190-F-8 #2004-0116

91 Sewall St.
Bus Garage - Concord Trailways
Langdon St. Real Estate

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

2004-0116
Application I. D. Number

6/4/2004
Application Date

Bus Garage and Underground Fuel Ta
Project Name/Description

Langdon Street Real Estate Inc
Applicant

7 Langdon St, Concord, NH 03301
Applicant's Mailing Address

Consultant/Agent

Applicant Ph: (800) 639-3317 Agent Fax:
Applicant or Agent Daytime Telephone, Fax

91 - 91 Sewall St, Portland, Maine
Address of Proposed Site

190 F008001
Assessor's Reference: Chart-Block-Lot

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

2,400 s.f.		B5
Proposed Building square Feet or # of Units	Acreage of Site	Zoning

Check Review Required:

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

Fees Paid: Site Pla $400.00 Subdivision ____ Engineer Review ____ Date 6/14/2004

DRC Approval Status:

Reviewer ____

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

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

☐ Condition Compliance ____ signature ____ date ____

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

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

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

Department of Planning & Development
Lee D. Urban, Director

CITY OF PORTLAND

Division Directors
Mark B. Adelson
Housing & Neighborhood Services

Alexander Q. Jaegerman, AICP
Planning

John N. Lufkin
Economic Development

June 2, 2004

Harry Blunt, President
Langdon Street Real Estate
7 Langdon St.
Concord, NH 03301

RE: Bus Wash Facility

CBL: 190 F 8-13

Dear Mr. Blunt::

On June 2, 2004, the Portland Planning Authority approved the site plan for a bus wash facility, sleeping quarters, and underground diesel tank at the Concord Trailways facility on the Thompson's Point Connector Road. The approval was granted for the project with the following conditions:

i. That the applicant submit a letter from Public Works attesting to adequate sewer capacity to service the development; and
ii. That the applicant receive an Industrial Pretreatment or other appropriate waste discharge permit prior to issuance of a building permit.

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

1. Where submission drawings are available in electronic form, the applicant shall submit any available electronic CADD.DXF files with seven (7) sets of the final plans.

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

O:\PLAN\DEVREVW\SEWALL91\APPROVAL.DOC

City of Portland Site Plan Application

If you or the property owner owe real estate taxes, personal property taxes or user charges on any property within the City of Portland, payment arrangements must be made before permit applications can be received by the Inspections Division.

Address of Proposed Development: Sewall Street		**Zone:** B-5
Total Square Footage of Proposed Structure: 2400 S.F.	**Square Footage of Lot:** 19,210 S.F.	
Tax Assessor's Chart, Block & Lot: Chart#190 Block# F Lots# 8-13	**Property owner's mailing address:** Harry Blunt, c/o Langdon Street Real Estate, Inc. 7 Langdon Street Concord NH, 03301	**Telephone #:** 1-800-639-3317
Consultant/Agent, mailing address, phone # & contact person: Steve Sawyer c/o Sebago Technics, Inc. P.O. Box 1339 Westbrook, Maine 04098 Tel. 207.856.0277	**Applicant's name, mailing address, telephone #/Fax#/Pager#:** Langdon Street Real Estate, Inc. 7 Langdon Street Concord NH, 03301 Tel. 1-800-639-3317	**Project name:** Bus Garage and Underground Fuel Tank

Proposed Development (check all that apply)

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

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

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

Minor Site Plan Review

_X_ Less than 10,000 sq. ft. ($400.00)
___ After-the-fact Review ($1,000.00 + applicable application fee)

Plan Amendments

___ Planning Staff Review ($250.00)
___ Planning Board Review ($500.00)

- Please see next page -

Who billing will be sent to: (Company, Contact Person, Address, Phone #)
Harry Blunt, c/o Langdon Street Real Estate, Inc.
7 Langdon Street
Concord NH, 03301
Tel. 1-800-639-3317

Submittals shall include (9) separate folded packets of the following:

a. **copy of application**
b. **cover letter stating the nature of the project**
c. **site plan containing the information found in the attached sample plans check list**

Amendment to Plans: Amendment applications should include 6 separate packets of the above (a, b, & c)
ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM

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

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

Signature of applicant: Harry W. Blunt	Date: 6/4/04

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

BANK OF NEW HAMPSHIRE
A division of Banknorth, N.A.

143 North Main Street
Concord, NH 03301

tel. 603-229-5900

June 4, 2004

City of Portland
Department of Planning & Development
390 Congress St.
Portland, Maine 04101
Attn: Alexander Jaegerman, AICP

RE: Langdon Street Real Estate

Dear Mr. Jaegerman:

This letter pertains to the application for development of a garage by Langdon Street Real Estate. Bank of New Hampshire has reviewed the planned development and would seriously consider financing it when approved. If you need any further information please do not hesitate to contact me at 603-229-5907.

Sincerely,

Mary W. McLaughlin
Senior Vice President

BK12719PG277

54320

QUITCLAIM DEED WITH COVENANT
(Maine Statutory Short Form)

MAINE REAL ESTATE TAX PAID

PETERSEN CORP., a Massachusetts corporation, of Andover, Massachusetts, grants to LANGDON STREET REAL ESTATE, INC., a New Hampshire corporation with a place of business and mailing address at 7 Langdon Street, Concord, New Hampshire 03301, with quitclaim covenants, the land situated in Portland, County of Cumberland and State of Maine, with all buildings and improvements thereon, if any, being more fully described on the attached Exhibit A.

Meaning and intending to convey and hereby conveying the same premises conveyed to Petersen Corp. by deed of Glen G. Grant dated September 25, 1995 and recorded in the Cumberland County Registry of Deeds in Book 12302, Page 130.

In Witness Whereof, Petersen Corp. has caused this instrument to be executed by Glen G. Grant, its President, thereunto duly authorized, this 12th day of September, 1996.

WITNESS

PETERSEN CORP.

By: _____
Glen G. Grant
Its President

STATE OF MAINE
COUNTY OF CUMBERLAND, ss. September 12, 1996

Personally appeared the above-named Glen G. Grant, President of Petersen Corp., and acknowledged the foregoing to be his free act and deed in his said capacity and the free act and deed of Petersen Corp.

Before me

_____
Notary Public/Attorney at Law

Print Name RICHARD A. SHINAY

78487.1

EXHIBIT A

Two certain lots or parcels of land, with all buildings and improvements thereon, situated in the City of Portland, Cumberland County, State of Maine, bounded and described as follows:

Parcel 1

Beginning on the east side of Sewall Street at a point on the northerly sideline and right-of-way now or formerly of the Portland Terminal Company, at or near, Valuation Station 43.12± as shown on Valuation Section 1-A, Sheet 1A of Federal Valuation Survey Plan of June 30, 1916. Said Valuation Plans are on file in the office of the Chief Engineer, Maine Central Railroad Company, Administration Building, Rigby Road West, P.O. Box 9701, Portland, Maine 04104, of Portland Terminal Company;

Thence southeasterly in said northerly sideline and right of way of Portland Terminal Company a distance of nine hundred five (905) feet, more or less, to a point;

Thence northerly in a line, along a fence, a distance of three hundred (300) feet, more or less, to a concrete monument, set in the ground;

Thence north-northwesterly in a line, along a fence, a distance of two hundred twenty (220) feet, more or less, to a concrete monument, set in the ground;

Thence northwesterly in a line, along a fence, a distance of one hundred twenty (120) feet, more or less, to a concrete monument, set in the ground;

Thence continuing northwesterly on an arc as shown on Valuation Section 1-A, Sheet 1A to the point of intersection with the southerly sideline of Hooper Street, so-called, at a point on a line perpendicular to and projected from Valuation Station 42.03±, as shown on said Valuation Plan;

Thence westerly in the southerly sideline of said Hooper Street, two hundred fifty-five (255) feet, more or less, to the point on intersection with the easterly sideline of Sewall Street;

Thence southerly in the easterly sideline of said Sewall Street to the point of beginning, said parcel containing 281,000 square feet, more or less.

Parcel 2

Beginning on the west side of Sewall Street at a point on the northerly sideline and right-of-way, now or formerly of the Portland Terminal Company, at or near, Valuation Station 43.62± as shown on Valuation Section 1-A, Sheet 1A of Federal Valuation Survey Plan of June 30, 1916. Said Valuation Plans are on file in the office of the Chief Engineer, Maine Central Railroad Company, Administration Building, Rigby Road West, P.O. Box 9701, Portland, Maine 04101, of Portland Terminal Company;

Thence northwesterly in the northerly sideline and right-of-way of Portland Terminal Company a distance of forty (40) feet, more or less, to a point;

Thence northerly in a line a distance of two hundred ninety (290) feet, more or less, to the point of intersection with the westerly sideline of said Sewall Street;

Thence southerly in the westerly sideline of said Sewall Street to the point of beginning, said parcel containing 8,900 square feet, more or less.

Further reference is made to a plan entitled "Subdivision Plan - Preliminary of Thompson's Point Subdivision, Sewall Street, Portland, Maine" made by Sebago Technics, 12 Westbrook Common, Westbrook, Maine, dated September 29, 1992, revised October 1, 1992, Project No. 92091.

Also hereby conveying all of the Grantor's right, title and interest, if any, in and to Sewall Street as it is located between Parcel 1 and Parcel 2, Sewall Street as it is located northwest of Parcel 2, and Hooper Street as it is adjacent to Parcel 1, the current location of Sewall Street and Parcel 2, but without any covenants of title with respect thereto.

78487.1

City of Portland Site Plan Application

If you or the property owner owe real estate taxes, personal property taxes or user charges on any property within the City of Portland, payment arrangements must be made before permit applications can be received by the Inspections Division.

Address of Proposed Development: Sewall Street		**Zone:** B-5
Total Square Footage of Proposed Structure: 2400 S.F.	**Square Footage of Lot:** 19,210 S.F.	
Tax Assessor's Chart, Block & Lot: Chart#190 Block# F Lots# 8-13	**Property owner's mailing address:** Harry Blunt, c/o Langdon Street Real Estate, Inc. 7 Langdon Street Concord NH, 03301	**Telephone #:** 1-800-639-3317
Consultant/Agent, mailing address, phone # & contact person: Steve Sawyer c/o Sebago Technics, Inc. P.O. Box 1339 Westbrook, Maine 04098 Tel. 207.856.0277	**Applicant's name, mailing address, telephone #/Fax#/Pager#:** Langdon Street Real Estate, Inc. 7 Langdon Street Concord NH, 03301 Tel. 1-800-639-3317	**Project name:** Bus Garage and Underground Fuel Tank

Proposed Development (check all that apply)

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

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

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

need letter from ASAP Sarah

Minor Site Plan Review

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

Plan Amendments

_X_ Planning Staff Review ($250.00)
___ Planning Board Review ($500.00)

DEPT. OF BUILDING INSPECTION CITY OF PORTLAND, ME
AUG 25 2004
RECEIVED

- Please see next page -

Who billing will be sent to: (Company, Contact Person, Address, Phone #)
Harry Blunt, c/o Langdon Street Real Estate, Inc.
7 Langdon Street
Concord NH, 03301
Tel. 1-800-639-3317

Submittals shall include (9) separate folded packets of the following:

a. copy of application
b. cover letter stating the nature of the project
c. site plan containing the information found in the attached sample plans check list

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

ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM

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

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

Signature of applicant: Stephen S Sawyer **Date:** 8/25/04

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

Sebago Technics
Engineering Expertise You Can Build On

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

August 25, 2004
99607

Sarah Hopkins, Senior Planner
Department of Planning & Development
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

Proposed Bus Garage/Storage Building - Tax Map 190, Block F, Lots 8-13
Plan Amendment, Concord Trailways, Langdon Street Real Estate Inc.

Dear Sarah:

On behalf of Langdon Street Real Estate, Inc., we are pleased to submit seven (7) copies of the enclosed amended construction plans associated with the above referenced project for approval of a Plan Amendment. As we have discussed, the actual location of an underground water main caused us to field adjust the location of the proposed building five feet easterly from our original plans dated June 8, 2004. We have coordinated this adjustment with the Portland Water District and they are in agreement with this change in building location.

With this modification the proposed building will be closer to the Thompson's Point Connector Road. As such we revisited the site design and added a protective guardrail along the roadway edge and eliminated the crosswalk from the north side of the proposed building to the main terminal. Concord Trailways employees using the garage will now enter and exit the building on the southerly side and cross the Thompson's Point Connector Road between the two existing driveways.

We trust that we have provided the required information to allow this project to continue proceeding in a timely fashion. Please call with any questions or if you require additional information. Thank you in advance for your cooperation.

Sincerely,

SEBAGO TECHNICS, INC.

Steve

Stephen S. Sawyer, Jr., P.E.
Vice President

SSS:sss/dlf

cc: Harry Blunt, President, Langdon Street Real Estate
Rick Day, PATCO
Steve Harris, Portland Public Works

Sebago Technics
Engineering Expertise You Can Build On

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

June 8, 2004
99607

Sarah Hopkins, Senior Planner
Department of Planning & Development
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

Proposed Bus Garage/Storage Building - Tax Map 190, Block F, Lots 8-13
Minor Site Plan Application, Concord Trailways, Langdon Street Real Estate, Inc.

Dear Sarah:

On behalf of Langdon Street Real Estate, Inc., we are pleased to submit nine (9) copies of the enclosed construction plans, boundary survey, and associated information for a Minor Site Plan application. As we have discussed, it is the intent of the applicant to construct a new accessory use bus garage on a 19,200 square foot lot within the Portland Transportation Center complex (located in the B-5 zone) for the purposes of washing and cleaning buses, providing temporary overnight sleeping quarters for drivers on an intermittent basis, and general storage for the existing terminal operations. In addition, the applicant would like to install an underground diesel fuel tank at the rear of the existing Transportation Center to permit fueling buses on site.

The proposal for the new bus garage consists of constructing a 2,400 square foot (60' x 40') building within the existing paved parking lot adjacent to the CMP substation and opposite the Portland Transportation Center on the Thompson's Point Connector Road. This lot was originally constructed for employee use only (44 spaces) and currently has excess capacity. Twenty-two spaces will be retained for employee use once the building is constructed, which coincides with the current and immediate future demand. The new building will be steel and colored in accordance with the enclosed elevation so that it will be visually compatible with the other structures at the Transportation Center. It will be served by both public water and sewer, as well as electrical service extended from the existing services within the abandoned portion of Sewall Street. Proposed exterior lighting for the new building will consist of low-level wall packs at building entrances. The existing site is not well-landscaped, and so the applicant proposes to provide new plantings as part of the construction, and also the installation of new granite curbing along the Thompson's Point Connector Road in front of the site. These improvements will greatly enhance the appearance of the area.

Since the new garage will be used to clean the exterior of buses, there will be a floor drain placed within the building to collect the wash water. A maximum of six buses per day will be cleaned, and it is estimated the water usage will be 200 gallons for each bus for a total of 1,200 gallons per day. The wash water will pass through a sand, water, oil separator prior to leaving the building and entering the public sewer. The building will also contain a lavatory dump unit, into which the buses can discharge their sanitary waste from the on-board toilets in the buses. Each bus has a five-gallon capacity for a total of 30 gallons per day discharge. This unit will also be connected to the discharge piping leading the public sewer prior to leaving the building. A restroom with a stand-up stall shower is being provided for the drivers, and this water usage is anticipated to be 35 gallons per day. Contact has been made with Public Works to confirm that sewer capacity is available at this location to meet the anticipated demand.

Stormwater runoff will not be altered by the proposed construction. The majority of the site drains to a catch basin located within the northerly entrance to the parking area, and the remainder of the site surface drains from the parking lot to the gutter line of the Thompson's Point Connector Roadway. These patterns will remain unchanged.

A new crosswalk is proposed from the new bus garage to the terminal to accommodate drivers and employees of the facility.

A separate permit is being filed with the Maine Department of Environmental Protection for the installation of the proposed underground diesel fuel tank.

The anticipated timetable for this project is to have construction completed prior to mid-October 2004. As such, the applicant would like to begin as soon as the City has completed its review.

We are hopeful that we have provided the required information to allow this project to proceed in a timely fashion. Please call with any questions or if you require additional information. Thank you in advance for your cooperation.

Sincerely,

SEBAGO TECHNICS, INC.

Steve

Stephen S. Sawyer, Jr., P.E.
Vice President

SSS:sss/jc
Enc.

cc: Harry Blunt, President, Langdon Street Real Estate
Rick Day, PATCO
Frank Brancely, Portland Public Works

Sewall-

BANK OF NEW HAMPSHIRE

September 24, 1996

Joseph E. Gray Jr., Director
Planning and Urban Development
City of Portland
Portland, Maine 04101

RE: Concord Trailways Transportation Center
Sewall Street, Portland, Maine

Dear Mr. Gray:

The Bank of New Hampshire hereby issues its Irrevocable Letter of Credit for the account of Langdon Street Real Estate, Inc. as developer, hereinafter referred to as the Developer, in the name of the City of Portland in the aggregate amount of $45,696.00.

The City may draw on the Letter of Credit by presentation of a sight draft at Bank of New Hampshire's offices located at 143 North Main Street, Concord, NH, through our parent company which is Peoples Heritage Financial Group, Inc. headquartered at One Portland Squre, Post Office Box 9540, Portland, Maine, in the event that the Developer fails to complete by 3/31/97 or by the expiration date of any temporary certificate of occupancy issued, whichever date comes first, at the Developer's expense, the work on the roads and other public improvements as set forth on the approved site plan/subdivision plans or in the event the Developer fails to post the ten percent (10%) Defect Bond or Guarantee reference below. Said sight draft shall be accompanied by a written statement from the City's Director of Parks and Public Works or Director of Planning and Urban Development stating that said ten percent (10%) Defect Bond or Guarantee has not been filed with the City or stating that the Developer has failed to complete such work.

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

The Developer will notify the City of Portland for inspections. After all underground work in the public right of way has been completed and inspected to the satisfaction of the Department of Public Works, including but not limited to sanitary sewers, storm drains, catch basins, manholes and other required improvements constructed chiefly below grade, Bank of New Hampshire shall be eligible to receive a reduction in its obligations hereunder equal to the estimated cost of improvements, provided that the total of the value of the

improvements for which a reduction is sought shall be at least two hundred thousand dollars ($200,000) or fifty percent (50%) of the total amount of this Letter of Credit, whichever is less. In no case, however, shall the obligations of the Bank of New Hampshire hereunder be reduced to an amount which is less than the estimated cost of completing all prescribed improvements as determined by the Department of Public Works, plus ten percent (10%) of the initial amount of this Letter of Credit. This Letter of Credit will automatically expire 90 days after the date for completion of public improvements but may expire prior to this date when the City of Portland acknowledges in writing to Bank of New Hampshire that said work outlined has been completed in accordance with City of Portland specifications, when the Developer has given the City of Portland any required warranty deeds to property within streets which are to be dedicated to the City of Portland, and when the Developer has filed with the City of Portland a ten percent (10%) Defect Bond or Guarantee (or other security acceptable to the City of Portland) insuring the workmanship and the durability of all materials used in the construction of the public improvements listed, for a period of one year from the date of the acceptance or approval of such improvements by the City of Portland.

We engage with you that drafts drawn under and in compliance with the terms of this credit will be duly honored. However, other than the payment of monies as authorized hereunder, Bank of New Hampshire shall not guarantee the performance of the Developer to the City of Portland.

Very truly yours,

BANK OF NEW HAMPSHIRE

By: _____

Its Duly Authorized

Sr. Vice President

The City of Portland has accepted this Letter of Credit as security for the Developer's obligations to be performed pursuant to Section 14-501(a) and/or Section 14-525(j) of the Portland City Code.

Date: 9/27/96

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

Seen and Agreed to: Langdon Real Estate, Inc.

By: _____ Date: _____
Its President

Reviewed pursuant to Section 14-501(a) and/or Section 14-525(j), Portland City Code

By: _____ Date: 27 Sep 96
Director of Finance

By: _____ Date: 27 Sept. '96
Corporation Counsel

Post-it® Fax Note 7671	Date	# of pages ▶
To SARAH Hopkins	From STEVE DOE	
Co./Dept.	Co.	
Phone #	Phone # [redacted]	
Fax # 756-8258	Fax # 856-0277	

, MAINE
oan Development
ELOPMENT

ED BY PERFORMANCE GUARANTEE

1 of 2

Date 9/23/96

Name of Project CONCORD TRAILWAYS
Address/Location SEWALL STREET
Developer CONCORD TRAILWAYS
Form of Performance Guarantee _____
Type of Development: ___ Subdivision X Site Plan (Major/Minor)

ITEM	QUANTITY	UNIT COST	SUBTOTAL	COMPLETED
1. STREET/SIDEWALK:				
Road	N/A			
Granite Curbing	185 L.F.	$ 22/LF	$ 4,070	
Sidewalks	200 L.F.	$ 5.00 LF	$ 1,000	
Esplanades	1275 S.F.	.15	$ 191	
Monuments	N/A			
~~Street~~ Lighting	N/A			
Other				
2. SANITARY SEWER:				
Manholes	N/A			
Piping				
Connections				
Other				
3. STORM DRAINAGE:				
Manholes / OUTLET CONTROL STRUCTURE	L.S.	$ 7,800	7,800	
Catch Basins				
Piping				
Detention Basin	L.S.			
Other / TREATMENT TANK	1	$ 25,000	$ 2,5000	
4. SITE LIGHTING				
5. EROSION CONTROL	L.S.	$ 7,635	$ 7,635	
6. RECREATION AND OPEN SPACE AMENITIES	N/A.			
7. LANDSCAPING (Attach breakdown of plant materials, quantities, and unit costs)	N/A			
8. MISCELLANEOUS	N/A			

TOTAL AMOUNT OF PERFORMANCE GUARANTEE $ 45,696 Approved _____
X 1.7% = INSPECTION FEE $ 776.83 Approved _____

DPUD.KC.2/11/92

DUFRESNE-HENRY, INC.
22 FREE STREET
PORTLAND, MAINE 04101-3900

MEMO TO: Sarah G. Hopkins, Senior Planner

FROM: Jeffrey D. Preble, P.E., Project Manager

RE: Concord Trailways Transportation Center

DATE: July 19, 1996

I have reviewed Sebago Technics, Inc. (STI) letter of July 18, 1996 which addresses the comments made in our letter of June 26, 1996. It appears STI has addressed most of the comments we made during our review of the project plans. There still are some outstanding items which have not been fully addressed, these are summarized below.

1. Stormwater Management: Our comment on the missing construction details for the water quality pond pertains to the embankment of the pond and not the outlet control structures. The embankment on the easterly side of the pond should be engineered to ensure the side slopes are stable under maximum loaded conditions, i.e. when the pond is full.

2. Erosion Control: While the information provided with the design plans contains the appropiate erosion control details, a site specific erosion control plan will provide further instructions to the site work contractor. The more information available to assist the site work contractor will help ensure the wetlands adjacent to the site are fully protected during the construction.

3. Other Notes: The proposed fuel storage tanks have been changed from an underground installation to an above ground installation. We have no further issue with the tanks. Our comment regarding the water line refers to the area where the 15" storm drain from CB-4 to CB-5 crosses the 2" water service line. With a minimum cover of 5.5 feet the bottom of the water line will be approximately 9 inches above the top of the storm drain line. Since the storm drainage system is open to the atmosphere, insulating the water line will provide additional protection against freezing.

Please let us know if we can be of further assistance.

Attachment 2

SebagoTechnics
Engineering & Planning for the Future

May 28, 1996
92091

Sarah Hopkins, Senior Planner
Planning Department
City of Portland
389 Congress Street
Portland, ME 04101

Major Site Plan Application, Concord Trailways Transportation Center, Sewall Street

Dear Sarah:

On behalf of Concord Trailways, I wish to request placement on the Planning Board workshop agenda for June 11, 1996. I have enclosed seven (7) copies of the attached conceptual site plan and application fee of $300.00 for their proposed terminal facility on Sewall Street. Concord Trailways proposes to relocate from their leased facility on Marginal Way to a new 6.6 acre vacant parcel near Thompson's Point. This parcel was previously before the Planning Board in 1992 for a 4 lot commercial subdivision, but was withdrawn prior to any approval. The parcel is zoned Industrial 2 and is shown on Tax Map 77, Lot 1; Map 189, Lots G1-20, H1-11; and Map 190, Lots C1-7, 15, 16, F8-13; and includes a portion of Jose Street, a paper street.

The parcel is serviced by public water and sewer, as well as overhead electric and telephone, and underground gas.

Concord Trailways' goal is to construct a 3,300 square foot terminal facility which will service up to four buses. A customer drop off/pick up area and taxi stand will be located in the front of the building. The site will provide 17 short-term parking spaces, 222 long-term parking spaces, and 9 employee spaces. The long-term parking facility will be enclosed with a 6' high perimeter fence for after-hour security. A 2,400 square foot garage will be located to the rear of the site to provide an enclosed location for performing minor service to the buses. A 10,000 gallon aboveground fueling tank will be located adjacent to the garage for use by the buses.

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

Approximately 3.7 acres of the site will be developed, with 2.8 acres of that being impervious surfaces. The remaining 2.9 acres of land will be retained for an undetermined future use. Approximately 1.1 acres of this land is wetland and is confined to the rear of the site. A stormwater treatment area is proposed adjacent to the wetland to provide treatment of the parking lots.

John L. Murphy, our traffic consultant, is currently performing a traffic study for this project and hopes to have a preliminary report prior to the Planning Board workshop.

Concord Trailways has also retained Gawron Associates as the architect. Preliminary building plans are currently being prepared and will be forwarded to you prior to the meeting.

If you have any questions on this project or require additional information prior to the June 11th Planning Board meeting, please call me.
Sincerely,

SEBAGO TECHNICS, INC.

Steve Doe

Stephen G. Doe, R.L.A.
Landscape Architect

SGD:jc
Enc.

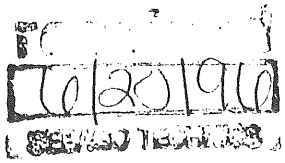
cc: Harry Blunt
Ken Hunter
Jim Harnden
Joseph Satlack
Stan Gawron

Attachment 3

JOHN L. MURPHY, P.E.

Civil Engineer
Traffic Engineer

RR1, BOX 6300
WEST BALDWIN, MAINE 04091-9745
207-625-8222



Concord Trailways

Traffic Impact

Sewall Street, Portland

General

Concord Trailways proposes to construct a new 3,100 square foot terminal and 2,100 square foot service area on Sewall Street. Buses from the project will serve Boston and Logan Airport plus the Maine coast.

Trip Impact

The existing bus station on Marginal Way was counted between 7 AM and 8:30 AM on 6/6/96 and between 4 PM and 6 PM on 6/4/96 to determine trip generation from this proposed facility. These counts both included an AM and a PM bus arrival to determine vehicular impact.

The AM peak hour trip generation was counted as 21 vehicles entering and 18 exiting. The PM peak hour had 19 entering vehicles and 30 exiting vehicles. To determine impact of the new facility the number of vehicles was factored by 1.5 (50% increase).

The trips were then assigned to the nearest major intersection at Congress Street and Sewall Street with one-third assumed to arrive and depart to the west on Congress Street and two-thirds to the east toward I-295.

The AM and PM trip distribution is attached to this report. The base AM and PM traffic at Congress Street/Sewall Street was counted on June 3, 1996. This data is also attached.

Analysis of Impact

Since all trips related to the bus terminal are considered to be new trips, the expected trip distribution was added to the 5/30/96 and 6/3/96 base counts to determine future impact.

Highway capacity analysis of the existing traffic was performed along with capacity analysis of the same intersection with the additional bus terminal traffic. The analyses for the AM and PM peak hour did not result in any change in level of service due to the impact of the bus terminal traffic.

The level of service probably is not as good as analysis indicates because an exclusive walk phase exists at Sewall Street and Congress Street. This walk light only occurs when a pedestrian or the crossing guide (during school session changes) actuates the interval. During the walk phase all traffic at the intersection is stopped for 18 to 20 seconds.

Based on observation, this walk cycle impacts the AM peak period, with little actuation in the PM peak period. The bus terminal traffic will not change this situation, thus it seemed reasonable to perform the impact analysis with the assumption that the walk phase did not occur.

Accident Analysis

A detailed accident diagram was prepared for the section of Congress Street between the I-295 ramps and the Sewall Street intersection. The majority of accidents involve left turns from either Bolton Street or Massachusetts Avenue and through vehicles on Congress Street. No unusual pattern occurs at the signalized intersection of Congress Street/Sewall Street.

The small amount of additional traffic due to the bus terminal is not expected to impact the existing accident patterns.

Conclusions

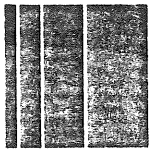
1. Based upon counts taken at the existing Concord Trailways terminal on Marginal Way in Portland, the project is a low trip generator that will not have an adverse traffic impact.

2. The capacity analyses of AM and PM peak hour conditions with and without project impact do not show any adverse change in level of service at the Sewall Street/Congress Street intersection.

3. The existing accident patterns in the area of Sewall Street and Congress Street will not change due to project impact.

John d. Murphy
6/19/96

Attachment 4



SebagoTechnics

Engineering & Planning for the Future

Stormwater Runoff Evaluation/ Erosion & Sediment Control Plan

Concord Trailways Transportation Center

Sewall Street
Portland, Maine

June 1996

prepared by:

Sebago Technics, Inc.
12 Westbrook Common
P. O. Box 1339
Westbrook, ME 04098-1339

92091

STORMWATER RUNOFF EVALUATION
Concord Trailways
Transportation Center
Sewall Street
Portland, Maine

General

The following stormwater evaluation has been prepared for Concord Trailways to analyze stormwater runoff associated with the proposed Transportation Center off Sewall Street in Portland, Maine.

Concord Trailways proposes a Transportation Center on an approximately 6.8 acre parcel. The facility will include an approximately 3,168 square foot terminal building and a 2,400 square foot service garage. Parking will be provided on site for approximately 240 cars. Pick-up/drop-off areas are provided for four busses at the terminal building. The buildings and parking areas encompass approximately 2.8 acres.

Site Characteristics

The parcel is located on the southeastern side of Sewall Street. The property is generally rectangular and is abutted by Hooper Street to the east. Railroad tracks abut the western end of the property. The site is currently vacant and has previously been filled. Wetlands are located at the southern corner of the property. The hydrologic soil group (HSG) for the fill areas has been assumed to be "C". Elevations on the site range from Elevation 31 at Sewall Street to Elevation 8 in the wetlands at the rear of the site.

Drainage Patterns

Pre-Development

The site drains in a general southeasterly direction from Sewall Street to the wetland at the rear of the site. Flows exiting the wetland area pass into a natural drainage system which outlets into the Fore River. Runoff from areas northeast of the site pass under Hooper Street and flow through a ditch and culvert adjacent to the site's eastern boundary. The western end of the property drains along an existing swale which is adjacent to the railroad tracks. Upstream flows are diverted around the development area by the drainageways which exist on both sides of the parcel. The site is divided into two watersheds in the pre-development condition. Watershed 1 encompasses approximately 2.5 acres on the site and flows along the ditch adjacent to the railroad tracks along the western property boundary. Watershed 2 encompasses approximately 2.8 acres and drains to the channel adjacent to Hooper Street along the eastern site boundary. Both watersheds enter the wetlands at the rear of the property prior to eventually discharging to the Fore River.

Post-Development

The post-development drainage conditions include four watersheds. Watershed 1 is centrally located on the site and encompasses the majority of the development area. Watershed 1 is approximately 2.8 acres in size. This watershed collects runoff from the buildings and parking areas via a subsurface drainage system which discharges to the water quality treatment system discussed at the end of this report. Watershed 2 encompasses approximately 1.24 acres of predominately open land along the site's eastern property limit. Flows from this area discharge in the same manner as the pre-development condition. Watershed 3 includes the southern and western perimeter and sideslope areas outside of the development footprint. Watershed 3 encompasses approximately 0.94 acres. This watershed drains along the railroad tracks along the western site boundary. Watershed 4 encompasses approximately 0.35 acre and picks up runoff from the entrance and access area off Sewall Street at the western corner of the parcel. This area discharges to the existing drainageway along the railroad tracks and eventually flows to the wetland at the rear of the site.

Stormwater Management

In order to evaluate drainage characteristics as a result of the proposed development activities, a quantitative analysis was performed to determine peak rates of runoff for the 2, 10 and 25-year storms. The analysis considered both pre-and post-development conditions. The evaluation was performed using the methodology outlined in the USDA Soil Conservation Service's "Urban Hydrology for Small Watersheds - Technical Release #55 (TR-55)". HydroCAD computer software was used to perform the calculations. Supporting hand calculations, data sheets and HydroCAD computations are attached to this report. Stormdrain pipes were sized using the rational method.

The results of the stormwater runoff calculations for the pre- and post-development conditions are summarized in the tables below:

Concord Trailways
Watershed Data
Summary Table

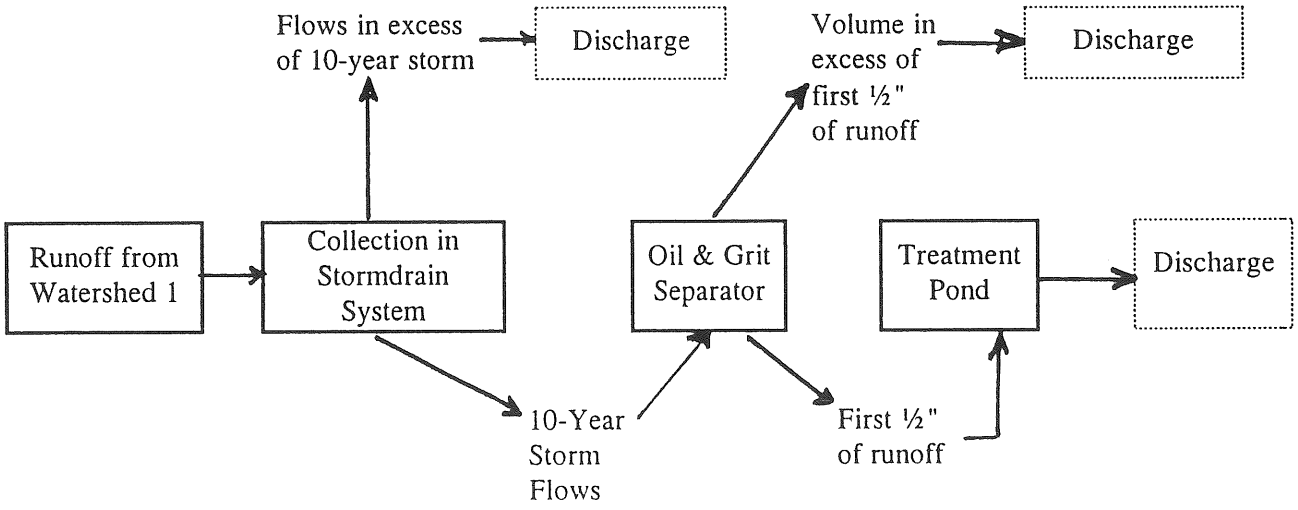
Watershed	Pre-Development			Post-Development		
	Area (Ac)	Cn	Tc (Min)	Area (Ac)	Cn	Tc (Min)
1	2.54	79	26.9	2.8	97	3.7
2	2.79	79	18.6	1.24	79	20.9
3	--	--	--	0.94	79	4.2
4	--	--	--	0.35	90	2.9

Concord Trailways Stormwater Runoff Summary Table				
		Peak Runoff Rate (cfs)		
		2-Year	10-Year	25-Year
Pre-Development	Watershed 1	2.0	4.5	5.7
	Watershed 2	2.6	5.7	7.3
		Peak Runoff Rate (cfs)		
		2-Year	10-Year	25-Year
Post-Development	Watershed 1	8.0	12.7	15.0
	Watershed 2	1.1	2.4	3.1
	Watershed 3	1.2	2.7	3.5
	Watershed 4	0 8	1.4	1.7

As the summary table shows, the site's peak runoff rates entering the wetland area on the site are above the pre-development rates. It is not anticipated that this increase in peak flow rates will have a significant adverse effect on the downstream receiving areas, which include the Fore River and Portland Harbor. Due to the site's proximity to the Fore River and the size of the overall upstream areas contributing to the river (and Portland Harbor), it is apparent by observation that on-site detention will not provide a measurable benefit. The existing wetlands on the site help to provide a stable receiving body to allow discharge to the downstream areas. Due to the site's location at the downstream end of the watershed, attenuation of peak flow rates is not as beneficial or imperative as enhancing the quality of the stormwater leaving the site.

Water Quality

In order to enhance the quality of the stormwater runoff leaving the site, an oil and grit separator and a water quality pond have been incorporated into the design. Oil and floatables are trapped within the chamber by the use of baffles. The storm drain system has been designed to divert the 10-year storm flows from Watershed 1 to the oil and grit separator. Stormwater flows in excess of this rate are directed to the drainageway along Hooper Street to the east. The flows which pass through the oil and grit separator are split such that the equivalent of the first half inch of runoff is directed to the water quality pond located adjacent to the wetlands. The remaining flows leaving the oil and grit separator are directed easterly to the swale along Hooper Street. The water quality pond's capacity is based on the first half inch of runoff emanating from Watershed 1. The pond's outlet has been sized to release the pond's volume over a minimum 24-hour period. The following flow chart summarizes the process of water quality treatment on the site:



It is anticipated that this system will improve the quality of runoff leaving the site by collecting and treating the first flush of runoff using a two-stage process. Oil and grit will also be removed from runoff emanating from the 10-year storm event.

Sediment and Erosion Control Plan

In order to further reduce the potential for impacts associated with the project's construction, a Sediment and Erosion Control Plan has been prepared which outlines the measures to be incorporated before and during the construction of the project. Permanent erosion control measures have also been included to reduce the potential for long-term effects. These measures include installation of temporary erosion control structures and stabilization measures (both temporary and permanent), as well as revegetation plans. A report has been prepared which outlines this plan. A narrative and details are included in the drawing set.

Summary

The preceding stormwater evaluation has been prepared to address the pre- and post-development runoff conditions for the proposed Concord Trailways Transportation Center off Sewall Street. Principal stormwater runoff features will include a combination of catch basins, storm drains and an oil and grit separator. A water quality pond is also included to collect the "first flush" of runoff. An erosion control plan has been made an integral part of the overall project and specific instructions and details have been placed directly on the plans.

Based on the enclosed stormwater runoff calculations and the site's downstream location, it is not anticipated that the increases in the peak runoff rates leaving the site will have a significant adverse effect on the downstream receiving bodies. The oil and grit separator and treatment pond have been incorporated into the design to improve the quality of stormwater leaving the developed portions of the site.

Prepared by:

SEBAGO TECHNICS, INC.

Nancy J. Gilbert, P.E.
Project Manager

NJG:jc
June 18, 1996

Erosion & Sedimentation Control Plan

Concord Trailways
Transportation Center
Sewall Street
Portland, Maine

A. Pre-Construction Phase

Prior to the beginning of any construction, hay bale barriers/filter fabric fencing shall 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 hay bales shall be completed in accordance with guidelines established in Best Management Practices. This network is to be provided, installed and maintained by the contractor until all exposed slopes have at least 85%-90% vigorous perennial vegetative cover to prevent erosion.

Prior to any construction at the site, 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 City. 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 throughout construction of this project.

B. Construction and Post-Construction Phase

1. Areas undergoing actual construction shall only expose that amount of mineral soil necessary for progressive and efficient site construction and shall not exceed 14 days. Areas that will not be completed (covered and/or finish graded) within fourteen (14) days of disturbance shall be anchored with temporary erosion control within fourteen (14) days of disturbance. Temporary erosion control shall include erosion control mesh, netting, or mulch and as directed by the inspecting engineer. If disturbed areas do not receive final seeding by September 15th of the year of construction, then all disturbed areas shall be hay mulched at a rate of 150 lbs. per 1,000 square feet and seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 square feet to provide winter protection. The hay mulch shall be anchored with a suitable binder, such as RMB Plus and/or secured with netting for wind protection.

2. All topsoil shall be collected, stockpiled on site and seeded with Rye at 3 lbs./1,000 square feet and mulched for re-use as required. Siltation fencing shall be placed down gradient from stockpiled loam. Loam shall be stockpiled at locations designated by the owner. Designated locations shall be determined prior to construction.

3. All silt fences and/or hay bale barriers shall be installed according to this plan. These shall be maintained during development to remove sediment from runoff water. All the silt fences shall be inspected after any rainfall or runoff event, maintained and cleaned until all areas have at least 85%-90% vigorous perennial vegetative cover of grasses.

4. All areas shall be seeded in accordance with the following vegetation plan.

C. Vegetation Plan

Revegetation measures shall commence immediately upon completion of construction. Disturbed areas shall be mulched and anchored prior to any storm event. If final seeding cannot be accomplished by September 15th, then all disturbed areas shall be hay mulched at a rate of 150 lbs. per 1,000 s.f. and seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 s.f. to provide winter protection. Hay mulch shall be secured with a suitable binder to include RMB plus and/or erosion control netting as directed by the owner/inspecting engineer.

Revegetation measures shall consist of the following:

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. In lieu of soil tests, agricultural limestone shall be spread at the rate of 3 tons per acre. 10-20-20 fertilizer shall be applied at a rate of 800 lbs./acre. These soil amendments shall be incorporated into the soil prior to final seeding.

3. Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 4 lbs./1,000 square feet to a mixture of 35% Creeping Red Fescue, 6% Red Top, 24% Kentucky Bluegrass, 10% Perennial Ryegrass, 20% Annual Ryegrass and 5% White Dutch Clover. The lawn areas will be seeded to a premium turf mixture of Bluegrass and/or Fescue; seeding rate of 3 lbs. per 1,000 square feet.

4. Hay mulch shall be applied to all disturbed areas at the rate of 150 lbs. per 1,000 square feet, or a hydro-application of asphalt, wood or paper fiber will be applied following seeding. A suitable binder, such as RMB Plus and/or erosion control netting will be used on hay mulch for wind control.

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.

D. Construction Schedule

Construction will begin upon receipt of all necessary approvals. It is anticipated that site work will commence in August 1996 and will be completed in November. Final plantings and follow-up work may occur in April 1997.

Schedule

		Site Work	Spring Follow-Up
1.	Estimated construction time:	Aug. 1996 - Nov. 1996	April 1997
2.	Erosion control measures placed.	August 5, 1996 - Nov. 1996	
3.	Site clearing, grubbing, excavation and filling.	Aug. 7, 1996 - Nov. 1996	
4.	Rough grading, drainage improvements, building construction, and parking lot construction.	Aug. 12, 1996 - Nov. 1996	
5.	Temporary seeding.	Aug. 26, 1996 - Oct. 14, 1996	
6.	Biweekly monitoring of vegetative growth.	Sep. 9 - Nov. 15 1996	April 15, 1997
7.	Re-seeding of areas, if needed.	September 23, 1996	April 1, 1997
8.	Removal of erosion control devices.		April 15, 1997
9.	Mulch spread for winter erosion control, if needed.	November 15, 1996	

E. **Inspections/Monitoring**

Maintenance measures shall be applied as needed during the entire construction cycle. After each rainfall, the site contractor shall perform a visual inspection of all installed erosion control measures and perform repairs as needed to insure their continuing function.

Following the temporary and/or final seedings, the contractor shall inspect the site 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.

Prepared by:

SEBAGO TECHNICS, INC.

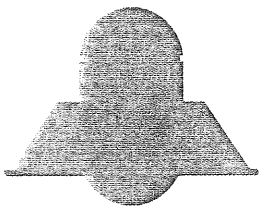
Nancy Gilbert

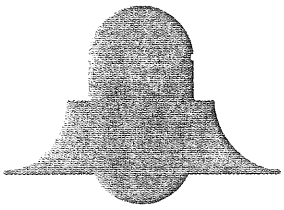
Nancy J. Gilbert, P.E.
Project Manager

NJG:jc
June 13, 1996

ARCHITECTURAL
AREA
LIGHTING

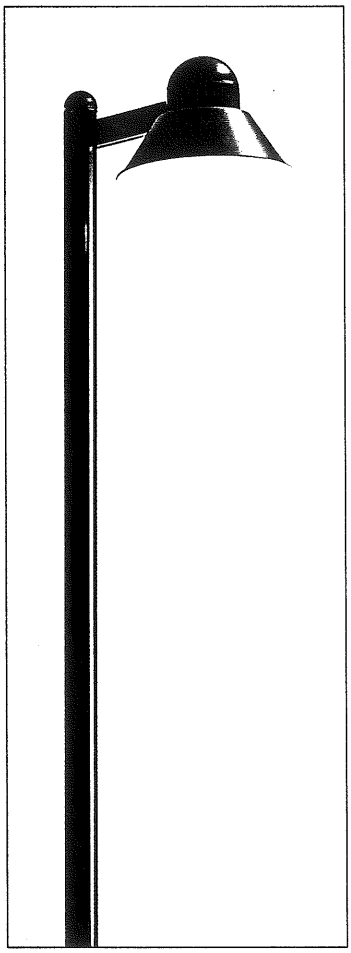
SITE LIGHTING



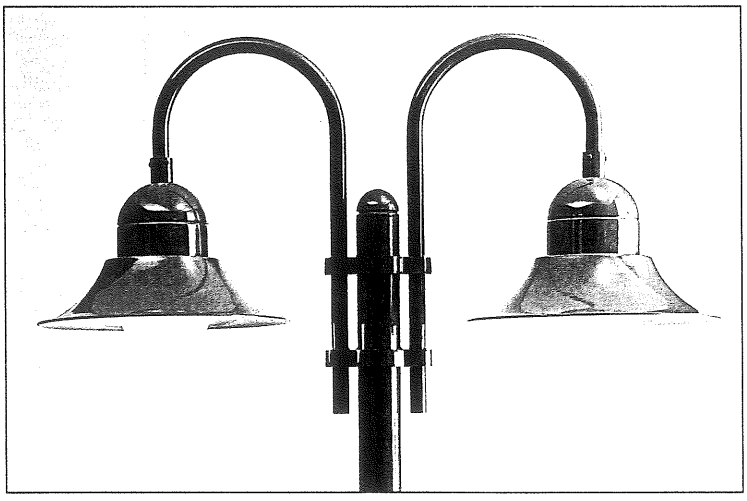


SL SH 20
SL SH 30
SL FH 22
SL FH 30

Two classic geometric shapes are each scaled in two sizes to compliment many landscape designs. The SL SH 20 & 30 feature an angled hood. The SL FH 22 & 30 feature flared hoods. Both styles share the same quality design and internal construction details. The smaller diameter versions will accommodate 100 watt HID lamps. The larger 30 inch diameter versions are available with 175 watt HID lamps.
Three pole mounting configurations are offered. A top mount version for attaching to five standard arm designs, a straight side arm, and a post top mount design. Many arm designs for poles, and wall mounting options are available. Standard colors include black, white, medium gray, dark green and satin aluminum. All fixtures are U.L. listed for wet locations.



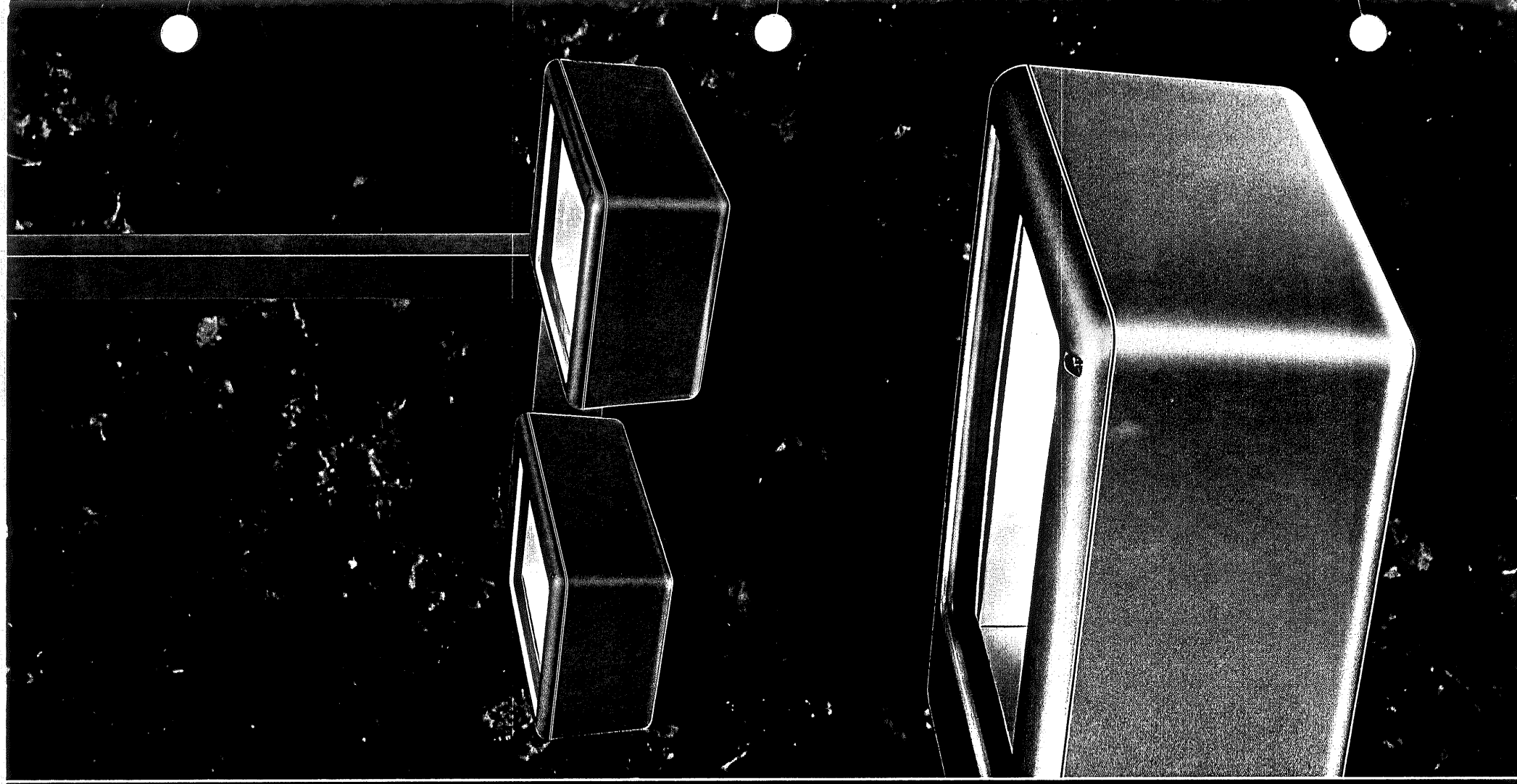
SL SH20-S



SL FH22-T

Specification Features

• Housing
The luminaire is constructed of aluminum for outdoor use. All hardware is stainless steel. The hood is heavy gage spun aluminum with a beaded edge for added strength. The housing has a cast aluminum, threaded fitter for attaching the lens.
An opal DR acrylic diffuser with a cast aluminum collar screws into the housing for a tight secure fit with no exposed hardware.
• Electrical
Medium base porcelain sockets are 4KV rated. High power factor ballast assemblies are for -20° starting. All electrical components are mounted to a prewired module that is easily removed for servicing. The electrical module is mounted to cast aluminum heat sinks, integral to the upper housing, for longer component life and dependability. All electrical components are U.L. listed.
All fixtures are listed by Underwriter's Laboratory for use in wet locations.
• Finish
All fixtures and poles are finished with a baked on acrylic enamel paint. The underside of the hood is painted with high reflectance white paint. Pretreatment includes submersing the components in tanks to assure proper cleaning and a chromate coating of both the interior and exterior surfaces for prolonged protection.
• Poles
Standard round poles are extruded aluminum with cast aluminum bases and covers. Square aluminum and various steel poles are available. Decorative, cast aluminum bases and poles are also available.



SPAULDING LIGHTING, INC.

CAMBRIDGE

LUMINAIRE ORDERING GUIDE

UL & CSA Listed.

Model

CEI - small size

CEII - large size

Mounting Mode

PM

Pole Mount

WB

Wall Bracket

Lamp Type/ Watts

small size
S100 S150 S250 S400 M175 M250 M400

large size
S400 S1000 M400 M1000

Reflector

I-asymmetric **III**-asymmetric **IV**-forward throw **VS**-symmetric square

Voltage

120 208 240 277 347 480 MT-multi-tap

Options

PC - photoelectric cell 120-277v, up to 400w.
PR - photo receptacle (less cell)
VG - polycarbonate vandal guard
SF - single fuse
DF - double fuse
CS - house side cutoff shield

Colors for Luminaire and Pole

DBZ	SSB	RRN	SGB	WHT	FGP	TBP	RBP	CMB	SOS
dark bronze	beige	rocket red	black	white	forest green	teal blue	royal blue	burgundy	silver

Luminaire Ordering Example:

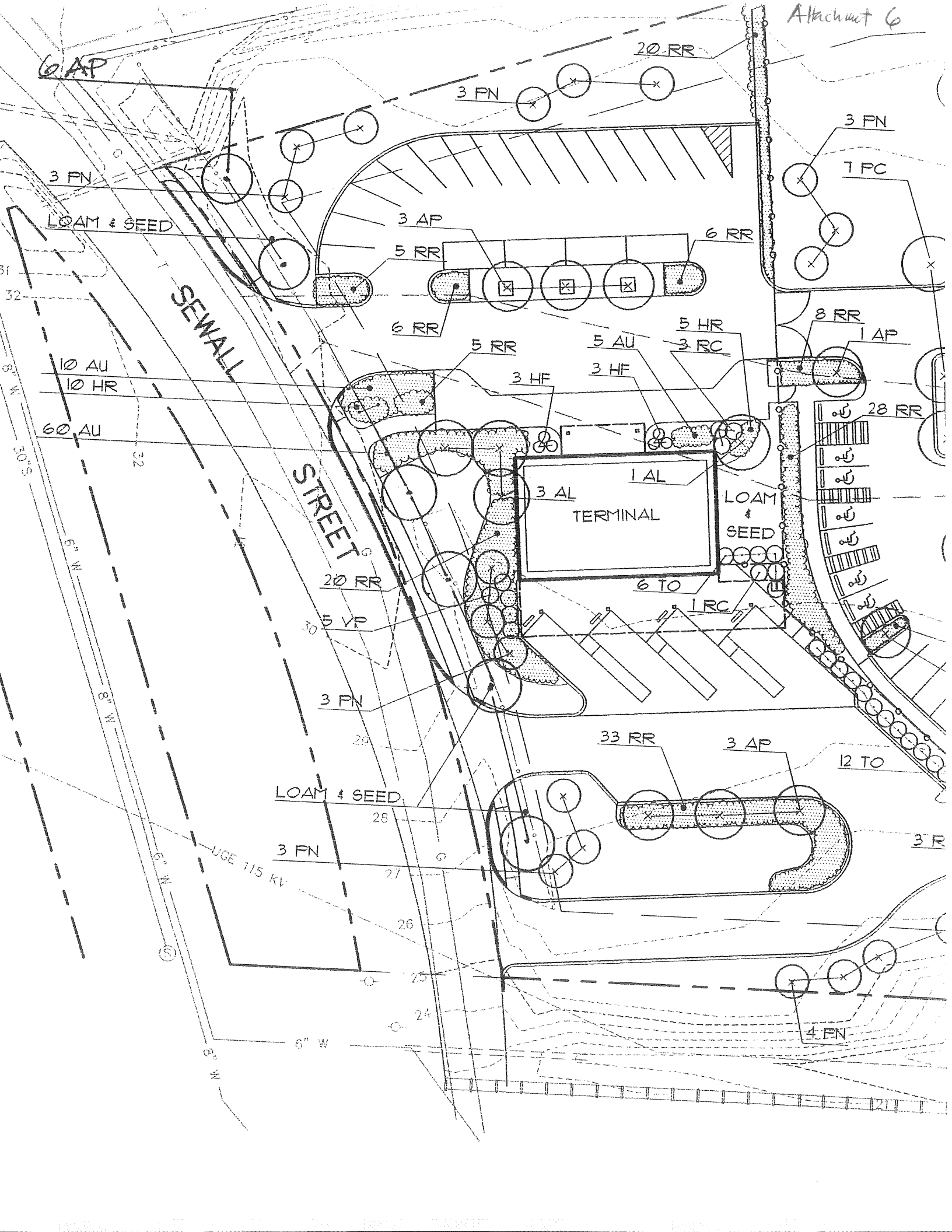
MODEL	MOUNTING MODE	LAMP TYPE WATTS	REFLECTOR	VOLTAGE	OPTIONS	COLOR
CEII	PM	S400	IV	MT	PC	SOS

MODEL	MOUNTING MODE	LAMP TYPE WATTS	REFLECTOR	VOLTAGE	OPTIONS	COLOR
CEI CEII	PM; pole mount: std-6" arm for CEI std-10" arm for CEII WB; wall bracket	small S100 S150 S250 S400 M175 M250 M400 large S400 S1000 M400 M1000	I; symmetric III; asymmetric IV; forward throw VS; V-square	120 208 240 277 347 480 MT; multi-tap	PC; photoelectric cell 120-277v, up to 400w PR; photo receptacle (less cell) SF; single fuse DF; double fuse VG; polycarbonate vandal guard CS; house side cutoff shield	DBZ; dark bronze SSB; beige RNN; rocket red SGB; black WHT; white FGP; forest green TBP; teal blue RBP; royal blue CMB; burgundy SOS; silver

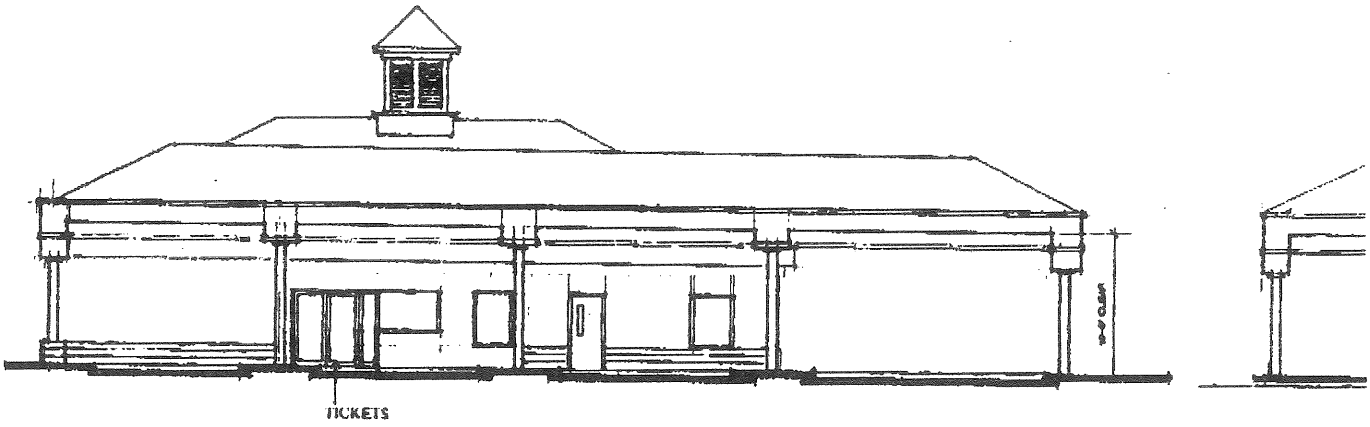
POLE ORDERING

Refer to Poles/Brackets Section for ordering information.

