .97 AF
Qout= 5.00 CFS @ 12.78 HRS, VOLUME= .96 AF, ATTEN= 22%, LAG= 29.9 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
53.0	100	0	0
54.0	900	500	500
56.0	1700	2600	3100
58.0	2700	4400	7500
58.3	3200	885	8385
60.0	4450	6503	14888

STOR-IND METHOD
PEAK STORAGE = 8150 CF
PEAK ELEVATION= 58.2 FT
FLOOD ELEVATION= 60.0 FT
START ELEVATION= 54.5 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 38.2 MIN (.92 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	54.5'	**4" ORIFICE/GRATE X 2** Q=.6 PI r^2 SQR(2g) SQR(H-r)
2	P	58.3'	**3' SHARP-CRESTED RECTANGULAR WEIR** Q=C L H^1.5 C=3.27+.4 H/2 L=Length-2(.1 H)
3	P	56.0'	**1.5' x .33' ORIFICE/GRATE** Q=.6 Width 2/3 SQR(2g) (H^1.5 - [H-Height]^1.5)

POND 100 INFLOW & OUTFLOW
DETENTION POND



Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 4.70 IN
Prepared by SEBAGO TECHNICS
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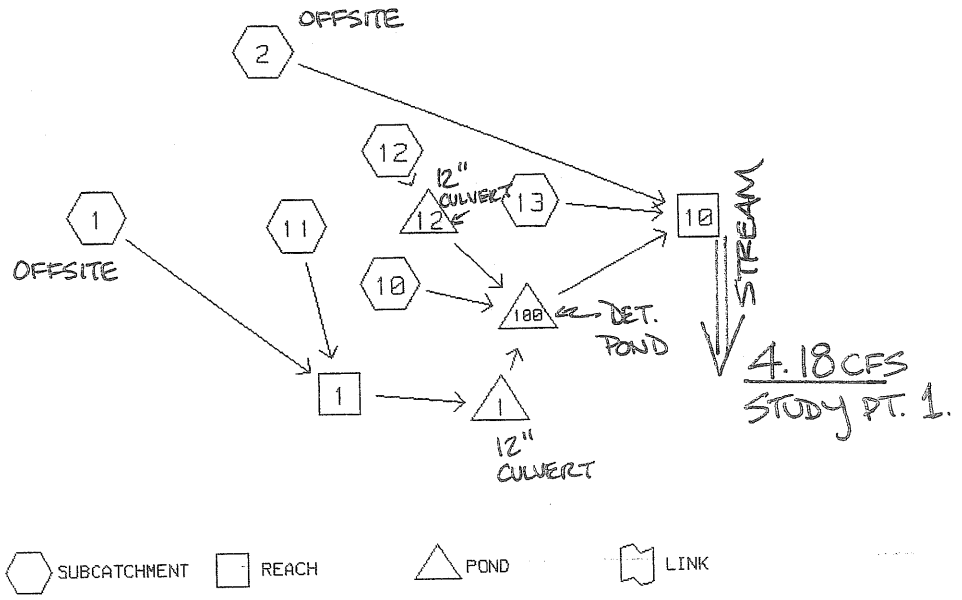
10 YR. DEV.

WATERSHED ROUTING

HOLM PLACE



RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 4.70 IN, SCS U.H.

RUNOFF SPAN = 10-20 HRS, dt= .10 HRS, 101 POINTS

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	2.60	27.9	100%77	77	-	4.20	12.35	.47
2	.91	35.5	100%39	39	-	.02	14.72	.01
10	1.57	8.8	50%98 50%39	68	-	2.55	12.10	.20
11	.69	7.7	29%98 16%30 55%39	55	-	.46	12.12	.04
12	.45	16.1	22%98 22%30 56%39	50	-	.13	12.33	.02
13	.94	44.3	12%98 48%30 40%39	42	-	.04	13.11	.01

REACH ROUTING BY STOR-IND+TRANS METHOD

REACH NO.	DIAM (IN)	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPES (FT/FT)		n	LENGTH (FT)	SLOPE (FT/FT)	PEAK VEL. (FPS)	TRAVEL TIME (MIN)	PEAK Qout (CFS)
1	-	8.0	2.0	.33	.33	.035	300	.0100	1.8	2.8	4.33
10	-	20.0	2.0	.67	.67	.030	80	.0250	2.6	.5	4.18

POND ROUTING BY STOR-IND METHOD

POND NO.	START ELEV. (FT)	FLOOD ELEV. (FT)	PEAK ELEV. (FT)	PEAK STORAGE (AF)	PEAK FLOW Qin (CFS)	PEAK FLOW Qout (CFS)	PEAK FLOW Qpri (CFS)	PEAK FLOW Qsec (CFS)	Qout ATTEN. (%)	Qout LAG (MIN)
1	59.0	64.0	61.9	.02	4.33	4.18			3	3.8
12	58.0	64.0	58.2	0.00	.13	.13			1	.1
100	54.5	60.0	57.5	.15	5.27	4.16			21	15.0

Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 4.70 IN
Prepared by SEBAGO TECHNICS 18 Jan 00
HydroCAD 5.01 000643 (c) 1986-1998 Applied Microcomputer Systems

SUBCATCHMENT 1 Offsite Woods

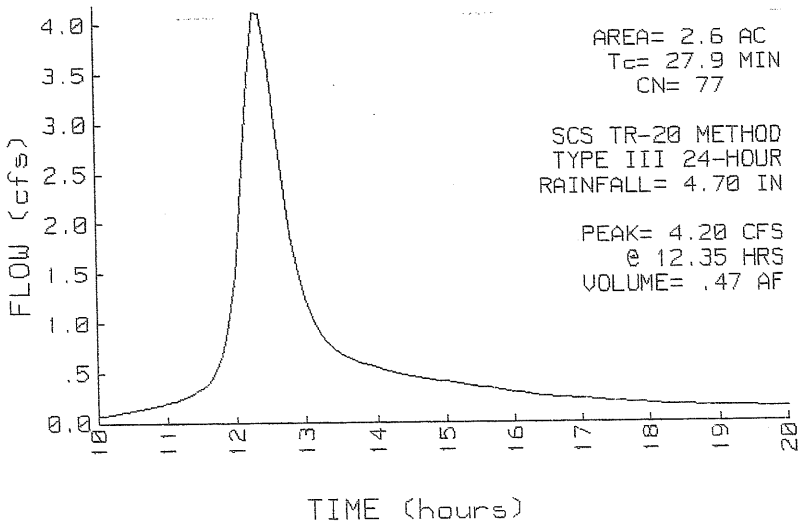
PEAK= 4.20 CFS @ 12.35 HRS, VOLUME= .47 AF

ACRES	CN	
2.60	77	woods good sg-d

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	4.7
Woodland Kv=5 L=200' s=.02 '/' V=.71 fps		
	Total Length= 350 ft	Total Tc= 27.9

SUBCATCHMENT 1 RUNOFF
Offsite Woods



SUBCATCHMENT 2 Offsite to the west

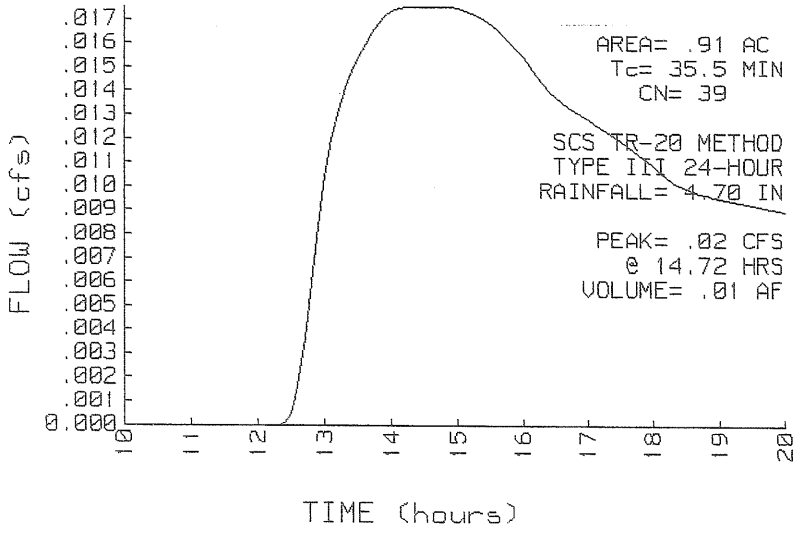
PEAK= .02 CFS @ 14.72 HRS, VOLUME= .01 AF

ACRES	CN	
.91	39	woods good a-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	26.1
Woods: Light underbrush n=.4 L=150' P2=3 in s=.03 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow	9.4
Woodland Kv=5 L=400' s=.02 '/' V=.71 fps		
	Total Length= 550 ft Total Tc=	35.5

SUBCATCHMENT 2 RUNOFF
Offsite to the west



Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 4.70 IN
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SUBCATCHMENT 10 99103 SUBCATCHMENT 1 (PROPOSED)

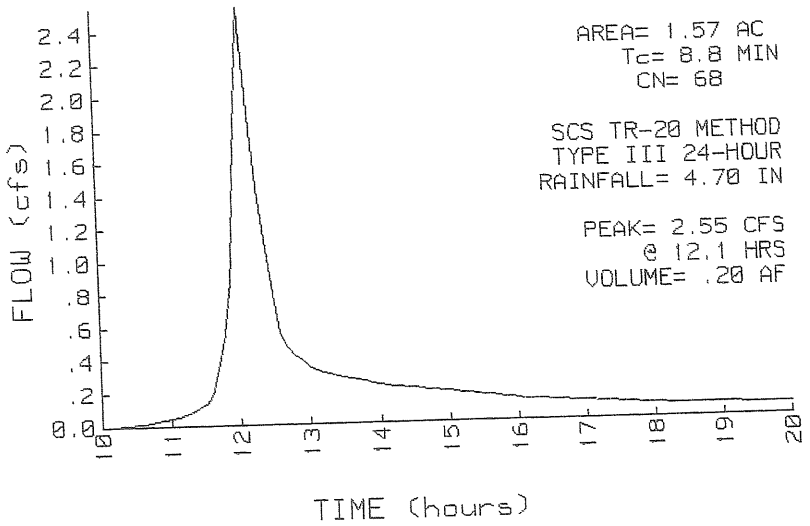
PEAK= 2.55 CFS @ 12.10 HRS, VOLUME= .20 AF

ACRES	CN	
.78	98	PAVED/ROOFS
.79	39	GRASS GOOD A-SOIL
1.57	68	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW Smooth surfaces n=.011 L=60' P2=3 in s=.016 '/'	DRIVEWAY FLOW	.9
TR-55 SHEET FLOW Grass: Short n=.15 L=60' P2=3 in s=.021 '/'	GRASS FLOW THRU FIELD EDGE	6.6
SHALLOW CONCENTRATED/UPLAND FLOW Grassed Waterway Kv=15 L=60' s=.028 '/' V=2.51 fps	FLOW TO FIELD DRAIN	.4
CIRCULAR CHANNEL 12" Diameter a=.79 sq-ft Pw=3.1' r=.25' s=.007 '/' n=.011 V=4.49 fps L=232' Capacity=3.5 cfs	STORM DRAIN	.9
	Total Length= 412 ft	Total Tc= 8.8

SUBCATCHMENT 10 RUNOFF
99103 SUBCATCHMENT 1 (PROPOSED)



Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 4.70 IN
18 Jan 00
Prepared by SEBAGO TECHNICS
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SUBCATCHMENT 11 SOUTHSIDE OF PROJECT

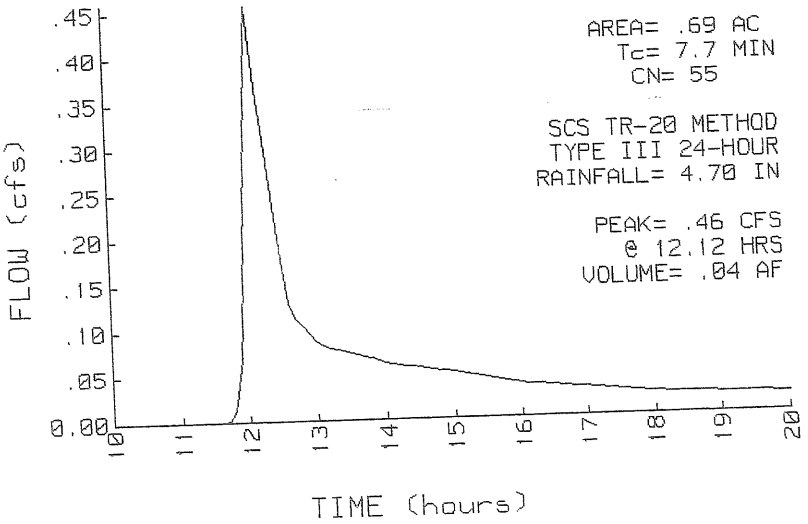
PEAK= .46 CFS @ 12.12 HRS, VOLUME= .04 AF

ACRES	CN	
.20	98	PAVING/ROOF
.11	30	WOODS GOOD A-SOIL
.38	39	GRASS GOOD A-SOIL
.69	55	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	LAWN SHEET FLOW	7.7
Grass: Short n=.15 L=50' P2=3 in s=.01 '/'		

SUBCATCHMENT 11 RUNOFF
SOUTHSIDE OF PROJECT



SUBCATCHMENT 12 WESTERN CORNER OF SITE

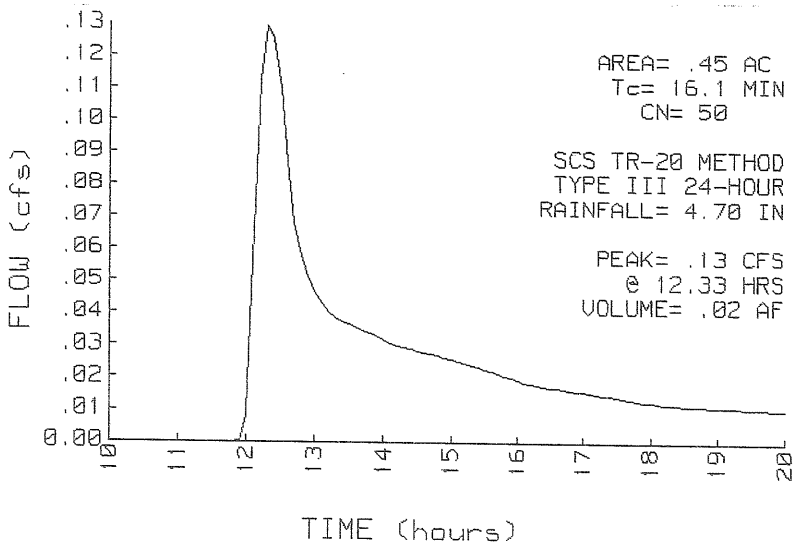
PEAK= .13 CFS @ 12.33 HRS, VOLUME= .02 AF

ACRES	CN	
.10	98	PAVED/ROOF
.10	30	WOODS GOOD A-SOIL
.25	39	GRASS GOOD A-SOIL
.45	50	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	WOODS FLOW	14.3
Woods: Light underbrush n=.4	L=50' P2=3 in s=.015 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	SHALLOW FLOW	1.8
Grassed Waterway Kv=15 L=190'	s=.0132 '/' V=1.72 fps	
	Total Length= 240 ft Total Tc=	16.1

SUBCATCHMENT 12 RUNOFF
WESTERN CORNER OF SITE



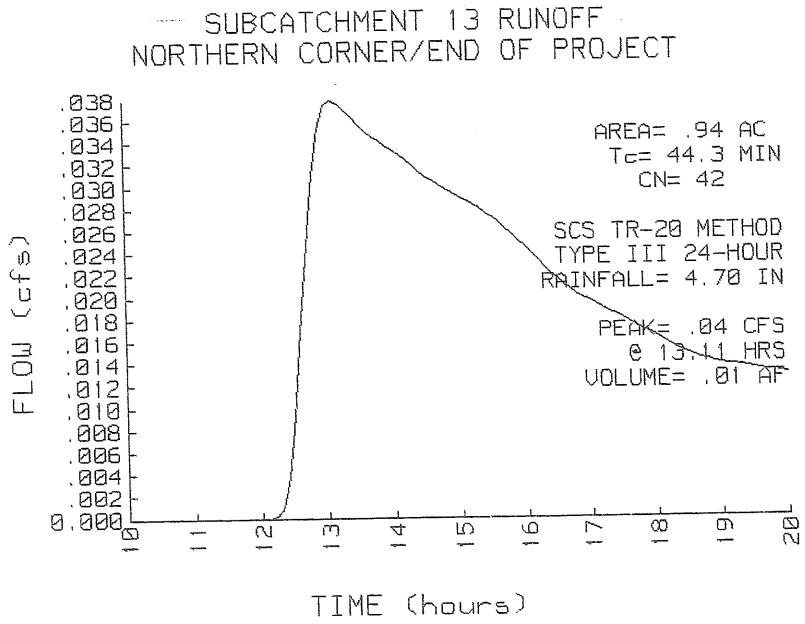
SUBCATCHMENT 13 NORTHERN CORNER/END OF PROJECT

PEAK= .04 CFS @ 13.11 HRS, VOLUME= .01 AF

ACRES	CN	
.11	98	PAVED/ROOF
.45	30	WOODS GOOD A-SOIL
.38	39	GRASS GOOD A-SOIL
.94	42	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	WOODS FLOW ALONG PROPERTY	41.5
Woods: Light underbrush n=.4 L=120' P2=3 in s=.006 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	GRASS SWALE FLOW	.7
Grassed Waterway Kv=15 L=110'	s=.027 '/' V=2.46 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	WOODS FLOW	2.1
Woodland Kv=5 L=110' s=.03 '/'	V=.87 fps	
	Total Length= 340 ft	Total Tc= 44.3



REACH 1 SWALE ACROSS EAST PROP.LINE

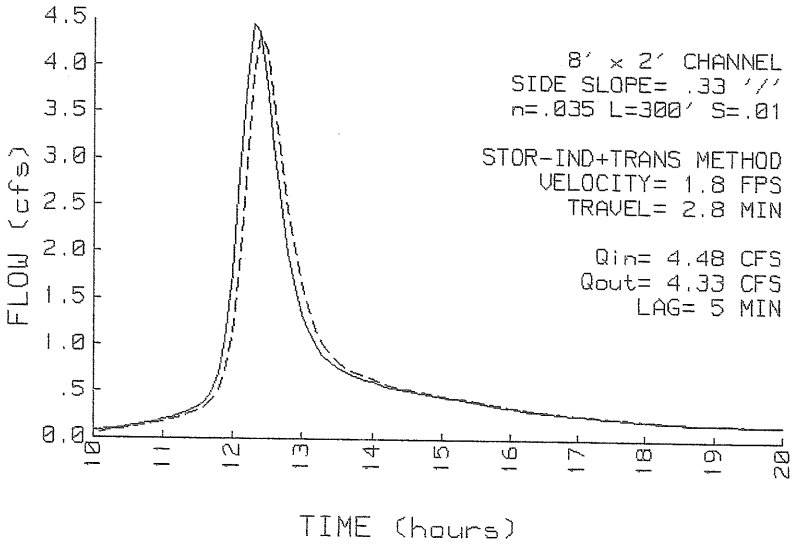
Qin = 4.48 CFS @ 12.34 HRS, VOLUME= .51 AF
Qout= 4.33 CFS @ 12.42 HRS, VOLUME= .51 AF, ATTEN= 3%, LAG= 5.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	2.38
.4	3.7	7.76
.6	5.9	15.71
.9	9.1	29.84
1.2	14.0	54.93
1.6	20.6	94.63
2.0	28.1	146.15

8' x 2' CHANNEL
SIDE SLOPE= .33 '/'
n= .035
LENGTH= 300 FT
SLOPE= .01 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .27 FT
PEAK VELOCITY= 1.8 FPS
TRAVEL TIME = 2.8 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 1 INFLOW & OUTFLOW
SWALE ACROSS EAST PROP.LINE



REACH 10 EXIST. STREAM/RECEIVING CHANNEL

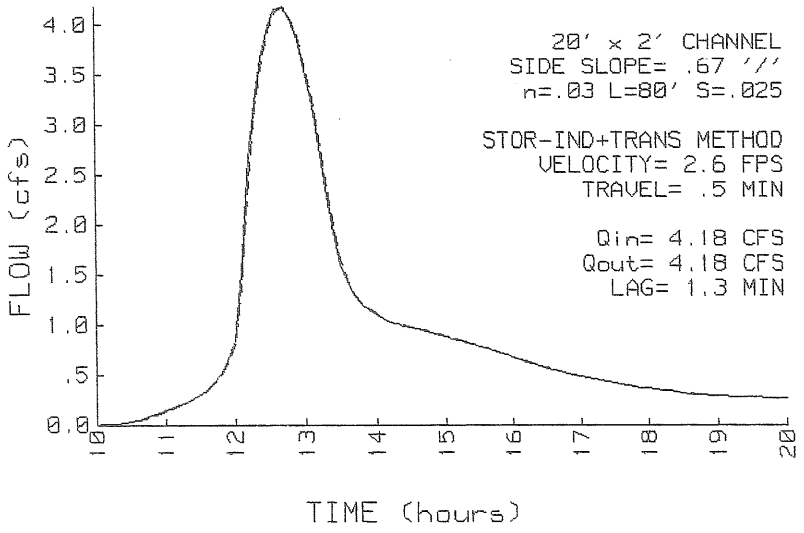
Qin = 4.18 CFS @ 12.67 HRS, VOLUME= .75 AF
Qout= 4.18 CFS @ 12.69 HRS, VOLUME= .75 AF, ATTEN= 0%, LAG= 1.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	4.1	10.73
.4	8.2	34.11
.6	12.5	67.18
.9	18.3	122.79
1.2	26.1	214.99
1.6	35.8	349.61
2.0	46.0	511.01

20' x 2' CHANNEL
SIDE SLOPE= .67 '/'
n= .03
LENGTH= 80 FT
SLOPE= .025 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .08 FT
PEAK VELOCITY= 2.6 FPS
TRAVEL TIME = .5 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 10 INFLOW & OUTFLOW
EXIST. STREAM/RECEIVING CHANNEL



Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 4.70 IN
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POND 1 CULVERT UNDER DRIVE

Qin = 4.33 CFS @ 12.42 HRS, VOLUME= .51 AF
Qout= 4.18 CFS @ 12.49 HRS, VOLUME= .51 AF, ATTEN= 3%, LAG= 3.8 MIN

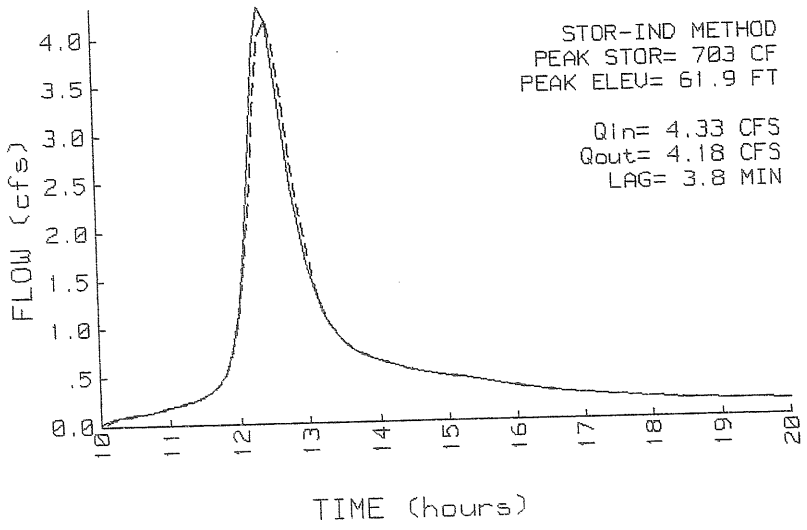
ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
57.0	20	0	0
58.0	50	35	35
60.0	150	200	235
62.0	330	480	715
64.0	3375	3705	4420

STOR-IND METHOD
PEAK STORAGE = 703 CF
PEAK ELEVATION= 61.9 FT
FLOOD ELEVATION= 64.0 FT
START ELEVATION= 59.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
4 x FINER ROUTING
Tdet= 5.8 MIN (.5 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	59.0'	12" CULVERT

n=.024 L=30' S=.005'/' Ke=.6 Cc=.9 Cd=.56

POND 1 INFLOW & OUTFLOW
CULVERT UNDER DRIVE



POND 12 DRIVE STORM DRAIN

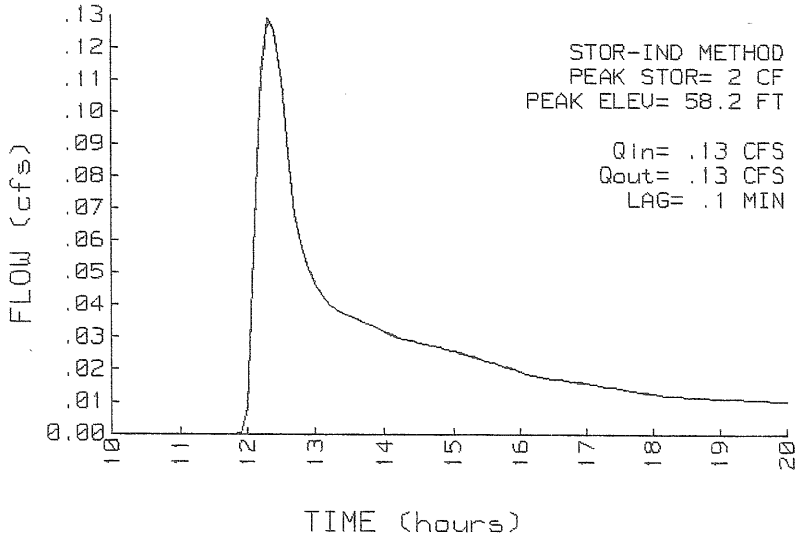
Qin = .13 CFS @ 12.33 HRS, VOLUME= .02 AF
Qout= .13 CFS @ 12.33 HRS, VOLUME= .02 AF, ATTEN= 1%, LAG= .1 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
58.0	13	0	0
64.0	13	75	75

STOR-IND METHOD
PEAK STORAGE = 2 CF
PEAK ELEVATION= 58.2 FT
FLOOD ELEVATION= 64.0 FT
START ELEVATION= 58.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

#	ROUTE	INVERT	OUTLET DEVICES
1	P	58.0'	12" CULVERT
			n=.012 L=135' S=.03'/' Ke=.6 Cc=.9 Cd=.56

POND 12 INFLOW & OUTFLOW
DRIVE STORM DRAIN



Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 4.70 IN
Prepared by SEBAGO TECHNICS
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18 Jan 00

POND 100 DETENTION POND

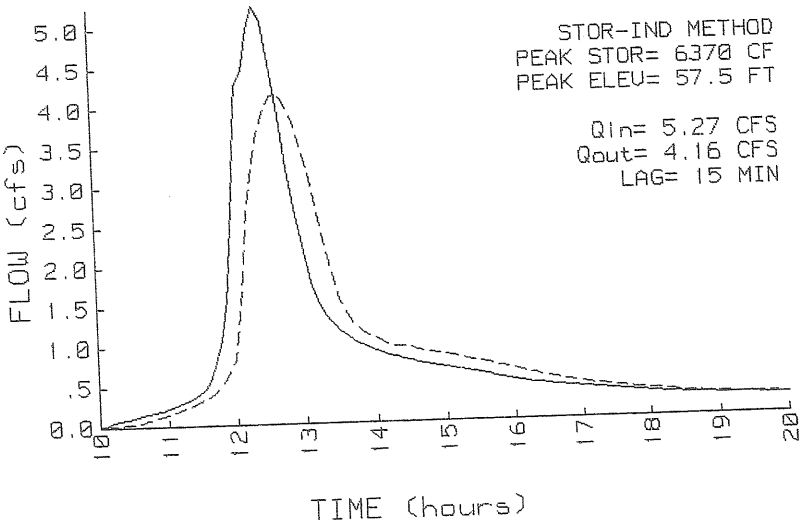
Qin = 5.27 CFS @ 12.41 HRS, VOLUME= .73 AF
Qout= 4.16 CFS @ 12.66 HRS, VOLUME= .72 AF, ATTEN= 21%, LAG= 15.0 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
53.0	100	0	0
54.0	900	500	500
56.0	1700	2600	3100
58.0	2700	4400	7500
58.3	3200	885	8385
60.0	4450	6503	14888

STOR-IND METHOD
PEAK STORAGE = 6370 CF
PEAK ELEVATION= 57.5 FT
FLOOD ELEVATION= 60.0 FT
START ELEVATION= 54.5 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 41.4 MIN (.69 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	54.5'	4" ORIFICE/GRATE X 2 Q=.6 PI r^2 SQR(2g) SQR(H-r)
2	P	58.3'	3' SHARP-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.27+.4 H/2 L=Length-2(.1 H)
3	P	56.0'	1.5' x .33' ORIFICE/GRATE Q=.6 Width 2/3 SQR(2g) (H^1.5 - [H-Height]^1.5)

POND 100 INFLOW & OUTFLOW
DETENTION POND



Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 5.50 IN
Prepared by SEBAGO TECHNICS 18 Jan 00
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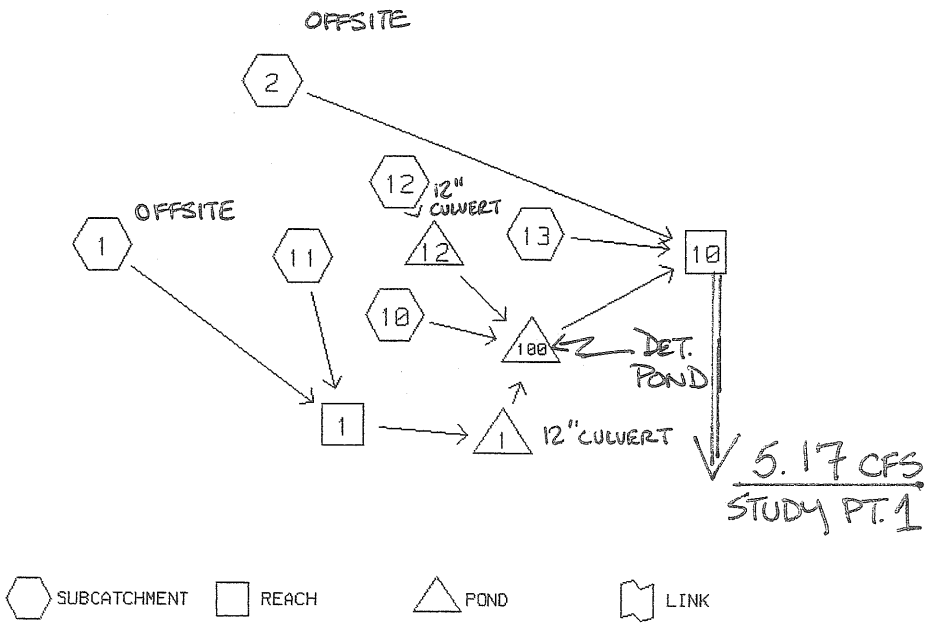
WATERSHED ROUTING 25 YR. DEV.

HOLM PLACE



RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 5.50 IN, SCS U.H.

RUNOFF SPAN = 10-20 HRS, dt= .10 HRS, 101 POINTS

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	2.60	27.9	100%77	77	-	5.40	12.34	.60
2	.91	35.5	100%39	39	-	.06	12.84	.02
10	1.57	8.8	50%98 50%39	68	-	3.48	12.10	.27
11	.69	7.7	29%98 16%30 55%39	55	-	.75	12.10	.06
12	.45	16.1	22%98 22%30 56%39	50	-	.25	12.25	.03
13	.94	44.3	12%98 48%30 40%39	42	-	.11	12.85	.03

SUBCATCHMENT 2 Offsite Woods

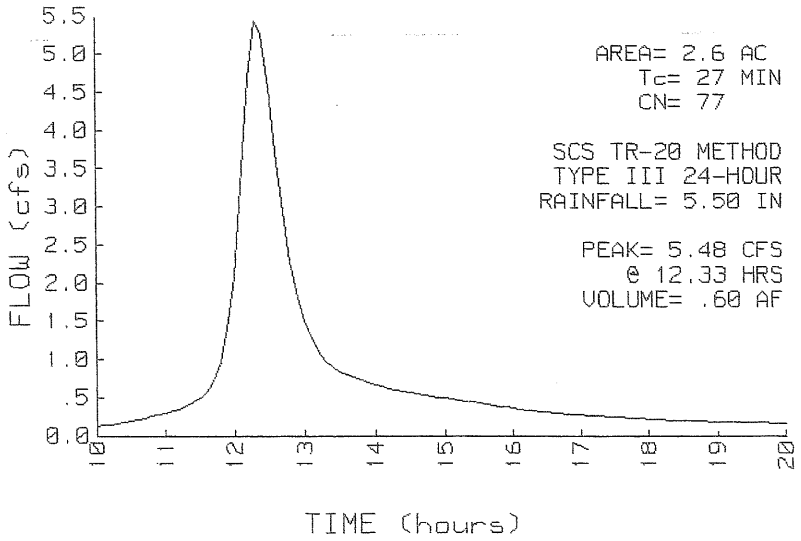
PEAK= 5.48 CFS @ 12.33 HRS, VOLUME= .60 AF

ACRES	CN	
2.60	77	woods good d-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	Woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	3.8
Woodland Kv=5 L=200' s=.03 '/' V=.87 fps		
	Total Length= 350 ft Total Tc=	27.0

SUBCATCHMENT 2 RUNOFF
Offsite Woods



SUBCATCHMENT 3 Offsite to the West

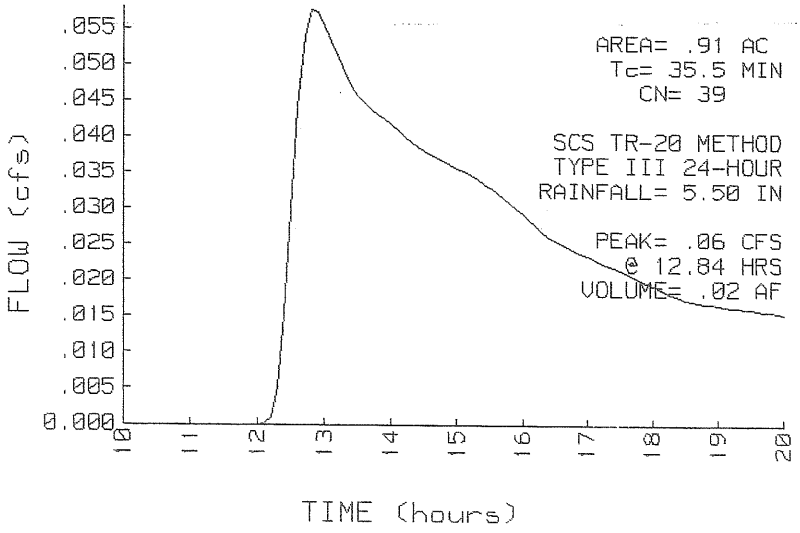
PEAK= .06 CFS @ 12.84 HRS, VOLUME= .02 AF

ACRES	CN	
.91	39	woods good a-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	26.1
Woods: Light underbrush n=.4 L=150' P2=3 in s=.03 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow along ex.rdbed	9.4
Woodland Kv=5 L=400' s=.02 '/' V=.71 fps		
	Total Length= 550 ft Total Tc=	35.5

SUBCATCHMENT 3 RUNOFF
Offsite to the West



REACH 1

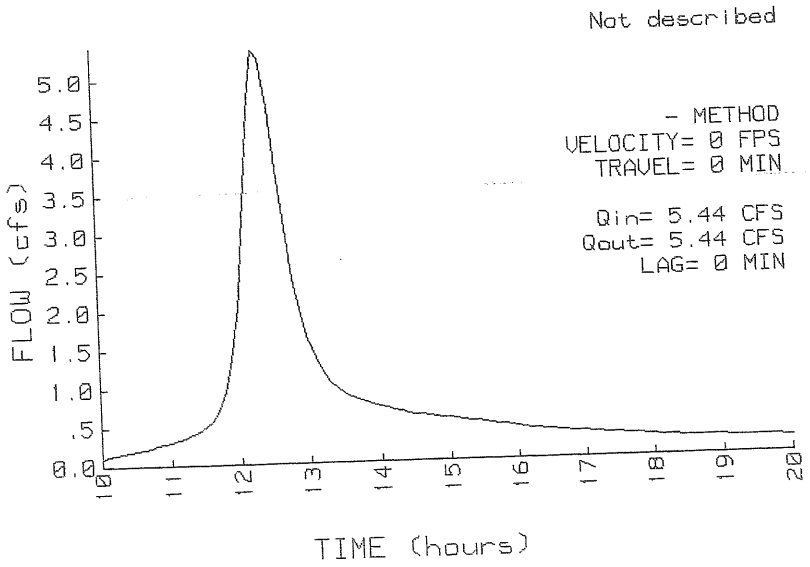
Not described

Qin = 5.44 CFS @ 12.34 HRS, VOLUME= .63 AF
Qout= 5.44 CFS @ 12.34 HRS, VOLUME= .63 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= 10-20 HRS, dt=.1 HRS

REACH 1 INFLOW & OUTFLOW



REACH 2 — 18 inch culvert

Qin = 5.48 CFS @ 12.33 HRS, VOLUME= .60 AF
Qout= 5.43 CFS @ 12.34 HRS, VOLUME= .60 AF, ATTEN= 1%, LAG= .3 MIN

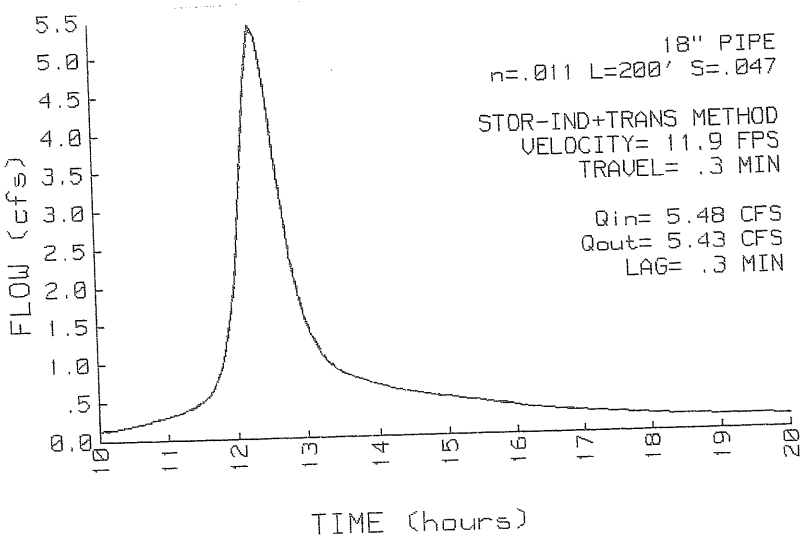
DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.56
.3	.3	2.36
.5	.4	5.27
1.1	1.3	22.53
1.2	1.5	26.31
1.4	1.7	28.68
1.4	1.7	28.95
1.5	1.8	28.68
1.5	1.8	26.91

18" PIPE

n= .011
LENGTH= 200 FT
SLOPE= .047 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .45 FT
PEAK VELOCITY= 11.9 FPS
TRAVEL TIME = .3 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 2 INFLOW & OUTFLOW
18 inch culvert



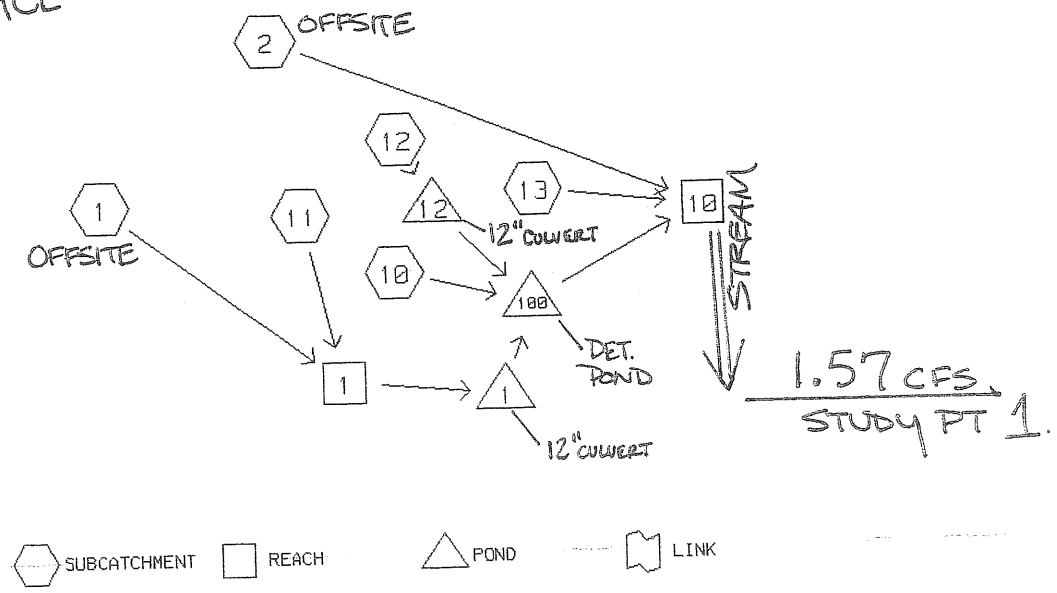
Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 3.00 IN
Prepared by SEBAGO TECHNICS
HydroCAD 5.01 000643 (c) 1986-1998 Applied Microcomputer Systems

18 Jan 00

2 YR. DEV.

WATERSHED ROUTING

HOLM PLACE



RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 3.00 IN, SCS U.H.

RUNOFF SPAN = 10-20 HRS, dt= .10 HRS, 101 POINTS

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	2.60	27.9	100%77	77	-	1.82	12.37	.21
2	.91	35.5	100%39	39	-	0.00	0.00	0.00
10	1.57	8.8	50%98 50%39	68	-	.83	12.12	.07
11	.69	7.7	29%98 16%30 55%39	55	-	.05	12.35	.01
12	.45	16.1	22%98 22%30 56%39	50	-	.01	13.88	0.00
13	.94	44.3	12%98 48%30 40%39	42	-	0.00	20.00	0.00

REACH ROUTING BY STOR-IND+TRANS METHOD

REACH NO.	DIAM (IN)	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPES (FT/FT)		n	LENGTH (FT)	SLOPE (FT/FT)	PEAK VEL. (FPS)	TRAVEL TIME (MIN)	PEAK Qout (CFS)
1	-	8.0	2.0	.33	.33	.035	300	.0100	1.4	3.6	1.77
10	-	20.0	2.0	.67	.67	.030	80	.0250	2.6	.5	1.57

POND ROUTING BY STOR-IND METHOD

POND NO.	START ELEV. (FT)	FLOOD ELEV. (FT)	PEAK ELEV. (FT)	PEAK STORAGE (AF)	PEAK FLOW Qin (CFS)	PEAK FLOW Qout (CFS)	PEAK FLOW Qpri (CFS)	PEAK FLOW Qsec (CFS)	Qout ATTEN. (%)	Qout LAG (MIN)
1	59.0	64.0	60.1	.01	1.77	1.74			2	1.6
12	58.0	64.0	58.0	0.00	.01	.01			0	.5
100	54.5	60.0	56.2	.08	2.07	1.59			23	17.0

SUBCATCHMENT 1 Offsite Woods

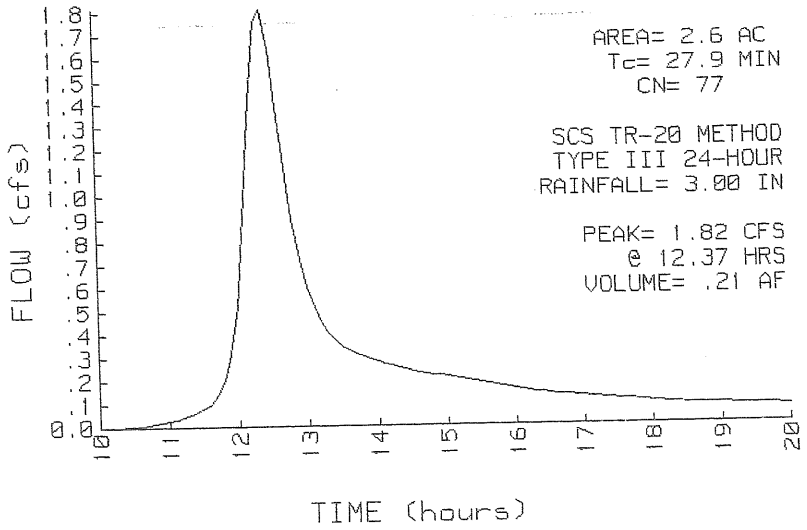
PEAK= 1.82 CFS @ 12.37 HRS, VOLUME= .21 AF

ACRES	CN	
2.60	77	woods good sg-d

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	4.7
Woodland Kv=5 L=200' s=.02 '/' V=.71 fps		
	Total Length= 350 ft	Total Tc= 27.9

SUBCATCHMENT 1 RUNOFF
Offsite Woods



SUBCATCHMENT 2 Offsite to the west

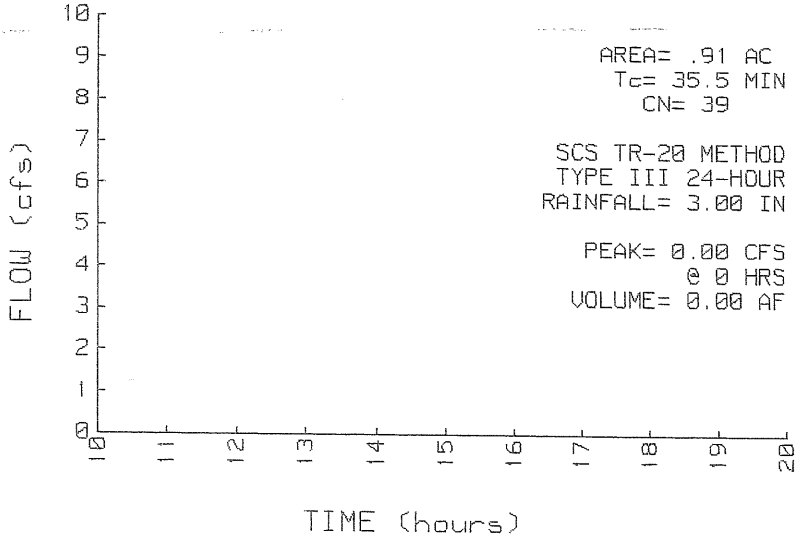
PEAK= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

ACRES	CN	
.91	39	woods good a-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	26.1
Woods: Light underbrush n=.4 L=150' P2=3 in s=.03 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow	9.4
Woodland Kv=5 L=400' s=.02 '/' V=.71 fps		
	Total Length= 550 ft Total Tc=	35.5

SUBCATCHMENT 2 RUNOFF
Offsite to the west



Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 3.00 IN
Prepared by SEBAGO TECHNICS 18 Jan 00
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SUBCATCHMENT 10 99103 SUBCATCHMENT 1 (PROPOSED)

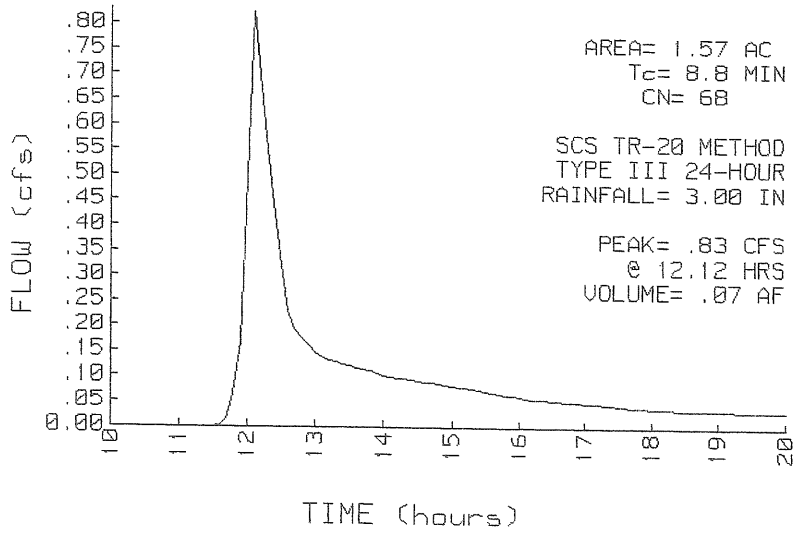
PEAK= .83 CFS @ 12.12 HRS, VOLUME= .07 AF

ACRES	CN	
.78	98	PAVED/ROOFS
.79	39	GRASS GOOD A-SOIL
1.57	68	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW Smooth surfaces n=.011 L=60' P2=3 in s=.016 '/'	DRIVEWAY FLOW	.9
TR-55 SHEET FLOW Grass: Short n=.15 L=60' P2=3 in s=.021 '/'	GRASS FLOW THRU FIELD EDGE	6.6
SHALLOW CONCENTRATED/UPLAND FLOW Grassed Waterway Kv=15 L=60' s=.028 '/' V=2.51 fps	FLOW TO FIELD DRAIN	.4
CIRCULAR CHANNEL 12" Diameter a=.79 sq-ft Pw=3.1' r=.25' s=.007 '/' n=.011 V=4.49 fps L=232' Capacity=3.5 cfs	STORM DRAIN	.9
	Total Length= 412 ft Total Tc=	8.8

SUBCATCHMENT 10 RUNOFF
99103 SUBCATCHMENT 1 (PROPOSED)



SUBCATCHMENT 11 SOUTHSIDE OF PROJECT

PEAK= .05 CFS @ 12.35 HRS, VOLUME= .01 AF

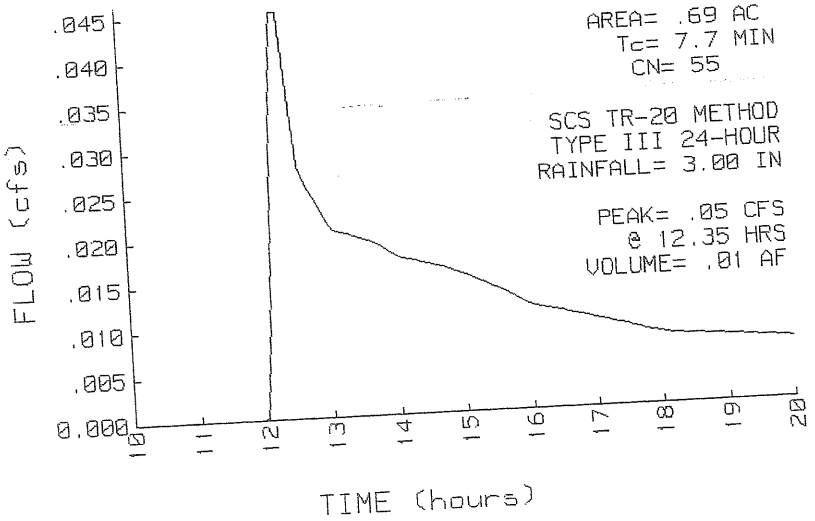
SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

ACRES	CN	
.20	98	PAVING/ROOF
.11	30	WOODS GOOD A-SOIL
.38	39	GRASS GOOD A-SOIL
.69	55	

Method	Comment	Tc (min)
TR-55 SHEET FLOW	LAWN SHEET FLOW	7.7

Grass: Short n=.15 L=50' P2=3 in s=.01 '/'

SUBCATCHMENT 11 RUNOFF
SOUTHSIDE OF PROJECT



Data for 99103 PROPOSED
TYPE III 24-HOUR RAINFALL= 3.00 IN
Prepared by SEBAGO TECHNICS 18 Jan 00
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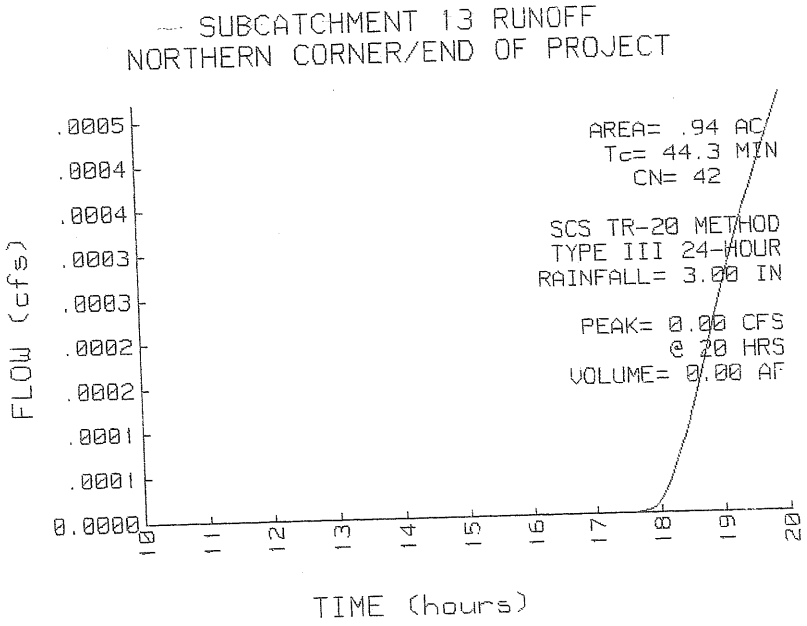
SUBCATCHMENT 13 NORTHERN CORNER/END OF PROJECT

PEAK= 0.00 CFS @ 20.00 HRS, VOLUME= 0.00 AF

ACRES	CN	
.11	98	PAVED/ROOF
.45	30	WOODS GOOD A-SOIL
.38	39	GRASS GOOD A-SOIL
.94	42	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	WOODS FLOW ALONG PROPERTY	41.5
Woods: Light underbrush n=.4	L=120' P2=3 in s=.006 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	GRASS SWALE FLOW	.7
Grassed Waterway Kv=15	L=110' s=.027 '/' V=2.46 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	WOODS FLOW	2.1
Woodland Kv=5	L=110' s=.03 '/' V=.87 fps	
	Total Length= 340 ft	Total Tc= 44.3



REACH 1 SWALE ACROSS EAST PROP.LINE

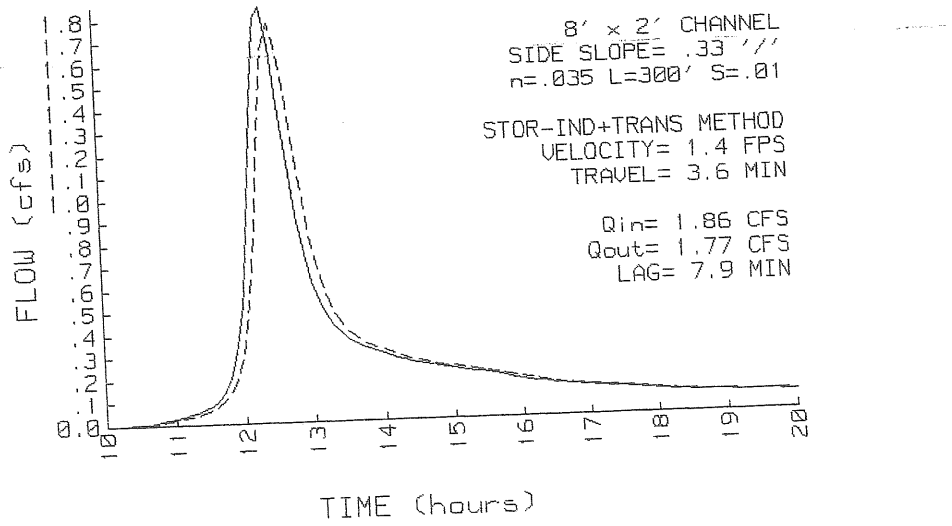
Qin = 1.86 CFS @ 12.37 HRS, VOLUME= .22 AF
Qout= 1.77 CFS @ 12.50 HRS, VOLUME= .22 AF, ATTEN= 5%, LAG= 7.9 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	2.38
.4	3.7	7.76
.6	5.9	15.71
.9	9.1	29.84
1.2	14.0	54.93
1.6	20.6	94.63
2.0	28.1	146.15

8' x 2' CHANNEL
SIDE SLOPE= .33 '/'
n= .035
LENGTH= 300 FT
SLOPE= .01 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .15 FT
PEAK VELOCITY= 1.4 FPS
TRAVEL TIME = 3.6 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 1 INFLOW & OUTFLOW
SWALE ACROSS EAST PROP.LINE



REACH 10 EXIST. STREAM/RECEIVING CHANNEL

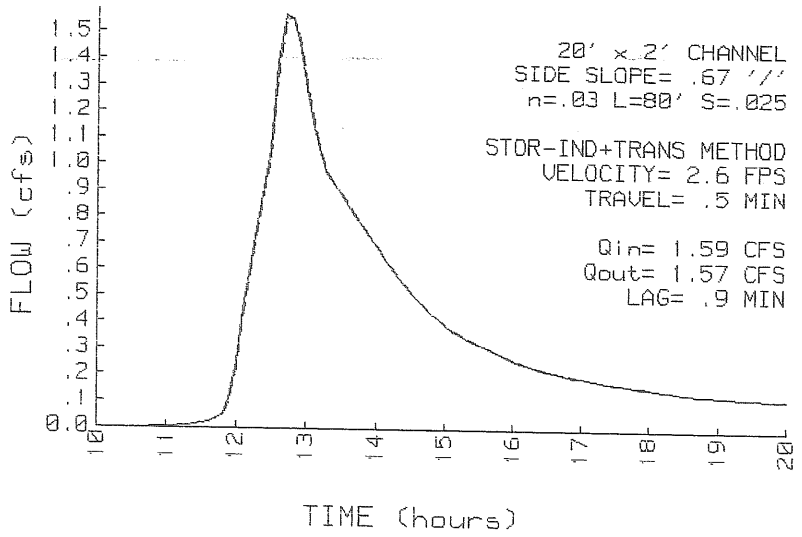
Qin = 1.59 CFS @ 12.74 HRS, VOLUME= .29 AF
Qout= 1.57 CFS @ 12.76 HRS, VOLUME= .29 AF, ATTEN= 1%, LAG= .9 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	4.1	10.73
.4	8.2	34.11
.6	12.5	67.18
.9	18.3	122.79
1.2	26.1	214.99
1.6	35.8	349.61
2.0	46.0	511.01

20' x 2' CHANNEL
SIDE SLOPE= .67 '/'
n= .03
LENGTH= 80 FT
SLOPE= .025 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .03 FT
PEAK VELOCITY= 2.6 FPS
TRAVEL TIME = .5 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 10 INFLOW & OUTFLOW
EXIST. STREAM/RECEIVING CHANNEL



POND 1 — CULVERT UNDER DRIVE

Qin = 1.77 CFS @ 12.50 HRS, VOLUME= .22 AF
Qout= 1.74 CFS @ 12.53 HRS, VOLUME= .22 AF, ATTEN= 2%, LAG= 1.6 MIN

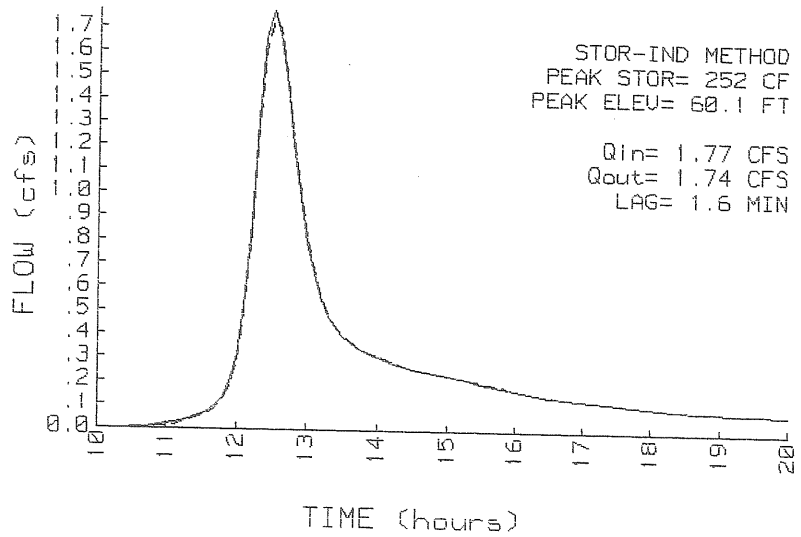
ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
57.0	20	0	0
58.0	50	35	35
60.0	150	200	235
62.0	330	480	715
64.0	3375	3705	4420

STOR-IND METHOD
PEAK STORAGE = 252 CF
PEAK ELEVATION= 60.1 FT
FLOOD ELEVATION= 64.0 FT
START ELEVATION= 59.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
4 x FINER ROUTING
Tdet= 9.5 MIN (.21 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	59.0'	12" CULVERT

n=.024 L=30' S=.005'/' Ke=.6 Cc=.9 Cd=.56

POND 1 INFLOW & OUTFLOW
CULVERT UNDER DRIVE



POND 12 DRIVE STORM DRAIN

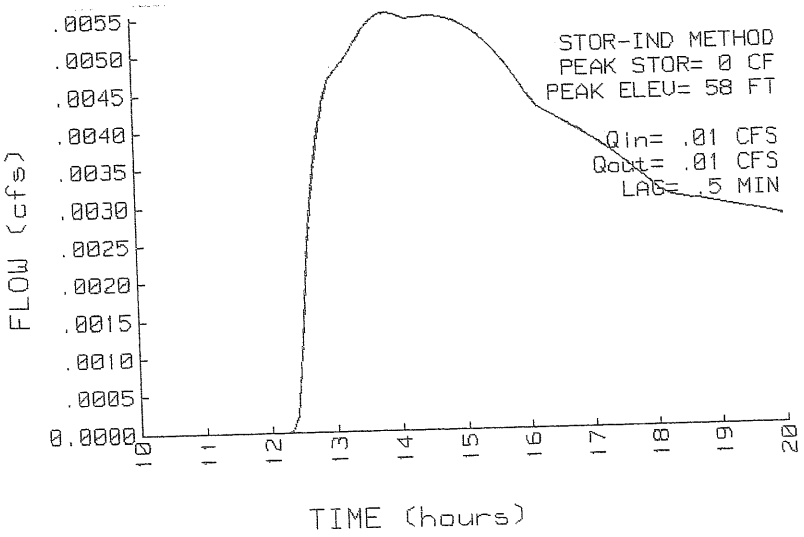
Qin = .01 CFS @ 13.88 HRS, VOLUME= 0.00 AF
Qout= .01 CFS @ 13.89 HRS, VOLUME= 0.00 AF, ATTEN= 0%, LAG= .5 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
58.0	13	0	0
64.0	13	75	75

STOR-IND METHOD
PEAK STORAGE = 0 CF
PEAK ELEVATION= 58.0 FT
FLOOD ELEVATION= 64.0 FT
START ELEVATION= 58.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= .5 MIN (0 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	58.0'	12" CULVERT
			n=.012 L=135' S=.03'/' Ke=.6 Cc=.9 Cd=.56

POND 12 INFLOW & OUTFLOW
DRIVE STORM DRAIN



POND 100 DETENTION POND

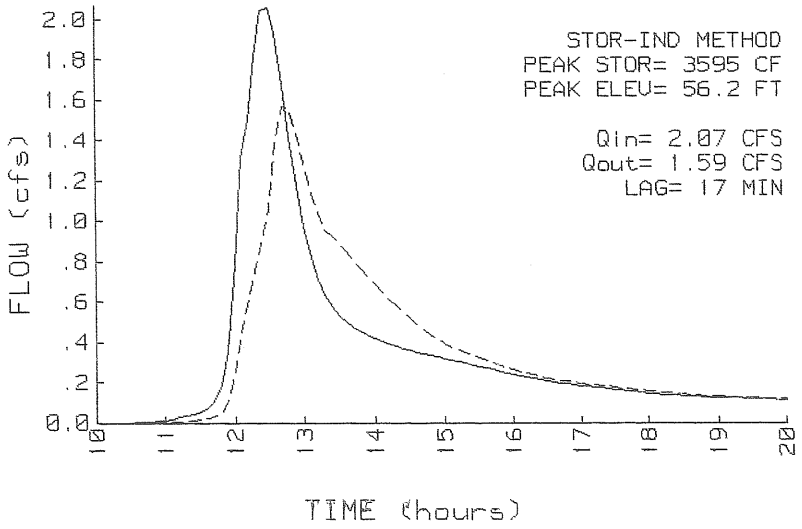
Qin = 2.07 CFS @ 12.46 HRS, VOLUME= .29 AF
Qout= 1.59 CFS @ 12.74 HRS, VOLUME= .29 AF, ATTEN= 23%, LAG= 17.0 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
53.0	100	0	0
54.0	900	500	500
56.0	1700	2600	3100
58.0	2700	4400	7500
58.3	3200	885	8385
60.0	4450	6503	14888

STOR-IND METHOD
PEAK STORAGE = 3595 CF
PEAK ELEVATION= 56.2 FT
FLOOD ELEVATION= 60.0 FT
START ELEVATION= 54.5 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 66.4 MIN (.26 AF)

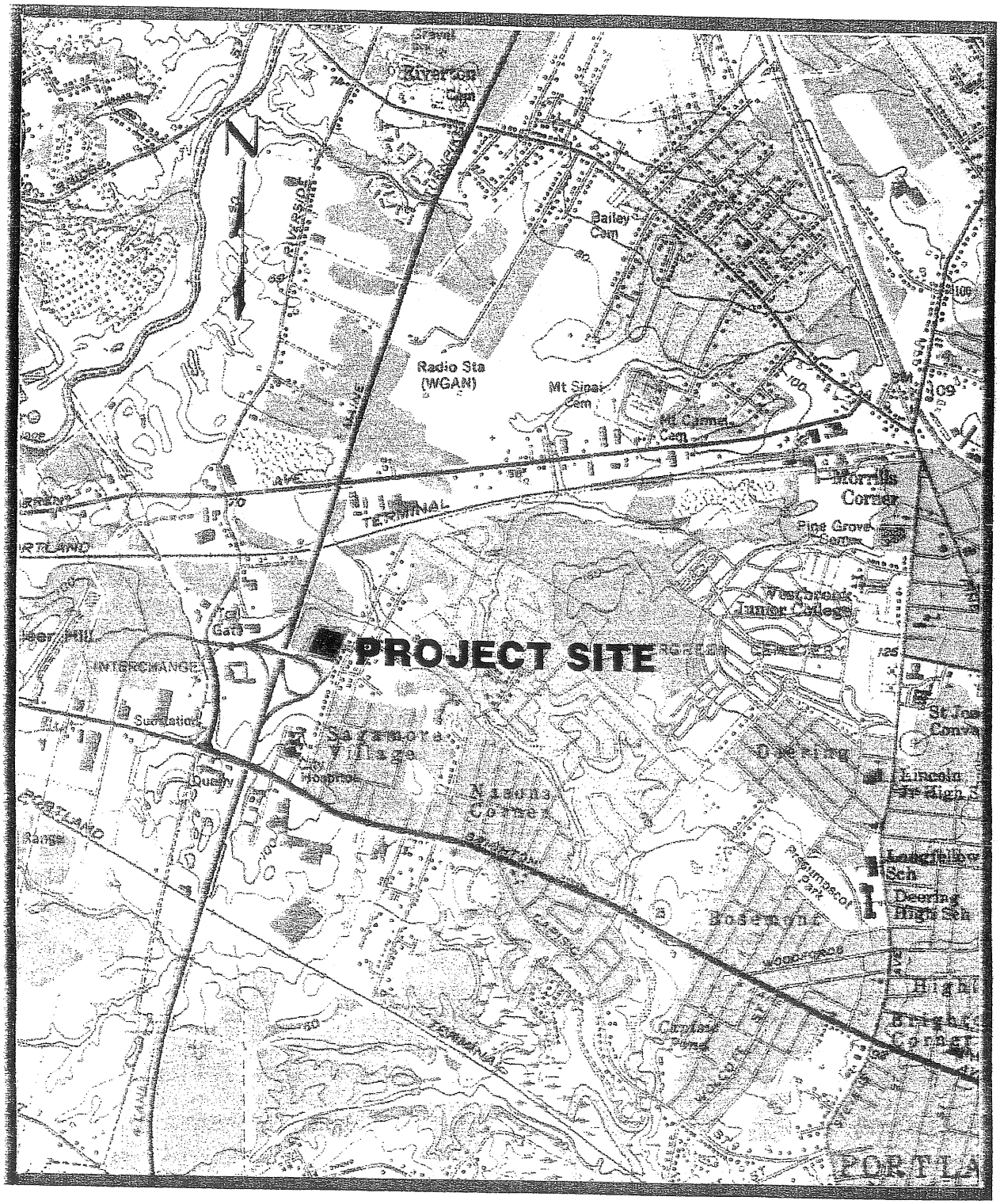
#	ROUTE	INVERT	OUTLET DEVICES
1	P	54.5'	**4" ORIFICE/GRATE X 2** Q=.6 PI r^2 SQR(2g) SQR(H-r)
2	P	58.3'	**3' SHARP-CRESTED RECTANGULAR WEIR** Q=C L H^1.5 C=3.27+.4 H/2 L=Length-2(.1 H)
3	P	56.0'	**1.5' x .33' ORIFICE/GRATE** Q=.6 Width 2/3 SQR(2g) (H^1.5 - [H-Height]^1.5)

POND 100 INFLOW & OUTFLOW
DETENTION POND



HOLM PLACE STORMWATER SUMMARY

HOLM PLACE CONDOS	HOLM AVE-PORTLAND ,ME					STI#99103
STORMWATER SUMMARY						
01/18/00						
PROJECT AREA	=3.65 AC					
WATERSHED AREA	AVG CN	ACRES	Tc min	PEAK RUNOFF RATES (CFS)		
				2YR	10YR	25YR
PRE-DEV.						
WS-1	31	3.65	42.60	0.00	0.00	0.02
WS-2	77	2.6	27.00	1.84	4.26	5.48
WS-3	39	0.91	35.50	0.00	0.02	0.06
STUDY PT.1				**1.82**	**4.21**	**5.44**
POST-DEV						
WS-1	77	2.6	27.9	1.84	4.26	5.48
WS-2	39	0.91	35.5	0	0.02	0.06
WS-10	68	1.57	8.8	0.83	2.55	3.48
WS-11	55	0.69	7.7	0.05	0.46	0.75
WS-12	50	0.45	16.1	0.01	0.13	0.25
WS-13	42	0.94	44.3	0	0.04	0.11
STUDY PT.1				**1.57**	**4.18**	**5.17**
NET CHANGE				-0.25	-0.03	-0.27



SITE LOCATION MAP

USGS TOPOGRAPHIC

7.5 MIN. QUADRANGLE

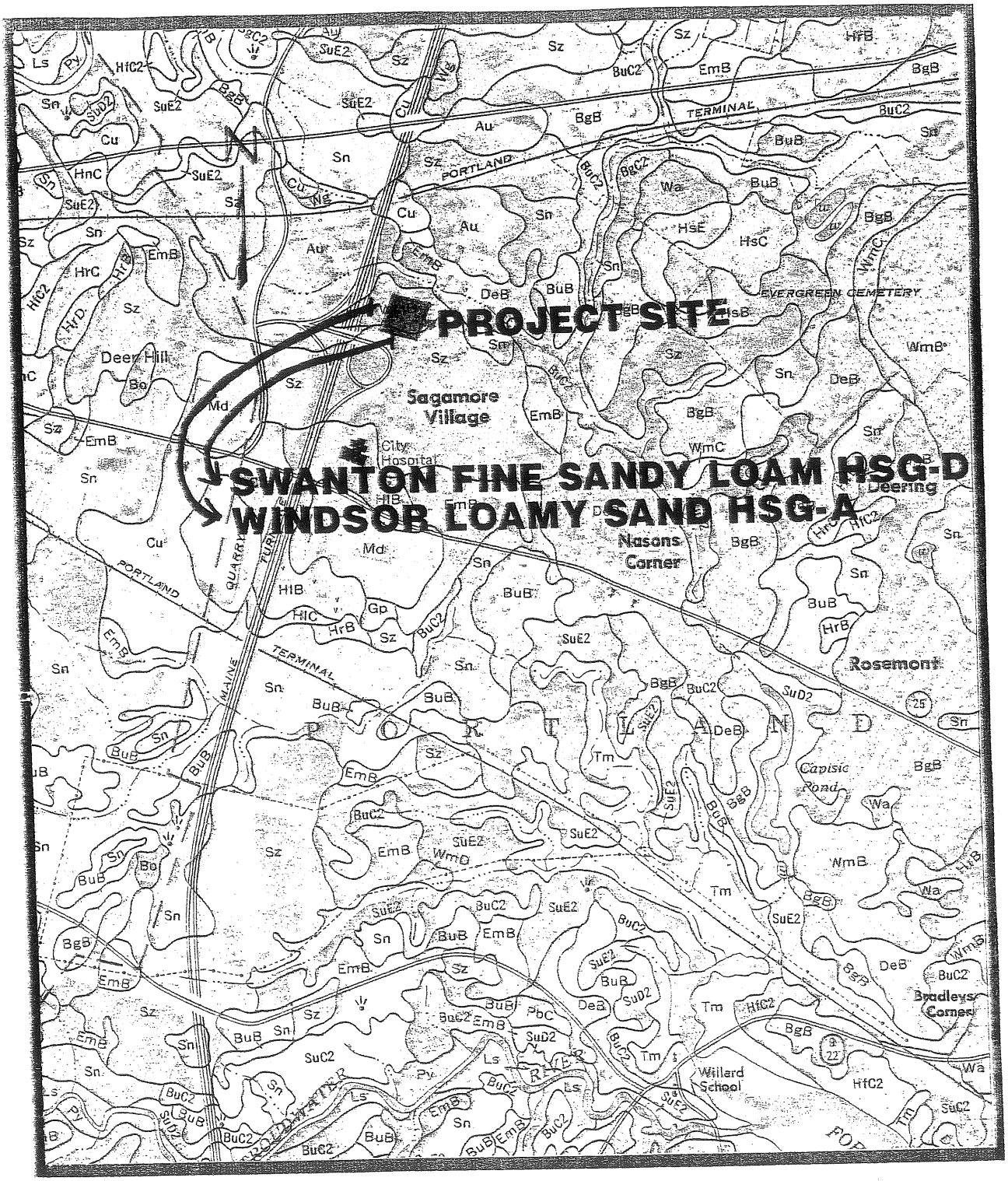
PORTLAND WEST

SCALE: 1"=2,000'

Sebago Technics

Engineering & Planning for the Future

99103



MEDIUM INTENSITY SOIL SURVEY

CUMBERLAND COUNTY

SHEET 81

SCALE 1:20,000

Sebago Technics

Engineering & Planning for the Future

line and 1,000 feet east of Sligo Road in Yarmouth Township:

Ap—0 to 9 inches, dark grayish-brown (10YR 4/2) fine sandy loam; moderate, fine, granular structure; friable when moist; many roots; strongly acid; abrupt, smooth boundary.

A2g—9 to 14 inches, light olive-gray (5Y 6/2) fine sandy loam; common, medium, distinct, light olive-brown (2.5Y 5/6) mottles; weak, very fine, granular structure; friable when moist; many roots; strongly acid; abrupt, wavy boundary.

B21g—14 to 19 inches, olive-gray (5Y 5/2) fine sandy loam; many, coarse, distinct, light olive-brown (2.5Y 5/6) mottles; weak, very fine, granular structure; friable when moist; strongly acid; clear, wavy boundary.

B22g—19 to 28 inches, olive (5Y 5/4) fine sandy loam; common, coarse, distinct, yellowish-brown (10YR 5/8) mottles; moderate, medium, subangular blocky structure; friable when moist; strongly acid; clear, wavy boundary.

A'2g—28 to 32 inches, light olive-gray (5Y 6/2) fine sandy loam; common, coarse, distinct, yellowish-brown (10YR 5/8) mottles; weak, thin, platy structure; friable when moist; strongly acid; abrupt, wavy boundary.

IIB'g—32 to 45 inches, olive (5Y 5/3) silty clay; common, medium, distinct, olive-brown (2.5Y 4/4) mottles; weak, medium, platy structure; firm when moist; a few silt films and black stains on faces of peds; slightly acid; clear, wavy boundary.

IICg—45 to 60 inches, olive (5Y 4/3) silty clay; common, medium, distinct, light olive-brown (2.5Y 5/4) mottles; weak, thick, platy structure; firm when moist; a few silt films and black stains on faces of peds; neutral.

The moderately coarse textured material ranges from 18 to 40 inches in thickness. Reaction ranges from strongly acid to medium acid in the moderately coarse textured material and from medium acid to neutral in the finer textured material.

In the Ap horizon hue is 10YR or 7.5YR, value is 2 to 4, and chroma is 1 or 2. In undisturbed areas an A1 horizon is similar in color and in texture to the Ap horizon, but it is thinner. In the B2g horizons hue ranges from 10YR to 5Y, value ranges from 3 to 5, and chroma ranges from 1 to 4. The B2g horizons range from fine sandy loam to sandy loam.

Associated with Swanton soils in the landscape are Elmwood, Melrose, and Whately soils. Swanton soils are similar to these soils, but Melrose soils are well drained, Elmwood soils are moderately well drained, and Whately soils are very poorly drained.

Swanton fine sandy loam (Sz).—This is the only Swanton soil mapped in the county. It is in depressional areas. Included in mapping are small areas of Elmwood, Scantic, and Whately soils.

Permeability is moderate to moderately rapid above the fine-textured material and very slow within it. Runoff is slow, and available water capacity is high. This soil is wet throughout the year, and it receives large quantities of runoff from surrounding soils when it rains.

This Swanton soil can be used for row crops, hay and pasture, and as woodland if drainage is provided. Locating suitable drainage outlets is a concern of management. For woodland use, white pine and white spruce are suitable for planting, but seedling mortality is severe. In addition, equipment limitations are severe because of wetness, and the windthrow hazard is severe because the roots of most plants are restricted to the zone above the water table. This soil has very severe limitations for most community uses, principally because of a high water table. It also has very severe limitations for all recreational uses, principally because of excess wetness and a high water table. This soil is well suited to habitat for wetland wildlife and to small ponds. Capability unit IIIw–8; woodland group 5w1; wildlife group 3.

Tidal Marsh

Tidal marsh (Tm) is adjacent to the coast, mostly in the Dunstan marshes (Scarboro) and near Cousins River (Yarmouth). The areas are nearly level. This land type has an organic surface layer that extends to a depth of about 2 feet. Below this layer, to a depth of 5 feet or more, are layers of grayish-brown silt, clay, and sand that vary in thickness. Vegetation consists mainly of grasses that can tolerate salt.

Runoff is slow on this land type. Tidal marsh is subject to flooding daily by tidal water. It is not suitable for farming because of a high concentration of salt. Tidal marsh is useful mainly as feeding and breeding areas for birds and other wildlife. Capability unit VIIIw–99; woodland group, not suited to growing trees for commercial purposes; wildlife group 14.

Walpole Series

The Walpole series consists of deep, nearly level, poorly drained to somewhat poorly drained, moderately coarse textured to coarse textured soils. These soils formed in glacial outwash sediment. They are in lowland areas adjacent to eskers (horsebacks) in the central, northern, and western parts of the county.

A representative profile of a Walpole soil in a cultivated area has a surface layer of very dark grayish-brown fine sandy loam 8 inches thick. The subsoil is 12 inches of light brownish-gray, friable fine sandy loam that has strong-brown and light olive-gray mottles in the upper part and brownish-yellow mottles in the lower part. The substratum, at a depth of 20 inches, is light yellowish-brown to olive-gray, friable to loose loamy sand and gravelly loamy sand that has strong-brown and dark-brown mottles.

A water table is at a depth of 1 foot in spring and during periods of heavy precipitation. Depth to bedrock is 5 feet or more.

Many areas of Walpole soils are wooded, but a few areas are used for farming. Common species are American elm, red maple, white pine, eastern hemlock, balsam fir, and white spruce.

Representative profile of Walpole fine sandy loam, 1 mile south on U.S. Highway No. 302 from the junction with Methodist Road and 100 feet east of the road in Westbrook Township:

Ap—0 to 8 inches, very dark grayish-brown (10YR 3/2) fine sandy loam; moderate, medium, granular structure; friable when moist; many roots; strongly acid; abrupt, wavy boundary.

B21—8 to 14 inches, light brownish-gray (10YR 6/2) fine sandy loam; common, fine, distinct, strong-brown (7.5YR 5/6) and light olive-gray (5Y 6/2) mottles; weak, medium, granular structure; friable when moist; common roots; strongly acid; abrupt, wavy boundary.

B22—14 to 20 inches, light brownish-gray (2.5Y 6/2) fine sandy loam; many, fine, distinct, brownish-yellow (10YR 6/8) mottles; weak, fine, granular structure; friable when moist; very few roots; strongly acid; clear, wavy boundary.

depressional areas. Included in mapping are small areas of Ridgebury and Sebago soils. Also included are small areas of soils that have many stones, 1 foot in diameter, on the surface.

This Whitman soil is wet throughout the year. Runoff is very slow. Permeability is moderate to moderately rapid above the fragipan and moderately slow to slow in the fragipan. Available water capacity is high.

This soil can be used for limited hay and pasture if artificial drainage is provided. It is too wet for row crops, even if drained. It generally is not suited to woodland, and if it is used for this purpose, seedling mortality is severe, and wetness severely limits the use of woodland equipment. The hazard of windthrow is severe because of a shallow root zone caused by a high water table. This soil has very severe limitations for most community uses, principally because of a high water table and excessive wetness. Excess surface water very severely limits all recreational uses. Capability unit Vw–4; woodland group 5w1; wildlife group 4.

Windsor Series

The Windsor series consists of deep, excessively drained, nearly level to strongly sloping, coarse-textured soils. These soils formed in glacial outwash deposits. They are on terraces adjacent to many streams and rivers throughout the county.

A representative profile of a Windsor soil in a cultivated area has a surface layer of dark-brown loamy sand 6 inches thick. The upper 9 inches of the subsoil is brown, very friable loamy sand, and the lower 11 inches of the subsoil is light olive-brown, loose loamy sand. The substratum, at a depth of 26 inches, is pale-yellow, loose medium sand.

Permeability is rapid or very rapid in these soils, and available water capacity is low. Depth to bedrock is 5 feet or more.

Many areas of Windsor soils were formerly cultivated, but they are now wooded. Common species are northern hardwoods, white pine, red pine, and eastern hemlock.

Representative profile of Windsor loamy sand, 0 to 8 percent slopes, 0.25 mile south of the Gorham-Scarboro town line on the south side of Burnham Road in Scarborough Township:

Ap—0 to 6 inches, dark-brown (10YR 3/3) loamy sand; weak, medium, granular structure; very friable when moist; many roots; strongly acid; abrupt, smooth boundary.

B21—6 to 15 inches, brown (10YR 5/3) loamy sand; weak, fine, granular structure; very friable when moist; a few roots; strongly acid; gradual, wavy boundary.

B22—15 to 26 inches, light olive-brown (2.5Y 5/6) loamy sand; single grain; loose when moist; a few roots in upper 4 inches; strongly acid; gradual, wavy boundary.

C—26 to 60 inches, pale-yellow (2.5Y 7/4) medium sand; single grain; loose when moist; strongly acid.

The solum ranges from 24 to 30 inches in thickness. Reaction ranges from strongly acid to very strongly acid throughout the profile. The content of gravel in the solum ranges from 0 to 5 percent and from 0 to 10 percent in the C horizon.

The Ap horizon ranges from loamy sand to loamy fine sand. In the B21 horizon hue ranges from 7.5YR to 2.5Y, value is 4 or 5, and chroma ranges from 3 to 8. The B21 horizon ranges from loamy sand to loamy fine sand. In the B21 horizon hue is 10YR or 2.5Y, value ranges from 5 to 7, and chroma ranges from 2 to 6. The B22 horizon ranges from loamy sand to fine sand. In the C horizon hue is 5Y, 10YR, or 2.5Y; value ranges from 5 to 7; and chroma ranges from 1 to 4. The C horizon ranges from medium sand to fine sand.

Associated with Windsor soils in the landscape are Au Gres, Deerfield, Saugatuck, Scarboro, and Sebago soils. Windsor soils are similar to these soils, but Deerfield soils are moderately well drained, Au Gres soils are somewhat poorly drained, and Scarboro soils are very poorly drained. Windsor soils lack the ortstein layer of Saugatuck soils. Sebago soils formed in deep organic deposits.

Windsor loamy sand, 0 to 8 percent slopes (WmB).—This soil has the profile described as representative of the series. It is on the top of terraces adjacent to streams and rivers. Runoff is slow. Included in mapping are small areas of Hinckley, Deerfield, and Au Gres soils. Also included are small areas of soils that have thin lenses of clay.

This Windsor soil can be used for row crops, pasture, and hay, and as woodland. For row crops, irrigation is needed because of low available water capacity. Low available water capacity also limits the use of this soil for hay and pasture. This soil does respond well to fertilizer.

For woodland use, white pine and red pine are suitable for planting, but seedling mortality is severe. This soil has slight limitations for use as homesites that have public sewage disposal. Because of possible ground-water contamination from septic effluent, this soil has moderate limitations for use as homesites where septic tank systems must be installed. This soil has slight limitations for use as wilderness tent sites. Capability unit IIIs–5; woodland group 5s1; wildlife group 5.

Windsor loamy sand, 8 to 15 percent slopes (WmC).—This soil is on the side of terraces adjacent to streams and rivers. Runoff is medium. Included in mapping are small areas of moderately steep and gently sloping Windsor soils and small areas of Hinckley soils.

This Windsor soil can be used for hay, pasture, row crops, and woodland. If this soil is used for row crops, irrigation is needed because of low available water capacity. Low available water capacity limits the use of this soil for hay and pasture and measures to conserve soil moisture should be used. This soil does not hold fertilizer well. For woodland, white pine and red pine are suitable for planting, but seedling mortality is severe. This soil has slight limitations for use as homesites that have public sewage disposal. Because ground water is likely to become contaminated from septic effluent, this soil has moderate limitations for use as homesites where septic tank systems must be installed for the disposal of sewage. This soil has slight limitations for use as wilderness tent sites. Capability unit IVs–5; woodland group 5s1; wildlife group 5.

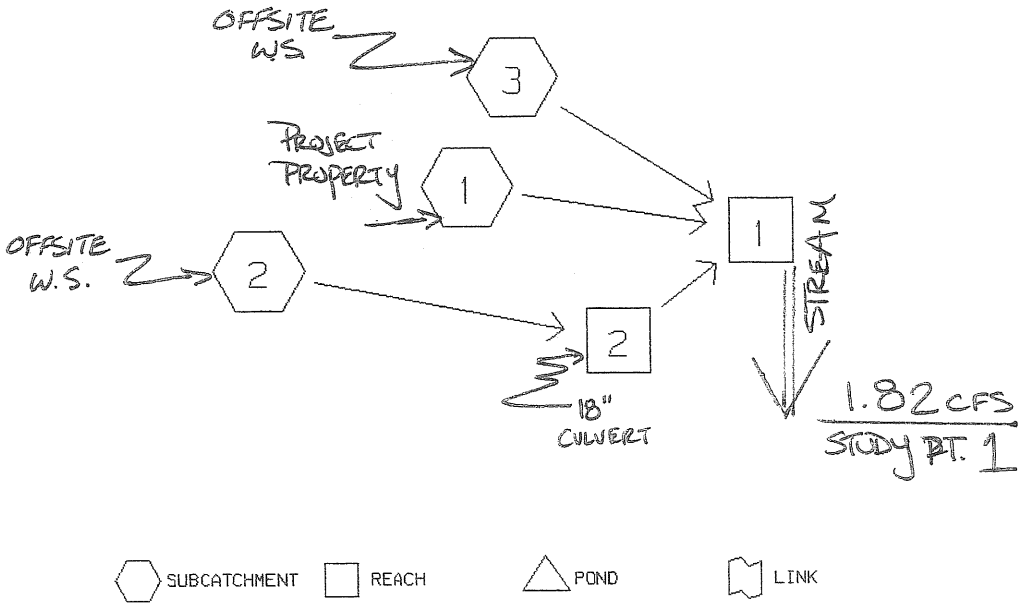
Windsor loamy sand, 15 to 30 percent slopes (WmD).—This soil is on the lower part of irregular slopes of terraces adjacent to streams and rivers. It has a profile similar to the one described as representative of the series, except that its surface layer and the upper part of its subsoil are thinner. Runoff is rapid. Included in mapping are small areas of gently sloping, steep, and very steep Windsor soils and small areas of Hinckley soils.

This Windsor soil can be used for pasture and as woodland, but if it is used for pasture, droughtiness is a problem during dry periods. For woodland, white pine and red pine are suitable for planting, but seedling mortality

Data for 99103 EXISTING
TYPE III 24-HOUR RAINFALL= 3.00 IN
Prepared by SEBAGO TECHNICS 18 Jan 00
HydroCAD 5.01 000643 (c) 1986-1998 Applied Microcomputer Systems

2 yr. EXIST

WATERSHED ROUTING



RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 3.00 IN, SCS U.H.

RUNOFF SPAN = 10-20 HRS, dt= .10 HRS, 101 POINTS

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	3.65	42.6	12%39 88%30	31	-	0.00	0.00	0.00
2	2.60	27.0	100%77	77	-	1.84	12.36	.21
3	.91	35.5	100%39	39	-	0.00	0.00	0.00

REACH ROUTING BY STOR-IND+TRANS METHOD

REACH NO.	DIAM (IN)	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPES (FT/FT)	n	LENGTH (FT)	SLOPE (FT/FT)	PEAK VEL. (FPS)	TRAVEL TIME (MIN)	PEAK Qout (CFS)
1	-	-	-	- -	-	-	-	0.0	0.0	1.82 N
2	18.0	-	-	- -	.011	200	.0470	8.9	.4	1.82

SUBCATCHMENT 1 — 99103 SUBCATCHMENT 1 (EXISTING)

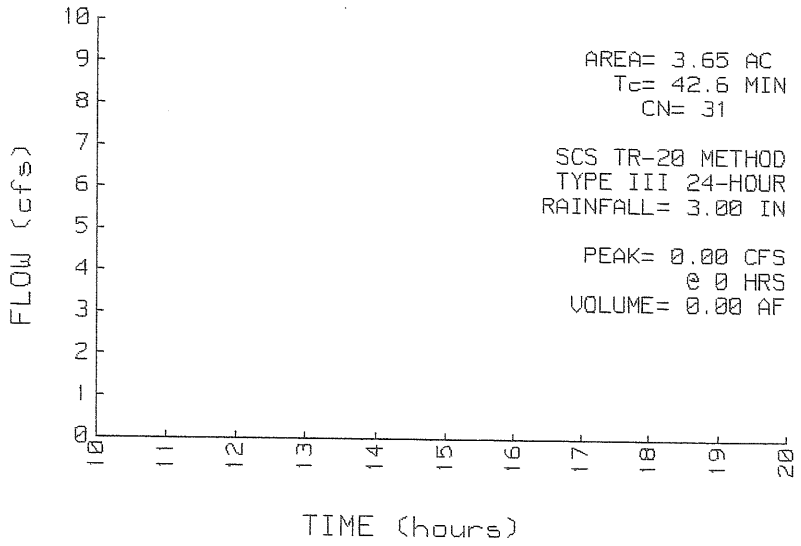
PEAK= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

ACRES	CN	
.42	39	FIELD,GOOD CONDITION,GROUP C
3.23	30	WOODED,GOOD CONDITION,GROUP C
3.65	31	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	**woods flow**	40.5
Woods: Light underbrush n=.4 L=150' P2=3 in s=.01 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	**woods flow**	2.0
Woodland Kv=5 L=130' s=.046 '/' V=1.07 fps		
CHANNEL FLOW	**flow over bank**	.1
a=6 sq-ft Pw=5' r=1.2'		
s=.1 '/' n=.04 V=13.27 fps L=90' Capacity=79.6 cfs		
	Total Length= 370 ft Total Tc=	42.6

SUBCATCHMENT 1 RUNOFF
99103 SUBCATCHMENT 1 (EXISTING)



SUBCATCHMENT 2 Offsite Woods

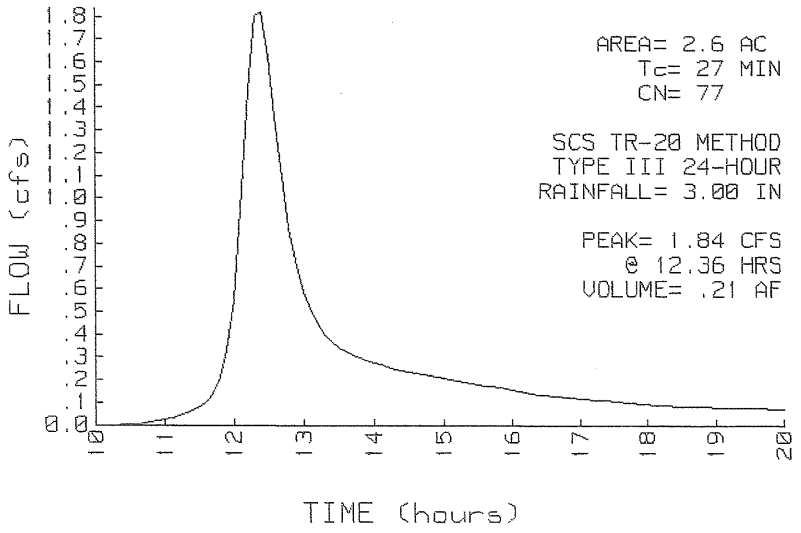
PEAK= 1.84 CFS @ 12.36 HRS, VOLUME= .21 AF

ACRES	CN	
2.60	77	woods good d-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	Woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	3.8
Woodland Kv=5 L=200' s=.03 '/' V=.87 fps		
	Total Length= 350 ft Total Tc=	27.0

SUBCATCHMENT 2 RUNOFF
Offsite Woods



SUBCATCHMENT 3 Offsite to the West

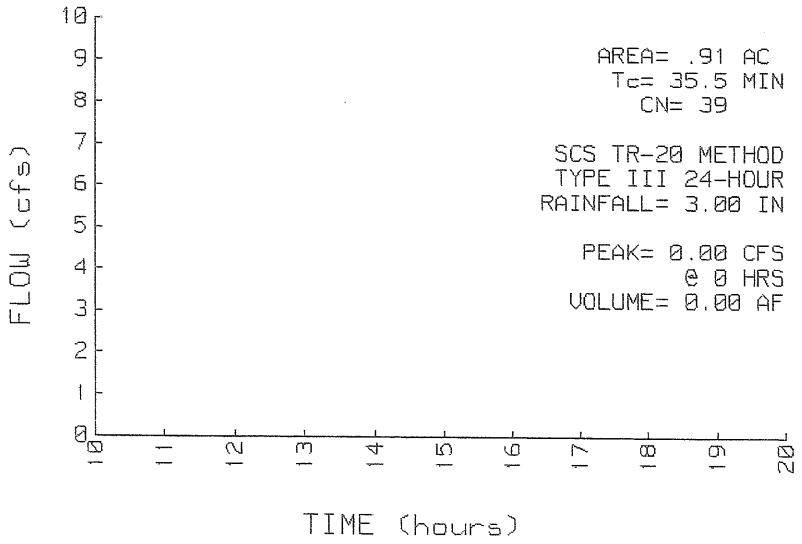
PEAK= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

ACRES	CN	
.91	39	woods good a-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	26.1
Woods: Light underbrush n=.4 L=150' P2=3 in s=.03 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow along ex.rdbed	9.4
Woodland Kv=5 L=400' s=.02 '/' V=.71 fps		
	Total Length= 550 ft	Total Tc= 35.5

SUBCATCHMENT 3 RUNOFF
Offsite to the West



REACH 1

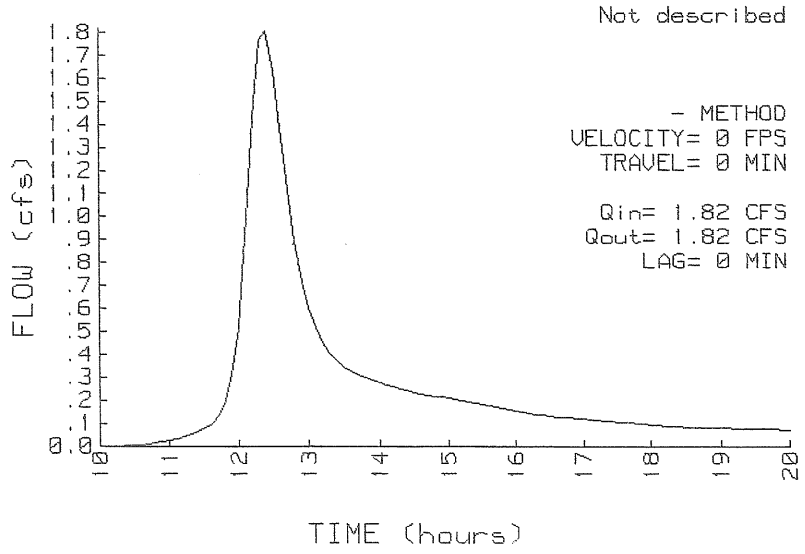
Not described

Qin = 1.82 CFS @ 12.37 HRS, VOLUME= .21 AF
Qout= 1.82 CFS @ 12.37 HRS, VOLUME= .21 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= 10-20 HRS, dt=.1 HRS

REACH 1 INFLOW & OUTFLOW



REACH 2 — 18 inch culvert

Qin = 1.84 CFS @ 12.36 HRS, VOLUME= .21 AF
Qout= 1.82 CFS @ 12.37 HRS, VOLUME= .21 AF, ATTEN= 1%, LAG= .8 MIN

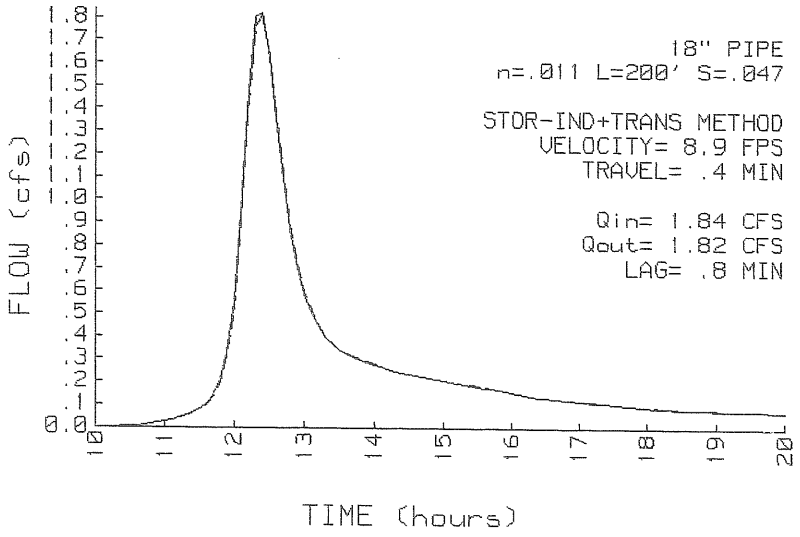
DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.56
.3	.3	2.36
.5	.4	5.27
1.1	1.3	22.53
1.2	1.5	26.31
1.4	1.7	28.68
1.4	1.7	28.95
1.5	1.8	28.68
1.5	1.8	26.91

18" PIPE

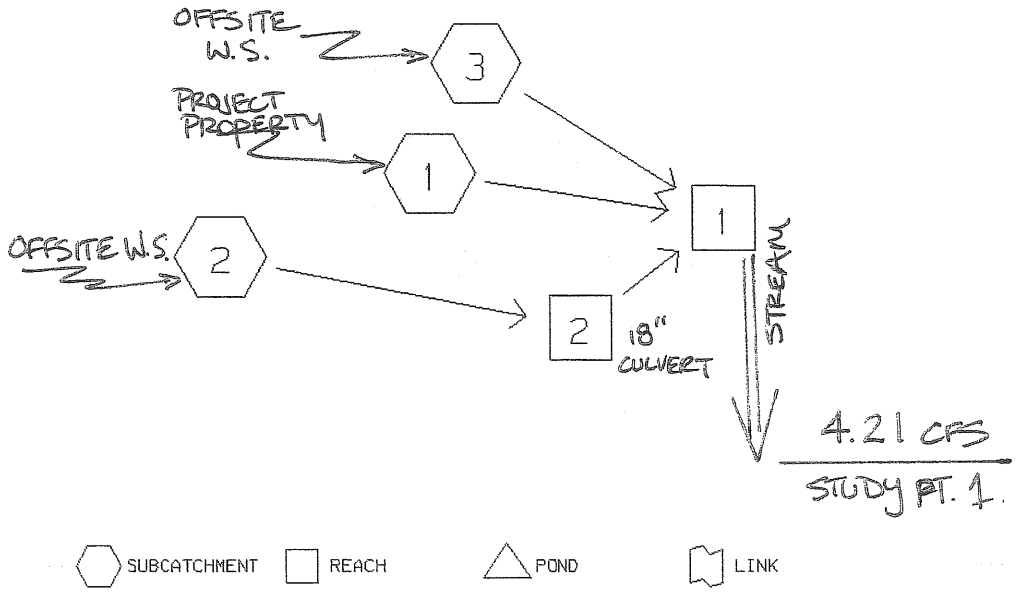
n= .011
LENGTH= 200 FT
SLOPE= .047 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .25 FT
PEAK VELOCITY= 8.9 FPS
TRAVEL TIME = .4 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 2 INFLOW & OUTFLOW
18 inch culvert



WATERSHED ROUTING 10 YR. EXIST



RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 4.70 IN, SCS U.H.

RUNOFF SPAN = 10-20 HRS, dt= .10 HRS, 101 POINTS

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	3.65	42.6	12%39 88%30	31	-	0.00	20.00	0.00
2	2.60	27.0	100%77	77	-	4.26	12.34	.47
3	.91	35.5	100%39	39	-	.02	14.72	.01

REACH ROUTING BY STOR-IND+TRANS METHOD

REACH NO.	DIAM (IN)	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPES (FT/FT)	n	LENGTH (FT)	SLOPE (FT/FT)	PEAK VEL. (FPS)	TRAVEL TIME (MIN)	PEAK Qout (CFS)
1	-	-	-	-	-	-	-	0.0	0.0	4.21 N
2	18.0	-	-	-	-	.011	200	.0470	11.2	.3	4.21

SUBCATCHMENT 1 — 99103 SUBCATCHMENT 1 (EXISTING)

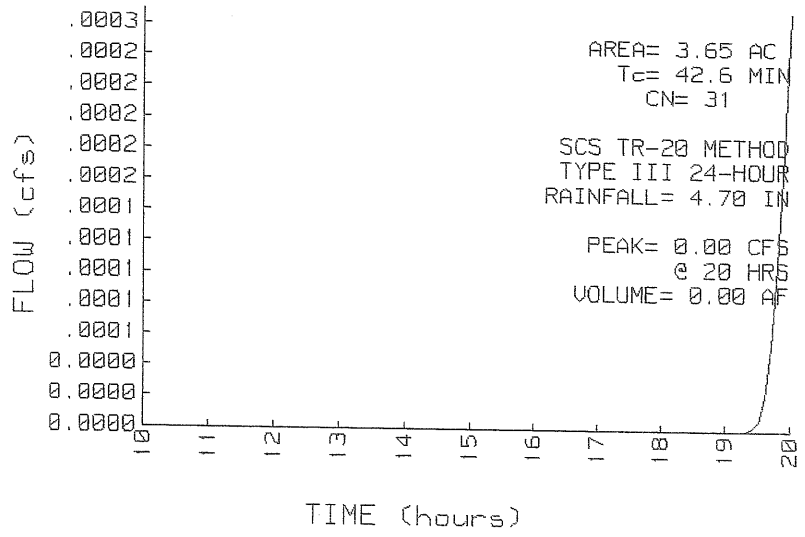
PEAK= 0.00 CFS @ 20.00 HRS, VOLUME= 0.00 AF

ACRES	CN	
.42	39	FIELD,GOOD CONDITION,GROUP C
3.23	30	WOODED,GOOD CONDITION,GROUP C
3.65	31	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW Woods: Light underbrush n=.4 L=150' P2=3 in s=.01 '/'	woods flow	40.5
SHALLOW CONCENTRATED/UPLAND FLOW Woodland Kv=5 L=130' s=.046 '/' V=1.07 fps	woods flow	2.0
CHANNEL FLOW a=6 sq-ft Pw=5' r=1.2' s=.1 '/' n=.04 V=13.27 fps L=90' Capacity=79.6 cfs	flow over bank	.1
	Total Length= 370 ft	Total Tc= 42.6

SUBCATCHMENT 1 RUNOFF
99103 SUBCATCHMENT 1 (EXISTING)



SUBCATCHMENT 2 Offsite Woods

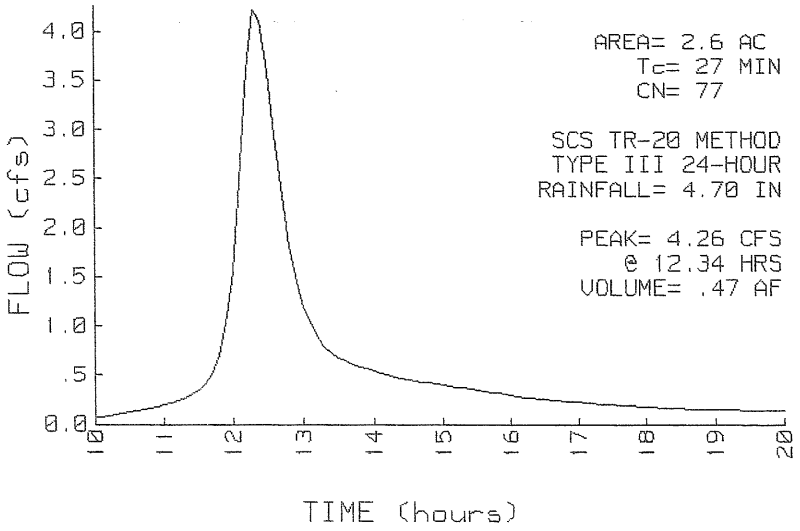
PEAK= 4.26 CFS @ 12.34 HRS, VOLUME= .47 AF

ACRES	CN	
2.60	77	woods good d-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	Woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	3.8
Woodland Kv=5 L=200' s=.03 '/' V=.87 fps		
	Total Length= 350 ft Total Tc=	27.0

SUBCATCHMENT 2 RUNOFF
Offsite Woods



SUBCATCHMENT 3 Offsite to the West

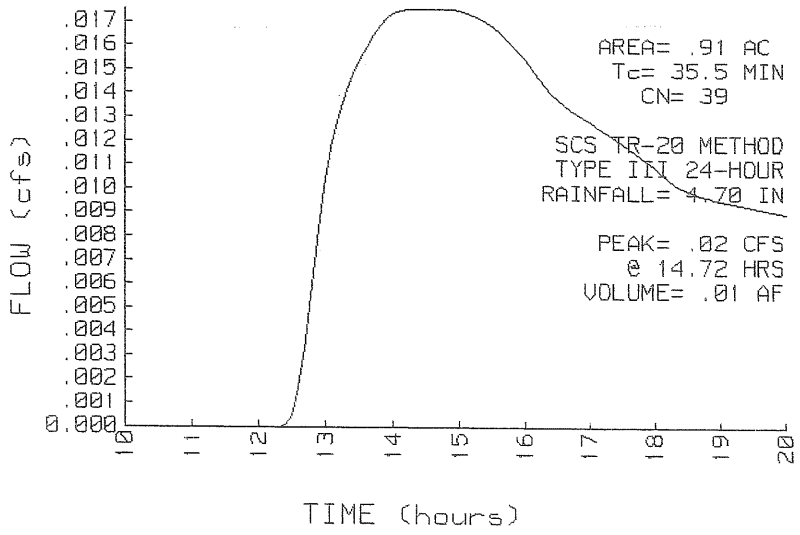
PEAK= .02 CFS @ 14.72 HRS, VOLUME= .01 AF

ACRES	CN	
.91	39	woods good a-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	26.1
Woods: Light underbrush n=.4 L=150' P2=3 in s=.03 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow along ex.rdbed	9.4
Woodland Kv=5 L=400' s=.02 '/' V=.71 fps		
	Total Length= 550 ft Total Tc=	35.5

SUBCATCHMENT 3 RUNOFF
Offsite to the West



REACH 1

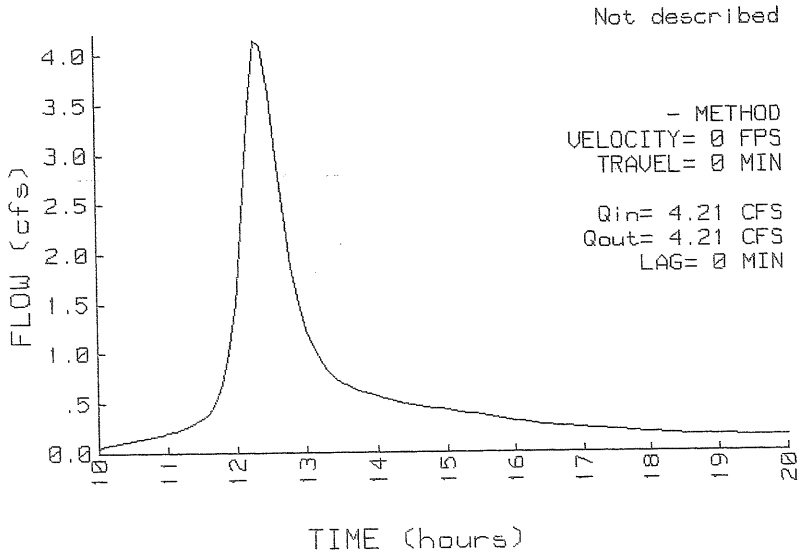
Not described

Qin = 4.21 CFS @ 12.34 HRS, VOLUME= .48 AF
Qout= 4.21 CFS @ 12.34 HRS, VOLUME= .48 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= 10-20 HRS, dt=.1 HRS

REACH 1 INFLOW & OUTFLOW



REACH 2 18 inch culvert

Qin = 4.26 CFS @ 12.34 HRS, VOLUME= .47 AF
Qout= 4.21 CFS @ 12.34 HRS, VOLUME= .47 AF, ATTEN= 1%, LAG= .4 MIN

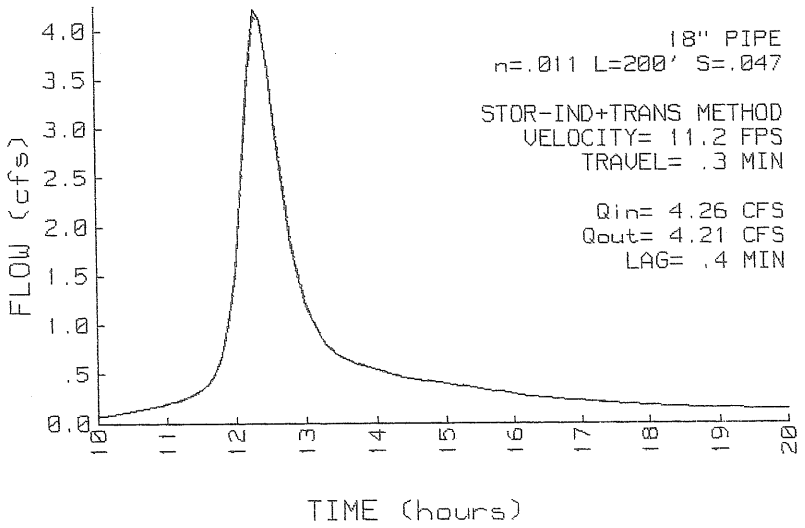
DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.56
.3	.3	2.36
.5	.4	5.27
1.1	1.3	22.53
1.2	1.5	26.31
1.4	1.7	28.68
1.4	1.7	28.95
1.5	1.8	28.68
1.5	1.8	26.91

18" PIPE

n= .011
LENGTH= 200 FT
SLOPE= .047 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .39 FT
PEAK VELOCITY= 11.2 FPS
TRAVEL TIME = .3 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

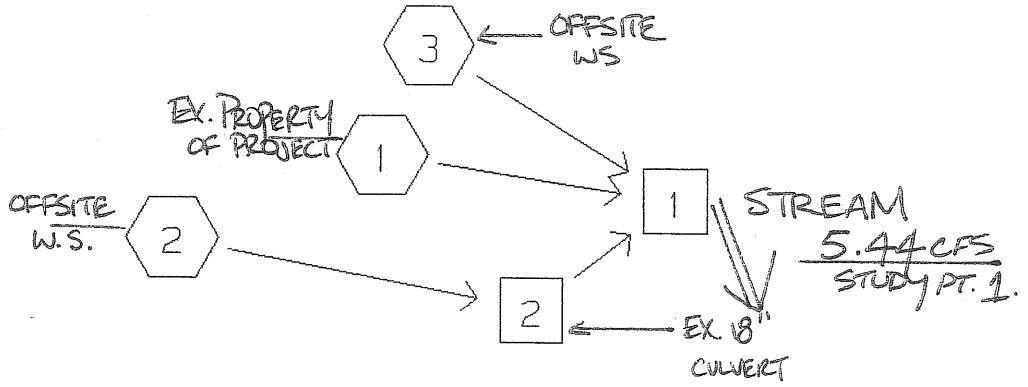
REACH 2 INFLOW & OUTFLOW
18 inch culvert



Data for 99103 EXISTING
TYPE III 24-HOUR RAINFALL= 5.50 IN
Prepared by SEBAGO TECHNICS 18 Jan 00
HydroCAD 5.01 000643 (c) 1986-1998 Applied Microcomputer Systems

WATERSHED ROUTING ========== 25YR. EXIST.

HOLM PLACE



SUBCATCHMENT REACH POND LINK

RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 5.50 IN, SCS U.H.

RUNOFF SPAN = 10-20 HRS, dt= .10 HRS, 101 POINTS

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	3.65	42.6	12%39 88%30	31	-	.02	17.35	.01
2	2.60	27.0	100%77	77	-	5.48	12.33	.60
3	.91	35.5	100%39	39	-	.06	12.84	.02

REACH ROUTING BY STOR-IND+TRANS METHOD

REACH NO.	DIAM (IN)	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPES (FT/FT)	n	LENGTH (FT)	SLOPE (FT/FT)	PEAK VEL. (FPS)	TRAVEL TIME (MIN)	PEAK Qout (CFS)
1	-	-	-	- -	-	-	-	0.0	0.0	5.44 N
2	18.0	-	-	- -	.011	200	.0470	11.9	.3	5.43

SUBCATCHMENT 1 99103 SUBCATCHMENT 1 (EXISTING)

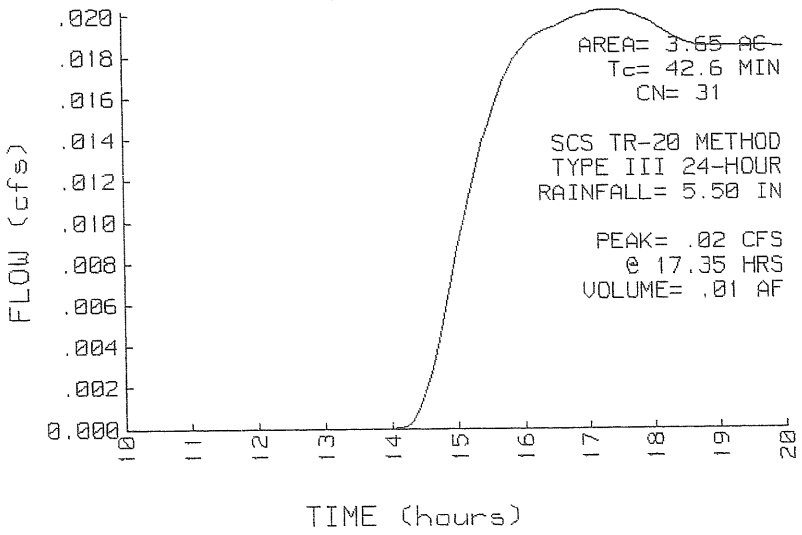
PEAK= .02 CFS @ 17.35 HRS, VOLUME= .01 AF

ACRES	CN	
.42	39	FIELD,GOOD CONDITION,GROUP C
3.23	30	WOODED,GOOD CONDITION,GROUP C
3.65	31	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	**woods flow**	40.5
Woods: Light underbrush n=.4 L=150' P2=3 in s=.01 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	**woods flow**	2.0
Woodland Kv=5 L=130' s=.046 '/' V=1.07 fps		
CHANNEL FLOW	**flow over bank**	.1
a=6 sq-ft Pw=5' r=1.2'		
s=.1 '/' n=.04 V=13.27 fps L=90' Capacity=79.6 cfs		
	Total Length= 370 ft	Total Tc= 42.6

SUBCATCHMENT 1 RUNOFF
99103 SUBCATCHMENT 1 (EXISTING)



S.W. COLE, ENGINEERING, INC.

PROJECT:

JOB NUMBER: 011088

CLIENT :

FIELD DENSITY TEST RESULTS

TEST #	TEST DATE	TECH INIT	TEST LOCATION	ELEV FEET	DEPTH INCHES	SAMPLE/ CURVE #	--- IN PLACE --- MOISTURE CONTENT PERCENT	--- IN PLACE --- DRY DENSITY PCF	COMPACTION PERCENT	REQUIRED COMPACTION
1	11/28/2001	LLM	2+50 L OF CENTER	68.0	10	1	3.9	129.5	98.2	95.0
2	11/28/2001	LLM	1+75 R OF CENTER	68.0	10	1	4.2	130.9	99.3	95.0
3	11/28/2001	LLM	1+25 CENTER	65.0	8	1	4.2	125.2	94.9	95.0
4	11/28/2001	LLM	4+00 R OF CENTER	67.0	8	1	4.4	127.3	96.5	95.0
5	11/28/2001	LLM	3+00 L OF CENTER	67.0	10	1	4.0	129.6	98.3	95.0
6	11/28/2001	LLM	2+00 CENTER	65.0	8	1	4.4	129.9	98.5	95.0
7	11/28/2001	LLM	0+50 R OF CENTER	64.0	8	1	5.3	129.9	98.5	95.0

ELEVATION NOTES:

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	4/21/2001	PHINNEY PIT	3"MINUS GRAVEL	ASTM D-1557	C	6.7	131.8

COMMENTS:

S.W.COLE ENGINEERING, INC. • Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

Letter Of Transmittal

To: Gorham Sand & Gravel
Attn: Mark Curtis
939 Parker Farm Road
Buxton, ME

Date: December 7, 2001

Project No: 01-1088

Subject: Holm Avenue
Portland, Maine

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: Report of Field Density Test(s) 1-7

These are transmitted as checked below:

☒For your information	☒For your use
☒As requested	☐Returned

Remarks:

Copy to:

S. W. COLE ENGINEERING, INC.

BY: Deirdre Colpitts for
Roger E. Domingo

GRAY, ME OFFICE
286 Portland Road, P.O. Box 378, Gray, ME 04039-0378 ▪ Tel (207) 657-2866 ▪ Fax (207) 657-2840 ▪ E-Mail infogray@swcole.com ▪ www.swcole.com

Other offices in Bangor, Caribou and Winslow, Maine & Somersworth, New Hampshire

Finance Department

Duane G. Kline
Director

CITY OF PORTLAND

December 26, 2001

Sterling G. Williams, Sr. Vice President
Gorham Savings Bank
64 Main Street
Gorham, ME 04038

Re: V.P. Builders, Inc. for Holm Place at 170 Holm Avenue, Portland
Irrevocable Letter of Credit #8040002290 dated October 26, 2001

Dear Mr. Williams:

This is to inform you that I am authorizing a reduction in the above-named letter of credit by the amount of $256,575, which should leave a balance remaining of $52,624.

If you require any further information, please call my assistant Jennifer Babcock at 874-8645.

Sincerely,

Ellen Sanborn
Assistant Finance Director

pc: Jay Reynolds, Development Review Coordinator
Kandice Talbot, Planner

Planning & Urban Development

CITY OF PORTLAND

TO: Duane Kline, Finance Department

FROM: Alexander Jaegerman, Chief Planner

DATE: December 20, 2001

SUBJECT: Request for Reduction in Performance Guarantee
Holm Ave. Condominiums, 170 Holm Avenue
ID# 1999-0151 Lead CBL#270-C-003

A request by V.P. Builders, Inc., has been made for a reduction in the amount of Letter of Credit #8040002290 for Holm Avenue Condominiums at 170 Holm Avenue.

Original Sum	$309,199.00
Reduction Amount	**$256,575.00**
Remaining Sum	$ 52,624.00

This is the first reduction for the project.

Approved: Alexander Jaegerman 12/21/01
Alexander Jaegerman
Chief Planner

cc: Sarah Hopkins, Development Review Services Manager
✓Kandice Talbot, Planner
Jay Reynolds, Development Review Coordinator
Todd Merkle, Public Works
Code Enforcement

O:\PLAN\CORRESP\DRC\PERFORM\HOLMAVECONDOS1.DOC

Gorham Savings Bank

Maine's Community Bank Since 1868℠

October 26, 2001

Irrevocable Letter of Credit #8040002290

Director of Planning and Urban Development
City of Portland
389 Congress Street
Portland, ME 04101

RE: Application of V.P. Builders, Inc. for Holm Place at 170 Holm Avenue, Portland, Maine

Gorham Savings Bank hereby issues its Irrevocable Letter of Credit for the account of V. P. Builders, Inc., as developer, (hereinafter referred to as "Developer"), in favor of the City of Portland, in the aggregate amount of $309,199.00. These funds represent the estimated cost of installing site improvements as depicted on the subdivision, approved on May 16, 2000 and is required under Portland Code of Ordinances Chapter 14 §§ 499, 499.5, 525 and Chapter 25 §§46 through 65.

This Irrevocable Letter of Credit is intended to satisfy the Developer's obligation, under Portland Code of Ordinances Chapter 14 §§501, 502 and 525, to post a performance guarantee for the above referenced development.

The City, through its Director of Planning and Urban Development and in his sole discretion, may draw on this Letter of Credit by presentation of a sight draft and the original Letter of Credit and all amendments thereto, at Gorham Savings Bank's offices located at 80 Main Street, Gorham, Maine 04038, stating that:

1. the Developer has failed to satisfactorily complete by October 29, 2003 the work on the improvements contained within the subdivision approval, dated May 16, 2000; or

2. the Developer has failed to deliver to the City a deed containing the metes and bounds description of any streets, easements or other improvements required to be deeded to the City; or

3. the Developer has failed to post the ten percent (10%) Defect Guarantee required by Portland Code of Ordinances Chapter 14 §§501 and 525; or

4. the Developer has failed to notify the City for inspections.

Gorham
64 Main Street
Gorham, ME 04038
Tel. (207) 839-3342
Fax (207) 839-4790

Standish
Colonial Marketplace Mall
Standish, ME 04084
Tel. (207) 642-4200
Fax (207) 642-5513

Windham
765 Roosevelt Trail
Windham, ME 04062
Tel. (207) 892-2621
Fax (207) 892-0349

Scarborough
38 Shop 'n Save Dr. P.O. Box 6367
Scarborough, ME 04070
Tel. (207) 883-7440
Fax (207) 883-7447

West Falmouth
65 Gray Road
Falmouth, ME 04105
Tel. (207) 878-7457
Fax (207) 878-9457

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

After all underground work has been completed and inspected to the satisfaction of the Department of Public Works and Planning, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electrical conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or its Director of Finance as provided in Chapter 14 §501 of the Portland Code of Ordinances, may authorize Gorham Savings Bank, by written certification, to reduce the available amount of the 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 year from the current expiration date hereof, or any future expiration date, unless within sixty (60) days prior to any expiration, Gorham Savings Bank notifies the City by certified mail (restricted delivery to Duane Kline, Director of Finance, City of Portland, 389 Congress Street, Portland, Maine 04101) that Gorham Savings Bank elects not to consider this Letter of Credit renewed for any such additional period.

In the event of such notice, the City, in its sole discretion, 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, at Gorham Savings Bank's offices located at 80 Main Street, Gorham, Maine 04038 stating that:

1. this drawing results from notification that Gorham Savings Bank has elected not to renew its Letter of Credit No. 8040002290; or

2. the Developer has failed to satisfactorily complete by October 29, 2003 the work on the improvements contained within the subdivision approval, dated May 16, 2000; or

3. the Developer has failed to deliver to the City a deed containing the metes and bounds description of any streets, easements or other improvements required to be deeded to the City; or

4. the Developer has failed to post the ten percent (10%) Defect Guarantee required by Portland Code or Ordinances Chapter 14 §§501 and 525; or

5. the Developer has failed to notify the City for inspections.

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

1. Gorham Savings Bank's receipt of written notification from the City of Portland that said work contained within the subdivision approval and as required by Portland Code of Ordinances Chapter 14 §§499, 499.5, 525 and Chapter 25 §§46 through 65 has been completed in accordance with the City of Portland's specifications and Gorham Savings Bank's Letter of Credit No. 8040002290 may be cancelled; or

2. the expiration date of October 29, 2003 or any automatically extended date as specified herein.

Very truly yours,

Gorham Savings Bank

Date: October 26, 2001

By: _____
Sterling G. Williams
Senior Vice President

Seen and Agreed to: V.P. Builders, Inc.

