354-B-2

2006-0151

430 Riverside Ind. Pkway

Bld. Expansion

Unifirst Corp.

on Spreadsheet

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

2006-0151
Application I. D. Number

8/15/2006
Application Date

Unifirst Corporation
Applicant

430 Riverside Ind. Parkway, Portland, ME 04103
Applicant's Mailing Address

Unifirst Expansion
Project Name/Description

Consultant/Agent

430 - 430 Riverside Ind Pkwy, Portland, Maine
Address of Proposed Site

Agent Ph: Agent Fax:
Applicant or Agent Daytime Telephone, Fax

354 B002001
Assessor's Reference: Chart-Block-Lot

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

Proposed Building square Feet or # of Units | Acreage of Site | IM Zoning

Check Review Required:

☑ Site Plan (major/minor) ☐ Subdivision # of lots ☐ PAD Review ☐ 14-403 Streets Review

☐ Flood Hazard ☐ Shoreland ☐ HistoricPreservation ☐ DEP Local Certification

☐ Zoning Conditional Use (ZBA/PB) ☐ Zoning Variance ☐ Other

Fees Paid: Site Pla $400.00 Subdivision Engineer Review Date 8/15/2006

Planning Approval Status:

Reviewer

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

Approval Date Approval Expiration Extension to ☐ Additional Sheets Attached

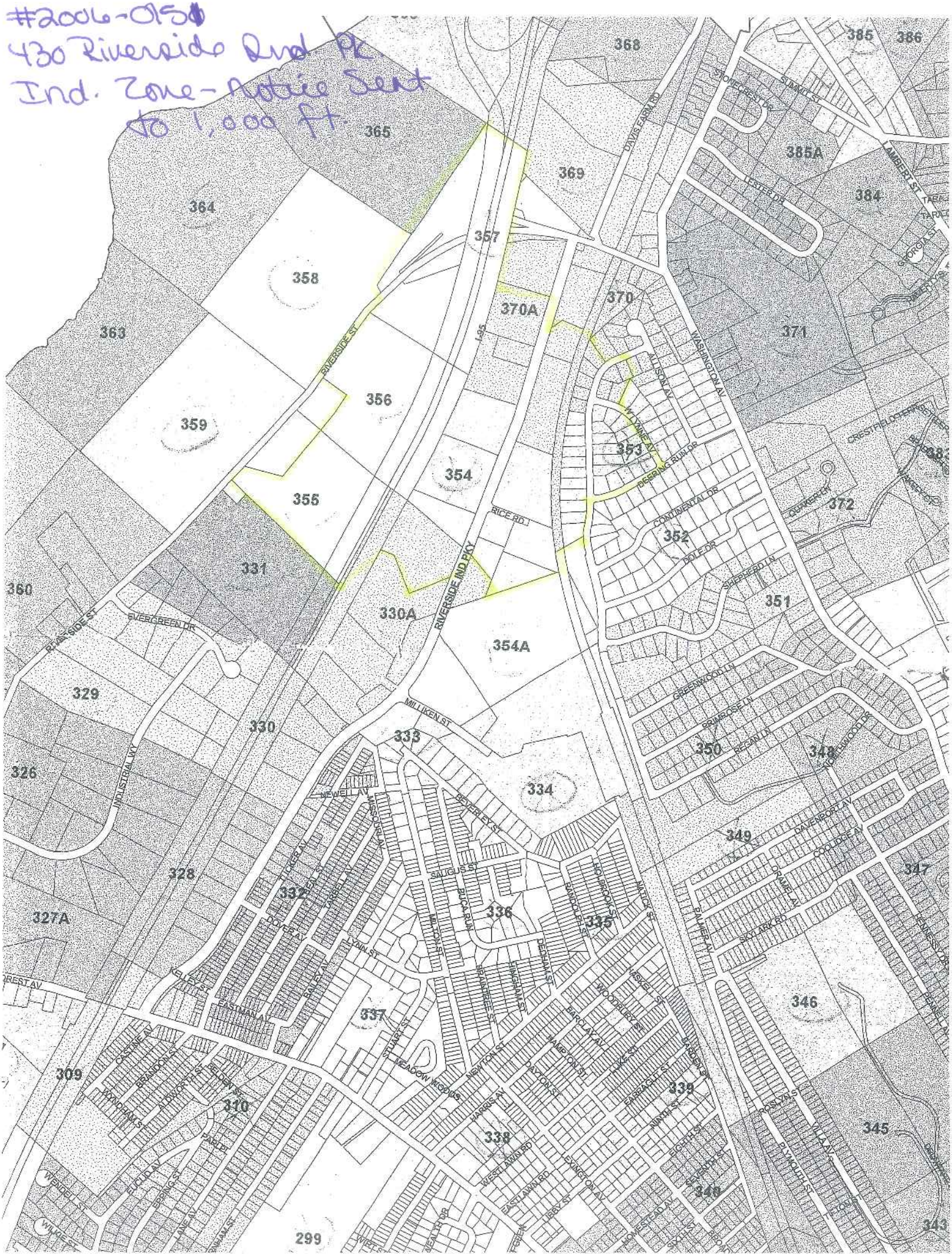
☐ OK to Issue Building Permit
signature date

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

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

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

#2006-0150
430 Riverside Rd. PL
Ind. Zone - Notice Sent
to 1,000 ft.



Unifirst 430 Riverside and Parkway

Process following Approval of Application

2006-0151 Staff Review.

Action	Comment re particular application	Date completed
Approved by Planning Board	staff approved 10.24.06	N/R
Approval letter prepared and sent	faxed found.	tch/Gina to send Nov 2.
Sign off in UI for Planner	not done / DONE couldn't figure out new system + my initials gone?	
Sign off in UI for DRC		
Update UI re dates and conditions		
Send copies to others as appropriate		
Send Performance Guarantee Estimate form & sample letters		
Conditions met	1 Condition has been met. JF.	11.2.06
	2	
revised trash enclosure re cond.: OK JF 1.29.07	3 1.29.07 trash compactor proposals revised + submitted - awaiting JF comment. 1.29.07 Jeff agreed fence at Dev Rev.	
	4	
	5	
	6 6.20.07 gate detail submitted 7.2.07 JF/Tina agreed gate detail	
	7	
	8	
Update Urban Insight re approvals/permit	not done. Done	
Extra plans requested as needed		N/R
Revised plans received		11.1.06
Plans stamped and distributed- list of who these went to	all sent 11.2.06 Jay Planning file Assessors Marge Schmuckal Bill Clark Jeanie Bourke Jim Carmody	Sent 11.2.06
Outstanding action re condition that can be done later	Closed by JF	7.9.07
Other		

revised plans awaited 10.1.06. rec'd 11.1.06.

JF/4.13.06

1.24.07 Barbara rec'd req. for exemption for enclosure of loading bays. + OK.

From: Jean Fraser
To: Haskell, William
Date: 7/2/2007 5:27:19 PM
Subject: 430 Riverside- Unifirst- fence and gate

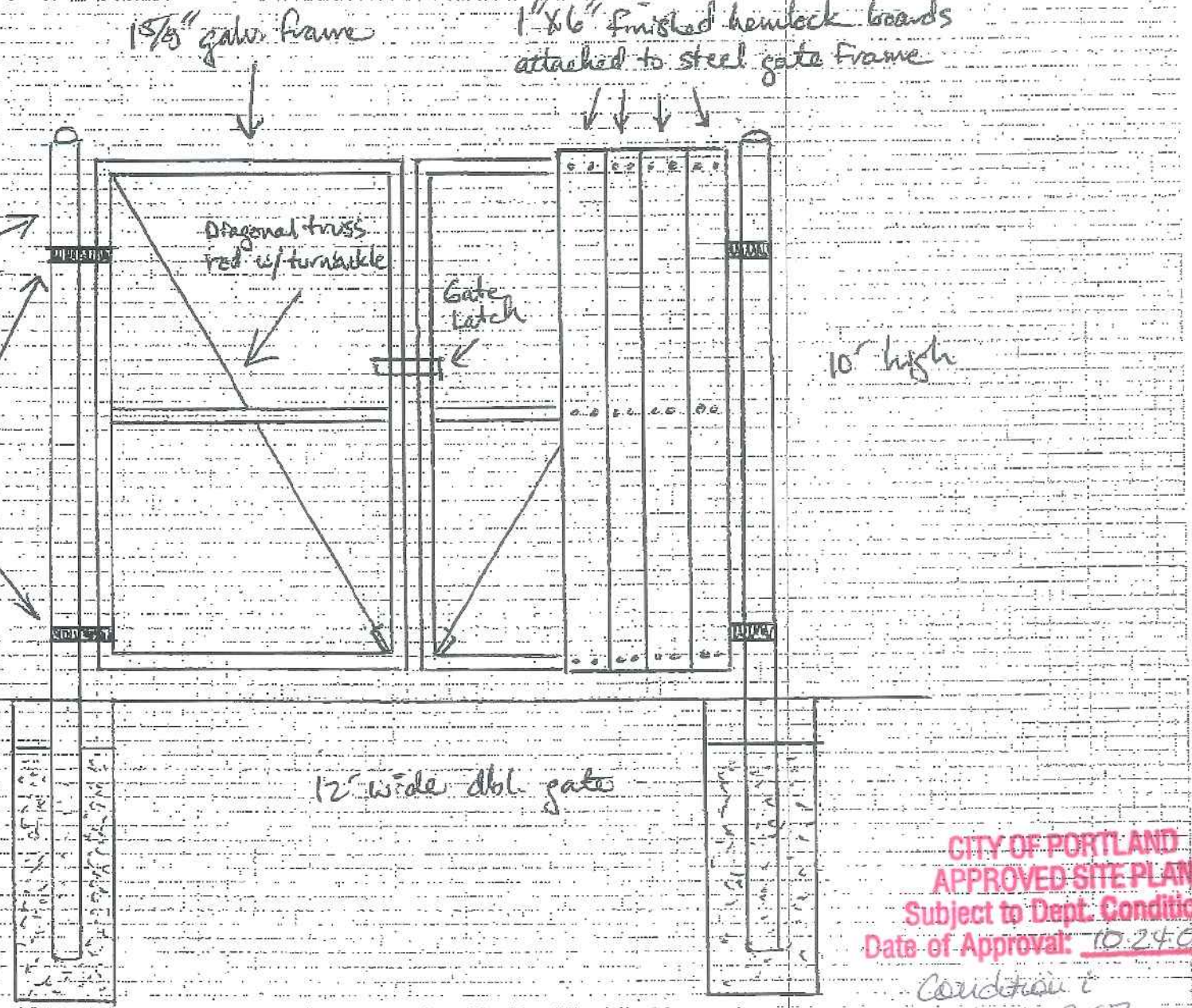
Will,

I confirm that the City Planning Division has approved the proposed fencing and gate details as shown in the the two attached sketches and also confirm that the Condition i of the Approval letter dated October 24, 2006 has been complied with.

I am copying this to Inspectors for information.

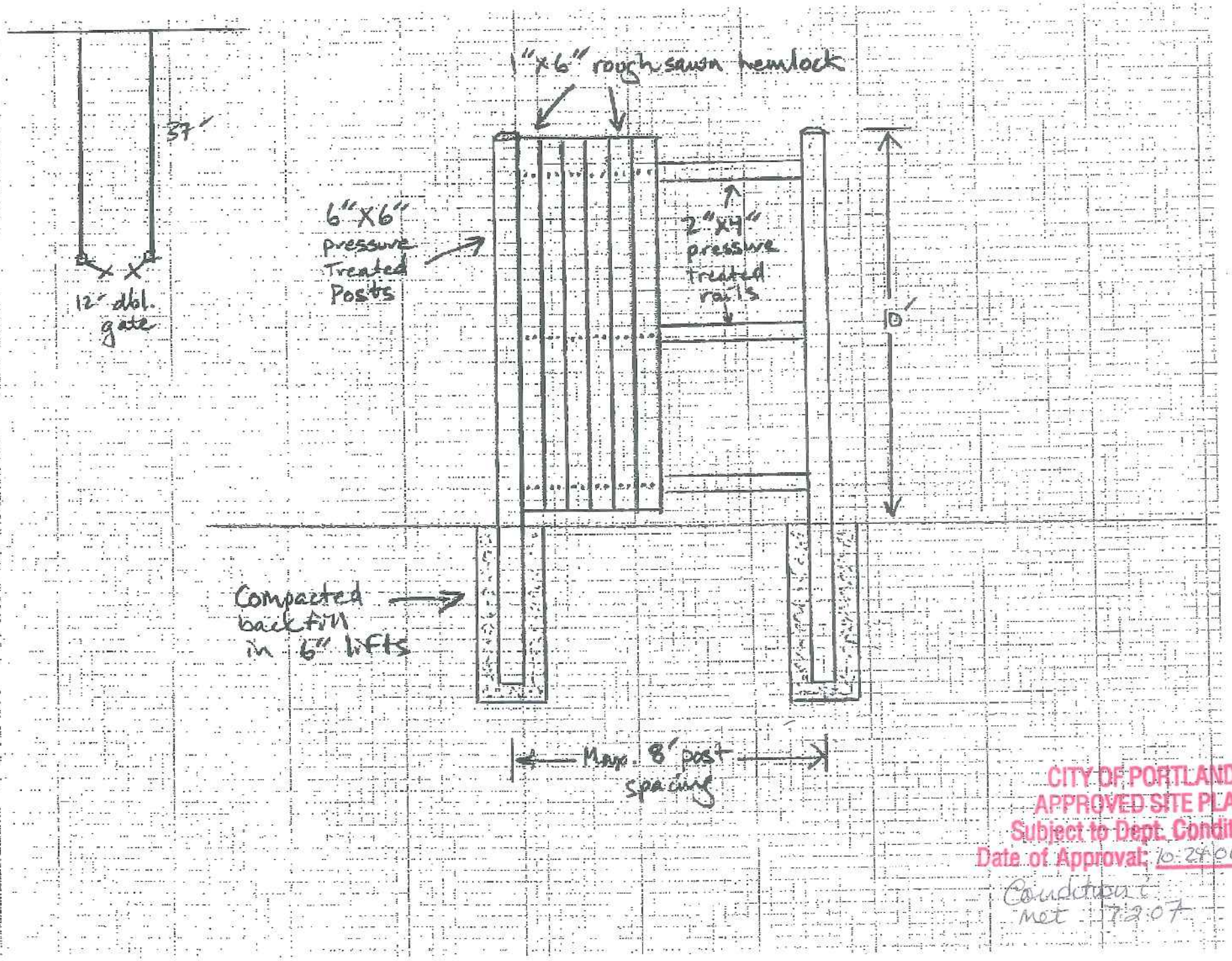
Jean Fraser
Planner

CC: Bourke, Jeanie; DiPierro , Philip; Tarling , Jeff



CITY OF PORTLAND
APPROVED SITE PLAN
Subject to Dept. Conditions
Date of Approval: 10.24.06

