

### *North Elevation*

The North Elevation facing the parking lot is indicated as the “Entrance”. There is a tower with an entrance door and a curved blue metal canopy. This entrance tower is on the northeast corner with doors on each side of the building. There is signage above the door, and on the upper level of the tower. Fenestration is shown, but it is not clear if this is translucent or spandrel glass.

### *East Elevation*

The East Elevation is indicated as the “Entrance” on the elevations. There is a tower with an entrance door and a blue metal canopy. The elevations indicate that the signage on this façade is to be determined. There is a monitor roof with a clerestory windows. It is not clear if these are translucent or spandrel glass. Fenestration is shown, but it is not indicated whether this is translucent or spandrel glass. There is a bay window that wraps the southeast corner – again the glass needs to be specified.

## **Discussion**

This building is reviewed under the B2 Design Guidelines which encourage development of quality design which is consistent with the surrounding business and residential community. The Guidelines for review are presented below, with discussion of the proposed project.

*1. Building Location and Form – Buildings shall be located near the street so as to create an urban street wall.*

This guideline is met with regard to the location of the building on the lot.

It is not clear whether the height of the building meets the desired goal to create a strong urban street wall by providing building height that is proportionate to the width of the adjoining street. This particular guideline may warrant further discussion.

*2. Building Function – An urban street and business district requires a substantial intensity and variety of uses. It is beneficial to have mixed uses within portions of buildings situated near the street. This provides the scale of the building height desired, as well as the economic vitality of the business district.*

This building is a single use of a credit union and does not contain a mix of uses.

*3. Orientation of Buildings and Entrances to the Street. – Major buildings should be designed and located to provide the primary building access oriented to the public street and sidewalk. Doorways should be prominent and obvious in appearance.*

The entrance to this building is on the northeast corner facing the parking lot. There is no entrance at Brighton Avenue, or along Taft Avenue.

4. *Windows – Windows should be located in all building facades visible from the public way, especially on building facades along the major public street. Retail uses with storefronts are the most desirable feature for locations adjacent to the public sidewalk; and active, transparent, and interesting windows contribute the maximum value. Limitations on transparency should be avoided.*

It is not clear whether transparent or spandrel glass is proposed for the façade of this building. The West Elevation along Taft Avenue includes a narrow band of windows that appear to be higher than pedestrian level.

5. *Building Character, Detail, Scale and Graphic Qualities - Building design should include various architectural and graphic amenities to provide a strong presence along a street and relate a building to its community. Building scale, roof pitch, architectural detail, and fenestration shall be designed to complement and be compatible with surrounding residential and commercial buildings.*

This particular guideline may warrant further discussion. It is not clear whether the proposed design meets this requirement.

6. *Signage and Building Entrances – Building entrances and building signage should be designed and constructed at the pedestrian scale.*

This guideline does not apply to the B-2 Zone.

7. *Development Relationship to the Street – Building facades and site amenities should form a cohesive wall of enclosure along a street.*

This proposed building will contribute to the existing wall of enclosure along the street.

8. *Parking Lots*

This issue is discussed elsewhere in this report to the Planning Board.

9. *Transit Connections – Development proposed along established transit corridors should be designed to provide uninterrupted access from the proposed development to the transit stop.*

This matter needs to be determined.

## **Considerations**

The following items remain open for consideration:

1. Measured elevations of the building are needed.
2. No building entrance is shown on Brighton Avenue. This is open to discussion.
3. The plans indicate that a curved blue metal canopy will be installed over the entrance door. More information is requested as to the design, materials and construction of this canopy.
4. Specification of the windows systems should be provided.
5. The proposed use of transparent and/or spandrel glass should be shown on the elevations.
6. This building includes several bold colors on the façade (royal blue, light teal, dark teal and yellow). It would be helpful to have a colored rendering of the building as proposed.
7. Detailing and specifications of the proposed signage on all applicable facades is requested.

*Section 7*  
*B-1, B-1b, B-2, B-2b Design guidelines*

**1. INTENTION**

These guidelines are intended to provide direction for proposed development in the B-1, B-1b, B-2, B-2b zones in order to meet the Site Plan Standards specific to construction in these zones.

The guidelines are meant to highlight the important qualities of design and construction in the B-1 and B-2 zones, in order to encourage the development of quality design which is consistent with the surrounding business and residential community.

**2. APPLICABILITY**

The following development proposals will be required to meet the Site Plan Standards specific to development in the B-1 and B-2 zones and, as such, will be encouraged to address and be consistent with the following guidelines:

- A. All major and minor development in the B-1, B-1b, B-2, and B-2b zones.

**3. GUIDELINES**

**1. Building Location and Form**

Buildings shall be located near the street so as to create an urban street wall.

An urban street wall is created by a pattern of buildings which line the street in a consistent manner, thereby establishing a desirable spatial relationship between the building in the commercial district and the major street. The location of buildings is one of several related factors defining the street environment.

The desired condition is to have the building frame and enclose the street, which is achieved by providing building height that is proportionate to the width of the adjoining major street.

Shorter buildings of one story facing broad streets will not achieve the desired relationship. (Street width for this purpose is defined as the distance measured from curb to curb.)

By way of example, for a fifty-foot street right-of-way, a minimum building height of 15' is acceptable, with 25' height preferred. Buildings located as close as possible to the street right-of-way will provide better definition and proportion than buildings set further back.



## 2. **Building Function**

An urban street and business district requires a substantial intensity and variety of uses.

It is beneficial to have mixed uses within portions of buildings situated near the street. For example, a retail first floor might have office or residential on the second or third floors. This provides both the scale of building height desired, as well as the economic vitality of the business district.

## 3. **Orientation of Buildings and their Entrances to the Street**

Major building entries should be designed and located to provide the primary building access oriented to the public street and sidewalk.

Doorways should be prominent and obvious in appearance, so as to attract the users toward the entry. Major entry features should primarily address the street, with entry courts, display windows, signage, lights, walkways, and vestibules, as appropriate. Major entries should be adjacent to, or very close to, the street and public sidewalk.

## 4. **Windows**

Windows should be located in all building facades visible from the public way, especially on building facades along the major public street.

Retail uses with storefronts are the most desirable feature for locations adjacent to the public sidewalk; and active, transparent, and interesting windows contribute the maximum value. Limitations on transparency, such as dark or reflective glass, or interior coverings, should be avoided. Where uses (such as office) are not conducive to transparent viewing from the public way, windows can still convey a sense of activity and presence along the street. Even these more private windows can convey occupancy and habitation when lighted from within, as during evening hours, even if the interior is screened from view.

## 5. **Building Character, Detail, Scale, and Graphic Qualities**

Building design should include various architectural and graphic amenities to provide a strong presence along a street and relate a building to its community.

Awnings, canopies, and flags may be utilized to highlight entryways and to further identify the activity and identity of a use. Facade lighting may be used to highlight entryways or to provide visual interest along an

otherwise blank facade. Building scale, roof pitch, architectural detail, and fenestration shall be designed to complement and be compatible with surrounding residential and commercial buildings.

**6. Signage and Building Entrances**

Building entrances and building signage in the B-1, B-1b, and B-2b zones should be designed and constructed at the pedestrian scale.

**7. Development Relationship to Street**

Building facades and site amenities should form a cohesive wall of enclosure along a street.

Where buildings are not located at the street line, site amenities, including masonry walls, fences, and landscaping, should be placed along the street to provide a sense of enclosure or definition.

**8. Parking Lots**

Parking Lots should be buffered from view of the public way.

Landscaping or ornamental fencing should be used to buffer parking lots from public ways and residential neighbors. Where parking is located within the front yard, or side yard of a corner lot, a landscaped buffer or ornamental fence should be placed along the street line to distinguish the private space from the public space and to help define the street wall.

Parking lots should be screened from neighboring properties.

A densely planted landscape buffer or fencing should be installed to protect neighboring properties from the impacts associated with the parking lot and the use it serves.

Crosswalks should be provided within parking lots and across entrance driveways, directing pedestrians to building entrances.

Street trees should be planted along property street frontage 25ft. on center.

**9. Transit Connections**

Development proposed along established transit corridors should be designed to provide uninterrupted access from the proposed development to the transit stop.

An easement to place a transit shelter may be requested for development located along a transit corridor.

**SEBAGO TECHNICS, INC.**

One Chabot Street  
P.O. Box 1339  
WESTBROOK, ME 04098-1339

*hand deliver*  
**LETTER OF TRANSMITTAL**

16264

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

TO Shukria Wiar, City Planner  
389 Congress Street  
Portland ME 04101

|                  |        |         |       |
|------------------|--------|---------|-------|
| DATE             | 1/3/07 | JOB NO. | 05439 |
| ATTENTION        |        |         |       |
| RE: 11x17 Copies |        |         |       |
|                  |        |         |       |
|                  |        |         |       |
|                  |        |         |       |
|                  |        |         |       |
|                  |        |         |       |

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

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

| COPIES | DATE     | NO.       | DESCRIPTION            |
|--------|----------|-----------|------------------------|
| 1 set  | 9-06-06  | 8 sheets  | Architectural plan set |
| 1 set  | 11-06-00 | 11 sheets | Site plan set          |
|        |          |           |                        |
|        |          |           |                        |
|        |          |           |                        |
|        |          |           |                        |
|        |          |           |                        |

THESE ARE TRANSMITTED as checked below:

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

REMARKS \_\_\_\_\_

*Please call if you need anything else.*

*Thank you*

*Heather Talbot*

COPY TO \_\_\_\_\_

SIGNED: \_\_\_\_\_

**SEBAGO TECHNICS, INC.**  
 One Chabot Street  
 P.O. Box 1339  
 WESTBROOK, ME 04098-1339

**LETTER OF TRANSMITTAL**  
 21435

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

|           |                                    |         |       |
|-----------|------------------------------------|---------|-------|
| DATE      | 3/20/07                            | JOB NO. | 05439 |
| ATTENTION |                                    |         |       |
| RE:       | Revised Lighting Photometric Plan. |         |       |
|           |                                    |         |       |
|           |                                    |         |       |
|           |                                    |         |       |
|           |                                    |         |       |

TO Shubrig Wier Planner  
 City of Portland  
 Hand delivered

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

Shop drawings  Prints  Plans  Samples  Specifications

Copy of letter  Change order  \_\_\_\_\_

| COPIES | DATE | NO. | DESCRIPTION |
|--------|------|-----|-------------|
| 1      |      |     | 24x36 Plan  |
| 1      |      |     | 11x17 Plan. |
|        |      |     |             |
|        |      |     |             |
|        |      |     |             |
|        |      |     |             |
|        |      |     |             |
|        |      |     |             |