By: _____
Clifford A. Plummer, President

Reviewed pursuant to Portland Code of Ordinances, Chapter 14 §§501, 525:

By: _____ Date: 11/02/01
Director of Planning and Urban Development

By: _____ Date: _____
Director of Finance

By: _____ Date: 11/1/01
Corporation Counsel

99103

STORMWATER DRAINAGE SYSTEM MAINTENANCE AGREEMENT

IN CONSIDERATION OF Site Plan approval granted by the Planning Board of the City of Portland to a plan entitled Subdivision Recording Plat of Holm Place dated May 9, 200, and filed with the City of Portland, Department of Planning and Urban Development, 389 Congress Street, Portland, Maine, and pursuant to a condition thereof, V.P. Builders, Inc., with a place of business at Westbrook, Maine, the owner of the subject premises, does hereby agree, for itself, its successors and assigns (the "Owner"), as follows:

That it will, at its own cost and expense and at all time in perpetuity, maintain in good repair and in proper working order the stormwater drainage system, as shown on said plan, including but not limited to the treatment tank and the outlet therefrom. Owner of the subject premises further agrees to periodically clean out said tank in accordance with the manufacturer's specifications as included on Exhibit A, attached hereto and incorporated herein by reference (Manufacturer's name and address: Vortechnics, 41 Evergreen Drive, Portland, ME 04103) and to keep a log detailing: 1) the date and nature of the maintenance performed; and 2) who performed said maintenance. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request. Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of said premises and abutters thereto; further, that the said City of Portland said persons in lawful possession and said abutters, or any of them, may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a reasonable time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to enter upon said premises to maintain, repair, or replace said stormwater drainage system, including but not limited to, treatment tank and outlet thereon in the event of any failure or neglect thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the Owner upon demand.

This Agreement shall not confer upon the City of Portland or any other person the right to utilize said stormwater drainage system for public use or for the development of any other property, and the Owner shall bear no financial responsibility by virtue of this Agreement for enlarging the capacity of said surface water drainage system for any reason whatsoever.

This Agreement shall bind the undersigned only so long as it retains any interest in said premises, and shall run with the land and be binding upon its successors and assigns as their interests may from time to time appear.

Dated at Portland, Maine this 4th day of October, 2001.

V.P. Builders Inc.

By: Clifford A. Plummer

Clifford A. Plummer

Its: President

STATE OF MAINE
CUMBERLAND, ss.

Date: October 4, 2001

Personally appeared the above-named Clifford A. Plummer, and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity, and the free act and deed of said V.P. Builders

Before me,

Cathy Greene

Notary Public/Attorney at Law

Print Name: Cathy Greene

CATHERINE GREENE
Notary Public, Maine
My Commission Expires July 6, 2005

Vortechs™

STORMWATER TREATMENT SYSTEM

MAINTENANCE

The Vortechs System requires minimal routine maintenance. However, it is important that the system be inspected at regular intervals and cleaned when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit, e.g., heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping will slow accumulation.

Inspection

Inspection is the key to effective maintenance and it is easily performed. In the first year of operation, frequent inspections of the accumulated sediment volume within the aluminum grit chamber are necessary to establish an appropriate maintenance plan. Vortechnics recommends seasonal inspections during the first year. Inspections should be performed more often in the winter months in climates where sanding operations may lead to rapid accumulations, or in equipment washdown areas. After the first year, the inspection schedule should be reviewed and modified according to experience. It is very useful to keep a record of each inspection. A simple form for doing so is provided.

The Vortechs System only needs to be cleaned when inspection reveals that it is nearly full; specifically, when sediment depth has accumulated to within six inches of the dry-weather water level. This determination can be made by taking 2 measurements with a stadia rod or similar measuring device: one measurement is the distance from the manhole opening to the top of the sediment pile and the other is the distance from the manhole opening to the water surface. If the difference between the two measurements is less than six inches the system should be cleaned out. Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Finer, silty particles at the top of the pile typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile.

In Vortechs installations where the risk of large petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, an oil or gasoline spill should be cleaned out immediately. Oil or gas that accumulates on a more routine basis should be removed when an appreciable layer has been captured.

Cleaning

Cleanout of the Vortechs System with a vacuum truck is generally the most effective and convenient method. Cleanout should not occur within 6 hours of a rain event to allow the entire collection system to drain down. Properly maintained Vortechs Systems will only require evacuation of the grit chamber portion of the system, in which case only the manhole cover nearest to the system inlet need be opened to remove water and contaminants. However, all chambers should be checked to ensure the integrity of the system. In installations where a "clamshell" is being utilized for solids removal, prior to removing the grit, absorbent pads or pillows can be placed in the oil chamber to remove floating contaminants. Once this is done, sediment may then be easily removed with the clamshell.

Vortechs™

STORMWATER TREATMENT SYSTEM

Inspection & Maintenance Log

Model:			Location:		
Date	Water Depth to Sediment[1]	Floatable Layer Thickness[2] (approx)	Maintenance Performed	Maintenance Personnel	Comments

1. The water depth to sediment is determined by taking two measurements with a stadia rod: one measurement is the distance from the manhole opening to the top of the sediment pile and the other is the distance from the manhole opening to the water surface. If the difference between the two measurements is less than six inches the system should be cleaned out.

2. The system should be cleaned out if the floating layer of trapped debris is 3-6" in depth.

DECLARATION OF CONDOMINIUM
FOR
HOLM PLACE CONDOMINIUM

This declaration is filed pursuant to the Maine Condominium Act (the "Act") Title 33, Chapter 31, M.R.S.A. which statute is incorporate herein by reference. There shall be created, pursuant to the terms of the Act, Holm Place Condominium and Holm Place Condominium Association ("Association"), a Maine non-profit corporation under Title 13-B of the Maine Revised Statutes Annotated, and Bylaws for said Association.

1. 1. Declarant and Description of Land.

(a). V.P. Builders Inc., a Maine corporation, (the "Declarant") hereby submits the land, buildings and improvements located thereon on Holm Avenue in the City of Portland, Cumberland County, Maine described in Schedule A attached hereto and made a part hereof (the "Premises") to the provisions of said Act. The Condominium shall consist of Sixteen (16) units. The Premises are shown on the Condominium Plat prepared by Sebago Technics dated Janaury 18, 2000 entitled "Holm Place Condominium" and the Units, Common Elements are shown on the Condominium Plans prepared by Sebago Technics, dated Janaury 18, 2000 which are to be recorded in the Cumberland County Registry of Deeds herewith.

(b) The Premises are subject to:

(i) The easements, covenants, restrictions and reservations contained in and created by this Declaration and the Bylaws of the Association.

(ii) All matters shown on said Plan and Plans.

2. Definitions.

The terms hereinafter defined shall have the meanings as hereinafter set forth. Any term not defined herein shall have the meaning accorded it by the Act.

(a) "Allocated Interests" means the undivided interest in the Common Elements, the Common Expenses Liability and votes in the Association allocated to each Unit.

(b) "Association" or "Unit Owners Association" means the Unit Owners Association of Holm Place Condominium which is known as Holm Place Condominium Association.

(c) "Common Elements" means all portions of the Condominium including sewer and water lines on the property other than the Units and Limited Common Elements

(d) "Common Expenses" means expenditures made by or financial liabilities of the Association together with any allocations to reserves.

(e) "Common Expense Liability" means liability for Common Expenses allocated to each Unit pursuant to Section 1602-107 of the Act.

(f) "Condominium" means Holm Place Condominium, as same is created and administered by this Declaration, the Bylaws and the rules and regulations developed thereunder, consisting of 8 buildings each which contain two (2) Condominium Units.

(g) "Declarant" means V.P. Builders Inc, its successors and assigns.

(h) "Executive Board" means the body designated in the Bylaws to act on behalf of the Association.

(I) "Limited Common Element" means those portions of the Common Elements allocated by the Declaration and the Act for the exclusive use of one or more but fewer than all of the Condominium Units. Limited Common Elements include the parking spaces as shown on the Plans.

(j) "Special Declarant Rights" means those rights reserved by the Declarant in Section 6 and 7 of this Declaration.

(k) "Unit" means a physical portion of the Condominium described herein and in the Plans designated for separate ownership of occupancy.

(l) "Unit Owner" means the Declarant or other person who owns a Unit.

2. Description of Buildings:

The Plat and Plans show the layout, location, unit numbers and dimensions of Units of the Condominium.

Reference is made to the Plans for the description of the buildings stating the number of stories and the number of units. Wood is the principal material of which said buildings are constructed.

Acceptance of a deed to a Unit shall constitute a waiver of minor discrepancies in the Plat and Plans, if any.

4. Allocation of Common Element Interests and Boundaries:

(a). Percentage Interests: Attached hereto as Schedule B is a list of all units with identifying numbers allocating a percentage of undivided interest in the Common Elements and in the Common Expenses of the Association, and the vote allocated to each unit (which vote shall be identical to the percentage of undivided interest). Each Unit's percentage of allocated interest is determined according to the following formula. Each Unit's percentage allocated interest is equal to the percentage allocated interest of every other Unit in the Condominium

$$\frac{1}{\text{Total Number of Units in Condominium}} \times 100$$

=Percentage of Allocated Interest of Each Unit

(b) Unit Boundaries. The boundaries of each Unit are the walls, floors and ceiling of the Unit and shall include all wallboard, tiles, wallpaper, paint, finished flooring and other materials constituting any part of the finished surfaces thereon. The exterior surfaces of doors, windows, storm windows, and the glass and frames, and thresholds are also Unit Boundaries. All other portions of the walls, floors and ceilings are part of Common Elements.

5. Limited Common Elements

Limited Common Elements shall include those items designated as Limited Common Elements in Section 1602-102 (2) of the Act, the Plat and Plans and Paragraph 2 (i) hereof. Any expense associated with the maintenance, repair or replacement of a Limited Common Element shall be assessed equally against the Unit or Units to which that Limited Common Element is assigned. Any common expense benefiting fewer that all of the Units shall be assessed exclusively against the Unit or Units benefited.

6. Easements.

(a) 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 or in Limited Common elements. Each Unit shall be subject to an easement in favor of all other Unit Owners to use the pipes, ducts, cables, wires, conduits, public utility lines and other Common Elements located in such unit serving other units. The Executive Board of the Association shall have the right to grant to third parties such additional utility easements as shall be deemed reasonable by the Executive Board in connection with the supply of utility services to the units and/or the Common Elements.

(b) Ingress and Egress. Each Owner shall have an easement, subject to any rules and regulations established by the Executive Board, in common with all other Unit Owners to use the entrances, exits and other Common Elements as a means of ingress and egress to and from the Premises, the Common Elements and the adjoining public streets. The Executive Board shall not establish any rule or regulation depriving any Unit Owner of reasonable ingress and egress to and from his unit, the Premises and Common Elements, and the adjoining public streets.

(c) Condominium Association and Executive Board Access. Declarant reserves in favor of itself, the Association and Its Executive Board, officers, agents, employees, and the managing agent (if any) and every other person authorized by the Executive Board the irrevocable right and easement to have access to each unit as may be necessary for the inspection, maintenance, repair or replacement of any of the Common Elements and Limited common elements therein or accessible there from or the making of any addition or improvements thereto; or the making or 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 the abating of 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. Until the expiration of the warranty period, if applicable, such entry shall be permitted to perform warranty-related work whether or not the Unit Owner consents or is present at the time. The Declarant, during the period of Declarant Control, the association and its Executive Board shall have the right to grant permits, licenses, and easements over and through the Common Elements for utilities, and other purposes reasonably necessary or useful for the proper maintenance and operation of the Condominium.

(d) Declarant's Easement for Marketing. The Declarant reserves the right with respect to its marketing of Units to use the Common Elements and Limited Common Elements for the ingress and egress of itself, it's officers, employees, agents, contractors and subcontractors and for prospective purchasers of Units, including the right of such prospective purchasers to park in parking spaces. The Declarant reserves the right to maintain on the Premises advertising signs which may be placed in any location

.

(e) Declarant's Easement for Construction. The Declarant reserves the easement, right and privilege to go upon any and all of the Premises for purposes of construction, reconstruction, maintenance, repair, renovation, replacement or correction of the Units, Common Elements or Limited Common Elements. Furthermore, the Declarant reserves an easement in the Units, Common Elements and Limited Common Elements for the purpose of discharging Declarant's obligations and exercising the Special Declarant Rights reserved pursuant to this Declaration. These easements shall continue until the Declarant has conveyed all Units in the Condominium.

(f) Encroachments: Each Unit shall have an easement to the extent necessary for structural support over every other Unit, Common Elements and Limited Common Elements, and each Unit, Common Elements and Limited 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 encroaches upon any Unit, of 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 the buildings or other 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, 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 a building is partially destroyed as a result of fire or other casualty, there shall exist, if and when that building is rebuilt, easements over portions of the Common Elements, Limited Common Elements, or upon any other unit, such easements as are reasonably necessary in order to rebuild said damaged unit.

(g) Declarant's Right to Connect with Utilities. The Declarant reserves an easement to connect with and make use of utility lines, wires, pipes and conduits located on the Premises for construction purposes on the Premises, provided that Declarant shall be responsible for the cost of service so used, and to use the Common Elements and Limited Common Elements for ingress and egress and construction activities and for the storage of construction materials and equipment used in the completion of the Units and Common Elements. This easement shall continue until the Declarant has conveyed to the Purchasers all Units in the Condominium.

(h) Common Element Easement in Favor of Unit Owners. All Common Elements and Limited Common Elements shall be and are hereby made subject to the following easements in favor of the Units benefited; provided that the installation, repair, maintenance, use, removal or replacement of any such item does not unreasonably interfere with the 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:

(i) For the installation, repair, maintenance, use removal and/or replacement of pipes, ducts, heating 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

(ii) 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 any Common Elements adjacent to such Unit.

(iii) For driving and removing nails, screws, bolts and other attachment devices into the unit-side surface of the studs, which support the dry wall perimeter walls bounding the Unit, the bottom surface of floor joists above the unit and the top surface of the floor joist below the Unit to the extent such nails, screws, bolts and other attachment devices may encroach into a part of any Common Elements adjacent to such Unit.

7. Special Declarant's Rights – Declarant Control

(a) In addition to those rights and easements reserved or created by Section 6 hereof for the benefit of the Declarant, which shall be deemed to be Special Declarant Rights, the Declarant reserves the right to appoint and remove members of the Executive Board and Officers of the Association for sixty (60) days after the sale of Seventy Five percent (75) of the total number of Units. This right shall, in any event, expire three (3) years after the first conveyance of a Unit.

(b) Subject to the provisions of the Act, this Declaration and the Bylaws, the Executive Board shall have the power to act on behalf of the Association. The initial Executive Board shall consist of three (3) persons to be appointed by Declarant. The members so appointed may be removed and replaced by the Declarant at the Declarant's discretion.

No later than the earlier of (il) sixty (60) days after the conveyance of seventy five percent (75%) of the Units, or (ii) three (3) years from the date the first Unit is sold, the Unit Owners shall elect an Executive Board consisting of four (4) members.

The Unit Owners on the Executive Board shall serve until the first regular election of the Executive Board, which election shall be held at the first regular meeting of the Association in accordance with the bylaws.

(c.) This Section 7 shall not be amended without the written consent of the Declarant. The benefits of Section 7 and all other Special Declarant Rights set forth in this Declaration, the bylaws as amended from time to time, may be transferred by a recorded instrument specifically referring to this Section and executed by Declarant and its successor or assignee.

8. Amendment and Termination.

(a) This Declaration may be amended only in accordance with procedures specified in Section 1602-117 of the Act and of this Declaration. No amendment may increase the number of units or change the boundaries of any Unit, the Allocated Interest allocated to a Unit, or the uses to which any Unit is restricted without the consent of one hundred percent (100%) of the votes of the Association and the consent of Eligible Mortgage Holders (as hereinafter defined) of mortgages on Units to which at least fifty-one percent (51%) of the votes in the Association are allocated. Amendments of a material nature must be agreed to by unit owners representing at least 75% of the total allocated votes in the owners' association. In addition, approval must be obtained from eligible mortgage holders representing at least 51% of the votes of unit estates that are subject to mortgages held by eligible holders. A change to any of the following would be considered as material voting rights; assessments, assessment lien's, or subordination of assessment lien's; reserves for maintenance, repair and replacement of common areas; responsibility for maintenance and repairs; reallocation of interest in the general or limited common areas, or rights to their use; boundaries of any unit; convertibility of units into common areas or vice versa; expansion or contraction of the project, or the addition, annexation or withdrawal of property to or from the project; insurance or fidelity bonds; leasing of units; imposition of any restrictions on a unit owner's right to sell or transfer his or her unit; a decision by the owner's association to establish self management when professional management had been required previously by an eligible mortgage holder; restoration or repair of the project (after a hazard damage or partial condemnation) in a manner other than that specified in the documents; any action to terminate the legal status of the project after substantial destruction or condemnation occurs; or any provisions that expressly benefit mortgage holders, insurers or guarantors. 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

(b) The Condominium shall not be terminated except by agreement of Unit Owners of Units to which seventy five percent (75%) of the votes in the Association are allocated and of Eligible mortgage Holders holding Mortgages on Units to which at lease seventy five percent (75%) of the votes in the Association are allocated and as otherwise provided in Section 1602-118 of the Act.

9. Use and Occupancy of Units and Common Elements – Restrictions Thereof.

The occupancy and use of the Condominium shall be subject to the following restrictions:

(a) The Condominium shall be restricted to residential uses.

(b) None of the Condominium Units shall be further subdivided.

(c) No Unit Owner nor a lessee of any Unit Owner: (i) shall permit or suffer anything to be done or kept upon the property which will increase the rate of insurance on the property or on the contents, thereof; (ii) shall obstruct or interfere with the rights of other occupants or annoy them by unreasonable noises or otherwise; (iii) shall commit or permit any nuisance or commit or suffer any immoral or illegal act to be committed anywhere in or upon the property; and/or (iv) shall cause or permit any noxious odors to emanate from any portion of the Premises.

(d) A Unit Owner may lease his Unit at any time and from time to time; provided that the Lease is in writing and is for a term of not less than six (6) months. A copy of each lease shall be furnished to the Executive Board upon request. The rights of any lessee of the Unit shall be subject to, and each such lessee shall be bound by, the covenants, conditions and restrictions set forth in the Declaration, Bylaws and Rules and Regulations, and a default thereunder shall constitute a default under the lease. The Unit Owner shall provide any lessee with a copy of the Rules and Regulations of the Condominium. The foregoing shall not impose any direct liability on any lessee of a Unit to pay and Common Expense assessments on behalf of the Unit Owner unless so provided for in said lease.

(e) The Association shall be responsible for providing the following services, the expenditures for which shall be a Common Expense:

(i) Removal of snow from the Premises

(ii) Maintenance and repair of all lawns, exteriors of all buildings, and the roadway and parking areas. Maintenance of storm drainage piping located on premises.

(iii) Maintenance and repair of all sewer and utility lines.

(f) Reasonable rules and regulations, not in conflict with the provisions of this Declaration and the Bylaws of the Association, concerning the use and enjoyment of the Premises, may be promulgated from time to time by the Executive Board. Copies of the then current rules and regulations and any amendments thereto shall be furnished to all Unit owners by the Executive Board promptly after the adoption of such rules and regulations or any amendments thereto.

10. Budget; Common Expenses; Assessments and Enforcement

a. Budget Ratification Vote: The Executive Board shall propose a budget for the Condominium, which budget shall be submitted to the Association for ratification. At the budget ratification meeting of Unit Owners, unless fifty-one percent (51%) of the votes in the Association reject the budget, it shall be adopted.

(b) Monthly Payments: All Common Expense assessments made in order to meet the requirements of the Association's annual budget shall be deemed to be adopted and assessed on a monthly basis (rather than on an annual basis payable in monthly installments) and shall be due and payable in advance on the first day of each month, the first such assessment to be made for the first month of the first fiscal year as determined by the Executive Board of the Association under Article V of the Bylaws. The first regular assessment shall be made no later than sixty (60) days after the sale of the First Unit to a purchaser. Special assessments shall be due and payable in one or more monthly payments, in advance, on the first day of each month, as determined by the Executive Board.

All unpaid assessments shall constitute a lien on the Unit against which such assessment is made. Payments for assessments which are more than ten (10) days late shall, at the option of the Association, accrue interest at a rate established by the Association.

(c) Subordination of Certain Charges: Any fees, charges, late charges, fines and interest which may be levied by the Executive Board pursuant to Article 3 of the Act, shall be subordinate to the lien of a first mortgage recorded before or after the date on which the assessment sought to be enforced becomes delinquent.

(d) Surplus: Any surplus funds of the Association remaining after payment of, or provision for, Common Expenses including provisions for a working capital fund and/or reserve fund shall be held by the Association and shall be credited to the Unit Owners on a pro rata basis to reduce their future common expense assessments.

(e) Limited Common Expenses: Limited Common Expenses are those Common Expenses associated with the maintenance, repair or replacement of a Limited Common Element and shall be assessed against the Unit or Units to which that Limited Common Element has been assigned. Any Common Expense benefiting fewer that all of the units shall be assessed exclusively against the Units benefited as a Limited Common Expense.

(f) Working Capital Fund: Prior to the conveyance of the first Unit to a Purchaser, the Declarant shall establish a working capital fund equal to the estimated Common Expense charges for two months' operation of the Condominium. Upon the sale of each Unit, the Buyer shall pay into said fund an amount based on that Unit's pro rata share of the fund. Said amount shall be transferred to the Association for deposit into a segregated fund. Within sixty (60) days after the closing of the sale of the first Unit, Declarant shall pay to the Association its pro rata share of the working capital fund for any unsold units of the Condominium. Said fund shall remain in existence until the Association determines that it has established an adequate reserve fund from regular monthly assessments of Unit Owners. Upon establishment of such adequate reserves, any funds then held in the working capital fund shall be returned to the person or persons who contributed such funds.

11. Rights of Eligible Mortgagees:

(a) An "Eligible Mortgage Holder" means the holder of a recorded first mortgage on a Unit which has delivered written notice to the Association by prepaid United States mail, return receipt requested, or by delivery in hand securing a receipt therefore, which notice shall state the mortgagee's name and address, the Unit Owner's name and address, and the identifying number of the Unit, and shall state that the mortgage is a recorded first mortgage.

(b) The Association shall send reasonable prior written notice by prepaid United States mail to Eligible Mortgage Holders as hereinafter defined of the consideration by the Association of the following circumstances or proposed actions:

(i)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;

(ii) Any delinquency in the payment of assessments for Common Expenses or any other charges owed by an Owner of that unit, or any other default in the performance or payment by such Unit Owner of any obligation under this Declaration, the Bylaws or any Rules and Regulations of the Association, which delinquency or other default continues for a period of sixty (60) days;

(iii) Any lapse, cancellation or material modification of any insurance policy or fidelity bond maintained by the Association.

(iv)The proposed use of any proceeds of property insurance required to be obtained and maintained by the Association pursuant to the Bylaws for purposes other than repair, replacement and restoration of the property substantially in accordance with this Declaration, the Bylaws, the Plat and Plans and the original elevations thereof, and original building plans and specifications.

(v) The adoption by the Executive Board of any proposed budget, and the date of the meeting of unit owners scheduled to consider ratification of such proposed budget, and a summary of such proposed budget(s):

(vi) Any proposed action which would require the consent of a specified percentage of Eligible Mortgage Holders.

(vii) The termination of the Condominium.

(viii) A change in the Allocated Interests appurtenant to any unit, except for such changes created by the Declarant as a consequence of the exercise of any Development Rights reserved in this Declaration by the Declarant.

(ix) The merger or consolidation of the condominium with another Condominium.

(x) The conveyance or subjection to a security interest of any portion of the Common Elements.

(c.) In the event of any proposed actions described in this Section 11, subsection (b), paragraphs (iv) (vii), (viii), (ix), or (x), any Eligible Mortgage Holder shall have the right but not the obligation in the place of the unit Owner to cast the votes allocated to that Unit or give or withhold any consent required of the 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 certified or registered prepaid United States mail, return receipt requested, or by delivery in hand. Failure of the Eligible Mortgage Holder to so exercise such rights within thirty (30) days from receipt of any such notice shall constitute a waiver thereof and shall not preclude the Unit Owner from exercising such right. In the event of any default described in Section 11(b) (ii) above, the Eligible Mortgage Holder shall have the right but not the obligation to cure such default. In addition, an Eligible Mortgage Holder, or its representative, shall have the right to attend Association and Executive Board meetings for the purposes of discussing the matters described in Paragraph 11(b), (iv), (v) and (vii) through (x).

Failure to comply with the requirements set forth above shall in no way invalidate otherwise proper actions of the Association and the Executive Board.

12. Limitation of Liability:

(a) Limited Liability of the Executive Board: The members of the Executive Board:

(i) Shall not be liable for any injury or damage to persons or property caused by the natural elements or by another Unit Owner or person on the Premises, or resulting from electricity, gas, water, rain, dust or sand which may leak or flow from the outside or from any part of the Units, or from any of its pipes, drains, conduits, appliances, or equipment, or from any other place unless in each such instance such injury or damage has been caused by the Executive Board Members' willful misconduct or gross negligence;

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

(iii) 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;

(iv) Shall not be liable to a Unit Owner, or such Unit Owner's tenants, employees, agents, customers 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, customers 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;

(v) 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

(vi) 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.

(b) 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 expense and liabilities, including attorneys' 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, in the event of a settlement, this indemnification shall apply only if and when the Executive Board (with the affected member abstaining if he is then an Executive Board member) approves such settlement and reimbursement as being in the best interest of the Association; and provided further that, indemnification hereunder 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 Section 12 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 members and/or officer may be entitled as a matter of law or agreement or by vote of the Unit Owners or otherwise.

(c.) Defense 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 holders of any mortgages on Units and such complaints shall be defended by the Association. The Unit Owners and the holders of mortgages on Units shall have no right to participate in such defense other than through the Association.

(d) Insurance: The Executive Board shall obtain insurance to satisfy the indemnification obligations of the Association and all Unit Owners set forth in Paragraph 12(b) above, to the extend such insurance is available.

13. Notice: Notice of matters affecting the Condominium shall be given to Unit owners by the Association in the following manner: all notices shall be in writing and shall be deemed to have been given if delivered personally or send by United States mail, postage prepaid; or if notification is of a default or lien, then by registered or certified mail, return receipt requested, postage prepaid, to a Unit Owner at the address which the Unit Owner shall designate in writing and file with the Secretary of the Association or if no address is designated, at the address of the unit. If a Unit is owned by more than one person, each such person who so designates an address in writing to the Secretary shall be entitled to receive all notices hereunder.

14. Insurance Coverage: The Association's Executive Board shall obtain and maintain insurance for the benefit and protection of the Association and, to a certain limited extent, the Unit Owners as individuals. In general, types and amounts or insurance to be obtained by the Association are described as follows: fire insurance covering the buildings, but excluding the personal property of Unit Owners and improvements within a Unit made by owners thereof; "All Risk Insurance", so called; workmen's compensation insurance; public liability insurance at least covering each Unit Owner with limits of not less than a combined single limit of $1,000,000 for claims for bodily injury or property damage arising out of one occurrence; such other insurance as the Executive Board may, from time to time in its discretion determine, including coverage for other casualties, hazards or risks such as vandalism, malicious mischief, windstorm and water damage. More specific details on this insurance are set forth in the Bylaws of the Association.

The Association will obtain insurance covering liability arising from ownership or use of the Common Elements. This coverage will not insure Unit Owners against liability arising from an accident or injury occurring within a Unit or liability arising from the act or negligence of a Unit Owner.

The Executive Board will also maintain appropriate insurance required by mortgage lenders.

15. Eminent Domain: If 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 and the portion of the award attributable to the Common Elements taken shall be paid to the Association for the use and benefit of the Unit owners and the Mortgagees as their interest may appear. The Association shall divide any portion of the award not used for any restoration or repair of the remaining Common Elements among the Unit Owners and their Mortgagees, as their interest may appear, in proportion to

their Allocated Interest 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 interest may appear. Each Unit Owner appoints the Association as attorney-in-fact for the purposes described in this Section. Notwithstanding anything to the contrary in this Section 15, 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.

IN WITNESS WHEREOF, the said V.P. Builders Inc. by Clifford A. Plummer, its President thereunto duly authorized has caused this Declaration of Condominium to be signed, sealed and witnessed on this __th of _____ 2000

By:_____
It's President

STATE OF MAINE
CUMBERLAND, SS

Personally appeared the above named Clifford A. Plummer and acknowledged the foregoing instrument to be his free at and deed in his said capacity and the free act and deed of said Corporation.

Before me,

_____
Notary Public
Attorney at Law

BYLAWS OF HOLM PLACE CONDOMINIUM ASSOCIATION A MAINE NON PROFIT CORPORATION

ARTICLE I
General Provisions

Applicability: These Bylaws provide for the governance of Holm Place Condominium Association pursuant to the requirements of Article 3 of the Maine Condominium Act ("the Act") of Title 33, Chapter 31 of the Maine Revised Statutes Annotated of 1964, as amended, for Holm Place Condominium, created under the Declaration of Condominium for Holm Place dated January 18, 2000 to be recorded at the Cumberland County Registry of Deeds. All Unit Owners, mortgagees, lessees and occupants of the Units are subject to these Bylaws

Office. The office of the Association and the Executive Board shall be located at the Condominium or at such other place as may be designated from time to time by the Executive Board.

ARTICLE 11

The Association

Membership: The Association shall consist exclusively of all the Unit Owners, or following termination of the Condominium of all former Unit Owners entitled to distributions of proceeds under Section 1602-118 of the Act, or their heirs, successors or assigns, acting as a group in accordance with the Act, the Declaration and these Bylaws. Membership is transferable only as provided in the Declaration or these Bylaws. The membership of a Unit Owner shall terminate upon the conveyance, transfer or other disposition of his interest in the Unit, whereupon his membership and any interest in the assets of the Association shall automatically transfer to and be vested in the successor in ownership. Membership is otherwise non- transferable.

The Association shall have the responsibility of administering the Condominium, maintaining and repairing the Common Elements and Limited Common Elements of the Condominium, establishing the means and methods of collecting assessments and charges, arranging for the management of the Condominium and performing all of the other acts that may be required or permitted to be performed by he Association pursuant to the Act and the Declaration. The foregoing responsibilities shall be performed by the Executive Board or Managing Agent as more particularly set forth in these Bylaws.

Annual Meetings: The annual meetings of the Association shall be held on the first day of June off each year unless such date shall occur on a holiday, in which event the meeting shall be held on the succeeding day that is not a holiday. At annual meetings the Executive Board shall be elected by ballot of the Unit Owners in accordance with the requirements of Article III-C of these Bylaws (subject to the provisions of the Declaration) and such other business as may properly come before the meeting may be transacted.

Place of Meeting:. Meetings of the Association shall be held at the Condominium or at such other suitable place convenient to the Unit Owners as may be designated by the Executive Board.

Special Meetings: The President or Secretary shall call a special meeting of the Association if so directed by resolution of the Executive Board or upon a petition signed and presented to the Secretary by at least fifty percent (50%) of the votes allocated to Unit Owners.

Notice of Meeting: The Secretary shall give to each unit Owner a written notice of each annual, regularly scheduled or special meeting of the Association at least ten but not more than sixty days, prior to such meeting. The notice of any meeting must state the time and place of the meeting and the items on the agenda, including the general nature of any proposed amendment to the Declaration or Bylaws, any budget changes and any proposal to remove am member of the Executive Board or officer. The giving of a notice of meeting shall be in the manner provided for in Article IX-A of these Bylaws.

Quorum: Except as set forth above, the presence in person or by proxy of Unit owners of thirty percent (30%) or more of the Percentage Allocated interests (as defined in the Declaration) at the commencement of a meeting shall constitute a quorum at all meeting of the Unit Owners Association. If a meeting is adjourned pursuant to Article II-I below, the quorum at such second meeting shall be deemed present throughout any meeting of the Association if persons entitled to cast thirty percent (30%) of the votes which may be cast for the election of the Executive Board are present in person or by proxy at the beginning of the meeting.

Voting. Voting at all meetings of the Association shall be on a percentage basis and the percentages of the vote to which each unit Owner is entitled shall be the percentage Allocated interest assigned to each unit in the Declaration. If the Unit Owner is a corporation, joint venture, partnership or unincorporated association, the person who shall be entitled to cast the vote for such Unit shall be the person named in a certificate executed by such entity pursuant to its governing documents. If the unit Owner is a trust, the trustee or trustees shall be deemed to be the Owner for voting purposes. Where the ownership of a Unit is in more than one person, the person who shall be entitled to cast the vote of such Unit shall be the person named in a certificate executed by all of the owners of such Unit and filed with the Secretary, or in the absence of such named person from the meeting, the person who shall be entitled to cast the vote of such Unit shall be the person owning such Unit who is present. If more than one person owning such Unit is present, then such vote shall be cast only in accordance with their unanimous agreement pursuant to Section 1603-110(a) of the Act. There shall be deemed to be unanimous agreement if any one of the multiple owners casts the vote allocated to that Unit without protest being made promptly to the person presiding over the meeting by any of the other owners of the Unit. Such certificate shall be valid until revoked by a subsequent certificate similarly executed. Subject to the requirements of the Act, wherever the approval or disapproval of a Unit Owner is required by the Act, the Declaration or these Bylaws, such approval or disapproval shall be made only by the person who would be entitled to cast the vote of such Unit at any meeting of the Association. Except with respect to election of members of the Executive Board and except where a greater number is required by the Act, the Declaration or these Bylaws, the owners of more than fifty percent (50%) of votes in the Association at one time at a duly convened meeting at which a quorum is present is required to adopt decisions at any meeting of the Association. In all elections for Executive Board members, each Unit Owner shall be entitled to cast for each vacancy to be filled at such election the number of votes, allocated to the Unit or units owned by such Unit Owner as provided in this Declaration. Those candidates for election receiving the greatest number of votes cast in such elections shall be elected. No votes allocated to a Unit owned by the Association may be cast. There shall be no cumulative or class voting.

Proxies: Votes allocated to a Unit may be cast pursuant to a proxy duly executed by a Unit Owner. If a Unit is owned by more that one person, each owner of the Unit may vote or register protest to the casting of votes by other owners of the unit through a duly executed proxy. A Unit Owner may not revoke a proxy given pursuant to this Section except by actual notice of revocation to the person presiding over a meeting of the Association. A proxy is void if it is not dated or purports to be revocable without notice. A proxy terminates 11 months after its date, unless it specifies a shorter term.

Adjournment of Meetings: If at any meeting of the Association a quorum is not present, the Unit Owners entitled to cast a majority of the votes represented at such meeting may adjourn the meeting to such time after the time for which the original meeting was called as they shall agree.

Conduct of Meetings: The President (or in his absence, the Secretary) shall preside over all meetings of the Association and the Secretary shall keep the minutes of the meeting and record in a minute book all resolutions adopted at the meeting as well as a record of all transactions occurring at such meeting.

Powers: The unit Owners Association shall have all powers provided to such associations by law and by the Act, including, without limitation, the power to:

(1) Adopt and amend bylaws and rules and regulations;

(2) Adopt and amend budgets for revenues, expenditures and reserves and collect assessments for Common Expenses from Unit Owners;

(3) Hire and terminate managing agents and other employees, agents and independent contractors;

(4) Institute, defend, or intervene in litigation or administrative proceedings in its own name on behalf of itself or 2 or more Unit Owners on matters affecting the Condominium;

(5) Make contracts and incur liabilities;

(6) Regulate the use, maintenance, repair, replacement and modification of Common Elements, except as set forth in the Declaration;

(7) Cause additional improvements to be made as a part of the Common Elements, except as set forth in the Declaration;

(8) Acquire, hold, encumber and convey in its own name any right, title or interest to real or personal property, provided that Common Elements may be conveyed or subjected to a security interest only pursuant to Section 1603-112 of the Act;

(9) Grant easements, leases, licenses and concessions through or over the Common Elements:

(10) Impose charges for late payment of assessments and, after notice and an opportunity to be heard, levy reasonable fines for violations of the Declaration, Bylaws and Rules and Regulations of the Association;

(11) Impose reasonable charges for the preparation and recordation of amendments to the Declaration or statements of unpaid assessments:

(12) Provide for the indemnification of the officers and Executive Board and maintain liability insurance for them;

(13) Operate, maintain and repair the Common Elements and the Limited Common Elements;

(14) Exercise any other powers conferred by the Declaration;

(15) Exercise all other powers that may be exercised in this State by legal entities of the same type as the Association; and

(16) Exercise any other powers necessary and proper for the governance and operation of the Associations and the Condominium.

ARTICLE III

Executive Board

A. Number and Qualification: The affairs of the Association shall be governed by an Executive Board. The Executive Board shall be composed off two persons during the period of Declarant Control as set forth in the Declaration of Condominium for the Condominium. After termination of the period of Declarant control, the Executive Board shall be composed of two persons, a majority of whom shall be Unit Owners as required by Section 1603-103 (e) of the Act.

B. Powers: The Executive Board may act in all instances on behalf of the Association except as provided for in the Declaration, these Bylaws, and the Act (including without limitation, Section 1603-103 (b)).

C. **Election and Term of Office:** The election of members of the Executive Board shall be held at the annual meetings of the Association, subject to the provisions of the Declaration. Members of the Executive Board shall be elected by fifty-one percent (51%) of the votes cast at the annual meeting. The terms of office of any Executive Board member to be elected (except as set forth herein) shall be fixed at three years. The members of the Executive Board shall hold office until the earlier to occur of the election of their respective successors, their death, adjudication of in competency, removal, or resignation. An Executive Board member may serve an unlimited number of terms and may succeed himself.

D. **Removal or Resignation of Members of the Executive Board:** At any regular or special meeting of the Association duly called, any one or more of the members of the Executive Board may be removed with or without cause by a majority of votes in the Association and a successor may then and there be elected to fill the vacancy thus created. Any Unit Owner proposing removal of a Board Member shall give notice thereof to the Secretary. Any Board member whose removal has been proposed by a Unit Owner shall be given at least ten days' 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 member of the Executive Board may resign at any time and, if he is a Unit Owner shall be deemed to have resigned upon transfer of title to his Unit.

E. **Vacancies:** Vacancies in the Executive Board caused by any reason other than the removal of a member by a vote of the Unit Owners shall be filled by a vote of a majority of the remaining members at a special meeting of the Executive Board held for such purpose promptly after the occurrence of any such vacancy. Each person so elected shall be a member of the Executive Board for the remainder of the term of the member being replaced and until a successor shall be elected at the next annual meeting of the Association at which such seat is to be filled

F. **Regular Meetings**: Regular meetings of the Executive Board shall be held on a regular basis at such time and place as shall be determined from time to time by a majority of the Board members. Notice of regular meeting of the Executive Board shall be given to each member, by mail or hand delivery, at least seven (7) days prior to the day named for such meeting.

G. **Special Meetings**: Special meetings of the Executive Board may be called by the President on at least five days' notice to each Board member, given by mail 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 in like manner and on like notice on the written request of at least two members of the Executive Board.

H. **Waiver of Notice:** Any member may at any time, in writing, waive notice of any meeting of the Executive Board, and such waiver shall be deemed equivalent to the giving of such 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. If all members are present at any meeting of the Executive Board, no notice shall be required and any business may be transacted at such meeting. Any action by the Executive Board required or permitted to be taken at any meeting may be taken without a meeting if all of the members of the Executive Board shall individually or collectively consent in writing to such action. Any such written consent shall be filed with the minutes of the proceedings of the Executive Board.

I. **Quorum of the Executive Board:** At all meetings of the Executive Board a majority of the members shall constitute a quorum for the transaction of business, and the votes of a majority of the members present at a meeting at which a quorum is present shall constitute the decision of the Executive Board. If at any meeting of the Executive Board there shall be less than a quorum present, the members present must adjourn the meeting to a later time. At any reconvened 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 members 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 means of which all persons participating in the meeting can hear each other.

J. **Compensation.** No member 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; provided, however, that all such expenses must be authorized in advance by the Board.

K. **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 therein all

resolutions adopted by the Executive Board and all transactions and proceedings occurring at such meetings.

L. Declarant Control: All of the provisions of this Article III are subject to the Special Declarant Rights and Declarant Control, all as more specifically set forth in Sections 6 and 7 of the Declaration, which rights, among other rights, give the Declarant during the period of Declarant Control the right to appoint and remove members of the Executive Board.

ARTICLE IV

Officers

A. Designation: The principal officers of the Association shall be the President and Secretary/Treasurer. The officers shall be elected by the Executive Board. The President and Secretary/Treasurer shall be members of the Executive Board. Any other officers may but need not be, Unit Owners or members of the Executive Board. An officer other than the President may hold more than one office.

B. Election of Offices: The officers of the Association shall be elected annually by a majority of all the members of the Executive Board at a regular meeting of the Board and shall hold office at the pleasure of the Executive Board

C. Removal 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, an a successor may be elected at any meeting of the Executive Board called for such purpose.

D. President: The president shall be the chief executive officer of the Association, preside at all meetings of the Association and of the Executive Board.

E. Secretary/Treasurer: The Secretary/Treasurer 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 Secretary/Treasurer 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 Secretary/Treasurer shall also perform such other duties as shall from time to time be delegated or assigned him by the Executive Board or by the President. The Secretary/Treasurer shall keep the minutes of all meetings of the Association and of the Executive

Board, have charge of such books and papers as the Executive Board may direct. The Secretary/Treasurer shall be responsible for financial and fiscal matters and shall maintain all books. records, ledgers, and checking accounts, relative thereto.

ARTICLE V
Common Expenses and Budgets

A. Fiscal Year: The fiscal year of the Association shall be the calendar year unless otherwise determined by the Executive Board.

B. Preparation and Approval of Budget: On or before the first day of November of each year (or sixty days before the beginning of the fiscal year if the fiscal year is other than the calendar year), the Executive Board shall adopt an annual budget for the Association containing an estimate of the total amount considered necessary to pay the cost of maintenance, management, operation, repair and replacement of the Common Elements and those parts of the Units as to which it is the responsibility of the Executive Board to maintain, repair and replace, and the cost of wages, materials, insurance premiums, services, supplies and other expenses that may be declared to be Common Expenses by the Act, the Declaration, these Bylaws or a resolution of the Association and which will be required during the ensuing fiscal year for the administration, operation, maintenance and repair of the Condominium and the rendering to the Unit Owners of all related services. Such budget shall also included such reasonable amounts as the Executive Board considers necessary to provide working capital, a general operating reserve and reserves for contingencies and replacements.

The budget shall segregate and allocate Limited Common Expenses among Unit Owners. Within 30 days after adoption of any proposed budget for the Condominium, the Executive Board shall provide a summary of the budget to all the Unit Owners, and shall set a date for a meeting of the Unit Owners to consider ratification of the budget not less than 14 nor more than 30 days after mailing of the summary. Unless at the ratification meeting unit Owners holding fifty-one (51%) of the votes in the Association reject the budget, the budget is ratified, whether or not a quorum is present. In the event the proposed budget is rejected, the budget last ratified by the Unit Owners shall be continued until such time as the Unit Owners ratify a subsequent budget proposed by the Executive Board.

The budget shall constitute the basis for determining each unit Owners' Assessments for Common Expenses and Limited Expenses of the Association and shall automatically take effect at the beginning of the fiscal year for which it is adopted, subject to article V-C-6 below.

The Executive Board shall make reasonable efforts to meet the deadlines set forth above, but compliance with such deadlines shall not be condition precedent to the effectiveness of any budget.

C. Assessment and Payment of Common Expenses.

1. Common Expenses. The Executive Board shall calculate the monthly assessments for Common Expenses against each Unit by multiplying (a) a total amount of the estimated funds required for the operation of the Condominium set forth in the budget adopted by the Executive Board for the fiscal year in questions by (b) the Percentage Allocated Interest (expressed in decimal form) allocated to such Unit, and dividing the resultant product by (c) the number of calendar months in such fiscal year. Such assessments shall be deemed to have been adopted and assessed on a monthly basis and not on an annual basis payable in monthly installments, shall be due and payable on the first day of each calendar month and shall be a lien against each Unit Owner's Unit as provided in the Act and Declaration. The assessments shall be made no later than thirty days (30) after the budget is adopted, except that the first assessment shall be made no later than sixty (60) days after first conveyance of a Unit to a Purchaser. Within ninety (90) days after the end of each fiscal year, the Executive Board shall prepare and deliver to each Unit Owner and to each record holder of a mortgage on a Unit who has registered an address with the Secretary an itemized accounting of the Common Expenses and funds received during such fiscal year less expenditures actually incurred and sums paid into reserves. Any net shortage with regard to Common Expenses, after application of such reserves as the Executive Board may determine, shall be assessed promptly against the Unit Owners in accordance with their Percentage Interest and shall be payable in one or more monthly assessments, as the Executive Board may determine.

2. **Limited Expenses**: Limited Expenses are those Common Expenses associated with the maintenance, repair or replacement of a limited Common Element and shall be assessed against the Unit or Units to which that Limited Common Element has been assigned.

3. **Reserves**: The Association shall build up and maintain reasonable reserves for working capital, operations, contingencies and replacements. Extraordinary expenditures not originally included in the annual budget which may become necessary during the year may be charged first against such reserves. If the reserves are deemed to be inadequate for any reason, including non-payment of any Unit Owner's' assessments, the Executive Board may at any time levy further assessments for Common Expense which shall be assessed against the Unit Owners according to their respective Percentage Allocated interest with regard to Common Expenses, and shall be payable in one or more monthly assessments as the Executive Board may determine.

4. **Further Assessments**: The Executive Board shall serve notice on all Unit Owners of any further assessments as permitted or required by the Act. The further assessments shall, unless otherwise specified in the notice, become effective with the next monthly assessment which is due more than ten days after delivery of such notice of further assessments. All Unit Owners so assessed shall be obligated to pay the amount of such monthly assessments. Such assessments shall be a lien as of the effective date as set forth in the preceding Sections.

5. **Initial Budget**: At or prior to the time assessment of Common Expenses commences, the Executive Board shall adopt the budget, as described in this Article, for the period commencing on the date the Executive Board determines that assessments shall begin and ending on the last day of the fiscal year during which such commencement date occurs. Assessments shall be levied and become a lien against the Unit Owners during such period as is provided in Article V-C above.

6. **Effect of Failure to Prepare or Adopt Budget**: The failure or delay of the Executive Board to prepare or adopt a budget for any fiscal year shall not constitute a waiver or release in any manner of a Unit Owner's obligation to pay his allocate share of the Common Expenses as herein provided whenever the same shall be determined and, in the absence of any annual budget or adjusted budget, each Unit Owner shall continue to pay each monthly assessment at the rate established for the previous fiscal year until the new annual or adjusted budget shall have been adopted.

7. **Accounts and Audits:** All sums collected by the Executive Board with respect to assessments against the Unit Owners or from any other source may be commingled into a single fund. All books and records of the Association shall be kept in accordance with good and accepted accounting practices.

8. **Limitations on Expenditure and Borrowing**: The power of the Executive Board to expend funds, incur expenses or borrow money on behalf of the Association is subject to the requirement that the consent of Unit Owners entitled to cast at least seventy five (75%) percent of the votes in the Association obtained at a meeting duly called and held for such purpose in accordance with the provisions of these Bylaws, shall be required to (I) expend funds or incur expenses that it is reasonably anticipated will cause the aggregate amount of actual expenses (including reserves) to exceed the approved budget by more than 10% after taking into account any projected increase in income, and (ii) to borrow money.

9. Payment of Common Expenses: Each Unit Owner shall pay the Common Expenses assessed by the Executive Board pursuant to the provisions of this Article V. No Unit Owner may exempt himself from liability for his contribution toward Common Expenses by waiver of the use or enjoyment of any of the Common Elements or by abandonment of his Unit. No Unit Owner 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 by him in fee of such Unit. The purchase of a Unit shall be jointly and severally liable with the selling Unit Owner for all unpaid assessments against the latter for his proportionate share of the Common Expenses up to the time of such recordation, without prejudice the purchaser's right to recover from the selling Unit Owner for all unpaid assessments against the latter for his proportionate share of the Common Expenses up to the time of such recordation. Nothing herein shall prejudice the purchaser's right to recover from the selling Unit Owner amounts paid by the purchaser. Any such purchaser shall be entitled to a statement setting forth the amount of the unpaid assessments against the selling Unit Owner within five days following a written request therefore to the Executive Board. Such purchaser shall not be liable for, nor shall the Unit conveyed be subject to a lien for, any unpaid assessments in excess of the amount set forth in such statements. Subject to the Act, each record holder of a mortgage on a Unit who comes into possession of a Unit by virtue of foreclosure or any purchaser at a foreclosure sale, shall take the Unit free of any claims for unpaid assessments or charges against such Unit which accrue prior to the time such holder comes into possession thereof, except for claims for a pro rata share of such assessments or charges resulting from a pro rata reallocation of such assessments or charges to all Units including the mortgaged Unit.

10. Lien for Assessments: The total monthly assessment levied against each Unit for Common Expenses including Limited Common Expenses, revised common expenses including Limited Common Expenses, or any special assessment, and any other sums duly levied against the Unit pursuant to the Declaration, these Bylaws or the Act, including Limited Common Expenses assessed against Unit Owners for maintenance, repair or replacement of a Limited Common Element pursuant to Section 11 of the Declaration, all interest thereon and charges for late payment thereof and legal fees and other costs of collection thereof and fines, penalties and fees as provided in the Declaration or these Bylaws shall constitute the personal liability of the Owner of the unit so assessed and also shall, until fully paid, constitute a lien against the unit in favor of the Association from the date upon which such assessment or other such sum becomes due as provided in Section 1603-116 of the Act. Such lien shall, with respect to monthly assessments and revised monthly assessments, be effective on the first day of each month as to the full amount of the monthly assessment or revised monthly assessment, and, as to special assessments and other sums duly levied including Limited Common Expenses assessed against Unit Owners for maintenance repair or replacement of Limited Common Element, 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. 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 which the assessments 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. 4651 and 18-A M.R.S. A. 201, et.seq., as they or their equivalents may be amended or modified from time to time. The Association may impose an interest penalty for any payment for an assessment which is more than ten (10) days late.

11, Statement of Common Expenses: The Executive Board shall promptly provide any Unit Owner, contract purchaser or proposed mortgagee so requesting the same in writing with a written statement of all unpaid assessments for Common Expenses due from each Unit Owner as required by the Act, or the resale certificate and documents required by the terms of the Act.

ARTICLE VI

Compliance and Default

Each Unit Owner shall be governed by, and shall comply with all of the terms of the Declaration, these Bylaws, the Rules and Regulations of the Act, as any of the same may be amended from time to time.

A. Appeal and Hearing Procedure; Actions by Owners: No Unit Owner shall have the right to object, challenge, commence any suit at law or in equity to take any other action under any act, power or authority now in force or hereafter to be enacted except after following such procedures as are established in this Paragraph and as may be established by the Executive Board by rule or regulation consistent with the provisions of this paragraph. The Executive Board shall hear appeals from Unit Owners from (a) the determinations by the Executive Board on alleged violations of the Condominium Documents (other than violations with respect to assessment obligations) and (b) the enactment of rules and regulations of the Association. The Executive Board shall hold a hearing on any such appeal within thirty (30) days after the receipt by the Executive Board of a formal notice of appeal from a Unit 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. Unless the internal remedies provided by this Paragraph and such rules and regulations as may be promulgated by the Executive Board shall be expressly waived by the Association, or the Association fails or refuses to act after being requested in writing to do so, no action at law or in equity shall be commenced by any Unit Owner until such internal remedy is pursued to exhaustion. Any action by a Unit Owner against any other Unit Owner or resident or the Association arising out of any term, covenant or condition contained in the Condominium Documents or any rule or regulation made pursuant thereto shall be subject to the same procedures.

B. Noncompliance: Subject to prior compliance with the procedures established in Article VI-A hereof, the failure of a Unit Owner to comply with the Declaration, these Bylaws and the rules and regulations of the Association shall entitle the Association and Executive Board to the remedies provided herein and in the Act, none of which shall be exclusive of any other remedies:

AH.2

From: "Steve Bushey" <srbushey@maine.rr.com>
To: "Kandi Talbot" <KCOTE@ci.portland.me.us>
Date: Wed, May 3, 2000 9:08 AM
Subject: Holm Place

Kandi,
I have reviewed the latest submission by Sebago Technics for the Holm Place PRUD and find them to be in general conformance with the City's standards for Stormwater management and Erosion and sediment Control. They have addressed the previous items I had presented, therefore it is my opinion the plans are acceptable and can be recommended for final approval by the Planning Board.
Steve Bushey Acting Development Review Coordinator.

AH. 3

TO: Kandi Talbot, Planner

FROM: Jeff Tarling, City Arborist

DATE: May 5, 2000

RE: Holm Avenue Development

I have reviewed the landscape plan for the Holm Avenue Development. My comments are as follows:

1. The applicant must show limits of disturbance for existing vegetation on the landscape plan. If any existing vegetation, which is proposed to be preserved, is removed, than the applicant shall replace the vegetation.

2. The sizes need to be increased on a number of proposed plantings. They are:

Green Ash:	2 1/2" caliper
Flowering Crab:	2" caliper
Japanese Hemlock:	5-6 ft. height
Rhododendron:	18" - 24"
Grey Owl Juniper:	5 ft. height
Bearberry:	#2 instead of #1 pot

3. I have also looked at the entrance and the concern that a resident had with headlights shining in her house. I am recommending that the applicant plant two European Hornbeans within the right-of-way on the property of 173 Holm Avenue.

If you have any questions, please give me a call.

Att. 4

From: <lsylvester@hannaford.com>
To: Portland.CityHall(AQJ)
Date: Wed, May 3, 2000 10:46 AM
Subject: The Proposed Development of Holm Place

Thank you for hearing and addressing our concerns regarding this development. I feel there are two issues outstanding, not necessarily related to the development but exacerbated by it.

SIDEWALKS - The issue of adding sidewalks was quickly dismissed when the fact that reconstruction took place less than five years ago was mentioned. It was not made clear to the board that only a small section of Holm Avenue was reconstructed. The reconstruction activity only involved a small section from approximately #150 to #217. It equals less than 20% of our street. It was only the section related to the flooding. The remainder of Holm Avenue was not paved the following spring as we were told it would be. We desperately need sidewalks. I do not feel this issue should set aside.

FLOODING - I believe this issue should be revisited. The reconstruction activity did not resolve our issues with flooding. It was mentioned in the meeting that there was some reluctance to provide us with a larger culvert in fear of moving the problems with flooding further downstream. I disagree with this thought process. The homes in the area beyond Taft Avenue, going toward Hall School, are at a much higher level in relationship the waterline of this tributary. They are therefore at much less risk of flooding than those located on Holm and Taft Avenues. I do not understand how the current situation is considered acceptable.

Please reconsider opening these issues to further analysis.

Thank You,
Lynne Sylvester

From: <lsylvester@hannaford.com>
To: Portland.CityHall(AQJ)
Date: Mon, Apr 24, 2000 2:19 PM
Subject: The Proposed Development of "Holm Place"

To Whom it may concern,
My name is Lynne Sylvester. My husband and I have lived at 173 Holm Ave. for 11 years. We have made many improvements to our home over the past 11 years and are therefore committed to stay in our home. The proposal of this development came as a surprise to us. We always thought we lived in a residential neighborhood, without the possibility of Condominiums going in across the street from us. I attended the public hearing on April 11 and received the packet of information on the proposed development of "Holm Place". I have reviewed the packet and have several concerns.

I disagree with the traffic study. The traffic on Holm Ave. is already an unsafe for our children. Any increase in traffic only worsens a problem that has not been dealt with. When Holm Ave. was reconstructed for the flooding issues in 1996, we requested that sidewalks be added. We were told that sidewalks were not in the budget and that additional officers would patrol our street in an effort to control the speeding traffic. I have never seen anyone ticketed on my street. I would love to see a study of the number of cars that travel Holm Ave. and the average speed of those cars. Sidewalks are long overdue.
Our home is situated so that the headlights of all traffic exiting the proposed development would shine straight into my house. I feel that some type of evergreen barrier should be planted on the City right of way in front of our home to protect us from this invasion of privacy. Should we have to watch traffic traveling up and down the Turnpike from the second story of our home?
I also feel that the location of the holding pond and the dumpsite should be located further into the development and not directly adjacent to someone else's backyard.
I disagree that this project could not cause more issues with flooding on our street. Again, we already have issues that have not been adequately dealt with. In the Fall of 1999 a Holm Ave. family lost their truck and half of their driveway into the "stream" during a storm that only amounted to 2" of rainfall. The current was so strong it carried and deposited several 100 LB stumps onto their front lawn. They needed two tow trucks to get their truck out of the ravine and spent thousands of dollars rebuilding their driveway and backyard. I feel that a larger culvert is necessary to control the high volumes of water that floods over our street several times per year. There have been problems with raw sewage leakage into this stream as recently as last summer. I have read in the packet that consultants for V.P. Builders have studied the effects this project will have on flooding in our neighborhood. I am not convinced that the flood zone that appears on the documentation is accurate.

I do, along with my neighbors, appreciate the fact that these units (due to their design) may be less likely to attract renters. We already bare the burden of having low income housing nearby. I understand the fact that V.P Builders has made an investment in this property. They should work together with the City of Portland to overcome these issues and make the

development one that our neighborhood will welcome.
Sincerely,
Lynne Sylvester

From: Gregory Hamilton
To: Talbot, Kandi
Date: Mon, Apr 24, 2000 9:55 AM
Subject: Re: Holm Place

Jon,

Celebration Court is fine with us. Thanks Greg

>>> Kandi Talbot 04/20 3:35 PM >>>
Jon,

The applicant for Holm Place has submitted a name for the private drive which they are proposing as Celebration Court. Does this sound like it would be okay to you. Lt. McDougall is on vacation this week, so I am unable to find out if this street name is an acceptable name. Thanks.

Kandi

>>> Jon Giles 04/04 3:37 PM >>>
Kandi,
I have recently seen a plan for a proposed development on Holm Av that was titled "Holm Place". Tony Lombardo suggested I contact you regarding this issue..

As part of the City's team looking at E-911 issues I am requesting that the parties proposing this development be informed that they must choose a different street name. By the look of the plan the drive into the development would qualify as a street under the State's E911 standards. Consequently, the developer or the City will have to come up with a name. Unfortunately, Holm Place is too similar to Holm Av. and should not be allowed.

Please let me know if you have any questions or concerns. Thank you.

Jon Giles

STORMWATER DRAINAGE SYSTEM MAINTENANCE AGREEMENT

IN CONSIDERATION of October 10,2001 Site Plan approval granted by the Planning Board of the City of Portland to a plan entitled Subdivision Recording Plat of Holm Place dated May 9, 2001, and filed with City of Portland, Department of Planning and Urban Development, 389 Congress Street, Portland, Maine, and pursuant to a condition thereof, V.P. Builders, Inc. with a place of business at 547 Main Street, Westbrook, Maine, the owner of the subject premises, does hereby agree, for itself, its successors and assigns (the "Owners"), as follows:

That it will, at its own cost and expense and at all time in perpetuity, maintain in good repair and in proper working order the stormwater drainage system, as shown on said plan, including but not limited to the treatment tank and the outlet therefrom. Owner of the subject premises further agrees to periodically clean out said tank in accordance with the manufacturer's specifications as included on Exhibit A, attached hereto and incorporated herein by reference (Manufacturer's name and address: Vortechnics, 41 Evergreen Drive, Portland, ME 04103) and to keep a log detailing: 1) the date and nature of the maintenance performed; and 2) who performed said maintenance. Such log shall be made available for inspections by the City of Portland upon reasonable notice and request. Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of said premises and abutters thereto: further , that the said City of Portland, said persons in lawful possession of the property identified on the Site Plan noted above and said abutters thereto, or any of then, may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction: further, that after giving the Owner written notice and a reasonable time to perform, the said City of

AH. 4

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Caron and Members of the Portland Planning Board

FROM: Kandice Talbot, Planner

DATE: April 25, 2000

SUBJECT: PRUD, V. P. Builders, Inc.
Vicinity of 166 Holm Avenue

I. INTRODUCTION

V. P. Builders, Inc. is proposing a 16-unit condominium development in the vicinity of 166 Holm Avenue. The site is located between Holm Avenue and the Maine Turnpike. The site is 3.65 acres and zoned R-3. The development is proposed as a Planned Residential Unit Development (PRUD) and will be submit to site plan and subdivision review. The plan will also be reviewed under the stormwater standards as required by the Maine Department of Environmental Protection.

The applicant had requested to be tabled from the April 11th meeting due to a number of issues. Those issues have been addressed by the applicant and will be discussed below. Attached is Planning Board Report #9-00.

II. ISSUES

1. Zoning Requirements

Zoning requires that all units be separated by 16 ft. and the recreational area be at least 25 ft. from all residential units. The prior submission showed Units 6, 15 and 16 closer than 25 ft. from the recreational area. The applicant has now revised the plans to show the units 25 ft. away from the recreational area.

2. Drainage

The Development Review Coordinator and Public Works' Engineer reviewed the previous submittal. A number of issues were raised, such as pre and post development plans needed to be clarified, computations needed to be revised and additional computations provided, and the grading plan modified to include sufficient spot grades. Their comments are included as Attachment 1 and 2.

The applicant has resubmitted plans and addressed the issues raised by Public Works and the DRC. The applicant's submittal is included as Attachment 3. The Development Review Coordinator has reviewed the plans and finds it acceptable (see Attachment 4), with the exception that the stormwater report still does not provide much discussion regarding the drainage systems water quality treatment benefits. The DRC is recommending that the applicant quantify the amount of Total Suspended Solids Removal (TSS) and a reasonable goal would be 40% TSS removal. The DRC is also recommending that the applicant provide a stormwater maintenance agreement. A potential condition of approval is:

- that the applicant revise the plans in accordance with the DRC's memo dated 4/20/00 regarding TSS removal and stormwater maintenance agreement.

Public Works is currently reviewing the revised plan and comments will be available at the meeting.

3. Recreational Area

The applicant is proposing to use the recreation space as an overflow area to retain stormwater. The recreation area is designed with catch basins and under drain to help the area dry quickly following rain storm events. The applicant has stated that in a 2-year storm event, the recreation area will have less than 6" of water in small areas and will remain for approximately one hour. In the 10-year and 25-year storm events, one-third of the field will be flooded and the depth of water will be approximately one foot and will remain for approximately an hour. In an 100-year storm event, one-half of the field will be flooded with approximately 1.4 feet in depth and remain for about an hour.

The Board was concerned that using the recreation area as a retention area would go against the intent of the recreation open space requirement. The Board had asked the applicant to create a separate open space area and overflow area.

The Development Review Coordinator has reviewed the plan to use the recreational space for temporary stormwater detention. The DRC feels that this is acceptable, but the Board may wish to put a condition on the approval that in the event the recreation area does not function properly and remains too wet, the owner will be responsible for providing an alternative measure for stormwater detention. A potential condition of approval is:

- that in the event the recreation area does not function properly and the recreation area remains too wet to use, the applicant will be responsible for providing an alternative measure for stormwater detention.

4. Financial Capability

The applicant has stated that a letter of financial capacity will be forwarded to staff prior to the Planning Board meeting. A potential condition of approval is:

- that the applicant submit a letter of financial capacity prior to issuance of a building permit.

5. Condominium Documents

The applicant has not submitted condominium documents to staff at this time. A potential condition of approval is:

- that the applicant submit condominium documents to staff for review and approval by Corporation Counsel prior to issuance of a building permit.

6. Landscaping/Existing Vegetation

The City Arborist has concerns with the following issues: 1) lack of buffering, trees, shrubs or fencing along the Maine Turnpike property line and 2) preservation of existing vegetation. The Applicant has submitted a revised plan to meet the City Arborist issues, however the City Arborist is on vacation this week and could not review the plans. A potential condition of approval is:

- that the City Arborist review and approve the landscape plan.

7. Lighting

Staff has recommended that the light poles be lowered to 15 - 16 feet. The catalogue cuts that the applicant submitted shows a 16 ft. pole, however the lighting plan still has a note which reads that the lighting will be a "traditionare" post-top lantern on 18 ft. pole. The applicant has stated that a house side shield will be installed on the light fixture located on the southeasterly side of the access drive and closest to Holm Avenue. A note should be added to the lighting plan. A potential condition of approval is:

- that a note be added to the lighting plan stating that a house side shield will be installed on the light fixture located on the southeasterly side of the access drive and that the lighting note be revised to state that the light fixture will be on a 16 ft. pole instead of an 18 ft. pole.

8. Fire

The applicant has submitted a street name for the access drive, which is "Celebration Court". The Fire Department has not yet approved the street name. A potential condition of approval is:

- that the Fire Department approve the street name of "Celebration Court" for the private access drive.

9. Unit #1

The Planning Board was concerned with the proximity of unit 1 to the detention pond. The applicant addressed this concern by proposing a split rail fence around the perimeter of the detention pond to define and separate unit 1 from the detention pond. It should also be noted that the grading around unit 1 will result in an exposed foundation of almost 10 feet. The result will be that the rear area will be difficult to maintain and is also very near to the wetland area. The applicant has stated that the area behind units 1 and 2 will be left in its natural condition as much as possible. This will leave unit 1 with very limited useable front yard and back yard, other than the driveway area.

10. Neighborhood Concerns

On April 19th a petition was submitted to the Planning Office with approximately 50 signatures from the Holm Street neighborhood. The neighborhood concerns are increased traffic on Holm Avenue, flooding at Capisic Stream and the compatibility with the neighborhood. The petition is included as Attachment 6.

III. MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and materials submitted by the applicant and on the basis of information contained in Planning Report #9-00 and Planning Board Memo dated April 25, 2000 relevant to standards of Site Plan and Subdivision Review, the Planning Board finds:

i. that the proposed development is/is not in conformance with the stormwater standards as required by MEDEP.

ii. that the proposed development is/is not in conformance with the Subdivision Ordinance of the Land Use Code

Potential Conditions of Approval:

1. that the applicant revise the plans in accordance with the DRC's memo dated 4/20/00 regarding TSS removal and stormwater maintenance agreement.

2. that in the event the recreation area does not function properly and the recreation area remains too wet to use, the applicant will be responsible for providing an alternative measure for stormwater detention.

3. that the applicant submit a letter of financial capacity prior to issuance of a building permit.

4. that the applicant submit condominium documents to staff for review and approval by Corporation Counsel prior to issuance of a building permit.

iii. That the proposed development is/is not in conformance with the Site Plan Ordinance of the Land Use Code

Potential Conditions of Approval:

1. that the City Arborist review and approve the landscape plan.

2. that a note be added to the lighting plan stating that a house side shield will be installed on the light fixture located on the southeasterly side of the access drive and that the lighting note be revised to state that the light fixture will be on a 16 ft. pole instead of an 18 ft. pole.

3. that the Fire Department approve the street name of "Celebration Court" for the private access drive.

AH. 1

Sebago Technics

Engineering & Planning for the Future

May 2, 2000
99103

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

Holm Place

Dear Members of the Board:

On behalf of VP Builders, I am pleased to submit this revised site plan for Holm Place. At our meeting on April 25th, several members of the Board brought up three main concerns. The first was the use of a portion of the recreation area as a secondary stormwater detention area. The second was the proximity of the dumpster to the property line. The final concern was the proximity of Unit One to the primary stormwater detention area and the stream.

In order to provide for a distinct separation between the recreation area and the secondary stormwater detention pond, we have revised the layout of the recreation area. We reduced the size of the recreation area to 6,380 square feet, which is still above the minimum required area, and created a separate secondary detention pond off the easterly end of the recreation area. This detention area is approximately two feet deep with a mowed bottom area sloping at 2% toward the catch basin outlets. As designed, this detention area will contain water for approximately one hour for all storm events greater than the 2-year storm. A wooden split rail fence will divide the recreation area from this secondary detention area.

The second issue was the close proximity of the dumpster to the property line. We have relocated the dumpster to a more centrally located area northerly of Unit 14. The dumpster is still screened by six-foot tall wooden stockade fence with a gate, and a landscaped buffer.

The final issue was the placement of Unit One and its proximity to the primary detention area and the stream. Due to the relocation of the dumpster, the primary stormwater detention area was redesigned to utilize the old dumpster area. This allowed us to pull the pond away from Unit One. In addition to the pond being relocated, we relocated Units One through Six, sliding them westward. This provided Unit One with a front and side yard comparable to the other units in this development. It also allowed us to rotate Units One and Two to provide a better stream buffer, and reduce the exposed concrete on these units to five feet instead of ten on the rear of the building, and to match the other units for most of the side. The rear twelve feet of the side of the building slopes from one foot of concrete reveal to the five feet of concrete reveal maintained across the back. We are still proposing a landscape buffer between Unit One and the detention pond. The back yards of Units One and Two will have a three to one slope back to match existing grade and will have raised wooden decks instead of the patios.

One Chabot Street P.O. Box 1339 Westbrook, Maine 04098-1339 207-856-0277 Fax 207-856-2206

There were also five potential conditions of approval listed on the last Planning Board report. This was for both the Subdivision and the Site Plan Ordinance.

The first was a comment made on the Development Review Coordinator's (DRC) memo dated April 20, 2000. He is recommending a 40% Total Suspended Solids (TSS) removal rate for stormwater treatment. We have added a flow splitter prior to the inlet of the primary detention pond. This flow splitter will divert flows equivalent to an approximately 2-month storm event through a Vortechnics stormwater treatment structure, or approved equal, prior to entering the pond. Runoff which exceeds the volume of a 2-month storm will bypass this treatment and outlet directly into the pond. This off-line treatment structure will provide approximately 70% TSS removal for all flows passing through it. Overall, the entire development will receive a weighted average of approximately 55% TSS removal.

The second condition was the financial capacity letter. I have enclosed a copy of that letter with this submission.

This third was that the condominium documents be review by staff and Corporate Counsel prior to the issuance of a building permit. We would like this condition to remain for this next meeting.

The fourth was for the City arborist to review the Landscape Plan. He should now have the opportunity for review prior to this meeting.

The final condition was a house side shield being added to the light pole at the entrance to the site and the reduction of height of the pole from 18 to 16 feet. The notes on the plans and Lighting Plan have shown the heights of all of the proposed light poles to be 16 feet. We will add a house shield to the light at the entrance drive.

We look forward to meeting with you at your May 9th meeting for final review of this project. In the interim, if you require additional information or have any questions, please do not hesitate to contact me.

Thank you for your consideration of this project.

Sincerely,

SEBAGO TECHNICS, INC.

Matthew W. Ek

Matthew W. Ek, PLS
Project Manager

MWE:mwe/jc
Enc.

cc: VP Builders

16

Peoples Heritage Bank
One Portland Square
PO Box 9540
Portland, ME 04112-9540

1-800-482-3036
Dial 207-761-8500
Internet: www.peoplesheritage.com

Peoples

April 10, 2000

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

RE: V.P. Builders, Inc.-Holm Avenue Project

Ladies and Gentlemen:

V.P. Builders, Inc. has been a customer of Peoples Heritage Bank for several years and has successfully completed subdivisions and single family residences financed with the Bank.

I have met on two occasions with the developer to discuss the proposed condominium project on Holm Avenue, to review plans and discuss financing. Although the Bank has not issued a commitment letter for the project, we will certainly review their loan application and could likely provide financing if the Borrowers are able to meet all the Bank's loan underwriting criteria.

It appears V.P. Builders, Inc. has the financial capacity to complete the proposed project.

Sincerely,

Frederick G. Proctor
Vice President

/fgp

cc: Clifford Plummer
Patricia Vernill

PURCHASE AND SALE AGREEMENT

1C

May 13, 1999 (DATE) | May 17, 1999 Effective Date

The use of days in this agreement refers to calendar days from the effective date

RECEIVED OF: V.P. Builders Inc. and assigns (hereinafter called "Buyer") the sum of ($ 5,000) Five thousand dollars as earnest money and in part payment of the purchase price of the following described real estate, situated in municipality of Portland County of Cumberland State of Maine located at Certain lot of land located on Holm Avenue consisting of approximately 4 Acres +/- with 50' wide access as per attached Addendum A.*** .

Being (all [ ] part of [X]) the property at the above address owned by Peter P. and Suzanne Martelle (hereinafter called "Seller") and described at said County's Registry of Deeds Book 8730* Page 108*

FIXTURES: The parties agree that all fixtures, including but not limited to existing storm and screen windows, shades and/or blinds, shutters, curtain rods and electrical fixtures are included with the sale except for the following:

PERSONAL PROPERTY: The following items of personal property are included with the sale at no additional cost and in as is condition with no warranties:

*Book 7100, Page 299

The TOTAL purchase price being ($ [redacted]) dollars to be paid as follows: [redacted]

The purchase price balance shall be paid in cash, certified funds or bank check at closing.

This Purchase and Sale Agreement is subject to the following conditions:

1. EARNEST MONEY/ACCEPTANCE: Rob Gregory Esq. shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until May 15, 1999 (date) 9:00 ~~AM~~/PM; and, in the event of Seller's non-acceptance, this earnest money shall be returned promptly to Buyer.

2. TITLE & CLOSING: That a deed, conveying good and merchantable title in accordance with standards adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on November 13, 1999 (closing date) or before if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 days, from the time seller is notified of the 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, Buyer may, at Buyer's option, withdraw said earnest money and be relieved from all obligations. Seller hereby agrees to make a good-faith effort to cure any title defect during such period.

3. DEED: That the property shall be conveyed by a Warranty deed, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not adversely affect the continued current use of the property.

4. POSSESSION/OCCUPANCY: Possession/occupancy of premises shall be given to Buyer immediately at closing unless otherwise agreed in writing.

5. RISK OF LOSS: Until the closing, the risk of loss or damage to said premises by fire or otherwise, is assumed by Seller. Said premises shall then be broom clean and in substantially the same condition as at present, excepting reasonable use and wear. Buyer shall have the right to view the property within 24 hours prior to closing for the purpose of determining that the premises are in substantially the same condition as on the date of this contract.

6. PRORATIONS: The following items, where applicable shall be prorated as of the date of closing: fuel (cash price as of date of closing), rent, real estate taxes (based on municipality's fiscal year), association fees, (other). Metered utilities such as electricity, water and sewer will be paid through the date of closing by Seller. Buyer and Seller will each pay their transfer tax as required by State of Maine.

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7. INSPECTIONS: Buyer is encouraged to seek information from professionals regarding any specific issue or concern. 10

Agent makes no warranties regarding the condition, permitted use or value of Sellers' real or personal property. This contract is subject to the following inspections, with results being satisfactory to Buyer:

TYPE OF INSPECTION	YES	NO	RESULTS REPORTED TO SELLER	TYPE OF INSPECTION	YES	NO	RESULTS REPORTED TO SELLER
a. General Building		X	Within ____ days	f. Asbestos Air Quality		X	Within ____ days
b. Sewage Disposal		X	Within ____ days	g. Lead Paint		X	Within ____ days
c. Water Quality		X	Within ____ days	h. Pests		X	Within ____ days
d. Water Quantity		X	Within ____ days	i. Radon Air Quality		X	Within ____ days
e. Radon Water Quality		X	Within ____ days	j. ____			Within ____ days

All inspections will be done by inspectors chosen and paid for by Buyer. If the result of any inspection or other condition specified herein is unsatisfactory to Buyer, Buyer may declare the contract null and void by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If Buyer does not notify Seller that an inspection is unsatisfactory within the time period set forth above, this contingency is waived by Buyer. In the absence of inspection(s) mentioned above, Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

8. FINANCING: This contract is subject to Buyer obtaining an approved Commercial mortgage of ____ % of the purchase price, at an interest rate not to exceed ____ % and amortized over a period of ____ years.

a. This contract is subject to a written statement from the lender, within ____ ( ) days of the Effective Date, that Buyer has made application.
b. This contract is subject to final loan approval within ____ days of the Effective Date.
c. If either of these conditions is not met within said time periods, Seller may declare this contract null and void, and the earnest money shall be returned to Buyer.
d. Buyer is under a good-faith obligation to seek and accept financing on the above-described terms. Buyer acknowledges that a breach of this good-faith obligation will be a breach of this contract.
e. Buyer agrees to pay no more than 0 points. Seller agrees to pay $ 0 toward points and/or Buyer's closing costs.

9. AGENCY DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following agency relationships:

The N/A (Listing Agent) of ____ (Agency) represents ____.

The N/A (Selling Agent) of ____ (Agency) represents ____.

When the transaction involves Disclosed Dual Agency, the parties acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the parties acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

10. MEDIATION: 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 the transaction.

11. DEFAULT: In the event of default by the Buyer, Seller may employ all legal and equitable remedies, including without limitation, termination of this contract and forfeiture by Buyer of the earnest money. In the event of a default by Seller, Buyer may employ all legal and equitable remedies, including without limitation, termination of this contract and return to Buyer of the earnest money. The escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller.

12. PRIOR STATEMENTS: Any representations, statements and agreements are not valid unless contained herein. This agreement completely expresses the obligations of the parties.

13. HEIRS/ASSIGNS: This agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the respective parties.

14. COUNTERPARTS: This agreement may be signed on any number of identical counterparts, such as a faxed copy, with the same binding effect as if the signatures were on one instrument. Original or faxed signatures are binding.

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15. ADDENDA: Check as many as apply - | | Lead Paint | | Property Disclosure | | Other:
Total Addenda Pages: 1 | | None

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16 EFFECTIVE DATE: This contract is a binding contract when signed by both Buyer and Seller and when that fact has been communicated to all parties or to their Agents.

17. 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. Parties authorize agents to receive copy of entire closing statements.

18. OTHER CONDITIONS:

This contract is contingent upon the Purchaser obtaining Planning Board approval from the city of Portland for a minimum of 14 condominium units w/attached garages.
Purchaser to be responsible for all costs of Planning Bd. Approval including any survey, topographical, and/or infrastructure design.
Seller acknowledges that Purchasers are licensed real estate brokers.
***excluding the house, shed and garage and land in crossed out area of Addendum A

A copy of this contract is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.

Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Bureau of Taxation.

BUYER P.P. Builders Inc. — 01-0418855 SS# OR TAXPAYER ID#

BUYER — SS# OR TAXPAYER ID#

Buyer's Mailing Address is P O Box 41, Westbrook, Maine

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement. If the earnest money is forfeited by Buyer, it shall be distributed as follows:

Signed this 13th day of May, 1999

SELLER Peter P. Martelle — 005-52-9106 SS# OR TAXPAYER ID#

SELLER Suzanne G. Martelle — 024-44-7499 SS# OR TAXPAYER ID#

Seller's Mailing address is 8 Poe Street, Portland, Maine 04102

Offer reviewed and refused on

SELLER

SELLER

EXTENSION: The time for the performance of this contract is extended until February 28, 2000 DATE

BUYER DATE SELLER DATE

BUYER DATE SELLER DATE

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CENTURY 21 Northeast Associates

647 Main Street
Westbrook, Maine 04092

Contract Extension

Sellers: Peter P. and Suzanne G. Martelle

Purchaser: V.P. Builders Inc.

Contract Date: May 17, 1999

Property: Certain lot of land located on Holm Avenue consisting of approximately 4 Acres +/-

The time for Extension of the Purchase and Sale Agreement is Hereby Extended until April 30, 2000.

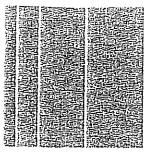
_____ _____

V.P. Builders Inc Date

_____ _____

Peter P. Martelle Suzanne G. Martelle

19



Sebago Technics

Engineering & Planning for the Future

STORMWATER RUNOFF EVALUATION

Holm Place Condominiums
Holm Avenue
Portland, Maine

prepared for

V. P. Builders
P. O. Box 41
Westbrook, ME 04098

March 2000
Revised April 17, 2000
Revised May 2, 2000

One Chabot Street P.O. Box 1339 Westbrook, Maine 04098-1339 207-856-0277 Fax 207-856-[illegible]

1h

STORMWATER RUNOFF EVALUATION/ EROSION AND SEDIMENTATION CONTROL PLAN

Holm Place Condominiums
Portland, Maine

General

The following stormwater runoff evaluation has been prepared for V. P. Builders, Inc. to evaluate stormwater runoff and erosion control for the proposed Holm Place Condominiums in Portland, Maine. The Holm Place Condominiums will be a 16 unit residential development with an associated roadway utility infrastructure. The entire development will encompass a land area of approximately 3.65 acres. Access to the development will be from a private drive which connects directly onto Holm Avenue approximately one-third mile northeasterly of the intersection of Holm Avenue and Brighton Avenue.

Site Characteristics

The current condition of the project area is predominately wooded consisting of hardwood tree growth covering the majority of the land, with some open brush/meadow areas near the end of the existing driveway to the property. The surrounding area includes a residential neighborhood along both sides of Holm Avenue, with the Maine Turnpike bordering the western rear of the project. A tree buffer exists between the project's property and the actual Turnpike and a parcel of undeveloped land abuts northeasterly of the development which is wooded. Terrain in the development area varies from gentle to steep slopes at the northeasterly end. The northerly portion of the project slopes towards a deep ravine area in association with an upper tributary of Capisic Brook which drains easterly and eventually crosses Holm Avenue by a box culvert. The entire portion of the condo development and adjacent properties against the Turnpike also drain in a northeasterly direction toward the ravine via channels and culvert flows. All of the site's drainage eventually crosses Holm Avenue and joins into Capisic Brook, which eventually discharges into Fore River and Casco Bay.

The enclosed pre-development watershed map and USGS topographical map depict the general drainage characteristics and infrastructure in the project area. During site reconnaissance of this site, no erosion or ponding were observed in the pre-development condition.

Soils

Soil classifications within the project area were based upon test pit information. The majority of the site is comprised of Swanton somewhat poorly drained soils which are classified as hydrologic group D.

One small area, which was previously filled with material excavated from construction in the surrounding areas, was classified as Croghan moderately well drained soils with a hydrologic group C. Off-site watersheds to the south consist of Swanton fine sandy loams which are classified as a hydrologic Group D soils. The soils are noted for a high water table, even though they can have a high permeability. This condition creates a poorly draining soil which can be associated with wetlands.

Stormwater Management

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

As described in the following, three watersheds were analyzed in the pre-development condition, and six watersheds in the post-developed condition. Due to the topography of the site and the nature of the stream near the site's northeasterly property line, two separate study points were evaluated. Study Point 1 was chosen to be the point where the majority of the site runoff enters the stream. Study Point 2 is a point approximately 230 feet northwesterly of Study Point 1.

The pre-developed condition considered one off-site watershed which flows through the site, plus two on-site watersheds.

WS-1 consists of the off-site area (2.6 acres) contributing to the site's runoff by draining runoff across the property by ditch and culvert flows. The area appears to be an abandoned road network or discontinued streets. The area abuts to the northbound off-ramp to Exit 8 of the Maine Turnpike and gently slopes to the proposed site. The existing roadways, now grown over with trees, provide channels for runoff to travel toward the site and the need for an 18" culvert to cross approximately half of the site.

WS-10 consists of 3.23 acres of the site for the proposed condominium project. The land is well vegetated with young hardwood growth and is currently not subject to erosion, even though it banks along a deep ravine and tributary subject to flooding on Holm Avenue. The parcel does contain one area of filled debris just behind the neighboring homes. This small area is believed to be a spoils area from recent road construction and repairs from the October 1996 flood. All runoff travels northeasterly to the stream prior to crossing Holm Avenue through a box culvert.

WS-11 consists of 0.42 acre of woodland in the northern corner of the site. Runoff flows northeasterly towards the stream prior to combining with the runoff from WS-10.

Watershed 1 remains the same in the post-development condition as in the pre-developed condition. Watersheds 10, and 12 through 14 are composite watersheds of the same watershed areas labeled as Watershed 10 in the pre-development condition and all outlet to Study Point 1. Watershed 11 outlets to Study Point 2.

WS-10 is the center of the proposed condominium project that includes the entrance drive, majority of driveways, and some roof-top portions. Approximately two-thirds of this watershed is pavement. Flows are sheet and shallow flows across green areas to a catch basin and storm drain system. The area has been regraded to provide positive drainage away form the residential units, while maximizing travel times prior to entering the storm drain system. All flows enter the proposed detention pond to be located along the eastern corner of the property to the north of the Holm Place main entrance.

WS-14 comprises the area along the southeastern and southern property lines between the existing woods and rear of the condominiums to be constructed on that side of the property. The area is treed along the property to provide some visual buffer, and grassed for lawns and drainage ditches. A long ditch collects from the condominium's rear side and directs runoff following the property line easterly to the main entrance drive. From there, it is conveyed by culvert to the storm system and detention pond. This ditch also collects off-site flows to the detention pond.

WS-12 consists of the western corner of the site which is proposed to be approximately four residential units, lawn and tree save areas, as well as the recreational area. Flows are redirected westerly across the units' rear side and then northerly to a gentle graded grassed swale which outlets to a 12" culvert adjacent to the recreational area sidewalk. The culvert directly enters the site's storm drain system and detention pond.

WS-13 consists of the small area of driveway and lawns between Units 2, 3, 4 and 5. Flows are directed into the catch basins and storm drain system, which outlets directly into the detention pond.

WS-11 is the portion of the site not developed along the western sideline and also the condominium units along the land above the stream bank. The area includes lawns, roofs, woods generally along the slope to the bank, and some wetlands associated with the stream/tributary. This watershed outlets to Study Point 2 as in the pre-developed condition.

STORMWATER DETENTION ANALYSIS

Holm Place Condominiums
Holm Avenue
Portland, Maine

Project Area 3.65 Acres

Watershed	Avg. CN	Acres	Tc min.	Peak Runoff (cfs) 2-Year	10-Year	25-Year	100-Year
Pre-Development							
1	77	2.60	27.0	1.84	4.26	5.48	7.36
10	72	3.23	25.0	1.69	4.46	5.93	8.23
Study Point 1				3.29	8.31	10.89	14.92
11	77	0.42	12.8	0.39	0.91	1.17	1.57
Study Point 2				0.39	0.91	1.17	1.57
Reach 22				3.34	8.43	11.06	15.20
Post-Development							
1	77	2.60	27.0	1.84	4.26	5.48	7.36
10	90	0.95	1.4	2.20	3.86	4.64	5.79
14	85	0.69	7.7	1.10	2.12	2.60	3.33
12	83	0.90	16.3	1.09	2.18	2.72	3.52
13	91	0.18	1.5	0.43	0.75	0.90	1.12
Study Point 1				2.99	5.28	6.32	8.41
11	81	0.94	46.4	0.65	1.36	1.72	2.25
Study Point 2				0.65	1.36	1.72	2.25
Reach 22				3.03	5.87	7.03	7.72
Net Change at Reach 22				**-0.31**	**-2.56**	**-4.03**	**-7.48**

The following analysis describes how the impervious increase of the proposed site and the related increase in peak runoff rates were designed to meet the existing, or lessen the overall peak rates of runoff of the site. Unfortunately, the downstream areas of the site are subject to flooding in relatively small rain events (5-year occurrence, or less). To comply with the analysis prepared for the City of Portland – "The Capisic Brook Greenbelt/Stormwater Abatement Study" by CH2M Hill, we must meet the stormwater quantity requirements to not further aggravate a current problem. The proposed property is not subject to flooding, but the stream adjacent to the northern property line winds through some densely populated neighborhoods and is prone to exceeding its banks and flooding in storms greater than 4.0"/24-hr. Although the report recommends large storage volumes for detention, it concedes no areas large enough in the Holm Avenue/Taft Avenue area are available to have any significant reduction of flooding. We hope to control our proposed site runoff to not further aggravate the area's watershed with the construction of a catch basin/storm drain system and detention pond.

Stormwater runoff modeling suggests that the peak rates of runoff in the developed condition will be the same or less than the pre-developed runoff rate within the ravine where the site's last discharge enters. Due to the compact development, the entire site showed slight increases because of the change of ground cover from woods to lawn and pavement. However, construction of a detention outlet control with the roadway infrastructure allowed the proposed site to drain similar to the manner that the site drains currently. We have either designed the driveways lower than the surrounding grades, or have provided yard drains to promote front yard sheet flow to the streets and installed drainage infrastructure.

An off-line stormwater treatment tank has been provided prior to flows entering the primary detention pond. This treatment tank has been sized to provide 70% Total Suspended Solids (TSS) removal at the runoff from the impervious areas that are draining through it. Overall, the entire development will receive a weighted average of approximately 57% TSS removal. The outlet control structure, as described below, will control the rates of runoff to at or below pre-development rates.

The proposed detention system which was designed to utilize an area above the ravine will use an outlet control structure to store runoff temporarily and meet the pre-development peak flow rates as required. An outlet structure was designed with staged storage outlets consisting of two 4" orifices, one 18" x 6" slot orifice, and a 36" weir to control the site and provide an overflow. The pipes entering and discharging were significantly oversized to pass, if necessary, storm runoff from events such as the 100-year or less probability of occurrence.

In addition to the outlet structure and outlet pipe, an emergency riprap spillway was provided to assure the pond can outlet in the event the outlet is clogged or the storm rainfall is too great to pass all of the water through the control structure. We intend to make no revisions to the existing ravine other than installing a stilling basin located downstream of the outlet structure. Due to the work involved and location of adjacent wetlands, some slopes may be steepened with riprap which will be available from on-site excavation to stabilize constructed slopes and not further impact wetlands.

POND SUMMARY TABLE

	2-Year Peak Discharge	10-Year Peak Discharge	25-Year Peak Discharge	100-Year Peak Discharge
Discharge at Ravine (cfs)	2.99	5.28	6.32	8.41
Peak Elevation at Detention Pond (Ft.) *	56.5	58.1	58.8	59.0

* Emergency Spillway Crest = 58.8 Ft.

The Stormwater Management Plan for the Holm Place Condominium project will also include an Erosion and Sedimentation Control Plan placing emphasis on the installation of sedimentation barriers and revegetation to minimize erosion potential from development activities during and after construction. The Erosion Control Plan has been placed directly on the design plans to include locations of erosion control provisions (i.e., silt fence, hay bale barriers, riprap aprons, embankment), along with a narrative and construction details for reference by the contractor during construction.

In an effort to emphasize the requirements, a pre-construction meeting will be required as indicated in the erosion control notes between the owner, City and engineer to review critical aspects and sequencing of construction activities. The erosion control measures are to be monitored throughout construction by the contractor, with maintenance and repairs performed on a regular basis as directed by the erosion control plan.

Summary

The preceding stormwater runoff evaluation has been prepared to evaluate pre and post-development conditions of the proposed Holm Place Condominium development project located off Holm Avenue in Portland. The analysis reviewed pre and post-development watersheds and compared peak rates of runoff at common discharge points to assess stormwater infrastructure needs. Based upon the analysis and review of the site, we make the following recommendations:

1. Implementation of a site specific erosion and sedimentation control plan placing emphasis on times of disturbance and, during construction, installation of appropriate erosion control measures and revegetation of the site and project completion. A specific erosion control plan with notation has been placed directly on the subdivision plans along with supporting details. These measures should be followed by the selected contractor throughout project construction.

2. A pre-construction meeting should be held between the owner, contractor and City representative to review scheduling and critical components of the stormwater management and erosion control plan. The contractor should provide the owner and City with a construction schedule outlining the sequence of events.

3. The proposed site should utilize existing tree vegetation on slopes, natural channels, and stabilize all slopes with either riprap or erosion control blankets. This will lessen erosion of disturbed areas from the development activity and lessen the impact on abutters and the environment by providing stabilized soil conditions which will decrease both erosion and sedimentation of the upper reaches of the Capisic Brook Watershed.

1 M

The proposed drainage system should not aggravate the existing flooding situations downstream to the Holm Avenue box culvert or associated tributaries. We are currently aware of the drainage and related flooding problems with the culvert or drainage infrastructure downstream. Therefore, we were careful not to discharge more than allowed by the pre-development peak runoff rates.

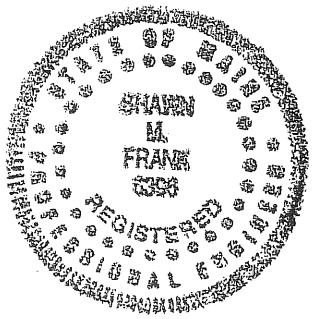
Prepared by:

SEBAGO TECHNICS, INC.

Jennifer L. Williams
Project Engineer

Shawn M. Frank
Professional Engineer

JLW/SMF:jc
May 2, 2000



CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Caron and Members of the Portland Planning Board

FROM: Kandice Talbot, Planner

DATE: October 9, 2001

SUBJECT: Site Plan Re-Approval for a PRUD, V.P. Builders, Inc.
Vicinity of 166 Holm Avenue

I. INTRODUCTION

On May 9, 2000 the Planning Board voted 5-0 to approve the Holm Avenue PRUD for stormwater standards required by MEDEP, subdivision review and site plan review with conditions. The approval letter is included as Attachment 1. Planning Report #9-00, Planning Memo dated April 25, 2000 and Planning Memo dated May 9, 2000 are also included as Attachments 3, 4 and 5 for your review. Subdivision approval is in effect for three years. If within that time period, the subdivision plat is not recorded, the approval expires. Site plan approval is in effect for one year, unless significant construction has commenced. Site plan approval may be extended, however, the applicant must request an extension in writing prior to the site plan expiration date.

Unfortunately, the applicant did not request a site plan extension prior to the expiration date, which was May 9, 2001. Although, the subdivision approval and stormwater standards approval are still in effect, the applicant is now seeking site plan re-approval from the Planning Board.

II. CONDITIONS OF MAY 9, 2000 APPROVAL

As stated above, the 16-unit condominium development was approved with conditions. Below are the conditions and the status of each of these conditions.

1. **That the applicant submit a stormwater maintenance agreement prior to issuance of a building permit.**

   This condition was part of the subdivision approval and the applicant has recently submitted the stormwater maintenance agreement for staff's review.

2. **That the applicant submit condominium documents to staff for review and approval by Corporation Counsel prior to issuance of a building permit.**

   This condition was part of the subdivision approval and the applicant has recently submitted the stormwater maintenance agreement for staff's review.

3. **That the applicant revise the landscape plan in accordance with the City Arborist's memo dated May 5, 2000 regarding limits of work, size of plantings and the landscaping within the right-of-way at 173 Holm Avenue.**

A note has been added to the landscaping plan, which states "The proposed tree line delineates the limits of disturbance of the existing vegetation. Any existing vegetation removed beyond this limit shall be replaced. The applicant has revised the landscaping plan to reflect the change in the size of plantings that the City Arborist has requested and the applicant has also shown to European Hornbeam within the right-of-way at 173 Holm Avenue. The landscape plan is included as Attachment 2. The City Arborist has reviewed and approved the landscape plan.

4. **That a note be added to the lighting plan stating that a house side shield will be installed on the light fixture located on the southeasterly side of the access drive and that the lighting note be revised to state that the light fixture will be on a 16 ft. pole instead of an 18 ft. pole.**

A note has been added to the lighting plan in regards to the house side shield and also that the light fixture will be on a 16 ft. pole, not an 18 ft. pole.

III. MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and materials submitted by the applicant and on the basis of information contained in Planning Report #9-00 and Planning Memo dated April 25, 2000, May 9, 2000 and October 9, 2001 relevant to standards of Site Plan, the Planning Board finds:

i. That the proposed development is/is not in conformance with the Site Plan Ordinance of the Land Use Code.

Attachments:

1. May 9, 2000 Approval Letter
2. Revised Landscape and Lighting Plan
3. PR#9-00
4. April 25, 2000 Memo
5. May 9, 2000 Memo

Richard Hall - 147 Pinecrest Avenue
rec. area as detention basin

********** -COMM. JOURNAL- ********** DATE OCT-09-2001 ***** TIME 10:57 ********

MODE = MEMORY TRANSMISSION START=OCT-09 10:55 END=OCT-09 10:57

FILE NO.=196

STN NO.	COMM.	ABBR NO.	STATION NAME/TEL NO.	PAGES	DURATION
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-CITY OF PORTLAND -

********** -PLANNING DEPT. - ***** - 2077568258- **********

Planning Department
389 Congress Street
Portland, ME 04101
Phone: 207-874-8901
Fax: 207-756-8258

City of Portland

Fax

To:	Matthew Ek	**From:**	Kandice Talbot
Fax:	856-2206	**Date:**	October 9, 2001
Phone:	856-0277	**Pages:**	6
Re:	Holm Avenue Re-Approval	**CC:**	

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

•**Comments:** Attached are the planning board memo and agenda for your review. Please forward this information on to the applicant for me. I do not have a telephone or fax number for him. Any questions, please call. Thanks.

AH. 6

To the Planning Board, City of Portland:

As residents surrounding the proposed development at 166 Holm Avenue, we are opposed to the development for the following reasons:

1. Increased traffic on an already busy street. It is growing increasingly difficult to walk safely, particularly with children or pets on Holm Avenue during peak traveling hours. The addition of 16-30 cars on Holm Avenue at peak traveling times will have a significant impact.. An improved section of the street has already caused a rise in speeding and one of our concerns is that improvement of the entire street to accommodate the traffic increase will increase the speed and decrease the safety of our entire street.

2. Increased flooding at Capisic Stream. This is already a serious problem. The development threatens to increase the flow of storm water into the stream and could will make the problem worse.

3. This is a 16 unit development. Holm Avenue consists almost exclusively of single family homes. The proposed development equals or exceeds the number of dwellings between Brighton Avenue and Dale Street. It exceeds the number of dwellings in the second block of Holm Avenue, which runs from Dale Street to Robin Street. In effect, this triples the size of our neighborhood on a 3.65 acre parcel.. Aesthetically, those of us who now have backyards surrounded by trees will have a fence, houses, and 24 hour lighting. Nothing like this exists on this street, and we feel that the planning board would be making a serious mistake by allowing it.

Dated: 4/15/00

Signature

Matthew Dyer

Printed Name

150 Holm Ave, Portland

Address

Dated: 4/15/00

Howard Doucette

Signature

Howard Doucette

Printed Name

158 Holm Ave Portland

Address

AH. 6a

Dated: 4-15-00

Sally Ann Lynn
Signature

SALLY ANN LYNN
Printed Name

136 HOLM AVE, PORTLAND, ME
Address

Dated: 4-15-00

Calvin Lynn
Signature

CALVIN LYNN
Printed Name

136 HOLM AVE, PORTLAND, ME
Address

Dated: 4/15/00

Bo Great
Signature

Bo Great
Printed Name

122 Holm Ave PTLD, ME
Address

Dated: 4/15/00

Mary Eagar
Signature

Mary Eagan
Printed Name

184 Holm Ave.
Address

Dated: 4-15-00

Richard Charlton
Signature

RICHARD CHARLTON
Printed Name

100 HOLM AVE.
Address

AH. 6b

Dated: 4-15-2000

Mary Charlton
Signature

Mary Charlton
Printed Name

100 Holm Ave. Portland Me.
Address

Dated: 4-15-2000

Robert C. Richards SR
Signature

Robert C Richards SR
Printed Name

100 Holm Ave. Portland Me
Address

Dated: 4-15-00

Matt Dunda
Signature

MATT DUNDA
Printed Name

74 Holm Ave
Address

Dated: 4/15/00

Bryan Eldridge
Signature

Bryan Eldridge
Printed Name

66 holm Ave
Address

Dated: 4/15/00

Thanh Tran
Signature

THANH N. TRAN
Printed Name

63 HOLM ave
Address

Att. 6C

Dated: 4/15/00

Signature

TUYEN NGUYEN 63 Holm Ave.

Printed Name

Address

Dated: 4/15

Signature

Andrea M. Cesario

Printed Name

69 Holm Street Portland, Me. 04102

Address

Dated: 4/15/00

Signature

Rachel Gildard

Printed Name

88 Holm Ave Portland

Address

Dated: 4/15/00

Signature

BRUCE WINSTANLEY

Printed Name

88 HOLM AVENUE; PORTLAND, ME. 04102

Address

Dated: 4/15/00

Signature

DONNA BUCHANAN

Printed Name

96 Holm Ave

Address

Att. 6d

Dated: 4/15/00

Jane D Flaherty
Signature

Jane D. Flaherty
Printed Name

Address

Dated: 4/15/00

Forrest E. McMahon
Signature

FORREST E. MCMAHON
Printed Name

121 Holm ave - PORT. ME
Address

Dated: 4.15

Jeanne B. Wells
Signature

Jeanne B. Wells
Printed Name

150 Holm Ave.
Address

Dated: 4-16

Hung Ly
Signature

HUNG LY
Printed Name

149 HOLM AVE PORTLAND ME 04102
Address

Dated: 4-16

x Hanh Nguyen
Signature

HANH NGUYEN
Printed Name

149 HOLM AV PORTLAND ME 04102
Address

Att. 6e

Dated: 4/16/00

Sean T. O'Ha
Signature

SEAN T. O'HARE
Printed Name

163 HOLM AVE. PTLD ME
Address

Dated: 4-16-00

Frances A. Marzilli
Signature

FRANCES A. MARZILLI
Printed Name

168 Holm Ave. Port. ME 04102
Address

Dated: 4-16-00

Kenneth W. Sylvester III
Signature

Kenneth W. Sylvester III
Printed Name

173 Holm Ave. Portland, Me 04102
Address

Dated: 4/16/00

Rochelle Clippinger
Signature

Rochelle Clippinger
Printed Name

189 Holm Ave Portland
Address

Dated: 4/16/00

Paul J. Bolding
Signature

PAUL J. BOLDING
Printed Name

199 HOLM AVE.
Address

Att. 6f

Dated: 4-16-00

Signature

Daniel L Lentz

Printed Name

202 Holm Ave
Portland Me 04102

Address

Dated: 4/16/00

Signature

Barbara Reidman Traynor

Printed Name

205 Holm Ave Portland

Address

Dated: 4/16/00

Signature

ADRIEN J. BOUCHER

Printed Name

205 HOLM AVE PORTLAND

Address

Dated: 4/16/00

Signature

Ken Beesley

Printed Name

211 Holm Ave

Address

Dated: 4/16/00

Signature

Joseph Conwolly JR

Printed Name

217 Holm Ave

Address

AH. 69

Dated: 4-16-00

Deborah J Senseeguy
Signature

Deborah J Senseeguy
Printed Name

253 Holm Ave
Address

Dated: 4-16-00

Dorothy Tolin
Signature

Dorothy J. Tolin
Printed Name

253 Holm Ave
Address

Dated: 16 Apr 2000

Thomas A Wood
Signature

THOMAS A WOOD
Printed Name

4 BIRCHWOOD DR PORTLAND 04102
Address

Dated: 4/16/00

Dawn Wood
Signature

DAWN WOOD
Printed Name

4 Birchwood Dr. Portland ME 04102
Address

Dated: 4/16/00

Ida Tevanian
Signature

IDA TEVANIAN
Printed Name

294 HOLM AVE
Address

Att. 6h

Dated: 4/16/00

Whitney Brichetto
Signature

Whitney Brichetto
Printed Name

214 Holm Ave. Pld 04102
Address

Dated: 4/16/2000

Richard M. Libby
Signature

RICHARD M. LIBBY
Printed Name

250 Holm Ave. Pld. 04102
Address

Dated: 4/16/2000

Susan L Libby
Signature

Susan Libby
Printed Name

250 Holm Ave Pld 04102
Address

Dated: 4/16/2000

Cathy Robichaud
Signature

Cathy Robichaud
Printed Name

35 Robin St. Portland 04102
Address

Dated: 4/16/2000

David R. Robichaud
Signature

DAVID R. ROBICHAUD
Printed Name

35 ROBIN ST. PORTLAND 04102
Address

5

AH. 61

Dated: 4/15/00

Anne White
Signature

Anne White
Printed Name

23 Robin St - Portland 04102
Address

Dated: 4/16/00

Ralph B Carver
Signature

RALPH B CARVER
Printed Name

210 Holm Ave. - Portland Me.
Address

Dated: 4/16/00

Ursula A. Carver
Signature

Ursula Carver
Printed Name

210 Holm Ave Port, 04102
Address

Dated: 4/17/00

Joseph A. D'Alfonso
Signature

Joseph A. D'Alfonso
Printed Name

128 Holm Avenue
Address

Dated: 4/17/00

Elizabeth D'Alfonso
Signature

ELIZABETH D'ALFONSO
Printed Name

128 Holm Ave
Address

Att. 6j

Dated: Apr. 17-2000

Ralph T. Smith
Signature

RALPH-T-SMITH
Printed Name

144-HOLM-AVE
Address

Dated: April 17 2000

Corinne M. Smith
Signature

CORINNE SMITH
Printed Name

144 HOLM AVE
Address

Dated: April 17, 2000

Thelma Senseguera
Signature

Joseph J. Senseguera
Printed Name

159 Holm Ave
Address

Dated: April

Signature

Printed Name

Address

Dated:

Signature

Printed Name

Address

City of Portland Planning board:

Dear Sir(s)

I am writing in response to the proposed Holm Place Condo development. There are three complaints I have with it.

① Overcrowding

The traffic is already a burden to Holm Ave. Speeding traffic is a big problem. Safety is my first concern. Adding 20 to 30 cars is just too much. This is a family area with children playing and crossing the road at all hours of the day. Perhaps sidewalks could be installed along Holm Ave. The board should recomend downsizing the development to four two-unit buildings. Sixteen families on such a small area is going to overburden our quiet family nieborhood.

② Water runoff is another big problem. Heavy rain floods Holm Avenue where the stream crosses under the road. This culvert is not nearly big enough to handle rain water and runoff. The added pavement and buildings are only going to add to the problem. This culvert could perhaps be two or three times

larger than it is now to handle heavy rains.

(3) I insist that the garbage dumpster be on the south west corner of the development, far away from the stream. My concern is that rodents will populate the area where food from garbage and water from the stream and will create a health hazard.

Thank You

David J. Lentz

Daniel + Jennifer Lentz
202 Holm Ave
Portland Me 04102
761-6619

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Caron and Members of the Portland Planning Board

FROM: Kandice Talbot, Planner

DATE: April 25, 2000

SUBJECT: PRUD, V. P. Builders, Inc.
Vicinity of 166 Holm Avenue

I. INTRODUCTION

V. P. Builders, Inc. is proposing a 16-unit condominium development in the vicinity of 166 Holm Avenue. The site is located between Holm Avenue and the Maine Turnpike. The site is 3.65 acres and zoned R-3. The development is proposed as a Planned Residential Unit Development (PRUD) and will be submit to site plan and subdivision review. The plan will also be reviewed under the stormwater standards as required by the Maine Department of Environmental Protection.

The applicant had requested to be tabled from the April 11th meeting due to a number of issues. Those issues have been addressed by the applicant and will be discussed below. Attached is Planning Board Report #9-00.

II. ISSUES

1. Zoning Requirements

Zoning requires that all units be separated by 16 ft. and the recreational area be at least 25 ft. from all residential units. The prior submission showed Units 6, 15 and 16 closer than 25 ft. from the recreational area. The applicant has now revised the plans to show the units 25 ft. away from the recreational area.

2. Drainage

The Development Review Coordinator and Public Works' Engineer reviewed the previous submittal. A number of issues were raised, such as pre and post development plans needed to be clarified, computations needed to be revised and additional computations provided, and the grading plan modified to include sufficient spot grades. Their comments are included as Attachment 1 and 2.

The applicant has resubmitted plans and addressed the issues raised by Public Works and the DRC. The applicant's submittal is included as Attachment 3. The Development Review Coordinator has reviewed the plans and finds it acceptable (see Attachment 4), with the exception that the stormwater report still does not provide much discussion regarding the drainage systems water quality treatment benefits. The DRC is recommending that the applicant quantify the amount of Total Suspended Solids Removal (TSS) and a reasonable goal would be 40% TSS removal. The DRC is also recommending that the applicant provide a stormwater maintenance agreement. A potential condition of approval is:

- that the applicant revise the plans in accordance with the DRC's memo dated 4/20/00 regarding TSS removal and stormwater maintenance agreement.

Public Works is currently reviewing the revised plan and comments will be available at the meeting.

3. Recreational Area

The applicant is proposing to use the recreation space as an overflow area to retain stormwater. The recreation area is designed with catch basins and under drain to help the area dry quickly following rain storm events. The applicant has stated that in a 2-year storm event, the recreation area will have less than 6" of water in small areas and will remain for approximately one hour. In the 10-year and 25-year storm events, one-third of the field will be flooded and the depth of water will be approximately one foot and will remain for approximately an hour. In an 100-year storm event, one-half of the field will be flooded with approximately 1.4 feet in depth and remain for about an hour.

The Board was concerned that using the recreation area as a retention area would go against the intent of the recreation open space requirement. The Board had asked the applicant to create a separate open space area and overflow area.

The Development Review Coordinator has reviewed the plan to use the recreational space for temporary stormwater detention. The DRC feels that this is acceptable, but the Board may wish to put a condition on the approval that in the event the recreation area does not function properly and remains too wet, the owner will be responsible for providing an alternative measure for stormwater detention. A potential condition of approval is:

- that in the event the recreation area does not function properly and the recreation area remains too wet to use, the applicant will be responsible for providing an alternative measure for stormwater detention.

4. Financial Capability

The applicant has stated that a letter of financial capacity will be forwarded to staff prior to the Planning Board meeting. A potential condition of approval is:

- that the applicant submit a letter of financial capacity prior to issuance of a building permit.

5. Condominium Documents

The applicant has not submitted condominium documents to staff at this time. A potential condition of approval is:

- that the applicant submit condominium documents to staff for review and approval by Corporation Counsel prior to issuance of a building permit.

6. Landscaping/Existing Vegetation

The City Arborist has concerns with the following issues: 1) lack of buffering, trees, shrubs or fencing along the Maine Turnpike property line and 2) preservation of existing vegetation. The Applicant has submitted a revised plan to meet the City Arborist issues, however the City Arborist is on vacation this week and could not review the plans. A potential condition of approval is:

- that the City Arborist review and approve the landscape plan.

7. Lighting

Staff has recommended that the light poles be lowered to 15 - 16 feet. The catalogue cuts that the applicant submitted shows a 16 ft. pole, however the lighting plan still has a note which reads that the lighting will be a "traditionare" post-top lantern on 18 ft. pole. The applicant has stated that a house side shield will be installed on the light fixture located on the southeasterly side of the access drive and closest to Holm Avenue. A note should be added to the lighting plan. A potential condition of approval is:

- that a note be added to the lighting plan stating that a house side shield will be installed on the light fixture located on the southeasterly side of the access drive and that the lighting note be revised to state that the light fixture will be on a 16 ft. pole instead of an 18 ft. pole.

8. Fire

The applicant has submitted a street name for the access drive, which is "Celebration Court". The Fire Department has not yet approved the street name. A potential condition of approval is:

- that the Fire Department approve the street name of "Celebration Court" for the private access drive.

9. Unit #1

The Planning Board was concerned with the proximity of unit 1 to the detention pond. The applicant addressed this concern by proposing a split rail fence around the perimeter of the detention pond to define and separate unit 1 from the detention pond. It should also be noted that the grading around unit 1 will result in an exposed foundation of almost 10 feet. The result will be that the rear area will be difficult to maintain and is also very near to the wetland area. The applicant has stated that the area behind units 1 and 2 will be left in its natural condition as much as possible. This will leave unit 1 with very limited useable front yard and back yard, other than the driveway area.

10. Neighborhood Concerns

On April 19th a petition was submitted to the Planning Office with approximately 50 signatures from the Holm Street neighborhood. The neighborhood concerns are increased traffic on Holm Avenue, flooding at Capisic Stream and the compatibility with the neighborhood. The petition is included as Attachment 6.

III. MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and materials submitted by the applicant and on the basis of information contained in Planning Report #9-00 and Planning Board Memo dated April 25, 2000 relevant to standards of Site Plan and Subdivision Review, the Planning Board finds:

i. that the proposed development is/is not in conformance with the stormwater standards as required by MEDEP.

ii. that the proposed development is/is not in conformance with the Subdivision Ordinance of the Land Use Code

Potential Conditions of Approval:

1. that the applicant revise the plans in accordance with the DRC's memo dated 4/20/00 regarding TSS removal and stormwater maintenance agreement.

2. that in the event the recreation area does not function properly and the recreation area remains too wet to use, the applicant will be responsible for providing an alternative measure for stormwater detention.

3. that the applicant submit a letter of financial capacity prior to issuance of a building permit.

4. that the applicant submit condominium documents to staff for review and approval by Corporation Counsel prior to issuance of a building permit.

iii. That the proposed development is/is not in conformance with the Site Plan Ordinance of the Land Use Code

Potential Conditions of Approval:

1. that the City Arborist review and approve the landscape plan.

2. that a note be added to the lighting plan stating that a house side shield will be installed on the light fixture located on the southeasterly side of the access drive and that the lighting note be revised to state that the light fixture will be on a 16 ft. pole instead of an 18 ft. pole.

3. that the Fire Department approve the street name of "Celebration Court" for the private access drive.

Attachments

1. Memo from DRC dated 4-10-00
2. Memo from Public Works dated 4-11-00
3. Applicant's Response dated 4-17-00
4. Memo from DRC dated 4-20-00
5. Plans
6. Petition from Neighbors
7. Planning Board Report #9-00

AH.4

From: "Steve Bushey" <srbushey@maine.rr.com>
To: "Kandi Talbot" <KCOTE@ci.portland.me.us>
Date: Thu, Apr 20, 2000 2:38 PM
Subject: hOLM pLACE

Kandi,
I have reviewed the April 17, 2000 submission by Sebago Technics on behlf of holm Place condominiums and generally find it acceptable in addressing my earlier comments. The only comments I have remaining are as follows:

1. The stormwater report still does not provide very much discussion regarding the drainage systems water quality treatment benefits. While I would agree that some treatment will be provided by the proposed basin, I think it is necessary that the amount of treatment be quantified based on the benchmark of Total suspended solids removal (TSS). I did not see any discussion of removal effeciencies in the report. A reasonable goal would be 40% TSS removal,
2. The applicant should provide a stormwater management system maintenance program and agreement. As you know, these types of development get built and the drainage systems are not properly maintained over time.

If you have any questions please call.
Steve Bushey

CC: "alex jaegerman" <aqj@ci.portland.me.us>

City of Portland Planning board:

Dear Sir(s)

I am writing in response to the proposed Holm Place Condo development. There are three complaints I have with it.

① Overcrowding

The traffic is already a burden to Holm Ave. Speeding traffic is a big problem. Safety is my first concern. Adding 20 to 30 cars is just too much. This is a family area with children playing and crossing the road at all hours of the day. Perhaps sidewalks could be installed along Holm Ave. The board should recomend downsizing the development to four two-unit buildings. Sixteen families on such a small area is going to overburden our quiet family nieborhood.

② Water runoff is another big problem. Heavy rain floods Holm Avenue where the stream crosses under the road. This culvert is not nearly big enough to handle rain water and runoff. The added pavement and buildings are only going to add to the problem. This culvert could perhaps be two or three times

larger than it is now to handle heavy rains.

③ I insist that the garbage dumpster be on the south west corner of the development, far away from the stream. My concern is that rodents will populate the area where food from garbage and water from the stream and will create a health hazard.

Thank You

Daniel + Jennifer Lentz
202 Holm Ave
Portland Me 04102
761-6619

AH. 1

From: "Steve Bushey" <srbushey@maine.rr.com>
To: "Kandi Talbot" <KCOTE@ci.portland.me.us>
Date: Mon, Apr 10, 2000 9:54 AM
Subject: holm place

Kandi,
I have reviewed the latest submission for the Holm Place development by Sebago Technics and provide the following comments for staff and Planning Board review:

1. The stormwater report and analysis has been improved based on our earlier comments however several items must be clarified. First, the Pre and Post development plans need to be revised to clarify the correct Study Pts. The Study Pt labels are backwards on the plans.

2. The Hydrocad computations should be rerun to include a reach routing from predevelopment area #11 to the study point in the eastern corner. The summary table on Page 4 on the report appears to simply add together the peak discharges for study points #1 & #2 which is incorrect. Due to timing differences it is necessary to reach route the flows from area #11 to the easterly study point in order to determine the actual peak flows at that point. This is true for the postdevelopment condition also. While I do not expect large differences in the results, I do feel it is necessary to have the computations as accurate and correctly done as possible.

3. The computations show that the proposed recreational space in the middle of the development is intended to provide temporary stormwater detention. This appears acceptable from a technical view as they have provided catch basins and underdrain pipe to keep the area drained and dry during non rainfall periods. My only caution is that a condition of approval should be placed to keep the owner/applicant responsible over the long term for maintenance of the space and responsible for providing alternative measures in the event the area does not function properly and remains too wet to use.

4. The applicant's engineer should provide an explanation of the routing methodology for the post-dev. pond #12. I am confused about the use of a 3" orifice and were it is within the structure. Also the computations for the pond should account for the catch basin grate as a control structure. This may influence the storage comp. and result in more or less actual storage occurring.

5. The stormwater report provides no explanation of the water quality treatment being provided by the proposed drainage systems and ponds. For the benefit of staff and the Planning Board this should be addressed by the applicant's engineer.

6. Section V - Stormwater Management Standards of the City's Technical design standards recommends that a five foot bench be provided around a very small ponds perimeter. The proposed pond is shallow however, Staff and the Board should determine if they want a bench or not around the basin. No bench has been provided on the current plan.

7. A drainage maintenance agreement must be prepared and executed by the applicant.

8. the applicant's engineer must provide computations for the detention pond emergency spillway.

9. The plans show a small structure near the proposed detention pond outlet. What will happen to this structure? It is in the way of the proposed outlet.

10. The grading plan should be modified to include sufficient spot grades around structures, buildings and the recreational area. In particular, the area in the vicinity of CB 5 and the sidewalk should have spot grades to insure grades are adequate to keep the detained stormwater within the recreational area from spilling over into the driveway during peak rainfalls.

AH. 1a

11. The grading around Unit #1 will result in an exposed foundation of almost 10 feet. Staff and the Board should review this issue and determine if this is a concern or not. The result will be that the rear areas behind units 1-4 will difficult to maintain or the during construction the fill limits will actually extend closer to the wetlands. The applicant should also provide a statement to how equipment will avoid work within the wetland areas or how equipment will be temporarily operated in these areas.

12. The grading behind units 10-12 will result in poor drainage conditions. The engineer should review this area and revise accordingly.

13.The engineer should review the utility layout and perhaps revise the water main layout to avoid the multiple crossings of the sewer and storm drain in the vicinity of SMH-1 and SS-3. In one location along SS-3 all three pipes cross at the same point. This will not work.

14. The applicant should provide confirmation from CMP as to the approved Transformer locations. It seems that most often transformers for SFR are always placed differently in the field than as shown on the plans.

15. The City's Public Works Dept. should provide a letter regarding sewer capacity and possible impact fees.

16. Overall the utility plan has a significant number of potentially conflicting pipe locations and that as a result many changes would/will be made during construction. This should be reviewed by the engineer and changes made or else a condition of approval made requiring certified as-built plans upon completion.

17. The subdivision plan should be signed and sealed by a licensed surveyor prior to final approval.

18. All abutting landowners should be identified on the plans.

19. Curb transition stones should be provided between granite and bituminous curb.

20. A riprap outlet should be shown for the SD-16

21. How will long term access to the detention basin be provided for cleaning and sediment removal. the pond is small and will likely need to be excavated every two years?

22. A sanitary manhole should be provided in front of units 5-6.

23. Is there natural gas service proposed for the development?

24. Are any hydrants proposed onsite?

25. Where will secondary power for the lights be coming from and controlled?

I look forward to the staff and Board review. If you have any questions please contact this office.

CC: "Tony Lombardo" <AWL@ci.portland.me.us>, "alex jae...

AH. 2

From: Anthony Lombardo
To: Kandi Talbot
Date: Tue, Apr 11, 2000 1:06 PM
Subject: HOLM PLACE.....4/11/00

Kandi,
I have reviewed the plans dated 3/29/00 and have the following comments:

1. The proposed sanitary sewer main will be accepted by the City of Portland with the following revisions:
   a. An additional manhole installed where the two(2) laterals services from Units 5 & 6 intersect.
   b. An additional manhole installed where the two(2) laterals services from Units 7 & 8 intersect.

2. The applicant needs to specify granite to bituminous slope transition curb at entrance to this development.

3. This development will be assessed a sewer connection fee for connection into the City's sewer main in Holm Ave. and an additional fee will be charged for each individual Unit connection to the proposed main. This fee is equivalent to $25 for each connection.

4. I have reviewed the revised stormwater calculations and find them meet the City's requirements with the exception of Steve Bushey's comments.

AH. 3

Sebago Technics

Engineering & Planning for the Future

April 17, 2000
99103

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

Holm Place Condominiums, Holm Avenue
Response to Review Comments

Dear Members of the Planning Board:

We have received the following review memos and reports: 1) from Tony Lombardo, Public Works, dated April 11, 2000; 2) from Steve Bushey, Development Review Coordinator, dated April 10, 2000; and 3) Planning Board Report dated April 11, 2000. In response to these reviews, we offer the following comments and revised plans:

Memo from Public Works Department

1. Two new sewer manholes have been added, as requested, at the intersection of the services from Units 5 and 6, and at the intersection of the services from Units 7 and 8.

2. A note specifying the granite to bituminous slope transition curb at the entrance has been added to the plans.

3. The applicant is aware of the sewer connection fees.

4. Please see our response to the memo from the Development Review Coordinator.

Memo from Development Review Coordinator

1. The Pre and Post-Development Watershed Plans have been revised to correctly identify the Study Points.

2. The HydroCAD calculations have been revised to include a reach routing between the two Study Points in order to more accurately determine the peak flows at Study Point #1. This reach is labeled as Reach 21 in the calculations and is depicted on the Watershed Plans.

One Chabot Street P.O. Box 1339 Westbrook, Maine 04098-1339 207-856-0277 Fax 207-856-2206

AH. 39

3. The recreation area has been designed to provide temporary stormwater detention. This design includes underdrain, catch basins, and the use of a Hydro-Brake on the 12" storm drain. The applicant is aware that the owners' association will be responsible for the long term maintenance of the recreation area and the associated drainage infrastructure.

4. The HydroCAD calculations for Pond #12 have been revised to more clearly model the structure with the use of a Hydro-Brake on the inlet of the 12" storm drain, as well as accounting for the catch basin grate as an outlet control structure. These revisions resulted in slightly more available storage than originally calculated.

5. The Stormwater Runoff Evaluation Report has been modified to provide more of an explanation of the water quality treatment being provided by the stormwater management system.

6. Due to site constraints and the size of the proposed detention pond, a split-rail fence will be installed around the perimeter of the pond, rather than a sloped bench.

7. A drainage maintenance agreement will be prepared and executed by the applicant.

8. Enclosed within the HydroCAD calculations are the computations for the emergency spillway of the detention pond. These calculations indicate that the spillway will pass a 100-year storm event without overtopping.

9. The existing shed near the proposed detention pond outlet will be removed. A note to this effect has been added to the plans.

10. Spot grades have been added to the grading plan as requested.

11. Upon completion of the development, the area behind Units 1 and 2 will be left in its natural condition as much as possible. The slope will be vegetated to prevent erosion. During construction of Units 1 and 2, we are anticipating the equipment to access the area from the driveway side of the proposed building. Silt fence will be installed at the toe of the slope prior to the start of construction.

12. The grading behind Units 10, 11 and 12 has been revised to provide more of a drainage swale in that area.

13. The location of the water main has been revised slightly to eliminate the potential of three utility lines crossing in one location.

14. The applicant will coordinate with Central Maine Power Company and provide confirmation of the approved transformer locations.

Att. 3b

15. The applicant has received a copy of a memo from the City of Portland Public Works Department which outlined the City's acceptance of the sanitary sewer and the sewer connection fees.

16. All crossings of sanitary sewer and storm drain have been reviewed to eliminate potential conflicts. The clearance between pipes at any crossing ranges from seven to eighteen inches.

17. The subdivision and site plans have been signed and sealed by a Professional Land Surveyor.

18. All abutting landowners have been identified on the plans.

19. A note specifying the granite to bituminous slope transition curb at the entrance has been added to the plans.

20. A riprap outlet has been added to SD-16.

21. Access to the detention basin and the outlet control structure will be via the dumpster enclosure. The rear portion of the fencing has been designed to be removable so that vehicles can get to the pond as necessary for cleaning and sediment removal.

22. Two new sewer manholes have been added, as requested, at the intersection of the services from Units 5 and 6, and at the intersection of the services from Units 7 and 8.

23. There is no natural gas proposed for this development at this time.

24. There is one fire hydrant proposed along the main entrance approximately 30 feet before the access to the dumpster.

25. The location of the secondary power will be coordinated with Central Maine Power Company.

Planning Board Report

* The plans have been revised to provide 25 feet between the recreational area and the units.

* The recreational area has been designed to provide temporary stormwater detention. Based on the enclosed HydroCAD calculations, the 2-year storm event will result in small wet areas, less than 6" deep and remaining for about one hour, around each catch basin at the corners of the recreational area. In the 10-year and 25-year storm events, the area of the field which will be flooded increases to approximately one-third of the field. The depth of water is approximately one foot at its deepest, and this area will remain saturated for about one hour. In a 100-year storm event, approximately one-half of the field will be flooded to approximately 1.4 feet in depth for slightly over one hour. The underdrain and catch basins are designed to help the area dry quickly following rain storm events.

AH. 3c

* A letter of financial capacity will be forwarded upon receipt and will be available prior to the next Planning Board meeting.

* Condominium documents will be submitted for review and approval by Corporation Counsel prior to the issuance of building permits.

* An elevation view of the buildings without a dormer will be available at the public hearing.

* The landscaping plan has been revised in accordance with the memo from the City Arborist dated February 14, 2000 regarding buffering and the preservation of existing vegetation, especially along the Maine Turnpike Authority property line.

* As shown on the previously submitted lighting plans, the light poles have been lowered to 16 feet in height. A house side shield will be installed on the light fixture located on the southeasterly side of the access drive and closest to Holm Avenue.

* The applicant is proposing the name of "Celebration Court" for the private access drive. We will submit this to the Fire Department for review and approval.

I trust that we have adequately addressed all comments to date. If you have any additional questions or comments, please do not hesitate to contact us.

Thank you for your consideration of this application.

Sincerely,

SEBAGO TECHNICS, INC.

Jennifer L. Williams
Project Engineer

JLW:jlw/jc
Enc.

cc: VP Builders, Inc.