Condition met 7.2.07
F. Fraser
Planner



Planning and Development Department
Lee D. Urban, Director

Planning Division
Alexander Jaegerman, Director

October 24, 2006

Robert R. Morin,
Senior Operations Engineer
Unifirst Corporation
430 Riverside Industrial Parkway
Portland, ME 04103

Robert R. Morin
Senior Operations Engineer
Unifirst Corporation
68 Jonspin Road
Wilmington, MA 01887

William C. Haskell, PE, CPESC
Vice President Site Development
Gorrill-Palmer Consulting Engineers Inc.
PO Box 1237
Gray, ME 04039

RE: Unifirst Expansion, 430 Riverside Industrial Parkway, Portland
Application ID No. 2006-0151
CBL: Chart 354, Block B, Lot 2

Dear Sirs,

On October 24, 2006, the Portland Planning Authority approved the proposed expansion of the parking lot to include 30 truck spaces at the southeast corner of the site and nine car parking spaces in front of the existing building (all existing parking spaces to remain), as shown on the approved plan with the following conditions:

i. That the applicant submit a revised Landscape Plan which shows adequate screening of the trash compactor and indicates all significant trees to remain and the treesave area along the south boundary, for review and approval by the City Arborist.

The approval is based on the submitted site plan. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

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

1. Where submission drawings are available in electronic form, the applicant shall submit any available electronic Autocad files (*.dwg), release 14 or greater, with seven (7) sets of the final plans.

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

3. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.

From: Jeff Tarling
To: Jean Fraser
Date: 7/2/2007 4:01:35 PM
Subject: Fwd: RE: FW: Fence/Vehicle Barrier Quote

Jean -

Yes it looks good. At some point we should be saving these pdf specs for reference somewhere.

See you on Tuesday,

Thanks, I am working on review of the Salvation Army plan also.

Jeff t

>>> Jean Fraser 7/2/2007 1:36:51 PM >>>
Jeff
Are you OK with this?

>>> "William Haskell" < WHaskell@gorrillpalmer.com > 6/20/2007 7:35:32 AM >>>
Hi Jean,

Finally, I have a trash compactor gate detail for UniFirst. Please let me know if this looks acceptable.

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

-----Original Message-----
From: Jean Fraser [mailto:JF@portlandmaine.gov]
Sent: Wednesday, January 31, 2007 11:05 AM
To: William Haskell
Subject: Re: FW: Fence/Vehicle Barrier Quote

Will,

Just to confirm that we are happy in principle with this proposal but would like a sketch of the gate for the record.

Thanks
Jean

>>> "William Haskell" < WHaskell@gorrillpalmer.com > 1/23/2007 3:35:05 PM >>>
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Remember the proposed compactor screen fence? We originally proposed a 10' high vinyl fence. Due to difficulties in getting that fence in anything but an 8' high version, Unifirst is proposing to use an alternate wood, stockade type fence. Is this acceptable?

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

-----Original Message-----
From: Brad Fries [mailto:brad@benchmarkconstruction.org]
Sent: Tuesday, January 23, 2007 3:21 PM
To: William Haskell
Subject: RE: Fence/Vehicle Barrier Quote

Will,

Attached is a sketch of the proposed wood dumpster fence enclosure. Let
me know on this after your hear from the city.

Thanks,

Brad Fries
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brad@benchmarkconstruction.org
Phone: (207) 591-7600
Fax: (207) 591-7604
Direct line: (207) 591-7608
Cell: (207) 232-0250

-----Original Message-----
From: William Haskell [mailto:WHaskell@gorrillpalmer.com]
Sent: Friday, January 19, 2007 7:29 AM
To: Brad Fries
Subject: Re: Fence/Vehicle Barrier Quote

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Thanks,

Will Haskell

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From: Brad Fries < brad@benchmarkconstruction.org >
To: William Haskell
Sent: Fri Jan 19 06:56:50 2007
Subject: RE: Fence/Vehicle Barrier Quote

Will,

Thanks for getting back to me. I hadn't discussed the skirting with Gary but it's good to know. We can certainly provide that detail. However, the fence contractor has provided a few suggestions. They can
get a 10' material but it would be solid 1" x 6" wood boards with 6" x 6" wood posts and 2" x 4" rails. Would this be acceptable? This may look better than the skirting but have a different appearance than the stockade.

They also proposed a 10' high chainlink fence with privacy slats. I would think the previous option would look better, though.

I'll look forward to the perimeter fence/barrier proposals.

Thanks,

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-----Original Message-----
From: William Haskell [mailto:WHaskell@gorrillpalmer.com]
Sent: Thursday, January 18, 2007 4:59 PM
To: Brad Fries
Subject: RE: Fence/Vehicle Barrier Quote

Hi Brad,

10' high fence is needed to screen the compactor which is about 9' high.
This was discussed with the City and they are concerned with the compactor in such a highly visible location (front of building). This was discussed with Gary and he indicated fence contractor would use steel posts with 2' skirting around the bottom of the fence.

I will get back to you tomorrow with the revised proposal for the two options for perimeter fence/barrier.

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Will,

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a 10' high stockade fence at the dumpster pad. Would there be a problem
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Also, I should let you know that Gary is no longer with Benchmark. He turned in his resignation last week so I am now taking over this project. He had already started turning this job over to me anyway so we shouldn't miss a beat.

Let me know on the dumpster fence height and if you have an update on the recent design changes to the site perimeter fence. I still need to
provide pricing to the owner on this.

Thanks,

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-----Original Message-----
From: Brad Fries
Sent: Wednesday, January 10, 2007 3:32 PM
To: 'William Haskell'
Cc: Gary Guerette
Subject: RE: Fence/Vehicle Barrier Quote

Will,

Yes, please submit a revised proposal based on Bob Morin's requirements.
Let me know if you anticipate any more additional costs as I need to advise the owner.

Thanks,

Brad

-----Original Message-----

From: William Haskell [mailto:WHaskell@gorrillpalmer.com]
Sent: Wednesday, January 10, 2007 10:33 AM
To: Brad Fries
Cc: Gary Guerette
Subject: RE: Fence/Vehicle Barrier Quote

Hi Brad,

Option 2 or 3 will require more review by City Staff and more design time by the landscape architect (not included in my original proposal).
This will allow the City to make more requests and will lengthen the review process. It may make it necessary to submit a new minor development application, whereas, I think we could get by amending the existing application for the guardrail option. The guardrail option seems fairly straight forward as long as we can blend it in with the current landscaping and I don't think we would need to get the landscape
architect reinvolved.

Do you want me to submit an amended proposal to address Option 3, as requested by Bob in his email?

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From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: "Jean Fraser" <JF@portlandmaine.gov>
Date: 6/20/2007 7:32:22 AM
Subject: RE: FW: Fence/Vehicle Barrier Quote

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-----Original Message-----
From: Robert_Morin@unifirst.com [mailto:Robert_Morin@unifirst.com]
Sent: Wednesday, January 03, 2007 11:38 AM
To: Gary Guerette
Cc: Brad Fries
Subject: Fence/Vehicle Barrier Quote

Gary,

We have determined to guard against off hour vehicle traffic on the property. We have two options for doing this, and a third option by
combining the two options.

Option 1) Install a low profile, wooden guard rail fence (as seen in most state parks) surrounding the road side of the building and along the new truck parking area to the new plantings.

Option 2) Install a barrier of small trees, shrubs, and stones (complementing the island landscaping) surrounding the road side of the building. The barrier of plants can be a 5 to 10 foot wide raised burm, covered with wood chips.

Option 3) Is a combination of option 1 and option 2 to keep the cost down.

Any of the options require the removal of the existing gates and replacing them with new and more robust gates (like in the parks) that can be locked.

Can you provide a budgetary quote for option 1, and option 3 with an estimated 50% of guard rail and landscaping.

If you have any questions please call me.

Bob Morin
UniFirst Corporation
Operations Engineer
Engineering Department
Location # 504
Phone # (978) 658-8888 Ext. # 684
Fax # (978) 658-7869

w/ 6·20·07 email

From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: "Jean Fraser" <JF@portlandmaine.gov>
Date: Wed, Jan 31, 2007 11:16 AM
Subject: RE: FW: Fence/Vehicle Barrier Quote

Hi Jean,

Thanks for the reminder. I am waiting for a sketch from the contractor for the gate. I will send it along once I get it.

Thanks,

Will Haskell
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fax: 207-657-6912
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Jeff Tarling agreed wooden version at 1.26.07 DRC Rec'd mtg JF

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project. He had already started turning this job over to me anyway so we shouldn't miss a beat.

Let me know on the dumpster fence height and if you have an update on the recent design changes to the site perimeter fence. I still need to
provide pricing to the owner on this.

Thanks,

Brad Fries
BENCHMARK
brad@benchmarkconstruction.org
Phone: (207) 591-7600
Fax: (207) 591-7604
Direct line: (207) 591-7608
Cell: (207) 232-0250

-----Original Message-----
From: Brad Fries
Sent: Wednesday, January 10, 2007 3:32 PM
To: 'William Haskell'
Cc: Gary Guerette
Subject: RE: Fence/Vehicle Barrier Quote

Will,

Yes, please submit a revised proposal based on Bob Morin's requirements.
Let me know if you anticipate any more additional costs as I need to advise the owner.

Thanks,

Brad

-----Original Message-----
From: William Haskell [mailto:WHaskell@gorrillpalmer.com]
Sent: Wednesday, January 10, 2007 10:33 AM
To: Brad Fries
Cc: Gary Guerette
Subject: RE: Fence/Vehicle Barrier Quote

Hi Brad,

Option 2 or 3 will require more review by City Staff and more design time by the landscape architect (not included in my original proposal).
This will allow the City to make more requests and will lengthen the review process. It may make it necessary to submit a new minor development application, whereas, I think we could get by amending the existing application for the guardrail option. The guardrail option

seems fairly straight forward as long as we can blend it in with the current landscaping and I don't think we would need to get the landscape
architect reinvolved.

Do you want me to submit an amended proposal to address Option 3, as requested by Bob in his email?

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

-----Original Message-----
From: Brad Fries [mailto:brad@benchmarkconstruction.org]
Sent: Wednesday, January 10, 2007 9:27 AM
To: William Haskell
Subject: FW: Fence/Vehicle Barrier Quote

Will,

Here is a copy of that e-mail from Bob Morin of UniFirst regarding site
fencing. Let me know your thoughts.

Thanks,

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BENCHMARK
brad@benchmarkconstruction.org
Phone: (207) 591-7600
Fax: (207) 591-7604
Direct line: (207) 591-7608
Cell: (207) 232-0250

-----Original Message-----
From: Robert_Morin@unifirst.com [mailto:Robert_Morin@unifirst.com]
Sent: Wednesday, January 03, 2007 11:38 AM
To: Gary Guerette
Cc: Brad Fries
Subject: Fence/Vehicle Barrier Quote

Gary,

We have determined to guard against off hour vehicle traffic on the property. We have two options for doing this, and a third option by
combining the two options.

Option 1) Install a low profile, wooden guard rail fence (as seen in most state parks) surrounding the road side of the building and along the new truck parking area to the new plantings.

Option 2) Install a barrier of small trees, shrubs, and stones (complementing the island landscaping) surrounding the road side of the building. The barrier of plants can be a 5 to 10 foot wide raised burm, covered with wood chips.

