

061-F-006

26-36 Storers

Waynelete Art Center

Waynelete Arts Center



Scott Simons Architects

75 York Street
Portland, Maine 04101
phone 207 772 4656
fax 207 828 4656
www.simonsarchitects.com

MEMORANDUM

date: July 31, 2007
project: WAYNFLETE ARTS CENTER, PHASE TWO, 2003-0040
re: Planning Board Public Hearing material
to: Shukria Wiar, Planner City of Portland
Anne Hagstrom Waynflete
from: Austin Smith Scott Simons Architects (SSA)

Shukria:

For the Planning Board Public Hearing, we have enclosed the following:

1. Application for Tree Waiver dated July 26, 2007 from Anne Hagstrom.
Also includes the sanitation vehicle turning templete requested by traffic engineer.
2. Application for Sidewalk Waiver / Postponement dated July 25, 2007 with (4) photographs of existing conditions at Storer Street..
3. Parking barrier detail as agreed upon with Mike Farmer of Portland Public Works.
4. Zoning Issues memorandum addressing issues raised by Marge Schmuckal on July 20, 2007.
This material included a cover memo, site survey to scale with setback dimensions, building elevation with height calculation overlays, previous approved parking and proposed parking plans.
5. Copy of Historic Preservation material submitted for August 8, 2007 Public Hearing.
6. (4) full size copies & (1) reduced 11x17 set of current documents enclosed.
7. Previously submitted site photometrics included text which was illegible. Revised plan with larger text to be forwarded under separate cover.

project: Waynflete Arts Center, Phase Two
file: 2003-0040.Shukria 073107.doc

date: 7/31/07
Page 1 of 2



Scott Simons Architects

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MEMORANDUM Site Plan Memorandum

date: July 13, 2007
project: WAYNFLETE ARTS CENTER, PHASE TWO, 2003-0040
re: Supplemental material requested by Planning Staff
to: Shukria Wiar
 Planning Department City of Portland
from: Austin Smith Scott Simons Architects (SSA)
cc: Scott Simons SSA
 Anne Hagstrom Waynflete
 David Cimino Stroudwater

In response to the e-mail request for supplemental material on July 11, 2007:

1. Compliance with Chapter 14-525 (b) Item (2) Total land area of the site and the total floor area and ground coverage of each proposed building and structure.

| | | |
|--|-------------|--------------|
| Total Waynflete Lot area | 244,238 sf, | 5.606 acres |
| Area of site (Determined as contiguous lots on block 61-F) | 156,373 sf, | 3.590 acres |
| Area of new building | 7,390 sf | footprint |
| Total floor area of new building | 7,390 sf | ground floor |
| | 4,481 sf | first floor |
| | 1,346 sf | upper floor |
| | 13,217 sf | total |

2. Compliance with Chapter 14-525 (b) Item (3) General summary of existing and proposed easements or other burdens now existing or to be placed on the property.

In an effort to avoid the significant expense of a full title search, a summary of burdens placed on the property will follow in a narrative. This is to supplement the Boundary Survey completed on April 26, 1999 by Titcomb Associates. It can be concluded that the proposed site is a parcel free of all encroachments and burdens.

Enclosed is written documentation of all subsequently acquired properties and easements placed on these and all previously held properties. Two easements have been placed on the Waynflete properties, to respectively benefit and burden Waynflete, addressing encroachments on Emery street (parcel F-4) and Fletcher Street (parcel G-17). Neither of these are on the parcel to be used for the proposed addition. Also, the abutting property 61-G-4 has since been acquired by Waynflete. This parcel carries an easement of passageway over Storer street. Again, this easement does not impact the proposed addition.

3. *Compliance with Chapter 14-525 (b) Item (7) Construction plan outlining the anticipated sequence of construction of the major aspects of the proposed project, including without limitation road, retention basins, sewer lines, seeding and other erosion control measures, and pollution abatement measures, and also setting forth the approximate dates for the commencement and the completion of the project.*

This project is scheduled to begin in the fall of 2007 and last over 14 months. After establishing the necessary erosion control we will begin installing the storm water components that are located below the playing field. Once this is complete we will install a construction fence that will define the construction layout area and building site. At this time we will establish the new curb cut, relocate an existing sewer line, located on site, and begin foundation work. In the summer of 2008 the paved parking areas will be installed. Landscaping and seeding will occur toward the end of the summer of 2008. All public utilities are currently on site.
(Submitted by David Cimino of Stroudwater Construction)

All erosion and sediment control measures shall be designed in accordance with Maine Erosion and Sediment Control Handbook for Construction Best Management Practices Published by the Cumberland County Soil and Water Conservation District and Maine Department of Environmental Protection. March 1991 or later edition.

4. *Item B. Sidewalks and Curbing*

Site meeting to be scheduled to review the existing street, curb and sidewalk situation.

Meeting to include: Mike Farmer of Portland Public Works
Dan Goyette of Woodward and Curran (peer review engineer)
Shukria Wiar of Portland Planning Department
Jeff Pelletier of MBLA
Anne Hagstrom of Waynflete School

SSA to coordinate meeting time.

5. *Landscaping*

Resolved. See enclosed Planting Plan L-1.3.

6. *Lighting*

Please see enclosed material. Pole mounted fixture modified to include upper lens shield to provide cutoff optics in compliance with dark-sky requirements. Mounting heights, wattage, fixture type and site photometrics shown on enclosed drawing E-2.

7. *Fire Department Comments.*

Hydrant Flows to be determined and forwarded to Planning Staff and Fire Department.



Scott Simons Architects

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MEMORANDUM Site Plan Punchlist Memorandum

date: July 3, 2007
project: WAYNFLETE ARTS CENTER, PHASE TWO, 2003-0040
re: Major Development, Site Plan Punchlist questions of May 31, 2007
to: Shukria Wiar
 Planning Department City of Portland
from: Austin Smith Scott Simons Architects (SSA)
cc: Scott Simons SSA
 Charles Young SSA
 Anne Hagstrom Waynflete
 David Cimino Stroudwater

In response to Planning Staff questions of May 31, 2007:

1. Please provide a narrative as to what was approved in May of 2001 and what is being proposed for this Phase II project. Compare and contrast the two proposals. Please provide this for the workshop hearing.

Please see enclosed memorandum, 'Site Plan Revision Narrative' dated June 12, 2007, from Scott Simons Architects.

2. Technical and Financial letter shall be submitted; We will require in writing what grants and amounts are being used to fund this project. A letter of financial capacity is requested from the school and one from the bank.

Please see enclosed memorandum from Anne Hagstrom, dated June 11, 2007, "Financing for the Construction of Theater and Gymnasium." Also enclosed a letter dated June 12, 2007 from Mark V. Stasium, Vice President, TD Banknorth regarding financial capacity.

3. In a narrative, please address how this project is meeting the conditions of Section 14-103 (b) and Section 14-474.

See enclosed memorandum dated July 2, 2007

project: Waynflete Arts Center, Phase Two
file: Response to PB punchlist of 053107.doc

date: 7/3/07

4. According to the City's Technical and Design Standards and Guideline, Section 2 (A) (b), a two way drive shall be 24' and the site plans shows 20'. The applicant can request a formal waiver of this standard.

Driveway width increased to 24', reflected on enclosed drawing L-1.1 dated July 2, 2007

5. According to the City's Technical and Design Standards and Guidelines, Section 3(A), Parking stalls shall be 9' x 19'. Please show this on the site plan or submit a waiver of the standard.

Current drawings revised to include 9' x 19' parking stall complying with city standards.
See revised drawing L-1.1, dated July 2, 2007.

6. There are various complaints about parking in this neighborhood, what has the school done to address the parking demand? Please provide a narrative in regard to this.

See enclosed parking narrative.

7. The City's Traffic Engineer has requested parking analysis be submitted.

See enclosed parking narrative.

8. The Waynflete School Campus Master Plan 2006, shows a 24 space parking lot on Storer Street, diagonal from the proposed project site. Why isn't this space being used for parking instead of the proposed parking lot?

(24) car parking lot on east side of Storer, as outlined in the Master Plan of 2006, would accommodate parking for the full build out of the Phase Three of the Arts Center. The (11) spaces currently shown on Phase Two, would be relocated east of Storer. The future (24) car lot would also be providing for the loss of 12 spaces in the creation of the future library quad.

9. Is the Arts and Music Studio, which is included as part of the approved Phase Two plan, being proposed as a third phase? Please explain in full.

While the Third Phase is a possibility, it is not anticipated in the immediate future. If a need for expansion of the Arts Center is determined and funds become available, it will be permitted independently.

10. A utilities plan shall be submitted. The plan shall show all existing and proposed utilities. This shall show the position of the transformer on Storer Street.

- Domestic water Line (2"), fire protection line (6"), & natural gas lines are in place and operational since September of 2001. Each of these utilities was sized to accommodate the full buildout of Phase Two.
 - Three phase power is currently provided to the facility from a transformer installed in Phase One east of Storer Street. Connection is made to the Arts Center by underground conduit beneath Storer Street. Existing service connections will be adequate to meet the needs of Phase Two.
- No street intervention into Storer is anticipated.
- All existing utilities to be documented in site civil drawings.

17. *When the proposal to convert part of 3 Storer House (Pratt House) into administrative offices came before the Planning Board (June 2006), there were suggestions that this phase should included the space needed. Explain in detail as to how the school is meeting the administrative space that is needed and why it is not being proposed in this development.*

The Arts Center Project approved by the City in 2001 was designed to help meet the School's space and program needs for theater, arts, and athletics. The School's fundraising and planning activities have been focused on those program needs for the past six years and the School is planning to break ground this fall.

There are several reasons why the School will not entertain the suggestion of the Planning Board to include administrative offices in these proposed spaces:

- a) The Theater and Gymnasium has been carefully designed to meet the program needs of the School. The Campus Master Plan (approved by the Board of Trustees in 2005 following a year-long process,) thoughtfully considered the long term development of the campus and identified the areas where administrative offices could be housed most appropriately for the long term.
- b) Adding four to six offices and associated meeting and support spaces would (to name a few issues) necessitate a redesign of the building, add significantly to the cost of design and construction, add to the footprint of the building, and change the requirements for the mechanical systems which were installed as part of Phase I to serve the subsequent phases of the building as designed.
- c) Any delay in beginning construction necessitated by significantly changing the design will delay construction, adding to the costs of construction, and delaying when students will be able to use the facilities.
- d) The fundraising for this project is especially sensitive to the timing of breaking ground and pressures from increased construction costs.

18. Department of Public Works comments

- a. *A stormwater plan has not been submitted for review. It should include pre and post development flows, an updated capacity letter for the tie in to the combined sewer, and modeling information.*

To be forwarded under separate cover.

- b. *A large number of civil site details are missing. Catch basin details, granite curb installation details, tie in details, brick sidewalk details, pipe trench details and trench repair details all should be included.*

To be forwarded under separate cover.

- c. *No proposed stormwater or sewer infrastructure is shown on the plans. Locations for proposed piping and where it connections to the existing system are proposed should be indicated on the plans.*

To be forwarded under separate cover.

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Page 4 of 5

11. *Lighting-catalog cuts showing height, wattage, type, etc. All proposed lighting fixtures need to meet the City's standards. A photometric plan shall be submitted.*

Enclosed is drawing E-2 dated 05.16.07. All exterior lighting is shown with associated site photometrics. Also enclosed are catalog cut sheets of selected fixtures outlining mounting heights, lamping, voltage and cut off properties.

12. *Are there solid waste (trash) containers being proposed on the site? What is being proposed for trash removal?*

- Solid waste is collected within the building to a designated room at the South east corner of the Ground Floor. In addition to trash collection this room will accommodate recycling for the school.
- Site waste storage will be handled in (2) dumpsters, one designated for cardboard with a capacity of 10 yards and another for general waste with a capacity of 6 yards. These will be positioned at the west end of the parking aisle. This will allow for the direct accessibility by waste removal trucks while keeping the waste away from public streets
- Dumpsters will be on cast in place concrete slabs with 6" diameter steel bollards to prevent damage. All four elevations will have screening of a custom cedar enclosure. This screening will match the lower parking screening along the side of Danforth Street for the length of the parking area. Swinging doors of cedar screening will conceal the dumpsters. See drawing L-1.1 dated July 2, 2007.

13. *Submit a copy of the most current master plan for the campus.*

See enclosed Master Plan of 2006.

13. *Submit capacity letter from the various utilities that are required.*

As outlined in question 10 above, utilities are in place and operational. All systems were designed with the original full build out of 2001 in mind. Due to the fact that the current proposal is significantly smaller than the proposal of 2001, capacity is more than adequate for this addition.

14. *Submit copies of deeds for the Waynflete School property.*

Copies of deeds provided to planning staff separately on July 3, 2007.

15. *Submit Architectural renderings of the proposed addition.*

See enclosed renderings, revised elevations and floor plans.

16. *The project proposes a new roof top mechanical unit, submit evidence of the measurement to be taken to lower the noise level.*

The roof top mechanical unit was previously shown centered on roof of the future gymnasium; running east/west. This will be repositioned to run north/south and moved to the far east side of the roof to lessen its visual impact. Unit will be ducted from the bottom lowering the overall height of the unit by 4 feet. The revised position is reflected on the enclosed revised drawing A-1.3, dated July 2, 2007.

In addition to the repositioning of the unit, acoustic mechanical screening will be incorporated.

Detail SK-3 shows the construction and configuration of the visual and acoustic barrier.

- d. *New Handicapped ramps should be constructed at the corner of Storer and Danforth Streets. The associated details will need to be included.*

Concerning both items d. and e. please note the condition of Storer Street edge, curb and sidewalk in the enclosed photographs. In 2003 a new paving overlay was installed on Storer between Spring and Danforth Street. This raised the top of paving to within 1" to 1 ½" of top of curb. Without addressing the pavement elevation, it is difficult to reset curb heights for long term ADA compliance.

- e. *The conditions of the existing sidewalk should be indicated.*

Existing sidewalk of the west side of Storer Street is cast in place concrete with granite curbing. See enclosed photographs of existing site conditions including Storer Street curbing / sidewalk , existing Norway Maple tree and Danforth Street sidewalk, stone retaining wall, plantings, and fencing.



Attachment 29







January 7, 2011

Alex Jaegerman, Division Director
Portland Planning Division
4th Floor, Portland City Hall
389 Congress Street
Portland, ME 04101

Dear Mr. Jaegerman:

Please find attached a performance report on the Waynflete School Transportation and Parking Demand Management Plan as requested by the City Planning Authority.


If you have any questions or concerns, please feel free to contact me at (207) 774-5721.

Thank you,



Mark W. Segar, Head of School
Waynflete School

Thank, Alex. Best to you.



Waynflete School
Transportation and Parking Demand Management Plan

Performance Report 1/7/11

In the fall of 2008, Waynflete School submitted a Transportation and Parking Demand Management Plan (the Plan) to the City. The Plan was approved by the City Planning Authority November 17, 2008 and the School was asked to provide a performance report within two years of the Certificate of Occupancy for the Theater issued January 8, 2009. (An interim report was submitted in June, 2009.)

All of the action items identified in the “Timetable for Plan Action Items” have been completed. Many of these steps are ongoing such as encouraging carpooling and non-vehicular methods of transportation, the use of offsite parking for employees, communication and reminders to families and staff, and offering free Metro passes to employees.

In addition to the requirements in the plan, a number of other steps have been taken:

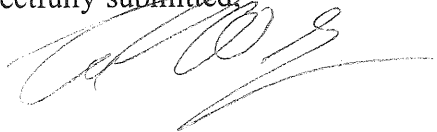
- Employees are restricted by school policy from parking along a number of streets even though those areas are legal parking areas.
- Employees are required to submit commuting plans annually by the start of school.
- Employees who carpool are given priority parking spaces on campus.
- On-campus daily parking has been maximized to include as many employees as possible and still maintain spaces for visitors, handicapped persons, school vehicles, and snow removal.
- Signage for vanpool/carpool parking was added to on-campus lots.
- Twenty-five spaces are leased from the Christian Science Church for ten months/year and assigned to employees.
- Additional offsite parking options are being considered for the future if resources permit.
- Conversations were held with representatives from Maine Medical Center about their employees who regularly park on Vaughan Street.
- An ad hoc Parent Parking Committee met during the winter of 2009 to help increase awareness of parking issues and encourage bus ridership.
- An ad hoc Employee Parking Committee met during the winter of 2010 to help devise comprehensive parking assignment protocols for all full-time and most part-time employees and all faculty and staff were asked to participate in conversations about parking and traffic.
- Parking information is provided for all parents at the beginning of each year and throughout the year through emails, newsletters, reminders.
- Student parking compliance is strictly enforced by the Upper School Director and the Transportation Director.

- Upper School students are reminded periodically throughout the year of parking restrictions and the importance of careful driving by the Upper School Director, Athletic Director, and coaches.
- Student and employee handbooks are updated at least annually with parking and traffic information. In addition to student addresses and phones, a zip code section was added to the student handbook to facilitate carpooling.
- Bike racks were added to the main campus and Fore River Fields.
- Event parking plans for large events are completed by event managers to help ensure communication about parking, carpooling, etc. through Waynflete Weekly, calendar and other means and submitted to the Transportation Coordinator.
- Arrangements have been made with Christian Science Church and Mercy Hospital to rent parking lots for large events, if necessary.
- Parking monitoring of the two largest theater events in 2009 (Theater Opening and Jonathan Edwards Concert) was completed by Gorrill Palmer - - and no problems were identified with either.
- Neighborhood monitoring by staff during large day and night events was instituted. This has consisted of placing cones by certain driveways that may be blocked (with notice to the homeowner) and posting staff in orange vests around the campus and the neighborhood to direct visitors to appropriate parking areas.
- "Event Parking" signs were created to use for large events to direct visitors to campus parking lots.

There is one aspect of the plan which still needs attention, namely the goal to *increase safety in the area through monitoring, controls, signage changes*. At the time of the plan submittal, it was anticipated that this was a longer term goal and will require the involvement of the City and neighbors. The School intends to take steps towards achieving this goal within the next year.

The School recognizes that parking and traffic issues require ongoing attention and management and that there are neighborhood safety issues still to address. With a school community of approximately 550 students, 150 faculty and staff, and parents, arriving and departing daily, there will be situations from time to time that are frustrating for neighbors and for the School. We are committed to trying to minimize those situations and resolving conflicts when they occur.

Respectfully submitted,



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Respectfully submitted,



Mark W. Segar
Head of School

Memorandum

DATE: June 2, 1999
TO: File
FROM: Kathy DeYoung
RE: Founders, Davies, Sills, Hewes Science Wing

It appears the City of Portland includes Davies, Sills, Hewes and Founders as one piece of property for purposes of assessing the land and building value.

Based on a review of records available it appears the property we know as Davies was acquired in 1942 for the cost of \$4,000.00

The property known as Founders (f/k/a main building) is less clear. The building known as Founders was originally a horse stable. Waynflete School renovated this structure. In 1923 Waynflete may have acquired land and building which abutt Fletcher Street. Most of this property was sold. Other land was acquired via the Romana transaction in 1959. It is not clear how much was paid for the property that is now known as Founders. To be conservative the amount recorded in the general ledger in 1942 will be reflected as the purchase price. Inherently, this will attribute more dollars to land thus providing some cushion.

It is the understanding of the business office that the buildings known as Hewes and Sills were constructed by Waynflete. Hence no general ledger costs for these two structures should be allocated to land - as these costs reflect 100% building.

The total amount to be allocated to the acquisition are as follows:

| | |
|-------------------------------------|--------------------------|
| Purchase of Davies | \$4,000.00 x 9.73% = 389 |
| 1942 GL costs for Founders | <u>\$24,057.00</u> |
| Total Estimated Cost of Acquisition | \$28,057.00 |

5/27/99
14:37

City of Portland, Maine
Real Property
Account Inquiry Display

ESPRING
P417

WAYNFLETE SCHOOL THE
8 SPRING ST REAR
PORTLAND

DAVIES, SULLS, HEWES, FOUNDERS

ME 04102 3742

Account Nbr
979320-99

| | | | |
|---------------------|----------|-----------------|--------|
| Tax Billed: | \$.00 | Tax Paid: | \$.00 |
| + Demo Cost: | \$.00 | Interest Paid: | \$.00 |
| + Secure Cost: | \$.00 | Tax Owed: | \$.00 |
| Last Payment Date: | 00/00/00 | Tax Abated: | \$.00 |
| Supp or Abate Date: | 00/00/00 | Advance Adjs: | \$.00 |
| | | Advance Amount: | \$.00 |

| | | | | |
|------------|-----------|-----------------------|-------------------|-------------|
| CBL: 061 | F 003 001 | Planning Description: | Land Value: | \$118,800 |
| | | 61-F-3-8-10 | + Building Value: | \$1,101,960 |
| Bank Code: | | STORER ST 16 | | |
| | | 75833 SQ FT | Total Value: | \$1,220,760 |
| | | | - Exempt Value: | \$1,220,760 |

Continue [_] Prior Year Acct [_] Next Account _____ - __ [_] Done [_]

Waynflete School
 Depreciation Schedules
 Davis Hall

| Date of Purchase | Description of Property | Useful Life | Original Cost | Accum Deprec 6/30/97 | FY 98 Expense | Accum Deprec 6/30/98 |
|------------------|-------------------------|-------------|----------------------|----------------------|--------------------|----------------------|
| 1942 | Building | 50 | 7,000.00 | 7,000.00 | - | 7,000.00 |
| 1955 | Renovations | 50 | (50.00) | (43.00) | (1.00) | (44.00) |
| 1982 | Renovations | 50 | 305.00 | 97.60 | 6.10 | 103.70 |
| 1983 | Renovations | 50 | 13,529.00 | 4,058.70 | 270.58 | 4,329.28 |
| 1988 | Renovations | 50 | 1,661.00 | 332.20 | 33.22 | 365.42 |
| 1992 | Renovations | 50 | 47,596.00 | 5,711.52 | 951.92 | 6,663.44 |
| 1994 | Renovations | 50 | 24,623.00 | 1,969.84 | 492.46 | 2,462.30 |
| 1995 | Renovations | 50 | 60,921.00 | 3,655.26 | 1,218.42 | 4,873.68 |
| 1996 | Renovations | 50 | 115,502.40 | 4,620.10 | 2,310.05 | 6,930.15 |
| 1997 | Renovations | 50 | (48,337.31) | (966.75) | (966.75) | (1,933.50) |
| Total | | | \$ 222,750.09 | \$ 26,435.47 | \$ 4,315.00 | \$ 30,750.47 |

When FY is ending

7592

Mortgage Deed

FROM

WAYNFLETE SCHOOL

TO

MAINE SAVINGS BANK

State of Maine.

REGISTRY OF DEEDS

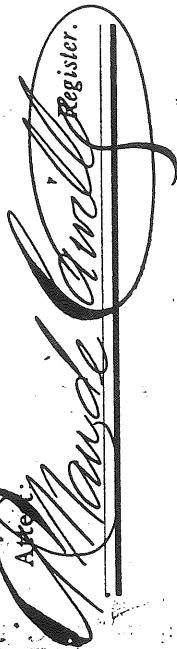
CUMBERLAND, SS.

Received **OCT 1 1942**

at **1** o'clock **45** M. P. M., and recorded in

Book **1695**

Page **7**

Attest:

Register.

DRAWN BY

VERRILL HALE DANA & WALKER
ATTORNEYS FOR MAINE SAVINGS BANK

October, 1932-500

1-45

DISCHARGED
OCT 24 1950

Robert L. Gram
Register
by Margaret L. Fisher

Know all Men by these Presents, that

Waynflete School, a corporation organized and existing under the laws of the State of Maine and located at Portland in the County of Cumberland and State of Maine,

in consideration of Four Thousand (4,000) dollars,
paid by the Maine Savings Bank, a corporation established by law, at Portland, in the County of Cumberland, and State of Maine, the receipt whereof is hereby acknowledged, does hereby give, grant, bargain, sell and convey unto the said Maine Savings Bank, its successors and assigns forever

A certain lot or parcel of land with the buildings thereon situated on the northerly side of Danforth Street and westerly side of Storer Street in said City of Portland, bounded and described as follows: Beginning on the northerly side of Danforth Street at the easterly corner of land formerly of T. C. Hersey; thence easterly on Danforth Street one hundred seventy-four (174) feet six and one-half (6 1/2) inches to the center line of Storer Street; thence northerly parallel with said Hersey line and in the middle line of said Storer Street two hundred twenty-seven (227) feet more or less to a point equally distant from Spring Street and Danforth Street; thence westerly one hundred seventy-four (174) feet six and one-half (6 1/2) inches to said Hersey land; thence southerly by said Hersey land to said Danforth Street at the point of beginning, subject to the location of the westerly half of a way twenty-five (25) feet wide now known as Storer Street.

Being the same premises conveyed to Waynflete School by Ethel F. Baxter by deed to be recorded herewith.

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Maine Savings Bank, its successors and assigns, their heirs and assigns forever, to their use and behoof forever. And it, the said **Waynflete School**

, for itself and its successors and assigns does covenant with the said Grantee, its successors and assigns, that it is lawfully seized in fee of the granted premises; that they are free from all incumbrances; that it has good right to sell and convey the same to the said Grantee to hold as aforesaid; and that it and its successors and assigns shall and will **Warrant and Defend** the same to the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons.

Provided Nevertheless, That if the said Grantor, its successors or assigns, shall pay to the said Grantee, its successors or assigns, the sum of **Four Thousand**

Dollars ~~in gold coin of the present standard of weight and fineness~~, as follows:
the sum of **One Hundred Twenty-five (125)** Dollars ~~quarterly~~
~~six months~~ from date hereof, and the sum of **Thirty-six Hundred Twenty-five (3,625)**

Dollars ~~one year~~ ^{quarter} from date hereof, with interest on said sums at the rate of **five** per centum per annum, payable ~~semi-annually~~ ^{quarterly}, and interest on all overdue interest at the same rate, until the note mentioned herein is fully paid according to its tenor and shall pay all taxes and other assessments laid upon said property, within eight months after date of assessment thereof, and shall at all times keep said buildings insured, payable to said Grantee, in manner satisfactory to it, to the extent of the claim hereby secured, and shall repay to said Grantee, its successors or assigns, on demand, all sums it or they may pay for taxes, assessments, insurance and reasonable repairs and improvements upon said premises, whether necessary or not, and all expenses, if any are incurred, of foreclosure of this mortgage, together with reasonable counsel fees, with interest on said sums, as aforesaid, and shall not commit or suffer any strip or waste of the granted premises, or commit any breach of any covenant herein contained, then this deed, as also one certain note bearing even date with these presents, given by the said Grantor to the said Grantee, to pay the said sum of \$4,000.00 and interest at the times aforesaid, shall be void; otherwise shall remain in full force.

In Witness Whereof, the said **Waynflete School** which it adopts as ^{a water seal} has caused this instrument to be sealed with its corporate seal and signed in its corporate name by **Leonard A. Pierce, its President, and by Roger V. Snow, its Treasurer,**
this *just* day of **October**, thereunto duly authorized, in the year of our Lord one thousand nine hundred and **forty-two**.

Signed and Sealed in the presence of

DW Philbrick to wit

WAYNFLETE SCHOOL
By *Leonard A. Pierce* President
And by *Roger V. Snow* Treasurer



State of Maine.

CUMBERLAND, SS.

October 1, 19 42

Personally appeared the above named **Leonard A. Pierce, President, and Roger V. Snow, Treasurer** of said Corporation as aforesaid, and acknowledged the above instrument to be **their** free act and deed in **their** said capacities and the free act and deed of said Corporation.

Before me,

Donald W. Philbrick Justice of the Peace.

November 3, 1965

Mr. Sumner S. Clark, President
The Waynflete School
c/o Maine Central Railroad
222 St. John Street
Portland, Maine

Dear Sumner:

I have executed the final closing on the
Waynflete School loan to the Canal National Bank. The
funds were disbursed as follows —

| | | |
|--|------------------|-----------------|
| Romano Property (Canal Bank - Loan) | \$24,156.38 | → Main Campus → |
| Morrill House (Federal Loan & Bldg. Assn.) | 13,701.67 | |
| " " , Third Floor (Waynflete - Reimbursement) | 16,521.81 | → \$30,223.48 |
| Headmaster's House (Canal Bank - Loan) | 18,830.98 | |
| " " (Casburaga Co.) | <u>10,188.44</u> | |
| Total | \$83,399.28 | |

75
LAND
NOW
Gym

This mortgage is set up for a ten-year
period with monthly payments of \$884.65 starting December
1, 1965.

Very truly yours,

Treasurer

WBK/bd

1.) Expense 1,300 Headmaster's House
2.) Apply money as rec'd on
WBK

MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and materials submitted by the applicant and on the basis of information provided in Planning Board Report #18-01 and Historic Preservation Report 05-01, relevant to standards for site plan and conditional use review, the Board finds:

- i. That the plan (**meets/fails to meet**) the Standards for Review of Construction and the Standards for Review of Alterations of the Historic Preservation Ordinance.
- ii. That the plan (**is/is not**) in conformance with the Site Plan Standards of the Land Use Code.
- iii. That the plan (**is/is not**) in conformance with the Conditional Use Standards of the Land Use Code.