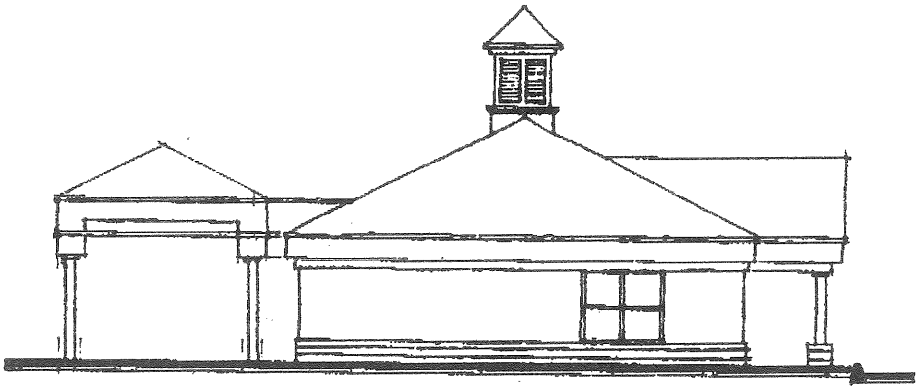
SPAULDING LIGHTING, INC.


Attachment 6
6 AP
20 RR
3 PN
3 PN
7 PC
3 PN
LOAM & SEED
3 AP
6 RR
5 RR
6 RR
SEWALL
STREET
5 HR
3 RC
8 RR
1 AP
5 RR
5 AU
3 HF
3 HF
10 AU
10 HR
60 AU
28 RR
1 AL
3 AL
TERMINAL
LOAM & SEED
6 TO
1 RC
20 RR
5 VP
3 PN
33 RR
3 AP
12 TO
LOAM & SEED
3 PN
UGE 115 KV
4 PN
6" W

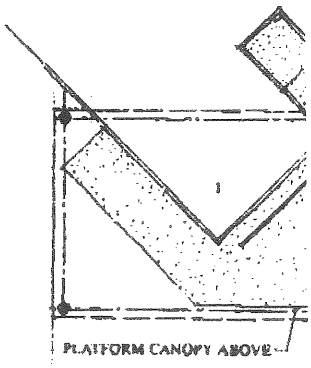
Attachment 7

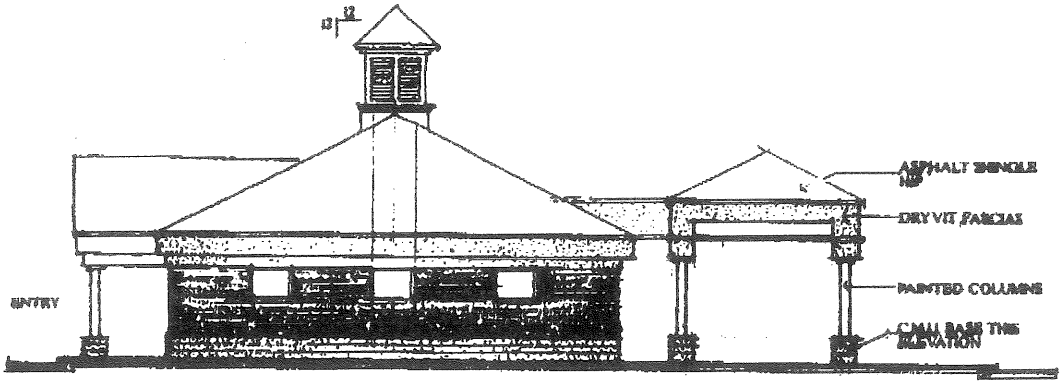


BUS PLATFORM ELEVATION
SCALE 1/8"=1'-0"

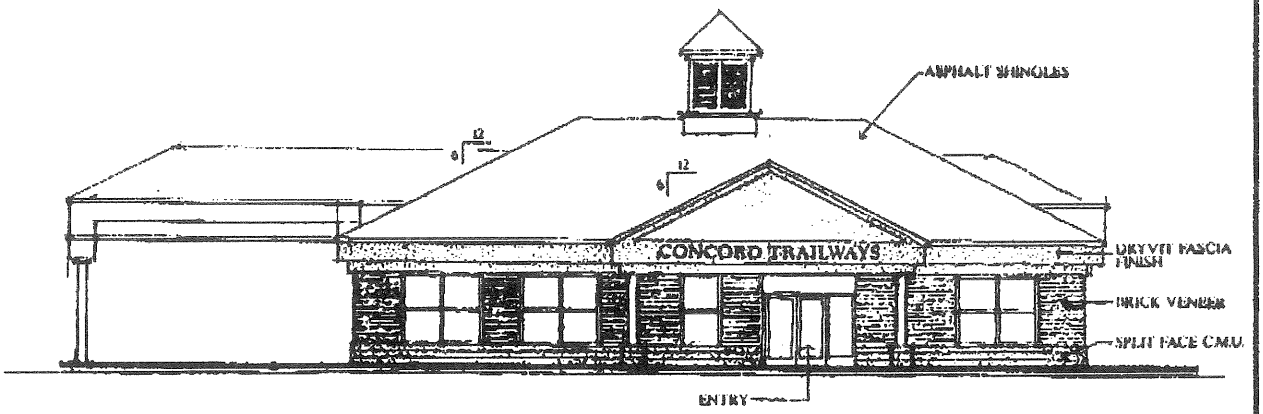


PARKING AREA ELEVATION
SCALE 1/8"=1'-0"

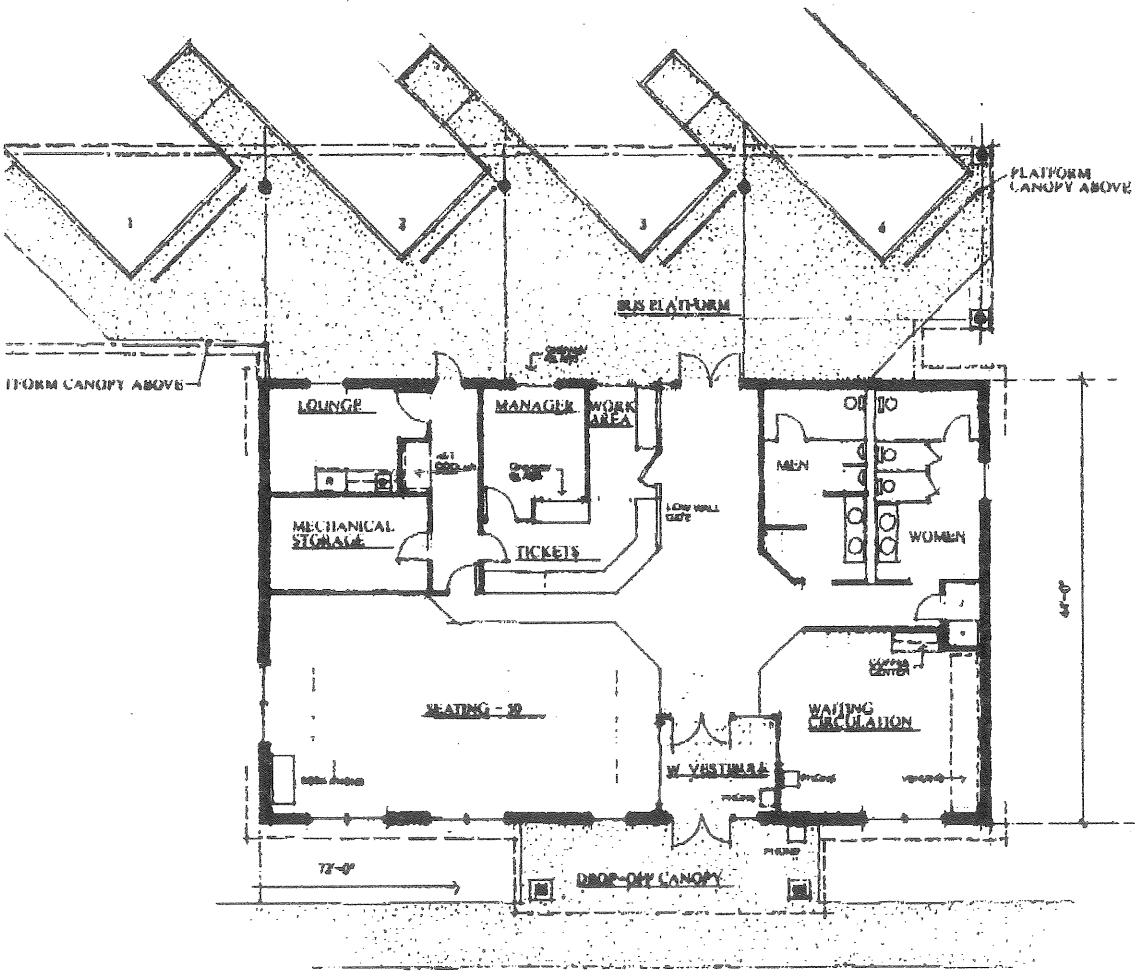




SEWALL STREET ELEVATION
SCALE 1/8"=1'-0"



ENTRY ELEVATION
SCALE 1/8"-1'-0"



FLOOR PLAN
SCALE 1/8"-1'-0"

GAWRON ASSOCIATES

REVISIONS

NO	DATE	DESCRIPTION

CONCORD TRAILWAYS
CONCORD COACH LINES, INC.
SEAWALL STREET PORTLAND MAINE
INTERMODAL BUS FACILITY

DRAWINGS THIS SHEET
FLOOR PLAN
BUILDING ELEVATIONS

NUMBER	DATE
030496	6-15-96
DRAWN	CHECKED
	AWG

A1

Attachment 8

BANK OF NEW HAMPSHIRE

July 3, 1996

TO WHOM IT MAY CONCERN.

I am pleased to inform you that Bank of New Hampshire has approved a construction loan and mortgage in the amount of $1,000,000 for Langdon Street Real Estate, Inc. to enable them to purchase approximately 7 acres of vacant land in Portland, Maine, construct a terminal facility, light service and fueling garage and parking lot.

This approval is subject to the company's ability to obtain clear title to the property as well as all zoning and other necessary government approvals, permits and licenses which are needed to purchase land, proceed with construction and conduct business within the subject premises.

If you have any questions regarding this commitment, please to not hesitate to call me at 603-229-5755.

Sincerely,

Mary W. McLaughlin
Senior Vice President

MWM/jmb
960531an.gdn

A. 9a

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Sarah Hopkins, Senior Planner

FROM: William J. Bray, Deputy Director of Public Works

DATE: July 23, 1996

SUBJECT: Concord Trailways

I have reviewed the latest plans and traffic study as submitted by the applicant. The plans have been revised to reflect my concerns and I agree with Jack Murphy's traffic study conclusions.

In keeping with the conclusions drawn in the traffic study, I would recommend the following condition of approval:

- the applicant shall be responsible for making signal timing modifications and replace, if necessary, the detection appurtenances of the Congress/Sewall intersection.

O:\PLAN\DEVREV\PROJECTS\THMPSNPT\MEMOS\BRAY7-23.JMD

A-96

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Sarah Hopkins, Senior Planner

FROM: Jeff Tarling, City Arborist

DATE: July 23, 1996

SUBJECT: Concord Trailways

I have reviewed the most recent plans submitted by the applicant. The applicant has responded to my concerns by planting a number of street trees along the Sewall Street frontage of the property.

I also find the perimeter and interior plantings to be acceptable.

O:\PLAN\DEVREV\PROJECTS\THMPSNPT\MEMOS\JEFF7-23.JMD

METRO

Attachment 10

July 12, 1996

Cyrus Y. Hagge, Chair
Portland Planning Board
389 Congress Street
Portland, ME 04101

Dear Mr. Hagge:

METRO has provided service to the Concord Trailways facility on Marginal Way on request only. Because of the proximity of their location to one of our bus routes, our time schedule has not been adversely affected by offering the service to their passengers.

We understand that representatives of Concord Trailways indicated at the Planning Board workshop that they assumed we would provide the same service to Sewall Street. Although we have two routes traveling the Westgate area of Congress Street, neither route has the extra time to accommodate a deviation. We, therefore, will be unable to provide the same service if Concord Trailways moves its operation to Sewall Street.

If you have any questions or would like further detail, please let me know.

Sincerely,

Sarah P. deDoes
General Manager

pc: Ken Hunter
Sarah Hopkins

GREATER PORTLAND TRANSIT DISTRICT
114 Valley Street • PO Box 1097 • Portland, Maine 04104 • (207) 774-0351

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Hagge and Members of the Portland Planning Board

FROM: Sarah Hopkins, Senior Planner

DATE: July 9, 1996

SUBJECT: Concord Trailways at Thompson's Point

Introduction

Concord Trailways has requested site plan review for the construction of a bus terminal facility on Sewall Street, on Thompson's Point. Concord Trailways hopes to move from their current location on Marginal Way to this proposed location on Thompson's Point by early fall. The development site is 6.8 acres and the site is zoned I-1 industrial.

The proposed development will consist of a 3,168 sq. ft. terminal building and a 2,400 sq. ft. service garage with approximately 240 parking spaces and associated pick-up and drop-off areas. The buildings and paved areas encompass approximately 2.8 acres. A portion of the lot will remain undeveloped for possible future use.

Traffic/Circulation

There are two main entrances for vehicles to the site. Customers will enter from Sewall Street through the entrance drives and park in the large lot behind the terminal building or in the short-term lot closer to Sewall Street. There is a separate third entrance for busses to the site.

The applicant's traffic engineer has completed traffic counts of the Congress/Sewall intersection in addition to the terminal on Marginal Way. The traffic study concludes that due to the number of peak hour trips (AM: 21 in; 18 out/PM: 19 in; 30 out) as well as the existing and forecasted level of service at the Congress/Sewall intersection, the project

a) is a low trip generator
b) will not affect the level of service at the intersection
c) will not affect the accident patterns at the intersections.

Bill Bray, Acting Traffic Engineer, has reviewed these findings and is in agreement with the conclusions of the report.

240 parking spaces are provided on site. 16 short term parking spaces and 4 taxi spaces are located near the terminal building at the front of the site. The remaining parking spaces are located to the rear of the station building.

Bituminous sidewalks and granite curbing are proposed along the entire frontage of the site from the RR right-of-way to Hooper Street. Due to the location of Sewall Street within the r.o.w., the sidewalks and curbing have been proposed on the private property as opposed to within the right-of-way. The applicant has agreed to deed the sidewalks and curb to the City.

Stormwater Management

The site was filled a number of years ago to create an elevated development site. A wetland exists in the south eastern portion of the site.

Currently, the site drains in a southeasterly direction towards the Fore River.

The western portion of the site drains into a swale along the RR tracks and a portion of runoff also collects in Hooper Street and is collected in a culvert and directed out towards the Fore River.

The proposed drainage plan will grade the parking area to direct runoff to a series of catchbasins which will direct flows through a treatment device and into a basin fitted with an outlet control structure.

According to the storm water management report, it appears that the site's peak runoff rates will increase and rise above the predevelopment rates. The applicant argues that due to the site's proximity to the Fore River, this increased rate should not create a significant adverse effect on the downstream receiving areas. The applicant also states that any on site detention will not provide any substantial benefit.

Our reviewing engineer, Jeff Preble of Dufrense-Henry, agrees with the Concord Trailways plan for stormwater management and has suggested that the applicant use casco traps in the proposed catchbasins and submit details for the construction and maintenance of the system. Mr. Preble's comments are included as Attachment 6.

Sedimentation/Erosion Control

The applicant has submitted a sedimentation/erosion control plan which includes the use of temporary and permanent measures, including the placement of hay bales and silt fencing across the slopes and at limits of construction, as well as the seeding, hay mulching or application of erosion control mesh on disturbed areas. A schedule of erosion control measures has also been submitted.

Building Design

Terminal

The applicant has proposed a 72 x 44 ft. terminal building for ticket sales, storage, waiting areas and restrooms. The main entrance of the terminal is along the east side of the building facing Hooper Street.

Passengers may purchase their ticket at a counter and use the vending machines in the waiting room and then board the assigned bus from the boarding areas on the west side of the building.

The building facade will consist of a brick veneer, split face concrete block along the foundation, and a fascia constructed of a dryvit finish. A cupola is proposed atop the hip style roof. The columns of the canopy will be painted and the fascia will be the same split face CMU of the building (the sides perpendicular to Sewall Street).

The main facade of the building is located on the east side of the building. This facade will include the main signage of the building, as well as a series of large windows, giving the building a strong commercial appearance.

The Sewall Street side of the building has less detail than the east side of the structure. Although one sees the varying depths of the canopy and entry ways along the east and west sides of the building, and the same strong facade finishes, there is only one small window that faces out onto the street. Staff has suggested that the applicant further consider how the building will relate to Sewall Street.

Service Garage

The 56 x 60 sq. ft. garage is located to the rear of the site, facing I-295. The garage will be used for cleaning refueling, and servicing the buses.

The building will be constructed of ribbed metal siding with a 36" high concrete foundation wall. The roof will be constructed of metal ribbed roof panels.

There are two garage door openings on the east and west sides of the building allowing busses to drive through the structure.

The side of garage most visible to the public faces I-295. This is the simplest of all four of the industrial building's sides, similar to other buildings further down on Thompson's Point.

Landscaping

The front of the site will be planted with a mixture of flowering shrubs and bushes.

Austrian Pines will be planted along the northeast property line between a parking area and the old Hooper Street snow dump area. Maples will be planted in the islands between the terminal and short-term parking and bus circulation areas.

Various groundcovers and shrubs will be planted between the front terminal area and rear parking lot.

The parking lot islands will be planted with maple, pear, and pine trees and the south side of the garage facing I-295 will be planted with a row of barberry bushes. Several Austrian pines will be planted along the RR property and on either side of the service garage.

Staff has requested that street trees be planted in the Sewall Street esplanade along the frontage of the site.

Fencing/Lighting

Since Concord Trailways makes trips nine times throughout the day (from early morning to late evening), security is an important concern. Also, many customers utilizing the service to Logan Airport may leave a car for an extended period of time.

To keep the parking lot secure for longterm and off-hour parking, the applicant proposes to install a 6 ft. chain link fence around the perimeter of the lot. Where the site is visible by cars on I-295, the fence will be placed lower on the slope so that it will not be readily visible.

Gates located at the entrance to the parking lot will provide access and security to the lot.

For lighting, the applicant proposes 150 watt pole mounted "Cambridge" shoebox style lights at a height of 20 feet. The lights will be installed throughout the parking lot and entrance areas. Concord Trailways has also proposed the installation of an architectural area lighting, similar to the fixture used at Hadlock Field. This light will be used around the terminal building for more of a pedestrian scale. Photometric plans of the lighting are included as Attachment 11.

Utilities

Utilities, including water and sewer, will be connected to existing lines in the former Sewall Street. Electric service is proposed to be connected via an overhead line.

Attachments:

1. Location Map
2. Project Summary
3. Traffic Study Narrative
4. Stormwater/Erosion Control Narrative
5. Lighting Specifications
6. Engineering Review Comments
7. Site Plan
8. Grading Plan
9. Landscaping
10. Building Elevations
11. Lighting Plan

BANK OF NEW HAMPSHIRE

July 3, 1996

TO WHOM IT MAY CONCERN.

I am pleased to inform you that Bank of New Hampshire has approved a construction loan and mortgage in the amount of $1,000,000 for Langdon Street Real Estate, Inc. to enable them to purchase approximately 7 acres of vacant land in Portland, Maine, construct a terminal facility, light service and fueling garage and parking lot.

This approval is subject to the company's ability to obtain clear title to the property as well as all zoning and other necessary government approvals, permits and licenses which are needed to purchase land, proceed with construction and conduct business within the subject premises.

If you have any questions regarding this commitment, please to not hesitate to call me at 603-229-5755.

Sincerely,

Mary W. McLaughlin
Senior Vice President

MWM/jmb
960531an.gdn

City of Portland
Planning Department

City Hall
389 Congress Street, 4th Floor
Portland, Maine 04101
FAX NUMBER: 756-8258

FAX TRANSMISSION COVER SHEET

To: Joseph Saftlach - Edgewood

Fax #: 767 1869

# of Pages: 2

From: Sarah Hopkins

Date: 1/7/97

RE: Temp C of O

If you do not receive all of the pages, please call 874-8721.

CITY OF PORTLAND
Planning and Urban Development Department

MEMORANDUM

TO: Sarah Hopkins, Senior Planner

FROM: Steve Bushey, Development Review Coordinator SB (SP)

DATE: January 2, 1997

RE: Concord Trailways Transportation; Temporary Certificate of Occupancy

At your request I have performed an inspection at the Concord Trailways site on Sewall Street. The purpose of the inspection was to determine if site conditions are suitable for a Temporary Certificate of Occupancy to be issued. At this time the site conditions can be summarized as follows:

1. The binder pavement has been placed over the entire area to be paved as depicted on the site layout and grading plans. Surface pavement and portions of the cape cod style bituminous work are not complete, but will be completed next spring.

2. The proposed sideslopes and earth moving limits appear to be at final grade except for the placement of topsoil. It is anticipated final landscaping will take place in the spring.

3. All storm drain structures appear in place however, an inspection of the grit chamber and detention pond outlet control structure was not performed. Rip rap protection at all pipe inlets and outlets was missing and should be installed immediately.

4. The site is generally encircled by a windrow of mulch that has been placed in lieu of siltation fence. This application is acceptable but must be adequately maintained throughout the winter. Several small disturbed areas were observed and should be repaired immediately; particularly at the south end of the site adjacent the wetland.

5. Several lengths of silt fence were observed adjacent the wetland at the south end of the site This fence was generally in poor shape and should be repaired or replaced immediately.

6. At the interface between curbing and sideslope, particularly on the west side of the parking lot, mulch should be placed for stabilization purposes until final loam and seeding occurs in the spring.

At this time the site work conditions appear sufficiently complete to allow issuance of a temporary certificate of occupancy pending completion of the above mentioned items. A final inspection including inspection of all drainage structures will be required upon completion of paving and landscaping in the spring. If you have any questions please call.

cc: P. Samuel Hoffses, Chief of Building Inspections
Alexander Jaegerman, Chief Planner

O:\PLAN\CORRESP\DRC\TEMPCO\CONCORD.SAP1/2/97

BUREAU OF TAXATION

Property Tax Division
State House Station #24
Augusta, Maine 04333

FILE BOTH COPIES OF THIS FORM WITH COUNTY REGISTRY OF DEEDS DO NOT DETACH!

COPY

PLEASE READ INSTRUCTIONS ON REVERSE BEFORE COMPLETING DECLARATION

REAL ESTATE TRANSFER TAX DECLARATION

TITLE 36, M.R.S.A., SECTIONS 4641 through 4641-N

1. MUNICIPALITY OR TOWNSHIP	COUNTY	BOOK (REGISTRY	PAGE USE ONLY)
Portland	Cumberland		

GRANTEE (BUYER)

2. IDENTITY: NAME(S) (LAST, FIRST, INITIAL) AND SOCIAL SECURITY NUMBER(S) OR CORPORATE NAME(S) AND FEDERAL IDENTIFICATION NUMBER(S)

City of Portland — n/a

3. NUMBER AND STREET	CITY OR TOWN	STATE AND ZIP CODE
389 Congress Street	Portland	ME 04101

GRANTOR (SELLER)

4. IDENTITY: NAME(S) (LAST, FIRST, INITIAL) AND SOCIAL SECURITY NUMBER(S) OR CORPORATE NAME(S) AND FEDERAL IDENTIFICATION NUMBER(S)

Langdon Street Real Estate, Inc. — 02 040 6382

5. NUMBER AND STREET	CITY OR TOWN	STATE AND ZIP CODE
7 Langdon Street	Concord	NH 03301

PROPERTY

6. TAX MAP & LOT NUMBER (Required)
p/o 77-C-3, 4, 5, 15 &16 ; curb + sidewalk

☐ MUNICIPALITY DOES NOT HAVE TAX MAPS (Please describe property)

7. DATE OF TRANSFER (Use numerals) MO. 1 DAY 14 YR. 97

Warning to Buyer!
If the property is classified as Farmland, Open Space, or Tree Growth, a substantial financial penalty could be triggered by development, subdivision, partition, or change in use of the property.

☐ Applicable ☒ Not Applicable

CONSIDERATION

8. Consideration meaning total amount or price paid, or required to be paid, for real property valued in money, whether received in money or otherwise and shall include the amount of any mortgage, liens or encumbrances thereon. If no consideration is involved, tax is to be computed based on the value of the property. Value is the estimated price or cash worth the property would bring in the open market. (Tax will be collected at the registry when the deed is recorded. The tax rate is $2.20 per $500, or fractional part thereof, of consideration or value. The tax incidence is equally divided between the buyer and seller.) **If exempt, complete line 9**

$ NONE .00

EXEMPTION

9. EXPLAIN BASIS FOR EXEMPTION (Complete only if transfer is claimed to be exempt pursuant to M.R.S.A. 36 §4641-C)

1) Spouse to Spouse ☐ 3) Corrective Deed ☐ 5) Other: Please explain: _____
2) Parent and Child ☐ 4) Deeds of Distribution ☐

SPECIAL CIRCUMSTANCES

10. Were there special circumstances in the transfer which suggest that the price of the property was either more or less than its fair market value. (Such as the fact that transfer was a forced sale, foreclosure, intercorporate sale, exchange, or transfer tax was based on estimate value.) **PLEASE EXPLAIN BASIS OF VALUE.**

Deed of sidewalk per Planning Board condition

☒ YES ☐ NO

INCOME TAX WITHHELD

11.

☐ Buyer(s) certify that they have withheld Maine income tax from the purchase price as required by § 5250-A and will remit to the Maine Bureau of Taxation within 30 days after date of transfer.

☒ Buyer(s) not required to withhold Maine income tax because:

☐ seller has qualified as a Maine resident,
☐ a waiver has been received from the State Tax Assessor,
☒ consideration for the property is less than $50,000.
☐ foreclosure sale: exempt per 36 MRSA §5250-A, sub§ 3-A

OATH

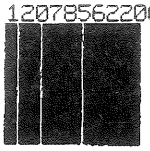
12. Aware of penalties as set forth by Title 36, Section 4641-K, we hereby swear or affirm that we have each examined this return and to the best of our knowledge and belief, it is true, correct, and complete.

GRANTEE(S) or AUTHORIZED AGENT	DATE	GRANTOR(S) or AUTHORIZED AGENT	DATE
		X Harry W. Blaisdell	1/14/97

PREPARER

13. Name and address of person or firm preparing this form: Verrill & Dana, Christopher S. Neagle, Esq. P.O. Box 586, Portland, ME 04112

PTS520 (REV. 9/95)



SebagoTechnics
Engineering & Planning for the Future

July 18, 1996
92091

Ms. Sarah Hopkins, Senior Planner
Planning and Urban Development
City of Portland
389 Congress Street
Portland, Maine 04101

Supplemental Submission - Major Site Plan
Concord Trailways, Sewall Street, Portland

Dear Sarah:

This letter is to address the comments made by the staff and the Planning Board as noted in your letter dated July 10, 1996. Our responses are as follows:

1. **Location of Service Building**

   As discussed at the workshop, our soil investigations on the site revealed miscellaneous fill material throughout the site which will impact foundation and site cost for the project. In an effort to minimize these costs we proposed to relocate the service garage to a location closer to the Terminal Building. At this time, however, we have not completed a thorough investigation and cost analysis of the relocation and have therefore not revised our Plans to reflect this change. We would request approval of the building to the rear of the site. Should Concord Trailways decide to relocate the building to the front of the site as presented at the workshop, it is our understanding this could be accomplished through staff review after Site Plan approval.

2. **Fence Height**

   We are not proposing to increase the height of the perimeter fencing. Past experience of Concord Trailways has shown that vandalism is not a problem. Over the past 4½ years that they have been on Marginal Way, they have had only two (2) vandalisms reported. The purpose of the fence at this location is primarily as a deterrent.

3. **Location of Different Lighting Fixtures**

The majority of the site will be illuminated with the Spaulding Cambridge fixture. There are two locations located immediately in front of the terminal building where we propose to install the Architectural Area Lighting fixture Model No. SLSH20.

4. **Sign Ordinance Compliance**

Freestanding Sign - Concord Trailways proposes to relocate their existing freestanding sign from Marginal Way to the entrance of the new facility on Sewall Street (see Site Plan). This sign has a total square footage of 64.5 s.f. I have not been able to verify with Marge Schmuckal if the special provisions for signage for I-2 Zones within 800 ft. of I-295 would apply to this site. If so this provision allows for a maximum permitted area of 160 s.f. If this provision does not apply then our sign is not in compliance and we will need to revisit the signage design.

Building Sign - Building mounted signs are designed to conform with the sign ordinance. The sign on the terminal building is 2% of the front building facade. Maximum per ordinance is 6%. Sign is shown on the attached building elevations.

The service garage will also have a sign similar to the terminal building and will be installed facing the Interstate 295 and be sized to conform to the sign ordinance.

5. **Metro Bus Access**

Our understanding based on the letter to Cyrus Hagge from Sarah deDoes is that the Metro is unable to provide direct bus service to the terminal facility on Sewall Street. Concord Trailways understands the time constraints on the bus routes and hopes to negotiate with the bus service on an as needed basis. If this is not feasible, Concord Trailways will explore alternative solutions to connect to the Metro.

6. **Letter of Financial Capability**

Attached is a letter from the Bank of New Hampshire addressing financial capability for the project.

7. **Utility Capacity**

We have contacted all the major utility companies who will service this facility. All of them have verbally indicated that there is adequate capacity to service this project. Formal letters can be made available upon request. Sewer, water, telephone and power service will come from the Old Sewall Street R.O.W. Gas service is available in Sewall Street.

8. **Sewall Street Building Elevations**

Attached are revised building elevations of the terminal building. Gawron Associates have added two (2) small windows to the Sewall Street elevation. We feel this elevation in combination with the surrounding landscape plantings will be an attractive presentation to Sewall Street.

9. **Engineering Details**

Response to Attachment 6A from Jeffrey D. Preble, P.E. of Dufresne-Henry, Inc.

A. Stormwater Management

- We propose to install Casco traps in the last catchbasins on the two stormline branches leading to the treatment tank. These Casco traps will provide additional water quality protection by supplementing that already provided by the treatment tank and the pond.

- A Stormwater Management and Maintenance Plan will be developed for the facility and will be provided to the owner. If this is required by the City for final approval we request this be made a condition of approval.

- The details of the pond control structures are shown on the Detail Sheet. All slopes exceeding 3:1 slopes will have erosion control matting placed on them to control stability.

- We concur with Dufresne & Henry's construction sequence plan for the site and drainage system and agree that proper stabilization is of the pond is key after initial construction. Our Erosion and Sedimentation Control Plan generally addresses measures for controlling stability of disturbed areas during construction.

B. Erosion and Sedimentation Control

- The Erosion and Sedimentation Control Plan incorporates standards and procedures as established in Best Management Practices as such the details and installation criteria are similar for any construction project. The specific nature of the Erosion and Sedimentation Control Plan occurs in the construction schedule and on the Design Plans themselves. This project is a relatively straight forward building and parking lot construction project. The site has been previously altered for commercial use and does not involve an extensive amount of land clearing activities prior to site construction activities. We are confident that the information contained on the Design Plans, in the Erosion and Sedimentation Control Plan, and in the construction specifications will significantly address potential Erosion and Sedimentation issues.

- The Grading Plans will be revised to call for erosion control mesh to be installed on the pond slopes and a stone check dam to be added at the outlet pipe from the pond.

C. Other Notes

- While not part of the site drawings an oil and water separator will be installed in the service garage prior to connecting the interior floor trench drains to the sanitary service.

- Details for the proposed fuel tanks are currently being prepared by the mechanical engineer and can be made available upon request. These tanks will be installed in conformance of State of Maine Office of State Fire Marshal Rules and Regulations for Flammable and Combustible Liquids. The tanks will consist of an aboveground double walled steel tank with attached pump.

- The water line to the service garage will be installed with a minimum cover of 5'-6" and will not require insulation.

- Spacing of the score joints in the concrete pavement will be incorporated into the construction documents.

- The Plans will be modified to clarify concrete verses bituminous curbing.

D. Response to Comments From Tony Lombardo - Public Works

- Any services within the City of Portland right-of-way would be subject to the City's technical and design standards and guidelines for trenching backfill. A note to this effect will be indicated on the Site Plan and Detail.

- The Service Garage primary purpose is to provide a location where buses could be washed, fueled and Johnny tanks drained. The mechanical engineer has had discussions with the Sanitary Department on emptying the Johnny tanks into the sanitary sewer service. The details have been finalized at this time. Other general maintenance and repair of buses will occur in their Concord, NH facility. The design of the fuel tank and preventive measures for pollutants entering the sewer and storm system have been previously addressed.

10. Street Trees

Street trees will be added along the south side of Sewall Street and will consist of Crimson King Maples 2½" caliper spaced approximately 50' on center.

I hope this information addresses your comments. If you have questions prior to the July 23 Planning Board meeting, please call me.

Sincerely,

SEBAGO TECHNICS, INC.

Stephen G. Doe, R.L.A.
Landscape Architect

SGD:dlf

cc: Harry Blunt
Ken Hunter
Joseph Satlack
James D. Harnden

CITY OF PORTLAND
Planning and Urban Development Department

MEMORANDUM

TO: Sarah Hopkins, Senior Planner

FROM: Steve Bushey, Development Review Coordinator SAB (SAP)

DATE: January 7, 1996

RE: Concord Trailways Bus Terminal - Temporary Certificate of Occupancy

I attended a site meeting today with representatives of Grondin Construction and Ledgewood Construction. The purpose of the meeting was to review the necessary erosion control measures which must be completed per my memorandum of last week. Grondin Construction will be on-site on January 8, 1997 to complete these erosion control measures.

The Ledgewood Construction representative stated that a Temporary Certificate of Occupancy would be requested on January 8th or 9th. At this time I have no objections to the issuance of a temporary certificate of occupancy as far as the on-site civil construction is concerned. I will monitor the progress of the work over the next week.

cc: Amy Powers, Code Enforcement Officer

O:\PLAN\CORRESP\DRC\TEMPCO\CNCRD1-7.SAP1/7/97

VERRILL & DANA
ATTORNEYS AT LAW
ONE PORTLAND SQUARE
P.O. BOX 586
PORTLAND, MAINE 04112-0586
(207) 774-4000
FACSIMILE (207) 774-7499

OFFICES IN:
AUGUSTA, MAINE
KENNEBUNK, MAINE

CHRISTOPHER S. NEAGLE
PARTNER

January 21, 1997

Natalie L. Burns, Esq.
Corporation Counsel's Office
Portland City Hall
389 Congress Street
Portland, ME 04101

Re: Concord Trailways Project, Sewall Street, Portland

Dear Natalie:

I have enclosed the original deed of the sidewalk and a transfer tax form which was executed by my client last week, and is being delivered to the City in accordance with the conditions in the July 23, 1996 site plan approval.

Please let me know when this deed has been recorded in the Cumberland County Registry of Deeds.

Sincerely,

Christopher S. Neagle

CSN/sab
Enclosures
cc: Harry W. Blunt, Jr., President
Sarah Hopkins, Senior Planner

P:\CSN\CONCORD\BURNS.LTR

COPY

DEED

LANGDON STREET REAL ESTATE, INC., a New Hampshire corporation of Concord New Hampshire, in accordance with the terms of the July 23, 1996 Planning Board approval, hereby grants to the **CITY OF PORTLAND**, a body corporate and politic, the following land, curbing and sidewalk improvements located on the southeast side of Sewall Street in the City of Portland, State of Maine, further described as follow:

Beginning on the southeast side of Sewall Street at the northeast side of land now or formally of the Portland Terminal Company and at the west corner of Parcel 1 conveyed to Langdon Street Real Estate, Inc. by deed dated September 12, 1996 and recorded in book 12719 page 277;

Thence northeast along Sewall Street, on a curve to the left, approximately 310 feet to the southwest side of Hooper Street, so called;

Thence southeast along Hooper Street and the northeast end of a sidewalk constructed by Langdon Street Real Estate, Inc. in 1996 in accordance with the Site Plan approved by the City in July of 1996;

Thence southwest, more or less parallel with Sewall Street and 10-15 feet away from it, along the southeast side of the sidewalk constructed in 1996 in accordance with the Site Plan approved by the City in July of 1996, and continuing southwest more or less parallel with Sewall Street along the sidewalk and across the driveways and walkway leading to the improvements on land of the Grantor, approximately 310 feet to the Portland Terminal Company parcel;

Thence northwest, along the Portland Terminal Company parcel, approximately 10 feet to the point of beginning.

It is the intention of the Grantor to convey to the City of Portland, as the owner of adjacent Sewall Street, a strip of land 10-15 feet wide southeast of Sewall Street, containing the sidewalk and curbing improvements made by Langdon Street Real Estate, Inc. in 1996.

Being a portion of the property described in a September 12, 1996 deed to Langdon Street Real Estate, Inc. recorded in Book 12719 Page 277 of the Cumberland County Registry of Deeds.

Dated: 1/14, 1997.

WITNESS

Elizabeth Eberhardt

LANGDON STREET REAL ESTATE, INC.

By: Harry W. Blunt

Harry W. Blunt, Jr.
Its President

STATE OF New Hampshire
COUNTY OF Merrimack

January 14, 1997

Harry W. Blunt, Jr., as President of Langdon Street Real Estate, Inc., personally appeared before me and acknowledged that the foregoing signature was his free act and deed as President and was the free act and deed of Langdon Street Real Estate, Inc. .

Before me

Virginia Leighton
Notary Public/~~Attorney at Law~~

Print Name Virginia Leighton

DRAFT: 1-6-97
P:\CSN\CONCORD\CITY.DEE

City of Portland

Planning Department, 4th Floor, 389 Congress Street
Portland, ME 04101
(207)874-8721
Fax: (207)756-8258

FAX TRANSMISSION COVER SHEET

Date: 7/16/96

To: Steve Doe

Fax: 856 2206

Re: Concord Trailways

Sender: Sarah

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

Here's the sign ordinance. Can you give me a letter describing how you are in conformance?

Thanks!

Sarah

ıstrial I-1, I-2, I-2b, I-3, I-3b, I-4, and Waterfront Port velopment Zones

eestanding Signs

	Single Tenant Buildings	Multi-Tenant Buildings
Maximum Permitted Area	35 sq. ft.	70 sq. ft.
Height	10 ft.	15 ft.
Setback	5 ft.	5 ft.
# Freestanding signs per lot	1 (a)	1 (a)

(a) If lot fronts on more than one street, one freestanding sign of equivalent permitted sign area is allowed for each additional frontage, provided such signs are not readily concurrently visible.

Building Signs

	Single Tenant Buildings	Multi-Tenant Buildings	
Maximum permitted sign area	na	na	
Max % of wall area on which sign(s) is(are) to be placed	6%	Principal Facade(s) 8%	All Other Facade(s) 2%
# bldg. signs permitted per lot	2/building face	1/tenant plus 1 additional per building face (a)	

Table 2.12 (continued)

Special Provision for I-2 Zones within 800 feet of I-295

Freestanding Signs

Maximum Permitted Area	160 sq. ft.
Height	25 ft.
Setback	5 ft.
# Freestanding signs per lot	1 per 400 ft. street frontage (a)

(a) Lots fronting on two or more streets are allowed an additional freestanding sign of 1/2 the area of the first for each frontage which includes a vehicular entry point, provided signs are not readily concurrently visible.

Note: According to state law, if sign is > 50 ft. from principal building or structure, no dimension may be greater than 20 ft. (length, width, height) or 150 sq. ft. in area, including border & trim, but excluding supports. If > 50', trade name can't be greater than display of business name. Also, no more than 1 sign is allowed > 50 ft. from building if visible from interstate, including ramp & interchanges.

Building Signs

	Single Tenant Buildings	Multi-Tenant Buildings	
Maximum permitted sign area	na	na	
Max % of wall area on which sign(s) is(are) to be placed	12% (b)	Principal Facade(s) 16% (b)	All Other Facade(s) 8% (b)
# bldg. signs permitted per lot	2/building face	1/tenant plus 2 additional per building face (a)	

(a) If individual tenant fronts on more than one street, one additional building sign is permitted for each additional frontage, but maximum % of sign area for secondary facades must be observed.

(b) This provision shall not preclude a band or color field measuring a minimum of 3' high across the building face, provided that the area of the letter and display content shall not exceed the applicable size limit.

AMENDMENT TO PORTLAND CITY CODE
§§14-522, 14-526 (SITE PLAN ORDINANCE)
RE: SITE PLAN REVIEW OF SIGNS

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PORTLAND, MAINE IN CITY COUNCIL ASSEMBLED AS FOLLOWS:

1. That section 14-522 of the Portland City Code is hereby amended as follows:

Sec. 14-522. Definitions.

For the purposes of this article all terms and words shall have their ordinary meanings, except as defined herein.

Minor development means and includes any of the following unless (1) the development is major development; or (2) the development is single-family development subject to the provisions of section 14-524(b):

(13) Construction or installation of any signage for which approval is sought pursuant to section 14-526(a)(23).

2. Section 14-526(a) of the Portland City Code is hereby amended to add new subsections (22) and (23), said subsections to read as follows:

Sec. 14-526. Standards.

(a) *Requirements for approval.* The planning board or planning authority shall not approve a site plan unless it meets the following criteria:

(22) Signs: Signs shall meet the following requirements:

a. The size, scale, proportions, design, materials, placement, and source and intensity of illumination of all permanent freestanding and building signs shall be designed to complement and enhance the architectural attributes of the building(s) to which they are attached or visually related. In addition, such signs shall be appropriate to the scale and character of the neighborhood in which the sign is located, and shall be designed to suit the conditions from which it will be viewed, especially in relation to the distance, travel speed, and mode of travel of the viewing public.

b. In the case of freestanding signs, such signs shall relate to the architecture of the buildings they identify and shall be integrated with other site and landscape features.

c. Sign lighting shall be designed to avoid glare, unshielded light sources and light spillover toward the sky. All light sources shall be shielded or provided with a diffuser lens so that lamps and bulbs are not visible to pedestrians or drivers of vehicles.

(23) An applicant for minor site plan review of a sign denied for failure to comply with the requirements of section 14-369.5 shall meet the following standards for approval of such a sign under this division:

a. The size, scale, proportions, design, materials, placement, and source and intensity of illumination of any signage approved shall be designed to complement and enhance the architectural attributes of the building(s) to which they are attached or to which they are visually related. In addition, such signs shall be appropriate to the scale and character of the neighborhood in which the sign is located, and shall be designed to suit the conditions from which it will be viewed, especially in relation to the distance, travel speed, and mode of travel of the viewing public;

b. The signage shall either be of special design merit or shall respond to unique circumstances associated with the subject property;

c. The signage shall have no detrimental impact upon the neighborhood;

d. The provisions of this subsection shall be limited to commercial uses in business or industrial zones, industrial uses, or institutional uses.

Attachment 6a

Dufresne-Henry, Inc.
A DVI Company
22 Free Street ◊ Portland, Maine 04101-3900 ◊ Tel.: 207 / 775 / 3211 ◊ Fax: 207 / 775 / 6434

June 26, 1996

Ms. Sarah G. Hopkins, Senior Planner
Planning & Urban Development
389 Congress Street
Portland, Maine 04101

RE: Concord Trailways Transportation Center
Site Plan Review

Dear Ms. Hopkins:

We have reviewed the plans, stormwater calculations, and erosion control details as submitted by Sebago Technics on June 18, 1996 for the proposed Concord Trailways Transportation Center located off Sewall St. The proposed project includes a terminal building, a service building, and associated parking areas. Drainage from the site eventually drains to the Fore River. In general the plans for the stormwater and erosion control are in good shape. We do, however, have a few comments which are listed below.

Stormwater Management

- Drainage from this site will increase from pre-development levels for all storm events. An increase in the drainage levels from this site is not anticipated to be a problem due to its close proximity to the Fore River. Therefore a greater emphasis has been placed on storm water quality rather than quantity.

- In light of the emphasis on storm water quality we would suggest using casco traps on the outlets of all catchbasins.

- Maintenance of the storm water handling system will be the key to its effectiveness during the life of the facility. A maintenance plan has not been provided with the information we received.

- Construction details of the water quality pond were not included on the plans. The stability of the proposed 2:1 slopes should also be addressed as part of its design.

- The storm water calculations did not include individual catchment areas for the proposed catchbasins. This is probably appropriate since the post development runoff will increase regardless.

- A construction sequencing plan for the site and the drainage system has not been prepared. We assume the construction would start at the outlet of the proposed water quality pond and proceed toward the terminal building. This will require proper stabilization of the pond after its initial construction.

Erosion Control

- The erosion control plan is general and not specific to this project. We feel the plan should be updated to provide specific details pertaining to this project and construction sequencing.

- Erosion control mesh is called for on 2:1 slopes. The slopes of the proposed water quality pond are also 2:1. Erosion control mesh should be specifically called for on the pond slopes until the slopes have been stabilized.

- A detail has not been provided for a check dam at the outlet pipe from the pond. Installing a check dam will help keep material and debris from accumulating in the outlet pipe and outlet structure.

Other Notes

- Are floor drains to be installed in the service building? If they are part of the building an oil and water separator should be installed prior to tieing the drains into the sanitary sewer line.

- Details for the installation of the proposed fuel tanks have not been included with the plans.

- The storm drainage line crosses both the sanitary sewer and water service from CB-4 to CB-5. The plans show insulation for the sewer line but not the water line. Will the water line require insulation also?

- The detail for the heavy duty concrete pavement indicates the spacing of the score joints are indicated on the plans. We did not find the spacing requirements noted on the plans.

- The breakpoint between bituminous curbing and concrete curbing is not clear on the plans.

As with past reviews we have completed for the City we are willing to discuss our comments with the applicant directly. Overall the proposed plan is well thought out. If we can be of any further assistance please contact me.

Very truly yours,

DUFRESNE-HENRY, INC.

Jeffrey D. Preble, P.E.
Project Manager

jdp

File b:\concord.ltr

Attachment 6b

CITY OF PORTLAND, MAINE
DEPARTMENT OF PUBLIC WORKS
OPERATIONS/ENGINEERING - INSPECTIONS
M E M O R A N D U M

TO: Sarah Hopkins, Senior Planner
FROM: Tony Lombardo, Project Engineer
DATE: June 27, 1996
SUBJECT: Major Site Plan Application, Concord Trailways Transportation Center or Sewall Street

---

The plans and application submitted by Sebago Technics, Inc. and dated June 18, 1996 were received at Portland Public Works on June 20, 1996. The following comments were generated during Engineering review:

- Typical Trench Detail on Sheet 6 of 6 should specify backfill material on flexible pipe and rigid pipe per City of Portland Technical and Design Standard and guidelines.

- As depicted on the plans, the service garage details do not adequately address its use. What service to buses will be conducted in this garage? Will buses receive oil changes, lubrication, antifreeze flushes, washdowns? Public Works recommends that you request details of the proposed underground fuel tank, description of service operations in the proposed service garage and any and all methods employed to prevent pollutants entering the sewer and storm drain system.

TL:jw

SebagoTechnics
Engineering & Planning for the Future

July 18, 1996
92091

Ms. Sarah Hopkins, Senior Planner
Planning and Urban Development
City of Portland
389 Congress Street
Portland, Maine 04101

Supplemental Submission - Major Site Plan
Concord Trailways, Sewall Street, Portland

Dear Sarah:

This letter is to address the comments made by the staff and the Planning Board as noted in your letter dated July 10, 1996. Our responses are as follows:

1. **Location of Service Building**

   As discussed at the workshop, our soil investigations on the site revealed miscellaneous fill material throughout the site which will impact foundation and site cost for the project. In an effort to minimize these costs we proposed to relocate the service garage to a location closer to the Terminal Building. At this time, however, we have not completed a thorough investigation and cost analysis of the relocation and have therefore not revised our Plans to reflect this change. We would request approval of the building to the rear of the site. Should Concord Trailways decide to relocate the building to the front of the site as presented at the workshop, it is our understanding this could be accomplished through staff review after Site Plan approval.

2. **Fence Height**

   We are not proposing to increase the height of the perimeter fencing. Past experience of Concord Trailways has shown that vandalism is not a problem. Over the past 4½ years that they have been on Marginal Way, they have had only two (2) vandalisms reported. The purpose of the fence at this location is primarily as a deterrent.

3. **Location of Different Lighting Fixtures**

The majority of the site will be illuminated with the Spaulding Cambridge fixture. There are two locations located immediately in front of the terminal building where we propose to install the Architectural Area Lighting fixture Model No. SLSH20.

4. **Sign Ordinance Compliance**

Freestanding Sign - Concord Trailways proposes to relocate their existing freestanding sign from Marginal Way to the entrance of the new facility on Sewall Street (see Site Plan). This sign has a total square footage of 64.5 s.f. I have not been able to verify with Marge Schmuckal if the special provisions for signage for I-2 Zones within 800 ft. of I-295 would apply to this site. If so this provision allows for a maximum permitted area of 160 s.f. If this provision does not apply then our sign is not in compliance and we will need to revisit the signage design.

Building Sign - Building mounted signs are designed to conform with the sign ordinance. The sign on the terminal building is 2% of the front building facade. Maximum per ordinance is 6%. Sign is shown on the attached building elevations.

The service garage will also have a sign similar to the terminal building and will be installed facing the Interstate 295 and be sized to conform to the sign ordinance.

5. **Metro Bus Access**

Our understanding based on the letter to Cyrus Hagge from Sarah deDoes is that the Metro is unable to provide direct bus service to the terminal facility on Sewall Street. Concord Trailways understands the time constraints on the bus routes and hopes to negotiate with the bus service on an as needed basis. If this is not feasible, Concord Trailways will explore alternative solutions to connect to the Metro.

6. **Letter of Financial Capability**

Attached is a letter from the Bank of New Hampshire addressing financial capability for the project.

7. **Utility Capacity**

We have contacted all the major utility companies who will service this facility. All of them have verbally indicated that there is adequate capacity to service this project. Formal letters can be made available upon request. Sewer, water, telephone and power service will come from the Old Sewall Street R.O.W. Gas service is available in Sewall Street.

8. Sewall Street Building Elevations

Attached are revised building elevations of the terminal building. Gawron Associates have added two (2) small windows to the Sewall Street elevation. We feel this elevation in combination with the surrounding landscape plantings will be an attractive presentation to Sewall Street.

9. Engineering Details

Response to Attachment 6A from Jeffrey D. Preble, P.E. of Dufresne-Henry, Inc.

A. Stormwater Management

- We propose to install Casco traps in the last catchbasins on the two stormline branches leading to the treatment tank. These Casco traps will provide additional water quality protection by supplementing that already provided by the treatment tank and the pond.

- A Stormwater Management and Maintenance Plan will be developed for the facility and will be provided to the owner. If this is required by the City for final approval we request this be made a condition of approval.

- The details of the pond control structures are shown on the Detail Sheet. All slopes exceeding 3:1 slopes will have erosion control matting placed on them to control stability.

- We concur with Dufresne & Henry's construction sequence plan for the site and drainage system and agree that proper stabilization is of the pond is key after initial construction. Our Erosion and Sedimentation Control Plan generally addresses measures for controlling stability of disturbed areas during construction.

B. Erosion and Sedimentation Control

- The Erosion and Sedimentation Control Plan incorporates standards and procedures as established in Best Management Practices as such the details and installation criteria are similar for any construction project. The specific nature of the Erosion and Sedimentation Control Plan occurs in the construction schedule and on the Design Plans themselves. This project is a relatively straight forward building and parking lot construction project. The site has been previously altered for commercial use and does not involve an extensive amount of land clearing activities prior to site construction activities. We are confident that the information contained on the Design Plans, in the Erosion and Sedimentation Control Plan, and in the construction specifications will significantly address potential Erosion and Sedimentation issues.

- The Grading Plans will be revised to call for erosion control mesh to be installed on the pond slopes and a stone check dam to be added at the outlet pipe from the pond.

C. Other Notes

- While not part of the site drawings an oil and water separator will be installed in the service garage prior to connecting the interior floor trench drains to the sanitary service.