AH. 3d

Sebago Technics

Engineering & Planning for the Future

STORMWATER RUNOFF EVALUATION

Holm Place Condominiums
Holm Avenue
Portland, Maine

prepared for

V. P. Builders
P. O. Box 41
Westbrook, ME 04098

March 2000
Revised April 17, 2000

One Chabot Street P.O. Box 1339 Westbrook, Maine 04098-1339 207-856-0277 Fax 207-856-2206

AH. 3e

STORMWATER RUNOFF EVALUATION/ EROSION AND SEDIMENTATION CONTROL PLAN

Holm Place Condominiums
Portland, Maine

General

The following stormwater runoff evaluation has been prepared for V. P. Builders, Inc. to evaluate stormwater runoff and erosion control for the proposed Holm Place Condominiums in Portland, Maine. The Holm Place Condominiums will be a 16 unit residential development with an associated roadway utility infrastructure. The entire development will encompass a land area of approximately 3.65 acres. Access to the development will be from a private drive which connects directly onto Holm Avenue approximately one-third mile northeasterly of the intersection of Holm Avenue and Brighton Avenue.

Site Characteristics

The current condition of the project area is predominately wooded consisting of hardwood tree growth covering the majority of the land, with some open brush/meadow areas near the end of the existing driveway to the property. The surrounding area includes a residential neighborhood along both sides of Holm Avenue, with the Maine Turnpike bordering the western rear of the project. A tree buffer exists between the project's property and the actual Turnpike and a parcel of undeveloped land abuts northeasterly of the development which is wooded. Terrain in the development area varies from gentle to steep slopes at the northeasterly end. The northerly portion of the project slopes towards a deep ravine area in association with an upper tributary of Capisic Brook which drains easterly and eventually crosses Holm Avenue by a box culvert. The entire portion of the condo development and adjacent properties against the Turnpike also drain in a northeasterly direction toward the ravine via channels and culvert flows. All of the site's drainage eventually crosses Holm Avenue and joins into Capisic Brook, which eventually discharges into Fore River and Casco Bay.

The enclosed pre-development watershed map and USGS topographical map depict the general drainage characteristics and infrastructure in the project area.. During site reconnaissance of this site, no erosion or ponding were observed in the pre-development condition.

Soils

Soil classifications within the project area were based upon test pit information. The majority of the site is comprised of Swanton somewhat poorly drained soils which are classified as hydrologic group D.

AH. 3f

One small area, which was previously filled with material excavated from construction in the surrounding areas, was classified as Croghan moderately well drained soils with a hydrologic group C. Off-site watersheds to the south consist of Swanton fine sandy loams which are classified as a hydrologic Group D soils. The soils are noted for a high water table, even though they can have a high permeability. This condition creates a poorly draining soil which can be associated with wetlands.

Stormwater Management

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

As described in the following, three watersheds were analyzed in the pre-development condition, and six watersheds in the post-developed condition. Due to the topography of the site and the nature of the stream near the site's northeasterly property line, two separate study points were evaluated. Study Point 1 was chosen to be the point where the majority of the site runoff enters the stream. Study Point 2 is a point approximately 230 feet northwesterly of Study Point 1.

The pre-developed condition considered one off-site watershed which flows through the site, plus two on-site watersheds.

WS-1 consists of the off-site area (2.6 acres) contributing to the site's runoff by draining runoff across the property by ditch and culvert flows. The area appears to be an abandoned road network or discontinued streets. The area abuts to the northbound off-ramp to Exit 8 of the Maine Turnpike and gently slopes to the proposed site. The existing roadways, now grown over with trees, provide channels for runoff to travel toward the site and the need for an 18" culvert to cross approximately half of the site.

WS-10 consists of 3.23 acres of the site for the proposed condominium project. The land is well vegetated with young hardwood growth and is currently not subject to erosion, even though it banks along a deep ravine and tributary subject to flooding on Holm Avenue. The parcel does contain one area of filled debris just behind the neighboring homes. This small area is believed to be a spoils area from recent road construction and repairs from the October 1996 flood. All runoff travels northeasterly to the stream prior to crossing Holm Avenue through a box culvert.

WS-11 consists of 0.42 acre of woodland in the northern corner of the site. Runoff flows northeasterly towards the stream prior to combining with the runoff from WS-10.

Att. 3g

Watershed 1 remains the same in the post-development condition as in the pre-developed condition. Watersheds 10, and 12 through 14 are composite watersheds of the same watershed areas labeled as Watershed 10 in the pre-development condition and all outlet to Study Point 1. Watershed 11 outlets to Study Point 2.

WS-10 is the center of the proposed condominium project that includes the entrance drive, majority of driveways, and some roof-top portions. Approximately two-thirds of this watershed is pavement. Flows are sheet and shallow flows across green areas to a catch basin and storm drain system. The area has been regraded to provide positive drainage away form the residential units, while maximizing travel times prior to entering the storm drain system. All flows enter the proposed detention pond to be located along the eastern corner of the property to the north of the Holm Place main entrance.

WS-14 comprises the area along the southeastern and southern property lines between the existing woods and rear of the condominiums to be constructed on that side of the property. The area is treed along the property to provide some visual buffer, and grassed for lawns and drainage ditches. A long ditch collects from the condominium's rear side and directs runoff following the property line easterly to the main entrance drive. From there, it is conveyed by culvert to the storm system and detention pond. This ditch also collects off-site flows to the detention pond.

WS-12 consists of the western corner of the site which is proposed to be approximately four residential units, lawn and tree save areas, as well as the recreational area. Flows are redirected westerly across the units' rear side and then northerly to a gentle graded grassed swale which outlets to a 12" culvert adjacent to the recreational area sidewalk. The recreational area has been graded to a lower elevation and the culverts sized so that in larger storm events the field will act as temporary detention. The culvert directly enters the site's storm drain system and detention pond.

WS-13 consists of the small area of driveway and lawns between Units 2, 3, 4 and 5. Flows are directed into the catch basins and storm drain system, which outlets directly into the detention pond.

WS-11 is the portion of the site not developed along the western sideline and also the condominium units along the land above the stream bank. The area includes lawns, roofs, woods generally along the slope to the bank, and some wetlands associated with the stream/tributary. This watershed outlets to Study Point 2 as in the pre-developed condition.

AH. 3h

STORMWATER DETENTION ANALYSIS

Holm Place Condominiums
Holm Avenue
Portland, Maine

Project Area 3.65 Acres

				Peak Runoff (cfs)			
Watershed	**Avg. CN**	**Acres**	**Tc min.**	**2-Year**	**10-Year**	**25-Year**	**100-Year**
Pre-Development							
1	77	2.60	27.0	1.84	4.26	5.48	7.36
10	72	3.23	25.0	1.69	4.46	5.93	8.23
Study Point 1				3.29	8.31	10.89	14.92
11	77	0.42	12.8	0.39	0.91	1.17	1.57
Study Point 2				0.39	0.91	1.17	1.57
Reach 22				3.34	8.43	11.06	15.20
Post-Development							
1	77	2.60	27.9	1.84	4.26	5.48	7.36
10	90	0.95	1.4	2.20	3.86	4.64	5.79
14	85	0.69	7.7	1.10	2.12	2.60	3.33
12	83	0.90	16.3	1.09	2.18	2.72	3.52
13	91	0.18	1.4	0.43	0.75	0.89	1.11
Study Point 1				3.05	5.63	6.37	7.28
11	81	0.94	46.4	0.65	1.36	1.72	2.25
Study Point 2				0.65	1.36	1.72	2.25
Reach 22				3.07	5.80	7.00	9.05
Net Change at Reach 22				**-0.27**	**-2.63**	**-4.06**	**-6.15**

The following analysis describes how the impervious increase of the proposed site and the related increase in peak runoff rates were designed to meet the existing, or lessen the overall peak rates of runoff of the site. Unfortunately, the downstream areas of the site are subject to flooding in relatively small rain events (5-year occurrence, or less). To comply with the analysis prepared for the City of Portland – "The Capisic Brook Greenbelt/Stormwater Abatement Study" by CH2M Hill, we must meet the stormwater quantity requirements to not further aggravate a current problem. The proposed property is not subject to flooding, but the stream adjacent to the northern property line winds through some densely populated neighborhoods and is prone to exceeding its banks and flooding in storms greater than 4.0"/24-hr. Although the report recommends large storage volumes for detention, it concedes no areas large enough in the Holm Avenue/Taft Avenue area are available to have any significant reduction of flooding. We hope to control our proposed site runoff to not further aggravate the area's watershed with the construction of a catch basin/storm drain system and detention pond.

AH. 3;

Stormwater runoff modeling suggests that the peak rates of runoff in the developed condition will be the same or less than the pre-developed runoff rate within the ravine where the site's last discharge enters. Due to the compact development, the entire site showed slight increases because of the change of ground cover from woods to lawn and pavement. However, construction of a detention outlet control with the roadway infrastructure allowed the proposed site to drain similar to the manner that the site drains currently. We have either designed the driveways lower than the surrounding grades, or have provided yard drains to promote front yard sheet flow to the streets and installed drainage infrastructure.

The proposed stormwater management system is designed to provide control of the discharge flow rates of runoff. The catch basins will provide for some sediment removal prior to runoff entering the detention pond. Additionally, the detention pond has been designed with a sump of approximately two feet. This sump will allow for additional sediment to settle out of the runoff prior to flowing into the brook. The outlet control structure, as described below, will control the rates of runoff to at or below pre-development rates.

The proposed detention system which was designed to utilize an area above the ravine will use an outlet control structure to store runoff temporarily and meet the pre-development peak flow rates as required. An outlet structure was designed with staged storage outlets consisting of two 4" orifices, one 18" x 6" slot orifice, and a 36" weir to control the site and provide an overflow. The pipes entering and discharging were significantly oversized to pass, if necessary, storm runoff from events such as the 100-year or less probability of occurrence.

In addition to the outlet structure and outlet pipe, an emergency riprap spillway was provided to assure the pond can outlet in the event the outlet is clogged or the storm rainfall is too great to pass all of the water through the control structure. We intend to make no revisions to the existing ravine other than installing a stilling basin located downstream of the outlet structure. Due to the work involved and location of adjacent wetlands, some slopes may be steepened with riprap which will be available from on-site excavation to stabilize constructed slopes and not further impact wetlands.

POND SUMMARY TABLE

	2-Year Peak Discharge	10-Year Peak Discharge	25-Year Peak Discharge	100-Year Peak Discharge
Discharge at Ravine (cfs)	3.02	5.29	5.79	8.36
Peak Elevation at Detention Pond (Ft.) *	56.5	58.1	58.7	59.0

* Emergency Spillway Crest = 58.8 Ft.

AH. 3j

The Stormwater Management Plan for the Holm Place Condominium project will also include an Erosion and Sedimentation Control Plan placing emphasis on the installation of sedimentation barriers and revegetation to minimize erosion potential from development activities during and after construction. The Erosion Control Plan has been placed directly on the design plans to include locations of erosion control provisions (i.e., silt fence, hay bale barriers, riprap aprons, embankment), along with a narrative and construction details for reference by the contractor during construction.

In an effort to emphasize the requirements, a pre-construction meeting will be required as indicated in the erosion control notes between the owner, City and engineer to review critical aspects and sequencing of construction activities. The erosion control measures are to be monitored throughout construction by the contractor, with maintenance and repairs performed on a regular basis as directed by the erosion control plan.

Summary

The preceding stormwater runoff evaluation has been prepared to evaluate pre and post-development conditions of the proposed Holm Place Condominium development project located off Holm Avenue in Portland. The analysis reviewed pre and post-development watersheds and compared peak rates of runoff at common discharge points to assess stormwater infrastructure needs. Based upon the analysis and review of the site, we make the following recommendations:

1. Implementation of a site specific erosion and sedimentation control plan placing emphasis on times of disturbance and, during construction, installation of appropriate erosion control measures and revegetation of the site and project completion. A specific erosion control plan with notation has been placed directly on the subdivision plans along with supporting details. These measures should be followed by the selected contractor throughout project construction.

2. A pre-construction meeting should be held between the owner, contractor and City representative to review scheduling and critical components of the stormwater management and erosion control plan. The contractor should provide the owner and City with a construction schedule outlining the sequence of events.

3. The proposed site should utilize existing tree vegetation on slopes, natural channels, and stabilize all slopes with either riprap or erosion control blankets. This will lessen erosion of disturbed areas from the development activity and lessen the impact on abutters and the environment by providing stabilized soil conditions which will decrease both erosion and sedimentation of the upper reaches of the Capisic Brook Watershed.

AH. 3K

The proposed drainage system should not aggravate the existing flooding situations downstream to the Holm Avenue box culvert or associated tributaries. We are currently aware of the drainage and related flooding problems with the culvert or drainage infrastructure downstream. Therefore, we were careful not to discharge more than allowed by the pre-development peak runoff rates.

Prepared by:

SEBAGO TECHNICS, INC.

Jennifer L. Williams
Project Engineer

Shawn M. Frank
Professional Engineer

JLW/SMF:jc
April 17, 2000

Sebago Technics

Engineering & Planning for the Future

May 2, 2000
99103

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

Holm Place

Dear Members of the Board:

On behalf of VP Builders, I am pleased to submit this revised site plan for Holm Place. At our meeting on April 25th, several members of the Board brought up three main concerns. The first was the use of a portion of the recreation area as a secondary stormwater detention area. The second was the proximity of the dumpster to the property line. The final concern was the proximity of Unit One to the primary stormwater detention area and the stream.

In order to provide for a distinct separation between the recreation area and the secondary stormwater detention pond, we have revised the layout of the recreation area. We reduced the size of the recreation area to 6,380 square feet, which is still above the minimum required area, and created a separate secondary detention pond off the easterly end of the recreation area. This detention area is approximately two feet deep with a mowed bottom area sloping at 2% toward the catch basin outlets. As designed, this detention area will contain water for approximately one hour for all storm events greater than the 2-year storm. A wooden split rail fence will divide the recreation area from this secondary detention area.

The second issue was the close proximity of the dumpster to the property line. We have relocated the dumpster to a more centrally located area northerly of Unit 14. The dumpster is still screened by six-foot tall wooden stockade fence with a gate, and a landscaped buffer.

The final issue was the placement of Unit One and its proximity to the primary detention area and the stream. Due to the relocation of the dumpster, the primary stormwater detention area was redesigned to utilize the old dumpster area. This allowed us to pull the pond away from Unit One. In addition to the pond being relocated, we relocated Units One through Six, sliding them westward. This provided Unit One with a front and side yard comparable to the other units in this development. It also allowed us to rotate Units One and Two to provide a better stream buffer, and reduce the exposed concrete on these units to five feet instead of ten on the rear of the building, and to match the other units for most of the side. The rear twelve feet of the side of the building slopes from one foot of concrete reveal to the five feet of concrete reveal maintained across the back. We are still proposing a landscape buffer between Unit One and the detention pond. The back yards of Units One and Two will have a three to one slope back to match existing grade and will have raised wooden decks instead of the patios.

One Chabot Street P.O. Box 1339 Westbrook, Maine 04098-1339 207-856-0277 Fax 207-856-2206

There were also five potential conditions of approval listed on the last Planning Board report. This was for both the Subdivision and the Site Plan Ordinance.

The first was a comment made on the Development Review Coordinator's (DRC) memo dated April 20, 2000. He is recommending a 40% Total Suspended Solids (TSS) removal rate for stormwater treatment. We have added a flow splitter prior to the inlet of the primary detention pond. This flow splitter will divert flows equivalent to an approximately 2-month storm event through a Vortechnics stormwater treatment structure, or approved equal, prior to entering the pond. Runoff which exceeds the volume of a 2-month storm will bypass this treatment and outlet directly into the pond. This off-line treatment structure will provide approximately 70% TSS removal for all flows passing through it. Overall, the entire development will receive a weighted average of approximately 55% TSS removal.

The second condition was the financial capacity letter. I have enclosed a copy of that letter with this submission.

This third was that the condominium documents be review by staff and Corporate Counsel prior to the issuance of a building permit. We would like this condition to remain for this next meeting.

The fourth was for the City arborist to review the Landscape Plan. He should now have the opportunity for review prior to this meeting.

The final condition was a house side shield being added to the light pole at the entrance to the site and the reduction of height of the pole from 18 to 16 feet. The notes on the plans and Lighting Plan have shown the heights of all of the proposed light poles to be 16 feet. We will add a house shield to the light at the entrance drive.

We look forward to meeting with you at your May 9th meeting for final review of this project. In the interim, if you require additional information or have any questions, please do not hesitate to contact me.

Thank you for your consideration of this project.

Sincerely,

SEBAGO TECHNICS, INC.

Matthew W. Ek

Matthew W. Ek, PLS
Project Manager

MWE:mwe/jc
Enc.

cc: VP Builders

Peoples Heritage Bank

One Portland Square
P.O. Box 9540
Portland, ME 04112-9540

1-800-482-3036
Tel: 207-761-8500
Internet: www.peoplesheritage.com

Peoples

April 10, 2000

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

RE: V.P. Builders, Inc.-Holm Avenue Project

Ladies and Gentlemen:

V.P. Builders, Inc. has been a customer of Peoples Heritage Bank for several years and has successfully completed subdivisions and single family residences financed with the Bank.

I have met on two occasions with the developer to discuss the proposed condominium project on Holm Avenue, to review plans and discuss financing. Although the Bank has not issued a commitment letter for the project, we will certainly review their loan application and could likely provide financing if the Borrowers are able to meet all the Bank's loan underwriting criteria.

It appears V.P. Builders, Inc. has the financial capacity to complete the proposed project.

Sincerely,

Frederick G. Proctor
Vice President

/fgp

cc: Clifford Plummer
Patricia Verrill

PURCHASE AND SALE AGREEMENT

May 13, 1999 (DATE) | May 17, 1999 Effective Date

The use of days in this agreement refers to calendar days from the effective date

RECEIVED OF: V.P. Builders Inc. and assigns (hereinafter called "Buyer") the sum of ($ 5,000) Five thousand dollars as earnest money and in part payment of the purchase price of the following described real estate, situated in municipality of Portland County of Cumberland State of Maine located at Certain lot of land located on Holm Avenue consisting of approximately 4 Acres +/- with 50' wide access as per attached Addendum A.*** .

Being (all [ ] part of [X]) the property at the above address owned by Peter P. and Suzanne Martelle (hereinafter called "Seller") and described at said County's Registry of Deeds Book 8730* Page 108* .

FIXTURES: The parties agree that all fixtures, including but not limited to existing storm and screen windows, shades and/or blinds, shutters, curtain rods and electrical fixtures are included with the sale except for the following:

PERSONAL PROPERTY: The following items of personal property are included with the sale at no additional cost and in as is condition with no warranties:

*Book 7100, Page 299

The TOTAL purchase price being ($ [redacted]) [redacted] dollars to be paid as follows: [redacted].

The purchase price balance shall be paid in cash, certified funds or bank check at closing.

This Purchase and Sale Agreement is subject to the following conditions:

1. EARNEST MONEY/ACCEPTANCE: Rob Gregory Esq. shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until May 15, 1999 (date) 9:00 ~~AM~~/PM; and, in the event of Seller's non-acceptance, this earnest money shall be returned promptly to Buyer.

2. TITLE & CLOSING: That a deed, conveying good and merchantable title in accordance with standards adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on November 13, 1999 (closing date) or before if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 days, from the time seller is notified of the 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, Buyer may, at Buyer's option, withdraw said earnest money and be relieved from all obligations. Seller hereby agrees to make a good-faith effort to cure any title defect during such period.

3. DEED: That the property shall be conveyed by a Warranty deed, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not adversely affect the continued current use of the property.

4. POSSESSION/OCCUPANCY: Possession/occupancy of premises shall be given to Buyer immediately at closing unless otherwise agreed in writing.

5. RISK OF LOSS: Until the closing, the risk of loss or damage to said premises by fire or otherwise, is assumed by Seller. Said premises shall then be broom clean and in substantially the same condition as at present, excepting reasonable use and wear. Buyer shall have the right to view the property within 24 hours prior to closing for the purpose of determining that the premises are in substantially the same condition as on the date of this contract.

6. PRORATIONS: The following items, where applicable shall be prorated as of the date of closing: fuel (cash price as of date of closing), rent, real estate taxes (based on municipality's fiscal year), association fees, (other). Metered utilities such as electricity, water and sewer will be paid through the date of closing by Seller. Buyer and Seller will each pay their transfer tax as required by State of Maine.

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7. INSPECTIONS: Buyer is encouraged to seek information from professionals regarding any specific issue or concern.

Agent makes no warranties regarding the condition, permitted use or value of Sellers' real or personal property. This contract is subject to the following inspections, with results being satisfactory to Buyer:

TYPE OF INSPECTION	YES	NO	RESULTS REPORTED TO SELLER	TYPE OF INSPECTION	YES	NO	RESULTS REPORTED TO SELLER
a. General Building		x	Within ____ days	f. Asbestos Air Quality		x	Within ____ days
b. Sewage Disposal		x	Within ____ days	g. Lead Paint		x	Within ____ days
c. Water Quality		x	Within ____ days	h. Pests		x	Within ____ days
d. Water Quantity		x	Within ____ days	i. Radon Air Quality		x	Within ____ days
e. Radon Water Quality		x	Within ____ days	j. ____			Within ____ days

All inspections will be done by inspectors chosen and paid for by Buyer. If the result of any inspection or other condition specified herein is unsatisfactory to Buyer, Buyer may declare the contract null and void by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If Buyer does not notify Seller that an inspection is unsatisfactory within the time period set forth above, this contingency is waived by Buyer. In the absence of inspection(s) mentioned above, Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

8. FINANCING: This contract is subject to Buyer obtaining an approved Commercial mortgage of ____ % of the purchase price, at an interest rate not to exceed ____ % and amortized over a period of ____ years.

a. This contract is subject to a written statement from the lender, within ____ (____) days of the Effective Date, that Buyer has made application.
b. This contract is subject to final loan approval within ____ days of the Effective Date.
c. If either of these conditions is not met within said time periods, Seller may declare this contract null and void, and the earnest money shall be returned to Buyer.
d. Buyer is under a good-faith obligation to seek and accept financing on the above-described terms. Buyer acknowledges that a breach of this good-faith obligation will be a breach of this contract.
e. Buyer agrees to pay no more than 0 points. Seller agrees to pay $ 0 toward points and/or Buyer's closing costs.

9. AGENCY DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following agency relationships:

The N/A (Listing Agent) of ____ (Agency) represents ____.

The N/A (Selling Agent) of ____ (Agency) represents ____.

When the transaction involves Disclosed Dual Agency, the parties acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the parties acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

10. MEDIATION: 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 the transaction.

11. DEFAULT: In the event of default by the Buyer, Seller may employ all legal and equitable remedies, including without limitation, termination of this contract and forfeiture by Buyer of the earnest money. In the event of a default by Seller, Buyer may employ all legal and equitable remedies, including without limitation, termination of this contract and return to Buyer of the earnest money. The escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller.

12. PRIOR STATEMENTS: Any representations, statements and agreements are not valid unless contained herein. This agreement completely expresses the obligations of the parties.

13. HEIRS/ASSIGNS: This agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the respective parties.

14. COUNTERPARTS: This agreement may be signed on any number of identical counterparts, such as a faxed copy, with the same binding effect as if the signatures were on one instrument. Original or faxed signatures are binding.

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15. ADDENDA: Check as many as apply - | | Lead Paint | | Property Disclosure | | Other:
Total Addenda Pages: 1 | None

16. EFFECTIVE DATE: This contract is a binding contract when signed by both Buyer and Seller and when that fact has been communicated to all parties or to their Agents.

17. 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. Parties authorize agents to receive copy of entire closing statements.

18. OTHER CONDITIONS:

This contract is contingent upon the Purchaser obtaining Planning Board approval from the city of Portland for a minimum of 14 condominium units w/attached garages. Purchaser to be responsible for all costs of Planning Bd. Approval including any survey, topographical, and/or infrastructure design.
Seller acknowledges that Purchasers are licensed real estate brokers.
***excluding the house, shed and garage and land in crossed out area of Addendum A

A copy of this contract is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.

Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Bureau of Taxation.

BUYER C.P. Builders Inc. — 01-0418855 SS# OR TAXPAYER ID#

BUYER — SS# OR TAXPAYER ID#

Buyer's Mailing Address is P O Box 41, Westbrook, Maine

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement. If the earnest money is forfeited by Buyer, it shall be distributed as follows:

Signed this 13th day of May, 1999.

SELLER Peter P. Martelle — 005-52-9106 SS# OR TAXPAYER ID#

SELLER Suzanne G. Martelle — 024-44-7499 SS# OR TAXPAYER ID#

Seller's Mailing address is 8 Poe Street, Portland, Maine 04102

Offer reviewed and refused on _____

SELLER

SELLER

EXTENSION: The time for the performance of this contract is extended until February 2f, 2000 DATE

BUYER DATE SELLER DATE

BUYER DATE SELLER DATE

Maine Association of REALTORS®/Rev. 8/98
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C. **Amendments to the Declaration**: Any two officers or Executive Board members of the Association may prepare, execute, certify and record amendments to the Declaration on behalf of the Association.

ARTICLE VIII
Insurance

A. **Policies:** Commencing no later than the time of the first conveyance of a Unit other than as security for an obligation to a person other than the Declarant, the Executive Board on behalf of the Association shall obtain, or cause to be obtained, and shall maintain as a Common Expense, the policies of insurance described herein to the extent such policies shall be reasonably available from reputable insurance companies. To the extent that said insurance is not reasonably available, 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 therefore, or by prepaid United States mail, return receipt requested. To the extent that any of the insurance described herein shall become in the future no longer available, the Association shall obtain in substitution therefore such comparable insurance as shall then be available. The Executive Board of 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 Premises for the purpose of purchasing and maintaining the insurance described herein, the collection and appropriate disposition of the proceeds thereof with any bank or trust company authorized to do business in the State of Maine as trustee for all Unit Owners and their Mortgagees as their respective interest may appear (the "Insurance Trustee"), to hold any insurance proceeds in trust for disbursement as provided in Subparagraphs (C), (B) (3) and (B) (8) of this Article XIII, the negotiation of losses and execution of releases of liability, and the execution of all documents, and the performance of all other acts necessary to accomplish such purposes.

B. Property Insurance: The Executive Board shall obtain and maintain as a Common Expenses 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 Premises (exclusive of land, foundations, excavations, and other similar items customarily excluded from property insurance policies), including the Units (and the floor coverings, bathroom and kitchen fixtures initially installed therein by the Declarant and the replacements thereto installed by the Declarant but not including furniture, furnishings or their personal property supplied or installed by Unit Owners), Limited Common Elements and other Common Elements together with all air conditioning and heating equipment and other service equipment and machinery contained in the Premises and the fixtures, supplies and common personal property belonging to the Association and covering the interest of and naming as named insured, the Association, the Executive Board and all Unit Owners and their Mortgagees and their Mortgagees' successors and assigns, as their insurable interest may appear. To the extent reasonably available and required by the Federal National Mortgage Association, Federal Home Loan Mortgage Corporation, Veterans Administration, Federal Housing Administration or Maine State Housing Authority, such policy shall cover the fixtures, equipment and other personal property inside a Unit financed by a mortgage purchased by the Federal National Mortgage Association, Federal Home Loan Mortgage Corporation ,Veterans Administration, Federal Housing Authority , or Maine State Housing Authority; and if such required insurance is so provided, the Association may require such Unit Owner to pay the additional cost incurred by the Association in so insuring such Unit Owner's fixtures, equipment or other personal property. 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 Premises, such amount to be redetermined annually by the Executive Board with the assistance of the insurance company affording such coverage (exclusive of the land, excavations, foundations and other similar items customarily excluded from such coverage), without deduction for depreciation and shall contain a standard Maine Mortgagee Clause in favor of each Mortgagee of a Unit whether or not named therein with provisions that the proceeds of loss, if any, shall first be payable to the Insurance Trustee or Association. This blanket or master hazard insurance policy may, at the option of the Executive Board, contain a "deductible" provision in an amount to be annually determined by the Executive Board but

not to exceed One Thousand Dollars ($1,000.00). Such policy shall also contain the following provisions so long as they are reasonably available from a reputable insurance company.

(1) The following endorsements (or their equivalent): (a) "no control" (to the effect 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) if appropriate "Construction Code Endorsement", "increased cost of construction'", "demolition" and "contingent liability from operation of building laws or codes" (c) "condominium replacement costs" (d) "agreed amount" or elimination of co-insurance clause; and (e) "inflation guard" endorsement.

(2) That any "no other insurance" clause expressly excluded 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.

(3) 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.

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

(5) 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.

(6) 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.

(7) 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 Subparagraphs (A) and (C) of this Article XIII.

C. Losses; Adjustment and Payments; Insurance Trustee: Any loss covered by the insurance policy described in Subparagraph (b) hereof 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 subparagraph (b) (8) 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 interest may appear. Subject to the provisions of this Subparagraph (C), the proceeds shall be disbursed first for the repair or restoration of the damage to the Premises, 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, or in the event the decisions has been made not to repair or restore the damage as provided in this Declaration, or in the event the Condominium is terminated.

D. Liability Insurance The Executive Board shall obtain and maintain as a Common Expense comprehensive general public liability insurance (including the so-called "broadening liability endorsement") 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 Owner and the Declarant against any liability to the public or to the Unit Owner (and their invitees, agents and employees) covering all occurrences commonly insured against for death, bodily injury or property damage arising out of, or incident to, the maintenance, ownership or use of the Common Elements and/or relating to 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: (I) 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: (ii) hired and non-owned vehicle coverage, and (iii) 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. 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.

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

(1) Adequate fidelity coverage to protect against dishonest acts on the part of officers, members of the Executive Board, trustees and employees of the Association and all otherwise who handle, or are responsible for handling, funds of the Association, including the managing agent. Such fidelity bonds shall: (a) name the Association as an obligee; (b) be written in an amount not less than the greater of (I) one-quarter the total annual assessments for Common Expenses plus the Association's reserve funds for the year or such other amounts as may be required by the Federal National Mortgage Association (ii) the maximum funds in the custody of such persons handling the funds of the association; and (c) contain waivers of any defense based upon the exclusion of persons who serve without compensation from any definition of "employee" or similar expression;

(2) To the extent available, "directors' and officers" liability insurance to satisfy indemnification obligations of the Association;

(3) If required by any governmental or quasi-governmental agency, including without limitation the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation, flood insurance in accordance with the then applicable regulations of such agency;

(4) Workmen's Compensation Insurance if and to the extent necessary to meet the requirements of law; and

(5) Such other insurance as the Executive Board may determine or as may be requested from time to tome by a majority in voting interest of the Unit Owners.

F. **Memoranda, Cancellation, Additional Required Provisions.** All insurers that shall issue an insurance policy or policies under this Paragraph 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 or non-renewal has been mailed to the Executive Board, the managing agent, and each Mortgagee to whom a certificate or memorandum of insurance has been issued at their respective last know addresses..

All policies under this Article shall in addition contain the following provisions:

(1) 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 case of the Unit owners, the members of their households;

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

G. **Separate Insurance:** Each Unit Owner shall have the right, at its own expense, to obtain insurance for its own Unit and for its own benefit and to obtain insurance coverage upon his personal property and for his personal liability as well as upon any improvements made by it to its Unit under coverage normally called "improvements and betterment's coverage" provided, however, that no Unit owner shall be entitled to exercise its right to acquire or maintain such insurance coverage so as to 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 betterment made by such Owner, at its expense and persona 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 improvements to his or her Unit (except Personal property other than fixtures) which exceed a total value of One Thousand Dollars ($1,000.00) within twenty (20) days after the commencement of construction of such improvements and, upon receipt of such notice, the Executive Board shall notify the insurer under any policy obtained pursuant to Paragraph (b) of this Article XIII of any such improvements. Any premium increase caused by such improvements may be assessed to the Owners 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

ARTICLE IX

Miscellaneous

A. Notices: All notices, demands, bills, statements or other communications under these Bylaws shall be in writing and shall be deemed to have been duly given if delivered personally or if sent by certified mail, return receipt request, postage prepaid, (I) if to a Unit Owner, at the address of the Unit Owner, or (ii) if to the Association or the Executive Board, at such address as shall be designated by notice in writing to the unit owners pursuant to this Section. If a Unit is owned by more than one person, each such Person who so designates a single address in writing to the Secretary shall be entitled to receive all notices hereunder.

B. Maintenance, Repair, Use and Occupancy Restrictions: The occupancy and use of the Units and Common Element shall be subject to the following restrictions:

(1) The Condominium shall be restricted to residential uses.

(2) None of the Condominium Units shall be further subdivided.

(3) No Unit Owner nor a lessee of any Unit Owner: (I) shall permit or suffer anything to be done or kept upon the property which will increase the rate of insurance on the property or on the contents thereof; (ii) shall obstruct or interfere with the rights of other occupants or annoy them by unreasonable noise or otherwise; (iii) shall commit or permit any nuisance or commit or suffer any immoral or illegal act to be committed anywhere in or upon the property; and (iv) shall cause or permit any noxious odors to emanate form any portion of the Premises.

(4) A Unit Owner may lease or sublease his Unit at any time and from time to time provided that the lease is in writing and is for a term of not less than six (6) months. A copy of each lease or sublease shall be furnished to the Executive Board upon request. The rights of any lessee or sublessee of the unit shall be subject to, and each such lessee or sublessee shall be bound by, the covenants, condition and restrictions set forth in the Declaration, Bylaws and Rules and Regulations, and a default thereunder shall constitute a default under the lease or sublease. The Unit owner shall provide any lessee or sublessee with a copy of the Rules and Regulations of the Condominium. The foregoing shall not impose any direct liability on any lessee or sublessee of a Unit to pay any Common Expense assessments on behalf of the Unit Owner unless so provided for in said lease or sublease.

(5) Reasonable rules and regulations, not in conflict with the provisions of this Declaration and the Bylaws of the Association, concerning the use and enjoyment of the Premises, may be promulgated from time to time by the Executive Board. Copies of the then current rules and regulations and any amendments thereto shall be furnished to all unit Owners by the Executive Board promptly after the adoption of such rules and regulations or any amendments thereto.

The Association is responsible for maintenance, repair and replacement of the Common Elements, and each Unit Owner is responsible for maintenance and repair of his Unit. Each Unit owner shall afford to the Association and the other Unit Owners, and to their agents or employees, access through his unit reasonably necessary for those purposes. If damage is inflicted on the Common Elements or any Unit through which access is taken, the Unit Owner responsible for the damage, or the Association if it is responsible, is liable for the prompt repair thereof.

Trash, garbage and other waste shall be kept only in sanitary containers and shall be disposed of in such manner as may be prescribed from time to time in rules and regulations established by the Executive Board. No articles of personal property belonging to any Unit Owners shall be stored in any portion of the Common Elements or areas except in the storage area specifically designated for the respective Unit Owner by the Executive Board or the managing agent.

No member shall overload the electrical wiring in the building or operate any machinery, appliances, accessories or equipment in such a manner as to cause, in the judgment of the Executive Board, any unreasonable disturbance or make any alterations, repairs or modifications to or in connections with the electrical or plumbing systems without the prior written consent of the Executive Board.

No member shall make structural changes to the unit without the approval of the Executive Board. Non-structural changes are permitted so long as they are made within the Unit.

C. The captions herein are inserted only as a matter of convenience and for reference, and in no way define, limit or describe the scope of these Bylaws or the intent of any provision thereof. The use of the masculine gender in these Bylaws shall be deemed to include the feminine and neuter genders and the use of the singular shall be deemed to include the plural, and vice versa, whenever the context so requires.

SEBAGO TECHNICS, INC.
One Chabot Street
P.O. Box 1339
WESTBROOK, ME 04098-1339

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

LETTER OF TRANSMITTAL

DATE	JOB NO.
10-4-01	9903

ATTENTION KANDI TALBOT

RE: HOLM PLACE

TO CITY PLANNING PORTLAND

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	10-4-01	4	STORM WATER DRAINAGE SYSTEM MAINTENANCE AGREEMENT
1			DECLARATION OF CONDOMINIUM FOR HOLM PLACE CONDOMINIUM
1			BYLAWS OF HOLM PLACE CONDOMINIUM ASSOCIATION

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: Matt Wiley

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

99103

STORMWATER DRAINAGE SYSTEM MAINTENANCE AGREEMENT

IN CONSIDERATION OF Site Plan approval granted by the Planning Board of the City of Portland to a plan entitled Subdivision Recording Plat of Holm Place dated May 9, 200, and filed with the City of Portland, Department of Planning and Urban Development, 389 Congress Street, Portland, Maine, and pursuant to a condition thereof, V.P. Builders, Inc., with a place of business at Westbrook, Maine, the owner of the subject premises, does hereby agree, for itself, its successors and assigns (the "Owner"), as follows:

That it will, at its own cost and expense and at all time in perpetuity, maintain in good repair and in proper working order the stormwater drainage system, as shown on said plan, including but not limited to the treatment tank and the outlet therefrom. Owner of the subject premises further agrees to periodically clean out said tank in accordance with the manufacturer's specifications as included on Exhibit A, attached hereto and incorporated herein by reference (Manufacturer's name and address: Vortechnics, 41 Evergreen Drive, Portland, ME 04103) and to keep a log detailing: 1) the date and nature of the maintenance performed; and 2) who performed said maintenance. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request. Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of said premises and abutters thereto; further, that the said City of Portland said persons in lawful possession and said abutters, or any of them, may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a reasonable time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to enter upon said premises to maintain, repair, or replace said stormwater drainage system, including but not limited to, treatment tank and outlet thereon in the event of any failure or neglect thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the Owner upon demand.

This Agreement shall not confer upon the City of Portland or any other person the right to utilize said stormwater drainage system for public use or for the development of any other property, and the Owner shall bear no financial responsibility by virtue of this Agreement for enlarging the capacity of said surface water drainage system for any reason whatsoever.

This Agreement shall bind the undersigned only so long as it retains any interest in said premises, and shall run with the land and be binding upon its successors and assigns as their interests may from time to time appear.

Dated at Portland, Maine this 4th day of October, 2001.

V.P. Builders Inc.

By: Clifford A. Plummer

Clifford A. Plummer

Its: President

STATE OF MAINE
CUMBERLAND, ss.

Date: October 4, 2001

Personally appeared the above-named Clifford A. Plummer, and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity, and the free act and deed of said V.P. Builders.

Before me,

Cathy Greene

Notary Public/Attorney at Law

Print Name: Cathy Greene

CATHERINE GREENE
Notary Public, Maine
My Commission Expires July 6, 2005

Vortechs™
STORMWATER TREATMENT SYSTEM

MAINTENANCE

The Vortechs System requires minimal routine maintenance. However, it is important that the system be inspected at regular intervals and cleaned when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit, e.g., heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping will slow accumulation.

Inspection

Inspection is the key to effective maintenance and it is easily performed. In the first year of operation, frequent inspections of the accumulated sediment volume within the aluminum grit chamber are necessary to establish an appropriate maintenance plan. Vortechnics recommends seasonal inspections during the first year. Inspections should be performed more often in the winter months in climates where sanding operations may lead to rapid accumulations, or in equipment washdown areas. After the first year, the inspection schedule should be reviewed and modified according to experience. It is very useful to keep a record of each inspection. A simple form for doing so is provided.

The Vortechs System only needs to be cleaned when inspection reveals that it is nearly full; specifically, when sediment depth has accumulated to within six inches of the dry-weather water level. This determination can be made by taking 2 measurements with a stadia rod or similar measuring device: one measurement is the distance from the manhole opening to the top of the sediment pile and the other is the distance from the manhole opening to the water surface. If the difference between the two measurements is less than six inches the system should be cleaned out. Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Finer, silty particles at the top of the pile typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile.

In Vortechs installations where the risk of large petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, an oil or gasoline spill should be cleaned out immediately. Oil or gas that accumulates on a more routine basis should be removed when an appreciable layer has been captured.

Cleaning

Cleanout of the Vortechs System with a vacuum truck is generally the most effective and convenient method. Cleanout should not occur within 6 hours of a rain event to allow the entire collection system to drain down. Properly maintained Vortechs Systems will only require evacuation of the grit chamber portion of the system, in which case only the manhole cover nearest to the system inlet need be opened to remove water and contaminants. However, all chambers should be checked to ensure the integrity of the system. In installations where a "clamshell" is being utilized for solids removal, prior to removing the grit, absorbent pads or pillows can be placed in the oil chamber to remove floating contaminants. Once this is done, sediment may then be easily removed with the clamshell.

Vortechs™

STORMWATER TREATMENT SYSTEM

Inspection & Maintenance Log

Model:			Location:		
Date	Water Depth to Sediment[1]	Floatable Layer Thickness[2] (approx)	Maintenance Performed	Maintenance Personnel	Comments

1. The water depth to sediment is determined by taking two measurements with a stadia rod: one measurement is the distance from the manhole opening to the top of the sediment pile and the other is the distance from the manhole opening to the water surface. If the difference between the two measurements is less than six inches the system should be cleaned out.

2. The system should be cleaned out if the floating layer of trapped debris is 3-6" in depth.

CITY OF PORTLAND, MAINE
PLANNING BOARD

Jaimey Caron, Chair
Deborah Krichels, Vice Chair
Kenneth M. Cole III
Cyrus Y. Hagge
Erin Rodriquez
Mark Malone
Orlando E. Delogu

October 10, 2001

Mr. Cliff Plummer
VP Builders, Inc.
P.O. Box 41
Westbrook, ME 04098

RE: 16-unit PRUD, 166 Holm Avenue
ID #1999-0151, CBL #270-C-3

Dear Mr. Plummer:

On October 9, 2001, the Portland Planning Board voted unanimously (6-0, Malone absent) to approve the site plan for a 16-unit PRUD located at 166 Holm Avenue. The approval was granted for the project with the following condition:

i. that the applicant provide evidence of financial capability for review and approval by staff.

The approval is based on the submitted site plan and the findings related to site plan review standards as contained in Planning Report #9-00, and Planning Memos dated April 25, 2000, May 9, 2000 and October 9, 2001.

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

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

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

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

GSG GORHAM SAND & GRAVEL

939 PARKER FARM ROAD
BUXTON, MAINE 04093
(207) 839-2442 FAX (207) 839-5445

Sarah Hopkins
City of Portland
Planning Department
389 Congress Street
Portland, Me 04101

Fax 756-8258

September 21, 2001

Re: Holm Place Condominiums

Ms Hopkins,

Based on my interpretation of the ordinance I can see no reason we would not be able to continue construction on Holm Place. The ordinance states that significant construction must begin within twelve months of approval and that there should be no lapse in activity for a period greater than twelve months. As with any construction project, for every one thing that happens on site there are two more that have to happen off site. GSG re-mobilizing to the site is just the tip of the iceberg.

The following is a list of significant construction activities that have been ongoing for this project.

1. A pre-construction meeting was scheduled and attended by Tom Shaw of GSG and Chris Earle of Deluca Hoffman on or about 9/29/00.
2. The project was marked for Digsafe at that time and a Digsafe ID was assigned.
3. Material such as outlet control structures, manholes, catch-basins, and pipe were ordered and built.
4. Layout for the site construction was ordered.
5. We mobilized to the site. Due to circumstances beyond our control were unable to continue work on this project during the fall of 2000.
6. During the spring of 2001 the Vortechnics specifications were finalized and an order was placed for fall delivery
7. Coordination with the Utilities was established.
8. Landscaping items were ordered for fall delivery.
9. Site layout was updated.
10. Digsafe was updated.
11. A schedule for re-mobilization is in place.
12. A delivery schedule for all of the above-mentioned materials is in place.
13. Subcontractors for paving and landscaping are on schedule.

As you can see, significant construction has begun and is on going. There has been no lapse in activity for longer than five months. We believe that this meets the ordinance and there would be no reason to stop this project from moving forward.

Mark Curtis

General Manager

Sebago Technics
Engineering & Planning for the Future

January 5, 2001
99103

Kandi Talbot, Planning Department
City of Portland
389 Congress Street
Portland, ME 04101

Holm Place

Dear Kandi:

On behalf of VP Builders, I am pleased to submit this additional information requested to final the conditions of approval for Holm Place. I have reviewed the email that you sent on December 19, 2000.

There were four items to be addressed in your email. The developer is working on the drainage maintenance agreement. As requested, this will be provided prior to the request for a building permit. The second item is the condominium documents. These are attached with this letter. Third, we revised the landscape plan to show the sizes of plantings requested by the Arborist. We also added the European Hornbeams requested across Holm Avenue from our entrance. The final item is also shown on the Landscape and Lighting Plan. Notes were added to limit the height of the lights to 16 feet, and a house side shield on the entrance light post.

If you have any questions or need any further information, please contact me. We would like to start construction in the near future.

Sincerely,

SEBAGO TECHNICS, INC.

Matthew W. Ek
Matthew W. Ek, PLS
Project Manager

MWE:mwe/jc
Enc.

cc: VP Builders

CITY OF PORTLAND, MAINE
ENGINEERING REVIEW FORM

Address of Proposed Site 166 Holm Avenue Date 12/7/00

Project Description Holm Avenue PRUD Job # 19990151

Applicant VP Builders

Applicant's Mailing Address P.O. Box 41, Westbrook, ME 04098

Site Review
(Planning Department)

Review Engineer: Steve Bushey

Number of Estimated Hours: 21

Cost Per Hour: $65.00

Total Amount: $1365.00

Right-of-Way Review
(Public Works Department)

Review Engineer: Tony Lombardo

Number of Estimated Hours: 8

Cost Per Hour: $35.00

Total Amount: $280.00

An engineering fee has been assessed in the amount of 1,645.00 for the review of your project located at 166 Holm Avenue

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: Kandi Talbot

Office Use Only

Invoice Date: _____ Received: _____ date

Planning Revenue Code: _____

Public Works Revenue Code: _____

cc: Applicant - white
Planner - blue
Engineer - green
Public Works - yellow
Financial Officer - pink
Review/Inspection Fee File - golden

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
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: Kandi Talbot, Planner

FROM: Chris Earle, Construction Representative
Reviewed by Steve Bushey, P.E., Acting Development Review Coordinator

DATE: December 7, 2000

RE: Holm Avenue PRUD

On December 7, 2000, a pre-construction meeting was held on site.

Attendees: Tom Shaw – Gorham Sand & Gravel
Chris Earle – DeLuca-Hoffman Associates, Inc.

Items Discussed:

- Erosion Control:
  - ✓ Silt Fence
  - ✓ Construction Entrance
  - ✓ Street Sweeping
- Detention Pond:
  - ✓ Install and immediately stabilize with mulch.
- Coordination of street openings with Public Works
- Clearing Limits:
  - ✓ Save trees where possible
  - ✓ Don't clear to the property line
- Occupancy Permits:
  - ✓ Won't be issued until base paving is in.

Gorham Sand & Gravel is waiting for permitting and bonding but hopes to start work in a week or so.

CITY OF PORTLAND, MAINE
PLANNING BOARD

Jaimey Caron, Chair
Deborah Krichels, Vice Chair
Kenneth M. Cole III
Cyrus Y. Hagge
Erin Rodriquez
Mark Malone
Orlando E. Delogu

May 10, 2000

Mr. Matthew Ek
Sebago Technics Inc.
One Chabot Street
Westbrook, ME 04098-1339

RE: Holm Avenue PRUD

Dear Mr. Seymour:

On May 9, 2000 the Portland Planning Board voted 5-0 (Rodriguez, Delogu absent) on the following motions regarding the Holm Avenue subdivision:

1. That the proposed development is in conformance with the stormwater standards as required by MEDEP.

2. That the plan is in conformance with the Subdivision Review Ordinance of the City Land Use Code with the following conditions:

   i. that the applicant submit a stormwater maintenance agreement prior to issuance of a building permit.

   ii. that the applicant submit condominium documents to staff for review and approval by Corporation Counsel prior to issuance of a building permit.

3. That the plan is in conformance with the Site Plan Ordinance of the Land Use Code with the following conditions:

   i. that the applicant revise the landscape plan in accordance with the City Arborist's memo dated May 5, 2000 regarding limits of work, size of plantings and the landscaping within the right-of-way at 173 Holm Avenue.

   ii. that a note be added to the lighting plan stating that a house side shield will be installed on the light fixture located on the southeasterly side of the access drive and that the lighting note be revised to state that the light fixture will be on a 16 ft. pole instead of an 18 ft. pole.

The approval is based on the submitted plan and the findings related to site plan review standards as contained in Planning Report #9-00 and Planning Board Memo dated April 25, 2000 and May 9, 2000, 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 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,

Jaimey Caron, Chair
Portland Planning Board

O:\PLAN\DEVREVW\HOLM166\APPRVLTR.WPD

cc: Joseph E. Gray, Jr., Director of Planning and Urban Development
Alexander Jaegerman, Chief Planner
Kandice Talbot, Planner
P. Samuel Hoffses, Building Inspector
Marge Schmuckal, 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
Lee Urban, Director of Economic Development
Susan Doughty, Assessor's Office
Approval Letter File

O:\PLAN\DEVREVW\HOLM166\APPRVLTR.WPD

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Caron and Members of the Portland Planning Board

FROM: Kandice Talbot, Planner

DATE: May 9, 2000

SUBJECT: PRUD, V. P. Builders, Inc.
Vicinity of 166 Holm Avenue

I. INTRODUCTION

V. P. Builders, Inc. is proposing a 16-unit condominium development in the vicinity of 166 Holm Avenue. The site is located between Holm Avenue and the Maine Turnpike. The site is 3.65 acres and zoned R-3. The development is proposed as a Planned Residential Unit Development (PRUD) and will be submit to site plan and subdivision review. The plan will also be reviewed under the stormwater standards as required by the Maine Department of Environmental Protection.

At the April 25th meeting, the Planning Board voted 7-0 to table this item due to a number of issues. Those issues have been addressed by the applicant and will be discussed below. Attached is Planning Board Report #9-00 and the memo from the April 25th meeting.

II. ISSUES

1. Drainage

At the April 25th meeting, the Development Review Coordinator was concerned with the drainage systems water quality treatment. The DRC recommended that the applicant quantify the amount of Total Suspended Solids Removal (TSS) and that a reasonable goal would be 40% TSS removal.

The applicant is proposing a flow splitter prior to the inlet of the primary detention pond. This flow splitter will divert flows equivalent to an approximately 2-month storm event through a stormwater treatment structure prior to entering the pond. The remaining runoff will bypass this treatment and outlet directly into the pond. Overall, the entire development will receive an average of approximately 55% TSS Removal.

The Development Review Coordinator has reviewed the applicant's submission and finds the plans acceptable. The DRC's memo is included as Attachment 2. A stormwater maintenance agreement will need to be submitted from the applicant for the detention pond and treatment structure. A potential condition of approval is:

- that the applicant submit a stormwater maintenance agreement prior to issuance of a building permit.

2. Recreational Area

The applicant had proposed to use the recreation space as an overflow area to retain stormwater. The recreation area is designed with catch basins and under drain to help the area dry quickly following rain storm events. The applicant has stated that in a 2-year storm event, the recreation area will have less than 6" of water in small areas and will remain for approximately one hour. In the 10-year and 25-year storm events, one-third of the field will be flooded and the depth of water will be approximately one foot and will remain for approximately an hour. In an 100-year storm event, one-half of the field will be flooded with approximately 1.4 feet in depth and remain for about an hour.

The Board was concerned that using the recreation area as a retention area would go against the intent of the recreation open space requirement. The Board had asked the applicant to create a separate open space area and overflow area.

The applicant has now reduced the recreation open space from 9,000 sq. ft. to 6,380 sq. ft. The required amount of recreation open space is 300 sq. ft. per unit or a minimum of 6,000 sq. ft. Thus, the applicant meets the minimum requirements for the recreation open space. The applicant is proposing a secondary detention pond, two feet deep with a mowed bottom, which will be located off the easterly end of the recreation area to retain water on site. This detention area will contain water for approximately one hour for all storm events greater than the two-year storm and will be separated with a wooden split rail fence.

3. Financial Capability

The applicant has submitted a letter of financial capability which is included as Attachment 1b.

4. Condominium Documents

The applicant has not submitted condominium documents to staff at this time. A potential condition of approval is:

- that the applicant submit condominium documents to staff for review and approval by Corporation Counsel prior to issuance of a building permit.

5. Landscaping/Existing Vegetation

The City Arborist had concerns with the following issues: 1) lack of buffering, trees, shrubs or fencing along the Maine Turnpike property line and 2) preservation of existing vegetation. The Applicant has submitted a revised plan to meet the City Arborist issues. The City Arborist has reviewed the revised plan. The City Arborist is recommending that the applicant show the limits of work and that if any existing vegetation is removed than the applicant shall replace the vegetation in accordance with the City Arborist. Also, the sizes on the plantings will need to be revised in accordance with the City Arborist's recommendations. A memo is included as Attachment 3.

Lynn Sylvester, who resides at 173 Holm Avenue, which is directly across Holm Avenue from the

proposed entrance is concerned with headlights from vehicles. The City Arborist also reviewed this concern and is suggesting that the applicant plant two (2) European Hornbeans within the right-of-way in front of 173 Holm Avenue. Staff had previously recommended Evergreen trees, but the City Arborist is suggesting the European Hornbeans because they will allow sun into the property, but because they are a shorter, rounder tree will block the headlights that are coming out of the Holm Avenue Development. A potential condition of approval is:

- that the applicant revise the landscape plan in accordance with the City Arborist's memo dated May 5, 2000 regarding limits of work, size of plantings and the landscaping within the right-of-way at 173 Holm Avenue.

6. Lighting

Staff has recommended that the light poles be lowered to 15 - 16 feet. The catalogue cuts that the applicant submitted shows a 16 ft. pole, however the lighting plan still has a note which reads that the lighting will be a "traditionare" post-top lantern on 18 ft. pole. The applicant has stated that a house side shield will be installed on the light fixture located on the southeasterly side of the access drive and closest to Holm Avenue. A note should be added to the lighting plan. A potential condition of approval is:

- that a note be added to the lighting plan stating that a house side shield will be installed on the light fixture located on the southeasterly side of the access drive and that the lighting note be revised to state that the light fixture will be on a 16 ft. pole instead of an 18 ft. pole.

7. Fire

The applicant has submitted a street name for the access drive, which is "Celebration Court". The Fire Department has approved the street name.

8. Unit #1

The Planning Board was concerned with the proximity of Unit 1 to the detention pond. The applicant has addressed this issue by pulling the pond away from Unit 1. They did this by relocating the dumpster to the area north of Unit 14. The applicant also moved units 1 through 6 westward. This now provides Unit 1 with a front yard and side yard comparable to the other units. It also allows the applicant to reduce the exposed concrete on units 1 and 2 from ten feet to five feet.

9. Dumpster Location

As mentioned above the applicant has relocated the dumpster to the area north of Unit 14. The Planning Board was concerned that the dumpster was too close to the existing residential building. This gets the dumpster further away from the two existing residential buildings on Holm Avenue.

10. Neighborhood Concerns

At the Public Hearing, concerns that were echoed from the neighbors were traffic, sidewalks, and the flooding of the culvert crossing Holm Avenue. Attachment 4 is a letter from one of the neighbors. Public Works' comments regarding the sidewalks and the culvert will be available at the meeting.

III. MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and materials submitted by the applicant and on the basis of information contained in Planning Report #9-00 and Planning Board Memo dated April 25, 2000 and May 9, 2000 relevant to standards of Site Plan and Subdivision Review, the Planning Board finds:

i. that the proposed development is/is not in conformance with the stormwater standards as required by MEDEP.

ii. that the proposed development is/is not in conformance with the Subdivision Ordinance of the Land Use Code

Potential Conditions of Approval:

1. that the applicant submit a stormwater maintenance agreement prior to issuance of a building permit.

2. that the applicant submit condominium documents to staff for review and approval by Corporation Counsel prior to issuance of a building permit.

iii. That the proposed development is/is not in conformance with the Site Plan Ordinance of the Land Use Code

Potential Conditions of Approval:

1. that the applicant revise the landscape plan in accordance with the City Arborist's memo dated May 5, 2000 regarding limits of work, size of plantings and the landscaping within the right-of-way at 173 Holm Avenue.

2. that a note be added to the lighting plan stating that a house side shield will be installed on the light fixture located on the southeasterly side of the access drive and that the lighting note be revised to state that the light fixture will be on a 16 ft. pole instead of an 18 ft. pole.

Attachments

1. Applicant's Submittal dated 5-2-00
2. Development Review Coordinator's memo dated 5-3-00
3. City Arborist's Memo dated 5-5-00
4. Neighbor's Memo
5. Plans
6. Planning Board Report #9-00
7. Planning Board Memo dated 4-25-00

AH. 1

Sebago Technics

Engineering & Planning for the Future

May 2, 2000
99103

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

Holm Place

Dear Members of the Board:

On behalf of VP Builders, I am pleased to submit this revised site plan for Holm Place. At our meeting on April 25th, several members of the Board brought up three main concerns. The first was the use of a portion of the recreation area as a secondary stormwater detention area. The second was the proximity of the dumpster to the property line. The final concern was the proximity of Unit One to the primary stormwater detention area and the stream.

In order to provide for a distinct separation between the recreation area and the secondary stormwater detention pond, we have revised the layout of the recreation area. We reduced the size of the recreation area to 6,380 square feet, which is still above the minimum required area, and created a separate secondary detention pond off the easterly end of the recreation area. This detention area is approximately two feet deep with a mowed bottom area sloping at 2% toward the catch basin outlets. As designed, this detention area will contain water for approximately one hour for all storm events greater than the 2-year storm. A wooden split rail fence will divide the recreation area from this secondary detention area.

The second issue was the close proximity of the dumpster to the property line. We have relocated the dumpster to a more centrally located area northerly of Unit 14. The dumpster is still screened by six-foot tall wooden stockade fence with a gate, and a landscaped buffer.

The final issue was the placement of Unit One and its proximity to the primary detention area and the stream. Due to the relocation of the dumpster, the primary stormwater detention area was redesigned to utilize the old dumpster area. This allowed us to pull the pond away from Unit One. In addition to the pond being relocated, we relocated Units One through Six, sliding them westward. This provided Unit One with a front and side yard comparable to the other units in this development. It also allowed us to rotate Units One and Two to provide a better stream buffer, and reduce the exposed concrete on these units to five feet instead of ten on the rear of the building, and to match the other units for most of the side. The rear twelve feet of the side of the building slopes from one foot of concrete reveal to the five feet of concrete reveal maintained across the back. We are still proposing a landscape buffer between Unit One and the detention pond. The back yards of Units One and Two will have a three to one slope back to match existing grade and will have raised wooden decks instead of the patios.

One Chabot Street P.O. Box 1339 Westbrook, Maine 04098-1339 207-856-0277 Fax 207-856-2206

There were also five potential conditions of approval listed on the last Planning Board report. This was for both the Subdivision and the Site Plan Ordinance.

The first was a comment made on the Development Review Coordinator's (DRC) memo dated April 20, 2000. He is recommending a 40% Total Suspended Solids (TSS) removal rate for stormwater treatment. We have added a flow splitter prior to the inlet of the primary detention pond. This flow splitter will divert flows equivalent to an approximately 2-month storm event through a Vortechnics stormwater treatment structure, or approved equal, prior to entering the pond. Runoff which exceeds the volume of a 2-month storm will bypass this treatment and outlet directly into the pond. This off-line treatment structure will provide approximately 70% TSS removal for all flows passing through it. Overall, the entire development will receive a weighted average of approximately 55% TSS removal.

The second condition was the financial capacity letter. I have enclosed a copy of that letter with this submission.

This third was that the condominium documents be review by staff and Corporate Counsel prior to the issuance of a building permit. We would like this condition to remain for this next meeting.

The fourth was for the City arborist to review the Landscape Plan. He should now have the opportunity for review prior to this meeting.

The final condition was a house side shield being added to the light pole at the entrance to the site and the reduction of height of the pole from 18 to 16 feet. The notes on the plans and Lighting Plan have shown the heights of all of the proposed light poles to be 16 feet. We will add a house shield to the light at the entrance drive.

We look forward to meeting with you at your May 9th meeting for final review of this project. In the interim, if you require additional information or have any questions, please do not hesitate to contact me.

Thank you for your consideration of this project.

Sincerely,

SEBAGO TECHNICS, INC.

Matthew W. Ek

Matthew W. Ek, PLS
Project Manager

MWE:mwe/jc
Enc.

cc: VP Builders

16

Peoples Heritage Bank
One Portland Square
PO Box 9540
Portland, ME 04112-9540

1-800-482-3066
Tel: 207-761-8500
Internet: www.peoplesservice.com

Peoples

April 10, 2000

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

RE: V.P. Builders, Inc.-Holm Avenue Project

Ladies and Gentlemen:

V.P. Builders, Inc. has been a customer of Peoples Heritage Bank for several years and has successfully completed subdivisions and single family residences financed with the Bank.

I have met on two occasions with the developer to discuss the proposed condominium project on Holm Avenue, to review plans and discuss financing. Although the Bank has not issued a commitment letter for the project, we will certainly review their loan application and could likely provide financing if the Borrowers are able to meet all the Bank's loan underwriting criteria.

It appears V.P. Builders, Inc. has the financial capacity to complete the proposed project.

Sincerely,

Frederick G. Proctor
Vice President

/fgp

cc: Clifford Plummer
Patricia Vernil

PURCHASE AND SALE AGREEMENT

1c

May 13, 1999 (DATE)

May 17, 1999 Effective Date

The use of days in this agreement refers to calendar days from the effective date

RECEIVED OF: V.P. Builders Inc. and assigns (hereinafter called "Buyer") the sum of ($ 5,000) Five thousand dollars as earnest money and in part payment of the purchase price of the following described real estate, situated in municipality of Portland County of Cumberland State of Maine located at Certain lot of land located on Holm Avenue consisting of approximately 4 Acres +/- with 50' wide access as per attached Addendum A.*** .

Being (all [ ] part of [X]) the property at the above address owned by Peter P. and Suzanne Martelle (hereinafter called "Seller") and described at said County's Registry of Deeds Book 8730* Page 108*

FIXTURES: The parties agree that all fixtures, including but not limited to existing storm and screen windows, shades and/or blinds, shutters, curtain rods and electrical fixtures are included with the sale except for the following:

PERSONAL PROPERTY: The following items of personal property are included with the sale at no additional cost and in as is condition with no warranties:

*Book 7100, Page 299

The TOTAL purchase price being ($ [redacted]) dollars to be paid as follows: [redacted]

The purchase price balance shall be paid in cash, certified funds or bank check at closing.

This Purchase and Sale Agreement is subject to the following conditions:

1. EARNEST MONEY/ACCEPTANCE: Rob Gregory Esq. shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until May 15, 1999 (date) 9:00 ~~AM~~/PM; and, in the event of Seller's non-acceptance, this earnest money shall be returned promptly to Buyer.

2. TITLE & CLOSING: That a deed, conveying good and merchantable title in accordance with standards adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on November 13, 1999 (closing date) or before if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 days, from the time seller is notified of the 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, Buyer may, at Buyer's option, withdraw said earnest money and be relieved from all obligations. Seller hereby agrees to make a good-faith effort to cure any title defect during such period.

3. DEED: That the property shall be conveyed by a Warranty deed, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not adversely affect the continued current use of the property.

4. POSSESSION/OCCUPANCY: Possession/occupancy of premises shall be given to Buyer immediately at closing unless otherwise agreed in writing.

5. RISK OF LOSS: Until the closing, the risk of loss or damage to said premises by fire or otherwise, is assumed by Seller. Said premises shall then be broom clean and in substantially the same condition as at present, excepting reasonable use and wear. Buyer shall have the right to view the property within 24 hours prior to closing for the purpose of determining that the premises are in substantially the same condition as on the date of this contract.

6. PRORATIONS: The following items, where applicable shall be prorated as of the date of closing: fuel (cash price as of date of closing), rent, real estate taxes (based on municipality's fiscal year), association fees, (other). Metered utilities such as electricity, water and sewer will be paid through the date of closing by Seller. Buyer and Seller will each pay their transfer tax as required by State of Maine.

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1e

15. ADDENDA: Check as many as apply - | | Lead Paint | | Property Disclosure | | Other:
Total Addenda Pages: 1 | None

16 EFFECTIVE DATE: This contract is a binding contract when signed by both Buyer and Seller and when that fact has been communicated to all parties or to their Agents.

17. 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. Parties authorize agents to receive copy of entire closing statements.

18. OTHER CONDITIONS:

This contract is contingent upon the Purchaser obtaining Planning Board approval from the city of Portland for a minimum of 14 condominium units w/attached garages. Purchaser to be responsible for all costs of Planning Bd. Approval including any survey, topographical, and/or infrastructure design.
Seller acknowledges that Purchasers are licensed real estate brokers.
***excluding the house, shed and garage and land in crossed out area of Addendum A

A copy of this contract is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.

Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Bureau of Taxation.

BUYER M.P. Builders Inc. — 01-0418855 SS# OR TAXPAYER ID#

BUYER — SS# OR TAXPAYER ID#

Buyer's Mailing Address is P O Box 41, Westbrook, Maine

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement. If the earnest money is forfeited by Buyer, it shall be distributed as follows:

Signed this 13th day of May, 1999.

SELLER Peter P. Martelle — 005-52-9106 SS# OR TAXPAYER ID#

SELLER Suzanne G. Martelle — 024-44-7499 SS# OR TAXPAYER ID#

Seller's Mailing address is 8 Poe Street, Portland, Maine 04102

Offer reviewed and refused on

SELLER

SELLER

EXTENSION: The time for the performance of this contract is extended until February 2f, 2000 DATE

BUYER DATE SELLER DATE

BUYER DATE SELLER DATE

Maine Association of REALTORS®/Rev. 8/98
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CENTURY 21 Northeast Associates

647 Main Street
Westbrook, Maine 04092

Contract Extension

Sellers: Peter P. and Suzanne G. Martelle

Purchaser: V.P. Builders Inc.

Contract Date: May 17, 1999

Property: Certain lot of land located on Holm Avenue consisting of approximately 4 Acres +/-

The time for Extension of the Purchase and Sale Agreement is Hereby Extended until April 30, 2000.

_____ _____

V.P. Builders Inc Date

_____ _____

Peter P. Martelle Suzanne G. Martelle

19

Sebago Technics

Engineering & Planning for the Future

STORMWATER RUNOFF EVALUATION

Holm Place Condominiums
Holm Avenue
Portland, Maine

prepared for

V. P. Builders
P. O. Box 41
Westbrook, ME 04098

March 2000
Revised April 17, 2000
Revised May 2, 2000

One Chabot Street P.O. Box 1339 Westbrook, Maine 04098-1339 207-856-0277 Fax 207-856-2206

1h

STORMWATER RUNOFF EVALUATION/ EROSION AND SEDIMENTATION CONTROL PLAN

Holm Place Condominiums
Portland, Maine

General

The following stormwater runoff evaluation has been prepared for V. P. Builders, Inc. to evaluate stormwater runoff and erosion control for the proposed Holm Place Condominiums in Portland, Maine. The Holm Place Condominiums will be a 16 unit residential development with an associated roadway utility infrastructure. The entire development will encompass a land area of approximately 3.65 acres. Access to the development will be from a private drive which connects directly onto Holm Avenue approximately one-third mile northeasterly of the intersection of Holm Avenue and Brighton Avenue.

Site Characteristics

The current condition of the project area is predominately wooded consisting of hardwood tree growth covering the majority of the land, with some open brush/meadow areas near the end of the existing driveway to the property. The surrounding area includes a residential neighborhood along both sides of Holm Avenue, with the Maine Turnpike bordering the western rear of the project. A tree buffer exists between the project's property and the actual Turnpike and a parcel of undeveloped land abuts northeasterly of the development which is wooded. Terrain in the development area varies from gentle to steep slopes at the northeasterly end. The northerly portion of the project slopes towards a deep ravine area in association with an upper tributary of Capisic Brook which drains easterly and eventually crosses Holm Avenue by a box culvert. The entire portion of the condo development and adjacent properties against the Turnpike also drain in a northeasterly direction toward the ravine via channels and culvert flows. All of the site's drainage eventually crosses Holm Avenue and joins into Capisic Brook, which eventually discharges into Fore River and Casco Bay.

The enclosed pre-development watershed map and USGS topographical map depict the general drainage characteristics and infrastructure in the project area. During site reconnaissance of this site, no erosion or ponding were observed in the pre-development condition.

Soils

Soil classifications within the project area were based upon test pit information. The majority of the site is comprised of Swanton somewhat poorly drained soils which are classified as hydrologic group D.

One small area, which was previously filled with material excavated from construction in the surrounding areas, was classified as Croghan moderately well drained soils with a hydrologic group C. Off-site watersheds to the south consist of Swanton fine sandy loams which are classified as a hydrologic Group D soils. The soils are noted for a high water table, even though they can have a high permeability. This condition creates a poorly draining soil which can be associated with wetlands.

Stormwater Management

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

As described in the following, three watersheds were analyzed in the pre-development condition, and six watersheds in the post-developed condition. Due to the topography of the site and the nature of the stream near the site's northeasterly property line, two separate study points were evaluated. Study Point 1 was chosen to be the point where the majority of the site runoff enters the stream. Study Point 2 is a point approximately 230 feet northwesterly of Study Point 1.

The pre-developed condition considered one off-site watershed which flows through the site, plus two on-site watersheds.

WS-1 consists of the off-site area (2.6 acres) contributing to the site's runoff by draining runoff across the property by ditch and culvert flows. The area appears to be an abandoned road network or discontinued streets. The area abuts to the northbound off-ramp to Exit 8 of the Maine Turnpike and gently slopes to the proposed site. The existing roadways, now grown over with trees, provide channels for runoff to travel toward the site and the need for an 18" culvert to cross approximately half of the site.

WS-10 consists of 3.23 acres of the site for the proposed condominium project. The land is well vegetated with young hardwood growth and is currently not subject to erosion, even though it banks along a deep ravine and tributary subject to flooding on Holm Avenue. The parcel does contain one area of filled debris just behind the neighboring homes. This small area is believed to be a spoils area from recent road construction and repairs from the October 1996 flood. All runoff travels northeasterly to the stream prior to crossing Holm Avenue through a box culvert.

WS-11 consists of 0.42 acre of woodland in the northern corner of the site. Runoff flows northeasterly towards the stream prior to combining with the runoff from WS-10.

Watershed 1 remains the same in the post-development condition as in the pre-developed condition. Watersheds 10, and 12 through 14 are composite watersheds of the same watershed areas labeled as Watershed 10 in the pre-development condition and all outlet to Study Point 1. Watershed 11 outlets to Study Point 2.

WS-10 is the center of the proposed condominium project that includes the entrance drive, majority of driveways, and some roof-top portions. Approximately two-thirds of this watershed is pavement. Flows are sheet and shallow flows across green areas to a catch basin and storm drain system. The area has been regraded to provide positive drainage away form the residential units, while maximizing travel times prior to entering the storm drain system. All flows enter the proposed detention pond to be located along the eastern corner of the property to the north of the Holm Place main entrance.

WS-14 comprises the area along the southeastern and southern property lines between the existing woods and rear of the condominiums to be constructed on that side of the property. The area is treed along the property to provide some visual buffer, and grassed for lawns and drainage ditches. A long ditch collects from the condominium's rear side and directs runoff following the property line easterly to the main entrance drive. From there, it is conveyed by culvert to the storm system and detention pond. This ditch also collects off-site flows to the detention pond.

WS-12 consists of the western corner of the site which is proposed to be approximately four residential units, lawn and tree save areas, as well as the recreational area. Flows are redirected westerly across the units' rear side and then northerly to a gentle graded grassed swale which outlets to a 12" culvert adjacent to the recreational area sidewalk. The culvert directly enters the site's storm drain system and detention pond.

WS-13 consists of the small area of driveway and lawns between Units 2, 3, 4 and 5. Flows are directed into the catch basins and storm drain system, which outlets directly into the detention pond.

WS-11 is the portion of the site not developed along the western sideline and also the condominium units along the land above the stream bank. The area includes lawns, roofs, woods generally along the slope to the bank, and some wetlands associated with the stream/tributary. This watershed outlets to Study Point 2 as in the pre-developed condition.

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STORMWATER DETENTION ANALYSIS

Holm Place Condominiums
Holm Avenue
Portland, Maine

Project Area 3.65 Acres

				Peak Runoff (cfs)			
Watershed	**Avg. CN**	**Acres**	**Tc min.**	**2-Year**	**10-Year**	**25-Year**	**100-Year**
Pre-Development							
1	77	2.60	27.0	1.84	4.26	5.48	7.36
10	72	3.23	25.0	1.69	4.46	5.93	8.23
Study Point 1				3.29	8.31	10.89	14.92
11	77	0.42	12.8	0.39	0.91	1.17	1.57
Study Point 2				0.39	0.91	1.17	1.57
Reach 22				3.34	8.43	11.06	15.20
Post-Development							
1	77	2.60	27.0	1.84	4.26	5.48	7.36
10	90	0.95	1.4	2.20	3.86	4.64	5.79
14	85	0.69	7.7	1.10	2.12	2.60	3.33
12	83	0.90	16.3	1.09	2.18	2.72	3.52
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Study Point 1				2.99	5.28	6.32	8.41
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Study Point 2				0.65	1.36	1.72	2.25
Reach 22				3.03	5.87	7.03	7.72
Net Change at Reach 22				**-0.31**	**-2.56**	**-4.03**	**-7.48**

The following analysis describes how the impervious increase of the proposed site and the related increase in peak runoff rates were designed to meet the existing, or lessen the overall peak rates of runoff of the site. Unfortunately, the downstream areas of the site are subject to flooding in relatively small rain events (5-year occurrence, or less). To comply with the analysis prepared for the City of Portland – "The Capisic Brook Greenbelt/Stormwater Abatement Study" by CH2M Hill, we must meet the stormwater quantity requirements to not further aggravate a current problem. The proposed property is not subject to flooding, but the stream adjacent to the northern property line winds through some densely populated neighborhoods and is prone to exceeding its banks and flooding in storms greater than 4.0"/24-hr. Although the report recommends large storage volumes for detention, it concedes no areas large enough in the Holm Avenue/Taft Avenue area are available to have any significant reduction of flooding. We hope to control our proposed site runoff to not further aggravate the area's watershed with the construction of a catch basin/storm drain system and detention pond.

Stormwater runoff modeling suggests that the peak rates of runoff in the developed condition will be the same or less than the pre-developed runoff rate within the ravine where the site's last discharge enters. Due to the compact development, the entire site showed slight increases because of the change of ground cover from woods to lawn and pavement. However, construction of a detention outlet control with the roadway infrastructure allowed the proposed site to drain similar to the manner that the site drains currently. We have either designed the driveways lower than the surrounding grades, or have provided yard drains to promote front yard sheet flow to the streets and installed drainage infrastructure.

An off-line stormwater treatment tank has been provided prior to flows entering the primary detention pond. This treatment tank has been sized to provide 70% Total Suspended Solids (TSS) removal at the runoff from the impervious areas that are draining through it. Overall, the entire development will receive a weighted average of approximately 57% TSS removal. The outlet control structure, as described below, will control the rates of runoff to at or below pre-development rates.

The proposed detention system which was designed to utilize an area above the ravine will use an outlet control structure to store runoff temporarily and meet the pre-development peak flow rates as required. An outlet structure was designed with staged storage outlets consisting of two 4" orifices, one 18" x 6" slot orifice, and a 36" weir to control the site and provide an overflow. The pipes entering and discharging were significantly oversized to pass, if necessary, storm runoff from events such as the 100-year or less probability of occurrence.

In addition to the outlet structure and outlet pipe, an emergency riprap spillway was provided to assure the pond can outlet in the event the outlet is clogged or the storm rainfall is too great to pass all of the water through the control structure. We intend to make no revisions to the existing ravine other than installing a stilling basin located downstream of the outlet structure. Due to the work involved and location of adjacent wetlands, some slopes may be steepened with riprap which will be available from on-site excavation to stabilize constructed slopes and not further impact wetlands.

POND SUMMARY TABLE

	2-Year Peak Discharge	10-Year Peak Discharge	25-Year Peak Discharge	100-Year Peak Discharge
Discharge at Ravine (cfs)	2.99	5.28	6.32	8.41
Peak Elevation at Detention Pond (Ft.) *	56.5	58.1	58.8	59.0

* Emergency Spillway Crest = 58.8 Ft.

lm

The Stormwater Management Plan for the Holm Place Condominium project will also include an Erosion and Sedimentation Control Plan placing emphasis on the installation of sedimentation barriers and revegetation to minimize erosion potential from development activities during and after construction. The Erosion Control Plan has been placed directly on the design plans to include locations of erosion control provisions (i.e., silt fence, hay bale barriers, riprap aprons, embankment), along with a narrative and construction details for reference by the contractor during construction.

In an effort to emphasize the requirements, a pre-construction meeting will be required as indicated in the erosion control notes between the owner, City and engineer to review critical aspects and sequencing of construction activities. The erosion control measures are to be monitored throughout construction by the contractor, with maintenance and repairs performed on a regular basis as directed by the erosion control plan.

Summary

The preceding stormwater runoff evaluation has been prepared to evaluate pre and post-development conditions of the proposed Holm Place Condominium development project located off Holm Avenue in Portland. The analysis reviewed pre and post-development watersheds and compared peak rates of runoff at common discharge points to assess stormwater infrastructure needs. Based upon the analysis and review of the site, we make the following recommendations:

1. Implementation of a site specific erosion and sedimentation control plan placing emphasis on times of disturbance and, during construction, installation of appropriate erosion control measures and revegetation of the site and project completion. A specific erosion control plan with notation has been placed directly on the subdivision plans along with supporting details. These measures should be followed by the selected contractor throughout project construction.

2. A pre-construction meeting should be held between the owner, contractor and City representative to review scheduling and critical components of the stormwater management and erosion control plan. The contractor should provide the owner and City with a construction schedule outlining the sequence of events.

3. The proposed site should utilize existing tree vegetation on slopes, natural channels, and stabilize all slopes with either riprap or erosion control blankets. This will lessen erosion of disturbed areas from the development activity and lessen the impact on abutters and the environment by providing stabilized soil conditions which will decrease both erosion and sedimentation of the upper reaches of the Capisic Brook Watershed.

The proposed drainage system should not aggravate the existing flooding situations downstream to the Holm Avenue box culvert or associated tributaries. We are currently aware of the drainage and related flooding problems with the culvert or drainage infrastructure downstream. Therefore, we were careful not to discharge more than allowed by the pre-development peak runoff rates.

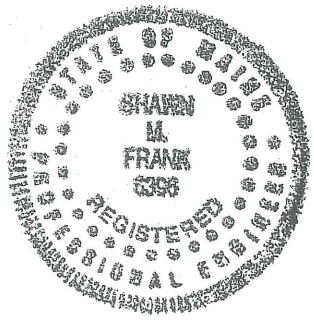
Prepared by:

SEBAGO TECHNICS, INC.

Jennifer L. Williams
Project Engineer

Shawn M. Frank
Professional Engineer

JLW/SMF:jc
May 2, 2000



AH.2

From: "Steve Bushey" <srbushey@maine.rr.com>
To: "Kandi Talbot" <KCOTE@ci.portland.me.us>
Date: Wed, May 3, 2000 9:08 AM
Subject: Holm Place

Kandi,
I have reviewed the latest submission by Sebago Technics for the Holm Place PRUD and find them to be in general conformance with the City's standards for Stormwater management and Erosion and sediment Control. They have addressed the previous items I had presented, therefore it is my opinion the plans are acceptable and can be recommended for final approval by the Planning Board.
Steve Bushey Acting Development Review Coordinator.

AH. 3

TO: Kandi Talbot, Planner

FROM: Jeff Tarling, City Arborist

DATE: May 5, 2000

RE: Holm Avenue Development

I have reviewed the landscape plan for the Holm Avenue Development. My comments are as follows:

1. The applicant must show limits of disturbance for existing vegetation on the landscape plan. If any existing vegetation, which is proposed to be preserved, is removed, than the applicant shall replace the vegetation.

2. The sizes need to be increased on a number of proposed plantings. They are:

Green Ash:	2 1/2" caliper
Flowering Crab:	2" caliper
Japanese Hemlock:	5-6 ft. height
Rhododendron:	18" - 24"
Grey Owl Juniper:	5 ft. height
Bearberry:	#2 instead of #1 pot

3. I have also looked at the entrance and the concern that a resident had with headlights shining in her house. I am recommending that the applicant plant two European Hornbeans within the right-of-way on the property of 173 Holm Avenue.

If you have any questions, please give me a call.

AH-4

From: <lsylvester@hannaford.com>
To: Portland.CityHall(AQJ)
Date: Wed, May 3, 2000 10:46 AM
Subject: The Proposed Development of Holm Place

Thank you for hearing and addressing our concerns regarding this development. I feel there are two issues outstanding, not necessarily related to the development but exacerbated by it.

SIDEWALKS - The issue of adding sidewalks was quickly dismissed when the fact that reconstruction took place less than five years ago was mentioned. It was not made clear to the board that only a small section of Holm Avenue was reconstructed. The reconstruction activity only involved a small section from approximately #150 to #217. It equals less than 20% of our street. It was only the section related to the flooding. The remainder of Holm Avenue was not paved the following spring as we were told it would be. We desperately need sidewalks. I do not feel this issue should set aside.

FLOODING - I believe this issue should be revisited. The reconstruction activity did not resolve our issues with flooding. It was mentioned in the meeting that there was some reluctance to provide us with a larger culvert in fear of moving the problems with flooding further downstream. I disagree with this thought process. The homes in the area beyond Taft Avenue, going toward Hall School, are at a much higher level in relationship the waterline of this tributary. They are therefore at much less risk of flooding than those located on Holm and Taft Avenues. I do not understand how the current situation is considered acceptable.

Please reconsider opening these issues to further analysis.

Thank You,
Lynne Sylvester

From: Anthony Lombardo
To: Alex Jaegerman , Kandi Talbot, Steve Bushey
Date: Mon, May 8, 2000 7:57 AM
Subject: Re: Fwd: The Proposed Development of Holm Place

Kandi,
Let me try to shed some light on the two issues mentioned in "Lynn Sylvester's e-mail.

Sidewalks
We had a "neighborhood meeting" back in 1996 as part of the Holm Ave. reconstruction. This project includes homes between approximately #170 to $217. The residents, approximately 25 in attendance, indicated their preference for no sidewalks. Typically we try to encourage residents to see the importance of sidewalks. However, since no sidewalks existed along the entire length of the street at the time of this meeting the City decided not to include them as part of the proposal.

Flooding
This particular culvert crossing, within the Capisic Brook Watershed, has the advantage of a fairly large runoff storage area upstream of the inlet end of this culvert. The culvert crossings downstream do not have this luxury due to the density and proximity of residential development. The City's intention was to take advantage of these existing conditions and to minimize the flooding of the Holm Ave. crossing. Flooding still occurs, but to a significantly lesser degree than prior to the 1996 Holm Ave. reconstruction project.
>>> Alex Jaegerman 05/03 2:36 PM >>>
Please include the attached e-mail in the upcoming Planning Board packet. Steve, Tony, & Kandi, do you have any response to these further concerns?

May 8, 2000

Ms. Candace Talbot, Planner
Portland City Hall
389 Congress Street
Portland, Maine 04101

Dear Ms. Talbot:

I am a taxpayer and homeowner at 69 Holm Avenue and am writing to express my view on the Holm Place Condominiums proposal that I understand you are involved with making a decision on in the near future.

I would like to place my name with many other neighbors that OPPOSE the project for basically three reasons outlined below:

1. There is an unbelievable amount of steady traffic that does not obey the posted 25 per hour speed limit that goes directly in front of my house every day. The increased traffic, combined with the already unsafe speed opens all involved to a possible fatality. I have four children and would like to see enforcement of the posted speed limit by the proper authorities.
2. The proposal of having a complex on wetlands sandwiched in between established houses would increase the water level in our neighborhood thus flooding many of our basements unnecessarily.
3. A sound barrier of the established trees is necessary for us to keep the large trucks and cars from the Turnpike from being too loud. Our family notices the loudness of the trucks downshifting and we live a number of houses down from the Pike.

I would appreciate any consideration to the above points when you are making a decision about this project.

Thank you.

Sincerely,

Andrea Cesario

Andrea Cesario
69 Holm Avenue
Portland, Maine 04102
(207) 772-3522

cc: Mr. Matt Dyer
88 Holm Avenue
Portland, Maine 04102

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10	90	0.95	1.4	2.20	3.86	4.64	5.79
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12	83	0.90	16.3	1.09	2.18	2.72	3.52
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Study Point 2				0.65	1.36	1.72	2.25
Reach 22				3.03	5.87	7.03	7.72
Net Change at Reach 22				**-0.31**	**-2.56**	**-4.03**	**-7.48**

The following analysis describes how the impervious increase of the proposed site and the related increase in peak runoff rates were designed to meet the existing, or lessen the overall peak rates of runoff of the site. Unfortunately, the downstream areas of the site are subject to flooding in relatively small rain events (5-year occurrence, or less). To comply with the analysis prepared for the City of Portland – "The Capisic Brook Greenbelt/Stormwater Abatement Study" by CH2M Hill, we must meet the stormwater quantity requirements to not further aggravate a current problem. The proposed property is not subject to flooding, but the stream adjacent to the northern property line winds through some densely populated neighborhoods and is prone to exceeding its banks and flooding in storms greater than 4.0"/24-hr. Although the report recommends large storage volumes for detention, it concedes no areas large enough in the Holm Avenue/Taft Avenue area are available to have any significant reduction of flooding. We hope to control our proposed site runoff to not further aggravate the area's watershed with the construction of a catch basin/storm drain system and detention pond.

Stormwater runoff modeling suggests that the peak rates of runoff in the developed condition will be the same or less than the pre-developed runoff rate within the ravine where the site's last discharge enters. Due to the compact development, the entire site showed slight increases because of the change of ground cover from woods to lawn and pavement. However, construction of a detention outlet control with the roadway infrastructure allowed the proposed site to drain similar to the manner that the site drains currently. We have either designed the driveways lower than the surrounding grades, or have provided yard drains to promote front yard sheet flow to the streets and installed drainage infrastructure.

An off-line stormwater treatment tank has been provided prior to flows entering the primary detention pond. This treatment tank has been sized to provide 70% Total Suspended Solids (TSS) removal at the runoff from the impervious areas that are draining through it. Overall, the entire development will receive a weighted average of approximately 57% TSS removal. The outlet control structure, as described below, will control the rates of runoff to at or below pre-development rates.

The proposed detention system which was designed to utilize an area above the ravine will use an outlet control structure to store runoff temporarily and meet the pre-development peak flow rates as required. An outlet structure was designed with staged storage outlets consisting of two 4" orifices, one 18" x 6" slot orifice, and a 36" weir to control the site and provide an overflow. The pipes entering and discharging were significantly oversized to pass, if necessary, storm runoff from events such as the 100-year or less probability of occurrence.

In addition to the outlet structure and outlet pipe, an emergency riprap spillway was provided to assure the pond can outlet in the event the outlet is clogged or the storm rainfall is too great to pass all of the water through the control structure. We intend to make no revisions to the existing ravine other than installing a stilling basin located downstream of the outlet structure. Due to the work involved and location of adjacent wetlands, some slopes may be steepened with riprap which will be available from on-site excavation to stabilize constructed slopes and not further impact wetlands.

POND SUMMARY TABLE

	2-Year Peak Discharge	10-Year Peak Discharge	25-Year Peak Discharge	100-Year Peak Discharge
Discharge at Ravine (cfs)	2.99	5.28	6.32	8.41
Peak Elevation at Detention Pond (Ft.) *	56.5	58.1	58.8	59.0

* Emergency Spillway Crest = 58.8 Ft.

CENTURY 21 Northeast Associates

547 Main Street
Westbrook, Maine 04092

Contract Extension

Sellers: Peter P. and Suzanne G. Martelle

Purchaser: V.P. Builders Inc.

Contract Date: May 17, 1999

Property: Certain lot of land located on Holm Avenue consisting of approximately 4 Acres +/-

The time for Extension of the Purchase and Sale Agreement is Hereby Extended until April 30, 2000.

_____ _____

V.P. Builders Inc Date

_____ _____

Peter P. Martelle Suzanne G. Martelle

The Stormwater Management Plan for the Holm Place Condominium project will also include an Erosion and Sedimentation Control Plan placing emphasis on the installation of sedimentation barriers and revegetation to minimize erosion potential from development activities during and after construction. The Erosion Control Plan has been placed directly on the design plans to include locations of erosion control provisions (i.e., silt fence, hay bale barriers, riprap aprons, embankment), along with a narrative and construction details for reference by the contractor during construction.

In an effort to emphasize the requirements, a pre-construction meeting will be required as indicated in the erosion control notes between the owner, City and engineer to review critical aspects and sequencing of construction activities. The erosion control measures are to be monitored throughout construction by the contractor, with maintenance and repairs performed on a regular basis as directed by the erosion control plan.

Summary

The preceding stormwater runoff evaluation has been prepared to evaluate pre and post-development conditions of the proposed Holm Place Condominium development project located off Holm Avenue in Portland. The analysis reviewed pre and post-development watersheds and compared peak rates of runoff at common discharge points to assess stormwater infrastructure needs. Based upon the analysis and review of the site, we make the following recommendations:

1. Implementation of a site specific erosion and sedimentation control plan placing emphasis on times of disturbance and, during construction, installation of appropriate erosion control measures and revegetation of the site and project completion. A specific erosion control plan with notation has been placed directly on the subdivision plans along with supporting details. These measures should be followed by the selected contractor throughout project construction.

2. A pre-construction meeting should be held between the owner, contractor and City representative to review scheduling and critical components of the stormwater management and erosion control plan. The contractor should provide the owner and City with a construction schedule outlining the sequence of events.

3. The proposed site should utilize existing tree vegetation on slopes, natural channels, and stabilize all slopes with either riprap or erosion control blankets. This will lessen erosion of disturbed areas from the development activity and lessen the impact on abutters and the environment by providing stabilized soil conditions which will decrease both erosion and sedimentation of the upper reaches of the Capisic Brook Watershed.

The proposed drainage system should not aggravate the existing flooding situations downstream to the Holm Avenue box culvert or associated tributaries. We are currently aware of the drainage and related flooding problems with the culvert or drainage infrastructure downstream. Therefore, we were careful not to discharge more than allowed by the pre-development peak runoff rates.

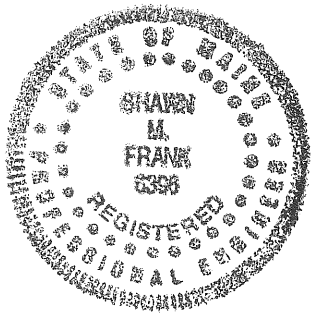
Prepared by:

SEBAGO TECHNICS, INC.

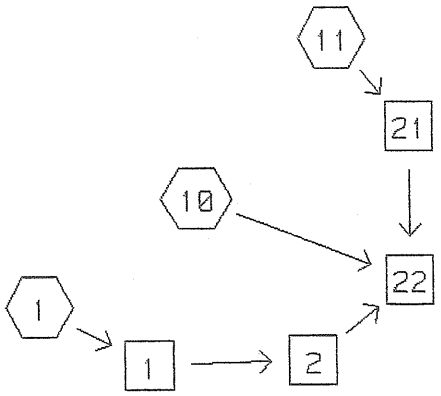
Jennifer L. Williams
Project Engineer

Shawn M. Frank
Professional Engineer

JLW/SMF:jc
May 2, 2000



WATERSHED ROUTING



SUBCATCHMENT REACH POND LINK

SUBCATCHMENT 1	= Offsite Woods	-> REACH 1
SUBCATCHMENT 10	= Majority of Site	-> REACH 22
SUBCATCHMENT 11	= Northern corner of site	-> REACH 21
REACH 1	= Flow Across Site	-> REACH 2
REACH 2	= 18 inch culvert	-> REACH 22
REACH 21	= Flow between Study Points	-> REACH 22
REACH 22	=	->

SUBCATCHMENT 1 Offsite Woods

PEAK= 1.84 CFS @ 12.36 HRS, VOLUME= .21 AF

ACRES	CN	
2.60	77	woods good d-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	Woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	3.8
Woodland Kv=5 L=200' s=.03 '/' V=.87 fps		
	Total Length= 350 ft Total Tc=	27.0

SUBCATCHMENT 10 Majority of Site

PEAK= 1.69 CFS @ 12.35 HRS, VOLUME= .20 AF

ACRES	CN	
.42	39	FIELD,GOOD CONDITION,GROUP C
2.81	77	WOODED,GOOD CONDITION,GROUP D
3.23	72	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow	13.8
Forest w/Heavy Litter Kv=2.5 L=205' s=.0098 '/' V=.25 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow	4.5
Forest w/Heavy Litter Kv=2.5 L=140' s=.0429 '/' V=.52 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	flow over bank	1.7
Forest w/Heavy Litter Kv=2.5 L=80' s=.1 '/' V=.79 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	flow through wetlands	5.0
Forest w/Heavy Litter Kv=2.5 L=100' s=.0175 '/' V=.33 fps		
	Total Length= 525 ft Total Tc=	25.0

SUBCATCHMENT 11 Northern corner of site

PEAK= .39 CFS @ 12.14 HRS, VOLUME= .03 AF

ACRES	CN	
.42	77	Wooded, Good - D

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW	flow thru woods	8.2
Forest w/Heavy Litter Kv=2.5	L=115' s=.0087 '/' V=.23 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	flow thru woods	4.6
Forest w/Heavy Litter Kv=2.5	L=150' s=.0467 '/' V=.54 fps	
	Total Length= 265 ft Total Tc=	12.8

REACH 1 — Flow Across Site

Qin = 1.84 CFS @ 12.36 HRS, VOLUME= .21 AF
Qout= 1.77 CFS @ 12.49 HRS, VOLUME= .21 AF, ATTEN= 4%, LAG= 8.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	3.2	2.47
.3	6.8	8.06
.5	10.9	16.32
.6	16.7	30.93
.9	25.4	56.79
1.2	37.2	97.49
1.5	50.6	150.06

20' x 1.5' CHANNEL
S/S= .1 & .12 '/'
n= .08
LENGTH= 170 FT
SLOPE= .0235 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .11 FT
PEAK VELOCITY= .8 FPS
TRAVEL TIME = 3.7 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 2 — 18 inch culvert

Qin = 1.77 CFS @ 12.49 HRS, VOLUME= .21 AF
Qout= 1.75 CFS @ 12.50 HRS, VOLUME= .21 AF, ATTEN= 1%, LAG= .6 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.56
.3	.3	2.36
.5	.4	5.27
1.1	1.3	22.53
1.2	1.5	26.31
1.4	1.7	28.68
1.4	1.7	28.95
1.5	1.8	28.68
1.5	1.8	26.91

18" PIPE

n= .011
LENGTH= 200 FT
SLOPE= .047 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .25 FT
PEAK VELOCITY= 8.9 FPS
TRAVEL TIME = .4 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 21 — Flow between Study Points

Qin = .39 CFS @ 12.14 HRS, VOLUME= .03 AF
Qout= .20 CFS @ 12.96 HRS, VOLUME= .03 AF, ATTEN= 50%, LAG= 48.9 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	.51
.3	4.2	1.89
.5	7.6	4.31
.6	13.5	9.30
.9	23.4	19.55
1.2	38.4	38.01
1.5	57.0	64.50

8' x 1.5' CHANNEL
SIDE SLOPE= .05 '/'
n= .07
LENGTH= 555 FT
SLOPE= .0036 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .06 FT
PEAK VELOCITY= .3 FPS
TRAVEL TIME = 30.2 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 22

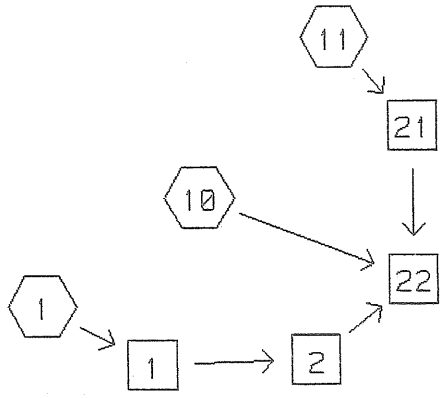
Not described

Qin = 3.34 CFS @ 12.44 HRS, VOLUME= .44 AF
Qout= 3.34 CFS @ 12.44 HRS, VOLUME= .44 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= 10-20 HRS, dt=.1 HRS

WATERSHED ROUTING



SUBCATCHMENT 1	= Offsite Woods	-> REACH 1
SUBCATCHMENT 10	= Majority of Site	-> REACH 22
SUBCATCHMENT 11	= Northern corner of site	-> REACH 21
REACH 1	= Flow Across Site	-> REACH 2
REACH 2	= 18 inch culvert	-> REACH 22
REACH 21	= Flow between Study Points	-> REACH 22
REACH 22	=	->

SUBCATCHMENT 1 Offsite Woods

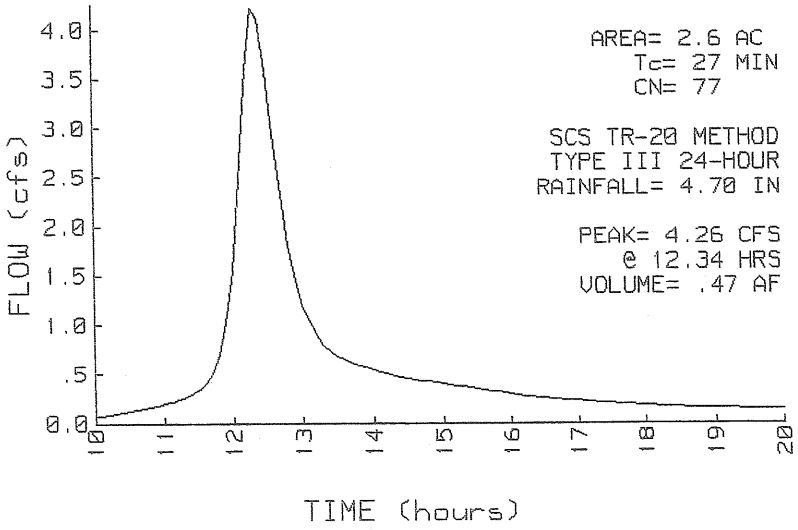
PEAK= 4.26 CFS @ 12.34 HRS, VOLUME= .47 AF

ACRES	CN	
2.60	77	woods good d-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	Woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	3.8
Woodland Kv=5 L=200' s=.03 '/' V=.87 fps		
	Total Length= 350 ft Total Tc=	27.0

SUBCATCHMENT 1 RUNOFF
Offsite Woods



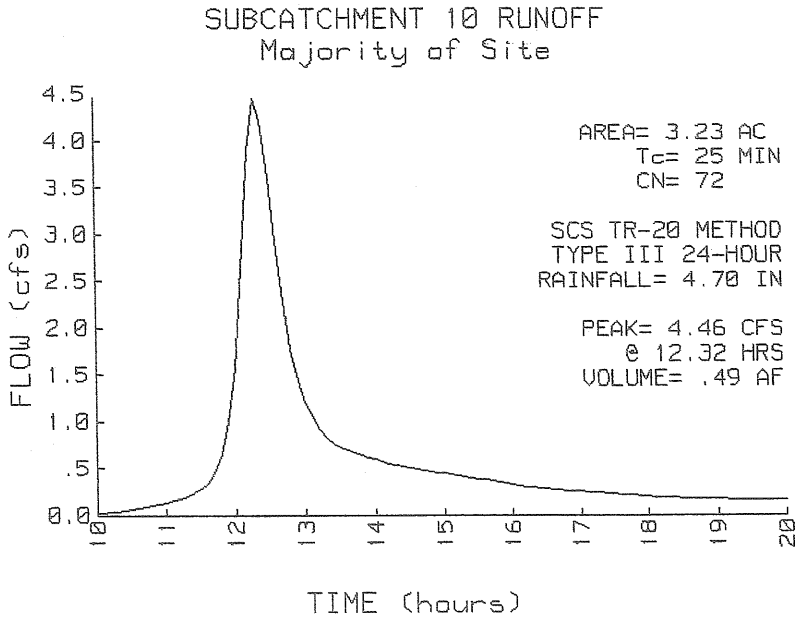
SUBCATCHMENT 10 Majority of Site

PEAK= 4.46 CFS @ 12.32 HRS, VOLUME= .49 AF

ACRES	CN	
.42	39	FIELD,GOOD CONDITION,GROUP C
2.81	77	WOODED,GOOD CONDITION,GROUP D
3.23	72	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow	13.8
Forest w/Heavy Litter Kv=2.5	L=205' s=.0098 '/' V=.25 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow	4.5
Forest w/Heavy Litter Kv=2.5	L=140' s=.0429 '/' V=.52 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	flow over bank	1.7
Forest w/Heavy Litter Kv=2.5	L=80' s=.1 '/' V=.79 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	flow through wetlands	5.0
Forest w/Heavy Litter Kv=2.5	L=100' s=.0175 '/' V=.33 fps	
	Total Length= 525 ft	Total Tc= 25.0



SUBCATCHMENT 11 Northern corner of site

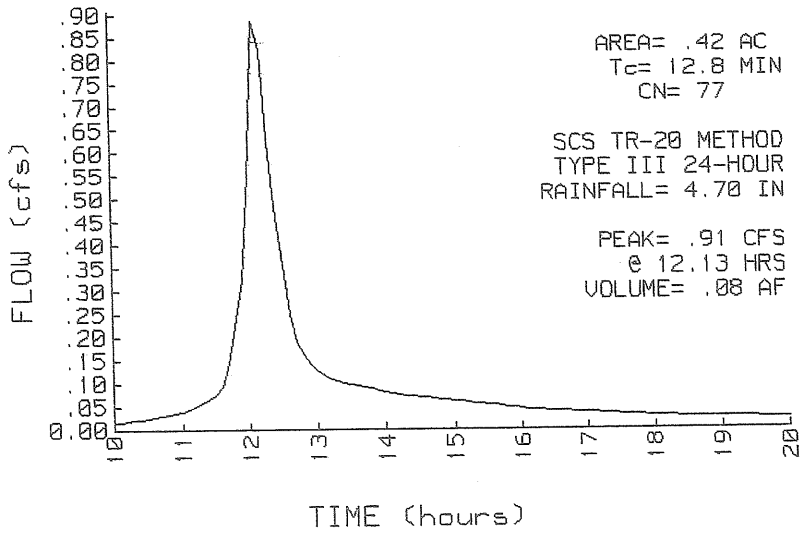
PEAK= .91 CFS @ 12.13 HRS, VOLUME= .08 AF

ACRES	CN	
.42	77	Wooded, Good - D

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW	flow thru woods	8.2
Forest w/Heavy Litter Kv=2.5	L=115' s=.0087 '/' V=.23 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	flow thru woods	4.6
Forest w/Heavy Litter Kv=2.5	L=150' s=.0467 '/' V=.54 fps	
	Total Length= 265 ft	Total Tc= 12.8

SUBCATCHMENT 11 RUNOFF
Northern corner of site



REACH 1 Flow Across Site

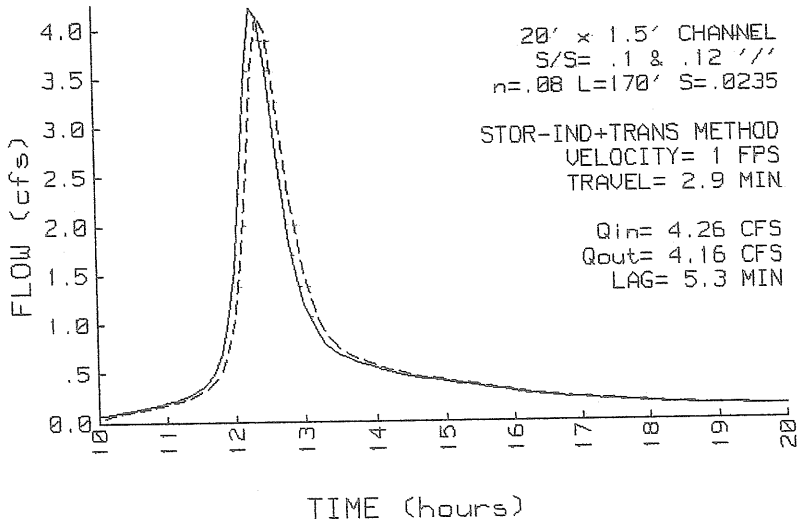
Qin = 4.26 CFS @ 12.34 HRS, VOLUME= .47 AF
Qout= 4.16 CFS @ 12.43 HRS, VOLUME= .47 AF, ATTEN= 2%, LAG= 5.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	3.2	2.47
.3	6.8	8.06
.5	10.9	16.32
.6	16.7	30.93
.9	25.4	56.79
1.2	37.2	97.49
1.5	50.6	150.06

20' x 1.5' CHANNEL
S/S= .1 & .12 '/'
n= .08
LENGTH= 170 FT
SLOPE= .0235 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .20 FT
PEAK VELOCITY= 1.0 FPS
TRAVEL TIME = 2.9 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 1 INFLOW & OUTFLOW
Flow Across Site



REACH 2 18 inch culvert

Qin = 4.16 CFS @ 12.43 HRS, VOLUME= .47 AF
Qout= 4.12 CFS @ 12.43 HRS, VOLUME= .47 AF, ATTEN= 1%, LAG= .4 MIN

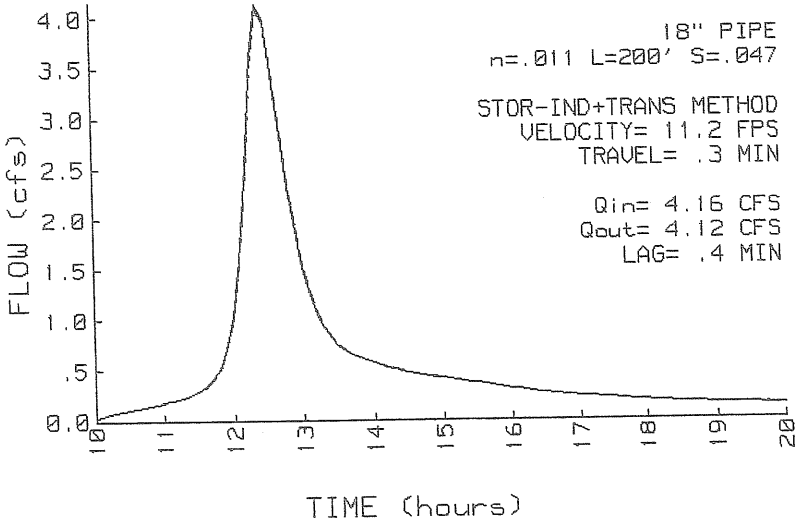
DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.56
.3	.3	2.36
.5	.4	5.27
1.1	1.3	22.53
1.2	1.5	26.31
1.4	1.7	28.68
1.4	1.7	28.95
1.5	1.8	28.68
1.5	1.8	26.91

18" PIPE

n= .011
LENGTH= 200 FT
SLOPE= .047 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .39 FT
PEAK VELOCITY= 11.2 FPS
TRAVEL TIME = .3 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 2 INFLOW & OUTFLOW
18 inch culvert



REACH 21 Flow between Study Points

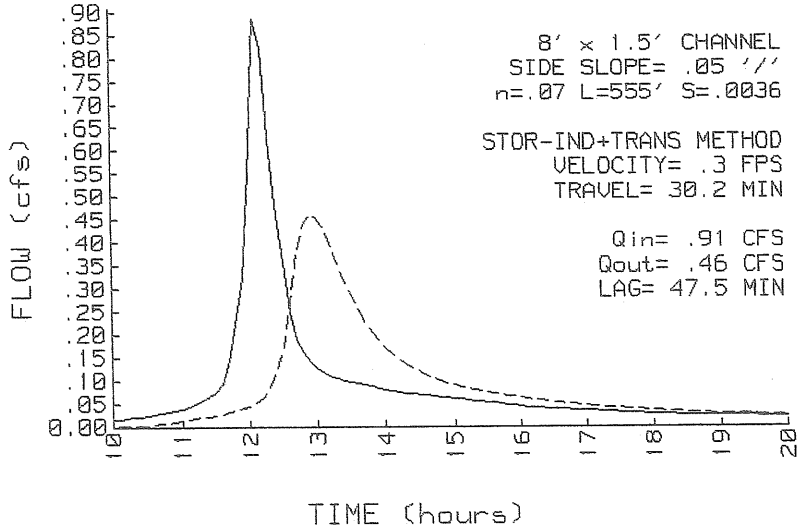
Qin = .91 CFS @ 12.13 HRS, VOLUME= .08 AF
Qout= .46 CFS @ 12.93 HRS, VOLUME= .07 AF, ATTEN= 49%, LAG= 47.5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	.51
.3	4.2	1.89
.5	7.6	4.31
.6	13.5	9.30
.9	23.4	19.55
1.2	38.4	38.01
1.5	57.0	64.50

8' x 1.5' CHANNEL
SIDE SLOPE= .05 '/'
n= .07
LENGTH= 555 FT
SLOPE= .0036 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .14 FT
PEAK VELOCITY= .3 FPS
TRAVEL TIME = 30.2 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 21 INFLOW & OUTFLOW
Flow between Study Points

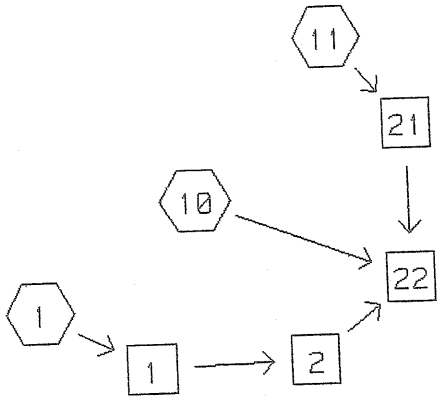


Data for 99103 EXISTING
TYPE III 24-HOUR RAINFALL= 5.50 IN

17 Apr 00

Prepared by SEBAGO TECHNICS
HydroCAD 5.01 000643 (c) 1986-1998 Applied Microcomputer Systems

WATERSHED ROUTING



SUBCATCHMENT REACH POND LINK

SUBCATCHMENT 1	= Offsite Woods	-> REACH 1
SUBCATCHMENT 10	= Majority of Site	-> REACH 22
SUBCATCHMENT 11	= Northern corner of site	-> REACH 21
REACH 1	= Flow Across Site	-> REACH 2
REACH 2	= 18 inch culvert	-> REACH 22
REACH 21	= Flow between Study Points	-> REACH 22
REACH 22	=	->

SUBCATCHMENT 1 Offsite Woods

PEAK= 5.48 CFS @ 12.33 HRS, VOLUME= .60 AF

ACRES	CN	
2.60	77	woods good d-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	Woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	3.8
Woodland Kv=5 L=200' s=.03 '/' V=.87 fps		
	Total Length= 350 ft	Total Tc= 27.0

SUBCATCHMENT 10 Majority of Site

PEAK= 5.93 CFS @ 12.31 HRS, VOLUME= .64 AF

ACRES	CN	
.42	39	FIELD,GOOD CONDITION,GROUP C
2.81	77	WOODED,GOOD CONDITION,GROUP D
3.23	72	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow	13.8
Forest w/Heavy Litter Kv=2.5 L=205' s=.0098 '/' V=.25 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow	4.5
Forest w/Heavy Litter Kv=2.5 L=140' s=.0429 '/' V=.52 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	flow over bank	1.7
Forest w/Heavy Litter Kv=2.5 L=80' s=.1 '/' V=.79 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	flow through wetlands	5.0
Forest w/Heavy Litter Kv=2.5 L=100' s=.0175 '/' V=.33 fps		
	Total Length= 525 ft	Total Tc= 25.0

SUBCATCHMENT 11 Northern corner of site

PEAK= 1.17 CFS @ 12.13 HRS, VOLUME= .10 AF

ACRES	CN	
.42	77	Wooded, Good - D

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW Forest w/Heavy Litter Kv=2.5	flow thru woods L=115' s=.0087 '/' V=.23 fps	8.2
SHALLOW CONCENTRATED/UPLAND FLOW Forest w/Heavy Litter Kv=2.5	flow thru woods L=150' s=.0467 '/' V=.54 fps	4.6
	Total Length= 265 ft Total Tc=	12.8

REACH 1 — Flow Across Site

Qin = 5.48 CFS @ 12.33 HRS, VOLUME= .60 AF
Qout= 5.32 CFS @ 12.42 HRS, VOLUME= .60 AF, ATTEN= 3%, LAG= 5.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	3.2	2.47
.3	6.8	8.06
.5	10.9	16.32
.6	16.7	30.93
.9	25.4	56.79
1.2	37.2	97.49
1.5	50.6	150.06

20' x 1.5' CHANNEL
S/S= .1 & .12 '/'
n= .08
LENGTH= 170 FT
SLOPE= .0235 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .23 FT
PEAK VELOCITY= 1.1 FPS
TRAVEL TIME = 2.7 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 2 — 18 inch culvert

Qin = 5.32 CFS @ 12.42 HRS, VOLUME= .60 AF
Qout= 5.28 CFS @ 12.42 HRS, VOLUME= .60 AF, ATTEN= 1%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.56
.3	.3	2.36
.5	.4	5.27
1.1	1.3	22.53
1.2	1.5	26.31
1.4	1.7	28.68
1.4	1.7	28.95
1.5	1.8	28.68
1.5	1.8	26.91

18" PIPE

n= .011
LENGTH= 200 FT
SLOPE= .047 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .45 FT
PEAK VELOCITY= 11.8 FPS
TRAVEL TIME = .3 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 21 — Flow between Study Points

Qin = 1.17 CFS @ 12.13 HRS, VOLUME= .10 AF
Qout= .64 CFS @ 12.85 HRS, VOLUME= .10 AF, ATTEN= 45%, LAG= 42.9 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	.51
.3	4.2	1.89
.5	7.6	4.31
.6	13.5	9.30
.9	23.4	19.55
1.2	38.4	38.01
1.5	57.0	64.50

8' x 1.5' CHANNEL
SIDE SLOPE= .05 '/'
n= .07
LENGTH= 555 FT
SLOPE= .0036 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .16 FT
PEAK VELOCITY= .3 FPS
TRAVEL TIME = 27.4 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 22

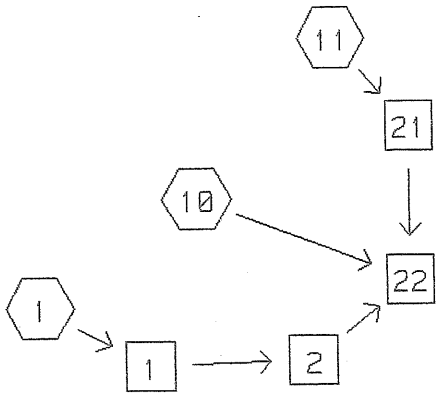
Not described

Qin = 11.06 CFS @ 12.37 HRS, VOLUME= 1.34 AF
Qout= 11.06 CFS @ 12.37 HRS, VOLUME= 1.34 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= 10-20 HRS, dt=.1 HRS

WATERSHED ROUTING



SUBCATCHMENT REACH POND LINK

SUBCATCHMENT 1	= Offsite Woods	-> REACH 1
SUBCATCHMENT 10	= Majority of Site	-> REACH 22
SUBCATCHMENT 11	= Northern corner of site	-> REACH 21
REACH 1	= Flow Across Site	-> REACH 2
REACH 2	= 18 inch culvert	-> REACH 22
REACH 21	= Flow between Study Points	-> REACH 22
REACH 22	=	->

SUBCATCHMENT 1 Offsite Woods

PEAK= 7.36 CFS @ 12.33 HRS, VOLUME= .81 AF

ACRES	CN	
2.60	77	woods good d-soil

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 6.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	Woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	3.8
Woodland Kv=5 L=200' s=.03 '/' V=.87 fps		
	Total Length= 350 ft Total Tc=	27.0

SUBCATCHMENT 10 Majority of Site

PEAK= 8.23 CFS @ 12.31 HRS, VOLUME= .88 AF

ACRES	CN	
.42	39	FIELD,GOOD CONDITION,GROUP C
2.81	77	WOODED,GOOD CONDITION,GROUP D
3.23	72	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 6.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow	13.8
Forest w/Heavy Litter Kv=2.5 L=205' s=.0098 '/' V=.25 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	woods flow	4.5
Forest w/Heavy Litter Kv=2.5 L=140' s=.0429 '/' V=.52 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	flow over bank	1.7
Forest w/Heavy Litter Kv=2.5 L=80' s=.1 '/' V=.79 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	flow through wetlands	5.0
Forest w/Heavy Litter Kv=2.5 L=100' s=.0175 '/' V=.33 fps		
	Total Length= 525 ft Total Tc=	25.0

SUBCATCHMENT 11 Northern corner of site

PEAK= 1.57 CFS @ 12.13 HRS, VOLUME= .13 AF

ACRES	CN	
.42	77	Wooded, Good - D

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 6.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW	flow thru woods	8.2
Forest w/Heavy Litter Kv=2.5	L=115' s=.0087 '/' V=.23 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	flow thru woods	4.6
Forest w/Heavy Litter Kv=2.5	L=150' s=.0467 '/' V=.54 fps	
	Total Length= 265 ft Total Tc=	12.8

REACH 1 — Flow Across Site

Qin = 7.36 CFS @ 12.33 HRS, VOLUME= .81 AF
Qout= 7.16 CFS @ 12.41 HRS, VOLUME= .81 AF, ATTEN= 3%, LAG= 4.8 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	3.2	2.47
.3	6.8	8.06
.5	10.9	16.32
.6	16.7	30.93
.9	25.4	56.79
1.2	37.2	97.49
1.5	50.6	150.06

20' x 1.5' CHANNEL
S/S= .1 & .12 '/'
n= .08
LENGTH= 170 FT
SLOPE= .0235 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .28 FT
PEAK VELOCITY= 1.1 FPS
TRAVEL TIME = 2.5 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 2 — 18 inch culvert

Qin = 7.16 CFS @ 12.41 HRS, VOLUME= .81 AF
Qout= 7.11 CFS @ 12.41 HRS, VOLUME= .81 AF, ATTEN= 1%, LAG= .3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.56
.3	.3	2.36
.5	.4	5.27
1.1	1.3	22.53
1.2	1.5	26.31
1.4	1.7	28.68
1.4	1.7	28.95
1.5	1.8	28.68
1.5	1.8	26.91

18" PIPE

n= .011
LENGTH= 200 FT
SLOPE= .047 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .51 FT
PEAK VELOCITY= 13.2 FPS
TRAVEL TIME = .3 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 21 — Flow between Study Points

Qin = 1.57 CFS @ 12.13 HRS, VOLUME= .13 AF
Qout= .93 CFS @ 12.76 HRS, VOLUME= .13 AF, ATTEN= 41%, LAG= 37.5 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	.51
.3	4.2	1.89
.5	7.6	4.31
.6	13.5	9.30
.9	23.4	19.55
1.2	38.4	38.01
1.5	57.0	64.50

8' x 1.5' CHANNEL
SIDE SLOPE= .05 '/'
n= .07
LENGTH= 555 FT
SLOPE= .0036 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .20 FT
PEAK VELOCITY= .4 FPS
TRAVEL TIME = 24.2 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 22

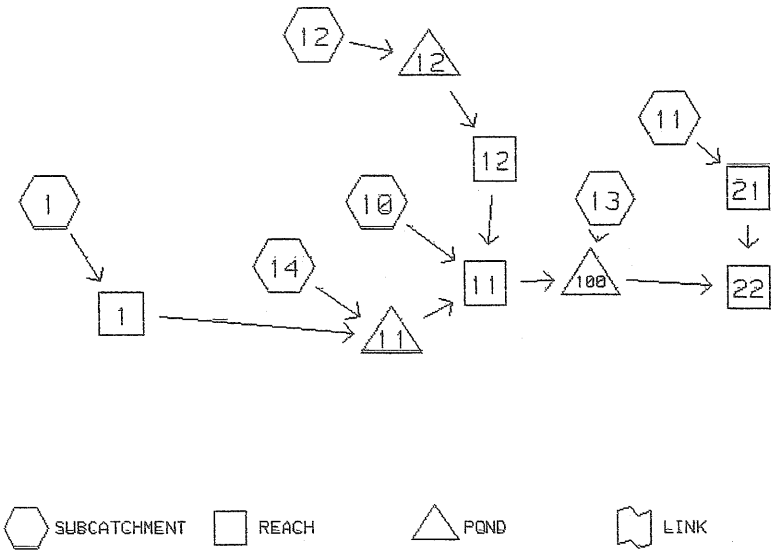
Not described

Qin = 15.20 CFS @ 12.36 HRS, VOLUME= 1.82 AF
Qout= 15.20 CFS @ 12.36 HRS, VOLUME= 1.82 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= 10-20 HRS, dt=.1 HRS

WATERSHED ROUTING



SUBCATCHMENT 1	= Offsite Woods	-> REACH 1
SUBCATCHMENT 10	= 99103 SUBCATCHMENT 1 (PROPOSED)	-> REACH 11
SUBCATCHMENT 11	= NORTHERN CORNER/END OF PROJECT	-> REACH 21
SUBCATCHMENT 12	= WESTERN CORNER OF SITE	-> POND 12
SUBCATCHMENT 13	= AREA BETWEN UNITS 2 - 5	-> POND 100
SUBCATCHMENT 14	= SOUTHSIDE OF PROJECT	-> POND 11
REACH 1	= SWALE ACROSS EAST PROP.LINE	-> POND 11
REACH 11	= STORM DRAIN 5	-> POND 100
REACH 12	= STORM DRAIN 6	-> REACH 11
REACH 21	= Flow between Study Points	-> REACH 22
REACH 22	=	->
POND 11	= CULVERT UNDER DRIVE	-> REACH 11
POND 12	= FIELD AREA	-> REACH 12
POND 100	= DETENTION POND	-> REACH 22

SUBCATCHMENT 1 Offsite Woods

PEAK= 1.84 CFS @ 12.36 HRS, VOLUME= .21 AF

ACRES	CN	
2.60	77	woods good sg-d

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	3.8
Woodland Kv=5 L=200' s=.03 '/' V=.87 fps		
	Total Length= 350 ft Total Tc=	27.0

SUBCATCHMENT 10 99103 SUBCATCHMENT 1 (PROPOSED)

PEAK= 2.20 CFS @ 11.99 HRS, VOLUME= .14 AF

ACRES	CN	
.60	98	PAVED/ROOFS
.19	80	GRASS GOOD D-SOIL
.16	74	GRASS GOOD C SOIL
.95	90	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	DRIVEWAY FLOW	.4
Smooth surfaces n=.011 L=20' P2=3 in s=.016 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	B	.2
Grassed Waterway Kv=15 L=40' s=.035 '/' V=2.81 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	C	.1
Paved Kv=20.3282 L=25' s=.02 '/' V=2.87 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	D	.3
Grassed Waterway Kv=15 L=45' s=.0375 '/' V=2.9 fps		
CIRCULAR CHANNEL	STORM DRAIN	.4
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.01 '/' n=.012 V=4.91 fps L=123' Capacity=3.9 cfs		
	Total Length= 253 ft Total Tc=	1.4

SUBCATCHMENT 11 NORTHERN CORNER/END OF PROJECT

PEAK= .65 CFS @ 12.61 HRS, VOLUME= .09 AF

ACRES	CN	
.11	98	PAVED/ROOF
.45	77	WOODS GOOD D-SOIL
.38	80	GRASS GOOD D-SOIL
.94	81	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW Woods: Light underbrush n=.4 L=120' P2=3 in s=.006 '/'	WOODS FLOW ALONG PROPERTY	41.5
SHALLOW CONCENTRATED/UPLAND FLOW Grassed Waterway Kv=15 L=110'	GRASS SWALE FLOW s=.027 '/' V=2.46 fps	.7
SHALLOW CONCENTRATED/UPLAND FLOW Forest w/Heavy Litter Kv=2.5 L=110'	WOODS FLOW s=.03 '/' V=.43 fps	4.2
	Total Length= 340 ft Total Tc=	46.4

SUBCATCHMENT 12 WESTERN CORNER OF SITE

PEAK= 1.09 CFS @ 12.19 HRS, VOLUME= .10 AF

ACRES	CN	
.16	98	PAVED/ROOF
.10	77	WOODS GOOD D-SOIL
.64	80	GRASS GOOD D-SOIL
.90	83	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW Woods: Light underbrush n=.4 L=50' P2=3 in s=.015 '/'	WOODS FLOW	14.3
SHALLOW CONCENTRATED/UPLAND FLOW Grassed Waterway Kv=15 L=190'	SHALLOW FLOW s=.0132 '/' V=1.72 fps	1.8
CIRCULAR CHANNEL 12" Diameter a=.79 sq-ft Pw=3.1' r=.25' s=.032 '/' n=.012 V=8.79 fps L=130' Capacity=6.9 cfs	SD-8	.2
	Total Length= 370 ft Total Tc=	16.3

SUBCATCHMENT 13 AREA BETWEN UNITS 2 - 5

PEAK= .43 CFS @ 11.99 HRS, VOLUME= .03 AF

ACRES	CN	
.11	98	IMPERVIOUS
.07	80	GRASS, GOOD - D
.18	91	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	A	.6
Grass: Dense n=.24 L=8' P2=3 in s=.375 '/'		
TR-55 SHEET FLOW	B	.1
Smooth surfaces n=.011 L=5' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	C	.4
Paved Kv=20.3282 L=65' s=.015 '/' V=2.49 fps		
CIRCULAR CHANNEL	SD-11	.1
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.005 '/' n=.012 V=3.47 fps L=18' Capacity=2.7 cfs		
CIRCULAR CHANNEL	SD-13	.3
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.008 '/' n=.012 V=4.4 fps L=79' Capacity=3.5 cfs		
	Total Length= 175 ft Total Tc=	1.5