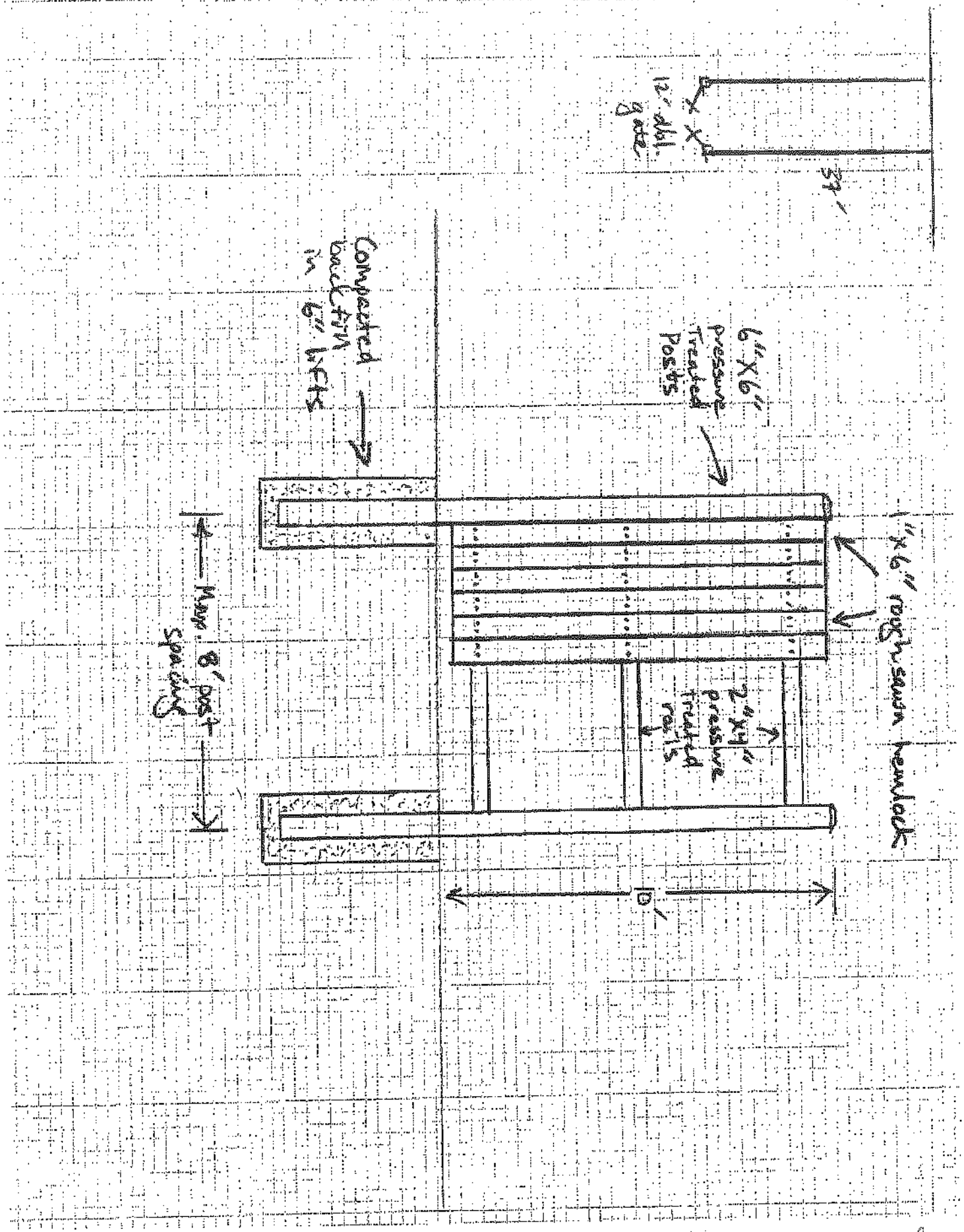
Option 3) Is a combination of option 1 and option 2 to keep the cost down.

Any of the options require the removal of the existing gates and replacing them with new and more robust gates (like in the parks) that can be locked.

Can you provide a budgetary quote for option 1, and option 3 with an estimated 50% of guard rail and landscaping.

If you have any questions please call me.

Bob Morin
UniFirst Corporation
Operations Engineer
Engineering Department
Location # 504
Phone # (978) 658-8888 Ext. # 684
Fax # (978) 658-7869



w/ 1.2307 email

From: Jean Fraser
To: Haskell, William
Date: 1/31/2007 11:05:13 AM
Subject: Re: FW: Fence/Vehicle Barrier Quote

Will,

Just to confirm that we are happy in principle with this proposal but would like a sketch of the gate for the record.

Thanks
Jean

>>> "William Haskell" <WHaskell@gorrillpalmer.com> 1/23/2007 3:35:05 PM >>>
Hi Jean,

Remember the proposed compactor screen fence? We originally proposed a 10' high vinyl fence. Due to difficulties in getting that fence in anything but an 8' high version, Unifirst is proposing to use an alternate wood, stockade type fence. Is this acceptable?

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

-----Original Message-----
From: Brad Fries [mailto:brad@benchmarkconstruction.org]
Sent: Tuesday, January 23, 2007 3:21 PM
To: William Haskell
Subject: RE: Fence/Vehicle Barrier Quote

Will,

Attached is a sketch of the proposed wood dumpster fence enclosure. Let me know on this after your hear from the city.

Thanks,

Brad Fries
BENCHMARK
brad@benchmarkconstruction.org
Phone: (207) 591-7600
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Direct line: (207) 591-7608
Cell: (207) 232-0250

-----Original Message-----
From: William Haskell [mailto:WHaskell@gorrillpalmer.com]

Left as agreed
Dec Jan 31, 2007

From: Jean Fraser
To: Haskell, William
Date: 1/24/2007 11:38:02 AM
Subject: Re: FW: Fence/Vehicle Barrier Quote

Will,

The gate faces the street and therefore could you please send a drawing of that too.

Thanks
Jean

>>> "William Haskell" <WHaskell@gorrillpalmer.com> 1/23/2007 3:35:05 PM >>>
Hi Jean,

Remember the proposed compactor screen fence? We originally proposed a 10' high vinyl fence. Due to difficulties in getting that fence in anything but an 8' high version, Unifirst is proposing to use an alternate wood, stockade type fence. Is this acceptable?

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Phone: (207) 591-7600
Fax: (207) 591-7604
Direct line: (207) 591-7608
Cell: (207) 232-0250

-----Original Message-----
From: William Haskell [mailto:WHaskell@gorrillpalmer.com]
Sent: Friday, January 19, 2007 7:29 AM

From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: "Jean Fraser" <JF@portlandmaine.gov>
Date: 1/23/2007 3:34:32 PM
Subject: FW: Fence/Vehicle Barrier Quote

Hi Jean,

Remember the proposed compactor screen fence? We originally proposed a 10' high vinyl fence. Due to difficulties in getting that fence in anything but an 8' high version, Unifirst is proposing to use an alternate wood, stockade type fence. Is this acceptable?

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Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
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Phone: (207) 591-7600
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-----Original Message-----
From: William Haskell [mailto:WHaskell@gorrillpalmer.com]
Sent: Friday, January 19, 2007 7:29 AM
To: Brad Fries
Subject: Re: Fence/Vehicle Barrier Quote

Chainlink with privacy slats is a non-starter with the city. Get me a detail of the wood option and I will forward to the city.

Thanks,

Will Haskell

----- Original Message -----
From: Brad Fries <brad@benchmarkconstruction.org>
To: William Haskell
Sent: Fri Jan 19 06:56:50 2007
Subject: RE: Fence/Vehicle Barrier Quote

Will,

Thanks for getting back to me. I hadn't discussed the skirting with Gary but it's good to know. We can certainly provide that detail. However, the fence contractor has provided a few suggestions. They can get a 10' material but it would be solid 1" x 6" wood boards with 6" x 6" wood posts and 2" x 4" rails. Would this be acceptable? This may look better than the skirting but have a different appearance than the stockade.

They also proposed a 10' high chainlink fence with privacy slats. I would think the previous option would look better, though.

I'll look forward to the perimeter fence/barrier proposals.

Thanks,

Brad Fries
BENCHMARK
brad@benchmarkconstruction.org
Phone: (207) 591-7600
Fax: (207) 591-7604
Direct line: (207) 591-7608
Cell: (207) 232-0250

-----Original Message-----
From: William Haskell [mailto:WHaskell@gorrillpalmer.com]
Sent: Thursday, January 18, 2007 4:59 PM
To: Brad Fries
Subject: RE: Fence/Vehicle Barrier Quote

Hi Brad,

10' high fence is needed to screen the compactor which is about 9' high. This was discussed with the City and they are concerned with the compactor in such a highly visible location (front of building). This was discussed with Gary and he indicated fence contractor would use steel posts with 2' skirting around the bottom of the fence.

I will get back to you tomorrow with the revised proposal for the two options for perimeter fence/barrier.

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

-----Original Message-----
From: Brad Fries [mailto:brad@benchmarkconstruction.org]
Sent: Thursday, January 18, 2007 1:29 PM
To: William Haskell
Subject: FW: Fence/Vehicle Barrier Quote

Will,

Just touching base on a few things for UniFirst. Drawing C100 indicates a 10' high stockade fence at the dumpster pad. Would there be a problem changing this to an 8' high fence? Fence contractors seem to stock 8' in lieu of 10'.

Also, I should let you know that Gary is no longer with Benchmark. He turned in his resignation last week so I am now taking over this project. He had already started turning this job over to me anyway so we shouldn't miss a beat.

Let me know on the dumpster fence height and if you have an update on the recent design changes to the site perimeter fence. I still need to provide pricing to the owner on this.

Thanks,

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From: Brad Fries
Sent: Wednesday, January 10, 2007 3:32 PM
To: 'William Haskell'
Cc: Gary Guerette
Subject: RE: Fence/Vehicle Barrier Quote

Will,

Yes, please submit a revised proposal based on Bob Morin's requirements. Let me know if you anticipate any more additional costs as I need to advise the owner.

Thanks,

Brad

-----Original Message-----
From: William Haskell [mailto:WHaskell@gorrillpalmer.com]
Sent: Wednesday, January 10, 2007 10:33 AM
To: Brad Fries
Cc: Gary Guerette
Subject: RE: Fence/Vehicle Barrier Quote

Hi Brad,

Option 2 or 3 will require more review by City Staff and more design time by the landscape architect (not included in my original proposal). This will allow the City to make more requests and will lengthen the review process. It may make it necessary to submit a new minor development application, whereas, I think we could get by amending the existing application for the guardrail option. The guardrail option seems fairly straight forward as long as we can blend it in with the current landscaping and I don't think we would need to get the landscape architect reinvolved.

Do you want me to submit an amended proposal to address Option 3, as requested by Bob in his email?

Thanks,

Will Haskell
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Will,

Here is a copy of that e-mail from Bob Morin of UniFirst regarding site fencing. Let me know your thoughts.

Thanks,

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To: Gary Guerette
Cc: Brad Fries
Subject: Fence/Vehicle Barrier Quote

Gary,

We have determined to guard against off hour vehicle traffic on the property. We have two options for doing this, and a third option by combining the two options.

Option 1) Install a low profile, wooden guard rail fence (as seen in most state parks) surrounding the road side of the building and along the new truck parking area to the new plantings.

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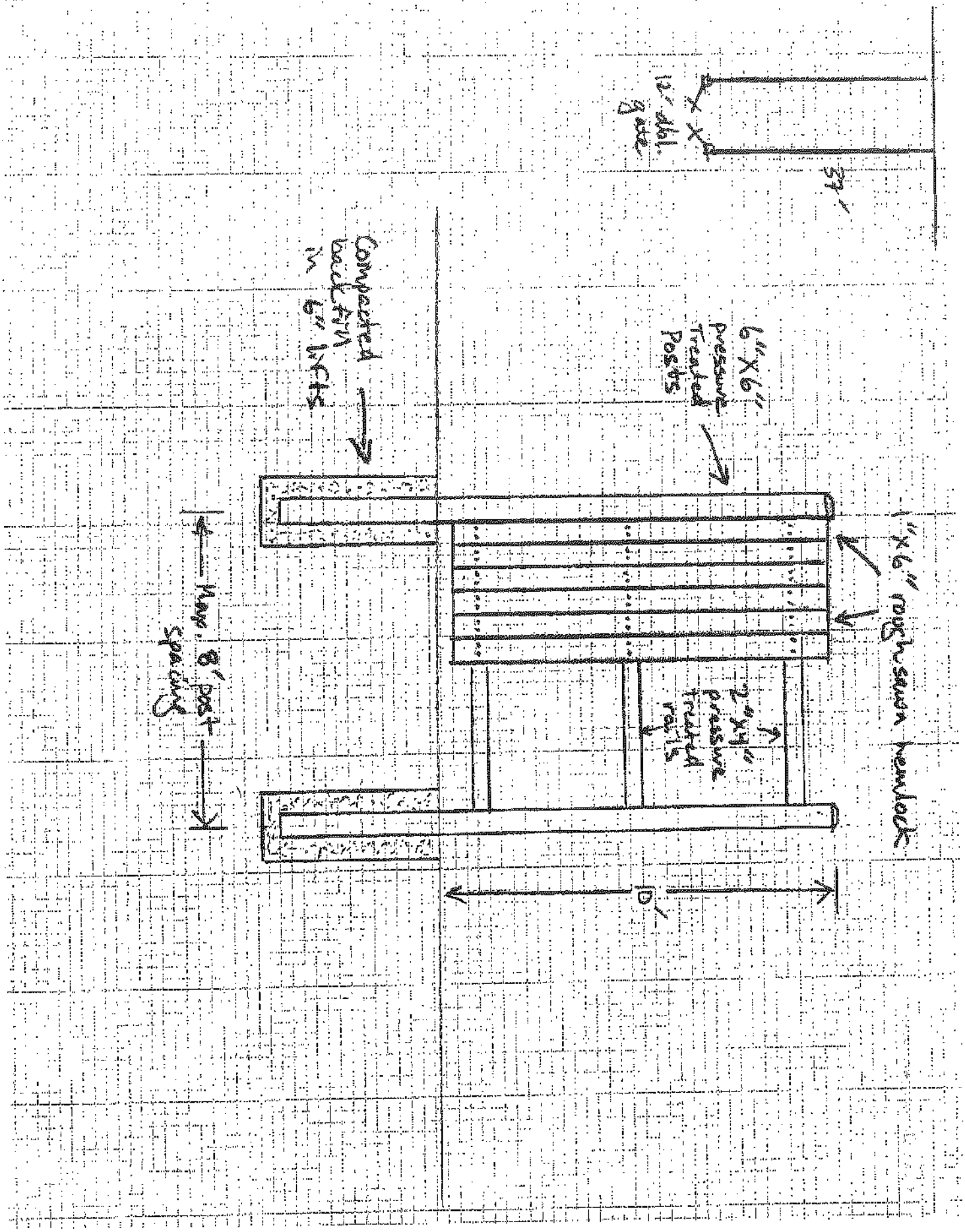
If you have any questions please call me.

Bob Morin
UniFirst Corporation
Operations Engineer
Engineering Department
Location # 504
Phone # (978) 658-8888 Ext. # 684
Fax # (978) 658-7869

CC: "Christopher A. Parks" <cparks@gorrillpalmer.com>


4' x 4' min. gate
57'
Compacted backfill 6" lifts
6"x6" pressure Treated Posts
1"x6" dog ear pressure treated pickets
Max. 8' post spacing
1"x6" dog ear hemlock
D'

From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: "Jean Fraser" <JF@portlandmaine.gov>
Date: Tue, Jan 23, 2007 3:34 PM
Subject: FW: Fence/Vehicle Barrier Quote

Hi Jean,

Remember the proposed compactor screen fence? We originally proposed a 10' high vinyl fence. Due to difficulties in getting that fence in anything but an 8' high version, Unifirst is proposing to use an alternate wood, stockade type fence. Is this acceptable?