- Details for the proposed fuel tanks are currently being prepared by the mechanical engineer and can be made available upon request. These tanks will be installed in conformance of State of Maine Office of State Fire Marshal Rules and Regulations for Flammable and Combustible Liquids. The tanks will consist of an aboveground double walled steel tank with attached pump.

- The water line to the service garage will be installed with a minimum cover of 5'-6" and will not require insulation.

- Spacing of the score joints in the concrete pavement will be incorporated into the construction documents.

- The Plans will be modified to clarify concrete verses bituminous curbing.

D. Response to Comments From Tony Lombardo - Public Works

- Any services within the City of Portland right-of-way would be subject to the City's technical and design standards and guidelines for trenching backfill. A note to this effect will be indicated on the Site Plan and Detail.

- The Service Garage primary purpose is to provide a location where buses could be washed, fueled and Johnny tanks drained. The mechanical engineer has had discussions with the Sanitary Department on emptying the Johnny tanks into the sanitary sewer service. The details have been finalized at this time. Other general maintenance and repair of buses will occur in their Concord, NH facility. The design of the fuel tank and preventive measures for pollutants entering the sewer and storm system have been previously addressed.

10. Street Trees

Street trees will be added along the south side of Sewall Street and will consist of Crimson King Maples 2½" caliper spaced approximately 50' on center.

I hope this information addresses your comments. If you have questions prior to the July 23 Planning Board meeting, please call me.

Sincerely,

SEBAGO TECHNICS, INC.

Stephen G. Doe, R.L.A.
Landscape Architect

SGD:dlf

cc: Harry Blunt
Ken Hunter
Joseph Satlack
James D. Harnden

METRO

July 12, 1996

Cyrus Y. Hagge, Chair
Portland Planning Board
389 Congress Street
Portland, ME 04101

Dear Mr. Hagge:

METRO has provided service to the Concord Trailways facility on Marginal Way on request only. Because of the proximity of their location to one of our bus routes, our time schedule has not been adversely affected by offering the service to their passengers.

We understand that representatives of Concord Trailways indicated at the Planning Board workshop that they assumed we would provide the same service to Sewall Street. Although we have two routes traveling the Westgate area of Congress Street, neither route has the extra time to accommodate a deviation. We, therefore, will be unable to provide the same service if Concord Trailways moves its operation to Sewall Street.

If you have any questions or would like further detail, please let me know.

Sincerely,

Sarah P. deDoes
General Manager

pc: Ken Hunter
Sarah Hopkins

GREATER PORTLAND TRANSIT DISTRICT
114 Valley Street • PO Box 1097 • Portland, Maine 04104 • (207) 774-0351

CITY OF PORTLAND
Planning and Urban Development Department

MEMORANDUM

TO: Sarah Hopkins, Senior Planner

FROM: Steve Bushey, Development Review Coordinator SB(SP)

DATE: May 5, 1997

RE: Concord Trailways

I visited the Concord Trailways site on April 30, 1997 at the request of Ledgewood Construction. The contractor is in the process of completing site improvements in anticipation of a final Certificate of Occupancy in several weeks. Overall, things look good on the site, however, I wanted to inform you that the parking lot for the site has seen heavy use recently during spring vacation and in fact overflow parking took place on the street. Based on my discussion with the General contractor it is anticipated that heavy use will occur several times a year and additional parking may occur on the grassed areas adjacent the parking lot. This may or may not be an issue for the Planning Department.

SebagoTechnics
Engineering & Planning for the Future

June 18, 1996
92091

Sarah Hopkins, Senior Planner
Planning Department
City of Portland
389 Congress Street
Portland, ME 04101

Major Site Plan Application, Concord Trailways Transportation Center, Sewall Street

Dear Sarah:

On behalf of Concord Trailways, I am pleased to submit the attached site plan and supporting documents for their proposed terminal facility on Sewall Street. The attached plan is a refinement of the conceptual site plan submitted on May 28th and incorporates the staff's comments raised at the conceptual plan review. Minor changes in building sizes and parking totals are shown on the attached plans.

Specific changes which were requested are as follows:

1. Granite curbing and bituminous sidewalks are shown along Sewall Street.

2. A Stormwater Management Plan has been prepared which discusses treatment measures proposed for stormwater discharge.

3. Light fixtures are shown on the attached site plan. A light photometric point plot is being prepared by the distributor and we anticipate receiving it later this week. We will forward a copy of this plan to you upon receipt.

4. Landscaping is shown on the Landscape Plan. Evergreen trees are proposed along the I-295 edge to aid in screening the parking lot. We wish to maintain some visibility of the terminal building from I-295.

5. John L. Murphy has completed traffic counts of the Congress Street/Sewall Street intersection as well as Concord Trailways' existing terminal on Marginal Way. As you are aware, we will be meeting with Bill Bray to review the traffic report prior to finalizing it. We anticipate completing this report prior to the June 23rd workshop meeting.

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

In accordance with Section 14-525(c) - Written Statements, I offer the following responses to the noted items in the Ordinance:

1. Use will be a bus terminal facility with associated parking and service garage.

2. See site plan General Notes for building summary and parcel acreage.

3. No known easements exist on the property.

4. We do not anticipate excess quantities of solid waste from this operation. Waste will be limited to general office waste products and will be containerized in an on-site dumpster.

5. There exists adequate utility capacity in Sewall Street to serve this project and we have met with the public utility companies and the City to confirm availability. Letters can be made available upon request.

6. The Stormwater Management Plan is attached.

7. Construction plan is discussed in the Erosion and Sedimentation Control Plan.

8. No other approvals are required other than local site plan.

9. Evidence of financial capability to undertake the development is forthcoming from the applicant. Sebago Technics, Inc. is preparing the construction documents for the project. Ledgewood, Inc. is the construction manager.

10. Concord Trailways has a purchase option on the property. A copy of this agreement is forthcoming from the applicant.

11. No known unusual natural areas, wildlife and fisheries habitat, or archaeological areas exist on the site.

Given the submission of this refined material prior to the workshop, we offer a presentation of this information at the workshop. If this is appropriate, or if you need additional information or have questions, please contact me.

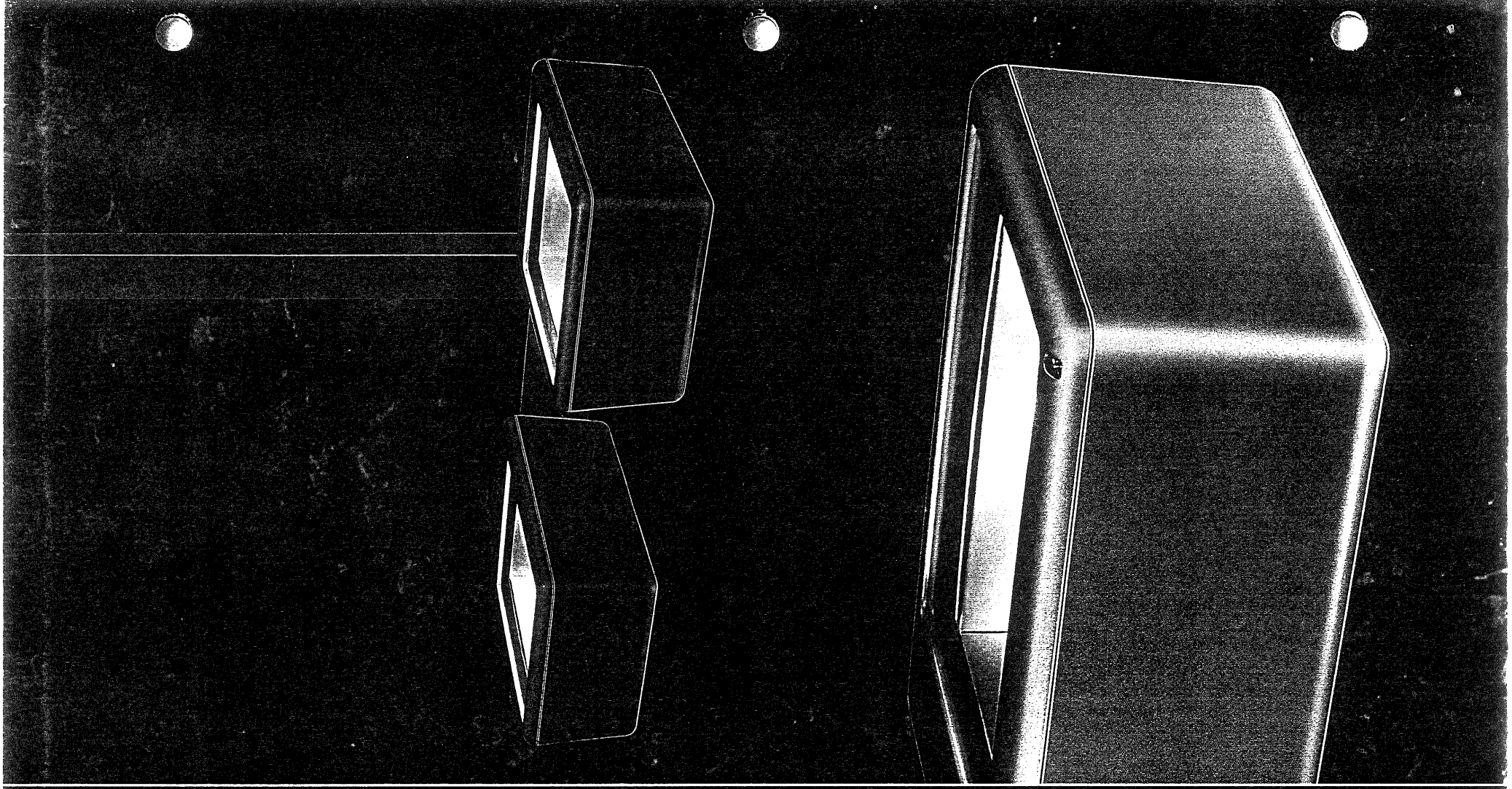
Sincerely,

SEBAGO TECHNICS, INC.

Stephen G. Doe, R.L.A.
Landscape Architect

SGD:jc
Enc.

cc: Harry Blunt
Ken Hunter
Jim Harnden
Joseph Satlack
Stan Gawron



SPAULDING LIGHTING, INC.

CAMBRIDGE

LUMINAIRE ORDERING GUIDE

UL & CSA Listed.

Model

CEI - small size

CEII - large size

Mounting Mode

PM

Pole Mount

WB

Wall Bracket

Lamp Type/ Watts

small size
S100 S150 S250 S400 M175 M250 M400

large size
S400 S1000 M400 M1000

Reflector

I-asymmetric **III**-asymmetric **IV**-forward throw **VS**-symmetric square

Voltage

120 208 240 277 347 480 MT-multi-tap

Options

PC - photoelectric cell 120-277v, up to 400w.
PR - photo receptacle (less cell)
VG - polycarbonate vandal guard
SF - single fuse
DF - double fuse
CS - house side cutoff shield

Colors for Luminaire and Pole

DBZ	SSB	RRN	SGB	WHT	FGP	TBP	RBP	CMB	SOS
dark bronze	beige	rocket red	black	white	forest green	teal blue	royal blue	burgundy	silver

Luminaire Ordering Example:

MODEL		MOUNTING MODE		LAMP TYPE WATTS		REFLECTOR		VOLTAGE		OPTIONS		COLOR
CEII	–	PM	–	S400	–	IV	–	MT	–	PC	–	SOS

MODEL	MOUNTING MODE	LAMP TYPE WATTS		REFLECTOR	VOLTAGE	OPTIONS	COLOR
CEI CEII	PM; pole mount: std-6" arm for CEI std-10" arm for CEII WB; wall bracket	small S100 S150 S250 S400 M175 M250 M400	large S400 S1000 M400 M1000	I; symmetric III; asymmetric IV; forward throw VS; V-square	120 208 240 277 347 480 MT; multi-tap	PC; photoelectric cell 120-277v, up to 400w PR; photo receptacle (less cell) SF; single fuse DF; double fuse VG; polycarbonate vandal guard CS; house side cutoff shield	DBZ; dark bronze SSB; beige RNN; rocket red SGB; black WHT; white FGP; forest green TBP; teal blue RBP; royal blue CMB; burgundy SOS; silver

POLE ORDERING

Refer to Poles/Brackets Section for ordering information.

SPAULDING LIGHTING, INC.

SebagoTechnics
Engineering & Planning for the Future

July 18, 1996
92091

Ms. Sarah Hopkins, Senior Planner
Planning and Urban Development
City of Portland
389 Congress Street
Portland, Maine 04101

Supplemental Submission - Major Site Plan
Concord Trailways, Sewall Street, Portland

Dear Sarah:

This letter is to address the comments made by the staff and the Planning Board as noted in your letter dated July 10, 1996. Our responses are as follows:

1. **Location of Service Building**

As discussed at the workshop, our soil investigations on the site revealed miscellaneous fill material throughout the site which will impact foundation and site cost for the project. In an effort to minimize these costs we proposed to relocate the service garage to a location closer to the Terminal Building. At this time, however, we have not completed a thorough investigation and cost analysis of the relocation and have therefore not revised our Plans to reflect this change. We would request approval of the building to the rear of the site. Should Concord Trailways decide to relocate the building to the front of the site as presented at the workshop, it is our understanding this could be accomplished through staff review after Site Plan approval.

2. **Fence Height**

We are not proposing to increase the height of the perimeter fencing. Past experience of Concord Trailways has shown that vandalism is not a problem. Over the past 4½ years that they have been on Marginal Way, they have had only two (2) vandalisms reported. The purpose of the fence at this location is primarily as a deterrent.

8. Sewall Street Building Elevations

Attached are revised building elevations of the terminal building. Gawron Associates have added two (2) small windows to the Sewall Street elevation. We feel this elevation in combination with the surrounding landscape plantings will be an attractive presentation to Sewall Street.

9. Engineering Details

Response to Attachment 6A from Jeffrey D. Preble, P.E. of Dufresne-Henry, Inc.

A. Stormwater Management

- We propose to install Casco traps in the last catchbasins on the two stormline branches leading to the treatment tank. These Casco traps will provide additional water quality protection by supplementing that already provided by the treatment tank and the pond.

- A Stormwater Management and Maintenance Plan will be developed for the facility and will be provided to the owner. If this is required by the City for final approval we request this be made a condition of approval.

- The details of the pond control structures are shown on the Detail Sheet. All slopes exceeding 3:1 slopes will have erosion control matting placed on them to control stability.

- We concur with Dufresne & Henry's construction sequence plan for the site and drainage system and agree that proper stabilization is of the pond is key after initial construction. Our Erosion and Sedimentation Control Plan generally addresses measures for controlling stability of disturbed areas during construction.

B. Erosion and Sedimentation Control

- The Erosion and Sedimentation Control Plan incorporates standards and procedures as established in Best Management Practices as such the details and installation criteria are similar for any construction project. The specific nature of the Erosion and Sedimentation Control Plan occurs in the construction schedule and on the Design Plans themselves. This project is a relatively straight forward building and parking lot construction project. The site has been previously altered for commercial use and does not involve an extensive amount of land clearing activities prior to site construction activities. We are confident that the information contained on the Design Plans, in the Erosion and Sedimentation Control Plan, and in the construction specifications will significantly address potential Erosion and Sedimentation issues.

- The Grading Plans will be revised to call for erosion control mesh to be installed on the pond slopes and a stone check dam to be added at the outlet pipe from the pond.

C. Other Notes

- While not part of the site drawings an oil and water separator will be installed in the service garage prior to connecting the interior floor trench drains to the sanitary service.

- Details for the proposed fuel tanks are currently being prepared by the mechanical engineer and can be made available upon request. These tanks will be installed in conformance of State of Maine Office of State Fire Marshal Rules and Regulations for Flammable and Combustible Liquids. The tanks will consist of an aboveground double walled steel tank with attached pump.

- The water line to the service garage will be installed with a minimum cover of 5'-6" and will not require insulation.

- Spacing of the score joints in the concrete pavement will be incorporated into the construction documents.

- The Plans will be modified to clarify concrete verses bituminous curbing.

D. Response to Comments From Tony Lombardo - Public Works

- Any services within the City of Portland right-of-way would be subject to the City's technical and design standards and guidelines for trenching backfill. A note to this effect will be indicated on the Site Plan and Detail.

- The Service Garage primary purpose is to provide a location where buses could be washed, fueled and Johnny tanks drained. The mechanical engineer has had discussions with the Sanitary Department on emptying the Johnny tanks into the sanitary sewer service. The details have been finalized at this time. Other general maintenance and repair of buses will occur in their Concord, NH facility. The design of the fuel tank and preventive measures for pollutants entering the sewer and storm system have been previously addressed.

10. Street Trees

Street trees will be added along the south side of Sewall Street and will consist of Crimson King Maples 2½" caliper spaced approximately 50' on center.

I hope this information addresses your comments. If you have questions prior to the July 23 Planning Board meeting, please call me.

Sincerely,

SEBAGO TECHNICS, INC.

Stephen G. Doe, R.L.A.
Landscape Architect

SGD:dlf

cc: Harry Blunt
Ken Hunter
Joseph Satlack
James D. Harnden

VERRILL & DANA
ATTORNEYS AT LAW
ONE PORTLAND SQUARE
P.O. BOX 586
PORTLAND, MAINE 04112-0586
(207) 774-4000
FACSIMILE (207) 774-7499

OFFICES IN:
AUGUSTA, MAINE
KENNEBUNK, MAINE

CHRISTOPHER S. NEAGLE
PARTNER

December 20, 1996

Sarah Hopkins
Planning Department
Portland City Hall
389 Congress Street
Portland, ME 04101

Re: Concord Trailways Project
Sewall Street - Portland

Dear Sarah:

As you know, I am working with Concord Trailways on its new facility on Sewall Street. To comply with the condition of approval imposed by the Planning Board, enclosed is a proposed Deed from the New Hampshire corporation that owns the real estate to the City of Portland conveying the sidewalk and related curb cut improvements. Please review this Deed to make sure it is acceptable to the City. Once I know it is approved by you and my client, I will get it executed so it can be delivered to the City and recorded in the Registry of Deeds.

As I read Chapter 25 of the City Ordinances, the City will be responsible for repairs and maintenance of the sidewalk and curbing pursuant to §25-104. However, Concord Trailways will be responsible for removing snow to a four foot width within 24 hours of any snowstorm, and will be responsible for removing or covering ice to a four foot width if the sidewalk is covered with ice for six or more hours during any daylight period, pursuant to §25-173 and §25-174.

If you have any questions, please call me. I hope to hear from you soon, as we do not want the issuance of the Occupancy Certificate delayed by this requirement.

Sincerely,

Christopher S. Neagle

CSN/dm
Enclosure

cc: Harry W. Blunt, Jr., President, Concord Trailways

P:\CSN\CONCORD\HOPKINS.LTR

SebagoTechnics
Engineering & Planning for the Future

June 18, 1996
92091

Sarah Hopkins, Senior Planner
Planning Department
City of Portland
389 Congress Street
Portland, ME 04101

Major Site Plan Application, Concord Trailways Transportation Center, Sewall Street

Dear Sarah:

On behalf of Concord Trailways, I am pleased to submit the attached site plan and supporting documents for their proposed terminal facility on Sewall Street. The attached plan is a refinement of the conceptual site plan submitted on May 28th and incorporates the staff's comments raised at the conceptual plan review. Minor changes in building sizes and parking totals are shown on the attached plans.

Specific changes which were requested are as follows:

1. Granite curbing and bituminous sidewalks are shown along Sewall Street.

2. A Stormwater Management Plan has been prepared which discusses treatment measures proposed for stormwater discharge.

3. Light fixtures are shown on the attached site plan. A light photometric point plot is being prepared by the distributor and we anticipate receiving it later this week. We will forward a copy of this plan to you upon receipt.

4. Landscaping is shown on the Landscape Plan. Evergreen trees are proposed along the I-295 edge to aid in screening the parking lot. We wish to maintain some visibility of the terminal building from I-295.

5. John L. Murphy has completed traffic counts of the Congress Street/Sewall Street intersection as well as Concord Trailways' existing terminal on Marginal Way. As you are aware, we will be meeting with Bill Bray to review the traffic report prior to finalizing it. We anticipate completing this report prior to the June 23rd workshop meeting.

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

In accordance with Section 14-525(c) - Written Statements, I offer the following responses to the noted items in the Ordinance:

1. Use will be a bus terminal facility with associated parking and service garage.

2. See site plan General Notes for building summary and parcel acreage.

3. No known easements exist on the property.

4. We do not anticipate excess quantities of solid waste from this operation. Waste will be limited to general office waste products and will be containerized in an on-site dumpster.

5. There exists adequate utility capacity in Sewall Street to serve this project and we have met with the public utility companies and the City to confirm availability. Letters can be made available upon request.

6. The Stormwater Management Plan is attached.

7. Construction plan is discussed in the Erosion and Sedimentation Control Plan.

8. No other approvals are required other than local site plan.

9. Evidence of financial capability to undertake the development is forthcoming from the applicant. Sebago Technics, Inc. is preparing the construction documents for the project. Ledgewood, Inc. is the construction manager.

10. Concord Trailways has a purchase option on the property. A copy of this agreement is forthcoming from the applicant.

11. No known unusual natural areas, wildlife and fisheries habitat, or archaeological areas exist on the site.

Given the submission of this refined material prior to the workshop, we offer a presentation of this information at the workshop. If this is appropriate, or if you need additional information or have questions, please contact me.

Sincerely,

SEBAGO TECHNICS, INC.

Stephen G. Doe, R.L.A.
Landscape Architect

SGD:jc
Enc.

cc: Harry Blunt
Ken Hunter
Jim Harnden
Joseph Satlack
Stan Gawron

Dufresne-Henry, Inc.
A DVI Company
22 Free Street ◊ Portland, Maine 04101-3900 ◊ Tel: 207 / 775 / 3211 ◊ Fax: 207 / 775 / 6434

June 26, 1996

Ms. Sarah G. Hopkins, Senior Planner
Planning & Urban Development
389 Congress Street
Portland, Maine 04101

RE: Concord Trailways Transportation Center
Site Plan Review

Dear Ms. Hopkins:

We have reviewed the plans, stormwater calculations, and erosion control details as submitted by Sebago Technics on June 18, 1996 for the proposed Concord Trailways Transportation Center located off Sewall St. The proposed project includes a terminal building, a service building, and associated parking areas. Drainage from the site eventually drains to the Fore River. In general the plans for the stormwater and erosion control are in good shape. We do, however, have a few comments which are listed below.

Stormwater Management

- Drainage from this site will increase from pre-development levels for all storm events. An increase in the drainage levels from this site is not anticipated to be a problem due to its close proximity to the Fore River. Therefore a greater emphasis has been placed on storm water quality rather than quantity.

- In light of the emphasis on storm water quality we would suggest using casco traps on the outlets of all catchbasins.

- Maintenance of the storm water handling system will be the key to its effectiveness during the life of the facility. A maintenance plan has not been provided with the information we received.

- Construction details of the water quality pond were not included on the plans. The stability of the proposed 2:1 slopes should also be addressed as part of its design.

- The storm water calculations did not include individual catchment areas for the proposed catchbasins. This is probably appropriate since the post development runoff will increase regardless.

- A construction sequencing plan for the site and the drainage system has not been prepared. We assume the construction would start at the outlet of the proposed water quality pond and proceed toward the terminal building. This will require proper stabilization of the pond after its initial construction.

Erosion Control

- The erosion control plan is general and not specific to this project. We feel the plan should be updated to provide specific details pertaining to this project and construction sequencing.

- Erosion control mesh is called for on 2:1 slopes. The slopes of the proposed water quality pond are also 2:1. Erosion control mesh should be specifically called for on the pond slopes until the slopes have been stabilized.

- A detail has not been provided for a check dam at the outlet pipe from the pond. Installing a check dam will help keep material and debris from accumulating in the outlet pipe and outlet structure.

Other Notes

- Are floor drains to be installed in the service building? If they are part of the building an oil and water separator should be installed prior to ticing the drains into the sanitary sewer line.

- Details for the installation of the proposed fuel tanks have not been included with the plans.

- The storm drainage line crosses both the sanitary sewer and water service from CB-4 to CB-5. The plans show insulation for the sewer line but not the water line. Will the water line require insulation also?

- The detail for the heavy duty concrete pavement indicates the spacing of the score joints are indicated on the plans. We did not find the spacing requirements noted on the plans.

- The breakpoint between bituminous curbing and concrete curbing is not clear on the plans.

As with past reviews we have completed for the City we are willing to discuss our comments with the applicant directly. Overall the proposed plan is well thought out. If we can be of any further assistance please contact me.

Very truly yours,

DUFRESNE-HENRY, INC.

Jeffrey D. Preble, P.E.
Project Manager

jdp

File h:\concord.ltr

Ledgewood Inc

PO Box 8107
Portland Maine 04104
207 767-1866
FAX 207 767-1869

VIA FAX

August 26, 1997

Mrs. Kandi Talbot, Planner
City of Portland
Planning Department
389 Congress Street
Portland, Maine 04101

Re: Concord Trailways, Sewall Street

Dear Mrs. Talbot,

As per my telephone call last Friday with Alex, we have again researched and calculated the areas affected by the site development at the Concord Trailways site as follows:

As of February 28, 1997, impervious surface area is 2.41 acres (see attached letter from Sebago Technics).
July 9, 1997 proposal (gravel) for 74 spaces (360' X 62') equals 0.51 acres.
Total developed area will now equal 2.92 acres which is less than 3 acre requirement.

Our research indicates that, while the original application may have contained a higher figure for the impervious surface areas anticipated, our current calculations indeed reflect the actual final design and construction at the site.

As before, I believe this is the information you need to complete your review. As you are well aware from my phone calls these past four weeks, our client, Concord Trailways, would appreciate you expediting approval of our request of July 9, 1997 for a temporary parking lot at their Sewall Street site.

If you need any additional information or would like to discuss this further, please contact me or Bill Bridges **immediately** at 767-1866. Thank you for your consideration in this matter.

Sincerely,

Donald R. McGilvery
Ledgewood, Inc.

encl.: August 26, 1997 letter from Sebago Technics to Ledgewood, Inc.
cc: Alexander Jaegerman, Chief Planner, City of Portland
Ken Hunter, Concord Trailways

SebagoTechnics
Engineering & Planning for the Future

August 26, 1997
92091

Post-it® Fax Note 7671 | Date 8/26 | # of pages 1
To Don | From Pam for Pete
Co./Dept. Ledgewood | Co. ST
Phone # | Phone #
Fax # 767-1869 | Fax #

Mr. Don McGilvery
Ledgewood, Inc.
P. O. Box 8107
Portland, ME 04101

Concord Trailways

Dear Don:

As requested, we reviewed the site plan for Concord Trailways to determine the existing impervious surface. Based on that plan (last revised October 18, 1996), the total impervious surface on the site is 105,036 square feet (2.41 acres).

Should you require further information, please call.

Sincerely,

SEBAGO TECHNICS, INC.

Peter Dalfonso

Peter J. Dalfonso, P.E.
Vice President, Engineering

PJD:jc

Ledgewood Inc

PO Box 8107
Portland Maine 04104
207·767·1866
FAX 207·767·1869

VIA FAX

August 15, 1997

Mrs. Kandi Talbot, Planner
City of Portland
Planning Department
389 Congress Street
Portland, Maine 04101

Re: Concord Trailways, Sewall Street

Dear Mrs. Talbot,

As per our telephone call this afternoon, we have researched and calculated the areas affected by the site development at the Concord Trailways site as follows:

As of February 28, 1997, impervious surface area is 2.41 acres.
July 9, 1997 proposal (gravel) for 74 spaces (360' X 62') equals 0.51 acres.
Total developed area will now equal 2.92 acres which is less than 3 acre requirement.

I believe this is the information you need to complete your review. As you are well aware from my phone calls these past three weeks, our client, Concord Trailways, would appreciate you expediting approval of our request of July 9, 1997 for a temporary parking lot at their Sewall Street site.

If you need any additional information or would like to discuss this further, please contact me or Bill Bridges **immediately** at 767-1866. Thank you for your consideration in this matter.

Sincerely,

Donald R. McGilvery
Ledgewood, Inc.

cc: Alexander Jaegerman, Chief Planner
Ken Hunter, Concord Trailways

Planning & Urban Development

Joseph E. Gray Jr.
Director

CITY OF PORTLAND

December 27, 1996

Joseph Satlak
Ledgewood Inc.
P.O. Box 8107
Portland, ME 04104

RE: Concord Trailways Terminal at Thompson's Point

Dear Mr. Satlak:

This letter is to confirm the revision to the approved site plan of the Concord Trailways Bus Terminal project located at Thompson's Point. The approved revision includes the installation of a propane tank and paved walkway and a change of facade materials to painted wood cedar. The revised plan has been reviewed and approved by the project review staff including representatives of the Planning, Public Works, Building Inspections, Fire and Parks Departments.

If you have any questions regarding the revision please contact the planning staff at 874-8300, extension 8720.

Sincerely,

Joseph E Gray

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

cc: Alexander Jaegerman, Chief Planner
Sarah Hopkins, Senior Planner
Jeff Tarling, City Arborist
William Bray, Deputy Director of Public Works
Kathi Staples PE, City Engineer
Lt. Gaylen McDougall, Fire Prevention
Natalie Burns, Associate Corporation Counsel
Mary Gresik, Building Permit Secretary
Kathleen Brown, Director of Economic Development
Approval Letter File

O:\PLAN\DEVREV\PROJECTS\THMPSNPT\LETTERS\STLK1227.SAP12/27/96

CITY OF PORTLAND, MAINE

PLANNING BOARD

July 24, 1996

Steve Doe
Sebago Technics
12 Westbrook Commons
P.O. Box 1339
Westbrook, ME 04098-1339

RE: Concord Trailways

Dear Mr. Doe

On July 23, 1996 the Portland Planning Board voted unanimously (5-0) to approve the site plan for Concord Trailways bus terminal. The approval was granted for the project with the following condition(s):

i. That the applicant submit an executed deed for the sidewalk along Sewall Street prior to issuance of a Certificate of Occupancy.

ii. That the applicant shall be responsible for making signal timing modifications and replace, if necessary, the detection appurtenances of the Congress/Sewall intersection.

iii. That the applicant shall submit the engineering information as requested by Jeff Preble of Dufresne-Henry in his letter dated July 19, 1996.

The approval is based on the submitted site plan and the findings related to site plan review standards as contained in Planning Report # 41-96, which is attached.

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 1.7% 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.

O:\PLAN\DEVREV\PROJECTS\THMPSNPT\APPLTR.SAP

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

I. D. Number

Address:

Applicant

Application Date

Applicant's Mailing Address

Project Name/Description

Consultant/Agent

Address of Proposed Site

Applicant or Agent Daytime Telephone, Fax

Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): ___ New Building ___ Building Addition ___ Change of Use ___ Residential
___ Office ___ Retail ___ Manufacturing ___ Warehouse/Distribution ___ Other (specify) _____

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

Check Review Required:

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

Fees paid: site plan _____ subdivision _____

Approval Status: Reviewer Sarah Hopkins

- ☐ **Approved**
- ☑ **Approved w/Conditions** listed below
- ☐ **Denied**

1. _____
2. see attached approval letter
3. _____
4. _____

Approval Date 7/23/96 Approval Expiration _____ date Extension to _____ date ☐ Additional Sheets Attached

☐ Condition Compliance _____ signature _____ date

Performance Guarantee ☑ Required* ☐ Not Required

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

☑ Performance Guarantee Accepted	9/27/96 date	$ 45,000 amount	expiration date
☑ Inspection Fee Paid	9/27/96 date	$ 776 amount	
Performance Guarantee Reduced	date	remaining balance	signature
Performance Guarantee Released	date	signature	
Defect Guarantee Submitted	submitted date	amount	expiration date
Defect Guarantee Released	date	signature	

Pink - Building Inspections Blue - Development Review Coordinator Green - Fire Yellow - Planning 2/9/95 Rev5 KT.DPUD

BANK OF NEW HAMPSHIRE

September 24, 1996

Joseph E. Gray Jr., Director
Planning and Urban Development
City of Portland
Portland, Maine 04101

RE: Concord Trailways Transportation Center
Sewall Street, Portland, Maine

Dear Mr. Gray:

The Bank of New Hampshire hereby issues its Irrevocable Letter of Credit for the account of Langdon Street Real Estate, Inc. as developer, hereinafter referred to as the Developer, in the name of the City of Portland in the aggregate amount of $45,696.00.

The City may draw on the Letter of Credit by presentation of a sight draft at Bank of New Hampshire's offices located at 143 North Main Street, Concord, NH, through our parent company which is Peoples Heritage Financial Group, Inc. headquartered at One Portland Squre, Post Office Box 9540, Portland, Maine, in the event that the Developer fails to complete by 3/31/97 or by the expiration date of any temporary certificate of occupancy issued, whichever date comes first, at the Developer's expense, the work on the roads and other public improvements as set forth on the approved site plan/subdivision plans or in the event the Developer fails to post the ten percent (10%) Defect Bond or Guarantee reference below. Said sight draft shall be accompanied by a written statement from the City's Director of Parks and Public Works or Director of Planning and Urban Development stating that said ten percent (10%) Defect Bond or Guarantee has not been filed with the City or stating that the Developer has failed to complete such work.

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

The Developer will notify the City of Portland for inspections. After all underground work in the public right of way has been completed and inspected to the satisfaction of the Department of Public Works, including but not limited to sanitary sewers, storm drains, catch basins, manholes and other required improvements constructed chiefly below grade, Bank of New Hampshire shall be eligible to receive a reduction in its obligations hereunder equal to the estimated cost of improvements, provided that the total of the value of the

Joseph E. Gray Jr., Director
Planning and Urban Development
City of Portland
Portland, Maine 04101
September 24, 1996
Page 2

improvements for which a reduction is sought shall be at least two hundred thousand dollars ($200,000) or fifty percent (50%) of the total amount of this Letter of Credit, whichever is less. In no case, however, shall the obligations of the Bank of New Hampshire hereunder be reduced to an amount which is less than the estimated cost of completing all prescribed improvements as determined by the Department of Public Works, plus ten percent (10%) of the initial amount of this Letter of Credit. This Letter of Credit will automatically expire 90 days after the date for completion of public improvements but may expire prior to this date when the City of Portland acknowledges in writing to Bank of New Hampshire that said work outlined has been completed in accordance with City of Portland specifications, when the Developer has given the City of Portland any required warranty deeds to property within streets which are to be dedicated to the City of Portland, and when the Developer has filed with the City of Portland a ten percent (10%) Defect Bond or Guarantee (or other security acceptable to the City of Portland) insuring the workmanship and the durability of all materials used in the construction of the public improvements listed, for a period of one year from the date of the acceptance or approval of such improvements by the City of Portland.

We engage with you that drafts drawn under and in compliance with the terms of this credit will be duly honored. However, other than the payment of monies as authorized hereunder, Bank of New Hampshire shall not guarantee the performance of the Developer to the City of Portland.

Very truly yours,

BANK OF NEW HAMPSHIRE

By: _____
Its Duly Authorized
Sr. Vice President

The City of Portland has accepted this Letter of Credit as security for the Developer's obligations to be performed pursuant to Section 14-501(a) and/or Section 14-525(j) of the Portland City Code.

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

Seen and Agreed to: Langdon Real Estate, Inc.

By:_____ Date:_____
Its President

Reviewed pursuant to Section 14-501(a) and/or Section 14-525(j), Portland City Code

By:_____ Date:_____
Director of Finance

By:_____ Date:_____
Corporation Counsel

CITY OF PORTLAND
Planning and Urban Development Department

MEMORANDUM

TO: Sarah Hopkins, Senior Planner

FROM: Steve Bushey, Development Review Coordinator SB (SH)

DATE: May 23, 1997

RE: Final Certificate of Occupancy

I completed a final inspection of the Concord Trailways site with Mike Dougherty of Ledgewood Construction. The site work has been completed including final paving, curbing, landscaping and seeding. I also inspected the detention basin and outlet control structure and found them to be complete. On this basis, I have determined that the site work completion is acceptable for issuance of a Final Certificate of Occupancy. Furthermore, the performance guarantee work items have been completed thus a release of funds may be possible. If you have any questions please call this office.

cc: Amy Powers, Code Enforcement Officer

Kandi –
Please handle this.
Is a defect guarantee required?
Alex

Planning & Urban Development

Joseph E. Gray Jr.
Director

CITY OF PORTLAND

May 14, 1997

Steve Doe
Sebago Technics
12 Westbrook Common
Westbrook, ME 04092

Dear Steve:

Upon inspection of the Concord Trailways site, our engineer found that overflow parking was occurring on the street and on the grassed area along the north side of the site. While we are glad to see that business is doing well, we would urge Concord Trailways to file a request for a revision to the site plan to include an expansion of their parking lot.

Please do not hesitate to call if you have any questions.

Sincerely,

Sarah

Sarah Hopkins
Senior Planner

cc: Alexander Jaegerman, Chief Planner
Steve Bushey, Development Review Coordinator
Natalie Burns, Assistant Corporation Counsel

From: Alex Jaegerman
To: kcote
Date: 6/2/97 4:21pm
Subject: Mike Doherty (w) 767-1866 (b) 780-7925 -Forwarded

Kandi- I put the memo from Bushey on your desk with a note, do they need a defect guarantee.... Can you call this person and follow up?

Thanks.

Alex.

Corporation Counsel
Gary C. Wood

Associate Counsel
Charles A. Lane
Elizabeth L. Boynton
Natalie L. Burns
Donna M. Katsiaficas

CITY OF PORTLAND

August 19, 1997

Christopher S. Neagle, Esq.
Verrill & Dana
P.O. Box 586
Portland, ME 04112-0586

RE: Concord Trailways Project, Sewall Street, Portland

Dear Chris:

Enclosed for your files is a copy of the deed of the sidewalk which has been recorded in the Cumberland County Registry of Deeds.

Very truly yours,

Natalie

Natalie L. Burns
Associate Corporation Counsel

NLB:lab

Enclosure-copy

c: Peggy Peterson, Office Manager/Treasury (w/Enclosure-original)
Sarah Hopkins, Senior Planner (w/Enclosure-copy)

039330

DEED

LANGDON STREET REAL ESTATE, INC., a New Hampshire corporation of Concord New Hampshire, in accordance with the terms of the July 23, 1996 Planning Board approval, hereby grants to the **CITY OF PORTLAND**, a body corporate and politic, the following land, curbing and sidewalk improvements located on the southeast side of Sewall Street in the City of Portland, State of Maine, further described as follow:

Beginning on the southeast side of Sewall Street at the northeast side of land now or formally of the Portland Terminal Company and at the west corner of Parcel 1 conveyed to Langdon Street Real Estate, Inc. by deed dated September 12, 1996 and recorded in book 12719 page 277;

Thence northeast along Sewall Street, on a curve to the left, approximately 310 feet to the southwest side of Hooper Street, so called;

Thence southeast along Hooper Street and the northeast end of a sidewalk constructed by Langdon Street Real Estate, Inc. in 1996 in accordance with the Site Plan approved by the City in July of 1996;

Thence southwest, more or less parallel with Sewall Street and 10-15 feet away from it, along the southeast side of the sidewalk constructed in 1996 in accordance with the Site Plan approved by the City in July of 1996, and continuing southwest more or less parallel with Sewall Street along the sidewalk and across the driveways and walkway leading to the improvements on land of the Grantor, approximately 310 feet to the Portland Terminal Company parcel;

Thence northwest, along the Portland Terminal Company parcel, approximately 10 feet to the point of beginning.

It is the intention of the Grantor to convey to the City of Portland, as the owner of adjacent Sewall Street, a strip of land 10-15 feet wide southeast of Sewall Street, containing the sidewalk and curbing improvements made by Langdon Street Real Estate, Inc. in 1996.

Being a portion of the property described in a September 12, 1996 deed to Langdon Street Real Estate, Inc. recorded in Book 12719 Page 277 of the Cumberland County Registry of Deeds.

Dated: 1/14, 1997.

WITNESS

Elizabeth Eberhardt

LANGDON STREET REAL ESTATE, INC.

By: Harry W. Blunt
Harry W. Blunt, Jr.
Its President

STATE OF New Hampshire
COUNTY OF Merrimack

January 14, 1997

Harry W. Blunt, Jr., as President of Langdon Street Real Estate, Inc., personally appeared before me and acknowledged that the foregoing signature was his free act and deed as President and was the free act and deed of Langdon Street Real Estate, Inc. .

Before me

SEAL

RECEIVED
RECORDED REGISTRY OF DEEDS
1997 JUL 18 AM 9:32
CUMBERLAND COUNTY
John B O'Brien

Virginia Leighton
Notary Public/~~Attorney at Law~~

Print Name Virginia Leighton

DRAFT: 1-6-97
P:\CSN\CONCORD\CITY.DEE

PROJECT MEMORANDUM

LEDGEWOOD, INC. General Contractors P.O. Box 8107 Portland, ME 04104 767•1866 (F)767•1869

CONCORD TRAILWAYS BUS TERMINAL

Thompson Point, Portland, ME 04102

Date: December 19, 1996

To: Harry Blunt ☐ Bill Bridges ☐ Mike Doherty ☐ Steve Doe ☐
Ken Hunter ☐ Joseph Satlak ☐ Stan Gawron ☐ Steve Grant ☐
Other Sarah Hopkins

From: Joseph Satlak

Subject: CONCORD TRAILWAYS BUS TERMINAL

Memo:

Sarah, I wanted to touch base with you on the status of the Concord Trailways project and bring you up to date on some minor site plan modifications that took place during the course of the project.

1. The project is scheduled to be complete on or around December 27, 1996. We hope to apply for our occupancy permit at that time with Concord Trailways commencing operations shortly thereafter. All work will be complete with the exception of the following:

- Project landscaping: The requisite site improvements were completed too late to safely carry out this work.
- Final paving front parking lots: As above the improvements were completed too late to carry out this work.

It is our intention to complete this work in the spring. Please let me know if you anticipate any problems with this approach.

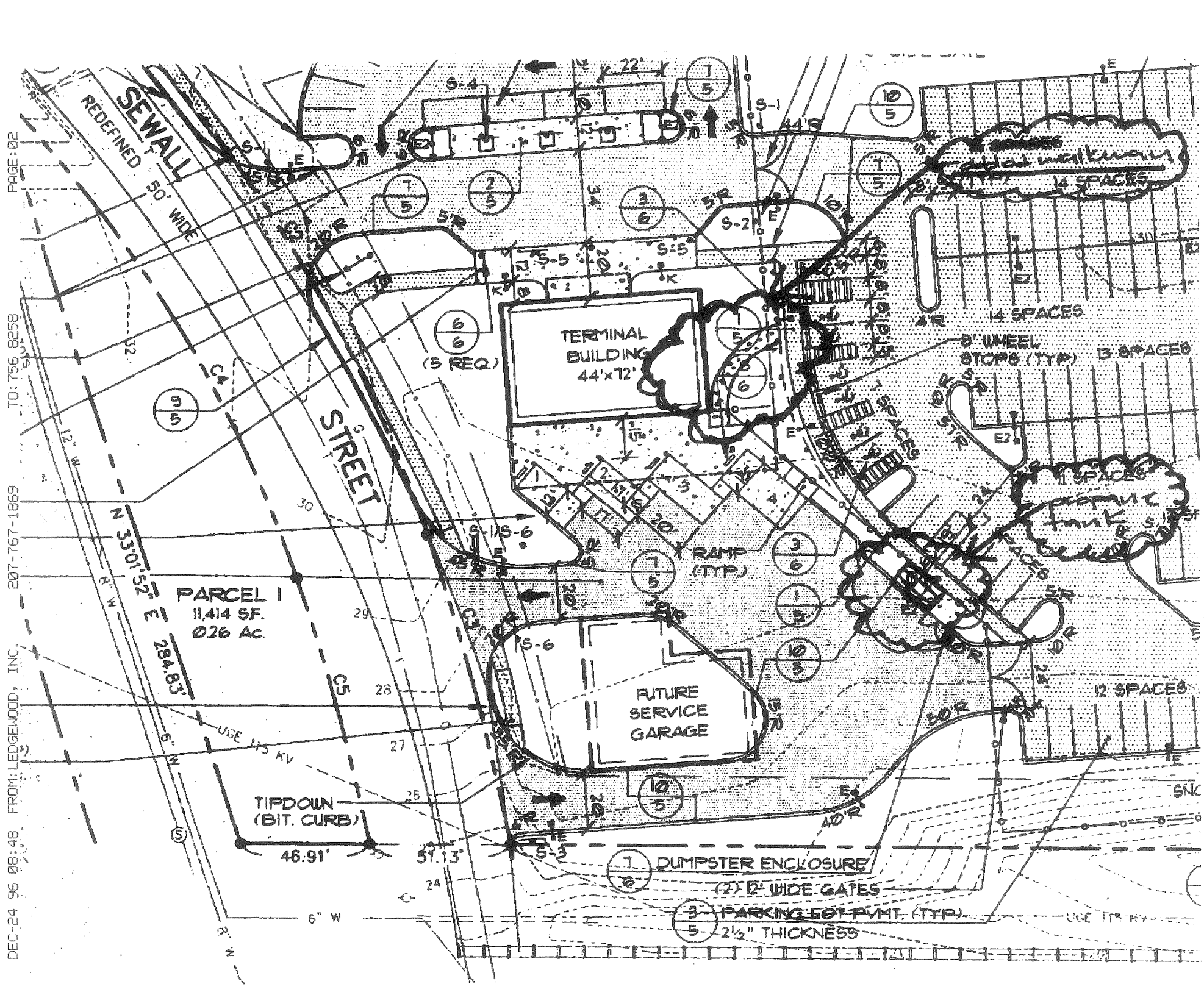
2. During the course of constriction the following modifications were made to the site plan:

- Installation of a 1,000 propane tank with guardrail, see attached permit;.
- Installation of paved walkway and fence gate, see attached sketch;
- Materials change at facade from EIFS to painted wood cedar; see attached sketch

Please let me know if more information or further submissions are required by your office.
As indicated above we hope to obtain an occupancy permit at the end of next week. If you anticipate any issues or if there are any additional administrative procedures that Concord Trailways needs to coordinate through your office please contact me at your earliest convenience.

cc: Bill Bridges, Harry Blunt, Mike Dougherty, Ken Hunter, Bill Rowles

G:\JOBFILES\96308\CORRSPND\prmt1219.doc


SEWALL STREET
REDEFINED 50' WIDE
TERMINAL BUILDING 44'x72'
(5 REQ.)
RAMP (TYP.)
FUTURE SERVICE GARAGE
PARCEL 1
11,414 S.F.
.026 Ac.
N 33°01'52" E 284.83'
TIPDOWN (BIT. CURB)
46.91'
51.13'
14 SPACES
14 SPACES
13 SPACES
12 SPACES
6" WIDE WHEEL STOPS (TYP)
DUMPSTER ENCLOSURE
(2) 12' WIDE GATES
PARKING LOT PVMT. (TYP.)
2½" THICKNESS
PAGE:02
TO:756 8258
207-767-1869
DEC-24 96 08:48 FROM:LEDGEWOOD, INC.

COPY

Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

Please Read Application And Notes, If Any, Attached

961180

PERMIT

PERMIT ISSUED
DEC - 4 1996
CITY OF PORTLAND

This is to certify that Ledgewood, Inc.

has permission to Install Propane Tank

AT 101 Gowall

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

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

Notification of inspection must be given and written permission procured before this building or part thereof is lathed or closed-in. HOUR NOTICE IS REQUIRED.

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

OTHER REQUIRED APPROVALS

Fire Dept. [signature]

Health Dept. _____

Appeal Board _____

Other _____
Department Name

ISSUED WITH REQUIREMENTS

[signature]
Director - Building & Inspection Services

4

A. Powers

PENALTY FOR REMOVING THIS CARD

FIRE CODE PERMIT REPORT

DATE: 11/26/96 **ADDRESS:** 101 Sewall St

PERMIT TO: Ledgewood Inn

OWNER/CONTRACTOR: _____

APPROVED *11,12*13 **DENIED** _____

CONDITIONS OF APPROVAL/DENIAL

1. The boiler or furnace shall be protected by enclosing with one hour fire rated construction including fire doors and ceiling or by providing automatic extinguishment and smoke protected enclosure. Sprinkler piping serving not more than six sprinklers may be connected to a domestic water supply system having a capacity sufficient to provide a 0.15 gpm, per square foot of floor throughout the entire area. An indicating shut-off valve shall be installed in an accessible location between the sprinkler and the connection to the domestic water supply. Minimum pipe size shall be 3/4 inch copper or 1 inch steel. Maximum coverage area of a residential sprinkler is 144 square feet per sprinkler.
2. All required Fire Alarm Systems shall have the capability of "Zone Disconnect" via switches or key pad program provided the method is approved by the Fire Prevention Bureau.
3. All remote annunciators shall have a visible "trouble" indicator along with the Fire Alarm "Zone" indicators.
4. Any Master Box connected to the Municipal Fire Alarm System shall have a supervised Municipal Disconnect Switch.
5. All Master Box locations shall be approved by the Fire Department Director of Communications. A Master Box shall be located so that the center of the box is five feet above finished floor.
6. All Master Box locations are required to have a locked box (knoxbox).
7. A fire alarm acceptance report shall be submitted to the Portland Fire Department.
8. All underground tank removal(s) and/or installation(s) shall be done in accordance with the Department of Environmental Regulations (Chapter 691).
9. **No cutting of tanks on site.** Cutting of tanks is to be done at an approved tank disposal site.
10. Fire Dispatcher must be at least 48 hours in advance of removal and/or transportation of tanks.
11. All above ground L/P storage tanks shall be located in accordance with NFPA 58 Standards.
12. Any tank located near the path of vehicle movement shall be protected with appropriate permanent barricades.

13. All piping shall be protected from possible mechanical damage and vandalism.
14. A 4" storz fire department connection is required.
15. Any new sprinkler construction over six sprinkler heads needs to have State Fire Marshal approval.
16. Any renovations of sprinkler systems over 20 sprinkler heads needs to have State Fire Marshal approval.
17. A sprinkler performance test shall be submitted to the Portland Fire Department after completion of sprinkler work.
18. State Fire Marshal approval is required for this project.

Lt. G. McDougall
Fire Prevention Officer
City of Portland

City of Portland, Maine – Building or Use Permit Application, 389 Congress Street, 04101, Tel: (207) 874-8703, FAX: 874-8716

Location of Construction:	Owner:	Phone:
101 Sewall St	Concord Trailways	

Owner Address:	Lessee/Buyer's Name:	Phone:	BusinessName:

Contractor Name:	Address:	Phone:
Ledgewood, Inc.	P.O. Box 8107 Prtld, ME 04104	767-1866

Past Use:	Proposed Use:	COST OF WORK:	PERMIT FEE:
Bus Terminal	Same	$	$ 35.00

FIRE DEPT. ☑ Approved ☐ Denied
Signature:

INSPECTION: Use Group: Type:
Signature:

Proposed Project Description:

Install above-ground propane tank (1,000 gallon)

PEDESTRIAN ACTIVITIES DISTRICT (P.U.D.)
Action: Approved ☐ Approved with Conditions: ☐ Denied ☐
Signature: Date:

Permit Taken By: Mary Gresik

Date Applied For: 26 November 1996

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

PERMIT ISSUED WITH REQUIREMENTS

CERTIFICATION

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

SIGNATURE OF APPLICANT Joseph Sartak ADDRESS: DATE: 26 November 1996 PHONE:

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE PHONE:

White–Permit Desk Green–Assessor's Canary–D.P.W. Pink–Public File Ivory Card–Inspector

Permit No: 961180

PERMIT ISSUED
Permit Issued: DEC – 4 1996
CITY OF PORTLAND

Zone: I-2 CBL:

Zoning Approval: OK 11/27/96

Special Zone or Reviews:
☐ Shoreland
☐ Wetland
☐ Flood Zone
☐ Subdivision
☐ Site Plan maj ☐ minor ☐ mm ☐

Zoning Appeal
☐ Variance
☐ Miscellaneous
☐ Conditional Use
☐ Interpretation
☐ Approved
☐ Denied

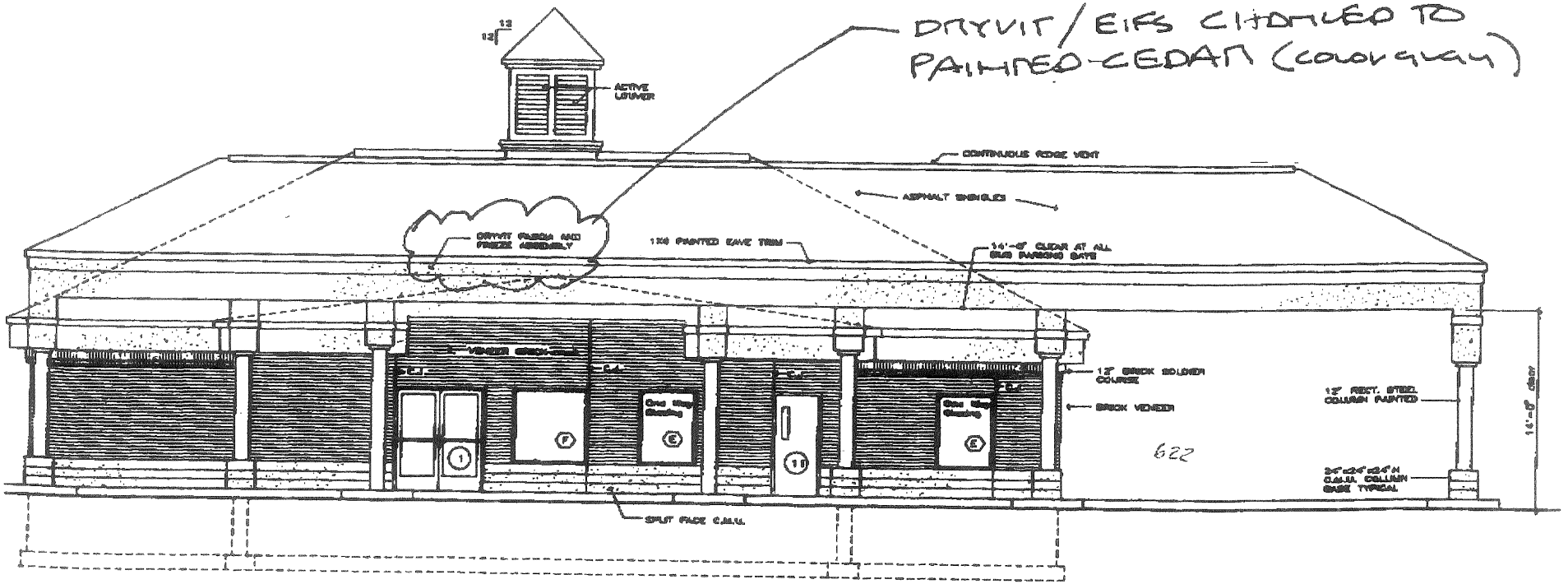
Historic Preservation
☑ Not in District or Landmark
☑ Does Not Require Review
☐ Requires Review

Action:
☐ Appoved
☐ Approved with Conditions
☐ Denied

Date: 11/27/96

CEO DISTRICT 4

A Pinkham



BUS PLATFORM ELEVATION

SCALE 1/8" = 1'-0"

Planning & Urban Development

Joseph E. Gray Jr.
Director

CITY OF PORTLAND

May 14, 1997

Dawn Hallowell
Maine D.E.P.
312 Canco Road
Portland, ME 04103

Dear Ms. Hallowell:

Enclosed please find a memo from our Development Review Coordinator regarding a drainage issue on Motley Street. It appears that an abutter at 472 Brighton Avenue may have placed some fill in a wetland area.