SUBCATCHMENT 14 SOUTHSIDE OF PROJECT

PEAK= 1.10 CFS @ 12.08 HRS, VOLUME= .08 AF

ACRES	CN	
.20	98	PAVING/ROOF
.11	77	WOODS GOOD D-SOIL
.38	80	GRASS GOOD D-SOIL
.69	85	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	LAWN SHEET FLOW	7.7
Grass: Short n=.15 L=50' P2=3 in s=.01 '/'		

REACH 1 SWALE ACROSS EAST PROP.LINE

Qin = 1.84 CFS @ 12.36 HRS, VOLUME= .21 AF
Qout= 1.75 CFS @ 12.49 HRS, VOLUME= .21 AF, ATTEN= 5%, LAG= 8.1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	2.38
.4	3.7	7.76
.6	5.9	15.71
.9	9.1	29.84
1.2	14.0	54.93
1.6	20.6	94.63
2.0	28.1	146.15

8' x 2' CHANNEL
SIDE SLOPE= .33 '/'
n= .035
LENGTH= 300 FT
SLOPE= .01 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .15 FT
PEAK VELOCITY= 1.4 FPS
TRAVEL TIME = 3.6 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 11 STORM DRAIN 5

Qin = 3.45 CFS @ 12.02 HRS, VOLUME= .52 AF
Qout= 3.42 CFS @ 12.03 HRS, VOLUME= .52 AF, ATTEN= 1%, LAG= .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= 28 FT
SLOPE= .005 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .66 FT
PEAK VELOCITY= 4.5 FPS
TRAVEL TIME = .1 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 12 STORM DRAIN 6

Qin = .55 CFS @ 12.51 HRS, VOLUME= .09 AF
Qout= .56 CFS @ 12.51 HRS, VOLUME= .09 AF, ATTEN= 0%, LAG= .4 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.1	.1	.11
.3	.2	.47
.4	.3	1.06
.9	.9	4.54
1.0	1.1	5.30
1.1	1.2	5.78
1.2	1.2	5.83
1.2	1.2	5.78
1.3	1.2	5.42

15" PIPE

n= .012
LENGTH= 86 FT
SLOPE= .006 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .27 FT
PEAK VELOCITY= 2.9 FPS
TRAVEL TIME = .5 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 21 Flow between Study Points

Qin = .65 CFS @ 12.61 HRS, VOLUME= .09 AF
Qout= .45 CFS @ 13.48 HRS, VOLUME= .09 AF, ATTEN= 30%, LAG= 51.9 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	.51
.3	4.2	1.89
.5	7.6	4.31
.6	13.5	9.30
.9	23.4	19.55
1.2	38.4	38.01
1.5	57.0	64.50

8' x 1.5' CHANNEL
SIDE SLOPE= .05 '/'
n= .07
LENGTH= 555 FT
SLOPE= .0036 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .14 FT
PEAK VELOCITY= .3 FPS
TRAVEL TIME = 30.2 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 22

Not described

Qin = 3.03 CFS @ 12.39 HRS, VOLUME= .63 AF
Qout= 3.03 CFS @ 12.39 HRS, VOLUME= .63 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= 10-20 HRS, dt=.1 HRS

POND 11 CULVERT UNDER DRIVE

Qin = 2.08 CFS @ 12.43 HRS, VOLUME= .29 AF
Qout= 1.98 CFS @ 12.53 HRS, VOLUME= .29 AF, ATTEN= 5%, LAG= 5.7 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
59.0	110	0	0
60.0	390	250	250
62.0	840	1230	1480
63.0	1370	1105	2585
63.4	1650	604	3189

STOR-IND METHOD
PEAK STORAGE = 391 CF
PEAK ELEVATION= 60.2 FT
FLOOD ELEVATION= 63.4 FT
START ELEVATION= 59.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
4 x FINER ROUTING
Tdet= 4.5 MIN (.29 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	59.0'	**12" CULVERT** n=.024 L=30' S=.005'/' Ke=.7 Cc=.9 Cd=.53

POND 12 FIELD AREA

Qin = 1.09 CFS @ 12.19 HRS, VOLUME= .10 AF
Qout= .55 CFS @ 12.51 HRS, VOLUME= .09 AF, ATTEN= 49%, LAG= 18.7 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
59.6	13	0	0
61.4	13	23	23
63.4	450	463	485
64.0	2950	1020	1505
65.0	4340	3645	5150

STOR-IND METHOD
PEAK STORAGE = 1338 CF
PEAK ELEVATION= 63.9 FT
FLOOD ELEVATION= 65.0 FT
START ELEVATION= 59.6 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 64.4 MIN (.09 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	59.6'	**12" CULVERT** n=.012 L=23' S=.01'/' Ke=.9 Cc=.9 Cd=.47
2	1	59.6'	**Fluidic Amp, 20"x23", 8"dia.**
3	2	63.4'	**.1' x .75' HORIZONTAL ORIFICE/GRATE X 13** Q=.1 Area SQR(2gH)

HEAD(FT)	DISCH(CFS)
0.0	0.00
2.0	.55
4.0	.80
6.0	1.05
8.0	1.20
10.0	1.40

Primary Discharge
└─1=Culvert
└─2=Special Outlet
└─3=Orifice/Grate

POND 100 **DETENTION POND**

Qin = 3.83 CFS @ 12.02 HRS, VOLUME= .55 AF
Qout= 2.99 CFS @ 12.36 HRS, VOLUME= .54 AF, ATTEN= 22%, LAG= 20.7 MIN
Qpri= 2.99 CFS @ 12.36 HRS, VOLUME= .54 AF
Qsec= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
54.0	665	0	0
56.0	1350	2015	2015
58.0	2325	3675	5690
60.0	3530	5855	11545

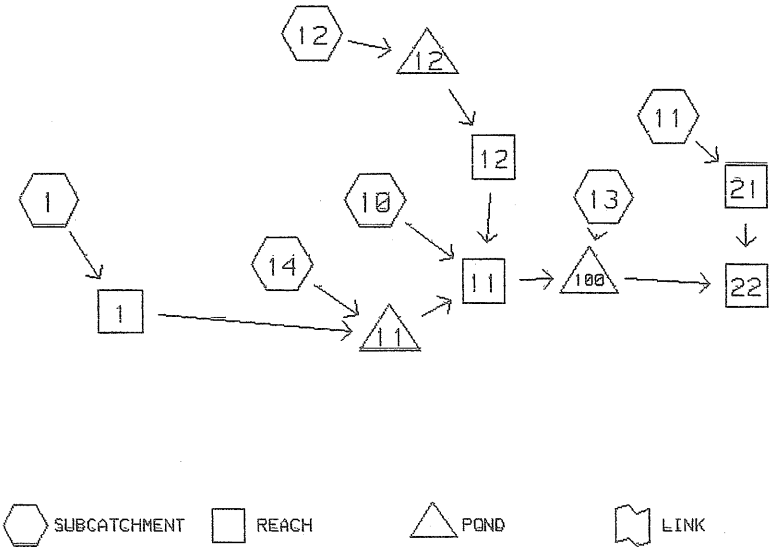
STOR-IND METHOD
PEAK STORAGE = 2988 CF
PEAK ELEVATION= 56.5 FT
FLOOD ELEVATION= 60.0 FT
START ELEVATION= 54.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 27.5 MIN (.53 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	54.4'	**12" CULVERT** n=.012 L=35' S=.005'/' Ke=.9 Cc=.9 Cd=.47
2	1	54.4'	**4" ORIFICE/GRATE X 2** Q=.6 PI r^2 SQR(2g) SQR(H-r)
3	1	56.0'	**1.5' x .5' ORIFICE/GRATE** Q=.6 Width 2/3 SQR(2g) (H^1.5 - [H-Height]^1.5)
4	1	58.8'	**3' SHARP-CRESTED RECTANGULAR WEIR** Q=C L H^1.5 C=3.27+.4 H/1.5 L=Length-2(.1 H)
5	S	58.8'	**10' BROAD-CRESTED RECTANGULAR WEIR** Q=C L H^1.5 C=3.62, 0, 0, 0, 0, 0, 0, 0

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

Secondary Discharge
└─5=Broad-Crested Rectangular Weir

WATERSHED ROUTING



SUBCATCHMENT 1	= Offsite Woods	-> REACH 1
SUBCATCHMENT 10	= 99103 SUBCATCHMENT 1 (PROPOSED)	-> REACH 11
SUBCATCHMENT 11	= NORTHERN CORNER/END OF PROJECT	-> REACH 21
SUBCATCHMENT 12	= WESTERN CORNER OF SITE	-> POND 12
SUBCATCHMENT 13	= AREA BETWEN UNITS 2 - 5	-> POND 100
SUBCATCHMENT 14	= SOUTHSIDE OF PROJECT	-> POND 11
REACH 1	= SWALE ACROSS EAST PROP.LINE	-> POND 11
REACH 11	= STORM DRAIN 5	-> POND 100
REACH 12	= STORM DRAIN 6	-> REACH 11
REACH 21	= Flow between Study Points	-> REACH 22
REACH 22	=	->
POND 11	= CULVERT UNDER DRIVE	-> REACH 11
POND 12	= FIELD AREA	-> REACH 12
POND 100	= DETENTION POND	-> REACH 22

SUBCATCHMENT 1 Offsite Woods

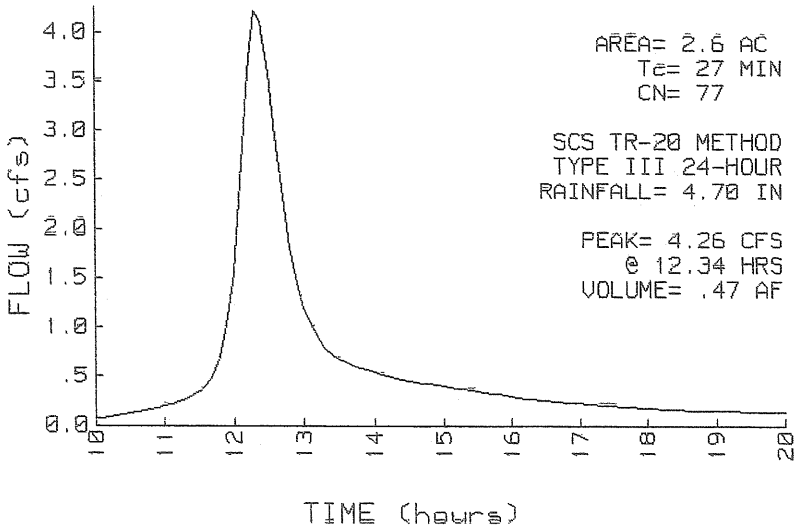
PEAK= 4.26 CFS @ 12.34 HRS, VOLUME= .47 AF

ACRES	CN	
2.60	77	woods good sg-d

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	23.2
Woods: Light underbrush n=.4	L=150' P2=3 in s=.04 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	3.8
Woodland Kv=5	L=200' s=.03 '/' V=.87 fps	
	Total Length= 350 ft	Total Tc= 27.0

SUBCATCHMENT 1 RUNOFF
Offsite Woods



SUBCATCHMENT 10 — 99103 SUBCATCHMENT 1 (PROPOSED)

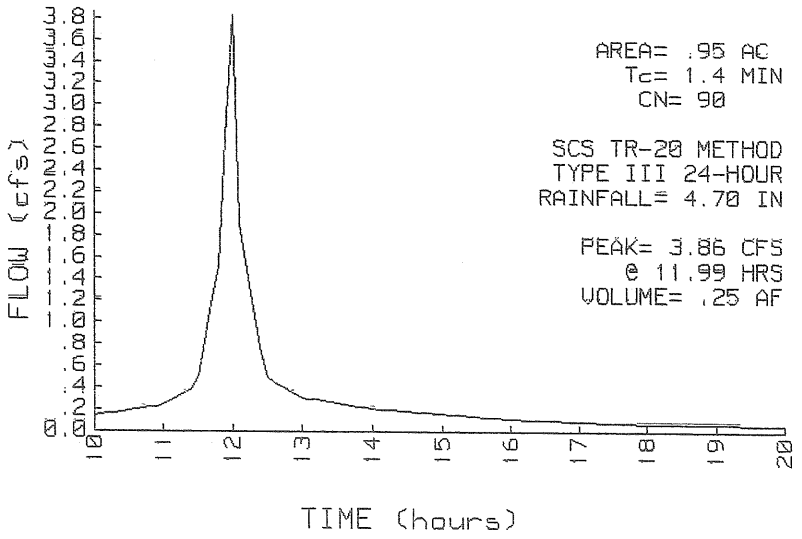
PEAK= 3.86 CFS @ 11.99 HRS, VOLUME= .25 AF

ACRES	CN	
.60	98	PAVED/ROOFS
.19	80	GRASS GOOD D-SOIL
.16	74	GRASS GOOD C SOIL
.95	90	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	**DRIVEWAY FLOW**	.4
Smooth surfaces n=.011 L=20'	P2=3 in s=.016 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	**B**	.2
Grassed Waterway Kv=15 L=40'	s=.035 '/' V=2.81 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	**C**	.1
Paved Kv=20.3282 L=25'	s=.02 '/' V=2.87 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	**D**	.3
Grassed Waterway Kv=15 L=45'	s=.0375 '/' V=2.9 fps	
CIRCULAR CHANNEL	**STORM DRAIN**	.4
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.01 '/' n=.012 V=4.91 fps L=123'	Capacity=3.9 cfs	
	Total Length= 253 ft	Total Tc= 1.4

SUBCATCHMENT 10 RUNOFF
99103 SUBCATCHMENT 1 (PROPOSED)



SUBCATCHMENT 11 NORTHERN CORNER/END OF PROJECT

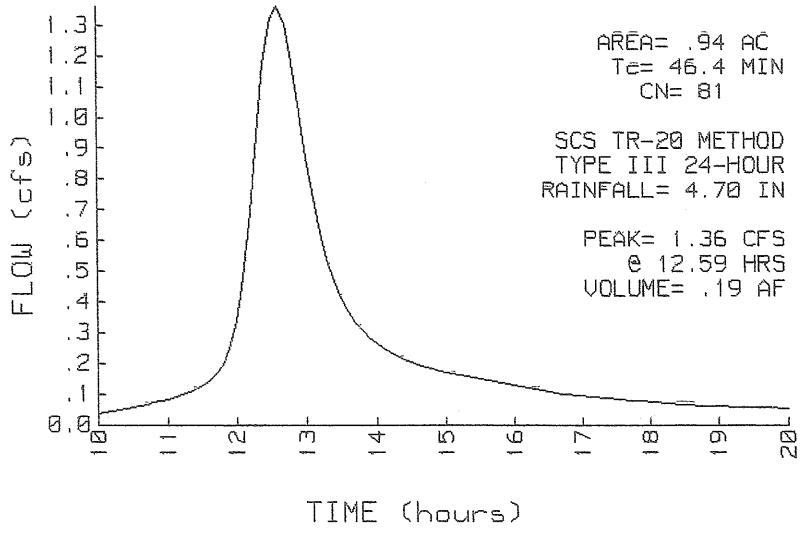
PEAK= 1.36 CFS @ 12.59 HRS, VOLUME= .19 AF

ACRES	CN	
.11	98	PAVED/ROOF
.45	77	WOODS GOOD D-SOIL
.38	80	GRASS GOOD D-SOIL
.94	81	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	WOODS FLOW ALONG PROPERTY	41.5
Woods: Light underbrush n=.4	L=120' P2=3 in s=.006 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	GRASS SWALE FLOW	.7
Grassed Waterway Kv=15	L=110' s=.027 '/' V=2.46 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	WOODS FLOW	4.2
Forest w/Heavy Litter Kv=2.5	L=110' s=.03 '/' V=.43 fps	
	Total Length= 340 ft Total Tc=	46.4

SUBCATCHMENT 11 RUNOFF
NORTHERN CORNER/END OF PROJECT



SUBCATCHMENT 12 WESTERN CORNER OF SITE

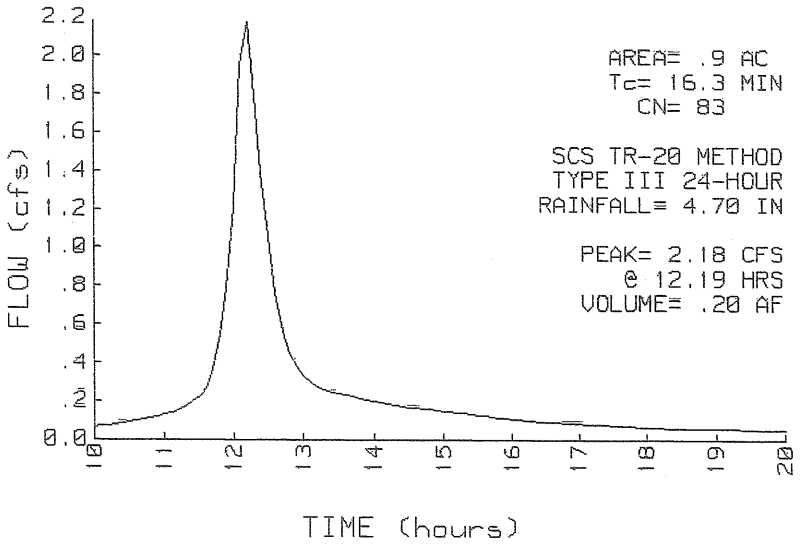
PEAK= 2.18 CFS @ 12.19 HRS, VOLUME= .20 AF

ACRES	CN	
.16	98	PAVED/ROOF
.10	77	WOODS GOOD D-SOIL
.64	80	GRASS GOOD D-SOIL
.90	83	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	WOODS FLOW	14.3
Woods: Light underbrush n=.4 L=50' P2=3 in s=.015 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	SHALLOW FLOW	1.8
Grassed Waterway Kv=15 L=190'	s=.0132 '/' V=1.72 fps	
CIRCULAR CHANNEL	SD-8	.2
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.032 '/' n=.012 V=8.79 fps L=130' Capacity=6.9 cfs		
	Total Length= 370 ft Total Tc=	16.3

SUBCATCHMENT 12 RUNOFF
WESTERN CORNER OF SITE



SUBCATCHMENT 13 AREA BETWEN UNITS 2 - 5

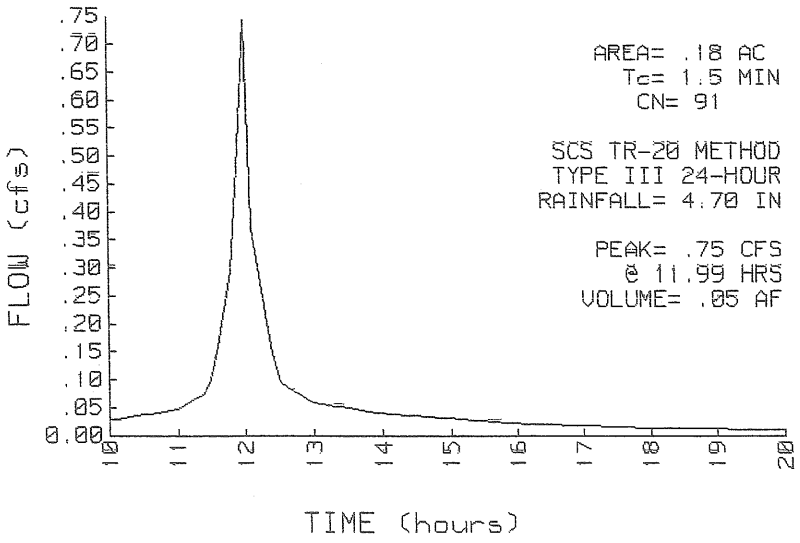
PEAK= .75 CFS @ 11.99 HRS, VOLUME= .05 AF

ACRES	CN	
.11	98	IMPERVIOUS
.07	80	GRASS, GOOD - D
.18	91	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	A	.6
Grass: Dense n=.24 L=8' P2=3 in s=.375 '/'		
TR-55 SHEET FLOW	B	.1
Smooth surfaces n=.011 L=5' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	C	.4
Paved Kv=20.3282 L=65' s=.015 '/' V=2.49 fps		
CIRCULAR CHANNEL	SD-11	.1
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.005 '/' n=.012 V=3.47 fps L=18' Capacity=2.7 cfs		
CIRCULAR CHANNEL	SD-13	.3
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.008 '/' n=.012 V=4.4 fps L=79' Capacity=3.5 cfs		
	Total Length= 175 ft Total Tc=	1.5

SUBCATCHMENT 13 RUNOFF
AREA BETWEN UNITS 2 - 5



SUBCATCHMENT 14 SOUTHSIDE OF PROJECT

PEAK= 2.12 CFS @ 12.07 HRS, VOLUME= .16 AF

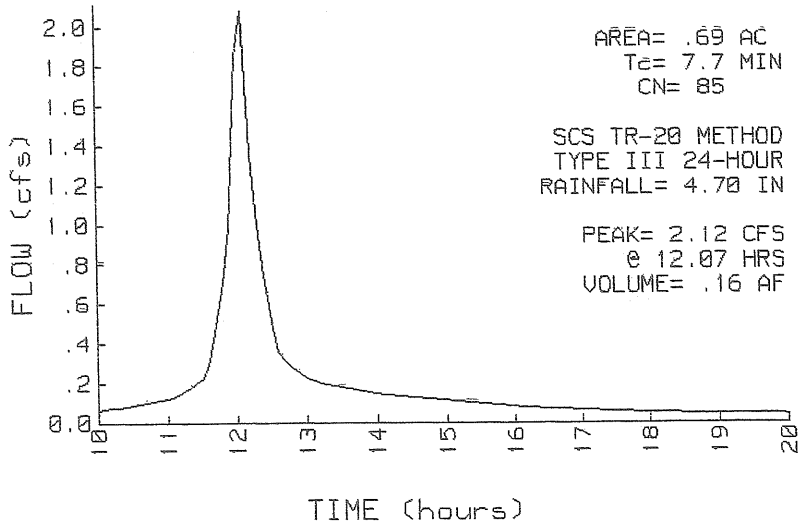
ACRES	CN	
.20	98	PAVING/ROOF
.11	77	WOODS GOOD D-SOIL
.38	80	GRASS GOOD D-SOIL
.69	85	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	LAWN SHEET FLOW	7.7

Grass: Short n=.15 L=50' P2=3 in s=.01 '/'

SUBCATCHMENT 14 RUNOFF
SOUTHSIDE OF PROJECT



REACH 1 SWALE ACROSS EAST PROP.LINE

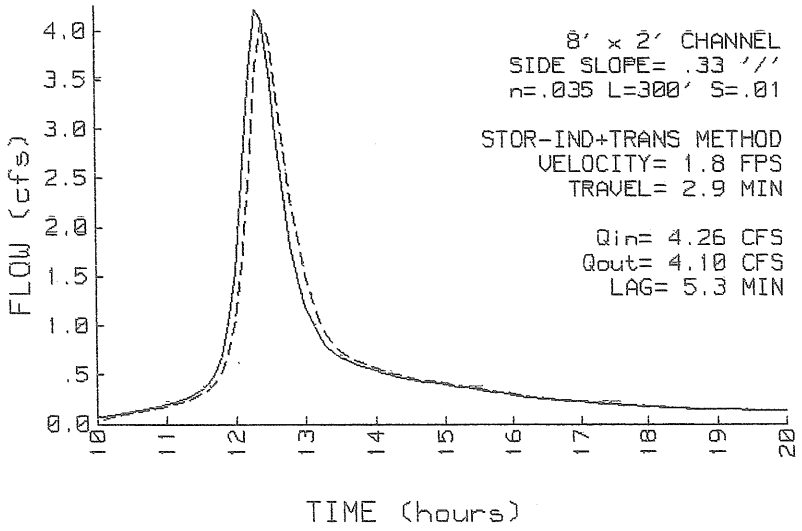
Qin = 4.26 CFS @ 12.34 HRS, VOLUME= .47 AF
Qout= 4.10 CFS @ 12.42 HRS, VOLUME= .47 AF, ATTEN= 4%, LAG= 5.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	2.38
.4	3.7	7.76
.6	5.9	15.71
.9	9.1	29.84
1.2	14.0	54.93
1.6	20.6	94.63
2.0	28.1	146.15

8' x 2' CHANNEL
SIDE SLOPE= .33 '/'
n= .035
LENGTH= 300 FT
SLOPE= .01 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .27 FT
PEAK VELOCITY= 1.8 FPS
TRAVEL TIME = 2.9 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 1 INFLOW & OUTFLOW
SWALE ACROSS EAST PROP.LINE



REACH 11 STORM DRAIN 5

Qin = 6.33 CFS @ 12.01 HRS, VOLUME= 1.07 AF
Qout= 6.30 CFS @ 12.01 HRS, VOLUME= 1.07 AF, ATTEN= 1%, LAG= .2 MIN

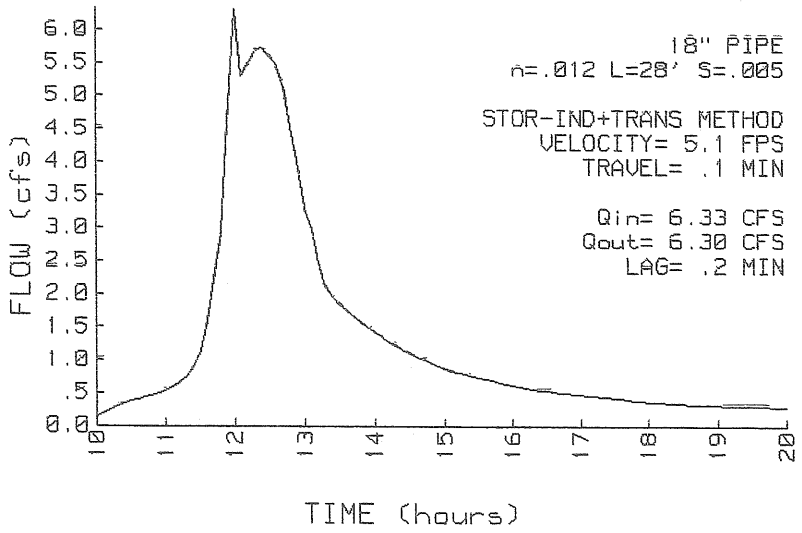
DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	.1	.17
.3	.3	.70
.5	.4	1.58
1.1	1.3	6.74
1.2	1.5	7.87
1.4	1.7	8.58
1.4	1.7	8.66
1.5	1.8	8.58
1.5	1.8	8.05

18" PIPE

n= .012
LENGTH= 28 FT
SLOPE= .005 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= 1.00 FT
PEAK VELOCITY= 5.1 FPS
TRAVEL TIME = .1 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 11 INFLOW & OUTFLOW
STORM DRAIN 5



REACH 12 STORM DRAIN 6

Qin = .78 CFS @ 12.60 HRS, VOLUME= .19 AF
Qout= .78 CFS @ 12.61 HRS, VOLUME= .19 AF, ATTEN= 0%, LAG= .6 MIN

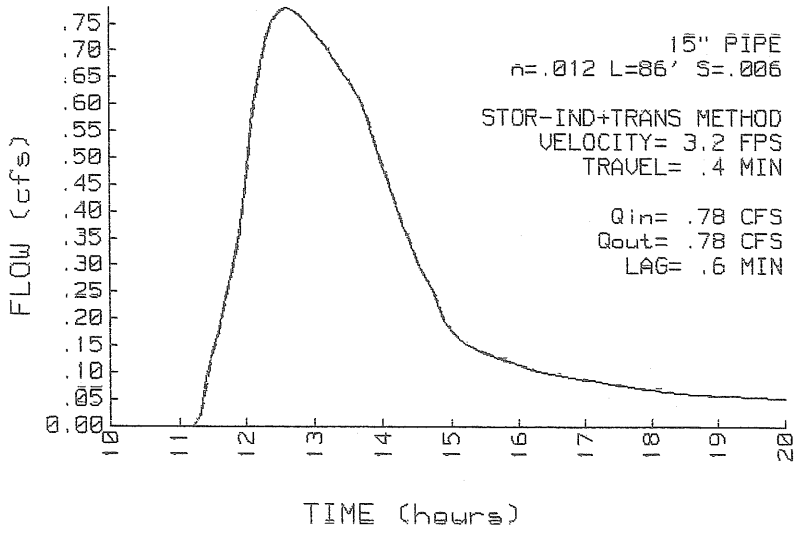
DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.1	.1	.11
.3	.2	.47
.4	.3	1.06
.9	.9	4.54
1.0	1.1	5.30
1.1	1.2	5.78
1.2	1.2	5.83
1.2	1.2	5.78
1.3	1.2	5.42

15" PIPE

n= .012
LENGTH= 86 FT
SLOPE= .006 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .32 FT
PEAK VELOCITY= 3.2 FPS
TRAVEL TIME = .4 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 12 INFLOW & OUTFLOW
STORM DRAIN 6



REACH 21 Flow between Study Points

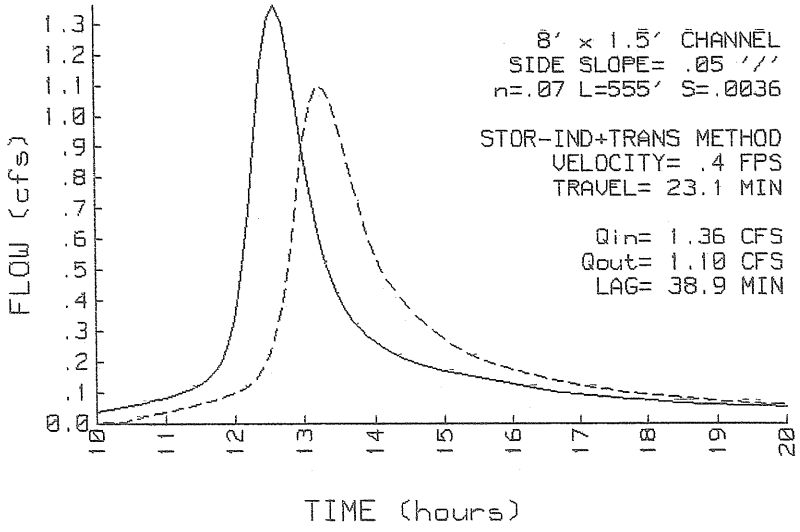
Qin = 1.36 CFS @ 12.59 HRS, VOLUME= .19 AF
Qout= 1.10 CFS @ 13.24 HRS, VOLUME= .19 AF, ATTEN= 19%, LAG= 38.9 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	.51
.3	4.2	1.89
.5	7.6	4.31
.6	13.5	9.30
.9	23.4	19.55
1.2	38.4	38.01
1.5	57.0	64.50

8' x 1.5' CHANNEL
SIDE SLOPE= .05 '/'
n= .07
LENGTH= 555 FT
SLOPE= .0036 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .21 FT
PEAK VELOCITY= .4 FPS
TRAVEL TIME = 23.1 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 21 INFLOW & OUTFLOW
Flow between Study Points



REACH 22

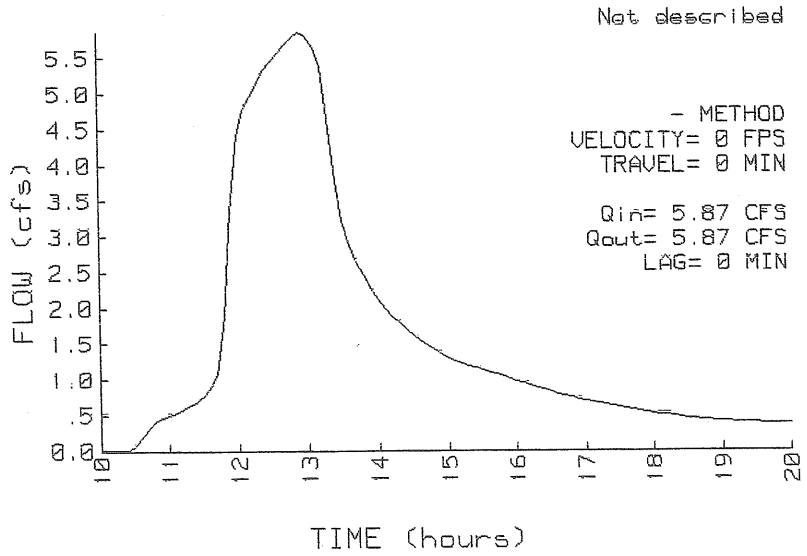
Not described

Qin = 5.87 CFS @ 12.91 HRS, VOLUME= 1.29 AF
Qout= 5.87 CFS @ 12.91 HRS, VOLUME= 1.29 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= 10-20 HRS, dt=.1 HRS

REACH 22 INFLOW & OUTFLOW



POND 11 CULVERT UNDER DRIVE

Qin = 4.84 CFS @ 12.38 HRS, VOLUME= .63 AF
Qout= 4.33 CFS @ 12.51 HRS, VOLUME= .63 AF, ATTEN= 11%, LAG= 7.9 MIN

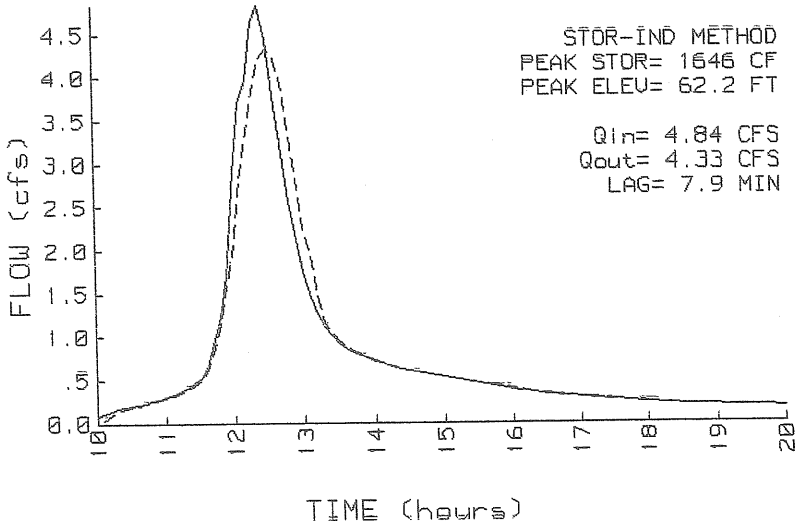
ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
59.0	110	0	0
60.0	390	250	250
62.0	840	1230	1480
63.0	1370	1105	2585
63.4	1650	604	3189

STOR-IND METHOD
PEAK STORAGE = 1646 CF
PEAK ELEVATION= 62.2 FT
FLOOD ELEVATION= 63.4 FT
START ELEVATION= 59.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
4 x FINER ROUTING
Tdet= 4.9 MIN (.62 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	59.0'	12" CULVERT

n=.024 L=30' S=.005'/' Ke=.7 Cc=.9 Cd=.53

POND 11 INFLOW & OUTFLOW
CULVERT UNDER DRIVE



POND 12 FIELD AREA

Qin = 2.18 CFS @ 12.19 HRS, VOLUME= .20 AF
Qout= .78 CFS @ 12.60 HRS, VOLUME= .19 AF, ATTEN= 64%, LAG= 25.0 MIN

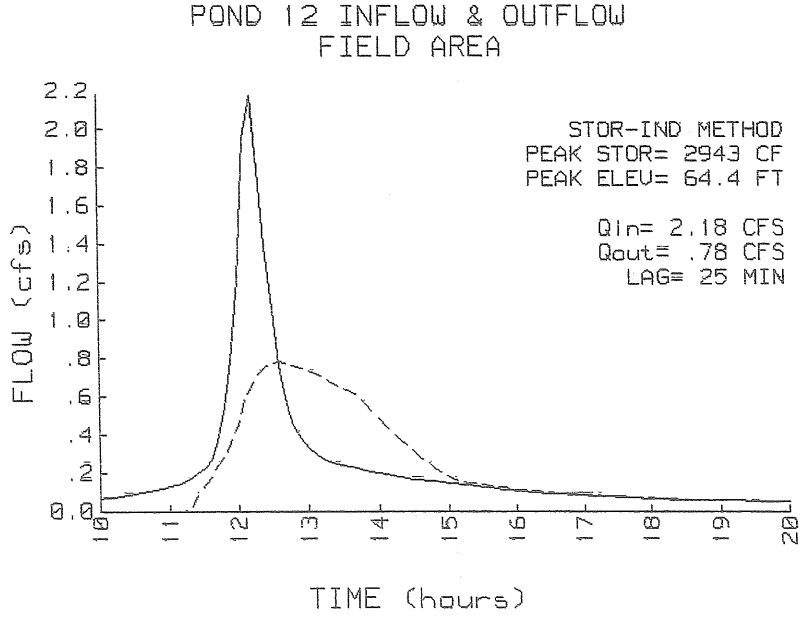
ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
59.6	13	0	0
61.4	13	23	23
63.4	450	463	485
64.0	2950	1020	1505
65.0	4340	3645	5150

STOR-IND METHOD
PEAK STORAGE = 2943 CF
PEAK ELEVATION= 64.4 FT
FLOOD ELEVATION= 65.0 FT
START ELEVATION= 59.6 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 57.3 MIN (.18 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	59.6'	12" CULVERT n=.012 L=23' S=.01'/' Ke=.9 Cc=.9 Cd=.47
2	1	59.6'	Fluidic Amp, 20"x23", 8"dia.
3	2	63.4'	.1' x .75' HORIZONTAL ORIFICE/GRATE X 13 Q=.1 Area SQR(2gH)

HEAD(FT)	DISCH(CFS)
0.0	0.00
2.0	.55
4.0	.80
6.0	1.05
8.0	1.20
10.0	1.40

Primary Discharge
└─1=Culvert
└─2=Special Outlet
└─3=Orifice/Grate



POND 100 **DETENTION POND**

Qin = 7.03 CFS @ 12.01 HRS, VOLUME= 1.11 AF
Qout= 5.28 CFS @ 12.67 HRS, VOLUME= 1.10 AF, ATTEN= 25%, LAG= 39.9 MIN
Qpri= 5.28 CFS @ 12.67 HRS, VOLUME= 1.10 AF
Qsec= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
54.0	665	0	0
56.0	1350	2015	2015
58.0	2325	3675	5690
60.0	3530	5855	11545

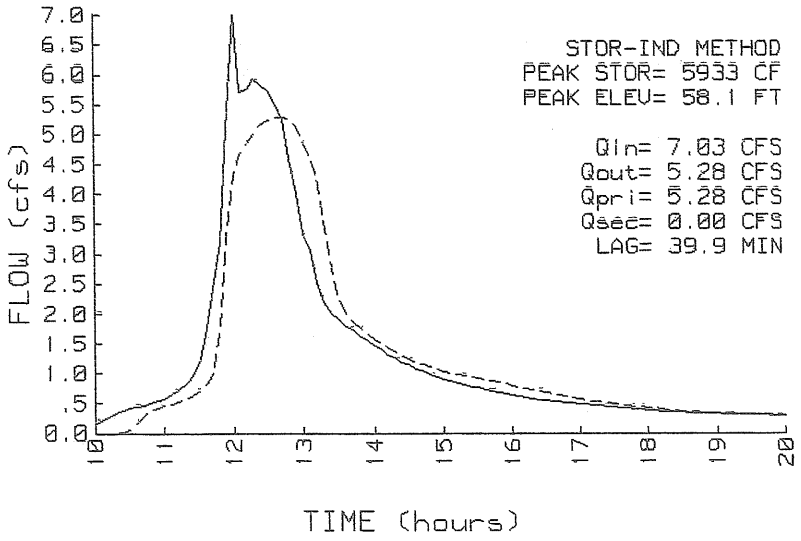
STOR-IND METHOD
PEAK STORAGE = 5933 CF
PEAK ELEVATION= 58.1 FT
FLOOD ELEVATION= 60.0 FT
START ELEVATION= 54.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 22.6 MIN (1.09 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	54.4'	**12" CULVERT** n=.012 L=35' S=.005'/' Ke=.9 Cc=.9 Cd=.47
2	1	54.4'	**4" ORIFICE/GRATE X 2** Q=.6 PI r^2 SQR(2g) SQR(H-r)
3	1	56.0'	**1.5' x .5' ORIFICE/GRATE** Q=.6 Width 2/3 SQR(2g) (H^1.5 - [H-Height]^1.5)
4	1	58.8'	**3' SHARP-CRESTED RECTANGULAR WEIR** Q=C L H^1.5 C=3.27+.4 H/1.5 L=Length-2(.1 H)
5	S	58.8'	**10' BROAD-CRESTED RECTANGULAR WEIR** Q=C L H^1.5 C=3.62, 0, 0, 0, 0, 0, 0, 0

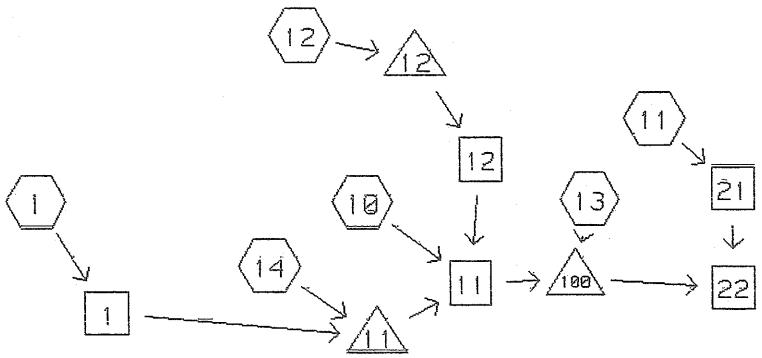
Primary Discharge
└─1=Culvert
  ├─2=Orifice/Grate
  ├─3=Orifice/Grate
  └─4=Sharp-Crested Rectangular Weir

Secondary Discharge
└─5=Broad-Crested Rectangular Weir

POND 100 INFLOW & OUTFLOW
DETENTION POND



WATERSHED ROUTING



SUBCATCHMENT 1	= Offsite Woods	-> REACH 1
SUBCATCHMENT 10	= 99103 SUBCATCHMENT 1 (PROPOSED)	-> REACH 11
SUBCATCHMENT 11	= NORTHERN CORNER/END OF PROJECT	-> REACH 21
SUBCATCHMENT 12	= WESTERN CORNER OF SITE	-> POND 12
SUBCATCHMENT 13	= AREA BETWEN UNITS 2 - 5	-> POND 100
SUBCATCHMENT 14	= SOUTHSIDE OF PROJECT	-> POND 11
REACH 1	= SWALE ACROSS EAST PROP.LINE	-> POND 11
REACH 11	= STORM DRAIN 5	-> POND 100
REACH 12	= STORM DRAIN 6	-> REACH 11
REACH 21	= Flow between Study Points	-> REACH 22
REACH 22	=	->
POND 11	= CULVERT UNDER DRIVE	-> REACH 11
POND 12	= FIELD AREA	-> REACH 12
POND 100	= DETENTION POND	-> REACH 22

SUBCATCHMENT 1 Offsite Woods

PEAK= 5.48 CFS @ 12.33 HRS, VOLUME= .60 AF

ACRES	CN	
2.60	77	woods good sg-d

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	3.8
Woodland Kv=5 L=200' s=.03 '/' V=.87 fps		
	Total Length= 350 ft Total Tc=	27.0

SUBCATCHMENT 10 99103 SUBCATCHMENT 1 (PROPOSED)

PEAK= 4.64 CFS @ 11.99 HRS, VOLUME= .30 AF

ACRES	CN	
.60	98	PAVED/ROOFS
.19	80	GRASS GOOD D-SOIL
.16	74	GRASS GOOD C SOIL
.95	90	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	DRIVEWAY FLOW	.4
Smooth surfaces n=.011 L=20' P2=3 in s=.016 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	B	.2
Grassed Waterway Kv=15 L=40' s=.035 '/' V=2.81 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	C	.1
Paved Kv=20.3282 L=25' s=.02 '/' V=2.87 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	D	.3
Grassed Waterway Kv=15 L=45' s=.0375 '/' V=2.9 fps		
CIRCULAR CHANNEL	STORM DRAIN	.4
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.01 '/' n=.012 V=4.91 fps L=123' Capacity=3.9 cfs		
	Total Length= 253 ft Total Tc=	1.4

SUBCATCHMENT 11 NORTHERN CORNER/END OF PROJECT

PEAK= 1.72 CFS @ 12.58 HRS, VOLUME= .24 AF

ACRES	CN	
.11	98	PAVED/ROOF
.45	77	WOODS GOOD D-SOIL
.38	80	GRASS GOOD D-SOIL
.94	81	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	WOODS FLOW ALONG PROPERTY	41.5
Woods: Light underbrush n=.4 L=120' P2=3 in s=.006 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	GRASS SWALE FLOW	.7
Grassed Waterway Kv=15 L=110'	s=.027 '/' V=2.46 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	WOODS FLOW	4.2
Forest w/Heavy Litter Kv=2.5 L=110'	s=.03 '/' V=.43 fps	
	Total Length= 340 ft Total Tc=	46.4

SUBCATCHMENT 12 WESTERN CORNER OF SITE

PEAK= 2.72 CFS @ 12.18 HRS, VOLUME= .25 AF

ACRES	CN	
.16	98	PAVED/ROOF
.10	77	WOODS GOOD D-SOIL
.64	80	GRASS GOOD D-SOIL
.90	83	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	WOODS FLOW	14.3
Woods: Light underbrush n=.4 L=50' P2=3 in s=.015 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	SHALLOW FLOW	1.8
Grassed Waterway Kv=15 L=190'	s=.0132 '/' V=1.72 fps	
CIRCULAR CHANNEL	SD-8	.2
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.032 '/' n=.012 V=8.79 fps L=130'	Capacity=6.9 cfs	
	Total Length= 370 ft Total Tc=	16.3

SUBCATCHMENT 13 AREA BETWEN UNITS 2 - 5

PEAK= .90 CFS @ 11.99 HRS, VOLUME= .06 AF

ACRES	CN	
.11	98	IMPERVIOUS
.07	80	GRASS, GOOD - D
.18	91	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	A	.6
Grass: Dense n=.24 L=8' P2=3 in s=.375 '/'		
TR-55 SHEET FLOW	B	.1
Smooth surfaces n=.011 L=5' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	C	.4
Paved Kv=20.3282 L=65' s=.015 '/' V=2.49 fps		
CIRCULAR CHANNEL	SD-11	.1
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.005 '/' n=.012 V=3.47 fps L=18' Capacity=2.7 cfs		
CIRCULAR CHANNEL	SD-13	.3
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.008 '/' n=.012 V=4.4 fps L=79' Capacity=3.5 cfs		
	Total Length= 175 ft Total Tc=	1.5

SUBCATCHMENT 14 SOUTHSIDE OF PROJECT

PEAK= 2.60 CFS @ 12.07 HRS, VOLUME= .20 AF

ACRES	CN	
.20	98	PAVING/ROOF
.11	77	WOODS GOOD D-SOIL
.38	80	GRASS GOOD D-SOIL
.69	85	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	LAWN SHEET FLOW	7.7
Grass: Short n=.15 L=50' P2=3 in s=.01 '/'		

REACH 1 SWALE ACROSS EAST PROP.LINE

Qin = 5.48 CFS @ 12.33 HRS, VOLUME= .60 AF
Qout= 5.27 CFS @ 12.41 HRS, VOLUME= .60 AF, ATTEN= 4%, LAG= 5.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	2.38
.4	3.7	7.76
.6	5.9	15.71
.9	9.1	29.84
1.2	14.0	54.93
1.6	20.6	94.63
2.0	28.1	146.15

8' x 2' CHANNEL
SIDE SLOPE= .33 '/'
n= .035
LENGTH= 300 FT
SLOPE= .01 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .31 FT
PEAK VELOCITY= 1.9 FPS
TRAVEL TIME = 2.6 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 11 STORM DRAIN 5

Qin = 7.71 CFS @ 12.01 HRS, VOLUME= 1.33 AF
Qout= 7.66 CFS @ 12.02 HRS, VOLUME= 1.33 AF, ATTEN= 1%, LAG= .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= 28 FT
SLOPE= .005 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= 1.17 FT
PEAK VELOCITY= 5.2 FPS
TRAVEL TIME = .1 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 12 STORM DRAIN 6

Qin = .87 CFS @ 12.63 HRS, VOLUME= .23 AF
Qout= .87 CFS @ 12.64 HRS, VOLUME= .23 AF, ATTEN= 0%, LAG= .7 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.1	.1	.11
.3	.2	.47
.4	.3	1.06
.9	.9	4.54
1.0	1.1	5.30
1.1	1.2	5.78
1.2	1.2	5.83
1.2	1.2	5.78
1.3	1.2	5.42

15" PIPE

n= .012
LENGTH= 86 FT
SLOPE= .006 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .33 FT
PEAK VELOCITY= 3.3 FPS
TRAVEL TIME = .4 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 21 Flow between Study Points

Qin = 1.72 CFS @ 12.58 HRS, VOLUME= .24 AF
Qout= 1.40 CFS @ 13.20 HRS, VOLUME= .24 AF, ATTEN= 18%, LAG= 37.1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	.51
.3	4.2	1.89
.5	7.6	4.31
.6	13.5	9.30
.9	23.4	19.55
1.2	38.4	38.01
1.5	57.0	64.50

8' x 1.5' CHANNEL
SIDE SLOPE= .05 '/'
n= .07
LENGTH= 555 FT
SLOPE= .0036 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .25 FT
PEAK VELOCITY= .4 FPS
TRAVEL TIME = 21.8 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 22

Not described

Qin = 7.03 CFS @ 13.03 HRS, VOLUME= 1.61 AF
Qout= 7.03 CFS @ 13.03 HRS, VOLUME= 1.61 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= 10-20 HRS, dt=.1 HRS

POND 11 CULVERT UNDER DRIVE

Qin = 6.19 CFS @ 12.37 HRS, VOLUME= .80 AF
Qout= 5.16 CFS @ 12.55 HRS, VOLUME= .80 AF, ATTEN= 17%, LAG= 10.8 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
59.0	110	0	0
60.0	390	250	250
62.0	840	1230	1480
63.0	1370	1105	2585
63.4	1650	604	3189

STOR-IND METHOD
PEAK STORAGE = 2737 CF
PEAK ELEVATION= 63.1 FT
FLOOD ELEVATION= 63.4 FT
START ELEVATION= 59.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
4 x FINER ROUTING
Tdet= 5.5 MIN (.79 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	59.0'	**12" CULVERT** n=.024 L=30' S=.005'/' Ke=.7 Cc=.9 Cd=.53

POND 12 FIELD AREA

Qin = 2.72 CFS @ 12.18 HRS, VOLUME= .25 AF
Qout= .87 CFS @ 12.63 HRS, VOLUME= .23 AF, ATTEN= 68%, LAG= 26.8 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
59.6	13	0	0
61.4	13	23	23
63.4	450	463	485
64.0	2950	1020	1505
65.0	4340	3645	5150

STOR-IND METHOD
PEAK STORAGE = 3811 CF
PEAK ELEVATION= 64.6 FT
FLOOD ELEVATION= 65.0 FT
START ELEVATION= 59.6 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 59.4 MIN (.23 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	59.6'	**12" CULVERT** n=.012 L=23' S=.01'/' Ke=.9 Cc=.9 Cd=.47
2	1	59.6'	**Fluidic Amp, 20"x23", 8"dia.**
3	2	63.4'	**.1' x .75' HORIZONTAL ORIFICE/GRATE X 13** Q=.1 Area SQR(2gH)

HEAD(FT)	DISCH(CFS)
0.0	0.00
2.0	.55
4.0	.80
6.0	1.05
8.0	1.20
10.0	1.40

Primary Discharge
└─1=Culvert
└─2=Special Outlet
└─3=Orifice/Grate

POND 100 DETENTION POND

Qin = 8.53 CFS @ 12.01 HRS, VOLUME= 1.39 AF
Qout= 6.32 CFS @ 12.73 HRS, VOLUME= 1.37 AF, ATTEN= 26%, LAG= 43.4 MIN
Qpri= 5.88 CFS @ 12.74 HRS, VOLUME= 1.37 AF
Qsec= .44 CFS @ 12.73 HRS, VOLUME= .01 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
54.0	665	0	0
56.0	1350	2015	2015
58.0	2325	3675	5690
60.0	3530	5855	11545

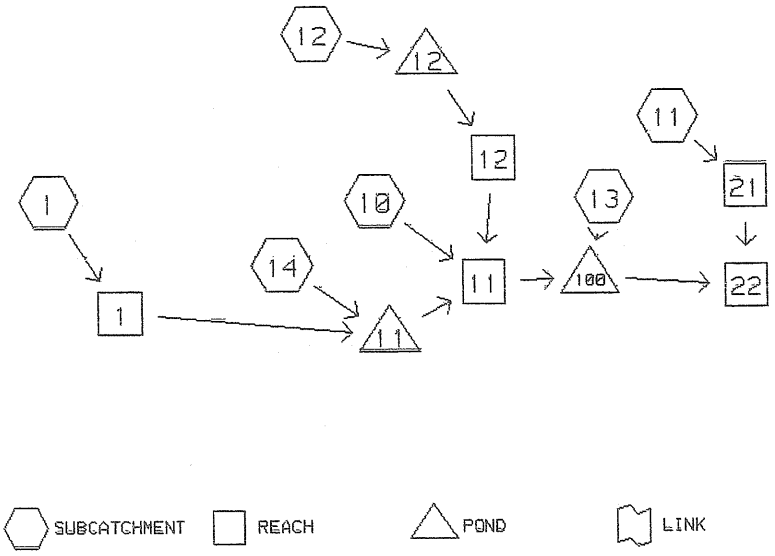
STOR-IND METHOD
PEAK STORAGE = 8138 CF
PEAK ELEVATION= 58.8 FT
FLOOD ELEVATION= 60.0 FT
START ELEVATION= 54.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 23 MIN (1.36 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	54.4'	**12" CULVERT** n=.012 L=35' S=.005'/' Ke=.9 Cc=.9 Cd=.47
2	1	54.4'	**4" ORIFICE/GRATE X 2** Q=.6 PI r^2 SQR(2g) SQR(H-r)
3	1	56.0'	**1.5' x .5' ORIFICE/GRATE** Q=.6 Width 2/3 SQR(2g) (H^1.5 - [H-Height]^1.5)
4	1	58.8'	**3' SHARP-CRESTED RECTANGULAR WEIR** Q=C L H^1.5 C=3.27+.4 H/1.5 L=Length-2(.1 H)
5	S	58.8'	**10' BROAD-CRESTED RECTANGULAR WEIR** Q=C L H^1.5 C=3.62, 0, 0, 0, 0, 0, 0, 0

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

Secondary Discharge
└─5=Broad-Crested Rectangular Weir

WATERSHED ROUTING



SUBCATCHMENT 1	= Offsite Woods	-> REACH 1
SUBCATCHMENT 10	= 99103 SUBCATCHMENT 1 (PROPOSED)	-> REACH 11
SUBCATCHMENT 11	= NORTHERN CORNER/END OF PROJECT	-> REACH 21
SUBCATCHMENT 12	= WESTERN CORNER OF SITE	-> POND 12
SUBCATCHMENT 13	= AREA BETWEN UNITS 2 - 5	-> POND 100
SUBCATCHMENT 14	= SOUTHSIDE OF PROJECT	-> POND 11
REACH 1	= SWALE ACROSS EAST PROP.LINE	-> POND 11
REACH 11	= STORM DRAIN 5	-> POND 100
REACH 12	= STORM DRAIN 6	-> REACH 11
REACH 21	= Flow between Study Points	-> REACH 22
REACH 22	=	->
POND 11	= CULVERT UNDER DRIVE	-> REACH 11
POND 12	= FIELD AREA	-> REACH 12
POND 100	= DETENTION POND	-> REACH 22

SUBCATCHMENT 1 Offsite Woods

PEAK= 7.36 CFS @ 12.33 HRS, VOLUME= .81 AF

ACRES	CN	
2.60	77	woods good sg-d

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 6.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	woods flow	23.2
Woods: Light underbrush n=.4 L=150' P2=3 in s=.04 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	woods ditch flow	3.8
Woodland Kv=5 L=200' s=.03 '/' V=.87 fps		
	Total Length= 350 ft	Total Tc= 27.0

SUBCATCHMENT 10 99103 SUBCATCHMENT 1 (PROPOSED)

PEAK= 5.79 CFS @ 11.99 HRS, VOLUME= .38 AF

ACRES	CN	
.60	98	PAVED/ROOFS
.19	80	GRASS GOOD D-SOIL
.16	74	GRASS GOOD C SOIL
.95	90	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 6.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	DRIVEWAY FLOW	.4
Smooth surfaces n=.011 L=20' P2=3 in s=.016 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	B	.2
Grassed Waterway Kv=15 L=40' s=.035 '/' V=2.81 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	C	.1
Paved Kv=20.3282 L=25' s=.02 '/' V=2.87 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	D	.3
Grassed Waterway Kv=15 L=45' s=.0375 '/' V=2.9 fps		
CIRCULAR CHANNEL	STORM DRAIN	.4
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.01 '/' n=.012 V=4.91 fps L=123' Capacity=3.9 cfs		
	Total Length= 253 ft	Total Tc= 1.4

SUBCATCHMENT 11 NORTHERN CORNER/END OF PROJECT

PEAK= 2.25 CFS @ 12.58 HRS, VOLUME= .32 AF

ACRES	CN	
.11	98	PAVED/ROOF
.45	77	WOODS GOOD D-SOIL
.38	80	GRASS GOOD D-SOIL
.94	81	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 6.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	WOODS FLOW ALONG PROPERTY	41.5
Woods: Light underbrush n=.4 L=120' P2=3 in s=.006 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	GRASS SWALE FLOW	.7
Grassed Waterway Kv=15 L=110'	s=.027 '/' V=2.46 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	WOODS FLOW	4.2
Forest w/Heavy Litter Kv=2.5 L=110'	s=.03 '/' V=.43 fps	
	Total Length= 340 ft Total Tc=	46.4

SUBCATCHMENT 12 WESTERN CORNER OF SITE

PEAK= 3.52 CFS @ 12.18 HRS, VOLUME= .32 AF

ACRES	CN	
.16	98	PAVED/ROOF
.10	77	WOODS GOOD D-SOIL
.64	80	GRASS GOOD D-SOIL
.90	83	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 6.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	WOODS FLOW	14.3
Woods: Light underbrush n=.4 L=50' P2=3 in s=.015 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	SHALLOW FLOW	1.8
Grassed Waterway Kv=15 L=190'	s=.0132 '/' V=1.72 fps	
CIRCULAR CHANNEL	SD-8	.2
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.032 '/' n=.012 V=8.79 fps L=130'	Capacity=6.9 cfs	
	Total Length= 370 ft Total Tc=	16.3

SUBCATCHMENT 13 AREA BETWEN UNITS 2 - 5

PEAK= 1.12 CFS @ 11.99 HRS, VOLUME= .07 AF

ACRES	CN	
.11	98	IMPERVIOUS
.07	80	GRASS, GOOD - D
.18	91	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 6.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	**A**	.6
Grass: Dense n=.24 L=8' P2=3 in s=.375 '/'		
TR-55 SHEET FLOW	**B**	.1
Smooth surfaces n=.011 L=5' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	**C**	.4
Paved Kv=20.3282 L=65' s=.015 '/' V=2.49 fps		
CIRCULAR CHANNEL	**SD-11**	.1
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.005 '/' n=.012 V=3.47 fps L=18' Capacity=2.7 cfs		
CIRCULAR CHANNEL	**SD-13**	.3
12" Diameter a=.79 sq-ft Pw=3.1' r=.25'		
s=.008 '/' n=.012 V=4.4 fps L=79' Capacity=3.5 cfs		
	Total Length= 175 ft Total Tc=	1.5

SUBCATCHMENT 14 SOUTHSIDE OF PROJECT

PEAK= 3.33 CFS @ 12.07 HRS, VOLUME= .25 AF

ACRES	CN	
.20	98	PAVING/ROOF
.11	77	WOODS GOOD D-SOIL
.38	80	GRASS GOOD D-SOIL
.69	85	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 6.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	**LAWN SHEET FLOW**	7.7
Grass: Short n=.15 L=50' P2=3 in s=.01 '/'		

REACH 1 SWALE ACROSS EAST PROP.LINE

Qin = 7.36 CFS @ 12.33 HRS, VOLUME= .81 AF
Qout= 7.08 CFS @ 12.41 HRS, VOLUME= .81 AF, ATTEN= 4%, LAG= 4.7 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	2.38
.4	3.7	7.76
.6	5.9	15.71
.9	9.1	29.84
1.2	14.0	54.93
1.6	20.6	94.63
2.0	28.1	146.15

8' x 2' CHANNEL
SIDE SLOPE= .33 '/'
n= .035
LENGTH= 300 FT
SLOPE= .01 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .38 FT
PEAK VELOCITY= 2.1 FPS
TRAVEL TIME = 2.4 MIN
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING

REACH 11 STORM DRAIN 5

Qin = 9.76 CFS @ 12.01 HRS, VOLUME= 1.74 AF
Qout= 8.46 CFS @ 12.77 HRS, VOLUME= 1.74 AF, ATTEN= 13%, LAG= 45.6 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= 1.50 FT
PEAK VELOCITY= 5.1 FPS
TRAVEL TIME = .1 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 12 STORM DRAIN 6

Qin = .98 CFS @ 12.67 HRS, VOLUME= .31 AF
Qout= .98 CFS @ 12.69 HRS, VOLUME= .31 AF, ATTEN= 0%, LAG= 1.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.1	.1	.11
.3	.2	.47
.4	.3	1.06
.9	.9	4.54
1.0	1.1	5.30
1.1	1.2	5.78
1.2	1.2	5.83
1.2	1.2	5.78
1.3	1.2	5.42

15" PIPE

n= .012
LENGTH= 86 FT
SLOPE= .006 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .36 FT
PEAK VELOCITY= 3.4 FPS
TRAVEL TIME = .4 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 21

Flow between Study Points

Qin = 2.25 CFS @ 12.58 HRS, VOLUME= .32 AF
Qout= 1.86 CFS @ 13.17 HRS, VOLUME= .31 AF, ATTEN= 17%, LAG= 35.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	1.7	.51
.3	4.2	1.89
.5	7.6	4.31
.6	13.5	9.30
.9	23.4	19.55
1.2	38.4	38.01
1.5	57.0	64.50

8' x 1.5' CHANNEL
SIDE SLOPE= .05 '/'
n= .07
LENGTH= 555 FT
SLOPE= .0036 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .30 FT
PEAK VELOCITY= .4 FPS
TRAVEL TIME = 20.6 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 22

Not described

Qin = 7.72 CFS @ 13.12 HRS, VOLUME= 1.97 AF
Qout= 7.72 CFS @ 13.12 HRS, VOLUME= 1.97 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= 10-20 HRS, dt=.1 HRS

POND 11 CULVERT UNDER DRIVE

Qin = 8.27 CFS @ 12.37 HRS, VOLUME= 1.06 AF
Qout= 6.32 CFS @ 12.60 HRS, VOLUME= 1.06 AF, ATTEN= 24%, LAG= 13.8 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
59.0	110	0	0
60.0	390	250	250
62.0	840	1230	1480
63.0	1370	1105	2585
63.4	1650	604	3189

STOR-IND METHOD
PEAK STORAGE = 5070 CF
PEAK ELEVATION= 64.6 FT
FLOOD ELEVATION= 63.4 FT
START ELEVATION= 59.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
4 x FINER ROUTING
Tdet= 7.5 MIN (1.05 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	59.0'	**12" CULVERT** n=.024 L=30' S=.005'/' Ke=.7 Cc=.9 Cd=.53

POND 12 FIELD AREA

Qin = 3.52 CFS @ 12.18 HRS, VOLUME= .32 AF
Qout= .98 CFS @ 12.67 HRS, VOLUME= .31 AF, ATTEN= 72%, LAG= 29.2 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
59.6	13	0	0
61.4	13	23	23
63.4	450	463	485
64.0	2950	1020	1505
65.0	4340	3645	5150

STOR-IND METHOD
PEAK STORAGE = 5209 CF
PEAK ELEVATION= 65.0 FT
FLOOD ELEVATION= 65.0 FT
START ELEVATION= 59.6 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 64.6 MIN (.3 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	59.6'	**12" CULVERT** n=.012 L=23' S=.01'/' Ke=.9 Cc=.9 Cd=.47
2	1	59.6'	**Fluidic Amp, 20"x23", 8"dia.**
3	2	63.4'	**.1' x .75' HORIZONTAL ORIFICE/GRATE X 13** Q=.1 Area SQR(2gH)

HEAD(FT) DISCH(CFS)
0.0 0.00
2.0 .55
4.0 .80
6.0 1.05
8.0 1.20
10.0 1.40

Primary Discharge
└─1=Culvert
└─2=Special Outlet
└─3=Orifice/Grate

POND 100 **DETENTION POND**

Qin = 9.19 CFS @ 12.02 HRS, VOLUME= 1.81 AF
Qout= 8.41 CFS @ 12.77 HRS, VOLUME= 1.79 AF, ATTEN= 8%, LAG= 44.9 MIN
Qpri= 5.97 CFS @ 12.77 HRS, VOLUME= 1.65 AF
Qsec= 2.44 CFS @ 12.77 HRS, VOLUME= .14 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
54.0	665	0	0
56.0	1350	2015	2015
58.0	2325	3675	5690
60.0	3530	5855	11545

STOR-IND METHOD
PEAK STORAGE = 8501 CF
PEAK ELEVATION= 59.0 FT
FLOOD ELEVATION= 60.0 FT
START ELEVATION= 54.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 21.3 MIN (1.77 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	54.4'	**12" CULVERT** n=.012 L=35' S=.005'/' Ke=.9 Cc=.9 Cd=.47
2	1	54.4'	**4" ORIFICE/GRATE X 2** Q=.6 PI r^2 SQR(2g) SQR(H-r)
3	1	56.0'	**1.5' x .5' ORIFICE/GRATE** Q=.6 Width 2/3 SQR(2g) (H^1.5 - [H-Height]^1.5)
4	1	58.8'	**3' SHARP-CRESTED RECTANGULAR WEIR** Q=C L H^1.5 C=3.27+.4 H/1.5 L=Length-2(.1 H)
5	S	58.8'	**10' BROAD-CRESTED RECTANGULAR WEIR** Q=C L H^1.5 C=3.62, 0, 0, 0, 0, 0, 0, 0

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

Secondary Discharge
└─5=Broad-Crested Rectangular Weir

POND 100 DETENTION POND

Qin = 9.19 CFS @ 12.02 HRS, VOLUME= 1.81 AF
Qout= 8.97 CFS @ 12.05 HRS, VOLUME= 1.62 AF, ATTEN= 2%, LAG= 1.5 MIN

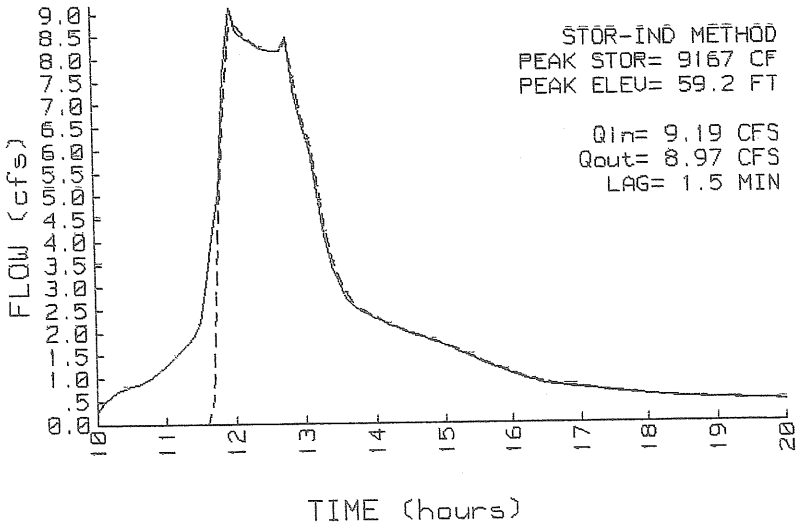
ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
54.0	665	0	0
56.0	1350	2015	2015
58.0	2325	3675	5690
60.0	3530	5855	11545

STOR-IND METHOD
PEAK STORAGE = 9167 CF
PEAK ELEVATION= 59.2 FT
FLOOD ELEVATION= 60.0 FT
START ELEVATION= 54.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
2 x FINER ROUTING
Tdet= 49.3 MIN (1.62 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	58.8'	10' BROAD-CRESTED RECTANGULAR WEIR

Q=C L H^1.5 C=3.62, 0, 0, 0, 0, 0, 0, 0

POND 100 INFLOW & OUTFLOW
DETENTION POND



PLANNING BOARD REPORT #9-00

HOLM PLACE
VICINITY OF 166 HOLM AVENUE
SITE PLAN AND SUBDIVISION REVIEW
V. P. BUILDERS, INC., APPLICANT

Submitted to:

Portland Planning Board
Portland, Maine

April 11, 2000

I. INTRODUCTION

V. P. Builders, Inc. is proposing a 16-unit condominium development in the vicinity of 166 Holm Avenue. The site is located between Holm Avenue and the Maine Turnpike. The site is 3.65 acres and zoned R-3. The development is proposed as a Planned Residential Unit Development (PRUD) and will be subject to site plan and subdivision review. The plan will also be reviewed under the stormwater standards as required by the Maine Department of Environmental Protection.

258 notices were sent to area residents. A legal ad appeared in the April 3rd and April 4th editions of the Portland Press Herald.

II. SUMMARY OF FINDINGS

Zone:	R-3
Parcel Size:	3.65 acres
Number of Units:	16 units
Adjacent Land Use:	Residential

III. PROPOSED DEVELOPMENT

The applicant is allowed 17 units based on the net residential area, which is 113,602 sq. ft. Previously, the applicant had proposed eight buildings containing two units and one single unit building. However, PRUD's can only consist of horizontally attached dwelling units, so the one single unit building can not be allowed. The applicant has now reduced the number of units to 16 units.

Zoning requires that all units be separated by 16 ft. and the recreational area be at least 25 ft. from all residential units. Units 6, 15, and 16 are closer than 25 ft. from the recreational area. The applicant will have to revise the plans accordingly. A potential condition of approval is:

- that the applicant revise the plans to show 25 ft. between the units and the recreational area.

IV. STAFF REVIEW

The proposal has been reviewed for compliance with the Subdivision and Site Plan Ordinance of the Land Use Code. This project was reviewed at workshop on January 25th. The current set of plans were received and distributed on March 31st, less than the required 3 week period prior to Planning Board public hearing. The Planning Office has elected to proceed with the public hearing so the Board can review the current site plan with public comments. Engineering comments are not yet available, however.

V. SUBDIVISION REVIEW

1. Water and Air Pollution

   The development will not result in undue water or air pollution.

2/3. Water

The applicant is proposing to tie into the existing 8 inch water line in Holm Avenue. The Portland Water District has submitted a letter indicating that they have sufficient capacity to serve this project for fire protection and domestic water service demands. The letter is included as Attachment 2.

4. Soil Erosion

The applicant has included a sedimentation and erosion control plan with the proposed development.

5. Traffic

Access will be from Holm Avenue. The applicant is proposing granite curb be installed at the radius of the drive. V.P. Builders is providing a sidewalk from Holm Avenue to connect to the recreational area.

The Traffic Engineer had requested that a traffic analysis be provided. The applicant has submitted trip generation rates which are included as Attachment 8b. The analysis estimates that there will be 94 trips daily (47 in and 47 out), 7 (1 in/6 out) AM peak trips and 9 (6 in/3 out) PM peak trips. The Traffic Engineer has reviewed the traffic analysis and does not believe the number of trips will have a significant impact on either Brighton Avenue or Holm Avenue.

6. Sanitary/Stormwater

Sanitary

The applicant is proposing to dispose of the sanitary waste from the project into the 15 inch sanitary line that currently exists in Holm Avenue. A sewer capacity letter is included as Attachment 2a.

Stormwater

The site is predominantly wooded. There is a deep ravine north of the site, which is in association with an upper tributary of Capisic Brook which drains easterly and eventually crosses Holm Avenue by a box culvert. The entire site drains in a northeasterly direction toward the ravine via channels and culvert flows. All of the site's drainage eventually crosses Holm Avenue and joins into Capisic Brook, which eventually discharges into Fore River and Casco Bay.

The applicant is proposing a detention pond to be located along the eastern corner of the property to the north of the Holm Place main entrance. The applicant is also proposing a catch basin/storm drain system located around the site. The site's runoff will sheet flow to the catch basin system around the property and then outlet into the proposed detention pond.

The Capisic Brook Greenbelt/Stormwater Abatement Study states that the downstream areas of the site are subject to flooding in relatively small rain events. To comply with the Capisic Brook analysis, the stormwater from this site must not further aggravate the current problem.

Public Works had requested that the applicant retain some of the stormwater on site. The applicant is proposing to use the recreation space as an overflow area to retain stormwater. The recreation area will have under drains to help the area dry quickly. The Board was concerned that using the recreation area as a retention area would go against the intent of the recreation open space requirement. The Board had asked the applicant to create a separate open space area and overflow area.

The applicant has revised the stormwater management plan to reflect the Development Review Coordinator's and Public Works Engineer's comments. Because the plan was submitted a week prior to writing this report, the Development Review Coordinator and the Public Works Engineer have not yet reviewed the plans. It is their intent to have comments prior to the Public Hearing. A potential condition of approval is:

- that the Development Review Coordinator and Public Works review and approve the stormwater management plan

7. Solid Waste Disposal

The Condominium's Association will be required to contract with a private hauler for the removal of solid waste. The applicant is proposing a dumpster, which will be located near the easterly property line behind the present owner's house. This dumpster will be screened with stockade fencing. At the workshop meeting, the Board had mentioned that the dumpster location should be relocated away from the abutting neighbor, perhaps in the center of the property. The applicant feels that the dumpster location is adequate.

8. Scenic Beauty

This development will not cause an undue adverse effect on the scenic or natural beauty of the area aesthetics, historic sites, significant wildlife habitat or rare and irreplaceable natural area.

9. Comprehensive Plan

This development meets the requirements of the City of Portland Comprehensive Plan.

10. Financial Capability

The applicant has stated that a letter of financial capacity will be forwarded to staff at a later date. A potential condition of approval is:

- that the applicant submit a letter of financial capacity prior to issuance of a building permit.

11. Groundwater

The development as proposed will not adversely affect the quality or quantity of groundwater.

12. Flood Hazard/Shoreline

The site is not located in the flood hazard or shoreland zones.

13. Condominium Documents

The applicant has not submitted condominium documents to staff at this time. A potential condition of approval is:

- that the applicant submit condominium documents to staff for review and approval by Corporation Counsel prior to issuance of a building permit

VI. SITE PLAN REVIEW

1/2. Traffic

The traffic comments have been consolidated in the subdivision review section.

3. Proposed Buildings

The development consists of eight 2-unit buildings. The buildings will consist of 2 units, with attached garages between the two units. The applicant will be offering a choice of floor plans. Depending on which floor plan is chosen, there will also be an option of two dormers, a full dormer or a "cape-style" dormer. The elevations and floor plans are included as Attachment 11. The Board had asked the applicant to submit an elevation of the building without a dormer. The applicant has stated that they will provide this at the Public Hearing.

4. Sewer, Storm Drain and Water

The sewer, storm drain and water comments have been consolidated in the subdivision review section.

5. Landscaping/Existing Vegetation

The site is currently heavily vegetated and the applicant is proposing to preserve as much vegetation as possible. The applicant is proposing to plant a number of Hemlock, Flowering Crab, and Green Ash around the site. Proposed in front of the buildings are Rhododendrons and Wintercreeper.

The applicant is proposing a 6 ft. high cedar fence along the entrance drive which is to

provide buffer for the residential units along Holm Avenue. The applicant is now proposing a split rail fence around the westerly edge of the detention pond to define and separate the front yard of unit #1 from the detention pond.

The City Arborist has concerns with the following issues: 1) lack of buffering, trees, shrubs or fencing along the Maine Turnpike property line and 2) preservation of existing vegetation. The City Arborist is recommending that the applicant provide fencing and/or buffer with Austrian Pines or Arborvitae along the Maine Turnpike property line. The Arborist is also recommending that the landscape show preservation areas of existing vegetation. The City Arborist's memo is included as Attachment 7. A potential condition of approval is:

- that the applicant revise the landscape plan in accordance with the City Arborist's memo dated 2/14/00 regarding buffering along Maine Turnpike property line and preservation of existing vegetation.

6. Soils and Drainage

Soils and drainage have been consolidated in the subdivision review section.

7. Exterior Lighting

The applicant is proposing eight (8) street lights along the driveways. These lights are typical Town and Country light fixtures which is proposed on 18 ft. high poles. Catalogue cuts and a photometric plan are included as Attachments 8 and 9. Staff is recommending that the light poles be lowered to 15 - 16 ft. high. There was a concern with the light pole which is located on the easterly side of the access drive next to the residential abutter. Staff is recommending that the applicant install a house side shield on the light fixture to keep spillover and glare away from the abutter's property. A potential condition of approval is:

- that the applicant install a house side shield on the light fixture located on the southeasterly side of the access drive closest to Holm Avenue and to lower the light poles to 15 - 16 ft. high.

8. Fire

The Fire Department has reviewed and approved the plan. The memo is included as Attachment 5. The applicant has not yet provided a name for the access road into the development. The street name will need to be approved by the Fire Department. A potential condition of approval is:

- that the applicant provide a street name for the private access drive to be approved by the Fire Department.

9. City Infrastructure

The proposed development will not place any strain on the City infrastructure as previously discussed in the traffic and stormwater section.

10. Planned Residential Unit Development Review

A. Design Relationship to Site

The main design theme of the proposed development is the preservation of the natural features of the site. The applicant proposes to build the units and the road with the minimal amount of disturbance to existing vegetation areas.

The Planning Board was concerned with the proximity of unit #1 to the detention pond. The applicant addressed this concern by proposing a split rail fence around the perimeter of the detention pond to define and separate unit #1 from the detention pond. This still leaves unit #1 with very limited useable front yard, other than the driveway area.

B. Internal Design Character and Relationship to Surrounding Neighborhoods

The surrounding neighborhood is predominantly single family housing with retail along Brighton Avenue. The architectural style of the proposed dwellings are compatible with the surrounding neighborhood. See Attachment 11 for building elevations.

C. Recreation and Open Space

1. External Buffers

The applicant proposes a six (6) ft. cedar fence along the entrance drive which is to provide a buffer for the residential units along Holm Avenue. As mentioned in the landscaping section, the City Arborist is recommending that the applicant provide either fencing or vegetation along the Maine Turnpike property line and to show existing vegetation preservation areas.

2. Internal Buffers

The applicant is proposing a number of Hemlock, Flowering Crab, and Green Ash around the site. Proposed in front of the buildings are Rhododendrons and Wintercreeper. The City Arborist has stated that he is satisfied with the proposed landscaping within the site.

3. Active Recreational Open Space

The PRUD regulations require 300 sq. ft. of active recreation space per dwelling unit, with a minimum 6,000 sq. ft. required. The applicant is proposing 9,900 sq. ft. recreation area which is more than adequate for the number of units. The applicant is proposing the active recreation area in the center of the site, with a split rail fence surrounding it. As mentioned previously, some stormwater storage will take place on the recreation area. While this can be engineered to drain and dry properly for subsequent recreation use, the Board was not supportive of this dual use at the workshop. We will have further comments on the engineering of this feature at the public hearing.

VII. MOTIONS FOR THE BOARD TO CONSIDER

Due to the number of issues and the fact that the stormwater management plans has not yet been reviewed by the Development Review Coordinator and Public Works, the Board may wish to table the project to the next meeting. If the Board does not wish to table the project, the following motion has been crafted.

On the basis of plans and material submitted by the applicant and on the basis of information contained in Planning Report #10-00 relevant to the standards of Site Plan and Subdivision Review, the Planning Board finds:

i. That the proposed development is/is not in conformance with the Subdivision Ordinance of the Land Use Code

Potential Conditions of Approval:

1. that the applicant revise the plans to show 25 ft. between the units and the recreational area.

2. that the Development Review Coordinator and Public Works review and approve the stormwater management plan.

3. that the applicant submit a letter of financial capacity prior to issuance of a building permit

4. that the applicant submit condominium documents to staff for review and approval by Corporation Counsel prior to issuance of a building permit.

ii. That the proposed development is/is not in conformance with the Site Plan Ordinance of the Land Use Code

Potential Conditions of Approvals:

1. that the applicant revise the landscape plan in accordance with the City Arborist's memo dated 2/14/00 regarding buffering along Maine Turnpike property line and

preservation of existing vegetation.

2. that the applicant install a house side shield on the light fixture located on the southeasterly side of the access drive closest to Holm Avenue and to lower the light poles to 15 - 16 ft. high.

3. that the applicant provide a street name for the private access drive to be approved by the Fire Department.

Attachments:

1. Letter from Applicant dated 1/18/00
2. Utility letters
3. Stormwater Narrative dated 1/00
4. Traffic Engineer's Memo
5. Fire Department's Memo
6. Letters from Area Residents
7. City Arborist's Memo
8. Applicant's Submittal dated 3/29/00
9. Photometric Plan
10. Plans
11. Elevations

A-H 1

Sebago Technics

Engineering & Planning for the Future

January 18, 2000
99103

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

Preliminary Submission of Holm Place

Dear Members of the Board:

On behalf of V. P. Builders, Inc., I am pleased to submit the revised preliminary submission of Holm Place, a 16 unit condominium project.

Since our workshop meeting on December 14, 1999, we have made minor revisions and added detail to our conceptual plan. The largest change to the site is the reduction from 17 to 16 units. We have made minor building revisions and relocations, and added landscape features, lighting, and utilities to the plans. We have also developed a grading plan with profiles of the proposed roadways. You will also find the Stormwater Summary included in this submission.

We look forward to meeting with the Board at its January 25th meeting to review this project and respond to any comments. In the interim, if you require additional information or have any questions, please do not hesitate to contact me.

Thank you for your consideration of this project.

Sincerely,

SEBAGO TECHNICS, INC.

Matthew W. Ek

Matthew W. Ek, PLS
Project Manager

MWE:mwe/jc
Enc.

cc: VP Builders

AH 2

99103

Portland Water District

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

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

October 15, 1999

received
10/21/99
SEBAGO TECHNICS

Mr. William T. Conway, R.L.A.
Sebago Technics, Inc.
P.O. Box 1339
12 Westbrook Common
Westbrook, Maine 04098-1339

Re: Holm Ave. Condos., Portland

Dear William:

The Portland Water District has an 8" water main in Holm Avenue, Portland, near the proposed site. A test on a nearby hydrant produced the following results: static pressure 79 psi; residual pressure 40 psi; with a flow of 1061 gpm. With these results in mind, the District feels we have sufficient capacity available to serve this proposed project and meet all normal fire protection and domestic water service demands. **Please notify your plumber of these results so that they can design your system to best fit the available pressure.**

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

Sincerely,

PORTLAND WATER DISTRICT

David W. Coffin

David W. Coffin, PLS
Engineering Supervisor

29

Department of Public Works

William J. Bray
Director

99103

CITY OF PORTLAND

29 September 1999

Mr. William T. Conway, R.L.A.,
Vice President, Landscape Architecture,
Sebago Technics,
P.O. Box 1339,
Westbrook, Maine 04098-1339

RE: The Capacity of the City Sewer System, and The Portland Water District Sewage Treatment Facilities, to Handle an Anticipated Increase in Wastewater Flows, from the Proposed "Holm Avenue Condominiums," at 168 +/- Holm Avenue.

Dear Mr. Conway:

Both the existing fifteen inch diameter vitrified clay sanitary sewer pipe, in Holm Avenue, and The Portland Water District sewage treatment facilities, located off Marginal Way, have adequate capacity to transport and treat the anticipated wastewater flows of 4,590 GPD, from your proposed Planned Residential Unit Development (P.R.U.D.), to be located at 168 +/- Holm Avenue, City of Portland.

Anticipated Wastewater Flows from the Proposed Condominium	
Proposed 17 Units @ 270 GPD/Unit	= 4,590 GPD
Total Proposed Increase in Wastewater Flows for this Project	**= 4,590 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
Richard Knowland, Senior 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

Received
10-4-99
SEBAGO TECHNICS

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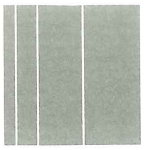

SebagoTechnics

Engineering & Planning for the Future

STORMWATER RUNOFF EVALUATION

Holm Place Condominiums
Holm Avenue
Portland, Maine

prepared for

V. P. Builders
P. O. Box 41
Westbrook, ME 04098

January 2000

One Chabot Street P.O. Box 1339 Westbrook, Maine 04098-1339 207-856-0277 Fax 207-856-2206

99103

STORMWATER RUNOFF EVALUATION/ EROSION AND SEDIMENTATION CONTROL PLAN

Holm Place Condominiums
Portland, Maine

General

The following stormwater runoff evaluation has been prepared for V. P. Builders, Inc. to evaluate stormwater runoff and erosion control for the proposed Holm Place Condominiums in Portland, Maine. The Holm Place Condominiums will be a 16 unit residential development with an associated roadway utility infrastructure. The entire development will encompass a land area of approximately 3.65 acres. Access to the development will be from a private drive which connects directly onto Holm Avenue approximately one-third mile northeasterly of the intersection of Holm Avenue and Brighton Avenue.

Site Characteristics

The current condition of the project area is predominately wooded consisting of hardwood tree growth covering the majority of the land, with some open brush/meadow areas near the end of the existing driveway to the property. The surrounding area includes a residential neighborhood along both sides of Holm Avenue, with the Maine Turnpike bordering the western rear of the project. A tree buffer exists between the project's property and the actual Turnpike and a parcel of undeveloped land abuts northeasterly of the development which is wooded. Terrain in the development area varies from gentle to steep slopes at the northeasterly end. The northerly portion of the project slopes towards a deep ravine area in association with an upper tributary of Capisic Brook which drains easterly and eventually crosses Holm Avenue by a box culvert. The entire portion of the condo development and adjacent properties against the Turnpike also drain in a northeasterly direction toward the ravine via channels and culvert flows. All of the site's drainage eventually crosses Holm Avenue and joins into Capisic Brook, which eventually discharges into Fore River and Casco Bay.

The enclosed pre-development watershed map and USGS topographical map depict the general drainage characteristics and infrastructure in the project area.. During site reconnaissance of this site, no erosion or ponding were observed in the pre-development condition.

Soils

Soil classifications within the project area were referenced from the Cumberland County Medium Intensity Soil Survey. The majority of the site is comprised of Windsor loamy sand soils.

The Windsor soil series consists of dark brown to yellowish brown, loamy sand. The soils are excessively drained and are generally deep and gentle to moderately sloped. Permeability for the Windsor soil series is very high and the soil is noted for its terraced locations adjacent to streams or rivers. The soil is classified as a hydrologic Group A. The Windsor soils are predominately glacial outwash deposits located adjacent to rivers and can be subject to clay lenses or stratified layers of silt. Off-site watersheds to the south consist of Swanton fine sandy loams which are classified as a hydrologic Group D soils. The soils are noted for a high water table, even though they can have a high permeability. This condition creates a poorly draining soil which can be associated with wetlands.

Stormwater Management

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

As described in the following, three watersheds were analyzed in the pre-development condition, and six watersheds in the post-developed condition. A common discharge point was selected for both the pre and post-developed conditions. Due to the unique location of the development adjacent to a stream tributary, we chose the end of the ravine outletting adjacent to the stream as the study point for a runoff discharge rate.

The pre-developed condition considered two off-site watersheds which contribute to the ravine which crosses the proposed project site plus the proposed site as its own watershed.

WS-1 consists of 3.65 acres which is the entire parcel for the proposed condominium project. The land is well vegetated with young hardwood growth and is currently not subject to erosion, even though it banks along a deep ravine and tributary subject to flooding on Holm Avenue. The parcel does contain one area of filled debris just behind the neighboring homes. This small area is believed to be a spoils area from recent road construction and repairs from the October 1996 flood. All runoff travels northeasterly to the stream prior to crossing Holm Avenue through a box culvert.

WS-2 consists of the off-site area (2.6 acres) contributing to the site's runoff by draining runoff across the property by ditch and culvert flows. The area appears to be an abandoned road network or discontinued streets. The area abuts to the northbound off-ramp to Exit 8 of the Maine Turnpike and gently slopes to the proposed site. The existing roadways, now grown over with trees, provide channels for runoff to travel toward the site and the need for an 18" culvert to cross approximately half of the site.

WS-3 includes a small sliver of trees and young hardwoods which abut the Maine Turnpike's right-of-way. The area of just less than one acre drains parallel to the proposed site and enters just on the northerly end of the site prior to entering the adjacent stream.

Watersheds in the proposed development condition consist of Watersheds 10 through 13. The watersheds labeled 1 and 2 are the same as the watersheds labeled 2 and 3 in the pre-developed condition, respectively. Watersheds 10 through 13 are composite watersheds of the same watershed area labeled as Watershed 1 in the pre-development condition.

WS-10 is the center of the proposed condominium project that includes the entrance drive, majority of driveways, recreational area, and some roof-top portions. The site is evenly split between grass vegetation and pavement. Flows are sheet and shallow flows across green areas to a catch basin and storm drain system. The area has been regraded to provide positive drainage away form the residential units, while maximizing travel times prior to entering the storm drain system. All flows enter the proposed detention pond to be located along the eastern corner of the property to the north of the Holm Place main entrance.

WS-11 comprises the area along the southeastern and southern property lines between the existing woods and rear of the condominiums to be constructed on that side of the property. The area is treed along the property to provide some visual buffer, and grassed for lawns and drainage ditches. A long ditch collects from the condominium's rear side and directs runoff following the property line easterly to the main entrance drive. From there, it is conveyed by culvert to the storm system and detention pond. This ditch also collects off-site flows to the detention pond.

WS-12 consists of the western corner of the site which is proposed to be approximately four residential units, lawn, and tree save areas. Flows are redirected westerly across the units' rear side and then northerly to a gentle graded grassed swale which outlets to a 12" culvert adjacent to the recreational area sidewalk. The culvert directly enters the site's storm drain system and detention pond.

WS-13: The remaining watershed is the portion of the site not developed along the western sideline and also the condominium units along the land above the stream bank. The area includes lawns, roofs, woods generally along the slope to the bank, and some wetlands associated with the stream/tributary.

3d

STORMWATER DETENTION ANALYSIS

Holm Place Condominiums
Holm Avenue
Portland, Maine

Project Area 3.65 Acres

Watershed	Avg. CN	Acres	Tc min.	2-Year Peak Runoff (cfs)	10-Year Peak Runoff (cfs)	25-year Peak Runoff (cfs)
Pre-Development						
1	31	3.65	42.60	0.00	0.00	0.02
2	77	2.60	27.00	1.84	4.26	5.48
3	39	0.91	0.91	0.00	0.02	0.06
Study Point 1				1.82	4.21	5.44
Post-Development						
1	77	2.60	27.9	1.84	4.26	5.48
2	39	0.91	35.5	0	0.02	0.06
10	68	1.57	8.8	0.83	2.55	3.48
11	55	0.69	7.7	0.05	0.46	0.75
12	50	0.45	16.1	0.01	0.13	0.25
13	42	0.94	44.3	0	0.04	0.11
Study Point 1				1.57	4.18	5.17
Net Change				**-0.25**	**-0.03**	**-0.27**

The following analysis describes how the impervious increase of the proposed site and the related increase in peak runoff rates were designed to meet the existing, or lessen the peak rates of runoff of the site. Unfortunately, the downstream areas of the site are subject to flooding in relatively small rain events (5-year occurrence, or less). To comply with the analysis prepared for the City of Portland – "The Capisic Brook Greenbelt/Stormwater Abatement Study" by CH2M Hill, we must meet the stormwater quantity requirements to not further aggravate a current problem. The proposed property is not subject to flooding, but the stream adjacent to the northern property line winds through some densely populated neighborhoods and is prone to exceeding its banks and flooding in storms greater than 4.0"/25-hr. Although the report recommends large storage volumes for detention, it concedes no areas large enough in the Holm Avenue/Taft Avenue area are available to have any significant reduction of flooding. We hope to control our proposed site runoff to not further aggravate the area's watershed with the construction of a catch basin/storm drain system and detention pond.

3e

Stormwater runoff modeling suggests that the peak rates of runoff in the developed condition will be the same or less than the pre-developed runoff rate within the ravine where the site's last discharge enters. Due to the compact development, the entire site showed slight increases because of the change of ground cover from woods to lawn and pavement. However, construction of a detention outlet control with the roadway infrastructure allowed the proposed site to drain similar to the manner that the site drains currently. We have either designed the driveways lower than the surrounding grades, or have provided yard drains to promote front yard sheet flow to the streets and installed drainage infrastructure.

The proposed detention system which was designed to utilize an area above the ravine will use an outlet control structure to store runoff temporarily and meet the pre-development peak flow rates as required. An outlet structure was designed with staged storage outlets consisting of two 4" orifices, one 18" x 4" slot orifice, and a 36" weir to control the site and provide an overflow. The pipes entering and discharging were significantly oversized to pass, if necessary, storm runoff from events such as the 100-year or less probability of occurrence.

In addition to the outlet structure and outlet pipe, an emergency riprap spillway was provided to assure the pond can outlet in the event the outlet is clogged or the storm rainfall is too great to pass all of the water through the control structure. The improvements will decrease the peak discharges to the ravine by the respective amounts, the 2-year storm 13.7%, 0.25 cfs; 10-year storm 0.7%, 0.03 cfs; and finally the 25-year storm 5.0%, or 0.27 cfs. We intend to make no revisions to the existing ravine other than installing a stilling basin located downstream of the outlet structure. Due to the work involved and location of adjacent wetlands, some slopes may be steepened with riprap which will be available from on-site excavation to stabilize constructed slopes and not further impact wetlands.

POND SUMMARY TABLE			
	2-Year Peak Discharge	**10-Year Peak Discharge**	**25-Year Peak Discharge**
Discharge at Ravine (cfs)	1.57	4.18	5.17
Peak Elevation at Detention Pond (Ft. *	56.20	57.50	58.20
% Decrease of Peak Rate Below Pre-Developed Condition	6.5%	5.7%	7.4%
* Emergency Spillway Crest = 58.3 Ft.			

The Stormwater Management Plan for the Holm Place Condominium project will also include an Erosion and Sedimentation Control Plan placing emphasis on the installation of sedimentation barriers and revegetation to minimize erosion potential from development activities during and after construction. The Erosion Control Plan has been placed directly on the design plans to include locations of erosion control provisions (i.e., silt fence, hay bale barriers, riprap aprons, embankment), along with a narrative and construction details for reference by the contractor during construction.

In an effort to emphasize the requirements, a pre-construction meeting will be required as indicated in the erosion control notes between the owner, City and engineer to review critical aspects and sequencing of construction activities. The erosion control measures are to be monitored throughout construction by the contractor, with maintenance and repairs performed on a regular basis as directed by the erosion control plan.

Summary

The preceding stormwater runoff evaluation has been prepared to evaluate pre and post-development conditions of the proposed Holm Place Condominium development project located off Holm Avenue in Portland. The analysis reviewed pre and post-development watersheds and compared peak rates of runoff at common discharge points to assess stormwater infrastructure needs. Based upon the analysis and review of the site, we make the following recommendations:

1. Implementation of a site specific erosion and sedimentation control plan placing emphasis on times of disturbance and, during construction, installation of appropriate erosion control measures and revegetation of the site and project completion. A specific erosion control plan with notation has been placed directly on the subdivision plans along with supporting details. These measures should be followed by the selected contractor throughout project construction.

2. A pre-construction meeting should be held between the owner, contractor and City representative to review scheduling and critical components of the stormwater management and erosion control plan. The contractor should provide the owner and City with a construction schedule outlining the sequence of events.

3. The proposed site should utilize existing tree vegetation on slopes, natural channels, and stabilize all slopes with either riprap or erosion control blankets. This will lessen erosion of disturbed areas from the development activity and lessen the impact on abutters and the environment by providing stabilized soil conditions which will decrease both erosion and sedimentation of the upper reaches of the Capisic Brook Watershed.

The proposed drainage system should not aggravate the existing flooding situations downstream to the Holm Avenue box culvert or associated tributaries. We are currently aware of the drainage and related flooding problems with the culvert or drainage infrastructure downstream. Therefore, we were careful not to discharge more than allowed by the pre-development peak runoff rates.

Although not large enough for a measurable change, the site was over-detained by as much as 13% in the 2-year storm to reduce impacts on the adjacent receiving waters. This is consistent with the City's analysis of the Capisic Brook Watershed Study. In addition, we would implement erosion control and safety, while maintaining natural on-site vegetation where possible to limit visual impacts and disturbance.

Prepared by:

SEBAGO TECHNICS, INC.

James R. Seymour

James R. Seymour
Project Engineer

JRS:jc
January 20, 2000

Att. 4

From: Larry Ash
To: Kandi Talbot
Date: Thu, Jan 13, 2000 11:35 AM
Subject: Re: Holm Avenue PRUD

I don't think the number of trips will have a significant impact on either Brighton or Holm Ave. However, over time we can keep records of all these developments and the accumulated number of trips. At some time in the future we will need to be able to refer to some number of trips and the accumulated number will at some time be important.

>>> Kandi Talbot 01/13 9:12 AM >>>
Another quick question.....are you requesting number of trips because of traffic on Holm Avenue or traffic on Brighton Avenue? The PB was curious as to why trip info was requested.

>>> Larry Ash 01/13 6:04 AM >>>
Kandi: just a memo that says how many trips during the peak hour and what is the source of their estimate.

>>> Kandi Talbot 01/12 3:20 PM >>>
A while back when I pulled out the proposed 17-unit PRUD on Holm Avenue who had said that they needed a traffic study.

The applicant is stating that they will only have 16 trips per peak hour. They want to know what type of traffic analysis you need and what it should entail. Do you want site distance, etc.?

Please let me know so I can relay this to the applicant. Thank you.

AH.5

From: Gaylen Mc Dougall (Gina DiFazio)
To: Kandi Talbot
Date: Thu, Jan 20, 2000 3:51 PM
Subject: Holm Place

I have reviewed the above plan. The plan is okay.
Mac

Dec. 14, 1999 AH. 6

Dear Mr Levy

I'm writing in regards to a plan to build a 6 dwelling unit on Holm Ave. I am very much opposed to it. We already have a lot of traffic on this street. We also have a lot of cars speeding on the street. I worry about the little children living on this street with increased traffic. I have lived here for over forty years and I know we don't need any more traffic.

Thank you,

Joanne Hopkins
92 Holm Ave.

6a

Richard H. Hall
147 Pinecrest Road
Portland, ME 04102
(207) - 774-6571

December 27, 1999

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

Dear Sir:

This letter regards the plan to install a 16-dwelling unit in the vicinity of 166-190 Holm Avenue. I have lived at 147 Pinecrest Road, about one mile from the intersection of Holm and Brighton Avenues, since 1989, and I travel the length of Holm Avenue daily to my work at the Barron Center. I wish to express some serious concerns about this proposed development:

(1) The addition of paved roads and driveways for the project would increase the quantity of water runoff into the storm drain system on Holm Avenue. The area near 190 Holm Avenue has always had flooding problems in heavy storms, even in spite of recent repairs made to a section of the road. The increase of pavement along Brighton, Riverside, Warren and the Maine Turnpike, especially with continued new development of these areas, increases the need for an effective run-off system, as much of the water flows toward Holm Avenue. It is my opinion that flooding danger increases dramatically as new super stores and other businesses are built and/or expanded. From my residence there are really only two egress routes. The first and most important for my daily commute is via Holm. (Taft Avenue, which is parallel to it, cannot be considered an alternative because it has the same run-off problems and floods at the same time as does Holm Ave.) The only other way out of my neighborhood is via Sunset Lane which has also flooded during major rainstorms.

(2) My second major concern regards increase in traffic. Even with the improved section of Holm Avenue, this road is in poor condition and very narrow for the amount of use it gets. Four new houses have been built on this road during the past few years; consequently more cars and trucks are parked along the road. The increase in general traffic (commuters, delivery trucks, etc.) creates a safety hazard (to neighborhood children, fire or police vehicles, etc.). The road is too narrow for two cars to pass parked cars. Furthermore, many people walk on the road (with babies and pets, especially). The lack of any sidewalk creates a very serious potential hazard, especially due to speeders and at times when roads may be slippery. The increased number of cars using Holm Avenue, should this new development be improved, would also cause greater wear on the road surface which continues to get worse.

(3) There is also an environmental and esthetic concern about removing more and more of the natural woodland that makes Portland an attractive place to live (for birds and small creatures as well as human beings).

Sincerely,

Richard H. Hall

AH.7

From: Jeff Tarling
To: Kandi Talbot
Date: Mon, Feb 14, 2000 4:34 PM
Subject: Holm Place

Kandi,

I reviewed the Holm Place Landscape Plan.... **concerns:** lack of rear buffering, trees, shrubs or fences, particularly, along the Maine Turnpike property line. the City has received complaints from other residential areas along the Turnpike concerning the high traffic noise in the past, it would be beneficial to have a visual and sight barrier for any residential property along the Turnpike.

Recommend - fencing along rear, Maine Turnpike property line and / or buffering Austrian Pine or Arborvitae, shrub material... berm?
Show any existing vegetation save areas and add additional buffering as needed.

The proposed shade and ornamental trees and unit landscaping looks good, the rear buffering, and saving existing vegetation needs to be addressed.

Jeff Tarling

Att. 8

Sebago Technics

Engineering & Planning for the Future

March 29, 2000
99103

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

Holm Place

Dear Members of the Board:

On behalf of VP Builders, I am pleased to submit the final site plan for Holm Place.

Since our meeting on February 1st we had soils test pits dug and studied to reevaluate the soils for stormwater management. This has changed the Stormwater Management Plan. The revised stormwater plan is attached in this submission. The utilities have been modified to relocate the fire hydrant and to suit the storm drain modifications. The drives and buildings have retained the same alignments.

The following are the written statements requested in Section 14-525 of the Ordinance:

14-525 (c)(1) We are proposing to construct 16 condominium units in a total of 8 buildings, together with the driveway and utilities for these units.

14-525 (c)(2) Each proposed unit will be a cape style home with an attached one car garage. The unit is approximately 26 x 34 with a 15 x 24 garage; a typical unit is shown on the site plan. Elevation views and possible interior layouts of the units were attached to the previous submission.

14-525 (c)(3) There is an abandoned sewer pipe that crosses our driveway entrance. Its easement abuts the easterly side of our project and crosses the driveway access. We are proposing easements for electrical, telephone and cable lines, as well as the eight inch water main and fire hydrant.

14-525 (c)(4) Solid waste disposal will utilize the dumpster on the northerly side of the driveway. A private waste hauler will be hired to haul and monitor frequency needed for pickup of dumpster waste.

14-525 (c)(5) Availability of utility letters were provided in the preliminary submission.

8a

14-525 (c)(6) See the attached stormwater management report.

14-525 (c)(7) The construction sequence is listed on the Erosion and Sediment Control Plan in note d.

14-525 (c)(8) A Maine Department of Environmental Protection Stormwater Permit is required for quantity. We are requesting that the City of Portland use their review authority and complete this permit review.

14-525 (c)(9) A letter of financial capacity will be forwarded to the Board as soon as possible. The construction estimates are being completed with the latest drawings to allow an accurate financial capacity letter. VP Builders has extensive technical capacity and has been in the construction business for sixteen years. They have completed many subdivisions, and home construction projects involving road and utility construction. Specific examples are available upon request.

14-525 (c)(10) We have enclosed a copy of the purchase and sale agreement from Martelle to VP Builders, as well as the Martelles' deed to show title, right, or interest in the property.

14-525 (c)(11) No unusual natural area, wildlife and fisheries habitats, or archaeological sites are located on or near this project site.

14-521 (c)(12) Upon acceptance of this project a CADD.DXF electronic copy of the drawings will be provided to the City.

14-525 (c)(13) This residential development will utilize the City's recycling programs for their recyclable waste.

Following are responses to the review comments in a memo from DeLuca-Hoffman Associates, Inc. to the City of Portland Planning staff dated January 25, 2000:

Review of the Stormwater Management Plan

1. The stormwater report and plans have been stamped by a professional engineer.
2. The watershed plans are at a scale of 1"=60'.
3. Information has been provided to clarify the subcatchment areas and time of concentration flow paths.
4. Test pits have been conducted on this site to better identify the types of soil in the vicinity of the proposed development.
5. See comment #4.
6. The stormwater models have been revised in both the pre and post-development conditions to provide a more continuous analysis from the subcatchments to the Study Point.

8b

7. The time of concentration flow paths have been revised accordingly.

8. The HydroCAD calculations have been revised accordingly.

9. The time of concentration flow path for Subcatchment 2 more accurately follows the topography of the area.

10. The time of concentration flow path for Subcatchments 10 and 11 as identified in the model reflects the conditions shown on the Site Plan.

11. The time of concentration flow paths for Subcatchments 12 and 14 are more accurately representative of the subcatchment area and correspond with the Site Plan and post-development watershed plan.

12. The information for the ponds in the stormwater model is consistent with the information as shown on the Site Plans.

13. The detention pond (Pond 100) has a permanent pool to provide for the accumulation of sediment.

14. The stormwater management system of the Maine Turnpike (Exit 8) area provides for runoff from the ramp to drain inward to the center where it channelizes and flows along the outer edge of the roadway prior to entering the existing stream channel which flows adjacent to this site. The stormwater management system for this development has been designed to control the peak rates of runoff in most storm events so that the Holm Avenue area, in general, and Capisic Brook should not be negatively impacted by this development.

Review of the Plan Set

To the best of our knowledge, the existing stream channel is an unnamed tributary to Capisic Brook.

The erosion control provisions, including the location of silt fence, have been revised on the plan set.

During our last meeting the Board requested traffic trip generation rates. We utilized the Institute of Traffic Engineering, Trip Generation Manual, 6th Edition to calculate the following rates:

Daily: Trip Generation Rate is 5.86 / dwelling unit (50% in / 50% out)
16 units x 5.86 = 94 trips (47 in / 47 out)

AM Peak: Trip Generation Rate is .44 trips/unit/hour (17 % in / 83% out)
16 units x .44 = 7 trips (1 in / 6 out)

PM Peak: Trip Generation Rate is .54 trips/unit/hour (67 % in / 33% out)
16 units x .54 = 9 trips (6 in / 3 out)

We have enclosed a lighting design plan from Cooper Lighting to detail our lighting design.

We look forward to meeting with you at your next regularly scheduled meeting for final review of this project. In the interim, if you require additional information or have any questions, please do not hesitate to contact me.

Thank you for your consideration of this project.

Sincerely,

SEBAGO TECHNICS, INC.

Matthew W. Ek

Matthew W. Ek, PLS
Project Manager

MWE:mwe/jc
Enc.

cc: VP Builders

PURCHASE AND SALE AGREEMENT

May 13, 1999 (DATE)

May 17, 1999 Effective Date

The use of days in this agreement refers to calendar days from the effective date

RECEIVED OF: V.P. Builders Inc. and assigns (hereinafter called "Buyer") the sum of ($ 5,000) Five thousand dollars as earnest money and in part payment of the purchase price of the following described real estate, situated in municipality of Portland County of Cumberland State of Maine located at Certain lot of land located on Holm Avenue consisting of approximately 4 Acres +/- with 50' wide access as per attached Addendum A.*** .

Being (all / part of X) the property at the above address owned by Peter P. and Suzanne Martelle (hereinafter called "Seller") and described at said County's Registry of Deeds Book 8730* Page 108* .

FIXTURES: The parties agree that all fixtures, including but not limited to existing storm and screen windows, shades and/or blinds, shutters, curtain rods and electrical fixtures are included with the sale except for the following:

PERSONAL PROPERTY: The following items of personal property are included with the sale at no additional cost and in as is condition with no warranties:

*Book 7100, Page 299

The TOTAL purchase price being ($ 155,000.00) One hundred and fifty five thousand dollars dollars to be paid as follows: Five thousand dollars with this contract and balance at closing .

The purchase price balance shall be paid in cash, certified funds or bank check at closing.

This Purchase and Sale Agreement is subject to the following conditions:

1. EARNEST MONEY/ACCEPTANCE: Rob Gregory Esq. shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until May 15, 1999 (date) 9:00 ~~AM~~/PM; and, in the event of Seller's non-acceptance, this earnest money shall be returned promptly to Buyer.

2. TITLE & CLOSING: That a deed, conveying good and merchantable title in accordance with standards adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on November 13, 1999 (closing date) or before if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 days, from the time seller is notified of the 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, Buyer may, at Buyer's option, withdraw said earnest money and be relieved from all obligations. Seller hereby agrees to make a good-faith effort to cure any title defect during such period.

3. DEED: That the property shall be conveyed by a Warranty deed, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not adversely affect the continued current use of the property.

4. POSSESSION/OCCUPANCY: Possession/occupancy of premises shall be given to Buyer immediately at closing unless otherwise agreed in writing.

5. RISK OF LOSS: Until the closing, the risk of loss or damage to said premises by fire or otherwise, is assumed by Seller. Said premises shall then be broom clean and in substantially the same condition as at present, excepting reasonable use and wear. Buyer shall have the right to view the property within 24 hours prior to closing for the purpose of determining that the premises are in substantially the same condition as on the date of this contract.

6. PRORATIONS: The following items, where applicable shall be prorated as of the date of closing: fuel (cash price as of date of closing), rent, real estate taxes (based on municipality's fiscal year), association fees, (other). Metered utilities such as electricity, water and sewer will be paid through the date of closing by Seller. Buyer and Seller will each pay their transfer tax as required by State of Maine.

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8e

7. INSPECTIONS: Buyer is encouraged to seek information from professionals regarding any specific issue or concern.

Agent makes no warranties regarding the condition, permitted use or value of Sellers' real or personal property. This contract is subject to the following inspections, with results being satisfactory to Buyer:

TYPE OF INSPECTION	YES	NO	RESULTS REPORTED TO SELLER	TYPE OF INSPECTION	YES	NO	RESULTS REPORTED TO SELLER
a. General Building		X	Within ____ days	f. Asbestos Air Quality		X	Within ____ days
b. Sewage Disposal		X	Within ____ days	g. Lead Paint		X	Within ____ days
c. Water Quality		X	Within ____ days	h. Pests		X	Within ____ days
d. Water Quantity		X	Within ____ days	i. Radon Air Quality		X	Within ____ days
e. Radon Water Quality		X	Within ____ days	j. ____			Within ____ days

All inspections will be done by inspectors chosen and paid for by Buyer. If the result of any inspection or other condition specified herein is unsatisfactory to Buyer, Buyer may declare the contract null and void by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If Buyer does not notify Seller that an inspection is unsatisfactory within the time period set forth above, this contingency is waived by Buyer. In the absence of inspection(s) mentioned above, Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

8. FINANCING: This contract is subject to Buyer obtaining an approved Commercial mortgage of ____ % of the purchase price, at an interest rate not to exceed ____ % and amortized over a period of ____ years.

a. This contract is subject to a written statement from the lender, within ____ ( ) days of the Effective Date, that Buyer has made application.
b. This contract is subject to final loan approval within ____ days of the Effective Date.
c. If either of these conditions is not met within said time periods, Seller may declare this contract null and void, and the earnest money shall be returned to Buyer.
d. Buyer is under a good-faith obligation to seek and accept financing on the above-described terms. Buyer acknowledges that a breach of this good-faith obligation will be a breach of this contract.
e. Buyer agrees to pay no more than 0 points. Seller agrees to pay $ 0 toward points and/or Buyer's closing costs.

9. AGENCY DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following agency relationships:

The N/A (Listing Agent) of ____ (Agency) represents ____.

The N/A (Selling Agent) of ____ (Agency) represents ____.

When the transaction involves Disclosed Dual Agency, the parties acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the parties acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

10. MEDIATION: 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 the transaction.

11. DEFAULT: In the event of default by the Buyer, Seller may employ all legal and equitable remedies, including without limitation, termination of this contract and forfeiture by Buyer of the earnest money. In the event of a default by Seller, Buyer may employ all legal and equitable remedies, including without limitation, termination of this contract and return to Buyer of the earnest money. The escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller.

12. PRIOR STATEMENTS: Any representations, statements and agreements are not valid unless contained herein. This agreement completely expresses the obligations of the parties.

13. HEIRS/ASSIGNS: This agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the respective parties.

14. COUNTERPARTS: This agreement may be signed on any number of identical counterparts, such as a faxed copy, with the same binding effect as if the signatures were on one instrument. Original or faxed signatures are binding.

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15. ADDENDA: Check as many as apply - [ ] Lead Paint [ ] Property Disclosure [ ] Other:
Total Addenda Pages: 1 [ ] None

16. EFFECTIVE DATE: This contract is a binding contract when signed by both Buyer and Seller and when that fact has been communicated to all parties or to their Agents.

17. 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. Parties authorize agents to receive copy of entire closing statements.

18. OTHER CONDITIONS:

This contract is contingent upon the Purchaser obtaining Planning Board approval from the city of Portland for a minimum of 14 condominium units w/attached garages.
Purchaser to be responsible for all costs of Planning Bd. Approval including any survey, topographical, and/or infrastructure design.
Seller acknowledges that Purchasers are licensed real estate brokers.
***excluding the house, shed and garage and land in crossed out area of Addendum A

A copy of this contract is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.

Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Bureau of Taxation.

BUYER C.P. Builders Inc. 01-0418855 SS# OR TAXPAYER ID#

BUYER SS# OR TAXPAYER ID#

Buyer's Mailing Address is P O Box 41, Westbrook, Maine

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement. If the earnest money is forfeited by Buyer, it shall be distributed as follows:

Signed this 13th day of May, 1999

SELLER Peter P. Martelle 005-52-9106 SS# OR TAXPAYER ID#

SELLER Suzanne G. Martelle 024-44-7499 SS# OR TAXPAYER ID#

Seller's Mailing address is 8 Poe Street, Portland, Maine 04102

Offer reviewed and refused on

SELLER

SELLER

EXTENSION: The time for the performance of this contract is extended until February 28, 2000 DATE

BUYER DATE SELLER DATE

BUYER DATE SELLER DATE

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CENTURY 21 Northeast Associates

647 Main Street
Westbrook, Maine 04092

Contract Extension

Sellers: Peter P. and Suzanne G. Martelle

Purchaser: V.P. Builders Inc.

Contract Date: May 17, 1999

Property: Certain lot of land located on Holm Avenue consisting of approximately 4 Acres +/-

The time for Extension of the Purchase and Sale Agreement is Hereby Extended until April 30, 2000.

_____ _____

V.P. Builders Inc Date

_____ _____

Peter P. Martelle Suzanne G. Martelle

017565 BK8730PG0110

KNOW ALL MEN BY THESE PRESENTS

THAT, the Maine Turnpike Authority, a body corporate and politic, duly created by virtue of an Act of the Legislature of the State of Maine, Chapter 69 of the Private and Special Laws of 1941, as amended, and continued in existence under Title 23, M.R.S.A., Chapter 24, and having an office at Augusta in the County of Kennebec and State of Maine, in consideration of One ($1.00) Dollar and other valuable considerations, paid by Peter P. Martelle and Suzanne G. Martelle of 9 Poe Street, Portland, Maine 04101

the receipt whereof it does hereby acknowledge, does hereby grant unto the said Peter P. Martelle and Suzanne G. Martelle, their heirs and assigns forever, a certain lot or parcel of land situated in the City of Portland, County of Cumberland and State of Maine

and being shown on a Maine Turnpike Authority Plan entitled "Maine Turnpike Authority, Maine Turnpike, Section 2-Portland to Augusta, City of Portland, Cumberland County", dated January 1989 and being Supplemental Sheet No. 17, and being as more particularly bounded and described on Exhibit "A" attached hereto and by this reference made a part hereof.

To Have and To Hold the Same, together with all the privileges and appurtenances thereunto belonging to the said Peter P. Martelle and Suzanne G. Martelle as joint tenants, their heirs and assigns forever.

IN WITNESS WHEREOF, the Maine Turnpike Authority, has caused these presents to be executed in its behalf by Robert K. Pacios, Its Chairman, and its corporate seal to be affixed by Abraham Leibowitz, its Secretary and Treasurer, both hereunto duly authorized this 23rd day of MARCH, in the year of our Lord one thousand nine hundred and eighty-nine.

MAINE TURNPIKE AUTHORITY

By: Robert K. Pacios
Robert K. Pacios
Its Chairman

SEAL

ATTEST:

Abraham Leibowitz
Its Secretary and Treasurer

State of Maine
County of Cumberland, ss.

MARCH 23, 1989

Before me appeared Robert K. Pacios, to me personally known, who, being by me duly sworn did say that he is the Chairman of the Maine Turnpike Authority, and that the seal affixed is the corporate seal of said Maine Turnpike Authority, and that these presents were signed and sealed in behalf of and by authority of said Maine Turnpike Authority, and said Robert K. Pacios acknowledged said instrument to be his free act and deed, in said capacity, and the free act and deed of said Maine Turnpike Authority.

Before me,

SEAL

Daniel O Harriman
Name

DANIEL O HARRIMAN
NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES AUGUST 11, 1994

We hereby certify the land described in the foregoing deed, acquired by the Maine Turnpike Authority in the acquisition of the Right-of-Way for the Maine Turnpike, and that the sale of this land will not affect the Maintenance and Operation of the Turnpike, and the conveyance of the same by this document is approved.

Howard, Needles, Tammen & Bergendoff
Consulting Engineers

By: Roland A. Lavallee
ROLAND A. LAVALLEE

Approved as to form

Attorney ERIC STAUFFER

81

BK8730PG0111

Maine Turnpike Authority
to
Peter P. & Suzanne G. Martelle

EXHIBIT "A"

Beginning at a point three hundred seventy-five (375) feet easterly from and as measured along a line at right angles to the Maine Turnpike survey base line at Sta.2416+00, said point being marked by a rebar;

Thence N 18° 06' E four hundred fifty and no hundredths (450.00) feet to a point, said point being three hundred seventy-five (375) feet easterly from and as measured along a line at right angles to the Maine Turnpike survey base line at Sta.2420+50, and is marked by a rebar;

Thence S 66° 43' 28" E three hundred eighty-eight and no hundredths (388.00) feet to a point in the westerly line of land now of Peter and Suzanne Martelle (7100-299), said point also being seven hundred sixty-one and forty-two hundredths (761.42) feet easterly from and as measured along a line at right angles to the Maine Turnpike survey base line at Sta.2420+15, said point to be marked by a rebar;

Thence S 27° 25' 28" W along the westerly line of land of said Martelle and the westerly lines of land now or formerly of Joseph Marzilli and Howard & Suzanne Doucette four hundred twenty-seven and twenty-five hundredths (427.25) feet to an iron pipe found marking the corner of land between said Doucette and land now or formerly Janice Beaumier;

Thence N 70° 42' 23" W three hundred seventeen and twenty-six hundredths (317.26) feet to the point of beginning.

Excepting from the above described lot all land now owned by the said Peter and Suzanne Martelle contained within said lot and described within a deed recorded in the Cumberland County Registry of Deeds, Book 7100, page 299.

Said lot or parcel conveyed herein contains about 1.74 acres.

Meaning and intending to convey a portion of the premises acquired by the Maine Turnpike Authority by the following deeds:

1. Warranty Deed of Hans H. Holm dated July 27, 1954 and recorded in the Cumberland County Registry of Deeds, Book 2191, page 131.

2. Warranty Deed of Alphonse Laflamme dated March 3, 1955 and recorded in the Cumberland County Registry of Deeds, Book 2220, page 460.

RECEIVED
RECORDED REGISTRY OF DEEDS
1989 APR 25 AM 8:52
CUMBERLAND COUNTY

314 Form F 8

Soil Profile/Classification Information

(for DEP Site Location of Development Application)

Page ___ of ___

Project name: Holm Place

Applicant name: [illegible]

Project location (municipality): Dartland

Exploration symbol: TP1 — Test pit / Boring

_____ ° Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–4	Loamy Sand	Friable	Dark Brown	
4–18	Loamy Sand	Friable	Tan	
18–36	Sand	Friable	Olive	Common Distinct
36–50				Free Water
50–60	Silty Clay	Firm	Gray	

S.E.: Soil Depth 7 — Classification Condition D — Slope 0 % — Limiting Factor 13 — Drainage Class: Poorly Drained / Poorly Drained / Drained

C.S.S.: Soil Series/phase name: Swanton SPD — hydric / non-hydric

Exploration symbol: TP2 — Test pit / Boring

_____ ° Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–4	Loamy Sand	Friable	Black	
4–18	Loamy Sand	Friable	Tan	
18–36	Sand	Friable	Olive	Common Distinct
36–50				Free Water
50–60	Silty Clay	Firm	Gray	

S.E.: Soil Depth 5 — Classification Condition D — Slope 0 % — Limiting Factor 4 — Drainage Class: Poorly Drained / Poorly Drained / Drained

C.S.S.: Soil Series/phase name: Swanton SPD — hydric / non-hydric

Exploration symbol: TP3 — Test pit / Boring

_____ ° Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–4	Loamy Sand	Friable	Tan	
4–18	Loamy Sand	Friable	Tan	
18–36	Silty Clay	Firm	Gray	Common Distinct
36–50	Clay			

S.E.: Soil Depth 0 — Classification Condition D — Slope 0 % — Limiting Factor 13 — Drainage Class: Poorly Drained / Poorly Drained / Drained

C.S.S.: Soil Series/phase name: Swanton SPD — hydric / non-hydric

Exploration symbol: TP4 — Test pit / Boring

_____ ° Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–4	Loamy Sand	Friable	Dark Brown	
4–18	Loamy Sand	Friable	Tan	
18–36	Sand	Friable	Olive Gray	Common Distinct

S.E.: Soil Depth 5 — Classification Condition C — Slope 0 % — Limiting Factor 10 — Drainage Class: Poorly Drained / Poorly Drained / Drained

C.S.S.: Soil Series/phase name: Cleveland [illegible] — hydric / non-hydric

Professional Endorsements (as applicable)

S.E.: signature: — Date: — Lic. #:

name printed/typed:

C.S.S.: signature: [illegible] — Date: 2/5/[illegible] — Cert. #: 210

name printed/typed: [illegible]

MARK J. HAMPTON #210 — Mark J. Hampton, Professional Engineer

TYPE:

CATALOG #:

McGRAW-EDISON®

DESCRIPTION

Dayform Traditionaire outdoor luminaires display the old-fashioned charm of traditional area lighting, enhancing any setting with a distinctive styling. Graced with a visually appealing design form during the day, surroundings are well-lighted and safe at night. U.L. listed for wet locations. CSA certified.

APPLICATION

As a decorative luminaire, the Dayform Traditionaire tastefully complements the architectural and environmental design of estates, parks, motels, restaurants, apartments, churches, institutions and roadways.

SPECIFICATION FEATURES

A ...Cupola

Decorative cupola conceals optional photocontrol.

B ...Optics

Specular aluminum reflector is available in three distributions.

C ...Cover

Hinged, die-cast aluminum cover has steel hinge pins and captive cover-retaining screws.

D ...Lens Panels

Injection-molded contoured acrylic lens panels are standard. (Polycarbonate is optional.)

E ...Ballast Cover

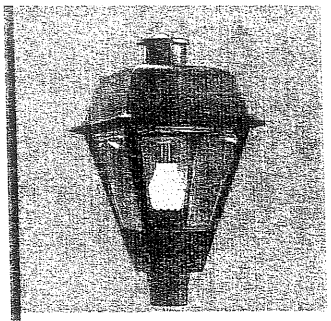
Aluminum ballast cover supports a decorative glass chimney.

F ...Housing

Single-piece, die-cast aluminum housing has integral base and lens supports and is finished in black polyester powder-coat.

G ...Mounting

Integral self-aligning pole top fitter fits 3" O.D. poles or vertical tenons.