THESE ARE TRANSMITTED as checked below:

For approval  Approved as submitted  Resubmit \_\_\_\_\_ copies for approval

For your use  Approved as noted  Submit \_\_\_\_\_ copies for distribution

As requested  Returned for corrections  Return \_\_\_\_\_ corrected prints

For review and comment  \_\_\_\_\_

FOR BIDS DUE \_\_\_\_\_  PRINTS RETURNED AFTER LOAN TO US

REMARKS \_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

COPY TO Bernal Partners Adam G. Isdorf

SIGNED: 

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

**SEBAGO TECHNICS, INC.**  
 One Chabot Street  
 P.O. Box 1339  
 WESTBROOK, ME 04098-1339

**LETTER OF TRANSMITTAL**  
 19264

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

TO Shukria Weir Planner  
City of Portland  
Hand delivered

|           |                   |         |       |
|-----------|-------------------|---------|-------|
| DATE      | 3/16/07           | JOB NO. | 05439 |
| ATTENTION | Shukria           |         |       |
| RE:       | Revised Plan Set  |         |       |
|           | 11/2/06           |         |       |
|           | Receipted 3/16/07 |         |       |
|           |                   |         |       |
|           |                   |         |       |

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

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

| COPIES | DATE | NO. | DESCRIPTION                             |
|--------|------|-----|---|
| 2      |      |     | (1) Plan set @ 11x17 (1) Plan set 26x34 |
|        |      |     |   |
|        |      |     |   |
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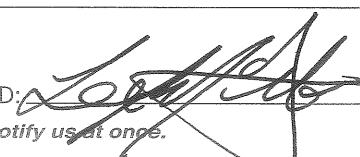
THESE ARE TRANSMITTED as checked below:

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

REMARKS

I still owe you the Photometric Plan, that is coming the  
Brenel Partners. As soon as I get it it will be sent to you

COPY TO Brenel Partners Adam G. Isaacov

SIGNED: 

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

Mr. Weir

-2-

February 15, 2007

If you should need additional information please do not hesitate to contact me regarding any aspect of the project.

Sincerely,

SEBAGO TECHNICS, INC.

  
Lee Jay Feldman  
Director of Planning



LJF:ljf/kn  
Enc.

cc: Greg Cole, brand partners  
Joe Gervais, UCU  
Pat Scully, Bernstein Shur

November 6, 2006  
05439

Ms. Barbara Barhydt  
Senior Planner, Planning Department  
City of Portland  
389 Congress Street  
Portland, Maine 04101

Att. 1a

**Proposed University Credit Union, 1071 Brighton Avenue**  
**Minor Site Plan and Conditional Use Applications**

Dear Ms. Barhydt:

University Credit Union is seeking to construct a new credit union facility at 1071 Brighton Avenue on the site of the former Burger King Restaurant. The site is located in the B2 zone and is approximately .74 acres in size with frontage and access along both Brighton Avenue and Taft Avenue. The site is owned by University Credit Union and a deed has been included with the application materials.

The new facility will consist of a 5,541 s.f. building with offices and customer banking areas, a three-lane drive-up with two banking lanes and one ATM lane and 19 parking spaces, with two handicap spaces. The drive-through lanes will accommodate 12 vehicles. The building was sited at the corner of the parcel adjacent to Brighton and Taft Avenues to create the streetscape that is envisioned for this section for Brighton Avenue.

The access to the site will be from Brighton and Taft Avenues. The Brighton Avenue access will be right-in only and no exiting movement. Two curb cuts onto Taft Avenue are proposed, one of which will be a full movement, entering and exiting, and the other will be just exiting associated with the drive thru facility.

The credit union building will require Minor Site Plan review but the drive-thru will require a Conditional Use Permit from the Planning Board under Section 14-183 (a) 4. because the parcel with the drive-thru is within 100 feet of a residential zone.

We have included in this submission executed applications for Minor Site Plan review and Conditional Use Permit along with a check for \$ 700.00 for the application and review fees. In addition, we understand that we will need to hold a Neighborhood Meeting before the Planning Board Public Meeting.

Supporting materials included with the application include the Site Plan package with a Boundary Survey, Site Plan, Grading and Utility Plan, Landscape Plan, Site Lighting Plan and Detail Sheets. A Traffic Assessment, prepared by Tom Errico of Wilbur Smith Associates, is attached and concludes that the proposed use will not result in increased traffic in the vicinity of the project and, therefore, no Traffic Movement Permit is needed and a Traffic Study is also not necessary.



1a.1

A Stormwater Assessment of the proposed site has been prepared and compares the changes in land cover to determine the quantity of storm water that needs to be treated. The assessment provides the calculations of the stormwater quantity and the modeling of the treatment method. The proposed Site Plan will result in a reduction in the amount of impervious surface on the site. Some treatment will be required because of the changes in surfaces on the site and the treatment will be accomplished by an underdrain filter along the northern boundary of the site.

Details of the proposed site lighting have been attached as well, which show the type and style of site lighting proposed for the parking lot and drive-thru area. The parking lot lighting will have house side shields to minimize light spillage onto the adjacent retail site. The parking lot lights will be mounted on 20 tall poles and will be 350 watt, metal halide lights.

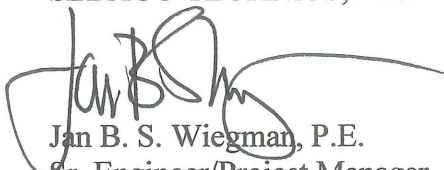
The drive-thru facility is located remotely from the building to allow for better circulation for customers to the building and to segregate the drive-thru traffic from the walk-in traffic. The facility will be screened from the adjoining property by landscaping along the northerly property line.

Architectural elevations of the building have been included in the submission materials. The building will have large display windows along Brighton Avenue and at the corners of the building. The entrance of the building is internal to the site and is oriented towards the customer parking area. Because of security concerns, only one entrance is planned for the facility.

Please review the materials and let us know if there are any further questions that we need to be addressed.

Sincerely,

SEBAGO TECHNICS, INC.

  
Jan B. S. Wiegman, P.E.  
Sr. Engineer/Project Manager



JBSW:jbsw/kn  
Encl.

cc: Eric Levesque (Brand Partners)



# City of Portland Site Plan Application

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

|   |  |   |
|---|--|---|
| Address of Proposed Development: 1071 Brighton Ave.   |  | Zone: B2  |
| Existing Building Size: 3,128 sq. ft.   | Proposed Building Size: 5,541 sq. ft.  |   |
| Existing Acreage of Site: 32,234 sq. ft.  | Proposed Acreage of Site: 32,234 sq. ft.   |   |
| Tax Assessor's Chart, Block & Lot:<br>Chart# 274 Block# D Lot# 16   | Property owner's mailing address:<br>Rangeley Road<br>University of Maine<br>Orono, ME 04469-5779  | Telephone #:<br>207-774-7131                            |
| Consultant/Agent, mailing address, phone # & contact person:<br>Sebago Technics<br>207-856-0277 One Chabot St.<br>Westbrook, ME 04098 | Applicant's name, mailing address, telephone #/Fax#/Pager#:<br>University Credit Union<br>Rangeley Road<br>University of Maine<br>Orono, ME 04469-207-774-7131 | Project name:<br>University Credit Union, Brighton Ave. |

Fee For Service Deposit (all applications)   X   (\$200.00)

Proposed Development (check all that apply)  
 New Building     Building Addition     Change of Use     Residential     Office     Retail  
 Manufacturing     Warehouse/Distribution     Parking lot  
 Subdivision (\$500.00) + amount of lots \_\_\_\_\_ (\$25.00 per lot) \$ \_\_\_\_\_ + major site plan fee if applicable  
 Site Location of Development (\$3,000.00)  
 (except for residential projects which shall be \$200.00 per lot \_\_\_\_\_ )  
 Traffic Movement (\$1,000.00)     Storm water Quality (\$250.00)  
 Section 14-403 Review (\$400.00 + \$25.00 per lot)  
 Other \_\_\_\_\_

Major Development (more than 10,000 sq. ft.)  
 Under 50,000 sq. ft. (\$500.00)  
 50,000 - 100,000 sq. ft. (\$1,000.00)  
 Parking Lots over 100 spaces (\$1,000.00)  
 100,000 - 200,000 sq. ft. (\$2,000.00)  
 200,000 - 300,000 sq. ft. (\$3,000.00)  
 Over 300,000 sq. ft. (\$5,000.00)  
 After-the-fact Review (\$1,000.00 + applicable application fee)

Minor Site Plan Review  
 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 ~

1a.3

Who billing will be sent to: (Company, Contact Person, Address, Phone #)  
 Joe Gervais  
 University Credit Union  
 Rangeley Road  
 University of Maine  
 Orono, ME 04469-5779

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 checklist
- d. 1 set of 11 x 17 plans

Amendment to Plans: Amendment applications should include 9 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 which is available on our web site: [portlandmaine.gov](http://portlandmaine.gov)

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

|  |               |
|--|---------------|
| Signature of applicant:<br> | Date: 11/2/06 |
|--|---------------|

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



9. **Sketch Plan:** On a separate sheet please provide a sketch plan of the property, showing existing and proposed improvements, including such features as buildings, parking, driveways, walkways, landscape and property boundaries. This may be a professionally drawn plan, or a carefully drawn plan, to scale, by the applicant. (Scale to suit, range from 1"=10' to 1"=100')

10. **Conditional Use Authorized by:** Section 14- 183, (a), 4

11. **Standards - Criteria for Conditional Use Appeal**

Upon a showing that a proposed use is a conditional use under this article, a conditional use permit shall be granted unless the Board determines that:

- a. There are unique or distinctive characteristics or effects associated with the proposed conditional use;
- b. There will be an adverse impact upon the health, safety, or welfare of the public or the surrounding area;
- c. Such impact differs substantially from the impact which would normally occur from such a use in that zone.

12. **Application Fee:** A fee for must be submitted by check payable to the City of Portland in accordance with Section 14-54 of the Municipal Code (see below). The applicant also agrees to pay all costs of publication (or advertising) of the Workshop and Public Hearing notices as required for this application. Such amount will be billed to the applicant following the appearance of the advertisement.

  X   Fee for Service Deposit (\$200.00)  
(Required for all applications in addition to the applicable application fee listed below)

|  |                       |
|--|-----------------------|
| <u>  X  </u> Conditional Use             | \$100.00              |
| Legal Advertisements                     | percent of total bill |
| Notices<br>(workshop and public hearing) | .55 cents each        |

**NOTE:** Legal notices placed in the newspaper for the public hearing meeting are required by State Statute and local ordinance. The cost of any and all Newspaper advertisements, legal advertisements and Planning Board notices will be billed directly to the applicant.