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To: William Haskell
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To: Brad Fries
Subject: Re: Fence/Vehicle Barrier Quote

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Thanks,

From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: "Jean Fraser" <JF@portlandmaine.gov>
Date: 12/28/2006 9:33:21 AM
Subject: Unifirst

Hi Jean,

Happy Holidays! Unifirst has asked about adding some sort of fencing/wood guardrail along the site frontage along with gates at the entrances. Would this need to come back through staff for approval? I presume they would need to communicate with the Fire Department regarding any gates at the entrances.

Thanks,

William C. Haskell, PE

Vice President Site Development

Gorrill-Palmer Consulting Engineers, Inc.

PO Box 1237

15 Shaker Road

Gray, ME 04039

207-657-6910x235

207-657-6912 fax

whaskell@gorrillpalmer.com <BLOCKED::mailto:whaskell@gorrillpalmer.com>

www.gorrillpalmer.com <BLOCKED::http://www.gorrillpalmer.com>

12/28/06
Phoned will Haskell to ask for more information about location / scale of fencing, gates, etc.

He has 3rd hand info and will check details get something to me. Probably - all along frontage on boulder
- wooden guard rail to stop cars driving onto site when gates closed
- want to replace gates too
- low dust not sure how low.

If to given answer to this e-mail after receiving more info.

From: Jean Fraser
To: Haskell, William
Date: 12/5/2006 3:45:02 PM
Subject: Re: FW: 1540 firelane PDF

Will,

I think this is a question for the Zoning Administrator as she deals with the dimensional requirements of the zone including setbacks and impervious surface ratios.

I will forward your e-mail to her and take down the print of the plan with some annotation so she can see where its located.

Then I suggest that you follow-up with a telephone call to her:

Marge Schmuckal
Zoning Adminstrator
874-8695

Hope that will sort it out and thanks for letting me know.

Jean (Fraser)
Planner
874 8728

>>> "William Haskell" <WHaskell@gorrillpalmer.com> 12/5/2006 12:11:39 PM >>>
Hi Jean,

This sketch relates to the existing fire lane around the northwest corner of the Unifirst building. Unifirst has asked if they can pave this section of gravel fire lane (highlighted). I believe it was not paved to begin with because a portion of it is within the side pavement setback. They would like to find out what the process would be to get a permit to pave this. With the additional pavement, the total impervious cover would still fall below the 75% maximum requirement. I will call you later today to discuss.

Thanks,

Will Haskell

Gorrill-Palmer Consulting Engineers, Inc.

tel: 207-657-6910

fax: 207-657-6912

whaskell@gorrillpalmer.com

12/5
Took PDF to Marge along w/ approved plan —
she will email will setback OK but need to resubmit impervious analysis JF

From: Jamie Garland
Sent: Wednesday, November 29, 2006 1:05 PM
To: William Haskell
Cc: Chris A. Parks
Subject: 1540 firelane PDF

Jamie L. Garland

Junior Design Engineer
Gorrill-Palmer Consulting Engineers, Inc.
jgarland@gorrillpalmer.com
(207) 657-6910

(207) 657-6912 - FAX

CC: Schmuckal, Marge

Hi Jean,

This sketch relates to the existing fire lane around the northwest corner of the Unifirst building. Unifirst has asked if they can pave this section of gravel fire lane (highlighted). I believe it was not paved to begin with because a portion of it is within the side pavement setback. They would like to find out what the process would be to get a permit to pave this. With the additional pavement, the total impervious cover would still fall below the 75% maximum requirement. I will call you later today to discuss.

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Gorrill-Palmer Consulting Engineers, Inc.

tel: 207-657-6910

fax: 207-657-6912

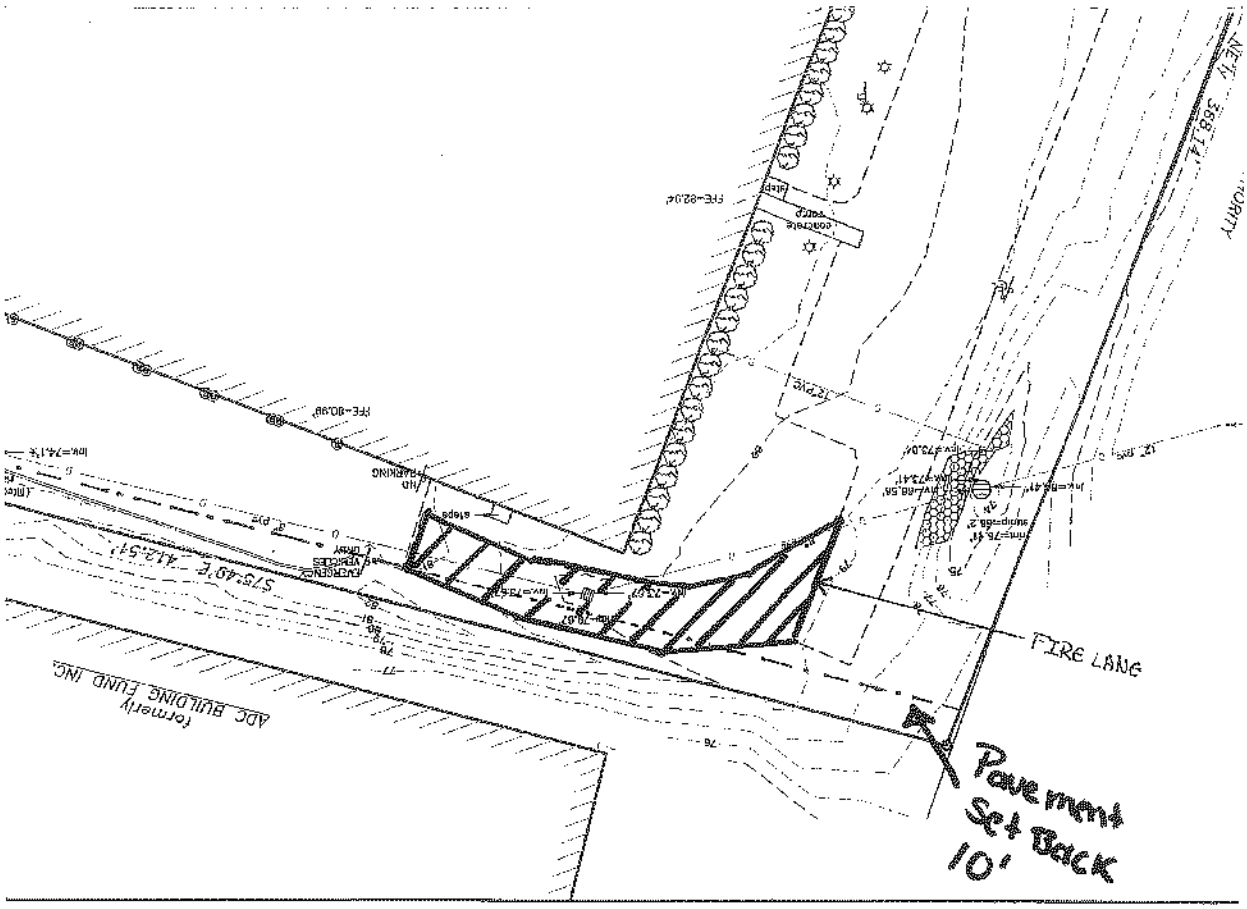
whaskell@gorrillpalmer.com

From: Jamie Garland
Sent: Wednesday, November 29, 2006 1:05 PM
To: William Haskell
Cc: Chris A. Parks
Subject: 1540 firelane PDF

Jamie L. Garland

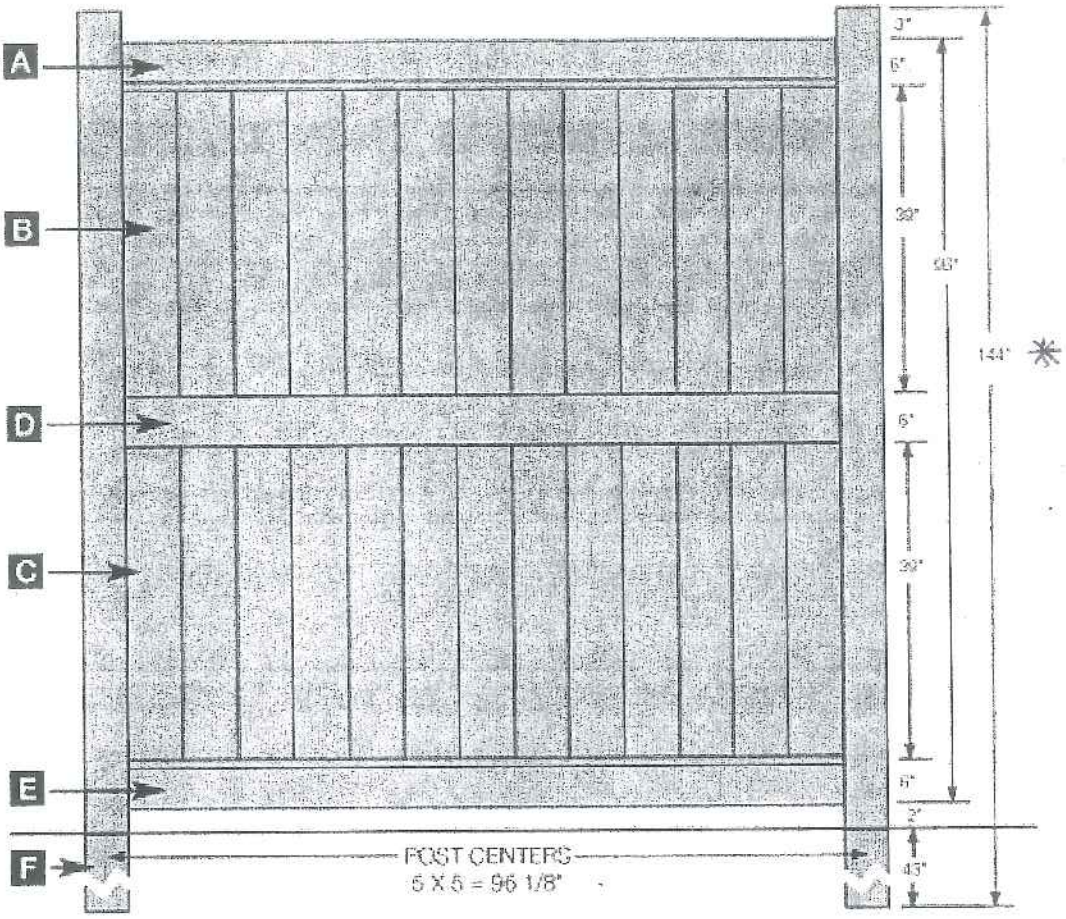
Junior Design Engineer
Gorrill-Palmer Consulting Engineers, Inc.
jgarland@gorrillpalmer.com
(207) 657-6910

(207) 657-6912 - FAX


FIRE LANE
Pavement Set Back 10'

VINYL STOCKADE PRIVACY FENCE
FOR COMPACTOR ENCLOSURE
COLOR: WHITE

* 8 feet high / 8 feet wide



A. Top Rail
2" X 6" X 94 1/2" deco rail ribbed. Includes steel reinforcement channel.

B. Pickets
26 pieces of 7/8" X 7" X 42 1/4" section includes 24 full pickets and 2 end pickets with tongue removed

C. Middle Rail
2" X 6" X 94 1/2" ribbed. Includes steel channel..

D. Bottom Rail
2" X 6" X 94 1/2" deco rail ribbed. Includes steel reinforcement channel.

E. Post
5" X 5" X 144".

superceded the prev. agreed

Jeff T OK agreed
11/1/06

* Posts will be lengthened to provide room for 2" skirting ground bottom of fence. Total fence height will be 10 feet.

From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: <bb@portlandmaine.gov>
Date: Fri, Nov 3, 2006 1:33 PM
Subject: FW: 430 Riverside Industrial Parkway

Hello Barbara,

Jean Fraser indicated you would be handling this project in her absence. I submitted revised plans to address the one approval condition on 11/2. Jean indicated if all looked ok she would sign off on the plans. Do you know if the plans were acceptable? I never heard back from Jean before she left on Thursday. I appreciate your help.

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

Jean -
I told him you had approved + stamped the plans. Referred him to Jay re: perf. Guarantee

-----Original Message-----
From: Jean Fraser [mailto:JF@portlandmaine.gov]
Sent: Tuesday, October 31, 2006 3:33 PM
To: William Haskell
Subject: 430 Riverside Industrial Parkway

Will,

I believe you were faxed and sent the approval letter (I say believe as I left it to be done while I was away and the person who did it is out today).

I have just had Jeff Tarling's approval to the landscape detail so if you submit plans which show the same landscape plus are consistent re the tree saves (esp the corner pine) and include the screening of the compactor and some annotation regarding the group of trees to remain I can sign off on this without it going back to Jeff.

I am away for 11 days as from late Thursday morning and if I don't receive anything before I go Barbara Barhydt (she is now the Acting Development Services Review Manager now that Sarah Hopkins has left) will be briefed re this and will deal with it- it might save confusion if the plans (7 copies of each as revised) were submitted tomorrow and then I could stamp them"approved" before I go and that would expedite things.

Jean

CC: "William Haskell" <WHaskell@gorrillpalmer.com>

From: Jean Fraser
To: Machado, Ann; Reynolds, Jay; Schmuckal, Marge
Date: 11/2/2006 9:40:58 AM
Subject: 430 Riverside Industrial Parkway

Just to confirm (as I will be away next week) that this project (expansion of parking area and landscaping) has received site plan approval and met the conditions;

I will leave Jay to assess whether and what Performance Guarantee is needed and he will sign this off when that is OK.