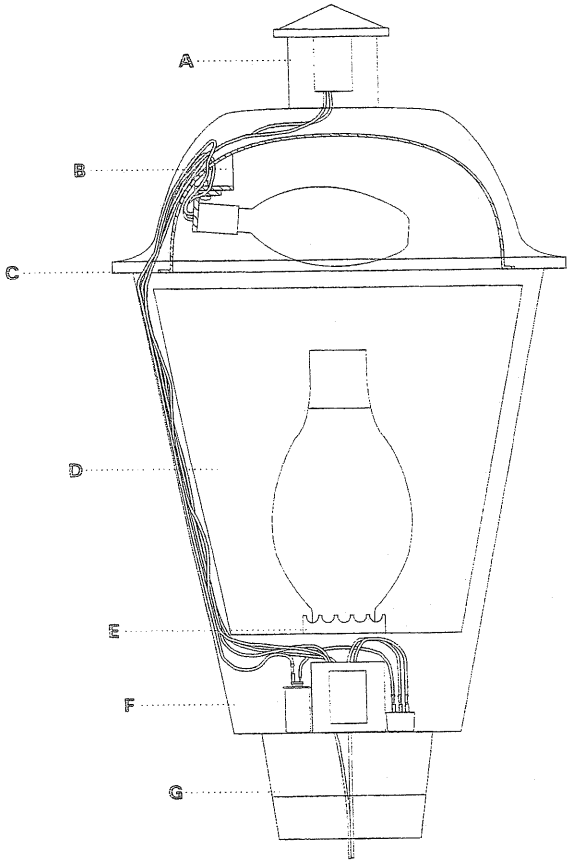


TRDDAYFORM TRADITIONAIRE

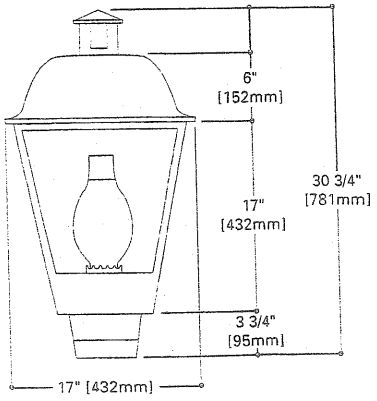
50-175W

High Pressure Sodium
Metal Halide

AREA LIGHT



DIMENSIONS



ENERGY DATA

High Reactance Ballast Input Watts

50W HPS HPF (66 Watts)
70W HPS NPF/HPF (95 Watts)
100W HPS NPF/HPF (130 Watts)
100W MH HPF (129 Watts)
150W HPS HPF (190 Watts)

CWA Ballast Input Watts

175W MH HPF (210 Watts)

8L

Catalog Number Logic

1st & 2nd Digits = Product Family	3rd Digit= Mounting	4th Digit= Distribution	5th digit= Lamp Type	6th Digit = Lamp Wattage
TR=Traditionaire	1=Post Top 2=Pendant	2=Asymmetric IES Type III 3=Symmetric IES Type V	1= } Merc. 5= } 2= } HPS 8= } 9= } 3= Met. Hal.	0= 50 1= 70 2=100 3=150/175 4=250 4=250

Catalog Number Asymmetric	Catalog Number Symmetric	Lamp Wattage	Lamp Type	Ballast Type	Voltage	Net Wt. (Lbs.)	Shipping Volume (Cu. Ft.)
TR1281	TR1381	70	HPS	Hi-Reac.	120	20	5.62
TR1282	TR1382	100	HPS	React.	120	20	1/carton
TR1282	TR1382	100	HPS	Hi-Reac.	120	20	
TR1283	TR1383	150	HPS	React	120	20	
TR1283	TR1383	150	HPS	Hi-Reac.	120	20	
TR1224	TR1324	250	HPS	CWA	120	20	
TR1263	TR1363	175	Merc.	Hi-Reac.	120	20	
TR1213	TR1313	250	Merc.	CWA	120	20	
TR1233	TR1333	175	MH	CWA	120	20	
TR1234	TR1334	250	MH	CWA	120	20	

Lamps not included.

Options (add as suffix)

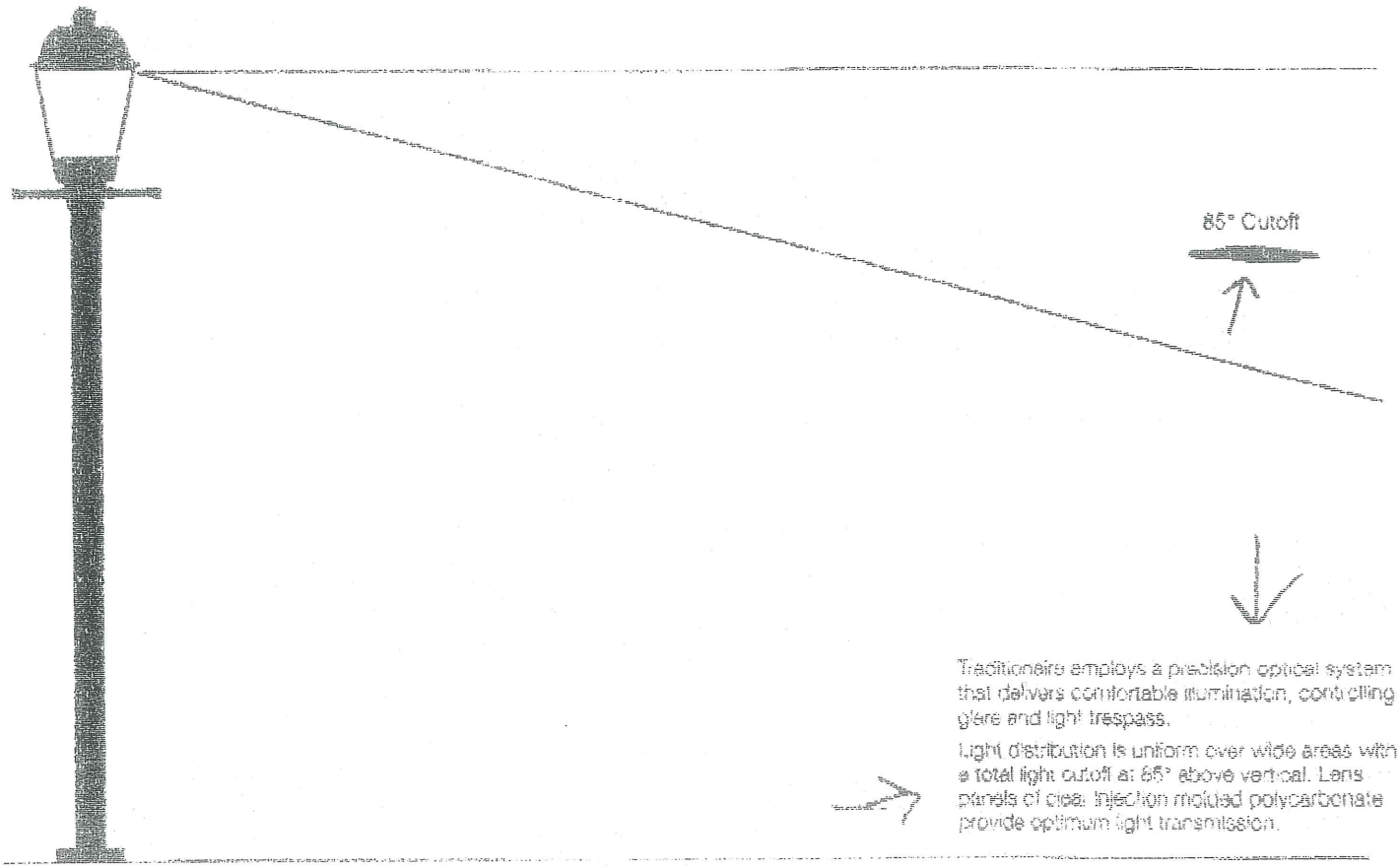
- R Photocontrol receptacle. NEMA standard twist-lock type.
- V Polycarbonate refractor panels.

Accessories (order separately)

TA1BK Decorative Ladder Rest (field installed)

To: Jeff Berg

Performance and Efficiency

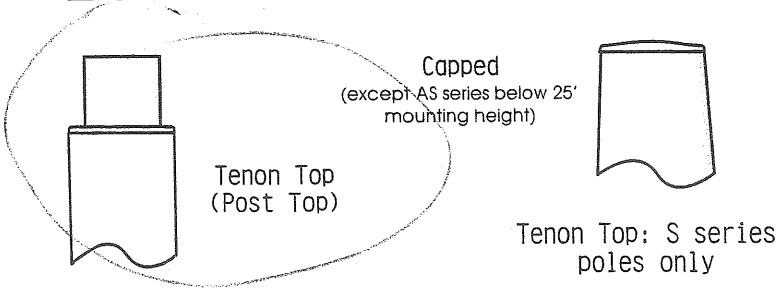


Traditionaire employs a precision optical system that delivers comfortable illumination, controlling glare and light trespass.

Light distribution is uniform over wide areas with a total light cutoff at 85° above vertical. Lens panels of clear, injection molded polycarbonate provide optimum light transmission.

Shakespeare SINCE 1897

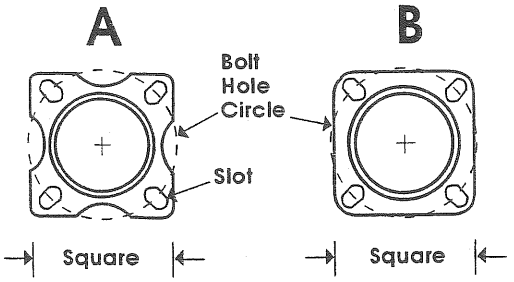
Round Tapered Poles
Tenon Top and Capped
Direct Burial and Anchor Base



TENONS: $2^3/_8$" 3" 4" - if pole dimensions permit. Tenons are 6061-T6 aluminum or hot dipped galvanized steel and are available in all standard sizes; for other optional tenons, contact factory. Post top fixtures, flood lights, or bullhorns mount with ease.

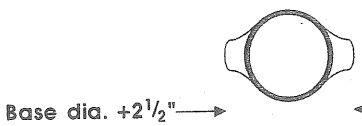
Shrouds for AO Series

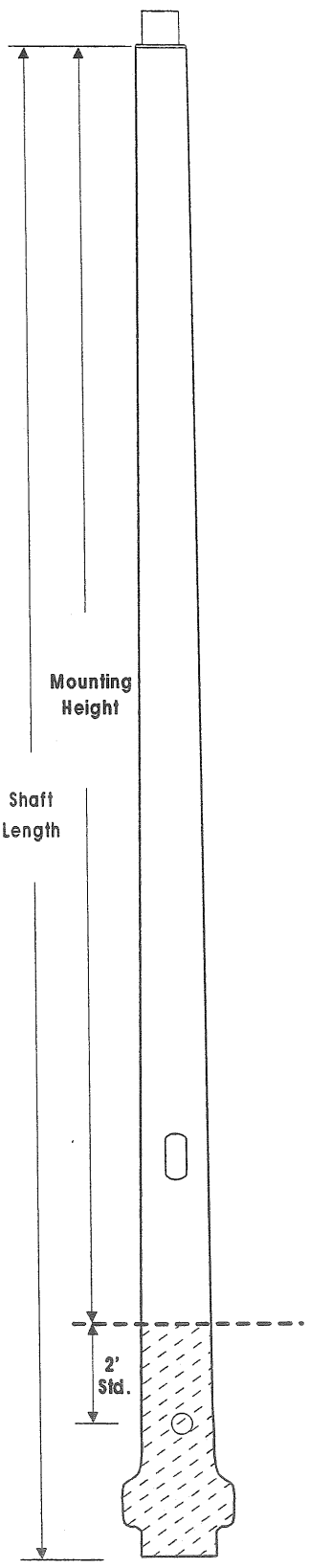
Pole	BHC	Shroud Cat. No.
AO10	8.0"	OPSH-1017
AO12	8.5"	OPSH-1821
AO14	8.5"	OPSH-1821
AO16	8.5"	OPSH-1821
AO18	9.5"	OPSH-2225
AO20	9.5"	OPSH-2225
AO25	9.5"	OPSH-2225

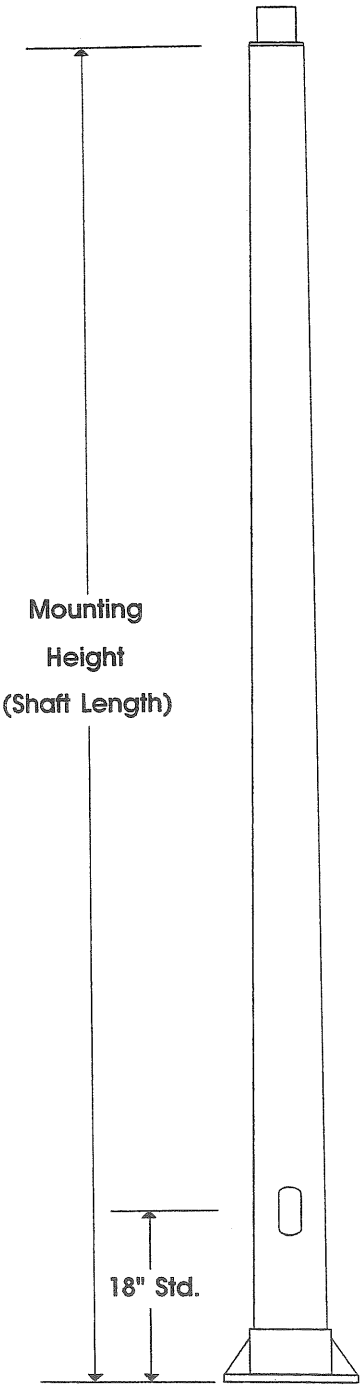


Anchor Base Dimensions

Bolt Hole Circle	Drawing	Square	Slot
8"	A	7.75"	$^{13}/_{16}$" x $1^5/_{16}$"
8.5"	A	8.125"	$^{13}/_{16}$" x $1^5/_{16}$"
9.5"	A	8.8"	$^{13}/_{16}$" x $1^5/_{16}$"
11.5"	B	11"	$1^1/_4$" x $1^3/_4$"
14"	B	12.9"	$1^1/_2$" x 2"
14.5"	B	13.3"	$1^1/_2$" x 2"
15"	B	13.5"	$1^1/_2$" x 2"
15.5"	B	14"	$1^1/_2$" x 2"







ANCHOR BASE: Cast A356-T6 aluminum, polyurethane coated to match pole color.
Hot dipped galvanized steel anchor bolts complete with nuts (2) and washers (2) are supplied standard - ($^5/_8$" x 21" x 3", I" x 30" x 4", or $1^1/_4$" x 36" x 6" depending on the pole specified).

For poles with one, two or more arms, see Mast Arm Poles.

Round Tapered Composite Poles

Anchor Base and Direct Burial

Capped and Tenon Top

	Page
Tenon Top Poles	20
Capped or Tenon Top	22
Mast Arm Poles	25
Breakaway Poles	43
Breakaway Mast Arm Poles	47

AA, AB, AC, AD, AH, AO, and AS series

- Mounting heights to 47'
- Natural or smooth finish
- Seven standard colors - pigments integrated into the resin
- UV- and weather-resistant pigmented polyurethane coating
- Tenon Top (Post Top), or Capped (except AS series below 25' mounting height)
- EPA ratings are the same for capped or tenon top poles.
- Poles can be predrilled for bolt-on side mount fixture(s), arms, etc. (except AS series below 25' mounting height).
- Composite shrouds (1- or 2-piece) optional. Optional bolt covers available for some styles
- Poles are individually ID tagged.

BA, BB, BC, BD, BH, BO, and BS series

- Mounting heights to 40'
- Natural or smooth finish
- Seven standard colors - pigments integrated into the resin
- UV- and weather-resistant pigmented polyurethane coating
- Tenon Top (Post Top), or Capped (except BS series below 25' mounting height).
- EPA ratings are the same for capped or tenon top poles.
- Poles can be predrilled for bolt-on side mount fixture(s), arms, etc. (except BS series below 25' mounting height).
- Poles are individually ID tagged

- Direct Burial style for fast, easy installation
- Improved ground line appearance
- Anti-rotation flare structurally integrated into pole base during manufacture
- Shakespeare fiberglass won't rust, rot, or corrode in the ground, and insects won't eat it.
- No concrete foundations or anchor bolts

Series:

AA	BA
AB	BB
AC	BC
AD	BD
AH	BH
AO	BO
AS	BS

Standard Handhole: $2\frac{1}{2}$" x 5" oval.
Optional: 4" x 6" or 4" x 12" handholes, depending on pole dimensions; for other handhole options, contact factory. Handhole covers are fiberglass composite, polyurethane coated to match pole color.

Shakespeare calculates all EPA recommendations based on poles with handholes, and in accordance with AASHTO standards, allowing for a 30% gust factor for all wind ratings, including 120mph.

For applications requiring extremely large loads and extra height, ask for information on the new Shakespeare Transmission and Distribution poles - up to 70', and capable of large luminaires typical of sports stadiums and the like.

NOMINAL MOUNTING HEIGHT (Ft.)	SHAFT LENGTH (Ft.)	POLE WEIGHT (Lbs.)	POLE DIAMETER SHAFT TOP (In.)	POLE DIAMETER SHAFT BASE (In.)	STANDARD HANDHOLE LOCATION FROM BASE (In.)	SUGGESTED MAXIMUM TOTAL LOADING TOTAL WEIGHT (Lbs.)	80 MPH EPA* (Sq. Ft.)	90 MPH EPA* (Sq. Ft.)	100 MPH EPA* (Sq. Ft.)	120 MPH EPA* (Sq. Ft.)	BOLT HOLE CIRCLE (In.)	BASIC CATALOG NUMBER	COMMENT
10' to 20' mounting heights													
10**	13	23	2.9	5.0	54	150	16.3	12.5	9.9	6.7		**BS13**	Not available Capped
12**	15	25	2.9	5.3	54	150	10.7	7.9	6.1	4.1		**BS15**	Not available Capped
14**	18	29	2.9	5.7	66	150	9.7	7.1	5.6	3.7		**BS18**	Not available Capped
16**	20	38	2.9	6.1	66	100	7.3	5.3	4.2	2.7		**BS20**	Not available Capped
20**	24	44	2.9	6.6	66	100	6.1	4.6	3.5	2.2		**BS24**	Not available Capped

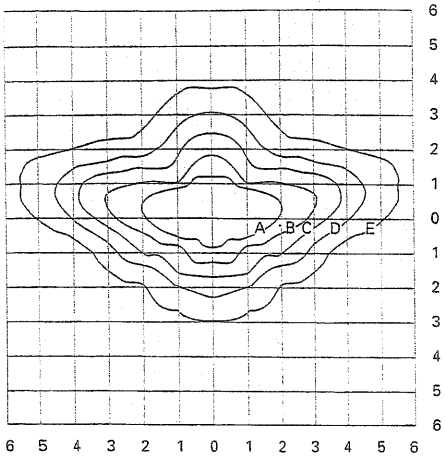
**Not available capped - do not use BS series below 25' mounting height for side mount applications, or with tenon mounted arms, or for multiple fixture applications - Use BO series, instead.

unbelievable - Hub?

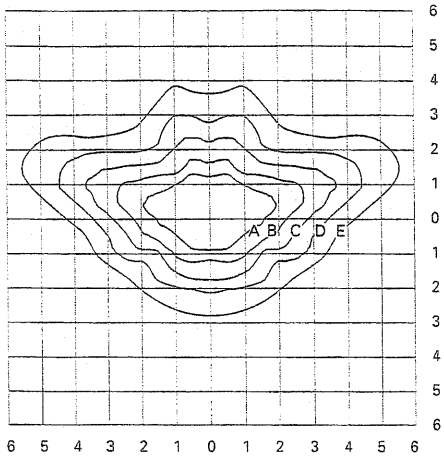
RECEIVED
2-2-00
SEBAGO TECHNICS

All EPA calculations are based on poles with handholes.
* All EPA recommendations, including 120mph, are calculated per AASHTO standards and include a 30% gust factor.

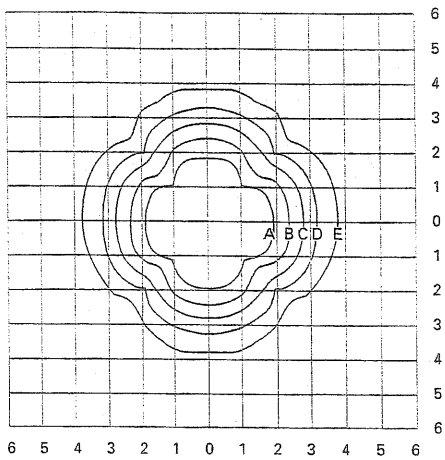
PHOTOMETRICS



TRD-1
TRD3483
150-Watt HPS, Type II Distribution
16,000-Lumen Clear Lamp



TRD-2
TRD3683
150-Watt HPS, Type III Distribution
16,000-Lumen Clear Lamp



TRD-3
TRD3383
150-Watt HPS, Type V Distribution
16,000-Lumen Clear Lamp

Footcandle Table

Select mounting height and read across for footcandle values of each isofootcandle line. Grids are numbered in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
15'	2.00	1.00	0.50	0.25	0.10
20'	1.00	0.50	0.25	0.13	0.05
25'	0.50	0.25	0.13	0.06	0.02

ORDERING INFORMATION

SAMPLE NUMBER: TRD34801

TRD	3						

Product Family
TRD=Dayform Traditionaire

Mounting
3=Post-Top

Distribution
3=Type V
4=Type II
6=Type III

Lamp Type
3=MH
8=HPS

Lamp Wattage
0=50
1=70
2=100
3=150
4=175

Voltage
1=120
2=208
3=240
4=277
5=480
7=Dual-Tap
8=Triple-Tap wired 347
9=Multi-Tap wired 277

Options (add as suffix)
R=Photocontrol receptacle
V=Polycarbonate refractor panels

Accessories (order separately)
TA1BK=Decorative ladder rest (field installed)

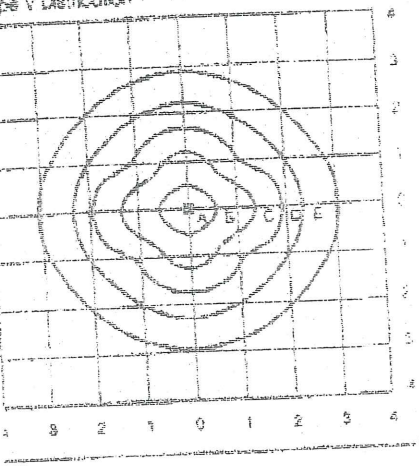
Catalog Number Type II	Type III	Type V	Lamp Wattage	Lamp Type/Base[1]	Ballast Type/ Power Factor	Voltage	Net Wt. (Lbs.)	Shipping Volume (Cu.Ft.)
TRD34801	TRD36801	TRD33801	50	HPS/Mogul	Hi-React./HPF	120	20	5.82
TRD34811	TRD36811	TRD33811	70	HPS/Mogul	Hi-React./HPF	120	20	5.82
TRD34821	TRD36821	TRD33821	100	HPS/Mogul	Hi-React./HPF	120	20	5.82
TRD34831	TRD36831	TRD33831	150	HPS/Mogul	Hi-React./HPF	120	20	5.82
TRD34321	TRD36321	TRD33321	100	MH/Mogul	Hi-React./HPF	120	22	5.82
TRD34341	TRD36341	TRD33341	175	MH/Mogul	CWA/HPF	120	22	5.82

NOTES: [1] Lamps not included.

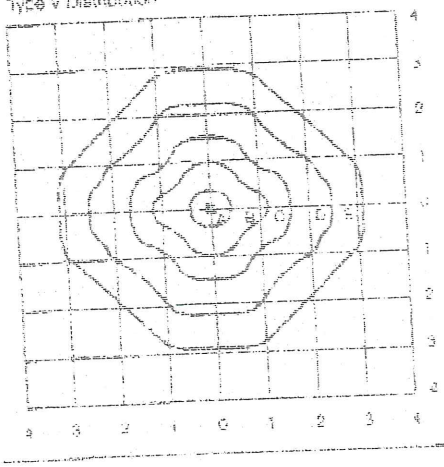
NOTE: Specifications and Dimensions subject to change without notice.

P.O. Box 820824 Vicksburg, MS 39182 601.638.1522 FAX 601.634.9606

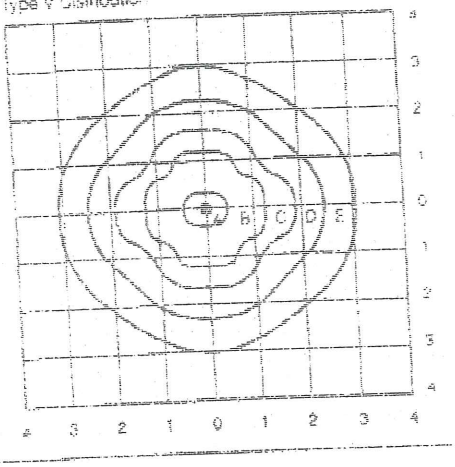
TR-1
Catalog Number TR1334
250-Watt HPS
20,500-Lumen Clear Lamp
Type V Distribution



TR-2
Catalog Number TR1333
150-Watt HPS
16,000-Lumen Clear Lamp
Type V Distribution



TR-3
Catalog Number TR1334
250-Watt Metal Halide
20,500-Lumen Clear Lamp
Type V Distribution



Footcandle Table for TR-1

Select mounting height and read across for footcandle values of each isofootcandle line.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
15'	5.54	2.77	1.39	0.69	0.28
20'	3.12	1.56	0.78	0.39	0.16
25'	2.00	1.00	0.50	0.25	0.10

Footcandle Table for TR-2, TR-3

Select mounting height and read across for footcandle values of each isofootcandle line.

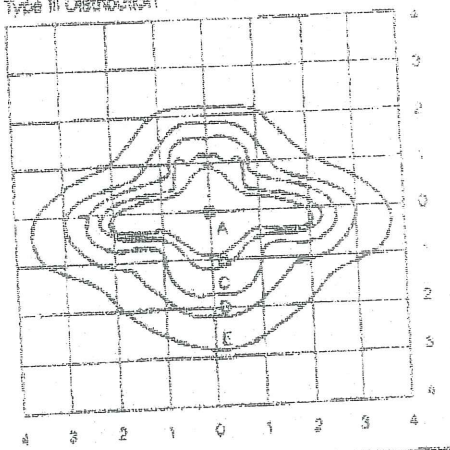
Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
15'	3.54	1.77	0.89	0.44	0.18
20'	2.00	1.00	0.50	0.25	0.10
25'	1.28	0.64	0.32	0.16	0.06

Proration Table

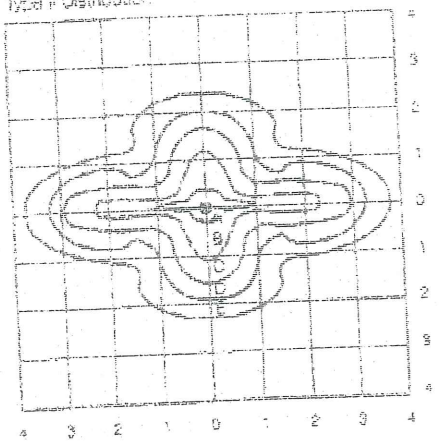
Multiply all footcandle values shown on footcandle plots and tables by the proration factor shown for the corresponding lamp to be used.

Lamp Designation	Watts	Lumens	Proration Factor
LU150MED	150	16,000	1.000
LU100MED	100	9,500	0.594
LU70MED	70	5,800	0.363
LU50MED	50	4,000	0.250
MH175MED	175	14,000	1.000
MH100MED	100	8,500	0.610

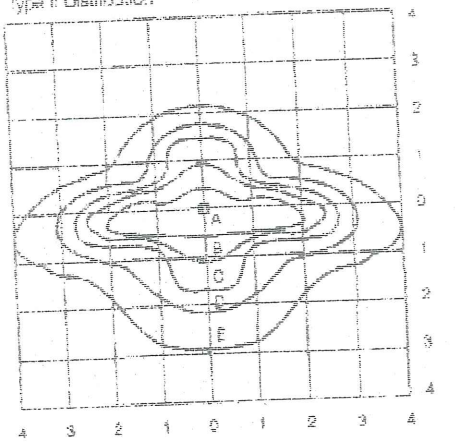
TR-4
Catalog Number TR1334
250-Watt HPS
20,500-Lumen Clear Lamp
Type III Distribution



TR-5
Catalog Number TR1333
150-Watt HPS
30,000-Lumen Clear Lamp
Type II Distribution



TR-6
Catalog Number TR1334
250-Watt Metal Halide
20,500-Lumen Clear Lamp
Type II Distribution



Footcandle Table for TR-4

Select mounting height and read across for footcandle values of each isofootcandle line.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
15'	5.54	2.77	1.39	0.69	0.28
20'	3.12	1.56	0.78	0.39	0.16
25'	2.00	1.00	0.50	0.25	0.10

Footcandle Table for TR-5, TR-6

Select mounting height and read across for footcandle values of each isofootcandle line.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
15'	3.54	1.77	0.89	0.44	0.18
20'	2.00	1.00	0.50	0.25	0.10
25'	1.28	0.64	0.32	0.16	0.06

Proration Table

Multiply all footcandle values shown on footcandle plots and tables by the proration factor shown for the corresponding lamp to be used.

Lamp Designation	Watts	Lumens	Proration Factor
LU150MED	150	16,000	1.000
LU100MED	100	9,500	0.594
LU70MED	70	5,800	0.363
LU50MED	50	4,000	0.250
MH175MED	175	14,000	1.000
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Sebago Technics

Engineering & Planning for the Future

STORMWATER RUNOFF EVALUATION

Holm Place Condominiums
Holm Avenue
Portland, Maine

prepared for

V. P. Builders
P. O. Box 41
Westbrook, ME 04098

March 2000

One Chabot Street PO Box 1339 Westbrook, Maine 04098-1339 Tel: 207-856-0277 Fax: 207-856-2206

STORMWATER RUNOFF EVALUATION/ EROSION AND SEDIMENTATION CONTROL PLAN

Holm Place Condominiums
Portland, Maine

General

The following stormwater runoff evaluation has been prepared for V. P. Builders, Inc. to evaluate stormwater runoff and erosion control for the proposed Holm Place Condominiums in Portland, Maine. The Holm Place Condominiums will be a 16 unit residential development with an associated roadway utility infrastructure. The entire development will encompass a land area of approximately 3.65 acres. Access to the development will be from a private drive which connects directly onto Holm Avenue approximately one-third mile northeasterly of the intersection of Holm Avenue and Brighton Avenue.

Site Characteristics

The current condition of the project area is predominately wooded consisting of hardwood tree growth covering the majority of the land, with some open brush/meadow areas near the end of the existing driveway to the property. The surrounding area includes a residential neighborhood along both sides of Holm Avenue, with the Maine Turnpike bordering the western rear of the project. A tree buffer exists between the project's property and the actual Turnpike and a parcel of undeveloped land abuts northeasterly of the development which is wooded. Terrain in the development area varies from gentle to steep slopes at the northeasterly end. The northerly portion of the project slopes towards a deep ravine area in association with an upper tributary of Capisic Brook which drains easterly and eventually crosses Holm Avenue by a box culvert. The entire portion of the condo development and adjacent properties against the Turnpike also drain in a northeasterly direction toward the ravine via channels and culvert flows. All of the site's drainage eventually crosses Holm Avenue and joins into Capisic Brook, which eventually discharges into Fore River and Casco Bay.

The enclosed pre-development watershed map and USGS topographical map depict the general drainage characteristics and infrastructure in the project area.. During site reconnaissance of this site, no erosion or ponding were observed in the pre-development condition.

Soils

Soil classifications within the project area were based upon test pit information. The majority of the site is comprised of Swanton somewhat poorly drained soils which are classified as hydrologic group D.

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One small area, which was previously filled with material excavated from construction in the surrounding areas, was classified as Croghan moderately well drained soils with a hydrologic group C. Off-site watersheds to the south consist of Swanton fine sandy loams which are classified as a hydrologic Group D soils. The soils are noted for a high water table, even though they can have a high permeability. This condition creates a poorly draining soil which can be associated with wetlands.

Stormwater Management

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

As described in the following, three watersheds were analyzed in the pre-development condition, and six watersheds in the post-developed condition. Due to the topography of the site and the nature of the stream near the site's northeasterly property line, two separate study points were evaluated. Study Point 1 was chosen to be the point where the majority of the site runoff enters the stream. Study Point 2 is a point approximately 230 feet northwesterly of Study Point 1.

The pre-developed condition considered one off-site watershed which flows through the site, plus two on-site watersheds.

WS-1 consists of the off-site area (2.6 acres) contributing to the site's runoff by draining runoff across the property by ditch and culvert flows. The area appears to be an abandoned road network or discontinued streets. The area abuts to the northbound off-ramp to Exit 8 of the Maine Turnpike and gently slopes to the proposed site. The existing roadways, now grown over with trees, provide channels for runoff to travel toward the site and the need for an 18" culvert to cross approximately half of the site.

WS-10 consists of 3.23 acres of the site for the proposed condominium project. The land is well vegetated with young hardwood growth and is currently not subject to erosion, even though it banks along a deep ravine and tributary subject to flooding on Holm Avenue. The parcel does contain one area of filled debris just behind the neighboring homes. This small area is believed to be a spoils area from recent road construction and repairs from the October 1996 flood. All runoff travels northeasterly to the stream prior to crossing Holm Avenue through a box culvert.

WS-11 consists of 0.42 acre of woodland in the northern corner of the site. Runoff flows northeasterly towards the stream prior to combining with the runoff from WS-10.

Watershed 1 remains the same in the post-development condition as in the pre-developed condition. Watersheds 10, and 12 through 14 are composite watersheds of the same watershed areas labeled as Watershed 10 in the pre-development condition and all outlet to Study Point 1. Watershed 11 outlets to Study Point 2.

WS-10 is the center of the proposed condominium project that includes the entrance drive, majority of driveways, and some roof-top portions. Approximately two-thirds of this watershed is pavement. Flows are sheet and shallow flows across green areas to a catch basin and storm drain system. The area has been regraded to provide positive drainage away form the residential units, while maximizing travel times prior to entering the storm drain system. All flows enter the proposed detention pond to be located along the eastern corner of the property to the north of the Holm Place main entrance.

WS-14 comprises the area along the southeastern and southern property lines between the existing woods and rear of the condominiums to be constructed on that side of the property. The area is treed along the property to provide some visual buffer, and grassed for lawns and drainage ditches. A long ditch collects from the condominium's rear side and directs runoff following the property line easterly to the main entrance drive. From there, it is conveyed by culvert to the storm system and detention pond. This ditch also collects off-site flows to the detention pond.

WS-12 consists of the western corner of the site which is proposed to be approximately four residential units, lawn and tree save areas, as well as the recreational area. Flows are redirected westerly across the units' rear side and then northerly to a gentle graded grassed swale which outlets to a 12" culvert adjacent to the recreational area sidewalk. The recreational area has been graded to a lower elevation and the culverts sized so that in larger storm events the field will act as temporary detention. The culvert directly enters the site's storm drain system and detention pond.

WS-13 consists of the small area of driveway and lawns between Units 2, 3, 4 and 5. Flows are directed into the catch basins and storm drain system, which outlets directly into the detention pond.

WS-11 is the portion of the site not developed along the western sideline and also the condominium units along the land above the stream bank. The area includes lawns, roofs, woods generally along the slope to the bank, and some wetlands associated with the stream/tributary. This watershed outlets to Study Point 2 as in the pre-developed condition.

STORMWATER DETENTION ANALYSIS

Holm Place Condominiums
Holm Avenue
Portland, Maine

Project Area 3.65 Acres

				Peak Runoff (cfs)			
Watershed	**Avg. CN**	**Acres**	**Tc min.**	**2-Year**	**10-Year**	**25-Year**	**100-Year**
Pre-Development							
1	77	2.60	27.0	1.84	4.26	5.48	7.36
10	72	3.23	25.0	1.69	4.46	5.93	8.23
Study Point 1				3.29	8.31	10.89	14.92
11	77	0.42	12.8	0.39	0.91	1.17	1.57
Study Point 2				0.39	0.91	1.17	1.57
Sum of Flows				3.70	9.20	12.10	16.50
Post-Development							
1	77	2.60	27.9	1.84	4.26	5.48	7.36
10	90	0.95	1.4	2.20	3.86	4.64	5.79
14	85	0.69	7.7	1.10	2.12	2.60	3.33
12	83	0.90	16.3	1.09	2.18	2.72	3.52
13	91	0.18	1.4	0.43	0.75	0.89	1.11
Study Point 1				3.05	5.63	6.37	7.28
11	81	0.94	46.4	0.65	1.36	1.72	2.25
Study Point 2				0.65	1.36	1.72	2.25
Sum of Flows				3.70	7.00	8.10	9.50
Net Change Sum of Flows				**-0-**	**-2.20**	**-4.00**	**-7.00**

The following analysis describes how the impervious increase of the proposed site and the related increase in peak runoff rates were designed to meet the existing, or lessen the overall peak rates of runoff of the site. Unfortunately, the downstream areas of the site are subject to flooding in relatively small rain events (5-year occurrence, or less). To comply with the analysis prepared for the City of Portland – "The Capisic Brook Greenbelt/Stormwater Abatement Study" by CH2M Hill, we must meet the stormwater quantity requirements to not further aggravate a current problem. The proposed property is not subject to flooding, but the stream adjacent to the northern property line winds through some densely populated neighborhoods and is prone to exceeding its banks and flooding in storms greater than 4.0"/24-hr. Although the report recommends large storage volumes for detention, it concedes no areas large enough in the Holm Avenue/Taft Avenue area are available to have any significant reduction of flooding. We hope to control our proposed site runoff to not further aggravate the area's watershed with the construction of a catch basin/storm drain system and detention pond.

Stormwater runoff modeling suggests that the peak rates of runoff in the developed condition will be the same or less than the pre-developed runoff rate within the ravine where the site's last discharge enters. Due to the compact development, the entire site showed slight increases because of the change of ground cover from woods to lawn and pavement. However, construction of a detention outlet control with the roadway infrastructure allowed the proposed site to drain similar to the manner that the site drains currently. We have either designed the driveways lower than the surrounding grades, or have provided yard drains to promote front yard sheet flow to the streets and installed drainage infrastructure.

The proposed detention system which was designed to utilize an area above the ravine will use an outlet control structure to store runoff temporarily and meet the pre-development peak flow rates as required. An outlet structure was designed with staged storage outlets consisting of two 4" orifices, one 18" x 4" slot orifice, and a 36" weir to control the site and provide an overflow. The pipes entering and discharging were significantly oversized to pass, if necessary, storm runoff from events such as the 100-year or less probability of occurrence.

In addition to the outlet structure and outlet pipe, an emergency riprap spillway was provided to assure the pond can outlet in the event the outlet is clogged or the storm rainfall is too great to pass all of the water through the control structure. We intend to make no revisions to the existing ravine other than installing a stilling basin located downstream of the outlet structure. Due to the work involved and location of adjacent wetlands, some slopes may be steepened with riprap which will be available from on-site excavation to stabilize constructed slopes and not further impact wetlands.

POND SUMMARY TABLE				
	2-Year Peak Discharge	**10-Year Peak Discharge**	**25-Year Peak Discharge**	**100-Year Peak Discharge**
Discharge at Ravine (cfs)	3.05	5.63	6.37	7.28
Peak Elevation at Detention Pond (Ft.) *	56.5	57.6	58.0	58.7
* Emergency Spillway Crest = 58.8 Ft.				

The Stormwater Management Plan for the Holm Place Condominium project will also include an Erosion and Sedimentation Control Plan placing emphasis on the installation of sedimentation barriers and revegetation to minimize erosion potential from development activities during and after construction. The Erosion Control Plan has been placed directly on the design plans to include locations of erosion control provisions (i.e., silt fence, hay bale barriers, riprap aprons, embankment), along with a narrative and construction details for reference by the contractor during construction.

In an effort to emphasize the requirements, a pre-construction meeting will be required as indicated in the erosion control notes between the owner, City and engineer to review critical aspects and sequencing of construction activities. The erosion control measures are to be monitored throughout construction by the contractor, with maintenance and repairs performed on a regular basis as directed by the erosion control plan.

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Summary

The preceding stormwater runoff evaluation has been prepared to evaluate pre and post-development conditions of the proposed Holm Place Condominium development project located off Holm Avenue in Portland. The analysis reviewed pre and post-development watersheds and compared peak rates of runoff at common discharge points to assess stormwater infrastructure needs. Based upon the analysis and review of the site, we make the following recommendations:

1. Implementation of a site specific erosion and sedimentation control plan placing emphasis on times of disturbance and, during construction, installation of appropriate erosion control measures and revegetation of the site and project completion. A specific erosion control plan with notation has been placed directly on the subdivision plans along with supporting details. These measures should be followed by the selected contractor throughout project construction.

2. A pre-construction meeting should be held between the owner, contractor and City representative to review scheduling and critical components of the stormwater management and erosion control plan. The contractor should provide the owner and City with a construction schedule outlining the sequence of events.

3. The proposed site should utilize existing tree vegetation on slopes, natural channels, and stabilize all slopes with either riprap or erosion control blankets. This will lessen erosion of disturbed areas from the development activity and lessen the impact on abutters and the environment by providing stabilized soil conditions which will decrease both erosion and sedimentation of the upper reaches of the Capisic Brook Watershed.

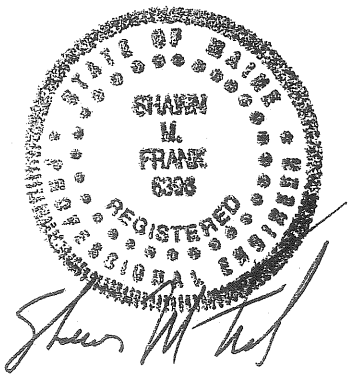
The proposed drainage system should not aggravate the existing flooding situations downstream to the Holm Avenue box culvert or associated tributaries. We are currently aware of the drainage and related flooding problems with the culvert or drainage infrastructure downstream. Therefore, we were careful not to discharge more than allowed by the pre-development peak runoff rates.

Prepared by:

SEBAGO TECHNICS, INC.

Jennifer L. Williams
Project Engineer

JLW:jc
March 29, 2000



Sebago Technics

Engineering & Planning for the Future

April 17, 2000
99103

Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

Holm Place Condominiums, Holm Avenue
Response to Review Comments

Dear Members of the Planning Board:

We have received the following review memos and reports: 1) from Tony Lombardo, Public Works, dated April 11, 2000; 2) from Steve Bushey, Development Review Coordinator, dated April 10, 2000; and 3) Planning Board Report dated April 11, 2000. In response to these reviews, we offer the following comments and revised plans:

Memo from Public Works Department

1. Two new sewer manholes have been added, as requested, at the intersection of the services from Units 5 and 6, and at the intersection of the services from Units 7 and 8.

2. A note specifying the granite to bituminous slope transition curb at the entrance has been added to the plans.

3. The applicant is aware of the sewer connection fees.

4. Please see our response to the memo from the Development Review Coordinator.

Memo from Development Review Coordinator

1. The Pre and Post-Development Watershed Plans have been revised to correctly identify the Study Points.

2. The HydroCAD calculations have been revised to include a reach routing between the two Study Points in order to more accurately determine the peak flows at Study Point #1. This reach is labeled as Reach 21 in the calculations and is depicted on the Watershed Plans.

One Chabot Street P.O. Box 1589 Westbrook, Maine 04098-1589 207-856-0277 Fax 207-856-2206

3. The recreation area has been designed to provide temporary stormwater detention. This design includes underdrain, catch basins, and the use of a Hydro-Brake on the 12" storm drain. The applicant is aware that the owners' association will be responsible for the long term maintenance of the recreation area and the associated drainage infrastructure.

4. The HydroCAD calculations for Pond #12 have been revised to more clearly model the structure with the use of a Hydro-Brake on the inlet of the 12" storm drain, as well as accounting for the catch basin grate as an outlet control structure. These revisions resulted in slightly more available storage than originally calculated.

5. The Stormwater Runoff Evaluation Report has been modified to provide more of an explanation of the water quality treatment being provided by the stormwater management system.

6. Due to site constraints and the size of the proposed detention pond, a split-rail fence will be installed around the perimeter of the pond, rather than a sloped bench.

7. A drainage maintenance agreement will be prepared and executed by the applicant.

8. Enclosed within the HydroCAD calculations are the computations for the emergency spillway of the detention pond. These calculations indicate that the spillway will pass a 100-year storm event without overtopping.

9. The existing shed near the proposed detention pond outlet will be removed. A note to this effect has been added to the plans.

10. Spot grades have been added to the grading plan as requested.

11. Upon completion of the development, the area behind Units 1 and 2 will be left in its natural condition as much as possible. The slope will be vegetated to prevent erosion. During construction of Units 1 and 2, we are anticipating the equipment to access the area from the driveway side of the proposed building. Silt fence will be installed at the toe of the slope prior to the start of construction.

12. The grading behind Units 10, 11 and 12 has been revised to provide more of a drainage swale in that area.

13. The location of the water main has been revised slightly to eliminate the potential of three utility lines crossing in one location.

14. The applicant will coordinate with Central Maine Power Company and provide confirmation of the approved transformer locations.

15. The applicant has received a copy of a memo from the City of Portland Public Works Department which outlined the City's acceptance of the sanitary sewer and the sewer connection fees.

16. All crossings of sanitary sewer and storm drain have been reviewed to eliminate potential conflicts. The clearance between pipes at any crossing ranges from seven to eighteen inches.

17. The subdivision and site plans have been signed and sealed by a Professional Land Surveyor.

18. All abutting landowners have been identified on the plans.

19. A note specifying the granite to bituminous slope transition curb at the entrance has been added to the plans.

20. A riprap outlet has been added to SD-16.

21. Access to the detention basin and the outlet control structure will be via the dumpster enclosure. The rear portion of the fencing has been designed to be removable so that vehicles can get to the pond as necessary for cleaning and sediment removal.

22. Two new sewer manholes have been added, as requested, at the intersection of the services from Units 5 and 6, and at the intersection of the services from Units 7 and 8.

23. There is no natural gas proposed for this development at this time.

24. There is one fire hydrant proposed along the main entrance approximately 30 feet before the access to the dumpster.

25. The location of the secondary power will be coordinated with Central Maine Power Company.

Planning Board Report

* The plans have been revised to provide 25 feet between the recreational area and the units.

* The recreational area has been designed to provide temporary stormwater detention. Based on the enclosed HydroCAD calculations, the 2-year storm event will result in small wet areas, less than 6" deep and remaining for about one hour, around each catch basin at the corners of the recreational area. In the 10-year and 25-year storm events, the area of the field which will be flooded increases to approximately one-third of the field. The depth of water is approximately one foot at its deepest, and this area will remain saturated for about one hour. In a 100-year storm event, approximately one-half of the field will be flooded to approximately 1.4 feet in depth for slightly over one hour. The underdrain and catch basins are designed to help the area dry quickly following rain storm events.

* A letter of financial capacity will be forwarded upon receipt and will be available prior to the next Planning Board meeting.

* Condominium documents will be submitted for review and approval by Corporation Counsel prior to the issuance of building permits.

* An elevation view of the buildings without a dormer will be available at the public hearing.

* The landscaping plan has been revised in accordance with the memo from the City Arborist dated February 14, 2000 regarding buffering and the preservation of existing vegetation, especially along the Maine Turnpike Authority property line.

* As shown on the previously submitted lighting plans, the light poles have been lowered to 16 feet in height. A house side shield will be installed on the light fixture located on the southeasterly side of the access drive and closest to Holm Avenue.

* The applicant is proposing the name of "Celebration Court" for the private access drive. We will submit this to the Fire Department for review and approval.

I trust that we have adequately addressed all comments to date. If you have any additional questions or comments, please do not hesitate to contact us.

Thank you for your consideration of this application.

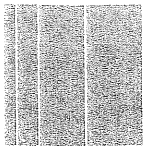
Sincerely,

SEBAGO TECHNICS, INC.

Jennifer L. Williams
Project Engineer

JLW:jlw/jc
Enc.

cc: VP Builders, Inc.



Sebago Technics

Engineering & Planning for the Future

STORMWATER RUNOFF EVALUATION

Holm Place Condominiums
Holm Avenue
Portland, Maine

prepared for

V. P. Builders
P. O. Box 41
Westbrook, ME 04098

March 2000
Revised April 17, 2000

One Chabot Street, P.O. Box 1339, Westbrook, Maine 04098-1339, 207-856-0277, FAX 207-856-2206

STORMWATER RUNOFF EVALUATION/ EROSION AND SEDIMENTATION CONTROL PLAN

Holm Place Condominiums
Portland, Maine

General

The following stormwater runoff evaluation has been prepared for V. P. Builders, Inc. to evaluate stormwater runoff and erosion control for the proposed Holm Place Condominiums in Portland, Maine. The Holm Place Condominiums will be a 16 unit residential development with an associated roadway utility infrastructure. The entire development will encompass a land area of approximately 3.65 acres. Access to the development will be from a private drive which connects directly onto Holm Avenue approximately one-third mile northeasterly of the intersection of Holm Avenue and Brighton Avenue.

Site Characteristics

The current condition of the project area is predominately wooded consisting of hardwood tree growth covering the majority of the land, with some open brush/meadow areas near the end of the existing driveway to the property. The surrounding area includes a residential neighborhood along both sides of Holm Avenue, with the Maine Turnpike bordering the western rear of the project. A tree buffer exists between the project's property and the actual Turnpike and a parcel of undeveloped land abuts northeasterly of the development which is wooded. Terrain in the development area varies from gentle to steep slopes at the northeasterly end. The northerly portion of the project slopes towards a deep ravine area in association with an upper tributary of Capisic Brook which drains easterly and eventually crosses Holm Avenue by a box culvert. The entire portion of the condo development and adjacent properties against the Turnpike also drain in a northeasterly direction toward the ravine via channels and culvert flows. All of the site's drainage eventually crosses Holm Avenue and joins into Capisic Brook, which eventually discharges into Fore River and Casco Bay.

The enclosed pre-development watershed map and USGS topographical map depict the general drainage characteristics and infrastructure in the project area.. During site reconnaissance of this site, no erosion or ponding were observed in the pre-development condition.

Soils

Soil classifications within the project area were based upon test pit information. The majority of the site is comprised of Swanton somewhat poorly drained soils which are classified as hydrologic group D.

One small area, which was previously filled with material excavated from construction in the surrounding areas, was classified as Croghan moderately well drained soils with a hydrologic group C. Off-site watersheds to the south consist of Swanton fine sandy loams which are classified as a hydrologic Group D soils. The soils are noted for a high water table, even though they can have a high permeability. This condition creates a poorly draining soil which can be associated with wetlands.

Stormwater Management

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

As described in the following, three watersheds were analyzed in the pre-development condition, and six watersheds in the post-developed condition. Due to the topography of the site and the nature of the stream near the site's northeasterly property line, two separate study points were evaluated. Study Point 1 was chosen to be the point where the majority of the site runoff enters the stream. Study Point 2 is a point approximately 230 feet northwesterly of Study Point 1.

The pre-developed condition considered one off-site watershed which flows through the site, plus two on-site watersheds.

WS-1 consists of the off-site area (2.6 acres) contributing to the site's runoff by draining runoff across the property by ditch and culvert flows. The area appears to be an abandoned road network or discontinued streets. The area abuts to the northbound off-ramp to Exit 8 of the Maine Turnpike and gently slopes to the proposed site. The existing roadways, now grown over with trees, provide channels for runoff to travel toward the site and the need for an 18" culvert to cross approximately half of the site.

WS-10 consists of 3.23 acres of the site for the proposed condominium project. The land is well vegetated with young hardwood growth and is currently not subject to erosion, even though it banks along a deep ravine and tributary subject to flooding on Holm Avenue. The parcel does contain one area of filled debris just behind the neighboring homes. This small area is believed to be a spoils area from recent road construction and repairs from the October 1996 flood. All runoff travels northeasterly to the stream prior to crossing Holm Avenue through a box culvert.

WS-11 consists of 0.42 acre of woodland in the northern corner of the site. Runoff flows northeasterly towards the stream prior to combining with the runoff from WS-10.

Watershed 1 remains the same in the post-development condition as in the pre-developed condition. Watersheds 10, and 12 through 14 are composite watersheds of the same watershed areas labeled as Watershed 10 in the pre-development condition and all outlet to Study Point 1. Watershed 11 outlets to Study Point 2.

WS-10 is the center of the proposed condominium project that includes the entrance drive, majority of driveways, and some roof-top portions. Approximately two-thirds of this watershed is pavement. Flows are sheet and shallow flows across green areas to a catch basin and storm drain system. The area has been regraded to provide positive drainage away form the residential units, while maximizing travel times prior to entering the storm drain system. All flows enter the proposed detention pond to be located along the eastern corner of the property to the north of the Holm Place main entrance.

WS-14 comprises the area along the southeastern and southern property lines between the existing woods and rear of the condominiums to be constructed on that side of the property. The area is treed along the property to provide some visual buffer, and grassed for lawns and drainage ditches. A long ditch collects from the condominium's rear side and directs runoff following the property line easterly to the main entrance drive. From there, it is conveyed by culvert to the storm system and detention pond. This ditch also collects off-site flows to the detention pond.

WS-12 consists of the western corner of the site which is proposed to be approximately four residential units, lawn and tree save areas, as well as the recreational area. Flows are redirected westerly across the units' rear side and then northerly to a gentle graded grassed swale which outlets to a 12" culvert adjacent to the recreational area sidewalk. The recreational area has been graded to a lower elevation and the culverts sized so that in larger storm events the field will act as temporary detention. The culvert directly enters the site's storm drain system and detention pond.

WS-13 consists of the small area of driveway and lawns between Units 2, 3, 4 and 5. Flows are directed into the catch basins and storm drain system, which outlets directly into the detention pond.

WS-11 is the portion of the site not developed along the western sideline and also the condominium units along the land above the stream bank. The area includes lawns, roofs, woods generally along the slope to the bank, and some wetlands associated with the stream/tributary. This watershed outlets to Study Point 2 as in the pre-developed condition.

STORMWATER DETENTION ANALYSIS

Holm Place Condominiums
Holm Avenue
Portland, Maine

Project Area 3.65 Acres

				Peak Runoff (cfs)			
Watershed	**Avg. CN**	**Acres**	**Tc min.**	**2-Year**	**10-Year**	**25-Year**	**100-Year**
Pre-Development							
1	77	2.60	27.0	1.84	4.26	5.48	7.36
10	72	3.23	25.0	1.69	4.46	5.93	8.23
Study Point 1				3.29	8.31	10.89	14.92
11	77	0.42	12.8	0.39	0.91	1.17	1.57
Study Point 2				0.39	0.91	1.17	1.57
Reach 22				3.34	8.43	11.06	15.20
Post-Development							
1	77	2.60	27.9	1.84	4.26	5.48	7.36
10	90	0.95	1.4	2.20	3.86	4.64	5.79
14	85	0.69	7.7	1.10	2.12	2.60	3.33
12	83	0.90	16.3	1.09	2.18	2.72	3.52
13	91	0.18	1.4	0.43	0.75	0.89	1.11
Study Point 1				3.05	5.63	6.37	7.28
11	81	0.94	46.4	0.65	1.36	1.72	2.25
Study Point 2				0.65	1.36	1.72	2.25
Reach 22				3.07	5.80	7.00	9.05
Net Change at Reach 22				**-0.27**	**-2.63**	**-4.06**	**-6.15**

The following analysis describes how the impervious increase of the proposed site and the related increase in peak runoff rates were designed to meet the existing, or lessen the overall peak rates of runoff of the site. Unfortunately, the downstream areas of the site are subject to flooding in relatively small rain events (5-year occurrence, or less). To comply with the analysis prepared for the City of Portland – "The Capisic Brook Greenbelt/Stormwater Abatement Study" by CH2M Hill, we must meet the stormwater quantity requirements to not further aggravate a current problem. The proposed property is not subject to flooding, but the stream adjacent to the northern property line winds through some densely populated neighborhoods and is prone to exceeding its banks and flooding in storms greater than 4.0"/24-hr. Although the report recommends large storage volumes for detention, it concedes no areas large enough in the Holm Avenue/Taft Avenue area are available to have any significant reduction of flooding. We hope to control our proposed site runoff to not further aggravate the area's watershed with the construction of a catch basin/storm drain system and detention pond.

Stormwater runoff modeling suggests that the peak rates of runoff in the developed condition will be the same or less than the pre-developed runoff rate within the ravine where the site's last discharge enters. Due to the compact development, the entire site showed slight increases because of the change of ground cover from woods to lawn and pavement. However, construction of a detention outlet control with the roadway infrastructure allowed the proposed site to drain similar to the manner that the site drains currently. We have either designed the driveways lower than the surrounding grades, or have provided yard drains to promote front yard sheet flow to the streets and installed drainage infrastructure.

The proposed stormwater management system is designed to provide control of the discharge flow rates of runoff. The catch basins will provide for some sediment removal prior to runoff entering the detention pond. Additionally, the detention pond has been designed with a sump of approximately two feet. This sump will allow for additional sediment to settle out of the runoff prior to flowing into the brook. The outlet control structure, as described below, will control the rates of runoff to at or below pre-development rates.

The proposed detention system which was designed to utilize an area above the ravine will use an outlet control structure to store runoff temporarily and meet the pre-development peak flow rates as required. An outlet structure was designed with staged storage outlets consisting of two 4" orifices, one 18" x 6" slot orifice, and a 36" weir to control the site and provide an overflow. The pipes entering and discharging were significantly oversized to pass, if necessary, storm runoff from events such as the 100-year or less probability of occurrence.

In addition to the outlet structure and outlet pipe, an emergency riprap spillway was provided to assure the pond can outlet in the event the outlet is clogged or the storm rainfall is too great to pass all of the water through the control structure. We intend to make no revisions to the existing ravine other than installing a stilling basin located downstream of the outlet structure. Due to the work involved and location of adjacent wetlands, some slopes may be steepened with riprap which will be available from on-site excavation to stabilize constructed slopes and not further impact wetlands.

POND SUMMARY TABLE

	2-Year Peak Discharge	10-Year Peak Discharge	25-Year Peak Discharge	100-Year Peak Discharge
Discharge at Ravine (cfs)	3.02	5.29	5.79	8.36
Peak Elevation at Detention Pond (Ft.) *	56.5	58.1	58.7	59.0
* Emergency Spillway Crest = 58.8 Ft.				

The Stormwater Management Plan for the Holm Place Condominium project will also include an Erosion and Sedimentation Control Plan placing emphasis on the installation of sedimentation barriers and revegetation to minimize erosion potential from development activities during and after construction. The Erosion Control Plan has been placed directly on the design plans to include locations of erosion control provisions (i.e., silt fence, hay bale barriers, riprap aprons, embankment), along with a narrative and construction details for reference by the contractor during construction.

In an effort to emphasize the requirements, a pre-construction meeting will be required as indicated in the erosion control notes between the owner, City and engineer to review critical aspects and sequencing of construction activities. The erosion control measures are to be monitored throughout construction by the contractor, with maintenance and repairs performed on a regular basis as directed by the erosion control plan.

Summary

The preceding stormwater runoff evaluation has been prepared to evaluate pre and post-development conditions of the proposed Holm Place Condominium development project located off Holm Avenue in Portland. The analysis reviewed pre and post-development watersheds and compared peak rates of runoff at common discharge points to assess stormwater infrastructure needs. Based upon the analysis and review of the site, we make the following recommendations:

1. Implementation of a site specific erosion and sedimentation control plan placing emphasis on times of disturbance and, during construction, installation of appropriate erosion control measures and revegetation of the site and project completion. A specific erosion control plan with notation has been placed directly on the subdivision plans along with supporting details. These measures should be followed by the selected contractor throughout project construction.

2. A pre-construction meeting should be held between the owner, contractor and City representative to review scheduling and critical components of the stormwater management and erosion control plan. The contractor should provide the owner and City with a construction schedule outlining the sequence of events.

3. The proposed site should utilize existing tree vegetation on slopes, natural channels, and stabilize all slopes with either riprap or erosion control blankets. This will lessen erosion of disturbed areas from the development activity and lessen the impact on abutters and the environment by providing stabilized soil conditions which will decrease both erosion and sedimentation of the upper reaches of the Capisic Brook Watershed.

The proposed drainage system should not aggravate the existing flooding situations downstream to the Holm Avenue box culvert or associated tributaries. We are currently aware of the drainage and related flooding problems with the culvert or drainage infrastructure downstream. Therefore, we were careful not to discharge more than allowed by the pre-development peak runoff rates.

Prepared by:

SEBAGO TECHNICS, INC.

Jennifer L. Williams
Project Engineer

Shawn M. Frank
Professional Engineer

JLW/SMF:jc
April 17, 2000

From: Anthony Lombardo
To: Kandi Talbot
Date: Mon, Apr 24, 2000 2:39 PM
Subject: Holm Place

Kandi,
I was finally able to review the plans and have no further requests or comments. They appear to be complete.

thereunder, consisting of 8 buildings each which contain two (2) Condominium Units.

(g) "Declarant" means V.P. Builders Inc, its successors and assigns.

(h) "Executive Board" means the body designated in the Bylaws to act on behalf of the Association.

(I) "Limited Common Element" means those portions of the Common Elements allocated by the Declaration and the Act for the exclusive use of one or more but fewer than all of the Condominium Units. Limited Common Elements include the parking spaces as shown on the Plans.

(j) "Special Declarant Rights" means those rights reserved by the Declarant in Section 6 and 7 of this Declaration.

(k) "Unit" means a physical portion of the Condominium described herein and in the Plans designated for separate ownership of occupancy.

(l) "Unit Owner" means the Declarant or other person who owns a Unit.

3. Description of Buildings:

The Plat and Plans show the layout, location, unit numbers and dimensions of Units of the Condominium.

Reference is made to the Plans for the description of the buildings stating the number of stories and the number of units. Wood is the principal material of which said buildings are constructed.

Acceptance of a deed to a Unit shall constitute a waiver of minor discrepancies in the Plat and Plans, if any.

4. Allocation of Common Element Interests and Boundaries:

(a). Percentage Interests: Attached hereto as Schedule B is a list of all units with identifying numbers allocating a percentage of undivided interest in the Common Elements and in the Common Expenses of the Association, and the vote allocated to each unit (which vote shall be identical to the percentage of undivided interest). Each Unit's percentage of allocated interest is determined according to the following formula. Each Unit's percentage of allocated interest is equal to the percentage allocated interest of every other Unit in the Condominium

$$\frac{1}{\text{Total Number of Units in Condominium}}$$

=Percentage of Allocated Interest of Each Unit

(b) Unit Boundaries. The boundaries of each Unit are the walls, floors and ceiling of the Unit and shall include all wallboard, tiles, wallpaper, paint, finished flooring and other materials constituting any part of the finished surfaces thereon. The exterior surfaces of doors, windows, storm windows, and the glass and frames, and thresholds are also Unit Boundaries. All other portions of the walls, floors and ceilings are part of Common Elements.

5. Limited Common Elements

Limited Common Elements shall include those items designated as Limited Common Elements in Section 1602-102 (2) of the Act, the Plat and Plans and Paragraph 2 (i) hereof. Any expense associated with the maintenance, repair or replacement of a Limited Common Element shall be assessed equally against the Unit or Units to which that Limited Common Element is assigned. Any common expense benefiting fewer that all of the Units shall be assessed exclusively against the Unit or Units benefited.

6. Easements.

(a) 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 or in Limited Common elements. Each Unit shall be subject to an easement in favor of all other Unit Owners to use the pipes, ducts, cables, wires, conduits, public utility lines and other Common Elements located in such unit serving other units. The Executive Board of the Association shall have the right to grant to third parties such additional utility easements as shall be deemed reasonable by the Executive Board in connection with the supply of utility services to the units and/or the Common Elements.

(b) Ingress and Egress. Each Owner shall have an easement, subject to any rules and regulations established by the Executive Board, in common with all other Unit Owners to use the entrances, exits and other Common Elements as a means of ingress and egress to and from the Premises, the Common Elements and the adjoining public streets. The Executive Board shall not establish any rule or regulation depriving any Unit Owner of reasonable ingress and egress to and from his unit, the Premises and Common Elements, and the adjoining public streets.

(c) Condominium Association and Executive Board Access. Declarant reserves in favor of itself, the Association and Its Executive Board, officers, agents, employees, and the managing agent (if any) and every other person authorized by the Executive Board the irrevocable right and easement to have access to each unit as may be necessary for the inspection, maintenance, repair or replacement of any of the Common Elements and Limited Common Elements therein or accessible there from or the making of any addition or improvements thereto; or the making or 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 the abating of 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. Until the expiration of the warranty period, if applicable, such entry shall be permitted to perform warranty-related work whether or not the Unit Owner consents or is present at the time. The Declarant, during the period of Declarant Control, the Association and its Executive Board shall have the right to grant permits, licenses, and easements over and through the Common Elements for utilities, and other purposes reasonably necessary or useful for the proper maintenance and operation of the Condominium.

(d) Declarant's Easement for Marketing. The Declarant reserves the right with respect to its marketing of Units to use the Common Elements and Limited Common Elements for the ingress and egress of itself, it's officers, employees, agents, contractors and subcontractors

and for prospective purchasers of Units, including the right of such prospective purchasers to park in parking spaces. The Declarant reserves the right to maintain on the Premises advertising signs which may be placed in any location.

(e) Declarant's Easement for Construction. The Declarant reserves the easement, right and privilege to go upon any and all of the Premises for purposes of construction, reconstruction, maintenance, repair, renovation, replacement or correction of the Units, Common Elements or Limited Common Elements. Furthermore, the Declarant reserves an easement in the Units, Common Elements and Limited Common Elements for the purpose of discharging Declarant's obligations and exercising the Special Declarant Rights reserved pursuant to this Declaration. These easements shall continue until the Declarant has conveyed all Units in the Condominium.

(f) Encroachments: Each Unit shall have an easement to the extent necessary for structural support over every other Unit, Common Elements and Limited Common Elements, and each Unit, Common Elements and Limited 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 encroaches upon any Unit, of 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 the buildings or other 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, 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 a building is partially destroyed as a result of fire or other casualty, there shall exist, if and when that building is rebuilt, easements over portions of the Common Elements, Limited Common Elements, or upon any other unit, such easements as are reasonably necessary in order to rebuild said damaged unit.

(g) Declarant's Right to Connect with Utilities. The Declarant reserves an easement to connect with and make use of utility lines, wires, pipes and conduits located on the Premises for construction purposes on the Premises, provided that Declarant shall be responsible for the cost of service so used, and to use the Common Elements and Limited Common Elements for ingress and egress and construction activities and for the storage of construction materials and equipment used in the completion of the Units and Common Elements. This easement shall continue until the Declarant has conveyed to the Purchasers all Units in the Condominium.

(h) Common Element Easement in Favor of Unit Owners. All Common Elements and Limited Common Elements shall be and are hereby made subject to the following easements in favor of the Units benefited; provided that the installation, repair, maintenance, use, removal or replacement of any such item does not unreasonably interfere with the 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:

(i) For the installation, repair, maintenance, use removal and/or replacement of pipes, ducts, heating 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

(ii) 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 any Common Elements adjacent to such Unit.

(iii) For driving and removing nails, screws, bolts and other attachment devices into the unit-side surface of the studs, which support the dry wall perimeter walls bounding the Unit, the bottom surface of floor joists above the unit and the top surface of the floor joist below the Unit to the extent such nails, screws, bolts and other attachment devices may encroach into a part of any Common Elements adjacent to such Unit.

7. Special Declarant's Rights – Declarant Control

(a) In addition to those rights and easements reserved or created by Section 6 hereof for the benefit of the Declarant, which shall be deemed to be Special Declarant Rights, the Declarant reserves the right to appoint and remove members of the Executive Board and Officers of the Association for sixty (60) days after the sale of Seventy Five percent (75) of the total number of Units. This right shall, in any event, expire three (3) years after the first conveyance of a Unit.

(b) Subject to the provisions of the Act, this Declaration and the Bylaws, the Executive Board shall have the power to act on behalf of the Association. The initial Executive Board shall consist of three (3) persons to be appointed by Declarant. The members so appointed may be removed and replaced by the Declarant at the Declarant's discretion.

No later than the earlier of (i) sixty (60) days after the conveyance of seventy five percent (75%) of the Units, or (ii) three (3) years from the date the first Unit is sold, the Unit Owners shall elect an Executive Board consisting of four (4) members.

The Unit Owners on the Executive Board shall serve until the first regular election of the Executive Board, which election shall be held at the first regular meeting of the Association in accordance with the bylaws.

(c.) This Section 7 shall not be amended without the written consent of the Declarant. The benefits of Section 7 and all other Special Declarant Rights set forth in this Declaration, the bylaws as amended from time to time, may be transferred by a recorded instrument specifically referring to this Section and executed by Declarant and its successor or assignee.

8. Amendment and Termination.

(a) This Declaration may be amended only in accordance with procedures specified in Section 1602-117 of the Act and of this Declaration. No amendment may increase the number of units or change the boundaries of any Unit, the Allocated Interest allocated to a Unit, or the uses to which any Unit is restricted without the consent of one hundred percent (100%) of the votes of the Association and the consent of Eligible Mortgage Holders (as hereinafter defined) of mortgages on Units to which at least fifty-one percent (51%) of the votes in the Association are allocated. Amendments of a material nature must be agreed to by unit owners representing at least 75% of the total allocated votes in the owners' association. In addition, approval must be obtained from eligible mortgage holders representing at least 51% of the votes of unit estates that are subject to mortgages held by

eligible holders. A change to any of the following would be considered as material voting rights; assessments, assessment lien's, or subordination of assessment lien's; reserves for maintenance, repair and replacement of common areas; responsibility for maintenance and repairs; reallocation of interest in the general or limited common areas, or rights to their use; boundaries of any unit; convertibility of units into common areas or vice versa; expansion or contraction of the project, or the addition, annexation or withdrawal of property to or from the project; insurance or fidelity bonds; leasing of units; imposition of any restrictions on a unit owner's right to sell or transfer his or her unit; a decision by the owner's association to establish self management when professional management had been required previously by an eligible mortgage holder; restoration or repair of the project (after a hazard damage or partial condemnation) in a manner other than that specified in the documents; any action to terminate the legal status of the project after substantial destruction or condemnation occurs; or any provisions that expressly benefit mortgage holders, insurers or guarantors. 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

(b) The Condominium shall not be terminated except by agreement of Unit Owners of Units to which seventy five percent (75%) of the votes in the Association are allocated and of Eligible mortgage Holders holding Mortgages on Units to which at lease seventy five percent (75%) of the votes in the Association are allocated and as otherwise provided in Section 1602-118 of the Act.

9. Use and Occupancy of Units and Common Elements – Restrictions Thereof.

The occupancy and use of the Condominium shall be subject to the following restrictions:

(a) The Condominium shall be restricted to residential uses.

(b) None of the Condominium Units shall be further subdivided.

(c) No Unit Owner nor a lessee of any Unit Owner: (i) shall permit or suffer anything to be done or kept upon the property which will increase the rate of insurance on the property or on the contents, thereof; (ii) shall obstruct or interfere with the rights of other occupants or annoy them by unreasonable noises or otherwise; (iii) shall commit or permit any nuisance or commit or suffer any immoral or illegal act to be committed anywhere in or upon the property; and/or (iv) shall cause or permit any noxious odors to emanate from any portion of the Premises.

(d) A Unit Owner may lease his Unit at any time and from time to time; provided that the Lease is in writing and is for a term of not less than six (6) months. A copy of each lease shall be furnished to the Executive Board upon request. The rights of any lessee of the Unit shall be subject to, and each such lessee shall be bound by, the covenants, conditions and restrictions set forth in the Declaration, Bylaws and Rules and Regulations, and a default thereunder shall constitute a default under the lease. The Unit Owner shall provide any lessee with a copy of the Rules and Regulations of the Condominium. The foregoing shall not impose any direct liability on any lessee of a Unit to pay and Common Expense assessments on behalf of the Unit Owner unless so provided for in said lease.

(e) The Association shall be responsible for providing the following services, the expenditures for which shall be a Common Expense:

(i) Removal of snow from the Premises

(ii) Maintenance and repair of all lawns, exteriors of all buildings, and the roadway and parking areas. Maintenance of storm drainage system and piping located on premises.

(iii) Maintenance and repair of all sewer and utility lines.

(iv)Curbside Trash Pickup

(v)Street lighting

(f) Reasonable rules and regulations, not in conflict with the provisions of this Declaration and the Bylaws of the Association, concerning the use and enjoyment of the Premises, may be promulgated from time to time by the Executive Board. Copies of the then current rules and regulations and any amendments thereto shall be furnished to all Unit owners by the Executive Board promptly after the adoption of such rules and regulations or any amendments thereto.

10. Budget; Common Expenses; Assessments and Enforcement

a. Budget Ratification Vote: The Executive Board shall propose a budget for the Condominium, which budget shall be submitted to the Association for ratification. At the budget ratification meeting of Unit Owners, unless fifty-one percent (51%) of the votes in the Association reject the budget, it shall be adopted.

(b) Monthly Payments: All Common Expense assessments made in order to meet the requirements of the Association's annual budget shall be deemed to be adopted and assessed on a monthly basis (rather than on an annual basis payable in monthly installments) and shall be due and payable in advance on the first day of each month, the first such assessment to be made for the first month of the first fiscal year as determined by the Executive Board of the Association under Article V of the Bylaws. The first regular assessment shall be made no later than sixty (60) days after the sale of the First Unit to a purchaser. Special assessments shall be due and payable in one or more monthly payments, in advance, on the first day of each month, as determined by the Executive Board.

All unpaid assessments shall constitute a lien on the Unit against which such assessment is made. Payments for assessments which are more than ten (10) days late shall, at the option of the Association, accrue interest at a rate established by the Association.

(c) Subordination of Certain Charges: Any fees, charges, late charges, fines and interest which may be levied by the Executive Board pursuant to Article 3 of the Act, shall be subordinate to the lien of a first mortgage recorded before or after the date on which the assessment sought to be enforced becomes delinquent.

(d) Surplus: Any surplus funds of the Association remaining after payment of, or provision for, Common Expenses including provisions for a working capital fund

and/or reserve fund shall be held by the Association and shall be credited to the Unit Owners on a pro rata basis to reduce their future common expense assessments.

(e) Limited Common Expenses: Limited Common Expenses are those Common Expenses associated with the maintenance, repair or replacement of a Limited Common Element and shall be assessed against the Unit or Units to which that Limited Common Element has been assigned. Any Common Expense benefiting fewer that all of the units shall be assessed exclusively against the Units benefited as a Limited Common Expense.

(f) Working Capital Fund: Prior to the conveyance of the first Unit to a Purchaser, the Declarant shall establish a working capital fund equal to the estimated Common Expense charges for two months' operation of the Condominium. Upon the sale of each Unit, the Buyer shall pay into said fund an amount based on that Unit's pro rata share of the fund. Said amount shall be transferred to the Association for deposit into a segregated fund. Within sixty (60) days after the closing of the sale of the first Unit, Declarant shall pay to the Association its pro rata share of the working capital fund for any unsold units of the Condominium. Said fund shall remain in existence until the Association determines that it has established an adequate reserve fund from regular monthly assessments of Unit Owners. Upon establishment of such adequate reserves, any funds then held in the working capital fund shall be returned to the person or persons who contributed such funds.

11. Rights of Eligible Mortgagees:

(a) An "Eligible Mortgage Holder" means the holder of a recorded first mortgage on a Unit which has delivered written notice to the Association by prepaid United States mail, return receipt requested, or by delivery in hand securing a receipt therefore, which notice shall state the mortgagee's name and address, the Unit Owner's name and address, and the identifying number of the Unit, and shall state that the mortgage is a recorded first mortgage.

(b) The Association shall send reasonable prior written notice by prepaid United States mail to Eligible Mortgage Holders as hereinafter defined of the consideration by the Association of the following circumstances or proposed actions:

(i)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;

(ii) Any delinquency in the payment of assessments for Common Expenses or any other charges owed by an Owner of that unit, or any other default in the performance or payment by such Unit Owner of any obligation under this Declaration, the Bylaws or any Rules and Regulations of the Association, which delinquency or other default continues for a period of sixty (60) days;

(iii) Any lapse, cancellation or material modification of any insurance policy or fidelity bond maintained by the Association.

(iv)The proposed use of any proceeds of property insurance required to be obtained and maintained by the Association pursuant to the Bylaws for purposes other than repair, replacement and restoration of the property substantially in accordance with this Declaration, the Bylaws, the Plat and Plans and the original elevations thereof, and original building plans and specifications.

(v) The adoption by the Executive Board of any proposed budget, and the date of the meeting of unit owners scheduled to consider ratification of such proposed budget, and a summary of such proposed budget(s):

(vi) Any proposed action which would require the consent of a specified percentage of Eligible Mortgage Holders.

(vii) The termination of the Condominium.

(viii) A change in the Allocated Interests appurtenant to any unit, except for such changes created by the Declarant as a consequence of the exercise of any Development Rights reserved in this Declaration by the Declarant.

(ix) The merger or consolidation of the condominium with another Condominium.

(x) The conveyance or subjection to a security interest of any portion of the Common Elements.

(c.) In the event of any proposed actions described in this Section 11, subsection (b), paragraphs (iv) (vii), (viii), (ix), or (x), any Eligible Mortgage Holder shall have the right but not the obligation in the place of the unit Owner to cast the votes allocated to that Unit or give or withhold any consent required of the 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 certified or registered prepaid United States mail, return receipt requested, or by delivery in hand. Failure of the Eligible Mortgage Holder to so exercise such rights within thirty (30) days from receipt of any such notice shall constitute a waiver thereof and shall not preclude the Unit Owner from exercising such right. In the event of any default described in Section 11(b) (ii) above, the Eligible Mortgage Holder shall have the right but not the obligation to cure such default. In addition, an Eligible Mortgage Holder, or its representative, shall have the right to attend Association and Executive Board meetings for the purposes of discussing the matters described in Paragraph 11(b), (iv), (v) and (vii) through (x).

Failure to comply with the requirements set forth above shall in no way invalidate otherwise proper actions of the Association and the Executive Board.

12. Limitation of Liability:

(a) Limited Liability of the Executive Board: The members of the Executive Board:

(i) Shall not be liable for any injury or damage to persons or property caused by the natural elements or by another Unit Owner or person on the Premises, or resulting from electricity, gas, water, rain, dust or sand which may leak or flow from

the outside or from any part of the Units, or from any of its pipes, drains, conduits, appliances, or equipment, or from any other place unless in each such instance such injury or damage has been caused by the Executive Board Members' willful misconduct or gross negligence;

(ii) 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, negligent or otherwise, except for the Executive Board members' own willful misconduct or gross negligence;

(iii) 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;

(iv) Shall not be liable to a Unit Owner, or such Unit Owner's tenants, employees, agents, customers 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, customers 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;

(v) 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

(vi) 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.

(b) 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 expense and liabilities, including attorneys' 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, in the event of a settlement, this indemnification shall apply only if and when the Executive Board (with the affected member abstaining if he is then an Executive Board member) approves such settlement and reimbursement as being in the best interest of the Association; and provided further that, indemnification hereunder 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 Section 12 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 members and/or officer may be entitled as a matter of law or agreement or by vote of the Unit Owners or otherwise.

(c.) Defense 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 holders of any mortgages on Units and such complaints shall be defended by the Association. The Unit Owners and the holders of mortgages on Units shall have no right to participate in such defense other than through the Association.

(d) Insurance: The Executive Board shall obtain insurance to satisfy the indemnification obligations of the Association and all Unit Owners set forth in Paragraph 12(b) above, to the extend such insurance is available.

13. Notice: Notice of matters affecting the Condominium shall be given to Unit owners by the Association in the following manner: all notices shall be in writing and shall be deemed to have been given if delivered personally or send by United States mail, postage prepaid; or if notification is of a default or lien, then by registered or certified mail, return receipt requested, postage prepaid, to a Unit Owner at the address which the Unit Owner shall designate in writing and file with the Secretary of the Association or if no address is designated, at the address of the unit. If a Unit is owned by more than one person, each such person who so designates an address in writing to the Secretary shall be entitled to receive all notices hereunder.

14. Insurance Coverage: The Association's Executive Board shall obtain and maintain insurance for the benefit and protection of the Association and, to a certain limited extent, the Unit Owners as individuals. In general, types and amounts or insurance to be obtained by the Association are described as follows: fire insurance covering the buildings, but excluding the personal property of Unit Owners and improvements within a Unit made by owners thereof; "All Risk Insurance", so called; workmen's compensation insurance; public liability insurance at least covering each Unit Owner with limits of not less than a combined single limit of $1,000,000 for claims for bodily injury or property damage arising out of one occurrence; such other insurance as the Executive Board may, from time to time in its discretion determine, including coverage for other casualties, hazards or risks such as vandalism, malicious mischief, windstorm and water damage. More specific details on this insurance are set forth in the Bylaws of the Association.

The Association will obtain insurance covering liability arising from ownership or use of the Common Elements. This coverage will not insure Unit Owners against liability arising from an accident or injury occurring within a Unit or liability arising from the act or negligence of a Unit Owner.

The Executive Board will also maintain appropriate insurance required by mortgage lenders.

15. Eminent Domain: If 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 and the portion of the award attributable to the Common Elements taken shall be paid to the Association for the use and benefit of the Unit owners and the Mortgagees as their interest may appear. The Association shall divide any portion of the award not used for any restoration or repair of the remaining Common Elements among the Unit Owners and their Mortgagees, as their interest may appear, in proportion to their Allocated Interest 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 interest may appear. Each Unit Owner appoints the Association as attorney-in-fact for the purposes described in this Section. Notwithstanding anything to the contrary in this Section 15, 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.

IN WITNESS WHEREOF, the said V.P. Builders Inc. by Clifford A. Plummer, its President thereunto duly authorized has caused this Declaration of Condominium to be signed, sealed and witnessed on this __th of _____ 2001

By:_____
It's President

STATE OF MAINE
CUMBERLAND, SS _____

Personally appeared the above named Clifford A. Plummer and acknowledged the foregoing instrument to be his free at and deed in his said capacity and the free act and deed of said Corporation.

Before me,

_____
Notary Public
Attorney at Law

TO: Inspections

FROM: Jay Reynolds, Development Review Coordinator

DATE: September 23, 2002

RE: C. of O.'s for Unit 15 and 16, Celebration Court/Holm Ave. PRUD
Lead CBL (270-C-003); Id# (1999-0151)

Pertaining to Unit 15 (#28-30 Celebration Court) and Unit 16 (#32-34 Celebration Court), I have the following comments:

Incomplete site work shall be finished prior to issuance of the last certificate of occupancy.

1. Loam and Seed Incomplete.
2. Landscaping Incomplete.

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\holmcondos1.doc

TO: Inspections

FROM: Jay Reynolds, Development Review Coordinator J.R.

DATE: January 9, 2003

RE: C. of O. for #40 Celebration Court, Holm Ave. Condo's-Unit 8
Lead CBL (270-C-003) ID# (1999-0151)

After visiting #40 Celebration Court, I have the following comments:

1. Incomplete site work to be finished as part of the PRUD site development.

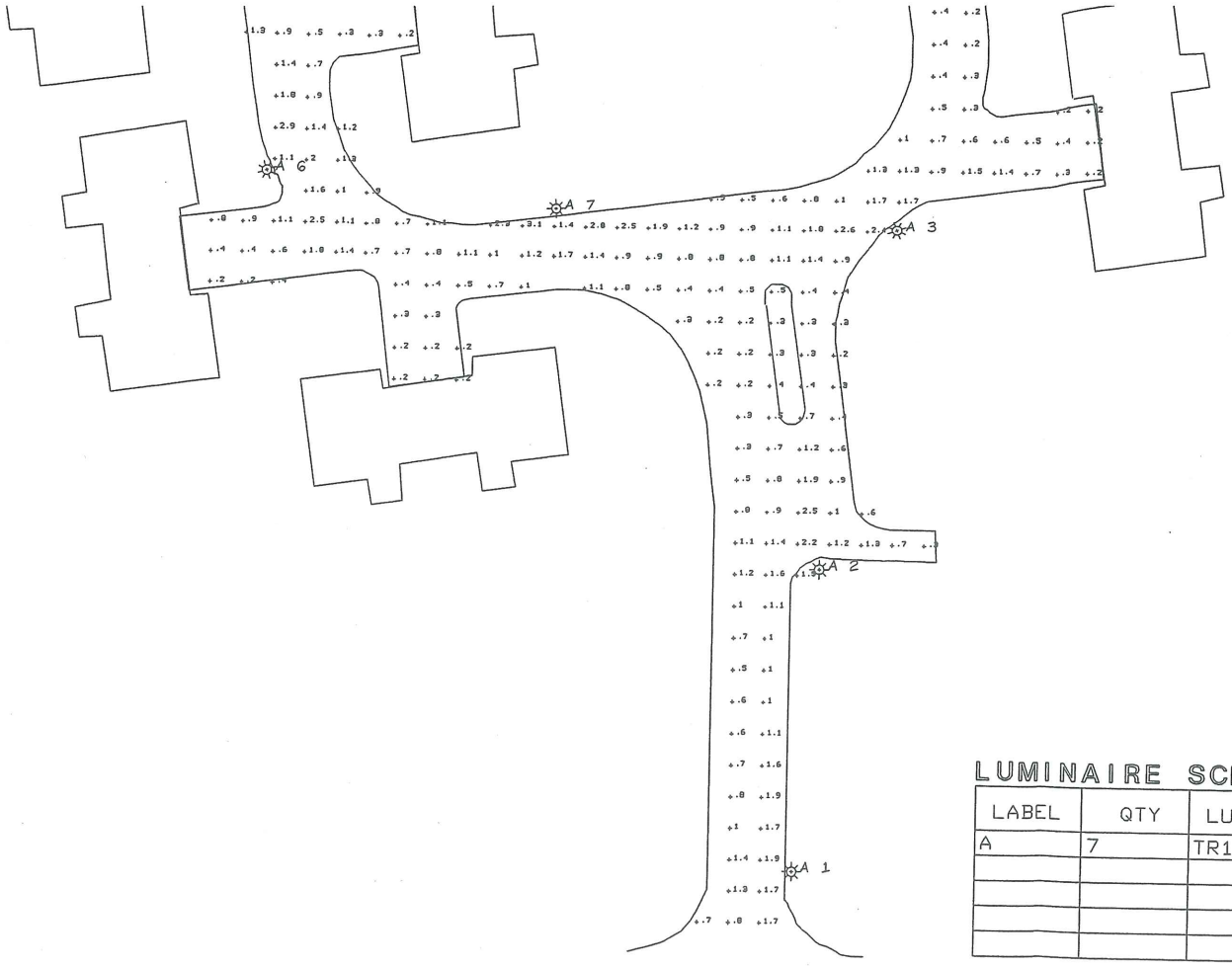
At this time, **I recommend issuing a Permanent Certificate of Occupancy.**

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\holmcondos2.doc

AH.9



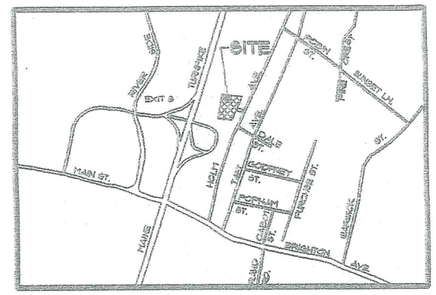
LUMINAIRE SCHEDU

LABEL	QTY	LUMINAI
A	7	TR12341-

Att. 10

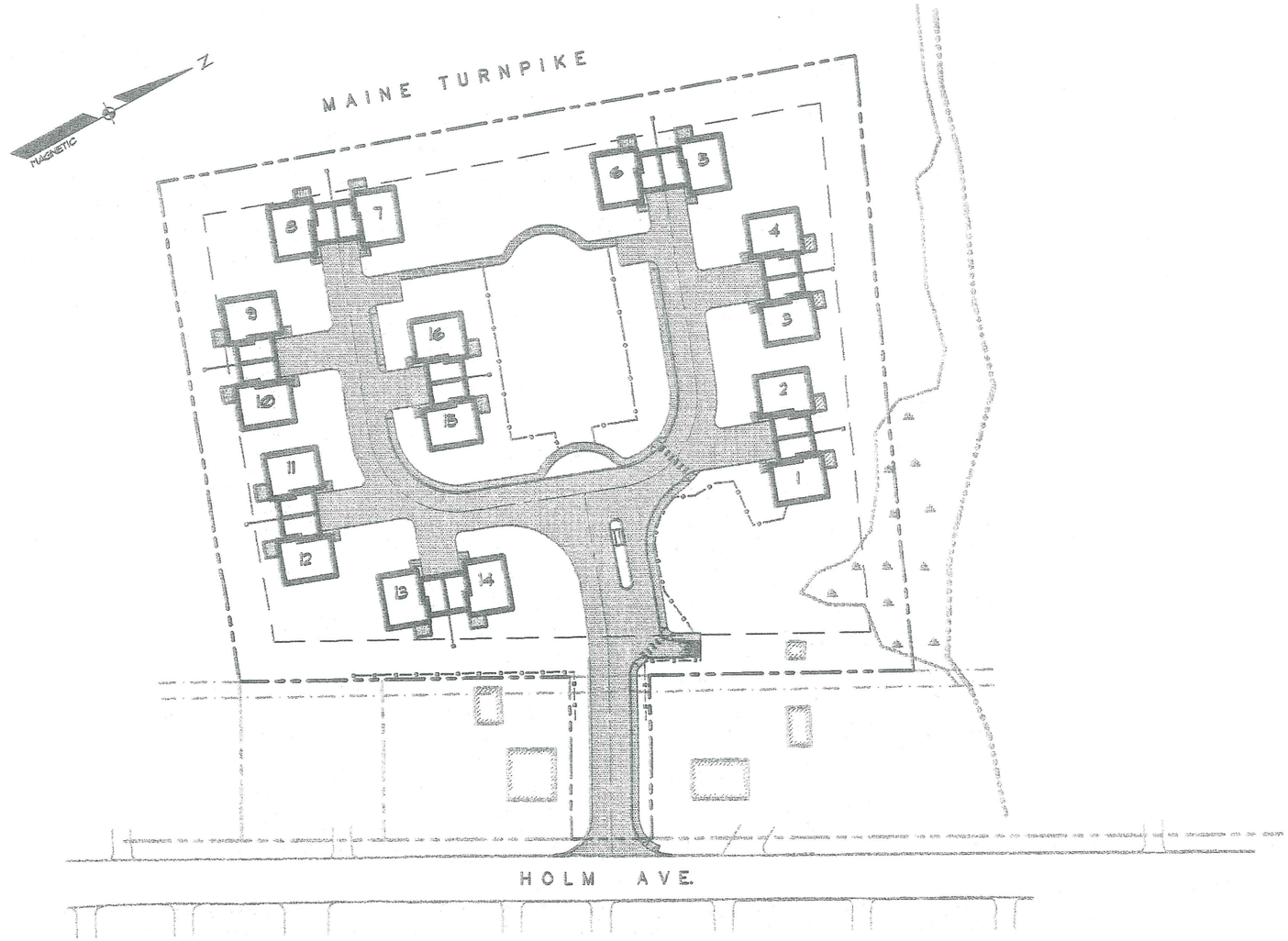
HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE



LOCATION MAP

N.T.S.



SHEET INDEX:

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUBDIVISION/RECORDING PLAT
3	SITE PLAN
4	PLAN AND PROFILE: DRIVEWAY 1 (STA. -0+11.06 TO STA. 4+88.75) DRIVEWAY 2 (STA. 0+00 TO STA. 2+86.28)
5	UTILITY PLAN
6	LANDSCAPE AND LIGHTING PLAN
7	DETAILS
8	DETAILS

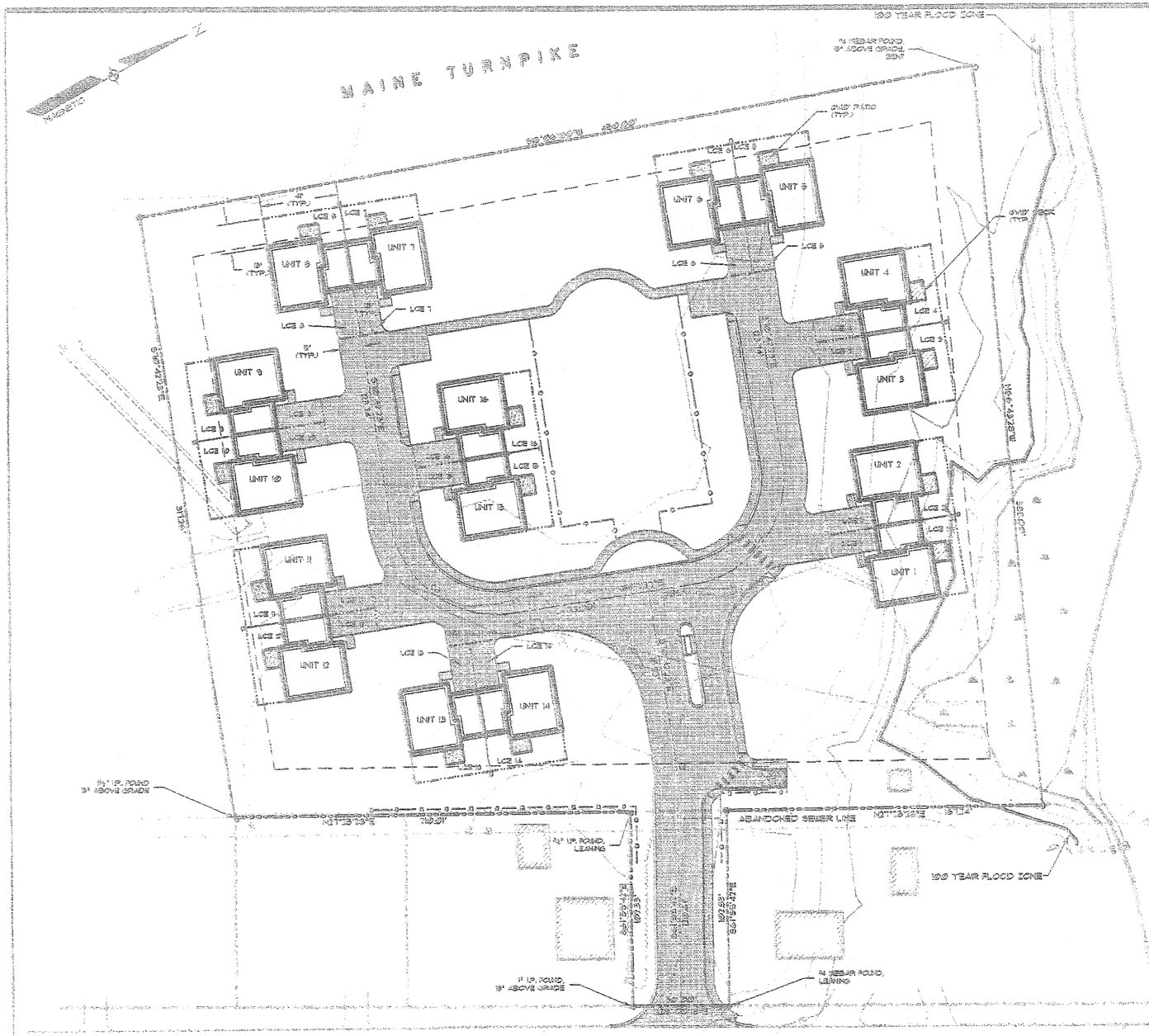
OWNER/APPLICANT:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

ENGINEER/SURVEYOR:

SEBAGO TECHNICS, INC.
ONE CHABOT STREET
WESTBROOK, MAINE 04098-1339

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277



GRAPHIC SCALE

0 5 15 30 60

(IN FEET)

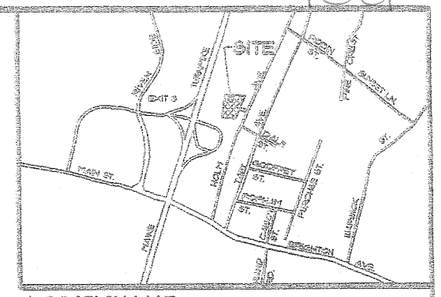
1 inch = 30 ft.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	EASEMENT	
	CENTERLINE	
	MONUMENT	
	IRON PIPE/ROD	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	SIGN	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
	CONTOURS	
	GAS	
	WATER	
	SEWER	
	STORM DRAIN	
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
	MANHOLE	
	STOCKADE FENCE	

CENTERLINE CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
C1	30.41'	1000.00'	1°44'31"
C2	89.54'	57.00'	90°00'00"
C3	89.54'	57.00'	90°00'00"



LOCATION MAP N.T.S.

GENERAL NOTES

1. THE RECORD OWNER OF THE PROPERTY IS PETER AND SUZANNE MARTELLE BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN DEED BOOK 11200 PAGE 299 AND BOOK 9050 PAGE 108.

2. THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND TAX ASSESSORS MAP 7 STD BLOCK C LOT 3.

3. PLAN REFERENCES:
   A. PLAN OF LAND OF MAINE TURNPIKE AUTHORITY TO PETER P. & SUZANNE G. MARTELLE BY D. O. HARRIMAN, DATED JANUARY 1956.
   B. UNTITLED PLAN OF SUBDIVISION RECORDED IN THE CCRD ON JULY 12, 1912, IN PLAN BOOK 12 PAGE 23.
   C. PLAN OF MAINE TURNPIKE AUTHORITY, SECTION 2, SUPPLEMENTAL SHEET # 17, DATED JANUARY 1959.
   D. PLAN OF THE PORTLAND SEWER SYSTEM INFILTRATION-INFLOW ANALYSIS SYSTEM BASED MAPPING, FOR THE PORTLAND WATER DISTRICT, BY HUNTER-BALLEW ASSOCIATES, DATED 1981, DRAWING # 11-16, ON FILE AT PORTLAND'S ENGINEERING OFFICE.
   E. MAINE TURNPIKE AUTHORITY SECTION 2, BY HOWARD, NEEDLES, TAMMEN, AND BERGENDOFF, SHEET 9 OF 9, DATED SEPTEMBER 3, 1953 AND LAST REVISED IN NOVEMBER OF 1953.
   F. MAINE TURNPIKE AUTHORITY SECTION 2, BY HOWARD, NEEDLES, TAMMEN, AND BERGENDOFF, SUPPLEMENTAL SHEET # 19, DATED MARCH 1955, AND LAST REVISED IN AUGUST OF 1962.

4. THE TOTAL AREA OF THE PROPERTY IS APPROXIMATELY 3.63 ACRES.

5. NET RESIDENTIAL AREA CALCULATIONS:

TOTAL AREA	99,196 SF.
- 25% SLOPES	7,299 SF.
- STORMWATER AREA	4,194 SF.
- WETLAND AREA	3,869 SF.
REMAINDER	143,411 SF.
- 30 %	39,423 SF.
NET RESIDENTIAL AREA	114,788 SF.

   ALLOWABLE DENSITY = 1 UNIT PER 6,500 SF. = 17.65 UNITS

6. THE PROPERTY IS LOCATED IN THE CITY OF PORTLAND R3 RESIDENTIAL DISTRICT.

7. THE SPACE AND BULK STANDARDS FOR THE R3 DISTRICT ARE AS FOLLOWS:
   MINIMUM LOT AREA: 6,500 SF
   MINIMUM LOT AREA PER DWELLING UNIT: 25 FEET
   MINIMUM SIDE/REAR SETBACK (PRIN.): 25 FEET
   MAXIMUM BUILDING HEIGHT: 35 FEET

8. BUILDING SUMMARY:
   EIGHT TWO UNIT BUILDINGS. ALL BUILDINGS SHALL BE FULLY SPRINKLED.

9. MINIMUM RECREATION AREA REQUIRED IS 6,500 SF. (9,200 SF. PROPOSED.)

10. MAXIMUM LOT COVERAGE:
    99,196 SF (3.63 AC) X 25 = 39,750 SF ALLOWED
    16 UNITS X 1252 SF = 20,032 SF PROPOSED

11. BUILDING UNITS TO BE SERVED BY PUBLIC WATER, PUBLIC SEWER, PUBLIC GAS AND UNDERGROUND ELECTRIC, TELEPHONE AND CABLE.

12. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PORTLAND "TECHNICAL DESIGN STANDARDS AND GUIDELINES" ADOPTED SEPTEMBER 1997 AND AMENDED THROUGH JULY 1994.

13. THE 100 YEAR FLOOD ZONE SHOWN HEREON IS ZONE AE AS DESIGNATED ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL # 230051-0006-B, REVISED ON DECEMBER 8, 1988.

REV.	BY:	DATE:	STATUS:
4	MME	3-29-00	PLANNING BOARD RE-SUBMISSION

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.

APPROVAL
CITY OF PORTLAND
PLANNING BOARD

DATE

SUBDIVISION

STATE OF MAINE
COUNTY SS REGISTRY OF DEEDS
RECEIVED 19
AT M. AND RECORDED IN
PLAN BOOK PAGE
ATTEST REGISTER

SUBDIVISION/RECORDING PLAT

OF:

HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE

FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

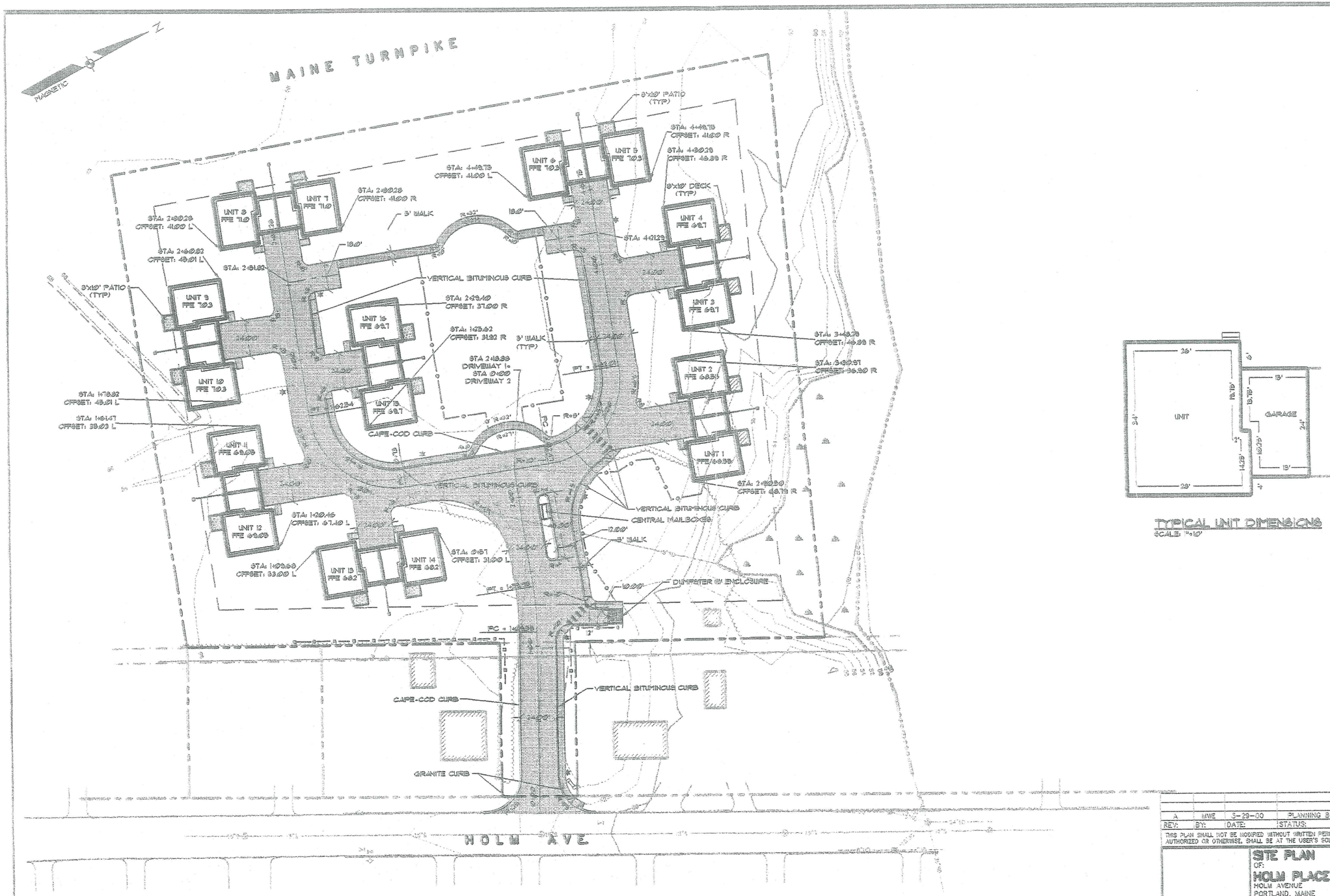
RECORD OWNER:
PETER & SUZANNE MARTELLE
9 POE STREET
PORTLAND, MAINE 04102

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339
Tel (207) 856-0277

DESIGN BY:	RS/MME
DRAWN BY:	MAL
CHECKED BY:	MME
DATE:	1-18-00
SCALE:	1" = 30'
FIELD BK:	1483
PROJ. NO:	99103
DRAWING:	99103SB

SHEET 2 OF 3

10b



TYPICAL UNIT DIMENSIONS
SCALE: 1"=10'

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

REV:	BY:	DATE:	STATUS:
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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SITE PLAN

OF:

HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE

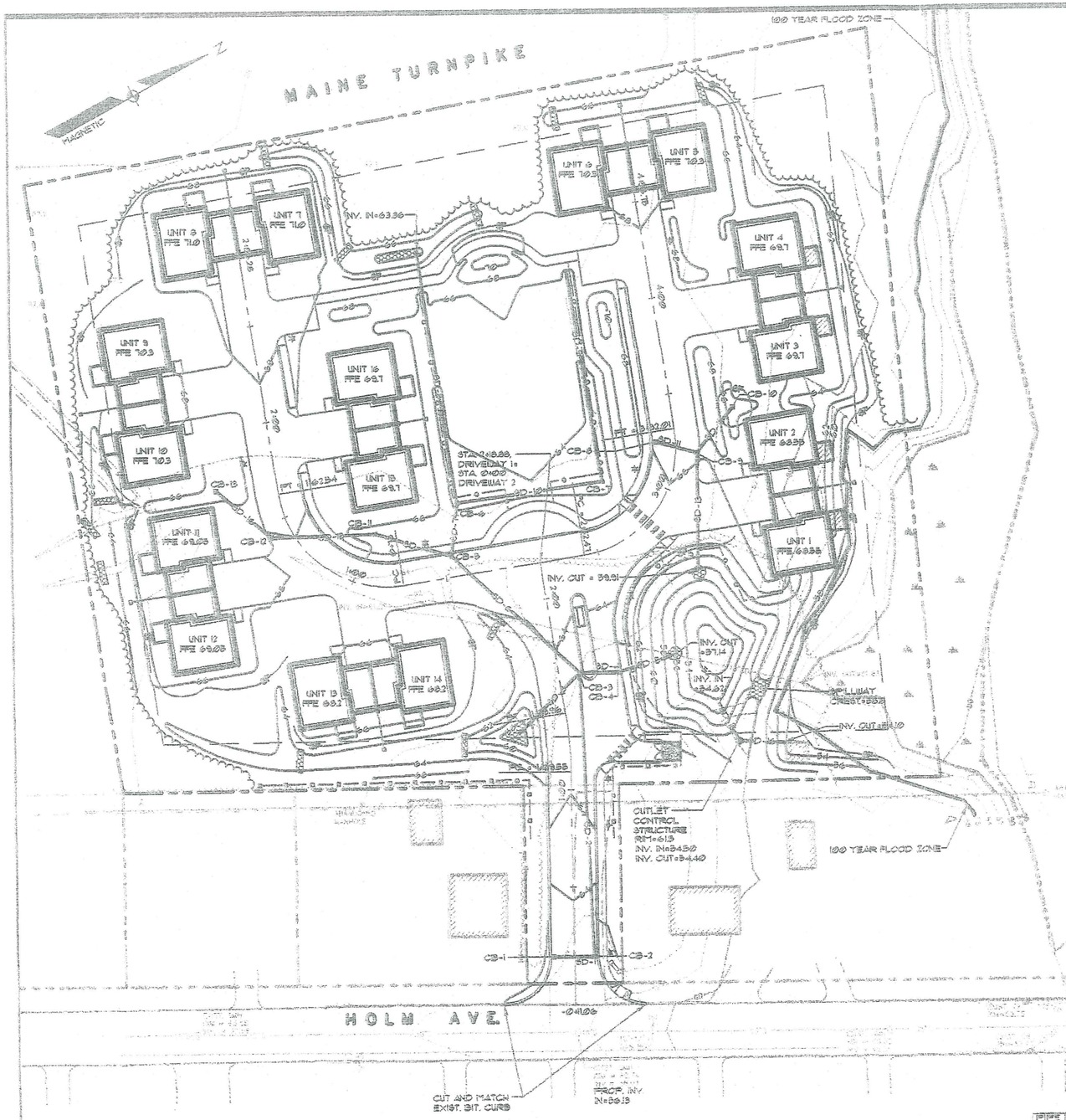
FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

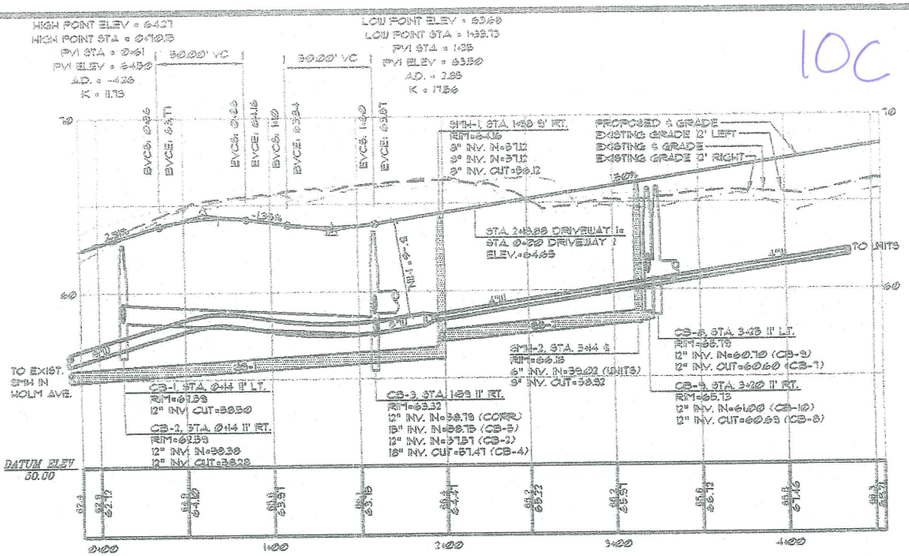
DESIGN BY:	JLW
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	383
PROJ. NO:	99103
DRAWING:	99103S
SHEET 3 OF 8	

10C

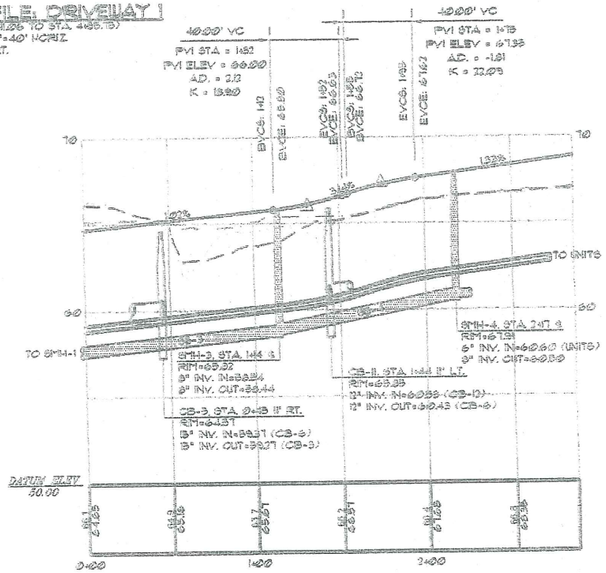


GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.



PROFILE: DRIVEWAY 1
(STA. -0+11.06 TO STA. 4+56.75)
SCALE: 1"=40' HORIZ
1"=4' VERT.



PROFILE: DRIVEWAY 2
(STA. 0+00 TO STA. 2+86.28)
SCALE: 1"=40' HORIZ
1"=4' VERT.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	CENTERLINE	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
124	CONTOURS	124
	WATER	
	SEWER	
	STORM DRAIN	12" SD
	UNDERGROUND ELEC. & TEL.	
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
	MANHOLE	
	CULVERT	12" CD
	SPLIT RAIL FENCE	
	STOCKADE FENCE	
SF	SILT FENCE	SF

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN.)	LENGTH (FT.)	SLOPE
SD-1	6	7	0.000
SD-2	6	142	0.007
SD-3	6	42	0.005
SD-4	6	16	0.005
SD-5	6	78	0.005
SD-6	6	86	0.006
SD-7	6	13	0.01
SD-8	12 (PERF.)	150	0.032
SD-9	12 (PERF.)	105	0.01
SD-10	12 (PERF.)	8	0.005
SD-11	6	18	0.005
SD-12	6	71	0.007
SD-13	6	240	0.01
SD-14	6	38	0.01
SD-15	6	50	0.01
SD-16	6	35	0.01
SD-17	24	14	0.025
SD-18	24	120	0.015

STORM DRAIN SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	61.5	--	58.5
CB-2	61.5	58.39	58.28
CB-3	63.32	58.19	57.47
		58.75	
		57.51	
CB-4	63.32	57.28	57.28
CB-5	64.51	58.55	58.21
		58.21	
CB-6	63.4	59.10	59.0
		59.10	
CB-7	63.4	60.16	60.06
CB-8	63.75	----	60.1
CB-9	63.75	61.0	60.51
		60.61	
CB-10	63.6	--	61.3
CB-11	65.75	60.83	59.93
CB-12	65.69	60.93	60.43
CB-13	65.5		60.88

REV:	BY:	DATE:	STATUS:
4	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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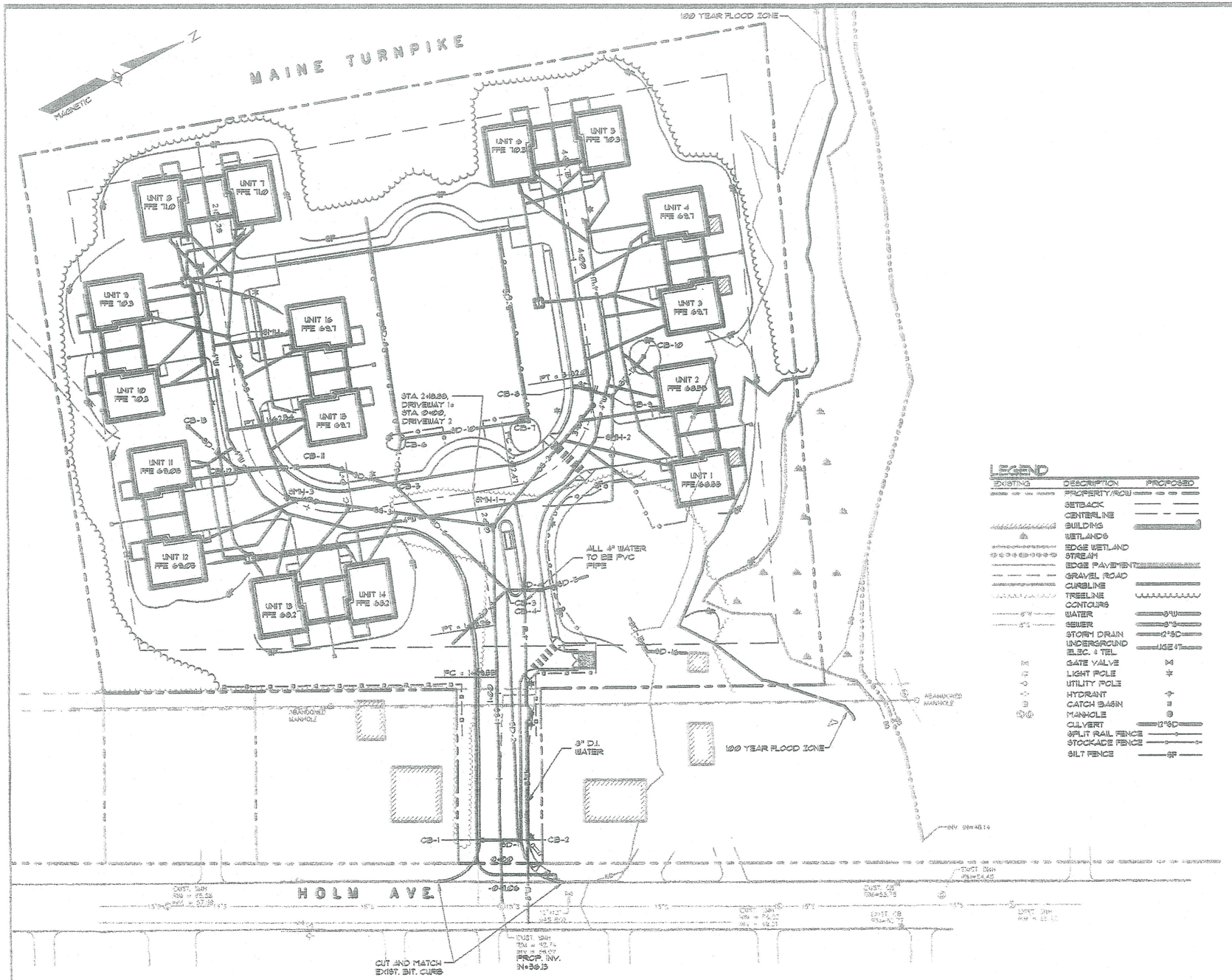
PLAN AND PROFILE: DRIVEWAY 1 (STA. -0+11.06 TO STA. 4+56.75)
OF: DRIVEWAY 2 (STA. 0+00 TO STA. 2+86.28)
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1338
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	983
PROJ. NO:	99103
DRAWING:	99103P

10d



LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	CENTERLINE	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
	CONTOURS	
8"W	WATER	8"W
8"S	SEWER	8"S
	STORM DRAIN	12"SD
	UNDERGROUND ELEC. & TEL.	UGE & T
GV	GATE VALVE	GV
LP	LIGHT POLE	LP
UP	UTILITY POLE	UP
HY	HYDRANT	HY
CB	CATCH BASIN	CB
MH	MANHOLE	MH
	CULVERT	12"CD
	SPLIT RAIL FENCE	
	STOCKADE FENCE	
	SILT FENCE	SF

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

SANITARY SEWER SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
SMH-1	64.18	51.12 51.12	51.12
SMH-2	66.18	--	53.12
SMH-3	65.82	53.54	53.44
SMH-4	67.31	--	59.15

PIPE NO.	SIZE (IN)	LENGTH (FT)	SLOPE
SS-1	8	110	0.006
SS-2	8	80	0.01
SS-3	8	72	0.01
SS-4	8	98	0.02

REV:	BY:	DATE:	STATUS:
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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UTILITY PLAN

OF:

HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE

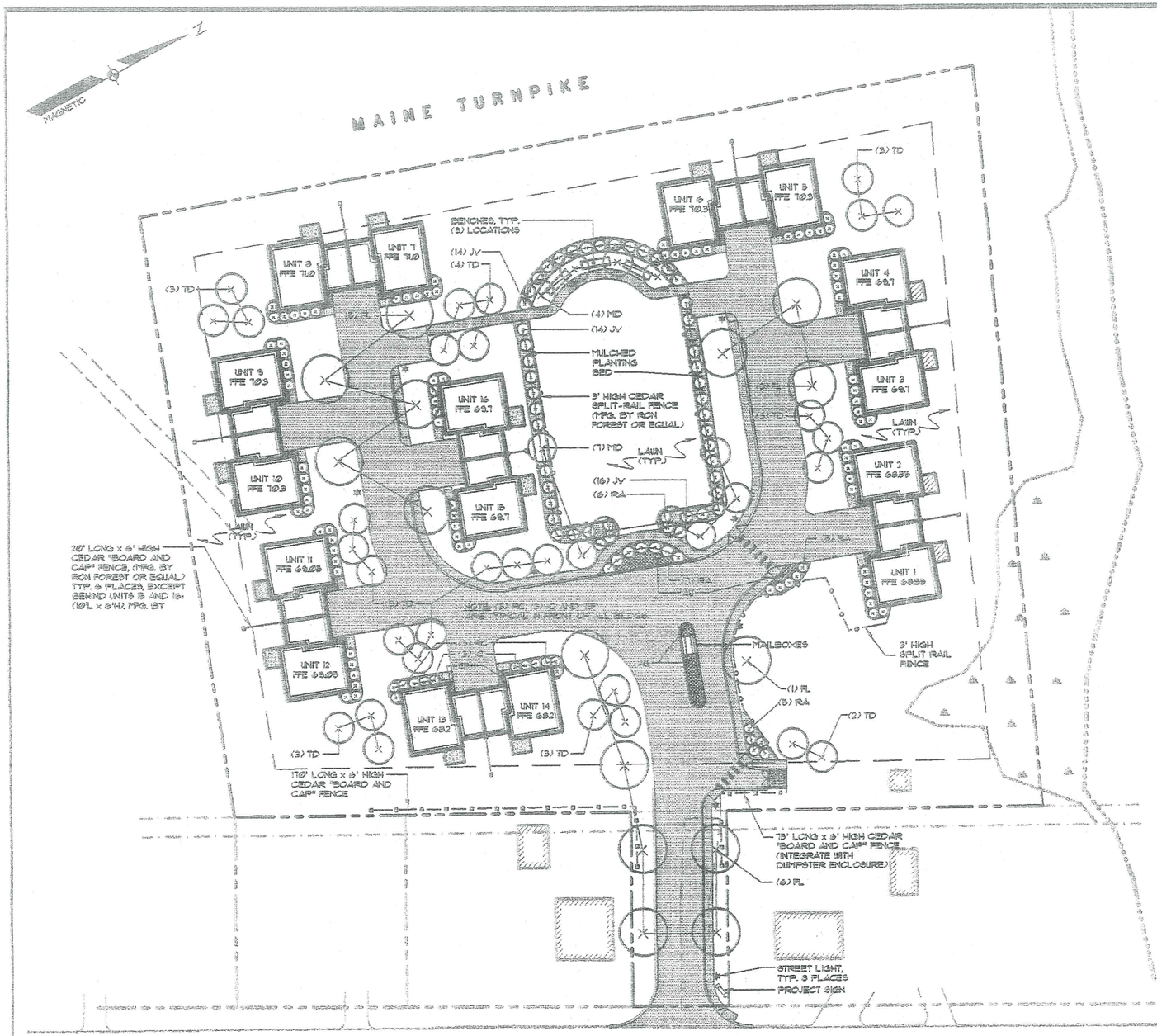
FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MEJ
CHECKED BY:	SMF
DATE:	3-29-00
SCALE:	AS SHOWN
FIELD BK:	683
PROJ. NO:	99103
DRAWING:	99103UP
SHEET 5 OF 8	

10e



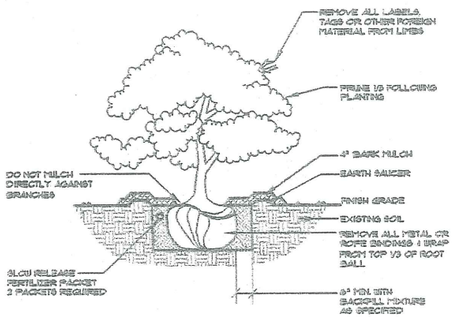
GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

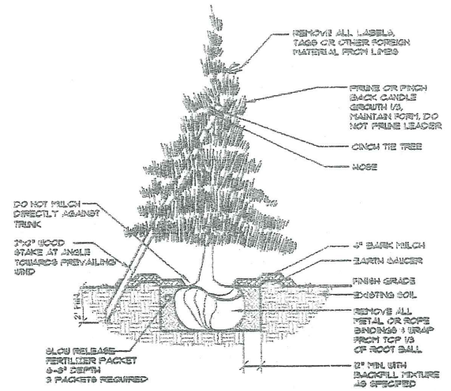
PLANTING SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME	SIZE / COMMENTS
FL	FRAXINUS LANCIECLATA 'SUMMIT' / GREEN ASH	1 ¾"
MD	MALUS DONALD WYMAN / FLOWERING CRAB	8' - 6'
TD	TSUGA DIVERSIFOLIA / JAPANESE HEMLOCK	3½
IC	ILEX CRENATA 'COMPACTA' / DWARF JAPANESE HOLLY	12" - 15" / IN MULCHED PLANTING BED
RC	RHODODENDRON CAROLINIANUM / CAROLINA RHODODENDRON	2 - 2½'/IN MULCHED PLANTING BED
RA	RHODODENDRON 'APRIL GEM' / RHODODENDRON	15" - 18"
JV	JUNIPERUS VIRGIANA 'GREY OWL' / GREY OWL JUNIPER	15 / 5' O.C.
EF	EONYMUS FORTUNEI / WINTERCREEPER	#3 POT / 18" O.C. IN MULCHED PLANTING BED
AU	ARCTOSTAPHYLOS UVA-URSI / BEARBERRY	#1 / 18" O.C. IN MULCHED PLANTING BED

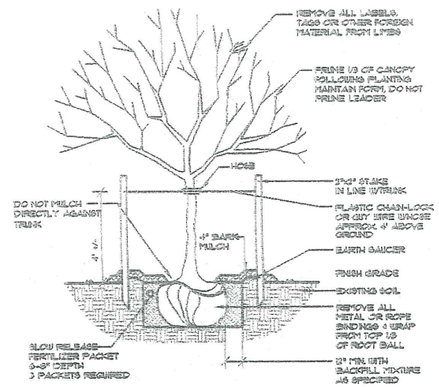
LIGHTING: "TRADITIONAIRE" POST-TOP LANTERN ON 18' (ROUND-STRAIGHT ALUMINUM) POLE. MANUFACTURED BY McGRAW-EDISON OR EQUAL.



DECIDUOUS & EVERGREEN SHRUB
NOT TO SCALE



DECIDUOUS TREES UNDER 2" CALIPER OR UNDER 8' IN HEIGHT
EVERGREEN TREES UNDER 8' IN HEIGHT & UNDER
NOT TO SCALE



DECIDUOUS TREES 2" TO 4" CALIPER
NOT TO SCALE

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A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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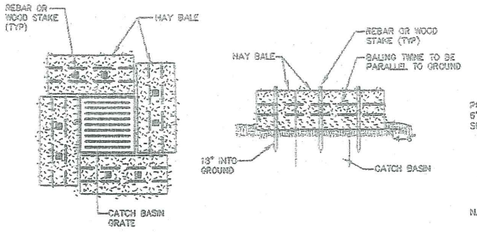
LANDSCAPE AND LIGHTING PLAN

OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE

FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

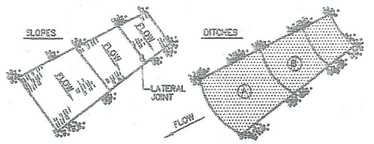
Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

DESIGN BY:	JRP
DRAWN BY:	MAL
CHECKED BY:	WTC
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	983
PROJ. NO:	99103
DRAWING:	99103L
SHEET 5 OF 8	



NOTE: INSTALL BARRIER AT EACH CATCH BASIN

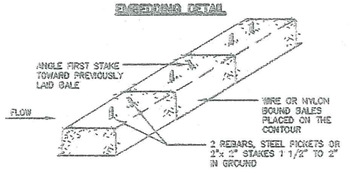
CATCH BASIN HAY BALE BARRIER
NOT TO SCALE



NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 4" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 16" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF # 11 WIRE 6" LONG AND 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 OR APPROVED EQUAL.