Subject to the Following Potential Conditions of Approval:

1. *The applicant ^{will} provides staff with catalog cuts for wall and pole mounted fixtures that are in compliance with the lighting standards.*
2. *The applicant will coordinate and satisfactorily determine the function of the existing 8" pipes that will be impacted by the project. If they are determined to be pipes that carry combined flows of sewer and storm water, then the Public Works Dept. ^{must} should be contacted and any possible removal or other remedial measures made to offset any new flows introduced into the system.*
3. *The applicant and their contractor ~~will be required to~~ ^{must} contact the DRC during construction to inspect the trench drain and storm drain installation with specific emphasis on the gradation of materials. The Stormwater report contains specific statements regarding the required materials and evidence of material acceptance should be required during construction.*
4. *The applicant will ~~be required to~~ maintain all streets free and clear of mud and debris and shall be responsibility to sweep or clean the streets immediately upon notice from the Public Works or Planning Departments.*
5. *The applicant will realign the proposed parking lot entrance to the left (north), allowing for all but 5 of the existing trees along Storer Street to be preserved.*
6. *Tree protection methods for all trees ~~should~~ ^{must} be demonstrated and no re-grading, site work or storage of materials should occur within the drip-line.*
7. *The existing crab ^{tree}apples will be transplanted to screen the proposed parking area or comparable plantings will be included.*
8. *Eight additional 5-6' high evergreens ~~will~~ be planted within the remaining pine grove.*

9. *If the Hemlock trees cannot be saved in the area between the proposed parking area and the building on Emery Street, additional trees will be planted at a ratio of 3:1 in ~~that~~ ^{the} area to assist in the screening of the parking area.*

**CITY OF PORTLAND, MAINE
ADDITIONAL INFORMATION AND REVISED MOTION**

TO: Chair Caron and Members of the Portland Planning Board
FROM: Jonathan Spence, Planner
DATE: May 22, 2001
SUBJECT: Waynflete Arts Center, 360 Spring Street

Absent from Planning Board Report #18-01 is the necessary motion for the Board to consider with relation to the projects location within a Historic District. A revised motion and additional information regarding this project and its review under the standards outlined in the Historic Preservation Ordinance follows.

The proposed Art's Center Project, consisting of alterations to the existing Davies Hall and numerous additions including the auditorium, is located within the West End Historic District. Because of this location, the project is reviewed under the Standards for Review of Construction and the Standards for Review of Alterations of the Historic Preservation Ordinance. The new construction standards focus on three primary concerns:

1. Scale and form
2. Composition of principle facades
3. Relationship to the street.

The primary component of Phase 1 of the project, the 3-story addition to Davies Hall for dance studio and classroom space is visually distinctive due to its use of large window openings at the corners, a veneer of lead coated copper panels and a flat roof rising above a deep, low-sloped cornice edge. The other component of Phase 1, the gallery entrance to the north side of Davies Hall, contains contemporary design features including glass walls, a deep roof overhang above the entry and a flat roof above clerestory windows.

The Phase II addition will be dominated by the auditorium which will feature a stucco exterior and a gabled roof. The west elevation features three tall symmetrical windows that rise nearly the full height of the wall. The east elevation contains two floors of corridors with glass walls. The other component of Phase II, the addition located to the south of the auditorium, is clad in two different shades of brick. These brick walls are punched with an irregular pattern of square and rectangular window openings.

The massing of the proposed additions into discreet blocks along Storer and Danforth Streets, utilizing a regular rhythm, maintaining a consistent setback and limiting the height of the structures has created a design which reflects the prevailing development in the area. The project balances this compatibility with a contemporary design that distinguishes it from other historic buildings around it. The project uses a range of materials, finishes and building forms; a recognized defining element in the neighborhood. The Historic Preservation Committee is recommending to the Planning Board approval of a Certificate of Appropriateness for the proposed arts center (See attachment 3). A presentation by Mr. Rick Romano, Vice Chair of the Historic Preservation Committee, will be included as a component in the presentation of this project this evening.

Memorandum

DATE: June 2, 1999
TO: File
FROM: Kathy DeYoung
RE: Storer House

The Storer House was acquired in 1970 for 40,500. The building burned and was demolished. The remaining land is now known as Waynhenge to Waynflete. The remaining value of the books for Storer House is \$2,839.75. It seems reasonable to assume this is remaining value of the land based on the original acquisition cost.

BERNSTEIN, SHUR, SAWYER AND NELSON

443 CONGRESS STREET
PORTLAND, MAINE

04111

ISRAEL BERNSTEIN (1890-1967)
BARNETT I. SHUR
LOUIS BERNSTEIN
SUMNER T. BERNSTEIN
HERBERT H. SAWYER
LEONARD M. NELSON
WILLIAM W. WILLARD
GEORGE M. SHUR
GREGORY A. TSELIKIS
F. PAUL FRINSKO

March 31, 1970

AREA CODE 207
TELEPHONE 774-6291

Mr. William Moody
Rufus Deering Company
383 Commercial Street
Portland, Maine

*17 Storer St.
Previously Storer - Now Waynflete*

Re: Property on Storer Street purchased from The John Mace Studio, Inc.

Dear Bill

As you know, Waynflete acquired title to the Mace property today. This letter will summarize the situation.

1. Pursuant to the sales agreement, Waynflete paid \$40,500 for the property, \$2,000 of which was paid down at the time the contract was signed.
2. At the closing today, the remaining \$38,500 was paid to the seller by the following method:-
 - (a) \$19,194.54 was paid by the assumption of the seller's first mortgage at the South Portland Loan and Building Association;
 - (b) \$12,805.46 was paid by an advance from the Canal National Bank;
 - (c) \$6,500 was paid by debit from your checking account at Canal.
3. The deed from The John Mace Studio, Inc. to The Waynflete School dated March 30, 1970 was delivered at the closing and recorded today in the Cumberland County Registry of Deeds.
4. The mortgage from Waynflete to the Canal National Bank covering this property was also recorded today at the Cumberland County Registry of Deeds. A note in favor of the Canal National Bank was also executed by you, as President of Waynflete. The note and mortgage are in the total face amount of \$32,000, a portion of which represents the first mortgage assumption of the South Portland Loan and Building Association mortgage and the balance represents the new money, i.e. \$12,805.46, advanced by Canal today.

BERNSTEIN, SHUR, SAWYER AND NELSON

to___ Mr. William Moody

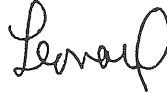
PAGE__2

In other words, the Canal's \$32,000 mortgage states a face amount in excess of the funds they actually advanced on your behalf. It was done in this manner so that Canal's mortgage would not be construed as a second mortgage from their point of view.

7. A photocopy of the deed and the note and the mortgage are enclosed with Frank Strout's copy of this letter.
8. Our title opinion is enclosed with all copies of this letter and our bill for legal services is enclosed with Frank Strout's copy of this letter. In paragraph 4 of said title opinion reference is made to a second mortgage on the premises held by Bella Finkelman and Sarah Goldberg. At the closing today proceeds from the sale were used to pay off the second mortgage balance and a discharge of said second mortgage was recorded just prior to the deed transfer to Waynflete.

Mrs. Sawyer at the Canal National Bank will be sending a typed closing sheet directly to the School.

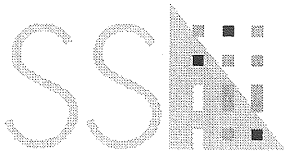
Sincerely yours,



Leonard M. Nelson

LMN:jmt

cc: Mr. Richard Marshall
Mr. Frank Strout
Mr. William Kirkpatrick



Scott Simons Architects

MEMO

15 Franklin St.
Portland, ME 04101

(207) 772-4656
(207) 828-4656 FAX
E MAIL: austin@simonsarchitects.com

Date: February 5, 2001
Project name/number: Waynflete Arts Center, SSA #00116.00
Re: Additional Information for Planning Board Workshop
From: Scott Simons
To: Deb Andrews and the Planning Board
Cc: H. Gulak, C. Beaven, A. Smith, Jobfile 3.1

Attached please find a copy of the Site Review Pre-application Form and the Construction Budget for the proposed Arts Center Addition at the Waynflete School. The School will be sending you copies of the Deeds directly.

As noted in the Site Plan Application, all parcels proposed to be developed are owned by The Waynflete School, 360 Spring Street, Portland, Maine 04102. The Construction Budget is estimated between \$4,014,000-4,554,000.00, as outlined on the attached budget summary sheets.

Please review this submittal at your earliest convenience and let me know if you need any additional information.

Thank you, Scott Simons

FEB - 5

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

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

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

The Waynflete School 02/05/01

Applicant Application Date

360 Spring Street, Portland 04102 Waynflete Arts Center

Applicant's Mailing Address Project Name/Description

Scott Simons Architects Storer Street, Portland

Consultant/Agent Address Of Proposed Site

207-772-4656

Applicant/Agent Daytime telephone and FAX Assessor's Reference, Chart#, Block Lot#

Proposed Development (Check all that apply) New Building Building Addition Change of Use Residential Office Retail

Manufacturing Warehouse/Distribution Other(Specify) _____

23,000 SF Addition / 9,000 SF Renovations TOTAL CAMPUS = 5.5 ACRES

Proposed Building Square Footage and /or # of Units Acreage of Site Zoning

PROJECT SITE = 0.8 ACRES R-4 Western Prom

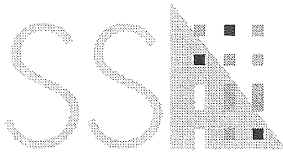
You must include the following with you application:
 A Copy of Your Deed or Purchase and Sale Agreement
 9 sets of Site Plan packages containing the information found in the attached sample plans and checklist.
 Section 14-522 of the Zoning Ordinance outlines the process, copies are available for review at the counter, photocopies are \$ 0.25 per page)

I hereby certify that I am the Owner of record of the named property, or that the proposed work is authorized by the owner of record and 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 jurisdiction. In addition, if an approval for the proposed project or use described in this application is issued, I certify that the Code official's authorized representative shall have the authority to enter all areas covered by this approval at any reasonable hour to enforce provisions of the codes applicable to this approval.

| | |
|--|-----------------------|
| Signature of applicant: <u>[Signature]</u> | Date: <u>02/05/01</u> |
|--|-----------------------|

Site Review Fee: Major \$500.00 Minor 400.00

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



Scott Simons Architects

15 Franklin St.
Portland, ME 04101

(207) 772-4656
(207) 828-4656 FAX
E MAIL: austin@simonsarchitects.com

Date: November 14, 2000
Project name/number: Waynflete Arts Center, SSA #00116.00
Re: Recommendation
From: Scott Simons
To: Board of Trustees
Cc: Committee Members, Jobfile 3.1

Recommendation

The Waynflete Arts Center

After careful consideration of the many options reviewed by the Building Committee, we would like to recommend Scheme #6, as revised for the November 13, 200 Committee Meeting, as the preferred design scheme. We feel it represents the best combination of all schemes considered, and offers the most cost effective solution for the new Arts Center project. Our recommendation includes reducing the size of the Auditorium from 325 to 275 seats, as agreed at the last Committee meeting.

Scheme #6, Revised: November 13, 2000

| | | |
|---|--------------------------|-----------------------------|
| •New Construction: | | |
| Classrooms, etc. | 19,500 SF @ \$135-150/SF | 2,632-2,925,000.00 |
| New Auditorium | 4,100 SF @ \$180-200/SF | 738- 840,000.00 |
| Sub-total | | \$3,360-3,765,000.00 |
| •Waldron Auditorium: | | |
| | 4,100 SF @ \$50/SF | 205,000.00 |
| Renovate for new Multi-purpose Room/Studios/Rehearsal Rooms | | |
| •Daveis Hall | | |
| | 8,980 SF @ \$50-65/SF | 449-584,000.00 |
| Renovate for classrooms | | |
| Total Estimated Construction Cost: | | \$4,014-4,554,000.00 |
| Total Estimated Project Cost: | | \$5,017-5,692,500.00 |

Phase One Recommendation

This phasing options is presented for your consideration. The goal was to achieve a phase of work during the summer of 2001 that would add a significant amount of program the space available in the arts complex for the study of performing and visual arts, while preserving as many options as possible for future Phases.

Phase One would include the addition of three studio/rehearsal spaces of approximately 1,000-1,200 SF each, as well as a new entrance, some sitework, and renovations to the back section of Daveis. We also recommend minor renovations to the auditorium, to fix the roof, insulate, and make it function better for theatrical productions. No additional seating is proposed with this Phase.

| | | | |
|---|---|---------------------|------------------|
| 1. | Build a three-story addition in the "L" of Daveis, with one large studio/classroom per floor: 4,320 SF @ \$135-150/SF | \$ 583,200- | 648,000 |
| 2. | Build the new entrance and gallery: 1,200 SF @ \$135-150/SF | \$ 162,000- | 180,000 |
| 3. | Reconfigure site around new entrance | \$ 30,000- | 50,000 |
| 4. | Renovate "L" of Daveis, all three floors: 3,000 SF @ \$50-65/SF: | \$ 150,000- | 195,000 |
| 5. | Minor renovations to Auditorium: 4,200 SF @ \$20-25/SF | \$ 84,000- | 105,000 |
| Total Estimated Construction Cost: | | \$1,009,200- | 1,178,000 |
| Total Estimated Project Cost: | | \$1,261,500- | 1,472,500 |

WAYNFLETE SCHOOL ARTS CENTER
Project Budget

11/14/00

| CATEGORY | | SCHEME #6 | Phase One | REMARKS |
|---|---------------------------------------|-------------------|------------------|-------------------|
| Part I: Construction | | | | |
| 1 | New Construction | 3,550,000 | 790,000 | |
| 2 | Renovation | 725,000 | 170,000 | |
| 3 | Asbestos Removal | | | |
| 4 | Site Development | INCLUDED | 40,000 | |
| 5 | Special Construction | | | |
| 6 | 5% Estimating contingency | 213,750 | 48,200 | |
| 7 | | Part I Subtotal | 4,488,750 | 1,048,200 |
| Part II: Administrative Cost & Reserve | | | | |
| 8 | Land | 0 | 0 | |
| 9 | Furniture, Fixtures & Equipment | 100,000 | 25,000 | Allowance |
| 10 | Advertising/Printing | 5,000 | 1,200 | Allowance |
| 11 | Insurance/Legal | 0 | 0 | |
| 12 | One Percent for Art | 0 | 0 | |
| 13 | Bid Contingency | 213,750 | 48,200 | 5% of Lines 1 & 2 |
| 14 | Construction Contingency | 213,750 | 48,200 | 5% of Lines 1 & 2 |
| 15 | | Part II Subtotal | 532,500 | 122,600 |
| Part III: Fees & Services | | | | |
| 16 | Architect/Engineer (New Construction) | 319,500 | 71,100 | 9% of Line 1 |
| 17 | Architect/Engineer (Renovation) | 65,250 | 15,300 | 9% of Line 2 |
| 18 | A/E Reimbursables | 5,000 | 1,500 | |
| 19 | Survey/Soils/Borings | 5,000 | 2,500 | |
| 20 | Materials Testing | 2,500 | 2,500 | |
| 21 | Life Cycle Cost Analysis | 0 | 0 | |
| 22 | Construction Clerk | 0 | 0 | |
| 23 | | Part III Subtotal | 397,250 | 92,900 |
| 24 | | | | |
| 25 | | Total Cost | 5,418,500 | 1,263,700 |

Scott Simons Architects

MEMO

15 Franklin St.
Portland, ME 04101

(207) 772-4656
(207) 828-4656 FAX
E MAIL: austin@simonsarchitects.com

Date: March 28, 2001
Project name/number: Waynflete Arts Center, SSA #00116.00
Re: Site Plan Application for Planning Board Workshop
From: Scott Simons
To: Sarah Hopkins, Planning Staff @ Portland City Hall
Cc: H. Gulak, Jobfile 3.1

Attached please find seven 11" x 17" copies of the site survey, revised site plan, floor plans, elevations, sections, and interior elevations for the proposed Arts Center Addition at the Waynflete School. We have organized the packages in two separate parts, Phase One and Phase Two, as discussed at our last workshop. Hopefully this will make it clearer for the Board members.

Also included are site photos of the existing buildings, a summary space program, a letter of financial capacity from the School and one from their bank, lot coverage calculations, and a revised drainage report including calculations, drainage analysis, and a stormwater management report of the Arts Center project prepared by Pinkham and Greer. From earlier submittals from our office you have copies of the deeds for The Waynflete School property and the School's letter to Marge Schmuckal re: parking requirements,

We will be meeting with you on May 8, 2001 to request approval for Phases One and Two of the Arts Center Project. The Arts Center Project includes a new auditorium, attached along the south edge of the existing Waldron Auditorium. The new auditorium has approximately 275 seats. The existing auditorium is renovated to provide much needed interior recreation (lower school gymnasium) space. Two small two story additions are planned along the south and east sides of the new auditorium, housing two large music and rehearsal spaces and music support spaces of various sizes, two large art studios, a theatrical set-building shop, and storage space.

The existing Daveis building is renovated to provide reconfigured classroom space and a ceramics studio in the basement. A one story addition is planned along the north side of the Daveis "L", housing the new entrance and gallery spaces.

Total new space: approximately 23,000 SF.

We appreciate your assistance and guidance during this stage of development, and look forward to a Successful collaboration throughout the remainder of the project.

Thank you.



Scott Simons Architects

15 Franklin St.
Portland, ME 04101

(207) 772-4656
(207) 828-4656 FAX
E MAIL: austin@simonsarchitects.com

MEMORANDUM

Date: March 28, 2001
Project name/number: Waynflete Arts Center, SSA # 00116.00
Re: Site Plan Review, Revised
From: Scott Simons
To: City of Portland Planning Department
Cc: Hymie Gulak, Business Manager
Chris Beaven, Chair of Building Committee
Jobfile

REVISED 04.26.01
APPLICATION FOR SITE PLAN REVIEW

In accordance with the City of Portland Land Use Code, Section 14-525, we are submitting the following information for your consideration, regarding the proposed addition and site improvements at the Waynflete School, 360 Spring Street, Portland, Maine.

1. *Description of proposed uses to be located on the site, including quantity and type of residential units, if any:*

- The existing school use is to remain. In accordance with the Wanfleete School Masterplan, as updated January, 2001, the School intends to undertake the building of the Arts Center Addition and Renovations to the existing Daveis Hall on Storer Street.
- The School proposes to add a 23,000 SF classroom, studio, gallery, and auditorium addition to the south edge of the existing 2 1/2 story brick Daveis Hall. The existing building and the adjacent Waldron Auditorium will undergo interior renovations. The project also includes site improvements around the new entrance, in the area known as the Sanctuary, as shown on the Site Plan, and landscaping along all edges of the proposed project.
- In order to build this addition it will be necessary to demolish an existing 600 SF single story masonry storage (garage) building at the edge of the Sanctuary, and a one story masonry shed addition along the edge of the existing Auditorium.
- There will be no change in the size of the School population or the use of the arts facilities as a result of this Project. All programs that will use this facility are existing.

- The project will be built in two phases. Phase one will include the renovation of the Daveis Building, the addition of the new entrance and gallery, the addition of three large classrooms in the "L" of Daveis Hall, and a new elevator making the entire facility accessible. Phase Two includes the new Auditorium, two art studios, two music rehearsal rooms, and various support spaces. In Phase Two, the School plans to expand the parking across the street, as shown on the Master Plan.

2. *Total land area of the site and the total floor area and ground coverage of each proposed building and structure:*

- The Waynflete School site is comprised of twelve classroom/administration buildings and five storage buildings (garages). The buildings are of various sizes and shapes, ranging from the one story wood frame garages of 600 SF to the three story brick Upper School building of approximately 30,000 SF.

- Total area of combined parcels = 244,239 SF

- Existing total lot coverage of combined parcels = 53,473 SF or 21.89%

- Proposed total lot coverage of combined parcels = 65,748 SF or 26.92%

NOTE: For existing and proposed site coverage calculations, see attached Lot Coverage Calculations, dated 04.06.01.

3. *General summary of existing and proposed easements or other burdens now existing or to be placed on the property:*

- There are no easements or burdens that we are aware of. See attached survey drawing.

4. *The types and estimated quantities of solid waste to be generated by the development:*

- There will be no change in use or occupant load.

Four toilets will be removed during the renovations; nine toilets will be built in the new additions, for a net gain of five toilets.

5. *Evidence of the availability of off-site facilities including sewer, water and streets:*

- The site is bordered on the south by Danforth Street and on the east by Storer Street.

- For sanitary waste in Phase One, a new 6" pvc sanitary line will connect to the existing 6" vitreous combined storm/sewer @ Storer Street. For Phase Two a new 8" pvc sanitary line will connect to the existing 14" combined sewer/storm line @ Danforth Street.

- For stormwater in Phase One, sheet drainage from the sanctuary area (to the north of the proposed addition) will be collected in a new catch basin and brought underground to a new catch basin in the middle of the field, then to the existing catch basin at the corner of Fletcher and Danforth Streets. Roof drainage will be collected with internal drains and taken underground to the new catch basin in the middle of the field, then to the catch basin @ Fletcher/Danforth. Sheet drainage from the field below the proposed addition will be collected in a drainage trench, as shown on drawing L-3.1, then into a new underground line to the Fletcher/Danforth catch basin.

For Phase Two, additional roof drainage will be taken to the trench drain and then onto to the existing Danforth Street combined sewer/storm line via the Fletcher/Danforth catch basin. The need to collect sheet drainage from that portion of the field will be eliminated when the second phase addition is built, freeing up the new storm lines, catch basins, and trench drain to handle the capacity of the new roof drains.

- Water service will continue from Storer Street and is adequate to service both domestic and fire protection needs for both Phases 1 and 2.

- Electrical service is currently provided overhead from Storer Street. Proposed new service to be three phase and run overhead from existing pole on Spring Street to a pad mounted transformer across Storer Street from Daveis Hall, then underground into the basement of Daveis Hall.

- Existing gas service from Fletcher Street into basement of Founders Hall will be extended into the basement of Daveis Hall, where two new gas boilers will service the existing building and new additions.

6. *A narrative describing the existing surface drainage on the site and a stormwater management plan indicating measures which will be taken to control surface water runoff:*
- Existing drainage pattern of the entire parcel is surface to street curbs.
 - New site and roof drainage is as described in the attached civil engineering report prepared by Stephen Stearns from Pinkham and Greer, and as shown on the Site Drawings, also attached..

7. *A construction plan outlining the anticipated sequence of construction of the major aspect of the proposed project, including without limitation roads, retention basins, sewer lines, seeding and other erosion control measures, and pollutant abatement measures, and also setting forth the approximate dates for commencement and completion of the project:*

Phase One:

- Demolition of 600 SF single story garage and shed addition along edge of Auditorium. One month, June 2001.

- Construction of renovations to Daveis Hall, including all new electrical service and wiring, new heating plant for Phases One and Two (installed in basement), new sprinkler system as required by governing codes, various partitions changes as shown on the plans, and upgrade of interior finishes. Six months, July through December, 2001.

- Construction of a 4,200 SF addition in the "L" of the existing Daveis Hall, and a 1,200 SF entry and gallery addition along the north side of the Daveis "L". Six months, concurrent with renovations to Daveis Hall, July to December 2001.

- School to remain in operation throughout construction. Electrical, mechanical, and plumbing connectors for Phase Two to be stubbed off at west elevation of Phase One. Staging area of approx. 5,000 sf will be provided to south of construction site (same location as existing construction staging area), with access from Storer Street. All construction areas to be enclosed by temporary fencing. Six to seven months, July to January or February 2002.

- Sitework and landscaping improvements around entire Phase One addition, including plaza at new entrance.

Phase Two:

- Construction of a 5,000 SF one story Auditorium addition, and a 12,000 SF Music Rehearsal and Art Studio addition, as shown on the floor plans. Ten months, starting summer of 2002, or as funds become available.

- Sitework and landscaping improvements around entire Phase Two addition, including landscaping at new side entrance off Storer Street. Summer of 2003, after completion of the building additions.

- Construction of a new 24 car parking lot across Storer Street from new Arts Center Additions, as shown on Site Plan. Removal of existing 14 car parking lot along north edge of Upper School Quadrangle (just east of Storer Street) and re-landscaping of same. Summer of 2003, after completion of the building additions.

- Construction site to be accessed from Storer Street with staging area at new parking area across the street to the east.

8. *List all state and federal regulatory approvals to which the development may be subject, the status of any pending applications, and the anticipated time frame for obtaining such permits or that a determination of no jurisdiction from the agency will be requested:*
 - An initial review has been conducted by the State Fire Marshall's Office in Augusta. Due to the scope of the work the Fire Marshall's office will also certify compliance with the Americans' with Disabilities Act (ADA) A final review will be necessary by the SFM. Final approval will be received in May, 2001.
 - A building permit will be required from the City of Portland. Plans must also be reviewed by the Portland Fire Department for life safety issues. These will be done in late May or early June of 2001.

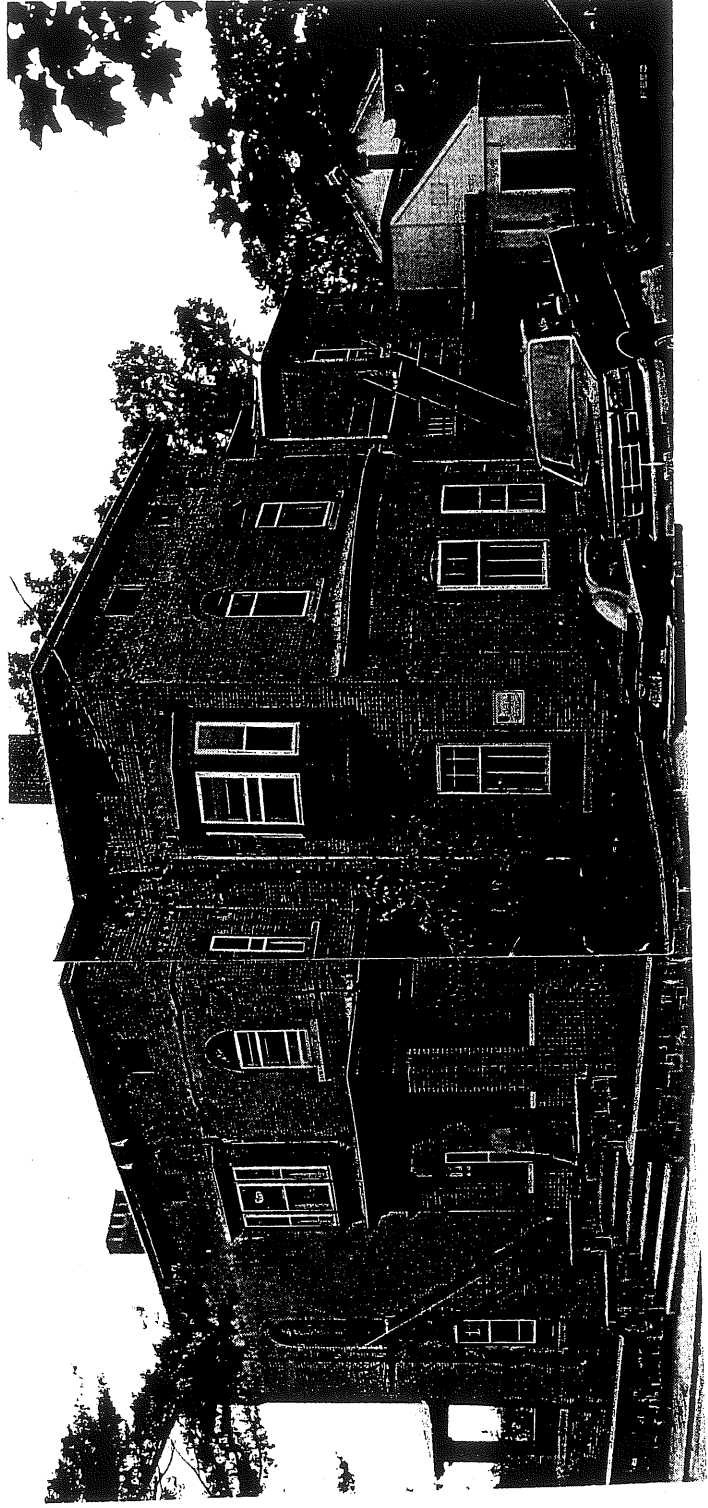
9. *Evidence of financial and technical capacity to undertake and complete the development including, but not limited to, a letter from a responsible financial institution stating that it has reviewed the planned development and would seriously consider financing it when approved, if requested to do so:*
 - See attached letter from the Waynflete School.

10. *Evidence of the applicant's title, right, or interest in the property, including without limitation deeds, leases, purchase options or any other documentation:*
 - See enclosed plot plan and deeds.