13. **Signature:** The above information is true and accurate to the best of my knowledge.

11/2/06  
Date of Filing

[Signature]  
Signature of Applicant

**Further Information:** Please contact the Planning Division for further information regarding the conditional use process. Applicants are encouraged to make an appointment to discuss their conditional use before filing the application.

Applicants are encouraged to include a letter or narrative to accompany the conditional use application which can provide additional background or contextual information, and describe the proposed conditional use and reasons for the request in a manner that best suits the situation.

Portland Planning Board, Portland, Maine- Effective: July 6, 1998

Att. 1b

QUITCLAIM DEED WITH COVENANT

Know All Men By These Presents, That WE, **Herbert E. Ginn** of Scarborough, Maine, **Jean M. Parkhurst** of Bangor, Maine, **Steven P. Parkhurst** of Bangor, Maine, **Scott M. Parkhurst** of Brewer, Maine, and **Scott M. Parkhurst, Trustee of the Ryan Paul Parkhurst Trust** of Brewer, Maine AND **Trustee of the Meghan Lynn Parkhurst Trust** of Brewer, Maine for consideration paid, grant to **University Credit Union**, a Maine Corporation with a mailing address of Ranglely Road, University of Maine, Orono, Maine, with QUITCLAIM COVENANT, the real property in the City of Portland, County of Cumberland and State of Maine, described as follows:

A certain lot or parcel of land together with the buildings thereon situated on the northerly side of Brighton Avenue and the easterly side of Taft Avenue in the City of Portland, County of Cumberland, State of Maine, more particularly described as follows:

Beginning at an iron marking the intersection of the northerly sideline of Brighton Avenue with the easterly sideline of Taft Avenue;

Thence by the easterly sideline of Taft Avenue on a course of North 30°35' East and a distance of 250.00 feet to an iron; thence by land now or formerly of Leonard M. Nelson, Trustee on the following described courses;

South 59°25' East and a distance of 121.76 feet to an iron; and South 30°35' West and a distance of 278.26 feet to an iron and the northerly side of Brighton Avenue;

Thence by the northerly sideline of Brighton Avenue on a course of North 46°21' West and distance of 125.00 feet to the point of beginning.

Reference is hereby by made to the following Deeds:

A certain Trustee's Deed from Leonard M. Nelson, Trustee to Herbert E. Ginn dated October 30, 1972 and recorded in the Cumberland County Registry of Deeds in Book 3318, Page 210;

A certain Warranty Deed from Herbert E. Ginn to Jean M. Parkhurst and Herbert E. Ginn dated March 30, 1973 and recorded in the Cumberland County Registry of Deeds in Book 3376, Page 140;

A certain Warranty Deed from Herbert E. Ginn and Jean M. Parkhurst to Steven P. Parkhurst a nine percent interest as tenants in common and Scott M. Parkhurst a nine percent interest as tenants in common dated January 31, 1992 and recorded in the Cumberland County Registry of Deeds in Book 9916, Page 206;

A certain Warranty Deed from Herbert E. Ginn and Jean M. Parkhurst to Steven P. Parkhurst a three percent interest as tenants in common and Scott M. Parkhurst a three percent interest as tenants in common dated January 31, 1994 and recorded in the Cumberland County Registry of Deeds in Book 11284, Page 265;

A certain Warranty Deed from Herbert E. Ginn and Jean M. Parkhurst to Steven P. Parkhurst a one and a half percent interest as tenants in common and Scott M. Parkhurst a one and a half percent interest as tenants in common dated January 10, 1995 and recorded in the Cumberland County Registry of Deeds in Book 11811, Page 73;

MAINE REAL ESTATE TAX PAID

1b.1

A certain Warranty Deed from Herbert E. Ginn and Jean M. Parkhurst to Steven P. Parkhurst a one and a half percent interest as tenants in common and Scott M. Parkhurst a one and a half percent interest as tenants in common dated January 2, 1996 and recorded in the Cumberland County Registry of Deeds in Book 12420, Page 233;

A certain Warranty Deed from Herbert E. Ginn and Jean M. Parkhurst to Steven P. Parkhurst a one and a half percent interest as tenants in common and Scott M. Parkhurst a one and a half percent interest as tenants in common dated January 2, 1997 and recorded in the Cumberland County Registry of Deeds in Book 13302, Page 295;


A certain Warranty Deed from Herbert E. Ginn and Jean M. Parkhurst to Scott M. Parkhurst as Trustee of the Ryan Paul Parkhurst Trust a one and a half percent interest as tenants in common and Scott M. Parkhurst as Trustee of the Meghan Lynn Parkhurst Trust a one and a half percent interest as tenants in common dated July 1, 1997 and recorded in the Cumberland County Registry of Deeds in Book 13302, Page 296;

A certain Warranty Deed from Herbert E. Ginn and Jean M. Parkhurst to Steven P. Parkhurst a one and a half percent interest as tenants in common, Scott M. Parkhurst a one and a half percent interest as tenants in common, Scott M. Parkhurst as Trustee of the Ryan Paul Parkhurst Trust a one and a half percent interest as tenants in common and Scott M. Parkhurst as Trustee of the Meghan Lynn Parkhurst Trust a one and a half percent interest as tenants in common dated July 1, 2000 and recorded in the Cumberland County Registry of Deeds in Book 16859, Page 255;

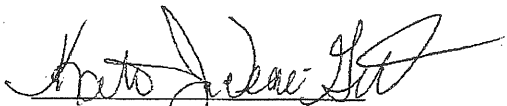
A certain Warranty Deed from Herbert E. Ginn and Jean M. Parkhurst to Steven P. Parkhurst a one and a half percent interest as tenants in common, Scott M. Parkhurst a one and a half percent interest as tenants in common, Scott M. Parkhurst as Trustee of the Ryan Paul Parkhurst Trust a one and a half percent interest as tenants in common and Scott M. Parkhurst as Trustee of the Meghan Lynn Parkhurst Trust a one and a half percent interest as tenants in common dated January 2, 2001 and recorded in the Cumberland County Registry of Deeds in Book 16912, Page 247;

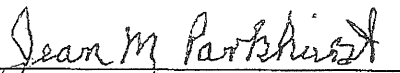
A certain Warranty Deed from Herbert E. Ginn and Jean M. Parkhurst to Steven P. Parkhurst a one and a half percent interest as tenants in common, Scott M. Parkhurst a one and a half percent interest as tenants in common, Scott M. Parkhurst as Trustee of the Ryan Paul Parkhurst Trust a one and a half percent interest as tenants in common and Scott M. Parkhurst as Trustee of the Meghan Lynn Parkhurst Trust a one and a half percent interest as tenants in common dated January 2, 2002 and recorded in the Cumberland County Registry of Deeds in Book 17305, Page 341.

In Witness Whereof, We have hereunto set our hands this 14<sup>th</sup> day of September, 2005 in our individual capacities and Scott M. Parkhurst in his individual capacity and his said capacity as Trustee of the Ryan Paul Parkhurst Trust and Trustee of the Meghan Lynn Parkhurst Trust.

  
Witness

  
Herbert E. Ginn

  
Witness

  
Jean M. Parkhurst

Kathleen [Signature]  
Witness

Stephen P. Parkhurst  
Stephen P. Parkhurst  
(Steven) SPP

Kathleen [Signature]  
Witness

Scott M. Parkhurst  
Scott M. Parkhurst

Kathleen [Signature]  
Witness

Ryan Paul Parkhurst Trust  
Scott M. Parkhurst  
Scott M. Parkhurst, TRUSTEE

Kathleen [Signature]  
Witness

Meghan Lynn Parkhurst Trust  
Scott Parkhurst  
Scott M. Parkhurst, TRUSTEE

State of Maine  
County of Cumberland

On this 15 day of September, 2005 personally appeared before me the above-named Herbert E. Ginn, and acknowledged the foregoing to be his free act and deed.

SEAL

Before me,  
Daveilyn H. Hayes  
Notary Public/Attorney at Law  
Exp: DAVELYN H. HAYES  
Notary Public, Maine  
My Commission Expires January 14, 2006

State of Maine  
County of Penobscot

On this 14 day of September, 2005 personally appeared before me the above-named Jean M. Parkhurst, and acknowledged the foregoing to be her free act and deed.

SEAL

Before me,  
Pennie L. Duff  
Notary Public/Attorney at Law  
Exp: PENNIE L. DUFF  
NOTARY PUBLIC, STATE OF MAINE  
MY COMMISSION EXPIRES FEB. 22, 2012

State of Maine  
County of Penobscot

On this 14 day of September, 2005 personally appeared before me the above-named Stephen P. Parkhurst, and acknowledged the foregoing to be his free act and deed.

SEAL

Before me,  
Pennie L. Duff  
Notary Public/Attorney at Law  
Exp: PENNIE L. DUFF  
NOTARY PUBLIC, STATE OF MAINE  
MY COMMISSION EXPIRES FEB. 22, 2012



16.3

Exp:

State of Maine  
County of Penobscot

On this 14 day of September, 2005 personally appeared before me the above-named Scott M. Parkhurst, and acknowledged the foregoing to be his free act and deed. **SEAL**

Before me, *Pennie L. Duff*  
Notary Public/Attorney at Law  
Exp:

**PENNIE L. DUFF**  
NOTARY PUBLIC, STATE OF MAINE  
MY COMMISSION EXPIRES FEB. 22, 2012

State of Maine  
County of Penobscot

On this 14 day of September, 2005 personally appeared before me the above-named Scott M. Parkhurst, Trustee of the Ryan Paul Parkhurst Trust and acknowledged the foregoing to be his free act and deed and his free act and deed in his said capacity of said Trust. **SEAL**

Before me, *Pennie L. Duff*  
Notary Public/Attorney at Law  
Exp:

**PENNIE L. DUFF**  
NOTARY PUBLIC, STATE OF MAINE  
MY COMMISSION EXPIRES FEB. 22, 2012

State of Maine  
County of Penobscot

On this 14 day of September, 2005 personally appeared before me the above-named Scott M. Parkhurst, Trustee of the Meghan Lynn Parkhurst Trust and acknowledged the foregoing to be his free act and deed and his free act and deed in his said capacity of said Trust.