We will follow up on this item for "the alteration of a drainage course" through site plan review but the wetland issues may best be handled by the DEP.

Please do not hesitate to call if you have any questions.

Sincerely,

Sarah Hopkins
Senior Planner

cc: Alexander Jaegerman, Chief Planner
Marge Schmuckal, Zoning Administrator
Natalie Burns, Associate Corporation Counsel
Jim Wendell, Development Review Coordinator

DeLUCA HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

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

MEMORANDUM

TO: Sarah Hopkins, Senior Planner

FROM: Jim Wendel, Development Review Coordinator

DATE: May 1, 1997

RE: Drainage Problem
14 Motley Street

As requested on April 28, 1997 I investigated the drainage problem reported to you by the property owner. You indicated to me that the owner stated that his neighbor was moving dirt around on his property and it was causing ponding and flooding of his basement. The weather that day was heavy rain.

The abutter at 472 Brighton Avenue is placing some fill on his property. It appears he is expanding the gravel parking area behind his building; the extent of the filling at this point is approximately 300 square feet. The area he is filling appears to be part of a wooded wetland approximately 2 acres in size. The filling of this wet area will reduce the available storage for stormwater and likely increase the frequency of flooding of the parcel at 14 Motley Street and his neighbor at 18 Motley Street.

A significant amount of flow of runoff was observed within the two parcels due to the rainfall during the day. The topography is such that the abutter is slightly higher than the Motley Street parcels. The runoff drains from the abutter to the back yard of 18 Motley Street and in between the two parcels on Motley Street in a very well defined narrow swale to Motley Street. The runoff then travels in the gutter along that side of the street towards Brighton Avenue and into the catch basin at the corner. It appears, the parcel at 18 Motley Street has the greater flooding problem with significant ponding of the back yard. However the back yard at 14 Motley Street was very soft due to the rainfall and ponding water from 18 Motley Street.

The soil in that area is the Belgrade series consisting of deep, moderately well drained, nearly level to undulating, medium textured soils. These soils are formed in marine and lacustrine sediment and are principally on terraces in the coastal areas. This soil is adjacent to streams, rivers, and natural drainageways.

The nature of the site conditions indicate that the parcels on Motley Street and that area has likely always had wet conditions at various times of the year. The topographical location of these two parcels seem to be at or near the natural low point on that side of the street of an approximate 10 acre watershed bounded by Stevens Avenue to the east, Brighton Avenue to the north and a residential area to the south. These lots appear to be the natural discharge point for

this watershed. The back yards are essentially flat and much of the root structures of some deciduous trees in the back yard of the two parcels are right at and partially above the existing ground; indicating to me a frequently high and prolonged groundwater level. The trees have been their a long time. Groundwater depth in the Belgrade series is typically 2-1/2' in spring and during periods of heavy precipitation. Permeability is moderately slow to moderate.

Based on the architectural styles of the houses, Motley Street is an older neighborhood of Portland. Motley Street is approximately 500' long with no curb or sidewalks. The storm drain system is near the intersection with Brighton Avenue. The furthest catch basin in Motley Street is located between the parcels of 14 and 18 Motley Street. However the catch basin is paved over.

To summarize, the abutter is filling what appears to be a wetland. The loss of stormwater storage of this wetland will likely increase the frequency of flooding of the parcels on Motley Street. These parcels are at the natural discharge point of an approximate 10 acre watershed. Motley Street is an older neighborhood in Portland and it appears that this area has always had a chronic wet ground condition during the spring and periods of significant rainfall. based on the above observations I can not correlate the minor filling of the wetland area with the homeowner's recent complaint.

Please call if you have any questions.

James T. Wendel, P.E.

c: Kathi Staples, City Engineer

JN1350.1014motley

Ledgewood Inc

PO Box 8107
Portland Maine 04104
207·767·1866
FAX 207·767·1869

Aug 22

VIA FAX

August 26, 1997

Mrs. Kandi Talbot, Planner
City of Portland
Planning Department
389 Congress Street
Portland, Maine 04101

Revised
2.48
.51
2.99
2.88

Re: Concord Trailways, Sewall Street

Dear Mrs. Talbot,

As per my telephone call last Friday with Alex, we have again researched and calculated the areas affected by the site development at the Concord Trailways site as follows:

As of February 28, 1997, impervious surface area is 2.41 acres (see attached letter from Sebago Technics).
July 9, 1997 proposal (gravel) for 74 spaces (360' X 62') equals 0.51 acres.
Total developed area will now equal 2.92 acres which is less than 3 acre requirement.

Our research indicates that, while the original application may have contained a higher figure for the impervious surface areas anticipated, our current calculations indeed reflect the actual final design and construction at the site.

As before, I believe this is the information you need to complete your review. As you are well aware from my phone calls these past four weeks, our client, Concord Trailways, would appreciate you expediting approval of our request of July 9, 1997 for a temporary parking lot at their Sewall Street site.

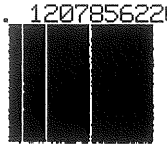
If you need any additional information or would like to discuss this further, please contact me or Bill Bridges **immediately** at 767-1866. Thank you for your consideration in this matter.

Sincerely,

Donald R. McGilvery

Donald R. McGilvery
Ledgewood, Inc.

encl.: August 26, 1997 letter from Sebago Technics to Ledgewood, Inc.
cc: Alexander Jaegerman, Chief Planner, City of Portland
Ken Hunter, Concord Trailways



SebagoTechnics
Engineering & Planning for the Future

August 26, 1997
92091

Post-it® Fax Note 7671 | Date 8/26 | # of pages ▶ 1
To Don | From Pam for Pete
Co./Dept. Ledgewood | Co. STI
Phone # | Phone #
Fax # 767 1864 | Fax #

Mr. Don McGilvery
Ledgewood, Inc.
P. O. Box 8107
Portland, ME 04101

Concord Trailways

Dear Don:

As requested, we reviewed the site plan for Concord Trailways to determine the existing impervious surface. Based on that plan (last revised October 18, 1996), the total impervious surface on the site is 105,036 square feet (2.41 acres).

Should you require further information, please call.

Sincerely,

SEBAGO TECHNICS, INC.

Peter Dalfonso

Peter J. Dalfonso, P.E.
Vice President, Engineering

PJD:jc

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: Jim Wendel, Development Review Coordinator JW.

DATE: August 22, 1997

RE: Concord Trailways Site Plan
Sewall Street

As requested I have calculated the area of the impervious surface of the site. The area includes small portions of the site drives that are within the right of way. I planimetered the approved Sebago Technics site plan, revision C.

The impervious area calculates to be 2.48 Acres (107,836 SF).

JN1350.10cncrdtrl.doc

Planning & Urban Development

Joseph E. Gray Jr.
Director

CITY OF PORTLAND

September 3, 1997

Donald R. McGilvery
Ledgewood Inc.
P.O. Box 8107
Portland, ME 04104

RE: Concord Trailways, Sewall Street

Dear Mr. McGilvery:

This letter is to confirm the revision to the approved site plan of the Concord Trailways project located at Sewall Street. The approved revision includes a temporary gravel parking lot and a storage shed. The revised plan has been reviewed and approved by the project review staff including representatives of the Planning, Public Works, Building Inspections, Fire and Parks Departments.

If you have any questions regarding the revision please contact the planning staff at 874-8721.

Sincerely,

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

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

O:\PLAN\CORRESP\KANDI\LETTERS\MCGIL9-2.WPD

Section 1

- Stormwater Management/
  Erosion & Sediment Control Narrative
- U.S.G.S. Map
- Soil Map

92091

STORMWATER RUNOFF EVALUATION
Concord Trailways
Transportation Center
Sewall Street
Portland, Maine

General

The following stormwater evaluation has been prepared for Concord Trailways to analyze stormwater runoff associated with the proposed Transportation Center off Sewall Street in Portland, Maine.

Concord Trailways proposes a Transportation Center on an approximately 6.8 acre parcel. The facility will include an approximately 3,168 square foot terminal building and a 2,400 square foot service garage. Parking will be provided on site for approximately 240 cars. Pick-up/drop-off areas are provided for four busses at the terminal building. The buildings and parking areas encompass approximately 2.8 acres.

Site Characteristics

The parcel is located on the southeastern side of Sewall Street. The property is generally rectangular and is abutted by Hooper Street to the east. Railroad tracks abut the western end of the property. The site is currently vacant and has previously been filled. Wetlands are located at the southern corner of the property. The hydrologic soil group (HSG) for the fill areas has been assumed to be "C". Elevations on the site range from Elevation 31 at Sewall Street to Elevation 8 in the wetlands at the rear of the site.

Drainage Patterns

Pre-Development

The site drains in a general southeasterly direction from Sewall Street to the wetland at the rear of the site. Flows exiting the wetland area pass into a natural drainage system which outlets into the Fore River. Runoff from areas northeast of the site pass under Hooper Street and flow through a ditch and culvert adjacent to the site's eastern boundary. The western end of the property drains along an existing swale which is adjacent to the railroad tracks. Upstream flows are diverted around the development area by the drainageways which exist on both sides of the parcel. The site is divided into two watersheds in the pre-development condition. Watershed 1 encompasses approximately 2.5 acres on the site and flows along the ditch adjacent to the railroad tracks along the western property boundary. Watershed 2 encompasses approximately 2.8 acres and drains to the channel adjacent to Hooper Street along the eastern site boundary. Both watersheds enter the wetlands at the rear of the property prior to eventually discharging to the Fore River.

Post-Development

The post-development drainage conditions include four watersheds. Watershed 1 is centrally located on the site and encompasses the majority of the development area. Watershed 1 is approximately 2.8 acres in size. This watershed collects runoff from the buildings and parking areas via a subsurface drainage system which discharges to the water quality treatment system discussed at the end of this report. Watershed 2 encompasses approximately 1.24 acres of predominately open land along the site's eastern property limit. Flows from this area discharge in the same manner as the pre-development condition. Watershed 3 includes the southern and western perimeter and sideslope areas outside of the development footprint. Watershed 3 encompasses approximately 0.94 acres. This watershed drains along the railroad tracks along the western site boundary. Watershed 4 encompasses approximately 0.35 acre and picks up runoff from the entrance and access area off Sewall Street at the western corner of the parcel. This area discharges to the existing drainageway along the railroad tracks and eventually flows to the wetland at the rear of the site.

Stormwater Management

In order to evaluate drainage characteristics as a result of the proposed development activities, a quantitative analysis was performed to determine peak rates of runoff for the 2, 10 and 25-year storms. The analysis considered both pre-and post-development conditions. The evaluation was performed using the methodology outlined in the USDA Soil Conservation Service's "Urban Hydrology for Small Watersheds - Technical Release #55 (TR-55)". HydroCAD computer software was used to perform the calculations. Supporting hand calculations, data sheets and HydroCAD computations are attached to this report. Stormdrain pipes were sized using the rational method.

The results of the stormwater runoff calculations for the pre- and post-development conditions are summarized in the tables below:

Concord Trailways
Watershed Data
Summary Table

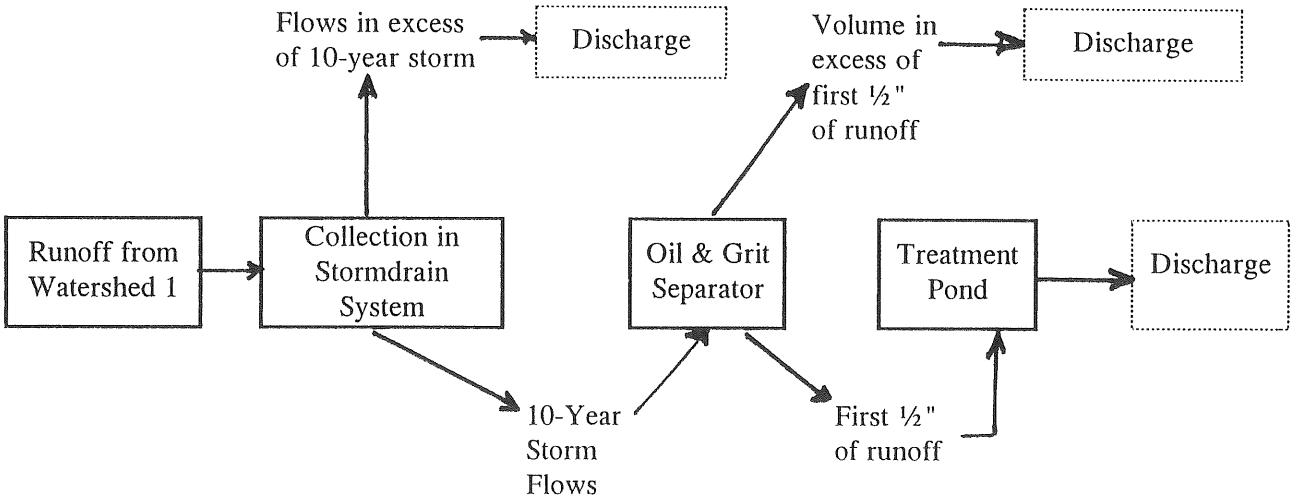
Watershed	Pre-Development			Post-Development		
	Area (Ac)	Cn	Tc (Min)	Area (Ac)	Cn	Tc (Min)
1	2.54	79	26.9	2.8	97	3.7
2	2.79	79	18.6	1.24	79	20.9
3	--	--	--	0.94	79	4.2
4	--	--	--	0.35	90	2.9

Concord Trailways Stormwater Runoff Summary Table				
		Peak Runoff Rate (cfs)		
		2-Year	10-Year	25-Year
Pre-Development	Watershed 1	2.0	4.5	5.7
	Watershed 2	2.6	5.7	7.3
		Peak Runoff Rate (cfs)		
		2-Year	10-Year	25-Year
Post-Development	Watershed 1	8.0	12.7	15.0
	Watershed 2	1.1	2.4	3.1
	Watershed 3	1.2	2.7	3.5
	Watershed 4	0.8	1.4	1.7

As the summary table shows, the site's peak runoff rates entering the wetland area on the site are above the pre-development rates. It is not anticipated that this increase in peak flow rates will have a significant adverse effect on the downstream receiving areas, which include the Fore River and Portland Harbor. Due to the site's proximity to the Fore River and the size of the overall upstream areas contributing to the river (and Portland Harbor), it is apparent by observation that on-site detention will not provide a measurable benefit. The existing wetlands on the site help to provide a stable receiving body to allow discharge to the downstream areas. Due to the site's location at the downstream end of the watershed, attenuation of peak flow rates is not as beneficial or imperative as enhancing the quality of the stormwater leaving the site.

Water Quality

In order to enhance the quality of the stormwater runoff leaving the site, an oil and grit separator and a water quality pond have been incorporated into the design. Oil and floatables are trapped within the chamber by the use of baffles. The storm drain system has been designed to divert the 10-year storm flows from Watershed 1 to the oil and grit separator. Stormwater flows in excess of this rate are directed to the drainageway along Hooper Street to the east. The flows which pass through the oil and grit separator are split such that the equivalent of the first half inch of runoff is directed to the water quality pond located adjacent to the wetlands. The remaining flows leaving the oil and grit separator are directed easterly to the swale along Hooper Street. The water quality pond's capacity is based on the first half inch of runoff emanating from Watershed 1. The pond's outlet has been sized to release the pond's volume over a minimum 24-hour period. The following flow chart summarizes the process of water quality treatment on the site:



It is anticipated that this system will improve the quality of runoff leaving the site by collecting and treating the first flush of runoff using a two-stage process. Oil and grit will also be removed from runoff emanating from the 10-year storm event.

Sediment and Erosion Control Plan

In order to further reduce the potential for impacts associated with the project's construction, a Sediment and Erosion Control Plan has been prepared which outlines the measures to be incorporated before and during the construction of the project. Permanent erosion control measures have also been included to reduce the potential for long-term effects. These measures include installation of temporary erosion control structures and stabilization measures (both temporary and permanent), as well as revegetation plans. A report has been prepared which outlines this plan. A narrative and details are included in the drawing set.

Summary

The preceding stormwater evaluation has been prepared to address the pre- and post-development runoff conditions for the proposed Concord Trailways Transportation Center off Sewall Street. Principal stormwater runoff features will include a combination of catch basins, storm drains and an oil and grit separator. A water quality pond is also included to collect the "first flush" of runoff. An erosion control plan has been made an integral part of the overall project and specific instructions and details have been placed directly on the plans.

Based on the enclosed stormwater runoff calculations and the site's downstream location, it is not anticipated that the increases in the peak runoff rates leaving the site will have a significant adverse effect on the downstream receiving bodies. The oil and grit separator and treatment pond have been incorporated into the design to improve the quality of stormwater leaving the developed portions of the site.

Prepared by:

SEBAGO TECHNICS, INC.

Nancy J. Gilbert, P.E.
Project Manager

NJG:jc
June 18, 1996

Erosion & Sedimentation Control Plan

Concord Trailways
Transportation Center
Sewall Street
Portland, Maine

A. Pre-Construction Phase

Prior to the beginning of any construction, hay bale barriers/filter fabric fencing shall 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 hay bales shall be completed in accordance with guidelines established in Best Management Practices. This network is to be provided, installed and maintained by the contractor until all exposed slopes have at least 85%-90% vigorous perennial vegetative cover to prevent erosion.

Prior to any construction at the site, 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 City. 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 throughout construction of this project.

B. Construction and Post-Construction Phase

1. Areas undergoing actual construction shall only expose that amount of mineral soil necessary for progressive and efficient site construction and shall not exceed 14 days. Areas that will not be completed (covered and/or finish graded) within fourteen (14) days of disturbance shall be anchored with temporary erosion control within fourteen (14) days of disturbance. Temporary erosion control shall include erosion control mesh, netting, or mulch and as directed by the inspecting engineer. If disturbed areas do not receive final seeding by September 15th of the year of construction, then all disturbed areas shall be hay mulched at a rate of 150 lbs. per 1,000 square feet and seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 square feet to provide winter protection. The hay mulch shall be anchored with a suitable binder, such as RMB Plus and/or secured with netting for wind protection.

2. All topsoil shall be collected, stockpiled on site and seeded with Rye at 3 lbs./1,000 square feet and mulched for re-use as required. Siltation fencing shall be placed down gradient from stockpiled loam. Loam shall be stockpiled at locations designated by the owner. Designated locations shall be determined prior to construction.

3. All silt fences and/or hay bale barriers shall be installed according to this plan. These shall be maintained during development to remove sediment from runoff water. All the silt fences shall be inspected after any rainfall or runoff event, maintained and cleaned until all areas have at least 85%-90% vigorous perennial vegetative cover of grasses.

4. All areas shall be seeded in accordance with the following vegetation plan.

C. Vegetation Plan

Revegetation measures shall commence immediately upon completion of construction. Disturbed areas shall be mulched and anchored prior to any storm event. If final seeding cannot be accomplished by September 15th, then all disturbed areas shall be hay mulched at a rate of 150 lbs. per 1,000 s.f. and seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 s.f. to provide winter protection. Hay mulch shall be secured with a suitable binder to include RMB plus and/or erosion control netting as directed by the owner/inspecting engineer.

Revegetation measures shall consist of the following:

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. In lieu of soil tests, agricultural limestone shall be spread at the rate of 3 tons per acre. 10-20-20 fertilizer shall be applied at a rate of 800 lbs./acre. These soil amendments shall be incorporated into the soil prior to final seeding.

3. Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 4 lbs./1,000 square feet to a mixture of 35% Creeping Red Fescue, 6% Red Top, 24% Kentucky Bluegrass, 10% Perennial Ryegrass, 20% Annual Ryegrass and 5% White Dutch Clover. The lawn areas will be seeded to a premium turf mixture of Bluegrass and/or Fescue; seeding rate of 3 lbs. per 1,000 square feet.

4. Hay mulch shall be applied to all disturbed areas at the rate of 150 lbs. per 1,000 square feet, or a hydro-application of asphalt, wood or paper fiber will be applied following seeding. A suitable binder, such as RMB Plus and/or erosion control netting will be used on hay mulch for wind control.

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.

D. Construction Schedule

Construction will begin upon receipt of all necessary approvals. It is anticipated that site work will commence in August 1996 and will be completed in November. Final plantings and follow-up work may occur in April 1997.

Schedule

		Site Work	Spring Follow-Up
1.	Estimated construction time:	Aug. 1996 - Nov. 1996	April 1997
2.	Erosion control measures placed.	August 5, 1996 - Nov. 1996	
3.	Site clearing, grubbing, excavation and filling.	Aug. 7, 1996 - Nov. 1996	
4.	Rough grading, drainage improvements, building construction, and parking lot construction.	Aug. 12, 1996 - Nov. 1996	
5.	Temporary seeding.	Aug. 26, 1996 - Oct. 14, 1996	
6.	Biweekly monitoring of vegetative growth.	Sep. 9 - Nov. 15 1996	April 15, 1997
7.	Re-seeding of areas, if needed.	September 23, 1996	April 1, 1997
8.	Removal of erosion control devices.		April 15, 1997
9.	Mulch spread for winter erosion control, if needed.	November 15, 1996	

E. Inspections/Monitoring

Maintenance measures shall be applied as needed during the entire construction cycle. After each rainfall, the site contractor shall perform a visual inspection of all installed erosion control measures and perform repairs as needed to insure their continuing function.

Following the temporary and/or final seedings, the contractor shall inspect the site 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.

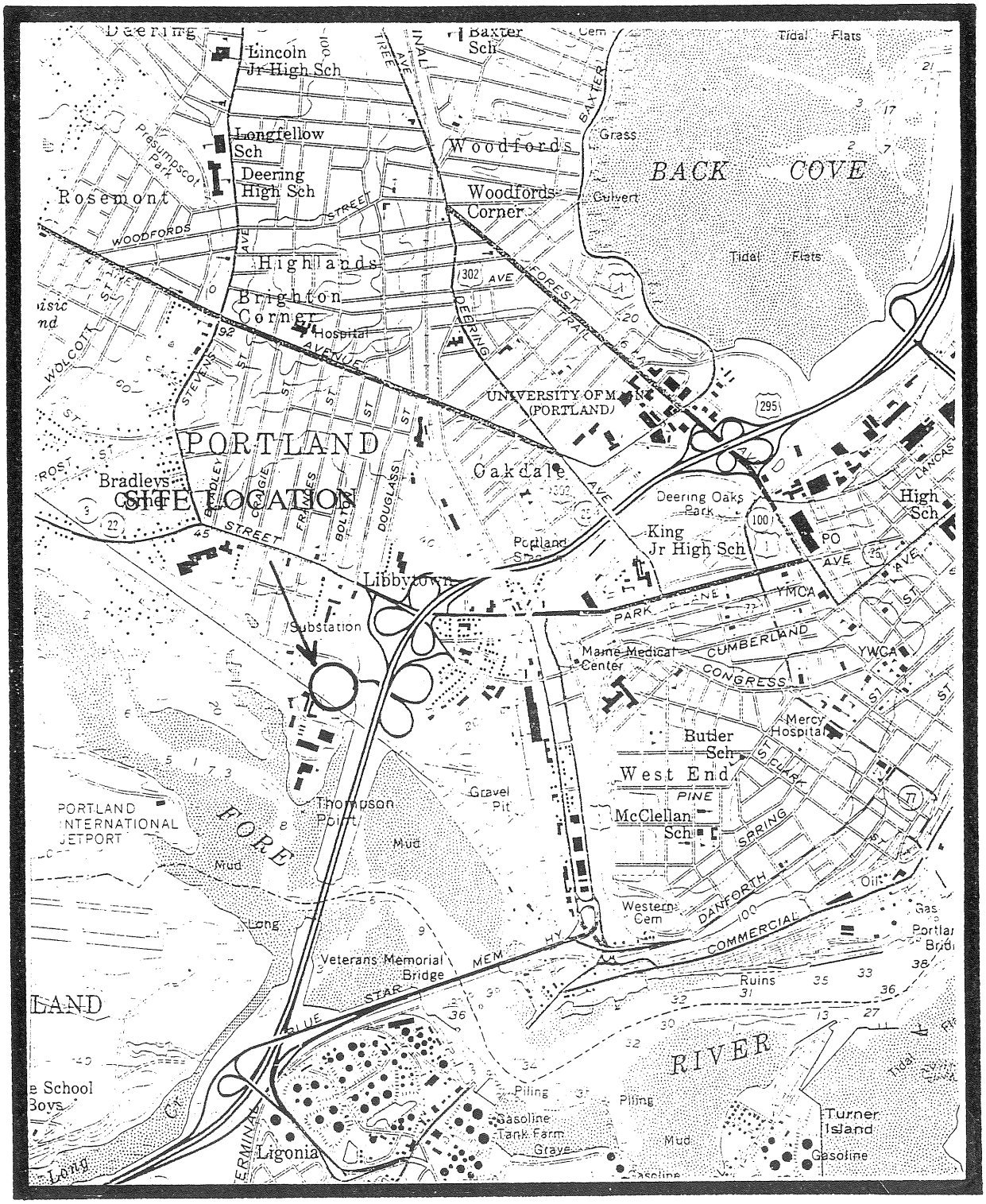
Prepared by:

SEBAGO TECHNICS, INC.

Nancy Gilbert

Nancy J. Gilbert, P.E.
Project Manager

NJG:jc
June 13, 1996



SITE LOCATION MAP

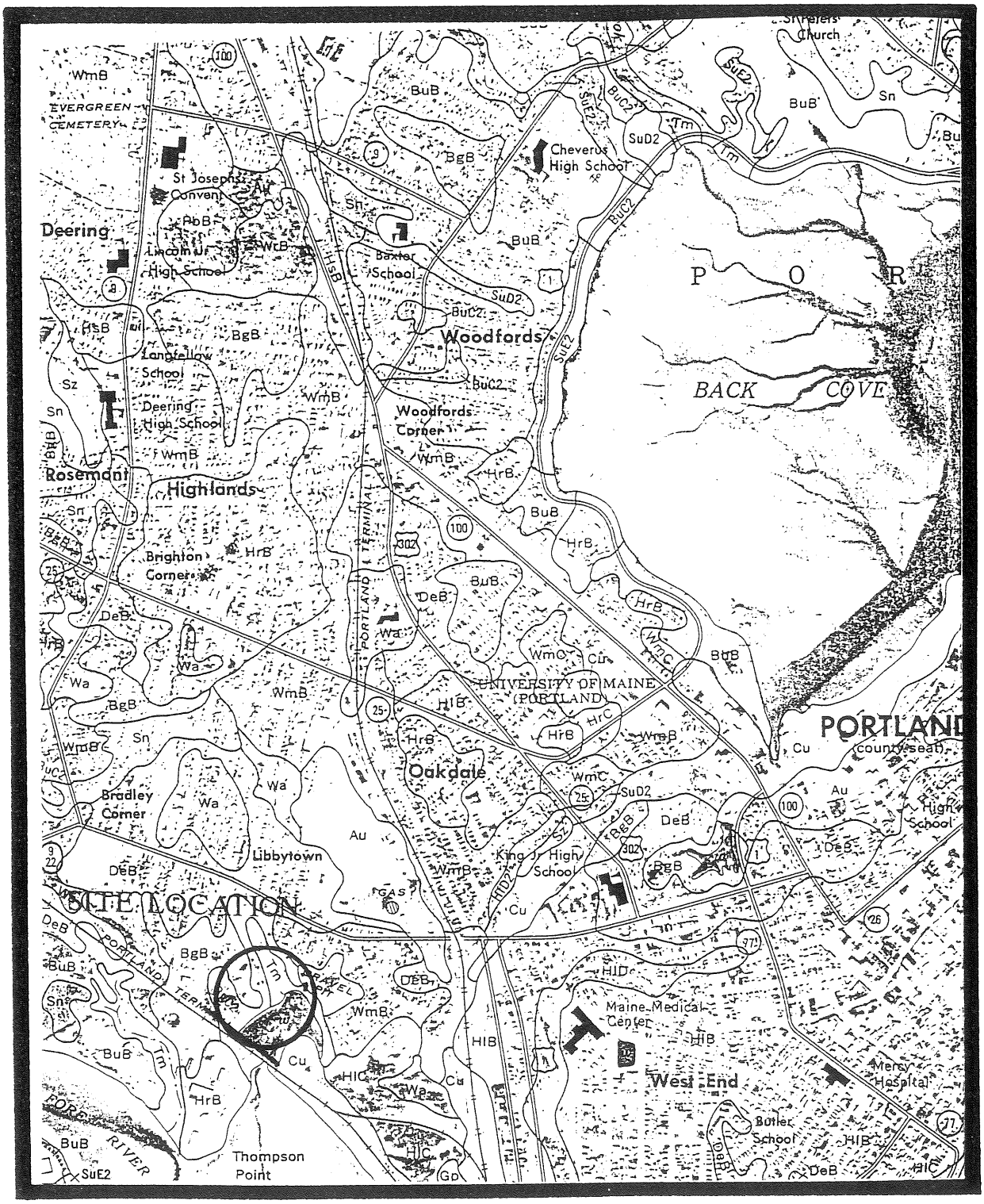
U.S.G.S. 7.5" MIN TOTOGRAPHIC QUADRANGLE

LOCATION: SEWALL STREET PORTLAND

SCALE 1"=2000'

DATE: 6/18/96

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04098-1339
TEL (207) 856-0277



MEDIUM INTENSITY SOIL MAP

CUMBERLAND COUNTY SHEET 82

LOCATION: SEWALL STREET PORTLAND

SCALE: 1"=1667'

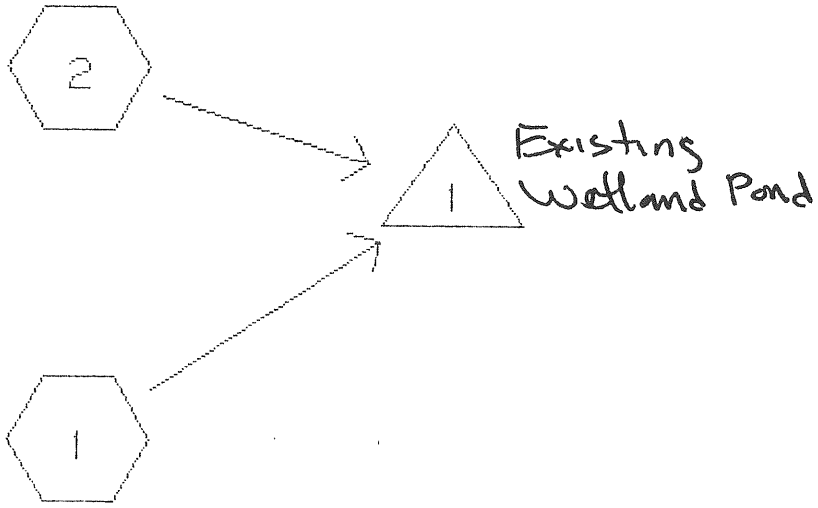
DATE: 6/18/96

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04098-1339
TEL (207) 856-0277

Section 2

Peak Rates of Runoff: Pre-Developed Conditions

WATERSHED ROUTING ==========



SUBCATCHMENT REACH POND LINK

RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 3.0 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	2.54	26.9	100%79 - - -	79	-	2.0	12.35	.23
2	2.79	18.6	100%79 - - -	79	-	2.6	12.23	.25

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	8.0	9.0	8.4	.46	4.4	0.0			99	463.3

SUBCATCHMENT 1 WS-1

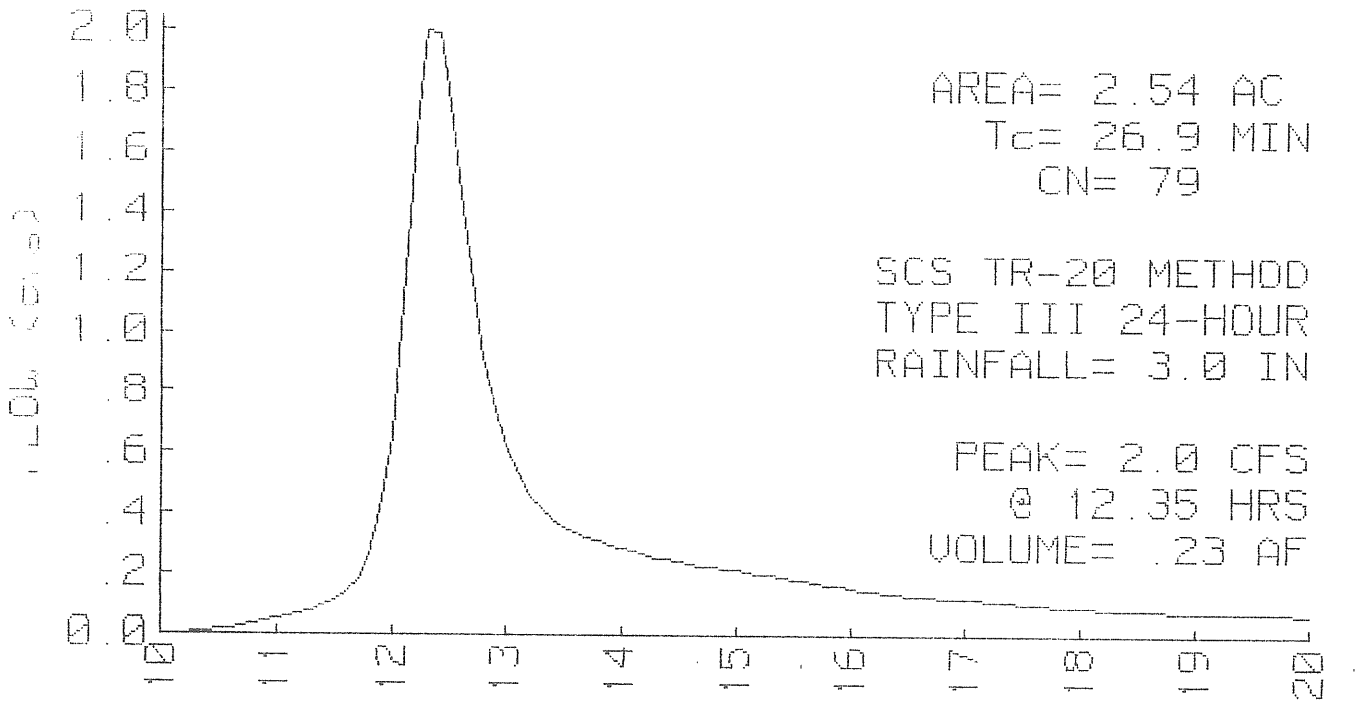
PEAK= 2.0 CFS @ 12.35 HRS, VOLUME= .23 AF

ACRES	CN	
2.54	79	OPEN SPACE FAIR COND. HYD. C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.0 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	21.6
Grass: Short n=.15 L=200' P2=3 in s=.012 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	4.0
Kv=.6 L=50' s=.12 '/' V=.21 fps		
CHANNEL FLOW	3	1.3
=5 sq-ft Pw=10' r=.5'		
=.027 '/' n=.027 V=5.7 fps L=440' Capacity=28.5 cfs		
	Total Length= 690 ft	Total Tc= 26.9

SUBCATCHMENT 1 RUNOFF
WS-1



SUBCATCHMENT 2 WS-2

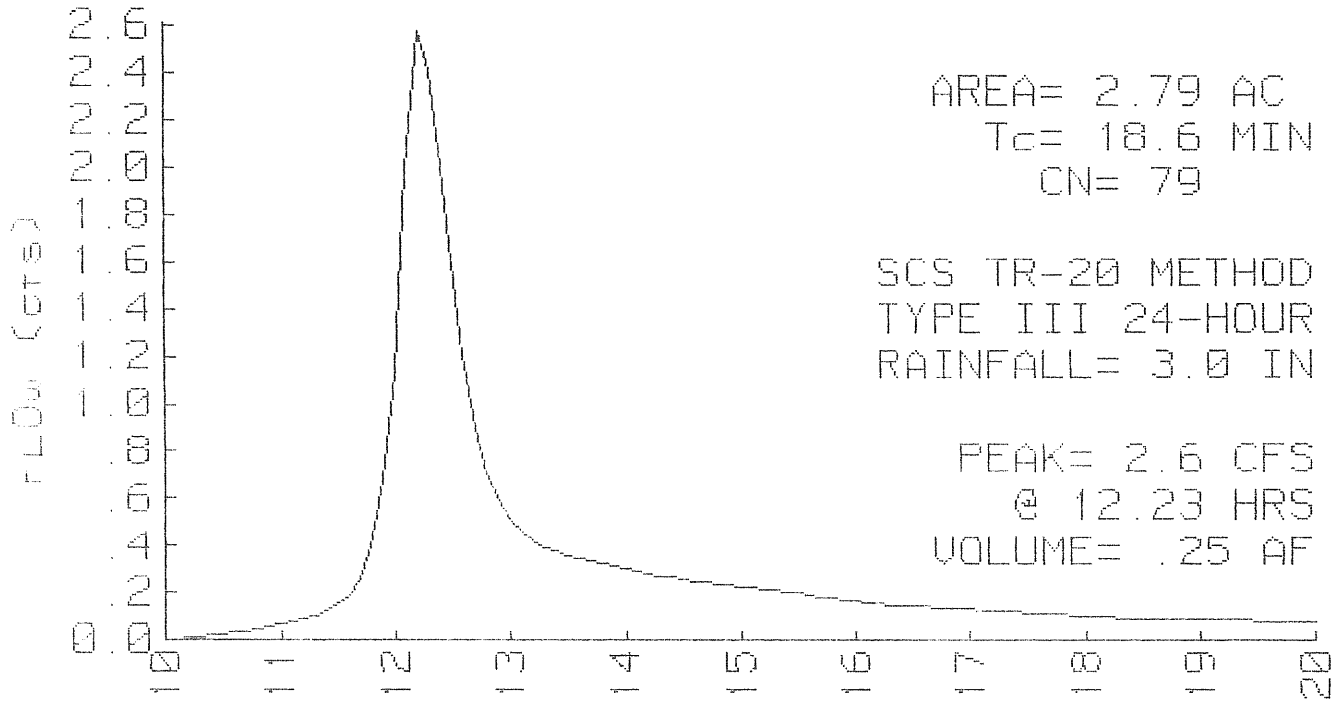
PEAK= 2.6 CFS @ 12.23 HRS, VOLUME= .25 AF

ACRES	CN	
2.79	79	OPEN SPACE FAIR COND. HYD. C

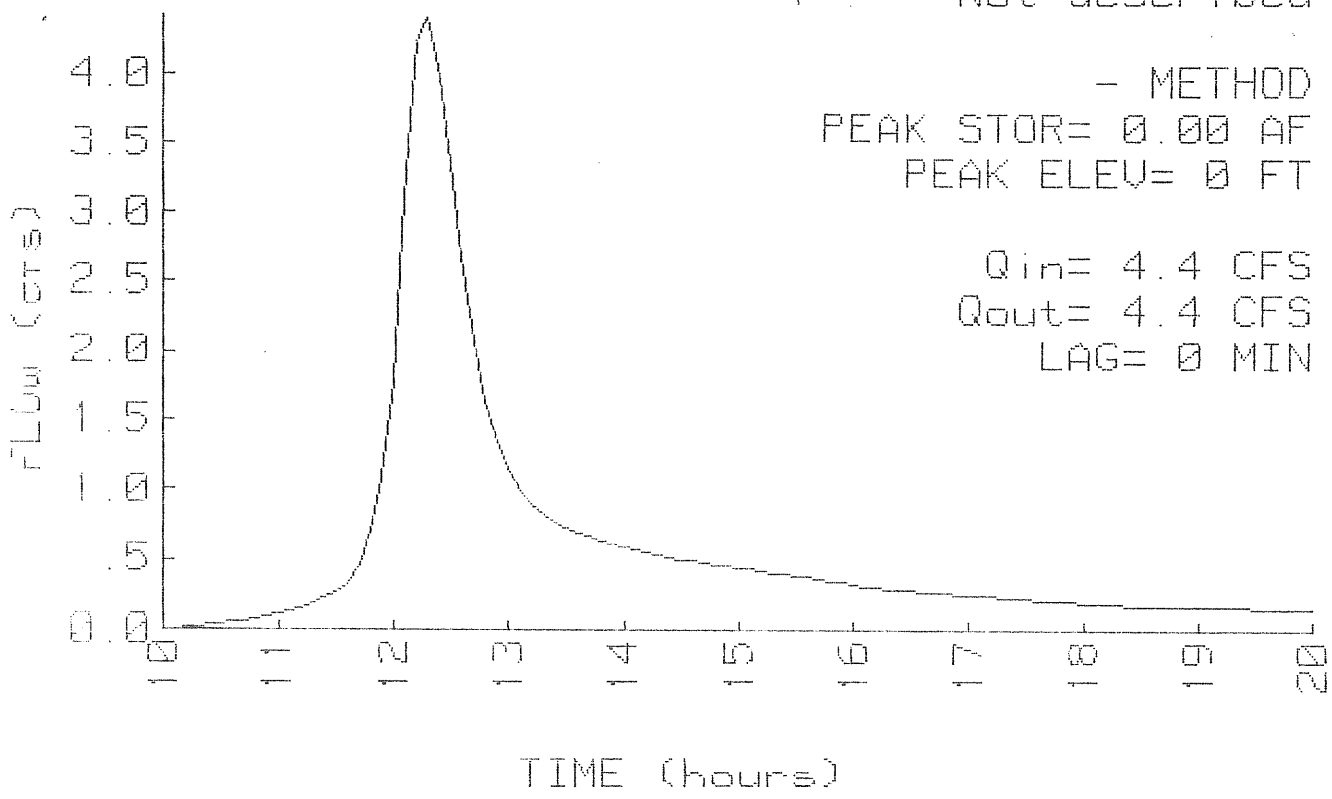
SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.0 IN
SPAN= 10-20 HRS, dt=.1 HRS

ethod	Comment	Tc (min)
R-55 SHEET FLOW	1	17.6
Grass: Short n=.15 L=200' P2=3 in s=.02 '/'		
HALLOW CONCENTRATED/UPLAND FLOW	2	.6
rassed Waterway Kv=15 L=150'	s=.078 '/' V=4.19 fps	
CHANNEL FLOW	3	.4
=5 sq-ft Pw=10' r=.5'		
=.047 '/' n=.027 V=7.52 fps	L=170' Capacity=37.6 cfs	
	Total Length= 520 ft	Total Tc= 18.6

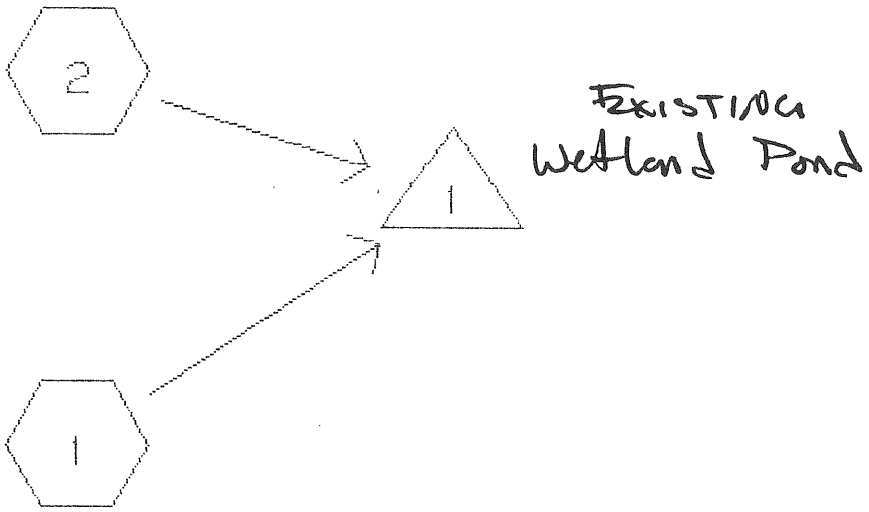
SUBCATCHMENT 2 RUNOFF
WS-2



POND 1 INFLOW & OUTFLOW



WATERSHED ROUTING ==========



SUBCATCHMENT REACH POND LINK

RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 4.7 IN, SCS U.H.

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

SUBCAT UMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--			WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	2.54	26.9	100%79	-	-	79	-	4.5	12.33	.49
2	2.79	18.6	100%79	-	-	79	-	5.7	12.22	.54

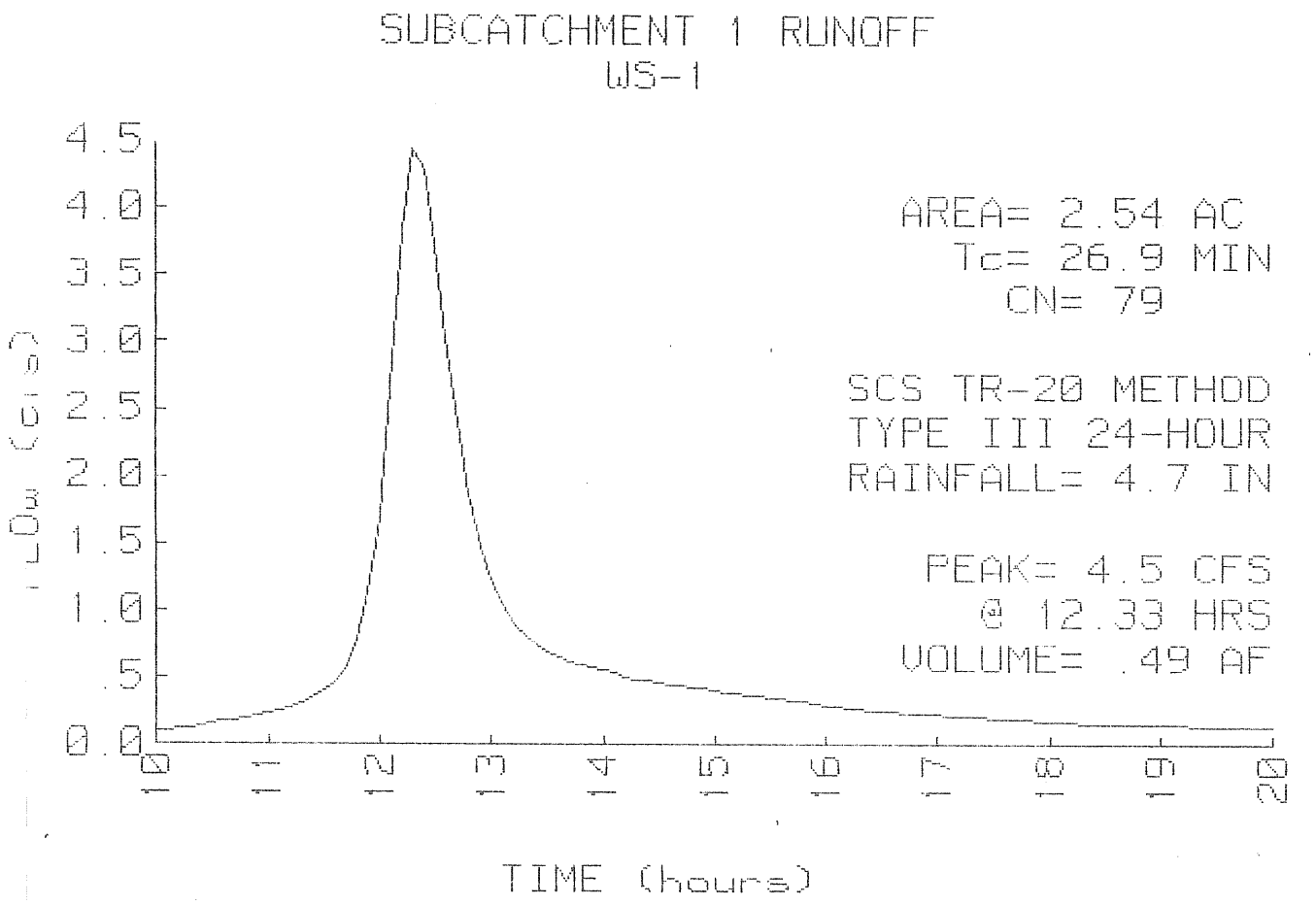
SUBCATCHMENT 1 WS-1

PEAK= 4.5 CFS @ 12.33 HRS, VOLUME= .49 AF

ACRES	CN	
2.54	79	OPEN SPACE FAIR COND. HYD. C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.7 IN
SPAN= 10-20 HRS, dt=.1 HRS

ethod	Comment	Tc (min)
IR-55 SHEET FLOW	1	21.6
Grass: Short n=.15 L=200' P2=3 in s=.012 '/'		
HALLOW CONCENTRATED/UPLAND FLOW	2	4.0
Kv=.6 L=50' s=.12 '/' V=.21 fps		
CHANNEL FLOW	3	1.3
=5 sq-ft Pw=10' r=.5'		
=.027 '/' n=.027 V=5.7 fps L=440' Capacity=28.5 cfs		
	Total Length= 690 ft	Total Tc= 26.9



SUBCATCHMENT 2 WS-2

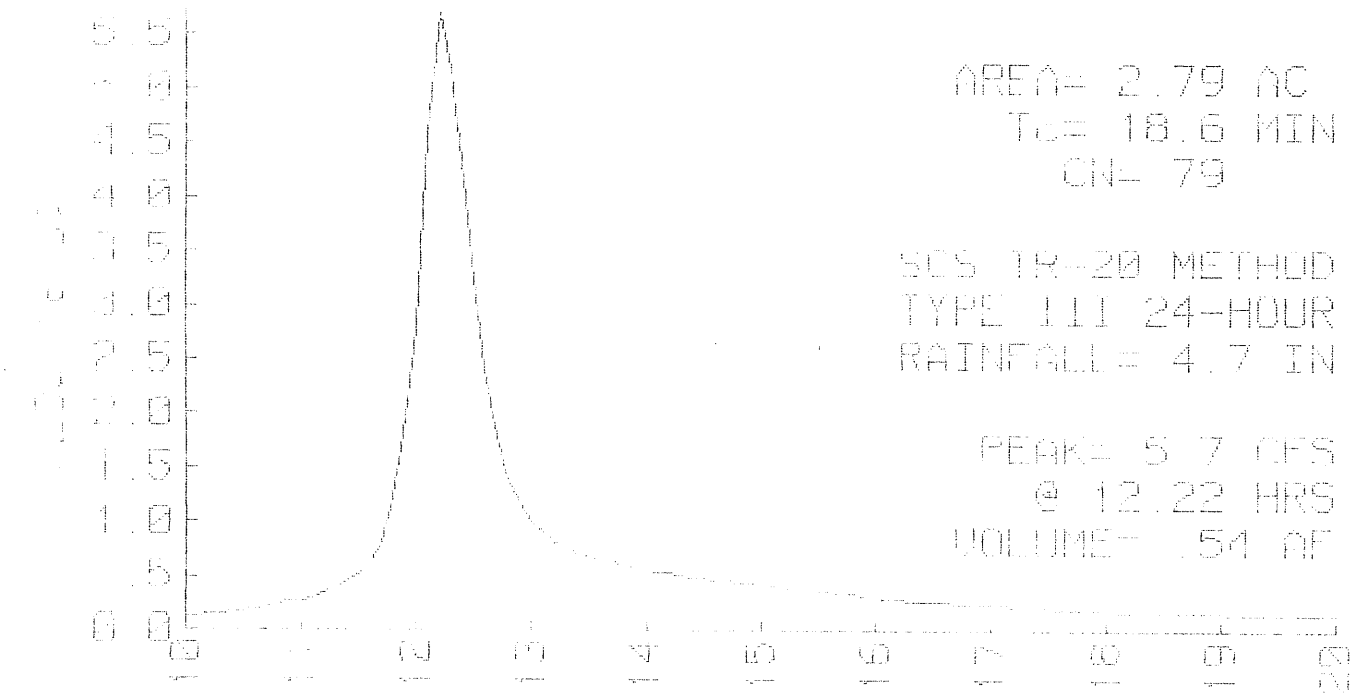
Peak= 5.7 CFS @ 12.22 HRS, VOLUME= .54 AF

ACRES	CN	
2.79	79	OPEN SPACE FAIR COND. HYD. C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.7 IN
SPAN= 10-20 HRS, dt=.1 HRS

Flow	Comment	Tc (min)
18.55 SHEET FLOW	1	17.6
Woods: Short n=.15 L=200' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	.6
Grassed Waterway Kv=15 L=150' s=.078 '/' V=4.19 fps		
CHANNEL FLOW	3	.4
5 sq-ft Pw=10' r=.5'		
.017 '/' n=.027 V=2.53 fps L=170' Capacity=37.6 cfs		
Total Length= 520 ft	Total Tc=	10.6

SUBCATCHMENT 2 RUNOFF
WS-2



POND 1

Not described

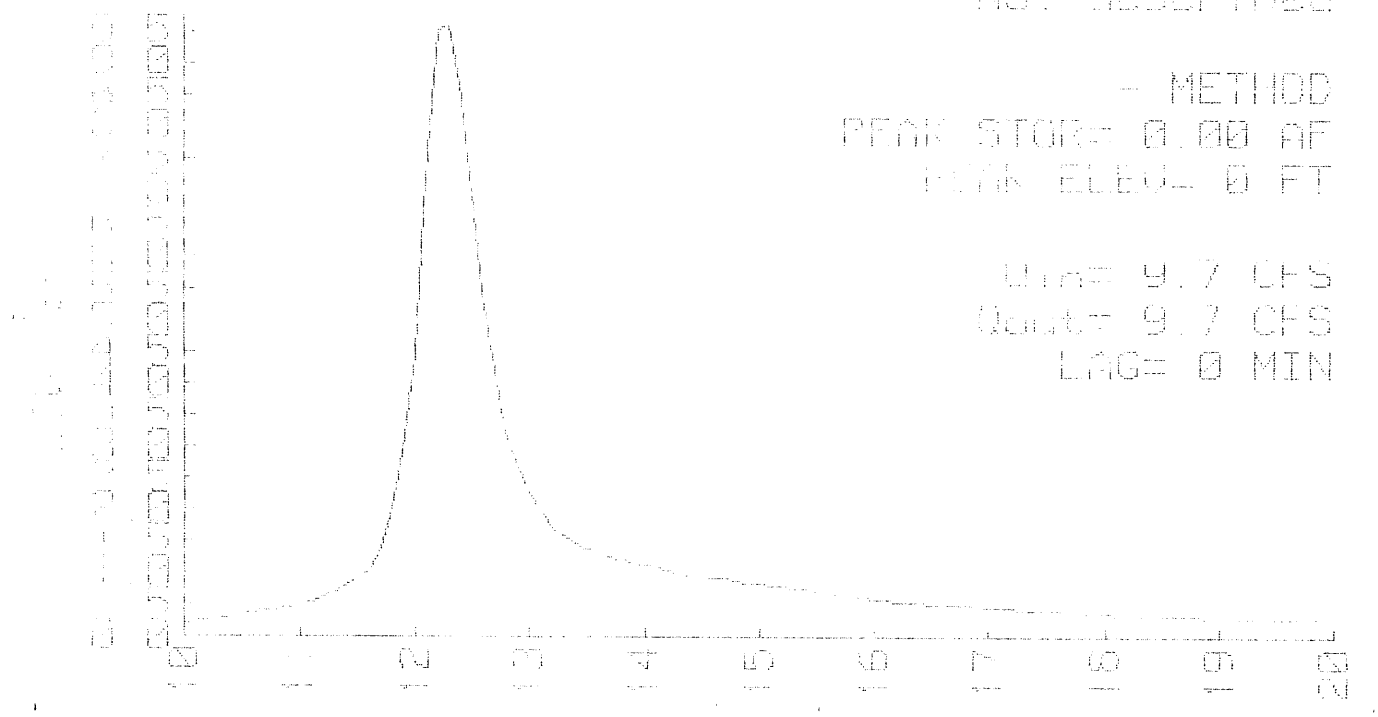
Qin = 9.7 CFS @ 12.26 HRS, VOLUME= 1.04 AF
Qout= 9.7 CFS @ 12.26 HRS, VOLUME= 1.04 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (AC)	INC.STOR (AF)	CUM.STOR (AF)