11. *A narrative describing any unusual natural areas, wildlife and fishery habitats, or archaeological sites located on or near the project site and a description of the methods that will be used to protect such areas or sites:*
 - The School is located in an urban area. The buildings have existed in their current form for many years (recorded on tax documents of 1951). There are no unusual natural areas, wildlife and fishery habitats, or archaeological sites on or near the proposed building additions and parking area

00116.00/04.26.01

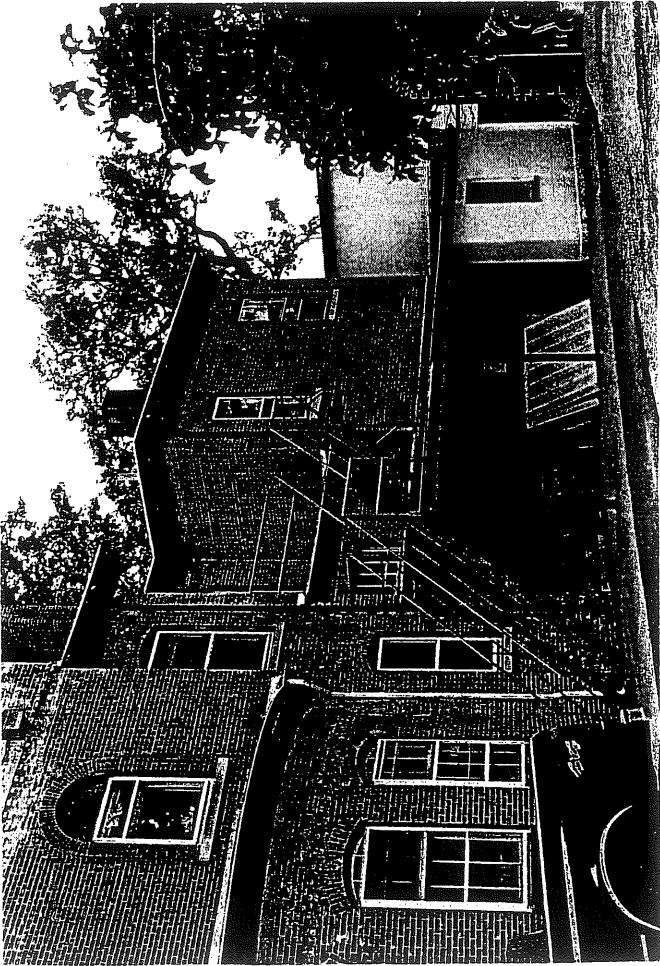
SITE PHOTOS



The Waynflete School

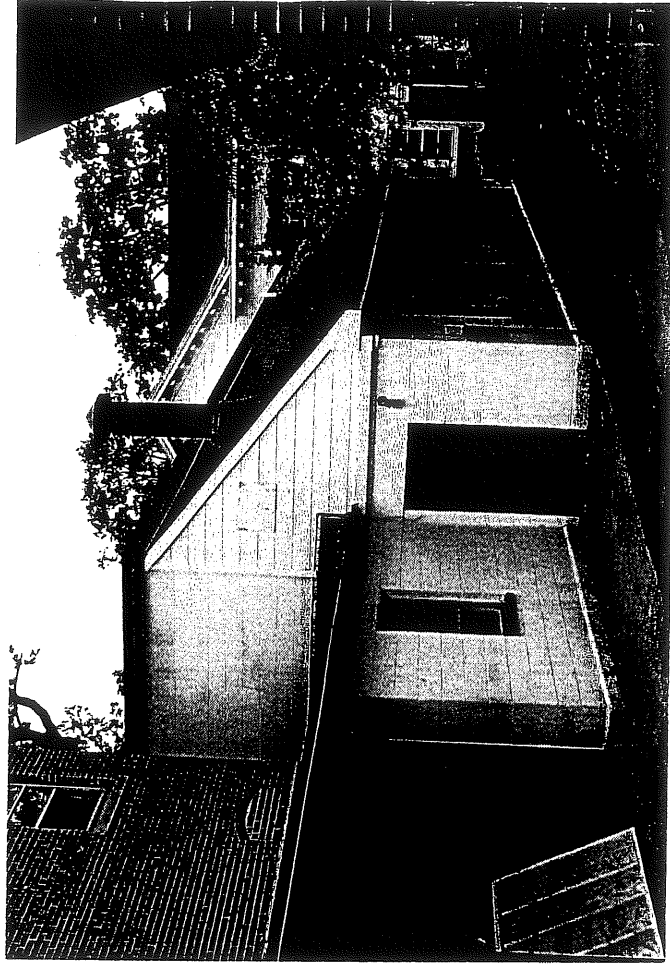
360 Spring Street, Portland, Maine

View of Davels Hall along Stover Street



The Waynflete School

360 Spring Street, Portland, Maine



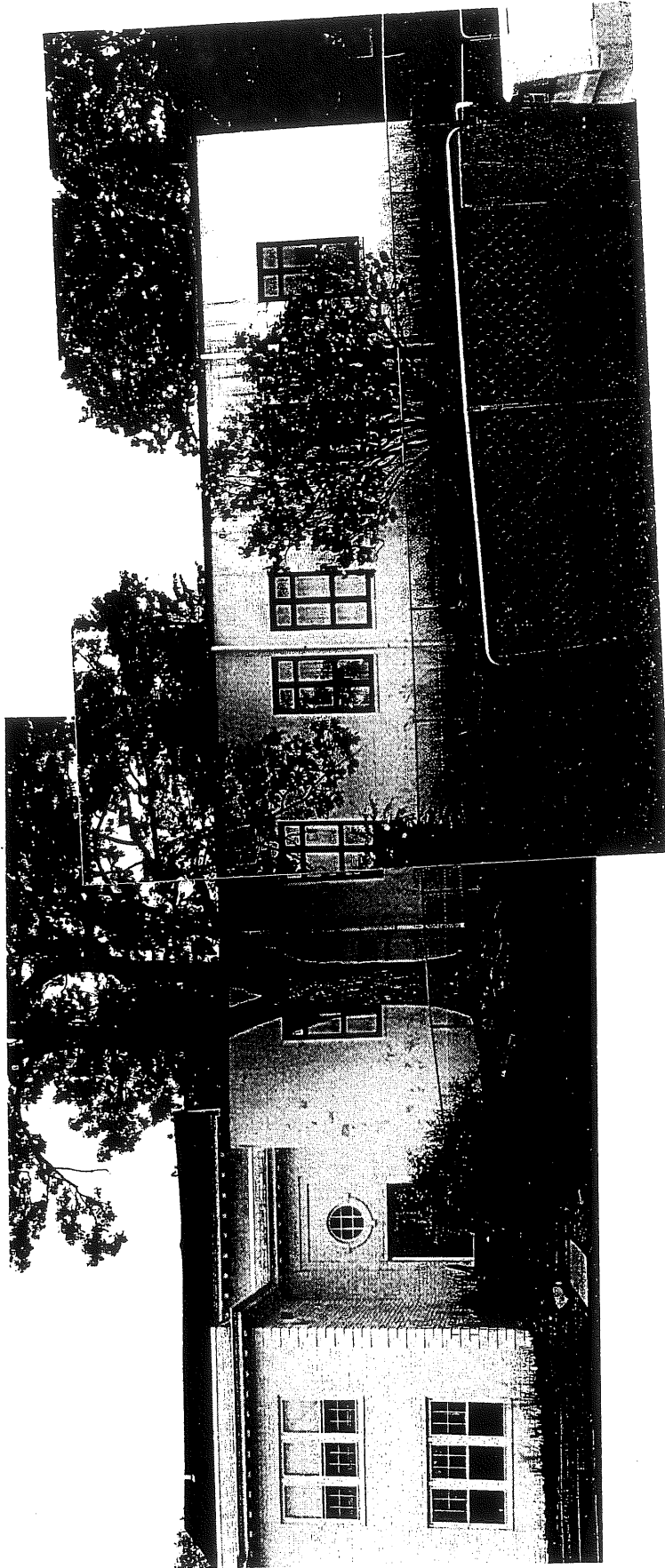
View of Waldron Auditorium, North Entrance



The Waynflete School

360 Spring Street, Portland, Maine

View of Daveis Hall from Danforth Street



The Waynflete School

360 Spring Street, Portland, Maine

View of Waldron Auditorium from Danforth Street

SPACE PROGRAM

Waynflete Arts Center

Preliminary Space Program: Revised 07.26.00

General Public Spaces

| | | |
|---------------------|------------------------------------|----------|
| Lobby | Direct access to Auditorium | 1,000 sf |
| | | |
| Gallery | Safe for/from kids | 600 sf |
| | Storage space for display fixtures | 80 sf |
| | | |
| Public Restrooms | Direct access to Lobby | 400 sf |
| | | |
| Departmental Office | Central to Arts Center | 250 sf |

Performing Arts

| | | | |
|--------------|----------------------------|----------------------------|-----------------------|
| THEATRE | Auditorium | More seating | 2,200 sf <i>addl.</i> |
| | | Real Stage | (4,000 sf total) |
| | | Side & back wing space | |
| | | Light booth access | |
| | | Follow spot platform | |
| | | | |
| | Light/Sound Booth | | 100 sf |
| | | | |
| | Green Room | Near stage | 400 sf |
| | | Temp costume closet | 32 sf |
| | | Two changing rooms | 80 sf |
| | | Bathroom | 50 sf |
| | | | |
| | Wood Shop | Near Stage | 600 sf |
| | | Big sink | |
| | Wash area | | |
| | | | |
| Storage | High ceiling | 1,000 sf | |
| | Projects in progress | | |
| | Old sets and flats | | |
| | Furniture | | |
| | | | |
| BAND ROOM | Large Rehearsal Space | Grades 6-12 | 2,400 sf |
| | | 40 x 60 x 10 | |
| | | Live Sound | |
| | | Direct access to backstage | |
| | Glass Office | Internet/phone | 120 sf |
| Large Closet | | 400 sf | |
| | | | |
| STEEL BAND | Medium Rehearsal Space | Grades 6-12 | 800 sf |
| | | Dead Sound | |
| | | Auditorium floor level | |
| | | Open onto audience space | |
| | | | |
| CHORUS | Large Rehearsal Space | Grades 4-12 | 1,225 sf |
| | | 35x35x10 | |
| | | Live Sound | |
| | | | |
| | Medium Rehearsal/Classroom | same size as stage | 768 sf |

| | | | |
|-----------------------|---------------------------|-------------------------------------|----------|
| CHORUS, cont. | Large Closet | | 80 sf |
| | Glass Office | | 120 sf |
| DRAMA | Classroom | | 600 sf |
| | | | |
| DANCE | Large Rehearsal Space | wood floor (or new tech) mirrors | 1,200 sf |
| | | | |
| | Office, bathroom, storage | | 250 sf |
| | | | |
| PRACTICE/LESSON ROOMS | 5-7 Rehearsal Rooms | (60 sf each) | 880 sf |
| | | 2 @ 80 sf | |
| | | 2 @ 100 sf | |
| | | 2 @ 160 sf | |
| | | 1 @ 200 sf | |
| L.S. MUSIC | Medium Rehearsal Space | Grades EC-5 | 600 sf |
| | | Built in risers | |
| | | Dead Sound | |
| | | Near L.S. | |
| | | Lockable Shelving | 12 sf |

Visual Arts

| | | | |
|------------------------|--------------------------|-----------------------------|----------------------|
| STUDIOS | Three Large Studios | Vented; 35 x 35 each | 3,675 sf |
| | | Spray booth in 1 studio | |
| | | More glass | |
| | Computer Room | Equipment | 150 sf |
| | Painting/Printmaking | | combined w/ press rm |
| PRESS ROOM/PRINTMAKING | Printing Press Space | Access from all studios | 300 sf |
| 3-D STUDIO | Sculpture Studio Space | | 600 sf |
| WOODWORKING | Woodworking Studio Space | Share with PA ? | 600 sf |
| CERAMICS | Ceramics Studio Space | Near kiln room | 800 sf |
| | Kiln Room | | 200 sf |
| PHOTOGRAPHY | Dark Room Space | Equipment | 150 sf |
| OTHER | Office | | 120 sf |
| | General Art Storage | | 200 sf |
| | | | |
| | Repairs | Fix basement flooding | |
| | | Boiler needs to be replaced | |


FINANCIAL CAPACITY



Waynflete

Waynflete School
360 Spring Street
Portland, Maine 04102
207.774.5721
Fax 207.772.4782

TO: Planning Board, City of Portland

FR: Hymie Gulak, Director of Finance and Operations 

DT: March 13, 2001

RE: Financing for proposed renovations and expansion of the Art's facilities

Waynflete School has been conducting a Capital Campaign to fund construction of its proposed improvements to its campus for the past two years. To date, we have completed improvements to our middle school, built a new Science Wing for the Upper School and will complete the renovations to the Upper School by June of this year.

Waynflete currently has sufficient funds on hand to complete construction of Phase One of the Arts Center. During the construction of Phase One the Capital Campaign will continue and phase two will begin when sufficient funds are raised and /or the School obtains financing to complete the work.



Peoples Heritage Bank, N.A.

One Portland Square
P.O. Box 9540
Portland, ME 04112-9540

1-800-462-3666
Tel: 207-761-8500



April 24, 2001

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

RE: Waynflete School – Arts Center Renovation and Construction

To Whom It May Concern:

As requested by Hymie Gulak of The Waynflete School, I am writing to you to provide a letter of recommendation on behalf of the Waynflete School to support the proposed renovation and construction of Waynflete's Arts Center.

The Waynflete School has been a valued customer of Peoples Heritage Bank since 1996. Waynflete brings substantial financial strength to the proposed project and has ample ability to fund the project. Further, the school has a talented and dedicated administrative staff to oversee development of the project in a timely and cost-effective manner.

In summary, I am confident in Waynflete's ability to fulfill all requirements to successfully complete development of the project.

Please do not hesitate to contact me at 761-8787 if you have any further questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "Mark V. Stasium".

Mark V. Stasium
Vice President

LOT COVERAGE CALCULATIONS



Scott Simons Architects

MEMO

15 Franklin St.
Portland, ME 04101

(207) 772-4656
(207) 828-4656 FAX
E MAIL: austin@simonsarchitects.com

Date: April 6, 2001
 Project name/number: Waynflete Arts Center, SSA #00116.04
 Re: Lot Coverage Calculations
 From: Scott Simons
 To: Sarah Hopkins @ City Planning Office
 Cc: Marge Schmuckal, Hymie Gulak , Austin Smith, Jobfile 3.1

The Waynflete Arts Center
 Lot Coverage Calculations

| <u>West Parcel</u> | <u>Existing SF</u> | <u>Proposed Phase One</u> | <u>Proposed Phase Two</u> |
|---------------------------------------|--------------------|---------------------------|---------------------------|
| 156,374 SF | 35,690 SF | + 860 SF | +10,975 SF |
| <u>East Parcel</u> | <u>Existing SF</u> | <u>Proposed Phase One</u> | <u>Proposed Phase Two</u> |
| 87,865 SF | 17,783 SF | + 440 SF | + 0 SF |
| <u>Combined Parcels</u> | <u>Existing SF</u> | <u>Proposed Phase One</u> | <u>Proposed Phase Two</u> |
| 244,239 SF | 53,473 SF | +1,300 SF | +10,975 SF |
| <u>% Lot Coverage</u> | <u>Existing SF</u> | <u>Proposed Phase One</u> | <u>Proposed Phase Two</u> |
| | 21.89% | 22.43% | 26.92% |
| <u>% Increase in Lot Coverage</u> | <u>Existing SF</u> | <u>Proposed Phase One</u> | <u>Proposed Phase Two</u> |
| | | 0.54% | 4.49% |

DRAINAGE CALCULATIONS



DRAINAGE ANALYSIS AND STORMWATER MANAGEMENT REPORT

WAYNFLETE ARTS CENTER
PHASE 2
April 9, 2001

SITE DESCRIPTION:

The site is located on the Waynflete School campus on the North side of Danforth Street between Storer and Fletcher Streets. It is a pretty setting with a mix of old buildings, lawns, trees and walkways. Spring Street is the northern boundary of the property.

TOPOGRAPHY, SOILS AND GROUND COVER:

The topography of the site is gently sloping from north to south. Spring Street, which runs along the north side of the parcel, is the high ground and intercepts stormwater runoff from areas that drain to it from the north. Little, if any, runoff from offsite drains onto and across the property.

A series of borings taken in the playfield between Danforth Street and Davies Hall and within 120' of Storer Street indicate that there are a few inches of topsoil over 3 to 5 feet of brown silty sand fill over dense till. For the purpose of this analysis I considered this "Made Land" belonging to hydrologic soil group C.

Ground cover is either impervious or lawn. Ground that isn't covered with buildings, bituminous pavement, stone or concrete is maintained as lawn or planting beds.

COMPUTER MODELING:

The site was modeled using the computer software HydroCad by Applied Microcomputer Systems of Chocura, NH. The software is based primarily on hydrology techniques developed by the Soil Conservation Service (SCS TR-20) combined with standard hydraulic calculations for pipes and reservoirs. The program is one of the proprietary programs listed in Appendix C of the DEP publication "STORMWATER MANAGEMENT FOR MAINE: BEST MANAGEMENT PRACTICES" November 1995 and is in common usage by engineers in this area to model stormwater runoff from areas of this size and nature.

Precipitation values and roughness coefficients of pipe and the gutters along streets are given in Appendix A of the report dated March 26, 2001. The existing condition model was expanded as described in Appendix B this date and as shown on the drainage drawings. Modeling assumptions for this project are given in the HydroCad summary sheets for the 25-year rainfall event attached as Appendix D. As with the March 26, 2001 report, results for runs of the models for the more frequent 10-year and 2-year storms are given in tabular form in the appropriate appendix.

The point of analysis (P.O.A.) for the purpose of comparing pre and post development runoff rates for the storm events modeled was the catch basin on Danforth Street at the junction of Fletcher Street. The model ignores other areas that drain to this point that will not be impacted by this project.

RESULTS:

The proposed construction of the Arts Center and new parking lot on the east side of Storer Street will increase the peak rate of runoff onto Danforth Street unless stormwater is captured and detained. By constructing a shallow basin on the playfield along Danforth Street and a subsurface "detention tank" south and west of the Arts Center enough runoff can be captured to maintain the peak rate of discharge to Danforth Street at or below existing condition peaks. A "drainage trench" that will function as an underdrain will control the rate of discharge from the shallow basin in the field and a 4-inch orifice will regulate discharge from the "detention tank".

The drainage trench will be lined with a filter fabric and filled with gravel that will be blended to provide permeability within the range 70 inches/hour to 100 inches/hour. Permeability of the gravel in the drainage trench must be within the

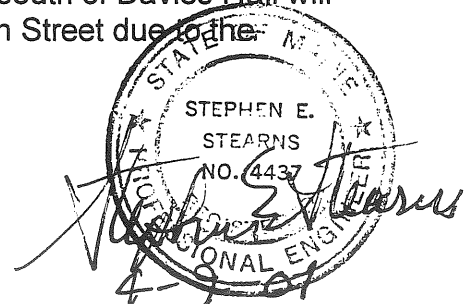
range specified. Permeability greater than 100 inches/hour will deliver water too quickly to the catch basin on Danforth Street and increase the peak rate above the existing condition peak. With a permeability of less than 70 inches/hour water will overtop the detention basin and continue to spill over the stone wall and onto Danforth Street. The drainage trench allows the detention basin to empty between storms. The drainage trench will include an 8 inch perforated pipe that will collect water that percolates through the gravel media. A solid pipe will connect the drainage trench to the catch basin at the corner of Danforth & Fletcher Streets through DMH #1 that will be constructed in phase 1.

The “detention tank” consists of 300 feet of 36-inch diameter pipe and two 6-foot diameter structures. At the west end of this pipe manifold a 6 foot diameter manhole will house the 4-inch orifice that will regulate the rate of discharge and direct stormwater to drain manhole #2 that will be constructed in phase 1. At the east end of the pipe manifold a catch basin (CB) will collect surface runoff from the paved strip at the south end of the Arts Center and the sloped roof, walks and landscaped areas along the Storer Street side of the building. This CB will also receive runoff from the new parking lot and direct it to the “detention tank”. Drains for the flat roofs of the Arts Center will also be connected to the “detention tank”.

| Waynflete Arts Center – April 9, 2001 | | | |
|--|-------------------------|------|------|
| Table 1a – Peak Rate of Runoff at P.O.A. (CFS) | | | |
| | Storm Frequency (Years) | | |
| | 25 | 10 | 2 |
| Existing condition | 8.28 | 6.73 | 3.62 |
| Proposed condition | | | |
| Permeability 70 "/hr | 7.91 | 6.32 | 3.60 |
| Permeability 100"/hr | 8.24 | 6.61 | 3.60 |

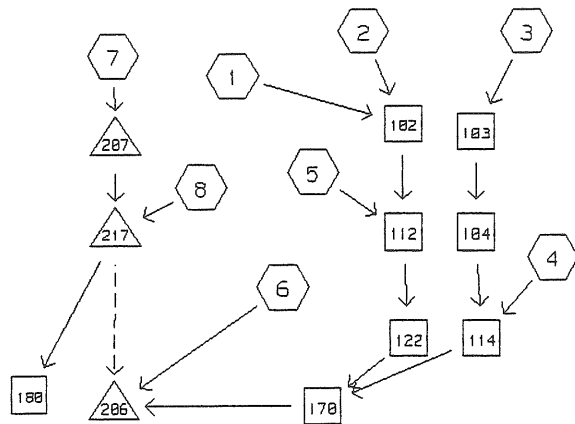
CONCLUSIONS:

Construction of the Arts Center and the new parking lot off Storer Street as proposed will have no adverse impact on downstream drainage facilities with stormwater management facilities constructed as designed. The proposed detention basin to be constructed in and on the playfield south of Davies Hall will mitigate increases in the peak rate of runoff onto Danforth Street due to the proposed improvements.



APPENDIX B
EXISTING CONDITION
EXPANDED 4-9-01

WATERSHED ROUTING =====



P.O.A. - Point of Analysis



| | | | |
|----------------|---|----|-----------|
| SUBCATCHMENT 1 | = AREA DRAINING TO THE SANCTUARY | -> | REACH 102 |
| SUBCATCHMENT 2 | = NE CORNER OF BLOCK | -> | REACH 102 |
| SUBCATCHMENT 3 | = AREA EAST SIDE STORER @ SPRING | -> | REACH 103 |
| SUBCATCHMENT 4 | = AREA BTWN STORER & LIBRARY | -> | REACH 114 |
| SUBCATCHMENT 5 | = ENTRANCES ALONG STORER ST. | -> | REACH 112 |
| SUBCATCHMENT 6 | = LAWN/FIELD AREA SOUTH OF SCHOOL | -> | POND 206 |
| SUBCATCHMENT 7 | = AREA BTWN THOMAS & DAVIES HALLS & GYM | -> | POND 207 |
| SUBCATCHMENT 8 | = ROOF OF FOUNDERS HALL | -> | POND 217 |
| REACH 102 | = GUTTER ALONG WEST SIDE STORER ST. | -> | REACH 112 |
| REACH 103 | = GUTTER EAST SIDE STORER ST. | -> | REACH 104 |
| REACH 104 | = GUTTER EAST SIDE STORER ST. | -> | REACH 114 |
| REACH 112 | = GUTTER WEST SIDE STORER ST. | -> | REACH 122 |
| REACH 114 | = GUTTER EAST SIDE STORER ST. | -> | REACH 170 |
| REACH 122 | = GUTTER WEST SIDE STORER ST. | -> | REACH 170 |
| REACH 170 | = GUTTER ALONG N SIDE DANFORTH | -> | POND 206 |

Data for 01126, WYNFLT ARTS CNTR, EX CND, SES, 4-10-01
TYPE III 24-HOUR RAINFALL= 5.50 IN, 25-YR STORM

Page 2

Prepared by PINKHAM & GREER

10 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

| | | | |
|--------------------|---------------------------------------|----|-----------|
| REACH 180 | = EXISTING COMBINED SEWER IN DANFORTH | -> | |
| POND 206 | = CB AT FLTCHR & DNFERTH | -> | |
| POND 207 | = CB W1 | -> | POND 217 |
| POND 217 | = BURIED TANK SW OF FOUNDERS HALL | -> | REACH 180 |
| POND 217 secondary | = BURIED TANK SW OF FOUNDERS HALL | -> | POND 206 |

SUBCATCHMENT 1 AREA DRAINING TO THE SANCTUARY

PEAK= 1.74 CFS @ 12.13 HRS, VOLUME= .15 AF

| ACRES | CN | | SCS TR-20 METHOD |
|-------|----|-----------------------|----------------------------|
| .15 | 74 | LAWN, GOOD CND, HSG C | TYPE III 24-HOUR |
| .09 | 98 | BLDGS | RAINFALL= 5.50 IN |
| .22 | 98 | PVMNT | SPAN= 10-20 HRS, dt=.1 HRS |
| .46 | 90 | | |

| Method | Comment | Tc (min) |
|------------------|--------------------------------|----------|
| TR-55 SHEET FLOW | ACROSS SANCTUARY | 13.4 |
| Grass: Short | n=.15 L=100' P2=3 in s=.01 '/' | |

SUBCATCHMENT 2 NE CORNER OF BLOCK

PEAK= 1.20 CFS @ 12.03 HRS, VOLUME= .09 AF

| ACRES | CN | | SCS TR-20 METHOD |
|-------|----|-------------------------------|----------------------------|
| .05 | 74 | LAWN, GOOD CND, HSG C (GUESS) | TYPE III 24-HOUR |
| .04 | 98 | BLDGS | RAINFALL= 5.50 IN |
| .17 | 98 | PVMNT | SPAN= 10-20 HRS, dt=.1 HRS |
| .26 | 93 | | |

| Method | Comment | Tc (min) |
|--------------|--------------------|----------|
| DIRECT ENTRY | EAST TO STORER ST. | 6.0 |

SUBCATCHMENT 3 AREA EAST SIDE STORER @ SPRING

PEAK= 1.98 CFS @ 12.03 HRS, VOLUME= .14 AF

| ACRES | CN | | SCS TR-20 METHOD |
|-------|----|-------|----------------------------|
| .12 | 98 | BLDGS | TYPE III 24-HOUR |
| .29 | 98 | PVMNT | RAINFALL= 5.50 IN |
| .41 | 98 | | SPAN= 10-20 HRS, dt=.1 HRS |

| Method | Comment | Tc (min) |
|--------------|---------------------|----------|
| DIRECT ENTRY | TO SW TO STORER ST. | 6.0 |

SUBCATCHMENT 4 AREA BTWN STORER & LIBRARY

PEAK= 1.18 CFS @ 12.04 HRS, VOLUME= .09 AF

| ACRES | CN | | SCS TR-20 METHOD |
|-------|----|-----------------------|----------------------------|
| .24 | 74 | LAWN, GOOD CND, HSG C | TYPE III 24-HOUR |
| .09 | 98 | PVMNT | RAINFALL= 5.50 IN |
| .33 | 81 | | SPAN= 10-20 HRS, dt=.1 HRS |

| Method | Comment | Tc (min) |
|--------------|------------------------|----------|
| DIRECT ENTRY | TO SOUTH TO STORER ST. | 6.0 |

SUBCATCHMENT 5 ENTRANCES ALONG STORER ST.

PEAK= .82 CFS @ 12.03 HRS, VOLUME= .06 AF

| | | | |
|--------------|-----------|-------|----------------------------|
| <u>ACRES</u> | <u>CN</u> | | SCS TR-20 METHOD |
| .04 | 98 | BLDGS | TYPE III 24-HOUR |
| .13 | 98 | PVMNT | RAINFALL= 5.50 IN |
| .17 | 98 | | SPAN= 10-20 HRS, dt=.1 HRS |

| <u>Method</u> | <u>Comment</u> | <u>Tc (min)</u> |
|---------------|----------------|-----------------|
| DIRECT ENTRY | TO STORER ST. | 6.0 |

SUBCATCHMENT 6 LAWN/FIELD AREA SOUTH OF SCHOOL

PEAK= 2.66 CFS @ 12.04 HRS, VOLUME= .20 AF

| | | | |
|--------------|-----------|-----------------------|----------------------------|
| <u>ACRES</u> | <u>CN</u> | | SCS TR-20 METHOD |
| .72 | 74 | LAWN, GOOD CND, HSG C | TYPE III 24-HOUR |
| .12 | 98 | BLDGS | RAINFALL= 5.50 IN |
| .84 | 77 | | SPAN= 10-20 HRS, dt=.1 HRS |

| <u>Method</u> | <u>Comment</u> | <u>Tc (min)</u> |
|---------------|------------------------------|-----------------|
| DIRECT ENTRY | TO SOUTH TOWARD DANFORTH ST. | 6.0 |

SUBCATCHMENT 7 AREA BTWN THOMAS & DAVIES HALLS & GYM

PEAK= 4.34 CFS @ 12.01 HRS, VOLUME= .29 AF

| | | | |
|--------------|-----------|------------------------|----------------------------|
| <u>SQ-FT</u> | <u>CN</u> | | SCS TR-20 METHOD |
| 2643.00 | 98 | DAVIES HALL | TYPE III 24-HOUR |
| 1536.00 | 98 | THOMAS HALL | RAINFALL= 5.50 IN |
| 7654.00 | 98 | GYMNASIUM | SPAN= 10-20 HRS, dt=.1 HRS |
| 6403.00 | 98 | WALKS, STEPS & DECK | |
| 8716.00 | 98 | PRKNG LT & DRIVES | |
| 3027.00 | 98 | WOODCHIP PLAYGROUNDS | |
| 8248.00 | 74 | LAWN, GOOD COND, HSG C | |
| 38227.00 | 93 | | |

| <u>Method</u> | <u>Comment</u> | <u>Tc (min)</u> |
|--|-------------------------------|-----------------|
| TR-55 SHEET FLOW | TO SE OFF LAWN OF THOMAS HALL | 3.7 |
| Grass: Short n=.15 L=40' P2=3 in s=.0406 '/' | | |
| SHALLOW CONCENTRATED/UPLAND FLOW | TO SOUTH ACROSS PRKNG LT | .7 |
| Paved Kv=20.3282 L=135' s=.0278 '/' V=3.39 fps | | |
| CIRCULAR CHANNEL | PIPE CB W2 TO CB WI | .2 |
| 8" Diameter a=.35 sq-ft Pw=2.1' r=.167' | | |
| s=.0369 '/' n=.01 V=8.64 fps L=110' Capacity=3 cfs | | |

Total Length= 285 ft Total Tc= 4.6

Data for 01126, WYNFLT ARTS CNTR, EX CND, SES, 4-10-01
TYPE III 24-HOUR RAINFALL= 5.50 IN, 25-YR STORM
Prepared by PINKHAM & GREER
HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

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10 Apr 01

SUBCATCHMENT 8 ROOF OF FOUNDERS HALL

PEAK= .41 CFS @ 12.03 HRS, VOLUME= .03 AF

| <u>SO-FT</u> | <u>CN</u> | |
|--------------|-----------|------|
| 3660.00 | 98 | ROOF |

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

| <u>Method</u> | <u>Comment</u> | <u>Tc (min)</u> |
|---------------|----------------------------|-----------------|
| DIRECT ENTRY | ACROSS ROOF TO ROOF DRAINS | 6.0 |

REACH 102 GUTTER ALONG WEST SIDE STORER ST.