I anticipate the applicants will be seeking a Permit immediately.

thanks
Jean

CC: Barhydt, Barbara; Bourke, Jeanie

From: Jean Fraser
To: Machado, Ann; Reynolds, Jay; Schmuckal, Marge
Date: 11/2/2006 9:40:58 AM
Subject: 430 Riverside Industrial Parkway

Just to confirm (as I will be away next week) that this project (expansion of parking area and landscaping) has received site plan approval and met the conditions;

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I anticipate the applicants will be seeking a Permit immediately.

thanks
Jean

CC: Barhydt, Barbara; Bourke, Jeanie

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services

PO Box 1237
15 Shaker Rd.
Gray, ME 04039

207-657-6910
FAX: 207-657-6912
E-Mail:mailbox@gorrillpalmer.com

November 1, 2006

Ms. Jean Fraser, Planner
389 Congress Street
Portland, ME 04101

Re: Unifirst Expansion – Final Plans
Application # 2006-0151

Dear Jean:

This letter summarizes our response to the condition stated in the letter from the Planning Department dated October 24, 2006.

Condition

1. *That the applicant submit a revised Landscape Plan which shows adequate screening of the trash compactor and indicates all significant trees to remain and the tree save area along the south boundary, for review and approval by the City Arborist.*

Response: We have added a 10 foot high vinyl fence around the trash compactor and attached a catalog cut for the proposed vinyl fence. Note that the catalog cut only shows an 8 foot high fence. The applicant is proposing to install the fence on longer poles and provide a vinyl skirting material around the base to provide the 10 foot height. The posts will be reinforced with steel poles for additional strength. Specific notes regarding the trees to remain have been added to the Landscape Plan as requested. We have included 7 sets of revised plans and a compact disk with digital files of the plans as requested.

1 no disk w/ envelope

Closure

Gary Guerette from Benchmark Construction is in the process of obtaining updated pricing for this project and will submit the required paperwork for the performance guarantee at a later date. Please contact our office with any questions.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.

William C. Haskell

William C. Haskell, PE, CPESC
Vice President Site Development

Enc.

C: Gary Guerette, Benchmark

wchU:\1540\Applications\Portland Site Plan Review\final plan submittal 11-01-06.doc

From: Jean Fraser
To: Haskell, William
Date: 11/1/2006 11:11:28 AM
Subject: RE: 430 Riverside Industrial Parkway

Will,

No- I just checked with Jeff Tarling and he confirms that no permit is required and its OK as long as you folow the plan.

I guess you might check re underground utilities of course- but I assume they are under the roadway!

Jean

>>> "William Haskell" <WHaskell@gorrillpalmer.com> 10/31/2006 3:50:43 PM >>>
Hi Jean,

Another question - Provision 6 indicates a street opening permit will be required for work within the ROW. Is this permit needed for the proposed landscape plantings in the ROW that was requested by the City?

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

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From: Jean Fraser [mailto:JF@portlandmaine.gov]
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To: William Haskell
Subject: 430 Riverside Industrial Parkway

Will,

I believe you were faxed and sent the approval letter (I say believe as I left it to be done while I was away and the person who did it is out today).

I have just had Jeff Tarling's approval to the landscape detail so if you submit plans which show the same landscape plus are consistent re the tree saves (esp the corner pine) and include the screening of the compactor and some annotation regarding the group of trees to remain I can sign off on this without it going back to Jeff.

I am away for 11 days as from late Thursday morning and if I don't receive anything before I go Barbara Barhydt (she is now the Acting Development Services Review Manager now that Sarah Hopkins has left) will be briefed re this and will deal with it- it might save confusion if the plans (7 copies of each as revised) were submitted tomorrow and then I could stamp them"approved" before I go and that would expedite things.

From: Jean Fraser
To: Haskell, William
Date: 11/1/2006 11:12:26 AM
Subject: RE: 430 Riverside Industrial Parkway

Hi again,

Also checked this with Jeff Tarling and he has confirmed that is fine (re the 10' vinyl stockage type fence).
Jean

>>> "William Haskell" <WHaskell@gorrillpalmer.com> 10/31/2006 3:45:51 PM >>>
Hi Jean,

Yes, we did receive the approval letter. I will try my best to get you revised plans tomorrow.

We are proposing to screen the compactor with a 10' high vinyl stockade type fence. Do you feel this will be adequate or are you looking for other screening?

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

-----Original Message-----
From: Jean Fraser [mailto:JF@portlandmaine.gov]
Sent: Tuesday, October 31, 2006 3:33 PM
To: William Haskell
Subject: 430 Riverside Industrial Parkway

Will,

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Jean

From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: "Jean Fraser" <JF@portlandmaine.gov>
Date: 10/31/2006 3:48:54 PM
Subject: RE: 430 Riverside Industrial Parkway

Hi Jean,

Yes, we did receive the approval letter. I will try my best to get you revised plans tomorrow.

We are proposing to screen the compactor with a 10' high vinyl stockade type fence. Do you feel this will be adequate or are you looking for other screening?

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Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

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Sent: Tuesday, October 31, 2006 3:33 PM
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Jean

CC: "Chris A. Parks" <cparks@gorrillpalmer.com>, "William Haskell" <WHaskell@gorrillpalmer.com>

From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: "Jean Fraser" <JF@portlandmaine.gov>
Date: 10/31/2006 3:53:59 PM
Subject: RE: 430 Riverside Industrial Parkway

Hi Jean,

Another question - Provision 6 indicates a street opening permit will be required for work within the ROW. Is this permit needed for the proposed landscape plantings in the ROW that was requested by the City?

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

-----Original Message-----
From: Jean Fraser [mailto:JF@portlandmaine.gov]
Sent: Tuesday, October 31, 2006 3:33 PM
To: William Haskell
Subject: 430 Riverside Industrial Parkway

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Jean

CC: "Chris A. Parks" <cparks@gorrillpalmer.com>, "William Haskell" <WHaskell@gorrillpalmer.com>

From: Jeff Tarling
To: Jean Fraser
Date: 10/31/2006 1:39:11 PM
Subject: Re: 430 Riverside Ind Pkwy & 2300 Congress Street

Jean-

I've looked at both sites and find their landscape plans acceptable. The 2300 Congress Street site has a lot of good existing tree and landscape material already in place so that should be an improvement. The 430 Riverside Street is a compromise that allows expansion while trying to save some of the existing buffer and large trees, the traffic flow is an improvement.

Thanks,

Jeff Tarling

PORTLAND MAINE
Strengthening a Remarkable City, Building a Community for Life • www.portlandmaine.gov

Planning and Development Department
Lee D. Urban, Director

Planning Division
Alexander Jaegerman, Director

October 24, 2006

Robert R. Morin,
Senior Operations Engineer
Unifirst Corporation
430 Riverside Industrial Parkway
Portland, ME 04103

Robert R. Morin
Senior Operations Engineer
Unifirst Corporation
68 Jonspin Road
Wilmington, MA 01887

William C. Haskell, PE, CPESC
Vice President Site Development
Gorrill-Palmer Consulting Engineers Inc.
PO Box 1237
Gray, ME 04039

RE: Unifirst Expansion, 430 Riverside Industrial Parkway, Portland
Application ID No. 2006-0151
CBL: Chart 354, Block B, Lot 2

Dear Sirs,

On October 24, 2006, the Portland Planning Authority approved the proposed expansion of the parking lot to include 30 truck spaces at the southeast corner of the site and nine car parking spaces in front of the existing building (all existing parking spaces to remain), as shown on the approved plan with the following conditions:

i. That the applicant submit a revised Landscape Plan which shows adequate screening of the trash compactor and indicates all significant trees to remain and the treesave area along the south boundary, for review and approval by the City Arborist.

The approval is based on the submitted site plan. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

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

1. Where submission drawings are available in electronic form, the applicant shall submit any available electronic Autocad files (*.dwg), release 14 or greater, with seven (7) sets of the final plans.

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

3. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.

4. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

5. Prior to construction, a pre-construction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

6. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

The Development Review Coordinator must be notified five (5) working days prior to date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Jean Fraser, Planner at 874-8728 or jf@portlandmaine.gov.

Sincerely,

Sarah Hopkins for AJ

Alexander Jaegerman
Planning Division Director

cc: Lee D. Urban, Planning and Development Department Director
Alexander Jaegerman, Planning Division Director
Sarah Hopkins, Development Review Services Manager
Jean Fraser, Planner
Jay Reynolds, Development Review Coordinator
Marge Schmuckal, Zoning Administrator
Inspections
Michael Bobinsky, Public Works Director
Jim Carmody, City Transportation Engineer
Eric Labelle, City Engineer
Bill Scott, Public Works
Jeff Tarling, City Arborist
Penny Littell, Associate Corporation Counsel
Fire Prevention, Captain Greg Cass
Assessor's Office
Approval Letter File

MODE = MEMORY TRANSMISSION START=OCT-24 21:09 END=OCT-24 21:11

FILE NO.=701

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-CITY OF PORTLAND -

-PLANNING DEPT. - 2077568258-

City of Portland
Department of Planning and Development
Planning Division
389 Congress Street, 4th Floor
Portland ME 04101
(207)874-8721 or (207)874-8719
Fax: (207)756-8258

FAX

To: William C. Haskell

Company: Gorrill-Palmer Consulting Engs Inc.

Fax #: (207) 657 6912

Date: Oct 25, 2006

From: Jean Fraser

You should receive 3 page(s) including this cover sheet.

Comments:

Please find the approval letter which we have faxed to you; the hard copies will go to you and Robert Morin.

Please see e-mail.

Jean

City of Portland
Department of Planning and Development
Planning Division
389 Congress Street, 4th Floor
Portland ME 04101
(207)874-8721 or (207)874-8719
Fax: (207)756-8258

FAX

To: William C. Haskell

Company: Gorrill-Palmer Consulting Engs Inc.

Fax #: (207) 657 6912

Date: Oct 25, 2006

From: Jean Fraser

You should receive 3 page(s) including this cover sheet.

Comments:

Please find the approval letter which we have faxed to you; the hard copies will go to you and Robert Morin.

Please see e-mail.

Jean

From: Jeff Tarling
To: Jean Fraser
Date: 10/31/2006 1:39:11 PM
Subject: Re: 430 Riverside Ind Pkwy & 2300 Congress Street

Jean-

I've looked at both sites and find their landscape plans acceptable. The 2300 Congress Street site has a lot of good existing tree and landscape material already in place so that should be an improvement. The 430 Riverside Street is a compromise that allows expansion while trying to save some of the existing buffer and large trees, the traffic flow is an improvement.

Thanks,

Jeff Tarling

From: James Carmody
To: Fraser, Jean
Date: 10/24/2006 3:09:23 PM
Subject: Unifirst Site Expansion - 430 Riverside Industrial Parkway

Jean:

I have reviewed the revised site plan for this application.
The additional number of trips since 1997 does not require a Traffic Movement Permit.
The median island at the entrance to the site has been reconfigured to allow easier access to the proposed parking spaces. This is acceptable.

James Carmody
Transportation Engineer
City of Portland
207-874-8894
JPC@portlandmaine.gov

M E M O

TO: Jean Fraser
FROM: Mike Farmer
DATE: October 20, 2006
RE: Unifirst Expansion

I reviewed the changes described in Gorrill-Palmer's letter dated Oct. 10, 2006. The changes are okay from my perspective.

From: Jean Fraser
To: Carmody, James; Errico, Thomas; Tarling , Jeff
Date: 10/16/2006 10:42:22 AM
Subject: 430 Riverside Industrial Parkway

The applicant is desperate to start work and the letter/plans I circulated last week look OK to me (from Gorrill-Palmer dated Oct 10); could you all please send me confirmation that you are OK with what they submitted or give me wording for a condition as its staff approval and I would like to send it in the next day or so.

Thanks
Jean

From: Jean Fraser
To: Haskell, William
Date: 10/12/2006 11:23:33 AM
Subject: 430 Riverside Industrial Prkway

Will,

I am awaiting confirmation from the City Traffic Engineer and the City Arborst (but in an initial discussion he seemed OK although still not sure about the pears!!)

Otherwise I confirm that this proposal is acceptable though I note the concrete pad for the compactor has been added- does it have to be there? The I-M Ordinance (14-251 (j) indicates that this should not be between the front of the building and the street- see also the Technical Guidelines under Landscape. So I guess this needs further discussion - if Jim Carmody and Jeff Tarling are both OK with the submittted revised plans then I will condition the refuse storage/compaction so that the applicants can get on with the project.

Jean

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services

PO Box 1237
15 Shaker Rd.
Gray, ME 04039

207-657-6910
FAX: 207-657-6912
E-Mail:mailbox@gorrillpalmer.com

October 10, 2006

Ms. Jean Fraser, Planner
389 Congress Street
Portland, ME 04101

Re: Unifirst Expansion – Response to Comments
Application # 2006-0151

Dear Jean:

This letter summarizes our response to comments received from Planning Staff and Woodard & Curran in letters dated September 21 and September 20, respectively and based on a site visit with you and Mr. Jim Carmody on October 4, 2006. For ease of review we have repeated the comments in italics followed by our response.

Staff Comments dated September 21, 2006

1. *Zoning: The zoning has been reviewed and is acceptable in respect of the submitted layout, though separate permits would be required for any new signage.*

Response: No new signage is anticipated at this time.

2. *Traffic: Please submit a traffic generation analysis that documents the traffic generation levels and their changes for each year since 1997 to help in our consideration of whether a Traffic Movement Permit is required.*

Response: UniFirst proposes to expand the onsite parking for their site on Industrial Parkway, but will not be expanding the building at this time. However, the City has requested an assessment of the need for a traffic movement permit for the site. To do this we have provided a comparison of site traffic generation for the site as it existed in 1997 (41,250 sf) and as it exists today (48,450 sf) as the result of a 7,200 sf expansion in 2003.