- METHOD
PEAK STORAGE = 0.00 AF
PEAK ELEVATION= 0.0 FT
FLOOD ELEVATION= 0.0 FT
START ELEVATION= 0.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

ROUTE	INVERT	OUTLET DEVICES

POND 1 INFLOW & OUTFLOW

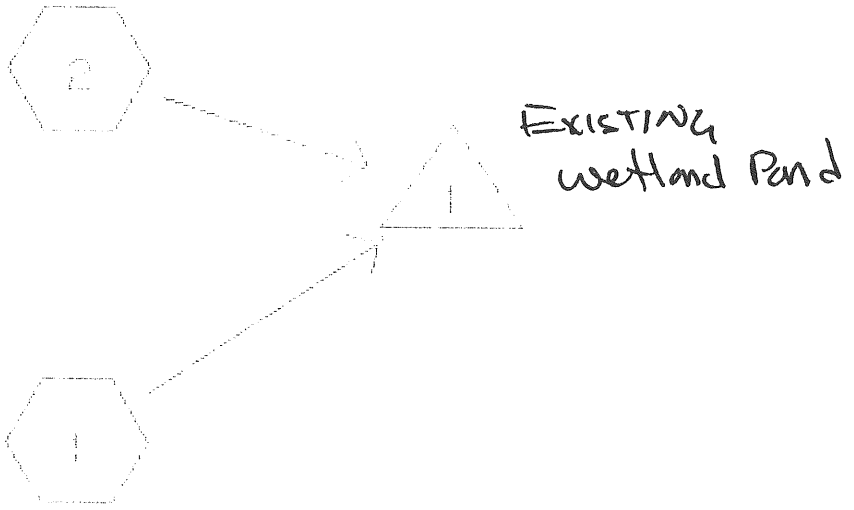


Job for CONCORD TRAILWAY PRF DEVELOPMENT
TYPE III 24-HOUR RAINFALL= 5.5 IN
Prepared by SEBAGO TECHNICS, INC.
HydroCAD 4.00 000509 (c) 1985-1995 Applied Microcomputer Systems

25yr Storm Event

16 Jun 96

WATERSHED ROUTING



SUBCATCHMENT REACH POND LINK

RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 5.5 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	2.54	26.9	100%79	-	-	-	79	-	5.7	12.33	.63
2	2.79	18.6	100%79	-	-	-	79	-	7.3	12.22	.69

SUBCATCHMENT 1 WS-1

PEAK= 5.7 CFS @ 12.33 HRS, VOLUME= .63 AF

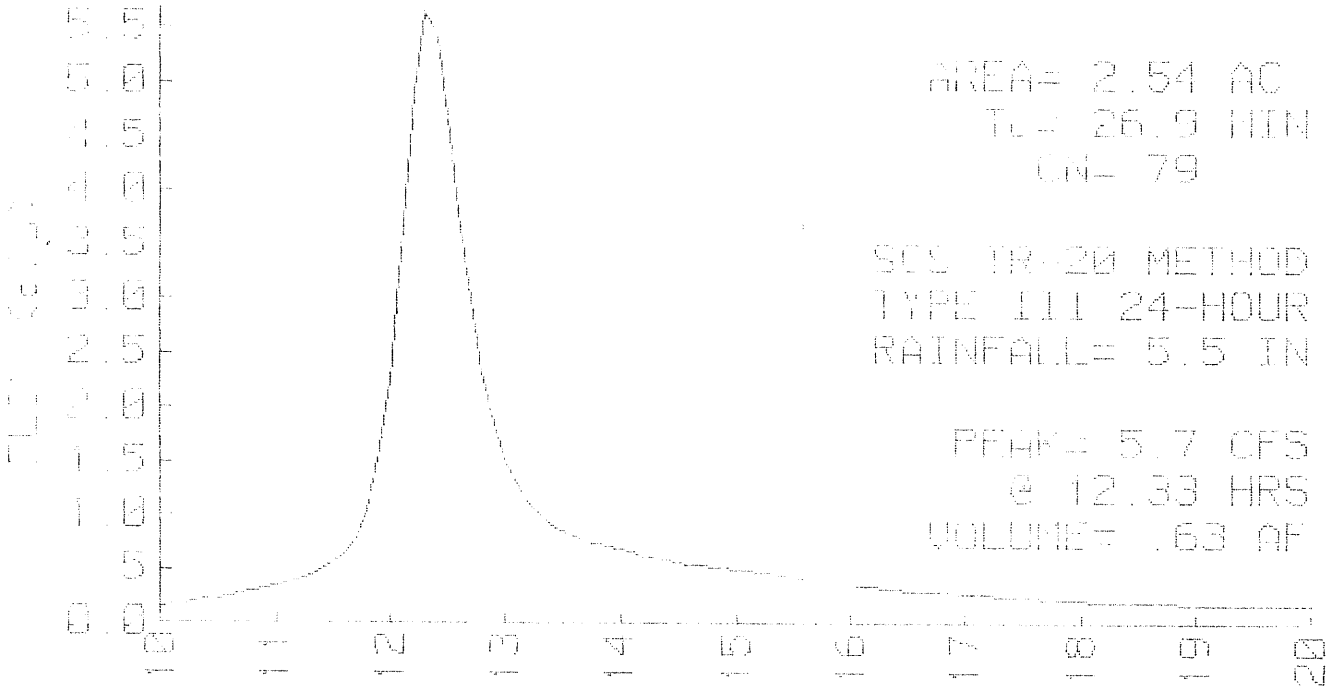
AREA(ac)	CN	Description
2.54	79	OPEN SPACE FAIR COND. H/D. C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 10-20 HRS, dt=.1 HRS

Flow Type	Comment	Tc (min)
TR-55 SHEET FLOW	1	21.6
n=.24 Short n=.15 L=240' P2=3 in s=.010 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	4.0
P=.6 L=50' s=.12 '/' V=.21 fps		
CHANNEL FLOW	3	1.3
5 sq-ft Pw=10' r=.5'		
s=.027 '/' n=.037 V=5.7 fps L=440' Capacity=28.5 cfs		

Total Length= 690 ft Total Tc= 26.9

SUBCATCHMENT 1 RUNOFF
WS-1



for CONCORD TRAILWAY PRE DEVELOPMENT
TYPE III 24-HOUR RAINFALL= 5.5 IN
Prepared by SEDAGO TECHNICS, INC. 16 Jun 96
HydroCAD 4.00 000509 (c) 1996-1995 Applied Microcomputer Systems

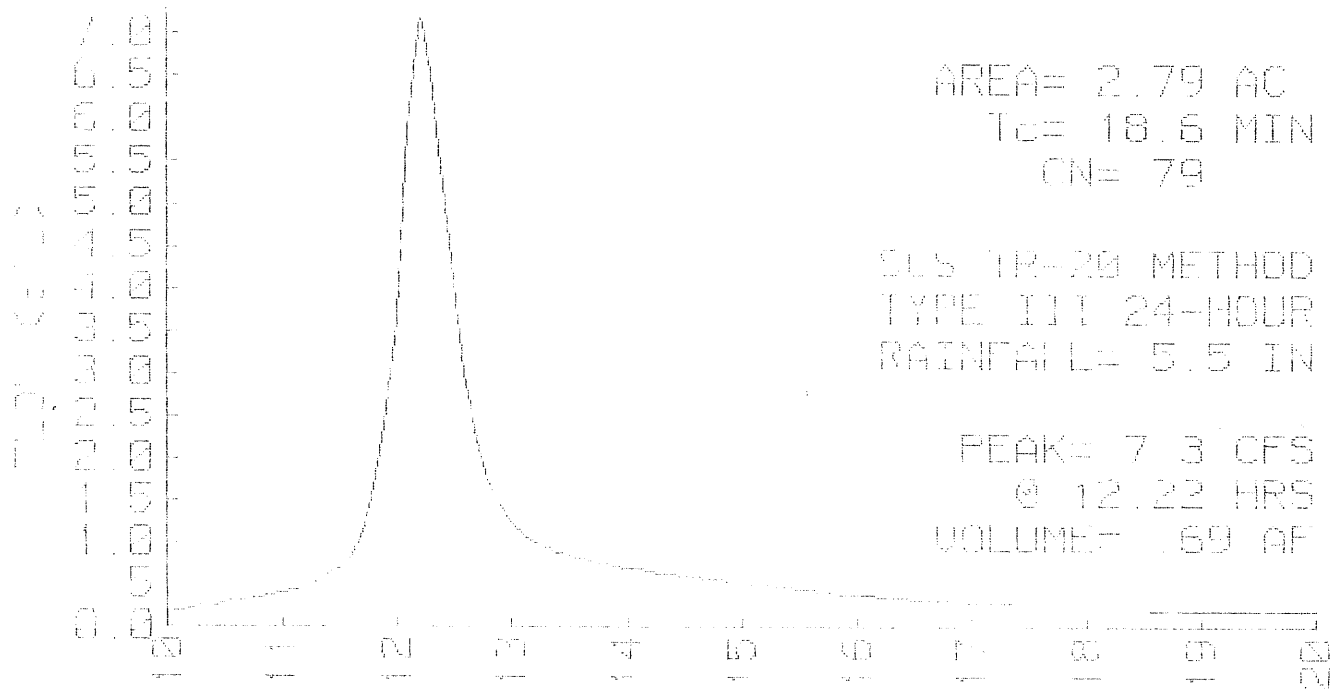
SUBCATCHMENT 2 MS-2

Q = 7.3 CFS @ 12.22 HRS, VOLUME= .69 AF

AREA(AC)	CN	
2.79	79	OPEN SPACE FAIR COND, HYD. C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 10-20 HRS, dt=.1 HRS

Sheet Flow	Comment	Tc (min)
TR-55 SHEET FLOW	1	17.6
Grass: Short n= .15 L=200' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	.6
Unpaved Waterway Kv=15 L=150'	s=.020 '/' V=2.19 fps	
CHANNEL FLOW	3	.4
X-sq-ft P=10' y=.5'		
s=.047 '/' n=.027 V=7.52 fps L=170'	Capacity=30.6 cfs	
	Total Length= 520 ft	Total Tc= 18.6



POND 1

Not described

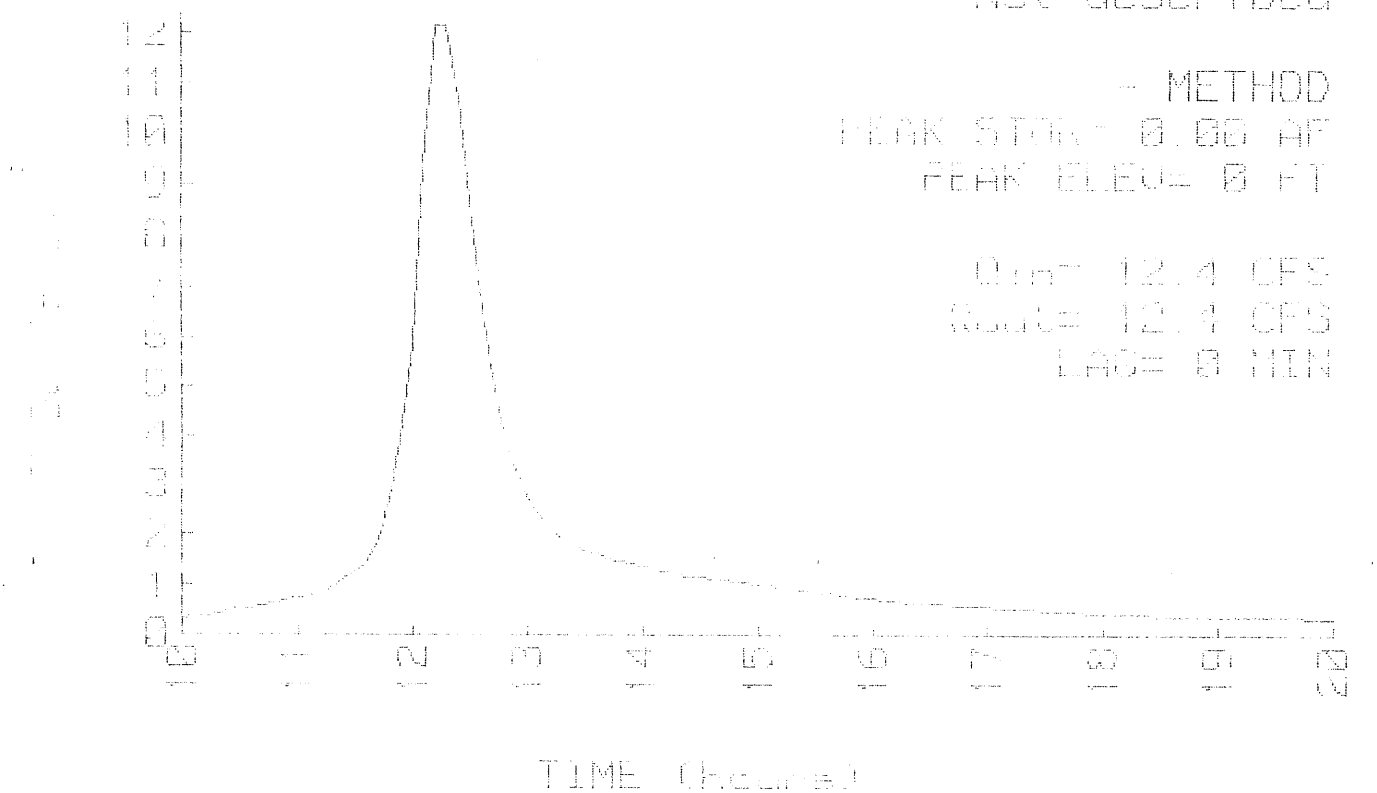
Qin = 12.4 CFS @ 12.25 HRS, VOLUME= 1.21 AF
Qout= 12.4 CFS @ 12.25 HRS, VOLUME= 1.21 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (AC)	INC STOR (AF)	CUM STOR (AF)

- METHOD
PEAK STORAGE = 0.00 AF
PEAK ELEVATION= 0.0 FT
FLOOD ELEVATION= 0.0 FT
START ELEVATION= 0.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

ROUTE	INVERT	OUTLET DEVICES

POND 1 INFLOW & OUTFLOW

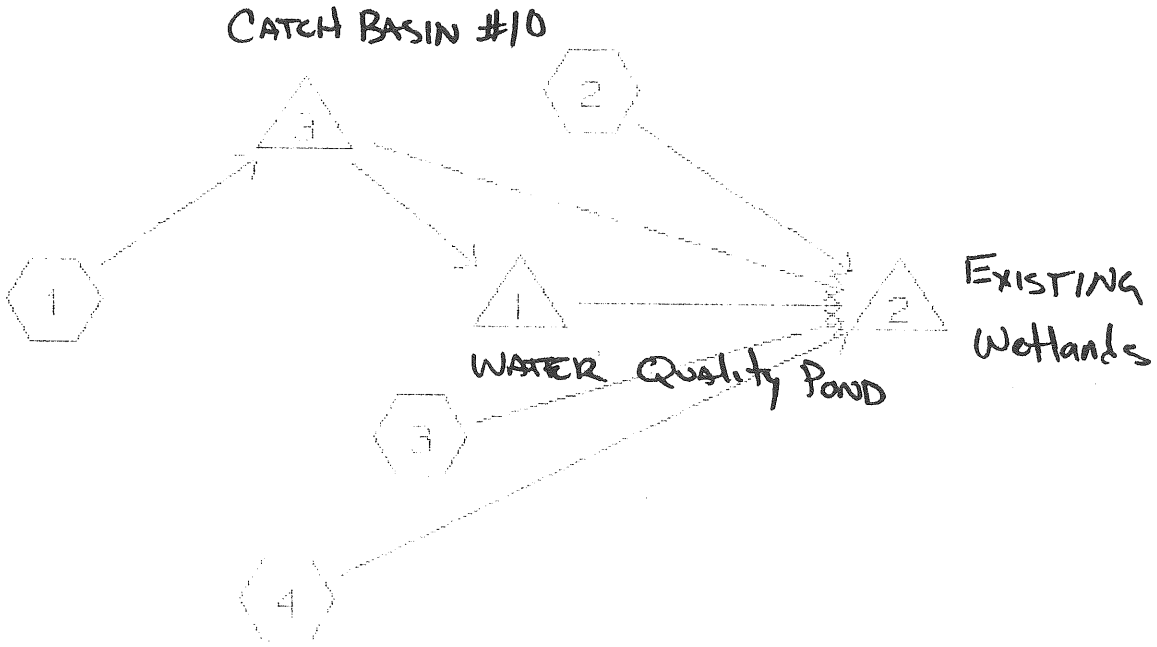


Section 3

Peak Rates of Runoff: Developed Conditions

2yr Storm Event.

WATERSHED ROUTING



SUBCATCHMENT BENCH POND LINK

RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 3.0 IN, SCS U.H.

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

SUBCAT NMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--				WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	2.50	3.7	98%98	72%4	-	-	97	-	8.0	12.00	.52
2	1.24	20.9	100%79	-	-	-	79	-	1.1	12.26	.11
3	.94	4.2	100%79	-	-	-	79	-	1.2	12.02	.09
4	.35	2.9	40%79	60%98	-	-	90	-	.8	12.00	.05

REACH ROUTING BY STOR-IND+TRANS METHOD

CL	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)

Pond for CONCORD TRAILWAY
TYPE III 24-HOUR RAINFALL= 3.0 IN
Prepared by SERAGO TECHNICS, INC. 16 Jun 96
HydroCAD 4.00 000509 (c) 1986-1995 Applied Microcomputer Systems

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)	Qpri (CFS)	Qsec (CFS)	---Qout--- ATTEN. (%)	LAG (MIN)
1	14.0	18.0	16.5	.22	8.0	4.9	0.0	4.8	39	8.2
2	0.0	0.0	0.0	0.00	6.9	6.9			0	0.0 N

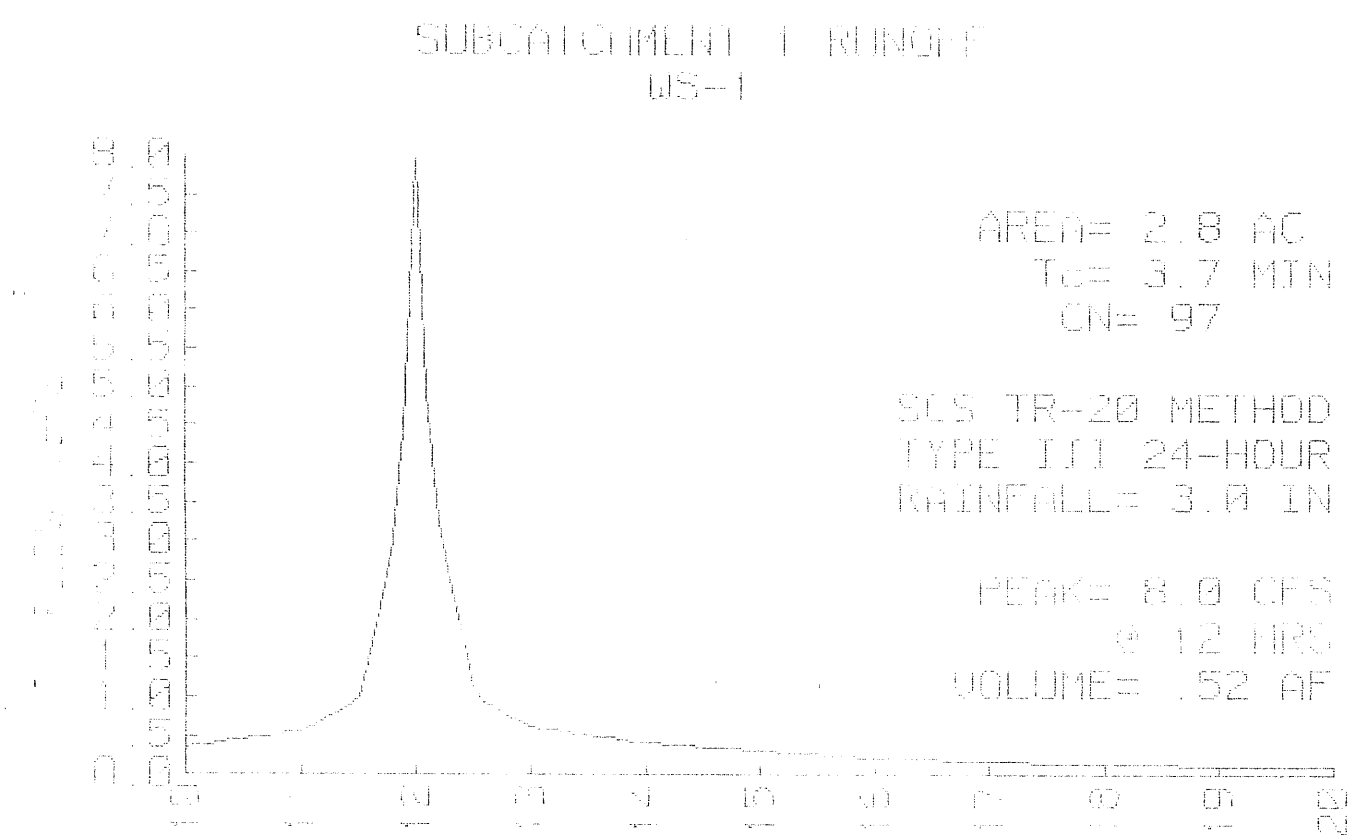
SUBCATCHMENT 1 WS-1

PEAK= 8.0 CFS @ 12.00 HRS, VOLUME= .52 AF

ACRES	CN	
2.60	98	PARKING/ROOFS
.20	79	GRASS ISLANDS (ASSUME C SOIL IN
2.80	97	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.0 IN
SPAN= 10-20 HRS, dt=.1 HRS

Flow	Comment	Tc (min)
TR-55 SHEET FLOW	Segment ID:	2.2
Paved surfaces n=.011 L=200'	P2=3 in s= 0% '/'	
CIRCULAR CHANNEL	Segment ID:	1.5
24" Diameter a=1.23 sq-ft Pw=3.9' r=.313'		
0% '/' n=.012 V=4.42 fps L=410'	Capacity=5.4 cfs	
	Total Length= 610 ft Total Tc=	3.7



SUBCATCHMENT 2 WS-2

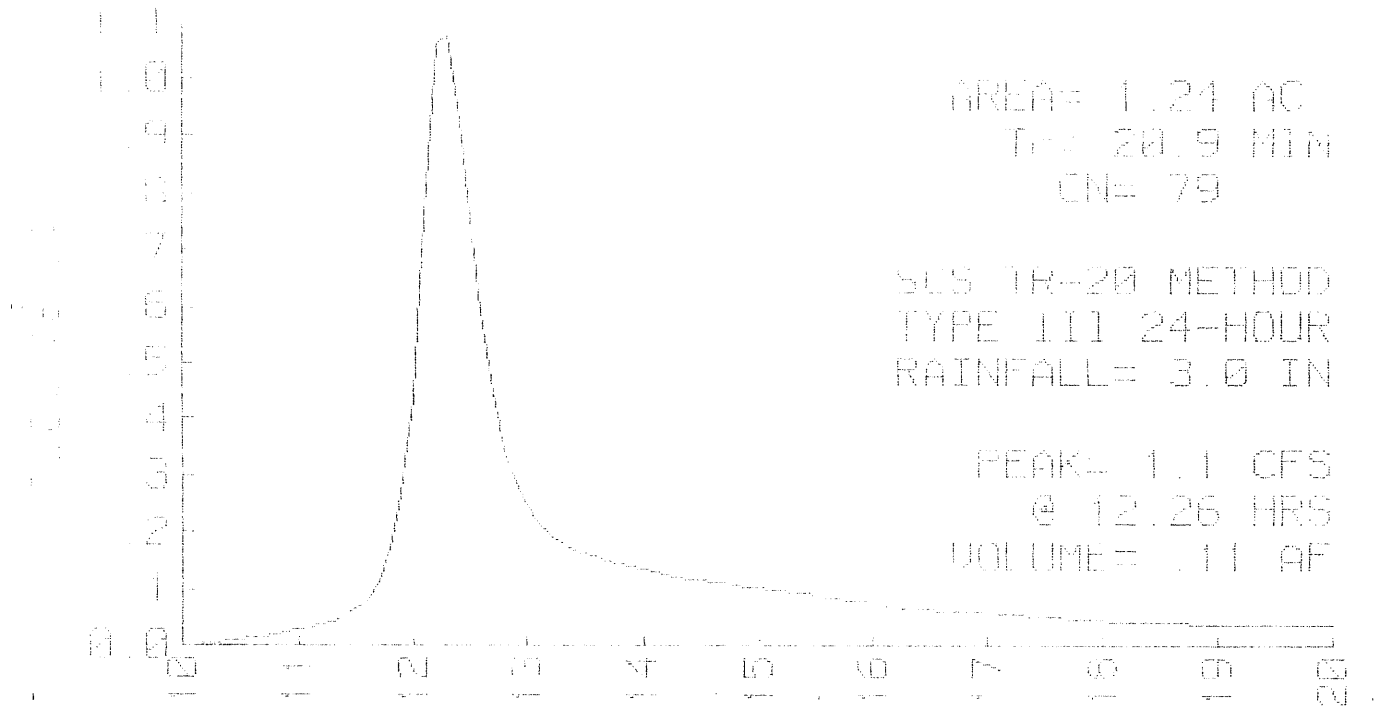
PEAK= 1.1 CFS @ 12.26 HRS, VOLUME= .11 AF

ACRES	CN	
1.24	79	OPEN SPACE FAIR COND. HYD.C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.0 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	19.8
Grass: Short n=.15 l=200' P2=3 in s=.015 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	.7
Grassed Waterway Kv=15 L=150' s=.06 '/' v=3.67 fps		
CHANNEL FLOW	3	.4
5 sq-ft Pw=10' r=.5'		
s=.04 '/' n=.027 V=7.52 fps L=170' Capacity=37.6 cfs		
	Total Length= 520 ft	Total Tc= 20.9

SUBCATCHMENT 2 RUNOFF
WS-2



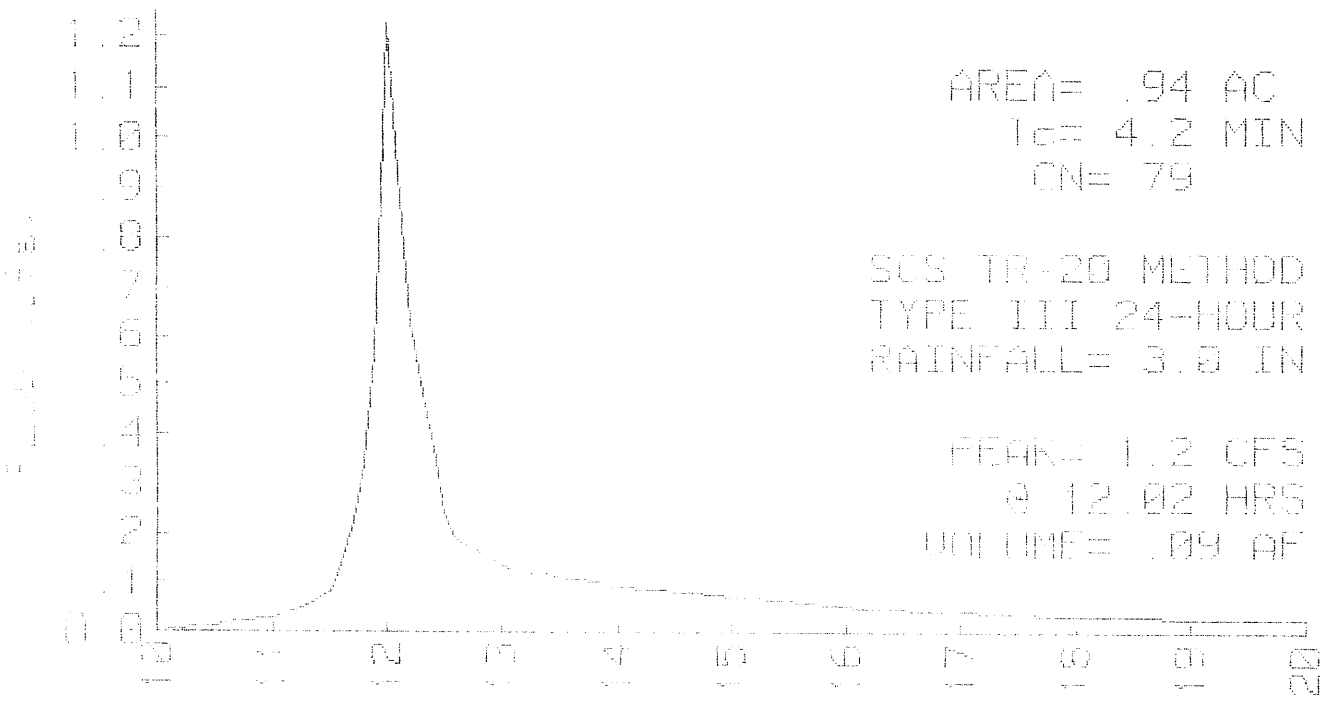
SUBCATCHMENT 3 WS-3

PEAK= 1.2 CFS @ 12.02 HRS, VOLUME= .09 AF

ACRES	CN		
.94	79	OPEN SPACE FAIR COND. HYD. C	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.0 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	3.5
Grass: Dense n=.24 L=55' P2=3 in s=.22 '/'		
CHANNEL FLOW	2	.7
.5 sq-ft Pw=10' r=.5'		
s=.03 '/' n=.027 V=6.01 fps L=270' Capacity=30 cfs		
	Total Length= 325 ft	Total Tc= 4.2



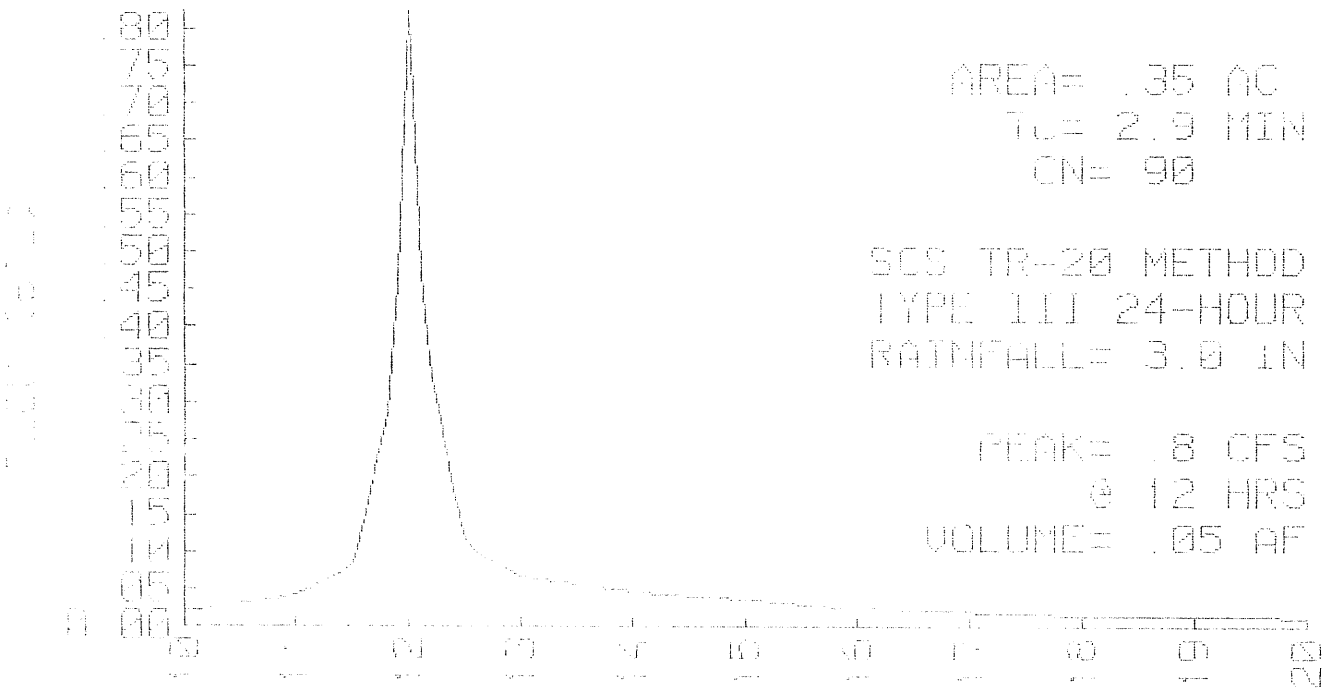
SUBCATCHMENT 4 WS-4

TAL= .0 CFS @ 12.00 HRS, VOLUME= .05 AF

ACRES	CN	
.14	79	GRASS ISLANDS HYD. C
.21	90	PARKING LOT
.35	90	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.0 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	1.2
Smooth surfaces n=.011 L=130'	P2=3 in s=.038 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	2	.4
Grassed Waterway Kv=15 L=40'	s=.01 '/' V 1.5 fps	
CHANNEL FLOW	3	1.3
a .5 sq-ft Pw=10' r=.5'		
.027 '/' n= 027 V=5.7 fps	L=440' Capacity=28.5 cfs	
	Total Length= 610 ft	Total Tc= 2.9



POND 1 WATER QUALITITY POND

Qin = 8.0 CFS @ 12.00 HRS, VOLUME= .52 AF
Qout= 4.9 CFS @ 12.14 HRS, VOLUME= .35 AF, ATTEN= 39%, LAG= 8.2 MIN
Qpri= 0.0 CFS @ 12.14 HRS, VOLUME= .03 AF
Qsec= 4.8 CFS @ 12.14 HRS, VOLUME= .32 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	3075	0	0
15.0	3700	3388	3388
16.0	4370	4035	7398
17.0	5145	4758	12155
18.0	6125	5635	17790

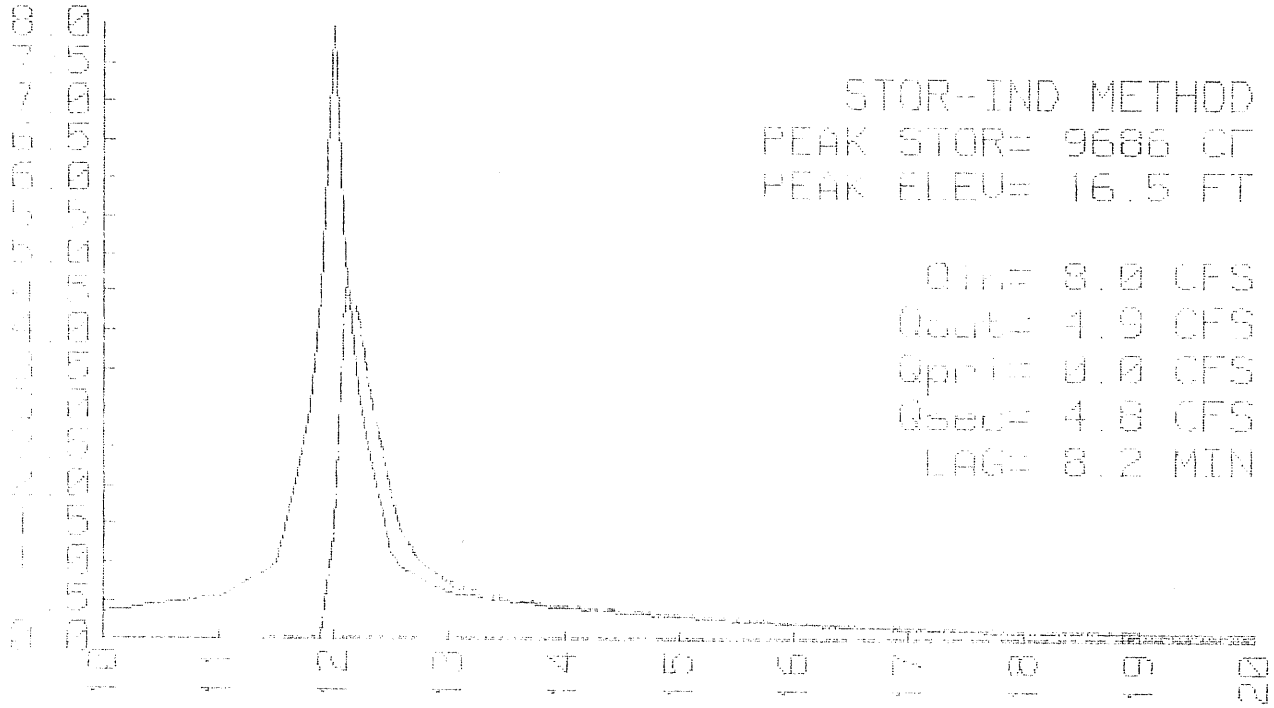
STOR-IND METHOD
PEAK STORAGE = 9686 CF
PEAK ELEVATION= 16.5 FT
FLOOD ELEVATION= 18.0 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES
1	P	14.0'	1" ORIFICE/GRATE Q=.6 PI r^2 SQR(2g) SQR(H-r)
2	S	16.0'	4' SHARP-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.27+.4 H/L Length=2(1 HD

Primary Discharge
#001=Orifice/Grate

Secondary Discharge
#002=Sharp-Crested Rectangular Weir

POND 1 INFLOW & OUTFLOW
WATER QUALITITY POND



TIME (hours)

POND 2

Not described

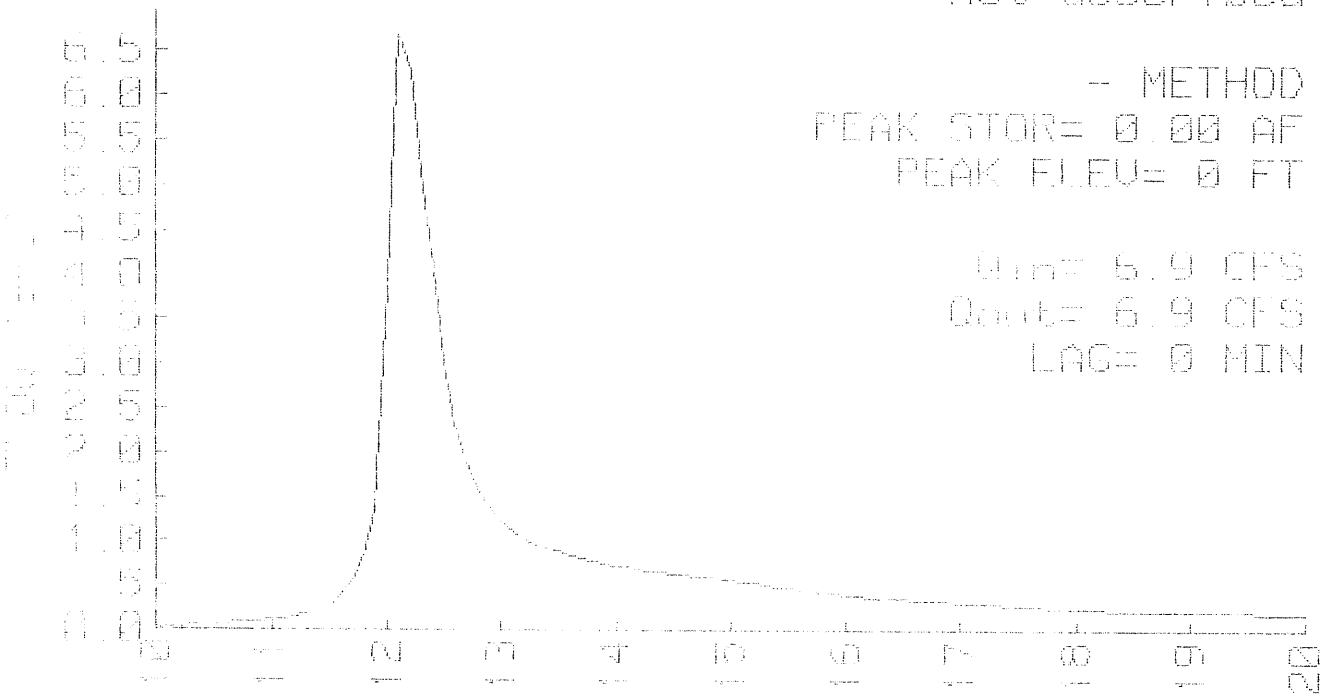
Qin = 6.9 CFS @ 12.14 HRS, VOLUME= .60 AF
Qout= 6.9 CFS @ 12.14 HRS, VOLUME= .60 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (AC)	INC.STOR (AF)	CUM.STOR (AF)

- METHOD
PEAK STORAGE = 0.00 AF
PEAK ELEVATION= 0.0 FT
FLOOD ELEVATION= 0.0 FT
START ELEVATION= 0.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

ROUTE	INVERT	OUTLET DEVICES

POND 2 INFLOW & OUTFLOW



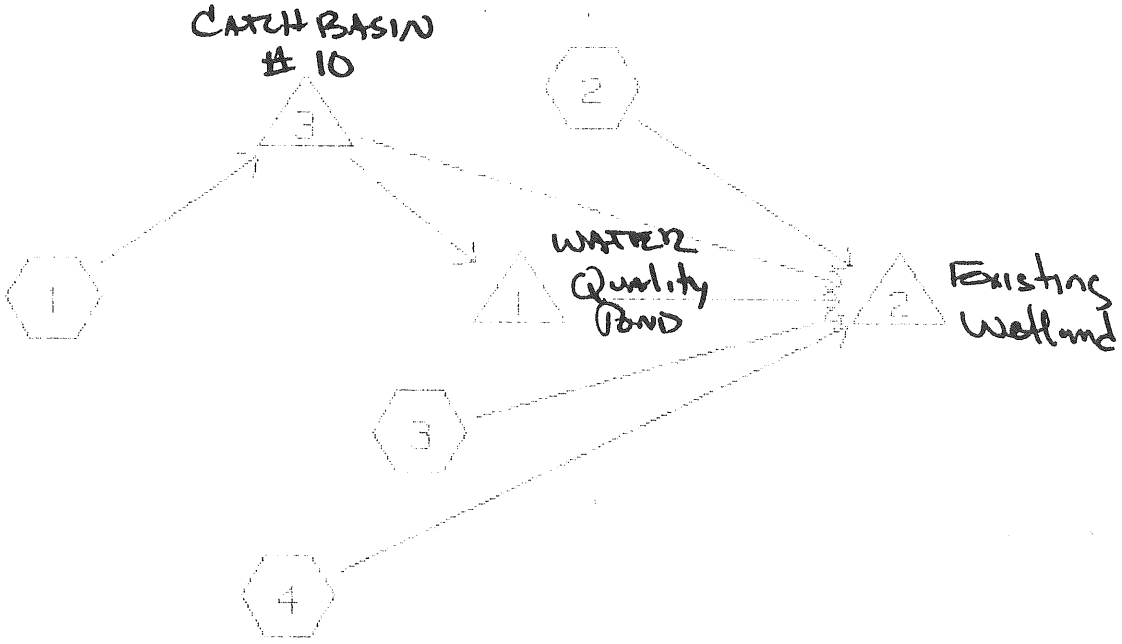
TIME (hours)

Data for CONCORD TRAILWAY
TYPE III 24-HOUR RAINFALL= 4.7 IN
Prepared by SEBAGO TECHNICS, INC.
HydroCAD 4.00 000509 (c) 1986-1995 Applied Microcomputer Systems

10yr. Storm Event

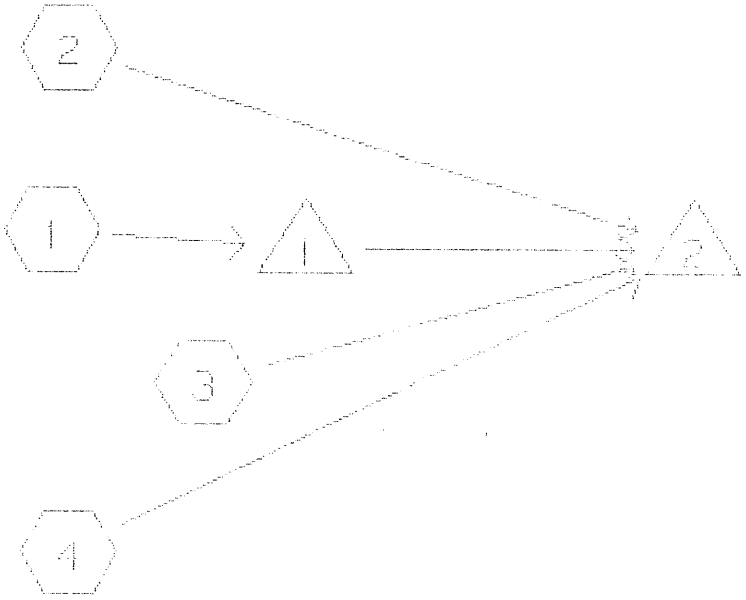
17 Jun 96

WATERSHED ROUTING



SUBCATCHMENT REACH POND LINK

WATERSHED ROUTING ==========



SUBCATCHMENT REACH POND LINK

RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 4.7 IN, SCS U.H.

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

SUBCAT POINT	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--				WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	2.80	3.7	93%98	7%79	-	-	97	-	12.7	12.00	.83
2	1.24	20.9	100%79	-	-	-	79	-	2.4	12.24	.24
3	.94	4.2	100%79	-	-	-	79	-	2.7	12.01	.18
4	.35	2.9	40%79	60%98	-	-	90	-	1.4	12.00	.09

Data for CONCORD TRAILWAY
TYPE III 24-HOUR RAINFALL= 4.7 IN
Prepared by SEBAGO TECHNICS, INC. 16 Jun 96
HydroCAD 4.00 000509 (c) 1986-1995 Applied Microcomputer Systems

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	14.0	18.0	16.7	.25	12.7	10.5	1.7	8.8	18	4.2
2	0.0	0.0	0.0	0.00	15.2	15.2			0	0.0 N

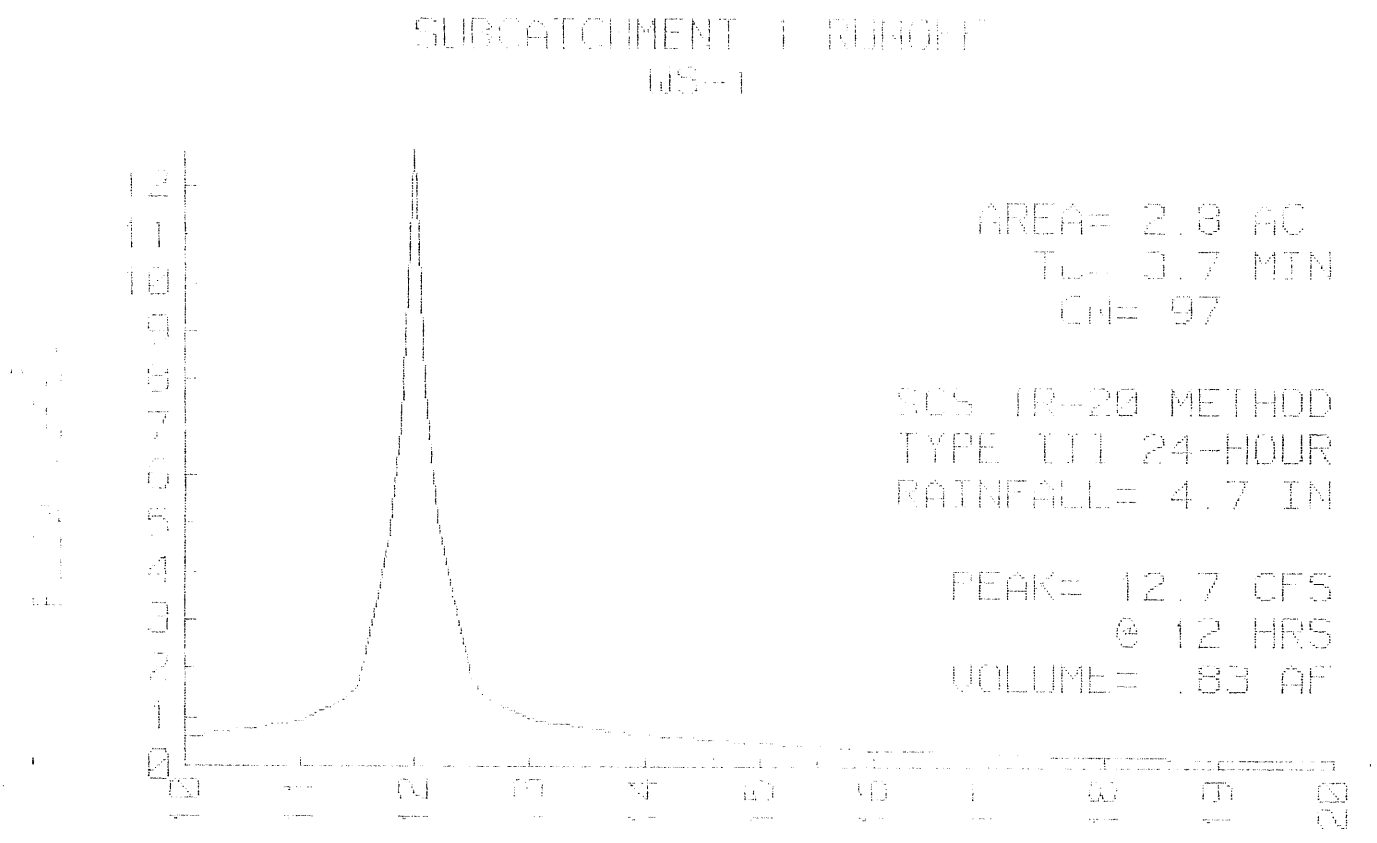
SUBCATCHMENT 1 WS-1

PEAK= 12.7 CFS @ 12.00 HRS, VOLUME= .83 AF

ACRES	CN	
2.60	98	PARKING/ROOFS
.20	72	GRASS ISLANDS (ASSUME C SOIL IN
2.80	97	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.7 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	Segment ID:	2.2
Smooth surface= n=.011 L=200'	P2=3 in s=.02 '/'	
CIRCULAR CHANNEL	Segment ID:	1.5
3" Diameter a=1.23 sq-ft Pw=3.9' r=.313'		
s=.006 '/' n=.012 V=4.42 fps L=410' Capacity=5.4 cfs		
	Total length= 610 ft Total Tc=	3.7



SUBCATCHMENT 2 WS-2

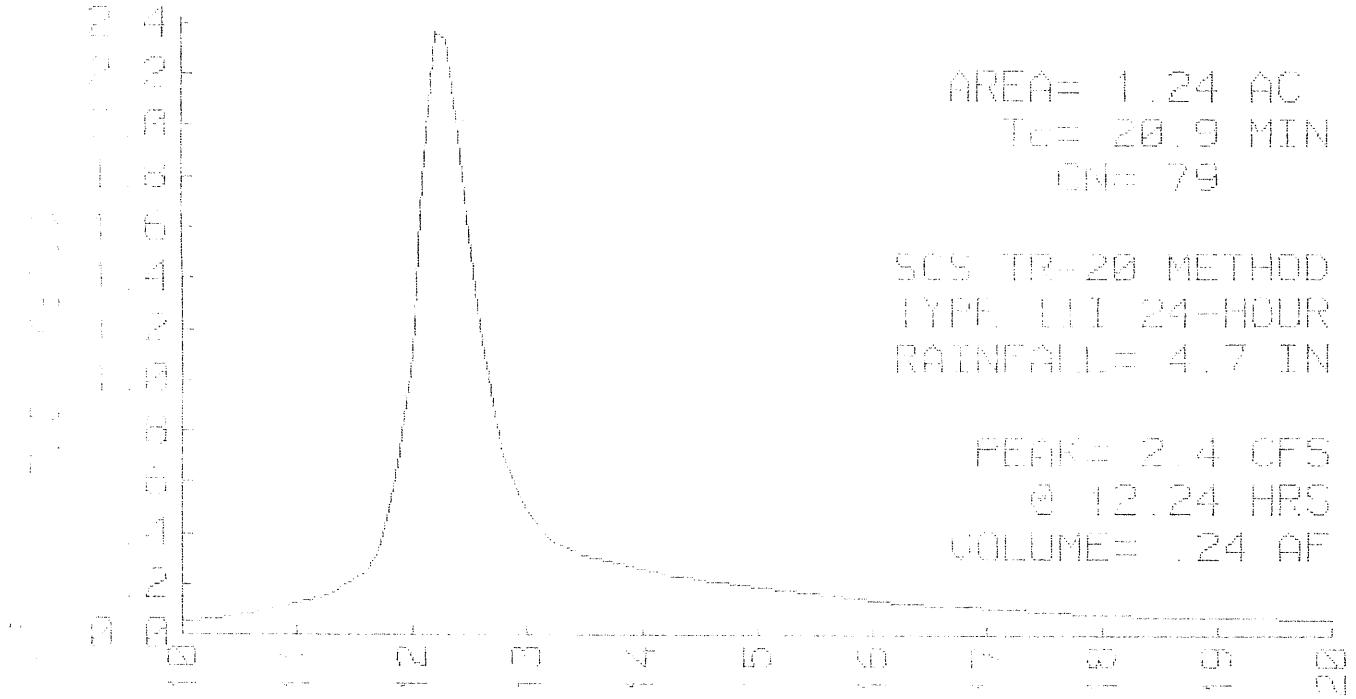
PEAK= 2.4 CFS @ 12.24 HRS, VOLUME= .24 AF

ACRES	CN	
1.24	79	OPEN SPACE FAIR COND. HYD.C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.7 IN
DPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	19.8
Grass: Short n=.15 l=200' P2=3 in s=.015 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	.7
Grassed Waterway Kv=15 l=150'	s=.06 '/' v=3.67 fps	
CHANNEL FLOW	3	.4
=5 sq-ft P=10' r=.5'		
=.017 '/' n=.027 V=7.52 fps	L=170' Capacity=37.6 cfs	
	Total Length= 520 ft	Total Tc= 20.9

SUBCATCHMENT 2 RUNOFF
WS-2



SUBCATCHMENT 3 WS-3

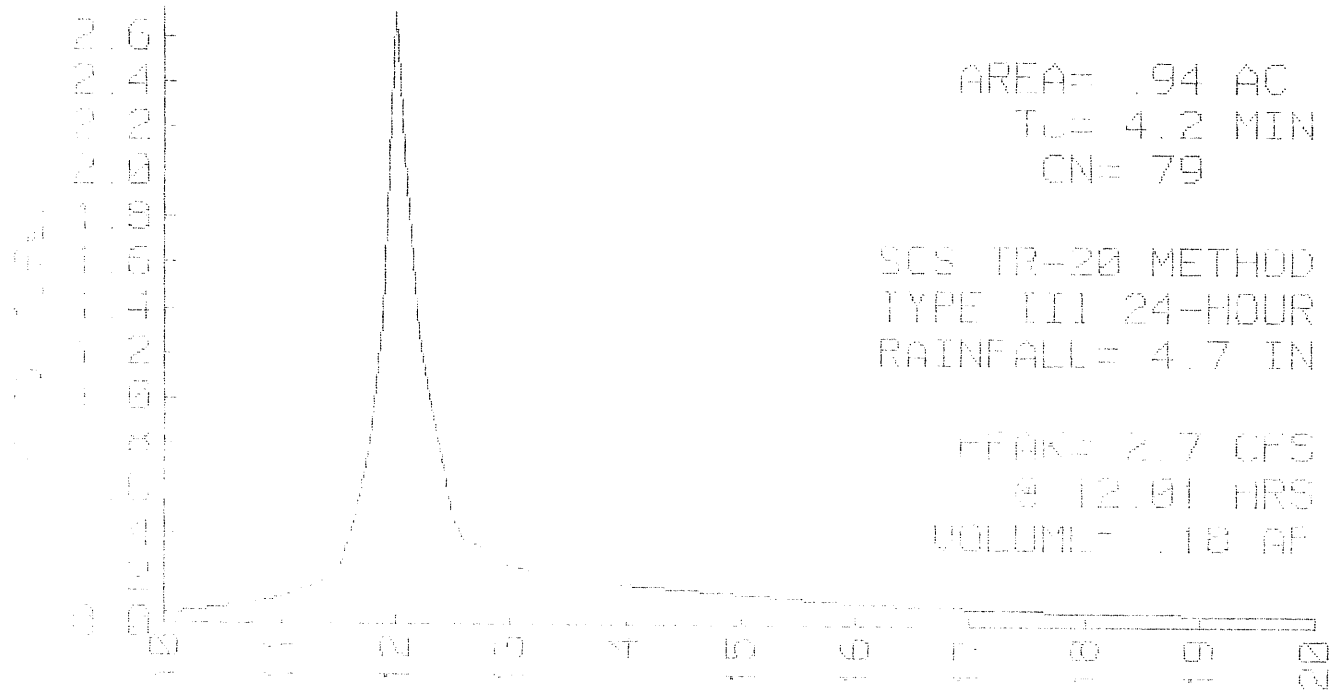
PEAK= 2.7 CFS @ 12.01 HRS, VOLUME= .18 AF