Q_{in} = 2.73 CFS @ 12.09 HRS, VOLUME= .23 AF
 Q_{out}= 2.69 CFS @ 12.10 HRS, VOLUME= .23 AF, ATTEN= 2%, LAG= .3 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 0' x .5' CHANNEL S/S= .02 & .4 '/' n= .016 LENGTH= 70 FT SLOPE= .0375 FT/FT | STOR-IND+TRANS METHOD PEAK DEPTH= .17 FT PEAK VELOCITY= 3.6 FPS TRAVEL TIME = .3 MIN SPAN= 10-20 HRS, dt=.1 HRS 2 x FINER ROUTING |
|---------------|---------------------|----------------|---|--|
| 0.00 | 0.00 | 0.00 | | |
| .05 | .07 | .10 | | |
| .10 | .26 | .64 | | |
| .15 | .59 | 1.88 | | |
| .22 | 1.21 | 4.92 | | |
| .30 | 2.36 | 11.96 | | |
| .40 | 4.20 | 25.77 | | |
| .50 | 6.56 | 46.72 | | |

REACH 103 GUTTER EAST SIDE STORER ST.

Q_{in} = 1.98 CFS @ 12.03 HRS, VOLUME= .14 AF
 Q_{out}= 1.87 CFS @ 12.05 HRS, VOLUME= .14 AF, ATTEN= 6%, LAG= 1.6 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 0' x .3' CHANNEL S/S= 0 & .02 '/' n= .016 LENGTH= 107 FT SLOPE= .0327 FT/FT | STOR-IND+TRANS METHOD PEAK DEPTH= .15 FT PEAK VELOCITY= 3.1 FPS TRAVEL TIME = .6 MIN SPAN= 10-20 HRS, dt=.1 HRS |
|---------------|---------------------|----------------|---|---|
| 0.00 | 0.00 | 0.00 | | |
| .03 | .02 | .02 | | |
| .06 | .09 | .14 | | |
| .09 | .20 | .42 | | |
| .13 | .42 | 1.11 | | |
| .18 | .81 | 2.70 | | |
| .24 | 1.44 | 5.81 | | |
| .30 | 2.25 | 10.53 | | |

REACH 104 GUTTER EAST SIDE STORER ST.

Q_{in} = 1.87 CFS @ 12.05 HRS, VOLUME= .14 AF
 Q_{out}= 1.87 CFS @ 12.07 HRS, VOLUME= .14 AF, ATTEN= 0%, LAG= .8 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 0' x .3' CHANNEL S/S= 0 & .02 '/' n= .016 LENGTH= 75 FT SLOPE= .0779 FT/FT | STOR-IND+TRANS METHOD PEAK DEPTH= .13 FT PEAK VELOCITY= 4.2 FPS TRAVEL TIME = .3 MIN SPAN= 10-20 HRS, dt=.1 HRS |
|---------------|---------------------|----------------|--|---|
| 0.00 | 0.00 | 0.00 | | |
| .03 | .02 | .04 | | |
| .06 | .09 | .22 | | |
| .09 | .20 | .66 | | |
| .13 | .42 | 1.71 | | |
| .18 | .81 | 4.16 | | |
| .24 | 1.44 | 8.96 | | |
| .30 | 2.25 | 16.25 | | |

REACH 112 GUTTER WEST SIDE STORER ST.

Qin = 3.40 CFS @ 12.08 HRS, VOLUME= .29 AF
 Qout= 3.40 CFS @ 12.09 HRS, VOLUME= .29 AF, ATTEN= 0%, LAG= .5 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 0' x .3' CHANNEL S/S= .02 & 0 '/' n= .016 LENGTH= 75 FT SLOPE= .0779 FT/FT | STOR-IND+TRANS METHOD PEAK DEPTH= .16 FT PEAK VELOCITY= 4.9 FPS TRAVEL TIME = .3 MIN SPAN= 10-20 HRS, dt=.1 HRS |
|---------------|---------------------|----------------|--|---|
| 0.00 | 0.00 | 0.00 | | |
| .03 | .02 | .04 | | |
| .06 | .09 | .22 | | |
| .09 | .20 | .66 | | |
| .13 | .42 | 1.71 | | |
| .18 | .81 | 4.16 | | |
| .24 | 1.44 | 8.96 | | |
| .30 | 2.25 | 16.25 | | |

REACH 114 GUTTER EAST SIDE STORER ST.

Qin = 2.98 CFS @ 12.06 HRS, VOLUME= .23 AF
 Qout= 2.98 CFS @ 12.07 HRS, VOLUME= .23 AF, ATTEN= 0%, LAG= 1.0 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 0' x .3' CHANNEL S/S= 0 & .02 '/' n= .016 LENGTH= 115 FT SLOPE= .0806 FT/FT | STOR-IND+TRANS METHOD PEAK DEPTH= .15 FT PEAK VELOCITY= 4.9 FPS TRAVEL TIME = .4 MIN SPAN= 10-20 HRS, dt=.1 HRS |
|---------------|---------------------|----------------|---|---|
| 0.00 | 0.00 | 0.00 | | |
| .03 | .02 | .04 | | |
| .06 | .09 | .23 | | |
| .09 | .20 | .67 | | |
| .13 | .42 | 1.74 | | |
| .18 | .81 | 4.23 | | |
| .24 | 1.44 | 9.12 | | |
| .30 | 2.25 | 16.53 | | |

REACH 122 GUTTER WEST SIDE STORER ST.

Qin = 3.40 CFS @ 12.09 HRS, VOLUME= .29 AF
 Qout= 3.38 CFS @ 12.10 HRS, VOLUME= .29 AF, ATTEN= 1%, LAG= .6 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 0' x .3' CHANNEL S/S= .02 & 0 '/' n= .016 LENGTH= 115 FT SLOPE= .0806 FT/FT | STOR-IND+TRANS METHOD PEAK DEPTH= .16 FT PEAK VELOCITY= 5.0 FPS TRAVEL TIME = .4 MIN SPAN= 10-20 HRS, dt=.1 HRS |
|---------------|---------------------|----------------|---|---|
| 0.00 | 0.00 | 0.00 | | |
| .03 | .02 | .04 | | |
| .06 | .09 | .23 | | |
| .09 | .20 | .67 | | |
| .13 | .42 | 1.74 | | |
| .18 | .81 | 4.23 | | |
| .24 | 1.44 | 9.12 | | |
| .30 | 2.25 | 16.53 | | |

REACH 170

GUTTER ALONG N SIDE DANFORTH

Qin = 6.33 CFS @ 12.09 HRS, VOLUME= .52 AF
 Qout= 5.98 CFS @ 12.13 HRS, VOLUME= .52 AF, ATTEN= 6%, LAG= 2.6 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | | STOR-IND+TRANS METHOD |
|---------------|---------------------|----------------|------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 0' x .4' CHANNEL | PEAK DEPTH= .25 FT |
| .04 | .04 | .05 | S/S= .02 & 0'/' | PEAK VELOCITY= 4.0 FPS |
| .08 | .16 | .30 | n= .016 | TRAVEL TIME = 1.6 MIN |
| .12 | .36 | .88 | LENGTH= 385 FT | SPAN= 10-20 HRS, dt=.1 HRS |
| .17 | .74 | 2.29 | SLOPE= .03 FT/FT | |
| .24 | 1.44 | 5.56 | | |
| .32 | 2.56 | 11.98 | | |
| .40 | 4.00 | 21.71 | | |

REACH 180

EXISTING COMBINED SEWER IN DANFORTH

Qin = 4.51 CFS @ 12.07 HRS, VOLUME= .32 AF
 Qout= 4.44 CFS @ 12.08 HRS, VOLUME= .32 AF, ATTEN= 2%, LAG= .5 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | | STOR-IND+TRANS METHOD |
|---------------|---------------------|----------------|--------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 12" PIPE | PEAK DEPTH= .82 FT |
| .10 | .04 | .09 | n= .015 | PEAK VELOCITY= 6.5 FPS |
| .20 | .11 | .39 | LENGTH= 150 FT | TRAVEL TIME = .4 MIN |
| .30 | .20 | .87 | SLOPE= .0209 FT/FT | SPAN= 10-20 HRS, dt=.1 HRS |
| .70 | .59 | 3.74 | | |
| .80 | .67 | 4.36 | | |
| .90 | .74 | 4.76 | | |
| .94 | .77 | 4.80 | | |
| .97 | .78 | 4.76 | | |
| 1.00 | .79 | 4.46 | | |

POND 206

CB AT FLTCHR & DNFRTH *P.O.A.*

Qin = 8.28 CFS @ 12.10 HRS, VOLUME= .72 AF
 Qout= 8.25 CFS @ 12.10 HRS, VOLUME= .71 AF, ATTEN= 0%, LAG= 0.0 MIN

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 105.0 | 13 | 0 | 0 | PEAK STORAGE = 32 CF |
| 109.0 | 13 | 50 | 50 | PEAK ELEVATION= 107.6 FT |
| 109.1 | 3 | 1 | 51 | FLOOD ELEVATION= 110.9 FT |
| 110.9 | 3 | 5 | 56 | START ELEVATION= 105.0 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | 2 x FINER ROUTING |
| | | | | Tdet= 1.5 MIN (.71 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|---|
| 1 | P | 105.0' | 15" CULVERT n=.016 L=300' S=.05'/' Ke=.5 Cc=.9 Cd=.6 |
| 2 | P | 110.8' | 2' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=1.45, 1.44, 0, 0, 0, 0, 0, 0 |

POND 207

CB W1

Qin = 4.34 CFS @ 12.01 HRS, VOLUME= .29 AF
 Qout= 4.16 CFS @ 12.02 HRS, VOLUME= .29 AF, ATTEN= 4%, LAG= .6 MIN

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 129.0 | 13 | 0 | 0 | PEAK STORAGE = 75 CF |
| 134.0 | 13 | 65 | 65 | PEAK ELEVATION= 135.3 FT |
| 137.0 | 3 | 24 | 89 | FLOOD ELEVATION= 137.0 FT |
| | | | | START ELEVATION= 129.0 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|---|
| 1 | P | 129.0' | 8" CULVERT n=.015 L=50' S=.16'/' Ke=.5 Cc=.9 Cd=.6 |

POND 217

BURIED TANK SW OF FOUNDERS HALL

Qin = 4.56 CFS @ 12.02 HRS, VOLUME= .32 AF
 Qout= 4.51 CFS @ 12.07 HRS, VOLUME= .32 AF, ATTEN= 1%, LAG= 2.9 MIN

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 120.0 | 50 | 0 | 0 | PEAK STORAGE = 260 CF |
| 125.0 | 50 | 250 | 250 | PEAK ELEVATION= 127.6 FT |
| 125.1 | 3 | 3 | 253 | FLOOD ELEVATION= 127.0 FT |
| 127.0 | 3 | 6 | 258 | START ELEVATION= 120.0 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | Tdet= .9 MIN (.32 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|---|
| 1 | P | 120.0' | 8" CULVERT n=.015 L=170' S=.07'/' Ke=.5 Cc=.9 Cd=.6 |
| 2 | P | 126.9' | 6" HORIZONTAL ORIFICE/GRATE Q=.6 Area SQR(2gH) (Limited to weir flow @ low head) |

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

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

| SUBCAT NUMBER | AREA (ACRE) | Tc (MIN) | --GROUND COVERS (%CN)-- | | | | WGT'D CN | C | PEAK (CFS) | Tpeak (HRS) | VOL (AF) |
|------------------|----------------|-------------|-------------------------|-------|-------|-------|-------------|------|---------------|----------------|-------------|
| 1 | .46 | 13.4 | 33%74 | 20%98 | 48%98 | 90 | - | 1.44 | 12.13 | .12 | |
| 2 | .26 | 6.0 | 19%74 | 15%98 | 65%98 | 93 | - | 1.00 | 12.03 | .07 | |
| 3 | .41 | 6.0 | 29%98 | 71%98 | | 98 | - | 1.69 | 12.03 | .12 | |
| 4 | .33 | 6.0 | 73%74 | 27%98 | | 81 | - | .93 | 12.04 | .07 | |
| 5 | .17 | 6.0 | 24%98 | 76%98 | | 98 | - | .70 | 12.03 | .05 | |
| 6 | .84 | 6.0 | 86%74 | 14%98 | | 77 | - | 2.07 | 12.04 | .15 | |
| 7 | .88 | 4.6 | 7%98 | 4%98 | 20%98 | 17%98 | 93 | - | 3.65 | 12.01 | .25 |
| | | | 23%98 | 8%98 | 22%74 | | | | | | |
| 8 | .08 | 6.0 | 100%98 | | | 98 | - | .35 | 12.03 | .03 | |

REACH ROUTING BY STOR-IND+TRANS METHOD

| REACH NO. | DIAM (IN) | BOTTOM WIDTH (FT) | DEPTH (FT) | SIDE SLOPES (FT/FT) | n | LENGTH (FT) | SLOPE (FT/FT) | PEAK VEL. (FPS) | TRAVEL TIME (MIN) | PEAK Qout (CFS) |
|--------------|--------------|-------------------------|---------------|---------------------------|------|----------------|------------------|-----------------------|-------------------------|-----------------------|
| 102 | - | - | .5 | .02 .40 | .016 | 70 | .0375 | 3.4 | .3 | 2.23 |
| 103 | - | - | .3 | - .02 | .016 | 107 | .0327 | 3.0 | .6 | 1.59 |
| 104 | - | - | .3 | - .02 | .016 | 75 | .0779 | 4.1 | .3 | 1.59 |
| 112 | - | - | .3 | .02 - | .016 | 75 | .0779 | 4.8 | .3 | 2.84 |
| 114 | - | - | .3 | - .02 | .016 | 115 | .0806 | 4.6 | .4 | 2.48 |
| 122 | - | - | .3 | .02 - | .016 | 115 | .0806 | 4.8 | .4 | 2.83 |
| 170 | - | - | .4 | .02 - | .016 | 385 | .0300 | 3.8 | 1.7 | 4.95 |
| 180 | 12.0 | - | - | - - | .015 | 150 | .0209 | 6.4 | .4 | 3.76 |

POND ROUTING BY STOR-IND METHOD

| POND NO. | START | FLOOD | PEAK | PEAK | ----- PEAK FLOW ----- | | | | ---Qout--- | |
|--------------|---------------|---------------|---------------|-----------------|-----------------------|---------------|---------------|---------------|---------------|--------------|
| | ELEV. (FT) | ELEV. (FT) | ELEV. (FT) | STORAGE (AF) | Qin (CFS) | Qout (CFS) | Qpri (CFS) | Qsec (CFS) | ATTEN. (%) | LAG (MIN) |
| P.O.A 206 | 105.0 | 110.9 | 106.9 | 0.00 | 6.73 | 6.71 | | | 0 | 0.0 |
| 207 | 129.0 | 137.0 | 133.5 | 0.00 | 3.65 | 3.50 | | | 4 | .6 |
| 217 | 120.0 | 127.0 | 127.2 | .01 | 3.85 | 3.86 | | | 0 | 3.4 |

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

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

| SUBCAT NUMBER | AREA (ACRE) | Tc (MIN) | --GROUND COVERS (%CN)-- | WGT'D CN | C | PEAK (CFS) | Tpeak (HRS) | VOL (AF) |
|------------------|----------------|-------------|---|-------------|---|---------------|----------------|-------------|
| 1 | .46 | 13.4 | 33%74 20%98 48%98 | 90 | - | .81 | 12.14 | .07 |
| 2 | .26 | 6.0 | 19%74 15%98 65%98 | 93 | - | .60 | 12.03 | .04 |
| 3 | .41 | 6.0 | 29%98 71%98 | 98 | - | 1.07 | 12.03 | .08 |
| 4 | .33 | 6.0 | 73%74 27%98 | 81 | - | .44 | 12.04 | .03 |
| 5 | .17 | 6.0 | 24%98 76%98 | 98 | - | .44 | 12.03 | .03 |
| 6 | .84 | 6.0 | 86%74 14%98 | 77 | - | .87 | 12.05 | .07 |
| 7 | .88 | 4.6 | 7%98 4%98 20%98 17%98 23%98 8%98 22%74 | 93 | - | 2.17 | 12.01 | .15 |
| 8 | .08 | 6.0 | 100%98 | 98 | - | .22 | 12.03 | .02 |

REACH ROUTING BY STOR-IND+TRANS METHOD

| REACH NO. | DIAM (IN) | BOTTOM WIDTH (FT) | DEPTH (FT) | SIDE SLOPES (FT/FT) | | n | LENGTH (FT) | SLOPE (FT/FT) | PEAK VEL. (FPS) | TRAVEL TIME (MIN) | PEAK Qout (CFS) |
|-----------|-----------|-------------------|------------|---------------------|--|------|-------------|---------------|-----------------|-------------------|-----------------|
| 102 | - | - | .5 | .02 .40 | | .016 | 70 | .0375 | 3.0 | .4 | 1.28 |
| 103 | - | - | .3 | - .02 | | .016 | 107 | .0327 | 2.6 | .7 | 1.01 |
| 104 | - | - | .3 | - .02 | | .016 | 75 | .0779 | 3.7 | .3 | 1.01 |
| 112 | - | - | .3 | .02 - | | .016 | 75 | .0779 | 4.1 | .3 | 1.67 |
| 114 | - | - | .3 | - .02 | | .016 | 115 | .0806 | 4.0 | .5 | 1.42 |
| 122 | - | - | .3 | .02 - | | .016 | 115 | .0806 | 4.2 | .5 | 1.66 |
| 170 | - | - | .4 | .02 - | | .016 | 385 | .0300 | 3.4 | 1.9 | 2.85 |
| 180 | 12.0 | - | - | - - | | .015 | 150 | .0209 | 5.8 | .4 | 2.18 |

POND ROUTING BY STOR-IND METHOD

| POND NO. | START | FLOOD | PEAK | PEAK | ----- PEAK FLOW ----- | | | | ---Qout--- | |
|-------------|---------------|---------------|---------------|-----------------|-----------------------|---------------|---------------|---------------|---------------|--------------|
| | ELEV. (FT) | ELEV. (FT) | ELEV. (FT) | STORAGE (AF) | Qin (CFS) | Qout (CFS) | Qpri (CFS) | Qsec (CFS) | ATTEN. (%) | LAG (MIN) |
| P.O.A. 206 | 105.0 | 110.9 | 106.0 | 0.00 | 3.62 | 3.62 | | | 0 | 0.0 |
| 207 | 129.0 | 137.0 | 130.9 | 0.00 | 2.17 | 2.11 | | | 3 | .4 |
| 217 | 120.0 | 127.0 | 121.9 | 0.00 | 2.33 | 2.20 | | | 6 | 1.9 |

APPENDIX D
DEVELOPED CONDITION
PHASE 2

Full Buildout (includes parking lot East side of Storer St)

Data for 01126, WYNFLT ARTS CNTR, DEV CND PH2 SES 4-07-01

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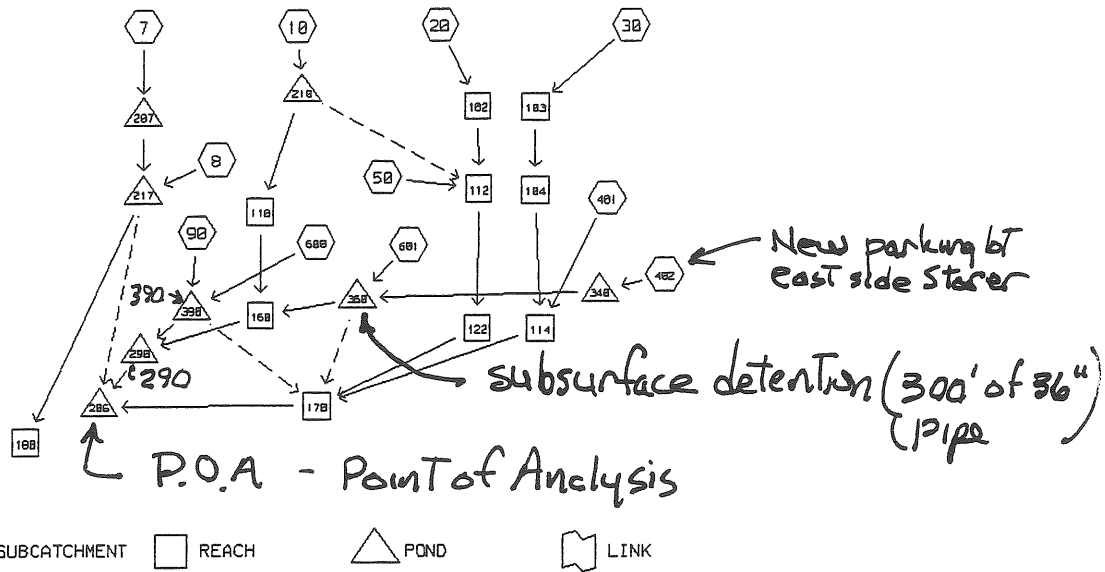
TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

WATERSHED ROUTING =====



| | | |
|------------------|--|--------------|
| SUBCATCHMENT 7 | = AREA BTWN THOMAS & DAVIES HALLS & GYM | -> POND 207 |
| SUBCATCHMENT 8 | = ROOF OF FOUNDERS HALL | -> POND 217 |
| SUBCATCHMENT 10 | = AREA DRAINING TO THE SANCTUARY | -> POND 210 |
| SUBCATCHMENT 20 | = NE CORNER OF BLOCK | -> REACH 102 |
| SUBCATCHMENT 30 | = AREA EAST SIDE STORER @ SPRING | -> REACH 103 |
| SUBCATCHMENT 50 | = ENTRANCES ALONG STORER ST. | -> REACH 112 |
| SUBCATCHMENT 90 | = FIELD SOUTH & SW OF FOUNDERS HALL | -> POND 390 |
| SUBCATCHMENT 401 | = AREA BTWN STORER & LIB, DRAINS TO STORER | -> REACH 114 |
| SUBCATCHMENT 402 | = NEW PRKNG LT | -> POND 340 |
| SUBCATCHMENT 600 | = FIELD W OF ARTS CNTR & SLOPED ROOF | -> POND 390 |
| SUBCATCHMENT 601 | = ARTS CNTR & PVMNT & WALKS AROUND IT | -> POND 360 |
| REACH 102 | = GUTTER ALONG STORER ST. | -> REACH 112 |
| REACH 103 | = GUTTER EAST SIDE STORER ST. | -> REACH 104 |
| REACH 104 | = GUTTER EAST SIDE STORER ST. | -> REACH 114 |
| REACH 110 | = PIPE ACROSS PLAYFIELD | -> REACH 160 |

| | | |
|--------------------|---------------------------------------|--------------|
| REACH 112 | = GUTTER WEST SIDE STORER ST. | -> REACH 122 |
| REACH 114 | = GUTTER EAST SIDE STORER ST. | -> REACH 170 |
| REACH 122 | = GUTTER WEST SIDE STORER ST. | -> REACH 170 |
| REACH 160 | = PIPE FROM DMH #2 TO DMH #1 | -> POND 290 |
| REACH 170 | = GUTTER ALONG N SIDE DANFORTH | -> POND 206 |
| REACH 180 | = EXISTING COMBINED SEWER IN DANFORTH | -> |
| POND 206 | = CB AT FLTCHR & DNFERTH (P.O.A.) | -> |
| POND 207 | = CB WI | -> POND 217 |
| POND 210 | = IN SANCTUARY, FI #1 & CB #1 | -> REACH 110 |
| POND 210 secondary | = IN SANCTUARY, FI #1 & CB #1 | -> REACH 112 |
| POND 217 | = BURIED TANK SW OF FOUNDERS HALL | -> REACH 180 |
| POND 217 secondary | = BURIED TANK SW OF FOUNDERS HALL | -> POND 206 |
| POND 290 | = DMH #1 TO CB ON FLETCHER | -> POND 206 |
| POND 340 | = CB AT SW COR PRKNG LT | -> POND 360 |
| POND 360 | = DTNTN BSN - 300' OF 36" PIPE | -> REACH 160 |
| POND 360 secondary | = DTNTN BSN - 300' OF 36" PIPE | -> REACH 170 |
| POND 390 | = DETENTION POND ON FIELD | -> POND 290 |
| POND 390 secondary | = DETENTION POND ON FIELD | -> REACH 170 |

TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

SUBCATCHMENT 20 NE CORNER OF BLOCK

PEAK= 1.12 CFS @ 12.03 HRS, VOLUME= .08 AF

| <u>ACRES</u> | <u>CN</u> | | SCS TR-20 METHOD |
|--------------|-----------|-------------------------------|----------------------------|
| .05 | 49 | LAWN, FAIR CND, HSG A (GUESS) | TYPE III 24-HOUR |
| .04 | 98 | BLDGS | RAINFALL= 5.50 IN |
| .17 | 98 | PVMNT | SPAN= 10-20 HRS, dt=.1 HRS |
| .26 | 89 | | |

| <u>Method</u> | <u>Comment</u> | <u>Tc (min)</u> |
|---------------|--------------------|-----------------|
| DIRECT ENTRY | EAST TO STORER ST. | 6.0 |

SUBCATCHMENT 30 AREA EAST SIDE STORER @ SPRING

PEAK= 1.98 CFS @ 12.03 HRS, VOLUME= .14 AF

| <u>ACRES</u> | <u>CN</u> | | SCS TR-20 METHOD |
|--------------|-----------|-------|----------------------------|
| .12 | 98 | BLDGS | TYPE III 24-HOUR |
| .29 | 98 | PVMNT | RAINFALL= 5.50 IN |
| .41 | 98 | | SPAN= 10-20 HRS, dt=.1 HRS |

| <u>Method</u> | <u>Comment</u> | <u>Tc (min)</u> |
|---------------|---------------------|-----------------|
| DIRECT ENTRY | TO SW TO STORER ST. | 6.0 |

SUBCATCHMENT 50 ENTRANCES ALONG STORER ST.