Gorrill-Palmer Consulting Engineers, Inc. based the trip generation for the site on ITE Land Use Code 110, Light Industrial. The traffic movement permit rules require that the trip generation estimate be based on the ITE rates if there is data that provides a reasonable approximation for the use. It is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that this land use code provides a reasonable approximation of traffic generation. The following table provides a summary of the traffic generation forecast for the site:

Trip Generation Summary - UniFirst

	AM Peak	PM Peak	Daily
1997 Site (41,250 sf)	38	40	288
2006 Site as expanded in 2003 (48,450 sf)	45	47	338
Net Increase in Trips	**7**	**7**	**50**

The above table shows that the expansion would have had a negligible impact on traffic generation and that even the fully expanded site does not require a traffic movement permit.

3. *Parking: Please explain the operation of the additional truck parking area ie how the trucks parked in the 32-space area will access the parking spaces without causing safety problems related to the exit drive and the proximity of the island that separates the access lanes to the site. How will the integrity of the exit lane be maintained, including during the winter?*

Response: The truck parking spaces would generally be used for overnight parking. Our understanding is that the truck drivers typically come on their shift, pull out the truck and park their personal vehicle in the truck space. At the end of the shift, they would reverse this operation. Based on this comment and the site visit, we have revised the plan to cut back the existing center driveway island to provide easier access to the truck spaces. Refer to the revised site layout plan for more details.

4. *Landscaping: The proposed parking for 32 trucks should be broken up by landscape/treed islands and I suggest that these could incorporate one or two of the mature existing trees. Loss of planting between that area and the detention pond removes some of the required buffer planting; this planting should be retained, or replaced if its retention is not possible (see 5 below).*

   It should be noted that the existing and proposed parking does not meet current landscape requirements and the existing detention pond area is poorly maintained.

   I am awaiting detailed comments on the planting proposals and associated species list and will forward further comments as soon as possible.

Response: After further review of the existing mature pine trees within the proposed truck parking area, we do not recommend saving them as part of the future landscaping plan. These existing pines are very large and the ground mounds up significantly around the roots. This would likely cause problems with the proposed pavement for the truck parking spaces. In addition one of the trees is in poor condition and the others have large branches which could damage trucks parked underneath their canopies. We propose to add more trees as suggested by the City Arborist along the road frontage (in the ROW). In addition, we propose to save a significant portion of the existing wooded buffer that was previously being eliminated by the stormwater pond expansion (see discussion below).

Site Visit Comments on 10/4/06

1. *At front, retain the large pine at the corner of the lot nearest the main road.*

Response: Refer to Staff Comment 4 above for discussion of why the applicant prefers not to retain the large pine tree.

2. *Along the front of the truck parking (but so as not to impede views of the sign nor impede sightlines) plant about 5 white pine in a cluster (suggested by City Arborist).*

Response: The landscaping plan has been revised as requested.

3. *Cut back the landscaped traffic island keeping the part nearest the road that has the sign and shrubs (this is to allow access to the truck parking spaces).*

Response: This has been incorporated into the revised site plan.

4. *Introduce new tree planting long the front of the new car parking area- 4 red maple or ash are suggested by the City Arborist.*

Response: The landscaping plan has been revised as requested.

5. *Remove truck parking space(s)* and plant large trees to greatest extent possible in central area where so much vegetation is being removed for the detention pond and treatment area. I understand you will look at the sizing of this pond to see if it could be reduced thus leaving more of the existing vegetation between the truck parking area and the detention pond. (*The applicant seemed OK with losing some truck parking spaces and it would help if the central area was large enough to allow some substantial tree planting)*

Response: As described in our responses to the staff comments, we have revised the stormwater study and pond and are now proposing to maintain a significant amount of the existing wooded buffer in the central portion of the site.

6. *Introduce boundary planting along the existing and proposed detention pond and treatment area- I understand these cannot be white pine for hydraulic reasons and Jeff Tarling will need to OK the proposed planting list for this area. I understand the pines at the very back edge of the site will remain.*

Response: As described in our responses to the staff comments, we are now proposing to maintain a significant portion of the existing buffer, therefore additional plantings in this area are not warranted.

7. *To help us understand how the existing and proposed planting will work together, please show all of the existing trees that will be retained on the southern part of the site in addition to proposed planting (the marking of the existing trees need not be precise).*

Response: We have added the approximate locations of several additional trees and plantings that are proposed to remain as part of the project as requested.

Other Revisions

At the request of the Owner we have also added a trash compactor at the north east corner of the building. This compactor will sit on a concrete pad that is 10 feet wide by 40 feet long, which still provides a 20 foot wide fire access lane.

Closure

We look forward to your continued review of this project and believe that our responses have addressed your concerns. Our client is anxious to begin and complete construction of the truck parking before the paving plants close for the winter (mid-November). We appreciate your timely review of this additional information. Along that line of thought, what is the City's policy on issuing a certificate of occupancy for the paved parking area if it were to be completed this fall and the landscaping was to be completed next spring? As you are aware, we are approaching the end of the planting season and it may be better to hold off on the new plantings until spring.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.

William C. Haskell, PE, CPESC
Vice President Site Development

Enc.

C: Gary Guerette, Benchmark

wchU:\1540\Applications\Portland Site Plan Review\Commentresponse 10-10-06.doc

From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: "Jean Fraser" <JF@portlandmaine.gov>
Date: 10/10/2006 8:16:28 AM
Subject: Unifirst revisions

Hi Jean,

I think we have come up with a way to reduce the size of the detention pond, which will satisfy a number of the buffer concerns. We are trying to pull everything together and deliver by the end of today. If we cannot make it, would it be possible to deliver to you by 9 AM tomorrow morning?

We will be submitting revised plans and revised stormwater calculations. How many sets of each do you want?

Thanks,

William C. Haskell, PE

Vice President Site Development

Gorrill-Palmer Consulting Engineers, Inc.

PO Box 1237

15 Shaker Road

Gray, ME 04039

207-657-6910x235

207-657-6912 fax

whaskell@gorrillpalmer.com <BLOCKED::mailto:whaskell@gorrillpalmer.com>

www.gorrillpalmer.com <BLOCKED::http://www.gorrillpalmer.com>

CC: "William Haskell" <WHaskell@gorrillpalmer.com>

From: Jean Fraser
To: Haskell, William
Date: 10/4/2006 4:14:08 PM
Subject: 430 Riverside Industrial Parkway

Will,

Just to follow up on the site meeting today:

1. Jim Carmody asked me to ask you to submit a short (couple of paras) explaining how the truck parking will work (essentially summarizing what you told him)- this was previously requested in my letter of 9.21.06 and can be sent to me.

2. Below please find the Ordinance I was referring to and I think it is fairly clear that the current proposal does not meet this standard (its Section 14-526 (25) and is on the web site too).

While the truck parking and detention pond are in and of themselves acceptable, the impact on the landscaping and buffering is severe. Given the scale of vegetation to be removed, I think the City Arborist will require substantial reinstatement planting (he will need to sign off on any approval)and my understanding of the discussions today is that you will:

1. At front, retain the large pine at the corner of the lot nearest the main road;

2. Along the front of the truck parking (but so as not to impede views of the sign nor impede sightlines) plant about 5 white pine in a cluster (suggested by City Arborist)

3. Cut back the landscaped traffic island keeping the part nearest the road that has the sign and shrubs (this is to allow access to the truck parking spaces)

4. Introduce new tree planting long the front of the new car parking area- 4 red maple or ash are suggested by the City Arborist

5. Remove truck parking space(s)* and plant large trees to greatest extent possible in central area where so much vegetation is being removed for the detention pond and treatment area. I understand you will look at the sizing of this pond to see if it could be reduced thus leaving more of the existing vegetation between the truck parking area and the detention pond. (*The applicant seemed OK with losing some truckparking spaces and it would help if the central area was large enough to allow some substantial tree planting)

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To help us understand how the existing and proposed planting will work together, please show all of the existing trees that will be retained on the southern part of the site in addition to proposed planting (the marking of the existing trees need not be precise).

As mentioned it would help move this along if I had the revised plans by the end of Oct 10th; in any case I note you wish to start on site soon and will do what I can to expedite the review.

Don't hesitate to call me if you find some of this needs to change for good reasons or if you have some other suggestions for achieving the Ordinance objectives.

Thanks
Jean (Fraser)
Planner

874 8728

"CITY ORDINANCE 14-526 (LAND USE)

(25) Development in the industrial zones shall meet the following additional requirements:

a. Landscaping and buffering:

1. Buildings, parking areas and other paved or unrevegetated areas shall be landscaped to screen and enhance the property and to buffer adjacent properties from the proposed use or uses.

2. The existing landscape shall be preserved in its natural state to the greatest extent practicable by minimizing tree removal and grade changes. Where preservation of the existing landscape is not possible, new planted materials will be required.

3. Where a building, parking lot or unrevegetated area abuts a residential zone, a landscaped strip shall be established between abutting property and the structure, parking lot or unrevegetated area. Such landscaping shall be maintained and replaced as necessary to continue the buffer.

4. Front yards along arterial and collector streets, as delineated on the Maine Department of Transportation Map, a copy of which is on file in the department of planning and urban development, shall be landscaped. Landscaping shall also be required for the following:

(a) Rear yards.

(b) Side yards.

(c) Parking areas for more than fifteen (15) vehicles in the I L and I Lb zones, twenty five (25) vehicles in the I M and I Mb zones, or thirty five (35) vehicles in the I H and I Hb zones.

5. Where pavement or gravel is proposed for vehicle or machinery parking or storage, a landscaped buffer shall be planted or a preserved buffer shall be maintained along the downward slope of the paved or graveled area to provide passive treatment of stormwater before it leaves the site."

CC: Carmody, James; Sarah Hopkins ; Tarling , Jeff

From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: "Jean Fraser" <JF@portlandmaine.gov>
Date: 9/26/2006 4:25:03 PM
Subject: Unifirst Meeting dates

Hi Jean,

Possible dates

10/3 AM or PM

10/4 AM or PM

Let me know if either of these work

Thanks,

William C. Haskell, PE

Vice President Site Development

Gorrill-Palmer Consulting Engineers, Inc.

PO Box 1237

15 Shaker Road

Gray, ME 04039

207-657-6910x235

207-657-6912 fax

whaskell@gorrillpalmer.com <BLOCKED::mailto:whaskell@gorrillpalmer.com>

www.gorrillpalmer.com <BLOCKED::http://www.gorrillpalmer.com>

CC: "William Haskell" <WHaskell@gorrillpalmer.com>

Planning and Development Department
Lee D. Urban, Director

Planning Division
Alexander Jaegerman, Director

September 21, 2006

William C. Haskell, PE, CPESC
Vice President Site Development
Gorrill-Palmer Consulting Engineers, Inc.
PO Box 1237
15 Shaker Road
Gray, ME 04039

Subject: Site Plan Submission
Unifirst Expansion, 430 Riverside Industrial Parkway
Application # 2006-0151

Dear Mr. Haskell,

Thank you for your letter and site plan submission of August 14, 2006. I confirm that the proposals are currently being reviewed as a Minor Site Plan proposal and understand that the proposed building addition to the existing building is no longer part of the proposal.

We have the following initial comments:

1. Zoning: The zoning has been reviewed and is acceptable in respect of the submitted layout, though separate permits would be required for any new signage.

2. Traffic: Please submit a traffic generation analysis that documents the traffic generation levels and their changes for each year since 1997 to help in our consideration of whether a Traffic Movement Permit is required.

3. Parking: Please explain the operation of the additional truck parking area ie how the trucks parked in the 32-space area will access the parking spaces without causing safety problems related to the exit drive and the proximity of the island that separates the access lanes to the site. How will the integrity of the exit lane be maintained, including during the winter?

389 Congress Street • Portland, Maine 04101 • Ph (207) 874-8721 or 874-8719 • Fx 756-8258 • TTY 874-8936

4. Landscaping: The proposed parking for 32 trucks should be broken up by landscape/treed islands and I suggest that these could incorporate one or two of the mature existing trees. Loss of planting between that area and the detention pond removes some of the required buffer planting; this planting should be retained, or replaced if its retention is not possible (see 5. below).

   It should be noted that the existing and proposed parking does not meet current landscape requirements and the existing detention pond area is poorly maintained.

   I am awaiting detailed comments on the planting proposals and associated species list and will forward further comments as soon as possible.

5. Stormwater: Please see the attached comments from the City's Development Review Coordinator (DRC) (Woodard & Curran) dated September 20, 2006. Given the loss of landscape and existing buffer vegetation associated with the proposed parking expansion, please consider the suggested underground pipe system which appears to have a number of benefits.

I would be happy to meet you on site to discuss options for addressing the issues raised above; the meeting could include the City's DRC and City Arborist if appropriate.

Please contact me if you have any questions- I can be reached on 874 8728 or jf@portlandmaine.gov.

Yours sincerely,

Jean Fraser
Planner

Cc Sarah Hopkins, Development Review Services Manager
Marge Schmuckal, Zoning Administrator
Jim Carmody, City Transportation Engineer
Tom Errico, City Traffic Engineering Reviewer
Eric Labelle, City Engineer
Dan Goyette, City Development Review Coordinator
Jeff Tarling, City Arborist
Greg Cass, Fire Prevention

WOODARD & CURRAN
Engineering · Science · Operations

CORPORATE OFFICES: Maine, Massachusetts, New Hampshire, Connecticut, Florida
Operational offices throughout the U.S.

MEMORANDUM

06-151

TO: Jean Fraser, City of Portland Planner

FROM: Dan Goyette, PE – Development Review Coordinator, Woodard & Curran, Inc.

DATE: September 20, 2006

RE: Unifirst Expansion, 430 Riverside Industrial Parkway

Woodard & Curran has reviewed the submitted documents for the proposed parking and building expansion at Unifirst at 430 Riverside Industrial Parkway. The project involves a 2240 SF building addition and the construction of additional parking for 28 trucks and 9 visitors.