ACRES	CN		
.94	79	OPEN SPACE FAIR COND. HYD. C	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.7 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	3.5
Grass: Dense n=.24 L=55' P2=3 in s=.22 '/'		
CHANNEL FLOW	2	.7
2.5 sq-ft Pw=10' r=.5'		
s=.08 '/' n=.027 V=6.01 fps L=270' Capacity=30 cfs		
Total Length=325 ft	Total Tc=	4.2

SUBCATCHMENT 3 RUNOFF
WS-3



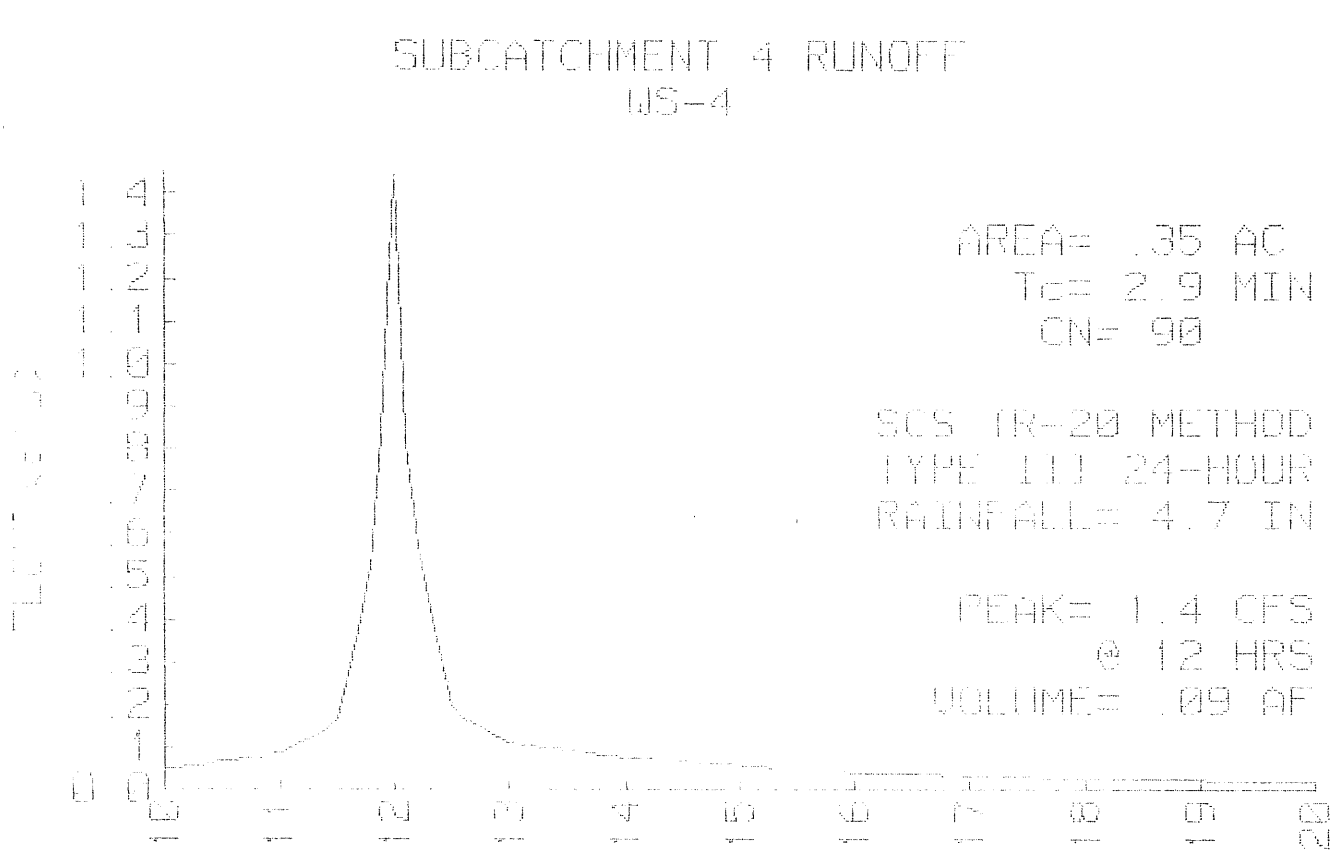
SUBCATCHMENT 4 WS-4

PEAK= 1.4 CFS @ 12.00 HRS, VOLUME= .09 AF

ACRES	CN	
.14	79	GRASS ISLANDS HYD. C
.21	98	PARKING LOT
.35	90	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.7 IN
SPAN= 10-20 HRS, dt=.1 HRS

Flow	Comment	Tc (min)
TR-55 SHEET FLOW	1	1.2
Smooth surfaces n=.011 L=130'	P2=3 in s=.038 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	2	.4
Unpaved Waterway Kv=15 L=40'	s=.01 '/' V=1.5 fps	
CHANNEL FLOW	3	1.3
.75 sq-ft Pw=10' r=.5'		
.33 '/' n=.027 V=5.7 fps	L=440' Capacity=38.5 cfs	
	Total Length= 610 ft Total Tc=	2.9



POND 1 WATER QUALITITY POND

Qin = 12.7 CFS @ 12.00 HRS, VOLUME= .83 AF
Qout= 10.5 CFS @ 12.07 HRS, VOLUME= .66 AF, ATTEN= 18%, LAG= 4.2 MIN
Qpri= 1.7 CFS @ 12.08 HRS, VOLUME= .05 AF
Qsec= 8.8 CFS @ 12.07 HRS, VOLUME= .60 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	3075	0	0
15.0	3700	3363	3363
16.0	4370	4035	7398
17.0	5145	4758	12156
18.0	6135	5635	17790

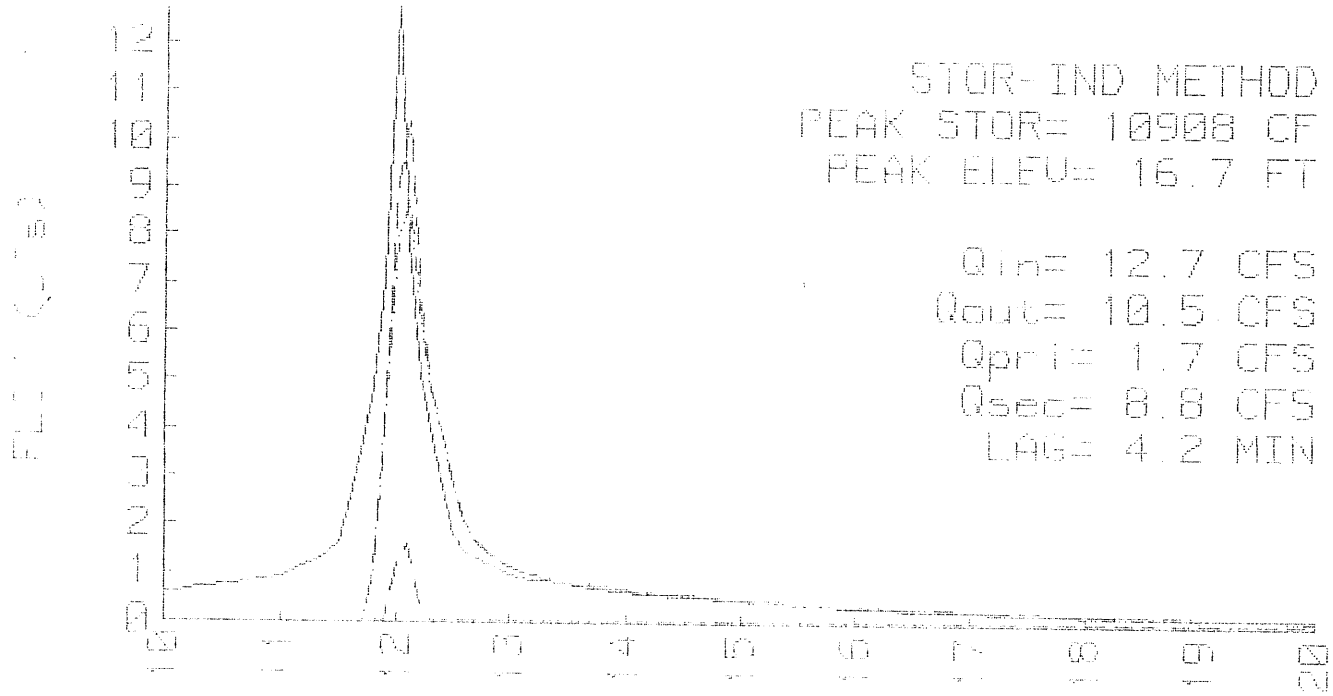
STOR-IND METHOD
PEAK STORAGE = 10908 CF
PEAK ELEVATION= 16.7 FT
FLOOD ELEVATION= 18.0 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

ROUTE	INVERT	OUTLET DEVICES
P	14.0'	1" ORIFICE/GRATE Q=.6 PI r^2 SQR(2g) SQR(H ;)
S	16.0'	4' SHARP-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.27+.4 H/I L=Length-2(.1 H)
P	16.5'	4' SHARP-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.27+.4 H/I L=Length-2(.1 H)

Primary Discharge
P(1)=Orifice/Grate
P(2)=Sharp-Crested Rectangular Weir

Secondary Discharge
S(2)=Sharp-Crested Rectangular Weir

POND 1 INFLOW & OUTFLOW
WATER QUALITY POND



POND 2

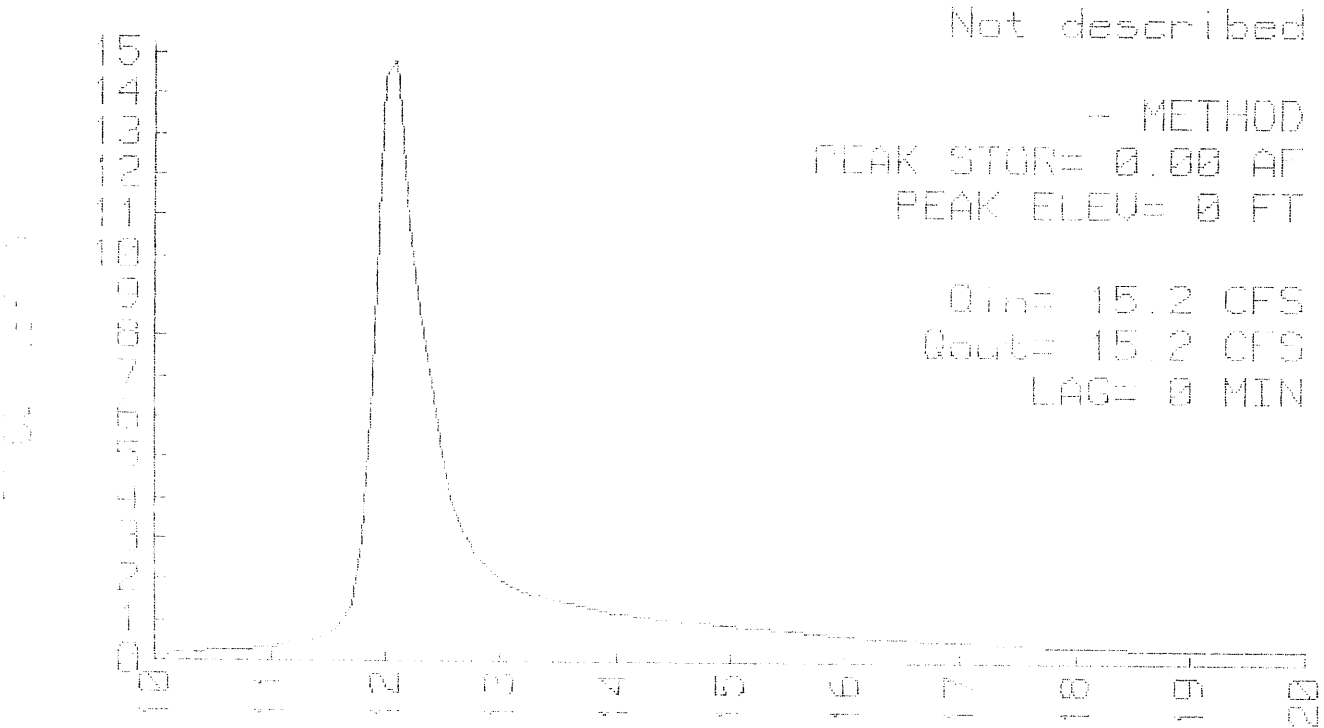
Not described
Qin = 15.2 CFS @ 12.06 HRS, VOLUME= 1.18 AF
Qout= 15.2 CFS @ 12.06 HRS, VOLUME= 1.18 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (AC)	INC.STOR (AF)	CUM.STOR (AF)

- METHOD
PEAK STORAGE = 0.00 AF
PEAK ELEVATION= 0.0 FT
FLOOD ELEVATION= 0.0 FT
START ELEVATION= 0.0 FT
RAIN= 10-20 HRS, dt=.1 HRS

ROUTE	INVERT	OUTLET DEVICES

POND 2 INFLOW & OUTFLOW

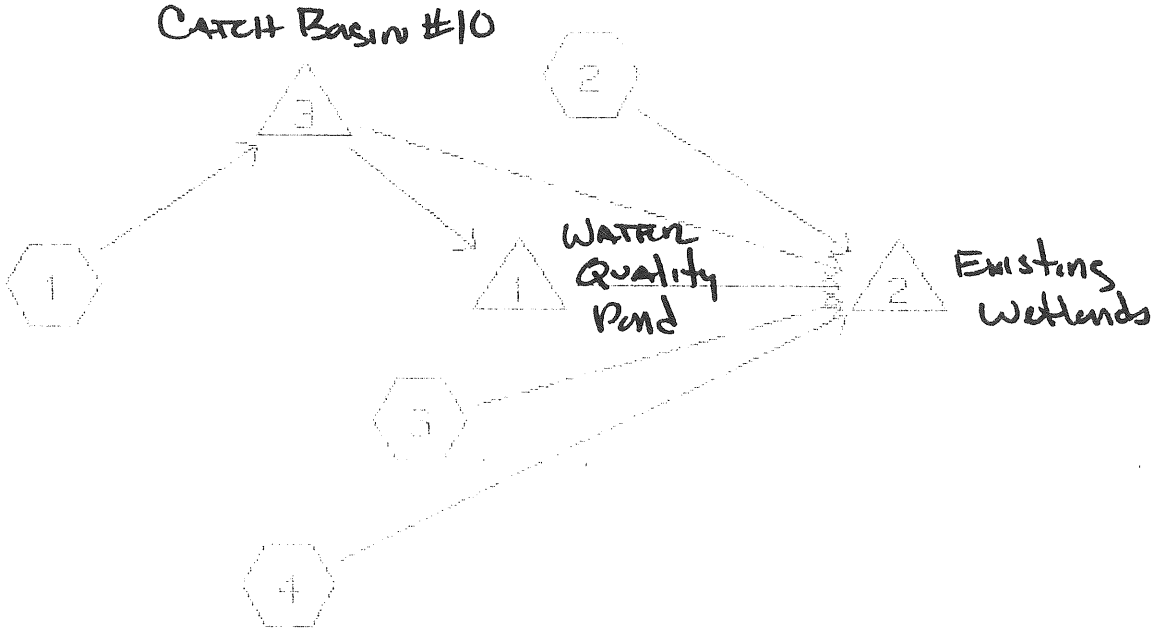


TYPE III 24-HOUR RAINFALL= 5.5 IN

25yr. Storm Event

17 Jun 96

ROUTING



SUBCATCHMENT REACH POND LINK

RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 5.5 IN, SCS U.H.

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

SUBCAT RGR	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--				WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	2.80	3.7	90%98	7%77	-	-	97	-	15.0	12.00	.98
2	1.24	20.9	100%79	-	-	-	79	-	3.1	12.24	.31
3	.94	4.2	100%79	-	-	-	79	-	3.5	12.01	.20
4	.35	2.9	40%79	60%98	-	-	90	-	1.7	12.00	.11

Data for CONCORD TRAILWAY
TYPE III 24-HOUR RAINFALL= 5.5 IN
Prepared by SEBAGO TECHNICS, INC. 16 Jun 96
HydroCAD 4.00 000509 (c) 1986-1995 Applied Microcomputer Systems

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	14.0	18.0	16.9	.26	15.0	12.5	2.4	10.1	16	3.5
2	0.0	0.0	0.0	0.00	19.1	19.1			0	0.0 N

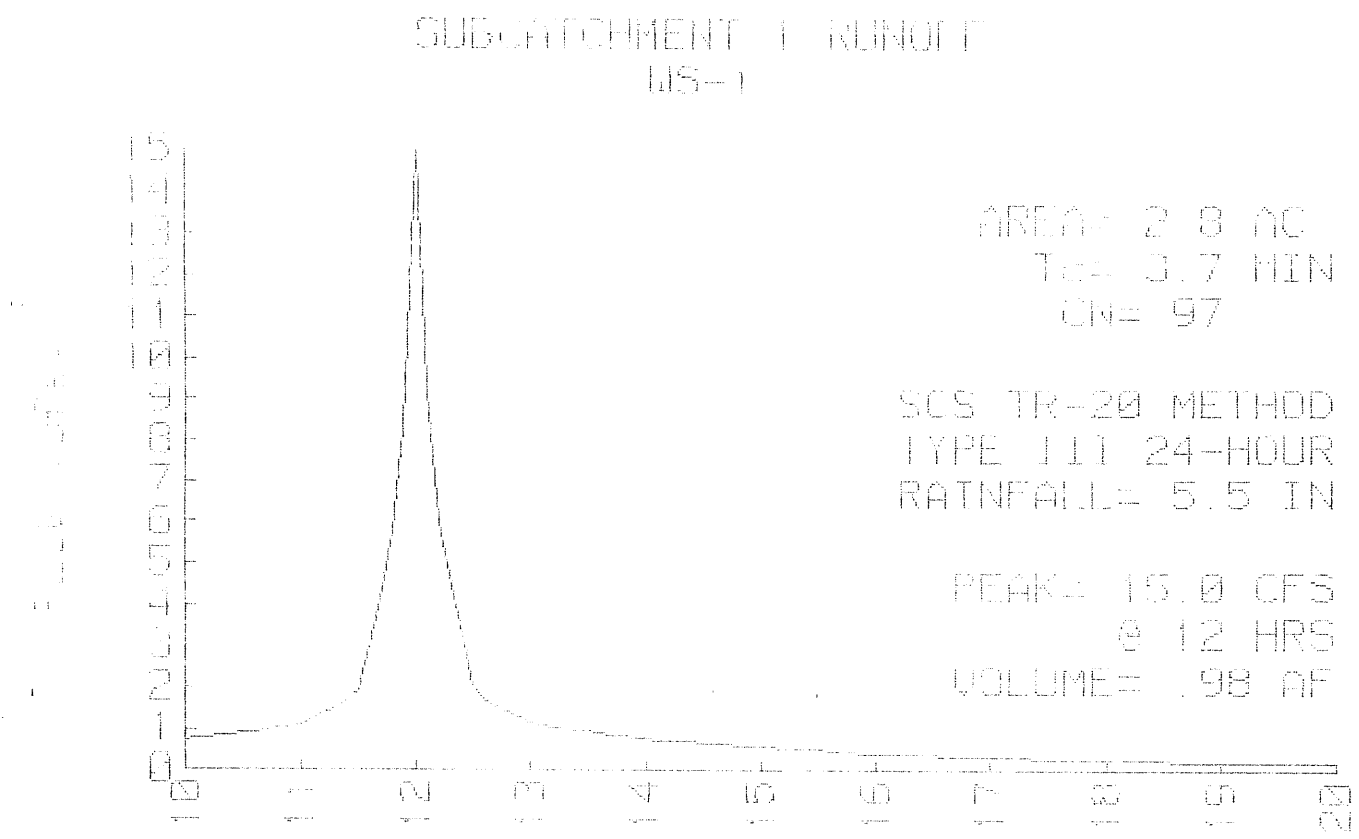
SUBCATCHMENT 1 WS-1

PEAK= 15.0 CFS @ 12.00 HRS, VOLUME= .98 AF

ACRES	CN	
2.60	98	PARKING/ROOFS
.20	79	GRASS ISLANDS (ASSUME C SOIL IN
2.80	97	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	Segment ID:	2.2
Smooth surfaces n=.011 L=200'	P2=3 in s=.02 '/'	
CIRCULAR CHANNEL	Segment ID:	1.5
3" Diameter a=1.20 sq ft	Pw=3.9' r=.513'	
s=.06 '/' n=.012	V=4.42 fps L=410' Capacity=5.1 cfs	
	Total Length= 610 ft Total Tc=	3.7



SUBCATCHMENT 2 WS-2

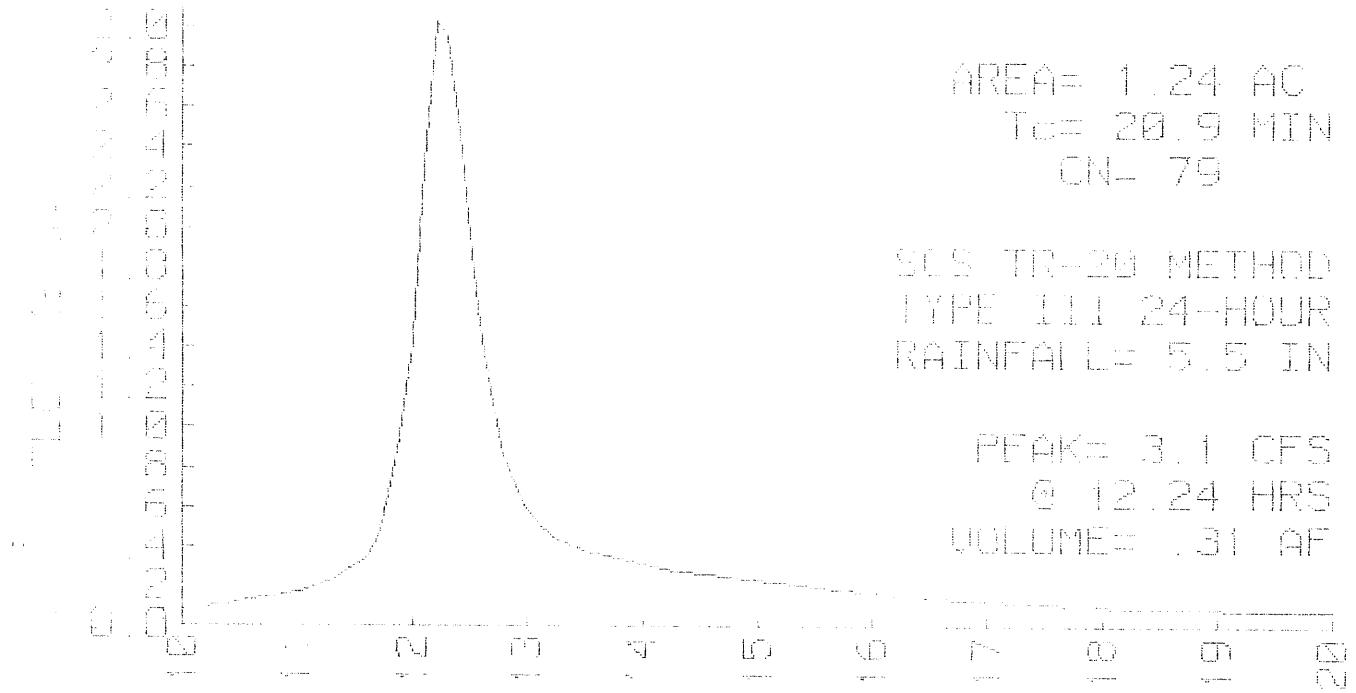
PEAK= 3.1 CFS @ 12.24 HRS, VOLUME= .31 AF

ACRES	CN	
1.24	79	OPEN SPACE FAIR COND. HYD.C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	19.8
Grass: Short n=.15 l=200' P2=3 in s=.015 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	.7
Grassed Waterway Kv=15 l=150'	s=.06 '/' V=3.67 fps	
CHANNEL FLOW	3	.4
a=5 sq-ft Pw=10' r=.5'		
s=.047 '/' n=.027 V=7.52 fps	L=170' Capacity=37.6 cfs	
	Total Length= 520 ft	Total Tc= 20.9

SUBCATCHMENT 2 RUNOFF
WS-2



SUBCATCHMENT 3 WS-3

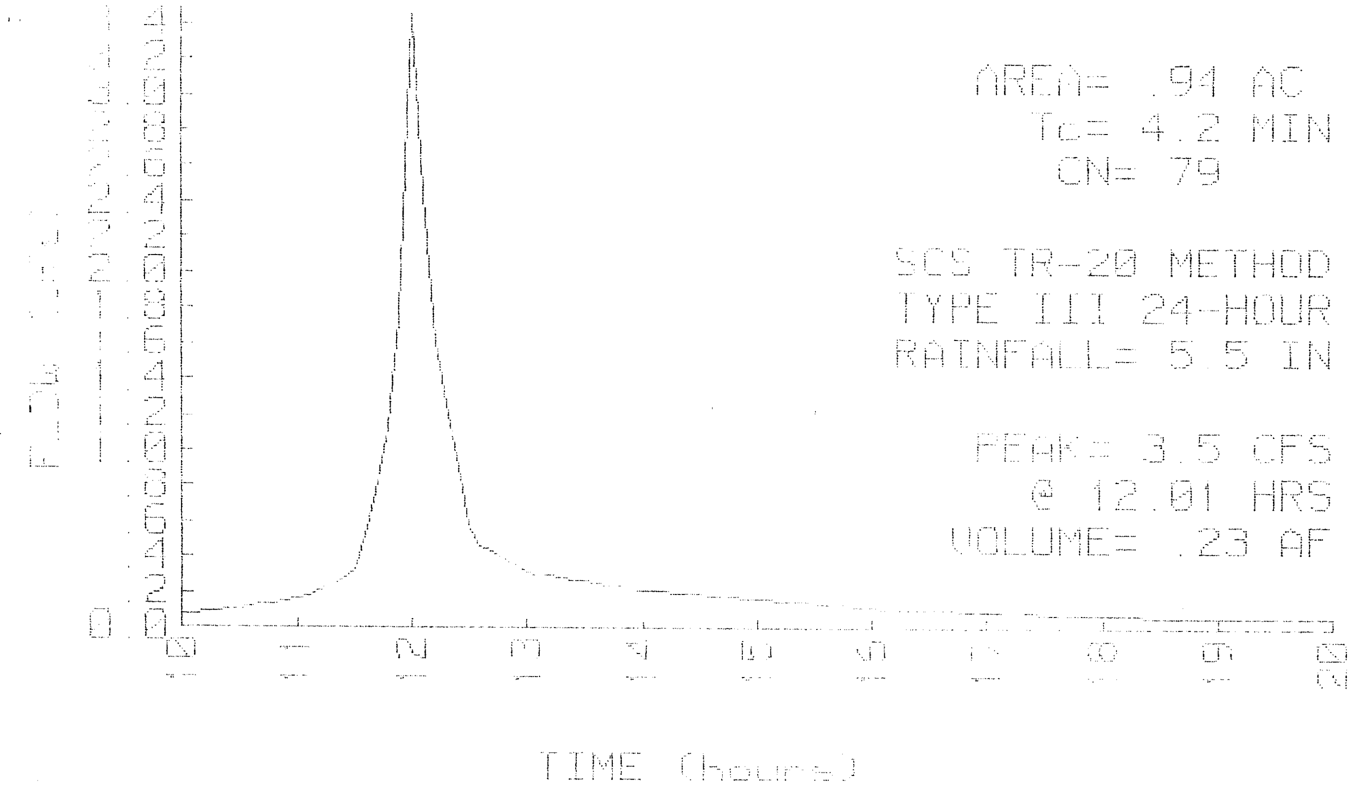
PEAK= 3.5 CFS @ 12.01 HRS, VOLUME= .23 AF

ACRES	CN	
.94	79	OPEN SPACE FAIR COND. HYD. C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	3.5
Grass: Dense n=.24 L=55' P2=3 in s=.22 '/'		
CHANNEL FLOW	2	.7
[illegible] sq ft Pw=10' r=.5'		
s=[illegible] '/' n=.027 V=6.01 fps L=270' Capacity=30 cfs		
	Total Length= 325 ft Total Tc=	4.2

SUBCATCHMENT 3 RUNOFF
WS-3



SUBCATCHMENT 4 WS-4

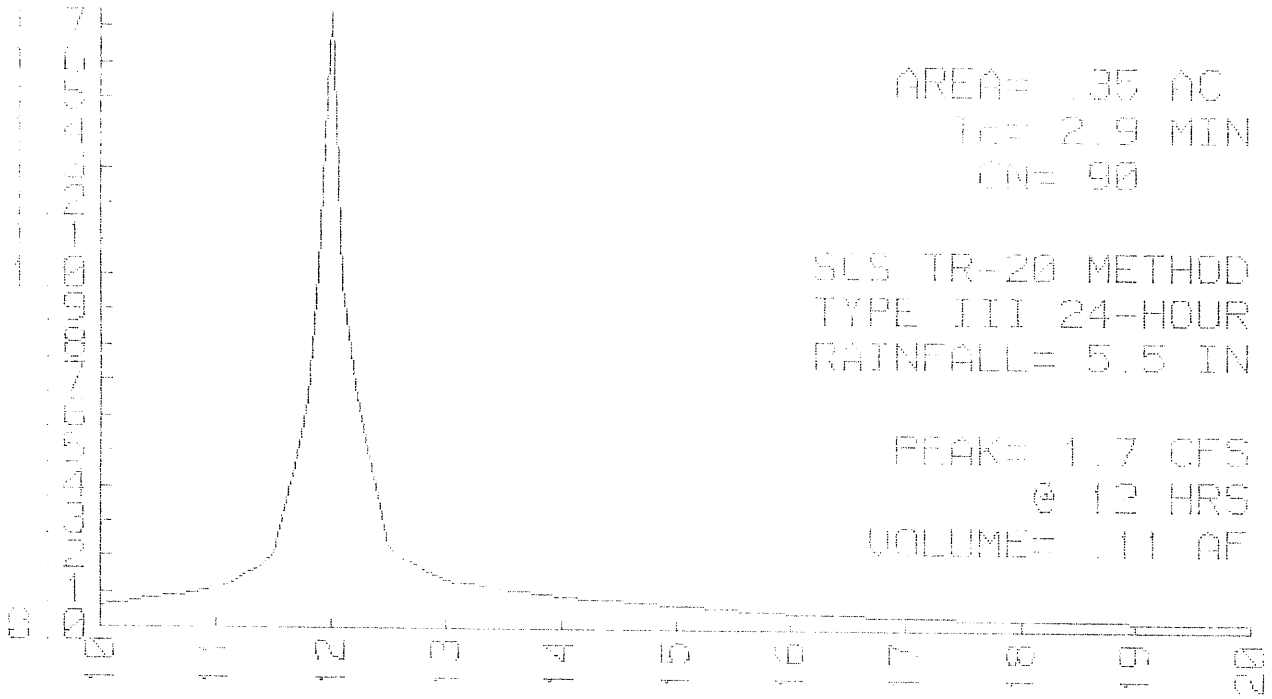
PEAK= 1.7 CFS @ 12.00 HRS, VOLUME= .11 AF

ACRES	CN	
.14	79	GRASS ISLANDS HYD. C
.21	98	PARKING LOT
.35	90	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	1.2
Smooth surfaces n=.011 L=130'	P2=3 in s=.038 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	2	.4
Grassed Waterway Kv=15 L=40'	s=.01 '/' V=1.5 fps	
CHANNEL FLOW	3	1.3
a=5 sq-ft Pw=10' r=.5'		
s=.027 '/' n=.027 V=5.7 fps	L=440' Capacity=28.5 cfs	
	Total length= 610 ft Total Tc=	2.9

SUBCATCHMENT 4 RUNOFF
WS-4



POND 1 WATER QUALITITY POND

Jin = 15.0 CFS @ 12.00 HRS, VOLUME= .98 AF
Jout= 12.5 CFS @ 12.06 HRS, VOLUME= .80 AF, ATTEN= 16%, LAG= 3.5 MIN
Qpri= 2.4 CFS @ 12.06 HRS, VOLUME= .07 AF
Qsec= 10.1 CFS @ 12.06 HRS, VOLUME= .73 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	3025	0	0
15.0	3700	3363	3363
16.0	4370	4035	7398
17.0	5145	4758	12155
18.0	6125	5635	17790

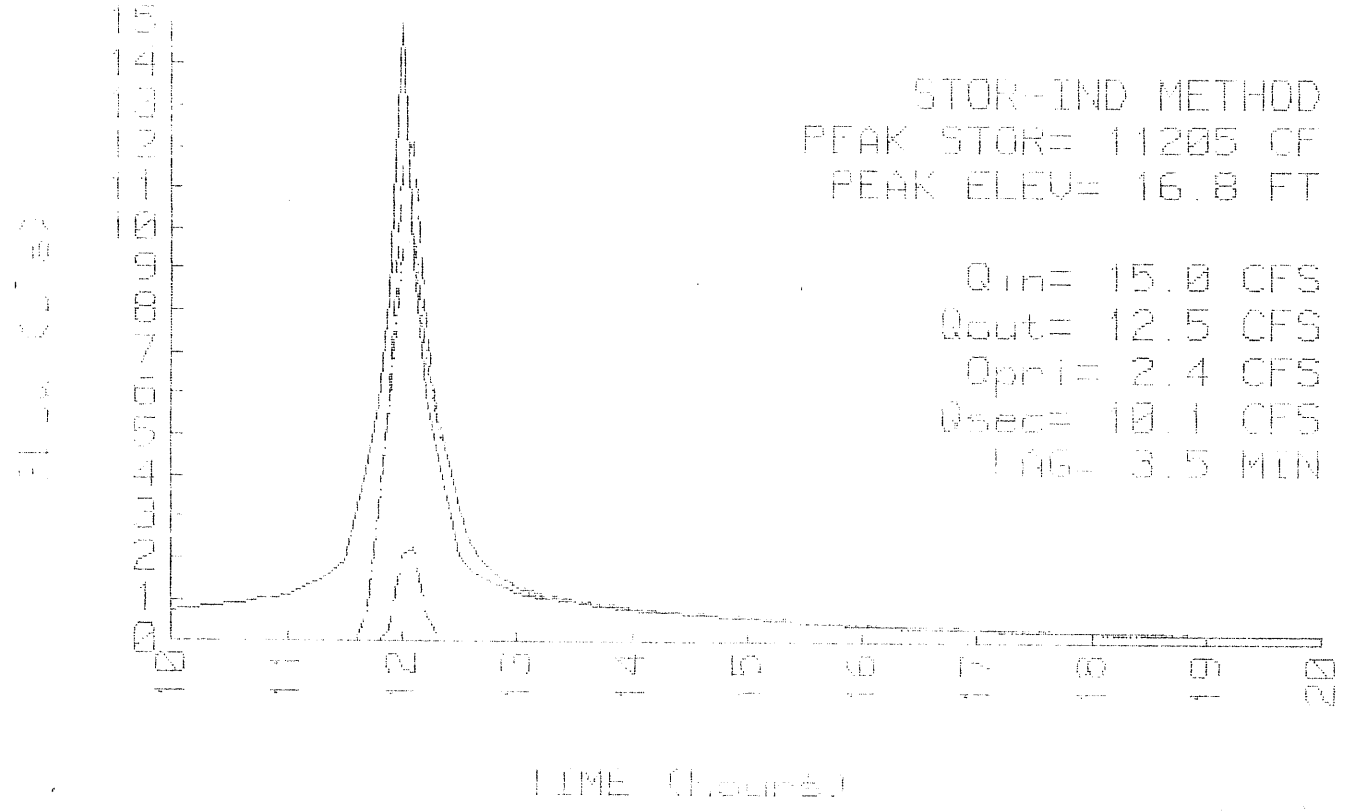
STOR-IND METHOD
PEAK STORAGE = 11205 CF
PEAK ELEVATION= 16.8 FT
FLOOD ELEVATION= 18.0 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

*	ROUTE	INVERT	OUTLET DEVICES
	P	14.0'	1" ORIFICE/GRATE
			Q=.6 PI r^2 SQR(2g) SQR(H-r)
2	S	16.0'	4' SHARP-CRESTED RECTANGULAR WEIR
			Q=C L H^1.5 C=3.27+.4 H/1 L=Length-2(.1 H)
1	P	16.5'	4' SHARP-CRESTED RECTANGULAR WEIR
			Q=C L H^1.5 C=3.27+.4 H/1 L=Length-2(.1 H)

Primary Discharge
0001=Orifice/Grate
0003=Sharp-Crested Rectangular Weir

Secondary Discharge
0002=Sharp-Crested Rectangular Weir

POND 1 INFLOW & OUTFLOW
WATER QUALITTTY POND



POND 2

Not described

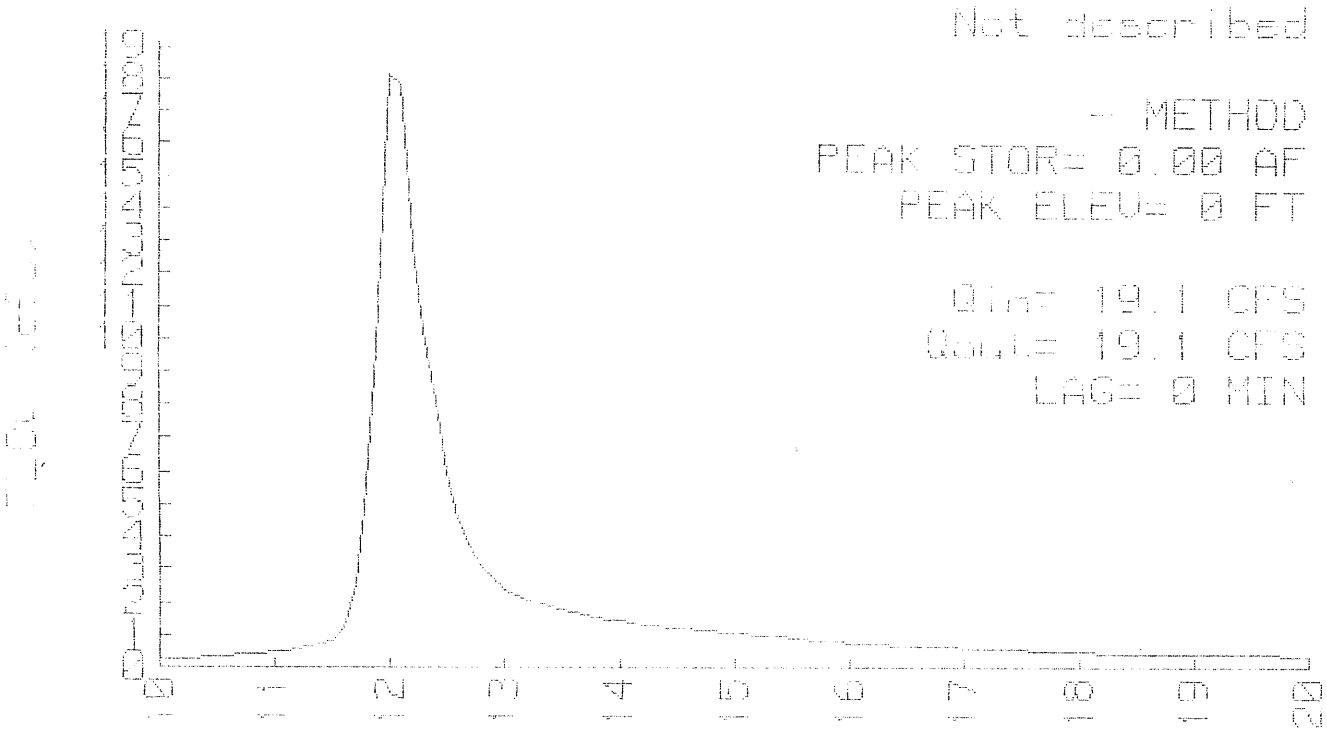
Qin = 19.1 CFS @ 12.05 HRS, VOLUME= 1.45 AF
Qout= 19.1 CFS @ 12.05 HRS, VOLUME= 1.45 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (AC)	INC.STOR (AF)	CUM.STOR (AF)

- METHOD
PEAK STORAGE = 0.00 AF
PEAK ELEVATION= 0.0 FT
FLOOD ELEVATION= 0.0 FT
START ELEVATION= 0.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

Num	INV/CPT	OUTLET DEVICES

POND 2 INFLOW & OUTFLOW



TIME (hours)

Section 4

Water Quality Pond Calculations

2 yr. Storm Event

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	14.0	18.0	16.8	.25	8.0	2.9	.1	2.8	64	15.2	
2	0.0	0.0	0.0	0.00	4.9	4.9			0	0.0	N
3	14.0	23.8	17.0	0.00	8.0	8.0	8.0	0.0	0	0.0	

POND 1 WATER QUALITITY POND

Qin = 8.0 CFS @ 12.00 HRS, VOLUME= .52 AF
Qout= 2.9 CFS @ 12.26 HRS, VOLUME= .34 AF, ATTEN= 64%, LAG= 15.2 MIN
Qpri= .1 CFS @ 12.26 HRS, VOLUME= .05 AF
Qsec= 2.8 CFS @ 12.26 HRS, VOLUME= .29 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	3025	0	0
15.0	3700	3363	3363
16.0	4370	4035	7398
17.0	5145	4758	12155
18.0	6125	5635	17790

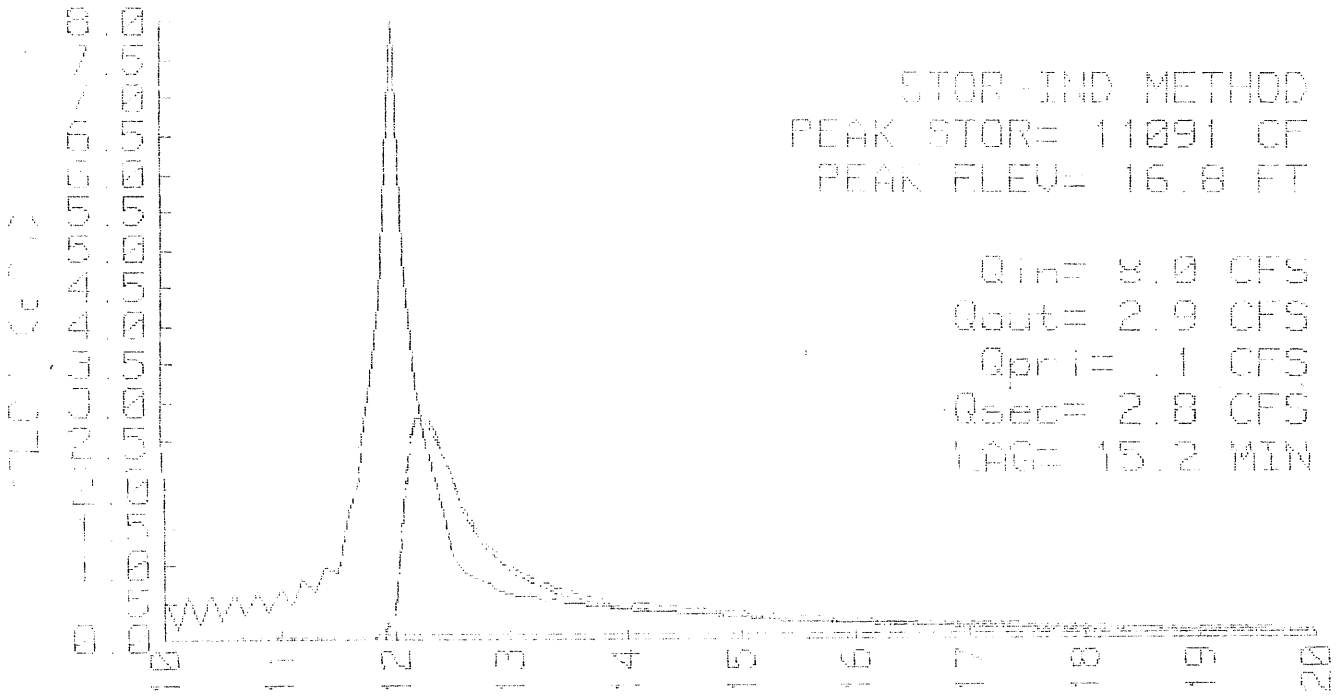
STOR-IND METHOD
PEAK STORAGE = 11091 CF
PEAK ELEVATION= 16.8 FT
FLOOD ELEVATION= 18.0 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES
	P	14.0'	1.3" ORIFICE/GRATE
			Q=.6 PI r^2 SQR(2g) SQR(h-r)
	S	16.0'	18" CULVERT
			n=.012 L=30' S=.033'/' Ke=.5 Cr=.9 Cd=.6
	P	17.5'	4' SHARP-CRESTED RECTANGULAR WEIR
			Q=C L H^1.5 C=3.27+.4 H/1 L=Length-2(.1 H)

Primary Discharge
P001=Orifice/Grate
P003=Sharp-Crested Rectangular Weir

Secondary Discharge
P002=Culvert

POND 1 INFLOW & OUTFLOW
WATER QUALITITY POND



POND 2

Not described

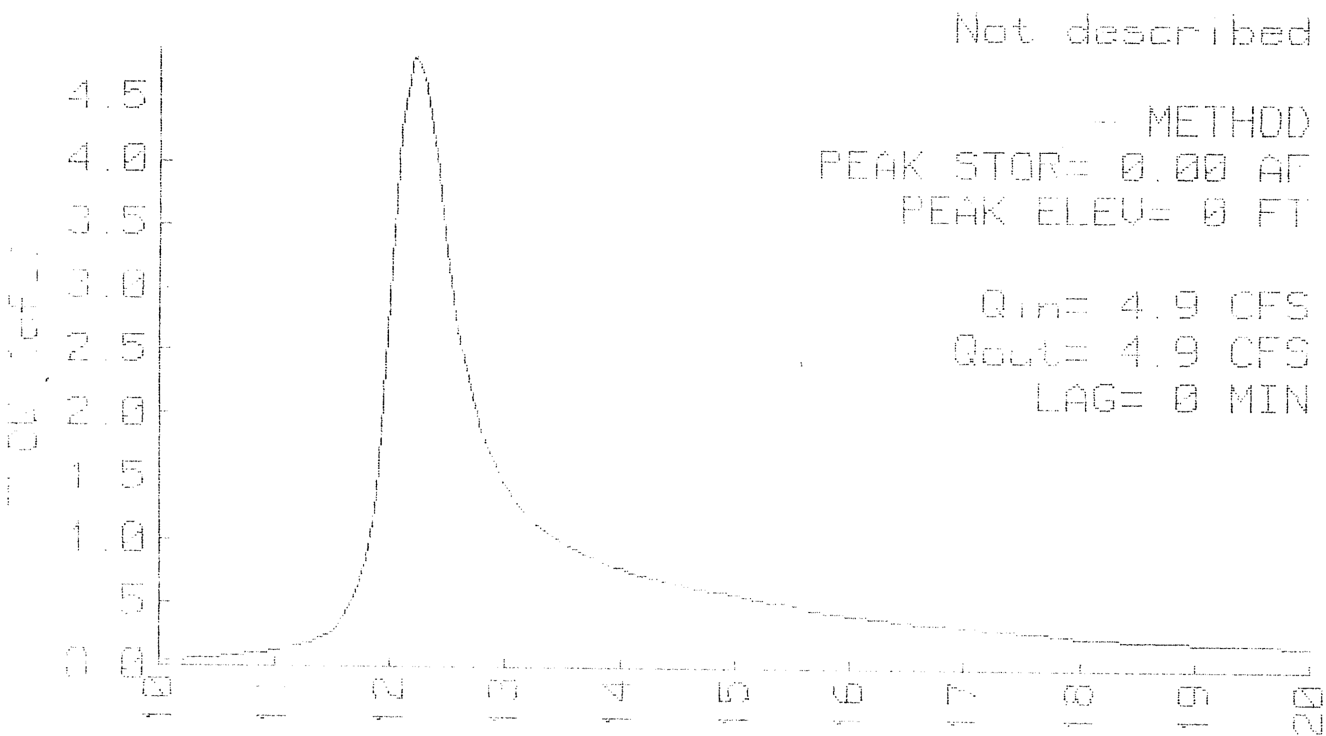
Qin = 4.9 CFS @ 12.23 HRS, VOLUME= .59 AF
Qout= 4.9 CFS @ 12.23 HRS, VOLUME= .59 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (AC)	INC.STOR (AF)	CUM.STOR (AF)

- METHOD
PEAK STORAGE = 0.00 AF
PEAK ELEVATION= 0.0 FT
FLOOD ELEVATION= 0.0 FT
START ELEVATION= 0.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

ROUTE	INVERT	OUTLET DEVICES

POND 2 INFLOW & OUTFLOW



TIME (hours)

POND 3 CATCH BASIN

Qin = 8.0 CFS @ 12.00 HRS, VOLUME= .52 AF
Qout= 8.0 CFS @ 12.00 HRS, VOLUME= .52 AF, ATTEN= 0%, LAG= 0.0 MIN
Qpri= 8.0 CFS @ 12.00 HRS, VOLUME= .52 AF
Qsec= 0.0 CFS @ 12.00 HRS, VOLUME= 0.00 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	13	0	0
23.8	13	123	123

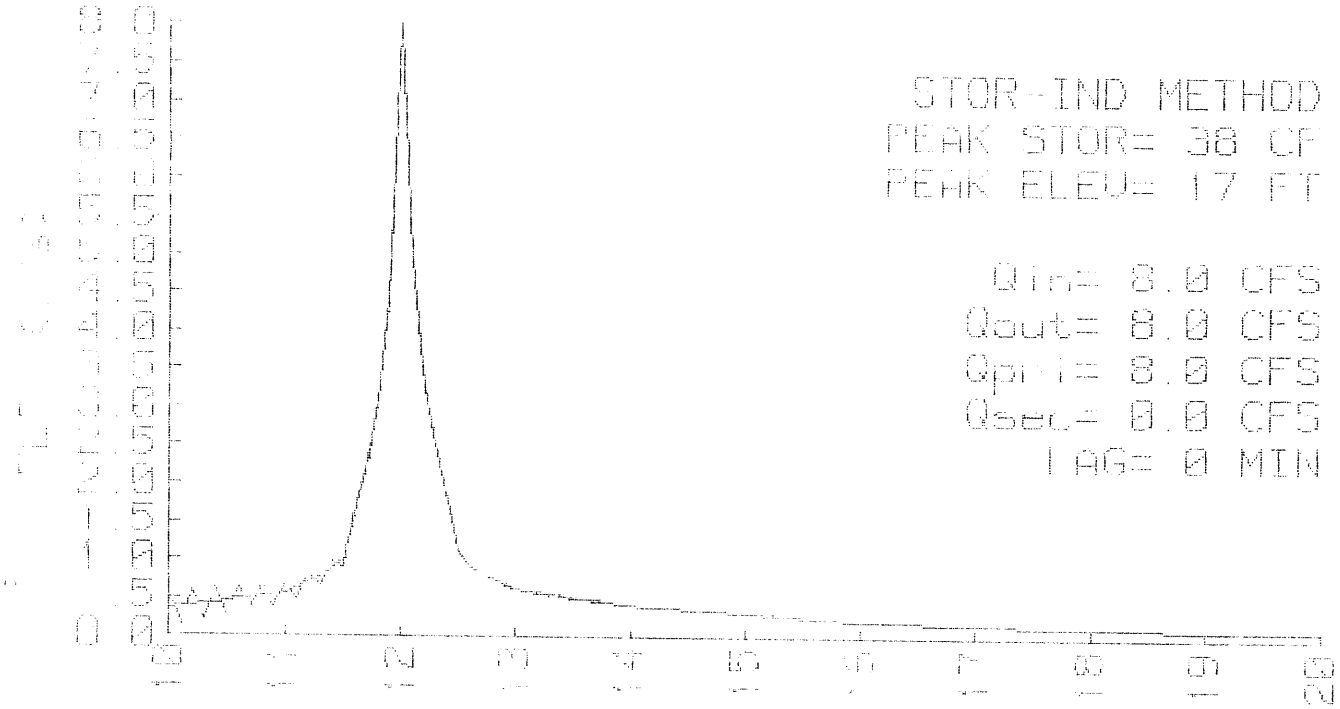
STOR-IND METHOD
PEAK STORAGE = 38 CF
PEAK ELEVATION= 17.0 FT
FLOOD ELEVATION= 23.8 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES
1	P	15.0'	18" CULVERT n=.012 L=6' S=.001'/' Ke=.5 Cc=.9 Cd=.6
2	S	17.0'	15" CULVERT n=.015 L=40' S=.01'/' Ke=.5 Cc=.9 Cd=.6

Primary Discharge
1=Culvert

Secondary Discharge
2=Culvert

POND 3 INFLOW & OUTFLOW
CATCH BASIN



TYPE III 24-HOUR RAINFALL= 4.7 IN 10 yr storm Event.

Prepared by SEDAGO TECHNICS, INC.