PEAK= .82 CFS @ 12.03 HRS, VOLUME= .06 AF

| <u>ACRES</u> | <u>CN</u> | | SCS TR-20 METHOD |
|--------------|-----------|-------|----------------------------|
| .04 | 98 | BLDGS | TYPE III 24-HOUR |
| .13 | 98 | PVMNT | RAINFALL= 5.50 IN |
| .17 | 98 | | SPAN= 10-20 HRS, dt=.1 HRS |

| <u>Method</u> | <u>Comment</u> | <u>Tc (min)</u> |
|---------------|----------------|-----------------|
| DIRECT ENTRY | TO STORER ST. | 6.0 |

TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

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7 Apr 01

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SUBCATCHMENT 90

FIELD SOUTH & SW OF FOUNDERS HALL

PEAK= 1.78 CFS @ 12.02 HRS, VOLUME= .12 AF

| | | | |
|--------------|-----------|-------------------------|----------------------------|
| <u>SO-FT</u> | <u>CN</u> | | SCS TR-20 METHOD |
| 716.00 | 98 | HOUSE ON FLETCHER ST. | TYPE III 24-HOUR |
| 23246.00 | 74 | FIELD, GOOD COND, HSG C | RAINFALL= 5.50 IN |
| 23962.00 | 75 | | SPAN= 10-20 HRS, dt=.1 HRS |

| <u>Method</u> | <u>Comment</u> | <u>Tc (min)</u> |
|----------------------------------|-----------------------------------|-----------------|
| TR-55 SHEET FLOW | TO SOUTH BEHIND HOUSE ON FLETCHER | 2.9 |
| Grass: Short n=.15 L=40' P2=3 | in s=.075 '/' | |
| SHALLOW CONCENTRATED/UPLAND FLOW | TO SOUTH TO DRAINAGE TRENCH | 1.5 |
| Short Grass Pasture Kv=7 L=110' | s=.03 '/' V=1.21 fps | |
| Total Length= 150 ft | | Total Tc= 4.4 |

SUBCATCHMENT 401

AREA BTWN STORER & LIB, DRAINS TO STORER

PEAK= .51 CFS @ 12.04 HRS, VOLUME= .04 AF

| | | | |
|--------------|-----------|-----------------------|----------------------------|
| <u>SO-FT</u> | <u>CN</u> | | SCS TR-20 METHOD |
| 3435.00 | 39 | LAWN, GOOD CND, HSG A | TYPE III 24-HOUR |
| 4620.00 | 98 | PVMNT: WALKS & ROAD | RAINFALL= 5.50 IN |
| 8055.00 | 73 | | SPAN= 10-20 HRS, dt=.1 HRS |

| <u>Method</u> | <u>Comment</u> | <u>Tc (min)</u> |
|---------------|------------------------|-----------------|
| DIRECT ENTRY | TO SOUTH TO STORER ST. | 6.0 |

SUBCATCHMENT 402

NEW PRKNG LT

PEAK= .70 CFS @ 12.04 HRS, VOLUME= .05 AF

| | | | |
|--------------|-----------|-----------------------|----------------------------|
| <u>SO-FT</u> | <u>CN</u> | | SCS TR-20 METHOD |
| 6240.00 | 98 | PRKNG LT | TYPE III 24-HOUR |
| 4000.00 | 39 | LAWN, GOOD CND, HSG A | RAINFALL= 5.50 IN |
| 10240.00 | 75 | | SPAN= 10-20 HRS, dt=.1 HRS |

| <u>Method</u> | <u>Comment</u> | <u>Tc (min)</u> |
|---------------|-----------------------------|-----------------|
| DIRECT ENTRY | TO CB IN SW CORNER PRKNG LT | 6.0 |

TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

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SUBCATCHMENT 600

FIELD W OF ARTS CNTR & SLOPED ROOF

PEAK= .78 CFS @ 12.09 HRS, VOLUME= .06 AF

| SQ-FT | CN | | SCS TR-20 METHOD |
|----------|----|------------------------------|----------------------------|
| 8152.00 | 74 | LAWN, FAIR CND, HSG C | TYPE III 24-HOUR |
| 1610.00 | 98 | SLOPED ROOF OF ARTS CNTR | RAINFALL= 5.50 IN |
| 696.00 | 98 | PLAZA WEST SIDE OF ARTS CNTR | SPAN= 10-20 HRS, dt=.1 HRS |
| 10458.00 | 79 | | |

| Method | Comment | Tc (min) |
|--|------------------------------|----------|
| TR-55 SHEET FLOW | TO SOUTH TOWARD DANFORTH ST. | 9.1 |
| Grass: Short n=.15 L=100' P2=3 in s=.026 '/' | | |

SUBCATCHMENT 601

ARTS CNTR & PVMNT & WALKS AROUND IT

PEAK= 1.98 CFS @ 12.03 HRS, VOLUME= .14 AF

| SQ-FT | CN | | SCS TR-20 METHOD |
|----------|----|----------------------------------|----------------------------|
| 12986.00 | 98 | BLDG | TYPE III 24-HOUR |
| 3345.00 | 98 | PVMNT SOUTH SIDE & WALKS & PLAZA | RAINFALL= 5.50 IN |
| 1800.00 | 74 | LAWN & LNDSKP AREAS | SPAN= 10-20 HRS, dt=.1 HRS |
| 18131.00 | 96 | | |

| Method | Comment | Tc (min) |
|--------------|---------------------------|----------|
| DIRECT ENTRY | TO DETENTION POND IN PIPE | 6.0 |

TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

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REACH 102

GUTTER ALONG STORER ST.

Qin = 1.12 CFS @ 12.03 HRS, VOLUME= .08 AF
 Qout= 1.07 CFS @ 12.04 HRS, VOLUME= .08 AF, ATTEN= 4%, LAG= .4 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 0' x .3' CHANNEL S/S= .02 & 0 '/' | STOR-IND+TRANS METHOD |
|---------------|---------------------|----------------|--------------------------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | S/S= .02 & 0 '/' | PEAK DEPTH= .12 FT |
| .03 | .02 | .02 | n= .016 | PEAK VELOCITY= 2.8 FPS |
| .06 | .09 | .15 | LENGTH= 70 FT | TRAVEL TIME = .4 MIN |
| .09 | .20 | .45 | SLOPE= .0375 FT/FT | SPAN= 10-20 HRS, dt=.1 HRS |
| .13 | .42 | 1.19 | | 2 x FINER ROUTING |
| .18 | .81 | 2.89 | | |
| .24 | 1.44 | 6.22 | | |
| .30 | 2.25 | 11.27 | | |

REACH 103

GUTTER EAST SIDE STORER ST.

Qin = 1.98 CFS @ 12.03 HRS, VOLUME= .14 AF
 Qout= 1.87 CFS @ 12.05 HRS, VOLUME= .14 AF, ATTEN= 6%, LAG= 1.6 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 0' x .3' CHANNEL S/S= 0 & .02 '/' | STOR-IND+TRANS METHOD |
|---------------|---------------------|----------------|--------------------------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | S/S= 0 & .02 '/' | PEAK DEPTH= .15 FT |
| .03 | .02 | .02 | n= .016 | PEAK VELOCITY= 3.1 FPS |
| .06 | .09 | .14 | LENGTH= 107 FT | TRAVEL TIME = .6 MIN |
| .09 | .20 | .42 | SLOPE= .0327 FT/FT | SPAN= 10-20 HRS, dt=.1 HRS |
| .13 | .42 | 1.11 | | |
| .18 | .81 | 2.70 | | |
| .24 | 1.44 | 5.81 | | |
| .30 | 2.25 | 10.53 | | |

REACH 104

GUTTER EAST SIDE STORER ST.

Qin = 1.87 CFS @ 12.05 HRS, VOLUME= .14 AF
 Qout= 1.87 CFS @ 12.07 HRS, VOLUME= .14 AF, ATTEN= 0%, LAG= .8 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 0' x .3' CHANNEL S/S= 0 & .02 '/' | STOR-IND+TRANS METHOD |
|---------------|---------------------|----------------|--------------------------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | S/S= 0 & .02 '/' | PEAK DEPTH= .13 FT |
| .03 | .02 | .04 | n= .016 | PEAK VELOCITY= 4.2 FPS |
| .06 | .09 | .22 | LENGTH= 75 FT | TRAVEL TIME = .3 MIN |
| .09 | .20 | .66 | SLOPE= .0779 FT/FT | SPAN= 10-20 HRS, dt=.1 HRS |
| .13 | .42 | 1.71 | | |
| .18 | .81 | 4.16 | | |
| .24 | 1.44 | 8.96 | | |
| .30 | 2.25 | 16.25 | | |

TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

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7 Apr 01

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REACH 110

PIPE ACROSS PLAYFIELD

Q_{in} = 1.70 CFS @ 12.05 HRS, VOLUME= .13 AF
 Q_{out} = 1.67 CFS @ 12.05 HRS, VOLUME= .13 AF, ATTEN= 2%, LAG= .3 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 8" PIPE | STOR-IND+TRANS METHOD |
|---------------|---------------------|----------------|------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | | PEAK DEPTH= .36 FT |
| .07 | .02 | .06 | n= .01 | PEAK VELOCITY= 8.3 FPS |
| .13 | .05 | .24 | LENGTH= 116 FT | TRAVEL TIME = .2 MIN |
| .20 | .09 | .53 | SLOPE= .03 FT/FT | SPAN= 10-20 HRS, dt=.1 HRS |
| .47 | .26 | 2.28 | | 2 x FINER ROUTING |
| .53 | .30 | 2.66 | | |
| .60 | .33 | 2.90 | | |
| .63 | .34 | 2.93 | | |
| .65 | .35 | 2.90 | | |
| .67 | .35 | 2.72 | | |

REACH 112

GUTTER WEST SIDE STORER ST.

Q_{in} = 1.89 CFS @ 12.03 HRS, VOLUME= .14 AF
 Q_{out} = 1.83 CFS @ 12.05 HRS, VOLUME= .14 AF, ATTEN= 3%, LAG= .9 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 0' x .3' CHANNEL | STOR-IND+TRANS METHOD |
|---------------|---------------------|----------------|--------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | S/S= .02 & 0 '/' | PEAK DEPTH= .13 FT |
| .03 | .02 | .04 | n= .016 | PEAK VELOCITY= 4.2 FPS |
| .06 | .09 | .22 | LENGTH= 75 FT | TRAVEL TIME = .3 MIN |
| .09 | .20 | .66 | SLOPE= .0779 FT/FT | SPAN= 10-20 HRS, dt=.1 HRS |
| .13 | .42 | 1.71 | | |
| .18 | .81 | 4.16 | | |
| .24 | 1.44 | 8.96 | | |
| .30 | 2.25 | 16.25 | | |

REACH 114

GUTTER EAST SIDE STORER ST.

Q_{in} = 2.36 CFS @ 12.06 HRS, VOLUME= .18 AF
 Q_{out} = 2.35 CFS @ 12.08 HRS, VOLUME= .18 AF, ATTEN= 0%, LAG= .9 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | 0' x .3' CHANNEL | STOR-IND+TRANS METHOD |
|---------------|---------------------|----------------|--------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | S/S= 0 & .02 '/' | PEAK DEPTH= .14 FT |
| .03 | .02 | .04 | n= .016 | PEAK VELOCITY= 4.6 FPS |
| .06 | .09 | .23 | LENGTH= 115 FT | TRAVEL TIME = .4 MIN |
| .09 | .20 | .67 | SLOPE= .0806 FT/FT | SPAN= 10-20 HRS, dt=.1 HRS |
| .13 | .42 | 1.74 | | |
| .18 | .81 | 4.23 | | |
| .24 | 1.44 | 9.12 | | |
| .30 | 2.25 | 16.53 | | |

TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

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7 Apr 01

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REACH 122

GUTTER WEST SIDE STORER ST.

Q_{in} = 1.83 CFS @ 12.05 HRS, VOLUME= .14 AF
 Q_{out}= 1.81 CFS @ 12.07 HRS, VOLUME= .14 AF, ATTEN= 1%, LAG= 1.4 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | | STOR-IND+TRANS METHOD |
|------------|------------------|-------------|--------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 0' x .3' CHANNEL | PEAK DEPTH= .13 FT |
| .03 | .02 | .04 | S/S= .02 & 0'/' | PEAK VELOCITY= 4.2 FPS |
| .06 | .09 | .23 | n= .016 | TRAVEL TIME = .5 MIN |
| .09 | .20 | .67 | LENGTH= 115 FT | SPAN= 10-20 HRS, dt=.1 HRS |
| .13 | .42 | 1.74 | SLOPE= .0806 FT/FT | |
| .18 | .81 | 4.23 | | |
| .24 | 1.44 | 9.12 | | |
| .30 | 2.25 | 16.53 | | |

REACH 160

PIPE FROM DMH #2 TO DMH #1

Q_{in} = 2.27 CFS @ 12.08 HRS, VOLUME= .31 AF
 Q_{out}= 2.24 CFS @ 12.09 HRS, VOLUME= .31 AF, ATTEN= 1%, LAG= .8 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | | STOR-IND+TRANS METHOD |
|------------|------------------|-------------|-------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 8" PIPE | PEAK DEPTH= .50 FT |
| .07 | .02 | .05 | n= .01 | PEAK VELOCITY= 8.0 FPS |
| .13 | .05 | .22 | LENGTH= 184 FT | TRAVEL TIME = .4 MIN |
| .20 | .09 | .49 | SLOPE= .025 FT/FT | SPAN= 10-20 HRS, dt=.1 HRS |
| .47 | .26 | 2.08 | | 2 x FINER ROUTING |
| .53 | .30 | 2.43 | | |
| .60 | .33 | 2.65 | | |
| .63 | .34 | 2.67 | | |
| .65 | .35 | 2.65 | | |
| .67 | .35 | 2.48 | | |

with permeability of gravel media 100 in/hr.

REACH 170

GUTTER ALONG N SIDE DANFORTH

Q_{in} = 4.11 CFS @ 12.10 HRS, VOLUME= .33 AF
 Q_{out}= 4.01 CFS @ 12.15 HRS, VOLUME= .33 AF, ATTEN= 3%, LAG= 3.2 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) | | STOR-IND+TRANS METHOD |
|------------|------------------|-------------|------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 0' x .4' CHANNEL | PEAK DEPTH= .21 FT |
| .04 | .04 | .05 | S/S= .02 & 0'/' | PEAK VELOCITY= 3.6 FPS |
| .08 | .16 | .30 | n= .016 | TRAVEL TIME = 1.8 MIN |
| .12 | .36 | .88 | LENGTH= 385 FT | SPAN= 10-20 HRS, dt=.1 HRS |
| .17 | .74 | 2.29 | SLOPE= .03 FT/FT | |
| .24 | 1.44 | 5.56 | | |
| .32 | 2.56 | 11.98 | | |
| .40 | 4.00 | 21.71 | | |

REACH 180

EXISTING COMBINED SEWER IN DANFORTH

Qin = 3.42 CFS @ 12.05 HRS, VOLUME= .31 AF
Qout= 3.40 CFS @ 12.07 HRS, VOLUME= .31 AF, ATTEN= 1%, LAG= .9 MIN

| DEPTH (FT) | END AREA (SQ-FT) | DISCH (CFS) |
|---------------|---------------------|----------------|
| 0.00 | 0.00 | 0.00 |
| .10 | .04 | .09 |
| .20 | .11 | .39 |
| .30 | .20 | .87 |
| .70 | .59 | 3.74 |
| .80 | .67 | 4.36 |
| .90 | .74 | 4.76 |
| .94 | .77 | 4.80 |
| .97 | .78 | 4.76 |
| 1.00 | .79 | 4.46 |

12" PIPE
n= .015
LENGTH= 150 FT
SLOPE= .0209 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .65 FT *ok*
PEAK VELOCITY= 6.3 FPS
TRAVEL TIME = .4 MIN
SPAN= 10-20 HRS, dt=.1 HRS

~~Not Capacity~~

TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

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7 Apr 01

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POND 206

CB AT FLTCHR & DNFRTH

P.O.A.

Q_{in} = 8.24 CFS @ 12.11 HRS, VOLUME= .83 AF
 Q_{out} = 8.23 CFS @ 12.11 HRS, VOLUME= .83 AF, ATTEN= 0%, LAG= .1 MIN

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 105.0 | 13 | 0 | 0 | PEAK STORAGE = 33 CF |
| 109.0 | 13 | 52 | 52 | PEAK ELEVATION= 107.6 FT |
| 109.1 | 3 | 1 | 53 | FLOOD ELEVATION= 110.9 FT |
| 110.9 | 3 | 5 | 58 | START ELEVATION= 105.0 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | Tdet= .1 MIN (.83 AF) |

With permeability of gravel media 100"/hr.

| # ROUTE | INVERT | OUTLET DEVICES |
|---------|----------|---|
| 1 | P 105.0' | 15" CULVERT n=.016 L=300' S=.05'/' Ke=.5 Cc=.9 Cd=.6 |
| 2 | P 110.8' | 2' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=1.45, 1.44, 0, 0, 0, 0, 0, 0 |

POND 207

CB WI

Q_{in} = 4.34 CFS @ 12.01 HRS, VOLUME= .29 AF
 Q_{out} = 4.16 CFS @ 12.02 HRS, VOLUME= .29 AF, ATTEN= 4%, LAG= .6 MIN

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 129.0 | 13 | 0 | 0 | PEAK STORAGE = 72 CF |
| 134.0 | 13 | 63 | 63 | PEAK ELEVATION= 135.3 FT |
| 137.0 | 3 | 23 | 86 | FLOOD ELEVATION= 137.0 FT |
| | | | | START ELEVATION= 129.0 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |

| # ROUTE | INVERT | OUTLET DEVICES |
|---------|----------|---|
| 1 | P 129.0' | 8" CULVERT n=.015 L=50' S=.16'/' Ke=.5 Cc=.9 Cd=.6 |

TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

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POND 210 IN SANCTUARY, FI #1 & CB #1

Qin = 1.73 CFS @ 12.03 HRS, VOLUME= .13 AF
 Qout= 1.70 CFS @ 12.05 HRS, VOLUME= .13 AF, ATTEN= 2%, LAG= .6 MIN
 Qpri= 1.70 CFS @ 12.05 HRS, VOLUME= .13 AF
 Qsec= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

| ELEVATION (FT) | CUM.STOR (CF) | STOR-IND METHOD |
|----------------|---------------|----------------------------|
| 130.0 | 0 | PEAK STORAGE = 20 CF |
| 139.5 | 153 | PEAK ELEVATION= 131.3 FT |
| 140.7 | 161 | FLOOD ELEVATION= 141.3 FT |
| 141.3 | 250 | START ELEVATION= 130.0 FT |
| | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | Tdet= .3 MIN (.13 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|---|
| 1 | P | 130.0' | 8" CULVERT n=.01 L=90' S=.0878'/' Ke=.5 Cc=.9 Cd=.6 |
| 2 | S | 141.1' | 10' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=1.43, 1.47, 1.45, 0, 0, 0, 0, 0 |

Primary Discharge
 └─1=Culvert

Secondary Discharge
 └─2=Broad-Crested Rectangular Weir

POND 217 BURIED TANK SW OF FOUNDERS HALL

This exists, size is approximate based on dimensions Ray @ wastewater recollect

Qin = 4.57 CFS @ 12.02 HRS, VOLUME= .32 AF
 Qout= 4.51 CFS @ 12.07 HRS, VOLUME= .32 AF, ATTEN= 1%, LAG= 2.8 MIN
 Qpri= 3.42 CFS @ 12.05 HRS, VOLUME= .31 AF
 Qsec= 1.12 CFS @ 12.08 HRS, VOLUME= .01 AF

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|----------------|-----------|---------------|---------------|----------------------------|
| 120.0 | 50 | 0 | 0 | PEAK STORAGE = 260 CF |
| 125.0 | 50 | 250 | 250 | PEAK ELEVATION= 127.6 FT |
| 125.1 | 3 | 3 | 253 | FLOOD ELEVATION= 127.0 FT |
| 127.0 | 3 | 6 | 258 | START ELEVATION= 120.0 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | Tdet= .9 MIN (.32 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|--|
| 1 | P | 120.0' | 8" CULVERT n=.015 L=170' S=.07'/' Ke=.5 Cc=.9 Cd=.6 |
| 2 | S | 126.9' | 6" HORIZONTAL ORIFICE/GRATE Q=.6 Area SQRT(2gH) (Limited to weir flow @ low head) |

Primary Discharge
 └─1=Culvert

Secondary Discharge
 └─2=Orifice/Grate

TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

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7 Apr 01

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POND 290

DMH #1 TO CB ON FLETCHER

Q_{in} = 3.32 CFS @ 12.09 HRS, VOLUME= .49 AF
 Q_{out} = 3.28 CFS @ 12.11 HRS, VOLUME= .49 AF, ATTEN= 1%, LAG= 1.1 MIN

| ELEVATION (FT) | CUM.STOR (CF) |
|-------------------|------------------|
| 113.6 | 0 |
| 118.3 | 122 |

STOR-IND METHOD
 PEAK STORAGE = 108 CF
 PEAK ELEVATION= 117.7 FT
 FLOOD ELEVATION= 118.3 FT
 START ELEVATION= 113.6 FT
 SPAN= 10-20 HRS, dt=.1 HRS
 2 x FINER ROUTING
 Tdet= .8 MIN (.48 AF)

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|--|
| 1 | P | 113.6' | 8" CULVERT n=.01 L=33' S=.2606'/' Ke=.5 Cc=.9 Cd=.6 |

POND 340

CB AT SW COR PRKNG LT

Q_{in} = .70 CFS @ 12.04 HRS, VOLUME= .05 AF
 Q_{out} = .69 CFS @ 12.04 HRS, VOLUME= .05 AF, ATTEN= 1%, LAG= .3 MIN

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) |
|-------------------|--------------|------------------|------------------|
| 129.0 | 13 | 0 | 0 |
| 133.0 | 13 | 50 | 50 |
| 133.1 | 3 | 1 | 51 |
| 134.0 | 3 | 3 | 53 |

STOR-IND METHOD
 PEAK STORAGE = 6 CF
 PEAK ELEVATION= 129.5 FT
 FLOOD ELEVATION= 134.0 FT
 START ELEVATION= 129.0 FT
 SPAN= 10-20 HRS, dt=.1 HRS
 Tdet= .3 MIN (.05 AF)

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|---|
| 1 | P | 129.0' | 8" CULVERT n=.01 L=56' S=.1'/' Ke=.5 Cc=.9 Cd=.6 |

existing 8" PVC pipe crossing Storer St.
 Test pits will be req'd to determine depth,
 condition & slope of pipe. Slope assumed
 to be .1'/'.

TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

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POND 360

DTNTN BSN - 300' OF 36" PIPE

Qin = 2.67 CFS @ 12.03 HRS, VOLUME= .20 AF
 Qout= 1.95 CFS @ 12.20 HRS, VOLUME= .19 AF, ATTEN= 27%, LAG= 10.2 MIN
 Qpri= 1.02 CFS @ 12.22 HRS, VOLUME= .19 AF
 Qsec= .94 CFS @ 12.20 HRS, VOLUME= .01 AF

| ELEVATION (FT) | CUM.STOR (CF) |
|-------------------|------------------|
| 118.5 | 0 |
| 120.0 | 1146 |
| 121.5 | 2290 |
| 124.5 | 2375 |

STOR-IND METHOD
 PEAK STORAGE = 2375 CF
 PEAK ELEVATION= 124.5 FT
 FLOOD ELEVATION= 124.5 FT
 START ELEVATION= 118.5 FT
 SPAN= 10-20 HRS, dt=.1 HRS
 Tdet= 36.1 MIN (.19 AF)

Small volume will flow back into storm in 25 yr storm. is accounted for at P.O.A.

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|--|
| 1 | P | 118.5' | 4" ORIFICE/GRATE $Q = .6 \pi r^2 \sqrt{2g} \sqrt{H-r}$ (Use H/2 if H<d) |
| 2 | S | 124.2' | 2' BROAD-CRESTED RECTANGULAR WEIR X 1.81 $Q = C L H^{1.5}$ C=1.57, 1.73, 1.8, 0, 0, 0, 0, 0 |

Primary Discharge
 1=Orifice/Grate

Secondary Discharge
 2=Broad-Crested Rectangular Weir

POND 390

DETENTION POND ON FIELD

Qin = 2.43 CFS @ 12.03 HRS, VOLUME= .18 AF
 Qout= 1.08 CFS @ 12.00 HRS, VOLUME= .18 AF, ATTEN= 55%, LAG= 0.0 MIN
 Qpri= 1.08 CFS @ 12.00 HRS, VOLUME= .18 AF
 Qsec= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) |
|-------------------|--------------|------------------|------------------|
| 123.9 | 450 | 0 | 0 |
| 124.0 | 2016 | 123 | 123 |
| 124.5 | 5700 | 1929 | 2052 |
| 124.6 | 7700 | 670 | 2722 |

STOR-IND METHOD
 PEAK STORAGE = 1084 CF
 PEAK ELEVATION= 124.2 FT
 FLOOD ELEVATION= 124.6 FT
 START ELEVATION= 123.9 FT
 SPAN= 10-20 HRS, dt=.1 HRS
 Tdet= 6 MIN (.18, AF)

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|---|
| 1 | P | 123.9' | EXFILTRATION $Q = 1.08$ CFS at and above '124' |
| 2 | S | 124.5' | 150' BROAD-CRESTED RECTANGULAR WEIR X 1.81 $Q = C L H^{1.5}$ C=2.1, 2.13, 0, 0, 0, 0, 0, 0 |

Primary Discharge
 1=Exfiltration

Secondary Discharge
 2=Broad-Crested Rectangular Weir

← 100"/hr

does not overtop.

TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

POND 390

DETENTION POND ON FIELD

Qin = 2.43 CFS @ 12.03 HRS, VOLUME= .18 AF
 Qout= .75 CFS @ 11.90 HRS, VOLUME= .18 AF, ATTEN= 69%, LAG= 0.0 MIN
 Qpri= .75 CFS @ 11.90 HRS, VOLUME= .18 AF
 Qsec= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

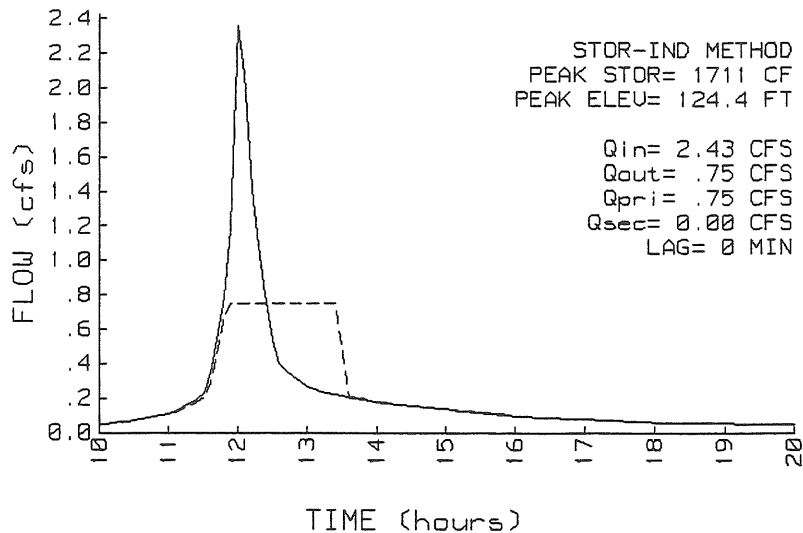
| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 123.9 | 450 | 0 | 0 | PEAK STORAGE = 1711 CF |
| 124.0 | 2016 | 123 | 123 | PEAK ELEVATION= 124.4 FT |
| 124.5 | 5700 | 1929 | 2052 | FLOOD ELEVATION= 124.6 FT |
| 124.6 | 7700 | 670 | 2722 | START ELEVATION= 123.9 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | Tdet= 14.2 MIN (.18 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|--|
| 1 | P | 123.9' | EXFILTRATION Q= .75 CFS at and above 124' ← permeability 72"/hr |
| 2 | S | 124.5' | 150' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=2.1, 2.13, 0, 0, 0, 0, 0, 0 |

Primary Discharge
 └1=Exfiltration

Secondary Discharge
 └2=Broad-Crested Rectangular Weir

POND 390 INFLOW & OUTFLOW
 DETENTION POND ON FIELD



TYPE III 24-HOUR RAINFALL= 5.50 IN, 25 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

POND 206

CB AT FLTCHR & DNFRTH

P.O.A.