EROSION CONTROL MESH
NOT TO SCALE

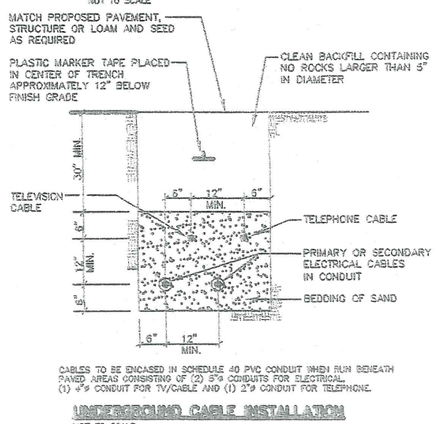
EMBEDDING DETAIL



ANCHORING DETAIL

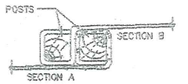
NOTES:
1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY 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

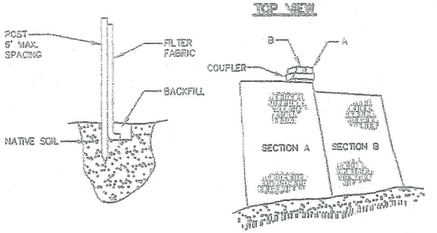


CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS CONSISTING OF (2) 5"ø CONDUITS FOR ELECTRICAL (1) 4"ø CONDUIT FOR TV/CABLE AND (1) 2"ø CONDUIT FOR TELEPHONE.

UNDERGROUND CABLE INSTALLATION

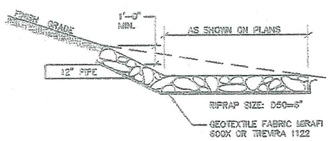


TOP VIEW

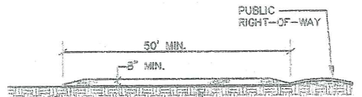


INSTALLATION:
1. EXCAVATE A 8"x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE SACK (DOWNSTREAM) WALL OF THE TRENCH.
3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
4. LAY THE 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.

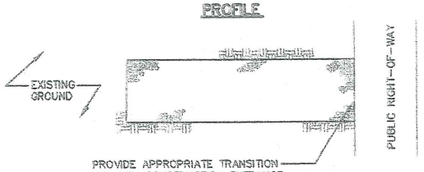
SILTATION FENCE
NOT TO SCALE



RIPRAP CULVERT INLET/OUTLET
NOT TO SCALE



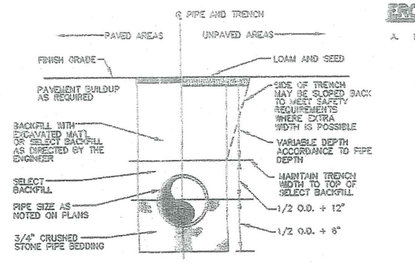
PROFILE



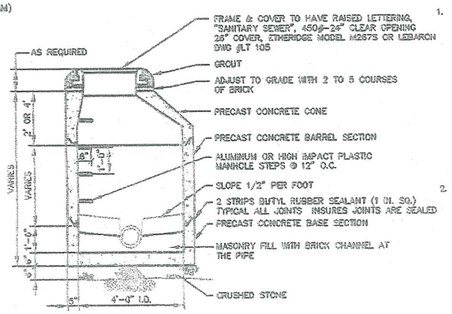
PLAN

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

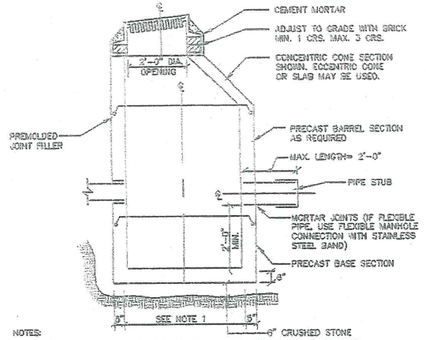


TYPICAL TRENCH SECTION
NOT TO SCALE



NOTE: PIPE CONNECTIONS SHALL BE WATERTIGHT FLEXIBLE BOOT CONNECTORS PROVIDES LEAKPROOF CONNECTION

PRECAST MANHOLE
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 M2466 OR APPROVED EQUAL AND ALL CITY OF PORTLAND CATCH BASINS SHALL BE INSTALLED WITH CASCO TRAPS.
5. DRAINAGE MANHOLE FRAME AND COVER TO BE ETHERIDGE FOUNDRY M2483 OR APPROVED EQUAL. COVER SHALL BE MARKED "DRAIN".

TYPICAL CATCH BASIN
NOT TO SCALE

EROSION AND SEDIMENTATION CONTROL PLAN

A. Pre-Construction Phase

Prior to the beginning of any construction, a combination erosion control berm and filter fabric fencing will be staked across the slope(s), on the contour, at or just below the limits of clearing or grubbing, and/or just above any adjacent property line or watercourse to protect against construction related erosion. The placement of silt fences and erosion control berms shall be completed in accordance with guidelines established in Best Management Practices and in accordance with the site plan. This network is to be maintained by the contractor until all exposed slopes have at least 85%-90% vigorous perennial vegetative cover to prevent erosion.

Prior to any construction at the site, representatives of the general contractor, site contractor and the site design engineer shall arrange for, and meet with the Director of Public Works and Town Engineer to discuss the scheduling of the site construction. On or before that meeting, the contractor will prepare a detailed schedule and marked up site plan indicating areas and components of the work and key dates showing date of disturbance and completion of the work. Three copies of the schedule and marked up site plan shall be provided to the Town. Special attention shall be given to the 14 day limit of disturbance in the schedule addressing temporary and permanent vegetation measures.

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 and protected) within fourteen (14) days of disturbance shall be protected with temporary erosion control measures.
   Temporary erosion control shall include erosion control blanket, netting or mulch 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 shall be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 S.F. to provide winter protection and covered with erosion control mesh. All slopes greater than 8% shall be netted over mulch & seed if final seeding is not completed by Sept. 15.
2. All topsoil shall be collected and stockpiled offsite at an approved location to be determined by the public works director. Stockpiled loam shall be seeded with Rye at 3 lbs/1,000 S.F., and mulched on-site and re-used as required. Siltation fencing shall be placed down gradient from stockpiled loam.
3. All silt fences and erosion control berms shall be installed according to this plan. These shall be maintained during development to remove sediment from runoff water. All the silt fences and erosion control berms 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.
4. All areas shall be seeded and stabilized in accordance with the following vegetation plan.

C. Vegetation Plan

Revegetation measures shall commence immediately upon completion of construction. Disturbed areas shall also be mulched and anchored prior to any storm event. If final seeding or sodding cannot be accomplished by September 15th, then all disturbed areas shall be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 sq. ft. to provide winter protection and covered with erosion control blanket.

Revegetation measures shall consist of the following:

1. Four inches of loam will be spread over disturbed areas and smoothed 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. Soils tests shall be taken at the time of soil stripping to determine fertilization requirements. Soils test shall be taken promptly as to not interfere with the 7 day limit on soil exposure. Based upon test results, soil amendments shall be incorporated into the soil prior to final seeding.
3. Following seed bed preparation, swale areas, fill areas and rock slopes shall be seeded at a rate of 3 lbs./1000 S.F. to a mixture of 35% Creeping Red Fescue, 5% 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 Fescues; seeding rate of 2-3 lbs. per 1,000 square feet. Sod shall be used in areas indicated on plans.
4. Erosion control blanket shall be applied in accordance with the plans over all finish seeded areas as specified on the design plans.
5. 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.
6. The inspecting engineer at his/her discretion, may require additional erosion control measures and/or supplemental vegetative provisions to maintain stability of earthworks and finish graded areas. The site contractor shall be responsible for providing and installing any supplemental measures as directed by the inspecting engineer. Failure to comply with the engineer's directions will result in discontinuation of construction activities.

D. Construction Schedule

Site improvements will most likely begin in spring of 2000, depending upon final project approval and the selection of a site contractor. Based upon a spring construction start, the following schedule has been prepared.

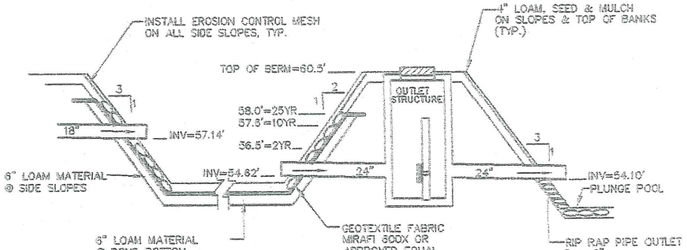
Schedule	Completion Dates
1. Estimated construction time:	April, 2000 – October, 2000
*2. Erosion control measures placed	April, 2000 – October, 2000
3. Site clearing, grubbing, excavation and fills.	March, 2000 – May 2000
4. Rough grading, utility improvements, drainage and road construction.	April, 2000 – July, 2000
5. Start final seedings on prepared areas.	July, 2000
*6. Biweekly monitoring of temporary and permanent vegetative growth.	July, 2000 – October, 2000
*7. Re-seeding of areas, if needed.	October, 2000 – June, 2001
*8. Removal of erosion control devices.	October, 2000
*9. Mulch spread for winter erosion control, if needed.	September, 2000 – April, 2001

* Dates are subject to change at the discretion of the engineer, depending on construction progress.

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. The contractor shall provide the City of Portland with written documentation describing dates of inspections and necessary follow-up work to maintain erosion control measures meeting the requirements of this plan.

Following the temporary and/or final seedings, the contractor shall inspect the site semimonthly 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.



CONSTRUCTION NOTES:
1. CONTRACTOR SHALL REMOVE ALL TOPSOIL AND ORGANIC MATERIAL FROM EMBANKMENT AND POND CONSTRUCTION AREA.
2. SCARIFY SUBGRADE TO ESTABLISH INTERFACE FOR ALL FILLS.
3. CONSTRUCTION MATERIAL SHALL MEET M.D.O.T. SPEC. 703.18
4. COMPACT IN 12" LIFTS TO 95% OF MAXIMUM DENSITY.
5. INSTALL RIPRAP AND EROSION MESH WHERE SPECIFIED.
6. LOAM, SEED & STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

DETENTION BASIN/TREATMENT POND SECTION
NOT TO SCALE

REV:	BY:	DATE:	STATUS:
A	MWE	3-28-00	PLANNING BOARD RE-SUBMISSION

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DETAILS
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VP BUILDERS, INC.
P.O. BOX 41
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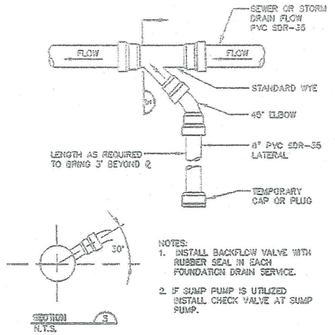
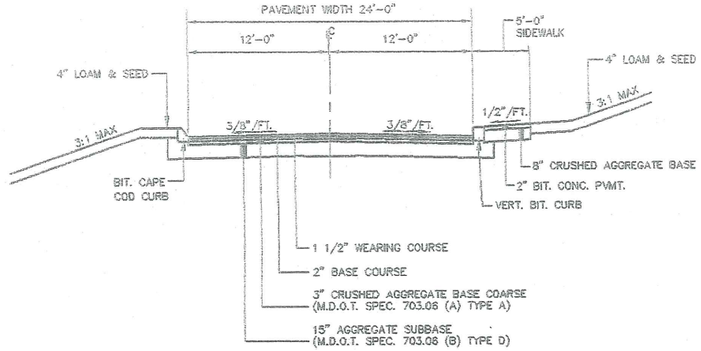
Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	183
PROJ. NO:	99190
DRAWING:	99190D1
SHEET 7 OF 8	



SEWER LATERAL SERVICE CONNECTION
NOT TO SCALE



STREET SECTION
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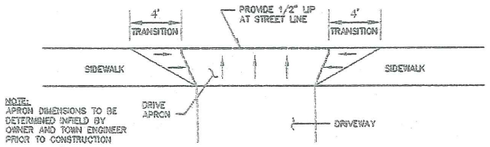
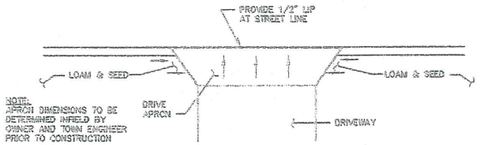
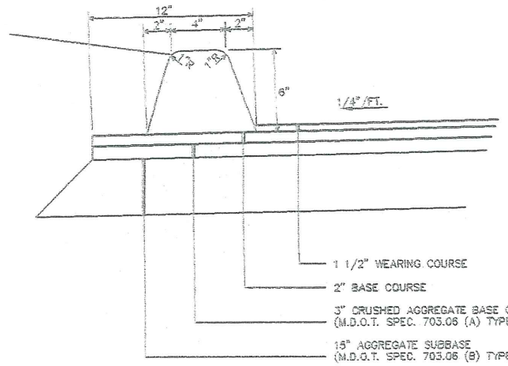


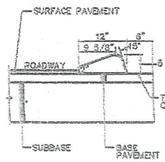
TYPICAL DRIVE APRON DETAIL WITH SIDEWALK
NOT TO SCALE



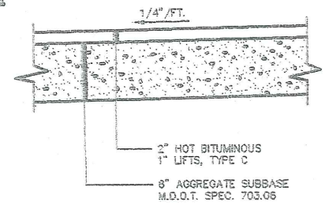
TYPICAL DRIVE APRON DETAIL WITHOUT SIDEWALK
NOT TO SCALE



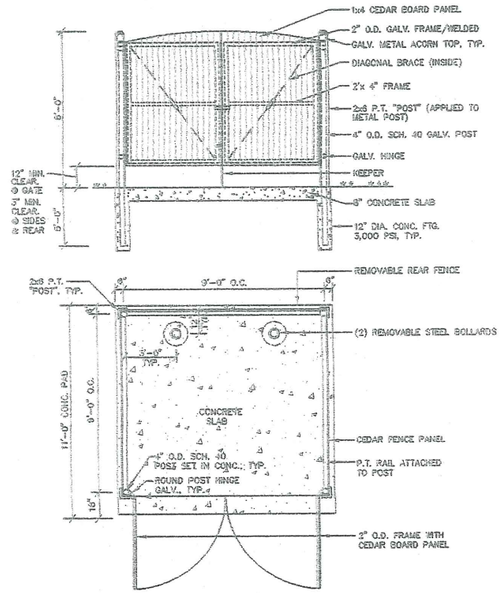
BITUMINOUS CURB SECTION
NOT TO SCALE



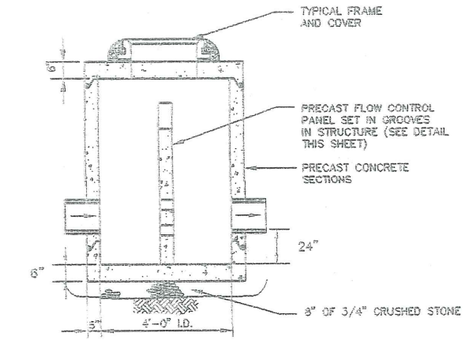
CAPE COD CURB DETAIL
NOT TO SCALE



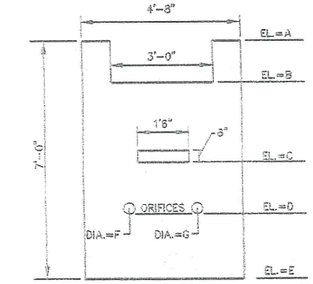
BITUMINOUS SIDEWALK
NOT TO SCALE



TYPICAL DUMPSTER ENCLOSURE
NOT TO SCALE



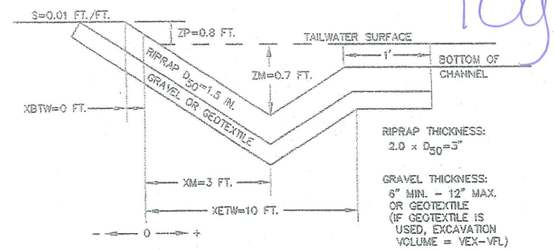
OUTLET STRUCTURE DETAIL
NOT TO SCALE



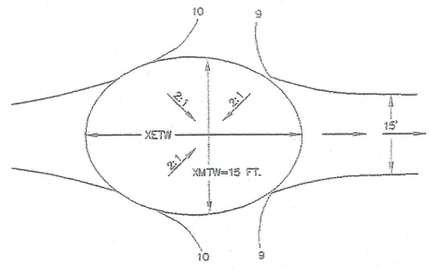
PRECAST FLOW CONTROL PANEL
NOT TO SCALE

OUTLET CONTROL STRUCTURE SCHEDULE

DETENTION BASIN	ELEVATION (ft.)					ORIFICE ø (IN)	
	A	B	C	D	E	F	G
1	58.3	56.8	56.0	54.8	52.5	4.0	4.0

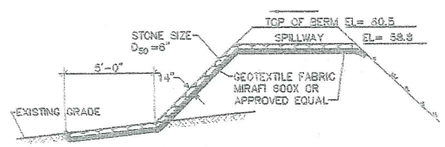


CENTERLINE PROFILE



PLAN VIEW

STONE LINED PLUNGE POOL
NOT TO SCALE



EMBANKMENT CONSTRUCTION

1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
4. LOAM, SEED, AND STABALIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

SPILLWAY SECTION
NOT TO SCALE

REV:	BY:	DATE:	STATUS:
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

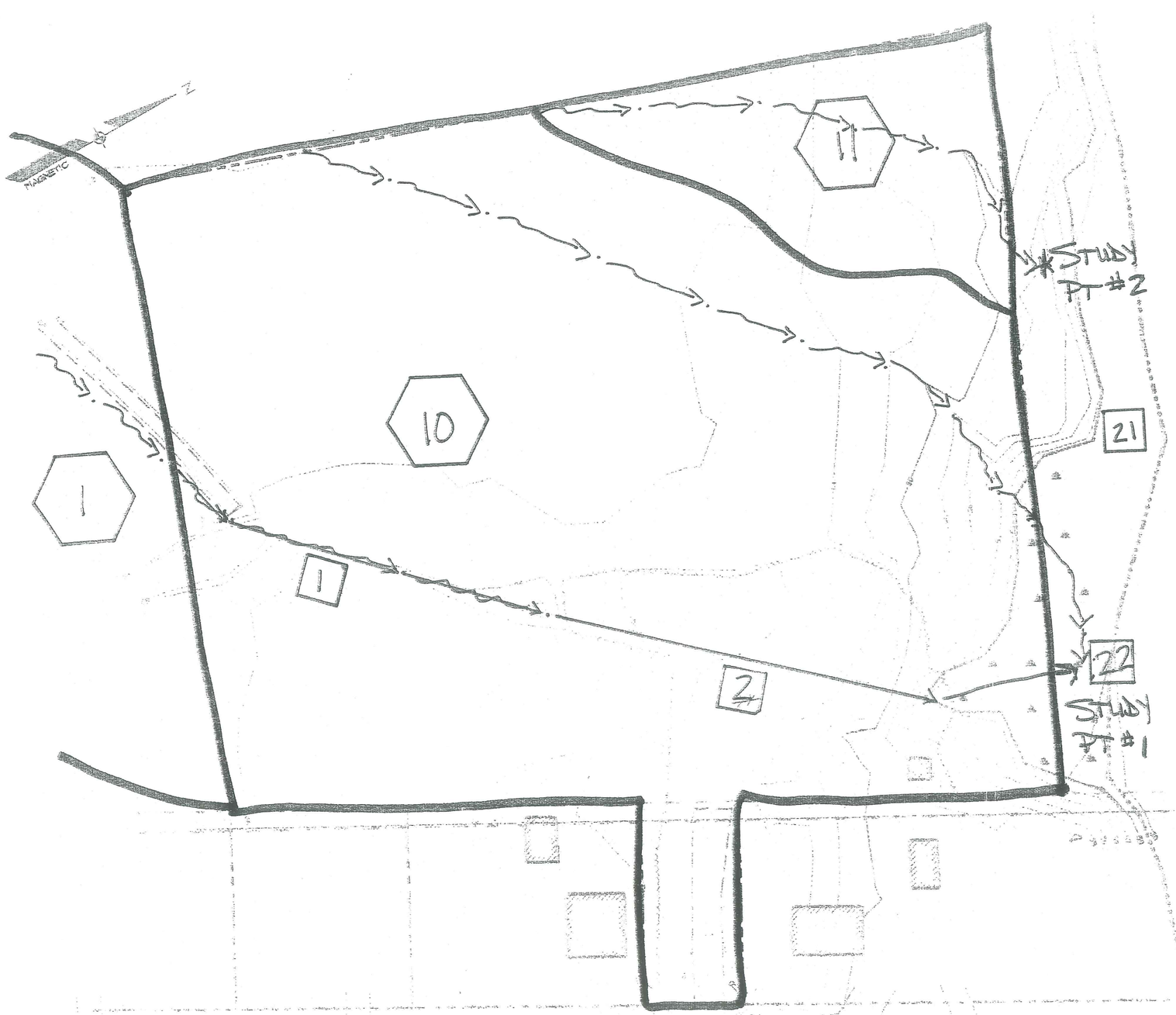
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

DETAILS
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	883
PROJ. NO:	99103
DRAWING:	991030.2
SHEET 8 OF 8	

AH. 3L



1 WATERSHED

1 REACH

SHALLOW FLOW

CHANNEL FLOW

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

1"=60'

REV.	BY:	DATE:	STATUS:

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PRE DEVELOPMENT WATER SHED PLAN

OF:

HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE

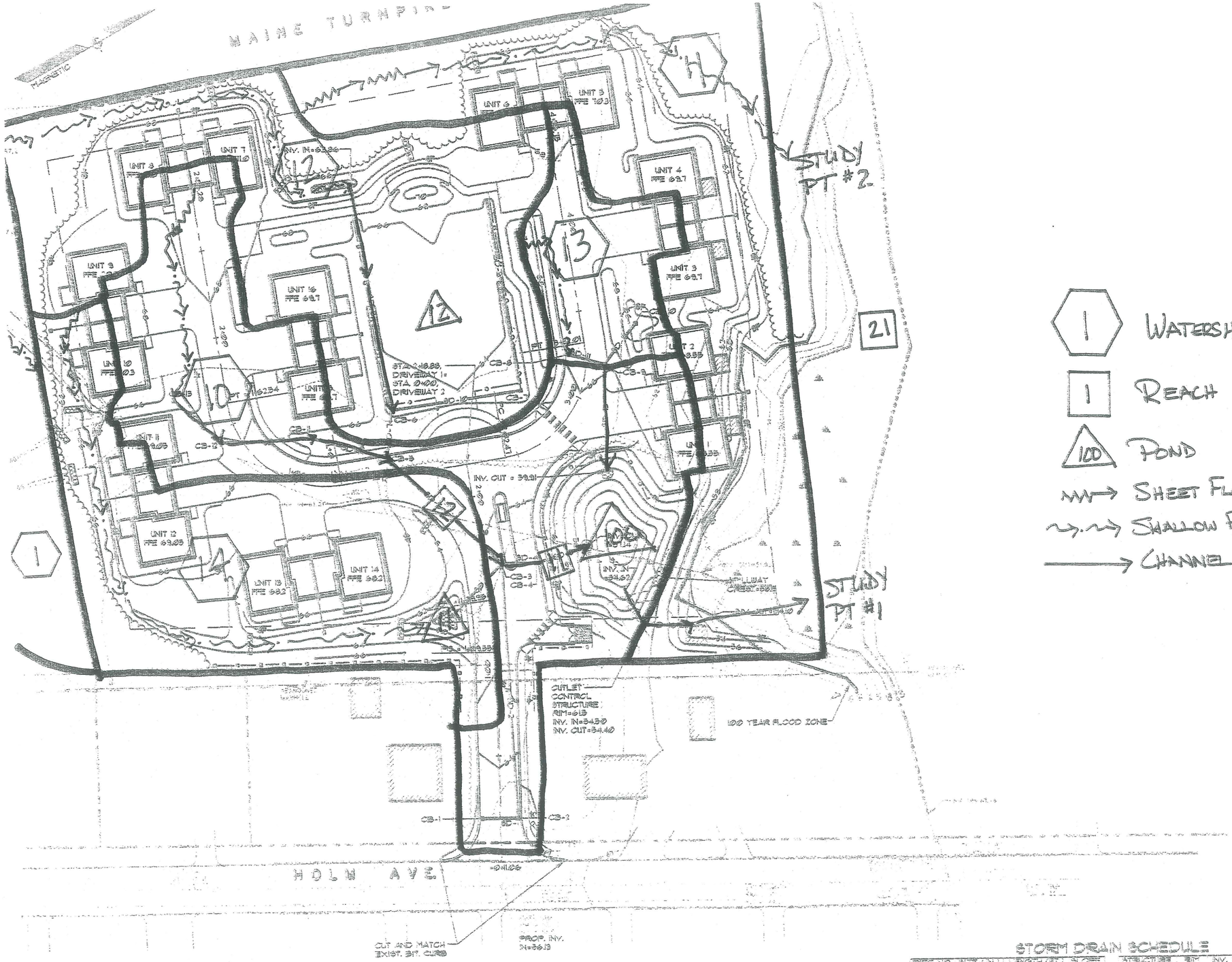
FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics

DESIGN BY:	JLW
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	[illegible]
SCALE:	[illegible]
FIELD BK:	[illegible]

Att. 3m



1 WATERSHED

1 REACH

100 POND

SHEET FLOW

SHALLOW FLOW

CHANNEL FLOW

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

1" = 60'

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN.)	LENGTH (FT.)	SLOPE
SD-1	12	7	0.007
SD-2	12	142	0.007
SD-3	12	42	0.008
SD-4	18	16	0.008
SD-5	18	28	0.008
SD-6	18	36	0.008
SD-7	12	23	0.01
SD-8	12 perf.	30	0.032
SD-9	12 perf.	105	0.01
SD-10	12 perf.	72	0.008
SD-11	12	18	0.008
SD-12	12	21	0.007
SD-13	12	60	0.01
SD-14	12	36	0.01
SD-15	12	30	0.01

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.5	--	38.5
CB-2	62.5	38.38	38.28
CB-3	63.22	38.79	37.47
		38.78	
		37.37	
CB-4	63.32	37.28	37.25
CB-5	64.57	39.35	39.27
		39.37	
CB-6	63.4	39.70	39.6
		39.70	
CB-7	63.4	60.16	60.06
CB-8	63.79	----	60.7
CB-9	65.73	61.0	60.81
		60.61	
CB-10	63.2	--	61.13

REV:	BY:	DATE:	STATUS:
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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.

POST DEVELOPMENT WATER SHED PLAN

OF:

HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

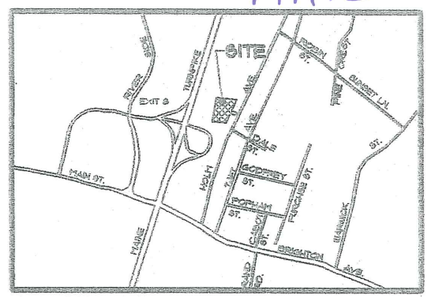
Sebago Technics

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-10-[illegible]
SCALE:	AS SHOWN
FIELD BK:	682

AH.5

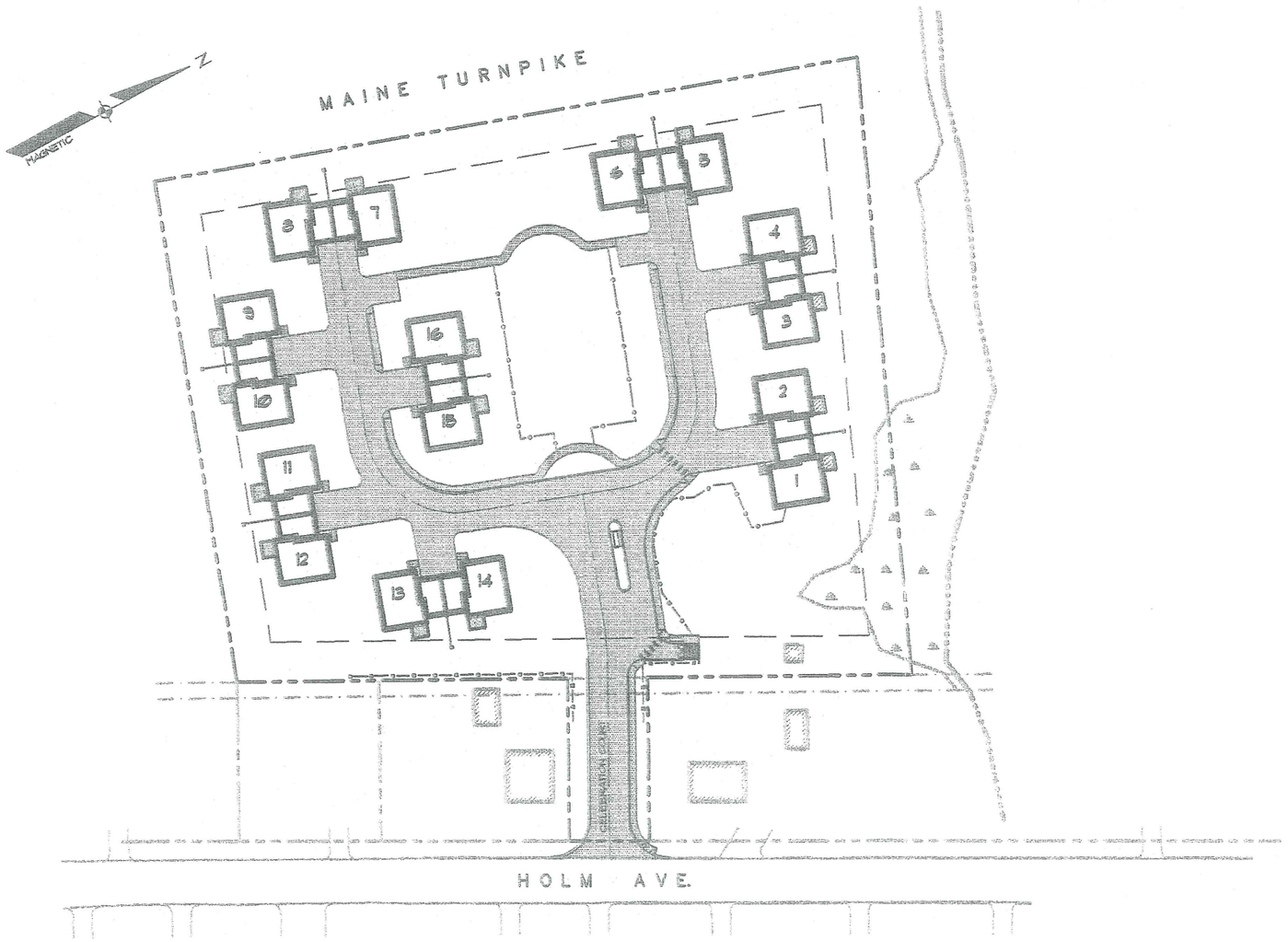
HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE



LOCATION MAP

N.T.S.



SHEET INDEX:

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUBDIVISION/RECORDING PLAT
3	SITE PLAN
4	PLAN AND PROFILE: DRIVEWAY 1 (STA. -0+11.06 TO STA. 4+85.73) DRIVEWAY 2 (STA. 0+00 TO STA. 2+86.28)
5	UTILITY PLAN
6	LANDSCAPE AND LIGHTING PLAN
7	DETAILS
8	DETAILS

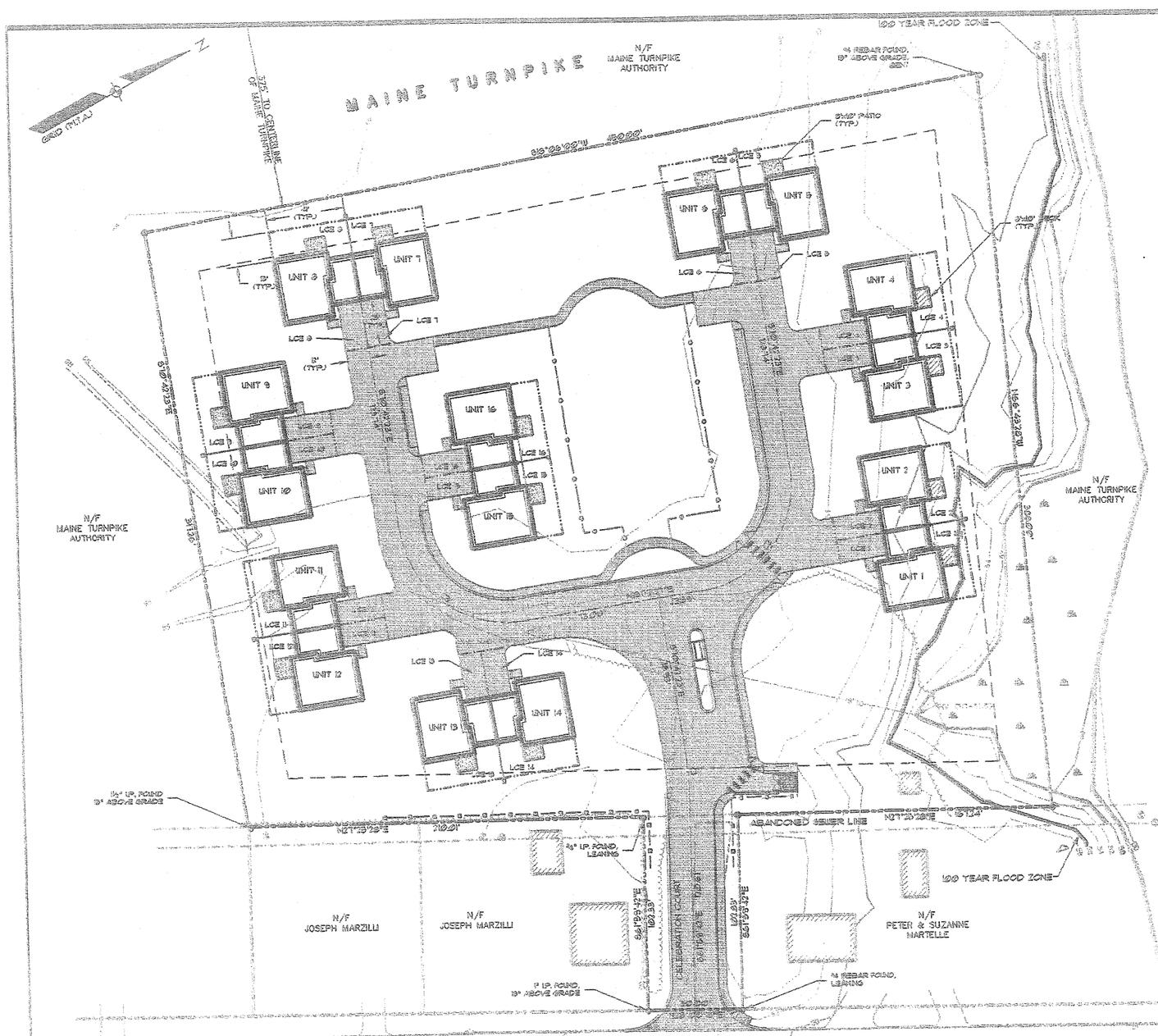
OWNER/APPLICANT:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

ENGINEER/SURVEYOR:

SEBAGO TECHNICS, INC.
ONE CHABOT STREET
WESTBROOK, MAINE 04098-1339

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 855-0277



GRAPHIC SCALE

25 0 15 25 50 100

(IN FEET)

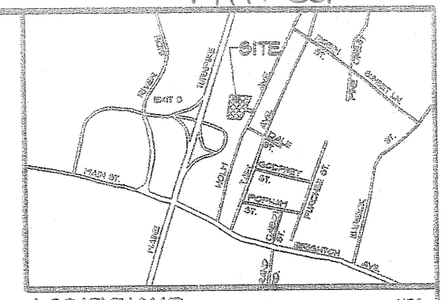
1 inch = 30 ft.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	EASEMENT	
	CENTERLINE	
	MONUMENT	
	IRON PIPE/ROD	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	SIGN	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
	CONTOURS	
	GAS	
	WATER	
	SEWER	
	STORM DRAIN	
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
	MANHOLE	
	STOCKADE FENCE	

CENTERLINE CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
C1	30.41'	200.00'	8°42'51"
C2	393.41'	57.28'	393°00'00"
C3	393.41'	57.28'	393°00'00"



LOCATION MAP N.T.S.

GENERAL NOTES

1. THE RECORD OWNER OF THE PROPERTY IS PETER AND SUZANNE MARTELLE BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN DEED BOOK 7100 PAGE 298 AND BOOK 9020 PAGE 126.

2. THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND TAX ASSESSORS MAP # 273 BLOCK C LOT 3.

3. PLAN REFERENCES:
   A. PLAN OF LAND OF MAINE TURNPIKE AUTHORITY TO PETER P. & SUZANNE G. MARTELLE BY D. O. HARRIMAN, DATED JANUARY 1988.
   B. UNTITLED PLAN OF SUBDIVISION RECORDED IN THE CCRD ON JULY 12, 1912, IN PLAN BOOK 12 PAGE 23.
   C. PLAN OF MAINE TURNPIKE AUTHORITY, SECTION 2, SUPPLEMENTAL SHEET # 17, DATED JANUARY 1988.
   D. PLAN OF THE PORTLAND SEWER SYSTEM INFILTRATION-INFLOW ANALYSIS SYSTEM BASED MAPPING, FOR THE PORTLAND WATER DISTRICT, BY HUNTER-BALLOU ASSOCIATES, DATED 1981, DRAWING # 11-16, ON FILE AT PORTLAND'S ENGINEERING OFFICE.
   E. MAINE TURNPIKE AUTHORITY SECTION 2, BY HOWARD, NEEDLES, TAMMEN, AND BERGENDOFF, SHEET 9 OF 9, DATED SEPTEMBER 3, 1959 AND LAST REVISED IN NOVEMBER OF 1963.
   F. MAINE TURNPIKE AUTHORITY SECTION 2, BY HOWARD, NEEDLES, TAMMEN, AND BERGENDOFF, SUPPLEMENTAL SHEET # 18, DATED MARCH 1986, AND LAST REVISED IN AUGUST OF 1963.

4. THE TOTAL AREA OF THE PROPERTY IS APPROXIMATELY 3.68 ACRES.

5. NET RESIDENTIAL AREA CALCULATIONS:

TOTAL AREA	160,166 S.F.
- 25% SLOPES	7,280 S.F.
- STORMWATER AREA	4,569 S.F.
- WETLAND AREA	3,369 S.F.
REMAINDER	143,471 S.F.
- 20 %	28,693 S.F.
NET RESIDENTIAL AREA	114,733 S.F.

   ALLOWABLE DENSITY = 1 UNIT PER 6,500 S.F. = 17.65 UNITS

6. THE PROPERTY IS LOCATED IN THE CITY OF PORTLAND R5 RESIDENTIAL DISTRICT.

7. THE SPACE AND BULK STANDARDS FOR THE R5 DISTRICT ARE AS FOLLOWS:
   MINIMUM LOT AREA: 6,500 SF
   MINIMUM LOT AREA PER DWELLING UNIT: 25 FEET
   MINIMUM SIDE/REAR SETBACK (PRUD): 25 FEET
   MAXIMUM BUILDING HEIGHT: 35 FEET

8. BUILDING SUMMARY:
   EIGHT TWO UNIT BUILDINGS. ALL BUILDINGS SHALL BE FULLY SPRINKLED.

9. MINIMUM RECREATION AREA REQUIRED IS 6,300 SF. (8,750 SF. PROPOSED).

10. MAXIMUM LOT COVERAGE:
    160,166 SF (3.68 AC) X .25 = 39,792 SF ALLOWED
    19 UNITS X 1282 SF = 32,032 SF PROPOSED

11. BUILDING UNITS TO BE SERVED BY PUBLIC WATER, PUBLIC SEWER, PUBLIC GAS AND UNDERGROUND ELECTRIC, TELEPHONE AND CABLE.

12. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PORTLAND "TECHNICAL DESIGN STANDARDS AND GUIDELINES" ADOPTED SEPTEMBER 1997 AND AMENDED THROUGH JULY 1994.

13. THE 100 YEAR FLOOD ZONE SHOWN HEREON IS ZONE AE AS DESIGNATED ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL # 230051-0008-B, REVISED ON DECEMBER 8, 1998.

APPROVAL-
CITY OF PORTLAND
PLANNING BOARD

_____ DATE

_____ CHAIRPERSON

STATE OF MAINE

_____ COUNTY SS REGISTRY OF DEEDS

RECEIVED _____ 20__

AT ____ h ____ m ____ M. AND RECORDED IN

PLAN BOOK _____ PAGE _____

ATTEST _____ REGISTER

REV:	BY:	DATE:	STATUS:
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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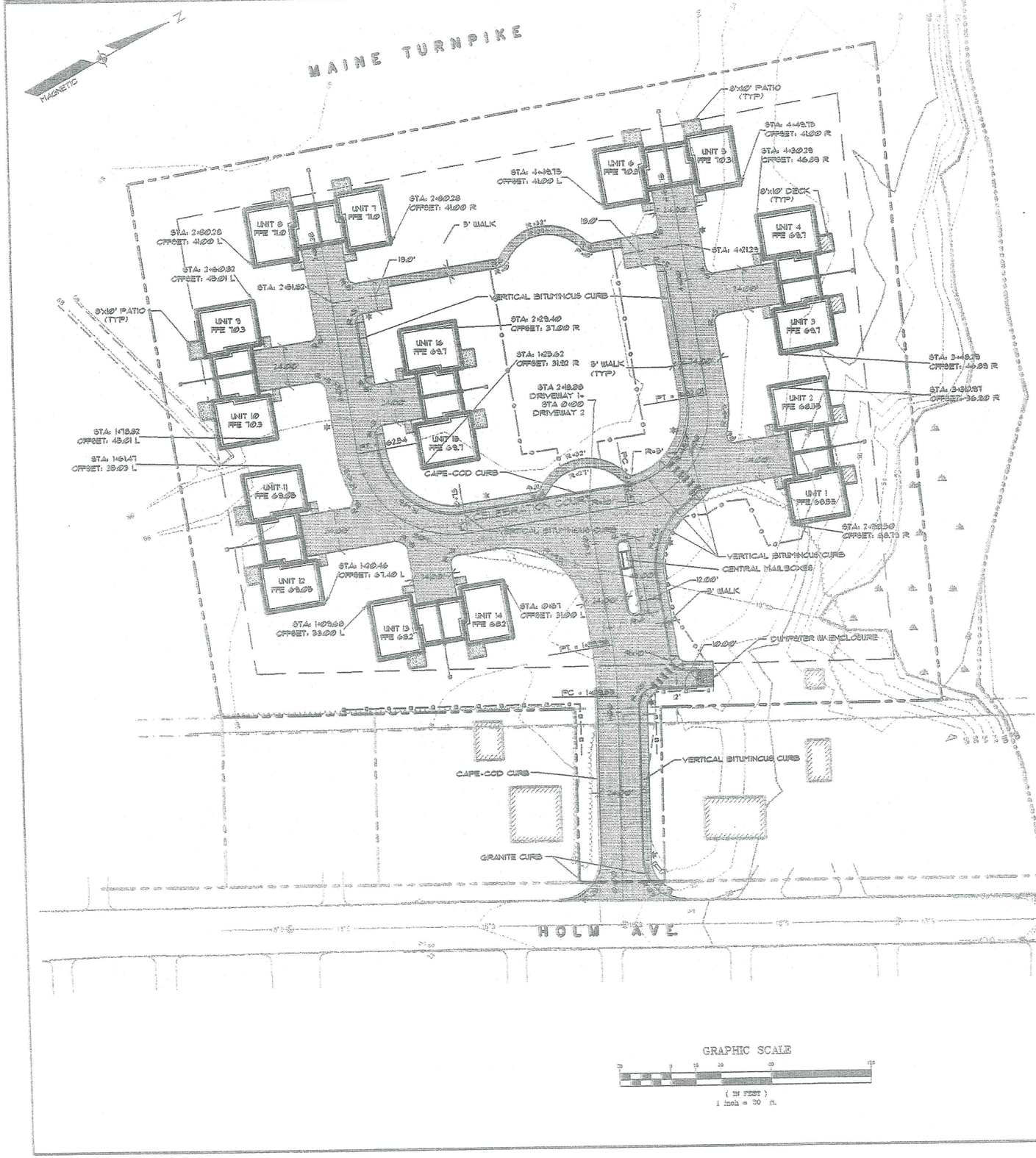
SUBDIVISION/RECORDING PLAT
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 61
WESTBROOK, MAINE 04098

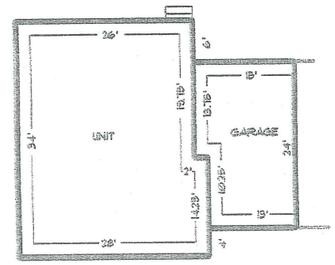
RECORD OWNER:
PETER & SUZANNE MARTELLE
8 POE STREET
PORTLAND, MAINE 04102

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1539
Tel (207) 856-0277

DESIGN BY:	JRS/MWE
DRAWN BY:	MAL
CHECKED BY:	MWE
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	383
PROJ. NO:	99103
DRAWING:	99103SB
SHEET 2 OF 3	

AH. 56





TYPICAL UNIT DIMENSIONS
SCALE: 1"=10'

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

REV:	BY:	DATE:	STATUS:
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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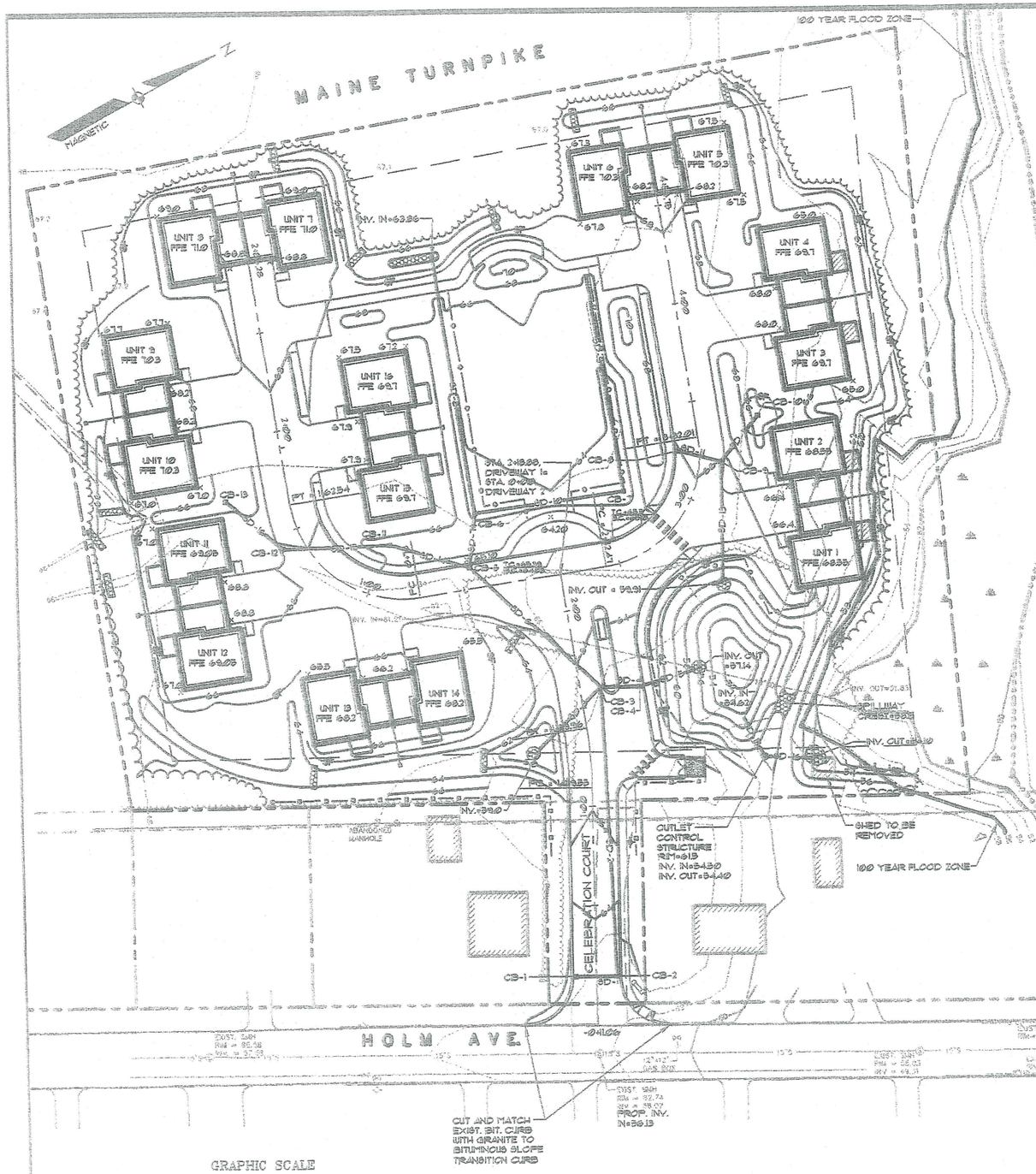
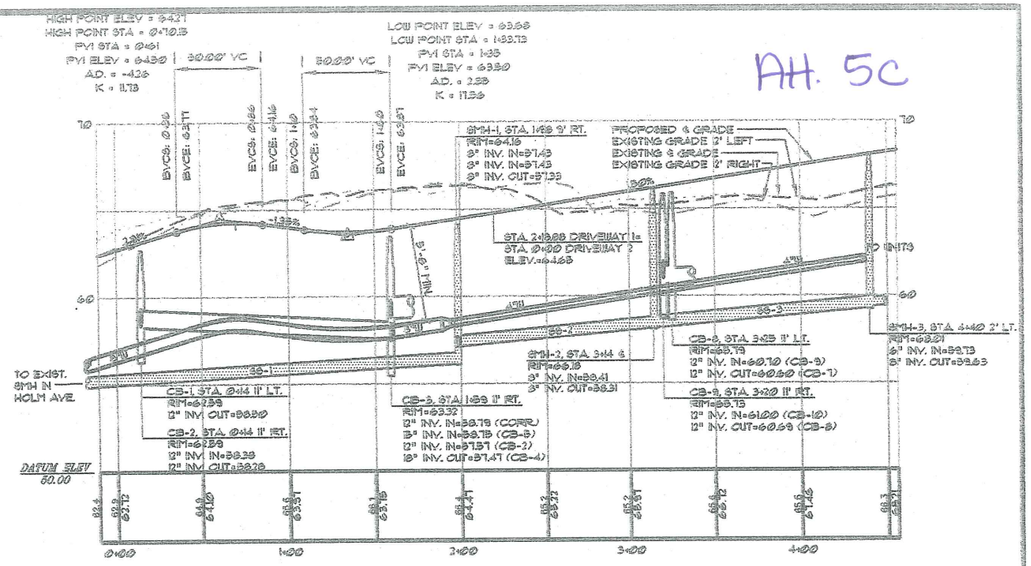
SITE PLAN
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

DESIGN BY:	JLW
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	983
PROJ. NO:	99103
DRAWING:	99103S
SHEET	3 OF 3

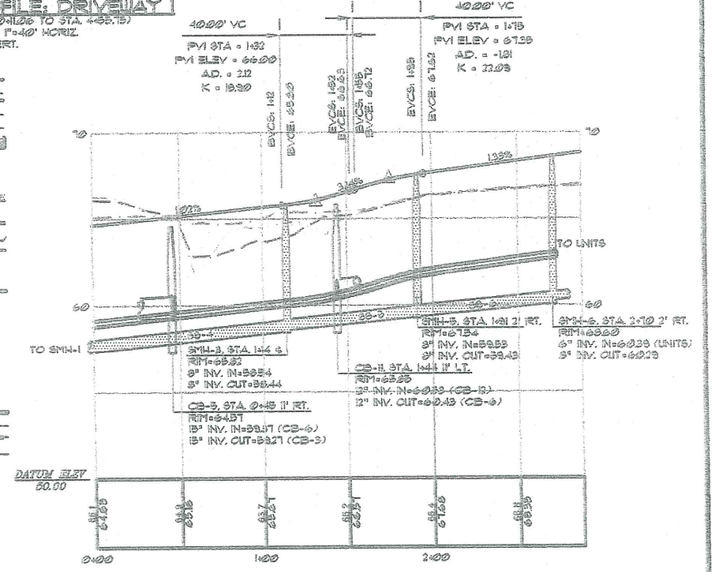
AH. 5C





PROFILE: DRIVEWAY 1

(STA. -0+11.08 TO STA. 4+55.75)
SCALE: 1"=40' HORIZ.
1"=4' VERT.



PROFILE: DRIVEWAY 2

(STA. 0+00 TO STA. 2+36.28)
SCALE: 1"=40' HORIZ.
1"=4' VERT.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	CENTERLINE	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
124	CONTOURS	124
8"W	WATER	
8"S	SEWER	
12"SD	STORM DRAIN	12"SD
	UNDERGROUND ELEC. & TEL.	
GV	GATE VALVE	
LP	LIGHT POLE	
UP	UTILITY POLE	
FH	HYDRANT	
CB	CATCH BASIN	
MH	MANHOLE	
12"CV	CULVERT	12"CV
	SPLIT RAIL FENCE	
	STOCKADE FENCE	
SF	SILT FENCE	SF

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN)	LENGTH (FT)	SLOPE
SD-1	12	17	0.007
SD-2	12	142	0.007
SD-3	12	42	0.005
SD-4	18	19	0.005
SD-5	18	23	0.005
SD-6	15	86	0.006
SD-7	12	13	0.01
SD-8	12 Perf.	130	0.032
SD-9	12 perf	105	0.01
SD-10	12 perf	12	0.005
SD-11	12	18	0.005
SD-12	12	71	0.007
SD-13	12	60	0.01
SD-14	12	38	0.01
SD-15	12	50	0.01
SD-16	12	38	0.01
SD-17	24	24	0.005
SD-18	24	20	0.015

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	64.5	--	58.8
CB-2	64.5	58.38	58.28
CB-3	63.32	58.78	57.47
		58.78	
		57.58	
CB-4	63.32	57.58	57.28
CB-5	64.57	59.55	59.27
		59.37	
CB-6	63.4	59.70	59.6
		59.70	
CB-7	63.4	60.16	60.06
CB-8	63.78	-----	60.1
CB-9	63.78	61.0	60.51
		60.61	
CB-10	63.6	--	61.8
CB-11	63.73	60.03	59.93
CB-12	63.83	60.83	60.43
CB-13	63.5		60.29

G	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION
REV:	BY:	DATE:	STATUS:

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PLAN AND PROFILE: DRIVEWAY 1 (STA. -0+11.08 TO STA. 4+55.75) & DRIVEWAY 2 (STA. 0+00 TO STA. 2+36.28)

OF:

HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE

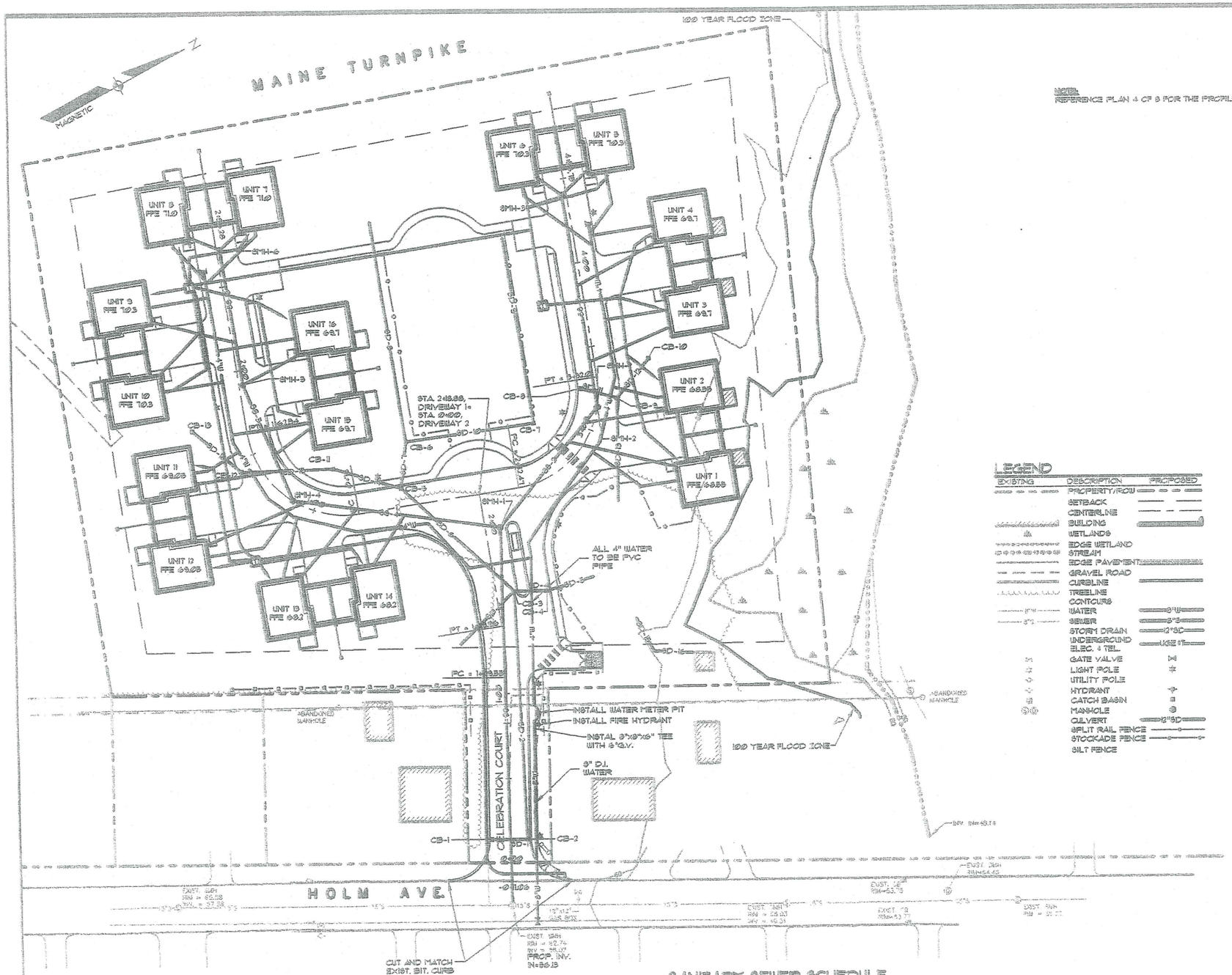
FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	GMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	883
PROJ. NO:	99103
DRAWING:	99103P
SHEET	4 OF 8

AH. 5d



NOTE:
REFERENCE PLAN 4 OF 8 FOR THE PROFILES OF DRIVEWAYS 1 AND 2.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	CENTERLINE	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
	CONTOURS	
8"W	WATER	8"W
8"S	SEWER	8"S
	STORM DRAIN	12"SD
	UNDERGROUND ELEC. & TEL.	UGE&T
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
	MANHOLE	
	CULVERT	12"SD
	SPLIT RAIL FENCE	
	STOCKADE FENCE	
	SILT FENCE	

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

SANITARY SEWER SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
SMH-1	64.15	57.43 57.45	57.55
SMH-2	66.13	58.41	58.51
SMH-3	66.07	58.73	58.83
SMH-4	63.23	58.73	58.83
SMH-5	61.34	58.53	58.43
SMH-6	58.61	56.39	56.29

PIPE NO.	SIZE (IN)	LENGTH (FT)	SLOPE
SS-1	8	210	0.206
SS-2	8	85	0.01
SS-3	8	82	0.01
SS-4	8	20	0.01
SS-5	8	70	0.01
SS-6	8	75	0.01

REV:	BY:	DATE:	STATUS:
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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UTILITY PLAN
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MEJ
CHECKED BY:	SMF
DATE:	3-29-00
SCALE:	AS SHOWN
FIELD BK:	383
PROJ. NO:	99103
DRAWING:	99103UP
SHEET	5 OF 8

AH.5e

EXISTING 250' DEEP WOODED BUFFER TO MAINE TURNPIKE

MAGNETIC N

CUL-DE-SAC

UNIT 1 FFE 68.85
UNIT 2 FFE 68.85
UNIT 3 FFE 69.7
UNIT 4 FFE 69.7
UNIT 5 FFE 70.3
UNIT 6 FFE 70.9
UNIT 7 FFE 71.0
UNIT 8 FFE 71.0
UNIT 9 FFE 70.3
UNIT 10 FFE 70.3
UNIT 11 FFE 69.05
UNIT 12 FFE 69.05
UNIT 13 FFE 69.2
UNIT 14 FFE 69.21
UNIT 15 FFE 69.7
UNIT 16 FFE 69.7

BENCHES, TYP. (3) LOCATIONS

MULCHED PLANTING BED

3' HIGH CEDAR SPLIT-RAIL FENCE (MFG. BY RCN FOREST OR EQUAL)

3' HIGH SPLIT RAIL FENCE

LAWN (TYP.)

MAILBOXES

(3) TD
(4) TD
(15) JV
(4) MD
(16) JV
(7) MD
(16) JV
(6) RA
(1) FL
(5) RA
(4) FL

20' LONG x 6' HIGH CEDAR "BOARD AND CAP" FENCE. (MFG. BY RCN FOREST OR EQUAL) TYP. 5 PLACES, EXCEPT BEHIND UNITS 15 AND 16: (10'L x 6'H), MFG. BY

110' LONG x 6' HIGH CEDAR "BOARD AND CAP" FENCE

15' LONG x 6' HIGH CEDAR "BOARD AND CAP" FENCE (INTEGRATE WITH DUMPSTER ENCLOSURE)

STREET LIGHT, TYP. 3 PLACES

PROJECT SIGN

HOLM AVE

GRAPHIC SCALE

0 30 60 90 120

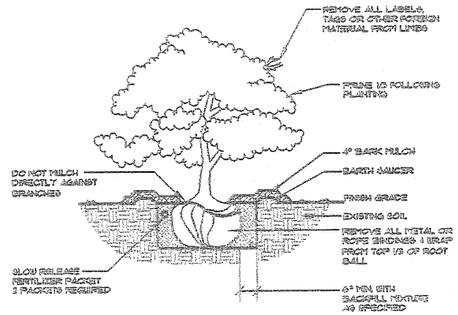
(IN FEET)

1 inch = 30 ft.

PLANTING SCHEDULE

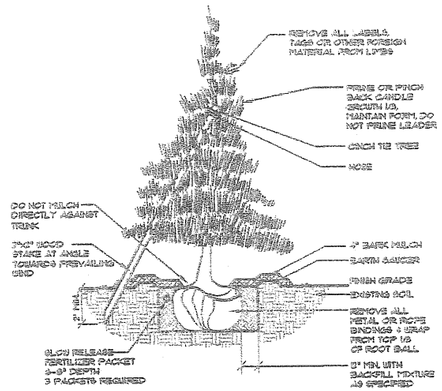
SYMBOL	BOTANICAL / COMMON NAME	SIZE / COMMENTS
FL	FRAXINUS LANCEOLATA 'SUMMIT' / GREEN ASH	1 ½"
MD	MALUS DONALD WYMAN / FLOWERING CRAB	8' - 9'
TD	TSUGA DIVERSIFOLIA / JAPANESE HEMLOCK	B&B
TO	THUJA O. NIGRA' / ARBORVITAE	6' MIN.
IC	ILEX CRENATA 'COMPACTA' / DWARF JAPANESE HOLLY	12" - 15" / IN MULCHED PLANTING BED
RC	RHODODENDRON CAROLINIANUM / CAROLINA RHODODENDRON	2 - 2½'/IN MULCHED PLANTING BED
RA	RHODODENDRON 'APRIL GEM' / RHODODENDRON	15" - 18"
JV	JUNIPERUS VIRGIANA 'GREY OWL' / GREY OWL JUNIPER	#3 / 5' O.C.
EF	EONYMUS FORTUNEI / WINTERCREEPER	#3 POT / 18" O.C. IN MULCHED PLANTING BED
AE	ARCTOSTAPHYLOS UVA-URSI / BEARBERRY	#1 / 18" O.C. IN MULCHED PLANTING BED

LIGHTING: "TRADITIONAIRE" POST-TOP LANTERN ON 15' (ROUND-STRAIGHT ALUMINUM) POLE. MANUFACTURED BY McGRAW-EDISON OR EQUAL.



DECIDUOUS & EVERGREEN SHRUB

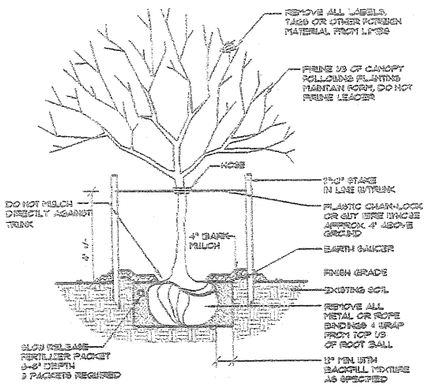
NOT TO SCALE



DECIDUOUS TREES UNDER 2" CALIPER OR UNDER 5' IN HEIGHT

EVERGREEN TREES 4'-6' IN HEIGHT & UNDER

NOT TO SCALE



DECIDUOUS TREES 2" TO 4" CALIPER

NOT TO SCALE

REV.	BY:	DATE:	STATUS:
S	MME	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MME	3-28-00	PLANNING BOARD RE-SUBMISSION

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LANDSCAPE AND LIGHTING PLAN

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HOLM AVENUE
PORTLAND, MAINE

FOR:

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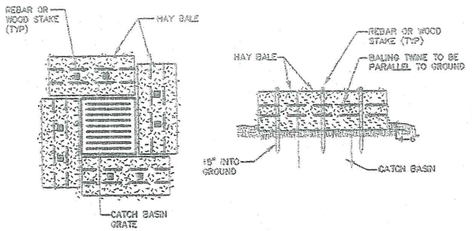
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339
Tel (207) 856-0277

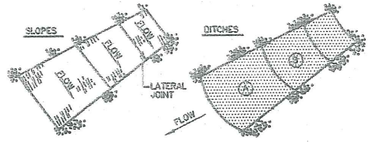
DESIGN BY:	JRP
DRAWN BY:	MAL
CHECKED BY:	WTC
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	883
PROJ. NO:	99103
DRAWING:	99103L
SHEET	5 OF 8

AH. 5F



NOTE: INSTALL BARRIER AT EACH CATCH BASIN

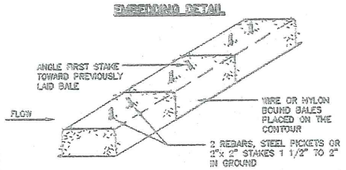
CATCH BASIN HAY BALE BARRIER
NOT TO SCALE



NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF 9 11 WIRE 6" LONG AND 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 OR APPROVED EQUAL.

EROSION CONTROL MESH
NOT TO SCALE

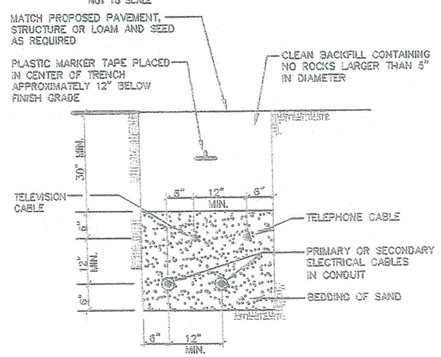
SLOPE END DETAIL



ANCHORING DETAIL

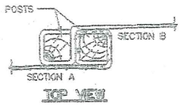
NOTES:
1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY 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

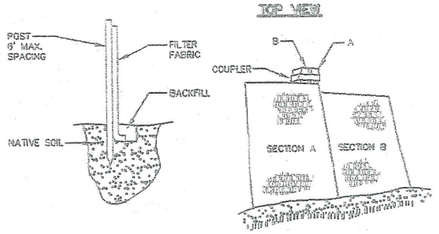


CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS CONSISTING OF (2) 5"Ø CONDUITS FOR ELECTRICAL, (1) 4"Ø CONDUIT FOR TV/CABLE AND (1) 2"Ø CONDUIT FOR TELEPHONE.

UNDERGROUND CABLE INSTALLATION
NOT TO SCALE

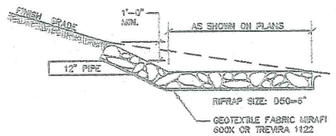


TOP VIEW

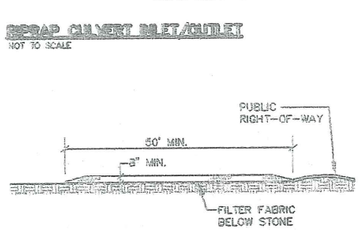


INSTALLATION:
1. EXCAVATE A 6"x 8" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
4. LAY THE 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.

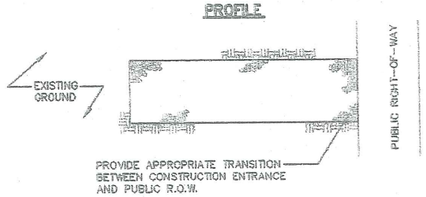
SILTATION FENCE
NOT TO SCALE



RIPRAP CULVERT INLET/OUTLET
NOT TO SCALE



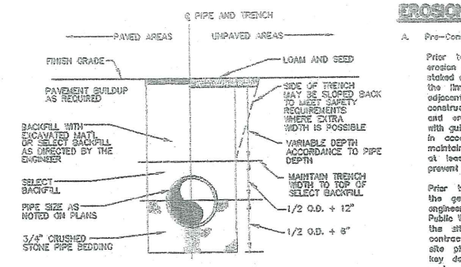
PROFILE



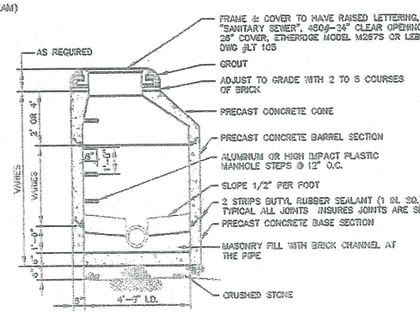
PLAN

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

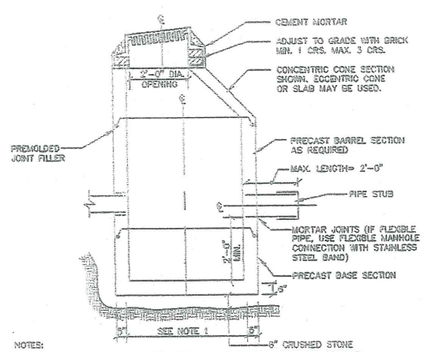


TYPICAL TRENCH SECTION
NOT TO SCALE



NOTE: PIPE CONNECTIONS SHALL BE WATERTIGHT FLEXIBLE BOOT CONNECTORS PROVIDES LEAKPROOF CONNECTION

PRECAST MANHOLE
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 AND ALL CITY OF PORTLAND CATCH BASINS SHALL BE INSTALLED WITH CASCO TRAPS.
5. DRAINAGE MANHOLE FRAME AND COVER TO BE ETHERIDGE FOUNDRY M248S OR APPROVED EQUAL. COVER SHALL BE MARKED "DRAIN".

TYPICAL CATCH BASIN
NOT TO SCALE

EROSION AND SEDIMENTATION CONTROL PLAN

A. Pre-Construction Phase

Prior to the beginning of any construction, a combination erosion control berm and filter fabric fencing will be staked across the slope(s), on the contour, at or just below the limits of clearing or grubbing, and/or just above any adjacent property line or watercourse to protect against construction related erosion. The placement of silt fences and erosion control berms shall be completed in accordance with guidelines established in Best Management Practices and in accordance with the site plan. This network is to be maintained by the contractor until all exposed slopes have at least 85%-90% vigorous perennial vegetative cover to prevent erosion.

Prior to any construction at the site, representatives of the general contractor, site contractor and the site design engineer shall arrange for, and meet with the Director of Public Works and Town Engineer to discuss the scheduling of the site construction. On or before that meeting, the contractor will prepare a detailed schedule and marked up site plan indicating areas and components of the work and key dates showing date of disturbance and completion of the work. Three copies of the schedule and marked up site plan shall be provided to the Town. Special attention shall be given to the 14 day limit of disturbance in the schedule addressing temporary and permanent vegetation measures.

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 and protected) within fourteen (14) days of disturbance shall be protected with temporary erosion control measures.
   Temporary erosion control shall include erosion control blanket, netting or mulch 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 shall be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 S.F. to provide winter protection and covered with erosion control mesh. All slopes greater than 8% shall be netted over mulch & seed if final seeding is not completed by Sept. 15.
2. All topsoil shall be collected and stockpiled offsite at an approved location to be determined by the public works director. Stockpiled loam shall be seeded with Rye at 3 lbs/1,000 S.F., and mulched on-site and re-used as required. Siltation fencing shall be placed down gradient from stockpiled loam.
3. All silt fences and erosion control berms shall be installed according to this plan. These shall be maintained during development to remove sediment from runoff water. All the silt fences and erosion control berms 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.
4. All areas shall be seeded and stabilized in accordance with the following vegetation plan.

C. Vegetation Plan

Revegetation measures shall commence immediately upon completion of construction. Disturbed areas shall also be mulched and anchored prior to any storm event. If final seeding or sodding cannot be accomplished by September 15th, then all disturbed areas shall be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 sq. ft. to provide winter protection and covered with erosion control blanket.

Revegetation measures shall consist of the following:

1. Four inches of loam will be spread over disturbed areas and smoothed 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. Soils tests shall be taken at the time of soil stripping to determine fertilization requirements. Soils test shall be taken promptly so to not interfere with the 7 day limit on soil exposure. Based upon test results, soil amendments shall be incorporated into the soil prior to final seeding.
3. Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 3 lbs./1000 S.F. 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 loam areas will be seeded to a premium turf mixture of Bluegrass and/or Fescue; seeding rate of 2-3 lbs. per 1,000 square feet. Sod shall be used in areas indicated on plans.
4. Erosion control blanket shall be applied in accordance with the plans over all finish seeded areas as specified on the design plans.
5. All hay bale and/or filter fabric barriers will remain in place until seedings have became 85%-90% established and then removed within 10 days.
6. The inspecting engineer at his/her discretion, may require additional erosion control measures and/or supplemental vegetative provisions to maintain stability of earthworks and finish graded areas. The site contractor shall be responsible for providing and installing any supplemental measures as directed by the inspecting engineer. Failure to comply with the engineer's directions will result in discontinuation of construction activities.

D. Construction Schedule

Site improvements will most likely begin in spring of 2000, depending upon final project approval and the selection of a site contractor. Based upon a spring construction start, the following schedule has been prepared.

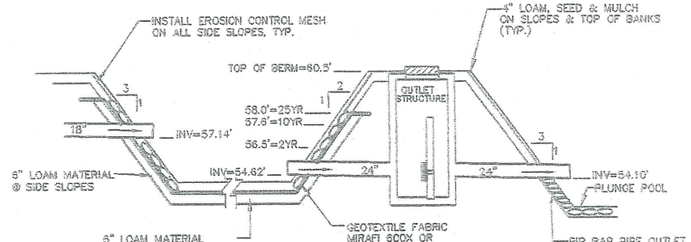
Schedule	Completion Dates
1. Estimated construction time:	April, 2000 – October, 2000
*2. Erosion control measures placed	April, 2000 – October, 2000
3. Site clearing, grubbing, excavation and filling.	March, 2000 – May, 2000
4. Rough grading, utility improvements, drainage and road construction.	April, 2000 – July, 2000
5. Start final seedings on prepared areas.	July, 2000
*6. Steadily monitoring of temporary and permanent vegetative growth.	July, 2000 – October, 2000
*7. Re-seeding of areas, if needed.	October, 2000 – June, 2001
*8. Removal of erosion control devices.	October, 2000
*9. Mulch spread for winter erosion control, if needed.	September, 2000 – April, 2001

* Dates are subject to change at the discretion of the engineer, depending on construction progress.

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. The contractor shall provide the City of Portland with written documentation describing dates of inspections and necessary follow-up work to maintain erosion control measures meeting the requirements of this plan.

Following the temporary and/or final seedings, the contractor shall inspect the site semimonthly 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.



CONSTRUCTION NOTES:
1. CONTRACTOR SHALL REMOVE ALL TOPSOIL AND ORGANIC MATERIAL FROM EMBANKMENT AND POND CONSTRUCTION AREA.
2. SCARIFY SUBGRADE TO ESTABLISH INTERFACE FOR ALL FILLS.
3. CONSTRUCTION MATERIAL SHALL MEET M.D.O.T. SPEC. 703.18
4. COMPACT IN 12" LIFTS TO 92% OF MAXIMUM DENSITY.
5. INSTALL RIPRAP AND EROSION MESH WHERE SPECIFIED.
6. LOAM, SEED & STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

DETENTION BASIN/TREATMENT POND SECTION
NOT TO SCALE

REV.	BY:	DATE:	STATUS:
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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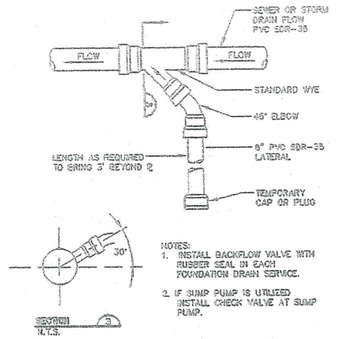
Tel (207) 856-0277

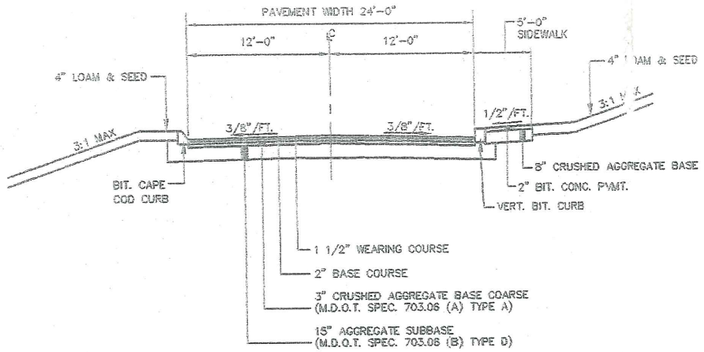
DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	883
PROJ. NO:	99103
DRAWING:	9910301

SHEET 7 OF 8

AH. 5g



SEWER LATERAL SERVICE CONNECTION
NOT TO SCALE



STREET SECTION
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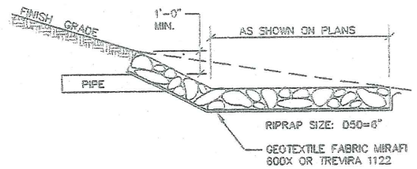
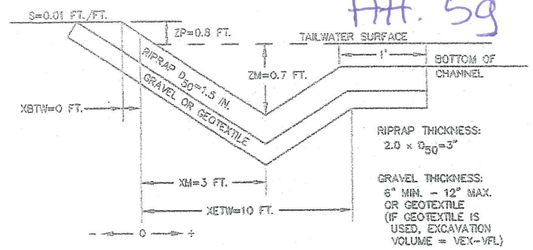
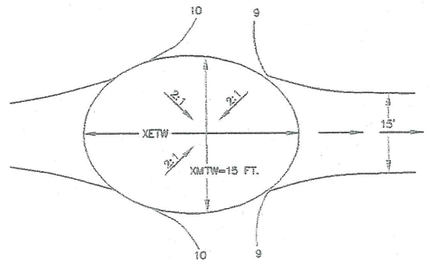


RIPRAP CULVERT INLET/OUTLET
NOT TO SCALE



CENTERLINE PROFILE

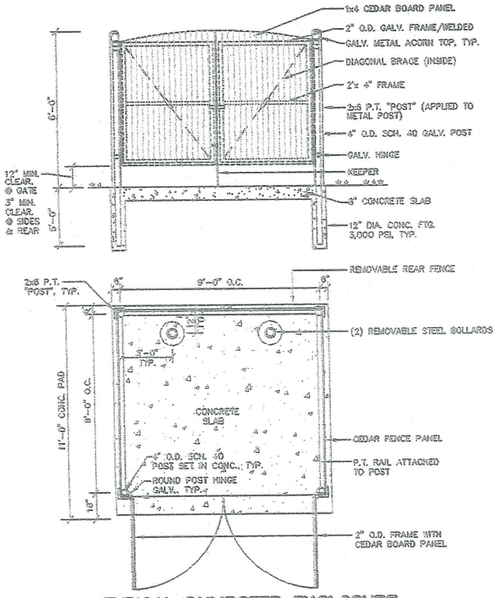


PLAN VIEW

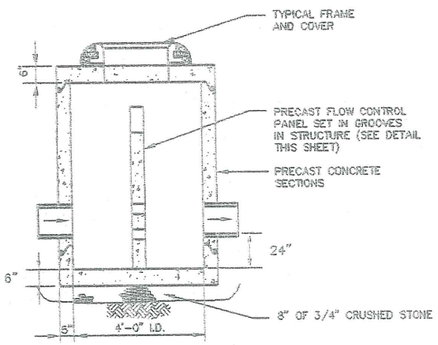
STONE LINED PLUNGE POOL
NOT TO SCALE

TYPICAL DRIVE APRON DETAIL WITH SIDEWALK
NOT TO SCALE

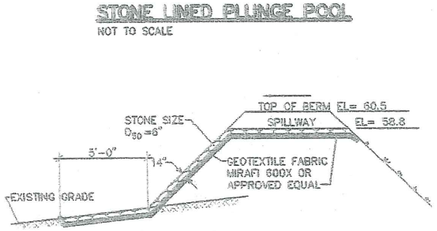
TYPICAL DRIVE APRON DETAIL WITHOUT SIDEWALK
NOT TO SCALE



TYPICAL DUMPSTER ENCLOSURE
NOT TO SCALE



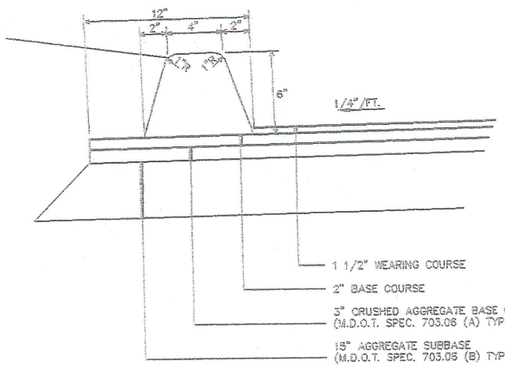
OUTLET STRUCTURE DETAIL
NOT TO SCALE



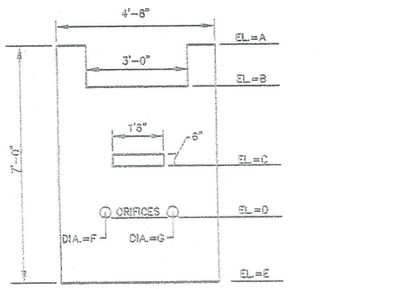
EMBANKMENT CONSTRUCTION

1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
4. LOAM, SEED, AND STABALIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

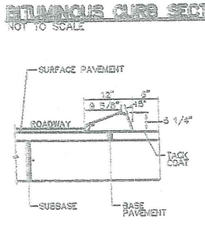
SPILLWAY SECTION
NOT TO SCALE



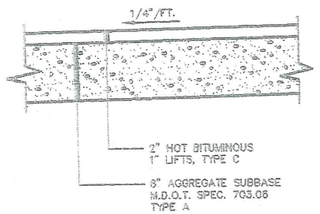
BITUMINOUS CURB SECTION
NOT TO SCALE



PRECAST FLOW CONTROL PANEL
NOT TO SCALE



CAPE COD CURB DETAIL
NOT TO SCALE



BITUMINOUS SIDEWALK
NOT TO SCALE

OUTLET CONTROL STRUCTURE SCHEDULE

DETENTION BASIN	ELEVATION (ft.)					ORIFICE ø (IN)	
	A	B	C	D	E	F	G
1	59.3	58.8	56.0	54.5	52.5	4.0	4.0

REV:	BY:	DATE:	STATUS:
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

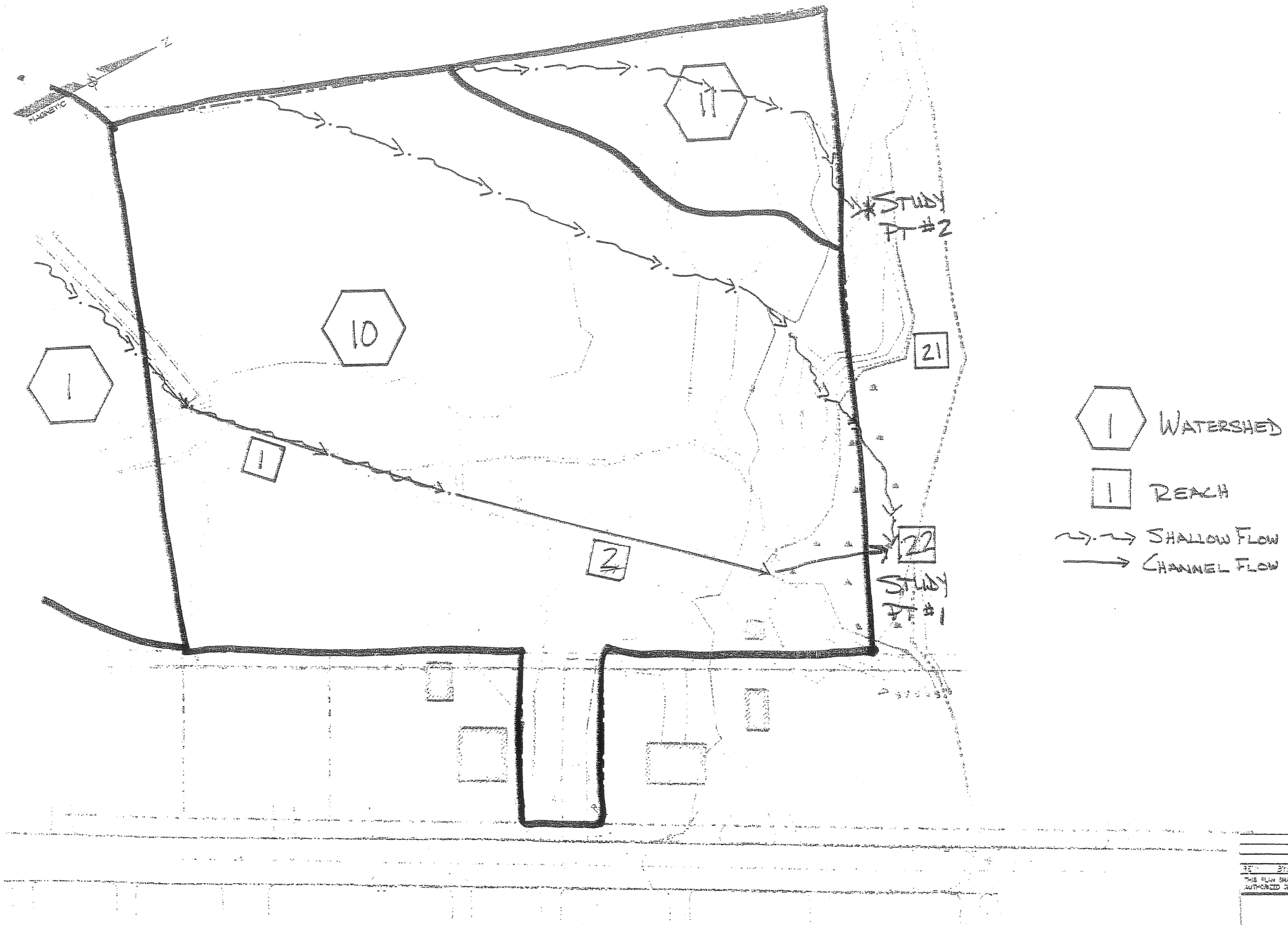
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

DETAILS
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1338
Tel (207) 856-0277

DESIGN BY:	JRB
DRAWN BY:	MAL
CHECKED BY:	GMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	383
PROJ. NO:	99103
DRAWING:	9910302
SHEET 8 OF 8	

10



GRAPHIC SCALE

1" = 60'

REV: BY: DATE: STATUS:

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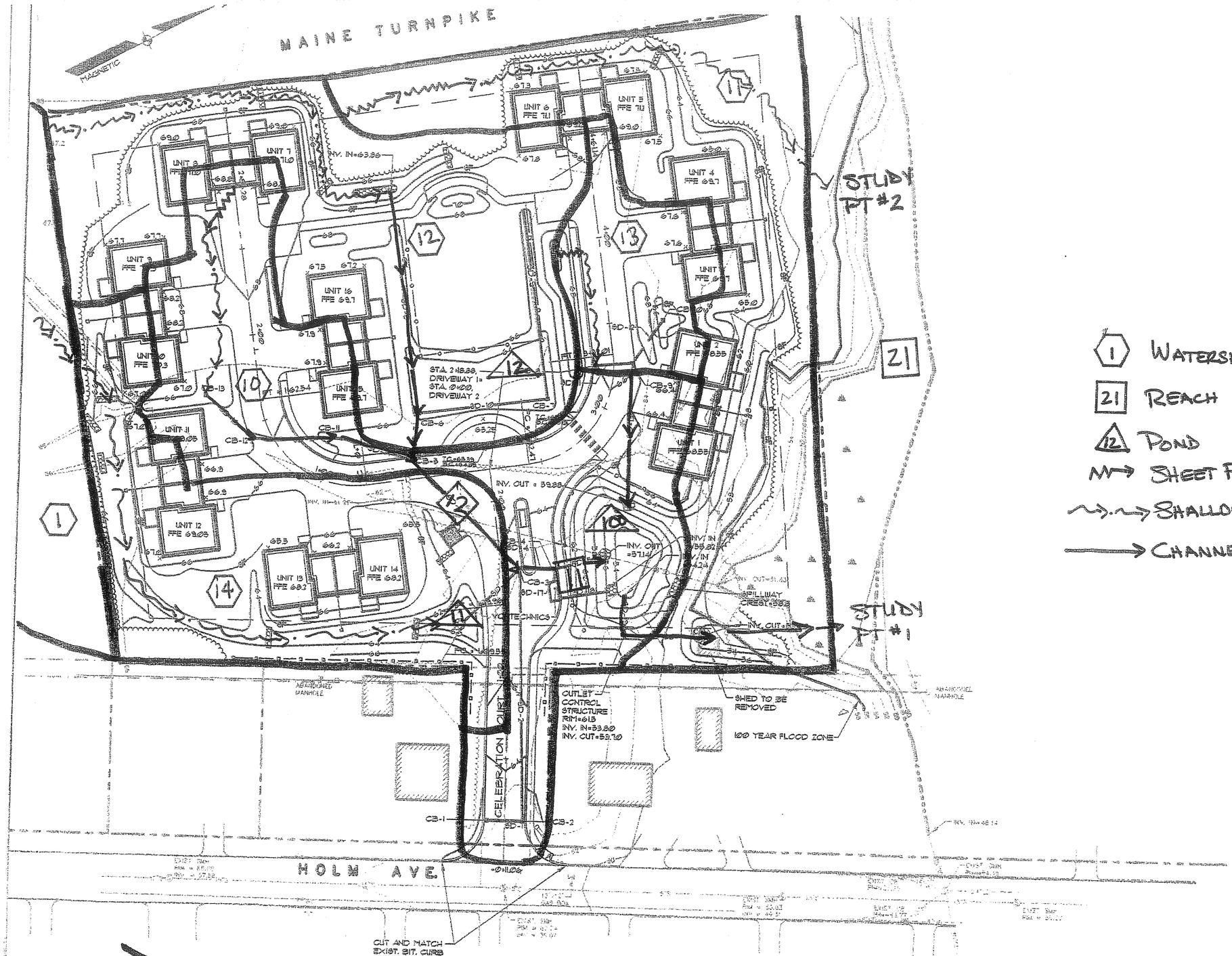
PRE DEVELOPMENT WATER SHED PLAN
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

DESIGN BY:
DRAWN BY:
CHECKED BY:
DATE:

1p



1 WATERSHED

21 REACH

12 POND

SHEET FLOW

SHALLOW CONCENTRATED FLOW

CHANNEL FLOW

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

1" = 60'

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN.)	LENGTH (FT.)	SLOPE
SD-1	12	18	0.007
SD-2	12	142	0.007
SD-3	12	42	0.005
SD-4	18	16	0.005
SD-5	18	28	0.005
SD-6	15	86	0.006
SD-7	12	23	0.01
SD-8	12 PERF.	130	0.032
SD-9	12 PERF.	105	0.01
SD-10	12 PERF.	72	0.005
SD-11	12	18	0.005
SD-12	12	27	0.005
SD-13	12	79	0.008
SD-14	12	38	0.01
SD-15	12	50	0.01

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.5	--	58.5
CB-2	62.5	58.38	58.28
CB-3	63.32	58.79 58.75 57.28	57.47
CB-4	63.32	57.38	57.25 56.0
CB-5	64.37	59.55 59.37	59.27
CB-6 HYDROBRAKE	63.4	59.70 59.70	59.6
CB-7	63.4	60.16	60.06
CB-8	63.79	----	60.7
CB-9	63.73	61.01 60.61	60.51
CB-10	[illegible]		

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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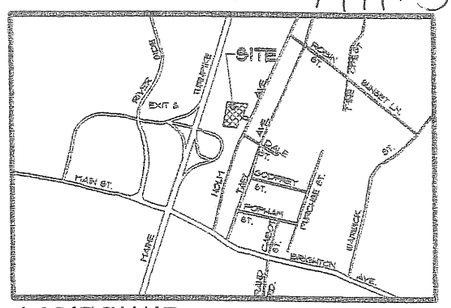
POST-DEVELOPMENT WATERSHED PLAN
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF

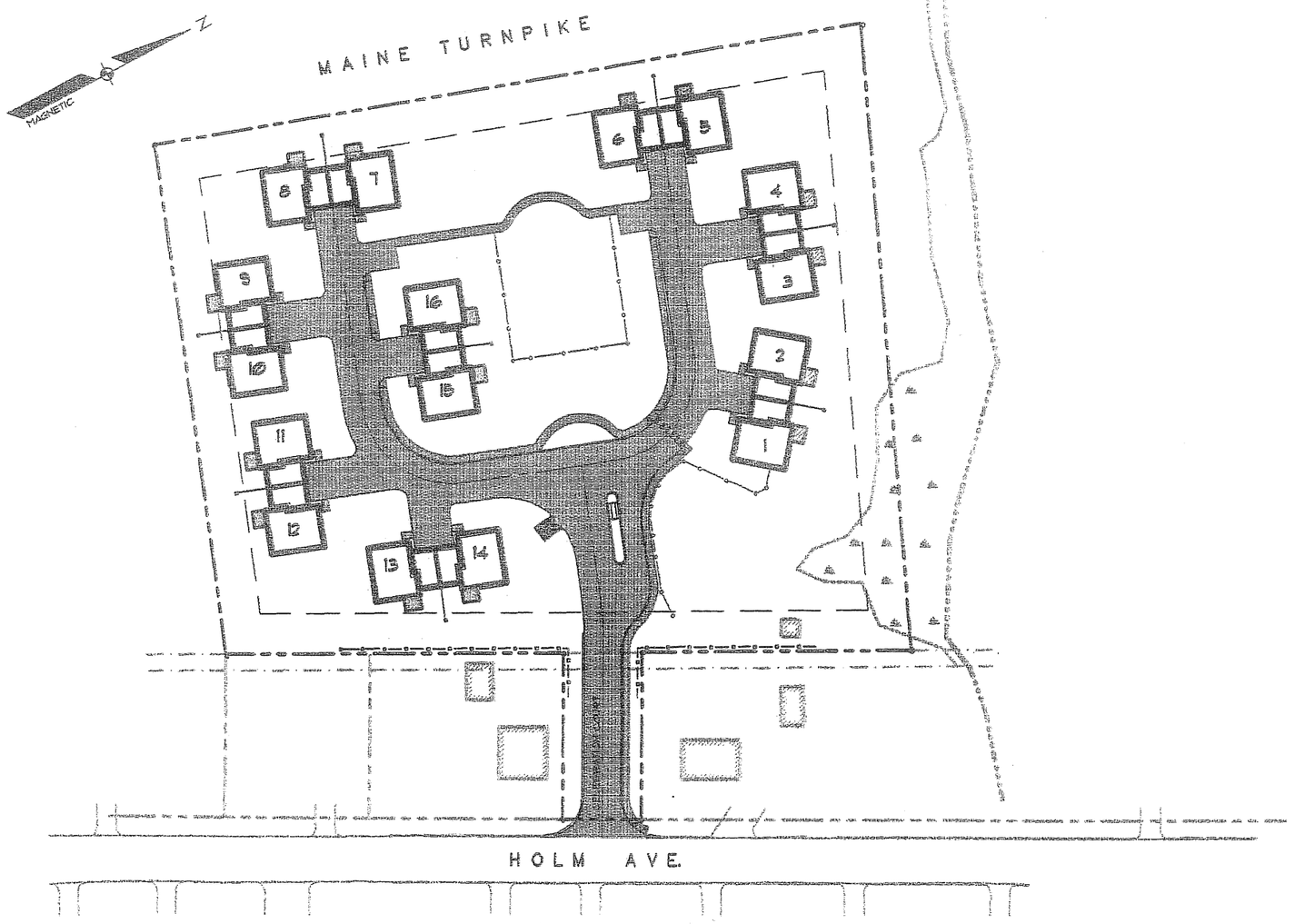
AH.5

HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE



LOCATION MAP N.T.S.



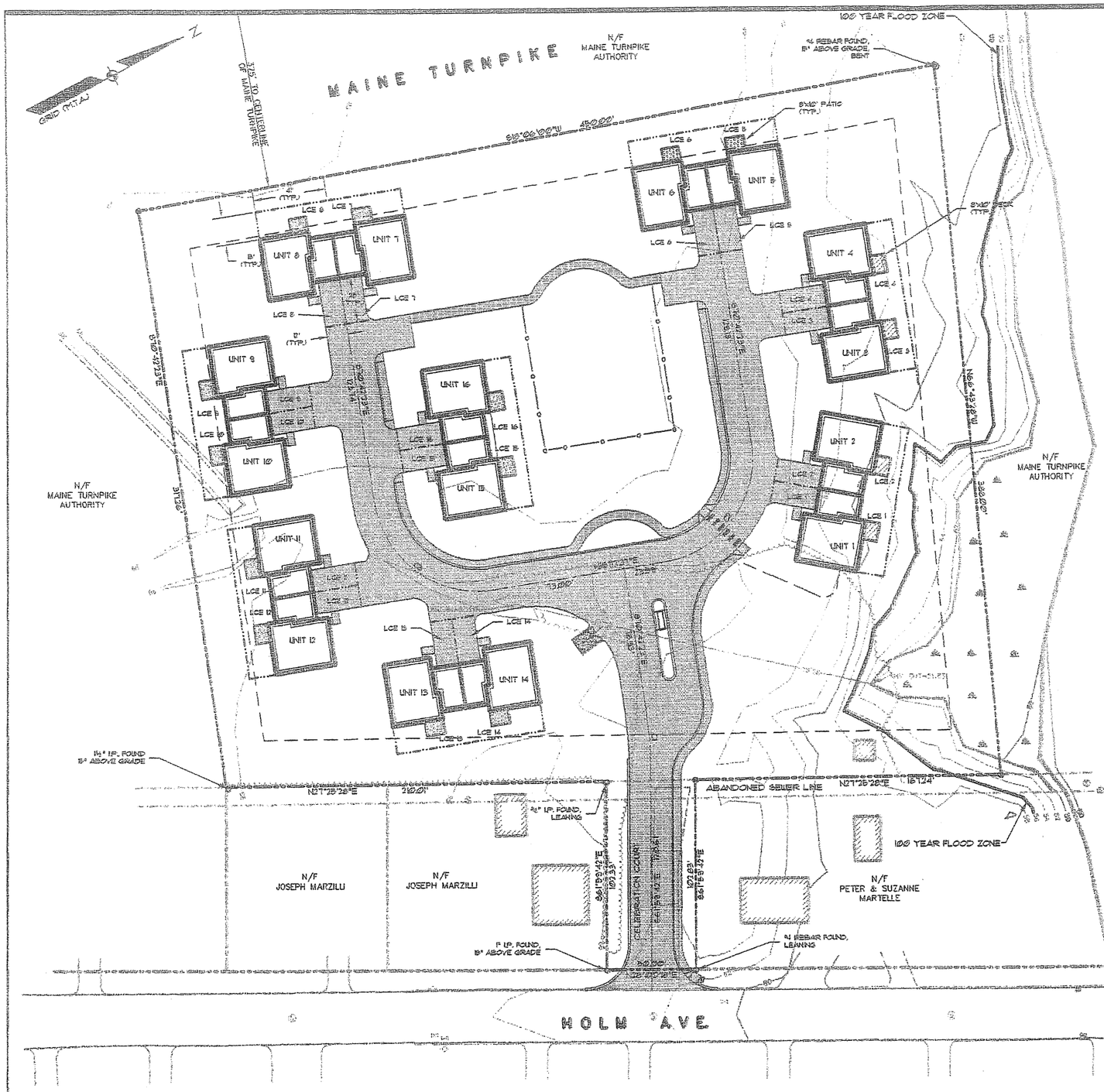
SHEET INDEX:

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUBDIVISION/RECORDING PLAT
3	SITE PLAN
4	PLAN AND PROFILE: DRIVEWAY 1 (STA. -0+11.06 TO STA. 1+55.78)
	DRIVEWAY 2 (STA. 0+00 TO STA. 2+66.28)
5	UTILITY PLAN
6	LANDSCAPE AND LIGHTING PLAN
7	DETAILS
8	DETAILS

OWNER/APPLICANT:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

ENGINEER/SURVEYOR:
SEBAGO TECHNICS, INC.
ONE CHABOT STREET
WESTBROOK, MAINE 04098-1339

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

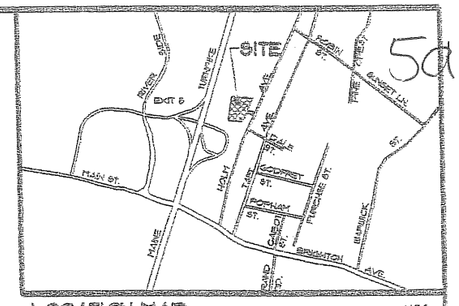
1 inch = 30 ft.

LEGEND

EXISTING	DESCRIPTION:	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	EASEMENT	
	CENTERLINE	
	MONUMENT	
	IRON PIPE/ROD	●
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	SIGN	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
	CONTOURS	
	GAS	
	WATER	
	SEWER	
	STORM DRAIN	
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
	MANHOLE	
	STOCKADE FENCE	

CENTERLINE CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
C1	30.41'	200.00'	8°42'41"
C2	86.54'	57.00'	90°00'00"
C3	89.54'	57.00'	90°00'00"



LOCATION MAP N.T.S.

GENERAL NOTES

1. THE RECORD OWNER OF THE PROPERTY IS PETER AND SUZANNE MARTELLE BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN DEED BOOK 11098 PAGE 295 AND BOOK 8030 PAGE 108.

2. THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND TAX ASSESSORS MAP # 275 BLOCK C LOT 5.

3. PLAN REFERENCES:
   A. PLAN OF LAND OF MAINE TURNPIKE AUTHORITY TO PETER P. & SUZANNE G. MARTELLE BY D. O. HARRIMAN, DATED JANUARY 1986.
   B. UNTITLED PLAN OF SUBDIVISION RECORDED IN THE CCRD ON JULY 12, 1912, IN PLAN BOOK 12 PAGE 23.
   C. PLAN OF MAINE TURNPIKE AUTHORITY, SECTION 2, SUPPLEMENTAL SHEET # 17, DATED JANUARY 1986.
   D. PLAN OF THE PORTLAND SEWER SYSTEM INFILTRATION-INFLOW ANALYSIS SYSTEM BASED MAPPING, FOR THE PORTLAND WATER DISTRICT, BY HUNTER-BALLEW ASSOCIATES, DATED 1981, DRAWING # 11-16, ON FILE AT PORTLAND'S ENGINEERING OFFICE.
   E. MAINE TURNPIKE AUTHORITY SECTION 2, BY HOWARD, NEEDLES, TAMMEN, AND BERGENDOFF, SHEET 5 OF 8, DATED SEPTEMBER 3, 1953 AND LAST REVISED IN NOVEMBER OF 1963.
   F. MAINE TURNPIKE AUTHORITY SECTION 2, BY HOWARD, NEEDLES, TAMMEN, AND BERGENDOFF, SUPPLEMENTAL SHEET # 15, DATED MARCH 1956, AND LAST REVISED IN AUGUST OF 1963.

4. THE TOTAL AREA OF THE PROPERTY IS APPROXIMATELY 3.68 ACRES.

5. NET RESIDENTIAL AREA CALCULATIONS:

TOTAL AREA	159,166 SF.
- 25% SLOPES	7,200 SF.
- STORMWATER AREA	4,540 SF.
- WETLAND AREA	3,965 SF.
REMAINDER	143,471 SF.
- 20 %	28,693 SF.
NET RESIDENTIAL AREA	114,733 SF.

ALLOWABLE DENSITY = 1 UNIT PER 6,500 SF. = 17.65 UNITS

6. THE PROPERTY IS LOCATED IN THE CITY OF PORTLAND R5 RESIDENTIAL DISTRICT.

7. THE SPACE AND BULK STANDARDS FOR THE R5 DISTRICT ARE AS FOLLOWS:
   MINIMUM LOT AREA: 6,500 SF
   MINIMUM LOT AREA PER DWELLING UNIT: 25 FEET
   MINIMUM SIDE/REAR SETBACK (PRUD): 25 FEET
   MAXIMUM BUILDING HEIGHT: 35 FEET

8. BUILDING SUMMARY:
   EIGHT TWO UNIT BUILDINGS.

9. MINIMUM RECREATION AREA REQUIRED IS 6,300 SF. (8,730 SF. PROPOSED.)

10. MAXIMUM LOT COVERAGE:
    159,166 SF (3.65 AC.) X 25 = 39,792 SF ALLOWED
    16 UNITS X 1252 SF = 20,032 SF PROPOSED

11. BUILDING UNITS TO BE SERVED BY PUBLIC WATER, PUBLIC SEWER, PUBLIC GAS AND UNDERGROUND ELECTRIC, TELEPHONE AND CABLE.

12. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PORTLAND "TECHNICAL DESIGN STANDARDS AND GUIDELINES" ADOPTED SEPTEMBER 1997 AND AMENDED THROUGH JULY 1984.

13. THE 100 YEAR FLOOD ZONE SHOWN HEREON IS ZONE AE AS DESIGNATED ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL # 230051-0006-B, REVISED ON DECEMBER 8, 1998.

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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APPROVAL -
CITY OF PORTLAND
PLANNING BOARD

_____ DATE

_____ CHAIRPERSON

STATE OF MAINE

_____ COUNTY SS REGISTRY OF DEEDS

RECEIVED _____ 20____

AT ___h _____m _____M. AND RECORDED IN

PLAN BOOK _____ PAGE _____

ATTEST _____ REGISTER

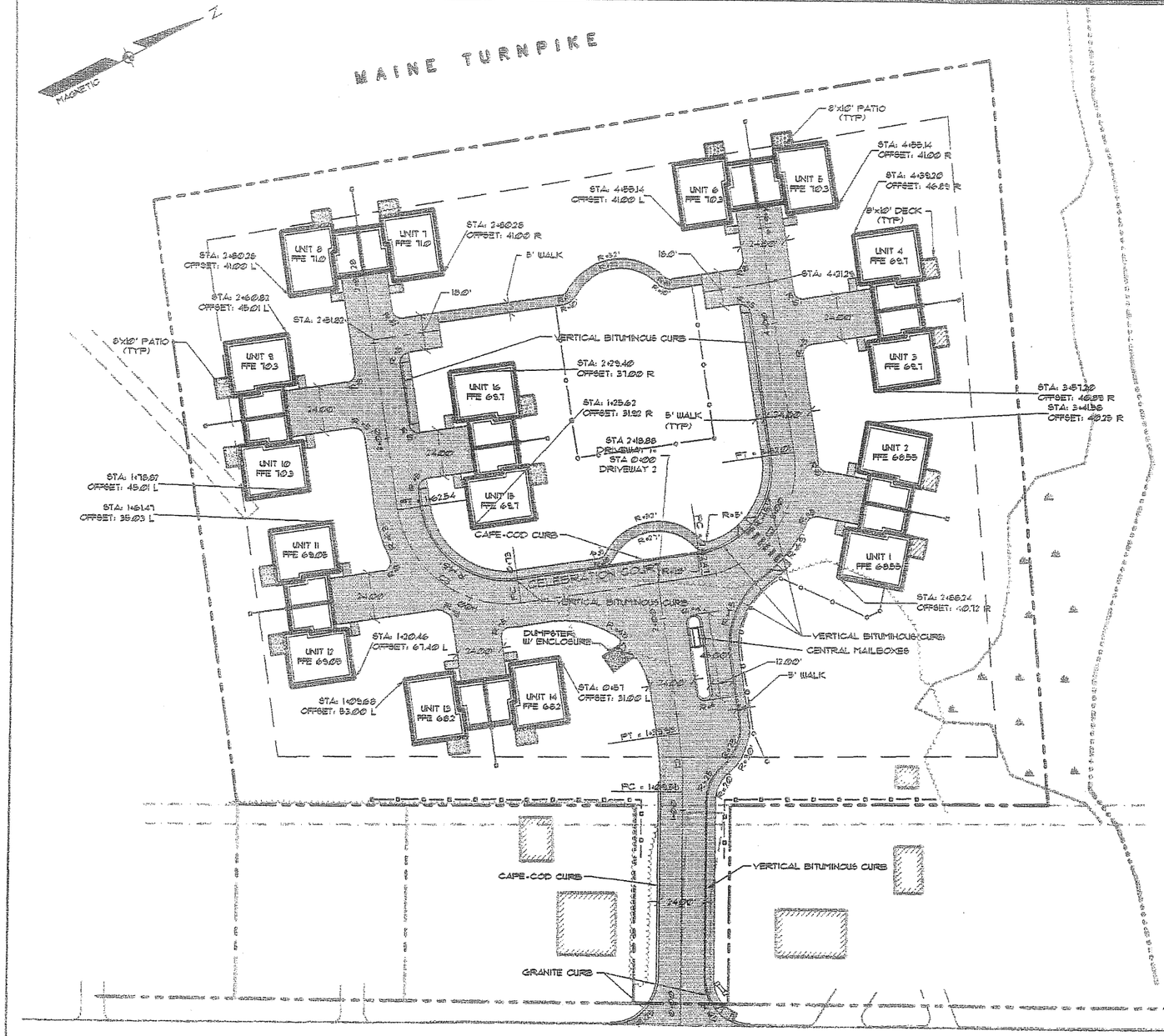
SUBDIVISION/RECORDING PLAT
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

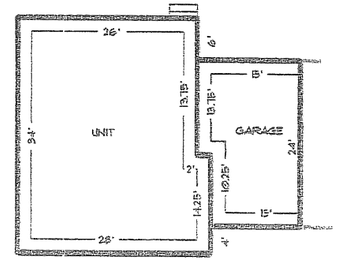
RECORD OWNER:
PETER & SUZANNE MARTELLE
8 POE STREET
PORTLAND, MAINE 04102

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339
Tel (207) 856-0277

DESIGN BY:	JRS/MWE
DRAWN BY:	MAL
CHECKED BY:	MWE
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	683
PROJ. NO:	99103
DRAWING:	99103SB
SHEET 2 OF 8	

5b





TYPICAL UNIT DIMENSIONS
SCALE: 1"=10'

CENTERLINE CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
C1	30.41'	200.00'	8°42'44"
C2	86.54'	57.00'	86°59'00"
C3	89.54'	57.00'	90°00'00"

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

REV:	BY:	DATE:	STATUS:
C	MWC	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWC	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWC	3-29-00	PLANNING BOARD RE-SUBMISSION

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SITE PLAN

OF:

HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE

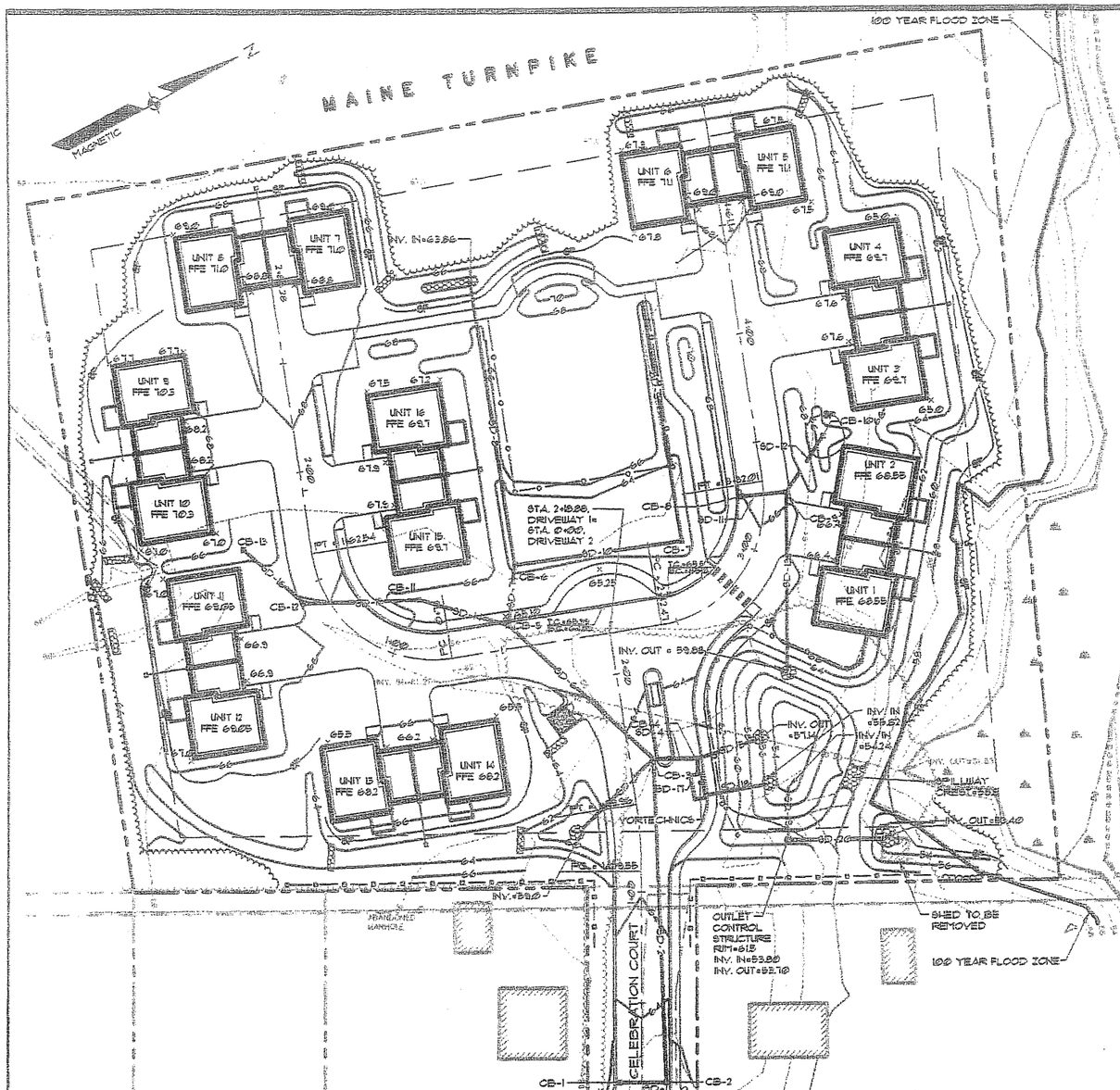
FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339
Tel (207) 856-0277

DESIGN BY:	JLW
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	683
PROJ. NO:	99103
DRAWING:	991035
SHEET	3 OF 8

5C

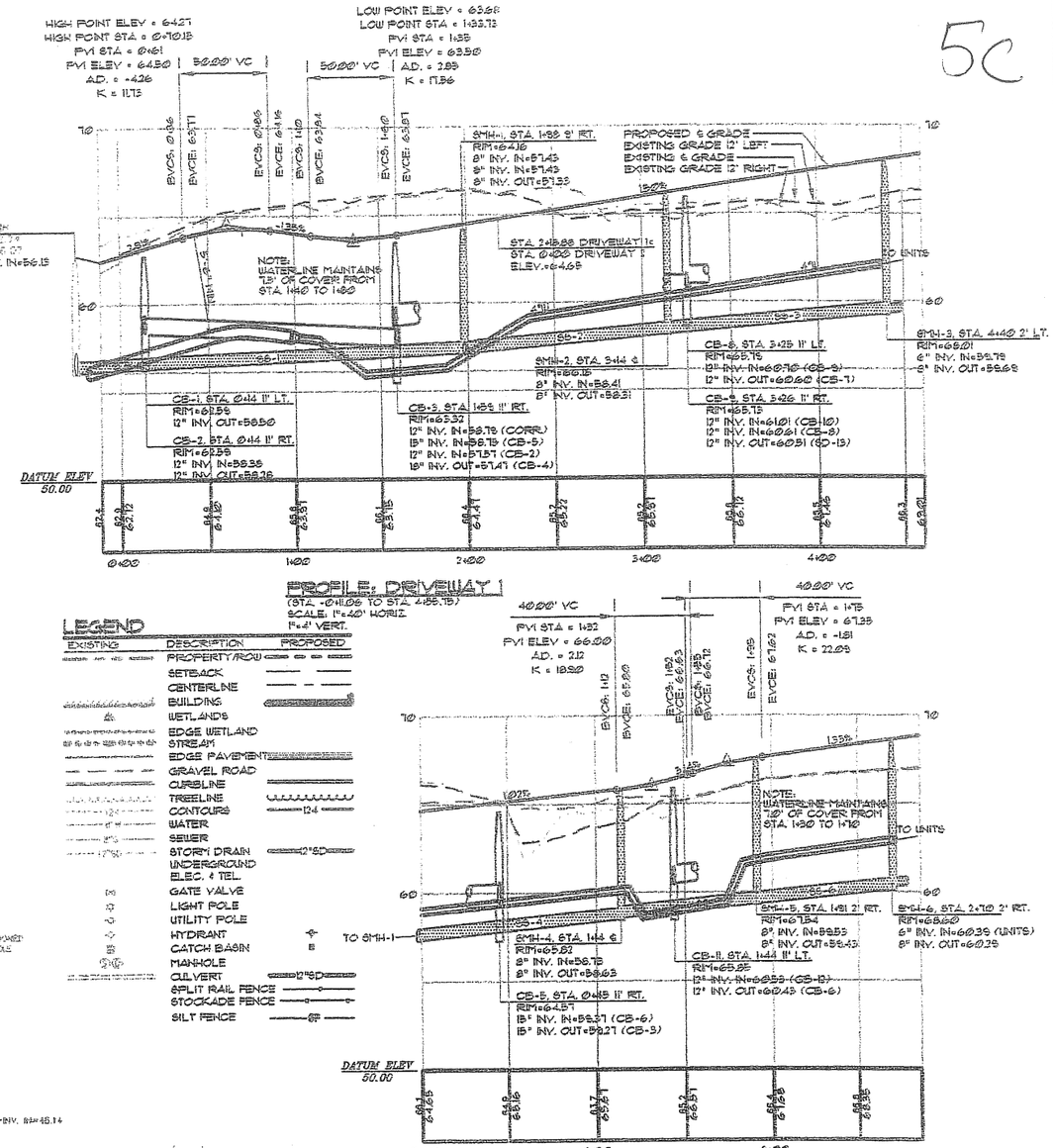


GRAPHIC SCALE

0 5 10 20 40 120

(IN FEET)

1 inch = 20 ft.



PROFILE: DRIVEWAY 1

(STA. -0+11.06 TO STA. 4+61.14)
SCALE: 1"=40' HORIZ.
1"=4' VERT.

PROFILE: DRIVEWAY 2

(STA. 0+00 TO STA. 2+36.28)
SCALE: 1"=40' HORIZ.
1"=4' VERT.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	CENTERLINE	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
124	CONTOURS	124
	WATER	
	SEWER	
	STORM DRAIN	12"SD
	UNDERGROUND ELEC. & TEL.	
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
	MANHOLE	
	CULVERT	12"SD
	SPLIT RAIL FENCE	
	STOCKADE FENCE	
65'	SILT FENCE	

SANITARY SEWER SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
SMH-1	64.16	57.43 57.45	57.35
SMH-2	66.18	58.41	58.31
SMH-3	68.01	58.76	58.66
SMH-4	65.82	58.78	58.68
SMH-5	67.54	58.55	58.45
SMH-6	68.60	60.39	60.28

PIPE NO.	SIZE (IN)	LENGTH (FT)	SLOPE
SS-1	8	220	0.0055
SS-2	8	88	0.01
SS-3	8	128	0.01
SS-4	8	120	0.01
SS-5	8	10	0.01
SS-6	8	76	0.01

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN)	LENGTH (FT)	SLOPE
SD-1	12	18	0.001
SD-2	12	142	0.001
SD-3	12	42	0.005
SD-4	18	16	0.005
SD-5	18	28	0.005
SD-6	15	86	0.006
SD-7	12	25	0.01
SD-8	12 PERF.	130	0.032
SD-9	12 PERF.	105	0.01
SD-10	12 PERF.	70	0.005
SD-11	12	16	0.005
SD-12	12	27	0.005
SD-13	12	19	0.005
SD-14	12	38	0.01
SD-15	12	50	0.01
SD-16	12	35	0.01
SD-17	15	6	0.005
SD-18	15	30	0.005
SD-19	12	22	0.01
SD-20	18	40	0.0075

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.5	--	58.5
CB-2	62.5	58.36	58.26
CB-3	63.32	58.78 58.78 57.28	57.47
CB-4	63.32	57.38	57.28 56.0
CB-5	64.57	58.55 58.37	58.27
CB-6 HYDROBRAKE	63.4	58.78 58.16	58.6
CB-7	63.4	60.16	60.06
CB-8	65.75	-----	60.7
CB-9	65.73	61.01 60.81	60.81
CB-10	63.6	--	61.15
CB-11	65.75	60.63	59.53
CB-12	65.85	60.53	60.43
CB-13	63.5	--	60.88
VORTECHNICS MODEL 13000 OR APPROVED EQUAL	63.4	55.97	55.97

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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PLAN AND PROFILE: DRIVEWAY 1 (STA. -0+11.06 TO STA. 4+61.14) DRIVEWAY 2 (STA. 0+00 TO STA. 2+36.28)

OF:

HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE

FOR:

VF BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1336
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	653
PROJ. NO:	99103
DRAWING:	99103P

SHEET 4 OF 8

5d

MAINE TURNPIKE

100 YEAR FLOOD ZONE

MAGNETIC N

UNIT 6 FFE 70.3
UNIT 5 FFE 70.3
UNIT 7 FFE 71.0
UNIT 8 FFE 71.0
UNIT 4 FFE 69.7
UNIT 3 FFE 69.7
UNIT 9 FFE 70.3
UNIT 16 FFE 69.7
UNIT 10 FFE 70.3
UNIT 15 FFE 69.7
UNIT 2 FFE 68.55
UNIT 11 FFE 69.05
UNIT 1 FFE 68.35
UNIT 12 FFE 69.05
UNIT 13 FFE 69.2
UNIT 14 FFE 69.2

SMH-1 SMH-2 SMH-3 SMH-4 SMH-5 SMH-6
CB-1 CB-2 CB-3 CB-4 CB-5 CB-6 CB-7 CB-8 CB-9 CB-10 CB-11 CB-12 CB-13
SD-1 SD-2 SD-3 SD-4 SD-5 SD-6 SD-7 SD-8 SD-9 SD-10 SD-11 SD-12 SD-13 SD-14 SD-15 SD-16 SD-17 SD-18 SD-19 SD-20

STA. 2+18.88, DRIVEWAY 1
STA. 0+00, DRIVEWAY 2

ALL 4" WATER TO BE PVC PIPE

INSTALL WATER METER PIT
INSTALL FIRE HYDRANT
INSTALL 8"x8"x6" TEE WITH 6" G.V.
8" D.I. WATER

CUT AND MATCH EXIST. BIT. CURB

ABANDONED MANHOLE

100 YEAR FLOOD ZONE

RIV. INV.=48.14

CELEBRATION COURT

HOLM AVE.