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	14.0	18.0	17.3	.32	11.6	6.5	.1	6.5	44	9.0
2	0.0	0.0	0.0	0.00	12.0	12.0			0	0.0 N
3	14.0	23.8	17.6	0.00	12.7	12.9	11.6	1.3	0	0.0

TYPE III 24-HOUR RAINFALL= 4.7 IN

POND 1 WATER QUALITITY POND

Qin = 11.6 CFS @ 12.01 HRS, VOLUME= ?? AF
Qout= 6.5 CFS @ 12.15 HRS, VOLUME= .64 AF, ATTEN= 44%, LAG= 9.0 MIN
Qpri= .1 CFS @ 12.15 HRS, VOLUME= .05 AF
Qsec= 6.5 CFS @ 12.15 HRS, VOLUME= .59 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	3025	0	0
15.0	3700	3363	3363
16.0	4370	4035	7398
17.0	5145	4758	12155
18.0	6125	5635	17790

STOR-IND METHOD
PEAK STORAGE = 13911 CF
PEAK ELEVATION= 17.3 FT
FLOOD ELEVATION= 18.0 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

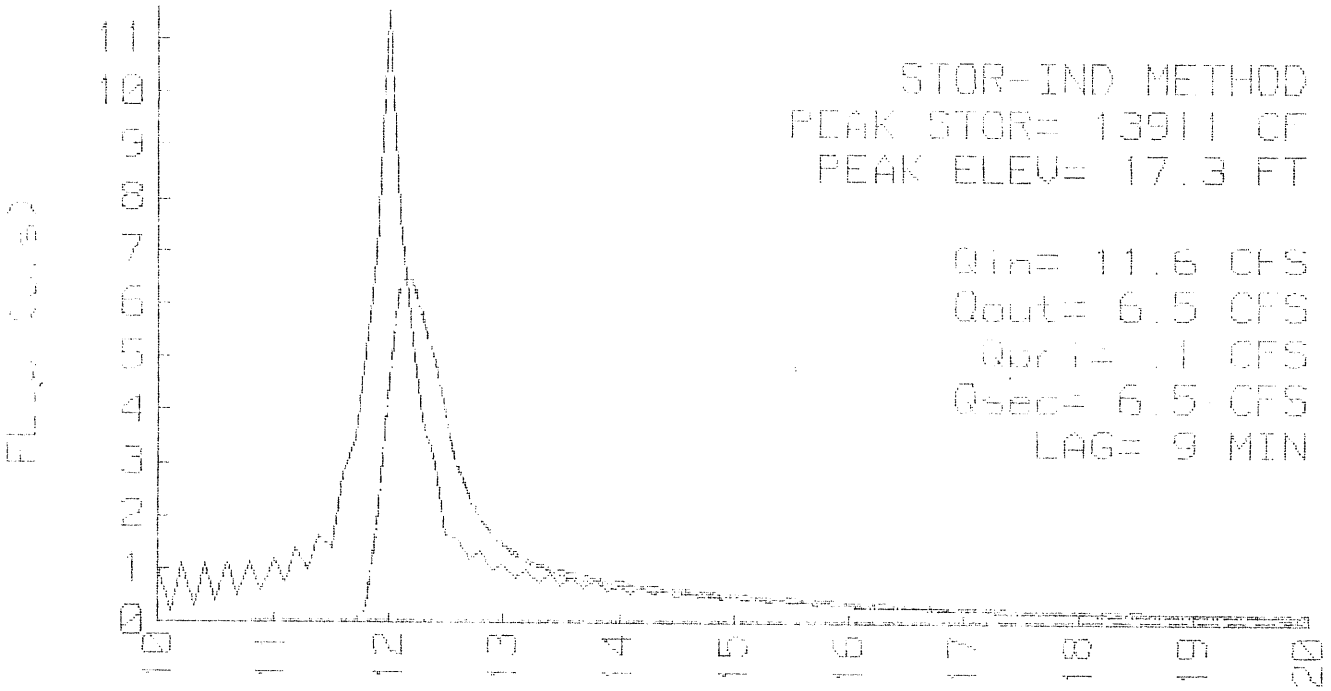
#	ROUTE	INVERT	OUTLET DEVICES
	P	14.0'	1.3" ORIFICE/GRATE
			Q=.6 PI r^2 SQR(2g) SQR(H-r)
2	S	16.0'	18" CULVERT
			n=.012 L=30' S=.033'/' Ke=.5 Cc=.9 Cd=.6
4	P	17.5'	4' SHARP-CRESTED RECTANGULAR WEIR
			Q=C L H^1.5 C=3.27+.4 H/L L=Length-2(.1 H)

Primary Discharge
P#1=Orifice/Grate
P#4=Sharp-Crested Rectangular Weir

Secondary Discharge
S#2=Culvert

TYPE III 24-HOUR RAINFALL= 4.7 IN

POND 1 INFLOW & OUTFLOW
WATER QUALITY POND



TIME (hours)

TYPE III 24-HOUR RAINFALL= 4.7 IN

POND 2

Not described

Qin = 12.0 CFS @ 12.05 HRS, VOLUME= 1.17 AF

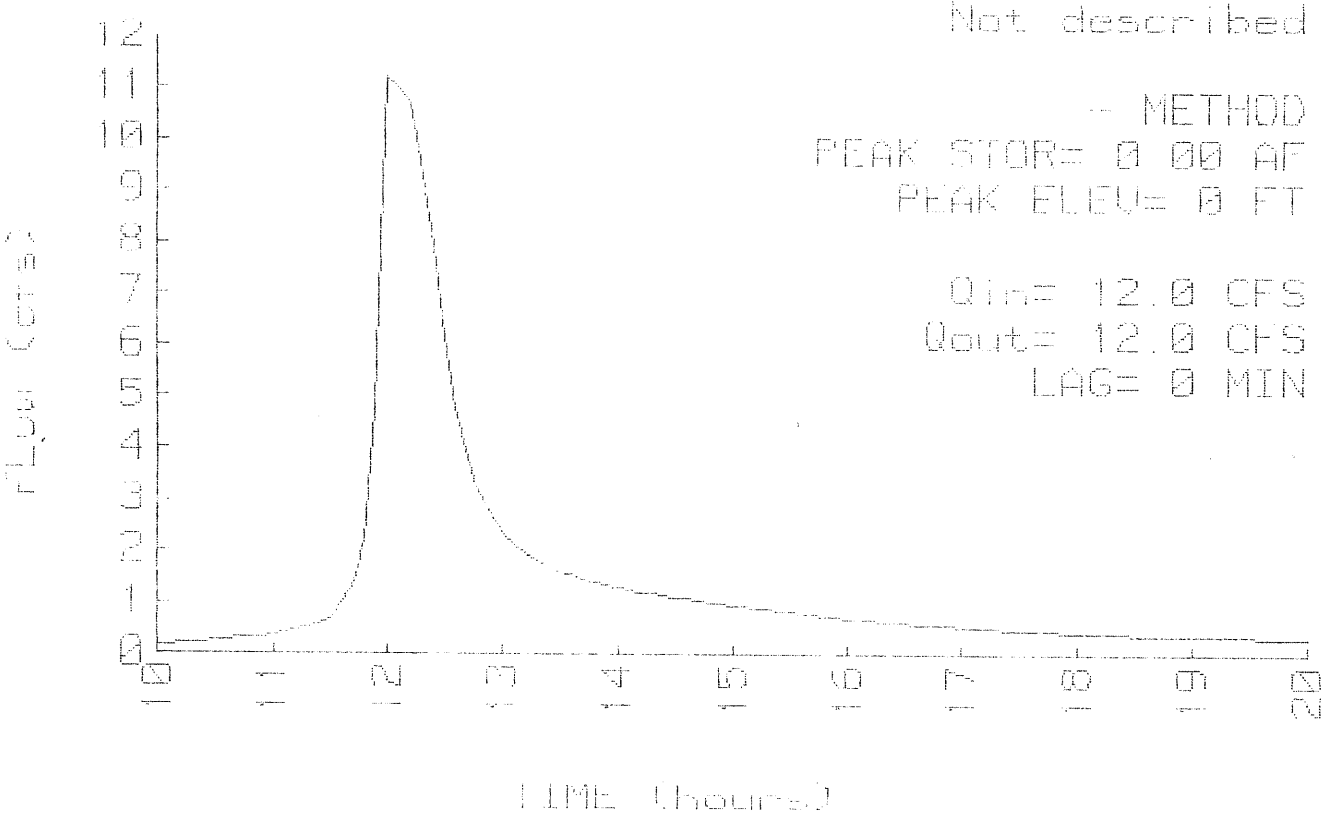
Qout= 12.0 CFS @ 12.05 HRS, VOLUME= 1.17 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (AC)	INC.STOR (AF)	CUM.STOR (AF)

- METHOD
PEAK STORAGE = 0.00 AF
PEAK ELEVATION= 0.0 FT
FLOOD ELEVATION= 0.0 FT
START ELEVATION= 0.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES

POND 2 INFLOW & OUTFLOW



TYPE III 24-HOUR RAINFALL= 4.7 IN

POND 3 CATCH BASIN

Qin = 12.7 CFS @ 12.00 HRS, VOLUME= .03 AF
Qout= 12.9 CFS @ 12.00 HRS, VOLUME= .03 AF, ATTEN= 0%, LAG= 0.0 MIN
Qpri= 11.6 CFS @ 12.01 HRS, VOLUME= .02 AF
Qsec= 1.3 CFS @ 12.00 HRS, VOLUME= .01 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	13	0	0
20.8	13	123	123

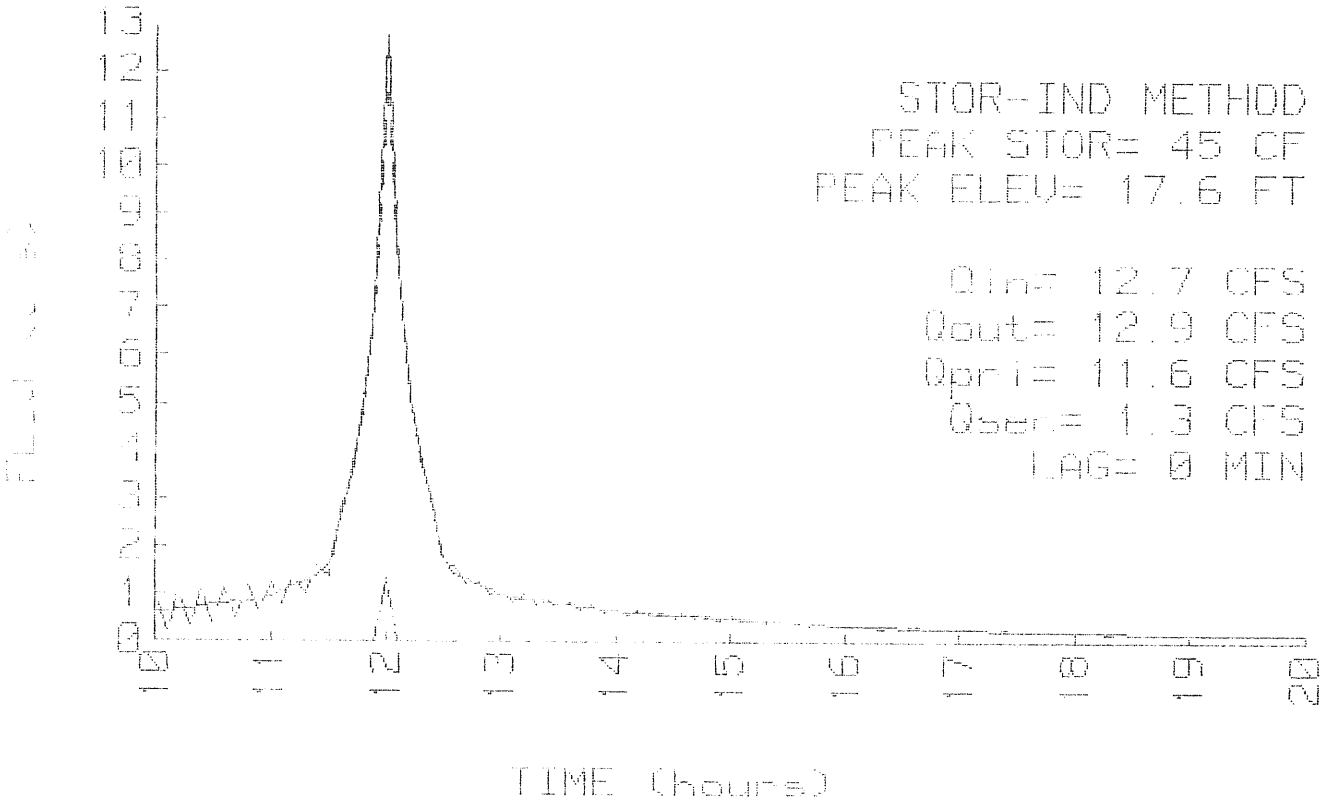
STOR-IND METHOD
PEAK STORAGE = 45 CF
PEAK ELEVATION= 17.6 FT
FLOOD ELEVATION= 23.8 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES
1	P	15.0'	18" CULVERT n=.012 L=6' S=.001'/' Ke=.5 Cc=.9 Cd=.6
	S	17.0'	15" CULVERT n=.015 L=40' S=.01'/' Ke=.5 Cc=.9 Cd=.6

Primary Discharge
#001=Culvert

Secondary Discharge
#002=Culvert

POND 3 INFLOW & OUTFLOW
CATCH BASIN



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	14.0	18.0	17.5	.34	12.5	7.5	.1	7.4	40	9.3
2	0.0	0.0	0.0	0.00	15.8	15.8			0	0.0 N
3	14.0	23.8	17.9	0.00	15.0	15.2	12.5	2.7	0	0.0

TYPE III 24-HOUR RAINFALL= 5.5 IN

POND 1 WATER QUALITITY POND

Qin = 12.5 CFS @ 12.01 HRS, VOLUME= .96 AF
Qout= 7.5 CFS @ 12.16 HRS, VOLUME= .77 AF, ATTEN= 40%, LAG= 9.3 MIN
Qpri= .1 CFS @ 12.20 HRS, VOLUME= .05 AF
Qsec= 7.4 CFS @ 12.16 HRS, VOLUME= .72 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	3025	0	0
15.0	3700	3363	3363
16.0	4370	4035	7398
17.0	5145	4758	12155
18.0	6125	5635	17790

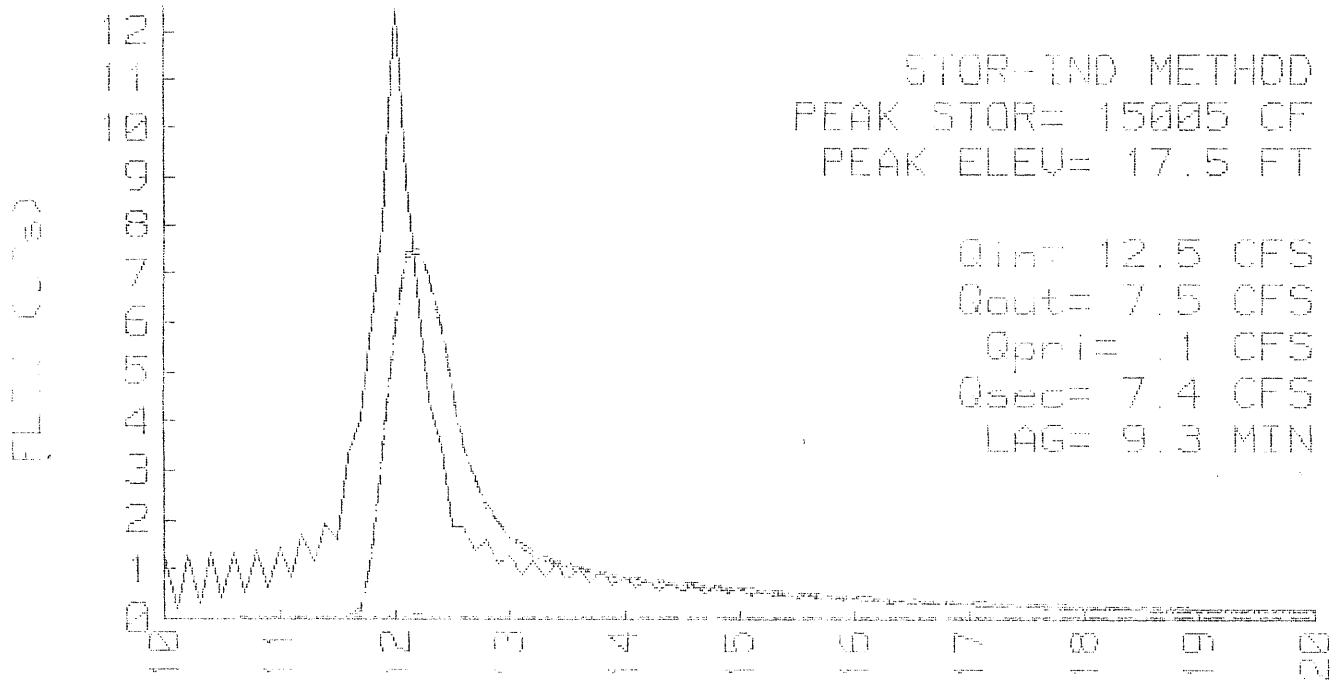
STOR-IND METHOD
PEAK STORAGE = 15005 CF
PEAK ELEVATION= 17.5 FT
FLOOD ELEVATION= 18.0 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES
1	P	14.0'	1.3" ORIFICE/GRATE
			Q=.6 PI r^2 SQR(2g) SQR(H-r)
2	S	16.0'	18" CULVERT
			n=.012 L=30' S=.033'/' Ke=.5 Cc=.9 Cd=.6
3	P	17.5'	4' SHARP-CRESTED RECTANGULAR WEIR
			Q=C L H^1.5 C=3.27+.4 H/1 L=Length-2(.1 H)

Primary Discharge
P01=Orifice/Grate
P003=Sharp-Crested Rectangular Weir

Secondary Discharge
S02=Culvert

POND 1 INFLOW & OUTFLOW
WATER QUALITITY POND



TIME (hours)

POND 2

Not described

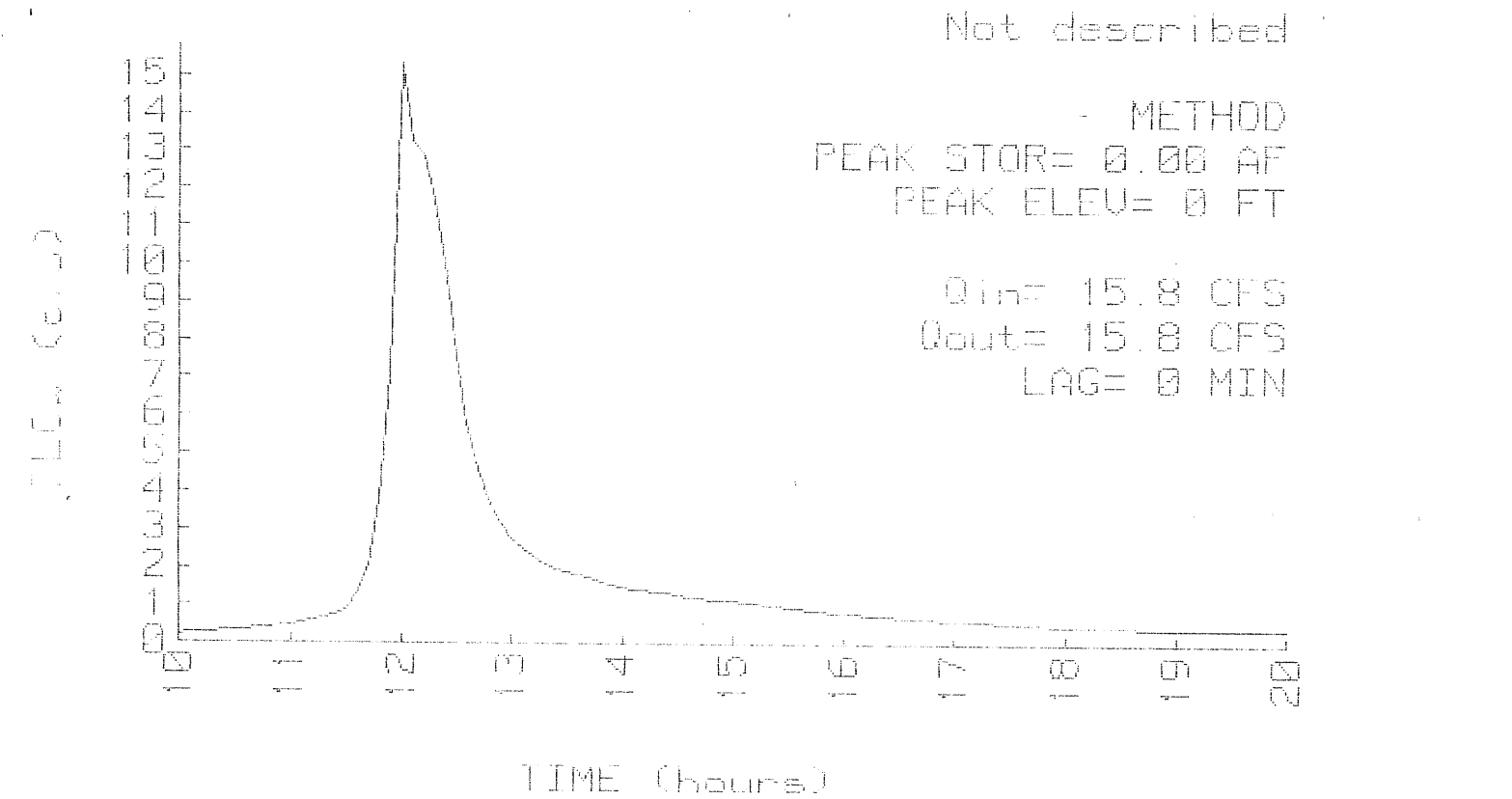
Qin = 15.8 CFS @ 12.03 HRS, VOLUME= 1.44 AF
Qout= 15.8 CFS @ 12.03 HRS, VOLUME= 1.44 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (AC)	INC.STOR (AF)	CUM.STOR (AF)

- METHOD
PEAK STORAGE = 0.00 AF
PEAK ELEVATION= 0.0 FT
FLOOD ELEVATION= 0.0 FT
START ELEVATION= 0.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

ROUTE INVERT OUTLET DEVICES

POND 2 INFLOW & OUTFLOW



Route 101 CONCORD TRAILWAY
TYPE III 24-HOUR RAINFALL= 5.5 IN
Prepared by SEBAGO TECHNICS, INC. 17 Jun 96
HydroCAD 4.00 000509 (c) 1986-1995 Applied Microcomputer Systems

POND 3 CATCH BASIN

Qin = 15.0 CFS @ 12.00 HRS, VOLUME= .98 AF
Qout= 15.2 CFS @ 12.00 HRS, VOLUME= .98 AF, ATTEN= 0%, LAG= 0.0 MIN
Qpri= 12.5 CFS @ 12.01 HRS, VOLUME= .96 AF
Qsec= 2.7 CFS @ 12.00 HRS, VOLUME= .02 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	13	0	0
23.8	13	123	123

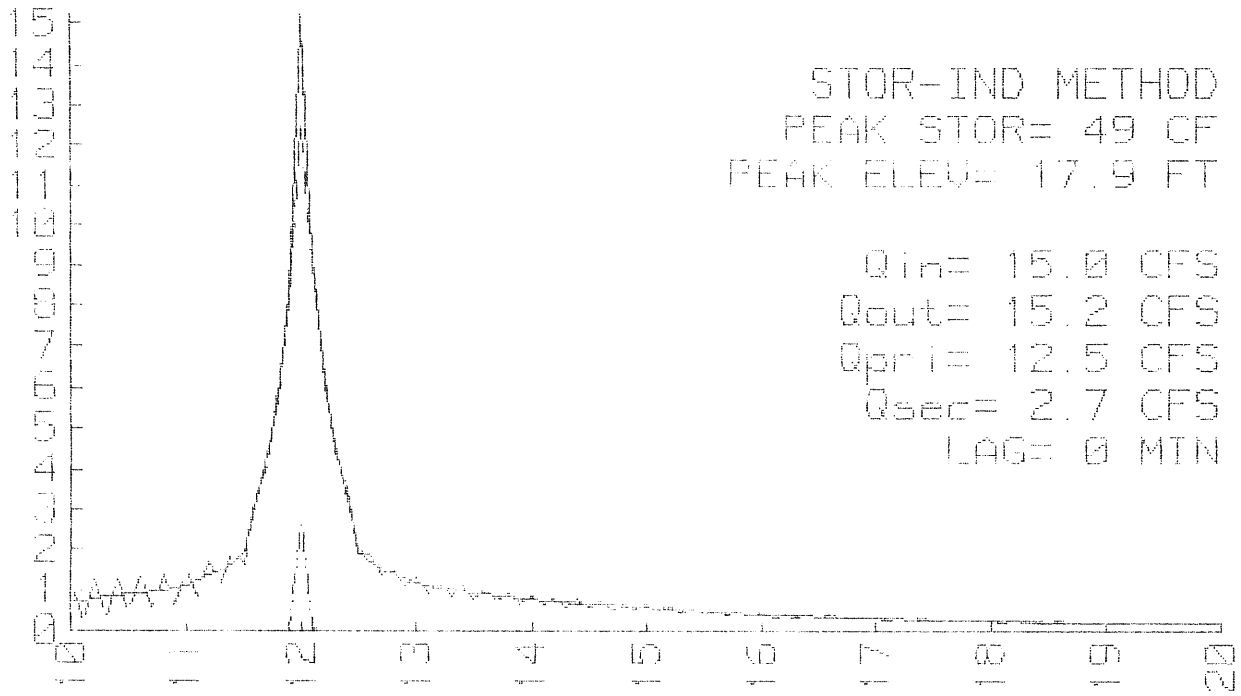
STOR-IND METHOD
PEAK STORAGE = 49 CF
PEAK ELEVATION= 17.9 FT
FLOOD ELEVATION= 23.8 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES
1	P	15.0'	18" CULVERT n=.012 L=6' S=.001'/' Ke=.5 Cc=.9 Cd=.6
2	S	17.0'	15" CULVERT n=.015 L=40' S=.01'/' Ke=.5 Cc=.9 Cd=.6

Primary Discharge
#2?1=Culvert

Secondary Discharge
#?1?=Culvert

POND 3 INFLOW & OUTFLOW
CATCH BASIN



SEBAGO TECHNICS, INC.
12 Westbrook Common
P.O. Box 1339
WESTBROOK, MAINE 04098
(207) 856-0277 FAX (207) 856-2206

JOB Carcard Trailways
SHEET NO. 2-3 OF
CALCULATED BY SAG DATE 6-18-96
CHECKED BY DATE
SCALE

I.) Calculation for 1ST - 1/2" OF Runoff

Calculate Runoff Volume (V_r)

Assume site is entirely Impervious

Watershed Area (Ws-1 & Ws-2 (Future Development)

2.8 ac + 1.24 = 4.04

$$V_r = 4.04 \times 43{,}560 \times \frac{0.5''}{12}$$

$$= 7332 \text{ CF}$$

Calculate Allowable Release

Rate over 24hr. Duration (Q_r)

$$Q_r = \frac{7332 \text{ CF}}{24} \frac{1 \text{ hr}}{3600 \text{ sec}}$$

$$= .085$$

SEBAGO TECHNICS, INC.
12 Westbrook Common
P.O. Box 1339
WESTBROOK, MAINE 04098
(207) 856-0277 FAX (207) 856-2206

JOB Concord Trail Village
SHEET NO. 1 of 3 OF
CALCULATED BY SAG DATE 6-18-96
CHECKED BY DATE
SCALE

II Size Orifice @ Flow Control Structure

$Q_{allow} = .085$

$Q = 0.6 A_o \sqrt{2gh}$ $\quad g = 32.2 ft/sec^2$

$H = 17.5 - 14 = 3.5'$

$.085 = 0.6(A_o)\sqrt{64.4(3.5)}$

$A_o = .0097$

$d = \sqrt{\frac{4A_o}{\pi}} = \sqrt{\frac{4(.0094)}{\pi}} = .109$

$= 1.31''$

use $1\frac{1}{4}''$

SEBAGO TECHNICS, INC.
12 Westbrook Common
P.O. Box 1339
WESTBROOK, MAINE 04098
(207) 856-0277 FAX (207) 856-2206

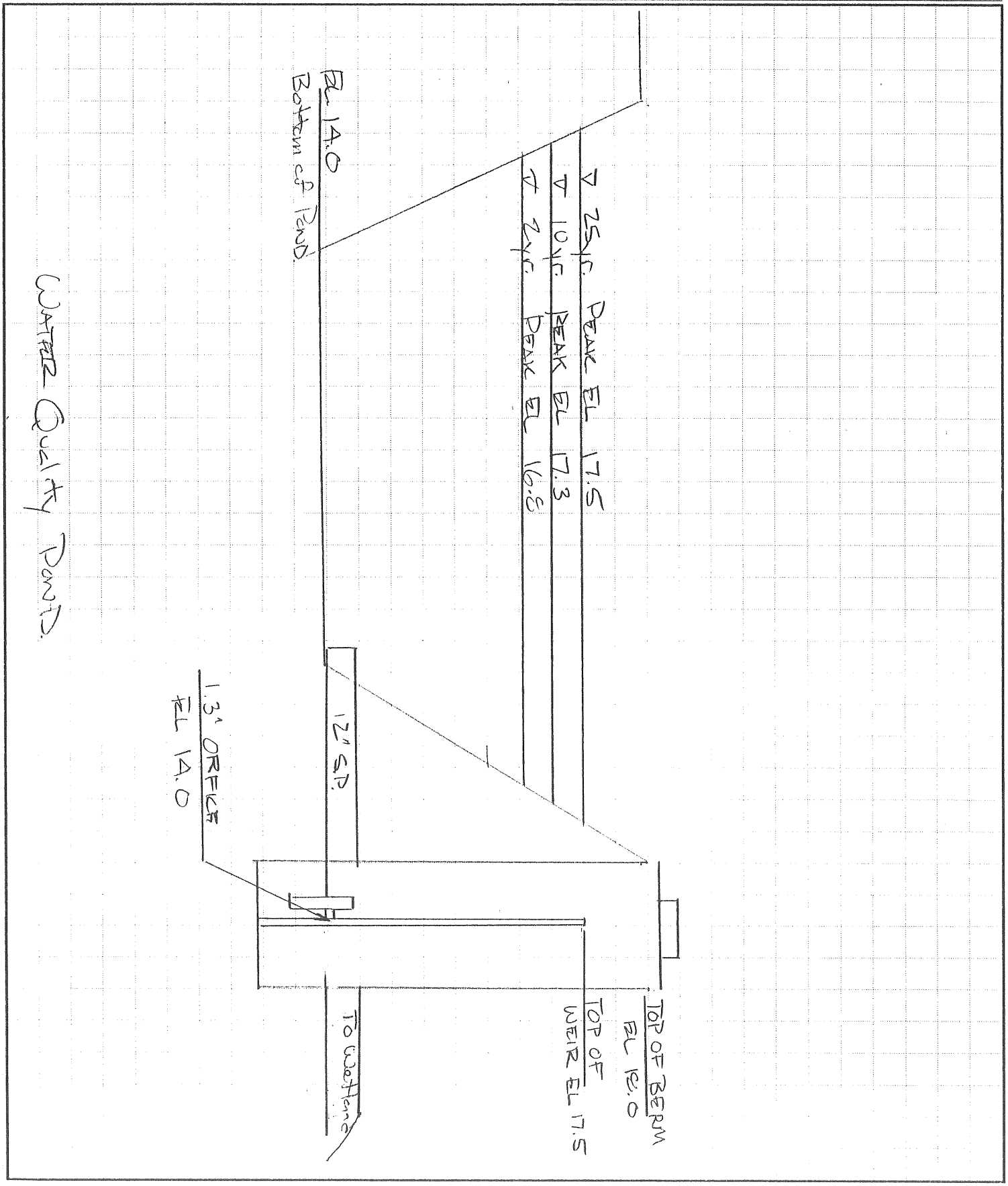
JOB Concord Railways

SHEET NO. 2 of 3 OF

CALCULATED BY SAG DATE 6-10-96

CHECKED BY DATE

SCALE



Section 5

Watershed Maps (Pre and Post-Development)

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

I. D. Number

Address:

Concord Trailways — Applicant

28 May 1996 — Application Date

Applicant's Mailing Address

Steve Doe - Sebago Tech — Consultant/Agent

Sewall St — Project Name/Description

856-0277 — Applicant or Agent Daytime Telephone, Fax

189-C-001/010 + — Address of Proposed Site

Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): X New Building ___ Building Addition ___ Change of Use ___ Residential ___ Office ___ Retail ___ Manufacturing ___ Warehouse/Distribution ___ Other (specify) Bus Terminal

5,700 GFC — Proposed Building Square Feet or # of Units

6.5 Acres — Acreage of Site

Zoning

Check Review Required:

- [X] Site Plan (major/minor)
- [ ] Subdivision # of lots _____
- [ ] PAD Review
- [ ] 14-403 Streets Review
- [ ] Flood Hazard
- [ ] Shoreland
- [ ] Historic Preservation
- [ ] DEP Local Certification
- [ ] Zoning Conditional Use (ZBA/PB)
- [ ] Zoning Variance
- [ ] Single-Family Minor
- [ ] Other _____

Fees paid: site plan 300.00 subdivision _____

Approval Status: Reviewer Sarah Hopkins

- [ ] **Approved**
- [✓] **Approved w/Conditions** listed below
- [ ] **Denied**

1. _____
2. see attached approval letter
3. _____
4. _____

Approval Date 7/23/96 Approval Expiration _____ date Extension to _____ date [ ] Additional Sheets Attached

[ ] Condition Compliance _____ signature _____ date

Performance Guarantee [✓] Required* [ ] Not Required

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

[✓] Performance Guarantee Accepted	9/27/96 (date)	$ 45,000 (amount)	(expiration date)
[✓] Inspection Fee Paid	9/27/96 (date)	$776 (amount)	
Performance Guarantee Reduced	(date)	(remaining balance)	(signature)
Performance Guarantee Released	(date)	(signature)	
Defect Guarantee Submitted	(submitted date)	(amount)	(expiration date)
Defect Guarantee Released	(date)	(signature)	

Pink - Building Inspections Blue - Development Review Coordinator Green - Fire Yellow - Planning 2/9/95 Rev5 KT.DPUD

Ledgewood Inc

PO Box 8107
Portland Maine 04104
207·767·1866
FAX 207·767·1869

VIA FAX

August 5, 1997

Mrs. Kandi Talbot, Planner
City of Portland
Planning Department
389 Congress Street
Portland, Maine 04101

Re: Concord Trailways, Sewall Street

Dear Mrs. Talbot,

As you are well aware from my phone calls these past two weeks, our client, Concord Trailways, would appreciate you expediting approval of our request of July 9, 1997 for a temporary parking lot at their Sewall Street site.

Please refer to the enclosed letter from Sarah Hopkins which, in addition to the ongoing issues at the site, led us to believe that this approach would be welcomed and expedited by your department.

If you need any additional information or would like to discuss this further, please contact me or Bill Bridges at 767-1866. Thank you for your immediate consideration in this matter.

Sincerely,

Donald R. McGilvery
Ledgewood, Inc.

enclosure: May 14, 1997 letter, Sarah Hopkins, Senior Planner to Steve Doe, re: Concord Trailways need for a revised site plan to include expansion of parking lot.

cc: Alexander Jaegerman, Chief Planner
Ken Hunter, Concord Trailways

U:\Concord 8-5.doc

Planning & Urban Development

Joseph E. Gray Jr.
Director

CITY OF PORTLAND

May 14, 1997

Steve Doe
Sebago Technics
12 Westbrook Common
Westbrook, ME 04092

Dear Steve:

Upon inspection of the Concord Trailways site, our engineer found that overflow parking was occurring on the street and on the grassed area along the north side of the site. While we are glad to see that business is doing well, we would urge Concord Trailways to file a request for a revision to the site plan to include an expansion of their parking lot.

Please do not hesitate to call if you have any questions.

Sincerely,

Sarah

Sarah Hopkins
Senior Planner

cc: Alexander Jaegerman, Chief Planner
Steve Bushey, Development Review Coordinator
Natalie Burns, Assistant Corporation Counsel

Ledgewood Inc

PO Box 8107
Portland Maine 04104
207·767·1866
FAX 207·767·1869

July 9, 1997

Mrs. Kandi Talbot, Planner
City of Portland
Planning Department
389 Congress Street
Portland, Maine 04101

Re: Concord Trailways, Sewall Street

Dear Mrs. Talbot,

As your office is well aware, the new Concord Trailways bus terminal is experiencing considerable success at their new location on Sewall Street. To alleviate the need for on street parking on the busiest days, on behalf of our client, we request your favorable consideration for a minor change to add a temporary gravel parking area as part of their site development.

Enclosed is a sketch of a portion of the site plans which are on file in your office, which outlines the proposed additional parking area. The area will be gravel filled to match the existing paved lot edges, will be gently sloped to drain as indicated and will provide approximately 74 additional parking spaces.

The need for this additional overflow parking has been clearly identified on several occasions. If this is acceptable to your office, we would appreciate a formal notification, as Concord Trailways would like us to proceed with the necessary construction work as soon as is possible.

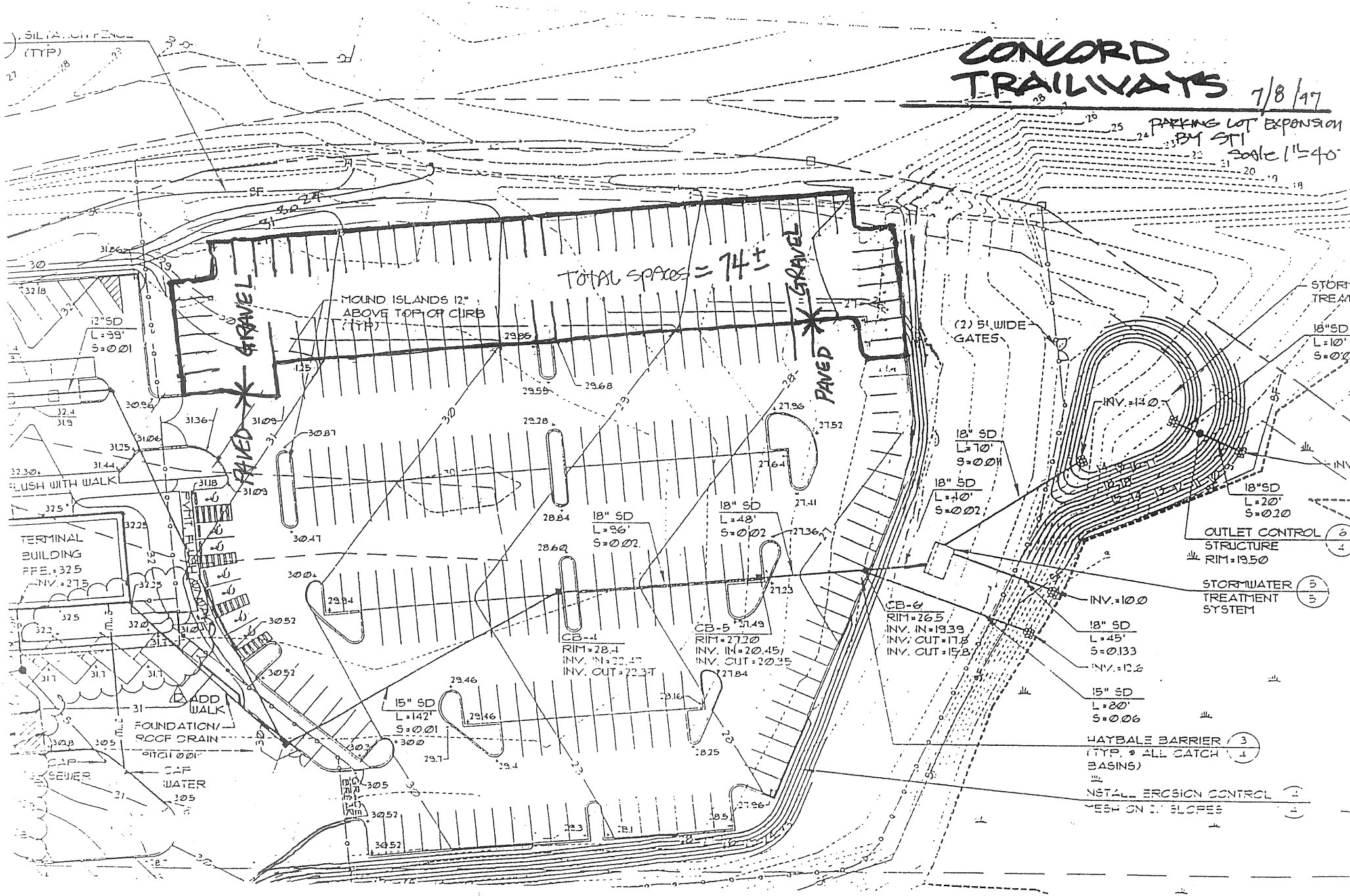
If you need any additional information or would like to discuss this further, please contact me or Bill Bridges at 767-1866. Thank you for your consideration in this matter.

Sincerely,

Donald R. McGilvery
Ledgewood, Inc.

cc: Ken Hunter, Concord Trailways

enclosure: Concord Trailways sketch site plan dated 7/8/97


CONCORD TRAILWAYS 7/8/97
PARKING LOT EXPANSION BY STI
SCALE 1"=40'
TOTAL SPACES = 74±
MOUND ISLANDS 12" ABOVE TOP OF CURB (TYP.)
GRAVEL
PAVED
(2) 5' WIDE GATES
TERMINAL BUILDING FFE=325 INV.=27.5
FLUSH WITH WALK
ADD WALK
FOUNDATION/ ROOF DRAIN
CAP SEWER
CAP WATER
12"SD L=99' S=0.01
18" SD L=96' S=0.02
18" SD L=48' S=0.02
18" SD L=70' S=0.01
18" SD L=10' S=0.02
18"SD L=20' S=0.20
18"SD L=10' S=0.5
15" SD L=142' S=0.01
CB-4 RIM=28.4 INV. IN=22.47 INV. OUT=22.37
CB-5 RIM=27.20 INV. IN=20.45 INV. OUT=20.35
CB-6 RIM=26.5 INV. IN=19.39 INV. CUT=17.8 INV. CUT=15.8
INV.=14.0
OUTLET CONTROL STRUCTURE RIM=19.50
STORMWATER TREATMENT SYSTEM
INV.=10.0
18" SD L=45' S=0.133
INV.=12.6
15" SD L=20' S=0.06
HAYBALE BARRIER (TYP. @ ALL CATCH BASINS)
INSTALL EROSION CONTROL MESH ON ALL SLOPES
STORM TREAM
INV.
SF

PLANNING REPORT #41-96

BUS TERMINAL FACILITY ON THOMPSON'S POINT
SITE PLAN REVIEW
CONCORD TRAILWAYS, APPLICANT

PH 7/23
- Bernard Chines - Westbrook Arterial
- Robt Haines - industry letter - RR, highway etc.
- Tom Robinson - Sewall Street traffic on Sewall - traffic.
- 32 Sewall St. Paul Storc. Office Complex - (not denied) → work on signal.

Submitted to:

Portland Planning Board
Portland, Maine

July 23, 1996

I. INTRODUCTION

Concord Trailways has requested site plan review for the construction of a bus terminal facility on the west side of Sewall Street, on Thompson's Point. Concord Trailways plans to move from their current location on Marginal Way to this proposed location on Thompson's Point by early fall. The development site is 6.8 acres and the site is zoned I-2 industrial.

The proposed development will consist of a 3,168 sq. ft. terminal building and a 2,400 sq. ft. service garage with approximately 240 parking spaces and associated pick-up and drop-off areas. The buildings and paved areas encompass approximately 2.8 acres. A portion of the lot will remain undeveloped for possible future use.

II. SUMMARY OF FINDINGS

Zoning:	I-2
Lot Size:	6.8 acres
Building Size:	
terminal	3,168
service building	2,400
Parking Spaces:	240

III. STAFF REVIEW

Representatives from Planning, Public Works, Parks/Recreation and Fire have reviewed the plans according to standards for site plan review. Their comments are included as attachments to this report.

IV. SITE PLAN STANDARDS

1. Traffic/Circulation/Access

There are two main entrances for vehicles to the site. Customers will enter from Sewall Street through the entrance drives and park in the large lot behind the terminal building or in the short-term lot closer to Sewall Street. There is a separate third entrance for busses to the site.

The applicant's traffic engineer has completed traffic counts of the Congress/Sewall intersection in addition to the terminal on Marginal Way. The traffic study concludes that due to the number of peak hour trips (AM: 21 in; 18 out/PM: 19 in; 30 out) as well as the existing and forecasted level of service at the Congress/Sewall intersection, the project

a) is a low trip generator
b) will not affect the level of service at the intersection
c) will not affect the accident patterns at the intersections.

Bill Bray, Acting Traffic Engineer, has reviewed these findings and is in agreement with the conclusions of the report. (See Attachment 9a.) Based on his discussions with the applicant's traffic engineer, Mr. Bray has recommended the following condition of approval:

- That the applicant shall be responsible for making signal timing modifications and replace, if necessary, the detection appurtenances of the Congress/Sewall intersection.

240 parking spaces are provided on site. 16 short term parking spaces and 4 taxi spaces are located near the terminal building at the front of the site. The remaining parking spaces are located to the rear of the station building.

Bituminous sidewalks and granite curbing are proposed along the entire frontage of the site from the RR right-of-way to Hooper Street. Due to the location of Sewall Street within the r.o.w., the sidewalks and curbing have been proposed on the private property as opposed to within the right-of-way. The applicant has agreed to deed the sidewalks and curb to the City. A potential condition of approval would be:

condition of approval

- That prior to issuance of a certificate of occupancy, the applicant provide a executed deed for the Sewall Street sidewalk to the City of Portland

I295 connector

This site is also located in the same vicinity as the proposed I-295 Connector Road. The connector, which is meant to allow vehicles access to I-295 from West Commercial Street, is planned to connect to Sewall Street and I-295 just north of this site.

METRO

At the last workshop on this development the applicant discussed with the Board the possibility of having a METRO bus pick up passengers at the terminal on request. Included as Attachment 10 is a letter from Sarah deDoes, Manager of the METRO. According to Ms. deDoes, transit service to the terminal will not be possible due to the terminal's distance from the Congress Street route.

2. **Bulk, location, height of buildings**

Terminal:

One story

The applicant has proposed a 72 x 44 ft. terminal building for ticket sales, storage, waiting areas and restrooms. The main entrance of the terminal is along the east side of the building facing Hooper Street.

Passengers may purchase their ticket at a counter and use the vending machines in the waiting room and then board the assigned bus from the boarding areas on the west side of the building.

The building facade will consist of a brick veneer, split face concrete block along the foundation, and a fascia constructed of a dryvit finish. A cupola is proposed atop the hip style roof. The columns of the canopy will be painted and the fascia will be the same split face CMU of the building (the sides perpendicular to Sewall Street).

The main facade of the building is located on the east side of the building. This facade will include the main signage of the building, as well as a series of large windows, giving the building a strong commercial appearance.

The Sewall Street side of the building has less detail than the east side of the structure. Although one sees the varying depths of the canopy and entry ways along the east and west sides of the building, and the same strong facade finishes, there are three high windows which face out onto the street. Staff has suggested that the applicant further consider how the building will relate to Sewall Street. Since the workshop, the applicant increased the fenestration along Sewall Street from one window to three.

Service Garage:

The 56 x 60 sq. ft. garage is located to the rear of the site, facing I-295. The garage will be used for cleaning and refueling the buses.

The building will be constructed of ribbed metal siding with a 36" high concrete foundation wall. The roof will be constructed of ribbed metal roof panels.

There are two garage door openings on the east and west sides of the building allowing busses to drive through the structure.

The side of garage most visible to the public faces I-295. This is the simplest of all four of the industrial building's sides, similar to other buildings further down on Thompson's Point.

At the last workshop, the applicant discussed with the Board the possibility of moving the service building to the front of the site due to problems with the soils. The applicant is still researching the options available to them given some areas of difficult soils.

For now, the service garage will remain at the rear of the site. If the applicant is forced to relocate the building, such an amendment may be reviewed administratively.

3. **Utilities**

Utilities will be connected to existing lines in Sewall Street. The sewer line, servicing the terminal and service building will be connected to an existing 30 inch line in Sewall Street. Given that waste water from the service building will include wash water from bus cleaning, a letter of capacity for the sewer should be submitted.

- that prior to issuance of a building permit, the applicant shall submit a letter of sewer capacity to the Planning Office.

4. **Stormwater Management**

The site was filled a number of years ago to create an elevated development site. A wetland exists in the southeastern portion of the site.

Currently, the site drains in a southeasterly direction towards the Fore River.

The western portion of the site drains into a swale along the RR tracks and a portion of runoff also collects in Hooper Street and is collected in a culvert and directed out towards the Fore River.

The proposed drainage plan will grade the parking area to direct runoff to a series of catchbasins which will direct flows through a oil water separator device and into a treatment basin fitted with an outlet control structure.

According to the storm water management report, it appears that the site's peak runoff rates will increase and rise above the predevelopment rates. The applicant argues that due to the site's proximity to the Fore River, this increased rate should not create a significant adverse effect on the downstream receiving areas. The applicant also states that any on site detention will not provide any substantial benefit.

Our reviewing engineer, Jeff Preble of Dufrense-Henry, agrees with the Concord Trailways plan for stormwater management and suggested that the applicant use casco traps in the proposed catchbasins and submit details for the construction and maintenance of the system. The applicant has amended the plans to include casco traps to meet Mr. Preble's requirements. Mr. Preble's final comments will be available at the public hearing.

hand out

5. **Sedimentation/Erosion Control**

The applicant has submitted a sedimentation/erosion control plan which includes the use of temporary and permanent measures, including the placement of hay bales and silt fencing across the slopes and at limits of construction, as well as the seeding, hay mulching or application of erosion control mesh on disturbed areas. A schedule of erosion control measures has also been submitted.

6. **Landscaping**

The current vegetation is a mixture of tall grass and low shrubs. The existing vegetation on the upper plateau of the site will be removed for the construction of the parking area and buildings. The landscaping plan indicates that the front of the site will be planted with a mixture of flowering shrubs and bushes.

Austrian Pines will be planted along the northeast property line between a parking area and the old Hooper Street snow dump area. Maples will be planted in the islands between the terminal and short-term parking and bus circulation areas.

Various groundcovers and shrubs will be planted between the front terminal area and rear parking lot.

The parking lot islands will be planted with maple, pear, and pine trees and the south side of the garage facing I-295 will be planted with a row of barberry bushes. Several Austrian pines will be planted along the RR property and on either side of the service garage.

At the request of the arborist the applicant has also included the planting of 6 street trees. The arborist's comments are included as Attachment 9b.

7. Fencing/Lighting

Since Concord Trailways makes trips nine times throughout the day (from early morning to late evening), security is an important concern. Also, many customers utilizing the service to Logan Airport may leave a car for an extended period of time.

To keep the parking lot secure for long term and off-hour parking, the applicant proposes to install a 6 ft. chain link fence around the perimeter of the lot. Where the site is visible by cars on I-295, the fence will be placed lower on the slope so that it will not be readily visible.

Gates located at the entrance to the parking lot will provide access and security to the lot.

The intensity of the lighting plan has been revised by the applicant since the original submittal to reduce the amount of spillover from the site.

150 watt shoebox lights 20ft. architectural lights around termind bldg

The applicant proposes 150 watt pole mounted "Cambridge" shoebox style lights at a height of 20 feet. The lights will be installed throughout the parking lot and entrance areas. Concord Trailways has also proposed the installation of an architectural area lighting, similar to the fixture used at Hadlock Field. This light will be used around the terminal building for more of a pedestrian scale. Photometric plans of the lighting are included as Attachment 14.

8. Fire

Lt. Gaylen McDougall from the Fire Department has reviewed the proposal and finds the access to and within the site to be acceptable for emergency vehicles.

9. Public Infrastructure

This project, as designed, appears to be consistent with off-site infrastructure existing in the vicinity.

Concern has been raised, however, that the facility will not be connected to the METRO transit system or the proposed train station on St. John Street. Additionally, a member of the Portland Area Comprehensive Transportation Study (PACTS) Committee has expressed concern as to the potential future extension of the I-295 connector road westward towards Westbrook and whether this piece of land should be preserved for this purpose.

The applicant may wish to consider a future shuttle connection to the METRO pulse or further discussions with METRO on incorporating a stop at the terminal for selected runs.

10. Industrial Development

As a development in an industrial zone, the Concord Trailways project is not anticipated to create any undue adverse environmental consequences to the health of safety of abutting neighbors.

V. 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 #41-96, the Planning Board finds:

That the Concord Trailways proposed development is in conformance with the standards of the Site Plan Ordinance of the Land Use Code.

Potential Conditions of Approval:

1. That prior to issuance of a building permit, the applicant shall submit to the Planning Office a sewer capacity letter.

2. That the applicant submit an executed deed for the sidewalk along Sewall Street prior to isauance of a Certificate of Occupancy.

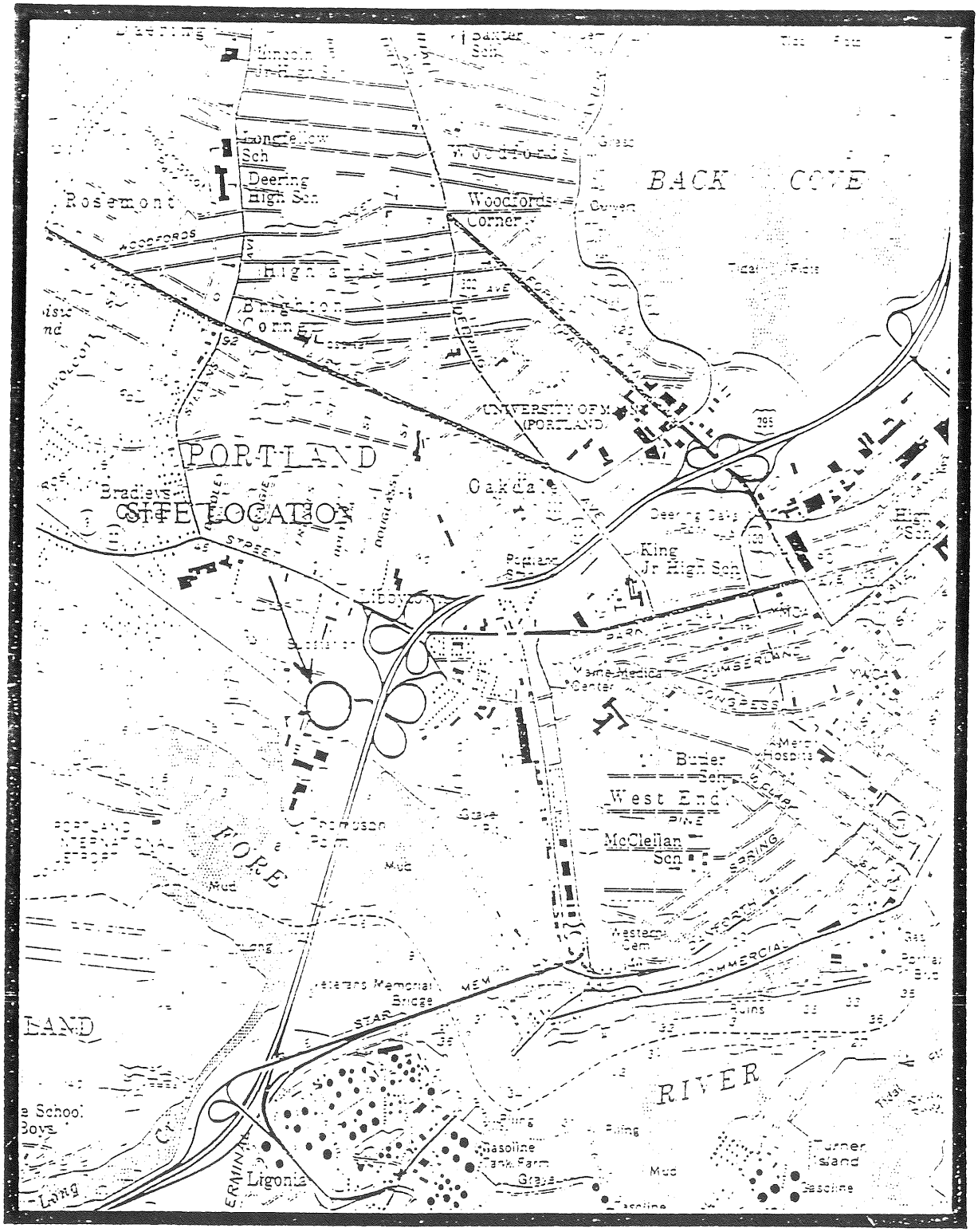
3. That the applicant shall be responsible for making signal timing modifications and replace, if necessary, the detection appurtenances of the Congress/Sewall intersection.

revise sp engineering to comply w/ letter of JF/DH 5-0

Attachments:

1. Location Map
2. Project Summary
3. Traffic Study Narrative
4. Stormwater/Erosion Control Narrative
5. Lighting Specifications
6. Revised Road Frontage Landscaping
7. Revised Building Elevations
8. Letter of Financial Capability
9. Staff Comments:
   a. Traffic
   b. Arborist
10. Letter from METRO
11. Site Plan
12. Grading Plan
13. Landscaping
14. Lighting Plan

Attachment 1



SITE LOCATION MAP

U.S.G.S. 7.5" MIN TOTOGRAPHIC QUADRANGLE

LOCATION: SEWALL STREET PORTLAND

SCALE 1"=2000' DATE: 6/18/96

Sebago Technics
Engineering & Planning for the Future
[illegible] CUMBERLAND COUNTY
WESTBROOK, ME 04092-1039
TEL. (207) 856-0277

Attachment 2

SebagoTechnics

May 28, 1996
92091

Sarah Hopkins, Senior Planner
Planning Department
City of Portland
389 Congress Street
Portland, ME 04101

Major Site Plan Application, Concord Trailways Transportation Center, Sewall Street

Dear Sarah:

On behalf of Concord Trailways, I wish to request placement on the Planning Board workshop agenda for June 11, 1996. I have enclosed seven (7) copies of the attached conceptual site plan and application fee of $300.00 for their proposed terminal facility on Sewall Street. Concord Trailways proposes to relocate from their leased facility on Marginal Way to a new 6.6 acre vacant parcel near Thompson's Point. This parcel was previously before the Planning Board in 1992 for a 4 lot commercial subdivision, but was withdrawn prior to any approval. The parcel is zoned Industrial 2 and is shown on Tax Map 77, Lot 1; Map 189, Lots G1-20, H1-11; and Map 190, Lots C1-7, 15, 16, F8-13; and includes a portion of Jose Street, a paper street.