Q_{in} = 7.91 CFS @ 12.11 HRS, VOLUME= .83 AF
 Q_{out} = 7.90 CFS @ 12.11 HRS, VOLUME= .83 AF, ATTEN= 0%, LAG= .1 MIN

with permeability media 22"/hr

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|----------------|-----------|---------------|---------------|----------------------------|
| 105.0 | 13 | 0 | 0 | PEAK STORAGE = 31 CF |
| 109.0 | 13 | 52 | 52 | PEAK ELEVATION= 107.4 FT |
| 109.1 | 3 | 1 | 53 | FLOOD ELEVATION= 110.9 FT |
| 110.9 | 3 | 5 | 58 | START ELEVATION= 105.0 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | Tdet= .1 MIN (.83 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|---|
| 1 | P | 105.0' | 15" CULVERT n=.016 L=300' S=.05'/' Ke=.5 Cc=.9 Cd=.6 |
| 2 | P | 110.8' | 2' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=1.45, 1.44, 0, 0, 0, 0, 0, 0 |

TYPE III 24-HOUR RAINFALL= 4.70 IN, 10 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

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

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

| SUBCAT NUMBER | AREA (ACRE) | Tc (MIN) | --GROUND COVERS (%CN)-- | | | | WGT'D CN C | | PEAK (CFS) | Tpeak (HRS) | VOL (AF) |
|------------------|----------------|-------------|-------------------------|--------------|----------------|-------|---------------|---|---------------|----------------|-------------|
| 7 | .88 | 4.6 | 7%98 23%98 | 4%98 8%98 | 20%98 22%74 | 17%98 | 93 | - | 3.65 | 12.01 | .25 |
| 8 | .08 | 6.0 | 100%98 | | | | 98 | - | .35 | 12.03 | .03 |
| 10 | .46 | 6.0 | 26%39 | 26%98 | 48%98 | | 83 | - | 1.39 | 12.04 | .10 |
| 20 | .26 | 6.0 | 19%49 | 15%98 | 65%98 | | 89 | - | .92 | 12.03 | .07 |
| 30 | .41 | 6.0 | 29%98 | 71%98 | | | 98 | - | 1.69 | 12.03 | .12 |
| 50 | .17 | 6.0 | 24%98 | 76%98 | | | 98 | - | .70 | 12.03 | .05 |
| 90 | .55 | 4.4 | 3%98 | 97%74 | | | 75 | - | 1.37 | 12.02 | .09 |
| 401 | .18 | 6.0 | 43%39 | 57%98 | | | 73 | - | .39 | 12.05 | .03 |
| 402 | .24 | 6.0 | 61%98 | 39%39 | | | 75 | - | .54 | 12.04 | .04 |
| 600 | .24 | 9.1 | 78%74 | 15%98 | 7%98 | | 79 | - | .61 | 12.10 | .05 |
| 601 | .42 | 6.0 | 72%98 | 18%98 | 10%74 | | 96 | - | 1.68 | 12.03 | .12 |

TYPE III 24-HOUR RAINFALL= 4.70 IN, 10 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

REACH ROUTING BY STOR-IND+TRANS METHOD

| REACH NO. | DIAM (IN) | BOTTOM WIDTH (FT) | DEPTH (FT) | SIDE SLOPES (FT/FT) | n | LENGTH (FT) | SLOPE (FT/FT) | PEAK VEL. (FPS) | TRAVEL TIME (MIN) | PEAK Qout (CFS) | |
|--------------|--------------|-------------------------|---------------|---------------------------|-----|----------------|------------------|-----------------------|-------------------------|-----------------------|------|
| 102 | - | - | .3 | .02 | - | .016 | 70 | .0375 | 2.7 | .4 | .88 |
| 103 | - | - | .3 | - | .02 | .016 | 107 | .0327 | 3.0 | .6 | 1.59 |
| 104 | - | - | .3 | - | .02 | .016 | 75 | .0779 | 4.1 | .3 | 1.59 |
| 110 | 8.0 | - | - | - | - | .010 | 116 | .0300 | 7.9 | .2 | 1.34 |
| 112 | - | - | .3 | .02 | - | .016 | 75 | .0779 | 4.0 | .3 | 1.52 |
| 114 | - | - | .3 | - | .02 | .016 | 115 | .0806 | 4.4 | .4 | 1.96 |
| 122 | - | - | .3 | .02 | - | .016 | 115 | .0806 | 4.1 | .5 | 1.52 |
| 160 | 8.0 | - | - | - | - | .010 | 184 | .0250 | 7.8 | .4 | 1.86 |
| 170 | - | - | .4 | .02 | - | .016 | 385 | .0300 | 3.5 | 1.8 | 3.23 |
| 180 | 12.0 | - | - | - | - | .015 | 150 | .0209 | 6.3 | .4 | 3.33 |

TYPE III 24-HOUR RAINFALL= 4.70 IN, 10 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

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POND ROUTING BY STOR-IND METHOD

| POND NO. | START ELEV. (FT) | FLOOD ELEV. (FT) | PEAK ELEV. (FT) | PEAK STORAGE (AF) | PEAK FLOW | | | | ---Qout--- | |
|------------|------------------|------------------|-----------------|-------------------|-----------|------------|------------|------------|------------|-----------|
| | | | | | Qin (CFS) | Qout (CFS) | Qpri (CFS) | Qsec (CFS) | ATTEN. (%) | LAG (MIN) |
| P.O.A. 206 | 105.0 | 110.9 | 106.9 | 0.00 | 6.61 | 6.59 | | | 0 | .1 |
| 207 | 129.0 | 137.0 | 133.6 | 0.00 | 3.65 | 3.50 | | | 4 | .6 |
| 210 | 130.0 | 141.3 | 130.9 | 0.00 | 1.39 | 1.37 | 1.37 | 0.00 | 1 | .5 |
| 217 | 120.0 | 127.0 | 127.2 | .01 | 3.85 | 3.86 | 3.36 | .54 | 0 | 3.4 |
| 290 | 113.6 | 118.3 | 116.8 | 0.00 | 2.90 | 2.86 | | | 1 | .9 |
| 340 | 129.0 | 134.0 | 129.4 | 0.00 | .54 | .53 | | | 1 | .3 |
| 360 | 118.5 | 124.5 | 121.4 | .05 | 2.21 | .70 | .70 | 0.00 | 68 | 21.2 |
| 390 | 123.9 | 124.6 | 124.1 | .01 | 1.87 | 1.04 | 1.04 | 0.00 | 44 | 0.0 |

TYPE III 24-HOUR RAINFALL= 4.70 IN, 10 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

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POND 390

DETENTION POND ON FIELD

Q_{in} = 1.87 CFS @ 12.03 HRS, VOLUME= .14 AF
 Q_{out}= 1.04 CFS @ 12.00 HRS, VOLUME= .14 AF, ATTEN= 44%, LAG= 0.0 MIN
 Q_{pri}= 1.04 CFS @ 12.00 HRS, VOLUME= .14 AF
 Q_{sec}= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

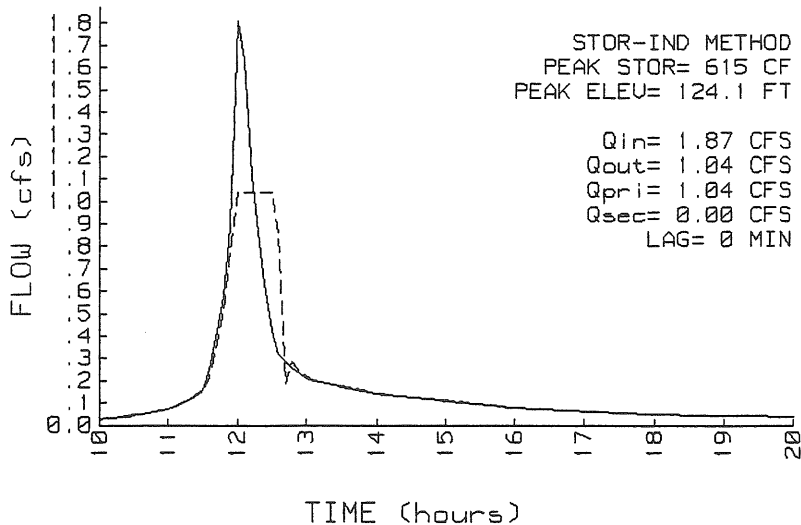
| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 123.9 | 450 | 0 | 0 | PEAK STORAGE = 615 CF |
| 124.0 | 2016 | 123 | 123 | PEAK ELEVATION= 124.1 FT |
| 124.5 | 5700 | 1929 | 2052 | FLOOD ELEVATION= 124.6 FT |
| 124.6 | 7700 | 670 | 2722 | START ELEVATION= 123.9 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | Tdet= 4 MIN (.14 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|--|
| 1 | P | 123.9' | EXFILTRATION Q= 1.04 CFS at and above 124' ← permeability 100 in/hr. |
| 2 | S | 124.5' | 150' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=2.1, 2.13, 0, 0, 0, 0, 0, 0 |

Primary Discharge
 └─1=Exfiltration

Secondary Discharge
 └─2=Broad-Crested Rectangular Weir

POND 390 INFLOW & OUTFLOW
 DETENTION POND ON FIELD



POND 206

CB AT FLTCHR & DNFTRH

Qin = 6.61 CFS @ 12.11 HRS, VOLUME= .67 AF
 Qout= 6.59 CFS @ 12.11 HRS, VOLUME= .67 AF, ATTEN= 0%, LAG= .1 MIN

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 105.0 | 13 | 0 | 0 | PEAK STORAGE = 24 CF |
| 109.0 | 13 | 52 | 52 | PEAK ELEVATION= 106.9 FT |
| 109.1 | 3 | 1 | 53 | FLOOD ELEVATION= 110.9 FT |
| 110.9 | 3 | 5 | 58 | START ELEVATION= 105.0 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | Tdet= .1 MIN (.67 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|---|
| 1 | P | 105.0' | 15" CULVERT n=.016 L=300' S=.05'/' Ke=.5 Cc=.9 Cd=.6 |
| 2 | P | 110.8' | 2' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=1.45, 1.44, 0, 0, 0, 0, 0, 0 |

with permeability of gravel media 100 in/hr

TYPE III 24-HOUR RAINFALL= 4.70 IN, 10 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

POND 390

DETENTION POND ON FIELD

Q_{in} = 1.87 CFS @ 12.03 HRS, VOLUME= .14 AF
 Q_{out} = .75 CFS @ 12.00 HRS, VOLUME= .14 AF, ATTEN= 60%, LAG= 0.0 MIN
 Q_{pri} = .75 CFS @ 12.00 HRS, VOLUME= .14 AF
 Q_{sec} = 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) |
|-------------------|--------------|------------------|------------------|
| 123.9 | 450 | 0 | 0 |
| 124.0 | 2016 | 123 | 123 |
| 124.5 | 5700 | 1929 | 2052 |
| 124.6 | 7700 | 670 | 2722 |

STOR-IND METHOD
 PEAK STORAGE = 998 CF
 PEAK ELEVATION= 124.2 FT
 FLOOD ELEVATION= 124.6 FT
 START ELEVATION= 123.9 FT
 SPAN= 10-20 HRS, dt=.1 HRS
 Tdet= 8.4 MIN (.14 AF)

ROUTE INVERT OUTLET DEVICES

| | | | |
|---|---|--------|--|
| 1 | P | 123.9' | EXFILTRATION Q= .75 CFS at and above 124' |
| 2 | S | 124.5' | 150' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=2.1, 2.13, 0, 0, 0, 0, 0, 0 |

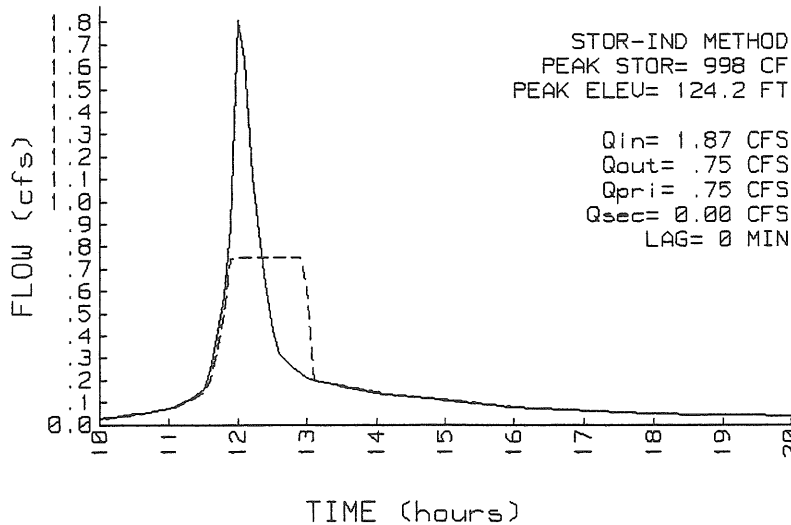
Permeability 72"/hr

Primary Discharge
 └─1=Exfiltration

does not overflow

Secondary Discharge
 └─2=Broad-Crested Rectangular Weir

POND 390 INFLOW & OUTFLOW
 DETENTION POND ON FIELD



TYPE III 24-HOUR RAINFALL= 4.70 IN, 10 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

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POND 206

CB AT FLTCHR & DNFRTH

P.O.A.

Q_{in} = 6.32 CFS @ 12.11 HRS, VOLUME= .67 AF
 Q_{out} = 6.30 CFS @ 12.11 HRS, VOLUME= .67 AF, ATTEN= 0%, LAG= .1 MIN

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 105.0 | 13 | 0 | 0 | PEAK STORAGE* = 23 CF |
| 109.0 | 13 | 52 | 52 | PEAK ELEVATION= 106.8 FT |
| 109.1 | 3 | 1 | 53 | FLOOD ELEVATION= 110.9 FT |
| 110.9 | 3 | 5 | 58 | START ELEVATION= 105.0 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | Tdet= .1 MIN (.67 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|---|
| 1 | P | 105.0' | 15" CULVERT n=.016 L=300' S=.05'/ ' Ke=.5 Cc=.9 Cd=.6 |
| 2 | P | 110.8' | 2' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=1.45, 1.44, 0, 0, 0, 0, 0, 0 |

with permeability of
 gravel media 72u/hr

TYPE III 24-HOUR RAINFALL= 3.00 IN, 2 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

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

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

| SUBCAT NUMBER | AREA (ACRE) | Tc (MIN) | --GROUND COVERS (%CN)-- | | | | WGT'D | | PEAK (CFS) | Tpeak (HRS) | VOL (AF) |
|------------------|----------------|-------------|-------------------------|--------------|----------------|-------|-------|---|---------------|----------------|-------------|
| | | | 7%98 23%98 | 4%98 8%98 | 20%98 22%74 | 17%98 | CN | C | | | |
| 7 | .88 | 4.6 | 7%98 23%98 | 4%98 8%98 | 20%98 22%74 | 17%98 | 93 | - | 2.17 | 12.01 | .15 |
| 8 | .08 | 6.0 | 100%98 | | | | 98 | - | .22 | 12.03 | .02 |
| 10 | .46 | 6.0 | 26%39 | 26%98 | 48%98 | | 83 | - | .69 | 12.04 | .05 |
| 20 | .26 | 6.0 | 19%49 | 15%98 | 65%98 | | 89 | - | .51 | 12.04 | .04 |
| 30 | .41 | 6.0 | 29%98 | 71%98 | | | 98 | - | 1.07 | 12.03 | .08 |
| 50 | .17 | 6.0 | 24%98 | 76%98 | | | 98 | - | .44 | 12.03 | .03 |
| 90 | .55 | 4.4 | 3%98 | 97%74 | | | 75 | - | .56 | 12.03 | .04 |
| 401 | .18 | 6.0 | 43%39 | 57%98 | | | 73 | - | .15 | 12.07 | .01 |
| 402 | .24 | 6.0 | 61%98 | 39%39 | | | 75 | - | .22 | 12.06 | .02 |
| 600 | .24 | 9.1 | 78%74 | 15%98 | 7%98 | | 79 | - | .28 | 12.10 | .02 |
| 601 | .42 | 6.0 | 72%98 | 18%98 | 10%74 | | 96 | - | 1.04 | 12.03 | .08 |

TYPE III 24-HOUR RAINFALL= 3.00 IN, 2 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

REACH ROUTING BY STOR-IND+TRANS METHOD

| REACH NO. | DIAM (IN) | BOTTOM WIDTH (FT) | DEPTH (FT) | SIDE SLOPES (FT/FT) | n | LENGTH (FT) | SLOPE (FT/FT) | PEAK VEL. (FPS) | TRAVEL TIME (MIN) | PEAK Qout (CFS) | |
|--------------|--------------|-------------------------|---------------|---------------------------|-----|----------------|------------------|-----------------------|-------------------------|-----------------------|------|
| 102 | - | - | .3 | .02 | - | .016 | 70 | .0375 | 2.3 | .5 | .49 |
| 103 | - | - | .3 | - | .02 | .016 | 107 | .0327 | 2.6 | .7 | 1.01 |
| 104 | - | - | .3 | - | .02 | .016 | 75 | .0779 | 3.7 | .3 | 1.01 |
| 110 | 8.0 | - | - | - | - | .010 | 116 | .0300 | 6.5 | .3 | .66 |
| 112 | - | - | .3 | .02 | - | .016 | 75 | .0779 | 3.5 | .4 | .89 |
| 114 | - | - | .3 | - | .02 | .016 | 115 | .0806 | 3.9 | .5 | 1.14 |
| 122 | - | - | .3 | .02 | - | .016 | 115 | .0806 | 3.6 | .5 | .89 |
| 160 | 8.0 | - | - | - | - | .010 | 184 | .0250 | 7.0 | .4 | 1.05 |
| 170 | - | - | .4 | .02 | - | .016 | 385 | .0300 | 3.0 | 2.1 | 1.85 |
| 180 | 12.0 | - | - | - | - | .015 | 150 | .0209 | 5.8 | .4 | 2.18 |

TYPE III 24-HOUR RAINFALL= 3.00 IN, 2 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

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POND ROUTING BY STOR-IND METHOD

| POND NO. | START | FLOOD | PEAK | PEAK | PEAK FLOW | | | | ---Qout--- | |
|----------|------------|------------|------------|--------------|-----------|------------|------------|------------|------------|-----------|
| | ELEV. (FT) | ELEV. (FT) | ELEV. (FT) | STORAGE (AF) | Qin (CFS) | Qout (CFS) | Qpri (CFS) | Qsec (CFS) | ATTEN. (%) | LAG (MIN) |
| 206 | 105.0 | 110.9 | 106.0 | 0.00 | 3.60 | 3.60 | | | 0 | 0.0 |
| 207 | 129.0 | 137.0 | 130.9 | 0.00 | 2.17 | 2.11 | | | 2 | .4 |
| 210 | 130.0 | 141.3 | 130.5 | 0.00 | .69 | .68 | .68 | 0.00 | 1 | .4 |
| 217 | 120.0 | 127.0 | 121.9 | 0.00 | 2.33 | 2.20 | 2.20 | 0.00 | 6 | 1.9 |
| 290 | 113.6 | 118.3 | 115.1 | 0.00 | 1.81 | 1.78 | | | 2 | .3 |
| 340 | 129.0 | 134.0 | 129.3 | 0.00 | .22 | .22 | | | 0 | .5 |
| 360 | 118.5 | 124.5 | 120.0 | .03 | 1.26 | .48 | .48 | 0.00 | 62 | 17.9 |
| 390 | 123.9 | 124.6 | 124.0 | 0.00 | .79 | .77 | .77 | 0.00 | 3 | 3.3 |

P.O.A.

POND 390

DETENTION POND ON FIELD

Qin = .79 CFS @ 12.04 HRS, VOLUME= .06 AF
 Qout= .77 CFS @ 12.10 HRS, VOLUME= .06 AF, ATTEN= 3%, LAG= 3.3 MIN
 Qpri= .77 CFS @ 12.10 HRS, VOLUME= .06 AF
 Qsec= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

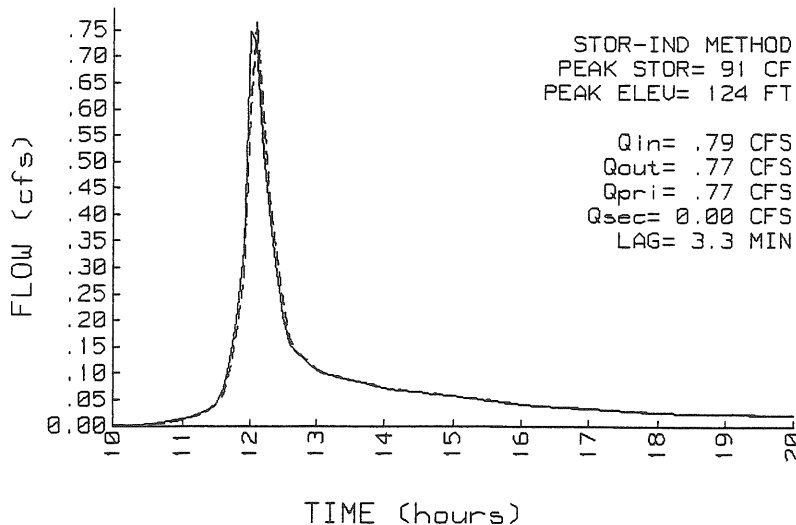
| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 123.9 | 450 | 0 | 0 | PEAK STORAGE = 91 CF |
| 124.0 | 2016 | 123 | 123 | PEAK ELEVATION= 124.0 FT |
| 124.5 | 5700 | 1929 | 2052 | FLOOD ELEVATION= 124.6 FT |
| 124.6 | 7700 | 670 | 2722 | START ELEVATION= 123.9 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | Tdet= 2 MIN (.06 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|--|
| 1 | P | 123.9' | EXFILTRATION Q= 1.04 CFS at and above 124' — permeability 100"/hr |
| 2 | S | 124.5' | 150' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=2.1, 2.13, 0, 0, 0, 0, 0, 0 |

Primary Discharge
 └─1=Exfiltration

Secondary Discharge
 └─2=Broad-Crested Rectangular Weir

POND 390 INFLOW & OUTFLOW
 DETENTION POND ON FIELD



TYPE III 24-HOUR RAINFALL= 3.00 IN, 2 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

POND 206

CB AT FLTCHR & DNERTH

Q_{in} = 3.60 CFS @ 12.12 HRS, VOLUME= .36 AF
 Q_{out}= 3.60 CFS @ 12.12 HRS, VOLUME= .36 AF, ATTEN= 0%, LAG= 0.0 MIN

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 105.0 | 13 | 0 | 0 | PEAK STORAGE = 13 CF |
| 109.0 | 13 | 52 | 52 | PEAK ELEVATION= 106.0 FT |
| 109.1 | 3 | 1 | 53 | FLOOD ELEVATION= 110.9 FT |
| 110.9 | 3 | 5 | 58 | START ELEVATION= 105.0 FT |
| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | Tdet= .1 MIN (.36 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|---|
| 1 | P | 105.0' | 15" CULVERT n=.016 L=300' S=.05'/ ' Ke=.5 Cc=.9 Cd=.6 |
| 2 | P | 110.8' | 2' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=1.45, 1.44, 0, 0, 0, 0, 0, 0 |

With permeability of gravel using 100"/hr

POND 390 DETENTION POND ON FIELD

Qin = .79 CFS @ 12.04 HRS, VOLUME= .06 AF
 Qout= .75 CFS @ 12.11 HRS, VOLUME= .06 AF, ATTEN= 6%, LAG= 3.9 MIN
 Qpri= .75 CFS @ 12.11 HRS, VOLUME= .06 AF
 Qsec= 0.00 CFS @ 0.00 HRS, VOLUME= 0.00 AF

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) |
|-------------------|--------------|------------------|------------------|
| 123.9 | 450 | 0 | 0 |
| 124.0 | 2016 | 123 | 123 |
| 124.5 | 5700 | 1929 | 2052 |
| 124.6 | 7700 | 670 | 2722 |

STOR-IND METHOD
 PEAK STORAGE = 122 CF
 PEAK ELEVATION= 124.0 FT
 FLOOD ELEVATION= 124.6 FT
 START ELEVATION= 123.9 FT
 SPAN= 10-20 HRS, dt=.1 HRS
 Tdet= 2.7 MIN (.06 AF)

ROUTE INVERT OUTLET DEVICES

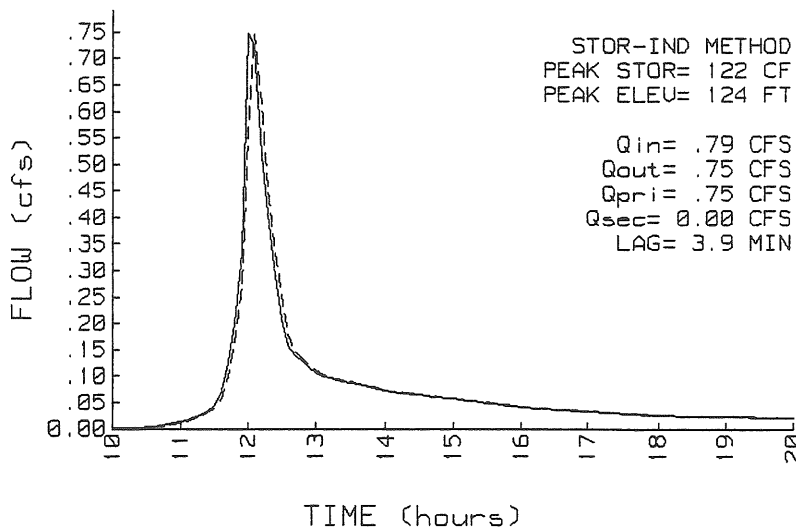
| | | | |
|---|---|--------|--|
| 1 | P | 123.9' | EXFILTRATION Q= .75 CFS at and above 124' |
| 2 | S | 124.5' | 150' BROAD-CRESTED RECTANGULAR WEIR X 1.81 Q=C L H ^{1.5} C=2.1, 2.13, 0, 0, 0, 0, 0, 0 |

permeability 22"/hr

Primary Discharge
 └─1=Exfiltration

Secondary Discharge
 └─2=Broad-Crested Rectangular Weir

POND 390 INFLOW & OUTFLOW
 DETENTION POND ON FIELD



TYPE III 24-HOUR RAINFALL= 3.00 IN, 2 YR STORM

Prepared by PINKHAM & GREER

7 Apr 01

HydroCAD 5.11 001454 (c) 1986-1999 Applied Microcomputer Systems

POND 206

CB AT FLTCHR & DNFRTN

Q_{in} = 3.59 CFS @ 12.13 HRS, VOLUME= .36 AF
 Q_{out} = 3.59 CFS @ 12.13 HRS, VOLUME= .36 AF, ATTEN= 0%, LAG= 0.0 MIN

| ELEVATION (FT) | AREA (SF) | INC.STOR (CF) | CUM.STOR (CF) | STOR-IND METHOD |
|-------------------|--------------|------------------|------------------|----------------------------|
| 105.0 | 13 | 0 | 0 | PEAK STORAGE = 13 CF |
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| 109.1 | 3 | 1 | 53 | FLOOD ELEVATION= 110.9 FT |
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| | | | | SPAN= 10-20 HRS, dt=.1 HRS |
| | | | | Tdet= .1 MIN (.36 AF) |

| # | ROUTE | INVERT | OUTLET DEVICES |
|---|-------|--------|--|
| 1 | P | 105.0' | 15" CULVERT n=.016 L=300' S=.05'/' Ke=.5 Cc=.9 Cd=.6 |
| 2 | P | 110.8' | 2' BROAD-CRESTED RECTANGULAR WEIR X 1.81' Q=C L H ^{1.5} C=1.45, 1.44, 0, 0, 0, 0, 0, 0 |

With permeability of gravel
 media 72"/hr



Scott Simons Architects

MEMO

15 Franklin St.
Portland, ME 04101

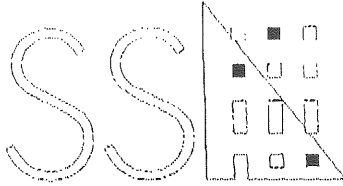
(207) 772-4656
(207) 828-4656 FAX
E MAIL: austin@simonsarchitects.com

Date: April 6, 2001
Project name/number: Waynflete Arts Center, SSA #00116.04
Re: Lot Coverage Calculations
From: Scott Simons
To: Sarah Hopkins @ City Planning Office
Cc: Marge Schmuckal, Hymie Gulak , Austin Smith, Jobfile 3.1

The Waynflete Arts Center

Lot Coverage Calculations

| <u>West Parcel</u> | <u>Existing SF</u> | <u>Proposed Phase One</u> | <u>Proposed Phase Two</u> |
|---------------------------------------|--------------------|---------------------------|---------------------------|
| 156,374 SF | 35,690 SF | + 860 SF | +10,975 SF |
| <u>East Parcel</u> | <u>Existing SF</u> | <u>Proposed Phase One</u> | <u>Proposed Phase Two</u> |
| 87,865 SF | 17,783 SF | + 440 SF | + 0 SF |
| <u>Combined Parcels</u> | <u>Existing SF</u> | <u>Proposed Phase One</u> | <u>Proposed Phase Two</u> |
| 244,239 SF | 53,473 SF | +1,300 SF | +10,975 SF |
| <u>% Lot Coverage</u> | <u>Existing SF</u> | <u>Proposed Phase One</u> | <u>Proposed Phase Two</u> |
| | 21.89% | 22.43% | 26.92% |
| <u>% Increase in Lot Coverage</u> | <u>Existing SF</u> | <u>Proposed Phase One</u> | <u>Proposed Phase Two</u> |
| | | 0.54% | 4.49% |



Scott Simons Architects

15 Franklin Street Art, Portland, ME 04101-4169 • 207-772-4656 – 207-828-465

FAX TRANSMITTAL FORM

| | | |
|----------------------|-----------------|--|
| April 9, 2001 | 10:30 AM | 3 |
| Date | Time | No. of pages (including Transmittal sheet) |

Scott Simons

Fax From

| | | |
|----------------------|---------------------------|-----------------|
| Sarah Hopkins | City Planning Dept | 756-8258 |
| Fax To (Name) | (Company) | (Fax #) |

| | |
|------------------------------|--------------------|
| Waynflete Arts Center | 00116.00.00 |
| Regarding (Project) | (Project #) |

Please call 207-772-4656 should there be any problems with receipt of this transmission.

Sarah,

Here is a summary of the Lot Coverage Calculations for your review.
Let me know if this is acceptable.

Give me a call when you have a chance so we can review our submittal before the Planning Board meeting tomorrow night.

Thanks, Scott



Scott Simons Architects

MEMO

15 Franklin St.
Portland, ME 04101

(207) 772-4656
(207) 828-4656 FAX
E MAIL: austin@simonsarchitects.com

Date: April 6, 2001
Project name/number: Waynflete Arts Center, SSA #00116.04
Re: Lot Coverage Calculations
From: Scott Simons
To: Sarah Hopkins @ City Planning Office
Cc: Marge Schmuckal, Hymie Gulak, Austin Smith, Jobfile 3.1

Attached please find a copy of the revised lot coverage calculations for the Waynflete Arts Center Project. These calculations are based on the Site Plan Drawings (Phase One and Phase Two) submitted to the Planning Board on March 27, 2001. Lot coverage in residential zones is determined by the combined footprints of all buildings and structures.

We can provide back-up for these calculations if necessary. Please let us know if you need them.

Thank you

Wayne State Arts Center

Needs -

- 2nd phase landscape plan
- different funding letter

Issues

- parking - (MARGE)
 - neighborhood concerns
 - removing 14 and adding 24 - maintain existing?
- HP - what stage are they at (Des)
- Stormwater treatment (Steve)
 - suitable/detailed sketch for phase II
 - parking runoff from stage II parking lot
- landscaping adequacy - (Jeff)
- is the access drive into temp parking wide enough

March 20, 2001

Mr. Scott Simons
Scott Simons Architects
15 Franklin Street
Portland, ME 04101

RE: Arts Center Addition to the Waynelete School
(ID# 20010016, CBL#061-F-006)

Dear Mr. Simons:

I would like to thank you for taking the time to meet with us today concerning the proposed Arts Center Addition to the Waynelete School located at 360 Spring Street. We will investigate issues surrounding the expiration of Historic Preservation recommendations and also the dynamics of phased projects with incomplete funding. Staff would encourage you to further investigate the possibility of separating the two phases of this project into separate projects. Due to the stringent nature of the submittal requirements, a project encompassing the development proposed in phase one may expedite the approval process.

I have enclosed a copy of our "site plan checklist" which will enable you to supplement the items already submitted with additional material that will together constitute a complete application. Below are items taken from the checklist presented in greater detail.

1. A standard boundary survey prepared by a registered land surveyor at an appropriate scale. This survey should include the boundaries of the property in addition to the existing and proposed topography at intervals of not more than 2 feet.
2. Plans prepared, based on the boundary survey, including locations of existing and proposed buildings, lighting, parking and loading areas, pedestrian walkways and vehicular access.
3. A landscape plan must be provided that illustrates existing, preserved and proposed vegetation. Preservation methods for landscaping within close proximity to proposed development sites should also be included.
4. Evidence of financial and technical capability to undertake and complete the development. A letter from a financial institution stating that it has reviewed the planned development and that funding is available.