EXIST. SMH RIM = 65.66 INV. = 57.66
EXIST. SMH RIM = 62.74 INV. = 56.04
PROP. INV. IN=56.15
EXIST. SMH RIM = 66.00 INV. = 56.01
EXIST. CB RIM=63.77
EXIST. SMH RIM = 64.20

YORKTECHNICS

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

NOTE:
REFERENCE PLAN 4 OF 8 FOR THE PROFILES OF DRIVEWAYS 1 AND 2.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	CENTERLINE	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
	CONTOURS	
W	WATER	8"W
S	SEWER	8"S
	STORM DRAIN	12"SD
	UNDERGROUND ELEC. & TEL.	UGE&T
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
	MANHOLE	
	CULVERT	12"SD
	SPLIT RAIL FENCE	
	STOCKADE FENCE	
	SILT FENCE	

SANITARY SEWER SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
SMH-1	64.16	57.43 57.43	57.33
SMH-2	66.18	58.41	58.31
SMH-3	66.01	58.75	58.65
SMH-4	65.83	58.73	58.63
SMH-5	61.54	59.53	59.43
SMH-6	66.00	60.35	60.25

PIPE NO.	SIZE (IN.)	LENGTH (FT.)	SLOPE
SS-1	8	220	0.0055
SS-2	8	88	0.01
SS-3	8	126	0.01
SS-4	8	100	0.01
SS-5	8	10	0.01
SS-6	8	16	0.01

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN.)	LENGTH (FT.)	SLOPE
SD-1	12	18	0.007
SD-2	12	142	0.007
SD-3	12	42	0.005
SD-4	18	16	0.005
SD-5	18	28	0.005
SD-6	15	86	0.006
SD-7	12	23	0.01
SD-8	12 PERF.	150	0.032
SD-9	12 PERF.	105	0.01
SD-10	12 PERF.	72	0.005
SD-11	12	18	0.005
SD-12	12	27	0.005
SD-13	12	76	0.006
SD-14	12	38	0.01
SD-15	12	50	0.01
SD-16	12	38	0.01
SD-17	15	6	0.005
SD-18	15	30	0.005
SD-19	12	21	0.02
SD-20	15	40	0.005

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.5	--	58.5
CB-2	62.5	58.38	58.28
CB-3	62.32	58.76 58.76 57.26	57.41
CB-4	63.32	57.38	57.28 56.0
CB-5	64.57	59.86 59.37	59.27
CB-6 HYDROBRAKE	63.4	59.70 59.70	59.6
CB-7	63.4	60.16	60.06
CB-8	65.79	----	60.7
CB-9	65.73	61.01 60.61	60.51
CB-10	63.6	--	61.15
CB-11	65.75	60.03	59.93
CB-12	65.85	60.55	60.45
CB-13	65.5	--	60.28
YORKTECHNICS MAPE 48x48 (ONE APPROVED EQUAL)	63.4	58.57	58.47

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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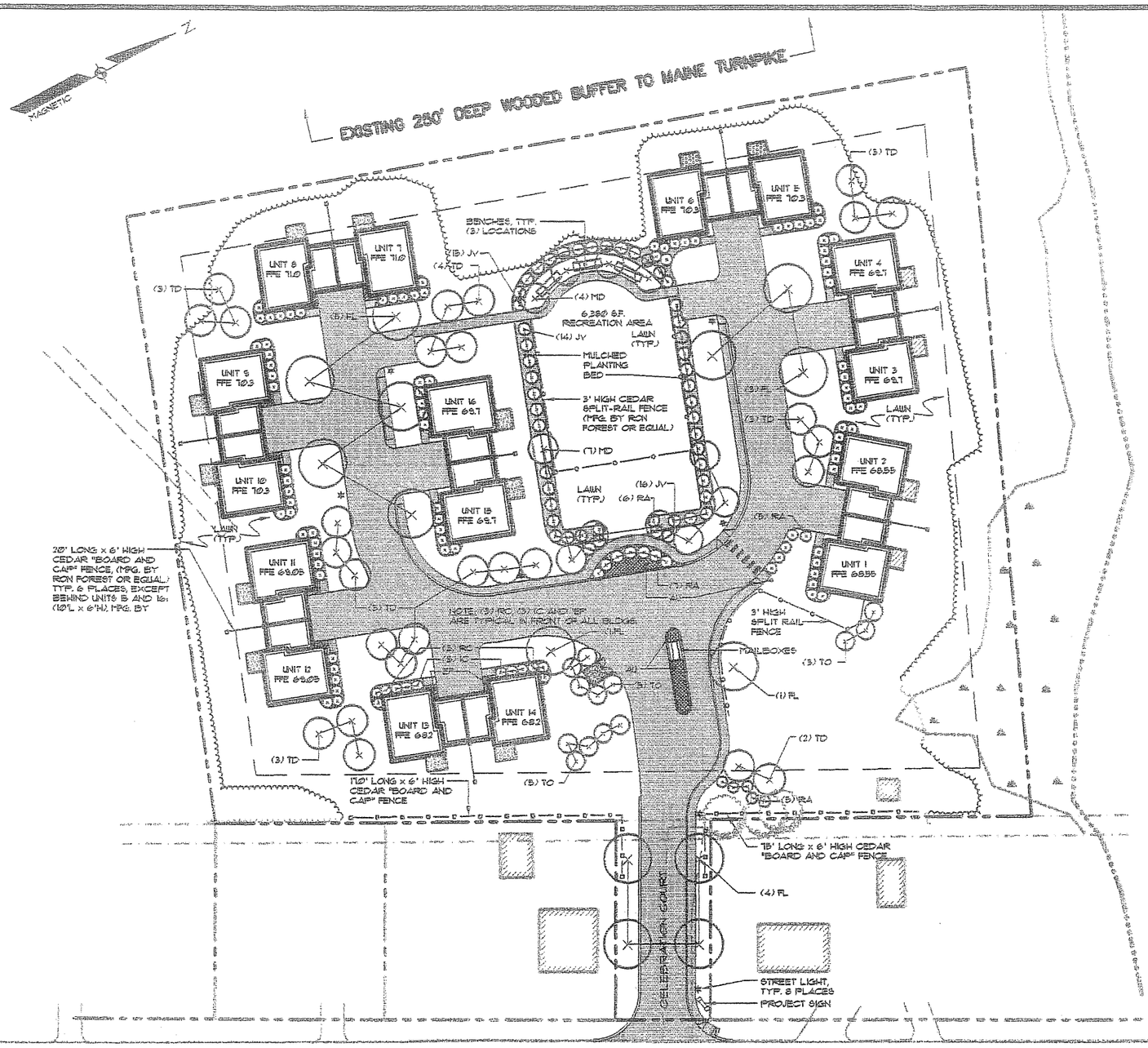
UTILITY PLAN
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MEJ
CHECKED BY:	SMF
DATE:	3-29-00
SCALE:	AS SHOWN
FIELD BK:	683
PROJ. NO:	99103
DRAWING:	99103JP

SHEET 5 OF 8



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

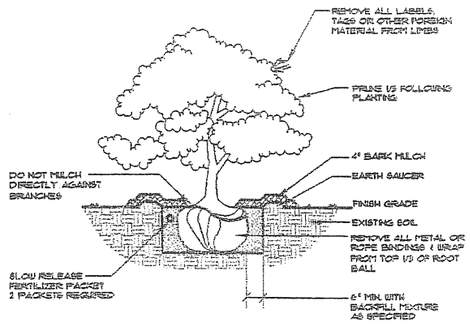
1 inch = 30 ft.

PLANTING SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME	SIZE / COMMENTS
FL	FRAXINUS LANCEOLATA 'SUMMIT' / GREEN ASH	1 ½"
MD	MALUS DONALD WYMAN / FLOWERING CRAB	5' - 6'
TD	TSUGA DIVERSIFOLIA / JAPANESE HEMLOCK	#5
TO	THUJA O. 'NIGRA' /ARBORVITAE	6' MIN.
IC	ILEX CRENATA 'COMPACTA' / DWARF JAPANESE HOLLY	12" - 15" / IN MULCHED PLANTING BED
RC	RHODODENDRON CAROLINIANUM / CAROLINA RHODODENDRON	2 - 2½'ΦN MULCHED PLANTING BED
RA	RHODODENDRON 'APRIL GEM' / RHODODENDRON	15" - 18"
JV	JUNIPERUS VIRGIANA 'GREY OWL' / GREY OWL JUNIPER	#5 / 6' OC.
EF	EONYMUS FORTUNEI / WINTERCREEPER	#3 POT / 18" O.C. IN MULCHED PLANTING BED
AU	ARCTOSTAPHYLOS UVA-URSI / BEARBERRY	#1 / 18" O.C. IN MULCHED PLANTING BED

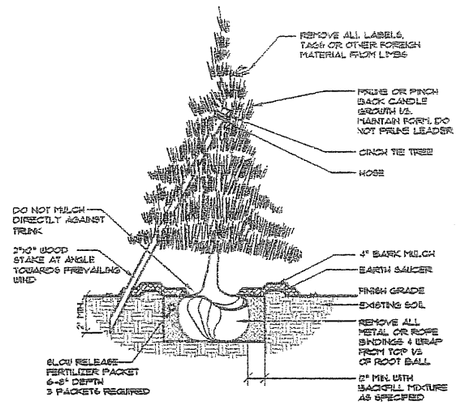
5e

LIGHTING: "TRADITIONAIRE" POST-TOP LANTERN ON 15' (ROUND-STRAIGHT ALUMINUM) POLE. MANUFACTURED BY McGRAW-EDISON OR EQUAL.



DECIDUOUS & EVERGREEN SHRUB

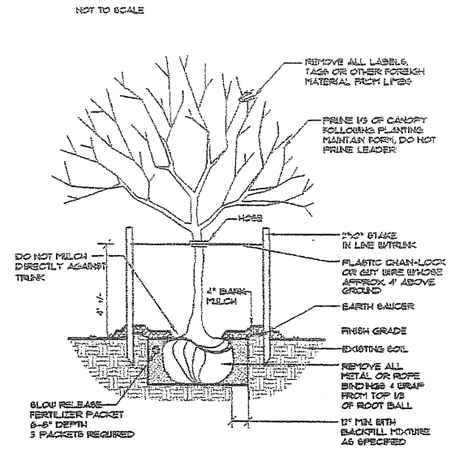
NOT TO SCALE



DECIDUOUS TREES UNDER 2" CALIPER OR UNDER 8' IN HEIGHT

EVERGREEN TREES -0" IN HEIGHT & UNDER

NOT TO SCALE



DECIDUOUS TREES 2" TO 4" CALIPER

NOT TO SCALE

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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LANDSCAPE AND LIGHTING PLAN

OF:

HOLM PLACE

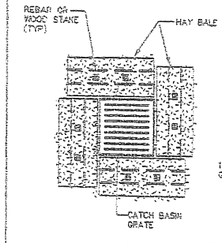
HOLM AVENUE
PORTLAND, MAINE

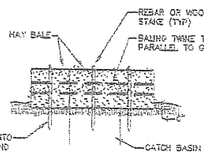
FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, ME 04092-1339
Tel (207) 856-0277

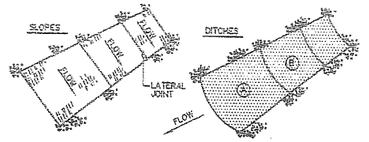
DESIGN BY:	JRP
DRAWN BY:	MAL
CHECKED BY:	WTC
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	683
PROJ. NO:	99103
DRAWING:	99103L
SHEET 6 OF 8	





NOTE: INSTALL BARRIER AT EACH CATCH BASIN

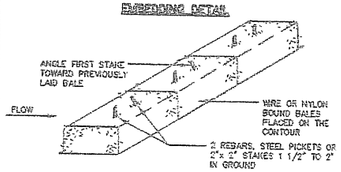
CATCH BASIN HAY BALE BARRIER
NOT TO SCALE



NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP IS OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF # 11 WIRE 6" LONG AND 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 OR APPROVED EQUAL.

EROSION CONTROL MESH
NOT TO SCALE

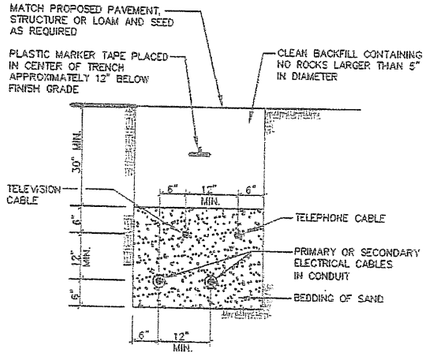
EMBEDDING DETAIL



ANCHORING DETAIL

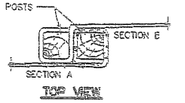
NOTES:
1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY 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

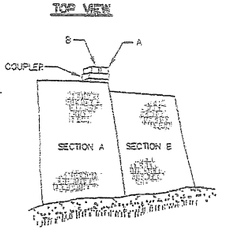


CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS CONSISTING OF (2) 5"ø CONDUITS FOR ELECTRICAL, (1) 4"ø CONDUIT FOR TV/CABLE AND (1) 2"ø CONDUIT FOR TELEPHONE.

UNDERGROUND CABLE INSTALLATION
NOT TO SCALE

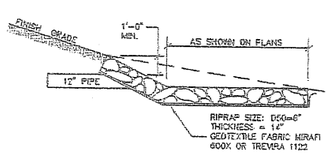


TOP VIEW

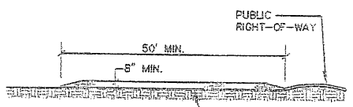


INSTALLATION:
1. EXCAVATE A 6"± 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
4. LAY THE 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.

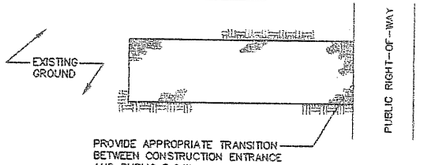
SILTATION FENCE
NOT TO SCALE



RIPRAP CULVERT INLET/OUTLET
NOT TO SCALE



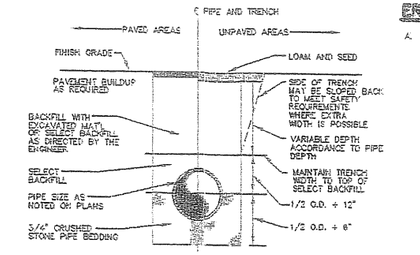
PROFILE



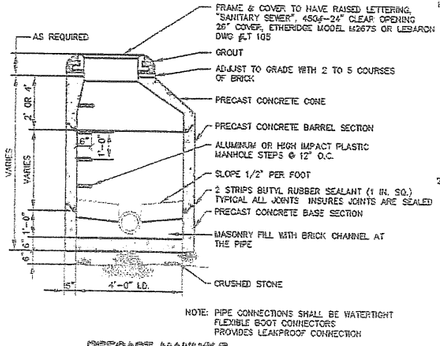
PLAN

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

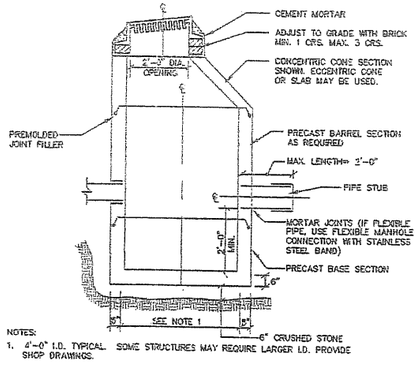


TYPICAL TRENCH SECTION
NOT TO SCALE



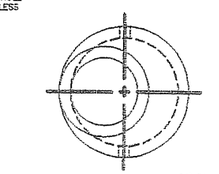
NOTE: PIPE CONNECTIONS SHALL BE WATERTIGHT FLEXIBLE BOOT CONNECTORS PROVIDES LEAKPROOF CONNECTION

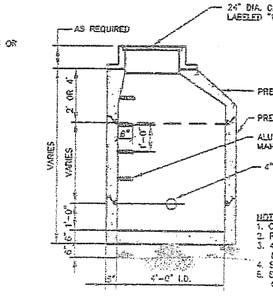
PRECAST MANHOLE
NOT TO SCALE



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 AND ALL CITY OF PORTLAND CATCH BASINS SHALL BE INSTALLED WITH CASCO TRAPS.
5. DRAINAGE MANHOLE FRAME AND COVER TO BE ETHERIDGE FOUNDRY M246S OR APPROVED EQUAL. COVER SHALL BE MARKED "DRAIN".

TYPICAL CATCH BASIN
NOT TO SCALE





NOTES:
1. CONCRETE: 4,000 PSI AFTER 28 DAYS
2. REINFORCING: 4x6/4x4 W.W.M.
3. 4" SHIPLAP JOINTS SEALED WITH 1" DIA. BUTYL RUBBER SEALANT.
4. STEPS 12" O.C.
5. EACH CASTING TO HAVE LIFTING HOLES CAST IN.

PRECAST CONCRETE 4' WATER METER PIT
NOT TO SCALE
(S.C. MODEL # 6821-MH)

EROSION AND SEDIMENTATION CONTROL PLAN

A. Pre-Construction Phase

Prior to the beginning of any construction, a combination erosion control berm and filter fabric fencing will be placed across the slope(s), on the contour, at or just below the limits of clearing or grubbing, and/or just above any adjacent property line or watercourse to protect against construction related erosion. The placement of silt fences and erosion control berms shall be completed in accordance with guidelines established in Best Management Practices and in accordance with the site plan. This network is to be maintained by the contractor until all exposed slopes have at least 85%-90% vigorous perennial vegetative cover to prevent erosion.

Prior to any construction at the site, representatives of the general contractor, site contractor and the site design engineer shall arrange for, and meet with the Director of Public Works and Town Engineer to discuss the scheduling of the site construction. On or before that meeting, the contractor will prepare a detailed schedule and marked up site plan indicating areas and components of the work and key dates showing date of disturbance and completion of the work. Three copies of the schedule and marked up site plan shall be provided to the Town. Special attention shall be given to the 14 day limit of disturbance in the schedule addressing temporary and permanent vegetative measures.

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 and protected) within fourteen (14) days of disturbance shall be protected with temporary erosion control measures.
   Temporary erosion control shall include erosion control blanket, netting or mulch 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 shall be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 S.F. to provide winter protection and covered with erosion control mesh. All slopes greater than 8% shall be netted over mulch & seed if final seeding is not completed by Sept. 15.
2. All topsoil shall be collected and stockpiled offsite at an approved location to be determined by the public works director. Stockpiled loam shall be seeded with Rye at 3 lbs/1,000 S.F., and mulched on-site and re-used as required. Siltation fencing shall be placed down gradient from stockpiled loam.
3. All silt fences and erosion control berms shall be installed according to this plan. These shall be maintained during development to remove sediment from runoff water. All the silt fences and erosion control berms 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.
4. All areas shall be seeded and stabilized in accordance with the following vegetation plan.

C. Vegetation Plan

Revegetation measures shall commence immediately upon completion of construction. Disturbed areas shall also be mulched and anchored prior to any storm event. If final seeding or seeding cannot be accomplished by September 15th, then all disturbed areas shall be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 sq. ft. to provide winter protection and covered with erosion control blanket.

Revegetation measures shall consist of the following:

1. Four inches of loam will be spread over disturbed areas and smoothed 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. Soils tests shall be taken at the time of soil stripping to determine fertilization requirements. Soils test shall be taken promptly so to not interfere with the 7 day limit on soil exposure. Based upon test results, soil amendments shall be incorporated into the soil prior to final seeding.
3. Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 3 lbs./1000 S.F. to a mixture of 35% Creeping Red Fescue, 6% Red Top, 20% Kentucky Bluegrass, 10% Perennial Ryegrass, 20% Annual Ryegrass and 5% White Dutch Clover. The loam areas will be seeded to a premium turf mixture of Bluegrass and/or Fescue; seeding rate of 2-3 lbs. per 1,000 square feet. Sod shall be used in areas indicated on plans.
4. Erosion control blanket shall be applied in accordance with the plans over all finish graded areas as specified on the design plans.
5. All hay bale and/or filter fabric barriers will remain in place until seedings have became 85%-90% established and then removed within 10 days.
6. The inspecting engineer at his/her discretion, may require additional erosion control measures and/or supplemental vegetative provisions to maintain stability of earthworks and finish graded areas. The site contractor shall be responsible for providing and installing any supplemental measures as directed by the inspecting engineer. Failure to comply with the engineer's directions will result in discontinuation of construction activities.

D. Construction Schedule

Site improvements will most likely begin in spring of 2000, depending upon final project approval and the selection of a site contractor. Based upon a spring construction start, the following schedule has been prepared.

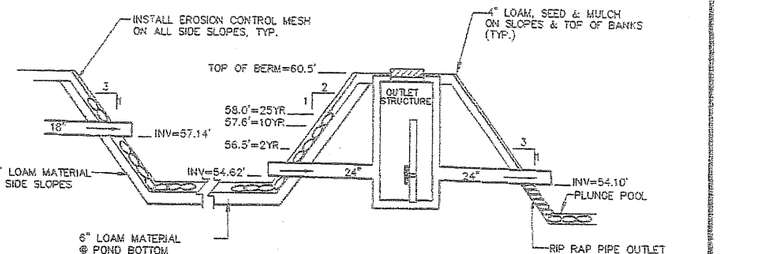
Schedule	Completion Dates
1. Estimated construction time:	May, 2000 – October, 2000
*2. Erosion control measures placed	May, 2000 – October, 2000
3. Site clearing, grubbing, excavation and filling.	May, 2000 – June, 2000
4. Rough grading, utility improvements, drainage and road construction.	May, 2000 – July, 2000
5. Start final seedings on prepared areas.	July, 2000
*6. Biweekly monitoring of temporary and permanent vegetative growth.	July, 2000 – October, 2000
*7. Re-seeding of areas, if needed.	October, 2000 – April, 2001
*8. Removal of erosion control devices.	May, 2001
*6. Mulch spread for winter erosion control, if needed.	September, 2000

* Dates are subject to change at the discretion of the engineer, depending on construction progress.

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. The contractor shall provide the City of Portland with written documentation describing dates of inspections and necessary follow-up work to maintain erosion control measures meeting the requirements of this plan.

Following the temporary and/or final seedings, the contractor shall inspect the site semimonthly 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.



CONSTRUCTION NOTES:
1. CONTRACTOR SHALL REMOVE ALL TOPSOIL AND ORGANIC MATERIAL FROM EMBANKMENT AND POND CONSTRUCTION AREA.
2. SCARIFY SUBGRADE TO ESTABLISH INTERFACE FOR ALL FILLS.
3. CONSTRUCTION MATERIAL SHALL MEET M.D.O.T. SPEC. 703.16
4. COMPACT IN 12" LIFTS TO 92% OF MAXIMUM DENSITY.
5. INSTALL RIPRAP AND EROSION MESH WHERE SPECIFIED.
6. LOAM, SEED & STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

DETENTION BASIN/TREATMENT POND SECTION
NOT TO SCALE

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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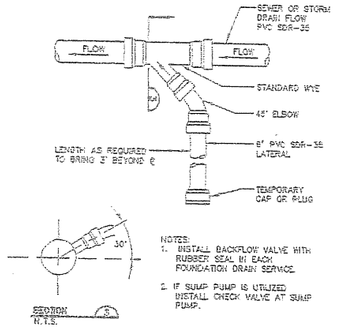
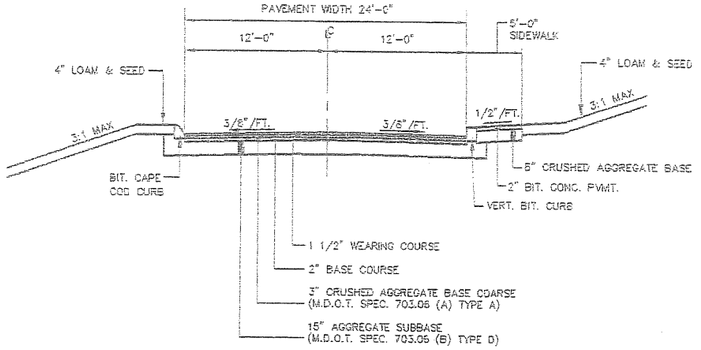
DETAILS OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339
Tel (207) 856-0277

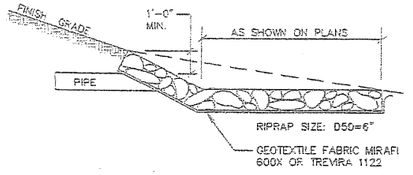
DESIGN BY:	JRS
DRAWN BY	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	683
PROJ. NO:	99103
DRAWING:	9910301
SHEET 7 OF 8	



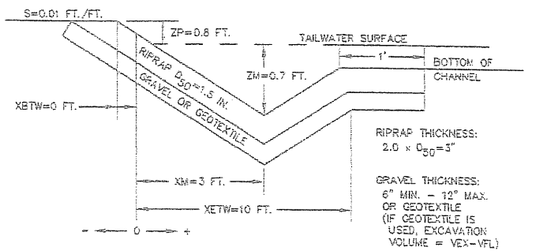
SEWER LATERAL SERVICE CONNECTION
NOT TO SCALE



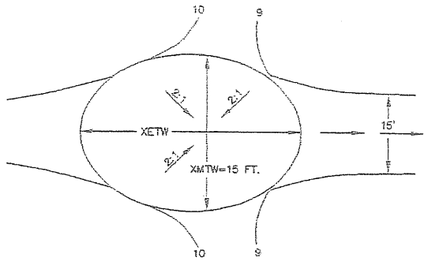
STREET SECTION
NOT TO SCALE



RIPRAP CULVERT INLET/OUTLET
NOT TO SCALE

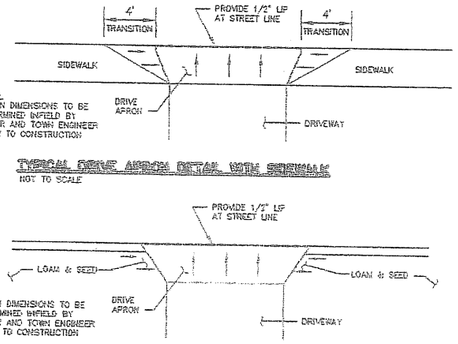


CENTERLINE PROFILE



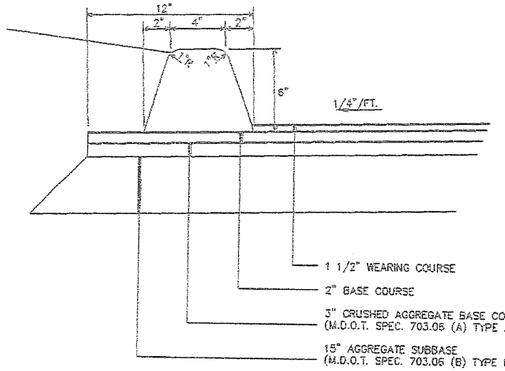
PLAN VIEW

STONE LINED PLUNGE POOL
NOT TO SCALE

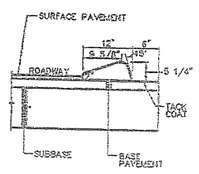


TYPICAL DRIVE APRON DETAIL WITH SIDEWALK
NOT TO SCALE

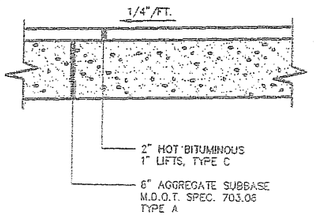
TYPICAL DRIVE APRON DETAIL WITHOUT SIDEWALK
NOT TO SCALE



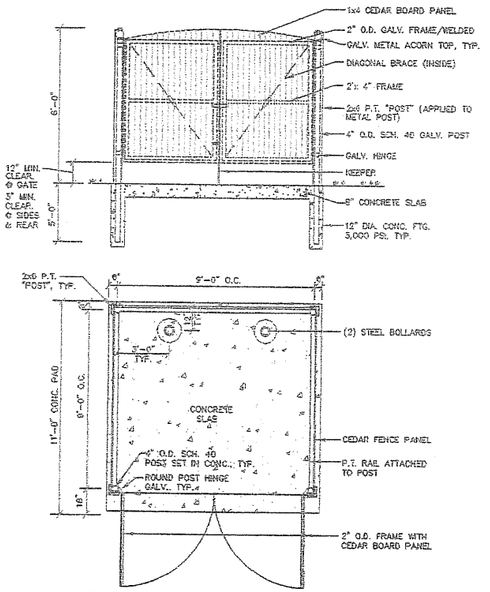
BITUMINOUS CURB SECTION
NOT TO SCALE



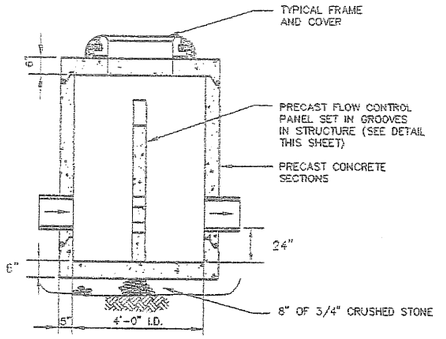
CAPE COD CURB DETAIL



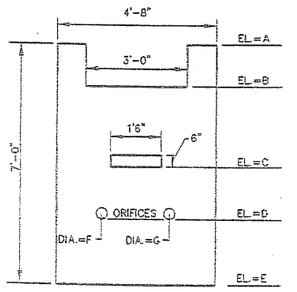
BITUMINOUS SIDEWALK



TYPICAL DUMPSTER ENCLOSURE
NOT TO SCALE



OUTLET STRUCTURE DETAIL
NOT TO SCALE



PRECAST FLOW CONTROL PANEL
NOT TO SCALE

OUTLET CONTROL STRUCTURE SCHEDULE

DETENTION BASIN	ELEVATION (ft.)					ORIFICE ℄ (IN)	
	A	B	C	D	E	F	G

EMBANKMENT CONSTRUCTION

1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
4. LOAM, SEED, AND STABALIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

SPILLWAY SECTION
NOT TO SCALE

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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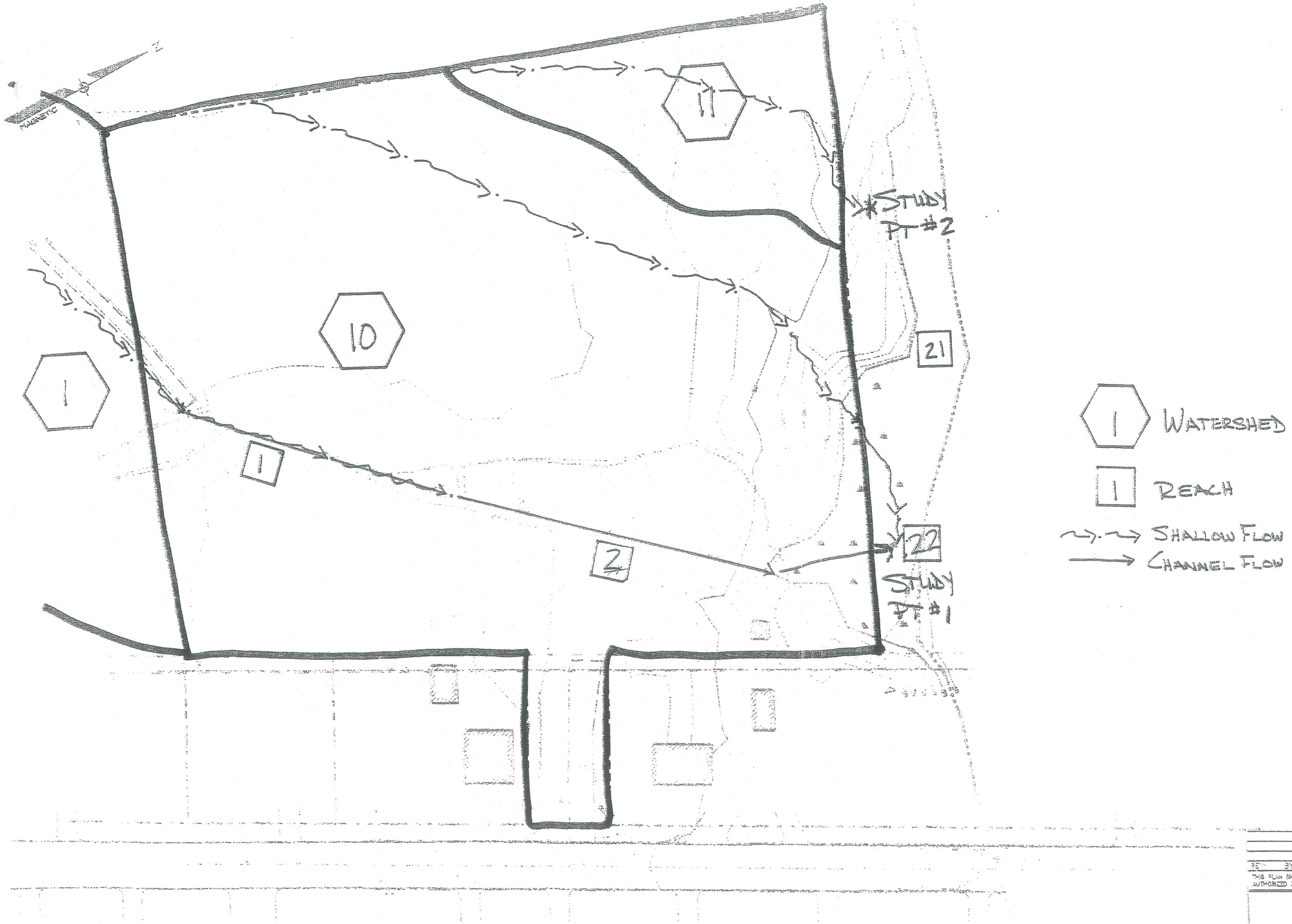
DETAILS
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00

10



REV: BY: DATE: STATUS:

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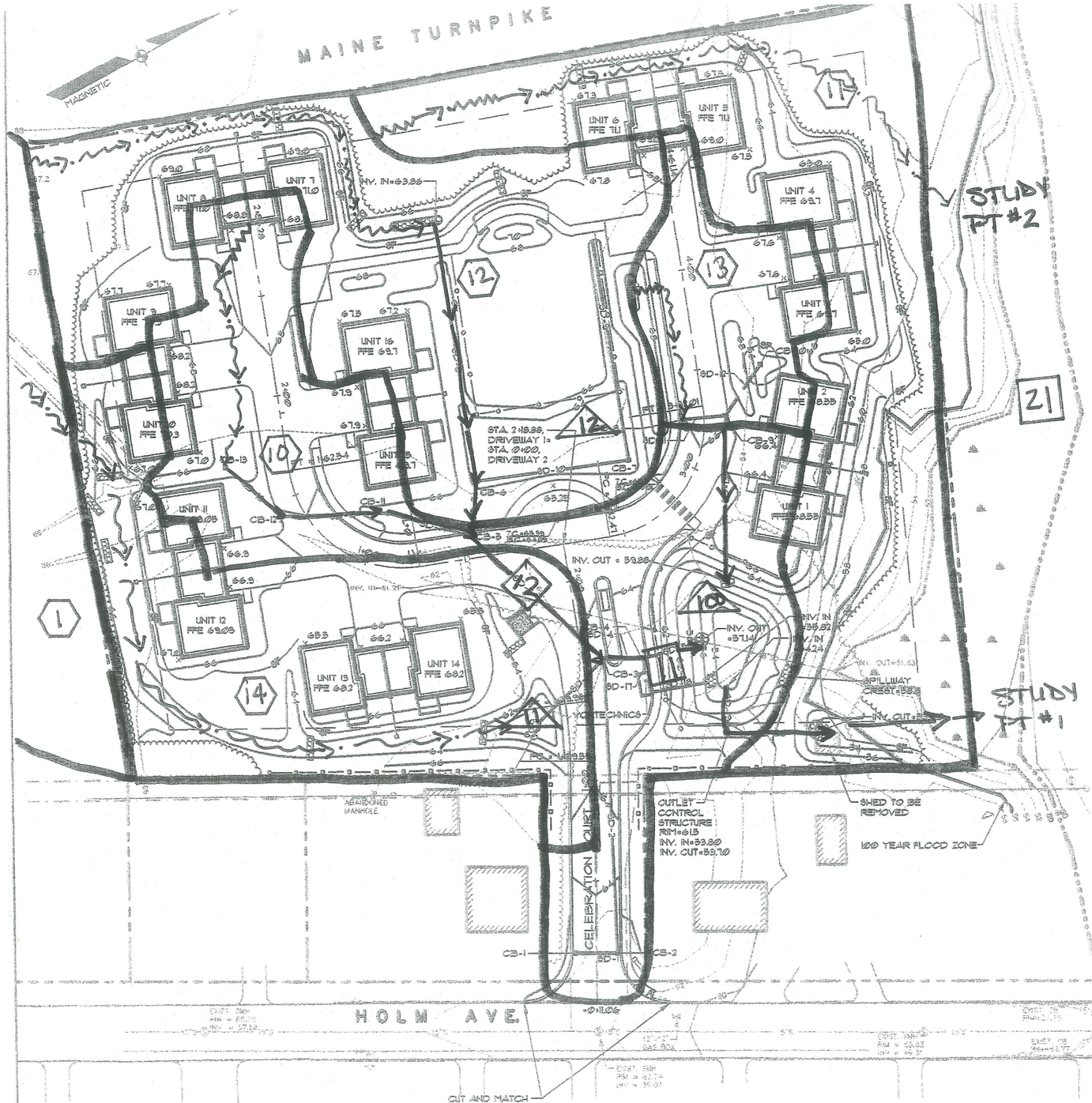
PRE DEVELOPMENT WATER SHED PLAN
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics

DESIGN BY:	JLW
DRAWN BY:	MAL
CHECKED BY:	GMF
DATE:	1-18-[illegible]
SCALE:	[illegible]
FIELD BK:	[illegible]



1 WATERSHED

21 REACH

42 POND

SHEET FLOW

SHALLOW CONCENTRATED FLOW

CHANNEL FLOW

GRAPHIC SCALE

30 0 15 30 120

(IN FEET)

1 inch = 30 ft.

1"=60'

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN.)	LENGTH (FT.)	SLOPE
SD-1	12	18	0.001
SD-2	12	142	0.001
SD-3	12	42	0.005
SD-4	18	16	0.005
SD-5	18	28	0.005
SD-6	15	86	0.006
SD-7	12	23	0.01
SD-8	12 PERF.	130	0.032
SD-9	12 PERF.	105	0.01
SD-10	12 PERF.	72	0.005
SD-11	12	18	0.005
SD-12	12	37	0.005
SD-13	12	78	0.028
SD-14	12	38	0.01
SD-15	12	50	0.01
SD-16	12	35	0.01
SD-17	15	19	0.005

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.3	--	58.5
CB-2	62.5	58.38	58.28
CB-3	63.32	58.19 58.15 57.28	57.41
CB-4	63.32	57.38	57.28 56.0
CB-5	64.37	59.33 59.27	59.27
CB-6 HYDROBRAKE	63.4	59.70 59.70	59.6
CB-7	63.4	60.16	60.06
CB-8	63.78	----	60.7
CB-9	63.73	61.01 60.91	60.81
CB-10	63.6	--	61.15
CB-11	63.75	60.03	59.93
CB-12	63.53	60.33	60.13

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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POST-DEVELOPMENT WATERSHED PLAN

OF:

HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE

FOR:

VP BUILDERS, INC.

P.O. BOX 41
WESTBROOK, MAINE 04098

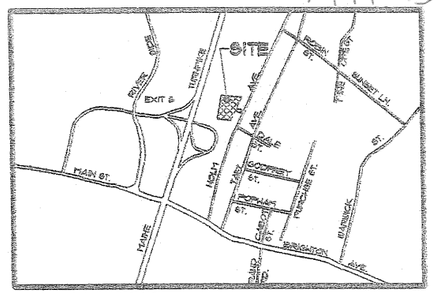
Sebago Technics

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	983

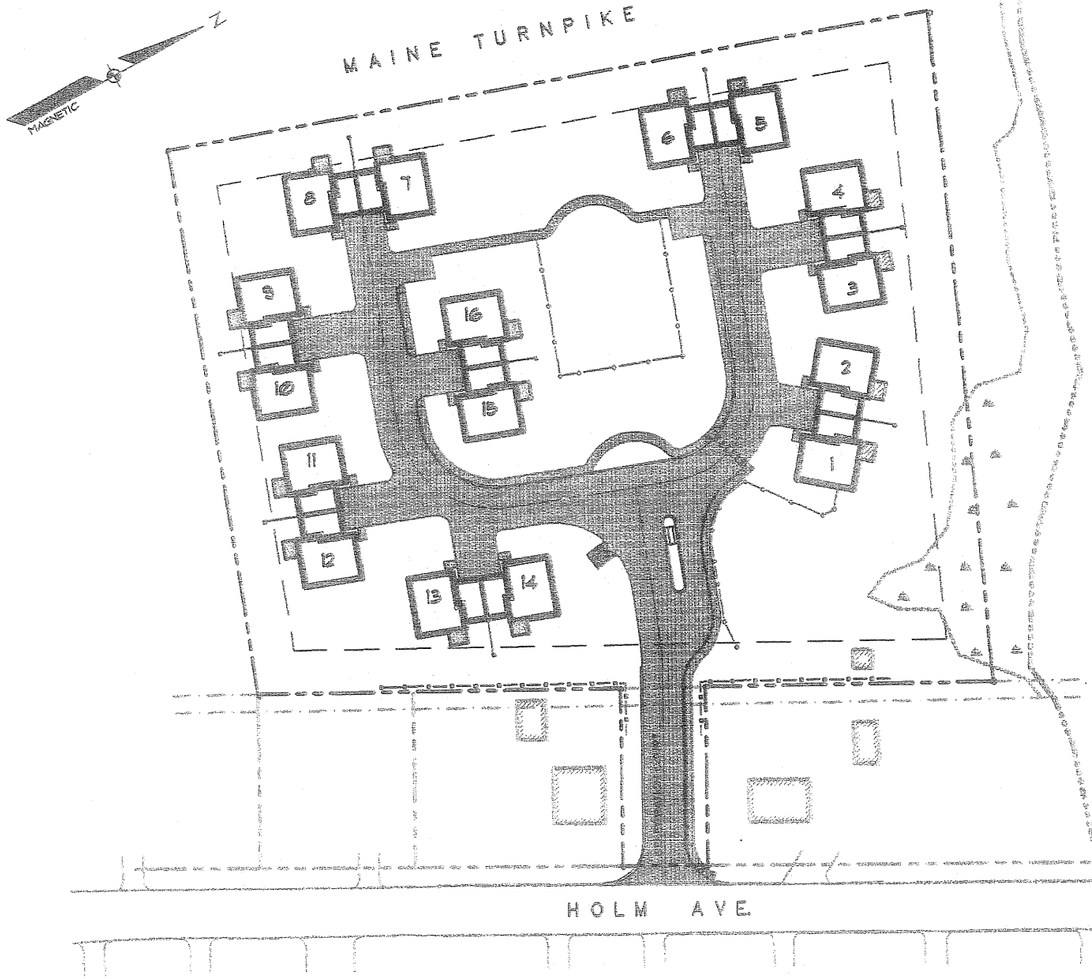
AH.5

HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE



LOCATION MAP



SHEET INDEX:

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUBDIVISION/RECORDING PLAT
3	SITE PLAN
4	PLAN AND PROFILE: DRIVEWAY 1 (STA. 0+00.00 TO STA. 4+55.75) DRIVEWAY 2 (STA. 0+00 TO STA. 2+66.26)
5	UTILITY PLAN
6	LANDSCAPE AND LIGHTING PLAN
7	DETAILS
8	DETAILS

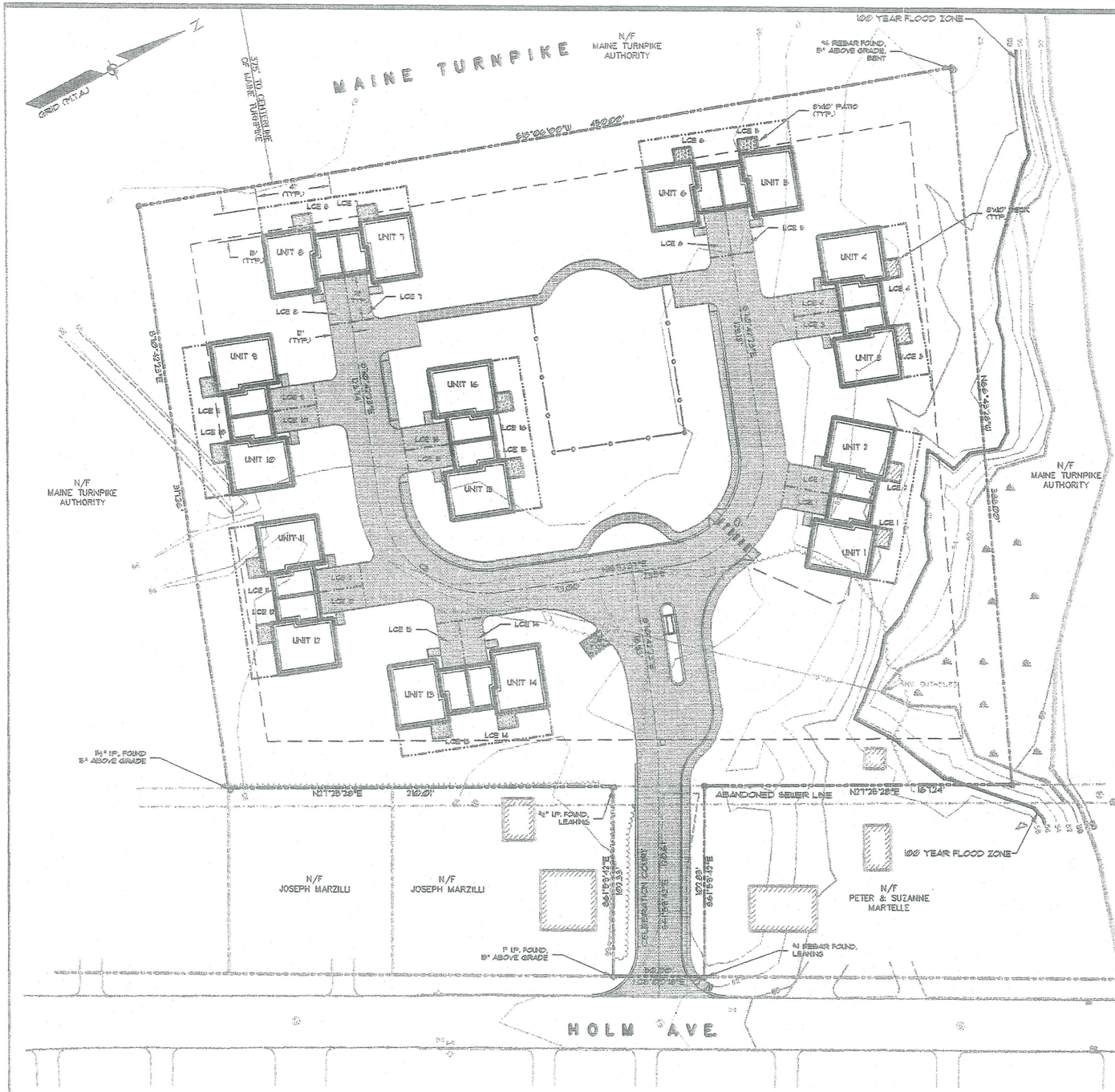
OWNER/APPLICANT:

YP BUILDERS, INC.
P.O. BOX 41
WESTBROCK, MAINE 04098

ENGINEER/SURVEYOR:

SEBAGO TECHNICS, INC.
ONE CHABOT STREET
WESTBROCK, MAINE 04098-1339

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

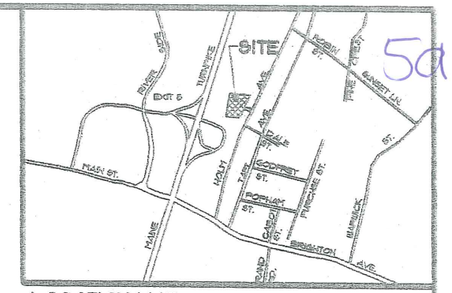
1 inch = 30 ft.

LEGEND

EXISTING:	DESCRIPTION:	PROPOSED:
	PROPERTY/ROW	
	SETBACK	
	EASEMENT	
	CENTERLINE	
	MONUMENT	
	IRON PIPE/ROD	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	SIGN	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
	CONTOURS	
	GAS	
	WATER	
	SEWER	
	STORM DRAIN	
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
	MANHOLE	
	STOCKADE FENCE	

CENTERLINE CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
C1	30.41'	200.00'	8°42'16"
C2	89.54'	57.00'	90°00'00"
C3	89.54'	57.00'	90°00'00"



LOCATION MAP N.T.S.

GENERAL NOTES

1. THE RECORD OWNER OF THE PROPERTY IS PETER AND SUZANNE MARTELLE BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN DEED BOOK 7109 PAGE 286 AND BOOK 8030 PAGE 186.

2. THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND TAX ASSESSORS MAP # 213 BLOCK C LOT 3.

3. PLAN REFERENCES:
   A. PLAN OF LAND OF MAINE TURNPIKE AUTHORITY TO PETER P. & SUZANNE G. MARTELLE BY D. O. HARRIMAN, DATED JANUARY 1986.
   B. UNTITLED PLAN OF SUBDIVISION RECORDED IN THE CCRD ON JULY 12, 1912, IN PLAN BOOK 12 PAGE 23.
   C. PLAN OF MAINE TURNPIKE AUTHORITY, SECTION 2, SUPPLEMENTAL SHEET # 11, DATED JANUARY 1986.
   D. PLAN OF THE PORTLAND SEWER SYSTEM INFILTRATION-INFLOW ANALYSIS SYSTEM BASED MAPPING, FOR THE PORTLAND WATER DISTRICT, BY HUNTER-BALLEW ASSOCIATES, DATED 1981, DRAWING # 11-16, ON FILE AT PORTLAND'S ENGINEERING OFFICE.
   E. MAINE TURNPIKE AUTHORITY SECTION 2, BY HOWARD, NEEDLES, TAMMEN, AND BERGENDOFF, SHEET 5 OF 8, DATED SEPTEMBER 3, 1959 AND LAST REVISED IN NOVEMBER OF 1963.
   F. MAINE TURNPIKE AUTHORITY SECTION 2, BY HOWARD, NEEDLES, TAMMEN, AND BERGENDOFF, SUPPLEMENTAL SHEET # 15, DATED MARCH 1959, AND LAST REVISED IN AUGUST OF 1963.

4. THE TOTAL AREA OF THE PROPERTY IS APPROXIMATELY 3.68 ACRES.

5. NET RESIDENTIAL AREA CALCULATIONS:

TOTAL AREA	159,166 S.F.
- 25% SLOPES	7,269 S.F.
- STORMWATER AREA	4,340 S.F.
- WETLAND AREA	3,586 S.F.
REMAINDER	143,971 S.F.
- 20 %	28,695 S.F.
NET RESIDENTIAL AREA	114,135 S.F.

   ALLOWABLE DENSITY = 1 UNIT PER 6,500 S.F. = 17.65 UNITS

6. THE PROPERTY IS LOCATED IN THE CITY OF PORTLAND R5 RESIDENTIAL DISTRICT.

7. THE SPACE AND BULK STANDARDS FOR THE R5 DISTRICT ARE AS FOLLOWS:
   MINIMUM LOT AREA: 6,500 SF
   MINIMUM LOT AREA PER DWELLING UNIT: 25 FEET
   MINIMUM SIDE/REAR SETBACK (PRUD): 25 FEET
   MAXIMUM BUILDING HEIGHT: 35 FEET

8. BUILDING SUMMARY:
   EIGHT TWO UNIT BUILDINGS.

9. MINIMUM RECREATION AREA REQUIRED IS 6,300 S.F. (8,730 S.F. PROPOSED).

10. MAXIMUM LOT COVERAGE:
    159,166 SF (3.65 AC) X 25 = 39,792 SF ALLOWED
    16 UNITS X 1252 SF = 20,032 SF PROPOSED

11. BUILDING UNITS TO BE SERVED BY PUBLIC WATER, PUBLIC SEWER, PUBLIC GAS AND UNDERGROUND ELECTRIC, TELEPHONE AND CABLE.

12. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PORTLAND "TECHNICAL DESIGN STANDARDS AND GUIDELINES" ADOPTED SEPTEMBER 1997 AND AMENDED THROUGH JULY 1994.

13. THE 100 YEAR FLOOD ZONE SHOWN HEREON IS ZONE AE AS DESIGNATED ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL # 230081-0006-B, REVISED ON DECEMBER 8, 1986.

APPROVAL - CITY OF PORTLAND PLANNING BOARD

_____ DATE

_____ CHAIRPERSON

STATE OF MAINE

_____ COUNTY SS REGISTRY OF DEEDS

RECEIVED _____ 20___

AT ___h _____m _____M. AND RECORDED IN

PLAN BOOK _____ PAGE _____

ATTEST _____ REGISTER

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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.

SUBDIVISION/RECORDING PLAT

OF:

HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE

FOR:

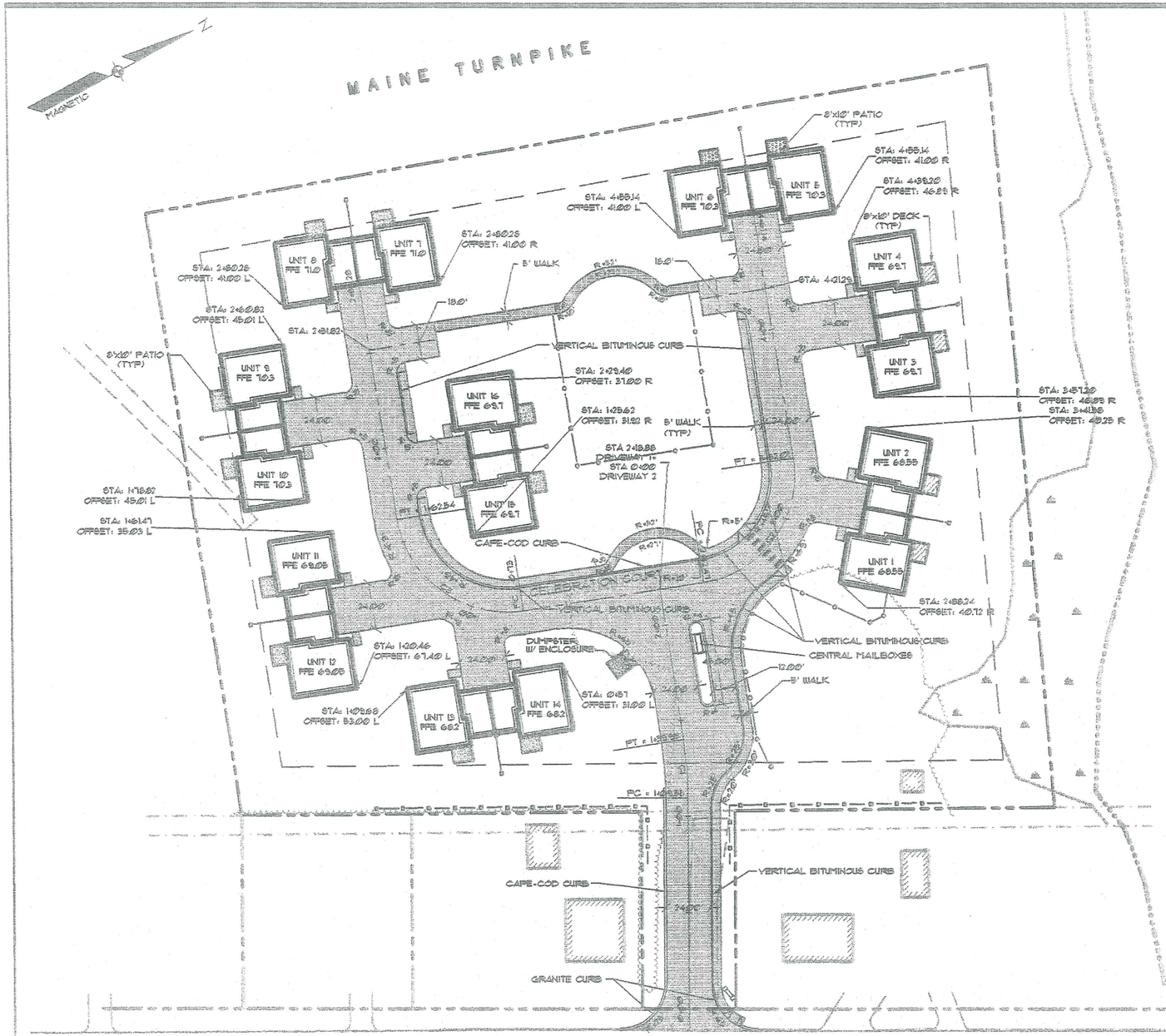
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

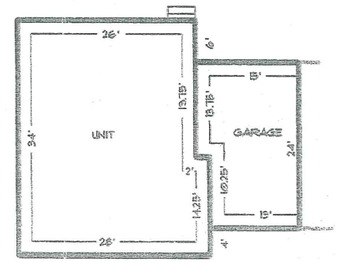
RECORD OWNER:
PETER & SUZANNE MARTELLE
8 POE STREET
PORTLAND, MAINE 04102

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1336
Tel (207) 856-0277

DESIGN BY:	JRS/MWE
DRAWN BY:	MAL
CHECKED BY:	MWE
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	683
PROJ. NO:	99103
DRAWING:	99103SB
SHEET 2 OF 8	

5b





TYPICAL UNIT DIMENSIONS
SCALE: 1"=10'

CENTERLINE CURVE DATA			
CURVE	LENGTH	RADIUS	DELTA
C1	30.41'	200.00'	8°42'14"
C2	85.84'	57.00'	90°00'00"
C3	85.84'	57.00'	90°00'00"

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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SITE PLAN

OF:

HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE

FOR:

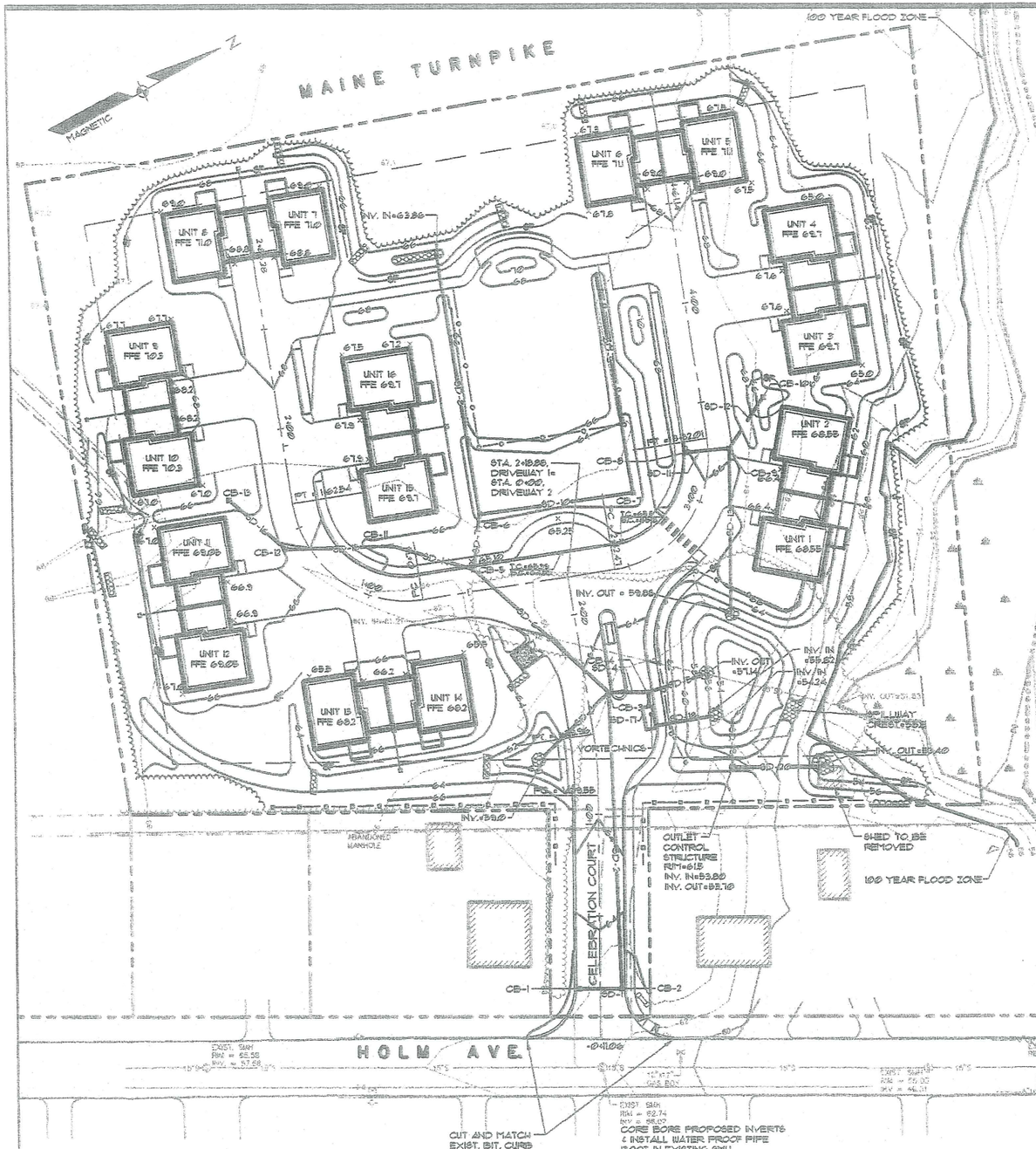
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

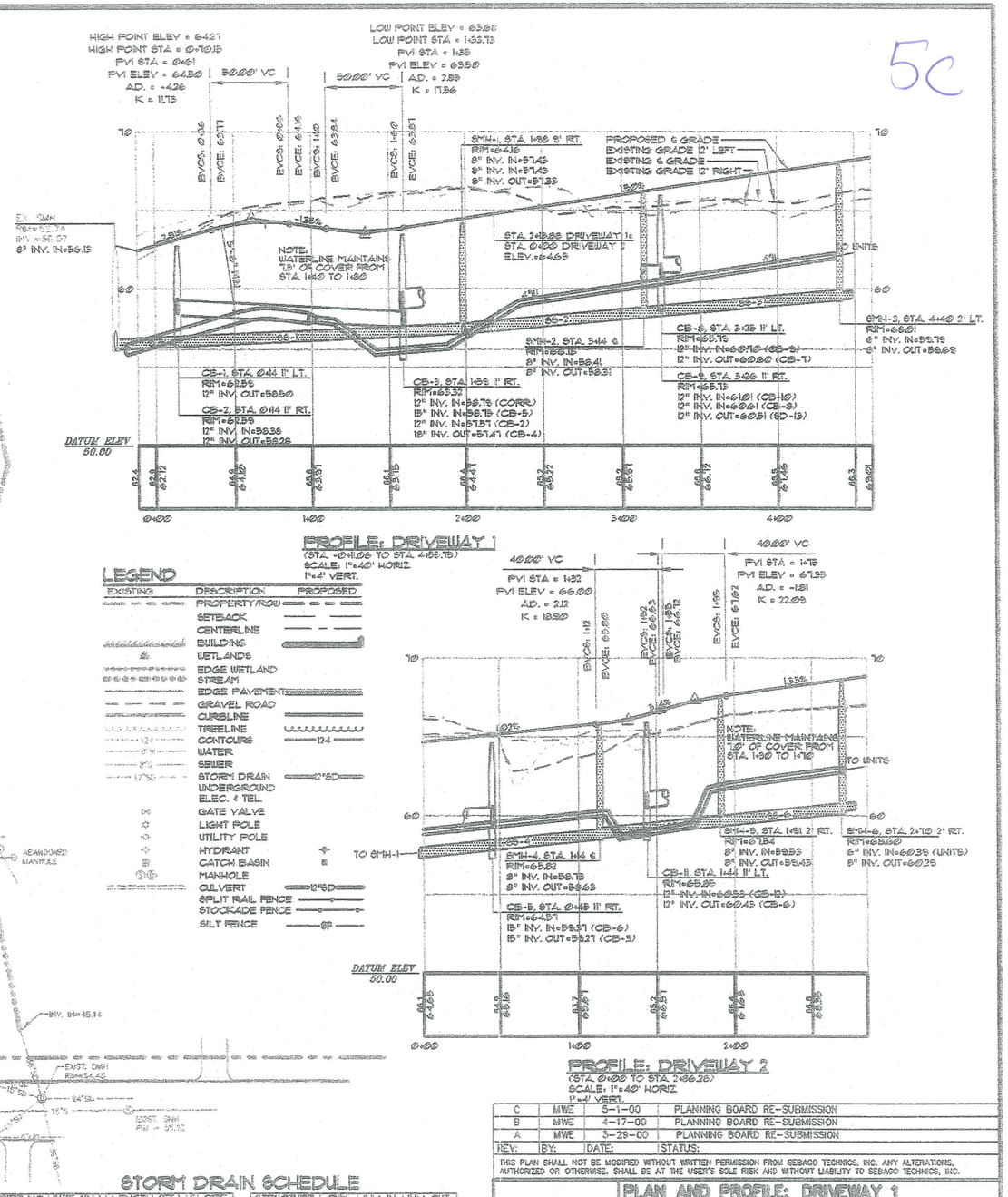
Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1338
Tel (207) 856-0277

DESIGN BY:	JLW
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	683
PROJ. NO:	99103
DRAWING:	99103S

SHEET 3 OF 8

5C





PROFILE: DRIVEWAY 1

(STA. -0+11.06 TO STA. 4+86.28)
SCALE: 1"=40' HORIZ.
1"=4' VERT.

PROFILE: DRIVEWAY 2

(STA. 0+00 TO STA. 2+86.28)
SCALE: 1"=40' HORIZ.
1"=4' VERT.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	CENTERLINE	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
124	CONTOURS	124
	WATER	
	SEWER	
	STORM DRAIN	12"SD
	UNDERGROUND ELEC. & TEL.	
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
	MANHOLE	
	CULVERT	12"SD
	SPLIT RAIL FENCE	
	STOCKADE FENCE	
SF	SILT FENCE	SF

SANITARY SEWER SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
SMH-1	64.16	57.43	57.33
		57.45	
SMH-2	66.15	58.41	58.31
SMH-3	68.01	59.76	59.66
SMH-4	65.82	56.78	56.68
SMH-5	67.84	59.55	59.45
SMH-6	65.60	60.36	60.26

PIPE NO.	SIZE (IN)	LENGTH (FT)	SLOPE
SS-1	8	220	0.0055
SS-2	8	88	0.01
SS-3	8	128	0.01
SS-4	8	120	0.01
SS-5	8	70	0.01
SS-6	8	76	0.01

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN)	LENGTH (FT)	SLOPE
SD-1	12	15	0.007
SD-2	12	142	0.007
SD-3	12	42	0.005
SD-4	18	16	0.005
SD-5	15	28	0.009
SD-6	15	86	0.0006
SD-7	12	25	0.01
SD-8	12 PERF.	130	0.032
SD-9	12 PERF.	105	0.01
SD-10	12 PERF.	72	0.005
SD-11	12	16	0.005
SD-12	12	21	0.005
SD-13	12	78	0.005
SD-14	12	38	0.01
SD-15	12	50	0.01
SD-16	12	35	0.01
SD-17	15	6	0.005
SD-18	15	30	0.005
SD-19	12	72	0.01
SD-20	18	40	0.0015

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.5	--	56.5
CB-2	62.5	58.36	58.26
CB-3	63.32	58.78 58.15 57.28	57.41
CB-4	63.32	57.36	57.28 56.0
CB-5	64.57	58.55 58.27	58.27
CB-6 HYDROBRAKE	63.4	58.70 58.70	58.6
CB-7	63.4	60.16	60.06
CB-8	65.73	-----	60.7
CB-9	65.73	61.01 60.61	60.51
CB-10	65.6	--	61.15
CB-11	65.75	60.03	59.93
CB-12	65.25	60.53	60.43
CB-13	65.5	--	60.86
VORTECHNICS (OR APPROVED EQUAL)	63.4	55.97	55.97

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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PLAN AND PROFILE: DRIVEWAY 1 (STA. -0+11.06 TO STA. 4+61.14) DRIVEWAY 2 (STA. 0+00 TO STA. 2+86.28)

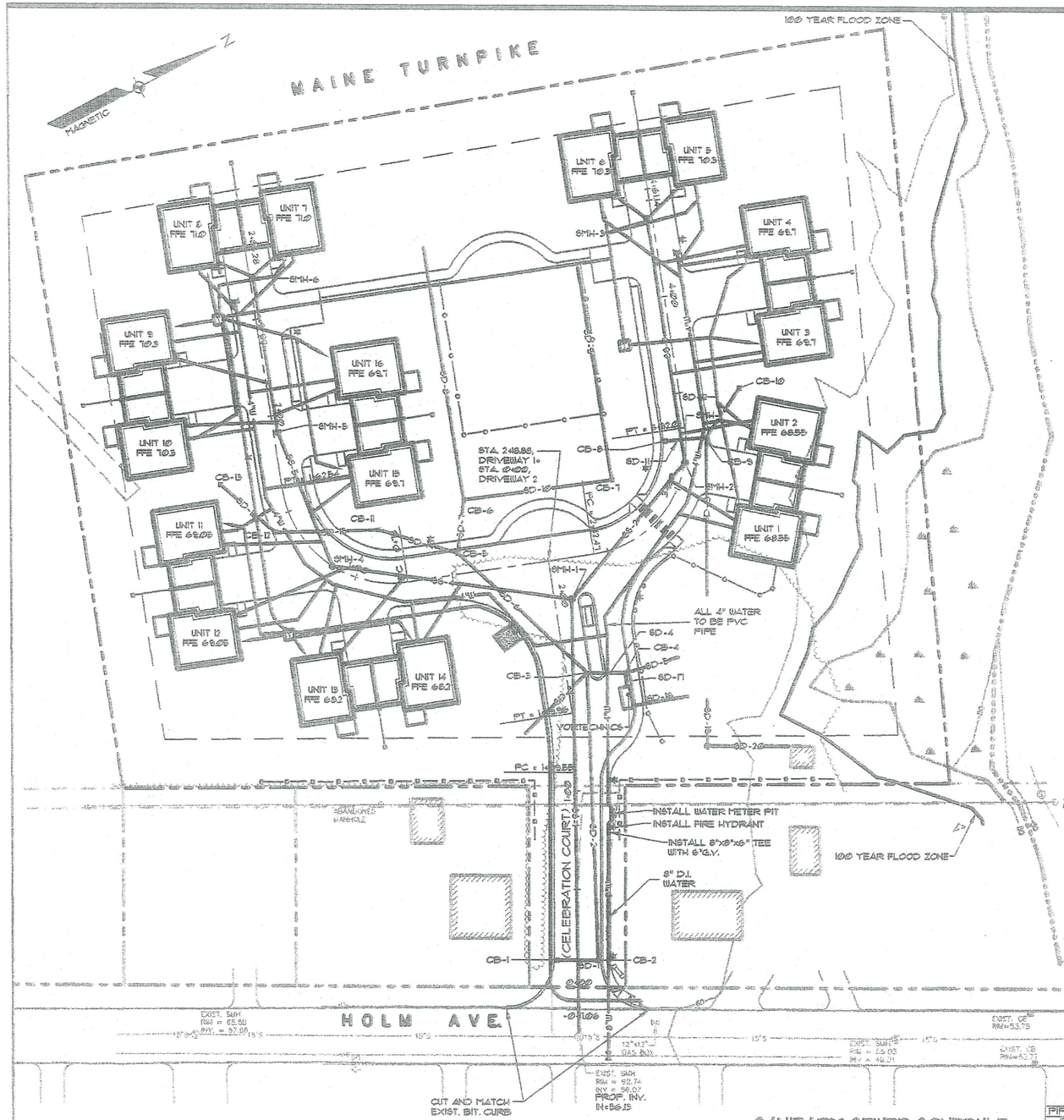
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1336
Tel: (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-15-00
SCALE:	AS SHOWN
FIELD BK:	663
PROJ. NO:	98103
DRAWING:	98103P

SHEET 4 OF 8

5d



NOTE:
REFERENCE PLAN 6 OF 8 FOR THE PROFILES OF DRIVEWAYS 1 AND 2.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	CENTERLINE	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
210	CONTOURS	
W	WATER	8"W
S	SEWER	6"S
D	STORM DRAIN	12"SD
	UNDERGROUND ELEC. & TEL.	USE &
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
	MANHOLE	
	CULVERT	12"SD
	SPLIT RAIL FENCE	
	STOCKADE FENCE	
	SILT FENCE	

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

SANITARY SEWER SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
SMH-1	64.16	57.43 57.43	57.33
SMH-2	66.18	58.41	58.31
SMH-3	68.01	58.79	58.69
SMH-4	65.82	58.75	58.65
SMH-5	61.54	58.50	58.40
SMH-6	68.00	60.33	60.23

PIPE NO.	SIZE (IN.)	LENGTH (FT.)	SLOPE
SS-1	8	220	0.0055
SS-2	8	88	0.01
SS-3	8	128	0.01
SS-4	8	100	0.01
SS-5	8	70	0.01
SS-6	8	78	0.01

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN.)	LENGTH (FT.)	SLOPE
SD-1	12	18	0.001
SD-2	12	142	0.001
SD-3	12	42	0.005
SD-4	18	16	0.005
SD-5	18	28	0.005
SD-6	18	86	0.006
SD-7	12	23	0.01
SD-8	12 HDPE	190	0.032
SD-9	12 HDPE	105	0.01
SD-10	12 HDPE	72	0.005
SD-11	12	18	0.005
SD-12	12	27	0.005
SD-13	12	76	0.006
SD-14	12	38	0.01
SD-15	12	50	0.01
SD-16	12	35	0.01
SD-17	15	6	0.005
SD-18	15	30	0.006
SD-19	12	27	0.01
SD-20	18	40	0.0015

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.5	--	59.5
CB-2	62.5	58.38	58.28
CB-3	63.32	58.75 58.75 57.25	57.47
CB-4	63.92	57.36	57.28 56.0
CB-5	64.87	58.55 58.37	58.27
CB-6 HYDROBRAKE	63.4	58.70 58.70	58.6
CB-7	63.4	60.16	60.06
CB-8	65.78	-----	60.7
CB-9	65.73	61.01 60.61	60.51
CB-10	63.6	--	61.15
CB-11	65.75	60.03	59.53
CB-12	65.25	60.53	60.43
CB-13	65.5	--	60.28
YORKTECHNICS (NOTE: SHOWN FOR REFERENCE ONLY)	63.4	58.57	58.47

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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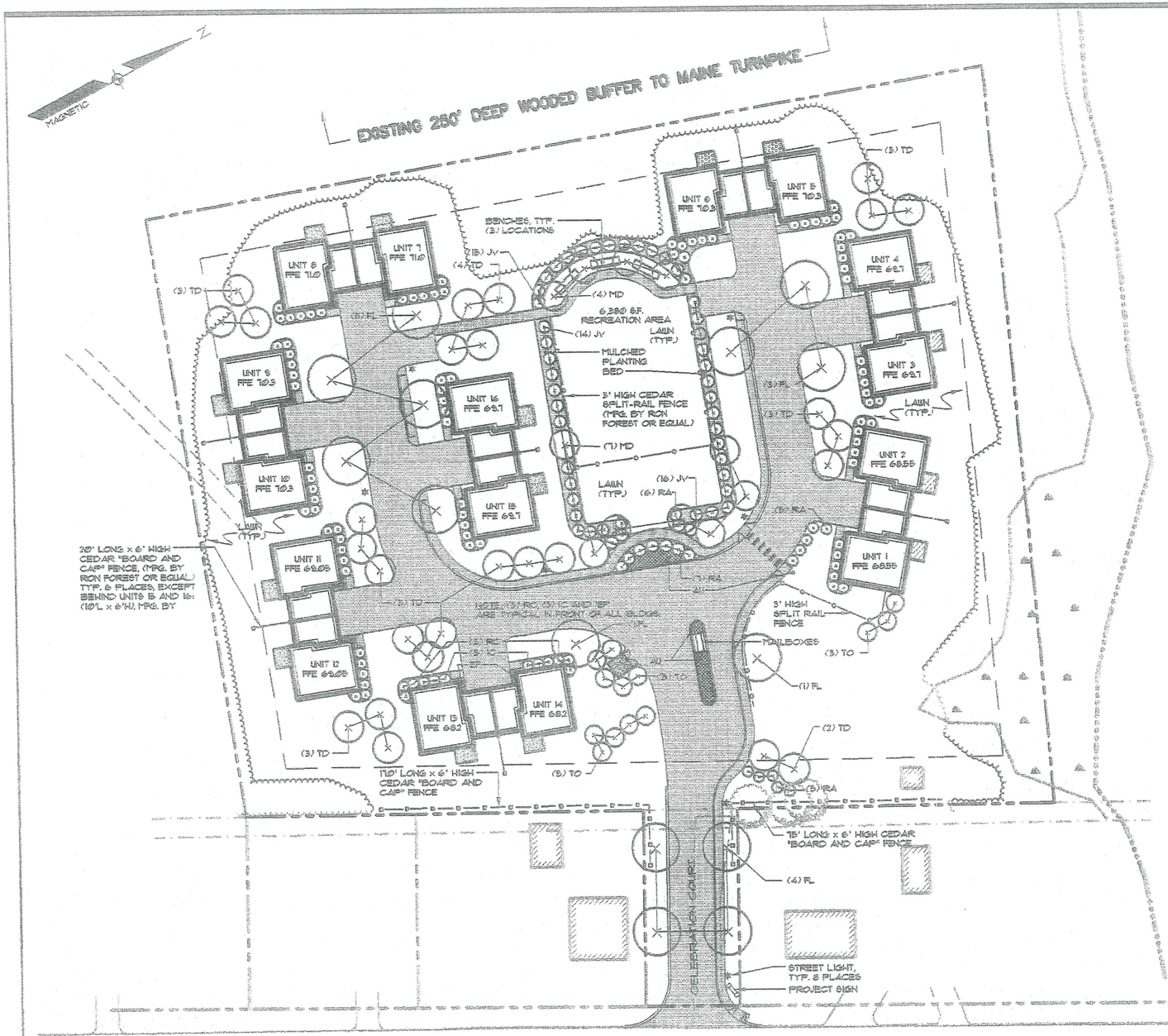
UTILITY PLAN
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MEJ
CHECKED BY:	SMP
DATE:	3-29-00
SCALE:	AS SHOWN
FIELD BK:	683
PROJ. NO:	99103
DRAWING:	99103UP
SHEET 5 OF 8	

5e



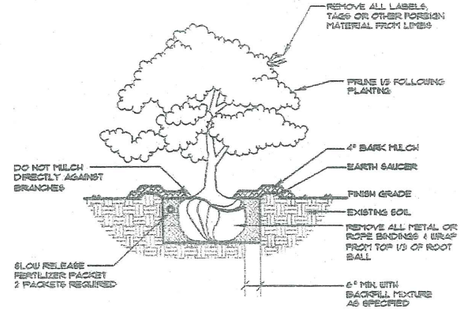
GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

PLANTING SCHEDULE

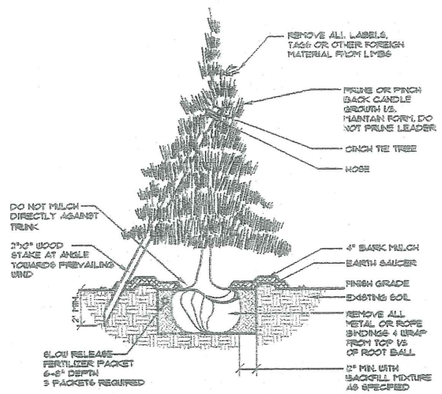
SYMBOL	BOTANICAL / COMMON NAME	SIZE / COMMENTS
FL	FRAXINUS LANCEOLATA 'SUMMIT' / GREEN ASH	1 ¾"
MD	MALUS DONALD WYMAN / FLOWERING CRAB	5' - 6'
TO	TSUGA DIVERSIFOLIA / JAPANESE HEMLOCK	#6
TO	THUJA O. 'NIGRA' /ARBORVITAE	6' MIN.
IC	ILEX CRENATA 'COMPACTA' / DWARF JAPANESE HOLLY	12" - 15" / IN MULCHED PLANTING BED
RC	RHODODENDRON CAROLINIANUM / CAROLINA RHODODENDRON	2 - 2½ YR MULCHED PLANTING BED
RA	RHODODENDRON 'APRIL GEM' / RHODODENDRON	15" - 18"
JV	JUNIPERUS VIRGIANA 'GREY OWL' / GREY OWL JUNIPER	#5 / 6' O.C.
EF	EONYMUS FORTUNEI / WINTERCREEPER	#2 POT / 18" O.C. IN MULCHED PLANTING BED
AU	ARCTOSTAPHYLOS UVA-URSI / BEARBERRY	#1 / 18" O.C. IN MULCHED PLANTING BED

LIGHTING: "TRADITIONAIRE" POST-TOP LANTERN ON 18' (ROUND-STRAIGHT ALUMINUM) POLE. MANUFACTURED BY McGRAW-EDISON OR EQUAL.



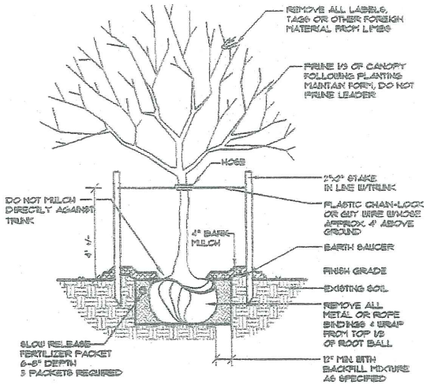
DECIDUOUS & EVERGREEN SHRUB

NOT TO SCALE



DECIDUOUS TREES UNDER 2" CALIPER OR UNDER 8' IN HEIGHT
EVERGREEN TREES 6'-0" IN HEIGHT & UNDER

NOT TO SCALE



DECIDUOUS TREES 2" TO 4" CALIPER

NOT TO SCALE

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-28-00	PLANNING BOARD RE-SUBMISSION

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LANDSCAPE AND LIGHTING PLAN

OF:

HOLM PLACE

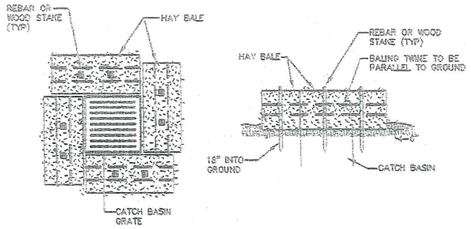
HOLM AVENUE
PORTLAND, MAINE

FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1336
Tel (207) 856-0277

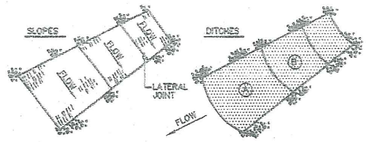
DESIGN BY:	JRP
DRAWN BY:	MAL
CHECKED BY:	WTC
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	683
PROJ. NO:	98103
DRAWING:	98103L
SHEET 6 OF 8	



NOTE: INSTALL BARRIER AT EACH CATCH BASIN

CATCH BASIN HAY BALE BARRIER

NOT TO SCALE

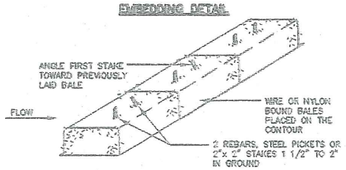


NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP. TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 16" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF # 11 WIRE 6" LONG AND 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 OR APPROVED EQUAL.

EROSION CONTROL MESH

NOT TO SCALE

EMBEDDING DETAIL

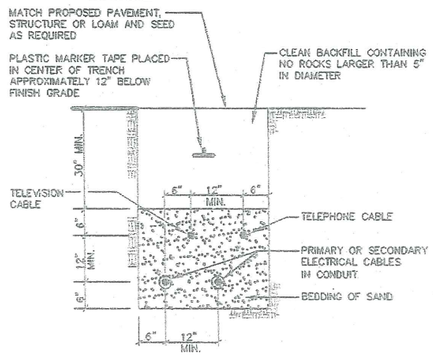


ANCHORING DETAIL

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

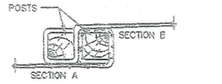
NOT TO SCALE



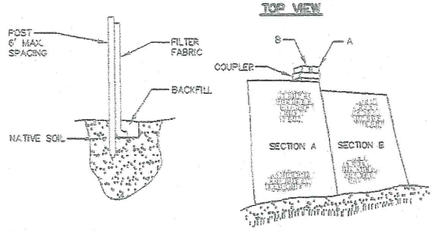
CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS CONSISTING OF (2) 6"ø CONDUITS FOR ELECTRICAL, (1) 4"ø CONDUIT FOR TV/CABLE AND (1) 2"ø CONDUIT FOR TELEPHONE.

UNDERGROUND CABLE INSTALLATION

NOT TO SCALE.



TOP VIEW

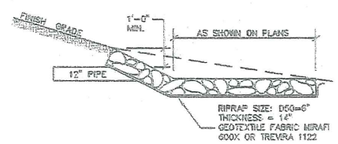


INSTALLATION:

1. EXCAVATE A 6"± 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.

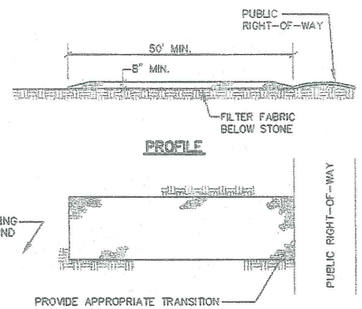
SILTATION FENCE

NOT TO SCALE



RIPRAP CULVERT INLET/OUTLET

NOT TO SCALE

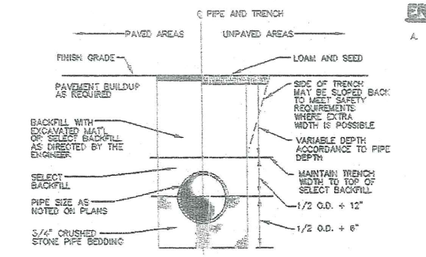


PLAN

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.

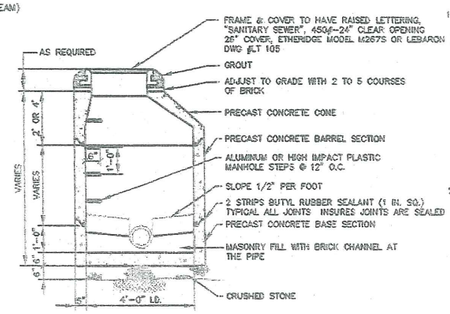
STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



TYPICAL TRENCH SECTION

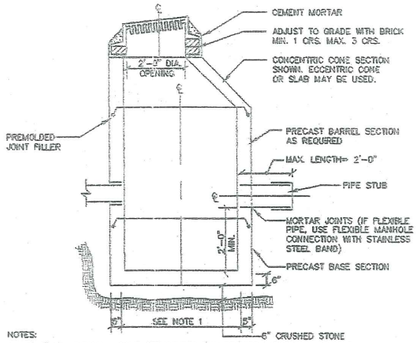
NOT TO SCALE



NOTE: PIPE CONNECTIONS SHALL BE WATERTIGHT FLEXIBLE BOOT CONNECTORS PROVIDES LEAKPROOF CONNECTION

PRECAST MANHOLE

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 AND ALL CITY OF PORTLAND CATCH BASINS SHALL BE INSTALLED WITH CASCO TRAPS.
5. DRAINAGE MANHOLE FRAME AND COVER TO BE ETHERIDGE FOUNDRY M248S OR APPROVED EQUAL. COVER SHALL BE MARKED "DRAIN".

TYPICAL CATCH BASIN

NOT TO SCALE

EROSION AND SEDIMENTATION CONTROL PLAN

A. Pre-Construction Phase

Prior to the beginning of any construction, a combination erosion control berm and filter fabric fencing will be staked across the slope(s), on the contour, at or just below the limits of clearing or grubbing, and/or just above any adjacent property line or watercourse to protect against construction related erosion. The placement of silt fences and erosion control berms shall be completed in accordance with guidelines established in Best Management Practices and in accordance with the site plan. This network is to be maintained by the contractor until all exposed slopes have at least 85%-90% vigorous perennial vegetative cover to prevent erosion.

Prior to any construction at the site, representatives of the general contractor, site contractor and the site design engineer shall arrange for, and meet with the Director of Public Works and Town Engineer to discuss the scheduling of the site construction. On or before that meeting, the contractor will prepare a detailed schedule and marked up site plan indicating areas and components of the work and key dates showing date of disturbance and completion of the work. Three copies of the schedule and marked up site plan shall be provided to the Town. Special attention shall be given to the 14 day limit of disturbance in the schedule addressing temporary and permanent vegetation measures.

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 and protected) within fourteen (14) days of disturbance shall be protected with temporary erosion control measures.
   Temporary erosion control shall include erosion control blanket, netting or mulch 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 shall be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 S.F. to provide winter protection and covered with erosion control mesh. All slopes greater than 8% shall be netted over mulch & seed if final seeding is not completed by Sept. 15.
2. All topsoil shall be collected and stockpiled offsite at an approved location to be determined by the public works director. Stockpiled loam shall be seeded with Rye at 3 lbs/1,000 S.F., and mulched on-site and re-used as required. Siltation fencing shall be placed down gradient from stockpiled loam.
3. All silt fences and erosion control berms shall be installed according to this plan. These shall be maintained during development to remove sediment from runoff water. All the silt fences and erosion control berms 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.
4. All areas shall be seeded and stabilized in accordance with the following vegetation plan.

C. Vegetation Plan

Revegetation measures shall commence immediately upon completion of construction. Disturbed areas shall also be mulched and anchored prior to any storm event. If final seeding or sodding cannot be accomplished by September 15th, then all disturbed areas shall be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 sq. ft. to provide winter protection and covered with erosion control blanket.

Revegetation measures shall consist of the following:

1. Four inches of loam will be spread over disturbed areas and smoothed 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. Soils tests shall be taken at the time of soil stripping to determine fertilization requirements. Soils test shall be taken promptly as to not interfere with the 7 day limit on soil exposure. Based upon test results, soil amendments shall be incorporated into the soil prior to final seeding.
3. Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 5 lbs./1000 S.F. 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 loam areas will be seeded to a premium turf mixture of Bluegrass and/or Fescue; seeding rate of 2-3 lbs. per 1,000 square feet. Sod shall be used in areas indicated on plans.
4. Erosion control blanket shall be applied in accordance with the plans over all finish seeded areas as specified on the design plans.
5. 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.
6. The inspecting engineer at his/her discretion, may require additional erosion control measures and/or supplemental vegetative provisions to maintain stability of earthworks and finish graded areas. The site contractor shall be responsible for providing and installing any supplemental measures as directed by the inspecting engineer. Failure to comply with the engineer's directions will result in discontinuation of construction activities.

D. Construction Schedule

Site improvements will most likely begin in spring of 2000, depending upon final project approval and the selection of a site contractor. Based upon a spring construction start, the following schedule has been prepared.

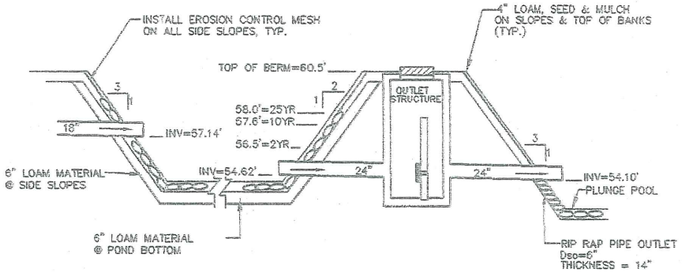
Schedule	Completion Dates
1. Estimated construction time:	May, 2000 – October, 2000
*2. Erosion control measures placed	May, 2000 – October, 2000
3. Site clearing, grubbing, excavation and filling.	May, 2000 – June, 2000
4. Rough grading, utility improvements, drainage and road construction.	May, 2000 – July, 2000
5. Start final seedings on prepared areas.	July, 2000
*6. Biweekly monitoring of temporary and permanent vegetative growth.	July, 2000 – October, 2000
*7. Re-seeding of areas, if needed.	October, 2000 – April, 2001
*8. Removal of erosion control devices.	May, 2001
*9. Mulch spread for winter erosion control, if needed.	September, 2000

* Dates are subject to change at the discretion of the engineer, depending on construction progress.

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. The contractor shall provide the City of Portland with written documentation describing dates of inspections and necessary follow-up work to maintain erosion control measures meeting the requirements of this plan.

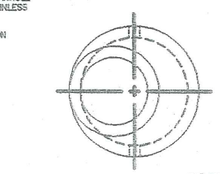
Following the temporary and/or final seedings, the contractor shall inspect the site semimonthly until the seedings have been established. Established means a minimum of 85% - 90% of areas vegetated with vigorous growth. Reseeding shall be carried out by the contractor with follow-up inspections in the event of any failures until vegetation is adequately established.

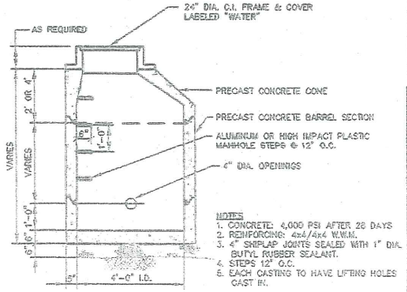


CONSTRUCTION NOTES:
1. CONTRACTOR SHALL REMOVE ALL TOPSOIL AND ORGANIC MATERIAL FROM EMBANKMENT AND POND CONSTRUCTION AREA.
2. SCARIFY SUBGRADE TO ESTABLISH INTERFACE FOR ALL FILLS.
3. CONSTRUCTION MATERIAL SHALL MEET M.D.O.T. SPEC. 703.16
4. COMPACT IN 12" LIFTS TO 92% OF MAXIMUM DENSITY.
5. INSTALL RIPRAP AND EROSION MESH WHERE SPECIFIED.
6. LOAM, SEED & STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

DETENTION BASIN/TREATMENT POND SECTION

NOT TO SCALE





NOTES:
1. CONCRETE: 4,000 PSI AFTER 28 DAYS
2. REINFORCING: 4x4/4x4 W.W.M.
3. 4" SHIPLAP JOINTS SEALED WITH 1" DIA. BUTYL RUBBER SEALANT.
4. STEPS 12" O.C.
5. EACH CASTING TO HAVE LIFTING HOLES CAST IN.

PRECAST CONCRETE 2" WATER METER PIT

NOT TO SCALE (S.C. MODEL # 6821-MH)

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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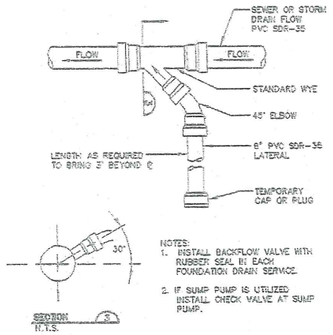
DETAILS
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	683
PROJ. NO:	99105
DRAWING:	9910301
SHEET 7 OF 8	



SEWER LATERAL SERVICE CONNECTION
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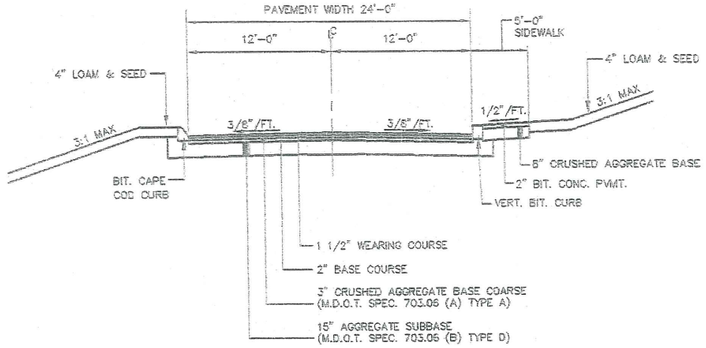

STREET SECTION
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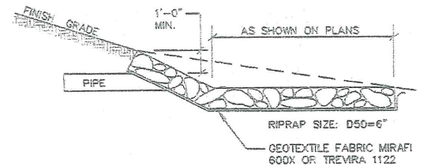
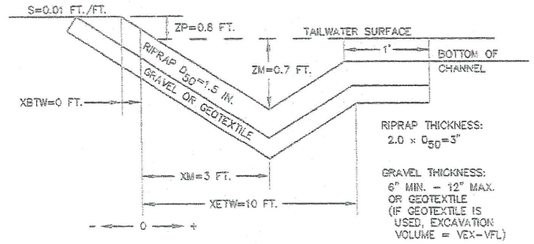
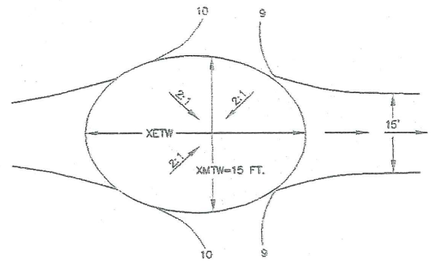


RIPRAP CULVERT INLET/OUTLET
NOT TO SCALE

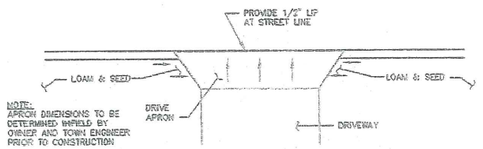


CENTERLINE PROFILE



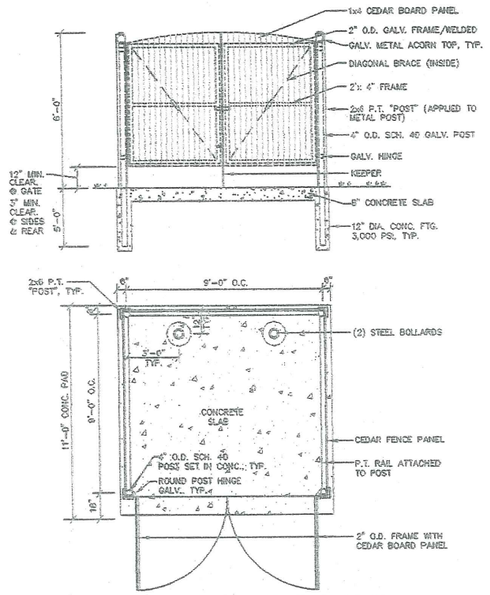
PLAN VIEW

STONE LINED PLUNGE POOL
NOT TO SCALE



TYPICAL DRIVE APRON DETAIL WITH SIDEWALK
NOT TO SCALE

TYPICAL DRIVE APRON DETAIL WITHOUT SIDEWALK
NOT TO SCALE



TYPICAL DUMPSTER ENCLOSURE
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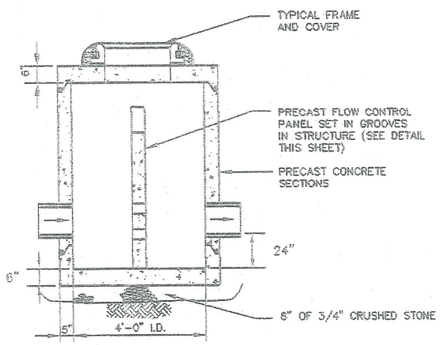

OUTLET STRUCTURE DETAIL
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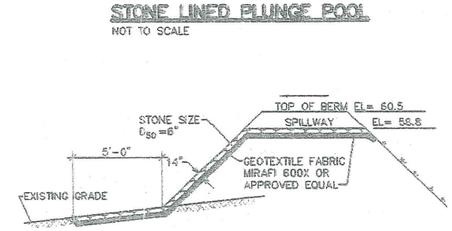
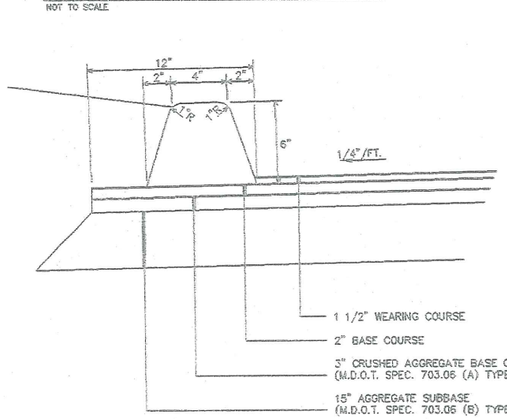


EMBANKMENT CONSTRUCTION

1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
4. LOAM, SEED, AND STABALIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

SPILLWAY SECTION
NOT TO SCALE



BITUMINOUS CURB SECTION
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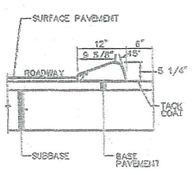

CAPE COD CURB DETAIL
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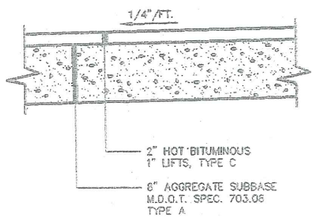
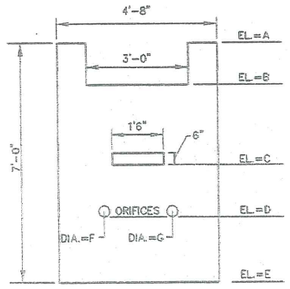


BITUMINOUS SIDEWALK
NOT TO SCALE



PRECAST FLOW CONTROL PANEL
NOT TO SCALE

OUTLET CONTROL STRUCTURE SCHEDULE

DETENTION BASIN	ELEVATION (FL.)					ORIFICE ℄ (IN)	
	A	B	C	D	E	F	G
1	59.5	58.8	56.0	54.5	52.5	4.0	4.0

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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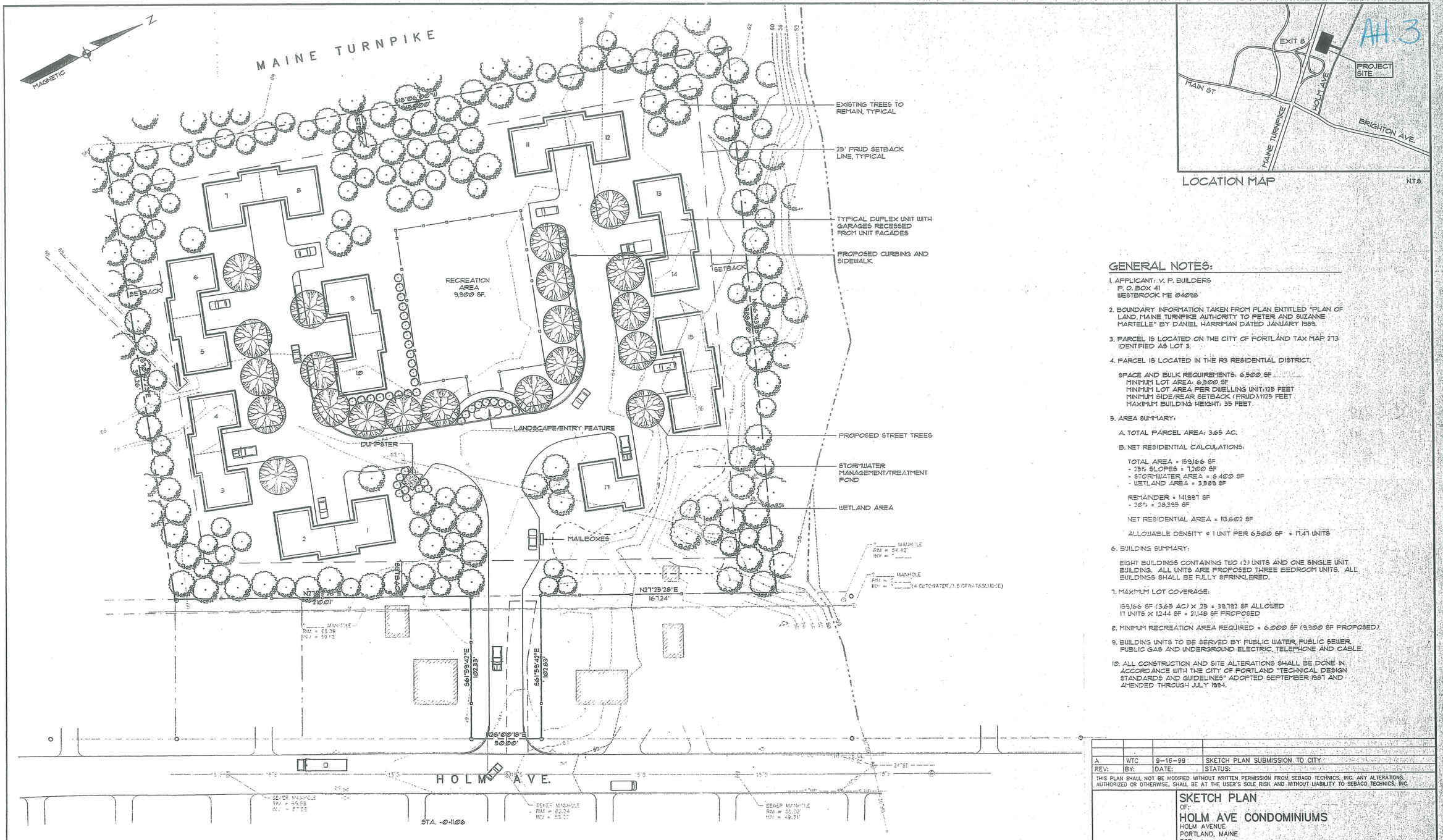
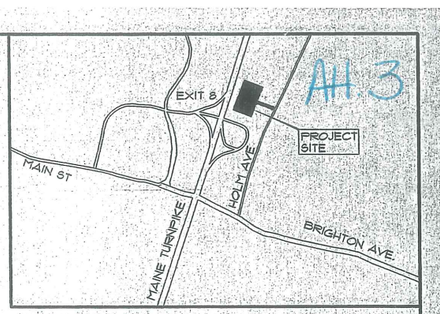
DETAILS
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	653





LOCATION MAP N.T.S.

AH 3

GENERAL NOTES:

1. APPLICANT: V. P. BUILDERS
   P. O. BOX 41
   WESTBROOK ME 04098

2. BOUNDARY INFORMATION TAKEN FROM PLAN ENTITLED "PLAN OF LAND, MAINE TURNPIKE AUTHORITY TO PETER AND SUZANNE MARTELLE" BY DANIEL HARRIMAN DATED JANUARY 1989.

3. PARCEL IS LOCATED ON THE CITY OF PORTLAND TAX MAP 273 IDENTIFIED AS LOT 3.

4. PARCEL IS LOCATED IN THE R3 RESIDENTIAL DISTRICT.

   SPACE AND BULK REQUIREMENTS: 6,500 SF
   MINIMUM LOT AREA: 6,500 SF
   MINIMUM LOT AREA PER DWELLING UNIT: 125 FEET
   MINIMUM SIDE/REAR SETBACK (FRUD): 1125 FEET
   MAXIMUM BUILDING HEIGHT: 35 FEET.

5. AREA SUMMARY:

   A. TOTAL PARCEL AREA: 3.65 AC.

   B. NET RESIDENTIAL CALCULATIONS:

   TOTAL AREA = 159,166 SF
   - 25% SLOPES = 7,200 SF
   - STORMWATER AREA = 6,400 SF
   - WETLAND AREA = 3,589 SF

   REMAINDER = 141,997 SF
   - 20% = 28,399 SF

   NET RESIDENTIAL AREA = 113,602 SF

   ALLOWABLE DENSITY = 1 UNIT PER 6,500 SF = 17.47 UNITS

6. BUILDING SUMMARY:

   EIGHT BUILDINGS CONTAINING TWO (2) UNITS AND ONE SINGLE UNIT BUILDING. ALL UNITS ARE PROPOSED THREE BEDROOM UNITS. ALL BUILDINGS SHALL BE FULLY SPRINKLERED.

7. MAXIMUM LOT COVERAGE:

   159,166 SF (3.65 AC) X 25 = 39,792 SF ALLOWED
   17 UNITS X 1,244 SF = 21,148 SF PROPOSED

8. MINIMUM RECREATION AREA REQUIRED = 6,000 SF (9,200 SF PROPOSED).

9. BUILDING UNITS TO BE SERVED BY PUBLIC WATER, PUBLIC SEWER, PUBLIC GAS AND UNDERGROUND ELECTRIC, TELEPHONE AND CABLE.

10. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PORTLAND "TECHNICAL DESIGN STANDARDS AND GUIDELINES" ADOPTED SEPTEMBER 1981 AND AMENDED THROUGH JULY 1994.

REV:	BY:	DATE:	STATUS:
A	WTC	9-16-99	SKETCH PLAN SUBMISSION TO CITY

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SKETCH PLAN

OF:

HOLM AVE CONDOMINIUMS

HOLM AVENUE
PORTLAND, MAINE

FOR:

VP BUILDERS, INC.
PO BOX 41
WESTBROOK, MAINE 04098

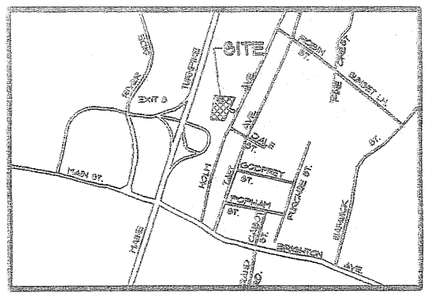
Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04098-1339
TEL (207) 856-0277

DESIGN BY: WTC	
DRAWN BY: JJM	
CHECKED BY: MWE	
DATE: 9-16-99	
SCALE: 1"=30'	
FIELD BK: 683	
PROJ. NO: 99103	
DRAWING: 99103S	
SHEET 1 OF 1	

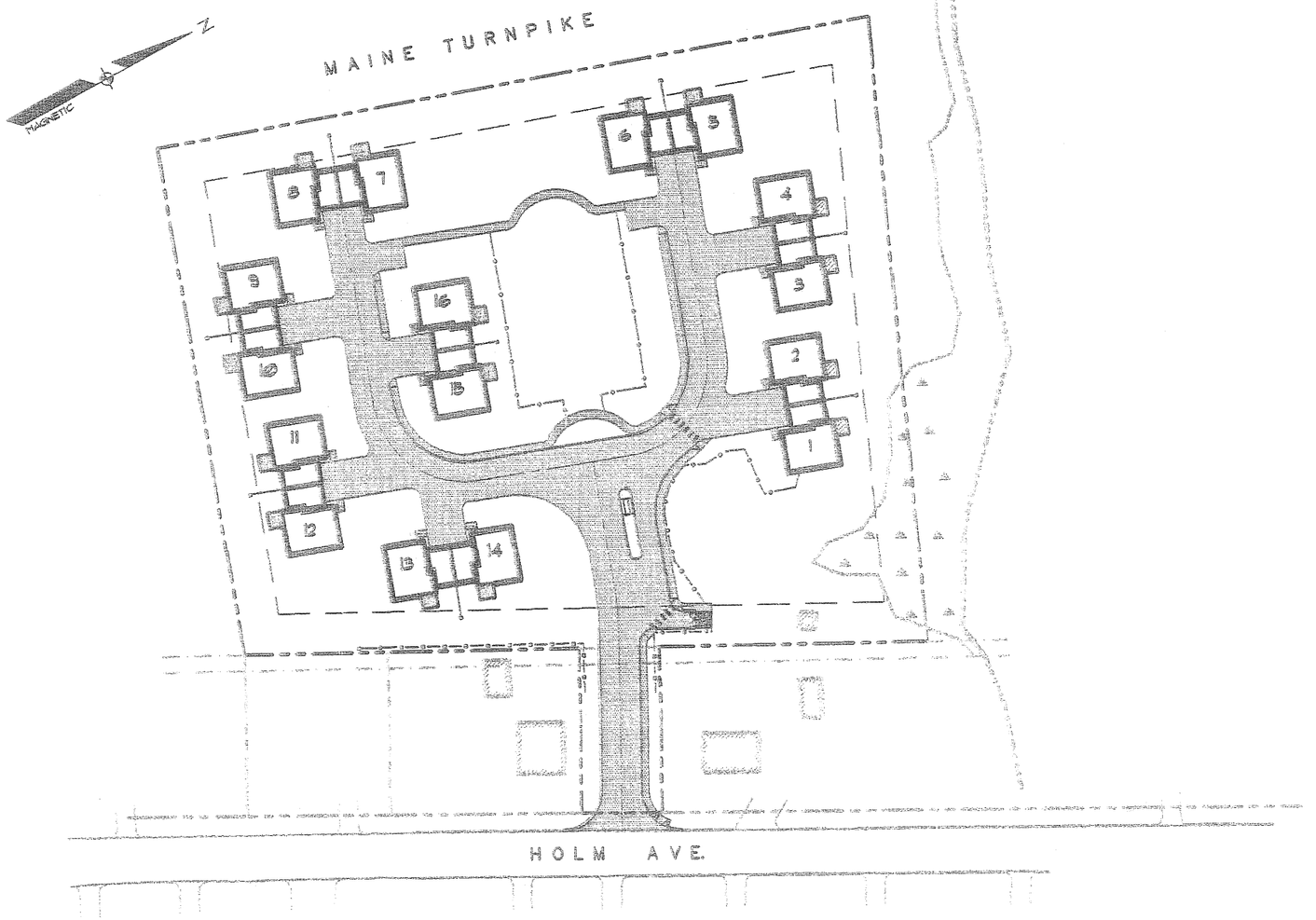
ATT. 7

HOLM PLACE

HOLM AVENUE
PORTLAND, MAINE



LOCATION MAP N.T.S.



GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

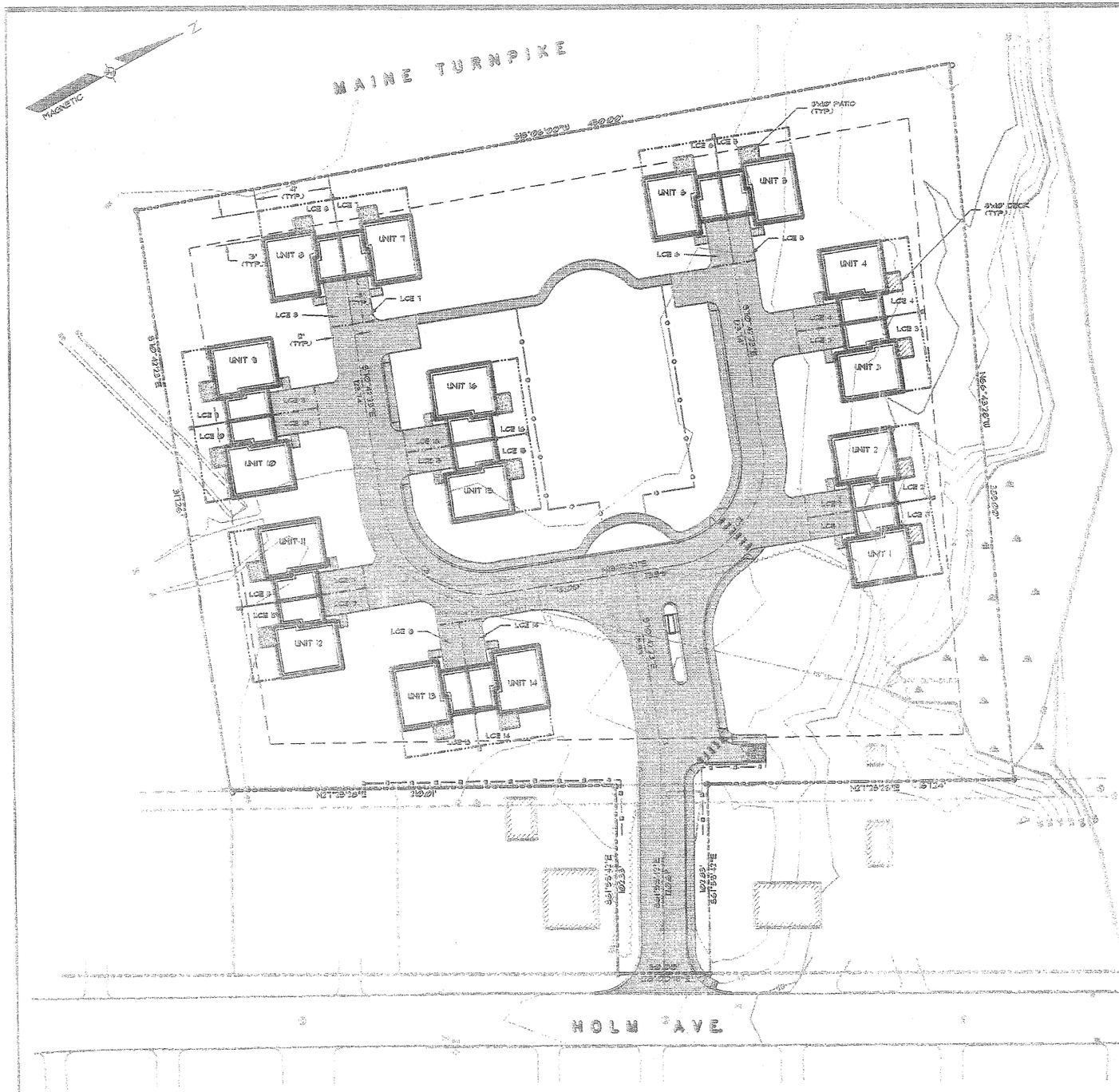
SHEET INDEX:

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUBDIVISION/RECORDING PLAT
3	SITE PLAN
4	PLAN AND PROFILE: DRIVEWAY 1 (STA -0+00.00 TO STA 1+88.73)
	DRIVEWAY 2 (STA 0+00 TO STA 3+68.38)
5	LANDSCAPE AND LIGHTING PLAN
6	DETAILS
7	DETAILS

OWNER/APPLICANT:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

ENGINEER/SURVEYOR:
SEBAGO TECHNICS, INC.
ONE CHABOT STREET
WESTBROOK, MAINE 04092-1339

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339
Tel (207) 856-0277



GRAPHIC SCALE

0 15 30 60 120

(IN FEET)

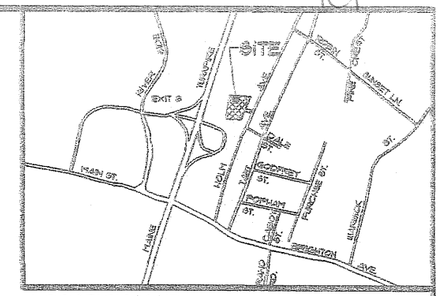
1 inch = 30 ft.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	EASEMENT	
	CENTERLINE	
	MONUMENT	
	IRON PIPE/ROD	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	SIGN	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
	CONTOURS	
	GAS	
	WATER	
	SEWER	
	STORM DRAIN	
GV	GATE VALVE	
LP	LIGHT POLE	
UP	UTILITY POLE	
HY	HYDRANT	
CB	CATCH BASIN	
SMH	MANHOLE	
	STOCKADE FENCE	

CENTERLINE CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
C1	30.41'	200.00'	8°42'41"
C2	98.54'	57.00'	99°02'00"
C3	98.54'	57.00'	99°02'00"



LOCATION MAP N.T.S.

GENERAL NOTES

1. THE RECORD OWNER OF THE PROPERTY IS PETER AND SUZANNE MARTELLE BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN DEED BOOK 7620 PAGE 298 AND BOOK 3030 PAGE 128.

2. THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND TAX ASSESSOR'S MAP # 273 BLOCK C LOT 3.

3. PLAN REFERENCES:
   A. PLAN OF LAND OF MAINE TURNPIKE AUTHORITY TO PETER P. & SUZANNE G. MARTELLE BY D. O. HARRIMAN, DATED JANUARY 1988.
   B. UNTITLED PLAN OF SUBDIVISION RECORDED IN THE CCRD ON JULY 12, 1912, IN PLAN BOOK 2 PAGE 23.
   C. PLAN OF MAINE TURNPIKE AUTHORITY, SECTION 2, SUPPLEMENTAL SHEET # 17, DATED JANUARY 1988.
   D. PLAN OF THE PORTLAND SEWER SYSTEM INFILTRATION-INFLOW ANALYSIS SYSTEM BASED MAPPING, FOR THE PORTLAND WATER DISTRICT, BY HUNTER-BALLEW ASSOCIATES, DATED 1991, DRAWING # II-16, ON FILE AT PORTLAND'S ENGINEERING OFFICE.
   E. MAINE TURNPIKE AUTHORITY SECTION 2, BY HOWARD, NEEDLES, TAMMEN, AND BERGENDOFF, SHEET 5 OF 9, DATED SEPTEMBER 3, 1985 AND LAST REVISED IN NOVEMBER OF 1963.
   F. MAINE TURNPIKE AUTHORITY SECTION 2, BY HOWARD, NEEDLES, TAMMEN, AND BERGENDOFF, SUPPLEMENTAL SHEET # 19, DATED MARCH 1988, AND LAST REVISED IN AUGUST OF 1963.

4. THE TOTAL AREA OF THE PROPERTY IS APPROXIMATELY 3.69 ACRES.

5. NET RESIDENTIAL AREA CALCULATIONS:

TOTAL AREA	161,166 SF.
- 15% SLOPES	7,200 SF.
- STORMWATER AREA	4,850 SF.
- WETLAND AREA	3,988 SF.
REMAINDER	143,117 SF.
- 20 %	28,623 SF.
NET RESIDENTIAL AREA	114,733 SF.
ALLOWABLE DENSITY = 1 UNIT PER 6,500 SF. = 17.65 UNITS	

6. THE PROPERTY IS LOCATED IN THE CITY OF PORTLAND R3 RESIDENTIAL DISTRICT.

7. THE SPACE AND BULK STANDARDS FOR THE R3 DISTRICT ARE AS FOLLOWS:
   MINIMUM LOT AREA: 6,500 SF
   MINIMUM LOT AREA PER DWELLING UNIT: 13 FEET
   MINIMUM SIDE/REAR SETBACK (PRIDA): 25 FEET
   MAXIMUM BUILDING HEIGHT: 35 FEET

8. BUILDING SUMMARY:
   EIGHT TWO UNIT BUILDINGS. ALL BUILDINGS SHALL BE FULLY SPRINKLED.

9. MINIMUM RECREATION AREA REQUIRED IS 6,500 SF. (16,500 SF. PROPOSED).

10. MAXIMUM LOT COVERAGE:
    161,166 SF (3.69 AC) X 25 = 58,792 SF ALLOWED
    16 UNITS X 1252 SF = 20,032 SF PROPOSED

11. MINIMUM RECREATION AREA REQUIRED = 6,000 SF (6,500 SF PROPOSED).

12. BUILDING UNITS TO BE SERVED BY PUBLIC WATER, PUBLIC SEWER, PUBLIC GAS AND UNDERGROUND ELECTRIC, TELEPHONE AND CABLE.

13. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PORTLAND TECHNICAL DESIGN STANDARDS AND GUIDELINES" ADOPTED SEPTEMBER 1997 AND AMENDED THROUGH JULY 1994.

APPROVAL -
CITY OF PORTLAND
PLANNING BOARD

DATE

SIGNATURE

STATE OF MAINE

COUNTY SS REGISTRY OF DEEDS
RECEIVED _____ 19__
AT ____h _____m _____M. AND RECORDED IN
PLAN BOOK _____ PAGE _____
ATTEST _____ REGISTER

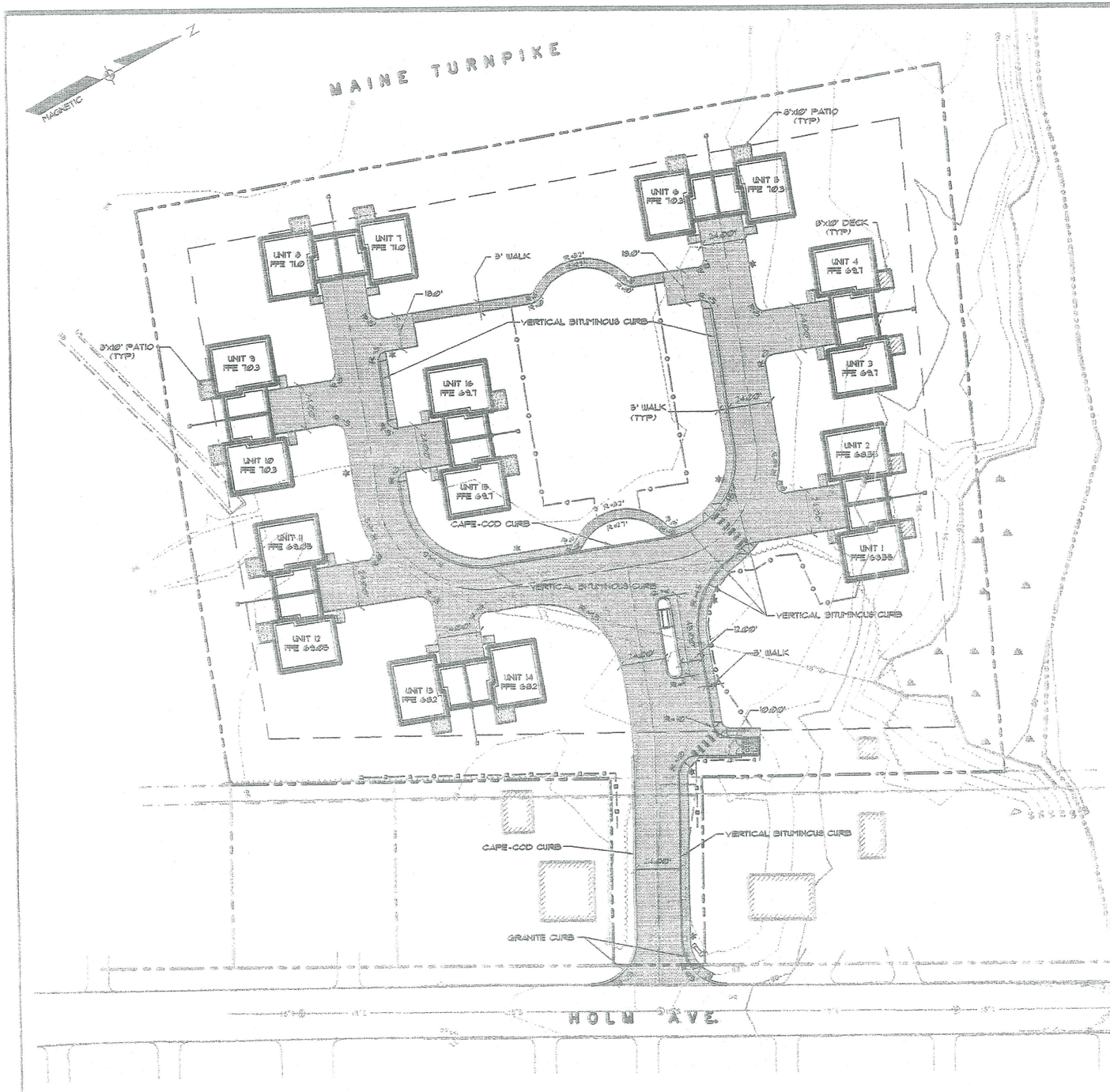
REV:	BY:	DATE:	STATUS:

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.