Before me, *Pennie L. Duff*  
Notary Public/Attorney at Law  
Exp:

**SEAL**

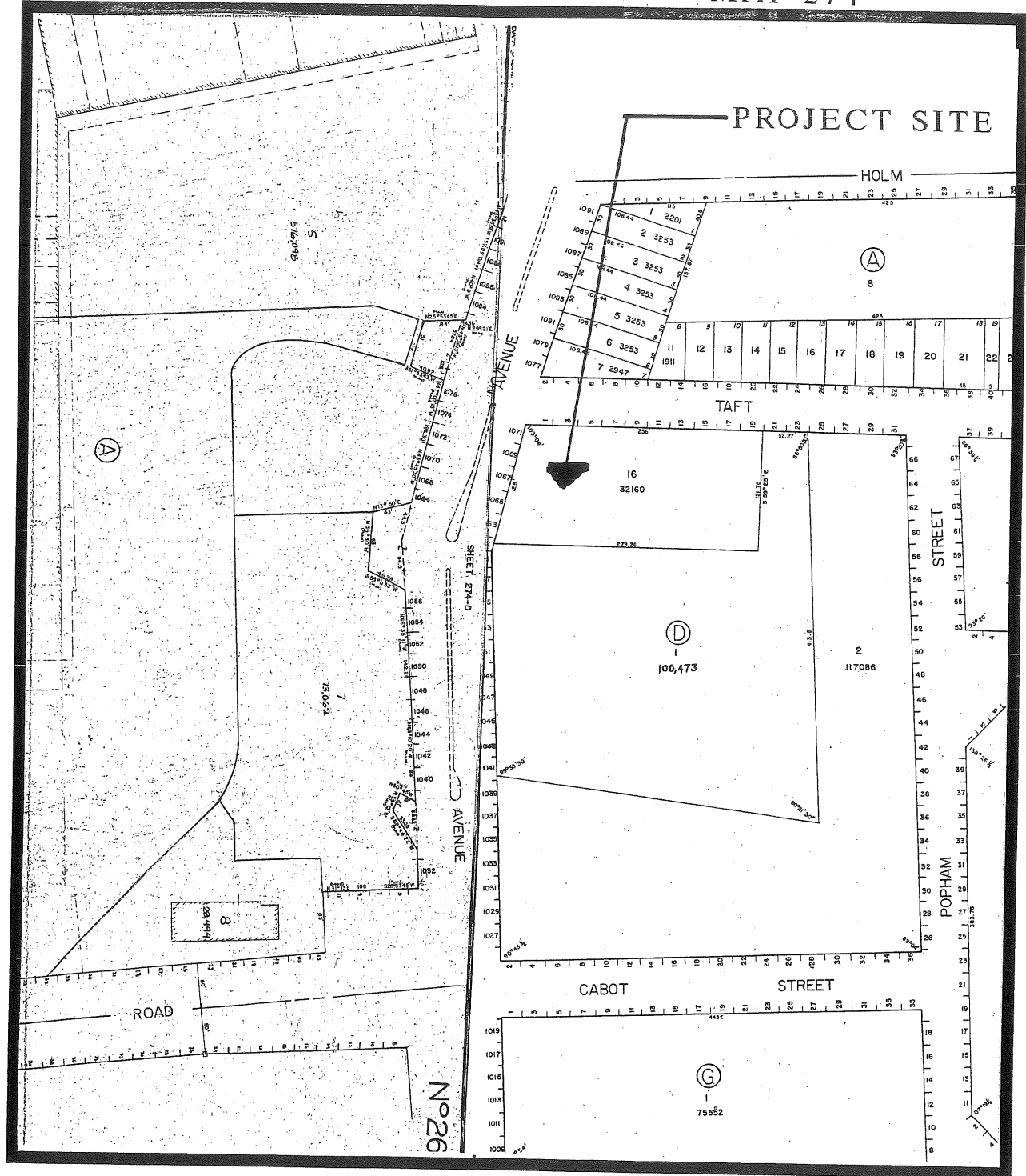
**PENNIE L. DUFF**  
NOTARY PUBLIC, STATE OF MAINE  
MY COMMISSION EXPIRES FEB. 22, 2012

Received  
Recorded Register of Deeds  
Sep 19 2005 03:48:58P  
Cumberland County  
John S O'Brien

Att. 1C

MAP 263A

MAP 274

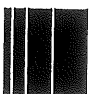


VICINITY MAP  
 PORTLAND, MAINE TAX MAPS  
 #274 AND 263A

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(207) 871-5825 fax  
www.wilbursmith.com

Att. 1 d

August 15, 2006

Mr. Joseph Gervais  
Executive Vice President  
University Credit Union  
391 Forest Avenue  
Portland, Maine 04101

RE: Traffic Assessment – 1071 Brighton Avenue, Portland, Maine

Dear Mr. Gervais:

In accord with your request, we are pleased to submit this traffic assessment associated with the proposed University Credit Union project to be located on Brighton Avenue in Portland, Maine. The assessment focuses on estimating traffic generation for both the former Burger King Restaurant and the proposed University Credit Union project in an effort to determine whether traffic levels will increase and warrant a Traffic Movement Permit and a Traffic Impact Study.

### **Traffic Generation**

Wilbur Smith Associates (WSA) conducted a trip generation comparison between the former Burger King Restaurant and the proposed University Credit Union project. The trip generation estimates were based upon data contained in the publication Trip Generation, Institute of Transportation Engineers (ITE), 7<sup>th</sup> Edition and local traffic data collected at existing University Credit Union facilities. The purpose of this effort is to determine the change in traffic levels when comparing the previously operating Burger King Restaurant and the proposed University Credit Union. Traffic generation from the Burger King Restaurant was based upon data from Land Use Code 934 - Fast-Food with Drive-Through Window from ITE. Attached to this letter is data that summarizes the traffic generation estimates using the ITE data. Traffic from the proposed University Credit Union was based upon transaction data (see attached) at existing facilities on Forest Avenue in Portland and on Union Street in Bangor. Because ATM transaction data is not provided on an hourly basis, we estimated peak hour usage by applying the ratio of hourly transactions to daily transactions for Over the Counter customers to the daily ATM transaction data. This estimate overstates peak ATM usage, because ATM usage occurs over a twenty-four hour period. The local data indicated the following:

Albany NY, Anaheim CA, Atlanta GA, Baltimore MD, Bangkok Thailand, Burlington VT, Charleston SC, Charleston WV, Chicago IL, Cincinnati OH, Cleveland OH, Columbia SC, Columbus OH, Dallas TX, Dubai UAE, Falls Church VA, Greenville SC, Hong Kong, Houston TX, Iselin NJ, Kansas City MO, Knoxville TN, Lansing MI, Lexington KY, London UK, Milwaukee WI, Mumbai India, Myrtle Beach SC, New Haven CT, Orlando FL, Philadelphia PA, Pittsburgh PA, Portland ME, Poughkeepsie NY, Raleigh NC, Richmond VA, Salt Lake City UT, San Francisco CA, Tallahassee FL, Tampa FL, Tempe AZ, Trenton NJ, Washington DC

**Employee-Owned Company**

Forest Avenue – Portland

- AM Peak Hour
  - Over the Counter Transactions = 45
  - ATM Transactions = 25
  - Total Transactions = 70
  - Total Entering Vehicles = 70 Transactions/1.8 Transactions per vehicles = 39 vehicles
- PM Peak Hour
  - Over the Counter Transactions = 60
  - ATM Transactions = 33
  - Total Transactions = 93
  - Total Entering Vehicles = 93 Transactions/1.8 Transactions per vehicles = 52 vehicles

Union Street – Bangor

- AM Peak Hour
  - Over the Counter Transactions = 37
  - ATM Transactions = 19
  - Total Transactions = 56
  - Total Entering Vehicles = 56 Transactions/1.8 Transactions per vehicles = 32 vehicles
- PM Peak Hour
  - Over the Counter Transactions = 55
  - ATM Transactions = 28
  - Total Transactions = 83
  - Total Entering Vehicles = 83 Transactions/1.8 Transactions per vehicles = 46 vehicles

Using the higher traffic data from the above data, it is estimated that the site will generate 39 entering vehicles during the AM peak hour and 52 entering vehicles during the PM peak hour for customer traffic. In addition, traffic generation will occur for employees. The proposed site is expected to have fourteen (14) employees. Assuming half impact the peak hour of traffic (some will arrive before the morning peak hour and leave after the afternoon peak hour), 7 vehicles will enter the site during the morning peak hour and 7 vehicles will exit the site during the afternoon peak hour.

The following table summarizes the trip generation comparison from the site during the Weekday AM and PM peak hours.

1 d. 2

| Time Period          | Burger King (3,228 sf) |      |       | Credit Union (5,400 sf) |      |       | Change in Total Trips |
|----------------------|------------------------|------|-------|-------------------------|------|-------|-----------------------|
|                      | Enter                  | Exit | Total | Enter                   | Exit | Total |                       |
| Weekday AM Peak Hour | 90                     | 87   | 177   | 46                      | 39   | 85    | -92                   |
| Weekday PM Peak Hour | 60                     | 55   | 115   | 52                      | 59   | 111   | -4                    |

As noted in the above table, the proposed project will generate less traffic during both Weekday AM and PM peak hours as compared to the former Burger King Restaurant. Accordingly, the project does not require a Traffic Movement Permit and a Traffic Study is not warranted.

Please do not hesitate to call if you have any questions or wish to discuss the work.