5. A narrative describing existing surface drainage on the site and a stormwater management plan indicating measures which will be taken to control runoff.
6. A brief letter describing the growth of the school.

If you have any questions related to these submittal requirements or any other questions concerning this project please do not hesitate to contact me at 756-8083.

Sincerely,

Jonathan Spence
Planner

**CITY OF PORTLAND, MAINE
MEMORANDUM**

TO: Chair Caron and Members of the Portland Planning Board

FROM: Jonathan Spence, Planner

DATE: April 6, 2001

SUBJECT: Waynefleete Arts Center, 360 Spring Street

Introduction

The Waynefleete School has requested site plan approval for the addition of a 23,000 sq. ft. Arts Center that will extend from the existing Waldron Auditorium and Davies Hall on the Spring Street Campus. The complex is comprised of a 275-seat auditorium and one, two and three-story additions. The additions will be used for music and rehearsal space, two art studios, a theatrical set-building shop, music support and storage space and a gallery. This project is being proposed as a phased project with the first phase consisting of the construction of a three-story addition to the south of the Daveis Building, a one story addition to the north of the same building and the placement of 5 temporary parking spaces to offset three that will be removed. The second phase will consist of the construction of the auditorium, its attached two-story addition and a new 24-space parking lot. The existing 14-space parking lot will be removed at the conclusion of this phase. The site is approximately .8 acres and is zoned R-4. The development would be reviewed for conditional use as an institutional use in the R-4 zone and site plan review. The standards for the institutional conditional use and the regular conditional use are attached.

The site currently has numerous existing buildings used for the daily operation of this K-12 private school.

Access/Circulation

Access to the site will be from Danforth, Spring and Storer Streets via existing driveways. The project does not create additional parking requirements, as there is no projected increase in the number of students. Zoning Administration agrees with this assessment, as the auditorium will not be used for non-school activities. Correspondence has been received from a neighboring resident expressing concern about the lack of available parking and the potential for greater difficulties as the result of this project. This letter is attached. In the past the Waynefleete School has attempted to manage its parking through various measures including a parking sticker program and establishing designated parking areas with neighborhood input.

Pedestrian circulation through the site will be enhanced by the completion of phase two of the proposed project. The relocation of the existing 14-space parking lot will increase safe pedestrian passage from the existing library to other buildings on the campus.

Utilities

The applicant is proposing to tie into existing sanitary sewer and water lines in Danforth and Storer Streets. Existing electrical and gas service will be extended and expanded to accommodate the project.

Drainage

Existing drainage for this parcel is surface to street curbs with the exception of one dry well. Proposed new drainage will also be surface flow from building faces to street curbs and existing catch basins in Storer and Danforth Streets. A drainage trench that will function as an underdrain will help to control the rate of discharge into Danforth Street. The proposed drainage plan is currently being reviewed by Steve Bushey, City of Portland engineering consultant.

Lighting

A lighting plan for this project has not been received. An acceptable lighting plan with associated photometrics will be required for staff review prior to the scheduling of a public hearing.

Landscaping

A phase one landscape plan has been received from the applicant is currently being reviewed by Jeff Tarling, City Arborist. The landscape plan for phase two has not been received at this time. Adequate landscape plans for both phases is required prior to the scheduling of a public hearing.

Building Design

The Historic Preservation Committee has held three workshops on the proposed arts center complex with the last meeting being April 4th. The committee has recommended approval of the bulk of the project with some items tabled for consideration at a later meeting. A recommendation following a completed review by the Historic Preservation Committee will be required prior to a public hearing before the Planning Board.

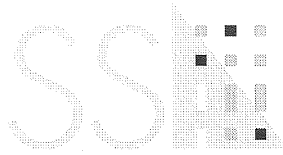
Concerns

Staff has concerns related to the phasing of the proposed project. With financing only confirmed for phase one, the timetable for the completion of this project is unclear. Staff would ask that the applicant attempt to provide the board with greater information relating to the capital campaign so as to gain a greater understanding of the proposed scheduling. Without sufficient information on phase two, it is unclear whether the Arts Center project can be considered as a whole. The first phase may need to be reviewed as a separate entity as a result of the uncertainty of available funding for phase two.

Public Hearing

Prior to the scheduling of a public hearing, staff will require:

1. Final review and resolution of the construction phasing.
2. Recommendation of the project by the Historic Preservation Committee.
3. A lighting plan for both phases of the project.
4. A landscape plan for both phases of the project.



Scott Simons Architects

15 Franklin St.
Portland, ME 04101

(207) 772-4656
(207) 828-4656 FAX
E MAIL: austin@simonsarchitects.com

MEMORANDUM

Date: January 30, 2001
Project name/number: Waynflete Arts Center, SSA # 00116.00
Re: Site Plan Review
From: Scott Simons
To: City of Portland Planning Department
Cc: Hymie Gulak, Business Manager
Chris Beaven, Chair of Building Committee
Jobfile

PRELIMINARY DRAFT
APPLICATION FOR SITE PLAN REVIEW

In accordance with the City of Portland Land Use Code, Section 14-525, we are submitting the following information for your consideration, regarding the proposed addition and site improvements at the Waynflete School, 360 Spring Street, Portland, Maine.

1. *Description of proposed uses to be located on the site, including quantity and type of residential units, if any:*
 - The existing school use is to remain. In accordance with the Wanflete School Masterplan, as updated January, 2001, the School intends to undertake the building of the Arts Center Addition and Renovations to the existing Daveis Hall on Storer Street.
 - The School proposes to add a 23,000 SF classroom, studio, gallery, and auditorium addition to the south edge of the existing 2 1/2 story brick Daveis Hall. The existing building and the adjacent Waldron Auditorium will undergo interior renovations. The project also includes site improvements around the new entrance, in the area known as the Sanctuary, as shown on the Site Plan, and landscaping along all edges of the proposed project.
 - In order to build this addition it will be necessary to demolish an existing 600 SF single story masonry storage (garage) building at the edge of the Sanctuary, and a one story masonry shed addition along the edge of the existing Auditorium.
 - There will be no change in the size of the School population or the use of the arts facilities as a result of this Project. All programs that will use this facility are existing.

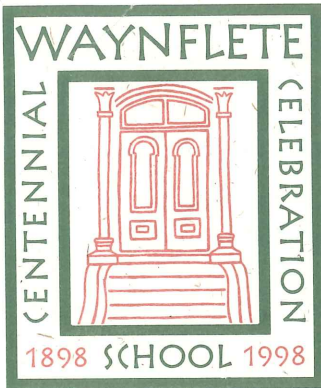
- The project will be built in two or three phases. Phase one will likely include the renovation of the Daveis Building, the addition of the new entrance and gallery, the addition of three large classrooms in the "L" of Daveis Hall, and a new elevator making the entire facility accessible. When the Auditorium is built, the School plans to expand the parking across the street, as shown on the Master Plan.
2. *Total land area of the site and the total floor area and ground coverage of each proposed building and structure:*
 - The Waynflete School site is comprised of twelve classroom/administration buildings and five storage buildings (garages). The buildings are of various sizes and shapes, ranging from the one story wood frame garages of 600 SF to the three story brick Upper School building of approximately 30,000 SF.
 - Total area of combined parcels = SF
Existing total lot coverage of combined parcels --SF or %
Proposed total lot coverage of combined parcels --SF or %

 3. *General summary of existing and proposed easements or other burdens now existing or to be placed on the property:*
 - There are no easements or burdens that we are aware of.

 4. *The types and estimated quantities of solid waste to be generated by the development:*
 - There will be no change in use or occupant load.
Four toilets will be removed during the renovations; nine toilets will be built in the new additions, for a net gain of five toilets.

 5. *Evidence of the availability of off-site facilities including sewer, water and streets:*
 - The site is bordered on the south by Danforth Street.
 - A new 6" storm drain line will connect to the existing 14" street storm sewer at Danforth Street. The existing sewer connection to remain for Daveis Hall. The new additions will have a new 4" sewer line connected to the existing sewer main at Danforth Street.
 - Water service will continue from Storer Street and is adequate to service both domestic and fire protection needs for both Phases 1 and 2.
 - Electrical service is currently provided overhead from Storer Street. Proposed new service to be three phase and run overhead from existing pole on Spring Street to a pad mounted transformer across Storer Street from Daveis Hall, then underground into the basement of Daveis Hall.
 - Existing gas service from Fletcher Street into basement of Founders Hall will be extended into the basement of Daveis Hall, where a new boiler will service the existing building and new additions.

 6. *A narrative describing the existing surface drainage on the site and a stormwater management plan indicating measures which will be taken to control surface water runoff:*
 - Existing drainage pattern of all parcel is surface to street curbs with the exception of a dry well at parcel 1.
 - New drainage is also surface flow from building faces to street curbs and existing catch basins at Storer and Danforth.
 - Roof drainage from new additions will connect to 14" storm sewer by means of a new 8" line. This line is sized to accommodate roof drainage from Phases One and Two.



TO: Planning Board, City of Portland

FR: Hymie Gulak, Director of Finance and Operations

A handwritten signature in black ink, appearing to read "Hymie Gulak".

DT: March 13, 2001

RE: Financing for proposed renovations and expansion of the Art's facilities

For the past two years, Waynflete School has been conducting a Capital Campaign to fund construction of proposed improvements to its campus. To date, we have completed improvements to our middle school, built a new Science Wing for the Upper School and will complete the renovations to the Upper School by June of this year.

Waynflete currently has sufficient funds from its tax Exempt Bond financing and from funds donated specifically for the Art's project, to complete construction of Phase One. During the construction of Phase One the Capital Campaign will continue and Phase Two will begin only when sufficient funds are raised and /or the School obtains financing to complete the work.



From: Marge Schmuckal
To: Jonathan Spence
Date: Mon, Apr 9, 2001 3:38 PM
Subject: 360 Spring Street - Waynflete School

Jonathan, I have reviewed the latest set of submitted drawings for the phase one and phase two projects.

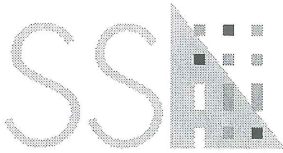
The area where the additions are being proposed are located in the R-4 zone. A small amount of the campus is located in an R-6 zone. I have applied the stricter zone (R-4) requirements to the project.

Setbacks: All the required setbacks are being met.

lot coverage: 30% is the maximum allowed. 26.92% is what is being shown.

Height: The height requirements have been met as shown to me by Scott Simons.

Parking: After several conversations with the architect and with Hymie Gulak, I have concluded that the phase II auditorium would not be required to show additional off-street parking for its use. Base on our meetings and a letter received by Hymie Gulak explaining the intended use of this structure, it would be considered an accessory structure to be used by the students. It is not a separate, for profit venture that would required its own parking requirements. It is my understanding that there is no parking displacement with this proposal. We have gone over the numbers and the 50 spaces shown in total meet the classroom requirements (a percentage was used for students over 16 years of age). So I have determined that the parking requirements have been met. However, I will put a condition on my approval that if the use of this auditorium changes in the future to allow more non-school related functions, it shall be necessary for this office to re-evaluate the off-street parking requirements.



Scott Simons Architects

MEMO

15 Franklin St.
Portland, ME 04101

(207) 772-4656
(207) 828-4656 FAX
E MAIL: austin@simonsarchitects.com

Date: February 1, 2001
Project name/number: Waynflete Arts Center, SSA #00116.00
Re: Introduction for Planning Board Workshop
From: Scott Simons
To: Deb Andrews and the Planning Board
Cc: Jobfile 3.1

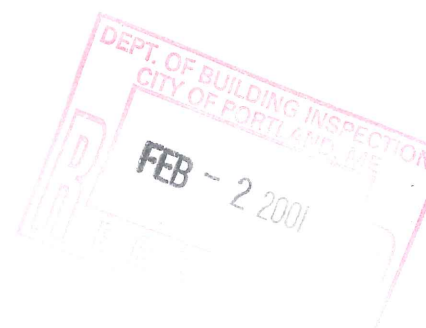
Attached please find nine copies of the preliminary site plan, floor plans, elevations, sections, and interior elevations for the proposed Arts Center Addition at the Waynflete School, site photos of the existing buildings, and a summary space program.

We will be meeting with you on February 13th for two purposes. First we will be presenting revisions to the Campus Master Plan, to fill you in on the School's revised long term plans for development of their campus. Areas to be addressed include:

- Revisions to the Loop Road and Pedestrian Entrance
- Middle School play area
- Changes in the Lower School Playground
- Addition of a Greenhouse to the Lower School
- Changes to the Upper School Quadrangle green space, including relocation of the parking lot.
- New Acquisition: 3 Storer Street.
- Relocation of the recycling center and trash collection area.
- The Arts Center Project

Secondly, we will be introducing you to the Arts Center project, including review of the design development level drawings, the site plan, floor plans, elevations, sections, and interior elevations. Areas to be addressed include:

- Meetings with the neighborhood
- Meetings with Historic Preservation and Landmarks
- Overall size and configuration of the Center
- Urban design intentions
- Site development intentions
- Design concept, including floor plans, elevations and sections
- Phasing options
- Proposed schedule



The Arts Center Project includes a new auditorium, attached along the south edge of the existing Waldron Auditorium. The new auditorium has approximately 282 seats. The existing auditorium is renovated to provide much needed interior recreation (lower school gymnasium) space. Two small two story additions are planned along the south and east sides of the new auditorium, housing music and dance rehearsal spaces of various sizes, two large art studios, a theatrical shop, and storage space. The existing Daveis building is renovated to provide reconfigured classroom space and a ceramics studio in the basement. A one story addition is planned along the north side of the Daveis "L", housing the new entrance and gallery spaces.

Total new space: approximately 23,000 SF.

We appreciate your assistance and guidance during this stage of design, and look forward to a successful collaboration throughout the project. Thank you.

Waynflete Arts Center

Schematic Design Space Program: Revised 11.14.00

General Public Spaces

| | | | |
|-----------------|---------------------|------------------------------------|-----------------|
| | Lobby | Direct access to Auditorium | 1,000 sf |
| | | | |
| | Gallery | Safe for/from kids | 800 sf |
| | | Storage space for display fixtures | 80 sf |
| | | | |
| | Public Restrooms | Direct access to Lobby | 400 sf |
| | | | |
| | Departmental Office | Central to Arts Center | 250 sf |
| Subtotal | | | 2,530 sf |

Performing Arts

| | | | |
|--------------------|------------------------|----------------------------|------------------|
| THEATRE | Auditorium | More seating | 900 sf addl. |
| | | Real Stage | (5,000 sf total) |
| | | Side & back wing space | |
| | | Light booth access | |
| | | Follow spot platform | |
| | | | |
| | Light/Sound Booth | | 100 sf |
| | | | |
| | Shop | Near Stage | 800 sf |
| | | Big sink | |
| | | Wash area | |
| | | | |
| | Storage | High ceiling | 1,000 sf |
| | Projects in progress | | |
| | Old sets and flats | | |
| | Furniture | | |
| BAND ROOM | Large Rehearsal Space | Grades 6-12 | 2,400 sf |
| | | 40 x 60 x 10 | |
| | | Live Sound | |
| | | Direct access to backstage | |
| | Faculty Workrooms | Internet/phone | 120 sf |
| Instrument Storage | Lockers | 400 sf | |
| | | | |
| STEEL BAND | Medium Rehearsal Space | Grades 6-12 | 768 sf |
| | | Dead Sound | |
| | | Auditorium floor level | |
| | | Open onto audience space | |

Performing Arts (cont'd)

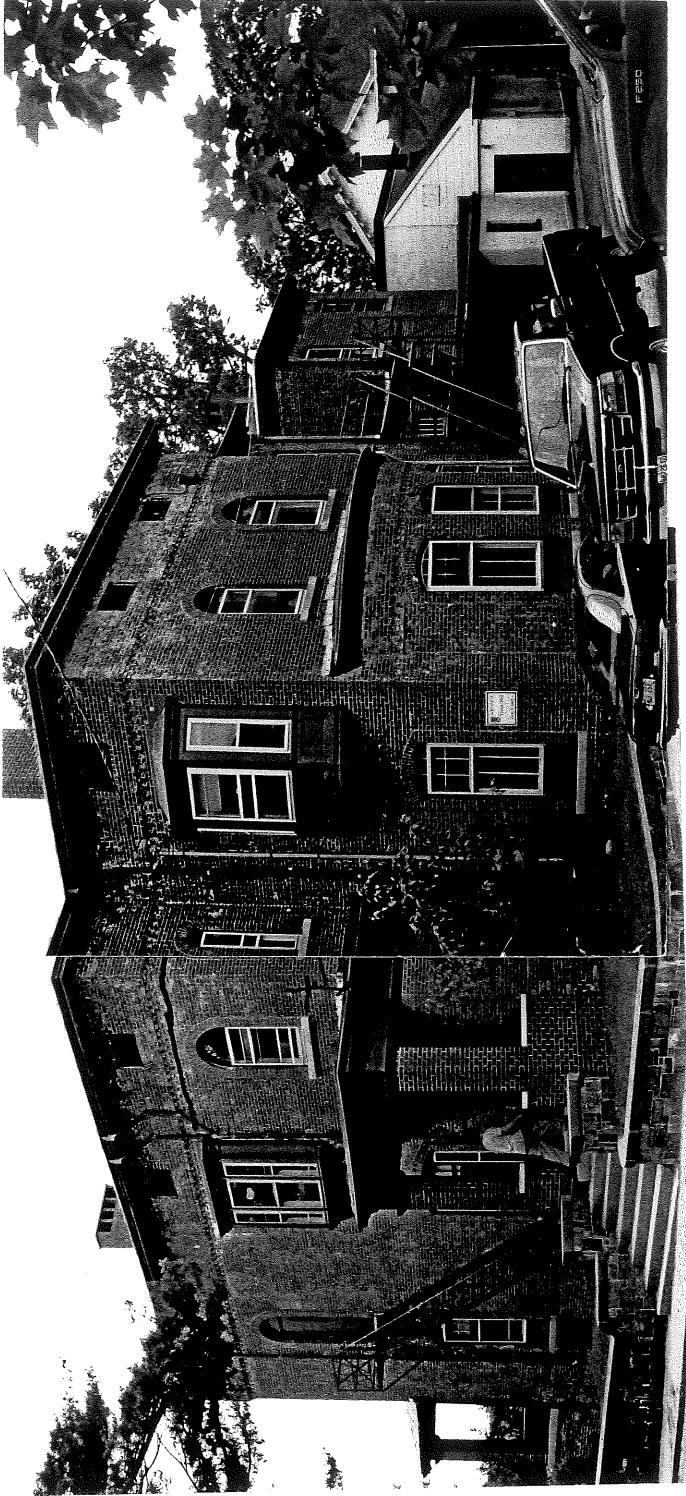
| | | | |
|-----------------------|----------------------------|--------------------------|------------------|
| CHORUS | Large Rehearsal Space | Grades 4-12 | 1,000 sf |
| | | 35x35x10 | |
| | | Live Sound | |
| | Large Closet | Music Storage | 80 sf |
| | Medium Rehearsal/Classroom | Same size as stage | 768 sf |
| DRAMA | Classroom | | 600 sf |
| DANCE | Large Rehearsal Space | Wood floor (or new tech) | 1,000 sf |
| | | Mirrors | |
| | Dressing Room (s) | Access to bathrooms | 100 sf |
| | Storage | | 100 sf |
| PRACTICE/LESSON ROOMS | 5 Rehearsal Rooms | 1 @ 168 sf | 528 sf |
| | | 2 @ 80 sf | |
| | | 2 @ 100 sf | |
| | | | |
| LOWER SCHOOL MUSIC | Classroom Space | Grades EC-5 | 600 sf |
| | | Built in risers | |
| | | Dead Sound | |
| | | Near L.S. | |
| | | Lockable Shelving | 12 sf |
| Subtotal | | | 11,376 sf |

Visual Arts

| | | | |
|-----------------|--------------------------|-------------------------|-----------------|
| STUDIOS | Two Large Studios | 1,600 sf each | 3,200 sf |
| | | Spray booth in 1 studio | |
| | | | |
| | Computer Room | Equipment | 150 sf |
| | | | |
| PRINTMAKING | Press Room/Printmaking | Access from all studios | 500 sf |
| 3-D STUDIO | Sculpture Studio Space | Combined with Ceramics | 0 sf |
| WOODWORKING | Woodworking Studio Space | Combined with Shop | 0 sf |
| CERAMICS | Ceramics Studio Space | Near kiln room | 1,000 sf |
| | Kiln Room | Vented | 200 sf |
| | | | |
| PHOTOGRAPHY | Dark Room Space | Equipment | 200 sf |
| OTHER | Faculty workroom | | 120 sf |
| | General Art Storage | | 200 sf |
| Subtotal | | | 5,570 sf |

Summary

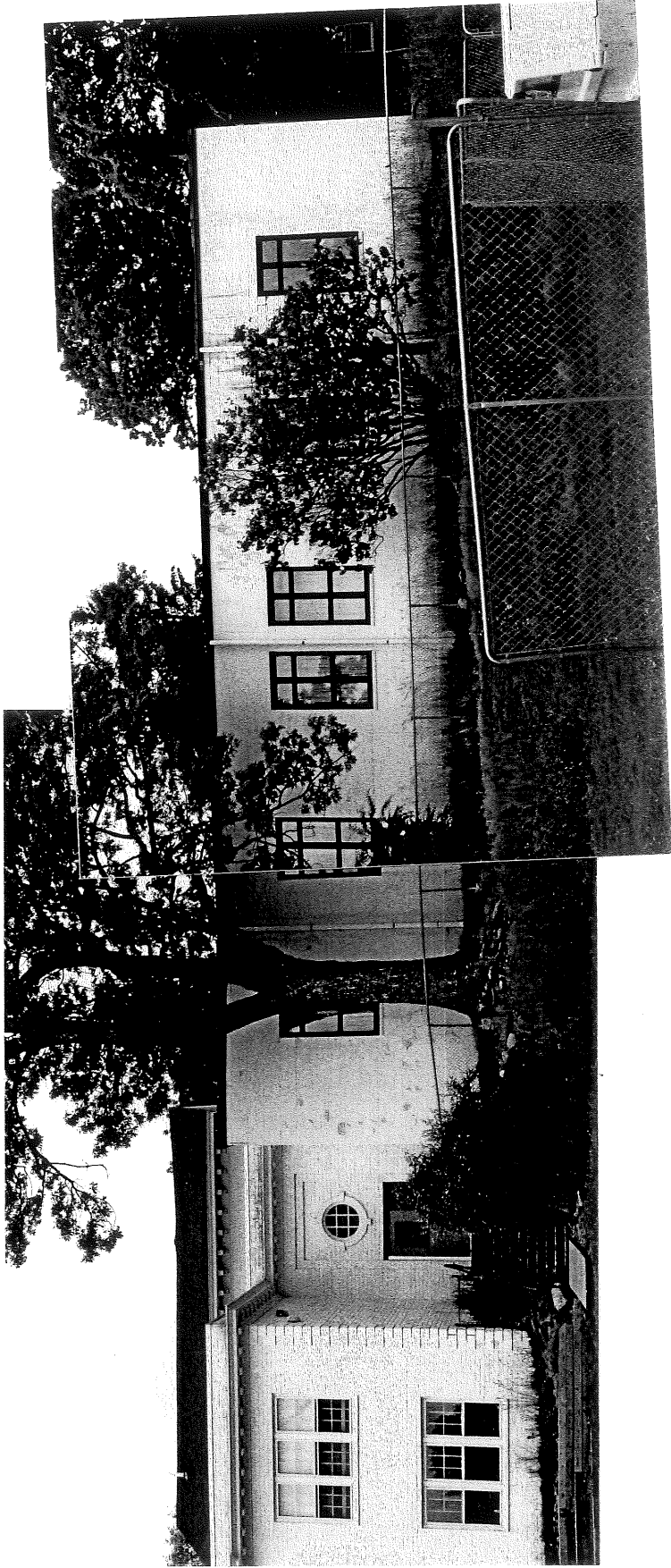
| | |
|-------------------------------------|------------------|
| General Public Spaces | 2,530 sf |
| Performing Arts | 11,376 sf |
| Visual Arts | 5,570 sf |
| Sub-total (net square feet) | 19,476 sf |
| Circulation, mechanical, etc. @ 25% | 4,869 sf |
| Total (gross square feet) | 24,345 sf |



The Waynflete School

360 Spring Street, Portland, Maine

View of Daveis Hall along Stover Street



The Waynflete School

360 Spring Street, Portland, Maine

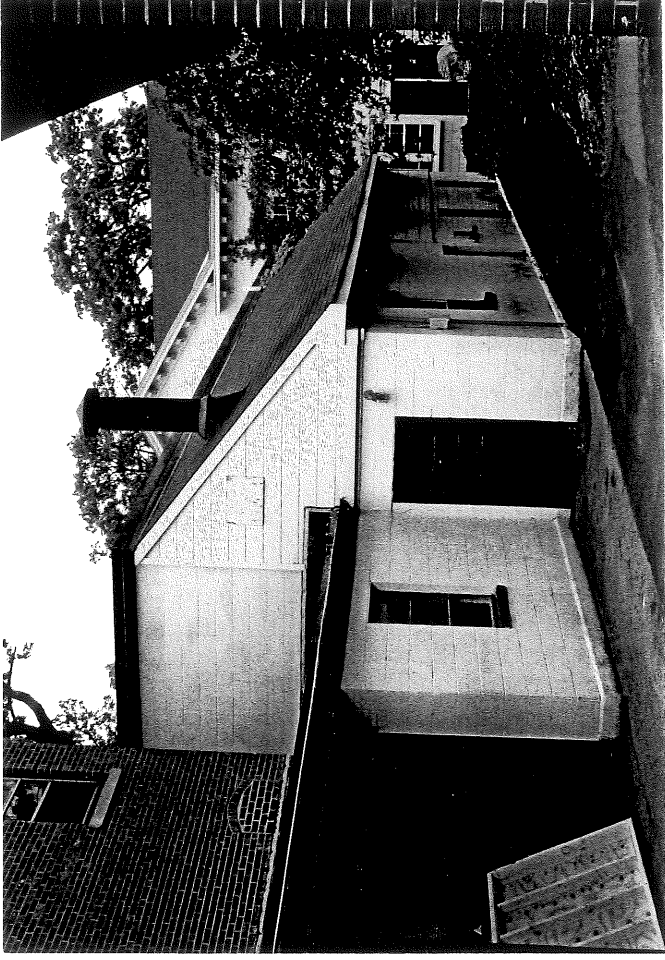
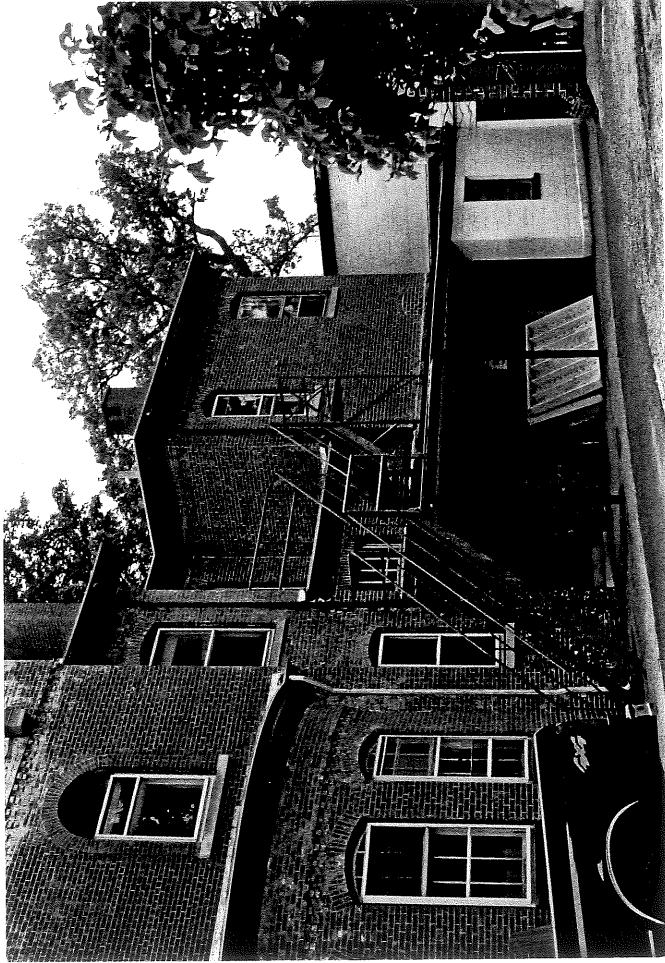
View of Waldron Auditorium from Danforth Street



The Waynflete School

360 Spring Street, Portland, Maine

View of Daves Hall from Danforth Street



The Waynflete School

360 Spring Street, Portland, Maine

View of Waldron Auditorium, North Entrance

Attachments:

1. Site Survey
2. Site Plan-Phase One
3. Demolition and Removal Plan-Phase One
4. Layout and Materials Plan-Phase One
5. Grading and Drainage Plan-Phase One
6. Landscape Plan-Phase One
7. Drainage Details-Phase One
8. Ground Floor Plan-Phase One
9. First Floor Plan-Phase One
10. Second Floor Plan-Phase One
11. Exterior E/N Elevations-Phase One
12. Exterior W/S Elevations-Phase One
13. Building Sections-Phase One
14. Site Plan-Phase Two
15. Ground Floor Plan-Phase Two
16. First Floor Plan-Phase Two
17. Second Floor Plan-Phase Two
18. Exterior Elevations-Phase Two
19. Building Sections-Phase Two
20. Mr. And Mrs. George R. Moberg Letter-Dated March 20, 2001
21. Standards for the Institutional Conditional Use R-4
22. Regular Conditional Use Standards

Waynelete School

Issues

- parking *
- storm water treatment, cumulative impervious

Needs

- boundary survey
- plans
 - see checklist
- pedestrian movement
- landscape plan
 - existing
 - preserved
 - proposed
- lighting
 - type
 - placement
 - photometrics
- WATER
- SEWER
- Drainage

regulatory approvals
pending applications
financial/Technical

CAMPUS MASTER PLAN

for

**WAYNFLETE SCHOOL
PORTLAND, MAINE**

Submitted to the Board of Trustees by
The Campus Master Plan Committee of
The Buildings and Grounds Committee
June 21, 1994

Campus Master Plan Committee:

Lynn Shaffer, Chair

Jim Amoroso

Roger Berle

Santo Cimino

Joe Gray

Ted Haffenreffer

Buell Heminway

Scott Simons

Scott Teas

INTRODUCTION

The Campus Master Plan has been created to develop a vision for the growth and use of the Waynflete School's facilities for the next 10 years. It assumes that Waynflete has reached its optimal size and will not increase its student population, and that it will remain on its Spring Street campus with playing fields on Osgood Street. It has been developed following extensive research using questionnaires and personal interviews with administrators, faculty, staff, students, alumni, parents and neighbors. It presents a guideline for both campus site development and development of individual buildings and programs.