SUBDIVISION/RECORDING PLAT
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1338
Tel (207) 856-0277

DESIGN BY:	JRS/MWE
DRAWN BY:	KAL
CHECKED BY:	MWE
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	185
PROJ. NO:	99103
DRAWING:	99103SB
SHEET	2 OF 7



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

REV:	BY:	DATE:	STATUS:

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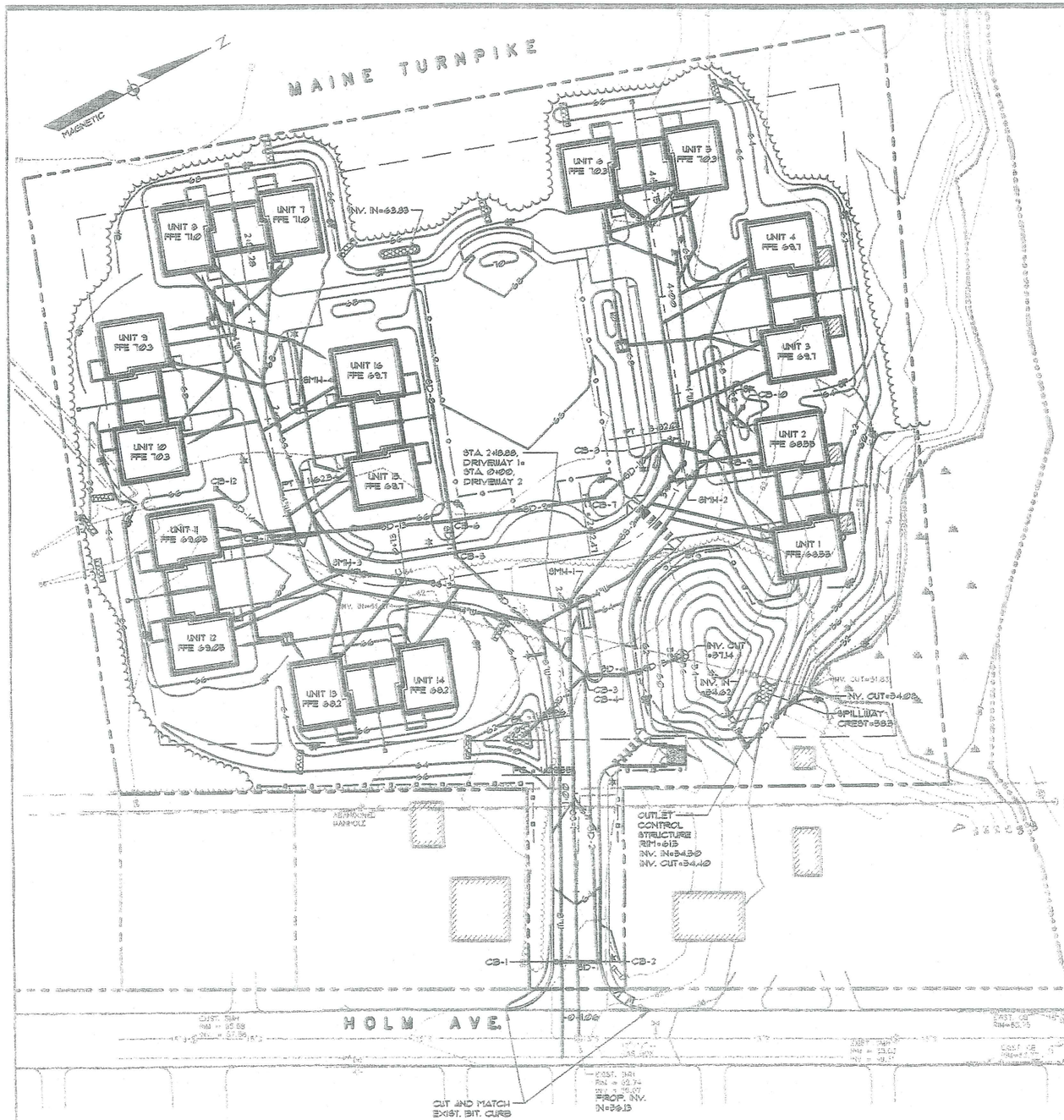
SITE PLAN
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339
Tel (207) 856-0277

DESIGN BY:	JLW
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	383
PROJ. NO:	99103
DRAWING:	99103S

SHEET 3 OF 7

7C

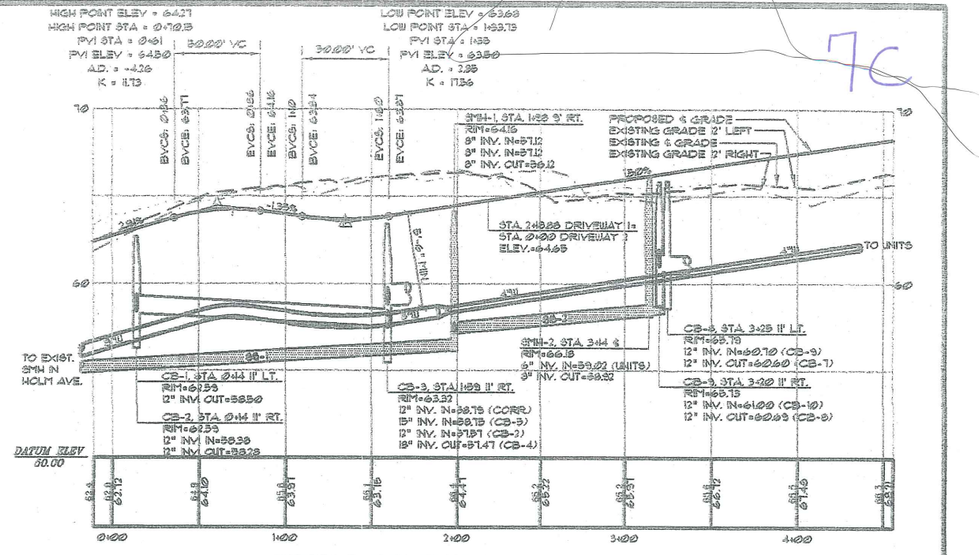


GRAPHIC SCALE

20 0 10 20 40 80 120

(IN FEET)

1 inch = 30 ft.



PROFILE: DRIVEWAY 1

(STA. -0+11.06 TO STA. 4+55.75)
SCALE: 1"=40' HORIZ.
1"=4' VERT.

PROFILE: DRIVEWAY 2

(STA. 0+00 TO STA. 2+86.28)
SCALE: 1"=40' HORIZ.
1"=4' VERT.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	SETBACK	
	CENTERLINE	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	STREAM	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
	TREELINE	
124	CONTOURS	124
8"W	WATER	8"W
8"S	SEWER	8"S
	STORM DRAIN	12"SD
	UNDERGROUND ELEC. & TEL.	UGE & T
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
	MANHOLE	
	CULVERT	12"SD
	SPLIT RAIL FENCE	
	STOCKADE FENCE	
	SILT FENCE	

SANITARY SEWER SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
SMH-1	64.16	57.12	56.12
		57.12	
SMH-2	66.18	--	58.12
SMH-3	65.32	58.24	58.14
SMH-4	67.91	--	60.50

PIPE NO.	SIZE (IN)	LENGTH (FT)	SLOPE
SS-1	8	110	0.006
SS-2	8	90	0.01
SS-3	8	93	0.01
SS-4	8	58	0.02

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN)	LENGTH (FT)	SLOPE
SD-1	12	17	0.007
SD-2	12	142	0.007
SD-3	12	42	0.005
SD-4	18	6	0.005
SD-5	18	78	0.005
SD-6	15	86	0.006
SD-7	15	4	0.006
SD-8	12	155	0.23
SD-9	12	16	0.01
SD-10	12	83	0.005
SD-11	12	18	0.005
SD-12	12	21	0.007
SD-13	12	88	0.01
SD-14	12	39	0.01
SD-15	24	24	0.005
SD-16	24	40	0.005

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.5	--	58.5
CB-2	62.5	58.33	58.28
CB-3	63.32	58.75	57.47
		58.75	
		57.87	
CB-4	63.32	57.58	57.28
CB-5	64.57	58.37	58.27
CB-6	63.5	58.75	58.45
		58.55	
		58.33	
CB-7	65.5	60.41	60.31
CB-8	65.79	60.7	60.6
CB-9	65.15	61.0	60.90
CB-10	65.6	--	61.5
CB-11	65.38	60.58	60.43
CB-12	65.5	--	60.38

REV: BY: DATE: STATUS:

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PLAN AND PROFILE: DRIVEWAY 1 (STA. -0+11.06 TO STA. 4+55.75) DRIVEWAY 2 (STA. 0+00 TO STA. 2+86.28)

OF:

HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE

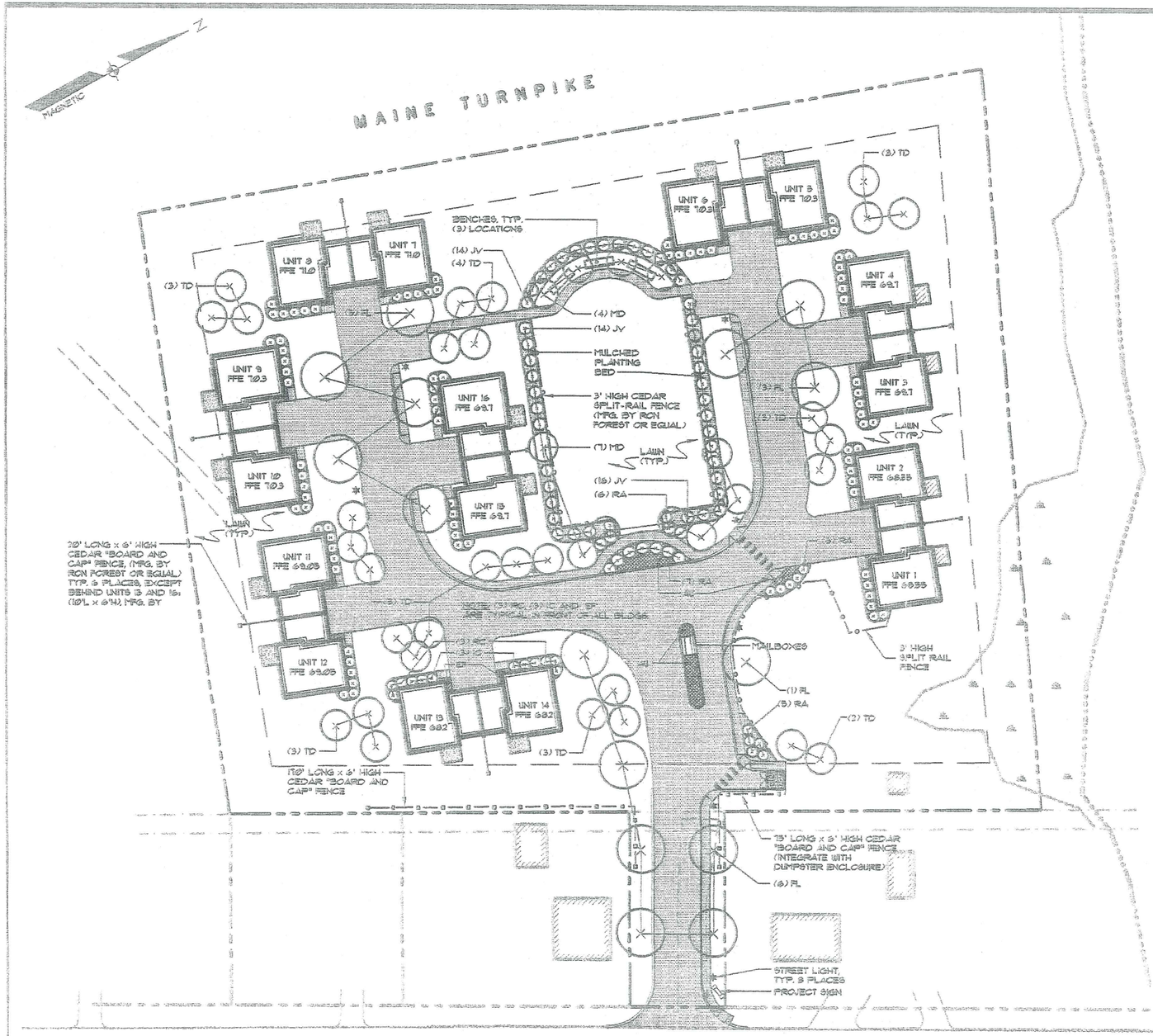
FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	CMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	383
PROJ. NO:	99103
DRAWING:	99103P
SHEET #	6 OF 7

7d



GRAPHIC SCALE

20 0 10 20 60 120

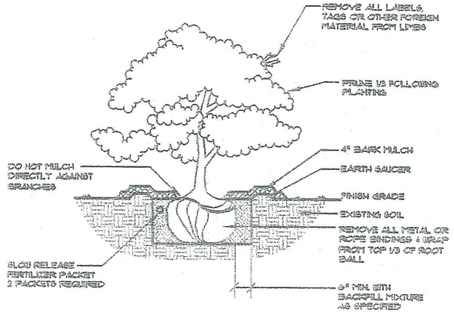
(IN FEET)

1 inch = 30 ft.

PLANTING SCHEDULE

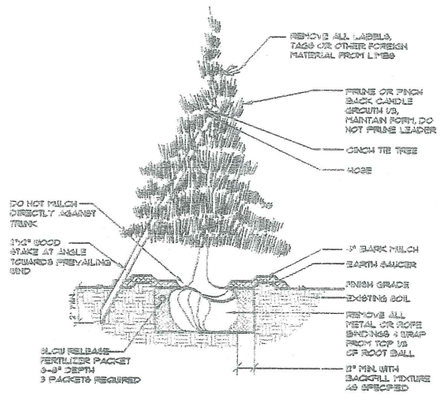
SYMBOL	BOTANICAL / COMMON NAME	SIZE / COMMENTS
FL	FRAXINUS LANCEOLATA 'SUMMIT' / GREEN ASH	1 ¾"
MD	MALUS DONALD WYMAN / FLOWERING CRAB	5' - 6'
TD	TSUGA DIVERSIFOLIA / JAPANESE HEMLOCK	#6
IC	ILEX CRENATA 'COMPACTA' / DWARF JAPANESE HOLLY	12" - 15" / IN MULCHED PLANTING BED
RC	RHODODENDRON CAROLINIANUM / CAROLINA RHODODENDRON	2 - 2½'/IN MULCHED PLANTING BED
RA	RHODODENDRON 'APRIL GEM' / RHODODENDRON	15" - 18"
JV	JUNIPERUS VIRGIANA 'GREY OWL' / GREY OWL JUNIPER	#3 / 6' O.C.
EF	ECNYMUS FORTUNEI / WINTERCREEPER	#3 POT / 18" O.C. IN MULCHED PLANTING BED
AU	ARCTOSTAPHYLOS UVA-URSI / BEARBERRY	9 / 18" O.C. IN MULCHED PLANTING BED

LIGHTING: "TRADITIONAIRE" POST-TOP LANTERN ON 18' (ROUND-STRAIGHT ALUMINUM) POLE. MANUFACTURED BY McGRAW-EDISON OR EQUAL.



DECIDUOUS & EVERGREEN SHRUB

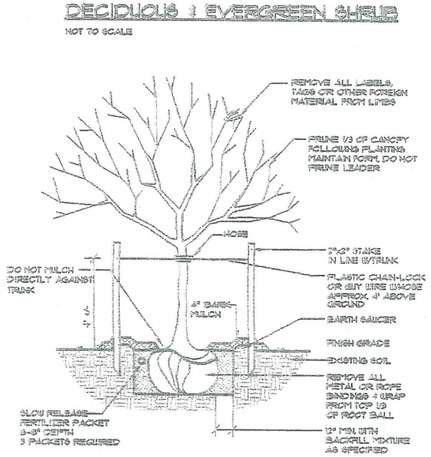
NOT TO SCALE



DECIDUOUS TREES UNDER 2" CALIPER OR UNDER 8' IN HEIGHT

EVERGREEN TREES 6'-8' IN HEIGHT & UNDER

NOT TO SCALE



DECIDUOUS TREES 2" TO 4" CALIPER

NOT TO SCALE

REV:	BY:	DATE:	STATUS:

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LANDSCAPE AND LIGHTING PLAN

OF:

HOLM PLACE

HOLM AVENUE

PORTLAND, MAINE

FOR:

VP BUILDERS, INC.

P.O. BOX 41

WESTBROOK, MAINE 04098

Sebago Technics

Engineering & Planning for the Future

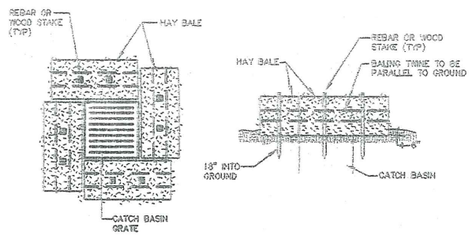
One Chabot Street

Westbrook, Me 04092-1339

Tel (207) 856-0277

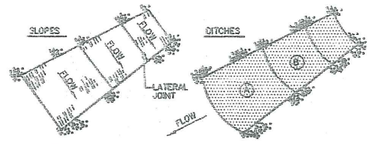
DESIGN BY:	JRP
DRAWN BY:	MAL
CHECKED BY:	WTC
DATE:	1-18-00
SCALE:	1"=30'
FIELD BK:	383
PROJ. NO:	99103
DRAWING:	99103L

SHEET 5 OF 7



NOTE: INSTALL BARRIER AT EACH CATCH BASIN

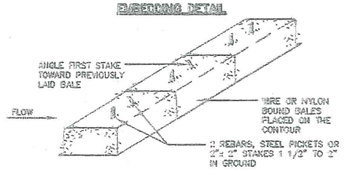
CATCH BASIN HAY BALE BARRIER
NOT TO SCALE



NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF @ 11 WIRE 8" LONG AND 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 OR APPROVED EQUAL.

EROSION CONTROL MESH
NOT TO SCALE

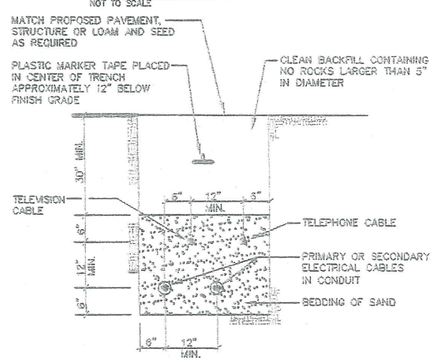
EMBEDDING DETAIL



ANCHORING DETAIL

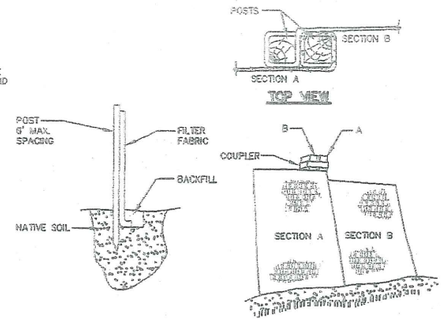
NOTES:
1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY 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



CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS CONSISTING OF (2) 5"ø CONDUITS FOR ELECTRICAL, (1) 6"ø CONDUIT FOR TV/CABLE AND (1) 2"ø CONDUIT FOR TELEPHONE.

UNDERGROUND CABLE INSTALLATION
NOT TO SCALE

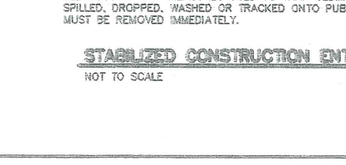


TOP VIEW

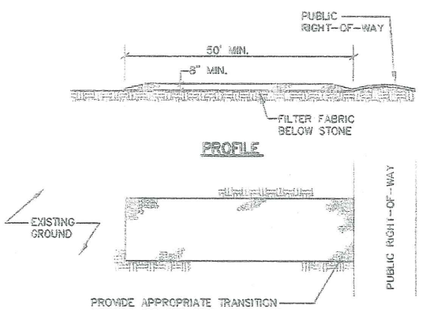
INSTALLATION:

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.

SILTATION FENCE
NOT TO SCALE



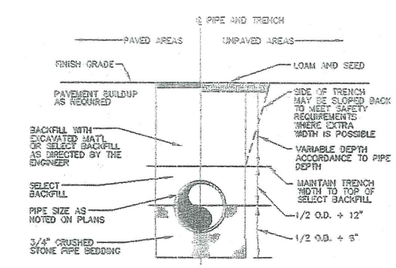
RIPRAP CULVERT INLET/OUTLET
NOT TO SCALE



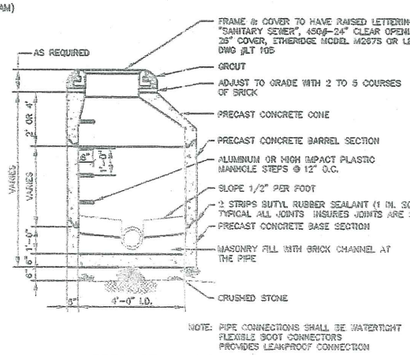
PLAN

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

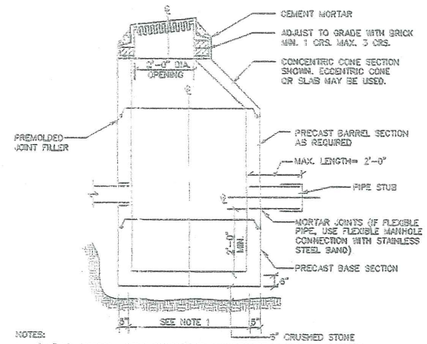


TYPICAL TRENCH SECTION
NOT TO SCALE



NOTE: PIPE CONNECTIONS SHALL BE WATERTIGHT FLEXIBLE BOOT CONNECTORS PROVIDES LEAKPROOF CONNECTION

PRECAST MANHOLE
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 M2486 OR APPROVED EQUAL AND ALL CITY OF PORTLAND CATCH BASINS SHALL BE INSTALLED WITH CASCO TRAPS.
5. DRAINAGE MANHOLE FRAME AND COVER TO BE ETHERIDGE FOUNDRY M2486 OR APPROVED EQUAL. COVER SHALL BE MARKED "DRAIN".

TYPICAL CATCH BASIN
NOT TO SCALE

EROSION AND SEDIMENTATION CONTROL PLAN

A. Pre-Construction Phase

Prior to the beginning of any construction, a combination erosion control berm and filter fabric fencing will be staked across the slope(s), on the contour, at or just below the limits of clearing or grubbing, and/or just above any adjacent property line or watercourse to protect against construction related erosion. The placement of silt fences and erosion control berms shall be completed in accordance with guidelines established in Best Management Practices and in accordance with the site plan. This network is to be maintained by the contractor until all exposed slopes have at least 85%-90% vigorous perennial vegetative cover to prevent erosion.

Prior to any construction at the site, representatives of the general contractor, site contractor and the site design engineer shall arrange for, and meet with the Director of Public Works and Town Engineer to discuss the scheduling of the site construction. On or before that meeting, the contractor will prepare a detailed schedule and marked up site plan indicating areas and components of the work and key dates showing date of disturbance and completion of the work. Three copies of the schedule and marked up site plan shall be provided to the Town. Special attention shall be given to the 14 day limit of disturbance in the schedule addressing temporary and permanent vegetation measures.

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 and protected) within fourteen (14) days of disturbance shall be protected with temporary erosion control measures.
   Temporary erosion control shall include erosion control blanket, netting or mulch 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 shall be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 S.F. to provide winter protection and covered with erosion control mesh. All slopes greater than 8% shall be netted over mulch & seed if final seeding is not completed by Sept. 15.
2. All topsoil shall be collected and stockpiled offsite at an approved location to be determined by the public works director. Stockpiled loam shall be seeded with Rye at 3 lbs/1,000 S.F., and mulched on-site and re-used as required. Siltation fencing shall be placed down gradient from stockpiled loam.
3. All silt fences and erosion control berms shall be installed according to this plan. These shall be maintained during development to remove sediment from runoff water. All the silt fences and erosion control berms 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.
4. All areas shall be seeded and stabilized in accordance with the following vegetation plan.

C. Vegetation Plan

Revegetation measures shall commence immediately upon completion of construction. Disturbed areas shall also be mulched and anchored prior to any storm event. If final seeding or sodding cannot be accomplished by September 15th, then all disturbed areas shall be seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 sq. ft. to provide winter protection and covered with erosion control blanket.

Revegetation measures shall consist of the following:

1. Four inches of loam will be spread over disturbed areas and smoothed 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. Soils tests shall be taken at the time of soil stripping to determine fertilization requirements. Soils test shall be taken promptly so as not interfere with the 7 day limit on soil exposure. Based upon test results, soil amendments shall be incorporated into the soil prior to final seeding.
3. Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 3 lbs./1000 S.F. to a mixture of 33% 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 2-2 lbs. per 1,000 square feet. Sod shall be used in areas indicated on plans.
4. Erosion control blanket shall be applied in accordance with the plans over all finish seeded areas as specified on the design plans.
5. 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.
6. The inspecting engineer at his/her discretion, may require additional erosion control measures and/or supplemental vegetative provisions to maintain stability of earthworks and finish graded areas. The site contractor shall be responsible for providing and installing any supplemental measures as directed by the inspecting engineer. Failure to comply with the engineer's directions will result in discontinuation of construction activities.

D. Construction Schedule

Site improvements will most likely begin in spring of 2000, depending upon final project approval and the selection of a site contractor. Based upon a spring construction start, the following schedule has been prepared.

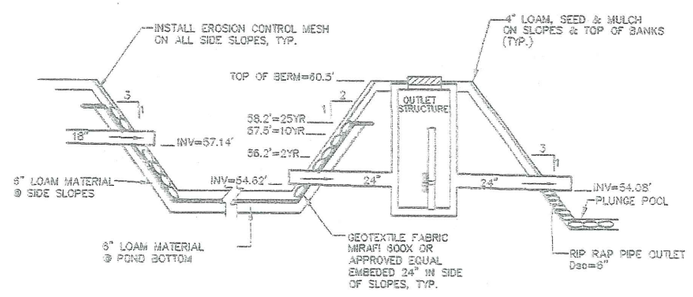
Schedule	Completion Dates
1. Estimated construction time:	April, 2000 - October, 2000
*2. Erosion control measures placed	April, 2000 - October, 2000
3. Site clearing, grubbing, excavation and filling.	March, 2000 - May, 2000
4. Rough grading, utility improvements, drainage and road construction.	April, 2000 - July, 2000
5. Start final seedings on prepared areas.	July, 2000
*6. Biweekly monitoring of temporary and permanent vegetative growth.	July, 2000 - October, 2000
*7. Re-seeding of areas, if needed.	October, 2000 - June, 2001
*8. Removal of erosion control devices.	October, 2000
*9. Mulch spread for winter erosion control, if needed.	September, 2000 - April, 2001

* Dates are subject to change at the discretion of the engineer, depending on construction progress.

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. The contractor shall provide the City of Portland with written documentation describing dates of inspections and necessary follow-up work to maintain erosion control measures meeting the requirements of this plan.

Following the temporary and/or final seedings, the contractor shall inspect the site semimonthly 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.



CONSTRUCTION NOTES:
1. CONTRACTOR SHALL REMOVE ALL TOPSOIL AND ORGANIC MATERIAL FROM EMBANKMENT AND POND CONSTRUCTION AREA.
2. SCARIFY SUBGRADE TO ESTABLISH INTERFACE FOR ALL FILLS.
3. CONSTRUCTION MATERIAL SHALL MEET M.D.O.T. SPEC. 703.18
4. COMPACT IN 12" LIFTS TO 92% OF MAXIMUM DENSITY.
5. INSTALL RIPRAP AND EROSION MESH WHERE SPECIFIED.
6. LOAM, SEED & STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

DETENTION BASIN/TREATMENT POND SECTION
NOT TO SCALE

REV:	BY:	DATE:	STATUS:

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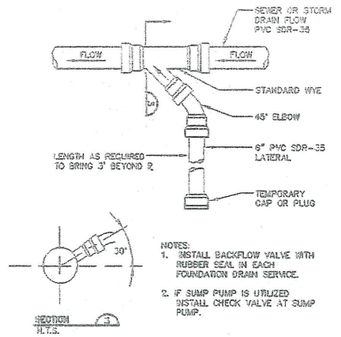
DETAILS
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

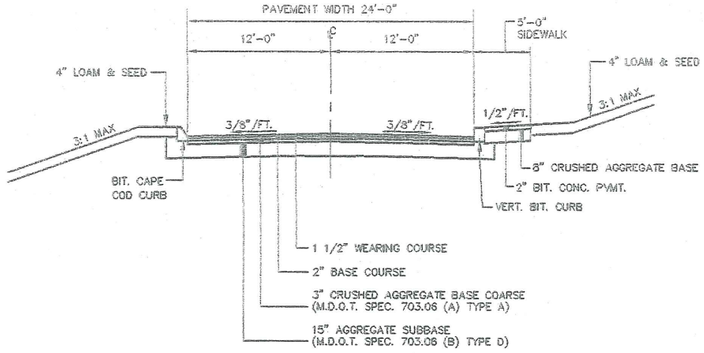
Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04092-1339
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	383
PROJ. NO:	99103
DRAWING:	99103D1

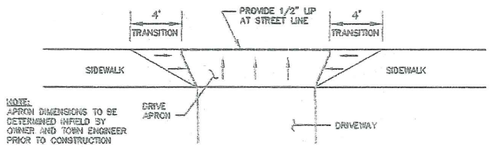
SHEET 6 OF 7



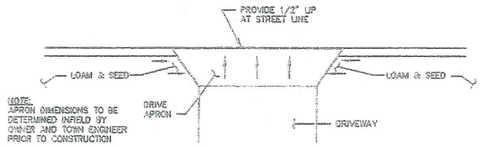
SEWER LATERAL SERVICE CONNECTION
NOT TO SCALE



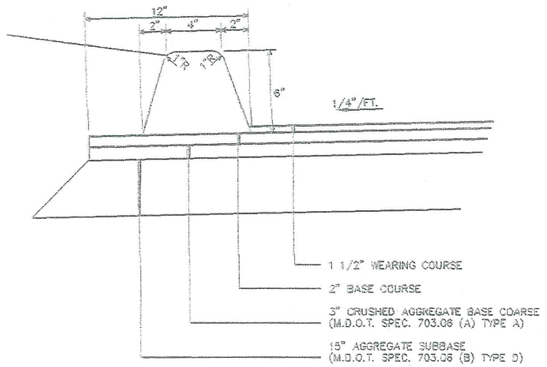
STREET SECTION
NOT TO SCALE



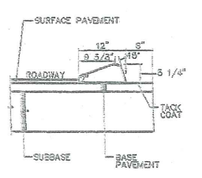
TYPICAL DRIVE APRON DETAIL WITH SIDEWALK
NOT TO SCALE



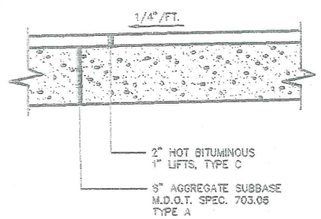
TYPICAL DRIVE APRON DETAIL WITHOUT SIDEWALK
NOT TO SCALE



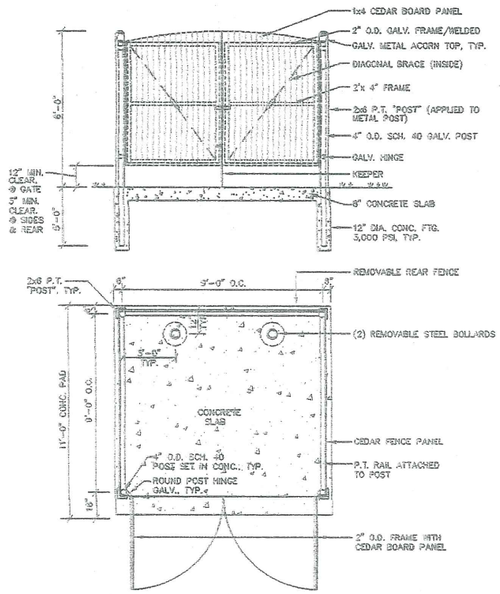
BITUMINOUS CURB SECTION
NOT TO SCALE



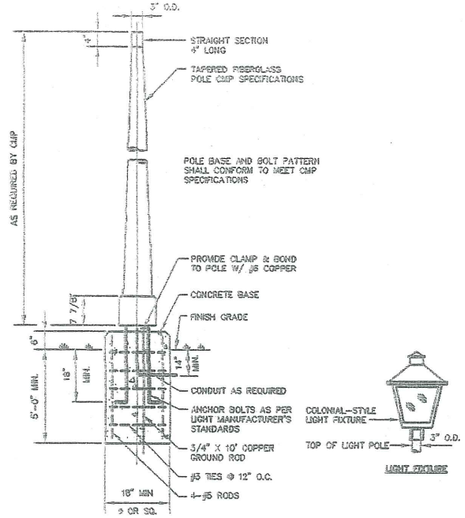
CAPE COD CURB DETAIL
NOT TO SCALE



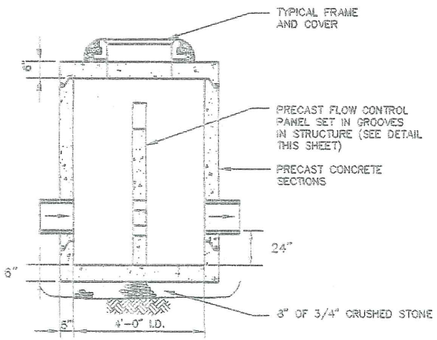
BITUMINOUS SIDEWALK
NOT TO SCALE



TYPICAL DUMPSTER ENCLOSURE
NOT TO SCALE



TYPICAL LIGHT POLE DETAIL
NOT TO SCALE



OUTLET STRUCTURE DETAIL
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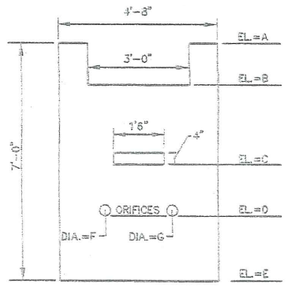
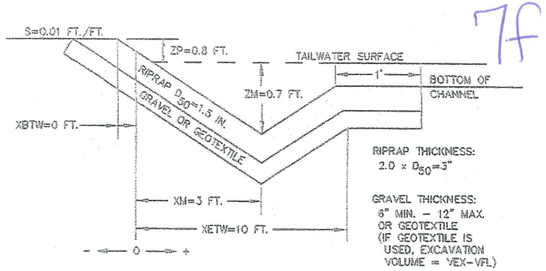


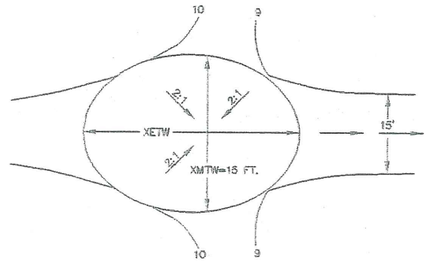
PRECAST FLOW CONTROL PANEL
NOT TO SCALE

OUTLET CONTROL STRUCTURE SCHEDULE

DETENTION BASIN	ELEVATION (FL)					ORIFICE ø (IN)	
	A	B	C	D	E	F	G
1	59.5	58.5	56.0	54.5	52.5	4.0	4.0



CENTERLINE PROFILE



PLAN VIEW

STONE LINED PLUNGE POOL
NOT TO SCALE

EMBANKMENT CONSTRUCTION

1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
4. LOAM, SEED, AND STABALIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

SPILLWAY SECTION
NOT TO SCALE

REV:	BY:	DATE:	STATUS:

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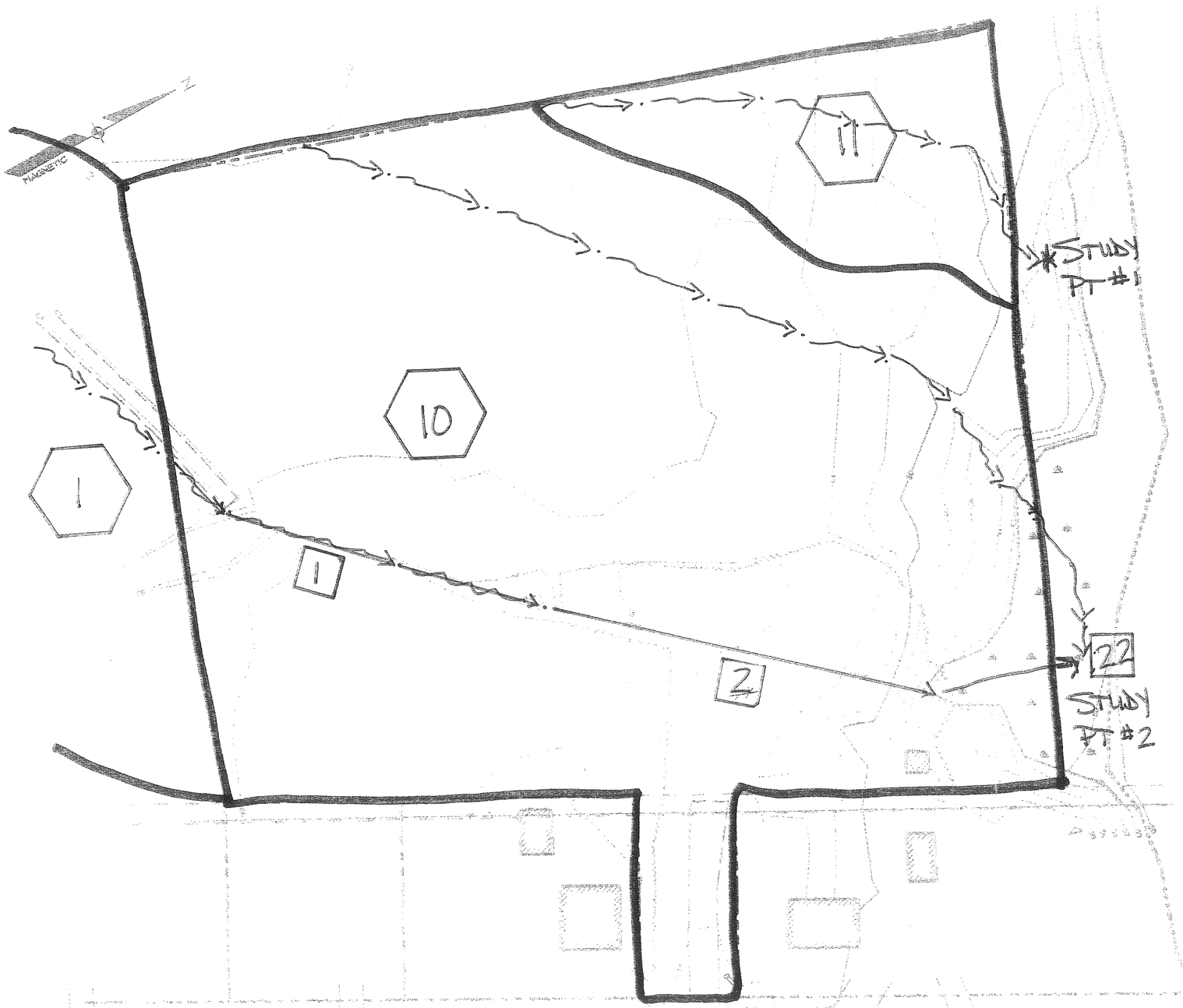
DETAILS
OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	883
PROJ. NO:	99103
DRAWING:	99103D2
SHEET 7 OF 7	



1 WATERSHED

1 REACH

SHALLOW FLOW

CHANNEL FLOW

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

1"=60'

REV:	BY:	DATE:	STATUS:

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PRE DEVELOPMENT WATER SHED PLAN

OF:

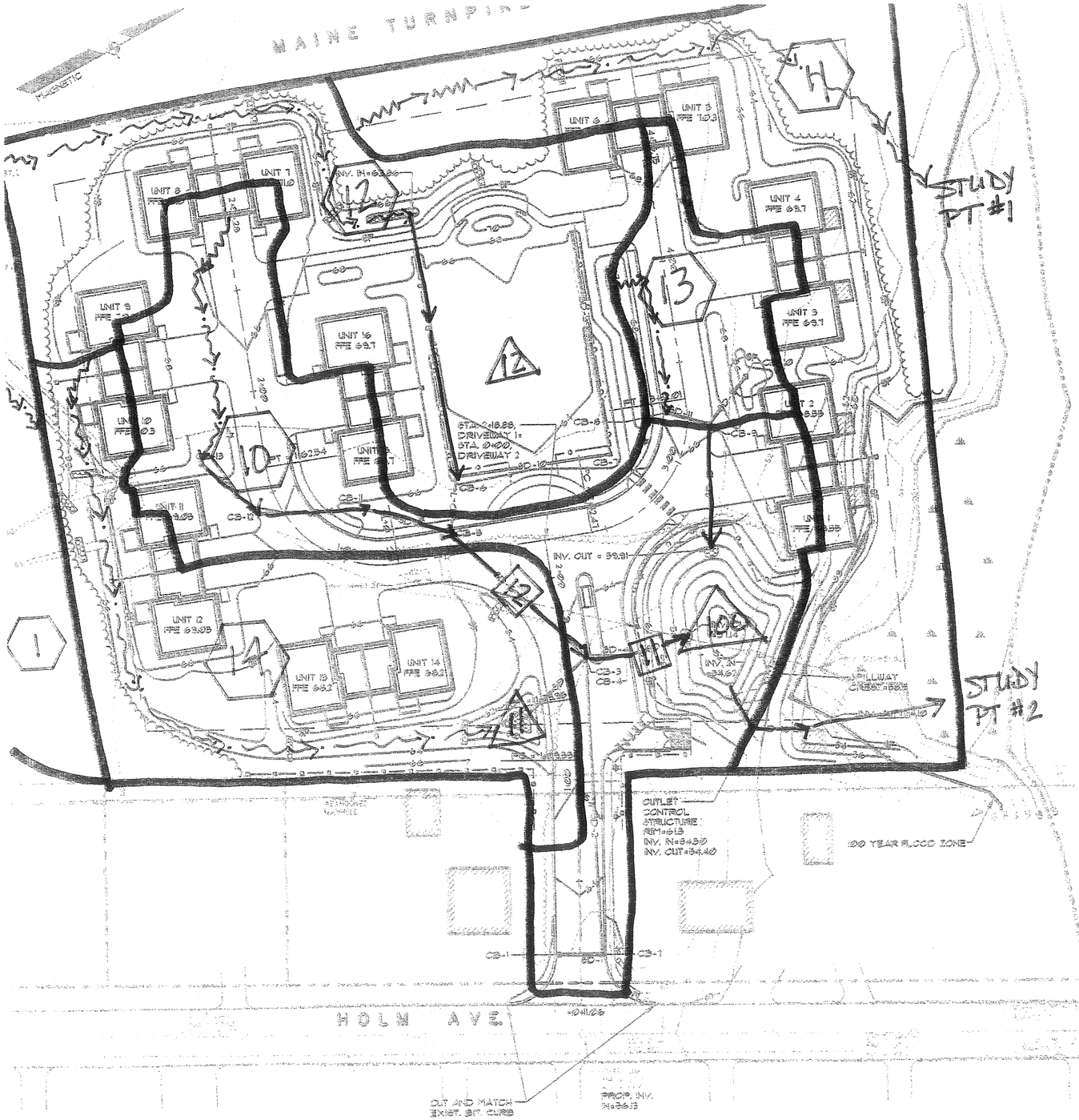
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE

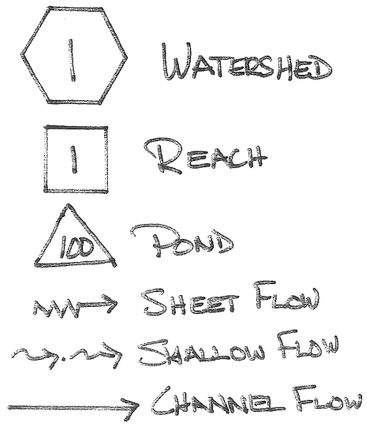
FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street

DESIGN BY:	JLW
DRAWN BY:	NAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	
FIELD BK:	MB3
PROJ. NO:	99103
DRAWING:	991035





STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN.)	LENGTH (FT.)	SLOPE
SD-1	12	17	0.007
SD-2	12	142	0.007
SD-3	12	42	0.005
SD-4	18	16	0.005
SD-5	18	76	0.005
SD-6	15	56	0.006
SD-7	12	23	0.01
SD-8	12 perf.	130	0.032
SD-9	12 perf.	105	0.01
SD-10	12 perf.	72	0.005
SD-11	12	18	0.005
SD-12	12	21	0.007
SD-13	12	60	0.01
SD-14	12	35	0.01
SD-15	12	50	0.01
SD-16	12	35	0.01
SD-17	24	24	0.005

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.5	--	58.5
CB-2	62.5	58.38	58.28
CB-3	63.32	58.73	57.47
		58.73	
		57.57	
CB-4	63.32	57.38	57.28
CB-5	64.57	59.35	59.27
		59.37	
CB-6	63.4	59.70	59.6
		59.70	
CB-7	63.4	60.16	60.06
CB-8	63.79	----	60.7
CB-9	63.73	61.0	60.91
		60.61	
CB-10	63.6	--	61.8
CB-11	63.75	60.03	59.93
CB-12	63.85	60.63	60.43

REV.	BY	DATE	STATUS
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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POST DEVELOPMENT WATER SHED PLAN

OF:

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HOLM AVENUE
PORTLAND, MAINE

FOR:

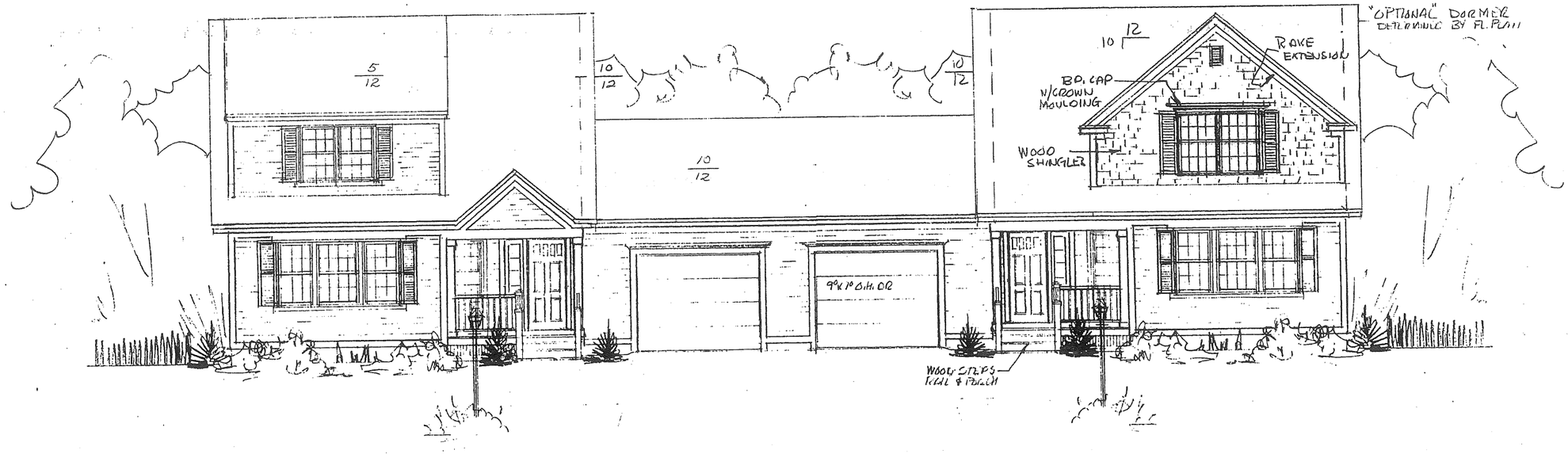
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Engineering & Planning for the Future
One Chabot Street

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	AS SHOWN
FIELD BK:	883
PROJ. NO:	99103
DRAWING:	99103P

Holm Place Condominiums
Holm Avenue
Portland, Maine

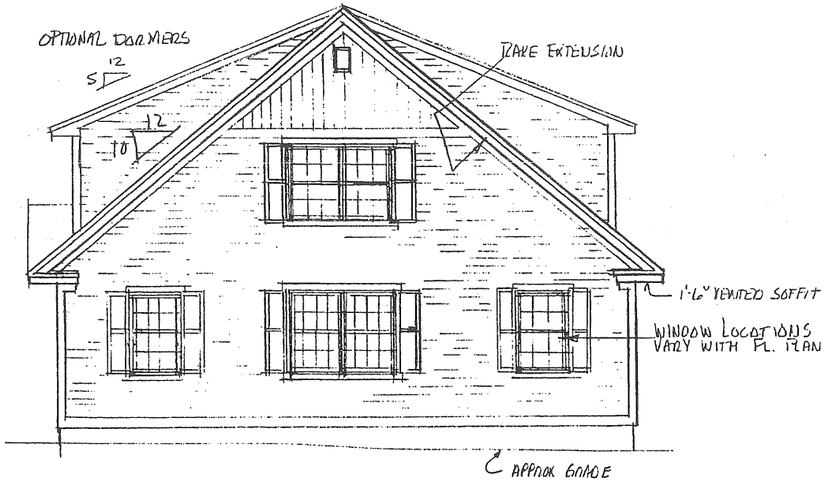
Builder/Developer : V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine



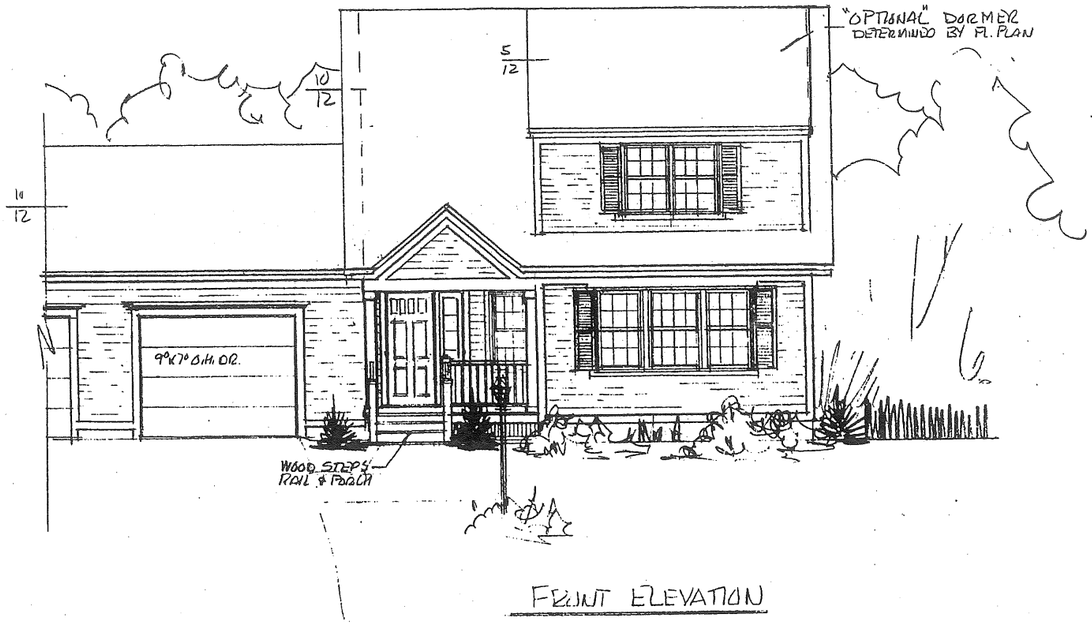
FRONT ELEVATION

Holm Place Condominiums
Holm Avenue
Portland, Maine

Builder/Developer : V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine



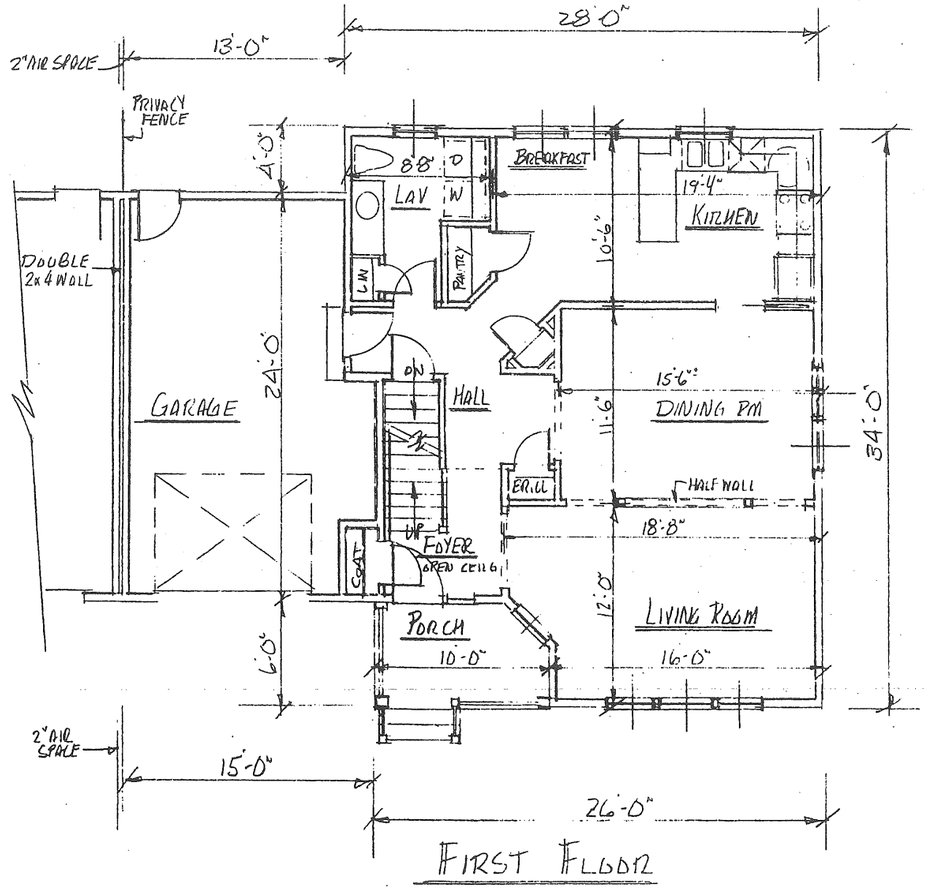
Right & Left
SIDE ELEVATIONS



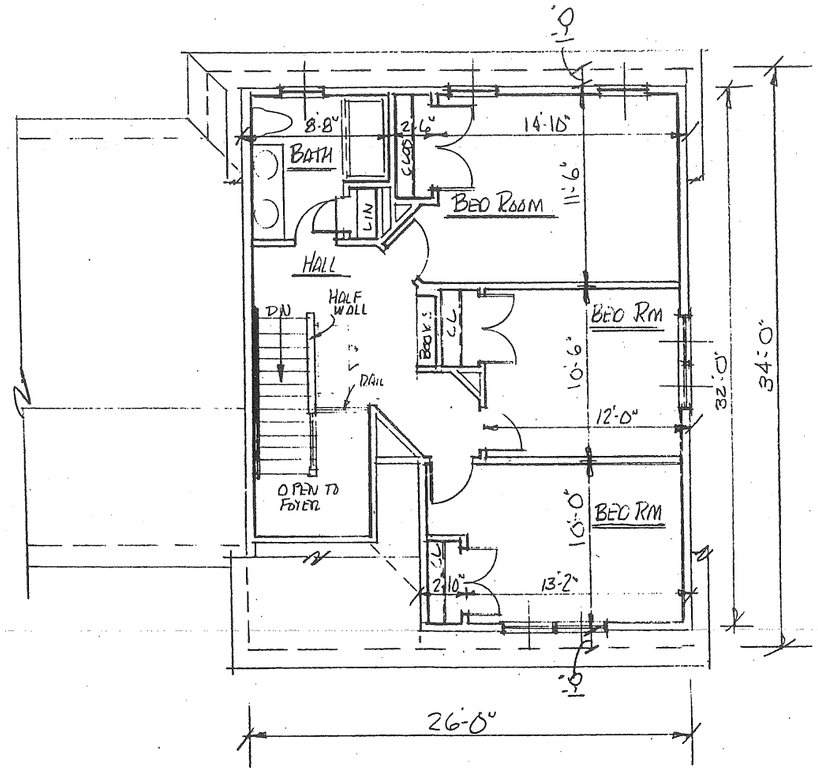
FRONT ELEVATION

Holm Place Condominiums
Holm Avenue
Portland, Maine

Builder/Developer : V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine



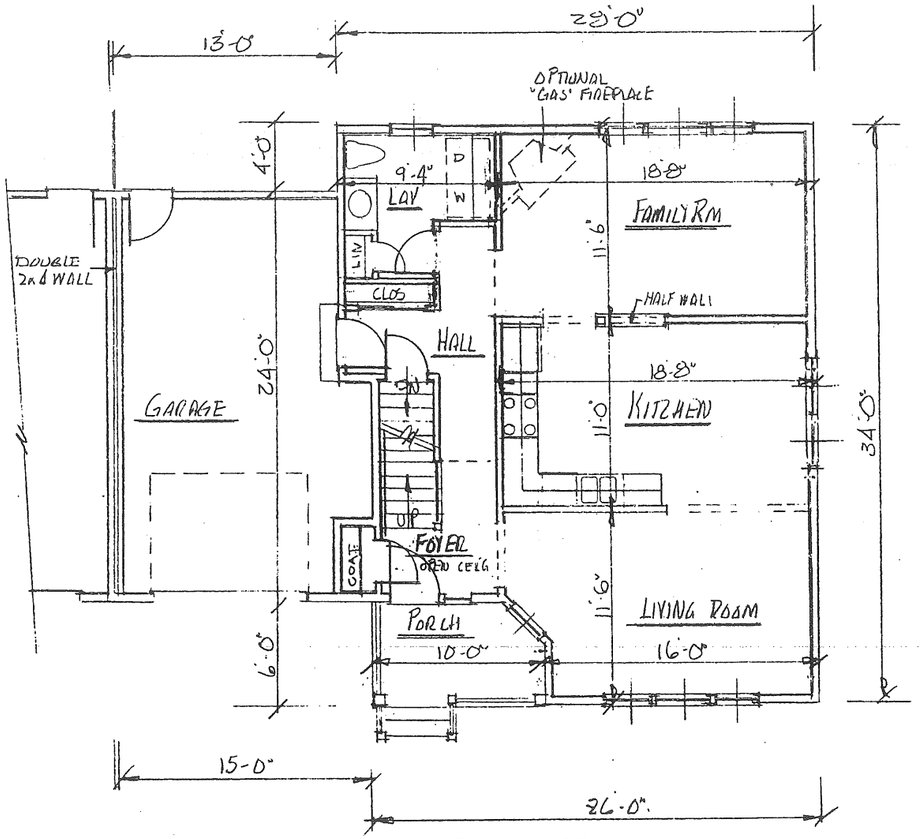
FIRST FLOOR



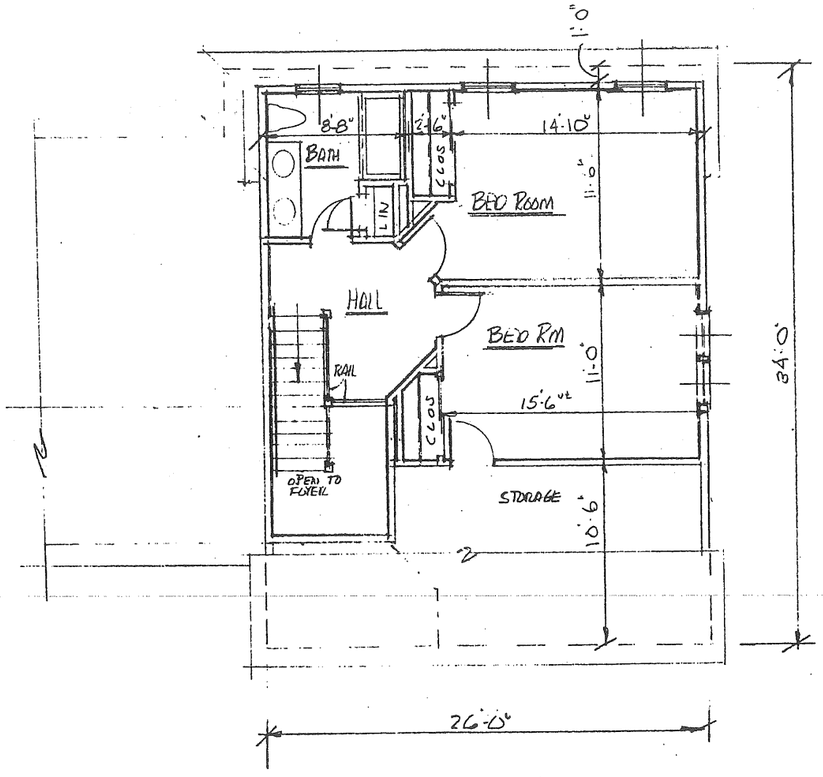
SECOND FLOOR

Holm Place Condominiums
Holm Avenue
Portland, Maine

Builder/Developer : V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine



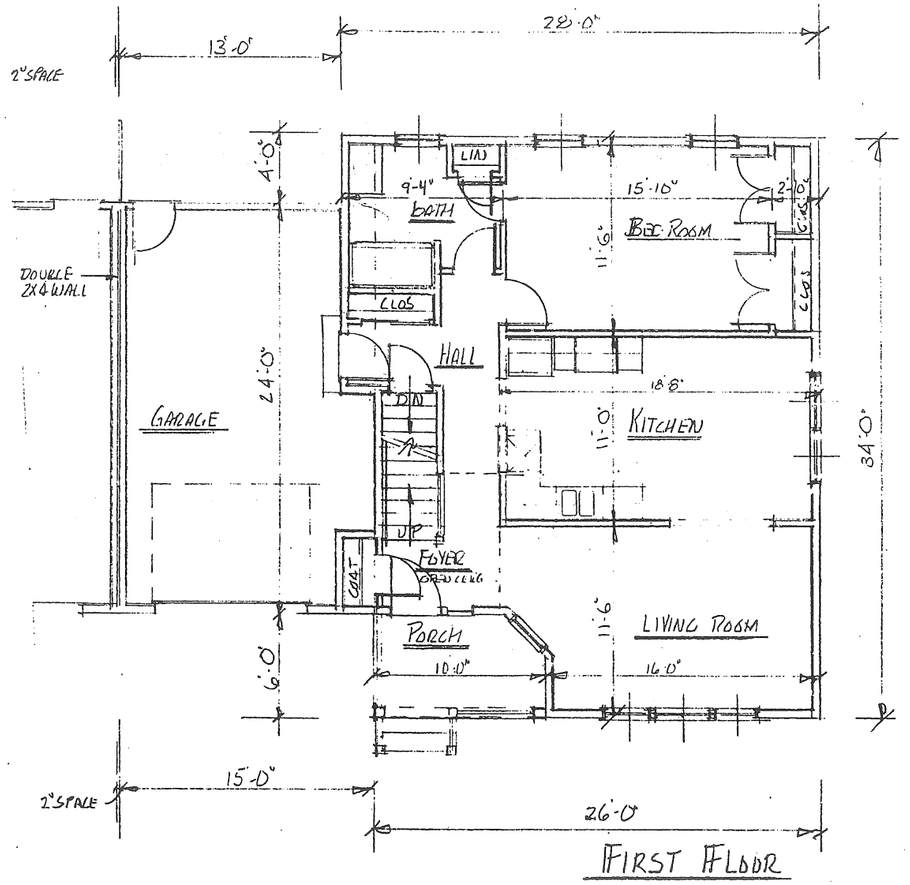
FIRST FLOOR



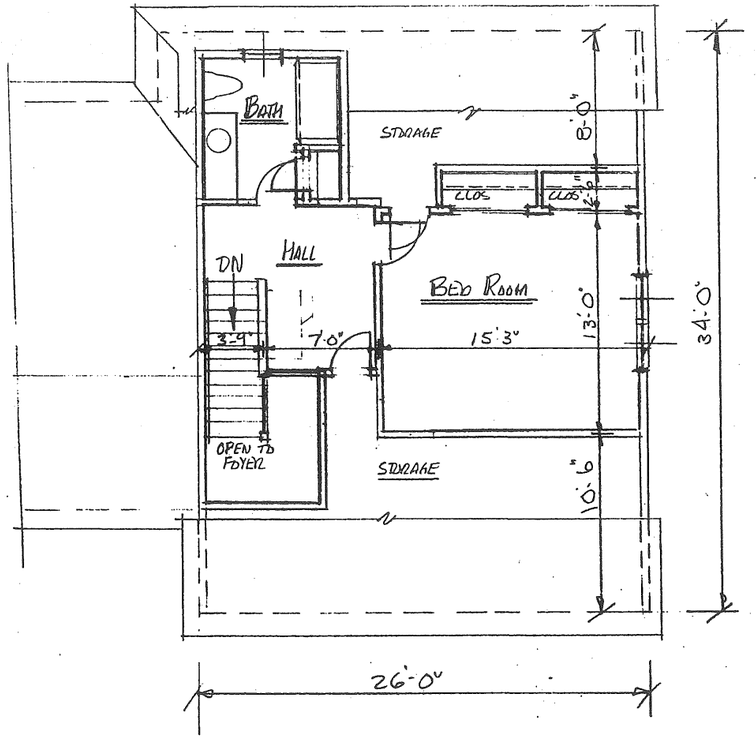
SECOND FLOOR

Holm Place Condominiums
Holm Avenue
Portland, Maine

Builder/Developer : V. P. Builders Inc .
P. O. Box 41
Westbrook, Maine



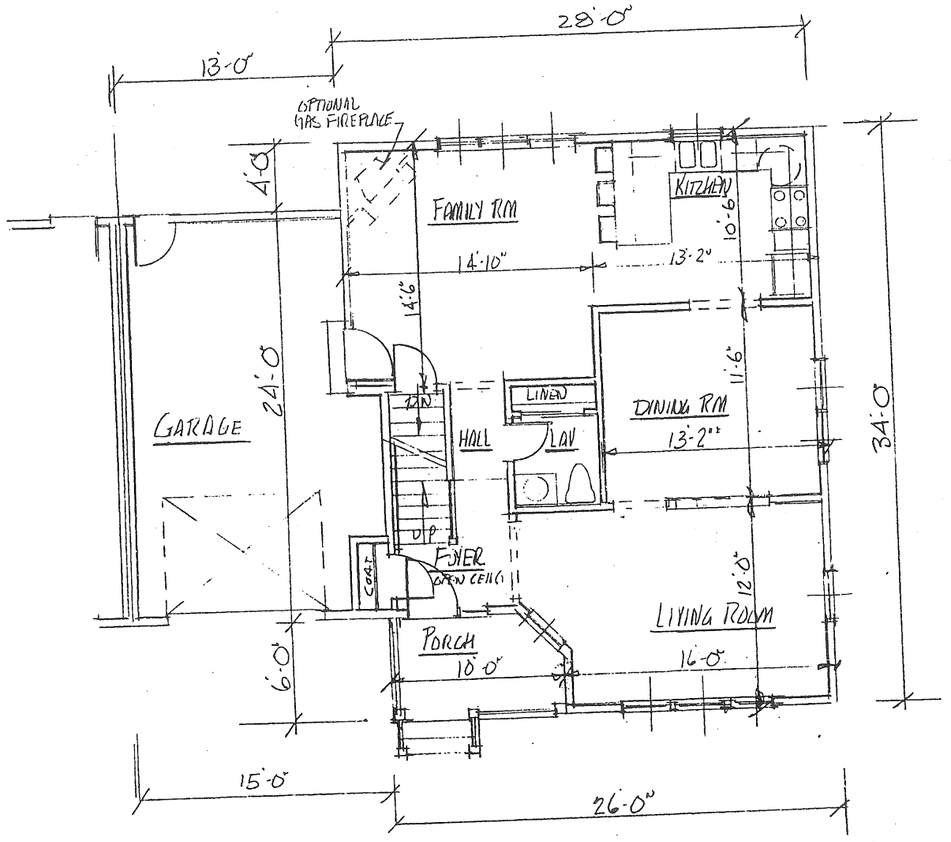
FIRST FLOOR



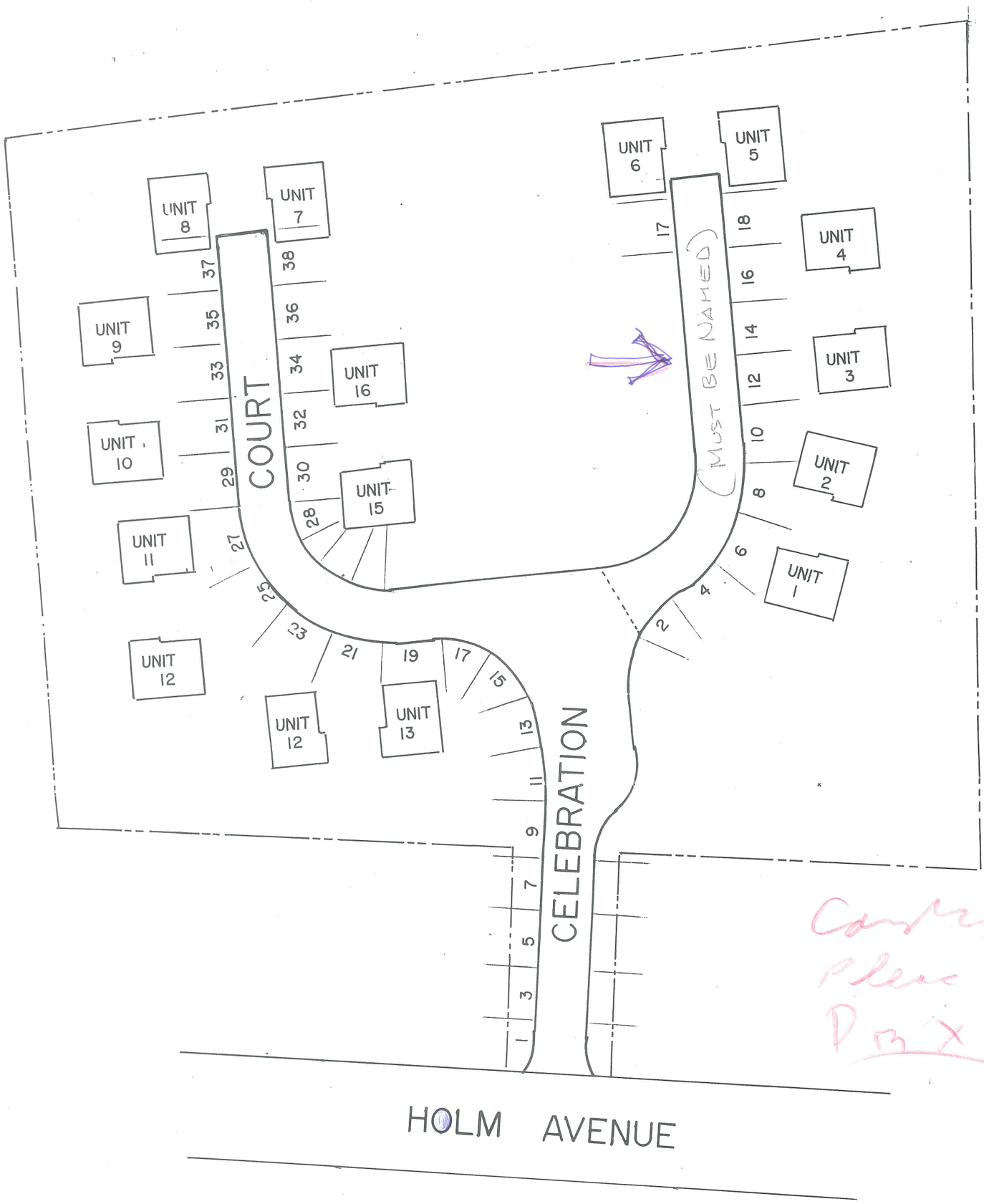
SECOND FLOOR

Holm Place Condominiums
Holm Avenue
Portland, Maine

Builder/Developer : V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine



FIRST FLOOR



Carolyn
Please Call
PB X 8763

Jim Robbins

CITY OF PORTLAND, MAINE
DEPARTMENT OF PUBLIC WORKS
NUMBERING PLAN

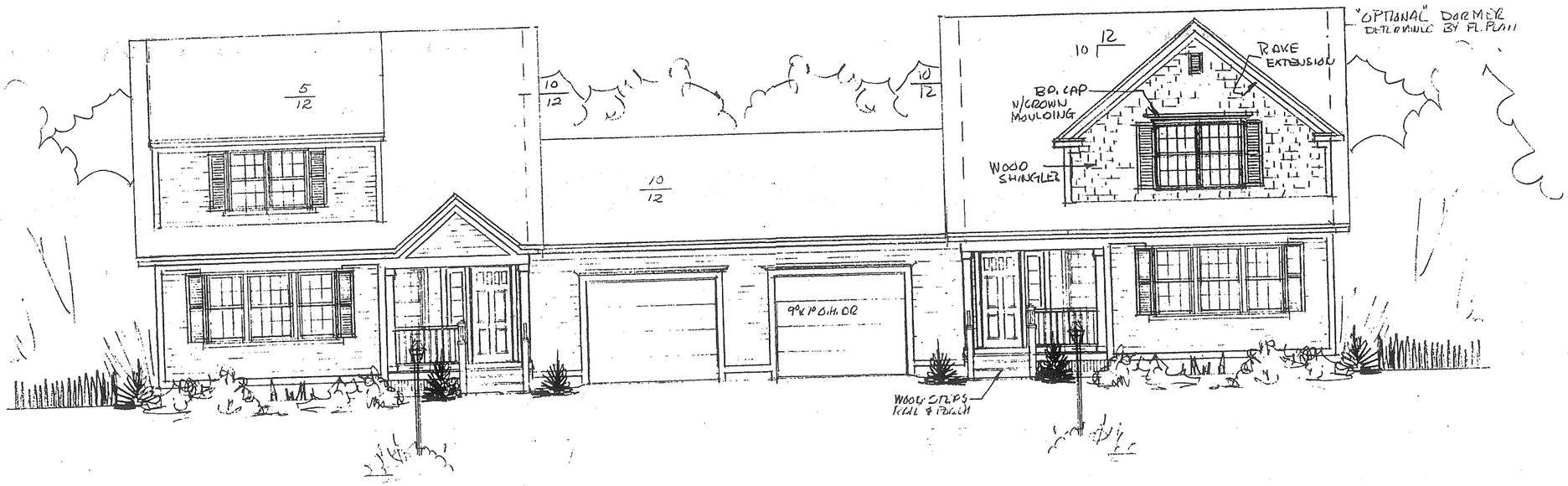
DRAWN BY J.M. ROBBINS CHECKED BY _____
DATE JAN. 2001 SCALE 1" = 50'

REFERENCES	REVISIONS	DATE

A11

Holm Place Condominiums
Holm Avenue
Portland, Maine

Builder/Developer : V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine

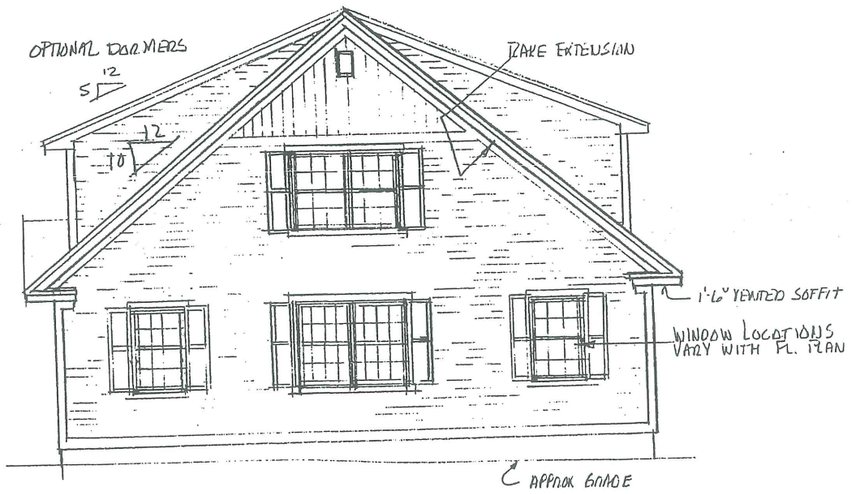


FRONT ELEVATION

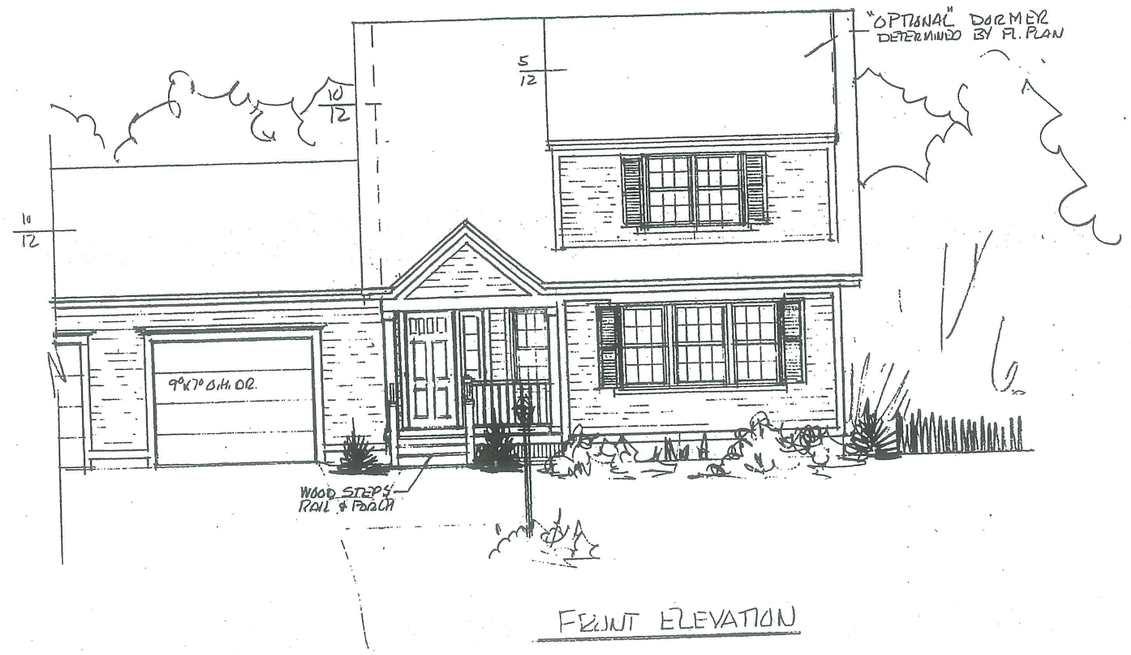
11a

Holm Place Condominiums
Holm Avenue
Portland, Maine

Builder/Developer : V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine



RIGHT & LEFT
SIDE ELEVATIONS

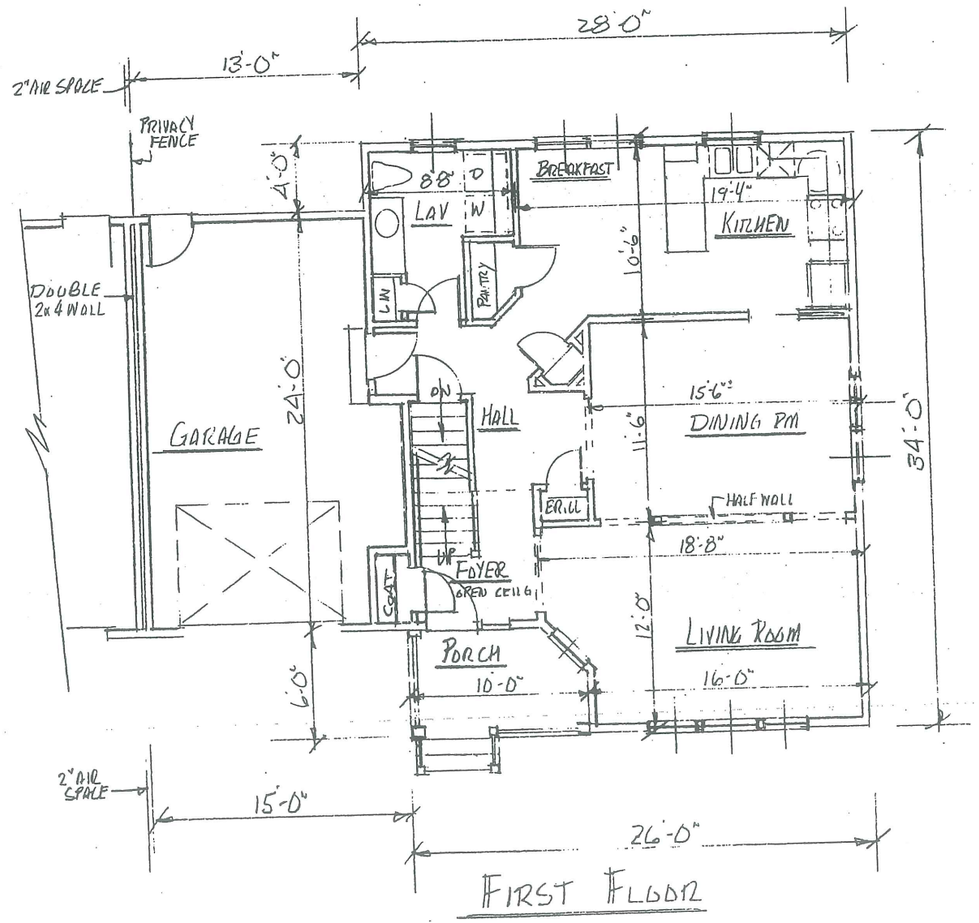


FRONT ELEVATION

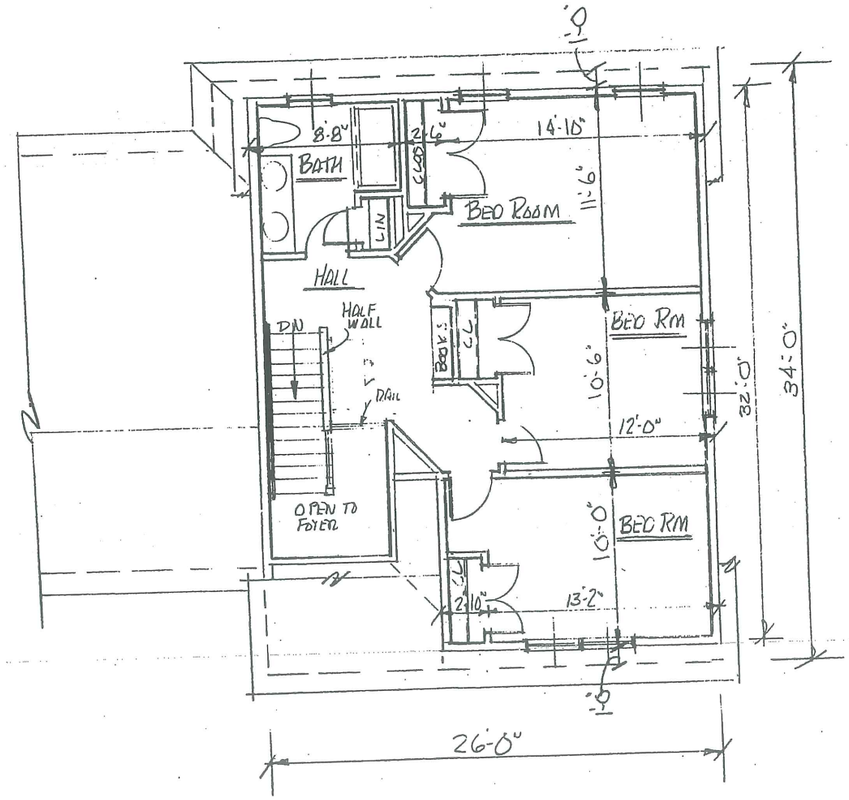
11b

Holm Place Condominiums
Holm Avenue
Portland, Maine

Builder/Developer : V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine



FIRST FLOOR

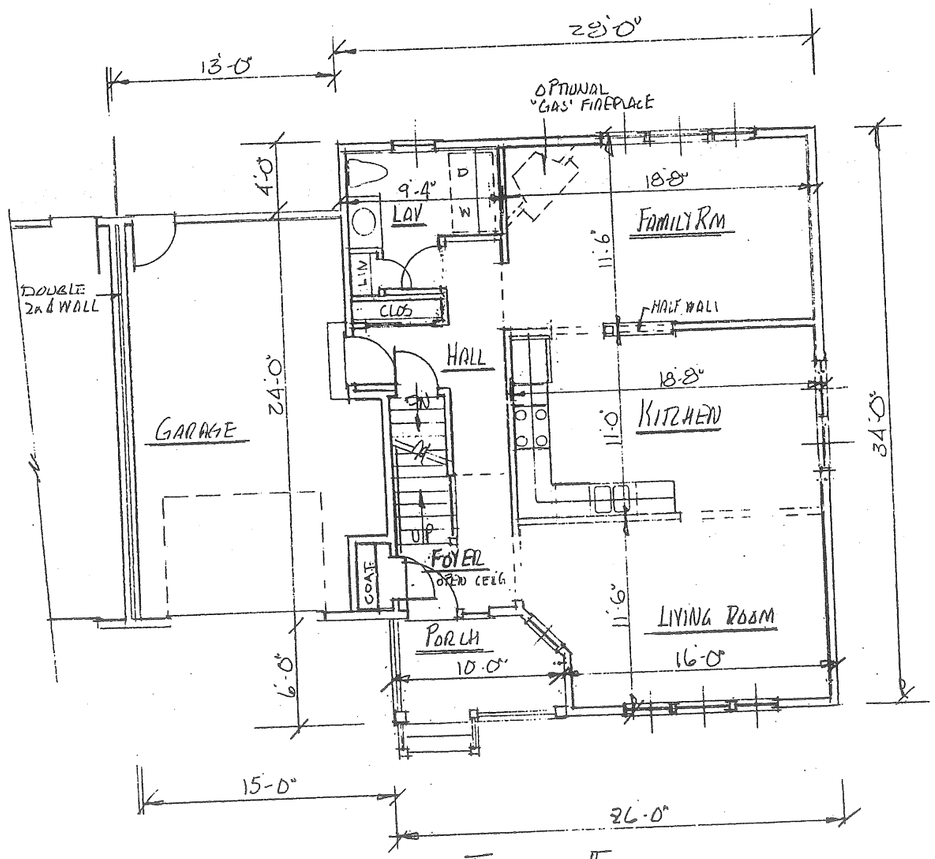


SECOND FLOOR

1-C

Holm Place Condominiums
Holm Avenue
Portland, Maine

Builder/Developer : V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine



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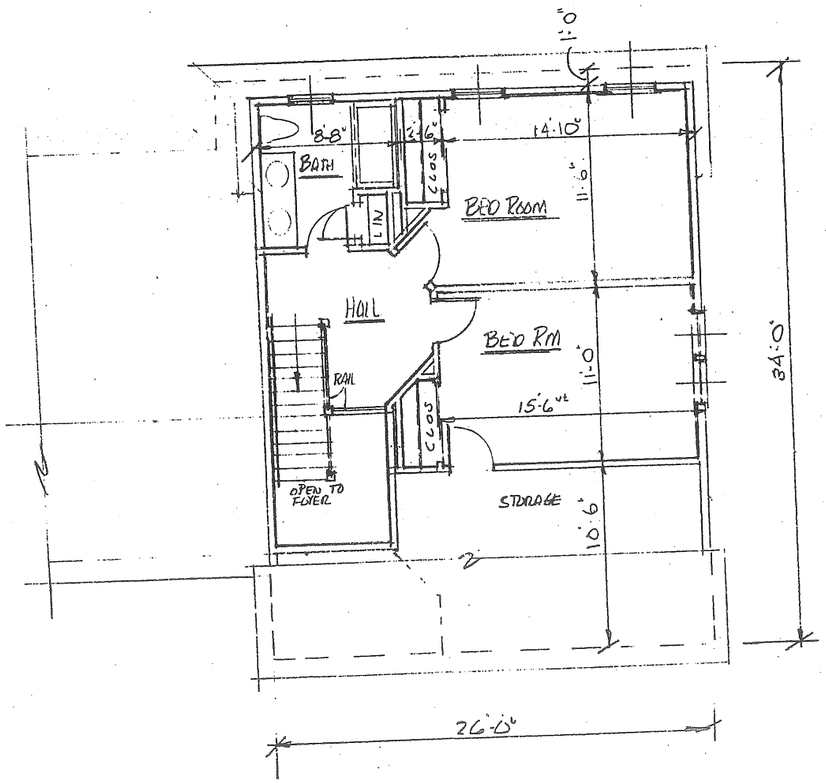
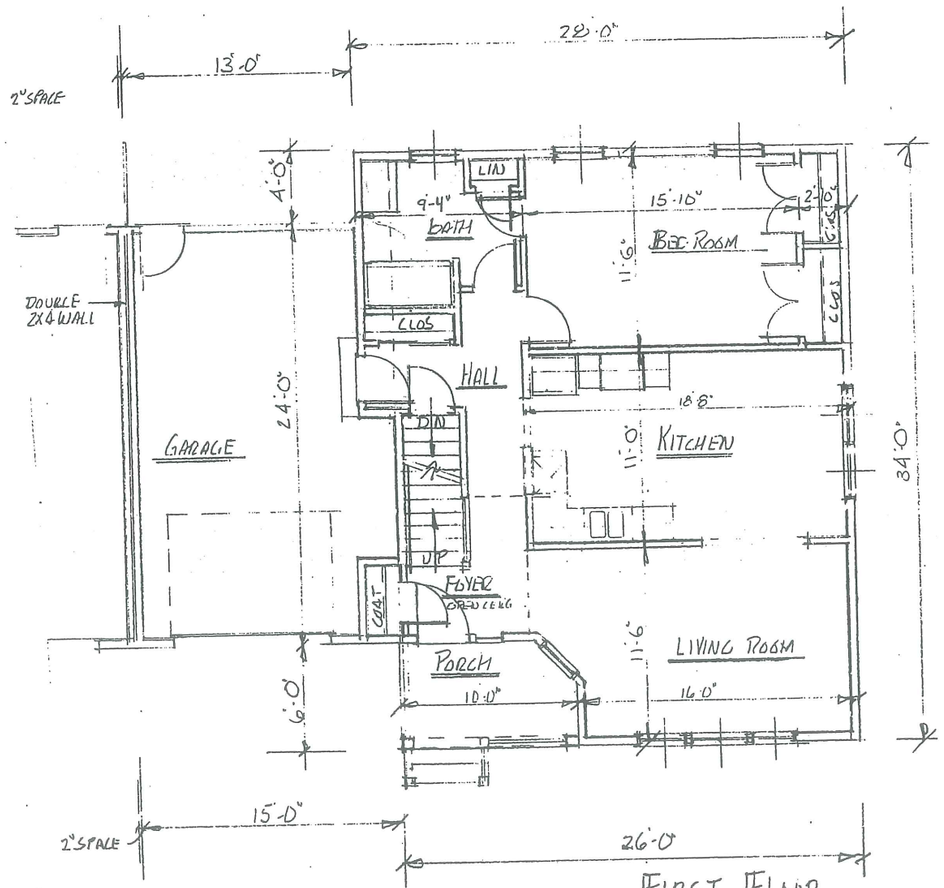


SECOND FLOOR

11d

Holm Place Condominiums
Holm Avenue
Portland, Maine

Builder/Developer : V. P. Builders Inc .
P. O. Box 41
Westbrook, Maine



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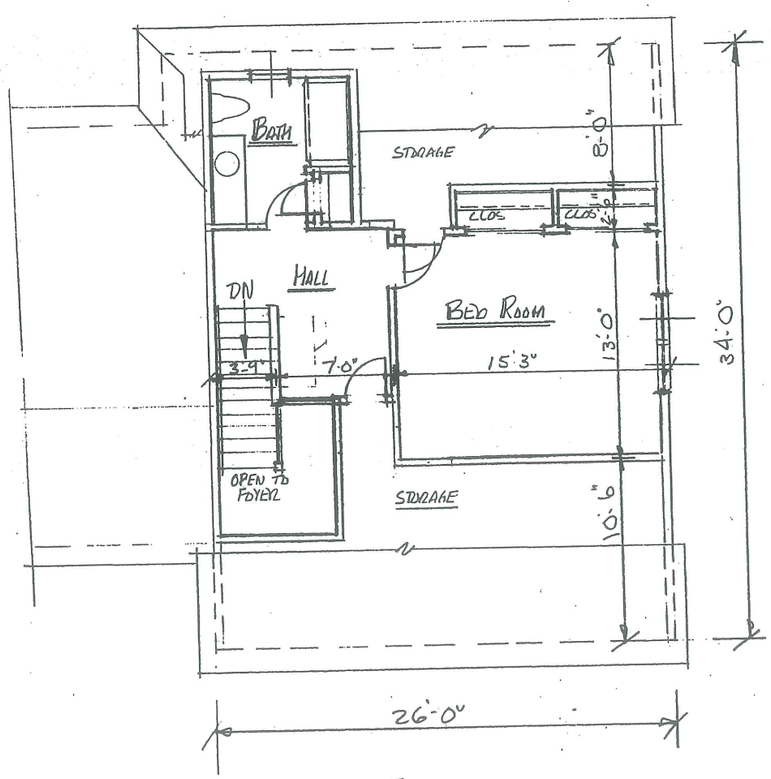
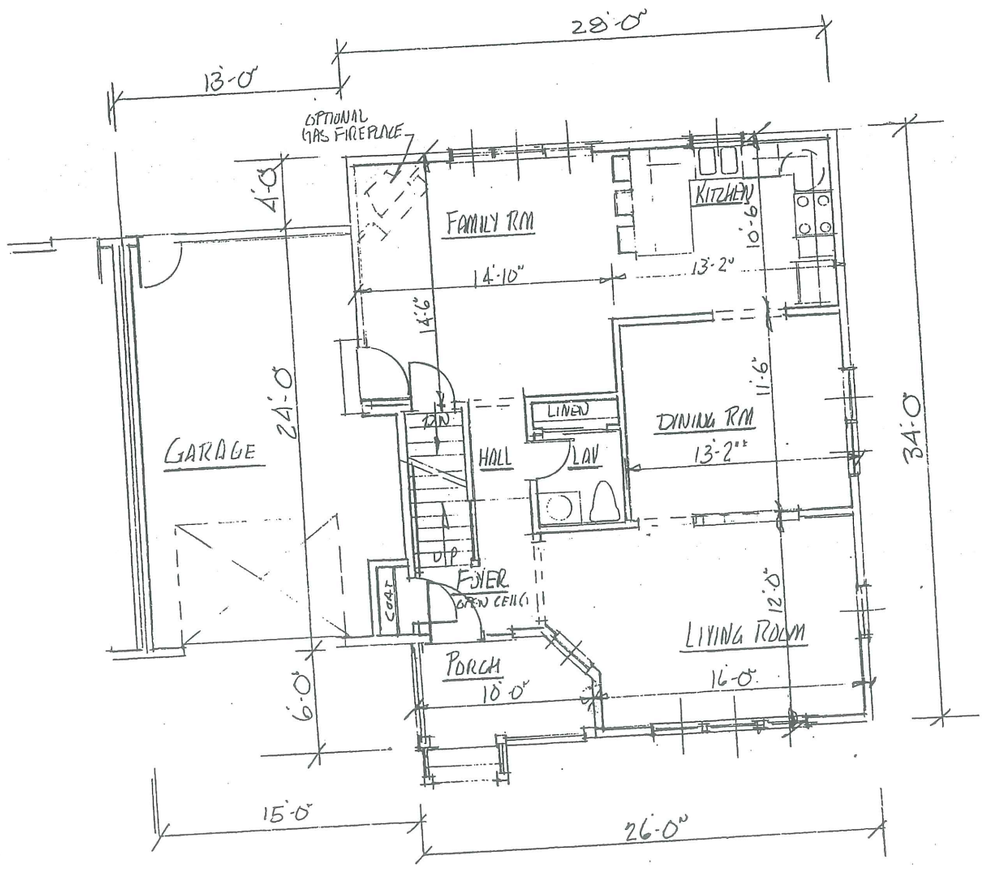


SECOND FLOOR

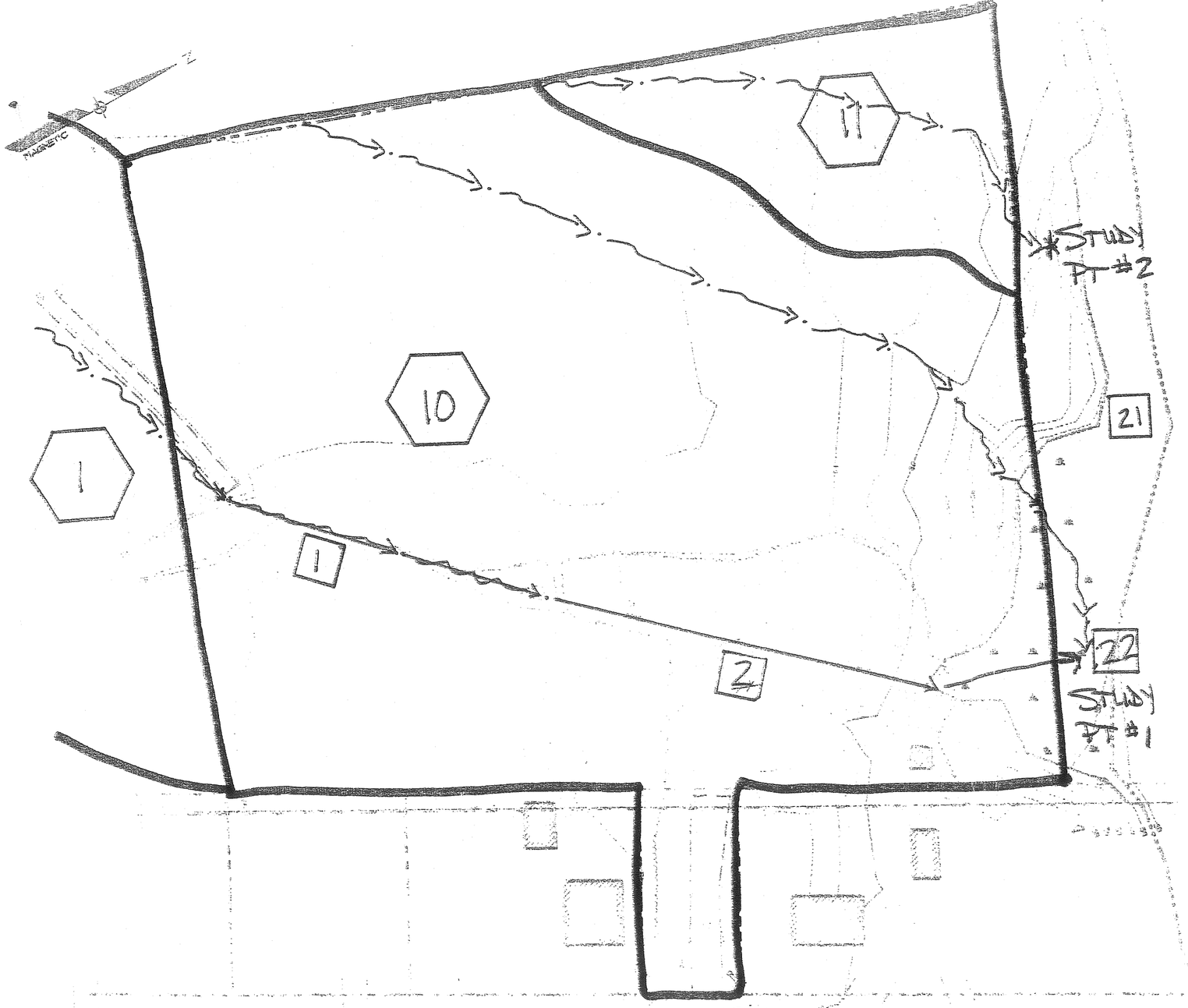
11e

Holm Place Condominiums
Holm Avenue
Portland, Maine

Builder/Developer : V. P. Builders Inc.
P. O. Box 41
Westbrook, Maine



FIRST FLOOR



1 WATERSHED

1 REACH

SHALLOW FLOW

CHANNEL FLOW

GRAPHIC SCALE

1" = 60'

BY: 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.

PRE DEVELOPMENT WATER SHED PLAN

OF:

HOLM PLACE

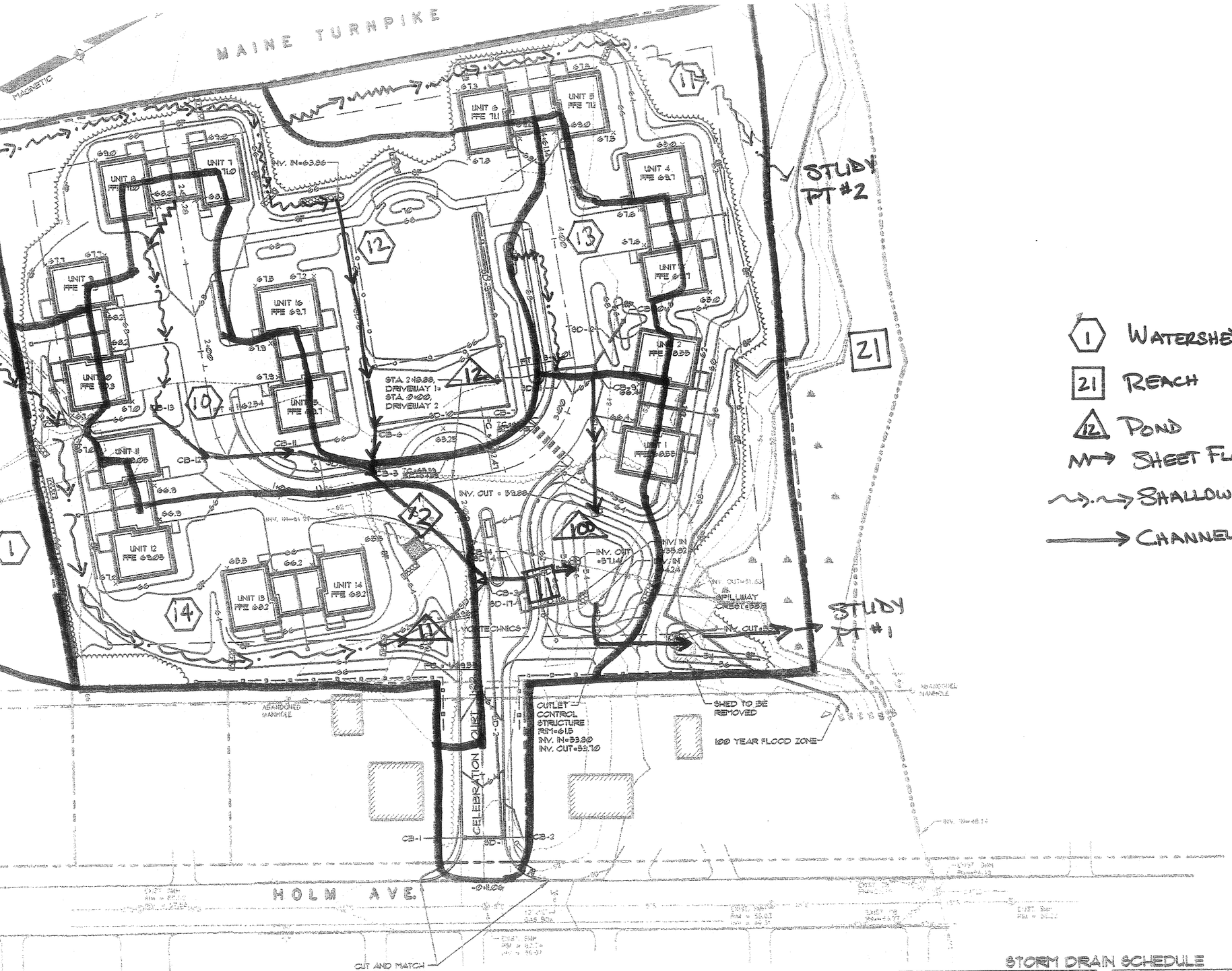
HOLM AVENUE
PORTLAND, MAINE

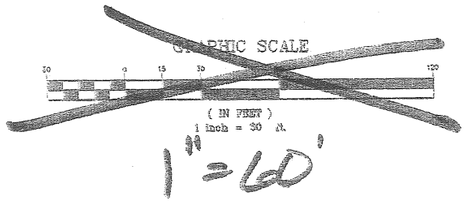
FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics

DESIGN BY:	KLW
DRAWN BY:	MAL
CHECKED BY:	BMP
DATE:	1-12-
SCALE:	
FIELD BK:	180





1 WATERSHED

21 REACH

12 POND

SHEET FLOW

SHALLOW CONCENTRATED FLOW

CHANNEL FLOW

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN.)	LENGTH (FT.)	SLOPE
SD-1	12	18	0.007
SD-2	12	142	0.007
SD-3	12	42	0.005
SD-4	15	16	0.005
SD-5	18	23	0.005
SD-6	15	86	0.006
SD-7	12	23	0.01
SD-8	12 PERF.	130	0.032
SD-9	12 PERF.	105	0.01
SD-10	12 PERF.	72	0.005
SD-11	12	18	0.005
SD-12	12	27	0.005
SD-13	12	79	0.008
SD-14	12	38	0.01
SD-15	12	50	0.01
SD-16	12	35	0.01
SD-17	15	6	0.005

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.5	--	58.5
CB-2	62.5	58.38	58.28
CB-3	63.32	58.79 58.75 57.28	57.47
CB-4	63.32	57.38	57.28 56.0
CB-5	64.57	59.55 59.37	59.27
CB-6 HYDROBRAKE	63.4	59.70 59.70	59.6
CB-7	63.4	60.16	60.06
CB-8	65.79	----	60.7
CB-9	65.73	61.01 60.61	60.51
CB-10	65.6	--	61.15
CB-11	65.75	60.03	59.93
CB-12	65.85	60.53	60.43

REV:	BY:	DATE:	STATUS:
C	MWE	5-1-00	PLANNING BOARD RE-SUBMISSION
B	MWE	4-17-00	PLANNING BOARD RE-SUBMISSION
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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.

POST-DEVELOPMENT WATERSHED PLAN

OF:

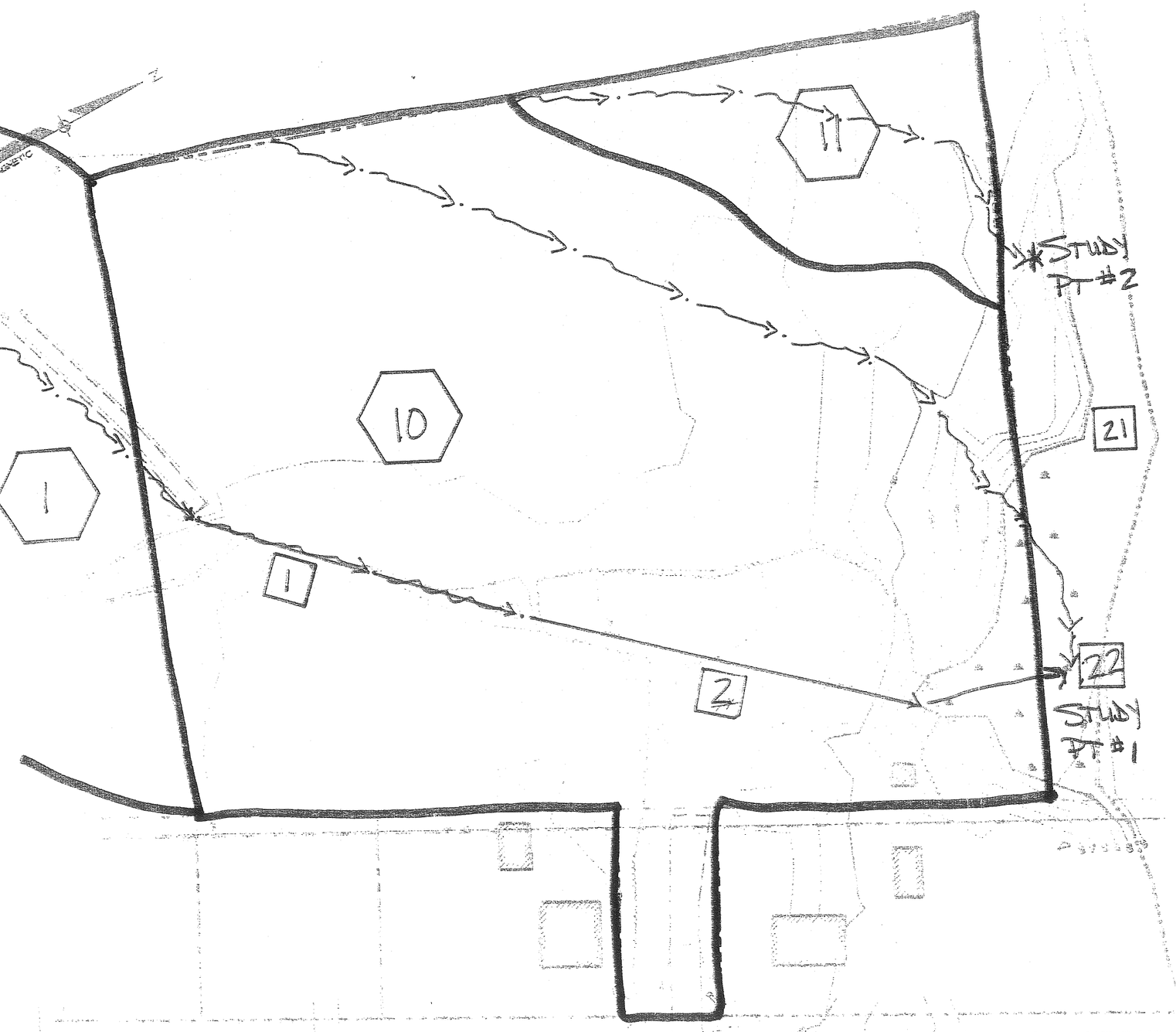
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE

FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-0[illegible]
SCALE:	AS SHOW
FIELD BK:	383



1 WATERSHED

1 REACH

SHALLOW FLOW

CHANNEL FLOW

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

1"=60'

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.

PRE DEVELOPMENT WATER SHED PLAN

OF:

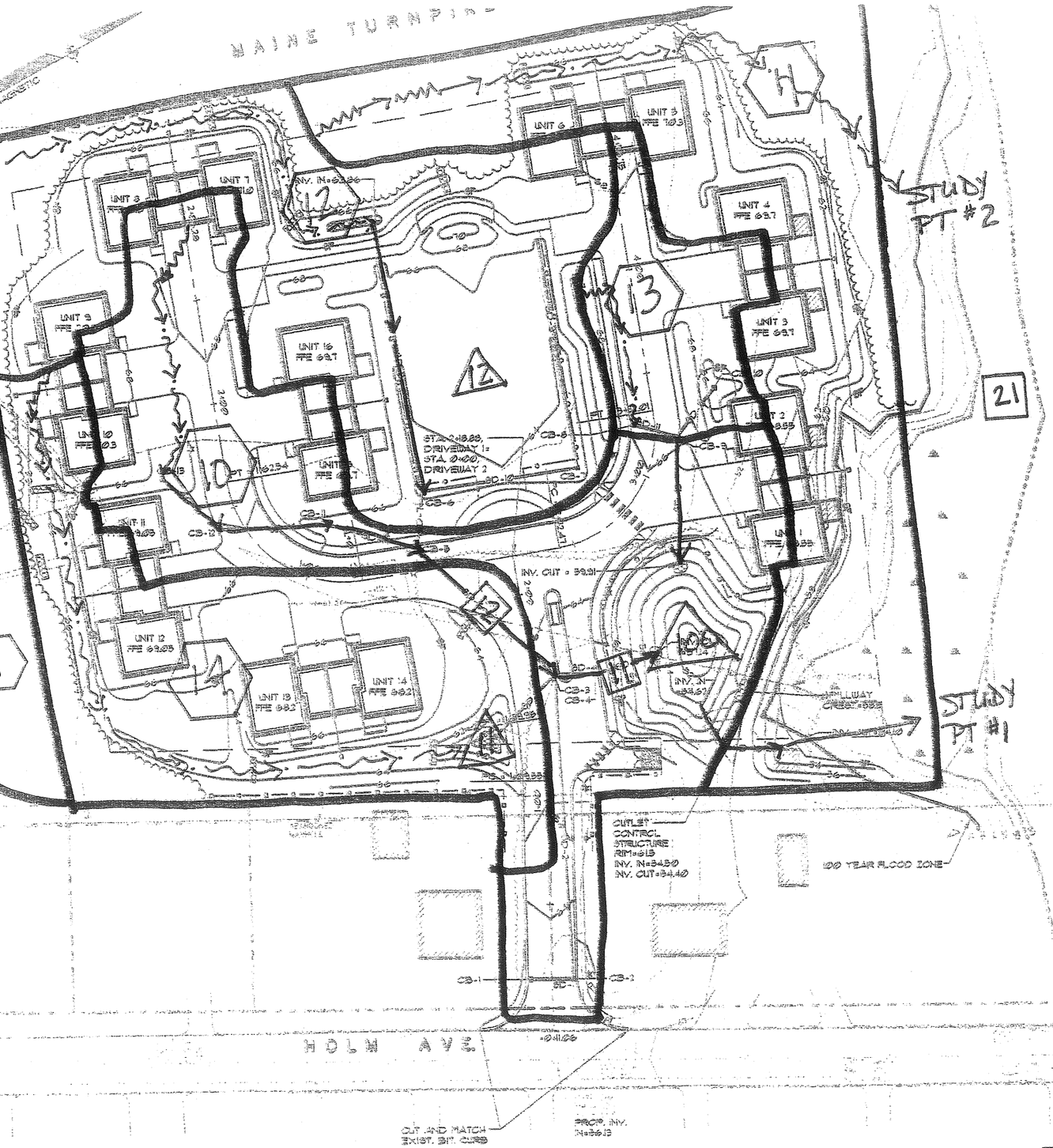
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE

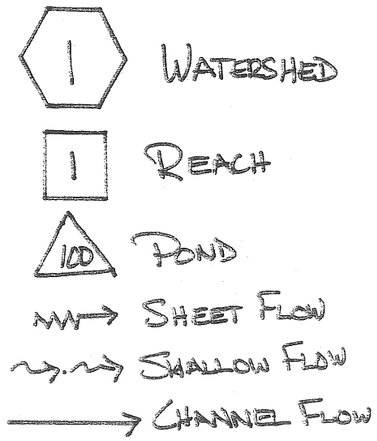
FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics

DESIGN BY:	JLW
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	
FIELD BK:	NRC





GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

1" = 60'

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN.)	LENGTH (FT.)	SLOPE
SD-1	2	7	0.007
SD-2	2	142	0.007
SD-3	2	42	0.005
SD-4	8	16	0.005
SD-5	8	28	0.005
SD-6	8	36	0.006
SD-7	12	23	0.01
SD-8	12 perf.	30	0.032
SD-9	12 perf.	105	0.01
SD-10	12 perf.	72	0.005
SD-11	12	18	0.005
SD-12	2	21	0.007
SD-13	2	60	0.01
SD-14	2	36	0.01
SD-15	2	30	0.01

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.3	--	58.3
CB-2	62.3	58.35	58.23
CB-3	63.32	58.73	57.47
		58.78	
		57.57	
CB-4	63.32	57.35	57.23
CB-5	64.57	59.35	59.27
		59.37	
CB-6	63.4	59.70	59.6
		59.70	
CB-7	63.4	60.16	60.06
CB-8	63.79	....	60.7
CB-9	65.73	61.0	60.81
		60.61	
CB-10	65.6	--	61.8

REV.	BY:	DATE:	STATUS:
A	MWE	3-29-00	PLANNING BOARD RE-SUBMISSION

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.

POST DEVELOPMENT WATER SHED PLAN

OF:

HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE

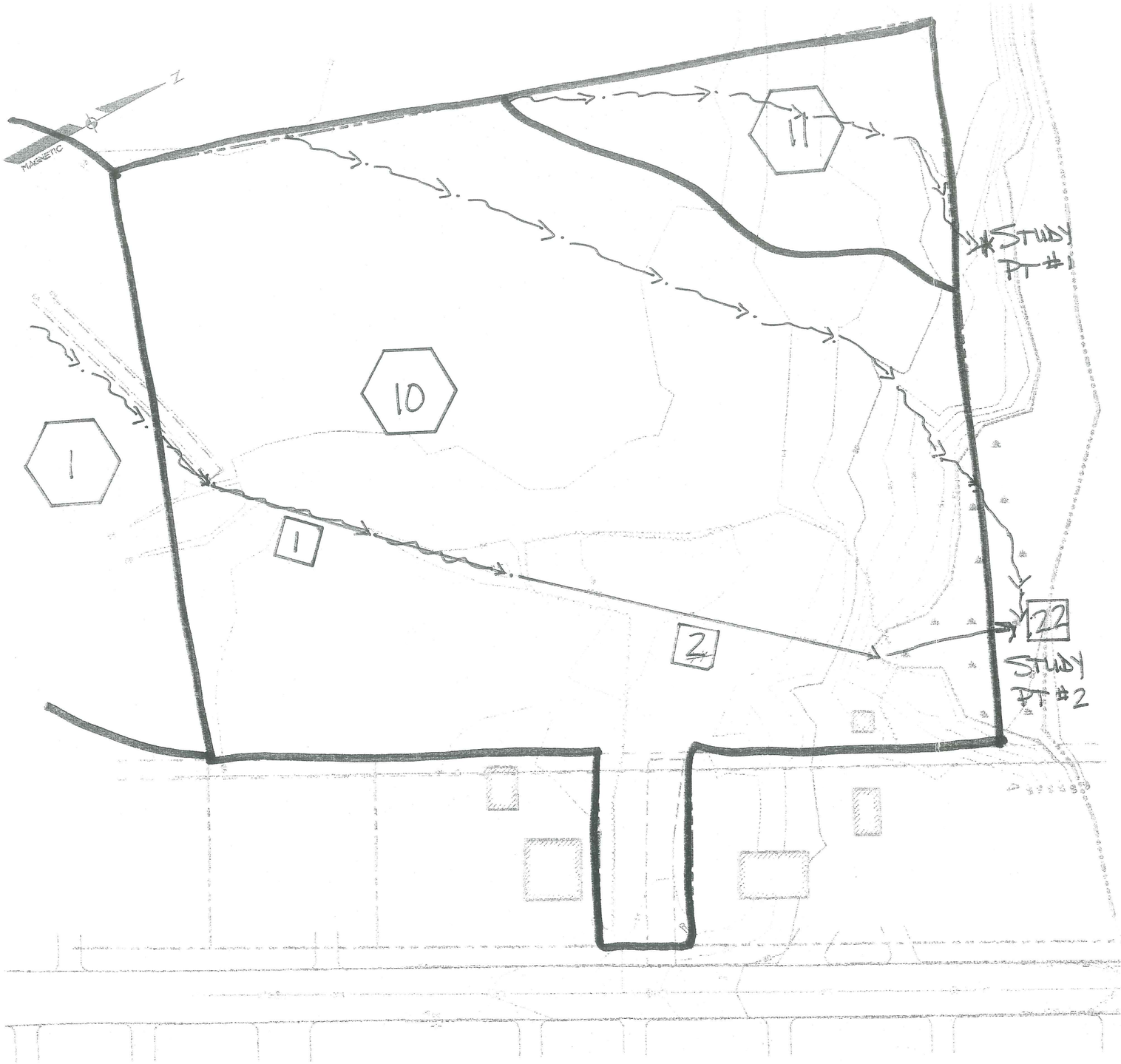
FOR:

VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-13-00
SCALE:	AS SHOWN
FIELD BK:	653

8y



1 WATERSHED

1 REACH

SHALLOW FLOW

CHANNEL FLOW

GRAPHIC SCALE
(IN FEET)
1" = 60'

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.

PRE DEVELOPMENT WATER SHED PLAN

OF:

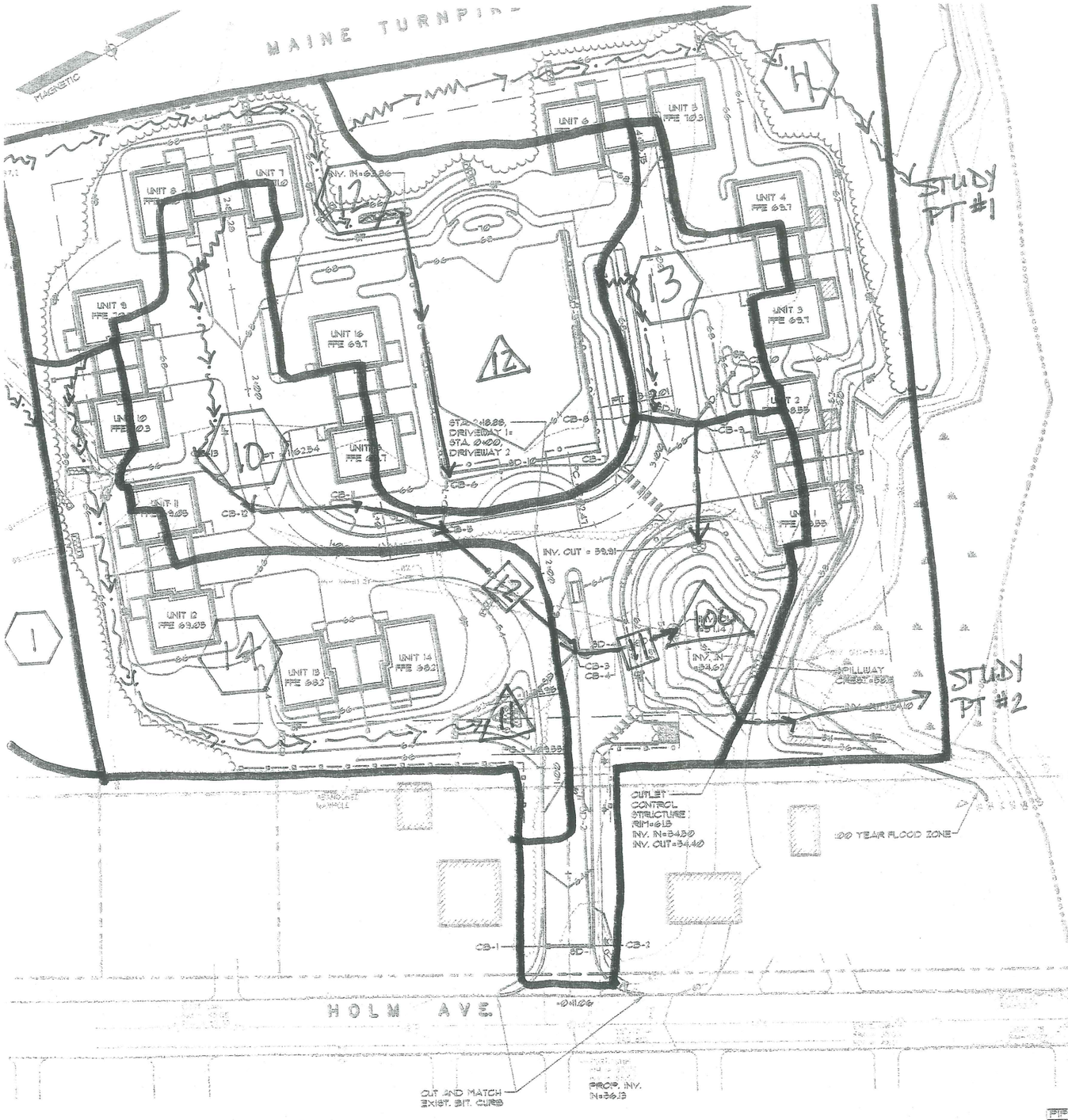
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE

FOR:

VP BUILDERS, INC.
P.O. BOX #1
WESTBROOK, MAINE 04098

Sebago Technics

DESIGN BY:	JLW
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-18-00
SCALE:	
FIELD BK:	#83



WATERSHED
REACH
POND
SHEET FLOW
SHALLOW FLOW
CHANNEL FLOW

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

1"=60'

STORM DRAIN SCHEDULE

PIPE NO.	SIZE (IN)	LENGTH (FT.)	SLOPE
SD-1	12	17	0.005
SD-2	12	142	0.005
SD-3	12	42	0.005
SD-4	18	19	0.005
SD-5	18	28	0.005
SD-6	15	66	0.005
SD-7	12	13	0.01
SD-8	12 Perf.	130	0.032
SD-9	12 Perf.	105	0.21
SD-10	12 Perf.	17	0.029
SD-11	12	18	0.305
SD-12	12	11	0.091
SD-13	12	240	0.01
SD-14	12	39	0.01
SD-15	12	39	0.01

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	62.5	--	58.5
CB-2	62.5	58.38	58.28
CB-3	63.31	58.74	51.49
		58.78	
		57.87	
CB-4	63.32	57.38	57.28
CB-5	64.57	58.35	58.27
		34.57	
CB-6	63.4	59.70	59.6
		59.10	
CB-7	63.4	60.16	60.06
CB-8	62.73	----	60.7
CB-9	63.13	61.0	60.81
		60.61	
CB-10	63.4	61.1	61.0

REV.	BY:	DATE:	STATUS:
A	MWE	1-29-00	PLANNING BOARD RE-SUBMISSION

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.

POST DEVELOPMENT WATER SHED PLAN

OF:
HOLM PLACE
HOLM AVENUE
PORTLAND, MAINE
FOR:
VP BUILDERS, INC.
P.O. BOX 41
WESTBROOK, MAINE 04098

Sebago Technics
Consulting Engineers & Scientists

DESIGN BY:	JRS
DRAWN BY:	MAL
CHECKED BY:	SMF
DATE:	1-13-00
SCALE:	AS SHOWN
FIELD BK:	883