Documents Reviewed

- Unifirst Site Expansion Site Plan Review Submission dated August 14, 2006, prepared by William Haskell, P.E., Gorrill-Palmer Consulting Engineers, Inc.
- Engineering plan set prepared by Gorrill-Palmer Consulting Engineers, Inc., sheets C001, C100-102, C400-402, L101, dated August 14, 2006.
- Letter to Captain Greg Cass, dated August 30, 2006, prepared by William Haskell, P.E., Gorrill-Palmer Consulting Engineers, Inc.

1. Parking/Circulation

A. It is not clear how the additional truck parking will work. It would appear that the parking stalls closest to Riverside are extremely difficult to access, if not impossible due to the island. Please provide a narrative describing how the truck parking will operate.

2. Stormwater Management

A. The proposed detention pond is extremely large. It appears that the same storage volume could be achieved using an underground pipe system. This would eliminate the need to clear all of the existing vegetation and install the new guardrail.

3. General Comments

A. The existing and proposed parking areas do not include any landscaped islands. City of Portland standards require no less than ten percent of the interior parking area, not including perimeter landscaping, to be landscaped.

DRG
203848.70

cc: File

[Planning file copy]

Planning and Development Department
Lee D. Urban, Director

Planning Division
Alexander Jaegerman, Director

September 21, 2006

William C. Haskell, PE, CPESC
Vice President Site Development
Gorrill-Palmer Consulting Engineers, Inc.
PO Box 1237
15 Shaker Road
Gray, ME 04039

Subject: Site Plan Submission
Unifirst Expansion, 430 Riverside Industrial Parkway
Application # 2006-0151

Dear Mr. Haskell,

Thank you for your letter and site plan submission of August 14, 2006. I confirm that the proposals are currently being reviewed as a Minor Site Plan proposal and understand that the proposed building addition to the existing building is no longer part of the proposal.

We have the following initial comments:

1. Zoning: The zoning has been reviewed and is acceptable in respect of the submitted layout, though separate permits would be required for any new signage.

2. Traffic: Please submit a traffic generation analysis that documents the traffic generation levels and their changes for each year since 1997 to help in our consideration of whether a Traffic Movement Permit is required.

3. Parking: Please explain the operation of the additional truck parking area ie how the trucks parked in the 32-space area will access the parking spaces without causing safety problems related to the exit drive and the proximity of the island that separates the access lanes to the site. How will the integrity of the exit lane be maintained, including during the winter?

389 Congress Street • Portland, Maine 04101 • Ph (207) 874-8721 or 874-8719 • Fx 756-8258 • TTY 874-8936

4. Landscaping: The proposed parking for 32 trucks should be broken up by landscape/treed islands and I suggest that these could incorporate one or two of the mature existing trees. Loss of planting between that area and the detention pond removes some of the required buffer planting; this planting should be retained, or replaced if its retention is not possible (see 5. below).

   It should be noted that the existing and proposed parking does not meet current landscape requirements and the existing detention pond area is poorly maintained.

   I am awaiting detailed comments on the planting proposals and associated species list and will forward further comments as soon as possible.

5. Stormwater: Please see the attached comments from the City's Development Review Coordinator (DRC) (Woodard & Curran) dated September 20, 2006. Given the loss of landscape and existing buffer vegetation associated with the proposed parking expansion, please consider the suggested underground pipe system which appears to have a number of benefits.

I would be happy to meet you on site to discuss options for addressing the issues raised above; the meeting could include the City's DRC and City Arborist if appropriate.

Please contact me if you have any questions- I can be reached on 874 8728 or jf@portlandmaine.gov.

Yours sincerely,

Jean Fraser

Jean Fraser
Planner

Cc Sarah Hopkins, Development Review Services Manager
Marge Schmuckal, Zoning Administrator
Jim Carmody, City Transportation Engineer
Tom Errico, City Traffic Engineering Reviewer
Eric Labelle, City Engineer
Dan Goyette, City Development Review Coordinator
Jeff Tarling, City Arborist
Greg Cass, Fire Prevention

e-mailed 9.22.06

faxed to Haskell 9.21.06

WOODARD & CURRAN
Engineering • Science • Operations

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DRG
203848.70

cc: File

From: Marge Schmuckal
To: Jean Fraser
Date: 9/21/2006 4:05:13 PM
Subject: Re: 430 Riverside Industrial Parkway

Jean,
I did relook at the plans. The project is meeting the I-M Zone requirements including the minimum pavement setbacks.
Marge

>>> Jean Fraser 9/21/2006 3:43:39 PM >>>
Marge,

I am dealing with this one- and I got the comments sent via Sarah on 8.24.2006 and I saw your UI sign off dated 9.13.2006.

You may recall that I mentioned to you the other day that I thought they were very near the site boundary with the truck parking and you were going to have another look. Both Dan and Jeff think its all very tight too. Can I assume that the UI signoff was done after you had another look?

Thanks
Jean

From: Jean Fraser
To: Haskell, William
Date: 9/20/2006 4:20:29 PM
Subject: 430 Riverside Industrial Parkway

Will,

Please find attached the coments from the City's DRC which I received today.

Today was hijacked by a couple of urgent metters so I haven't had a chance to integrate these comments into the letter, so I am forwarding them direct so that you have an idea of the issues.

These comments also point to a need to re-think the truck parking...

I will fax the letter to you tomorrow morning and apologize for the delay.

Jean (Fraser)
874-8728

From: Jean Fraser
To: Haskell, William
Date: 9/19/2006 11:52:00 AM
Subject: RE: Unifirst status

Will,

I had a letter drafted and hoped to fax it to you today after Sarah had a look- but she is not in today nor was she in yesterday. The letter omits the request re the zoning as the Zoning Administrator found your calculations and is happy.

I am chasing for the stormwater drainage comments as the detention basin and new grading (along with the truck parking) decimate what little buffer landscape exists.

I chased via e-mail 9.19.06

The letter includes some additional issues and I will fax it today if I can get the drainage comments.

Sorry for the delay- the proposed parking for the trucks is really maxing this site and I think we will need a meeting to look at other options.

Jean

>>> "William Haskell" <WHaskell@gorrillpalmer.com> 9/19/2006 11:39:37 AM >>>
Hi Jean,

A couple follow up questions:

When do you anticipate receipt of additional comments?

When you refer to a zoning analysis, are you just looking for the backup calculations?

Are there other zoning concerns other than the impervious area coverage?

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

-----Original Message-----
From: Jean Fraser [mailto:JF@portlandmaine.gov]
Sent: Wednesday, September 13, 2006 10:51 AM
To: William Haskell
Cc: Sarah Hopkins
Subject: RE: Unifirst status

Will,

As Sarah mentioned, I am the Planner dealing with this case.

We have done an initial review at the meeting this morning and identified further information that we need in order to progress the review. I will write formally but these are:

a. A Zoning analysis that shows how the I-M requirements are met, particularly in respect to the percentage of impervious area; and

b. A traffic generation analysis that documents the traffic generation levels and their changes for each year since 1997 to help in our consideration of whether a Traffic Movement Permit is required.

I am still awaiting other reviewers (eg re stormwater) comments so there may some further issues; there will be a need for additional tree planting.

Call me if you have any questions- I am on 874 8728.

Jean Fraser
Planner

>>> "William Haskell" <WHaskell@gorrillpalmer.com> 9/12/2006 11:23:12 AM >>>
Hi Sarah,

Thanks for the update. Yes - only the pavement addition and no building
addition.

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

-----Original Message-----
From: Sarah Hopkins [mailto:SH@portlandmaine.gov]
Sent: Tuesday, September 12, 2006 11:10 AM
To: William Haskell
Cc: Jean Fraser
Subject: Re: Unifirst status

Hi Will,
We'll review the plans during our staff meeting tomorrow. We were backed up for a couple of weeks and I wasn't able to assign it, but now
Jean Fraser is the planner.
Didn't you mention a change? It here only pavement addition and no building addition? I'll passs the word along.
-Sarah

>>> "William Haskell" <WHaskell@gorrillpalmer.com> 9/11/2006 11:25:57 AM >>>
Hi Sarah,

Can you provide a status update on the review of this project?

430 Riverside Industrial Parkway

Tax Map 354

Lot 2

Block B

Thank you,

William C. Haskell, PE

Vice President Site Development

Gorrill-Palmer Consulting Engineers, Inc.

PO Box 1237

15 Shaker Road

Gray, ME 04039

207-657-6910x235

207-657-6912 fax

whaskell@gorrillpalmer.com
<BLOCKED::mailto:whaskell@gorrillpalmer.com>

www.gorrillpalmer.com <BLOCKED::http://www.gorrillpalmer.com>

From: Marge Schmuckal
To: Shukria Wiar
Date: 9/13/2006 3:34:41 PM
Subject: Unifirst Corp - #2006-0151

Shukria,
I have already given Sarah an e-mail (on 8/24/06) stating that this proposal is meeting all th I-M zone requirements. I have tried again to sign off under Urban Insight under zoning and I am running into technical problems. Vicki Mason from MIS is looking into those problems.

I will sign off in Urban Insight when it is technically possible.
Marge

From: Jean Fraser
To: Haskell, William
Date: 9/13/2006 10:51:01 AM
Subject: RE: Unifirst status

Will,

As Sarah mentioned, I am the Planner dealing with this case.

We have done an initial review at the meeting this morning and identified further information that we need in order to progress the review. I will write formally but these are:

a. A Zoning analysis that shows how the I-M requirements are met, particularly in respect to the percentage of impervious area; and

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Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

-----Original Message-----
From: Sarah Hopkins [mailto:SH@portlandmaine.gov]
Sent: Tuesday, September 12, 2006 11:10 AM
To: William Haskell
Cc: Jean Fraser
Subject: Re: Unifirst status

Hi Will,
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Didn't you mention a change? It here only pavement addition and no building addition? I'll passs the word along.
-Sarah

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AM >>>
Hi Sarah,

Can you provide a status update on the review of this project?

430 Riverside Industrial Parkway

Tax Map 354

Lot 2

Block B

Thank you,

William C. Haskell, PE

Vice President Site Development

Gorrill-Palmer Consulting Engineers, Inc.

PO Box 1237

15 Shaker Road

Gray, ME 04039

207-657-6910x235

207-657-6912 fax

whaskell@gorrillpalmer.com <BLOCKED::mailto:whaskell@gorrillpalmer.com>

www.gorrillpalmer.com <BLOCKED::http://www.gorrillpalmer.com>

material from any computer.

CC: Sarah Hopkins

From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: "Sarah Hopkins " <SH@portlandmaine.gov>
Date: 9/12/2006 11:26:49 AM
Subject: RE: Unifirst status

Hi Sarah,

Thanks for the update. Yes - only the pavement addition and no building addition.

Thanks,

Will Haskell
Gorrill-Palmer Consulting Engineers, Inc.
tel: 207-657-6910
fax: 207-657-6912
whaskell@gorrillpalmer.com

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Sent: Tuesday, September 12, 2006 11:10 AM
To: William Haskell
Cc: Jean Fraser
Subject: Re: Unifirst status

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Didn't you mention a change? It here only pavement addition and no building addition? I'il passs the word along.
-Sarah

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Hi Sarah,

Can you provide a status update on the review of this project?

430 Riverside Industrial Parkway

Tax Map 354

Lot 2

Block B

Thank you,

From: "William Haskell" <WHaskell@gorrillpalmer.com>
To: "Sarah Hopkins " <SH@portlandmaine.gov>
Date: 9/11/2006 11:30:21 AM
Subject: Unifirst status

Hi Sarah,

Can you provide a status update on the review of this project?

430 Riverside Industrial Parkway

Tax Map 354

Lot 2

Block B

Thank you,

William C. Haskell, PE

Vice President Site Development

Gorrill-Palmer Consulting Engineers, Inc.

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William C. Haskell, PE

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www.gorrillpalmer.com <BLOCKED::http://www.gorrillpalmer.com>

Application ID Number: 2006-0151 | Delete Review | Save | C

Department: Zoning | Status: Approved | Reviewer: Marge Schmuckal

Comments:

Approval Date: 08/24/2006

Expiration Date: 08/24/2007

Extension Date:

☑ OK to Issue Permit | Name: Marge Schmuckal | Date: 08/24/2006 | Date 2:

Conditions Section: | Add New Condition From Default List | Add New Condition | Delete Condition

This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.

Separate permits shall be required for any new signage.

Create Date: 09/13/2006 By: mes | Update Date: 09/13/2006 By: mes

From: Marge Schmuckal
To: Sarah Hopkins
Date: 8/24/2006 4:48:48 PM
Subject: 430 Riverside Ind. Pkwy #2006-0151

Sarah,
I don't know who has this site plan.

This addition is in an I-M Industrial Zone. All the I-M Zone requirements are being met as proposed on this project.

Marge Schmuckal
Zoning Administrator

From: Marge Schmuckal
To: Sarah Hopkins
Date: 8/24/2006 4:48:48 PM
Subject: 430 Riverside Ind. Pkwy #2006-0151

Sarah,
I don't know who has this site plan.

This addition is in an I-M Industrial Zone. All the I-M Zone requirements are being met as proposed on this project.