The parcel is serviced by public water and sewer, as well as overhead electric and telephone, and underground gas.

Concord Trailways' goal is to construct a 3,300 square foot terminal facility which will service up to four buses. A customer drop off/pick up area and taxi stand will be located in the front of the building. The site will provide 17 short-term parking spaces, 222 long-term parking spaces, and 9 employee spaces. The long-term parking facility will be enclosed with a 6' high perimeter fence for after-hour security. A 2,400 square foot garage will be located to the rear of the site to provide an enclosed location for performing minor service to the buses. A 10,000 gallon aboveground fueling tank will be located adjacent to the garage for use by the buses.

Approximately 3.7 acres of the site will be developed, with 2.8 acres of that being impervious surfaces. The remaining 2.9 acres of land will be retained for an undetermined future use. Approximately 1.1 acres of this land is wetland and is confined to the rear of the site. A stormwater treatment area is proposed adjacent to the wetland to provide treatment of the parking lots.

John L. Murphy, our traffic consultant, is currently performing a traffic study for this project and hopes to have a preliminary report prior to the Planning Board workshop.

Concord Trailways has also retained Gawron Associates as the architect. Preliminary building plans are currently being prepared and will be forwarded to you prior to the meeting.

If you have any questions on this project or require additional information prior to the June 11th Planning Board meeting, please call me.
Sincerely,

SEBAGO TECHNICS, INC.

Stephen G. Doe, R.L.A.
Landscape Architect

SGD:jc
Enc.

cc: Harry Blunt
Ken Hunter
Jim Harnden
Joseph Satlack
Stan Gawron

SebagoTechnics

July 18, 1996
92091

Ms. Sarah Hopkins, Senior Planner
Planning and Urban Development
City of Portland
389 Congress Street
Portland, Maine 04101

Supplemental Submission - Major Site Plan
Concord Trailways, Sewall Street, Portland

Dear Sarah:

This letter is to address the comments made by the staff and the Planning Board as noted in your letter dated July 10, 1996. Our responses are as follows:

1. Location of Service Building

As discussed at the workshop, our soil investigations on the site revealed miscellaneous fill material throughout the site which will impact foundation and site cost for the project. In an effort to minimize these costs we proposed to relocate the service garage to a location closer to the Terminal Building. At this time, however, we have not completed a thorough investigation and cost analysis of the relocation and have therefore not revised our Plans to reflect this change. We would request approval of the building to the rear of the site. Should Concord Trailways decide to relocate the building to the front of the site as presented at the workshop, it is our understanding this could be accomplished through staff review after Site Plan approval.

2. Fence Height

We are not proposing to increase the height of the perimeter fencing. Past experience of Concord Trailways has shown that vandalism is not a problem. Over the past 4½ years that they have been on Marginal Way, they have had only two (2) vandalisms reported. The purpose of the fence at this location is primarily as a deterrent.

12 Westbrook Common PO Box 1339 Westbrook Maine 04098-1339 207-856-0277 Fax 207-856-2206

3. Location of Different Lighting Fixtures

The majority of the site will be illuminated with the Spaulding Cambridge fixture. There are two locations located immediately in front of the terminal building where we propose to install the Architectural Area Lighting fixture Model No. SLSH20.

4. Sign Ordinance Compliance

Freestanding Sign - Concord Trailways proposes to relocate their existing freestanding sign from Marginal Way to the entrance of the new facility on Sewall Street (see Site Plan). This sign has a total square footage of 64.5 s.f. I have not been able to verify with Marge Schmuckal if the special provisions for signage for I-2 Zones within 800 ft. of I-295 would apply to this site. If so this provision allows for a maximum permitted area of 160 s.f. If this provision does not apply then our sign is not in compliance and we will need to revisit the signage design.

Building Sign - Building mounted signs are designed to conform with the sign ordinance. The sign on the terminal building is 2% of the front building facade. Maximum per ordinance is 6%. Sign is shown on the attached building elevations.

The service garage will also have a sign similar to the terminal building and will be installed facing the Interstate 295 and be sized to conform to the sign ordinance.

5. Metro Bus Access

Our understanding based on the letter to Cyrus Hagge from Sarah deDoes is that the Metro is unable to provide direct bus service to the terminal facility on Sewall Street. Concord Trailways understands the time constraints on the bus routes and hopes to negotiate with the bus service on an as needed basis. If this is not feasible, Concord Trailways will explore alternative solutions to connect to the Metro.

6. Letter of Financial Capability

Attached is a letter from the Bank of New Hampshire addressing financial capability for the project.

7. Utility Capacity

We have contacted all the major utility companies who will service this facility. All of them have verbally indicated that there is adequate capacity to service this project. Formal letters can be made available upon request. Sewer, water, telephone and power service will come from the Old Sewall Street R.O.W. Gas service is available in Sewall Street.

8. Sewall Street Building Elevations

Attached are revised building elevations of the terminal building. Gawron Associates have added two (2) small windows to the Sewall Street elevation. We feel this elevation in combination with the surrounding landscape plantings will be an attractive presentation to Sewall Street.

9. Engineering Details

Response to Attachment 6A from Jeffrey D. Preble, P.E. of Dufresne-Henry, Inc.

A. Stormwater Management

- We propose to install Casco traps in the last catchbasins on the two stormline branches leading to the treatment tank. These Casco traps will provide additional water quality protection by supplementing that already provided by the treatment tank and the pond.

- A Stormwater Management and Maintenance Plan will be developed for the facility and will be provided to the owner. If this is required by the City for final approval we request this be made a condition of approval.

- The details of the pond control structures are shown on the Detail Sheet. All slopes exceeding 3:1 slopes will have erosion control matting placed on them to control stability.

- We concur with Dufresne & Henry's construction sequence plan for the site and drainage system and agree that proper stabilization is of the pond is key after initial construction. Our Erosion and Sedimentation Control Plan generally addresses measures for controlling stability of disturbed areas during construction.

B. Erosion and Sedimentation Control

- The Erosion and Sedimentation Control Plan incorporates standards and procedures as established in Best Management Practices as such the details and installation criteria are similar for any construction project. The specific nature of the Erosion and Sedimentation Control Plan occurs in the construction schedule and on the Design Plans themselves. This project is a relatively straight forward building and parking lot construction project. The site has been previously altered for commercial use and does not involve an extensive amount of land clearing activities prior to site construction activities. We are confident that the information contained on the Design Plans, in the Erosion and Sedimentation Control Plan, and in the construction specifications will significantly address potential Erosion and Sedimentation issues.

- The Grading Plans will be revised to call for erosion control mesh to be installed on the pond slopes and a stone check dam to be added at the outlet pipe from the pond.

C. Other Notes

- While not part of the site drawings an oil and water separator will be installed in the service garage prior to connecting the interior floor trench drains to the sanitary service.

- Details for the proposed fuel tanks are currently being prepared by the mechanical engineer and can be made available upon request. These tanks will be installed in conformance of State of Maine Office of State Fire Marshal Rules and Regulations for Flammable and Combustible Liquids. The tanks will consist of an aboveground double walled steel tank with attached pump.

- The water line to the service garage will be installed with a minimum cover of 5'-6" and will not require insulation.

- Spacing of the score joints in the concrete pavement will be incorporated into the construction documents.

- The Plans will be modified to clarify concrete verses bituminous curbing.

D. Response to Comments From Tony Lombardo - Public Works

- Any services within the City of Portland right-of-way would be subject to the City's technical and design standards and guidelines for trenching backfill. A note to this effect will be indicated on the Site Plan and Detail.

- The Service Garage primary purpose is to provide a location where buses could be washed, fueled and Johnny tanks drained. The mechanical engineer has had discussions with the Sanitary Department on emptying the Johnny tanks into the sanitary sewer service. The details have been finalized at this time. Other general maintenance and repair of buses will occur in their Concord, NH facility. The design of the fuel tank and preventive measures for pollutants entering the sewer and storm system have been previously addressed.

10. Street Trees

Street trees will be added along the south side of Sewall Street and will consist of Crimson King Maples 2½" caliper spaced approximately 50' on center.

I hope this information addresses your comments. If you have questions prior to the July 23 Planning Board meeting, please call me.

Sincerely,

SEBAGO TECHNICS, INC.

Stephen G. Doe, R.L.A.
Landscape Architect

SGD:dlf

cc: Harry Blunt
Ken Hunter
Joseph Satlack
James D. Harnden

Attachment 3

JOHN L. MURPHY, P.E.

Civil Engineer
Traffic Engineer

RR1, BOX 6300
WEST BALDWIN, MAINE 04091-9745
207-625-8222

Concord Trailways

Traffic Impact

Sewall Street, Portland

General

Concord Trailways proposes to construct a new 3,100 square foot terminal and 2,100 square foot service area on Sewall Street. Buses from the project will serve Boston and Logan Airport plus the Maine coast.

Trip Impact

The existing bus station on Marginal Way was counted between 7 AM and 8:30 AM on 6/6/96 and between 4 PM and 6 PM on 6/4/96 to determine trip generation from this proposed facility. These counts both included an AM and a PM bus arrival to determine vehicular impact.

The AM peak hour trip generation was counted as 21 vehicles entering and 18 exiting. The PM peak hour had 19 entering vehicles and 30 exiting vehicles. To determine impact of the new facility the number of vehicles was factored by 1.5 (50% increase).

The trips were then assigned to the nearest major intersection at Congress Street and Sewall Street with one-third assumed to arrive and depart to the west on Congress Street and two-thirds to the east toward I-295.

The AM and PM trip distribution is attached to this report. The base AM and PM traffic at Congress Street/Sewall Street was counted on June 3, 1996. This data is also attached.

Analysis of Impact

Since all trips related to the bus terminal are considered to be new trips, the expected trip distribution was added to the 5/30/96 and 6/3/96 base counts to determine future impact.

Highway capacity analysis of the existing traffic was performed along with capacity analysis of the same intersection with the additional bus terminal traffic. The analyses for the AM and PM peak hour did not result in any change in level of service due to the impact of the bus terminal traffic.

The level of service probably is not as good as analysis indicates because an exclusive walk phase exists at Sewall Street and Congress Street. This walk light only occurs when a pedestrian or the crossing guide (during school session changes) actuates the interval. During the walk phase all traffic at the intersection is stopped for 18 to 20 seconds.

Based on observation, this walk cycle impacts the AM peak period, with little actuation in the PM peak period. The bus terminal traffic will not change this situation, thus it seemed reasonable to perform the impact analysis with the assumption that the walk phase did not occur.

Accident Analysis

A detailed accident diagram was prepared for the section of Congress Street between the I-295 ramps and the Sewall Street intersection. The majority of accidents involve left turns from either Bolton Street or Massachusetts Avenue and through vehicles on Congress Street. No unusual pattern occurs at the signalized intersection of Congress Street/Sewall Street.

The small amount of additional traffic due to the bus terminal is not expected to impact the existing accident patterns.

Conclusions

1. Based upon counts taken at the existing Concord Trailways terminal on Marginal Way in Portland, the project is a low trip generator that will not have an adverse traffic impact.

2. The capacity analyses of AM and PM peak hour conditions with and without project impact do not show any adverse change in level of service at the Sewall Street/Congress Street intersection.

3. The existing accident patterns in the area of Sewall Street and Congress Street will not change due to project impact.

John D. Murphy
6/17/96

Attachment 4

SebagoTechnics

Stormwater Runoff Evaluation/ Erosion & Sediment Control Plan

Concord Trailways Transportation Center

Sewall Street
Portland, Maine

June 1996

prepared by:

Sebago Technics, Inc.
12 Westbrook Common
P. O. Box 1339
Westbrook, ME 04098-1339

STORMWATER RUNOFF EVALUATION
Concord Trailways
Transportation Center
Sewall Street
Portland, Maine

General

The following stormwater evaluation has been prepared for Concord Trailways to analyze stormwater runoff associated with the proposed Transportation Center off Sewall Street in Portland, Maine.

Concord Trailways proposes a Transportation Center on an approximately 6.8 acre parcel. The facility will include an approximately 3,168 square foot terminal building and a 2,400 square foot service garage. Parking will be provided on site for approximately 240 cars. Pick-up/drop-off areas are provided for four busses at the terminal building. The buildings and parking areas encompass approximately 2.8 acres.

Site Characteristics

The parcel is located on the southeastern side of Sewall Street. The property is generally rectangular and is abutted by Hooper Street to the east. Railroad tracks abut the western end of the property. The site is currently vacant and has previously been filled. Wetlands are located at the southern corner of the property. The hydrologic soil group (HSG) for the fill areas has been assumed to be "C". Elevations on the site range from Elevation 31 at Sewall Street to Elevation 8 in the wetlands at the rear of the site.

Drainage Patterns

Pre-Development

The site drains in a general southeasterly direction from Sewall Street to the wetland at the rear of the site. Flows exiting the wetland area pass into a natural drainage system which outlets into the Fore River. Runoff from areas northeast of the site pass under Hooper Street and flow through a ditch and culvert adjacent to the site's eastern boundary. The western end of the property drains along an existing swale which is adjacent to the railroad tracks. Upstream flows are diverted around the development area by the drainageways which exist on both sides of the parcel. The site is divided into two watersheds in the pre-development condition. Watershed 1 encompasses approximately 2.5 acres on the site and flows along the ditch adjacent to the railroad tracks along the western property boundary. Watershed 2 encompasses approximately 2.8 acres and drains to the channel adjacent to Hooper Street along the eastern site boundary. Both watersheds enter the wetlands at the rear of the property prior to eventually discharging to the Fore River.

Post-Development

The post-development drainage conditions include four watersheds. Watershed 1 is centrally located on the site and encompasses the majority of the development area. Watershed 1 is approximately 2.8 acres in size. This watershed collects runoff from the buildings and parking areas via a subsurface drainage system which discharges to the water quality treatment system discussed at the end of this report. Watershed 2 encompasses approximately 1.24 acres of predominately open land along the site's eastern property limit. Flows from this area discharge in the same manner as the pre-development condition. Watershed 3 includes the southern and western perimeter and sideslope areas outside of the development footprint. Watershed 3 encompasses approximately 0.94 acres. This watershed drains along the railroad tracks along the western site boundary. Watershed 4 encompasses approximately 0.35 acre and picks up runoff from the entrance and access area off Sewall Street at the western corner of the parcel. This area discharges to the existing drainageway along the railroad tracks and eventually flows to the wetland at the rear of the site.

Stormwater Management

In order to evaluate drainage characteristics as a result of the proposed development activities, a quantitative analysis was performed to determine peak rates of runoff for the 2, 10 and 25-year storms. The analysis considered both pre-and post-development conditions. The evaluation was performed using the methodology outlined in the USDA Soil Conservation Service's "Urban Hydrology for Small Watersheds - Technical Release #55 (TR-55)". HydroCAD computer software was used to perform the calculations. Supporting hand calculations, data sheets and HydroCAD computations are attached to this report. Stormdrain pipes were sized using the rational method.

The results of the stormwater runoff calculations for the pre- and post-development conditions are summarized in the tables below:

Concord Trailways
Watershed Data
Summary Table

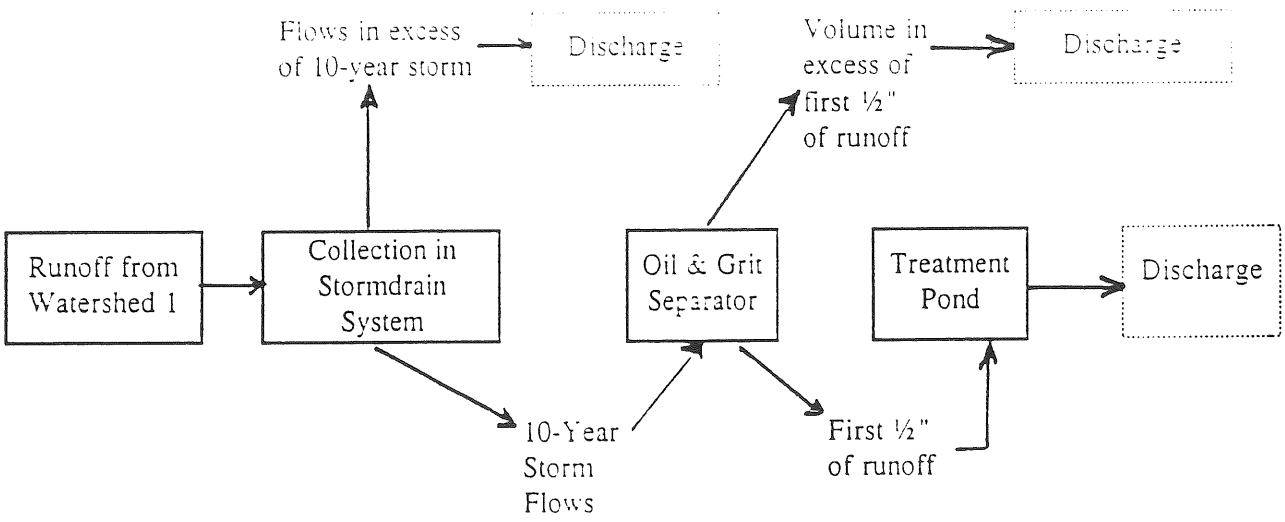
Watershed	Pre-Development			Post-Development		
	Area (Ac)	Cn	Tc (Min)	Area (Ac)	Cn	Tc (Min)
1	2.54	79	26.9	2.8	97	3.7
2	2.79	79	18.6	1.24	79	20.9
3	--	--	--	0.94	79	4.2
4	--	--	--	0.35	90	2.9

Concord Trailways Stormwater Runoff Summary Table				
		Peak Runoff Rate (cfs)		
		2-Year	10-Year	25-Year
Pre-Development	Watershed 1	2.0	4.5	5.7
	Watershed 2	2.6	5.7	7.3
		Peak Runoff Rate (cfs)		
		2-Year	10-Year	25-Year
Post-Development	Watershed 1	8.0	12.7	15.0
	Watershed 2	1.1	2.4	3.1
	Watershed 3	1.2	2.7	3.5
	Watershed 4	0.8	1.4	1.7

As the summary table shows, the site's peak runoff rates entering the wetland area on the site are above the pre-development rates. It is not anticipated that this increase in peak flow rates will have a significant adverse effect on the downstream receiving areas, which include the Fore River and Portland Harbor. Due to the site's proximity to the Fore River and the size of the overall upstream areas contributing to the river (and Portland Harbor), it is apparent by observation that on-site detention will not provide a measurable benefit. The existing wetlands on the site help to provide a stable receiving body to allow discharge to the downstream areas. Due to the site's location at the downstream end of the watershed, attenuation of peak flow rates is not as beneficial or imperative as enhancing the quality of the stormwater leaving the site.

Water Quality

In order to enhance the quality of the stormwater runoff leaving the site, an oil and grit separator and a water quality pond have been incorporated into the design. Oil and floatables are trapped within the chamber by the use of baffles. The storm drain system has been designed to divert the 10-year storm flows from Watershed 1 to the oil and grit separator. Stormwater flows in excess of this rate are directed to the drainageway along Hooper Street to the east. The flows which pass through the oil and grit separator are split such that the equivalent of the first half inch of runoff is directed to the water quality pond located adjacent to the wetlands. The remaining flows leaving the oil and grit separator are directed easterly to the swale along Hooper Street. The water quality pond's capacity is based on the first half inch of runoff emanating from Watershed 1. The pond's outlet has been sized to release the pond's volume over a minimum 24-hour period. The following flow chart summarizes the process of water quality treatment on the site:



It is anticipated that this system will improve the quality of runoff leaving the site by collecting and treating the first flush of runoff using a two-stage process. Oil and grit will also be removed from runoff emanating from the 10-year storm event.

Sediment and Erosion Control Plan

In order to further reduce the potential for impacts associated with the project's construction, a Sediment and Erosion Control Plan has been prepared which outlines the measures to be incorporated before and during the construction of the project. Permanent erosion control measures have also been included to reduce the potential for long-term effects. These measures include installation of temporary erosion control structures and stabilization measures (both temporary and permanent), as well as revegetation plans. A report has been prepared which outlines this plan. A narrative and details are included in the drawing set.

Summary

The preceding stormwater evaluation has been prepared to address the pre- and post-development runoff conditions for the proposed Concord Trailways Transportation Center off Sewall Street. Principal stormwater runoff features will include a combination of catch basins, storm drains and an oil and grit separator. A water quality pond is also included to collect the "first flush" of runoff. An erosion control plan has been made an integral part of the overall project and specific instructions and details have been placed directly on the plans.

Based on the enclosed stormwater runoff calculations and the site's downstream location, it is not anticipated that the increases in the peak runoff rates leaving the site will have a significant adverse effect on the downstream receiving bodies. The oil and grit separator and treatment pond have been incorporated into the design to improve the quality of stormwater leaving the developed portions of the site.

Prepared by:

SEBAGO TECHNICS, INC.

Nancy J. Gilbert, P.E.
Project Manager

NJG:jc
June 18, 1996

Erosion & Sedimentation Control Plan

Concord Trailways
Transportation Center
Sewall Street
Portland, Maine

A. Pre-Construction Phase

Prior to the beginning of any construction, hay bale barriers/filter fabric fencing shall 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 hay bales shall be completed in accordance with guidelines established in Best Management Practices. This network is to be provided, installed and maintained by the contractor until all exposed slopes have at least 85%-90% vigorous perennial vegetative cover to prevent erosion.

Prior to any construction at the site, 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 City. 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 throughout construction of this project.

B. Construction and Post-Construction Phase

1. Areas undergoing actual construction shall only expose that amount of mineral soil necessary for progressive and efficient site construction and shall not exceed 14 days. Areas that will not be completed (covered and/or finish graded) within fourteen (14) days of disturbance shall be anchored with temporary erosion control within fourteen (14) days of disturbance. Temporary erosion control shall include erosion control mesh, netting, or mulch and as directed by the inspecting engineer. If disturbed areas do not receive final seeding by September 15th of the year of construction, then all disturbed areas shall be hay mulched at a rate of 150 lbs. per 1,000 square feet and seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 square feet to provide winter protection. The hay mulch shall be anchored with a suitable binder, such as RMB Plus and/or secured with netting for wind protection.

2. All topsoil shall be collected, stockpiled on site and seeded with Rye at 3 lbs. 1,000 square feet and mulched for re-use as required. Siltation fencing shall be placed down gradient from stockpiled loam. Loam shall be stockpiled at locations designated by the owner. Designated locations shall be determined prior to construction.

3. All silt fences and/or hay bale barriers shall be installed according to this plan. These shall be maintained during development to remove sediment from runoff water. All the silt fences shall be inspected after any rainfall or runoff event, maintained and cleaned until all areas have at least 85%-90% vigorous perennial vegetative cover of grasses.

4. All areas shall be seeded in accordance with the following vegetation plan.

C. Vegetation Plan

Revegetation measures shall commence immediately upon completion of construction. Disturbed areas shall be mulched and anchored prior to any storm event. If final seeding cannot be accomplished by September 15th, then all disturbed areas shall be hay mulched at a rate of 150 lbs. per 1,000 s.f. and seeded with a winter cover crop of Rye at the rate of 3 lbs./1,000 s.f. to provide winter protection. Hay mulch shall be secured with a suitable binder to include RMB plus and/or erosion control netting as directed by the owner inspecting engineer.

Revegetation measures shall consist of the following:

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. In lieu of soil tests, agricultural limestone shall be spread at the rate of 3 tons per acre. 10-20-20 fertilizer shall be applied at a rate of 800 lbs./acre. These soil amendments shall be incorporated into the soil prior to final seeding.

3. Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 4 lbs./1,000 square feet to a mixture of 35% Creeping Red Fescue, 6% Red Top, 24% Kentucky Bluegrass, 10% Perennial Ryegrass, 20% Annual Ryegrass and 5% White Dutch Clover. The lawn areas will be seeded to a premium turf mixture of Bluegrass and/or Fescue; seeding rate of 3 lbs. per 1,000 square feet.

4. Hay mulch shall be applied to all disturbed areas at the rate of 150 lbs. per 1,000 square feet, or a hydro-application of asphalt, wood or paper fiber will be applied following seeding. A suitable binder, such as RMB Plus and/or erosion control netting will be used on hay mulch for wind control.

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.

D. Construction Schedule

Construction will begin upon receipt of all necessary approvals. It is anticipated that site work will commence in August 1996 and will be completed in November. Final plantings and follow-up work may occur in April 1997.

Schedule

		Site Work	Spring Follow-Up
1.	Estimated construction time:	Aug. 1996 - Nov. 1996	April 1997
2.	Erosion control measures placed.	August 5, 1996 - Nov. 1996	
3.	Site clearing, grubbing, excavation and filling.	Aug. 7, 1996 - Nov. 1996	
4.	Rough grading, drainage improvements, building construction, and parking lot construction.	Aug. 12, 1996 - Nov. 1996	
5.	Temporary seeding.	Aug. 26, 1996 - Oct. 14, 1996	
6.	Biweekly monitoring of vegetative growth.	Sep. 9 - Nov. 15 1996	April 15, 1997
7.	Re-seeding of areas, if needed.	September 23, 1996	April 1, 1997
8.	Removal of erosion control devices.		April 15, 1997
9.	Mulch spread for winter erosion control, if needed.	November 15, 1996	

E. Inspections/Monitoring

Maintenance measures shall be applied as needed during the entire construction cycle. After each rainfall, the site contractor shall perform a visual inspection of all installed erosion control measures and perform repairs as needed to insure their continuing function.

Following the temporary and/or final seedings, the contractor shall inspect the site 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.

Prepared by:

SEBAGO TECHNICS, INC.

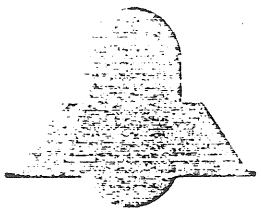
Nancy Gilbert

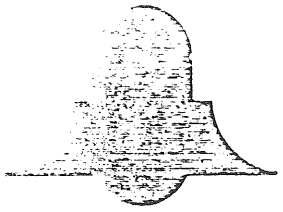
Nancy J. Gilbert, P.E.
Project Manager

NJG:jc
June 13, 1996

ARCHITECTURAL
AREA
LIGHTING

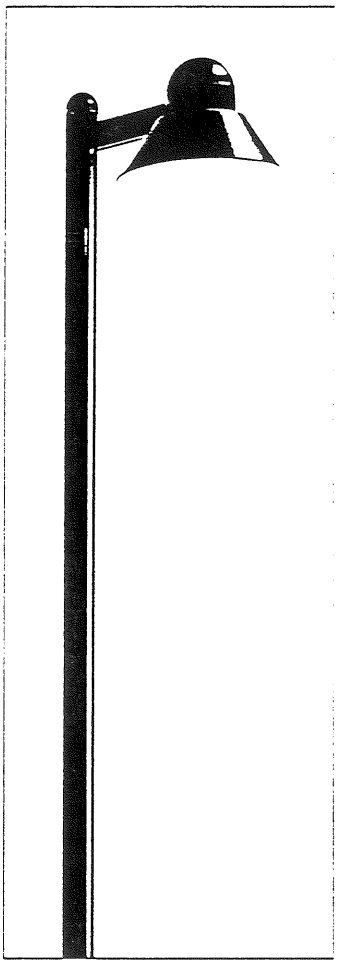
SITE LIGHTING



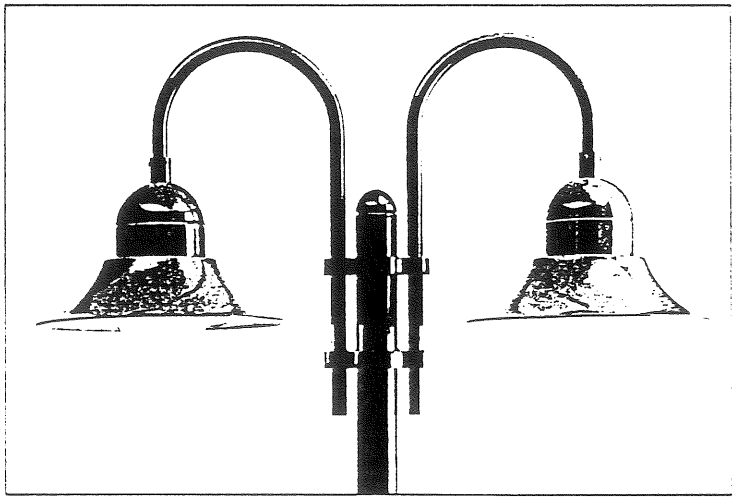


SL SH 20 SL FH 22
SL SH 30 SL FH 30

Two classic geometric shapes are each scaled in two sizes to compliment many landscape designs. The SL SH 20 & 30 feature an angled hood. The SL FH 22 & 30 feature flared hoods. Both styles share the same quality design and internal construction details. The smaller diameter versions will accommodate 100 watt HID lamps. The larger 30 inch diameter versions are available with 175 watt HID lamps.
Three pole mounting configurations are offered. A top mount version for attaching to five standard arm designs, a straight side arm, and a post top mount design. Many arm designs for poles, and wall mounting options are available.
Standard colors include black, white, medium gray, dark green and satin aluminum.
All fixtures are U.L. listed for wet locations.



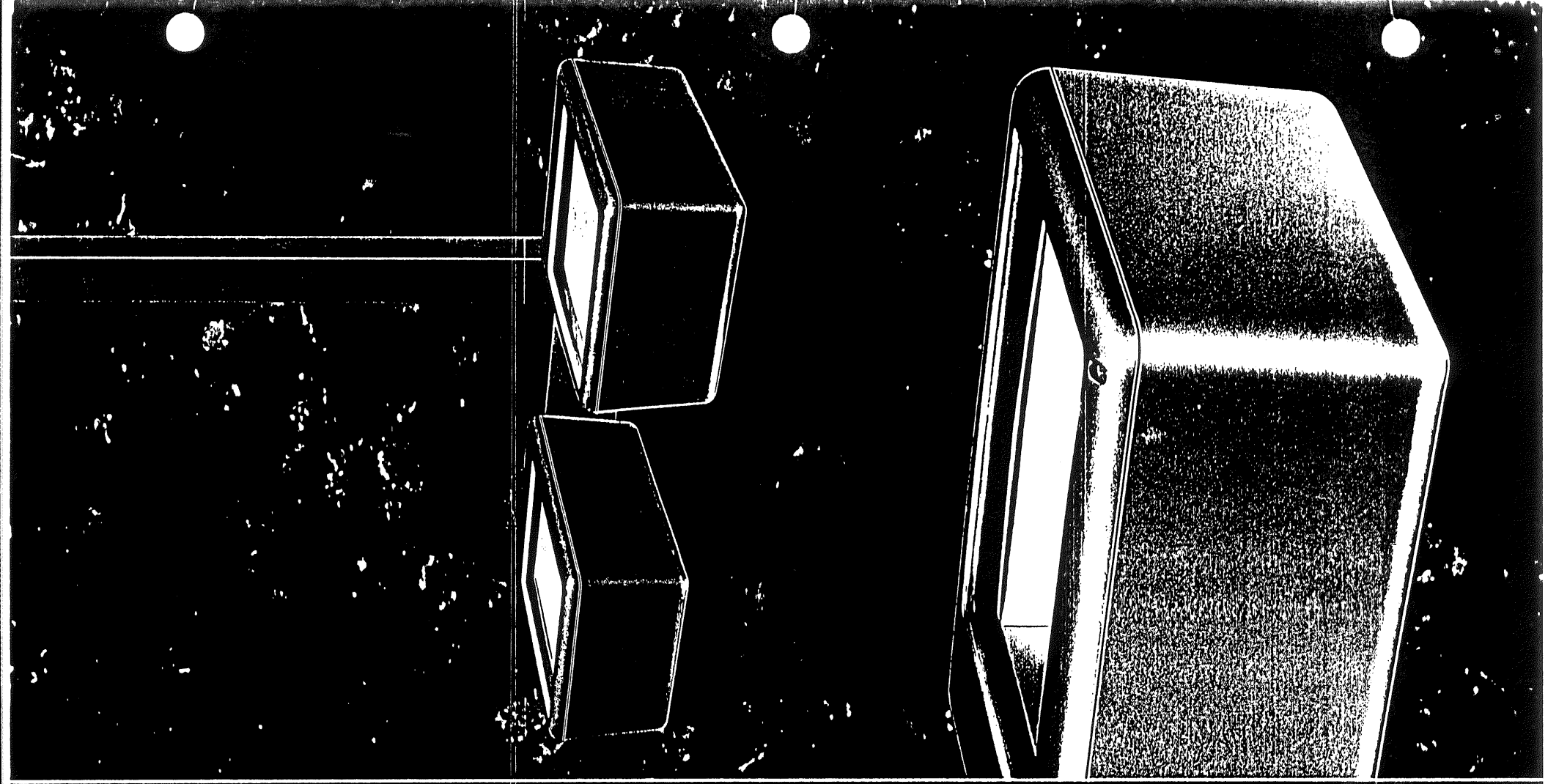
SL SH20-S



SL FH22-T

Specification Features

• Housing
The luminaire is constructed of aluminum for outdoor use. All hardware is stainless steel. The hood is heavy gage spun aluminum with a beaded edge for added strength. The housing has a cast aluminum, threaded fitter for attaching the lens.
An opal DR acrylic diffuser with a cast aluminum collar screws into the housing for a tight secure fit with no exposed hardware.
• Electrical
Medium base porcelain sockets are 4KV rated. High power factor ballast assemblies are for -20° starting. All electrical components are mounted to a prewired module that is easily removed for servicing. The electrical module is mounted to cast aluminum heat sinks, integral to the upper housing, for longer component life and dependability. All electrical components are U.L. listed.
All fixtures are listed by Underwriter's Laboratory for use in wet locations.
• Finish
All fixtures and poles are finished with a baked on acrylic enamel paint. The underside of the hood is painted with high reflectance white paint. Pretreatment includes submersing the components in tanks to assure proper cleaning and a chromate coating of both the interior and exterior surfaces for prolonged protection.
• Poles
Standard round poles are extruded aluminum with cast aluminum bases and covers. Square aluminum and various steel poles are available. Decorative, cast aluminum bases and poles are also available.



SPAULDING LIGHTING, INC.

CAMBRIDGE

LUMINAIRE ORDERING GUIDE

UL & CSA Listed.

Model

CEI - small size

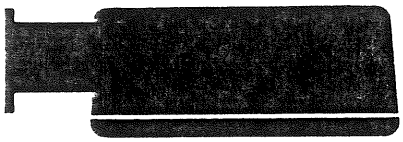
CEII - large size

Mounting Mode

PM

Pole Mount

WB



Wall Bracket

Lamp Type/ Watts

small size
S100 S150 S250 S400 M175 M250 M400

large size
S400 S1000 M400 M1000

Reflector

I-asymmetric III-asymmetric IV-forward throw VS-symmetric square

Voltage

120 208 240 277 347 480 MT-multi-tap

Options

PC - photoelectric cell 120-277v. up to 400w. SF - single fuse
PR - photo receptacle (less cell) DF - double fuse
VG - polycarbonate vandal guard CS - house side cutoff shield

Colors for Luminaire and Pole

DBZ	SSB	RRN	SGB	WHT	FGP	TBP	RBP	CMB	SOS
dark bronze	beige	rocket red	black	white	forest green	teal blue	royal blue	burgundy	silver

Luminaire Ordering Example:

MODEL	MOUNTING MODE	LAMP TYPE WATTS	REFLECTOR	VOLTAGE	OPTIONS	COLOR
CEII	PM	S400	IV	MT	PC	SOS

CEI
CEII

PM pole mount
sta-6T arm for CEI
sta-10T arm for CEII
WB wall bracket

small: S100 S150 S250 S400 M175 M250 M400
large: S400 S1000 M400 M1000

I asymmetric
III asymmetric
IV forward throw
VS V-square

120
208
240
277
347
480
MT multi-tap

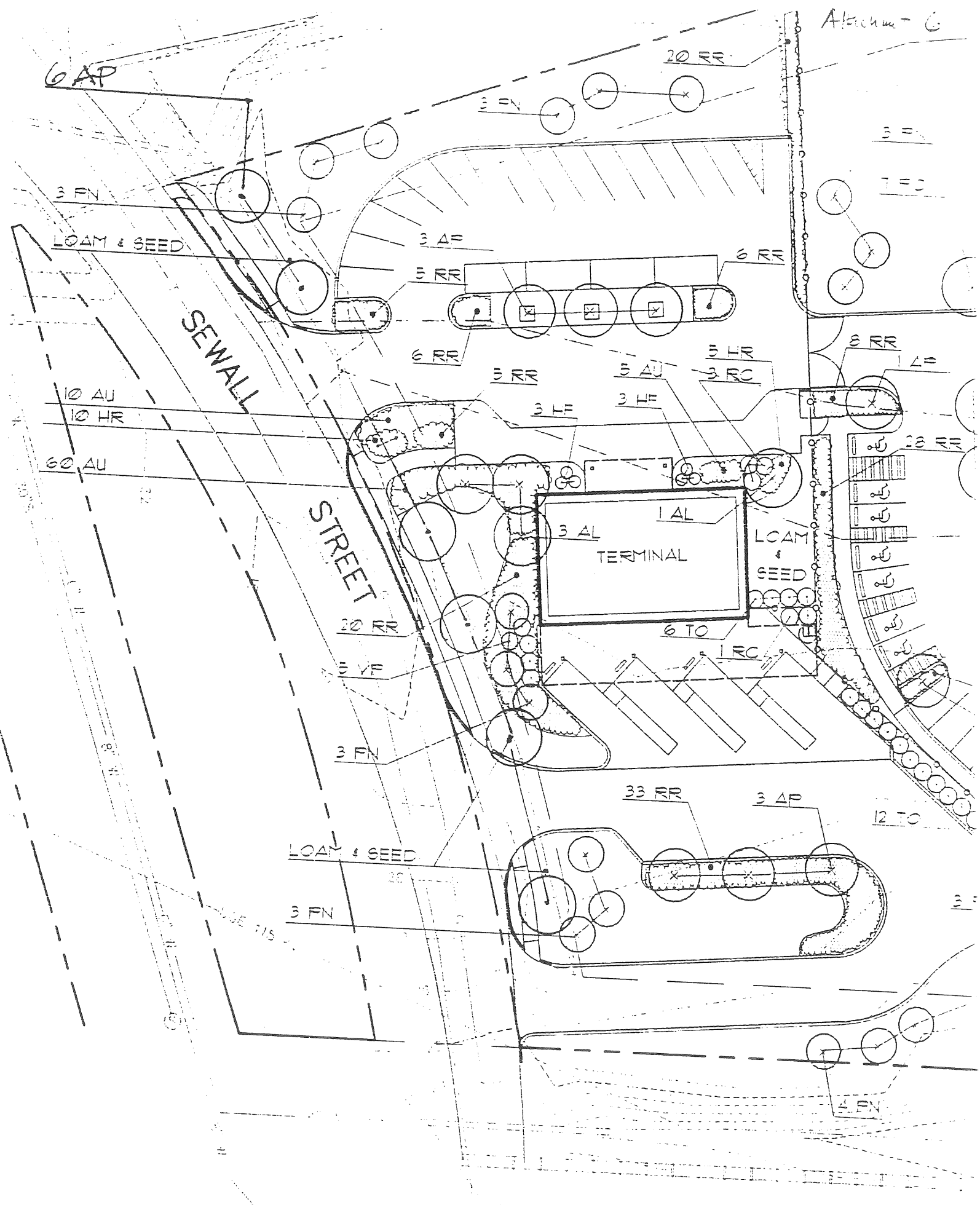
PC photoelectric cell 120-277v. up to 400w
PR photo receptacle less cell
SF single fuse
DF double fuse
VG polycarbonate vandal guard
CS house side cutoff shield

DBZ dark bronze
SSB beige
RRN rocket red
SGB black
WHT white
FGP forest green
TBP teal blue
RBP royal blue
CMB burgundy
SOS silver

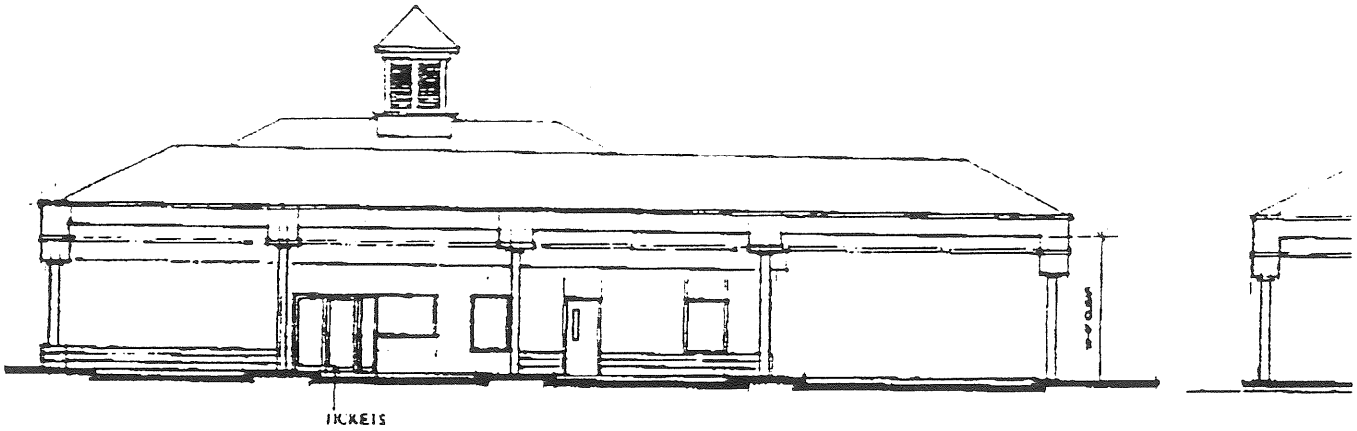
POLE ORDERING

Refer to Poles/Brackets Section for ordering information.

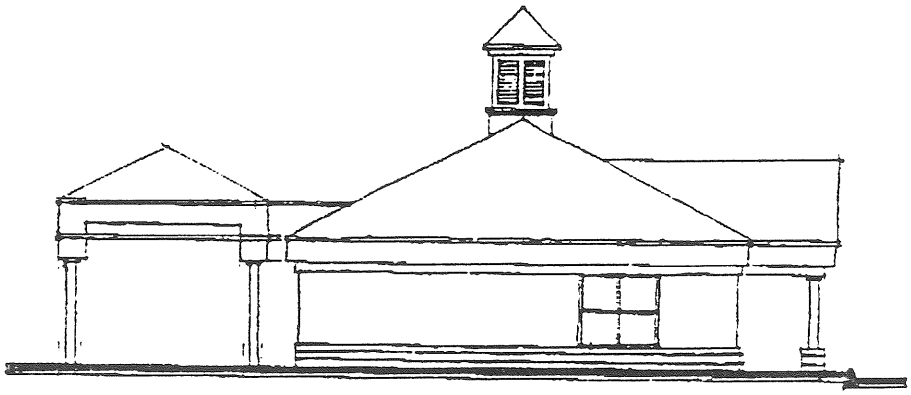
SPAULDING LIGHTING, INC.


Attachment C
6 AP
20 RR
3 FN
3 FN
LOAM & SEED
3 AP
5 RR
6 RR
6 RR
SEWALL
STREET
10 AU
10 HR
60 AU
3 RR
3 HF
3 HF
5 AU
3 RC
5 HR
6 RR
1 AP
28 RR
1 AL
3 AL
TERMINAL
LOAM & SEED
6 TO
1 RC
20 RR
3 FN
33 RR
3 AP
12 TO
LOAM & SEED
3 FN
2 FN

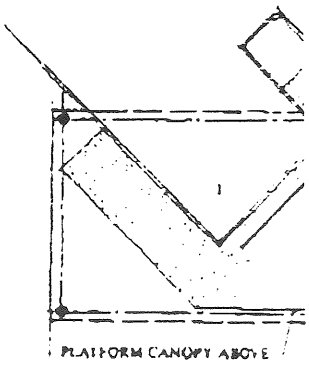
Attachment 7

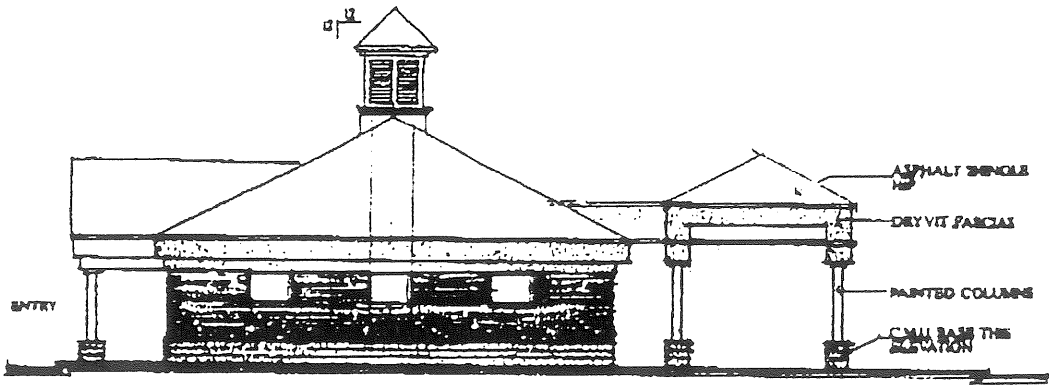


BUS PLATFORM ELEVATION
SCALE

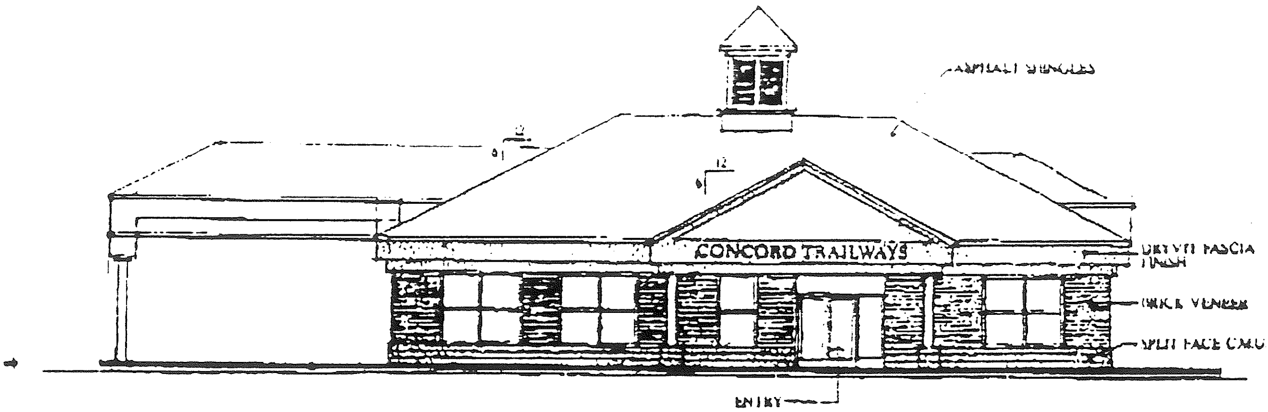


PARKING AREA ELEVATION
SCALE

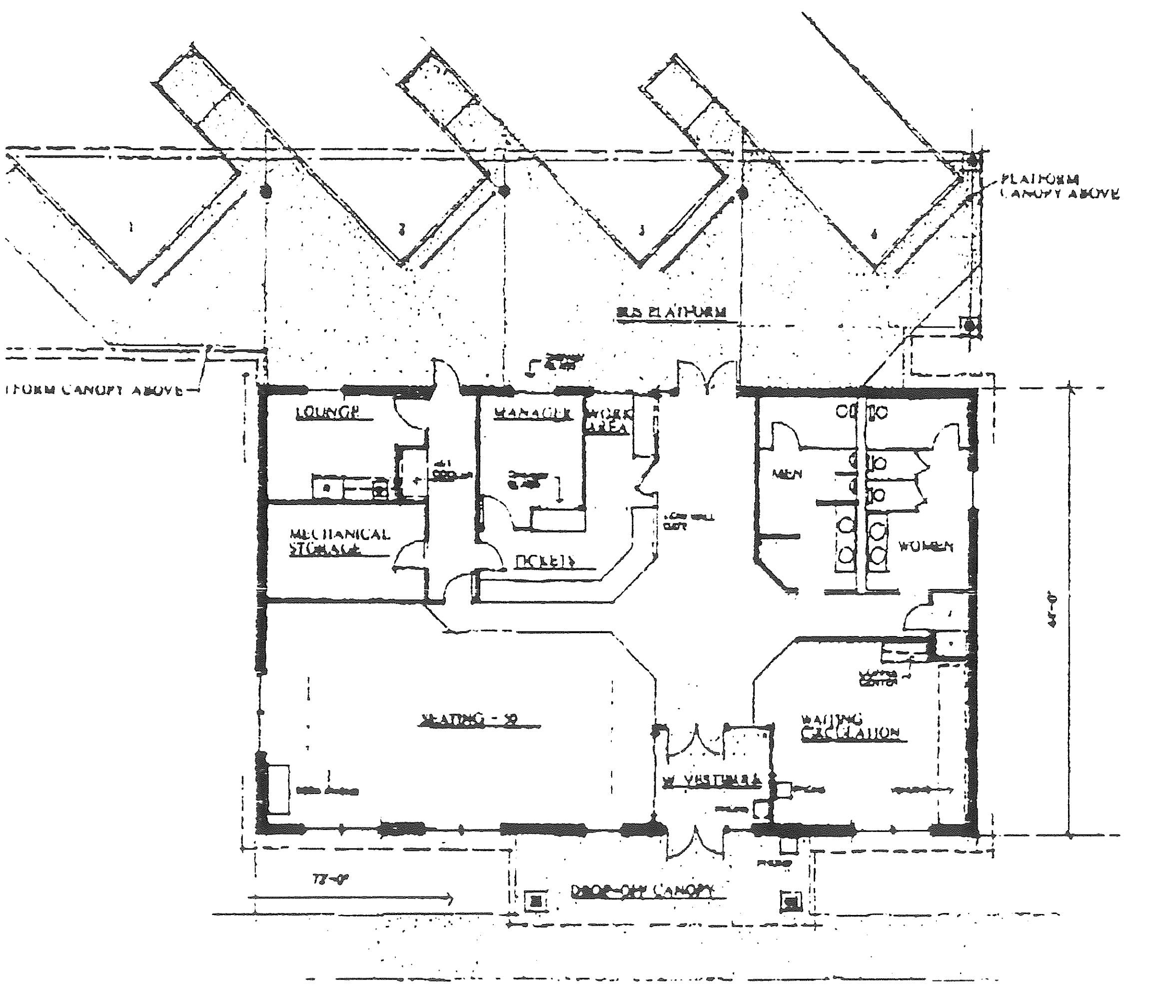




SEWALL STREET ELEVATION
SCALE



ENTRY ELEVATION
SCALE 1/8"=1'-0"



FLOOR PLAN
SCALE 1/8"=1'-0"

GAWRON ASSOCIATES

REVISIONS
NO. DATE DESCRIPTION

CONCORD TRAILWAYS
CONCORD COACH LINES, INC
SEWALL STREET PORTLAND MAINE
INTERMODAL BUS FACILITY

DRAWINGS THIS SHEET
FLOOR PLAN
BUILDING ELEVATIONS

A1

Attachment 8

BANK OF NEW HAMPSHIRE

July 3, 1996

TO WHOM IT MAY CONCERN

I am pleased to inform you that Bank of New Hampshire has approved a construction loan and mortgage in the amount of $1,000,000 for Langdon Street Real Estate, Inc. to enable them to purchase approximately 7 acres of vacant land in Portland, Maine, construct a terminal facility, light service and fueling garage and parking lot

This approval is subject to the company's ability to obtain clear title to the property as well as all zoning and other necessary government approvals, permits and licenses which are needed to purchase land, proceed with construction and conduct business within the subject premises

If you have any questions regarding this commitment, please to not hesitate to call me at 603-229-5755

Sincerely,

Mary W. McLaughlin
Senior Vice President

MWM/jmb
960531lan.gdn

P.O. Box 477 Concord, New Hampshire 03302-0477 (603) 225-4500

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Sarah Hopkins, Senior Planner

FROM: William J. Bray, Deputy Director of Public Works

DATE: July 23, 1996

SUBJECT: Concord Trailways

I have reviewed the latest plans and traffic study as submitted by the applicant. The plans have been revised to reflect my concerns and I agree with Jack Murphy's traffic study conclusions.

In keeping with the conclusions drawn in the traffic study, I would recommend the following condition of approval:

- the applicant shall be responsible for making signal timing modifications and replace, if necessary, the detection appurtenances of the Congress/Sewall intersection.

O:\PLAN\DEVREV\PROJECTS\THMPSNPT\MEMOS\BRAY7-23.JMD

A-76

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Sarah Hopkins, Senior Planner

FROM: Jeff Tarling, City Arborist

DATE: July 23, 1996

SUBJECT: Concord Trailways

I have reviewed the most recent plans submitted by the applicant. The applicant has responded to my concerns by planting a number of street trees along the Sewall Street frontage of the property.

I also find the perimeter and interior plantings to be acceptable.

O:\PLAN\DEV\REV\PROJECTS\THMPSN\PT MEMOS\JEFF7-23.JMD

METRO

Attachment 10

July 12, 1996

Cyrus Y. Hagge, Chair
Portland Planning Board
389 Congress Street
Portland, ME 04101

Dear Mr. Hagge:

METRO has provided service to the Concord Trailways facility on Marginal Way on request only. Because of the proximity of their location to one of our bus routes, our time schedule has not been adversely affected by offering the service to their passengers.

We understand that representatives of Concord Trailways indicated at the Planning Board workshop that they assumed we would provide the same service to Sewall Street. Although we have two routes traveling the Westgate area of Congress Street, neither route has the extra time to accommodate a deviation. We, therefore, will be unable to provide the same service if Concord Trailways moves its operation to Sewall Street.

If you have any questions or would like further detail, please let me know.

Sincerely,

Sarah P. deDoes
General Manager

pc: Ken Hunter
Sarah Hopkins