Respectfully submitted,

WILBUR SMITH ASSOCIATES



Thomas A. Errico, P.E.  
Senior Transportation Engineer

Registered Professional Engineer  
Maine Number 6618

PROJECT TRIP GENERATION CALCULATION - EXISTING CONDITIONS

|                      | Burger King (3,328 sf) |                |                | Drive-in Bank (5,400 sf) |                |                | Change in Total Trips | Change in New Trips |
|----------------------|------------------------|----------------|----------------|--------------------------|----------------|----------------|-----------------------|---------------------|
|                      | Total Trips (ITE)      | Pass-By Trips  | Net New Trips  | Total Trips (ITE)        | Pass-By Trips  | Net New Trips  |                       |                     |
| Daily                | 1651                   | 826            | 380            | 1331                     | 626            | 346            | -320                  | -86                 |
| AM Peak              | In<br>Out<br>Total     | 45<br>44<br>89 | 21<br>20<br>41 | 37<br>29<br>66           | 17<br>14<br>31 | 10<br>8<br>17  | -53<br>-58<br>-111    | -14<br>-16<br>-30   |
| PM Peak              | In<br>Out<br>Total     | 30<br>28<br>58 | 14<br>13<br>26 | 52<br>52<br>104          | 24<br>24<br>49 | 14<br>14<br>27 | -8<br>-3<br>-11       | -2<br>-1<br>-3      |
| Saturday Daily       | 2403                   | 1202           | 553            | 405                      | 190            | 105            | -1998                 | -539                |
| Saturday Midday Peak | In<br>Out<br>Total     | 50<br>49<br>99 | 23<br>22<br>45 | 102<br>98<br>200         | 48<br>46<br>94 | 27<br>25<br>52 | 2<br>1<br>3           | 1<br>0<br>1         |

Drive-in Bank Non-Primary Trip Rates:

|                    |         |
|--------------------|---------|
| PassBy             | DivLink |
| Weekday AM: 47%    | 26%     |
| Weekday PM: 47%    | 26%     |
| Saturday PH: 47%   | 26%     |
| Weekday Daily 47%  | 26%     |
| Saturday Daily 47% | 26%     |

Burger King Non-Primary Trip Rates:

|                    |         |
|--------------------|---------|
| PassBy             | DivLink |
| Weekday AM: 50%    | 23%     |
| Weekday PM: 50%    | 23%     |
| Saturday PH: 50%   | 23%     |
| Weekday Daily 50%  | 23%     |
| Saturday Daily 50% | 23%     |

**ITE TRIP GENERATION WORKSHEET**  
*(Based on ITE Trip Generation Manual, 7th Edition)*

LANDUSE: Fast-Food with Drive-Through Window  
 LANDUSE CODE: 934  
 Independent Variable --- 1,000 square feet GLA

SIZE (ksf): 3.328

JOB NAME:  
 JOB NUMBER:

**WEEKDAY**

| RATES:  | # Studies | R <sup>2</sup> | Total Trip Ends |        |         | Independent Variable Range |     |      | Directional Distribution |      |
|---------|-----------|----------------|-----------------|--------|---------|----------------------------|-----|------|--------------------------|------|
|         |           |                | Average         | Low    | High    | Average                    | Low | High | Enter                    | Exit |
| DAILY   | 21        | *              | 496.12          | 195.98 | 1132.92 | 3                          | *   | 9    | 50%                      | 50%  |
| AM PEAK | 59        | *              | 53.11           | 6.54   | 163.33  | 4                          | *   | 9    | 51%                      | 49%  |
| PM PEAK | 110       | *              | 34.64           | 8.15   | 117.15  | 3                          | *   | 9    | 52%                      | 48%  |

TRIPS:

|                       | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-----------------------|------------|-------|------|---------------|-------|------|
|                       | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY                 | 1,651      | 826   | 826  | *             | *     | *    |
| AM PEAK (ADJACENT ST) | 177        | 90    | 87   | *             | *     | *    |
| PM PEAK (ADJACENT ST) | 115        | 60    | 55   | *             | *     | *    |

**SATURDAY**

| RATES:            | # Studies | R <sup>2</sup> | Total Trip Ends |        |         | Independent Variable Range |     |      | Directional Distribution |      |
|-------------------|-----------|----------------|-----------------|--------|---------|----------------------------|-----|------|--------------------------|------|
|                   |           |                | Average         | Low    | High    | Average                    | Low | High | Enter                    | Exit |
| DAILY             | 11        | *              | 722.03          | 338.92 | 1405.00 | 3                          | 0   | 4    | 50%                      | 50%  |
| PEAK OF GENERATOR | 37        | *              | 59.20           | 19.21  | 122.49  | 4                          | 0   | 8    | 51%                      | 49%  |

TRIPS:

|                   | BY AVERAGE |       |       | BY REGRESSION |       |      |
|-------------------|------------|-------|-------|---------------|-------|------|
|                   | Total      | Enter | Exit  | Total         | Enter | Exit |
| DAILY             | 2,403      | 1,201 | 1,201 | *             | *     | *    |
| PEAK OF GENERATOR | 197        | 100   | 97    | *             | *     | *    |

**ITE TRIP GENERATION WORKSHEET**  
*(Based on ITE Trip Generation Manual, 7th Edition)*

LANDUSE: Drive-in Bank  
 LANDUSE CODE: 912  
 Independent Variable ---- 1000 s.f. Gross Floor Area

JOB NAME:  
 JOB NUMBER:  
 SIZE (KSF): 5.400

**WEEKDAY**

| RATES:  | # Studies | Total Trip Ends |       |        | Independent Variable Range |     |      | Directional Distribution |      |
|---------|-----------|-----------------|-------|--------|----------------------------|-----|------|--------------------------|------|
|         |           | Average         | Low   | High   | Average                    | Low | High | Enter                    | Exit |
| DAILY   | 19        | 246.49          | 68.23 | 817.00 | 4                          | *   | 14   | 50%                      | 50%  |
| AM PEAK | 23        | 12.34           | 3.00  | 45.39  | 4                          | *   | 14   | 56%                      | 44%  |
| PM PEAK | *         | *               | *     | *      | *                          | *   | *    | *                        | *    |

| TRIPS:                | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-----------------------|------------|-------|------|---------------|-------|------|
|                       | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY                 | 1,331      | 666   | 666  | 1,242         | 621   | 621  |
| AM PEAK (ADJACENT ST) | 67         | 37    | 29   | *             | *     | *    |
| PM PEAK (ADJACENT ST) | *          | *     | *    | *             | *     | *    |

**SATURDAY**

| RATES:            | # Studies | Total Trip Ends |      |        | Independent Variable Range |     |      | Directional Distribution |      |
|-------------------|-----------|-----------------|------|--------|----------------------------|-----|------|--------------------------|------|
|                   |           | Average         | Low  | High   | Average                    | Low | High | Enter                    | Exit |
| DAILY             | 18        | 71.21           | 5.00 | 255.00 | 4                          | *   | 14   | 50%                      | 50%  |
| PEAK OF GENERATOR | 26        | 37.08           | 1.25 | 462.50 | 3                          | *   | 14   | 51%                      | 49%  |

| TRIPS:            | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-------------------|------------|-------|------|---------------|-------|------|
|                   | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY             | 385        | 192   | 192  | 405           | 202   | 202  |
| PEAK OF GENERATOR | 200        | 102   | 98   | *             | *     | *    |

1d.5



1d.6

University Credit Union  
Branch Transactional Data by Hour

Branch 1: Rangeley Road, University of Maine, Orono, Maine (Main Office)

Year Opened: 1967  
Building Sq. Footage: 6200  
Retail Employees: 16  
Operational Employees: 7  
Total Employees: 23

| Average Over the Counter Transactions by Hour (Sample Period January 1, 2004 thru October 31, 2005) |         |         |                  |           |           |        |        |        |       |      |                   |
|---|---------|---------|------------------|-----------|-----------|--------|--------|--------|-------|------|-------------------|
| 7:00-7:59 A.M.  | 8       | 9       | 10               | 11        | 12 P.M.   | 1      | 2      | 3      | 4     | 5    | Average Daily OTC |
| 11.31   | 64.84   | 106.29  | 98.96            | 98.13     | 104.88    | 102.60 | 101.65 | 111.17 | 33.85 | 4.32 | 838.00            |
| Average Monthly ATM Transactions at Location  |         |         |                  |           |           |        |        |        |       |      |                   |
| 7600  |         |         |                  |           |           |        |        |        |       |      |                   |
| Average Over the Counter by Day (Sample Period January 1, 2004 thru October 31, 2005)               |         |         |                  |           |           |        |        |        |       |      |                   |
| Day of Week   | OTC Ave | ATM Ave | Ave Daily Totals | Max # OTC | Min # OTC |        |        |        |       |      |                   |
| Mondays   | 933     | 250     | 1182.54          | 588       | 1318      |        |        |        |       |      |                   |
| Tuesdays  | 734     | 250     | 983.96           | 342       | 1448      |        |        |        |       |      |                   |
| Wednesdays  | 666     | 250     | 916.08           | 347       | 1031      |        |        |        |       |      |                   |
| Thursdays   | 679     | 250     | 929.00           | 444       | 1158      |        |        |        |       |      |                   |
| Fridays   | 1135    | 250     | 1385.07          | 263       | 1549      |        |        |        |       |      |                   |
| Saturdays   | 0.00    | 250     | 250.00           | 0         | 0         |        |        |        |       |      |                   |
| Sundays   | 0.00    | 250     | 250.00           | 0         | 0         |        |        |        |       |      |                   |
| Average Daily Totals  |         |         |                  |           |           |        |        |        |       |      |                   |
| 1091.33   |         |         |                  |           |           |        |        |        |       |      |                   |

1d.7

Branch 2: 391 Forest Ave, Portland, ME 04101  
 Year Opened: 1994  
 Building Sq. Footage: 3500  
 Retail Employees: 12  
 Operational Employees: 2  
 Total Employees: 14

| Average Over the Counter Transactions by Hour (Sample Period January 1, 2004 thru October 31, 2005) |                |         |                  |           |           |         |       |       |       |       |      |                   |
|---|----------------|---------|------------------|-----------|-----------|---------|-------|-------|-------|-------|------|-------------------|
|   | 7:00-7:59 A.M. | 8       | 9                | 10        | 11        | 12 P.M. | 1     | 2     | 3     | 4     | 5    | Average Daily OTC |
|   | 2.84           | 44.57   | 55.79            | 50.42     | 57.76     | 54.84   | 55.53 | 56.27 | 59.78 | 17.93 | 3.74 | 459.48            |
| Average Monthly ATM Transactions at Location  |                |         |                  |           |           |         |       |       |       |       |      |                   |
|   | 7500           |         |                  |           |           |         |       |       |       |       |      | 250.00            |
| Average Over the Counter by Day (Sample Period January 1, 2004 thru October 31, 2005)               |                |         |                  |           |           |         |       |       |       |       |      |                   |
| Day of Week   | OTC Ave        | ATM Ave | Ave Daily Totals | Max # OTC | Min # OTC |         |       |       |       |       |      |                   |
| Mondays   | 484            | 250     | 734.17           | 382       | 617       |         |       |       |       |       |      |                   |
| Tuesdays  | 415            | 250     | 665.02           | 275       | 790       |         |       |       |       |       |      |                   |
| Wednesdays  | 369            | 250     | 618.96           | 268       | 505       |         |       |       |       |       |      |                   |
| Thursdays   | 390            | 250     | 640.23           | 248       | 584       |         |       |       |       |       |      |                   |
| Fridays   | 572            | 250     | 821.95           | 248       | 852       |         |       |       |       |       |      |                   |
| Saturdays   | 247            | 250     | 497.05           | 168       | 344       |         |       |       |       |       |      |                   |
| Sundays   | 0.00           | 250     | 250.00           | 0         | 0         |         |       |       |       |       |      |                   |
| Average Daily Totals  |                |         |                  |           |           |         |       |       |       |       |      | 709.48            |