The Plan has been developed with six objectives:

- to improve safety on and around campus
- to increase the efficiency of the campus
- to rationalize the organization of the campus
- to improve pedestrian circulation on campus
- to establish clear campus entrances
- to reduce our impact on our neighborhood.

Situated on an urban campus, Waynflete encounters typical urban complexities. Implementation of recommendations of the Plan would help the school deal with these complexities and with internal needs as follows: Waynflete would develop a main entrance on Spring St. with student drop off and pickup scattered to dilute the impact of these activities on the neighborhood. The campus would be organized around green spaces relating to the Lower, Middle and Upper schools. Parking would be relegated to the perimeter of the campus to separate children from vehicles. Buildings would be repaired and remodeled to better accommodate their programs, and additions would be built to relieve pressure on overused and inadequate space. Trim on buildings would be painted a uniform color. Well lighted and drained paths would crisscross green spaces connecting buildings; clear signage would direct campus visitors. Landscaping would hide parking, soften edges, and reinforce the site plan.

The impact of these changes will be greatly influenced by the ongoing maintenance and repair of the campus. Given the age of Waynflete's buildings, maintenance and repair costs will remain relatively high. For the Plan to succeed in elevating Waynflete's physical image, it is important that maintenance and repair receive adequate budgetary priority.

CAMPUS PLAN IMPLEMENTATION PRIORITIES

The following list prioritizes major recommendations made for the individual schools and departments in the pages that follow. In addition, careful attention should be paid to recommendations listed as "Immediate" and "short term" for each program. Clearly, if dedicated moneys are received, development may occur in a different order.

1. Move all administrative offices into Thomas House. (This move is underway and should be complete by September, 1994.)
2. Build locker room additions to the gym so that lockers can be moved out of Hewes Wing. Complete recommendations for Lower School facilitated by removing lockers from Hewes.
3. Relocate Middle School classes from Hurd House into Ruth Cook Hyde; move appropriate Art Department classes into Hurd House.
4. Develop Spring Street entrance loop and parking; develop Emery Street parking as necessary to cover parking lost behind Thomas House.
5. Develop large Storer Street parking lot and build maintenance garage. Convert existing Storer Street parking to green space.
6. Build classroom/rehearsal space/backstage addition to Sills.
7. Build Art Gallery/Lobby addition to Sills.
8. Build Middle School addition.
9. Build new gym, tennis courts and baseball or softball field at Osgood Street playing fields.
10. Re-configure Upper School science classrooms; build Upper School addition.
11. Build Lower School addition.

PARKING AND TRAFFIC CONTROL

BACKGROUND

Located in an urban residential neighborhood, Waynflete has struggled for years to balance the traffic and parking needs of the institution with the needs of its neighborhood. In 1988, T. Y. Lin International/Hunter-Ballew Associates was commissioned to prepare a traffic and parking study for the school. A copy of this report is included in the Appendices. Since 1988/89, the school population has increased approximately 9%, and no further growth is anticipated or desired. The TYLI/HBA report found adequate parking available in the neighborhood to support the school's needs and recommended control of how that parking is used. A survey of neighbors completed for this report seems to support this, indicating that the biggest problems are the concentration of parked cars in certain areas, cars parked so as to block driveways and visibility at intersections, and traffic on Spring Street during drop-off and pickup periods.

RECOMMENDATIONS

Pick-up and Drop-off

To relieve pressure on Spring Street and to increase the safety of drop-off and pickup procedures (the greatest problems occur during afternoon pickup) the following options are being considered:

Bus drop-off and pick up:

Option A: Drop-off on Spring Street, pickup on Danforth.

Advantages:

- Separates cars and buses.
- Gets buses off Spring Street during afternoon pickup, freeing Thomas House loop for car pickup (buses would still use Thomas House loop for morning drop off and for PE and field trip pickups during school day).
- May help slow traffic on Danforth during afternoon pickup.

Disadvantages:

- Sidewalk on Danforth St. is about 3' above street level and would have to be regraded to accommodate bus loading.
- New steps would have to be built in stone wall from sidewalk to playing field at end of field.
- Buses might block visibility for cars on Fletcher and Storer attempting to turn onto Danforth.

- Inconvenient for bus drivers and those handling athletic equipment between return of PE groups from playing fields and afternoon bus routes.
- Loading buses requires stopping traffic on Danforth for 5 to 10 minutes.

Option B: Drop-off/pickup on Storer St.

Advantages:

- Separates cars and buses, freeing Thomas House loop for car use.
- Central campus location.
- Discourages car traffic on Storer St.

Disadvantages:

- Very tight turn from Spring St. onto Storer St. or vice versa, especially in winter.
- Less convenient than Thomas House loop for drivers and those handling athletic equipment between return from fields and afternoon bus routes.
- Requires widening 100' length of Storer St. between Hurd and Daveis.
- Totally blocks through traffic on Storer between 3:00 and 3:30pm.
- A single car can block in buses.

Option C: Retain current system (buses in Thomas House loop, cars as outlined below) and hire uniformed person to enforce approved driver behavior.

Advantages:

- Probably cheapest option.
- Allows buses to continue to use convenient Thomas House loop.
- Retaining bus use of Thomas House loop for afternoon pickup was the first choice of bus drivers.

Disadvantages:

- Does not decrease bus traffic on Spring St.
- Does not separate car and bus traffic.
- A single car can block in buses.

Car drop-off and pick up:

- Lower School (Pre-K, K, and 1/2): On Fletcher Street at Orchard Street
- Lower School (3/4/5): Drop-off and pick up on Spring Street
- Middle School: On Spring Street in front of Morrill House
- Upper School: On Emery Street at driveway next to Emery Street Building

Traffic on Storer Street is to be discouraged, except as necessary to enter parking lot.

Campus Master Plan

Parking Plan for Waynflete School

To address parking and transportation issues at the School's west end campus, Headmaster Mark Segar appointed a committee of teacher, parents and administrators to review research completed last year and make proposals for inclusion in the Master Plan. That committee developed ten recommendations, which are summarized below.

The School is committed to implementing these plans as rapidly as possible. A meeting was held in January with interested neighbors whose comments will be considered carefully in implementing the plan.

The purposes of the parking plan are three: to respect the needs of our neighbors by minimizing crowding around campus, to do our share to limit the traffic burden on the City as a whole and to contribute to efforts to reduce ozone and particulate pollution problems in the State. We want the School to remain convenient and accessible for its students, staff and families, but we believe that we can also do a better job of honoring our institutional commitment to being a good neighbor.

Recommendations (and action taken to date)

1. Reduce demand for parking.

a) **Make bus routes as attractive as possible.** We have added a sixth route to our bus service, to reduce travel time and increase capacity. The School has added \$22,000 to its operating budget to underwrite this improved service. Families are offered free rides at the beginning of each semester to build interest and promote increased ridership. A policy has been established that allows guests to accompany bus riders with no additional fee, again with the goal of making the service as attractive as possible. A total of 158 students (out of 539 total enrollment) now use Waynflete buses. Metro service also can be made use of by some students.

b) **Create incentives for faculty, staff and students to carpool.** In the past, staff parking spots on campus have been assigned by seniority. Beginning in September, priority will be given to employees who carpool. Exceptions will be made only in cases

where rapid access to a vehicle is a condition of employment or required by physical disability. The two areas designated for on street student parking (Danforth Street north side and Vaughan Street west side) also will be assigned with priority for car-poolers to park at the closer (Danforth) site. The Waynflete parking sticker fee (see below) will be waived for car-poolers.

c) **Create an information bank for car-poolers.** The focus for this ride sharing program will be on faculty and staff with students invited to participate next fall, at the beginning of the new academic year. The RideShare Coordinator for the Greater Portland Council of Governments presented ways to promote car pooling and van pooling at the April 12, 1995 full faculty and staff assembly.

d) **Conduct a feasibility study for shuttle service from satellite parking areas.** Sites under consideration include the USM lot on Marginal Way, and the Waynflete lot at Thompson's Point. It should be noted that satellite parking poses a particular difficulty for a school like Waynflete. Students and staff members arrive and depart at different times. The School's physical education program depends on rented space at a number of locations around the city, often requiring private vehicles since Waynflete buses often are in service on field trips or for team travel to away games. Waynflete has explored the possibility of participating in METRO's Marginal Way/Downtown shuttle and has had meetings and discussions with both Maine Medical Center and Mercy Hospital to discuss shuttle collaboration. Based upon these discussions, it does not appear that a shuttle is possible at this time.

2. Monitor on - and off-campus parking.

a) **Increase on-campus parking.** We currently have 46 campus parking spaces this year, which includes 3 spaces additional spaces for admissions visitors and 2 reserved handicapped access spaces. We have established temporary winter parking for 40 cars on the south end of our Danforth Street playing field, in recognition of the reduced availability of on-street parking during snowy weather. The Campus Master Plan includes provisions for 57 spaces a 24% increase in on-campus parking, with approximately no increase in paved surface.

b) **Institute a sticker system for on-street parking.** Beginning with the 95-96 school year, Waynflete will require all

employees and students to register their cars with the School, and to purchase a numbered sticker that will allow us to monitor compliance with all city and school parking regulations. A system of sanctions (including loss of parking privileges) will be established. Neighbors will be informed of the sticker program so that we can respond quickly to any report of inappropriate parking by students or staff.

c) **Designate street parking areas for staff and students** not accommodated on campus. The School does this already. We expect to be able to monitor compliance more effectively with the sticker system. The monitoring system will be developed by the facilities management staff this spring.

3. Community Education.

a) **Work with parents to increase carpooling.** The Ride-Share program will be the major tool for this effort. Publicity will be generated through the School's monthly news and calendar publication, and at all faculty/parent meetings associated with the opening of school.

b) **Create an in-house education/awareness program** about parking and transportation alternatives. The transportation manager (business office staff) will coordinate a program to educate families and staff about both community and environmental issues, about the availability of School and public buses and their schedules, about possible satellite site shuttle service, and about bicycle and pedestrian options. Safety issues will be stressed in this program as well.

This plan calls for a significant increase in on-site parking, a substantial reduction in demand for parking, and a system of incentives and monitoring to promote alternatives, insure compliance and limit neighborhood impact. The Master Plan also will reduce traffic congestion by creating an entry drive/loop to remove pick-up/drop-off traffic from Spring Street. These steps all will become formal School policy, subject to revision as we work to improve the plan.

**City of Portland
Memorandum**

To: Chair Caron and Members of the Planning Board

From: Deborah Andrews, Historic Preservation Program Manager

Date: February 13, 2001

Subject: Update of Campus Master Plan and Preliminary Review of Proposed Arts Center; Waynflete School, Applicant

Introduction:

Waynflete School has requested a workshop to provide an update of their 1995 Campus Master Plan and to introduce plans for the construction of a new 23,000 sq. ft. Arts Center, which will annex Daveis Hall. The new arts complex will be located at the east end of the school's current playing field, at the northwest corner of Danforth and Storer Streets.

The revised master plan is being presented for information purposes only; no formal review or approval is required from the Board. The arts center will be reviewed for conformance with the standards of the Site Plan and Historic Preservation ordinances.

At this time, Waynflete has not yet submitted a detailed site plan or other technical information required to begin a substantive site plan review of the proposed project. However, representatives of the school would like an opportunity to introduce the scope of the project, its general design direction, and their proposed phasing plan. With general feedback from the Planning Board, they intend to return with more detailed plans.

Master Plan Update:

In 1995, Waynflete presented to the Planning Board its recently-completed campus master plan (See Attachment 1.) The plan called for a number of additions to existing buildings which are intended to improve and augment Waynflete's current programs. The master plan also called for improvements to the existing bus loop drive off Spring Street, the introduction of additional parking areas and the implementation of parking management measures to reduce pressure on the West End neighborhood. Finally, the plan called for the school converting the upper floors of the Ruth Cook Hyde house for school use. (The Board had given previous approval to convert the first floor only, maintaining a residential use on the upper floors.)

Since that time, Waynflete has implemented the parking management measures and constructed two of the building addition projects envisioned in the 1995 plan. These include the connector between Ruth Cook Hyde and Morrill House, and the Science Center addition to the Emery Building. While identified on the 1995 campus site plan, their final size and form changed substantially from that shown on the original plan.

Improvements to the bus loop road have not yet been made, although the school has developed detailed plans for this project which it hopes to implement in the near future. Plans for a ten-space parking lot off Emery Street, which was shown on the 1995 master site plan, were abandoned due to neighborhood opposition and concerns expressed by the Historic Preservation Committee.

Note that in 1999 the school revised its campus plan, eliminating the 30-space parking lot located mid-block off Storer. This change apparently was in response to opposition expressed by the residential abuttor at the northwest corner of Storer and Danforth. The 1999 master plan also shows the acquisition of another residential structure on Danforth Street, which is being used as the Headmaster's residence. (See Attachment 2.)

The latest master plan (Attachment 3) reflects a number of recent changes. Last fall, Waynflete purchased the Pratt house located at the northeast corner of Storer and Danforth. Now that the school controls this lot, it would like to return to its original plan of creating a surface parking lot immediately upland of this house. With this new lot, the school would eliminate some of the existing smaller parking areas, including the 12-car parking area adjacent to Greyhurst Park (see 1999 plan). This also would allow the school to create a larger open pedestrian plaza connecting the Upper School to the rest of the campus. The other major change is the significantly expanded and reconfigured scheme for the arts center, which now extends in a southerly direction from the existing Waldron Auditorium and Daveis Hall, filling the southwest corner of the current playing field.

Regarding the school's acquisition of the Pratt residence, Waynflete is not requesting a change of use at this time, but may be before the Board in the future to convert at least the first floor to meeting or administrative use.

Consistent with the 1995 Campus Master plan, the revised master plan calls for no increase in the number of students or faculty.

Regarding parking, Waynflete has not indicated the net number of spaces which will be gained or lost with the proposed revised parking scheme. The school has been asked to provide counts comparing the total number of existing spaces, the number shown on the 1995 plan, and the number reflected in the most recent plan.

Proposed Arts Center

Waynflete proposes to significantly expand its current arts program and auditorium facilities with the addition of a 23,000 square foot complex that will extend from the

existing Waldron Auditorium and Daveis Hall. The project will entail interior renovations to both existing buildings and the construction of a one large addition to the south. The mass of this addition is broken up in such a way that it reads as three distinct building components. The complex will house classrooms, studios, a gallery and auditorium. On the north side of Daveis Hall, a one-story addition is proposed which will serve as the major entrance to the complex and will also include a gallery. The project will require the demolition of a 2-bay brick garage, which is located immediately in front of the new entrance.

Note that the school intends to phase this development. Phase One, which they intend to begin this summer, will include demolition of the garage, renovations to Daveis Hall, a 4,200 square foot addition on the south side of Daveis, and the one-story 1,200 sq. ft. entrance addition on the north side of Daveis. Phase One will also include all sitework and landscaping around the additions completed to date. It is anticipated that this work would be completed by the winter of 2002.

Phase Two would include construction of the 5,000 sq. ft. auditorium and a 12,000 sq. ft. music rehearsal and art studio addition. Waynflete estimates that this phase would commence in the summer of 2002 or as the funds become available. The new 20-car parking lot across from the arts center would be constructed after the additions were complete. At the same time, the existing 14-car lot adjacent to Greyhurst Park would be removed and the area converted to a pedestrian plaza.

Preliminary Analysis

As noted in the introduction to this memo, Waynflete has not yet submitted a detailed site plan for the proposed project, a site plan showing existing conditions, or other technical information. Accordingly, staff has not yet begun a technical review of the plan and comments are therefore limited.

Parking: Waynflete asserts that there is no parking requirement associated with the proposed project, as there will be no change in the number of students, faculty or staff, and as all programs to be housed in the expanded facilities are existing programs. However, if the auditorium were made available to outside groups or for general public attendance, parking requirements would need to be met. Waynflete will need to make clear their intent as regards the use of the auditorium. At this time, Zoning Administrator, Marge Schmuckal, has not yet made a final determination regarding any parking requirement.

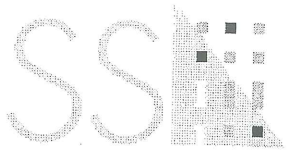
Phasing: In the event that Phase Two of this project is not undertaken or is postponed for some time, it will be important for the Board to review a site plan and elevations showing Phase One construction alone to ensure that it meets all the requirements of the site plan and historic preservation ordinances.

Historic Preservation Committee Review

The Historic Preservation Committee has held two preliminary workshops on the proposed arts center complex. While the plans were still very conceptual as of the last meeting, the Committee appeared to be supportive of the general design direction and the architect's effort to break down the building complex into a number of smaller scale components. The Committee also felt that the complex succeeded in maintaining the traditional rhythm of spacing of buildings, particularly as viewed from Storer Street.

Attachments:

1. 1995 campus master plan
2. 1999 revised campus plan
3. Current proposed campus master plan
4. Project description
5. Photographs of existing structures
6. Floor plans of arts center
7. Elevations
8. Sections



Scott Simons Architects

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MEMORANDUM

AH.4

Date: January 30, 2001
Project name/number: Waynflete Arts Center, SSA # 00116.00
Re: Site Plan Review
From: Scott Simons
To: City of Portland Planning Department
Cc: Hymie Gulak, Business Manager
Chris Beaven, Chair of Building Committee
Jobfile

**PRELIMINARY DRAFT
APPLICATION FOR SITE PLAN REVIEW**

In accordance with the City of Portland Land Use Code, Section 14-525, we are submitting the following information for your consideration, regarding the proposed addition and site improvements at the Waynflete School, 360 Spring Street, Portland, Maine.

1. *Description of proposed uses to be located on the site, including quantity and type of residential units, if any:*
 - The existing school use is to remain. In accordance with the Wanflele School Masterplan, as updated January, 2001, the School intends to undertake the building of the Arts Center Addition and Renovations to the existing Daveis Hall on Storer Street.
 - The School proposes to add a 23,000 SF classroom, studio, gallery, and auditorium addition to the south edge of the existing 2 1/2 story brick Daveis Hall. The existing building and the adjacent Waldron Auditorium will undergo interior renovations. The project also includes site improvements around the new entrance, in the area known as the Sanctuary, as shown on the Site Plan, and landscaping along all edges of the proposed project.
 - In order to build this addition it will be necessary to demolish an existing 600 SF single story masonry storage (garage) building at the edge of the Sanctuary, and a one story masonry shed addition along the edge of the existing Auditorium.
 - There will be no change in the size of the School population or the use of the arts facilities as a result of this Project. All programs that will use this facility are existing.

- The project will be built in two or three phases. Phase one will likely include the renovation of the Daveis Building, the addition of the new entrance and gallery, the addition of three large classrooms in the "L" of Daveis Hall, and a new elevator making the entire facility accessible. When the Auditorium is built, the School plans to expand the parking across the street, as shown on the Master Plan.
2. *Total land area of the site and the total floor area and ground coverage of each proposed building and structure:*
- The Waynflete School site is comprised of twelve classroom/administration buildings and five storage buildings (garages). The buildings are of various sizes and shapes, ranging from the one story wood frame garages of 600 SF to the three story brick Upper School building of approximately 30,000 SF.
 - Total area of combined parcels = SF
 - Existing total lot coverage of combined parcels --SF or %
 - Proposed total lot coverage of combined parcels --SF or %
3. *General summary of existing and proposed easements or other burdens now existing or to be placed on the property:*
- There are no easements or burdens that we are aware of.
4. *The types and estimated quantities of solid waste to be generated by the development:*
- There will be no change in use or occupant load.
 - Four toilets will be removed during the renovations; nine toilets will be built in the new additions, for a net gain of five toilets.
5. *Evidence of the availability of off-site facilities including sewer, water and streets:*
- The site is bordered on the south by Danforth Street.
 - A new 6" storm drain line will connect to the existing 14" street storm sewer at Danforth Street. The existing sewer connection to remain for Daveis Hall. The new additions will have a new 4" sewer line connected to the existing sewer main at Danforth Street.
 - Water service will continue from Storer Street and is adequate to service both domestic and fire protection needs for both Phases 1 and 2.
 - Electrical service is currently provided overhead from Storer Street. Proposed new service to be three phase and run overhead from existing pole on Spring Street to a pad mounted transformer across Storer Street from Daveis Hall, then underground into the basement of Daveis Hall.
 - Existing gas service from Fletcher Street into basement of Founders Hall will be extended into the basement of Daveis Hall, where a new boiler will service the existing building and new additions.
6. *A narrative describing the existing surface drainage on the site and a stormwater management plan indicating measures which will be taken to control surface water runoff:*
- Existing drainage pattern of all parcel is surface to street curbs with the exception of a dry well at parcel 1.
 - New drainage is also surface flow from building faces to street curbs and existing catch basins at Storer and Danforth.
 - Roof drainage from new additions will connect to 14" storm sewer by means of a new 8" line. This line is sized to accommodate roof drainage from Phases One and Two.

7. *A construction plan outlining the anticipated sequence of construction of the major aspect of the proposed project, including without limitation roads, retention basins, sewer lines, seeding and other erosion control measures, and pollutant abatement measures, and also setting forth the approximate dates for commencement and completion of the project:*

Phase One:

- Demolition of 600 SF single story garage and shed addition along edge of Auditorium. One month, June or July 2001.
- Construction of renovations to Daveis Hall, including all new electrical service and wiring, new heating plant for Phases One and Two (installed in basement), new sprinkler system as required by governing codes, various partitions changes as shown on the plans, and upgrade of interior finishes. Two months, July and August, 2001. Completed in time for classes in fall of 2001.
- Construction of a 4,200 SF addition in the "L" of the existing Daveis Hall, and a 1,200 SF entry and gallery addition along the north side of the Daveis "L". School to remain in operation throughout construction. Electrical, mechanical, and plumbing connectors for Phase Two to be stubbed off at west elevation of Phase One. Staging area of approx. 5,000 sf will be provided to south of construction site (same location as existing construction staging area), with access from Storer Street. All construction areas to be enclosed by temporary fencing. Six to seven months, July to January or February 2002.
- Sitework and landscaping improvements around entire Phase One addition, including plaza at new entrance.

Phase Two:

- Construction of a 5,000 SF one story Auditorium addition, and a 12,000 SF Music Rehearsal and Art Studio addition, as shown on the floor plans. Ten months, starting summer of 2002, or as funds become available.
- Sitework and landscaping improvements around entire Phase Two addition, including plaza at new side entrance off Storer Street. Summer of 2003, after completion of the building additions.
- Construction of a new 20 car parking lot across Storer Street from new Arts Center Additions, as shown on Site Plan. Removal of existing 14 car parking lot along north edge of Upper School Quadrangle (just east of Storer Street) and re-landscaping of same. Summer of 2003, after completion of the building additions.
- Construction site to be accessed from Storer Street with staging area at new parking area across the street to the east.

8. *List all state and federal regulatory approvals to which the development may be subject, the status of any pending applications, and the anticipated time frame for obtaining such permits or that a determination of no jurisdiction from the agency will be requested:*

- An initial review has been conducted by the State Fire Marshall's Office in Augusta. Due to the scope of the work the Fire Marshall's office will also certify compliance with the Americans' with Disabilities Act (ADA). A final review will be necessary by the SFM.
- A building permit will be required from the City of Portland. Plans must also be reviewed by the Portland Fire Department for life safety issues. These will be done in the spring of 2001.

9. *Evidence of financial and technical capacity to undertake and complete the development including, but not limited to, a letter from a responsible financial institution stating that it has reviewed the planned development and would seriously consider financing it when approved, if requested to do so:*

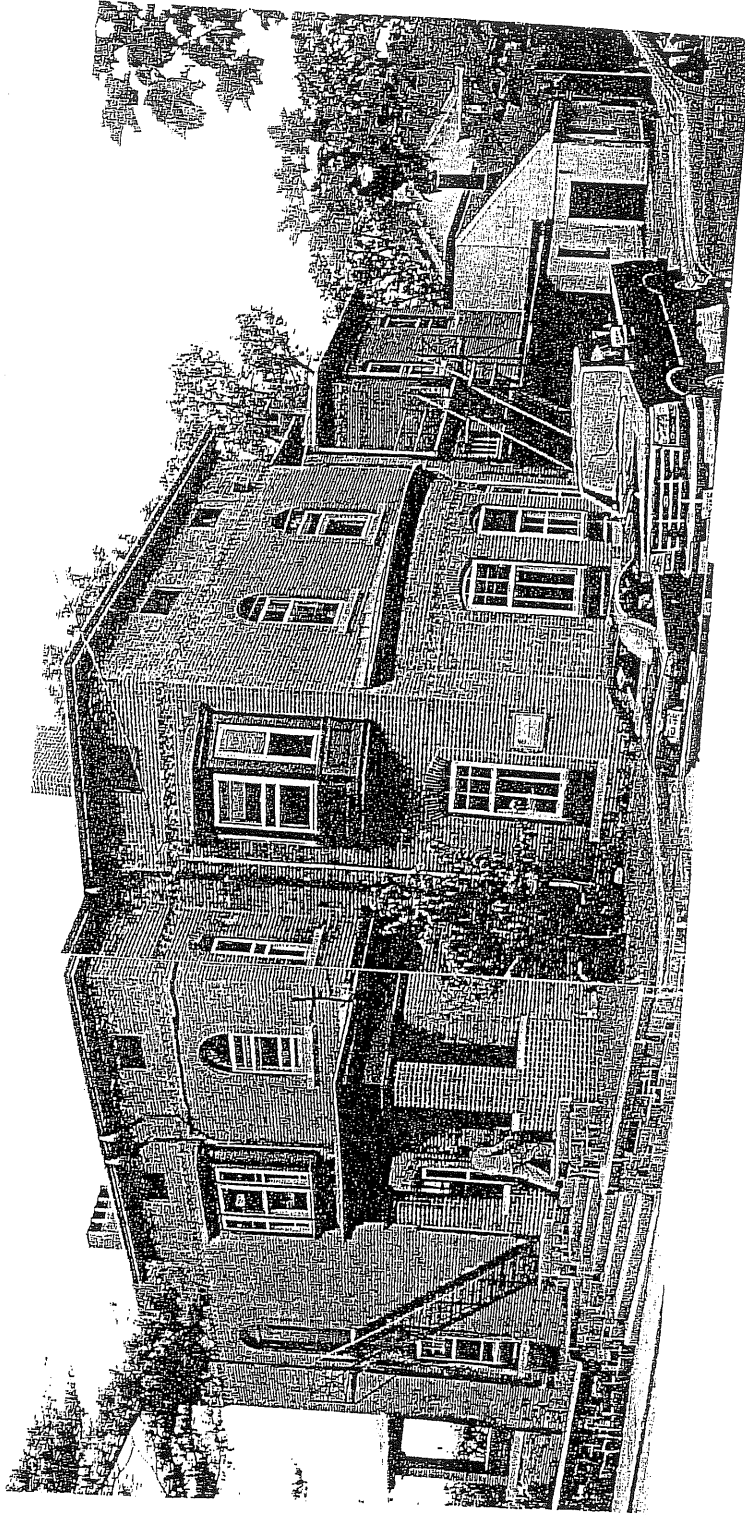
- See attached letter from the Waynflete School.

10. *Evidence of the applicant's title, right, or interest in the property, including without limitation deeds, leases, purchase options or any other documentation:*
 - See enclosed plot plan and deeds.

11. *A narrative describing any unusual natural areas, wildlife and fishery habitats, or archaeological sites located on or near the project site and a description of the methods that will be used to protect such areas or sites:*
 - The School is located in an urban area. The buildings have existed in their current form for many years (recorded on tax documents of 1951). There are no unusual natural areas, wildlife and fishery habitats, or archaeological sites on or near the proposed building additions and parking area

00116.00/01.30.01

A.H. 5



The Waynflete School
360 Spring Street, Portland, Maine

View of Daveis Hall along Stover Street

A.H. 6