Branch 3: 977 Union Street, Bangor, ME  
 Year Opened: 2002  
 Building Sq. Footage: 5298 (Approximately 3500 sq. ft. is retail, 1800 sq ft operational space)  
 Retail Employees: 10  
 Operational Employees: 8  
 Total Employees: 18

| Average Over the Counter Transactions by Hour (Sample Period January 1, 2004 thru October 31, 2005) |                |         |                  |           |           |         |       |       |       |       |      |                   |
|---|----------------|---------|------------------|-----------|-----------|---------|-------|-------|-------|-------|------|-------------------|
|   | 7:00-7:59 A.M. | 8       | 9                | 10        | 11        | 12 P.M. | 1     | 2     | 3     | 4     | 5    | Average Daily OTC |
|   | 6.02           | 36.51   | 47.99            | 45.88     | 52.28     | 49.43   | 50.18 | 47.84 | 55.08 | 28.07 | 4.89 | 424.17            |
| Average Monthly ATM Transactions at Location  |                |         |                  |           |           |         |       |       |       |       |      |                   |
|   | 6500           |         |                  |           |           |         |       |       |       |       |      | 216.67            |
| Average Over the Counter by Day (Sample Period October 21, 2002 thru October 31, 2005)              |                |         |                  |           |           |         |       |       |       |       |      |                   |
| Day of Week   | OTC Ave        | ATM Ave | Ave Daily Totals | Max # OTC | Min # OTC |         |       |       |       |       |      |                   |
| Mondays   | 295            | 216.67  | 511.57           | 382       | 617       |         |       |       |       |       |      |                   |
| Tuesdays  | 252            | 216.67  | 468.75           | 275       | 790       |         |       |       |       |       |      |                   |
| Wednesdays  | 202            | 216.67  | 419.12           | 268       | 505       |         |       |       |       |       |      |                   |
| Thursdays   | 252            | 216.67  | 468.93           | 248       | 584       |         |       |       |       |       |      |                   |
| Fridays   | 374            | 216.67  | 590.80           | 248       | 852       |         |       |       |       |       |      |                   |
| Saturdays   | 97             | 216.67  | 314.00           | 168       | 344       |         |       |       |       |       |      |                   |
| Sundays   | 0              | 216.67  | 216.67           | 0         | 0         |         |       |       |       |       |      |                   |
| Average Daily Totals  |                |         |                  |           |           |         |       |       |       |       |      | 640.84            |

05439

## STORMWATER MANAGEMENT

University Credit Union  
Brighton Avenue  
Portland, Maine

### General

This Stormwater Management Plan has been prepared on behalf of University Credit Union for a proposed credit union facility at 1071 Brighton Avenue on the site of the former Burger King Restaurant. The proposed project site is 0.74 acres and is situated in the B2 zone. The new facility will consist of a 5,541 s.f. building with offices and customer banking areas, a three lane drive-up with two banking lanes and one ATM lane and 19 parking spaces. The site will be serviced by underground utilities, including sewer, water, electric, telephone and cable. The development will result in the following:

- Total Area of Parcel = 0.74 acres
- Existing Developed Area = 0.74 acres
- Proposed Disturbed Area = 0.74 acres
- Existing Impervious Area = 0.64 acres
- Proposed Impervious Area = 0.53 acres
- Total Reduction in Impervious Area = 0.11 acres

The proposed drainage infrastructure includes subsurface drainage collection and transport, and underdrained soil filters designed to provide stormwater quality treatment.

### Existing Site Conditions

The proposed project site is presently developed. The Burger King Restaurant was the only building located on site, but it has recently been removed. The remainder of the parking area, sidewalks, and landscape areas are in tact. The existing topography is flat near the middle of the site with a slope along Taft Avenue and Brighton Avenue of greater than 6%. There are two catch basins located on site, one near the eastern corner and the other near the existing entrance from Brighton Avenue. A little more than half of the site runoff currently drains to these catch basins.

### Soils

Soils information used for the stormwater evaluation was based on the Medium Intensity Soil Survey for Cumberland County. The soil survey maps the soils on the site as Hinckley, which is classified with a hydrologic soil group of A.

**Post-development Site Conditions**

The proposed facility will consist of a 5,541 s.f. building with offices and customer banking areas, a three-lane drive-up with two banking lanes and one ATM lane and associated sidewalks and parking. As part of the development, the overall impervious surfaces at the site will be reduced to approximately 0.11 acres, with a significant improvement to landscaping and visual appearance as well as added treatment for the stormwater.

Stormwater runoff will generally follow the same flow patterns as in the pre-development conditions. Approximately 10,973 s.f. of impervious area will be directed through the underdrained swale located at the rear of the site. More than half of this flow will pass through the swale and drain directly into the existing catch basin. Approximately 4,800 s.f. of impervious area will be treated by filtering through the soil media and entering the existing catch basin through the underdrain.

**Stormwater Quality**

The stormwater treatment of the site has been designed using the underdrained swale Best Management Practice (BMP) standards as defined by the Maine DEP designed to reduce channel erosion from smaller storm events, provide effective pollutant removal and lessen temperature impacts. For the redevelopment project, these BMP standards are designed to treat those proposed land cover changes, which are a more intense use at the site than the existing site conditions. Specific to this redevelopment, this includes areas which are currently building and will be converted to pavement, and landscape areas which will be converted to either building or pavement. Those areas where the existing site coverage, when converted to the proposed site coverage, will result in a similar ground cover (i.e. gravel/paved converted to paved), or a less intense use (i.e. paved converted to landscaped areas) will not require site-specific treatment. A summary of surface coverage for this redevelopment project is detailed below, and represented on the attached Stormwater Redevelopment Summary Plan.

| <b><u>Existing Site Coverage</u></b> | <b><u>Proposed Site Coverage</u></b> | <b><u>Total Area</u></b> |
|--------------------------------------|--------------------------------------|--------------------------|
| Building                             | Building                             | 2,897 s.f.               |
| Building                             | Landscaped                           | 224 s.f.                 |
| Paved/Gravel                         | Building                             | 1,227 s.f.               |
| Paved/Gravel                         | Paved                                | 16,248 s.f.              |
| Paved/Gravel                         | Landscaped                           | 7,038 s.f.               |
| Landscaped                           | Landscaped                           | 2,090 s.f.               |
| <i>Building</i>                      | <i>Paved</i>                         | <i>7 s.f.</i>            |
| <i>Landscaped</i>                    | <i>Paved</i>                         | <i>1,416 s.f.</i>        |
| <i>Landscaped</i>                    | <i>Building</i>                      | <i>1,102 s.f.</i>        |

The BMP standards must be achieved by using one or more of the Department approved methods to control runoff from no less than 95% of the impervious area and no less than 80% of the developed area associated with a portion of the project that is impervious or landscaped. For this redevelopment project, this pertains to those areas where proposed cover results in a higher intensity land use. Based on the water quality calculations to meet the Departments requirement of 95% treatment of impervious area and 80% treatment of developed area, treatment would be

1e.2

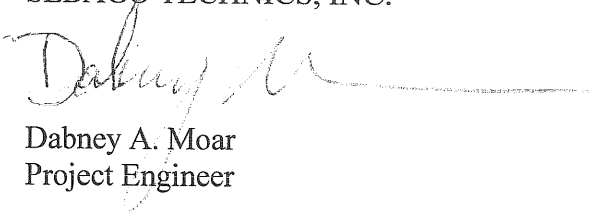
required on 2,399 s.f. of impervious area and no landscaped areas associated with the project. This would require a water quality treatment volume of 200 c.f. for treatment through an underdrained soils filter pond. Since paved parking and drives produce a greater pollutant load, the portion of the redeveloped property to be treated will consist of mainly paved parking and drives. The underdrained swale has been designed to treat approximately 4,800 s.f. of impervious surface from paved drives and parking, with a water quality volume of 400 c.f. This water quality volume proposed exceeds the water quality volume required. A copy of the water quality calculations is provided.

**Summary**

Stormwater runoff from the site will be treated to meet the MDEP Stormwater Quality Standards. The reduction in the overall curve numbers for the property results in a reduced peak flow and discharge from the site under the post-development conditions for all areas of the site except a small area draining to Brighton Avenue. The flow rates associated are very small, only 0.48 cfs in the 25-year storm for the post-development model, and are not anticipated to create a significant impact. With incorporation of the water quality treatment measures, no significant impacts to off-site drainage are anticipated due to the development of the site.

Prepared by,

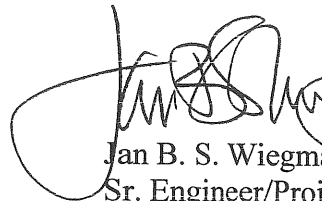
SEBAGO TECHNICS, INC.



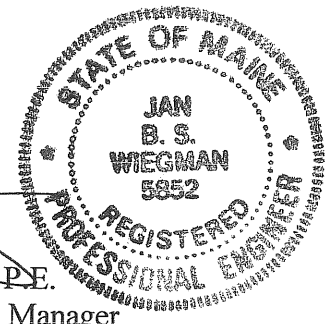
Dabney A. Moar  
Project Engineer

DAM/JBSW:dam/kn  
November 6, 2006

Reviewed by,



Jan B. S. Wiegman, P.E.  
Sr. Engineer/Project Manager



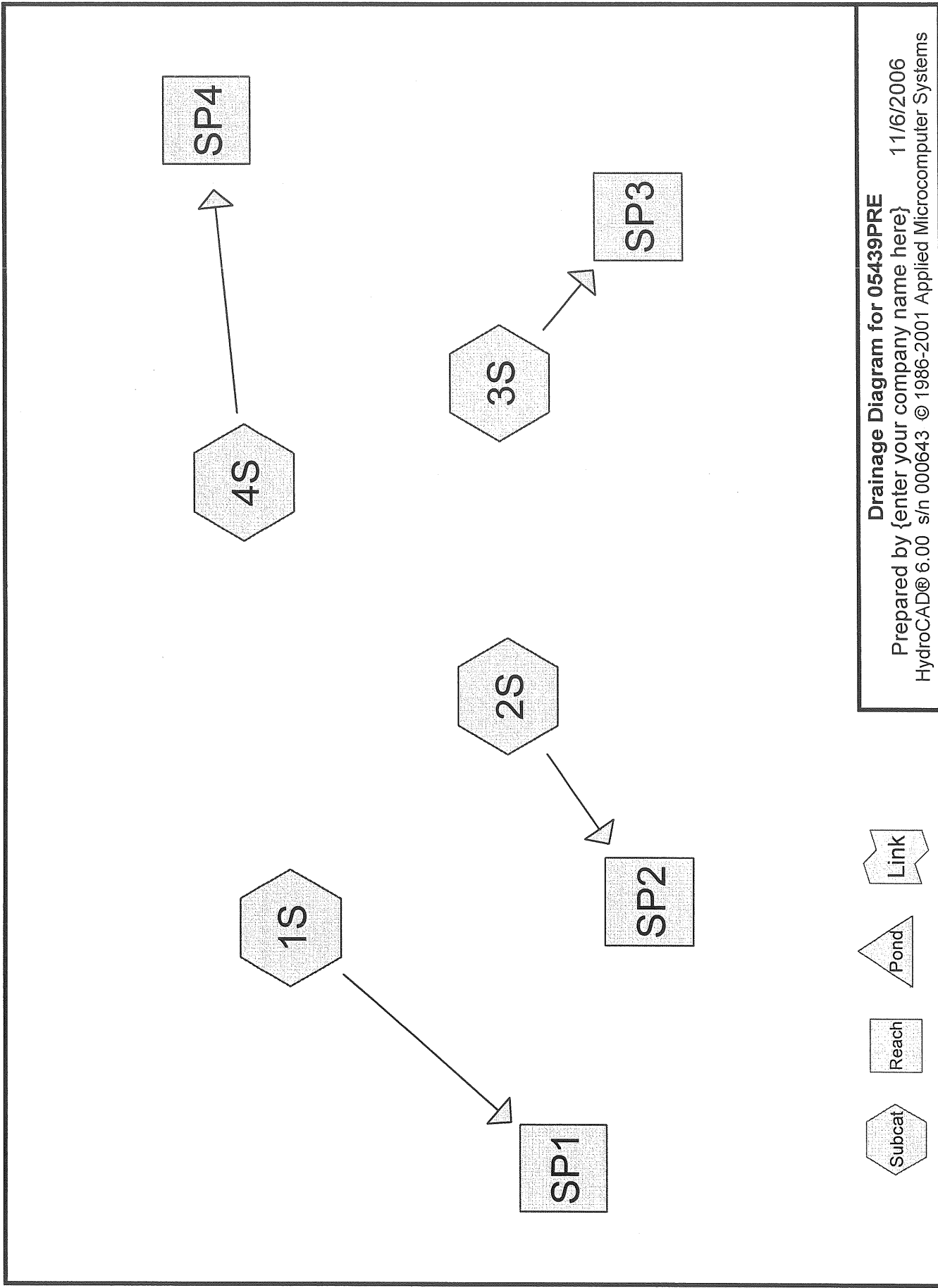








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**Drainage Diagram for 05439PRE**  
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Legend:

- Subcat
- Reach
- Pond
- Link

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05439PRE

Type III 24-hr Rainfall=2.60"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Type III 24-hr Rainfall=2.60"  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: (new node)

Tc=5.0 min CN=70 Area=5,637 sf Runoff= 0.06 cfs 0.005 af

Subcatchment 2S: (new node)

Tc=5.0 min CN=96 Area=4,506 sf Runoff= 0.25 cfs 0.018 af

Subcatchment 3S: (new node)

Tc=5.0 min CN=96 Area=12,014 sf Runoff= 0.66 cfs 0.047 af

Subcatchment 4S: (new node)

Tc=10.0 min CN=95 Area=10,058 sf Runoff= 0.46 cfs 0.037 af

Reach SP1: (new node)

Inflow= 0.06 cfs 0.005 af  
Outflow= 0.06 cfs 0.005 af

Reach SP2: (new node)

Inflow= 0.25 cfs 0.018 af  
Outflow= 0.25 cfs 0.018 af

Reach SP3: (new node)

Inflow= 0.66 cfs 0.047 af  
Outflow= 0.66 cfs 0.047 af

Reach SP4: (new node)

Inflow= 0.46 cfs 0.037 af  
Outflow= 0.46 cfs 0.037 af

Runoff Area = 0.740 ac Volume = 0.107 af Average Depth = 1.73"

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Type III 24-hr Rainfall=2.60"

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**Subcatchment 1S: (new node)**

Runoff = 0.06 cfs @ 12.10 hrs, Volume= 0.005 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=2.60"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 3,210     | 49 | 50-75% Grass cover, Fair, HSG A |
| 2,427     | 98 | Paved parking & roofs           |
| 5,637     | 70 | Weighted Average                |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                       |
|----------|---------------|---------------|-------------------|----------------|-----------------------------------|
| 4.9      | 30            | 0.0130        | 0.1               |                | <b>Sheet Flow, A to B</b>         |
|          |               |               |                   |                | Grass: Short n= 0.150 P2= 2.60"   |
| 0.1      | 13            | 0.0750        | 1.9               |                | <b>Shallow Concentrated Flow,</b> |
|          |               |               |                   |                | Short Grass Pasture Kv= 7.0 fps   |
| 5.0      | 43            | Total         |                   |                |                                   |

**Subcatchment 2S: (new node)**

Runoff = 0.25 cfs @ 12.07 hrs, Volume= 0.018 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=2.60"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 184       | 49 | 50-75% Grass cover, Fair, HSG A |
| 4,322     | 98 | Paved parking & roofs           |
| 4,506     | 96 | Weighted Average                |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description          |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 5.0      |               |               |                   |                | <b>Direct Entry,</b> |

**Subcatchment 3S: (new node)**

Runoff = 0.66 cfs @ 12.07 hrs, Volume= 0.047 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=2.60"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 515       | 49 | 50-75% Grass cover, Fair, HSG A |
| 11,499    | 98 | Paved parking & roofs           |
| 12,014    | 96 | Weighted Average                |

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Type III 24-hr Rainfall=2.60"

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| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description   |
|-------------|------------------|------------------|----------------------|-------------------|---------------|
| 5.0         |                  |                  |                      |                   | Direct Entry, |

**Subcatchment 4S: (new node)**

Runoff = 0.46 cfs @ 12.14 hrs, Volume= 0.037 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=2.60"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 558       | 49 | 50-75% Grass cover, Fair, HSG A |
| 9,500     | 98 | Paved parking & roofs           |
| 10,058    | 95 | Weighted Average                |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                      |
|-------------|------------------|------------------|----------------------|-------------------|--|
| 9.9         | 100              | 0.0250           | 0.2                  |                   | Sheet Flow,<br>Grass: Short n= 0.150 P2= 2.60"   |
| 0.1         | 25               | 0.0400           | 4.1                  |                   | Shallow Concentrated Flow,<br>Paved Kv= 20.3 fps |
| 10.0        | 125              | Total            |                      |                   |  |

**Reach SP1: (new node)**

Inflow = 0.06 cfs @ 12.10 hrs, Volume= 0.005 af  
Outflow = 0.06 cfs @ 12.10 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

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

**Reach SP2: (new node)**

Inflow = 0.25 cfs @ 12.07 hrs, Volume= 0.018 af  
Outflow = 0.25 cfs @ 12.07 hrs, Volume= 0.018 af, Atten= 0%, Lag= 0.0 min

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

**Reach SP3: (new node)**

Inflow = 0.66 cfs @ 12.07 hrs, Volume= 0.047 af  
Outflow = 0.66 cfs @ 12.07 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min

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

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Type III 24-hr Rainfall=2.60"

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**Reach SP4: (new node)**

Inflow = 0.46 cfs @ 12.14 hrs, Volume= 0.037 af  
Outflow = 0.46 cfs @ 12.14 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min

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

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Type III 24-hr Rainfall=4.50"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Type III 24-hr Rainfall=4.50"  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: (new node)**

Tc=5.0 min CN=70 Area=5,637 sf Runoff= 0.25 cfs 0.017 af

**Subcatchment 2S: (new node)**

Tc=5.0 min CN=96 Area=4,506 sf Runoff= 0.45 cfs 0.033 af

**Subcatchment 3S: (new node)**

Tc=5.0 min CN=96 Area=12,014 sf Runoff= 1.20 cfs 0.087 af

**Subcatchment 4S: (new node)**

Tc=10.0 min CN=95 Area=10,058 sf Runoff= 0.85 cfs 0.071 af

**Reach SP1: (new node)**

Inflow= 0.25 cfs 0.017 af

Outflow= 0.25 cfs 0.017 af

**Reach SP2: (new node)**

Inflow= 0.45 cfs 0.033 af

Outflow= 0.45 cfs 0.033 af

**Reach SP3: (new node)**

Inflow= 1.20 cfs 0.087 af

Outflow= 1.20 cfs 0.087 af

**Reach SP4: (new node)**

Inflow= 0.85 cfs 0.071 af

Outflow= 0.85 cfs 0.071 af

**Runoff Area = 0.740 ac Volume = 0.208 af Average Depth = 3.37"**

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Type III 24-hr Rainfall=4.50"

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**Subcatchment 1S: (new node)**

Runoff = 0.25 cfs @ 12.08 hrs, Volume= 0.017 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=4.50"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 3,210     | 49 | 50-75% Grass cover, Fair, HSG A |
| 2,427     | 98 | Paved parking & roofs           |
| 5,637     | 70 | Weighted Average                |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                       |
|----------|---------------|---------------|-------------------|----------------|-----------------------------------|
| 4.9      | 30            | 0.0130        | 0.1               |                | <b>Sheet Flow, A to B</b>         |
|          |               |               |                   |                | Grass: Short n= 0.150 P2= 2.60"   |
| 0.1      | 13            | 0.0750        | 1.9               |                | <b>Shallow Concentrated Flow,</b> |
|          |               |               |                   |                | Short Grass Pasture Kv= 7.0 fps   |
| 5.0      | 43            | Total         |                   |                |                                   |

**Subcatchment 2S: (new node)**

Runoff = 0.45 cfs @ 12.07 hrs, Volume= 0.033 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=4.50"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 184       | 49 | 50-75% Grass cover, Fair, HSG A |
| 4,322     | 98 | Paved parking & roofs           |
| 4,506     | 96 | Weighted Average                |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description          |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 5.0      |               |               |                   |                | <b>Direct Entry,</b> |

**Subcatchment 3S: (new node)**

Runoff = 1.20 cfs @ 12.07 hrs, Volume= 0.087 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=4.50"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 515       | 49 | 50-75% Grass cover, Fair, HSG A |
| 11,499    | 98 | Paved parking & roofs           |
| 12,014    | 96 | Weighted Average                |

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Type III 24-hr Rainfall=4.50"

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| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description   |
|-------------|------------------|------------------|----------------------|-------------------|---------------|
| 5.0         |                  |                  |                      |                   | Direct Entry, |

**Subcatchment 4S: (new node)**

Runoff = 0.85 cfs @ 12.14 hrs, Volume= 0.071 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=4.50"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 558       | 49 | 50-75% Grass cover, Fair, HSG A |
| 9,500     | 98 | Paved parking & roofs           |
| 10,058    | 95 | Weighted Average                |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                      |
|-------------|------------------|------------------|----------------------|-------------------|--|
| 9.9         | 100              | 0.0250           | 0.2                  |                   | Sheet Flow,<br>Grass: Short n= 0.150 P2= 2.60"   |
| 0.1         | 25               | 0.0400           | 4.1                  |                   | Shallow Concentrated Flow,<br>Paved Kv= 20.3 fps |
| 10.0        | 125              | Total            |                      |                   |  |

**Reach SP1: (new node)**

Inflow = 0.25 cfs @ 12.08 hrs, Volume= 0.017 af  
Outflow = 0.25 cfs @ 12.08 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

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

**Reach SP2: (new node)**

Inflow = 0.45 cfs @ 12.07 hrs, Volume= 0.033 af  
Outflow = 0.45 cfs @ 12.07 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min

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

**Reach SP3: (new node)**

Inflow = 1.20 cfs @ 12.07 hrs, Volume= 0.087 af  
Outflow = 1.20 cfs @ 12.07 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min

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



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Type III 24-hr Rainfall=4.50"

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**Reach SP4: (new node)**

Inflow = 0.85 cfs @ 12.14 hrs, Volume= 0.071 af  
Outflow = 0.85 cfs @ 12.14 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min

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

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Type III 24-hr Rainfall=5.40"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Type III 24-hr Rainfall=5.40"

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: (new node)**

Tc=5.0 min CN=70 Area=5,637 sf Runoff= 0.35 cfs 0.023 af

**Subcatchment 2S: (new node)**

Tc=5.0 min CN=96 Area=4,506 sf Runoff= 0.54 cfs 0.040 af

**Subcatchment 3S: (new node)**

Tc=5.0 min CN=96 Area=12,014 sf Runoff= 1.45 cfs 0.106 af

**Subcatchment 4S: (new node)**

Tc=10.0 min CN=95 Area=10,058 sf Runoff= 1.03 cfs 0.087 af

**Reach SP1: (new node)**

Inflow= 0.35 cfs 0.023 af

Outflow= 0.35 cfs 0.023 af

**Reach SP2: (new node)**

Inflow= 0.54 cfs 0.040 af

Outflow= 0.54 cfs 0.040 af

**Reach SP3: (new node)**

Inflow= 1.45 cfs 0.106 af

Outflow= 1.45 cfs 0.106 af

**Reach SP4: (new node)**

Inflow= 1.03 cfs 0.087 af

Outflow= 1.03 cfs 0.087 af

**Runoff Area = 0.740 ac Volume = 0.256 af Average Depth = 4.16"**

1e.16

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Type III 24-hr Rainfall=5.40"

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**Subcatchment 1S: (new node)**

Runoff = 0.35 cfs @ 12.08 hrs, Volume= 0.023 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=5.40"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 3,210     | 49 | 50-75% Grass cover, Fair, HSG A |
| 2,427     | 98 | Paved parking & roofs           |
| 5,637     | 70 | Weighted Average                |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                       |
|----------|---------------|---------------|-------------------|----------------|-----------------------------------|
| 4.9      | 30            | 0.0130        | 0.1               |                | <b>Sheet Flow, A to B</b>         |
|          |               |               |                   |                | Grass: Short n= 0.150 P2= 2.60"   |
| 0.1      | 13            | 0.0750        | 1.9               |                | <b>Shallow Concentrated Flow,</b> |
|          |               |               |                   |                | Short Grass Pasture Kv= 7.0 fps   |
| 5.0      | 43            | Total         |                   |                |                                   |

**Subcatchment 2S: (new node)**

Runoff = 0.54 cfs @ 12.07 hrs, Volume= 0.040 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=5.40"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 184       | 49 | 50-75% Grass cover, Fair, HSG A |
| 4,322     | 98 | Paved parking & roofs           |
| 4,506     | 96 | Weighted Average                |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description          |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 5.0      |               |               |                   |                | <b>Direct Entry,</b> |

**Subcatchment 3S: (new node)**

Runoff = 1.45 cfs @ 12.07 hrs, Volume= 0.106 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=5.40"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 515       | 49 | 50-75% Grass cover, Fair, HSG A |
| 11,499    | 98 | Paved parking & roofs           |
| 12,014    | 96 | Weighted Average                |

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Type III 24-hr Rainfall=5.40"

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| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description   |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0      |               |               |                   |                | Direct Entry, |

**Subcatchment 4S: (new node)**

Runoff = 1.03 cfs @ 12.14 hrs, Volume= 0.087 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr Rainfall=5.40"

| Area (sf) | CN | Description                     |
|-----------|----|---------------------------------|
| 558       | 49 | 50-75% Grass cover, Fair, HSG A |
| 9,500     | 98 | Paved parking & roofs           |
| 10,058    | 95 | Weighted Average                |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                      |
|----------|---------------|---------------|-------------------|----------------|--|
| 9.9      | 100           | 0.0250        | 0.2               |                | Sheet Flow,<br>Grass: Short n= 0.150 P2= 2.60"   |
| 0.1      | 25            | 0.0400        | 4.1               |                | Shallow Concentrated Flow,<br>Paved Kv= 20.3 fps |
| 10.0     | 125           | Total         |                   |                |  |

**Reach SP1: (new node)**

Inflow = 0.35 cfs @ 12.08 hrs, Volume= 0.023 af  
Outflow = 0.35 cfs @ 12.08 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

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

**Reach SP2: (new node)**

Inflow = 0.54 cfs @ 12.07 hrs, Volume= 0.040 af  
Outflow = 0.54 cfs @ 12.07 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.0 min

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

**Reach SP3: (new node)**

Inflow = 1.45 cfs @ 12.07 hrs, Volume= 0.106 af  
Outflow = 1.45 cfs @ 12.07 hrs, Volume= 0.106 af, Atten= 0%, Lag= 0.0 min

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

1e.18

05439PRE

Type III 24-hr Rainfall=5.40"

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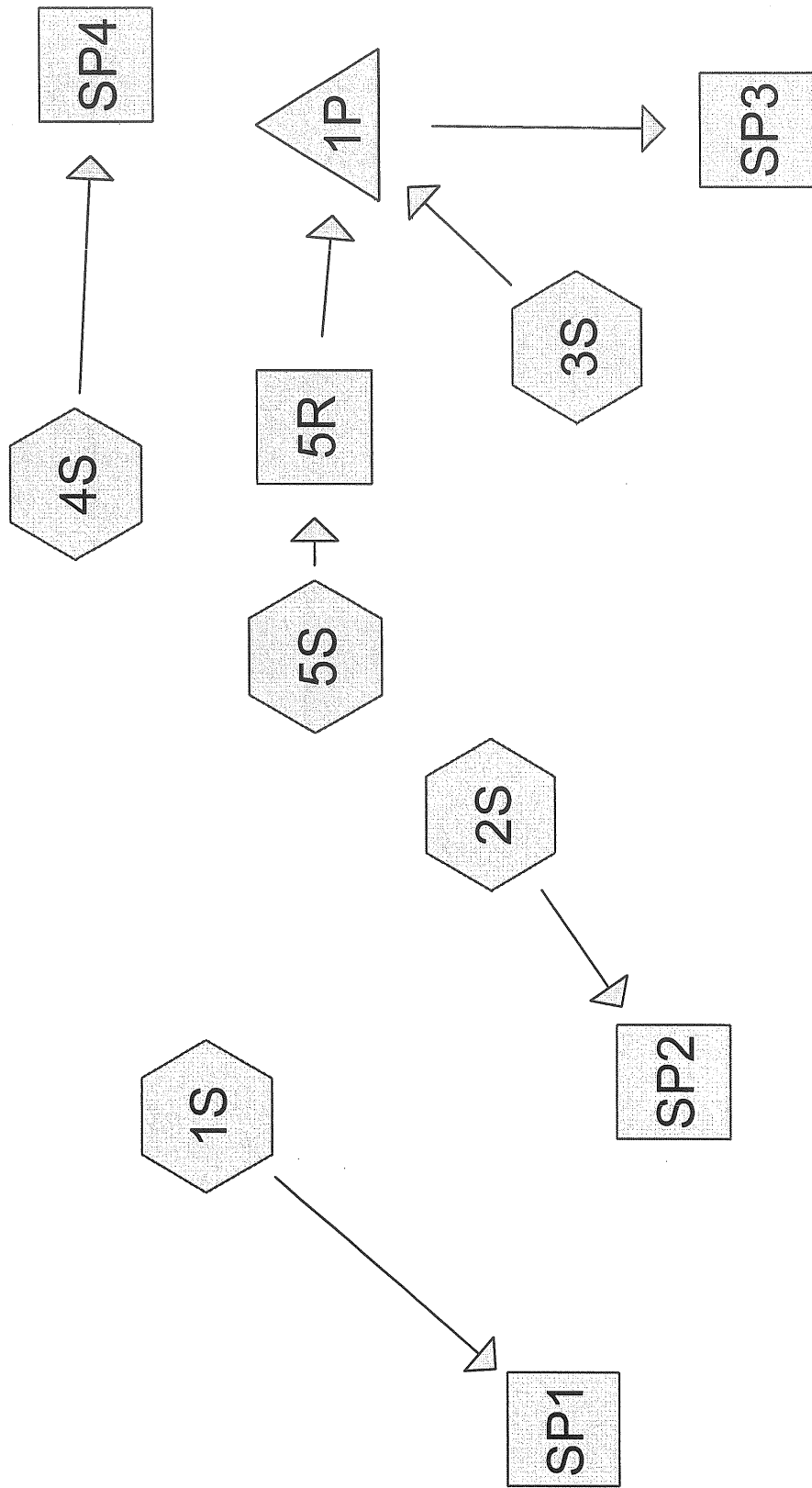
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11/6/2006

**Reach SP4: (new node)**

Inflow = 1.03 cfs @ 12.14 hrs, Volume= 0.087 af  
Outflow = 1.03 cfs @ 12.14 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min

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



**Drainage Diagram for 05439POST**

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Legend:

- Subcat (Hexagon)
- Reach (Rectangle)
- Pond (Triangle)
- Link (Arrow)