Marge Schmuckal
Zoning Administrator

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

2006-0151
Application I. D. Number

8/15/2006
Application Date

Unifirst Corporation
Applicant

430 Riverside Ind. Parkway, Portland, ME 04103
Applicant's Mailing Address

Unifirst Expansion
Project Name/Description

Consultant/Agent

430 - 430 Riverside Ind Pkwy, Portland, Maine
Address of Proposed Site

Agent Ph: Agent Fax:
Applicant or Agent Daytime Telephone, Fax

354 B002001
Assessor's Reference: Chart-Block-Lot

Approval Conditions of Zoning

1 This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.

2 Separate permits shall be required for any new signage.

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

2006-0151
Application I. D. Number

8/15/2006
Application Date

Unifirst Corporation
Applicant

430 Riverside Ind. Parkway, Portland, ME 04103
Applicant's Mailing Address

Unifirst Expansion
Project Name/Description

Consultant/Agent

430 - 430 Riverside Ind Pkwy, Portland, Maine
Address of Proposed Site

Agent Ph: Agent Fax:
Applicant or Agent Daytime Telephone, Fax

354 B002001
Assessor's Reference: Chart-Block-Lot

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

Proposed Building square Feet or # of Units | Acreage of Site | IM Zoning

Check Review Required:

☑ Site Plan (major/minor) ☐ Subdivision # of lots ☐ PAD Review ☐ 14-403 Streets Review

☐ Flood Hazard ☐ Shoreland ☐ HistoricPreservation | DEP Local Certification

| Zoning Conditional Use (ZBA/PB) | Zoning Variance | Other

Fees Paid: Site Plan $400.00 Subdivision Engineer Review Date 8/15/2006

Zoning Approval Status:

Reviewer Marge Schmuckal

☑ Approved ☐ Approved w/Conditions See Attached | Denied

Approval Date 8/24/2006 Approval Expiration 8/24/2007 Extension to ☑ Additional Sheets Attached

☑ Condition Compliance Marge Schmuckal (signature) 8/24/2006 (date)

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

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

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

GP Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services

PO Box 1237
15 Shaker Rd.
Gray, ME 04039

207-657-6910
FAX: 207-657-6912
E-Mail:mailbox@gorrillpalmer.com

August 30, 2006

Mr. Greg Cass – Captain, Fire Prevention Officer
Portland Fire Dept.
389 Congress Street
Portland Maine, 04101

Subject: Site Plan Submission
Unifirst Expansion

Dear Captain Cass,

This letter is to address the checklist that was sent to us. As we discussed during our telephone conversation, the Unifirst Corporation has decided to not move forward with the building addition, and only wishes to permit the parking lot expansion and associated stormwater detention pond improvements. The proposed parking improvements include the 28 new truck/van spaces on the southerly side and the 9 new passenger vehicle spaces on the east side. We are awaiting responses from other reviewers and will provide a full set of updated plans (without the building addition) after we receive the remaining responses. We have repeated the checklist requests below followed by our responses.

1. Name, address, telephone number of applicant

   Response *– Mr. Robert R. Morin, Senior Operations Engineer Unifirst Corporation 68 Jonspin Road Wilmington, MA 01887 Phone: (978) 658-8888.*

2. Name, address, telephone number of architect.

   Response *– Not applicable because the building expansion is no longer planned.*

3. Proposed uses of any structures[NFPA and IBC classification]

   Response *– Not applicable.*

4. Square footage of all structures [total and per story]

   Response *– Not applicable.*

5. Elevation of all structures.

   Response *– Not applicable.*

6. Proposed fire protection of all structures.

   Response *– Not applicable.*

7. Hydrant Locations.

   Response *–There is an existing fire hydrant located in the Riverside Industrial Parkway right-of-way near the northeast corner of the property. We have attached a revised site layout plan calling out this existing hydrant.*

8. Water main[s} size and location

   Response *– It is our understanding that there is a 16 inch water main located in the Riverside Industrial Parkway right-of-way. This project will not change the existing fire service to the existing building.*

9. Access to any fire department connections.

   Response *– There are no proposed changes to the fire service for the existing building.*

10. Access to all structures [min. 2 sides]

    Response *– The building is accessible on all sides. The southerly driveway entrance allows access to the east and south sides of the building. The northerly driveway entrance allows access to the north and west sides of the building. The southerly driveway entrance is 17 feet wide and the parking lot has access aisles that are approximately 14 feet wide. It may be difficult for a large fire truck to make the turn into the western parking area on the west side of the building if the parking lot is full, however, this is an existing situation. The west end of the building can be accessed by a large fire truck from the driveway entrance on the north side of the building.*

11. A code summary shall be included referencing NFPA 1 and all fire department technical standards.

    Response *– Not applicable.*

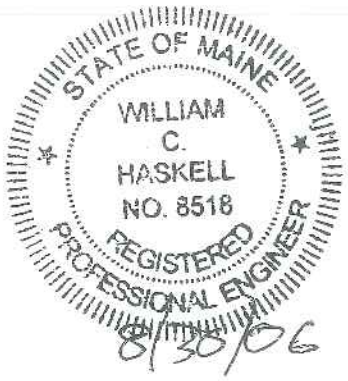
Conclusion

Gorrill-Palmer Consulting Engineers, Inc. and the applicant look forward to discussing this project. Please contact us with any questions.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.

William C. Haskell, PE, CPESC
Vice President Site Development



Copy: Gary Guerette, Benchmark.
Sarah Hopkins, City of Portland Planning

WCH/jlg/JN1540/ U:\1540\Greg Cass response.doc

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services

PO Box 1237
15 Shaker Rd.
Gray, ME 04039

207-657-6910
FAX: 207-657-6912
E-Mail:mailbox@gorrillpalmer.com

August 14, 2006

Ms. Sarah Hopkins, Development Review Services Manager
Department of Planning and Development
Portland City Hall
389 Congress Street
Portland, ME 04101-2503

Subject: Site Plan Submission
Unifirst Expansion

Dear Sarah,

Benchmark has retained Gorrill-Palmer Consulting Engineers, Inc., to prepare plans and permit applications for the proposed building and parking lot expansion located along Riverside Industrial Parkway for Unifirst Corporation . The project site is located on Block B, Lot 2 on Portland's Assessor's Map 354, comprising of approximately 3.76 acres of land. The lot currently is developed for commercial / Industrial use with a large building and parking areas. The site is served with public water, sewer, gas and electricity. Based on the building addition size, the development meets the definition of a minor development. Work is planed to start in the fall of 2006 and be completed in the fall of 2006

This application package describes the applicant's plans to develop the above-referenced parcel. We look forward to discussing this project with you during your review.

- Attachment 1: Site Plan Review Application
- Attachment 2: Location Map
- Attachment 3: Title, Right & Interest
- Attachment 4: Abutters List
- Attachment 5: Stormwater
- Attachment 6: FEMA Flood Map
- Attachment 7: Erosion & Sedimentation Control Narrative
- Attachment 8: Soils Map
- Attachment 9: Photos of Existing Building
- Attachment 10: Lighting
- Full and reduced plan sets.

Site Description

The project site contains the existing Unifirst building. The site has existing parking and access to the Riverside Industrial Parkway. There are two stormwater ponds located on the project to collect and treat run off. Currently the site has about 63 percent covered by impervious coverage.

Proposed Use

This project will occur in one phase. The expansion will consist of a 2,240 s.f. addition to the existing Unifirst building. The building expansion will be used for the industrial wastewater pretreatment system which will be moved and upgraded from the present system in the existing building. The additional space inside the existing building will be used for upgraded washer and dryer machines. In addition two parking areas will be constructed containing space for 32 service trucks and 9 passenger vehicles.

Zoning

The location of the site is in zoning district IM

Financial

The project will be financed internally.

Stormwater

A Stormwater Study is included in Attachment 5. Stormwater from the new impervious area will be conveyed to the two (stormwater ponds) located to the rear of the site. The pond along the west side will be expanded to accommodate the new and existing runoff in accordance with the city standards.

Erosion Control

An Erosion and Sedimentation Control narrative and plan has been prepared in accordance with the Maine Erosion and Sediment Control BMP's. A copy of this report is included in Attachment 7 and is also duplicated on the erosion control detail sheet in the plan set. We do not anticipate that the project will require a Maine Construction General permit or SWPPP because the disturbed area will be less than 1 acre.

Utilities

A mew sanitary connection will be provided from the building addition, the sewer flows are not anticipated to increase.

Lighting

A photometric plan is included in the plan set. A catalog cut for the proposed light fixture is included in Attachment 10. The 3 new lights fixtures will be mounted at 20 feet along grade.

Traffic Study

There is no proposed increase in traffic flow from the expansion

Landscaping

Planting plan included in plan set was prepared by Mitchell& Associates, Inc.

Building Elevations

Construction will be similar to the existing building, See attached photographs

Waste Disposal

There will be no change to the existing methods of solid waste disposal, which is currently handled internally. Building addition may require sewer connection. A proposed has been shown connecting to an existing sewer basin. No significant increase in sanitary sewer generation is expected.

Conclusion

Gorrill-Palmer Consulting Engineers, Inc. and the applicant look forward to discussing this project with the Planning Department. Please contact us with any questions.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.

William C. Haskell, PE, CPESC
Vice President Site Development

Copy: Gary Guerette, Benchmark.

WCH/jlg/JN1540/ U:\1540\Applications\Portland Site Specific.doc

City of Portland Site Plan Application

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

Address of Proposed Development: 430 Riverside Industrial Parkway		Zone: IM
Total Square Footage of Proposed Structure: 2240 s.f.	Square Footage of Lot: 163,642 s.f.	
Tax Assessor's Chart, Block & Lot: Chart# 354 Block# B Lot# 2	Property owner's mailing address: Unifirst Corporation 430 Riverside Industrial Parkway Portland, ME 04103	Telephone #: (978) 658-8888 x684
Consultant/Agent, mailing address, phone # & contact person: William Haskell Gorrill-Palmer Consulting Engineers, Inc PO Box 1237 Gray Maine 04039 (207) 657-6910	Applicant's name, mailing address, telephone, Fax, Pager: Same as Owner Contact: Robert Morin	Project name: Unifirst Expansion

Fee For Service Deposit (all applications) ___X___ ($200.00)

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

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

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

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

-- Please see next page --

Who billing will be sent to: (Company, Contact Person, Address, Phone #)

Robert R. Morin, Senior Operations Engineer
UniFirst Corporation
68 Jonspin Road
Wilmington, MA 01887
Phone: (978) 658-8888 x684
Fax: (978) 658-1693

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

a. copy of application
b. cover letter stating the nature of the project
c. site plan containing the information found in the attached sample plans checklist
d. 1 set of 11 x 17 plans

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

ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM

Section 14-522 of the Zoning Ordinance outlines the process which is available on our web site: portlandmaine.gov

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

Signature of applicant: Robert R. Morin	Date: 7-28-06

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

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services

PO Box 1237
15 Shaker Rd.
Gray, ME 04039

207-657-6910
FAX: 207-657-6912
E-Mail:mailbox@gorrillpalmer.com

July 7, 2006

Mr. Robert R. Morin, Senior Operations Engineer
Unifirst Corporation
68 Jonspin Road
Wilmington, MA 01887

RE: Designation of Agent

Dear Mr. Morin:

As required by various approval agencies, please indicate by signing below that Gorrill-Palmer Consulting Engineers, Inc. is authorized to act as Unifirst Corporation's agent for the specific purpose of preparing and submitting permit applications on the company's behalf. This designation of agent is for the following development projects:

- Unifirst Expansion, Portland, Maine

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.

William C. Haskell, PE
Vice President Site Development

The undersigned hereby gives Gorrill-Palmer Consulting Engineers, Inc. the authority to act as agent for Unifirst Corporation for the specific purpose of preparing and submitting permit applications for the project(s) identified above.

Robert R. Morin — 7-28-06

Signature — Date

Robert R. Morin Senior Operations Engineer

Printed Name & Title

City of Portland, Maine Site Plan Checklist

Unifirst Expansion 430 Riverside Industrial Parkway
Project Name, Address of Project — Application Number

Submitted () & Date (b,c)	Item	Required Information	Section 14-525
X	(1)	Standard boundary survey (stamped by a registered surveyor, at a scale of not less than 1 inch to 100 feet and including:	1
X	(2)	Name and address of applicant and name of proposed development	a
X	(3)	Scale and north points	b
X	(4)	Boundaries of the site	c
X	(5)	Total land area of site	d
X	(6)	Topography - existing and proposed (2 feet intervals or less)	e
X	(7)	Plans based on the boundary survey including:	2
X	(8)	Existing soil conditions	a
X	(9)	Location of water courses, marshes, rock outcroppings and wooded areas	b
X	(10)	Location, ground floor area and grade elevations of building and other structures existing and proposed, elevation drawings of exterior facades, and materials to be used	c
X	(11)	Approx location of buildings or other structures on parcels abutting the site	d
X	(12)	Location of on-site waste receptacles	e
X	(13)	Public utilities	e
X	(14)	Water and sewer mains	e
X	(15)	Culverts, drains, existing and proposed, showing size and directions of flows	e
X	(16)	Location and dimensions, and ownership of easements, public or private rights-of-way, both existing and proposed	f
X	(17)	Location and dimensions of on-site pedestrian and vehicular access ways	g
X	(18)	Parking areas	g
X	(19)	Loading facilities	g
X	(20)	Design of ingress and egress of vehicles to and from the site onto public streets	g
X	(21)	Curb and sidewalks	g
X	(22)	Landscape plan showing:	h
X	(23)	Location of existing proposed vegetation	h
X	(24)	Type of vegetation	h
X	(25)	Quantity of plantings	h
X	(26)	Size of proposed landscaping	h
X	(27)	Existing areas to be preserved	h
X	(28)	Preservation measures to be employed	h
X	(29)	Details of planting and preservation specifications	h
X	(30)	Location and dimensions of all fencing and screening	i
X	(31)	Location and intensity of outdoor lighting system	j
X	(32)	Location of fire hydrants, existing and proposed	k
X	(33)	Written statement	c
X	(34)	Description of proposed uses to be located on site	l
N/A	(35)	Quantity and type of residential, if any	l
X	(36)	Total land area of the site	b2
X	(37)	Total floor area and ground coverage of each proposed building and structure	b2
X	(38)	General summery of existing and proposed easements or other burdens	c3
X	(39)	Method of handling solid waste disposal	4
X	(40)	Applicant's evaluation of availability of off-site public facilities, including sewer, water and streets	5
X	(41)	Description of any problems of drainage or topography, or a representation that there are none	6
X	(42)	An estimate of the time period required for completion of the development	7
N/A	(43)	A list of all state and federal regulatory approvals to which the development may be subject to	8

N/A	(44)	The status of any pending applications	8
N/A	(45)	Anticipated timeframe for obtaining such permits	h8
N/A	(46)	A letter of non jurisdiction	h8
X	(47)	Evidence of financial and technical capability to undertake and complete the development including a letter from a responsible financial institution stating that is has reviewed the planned development and would seriously consider financing it when approved.	

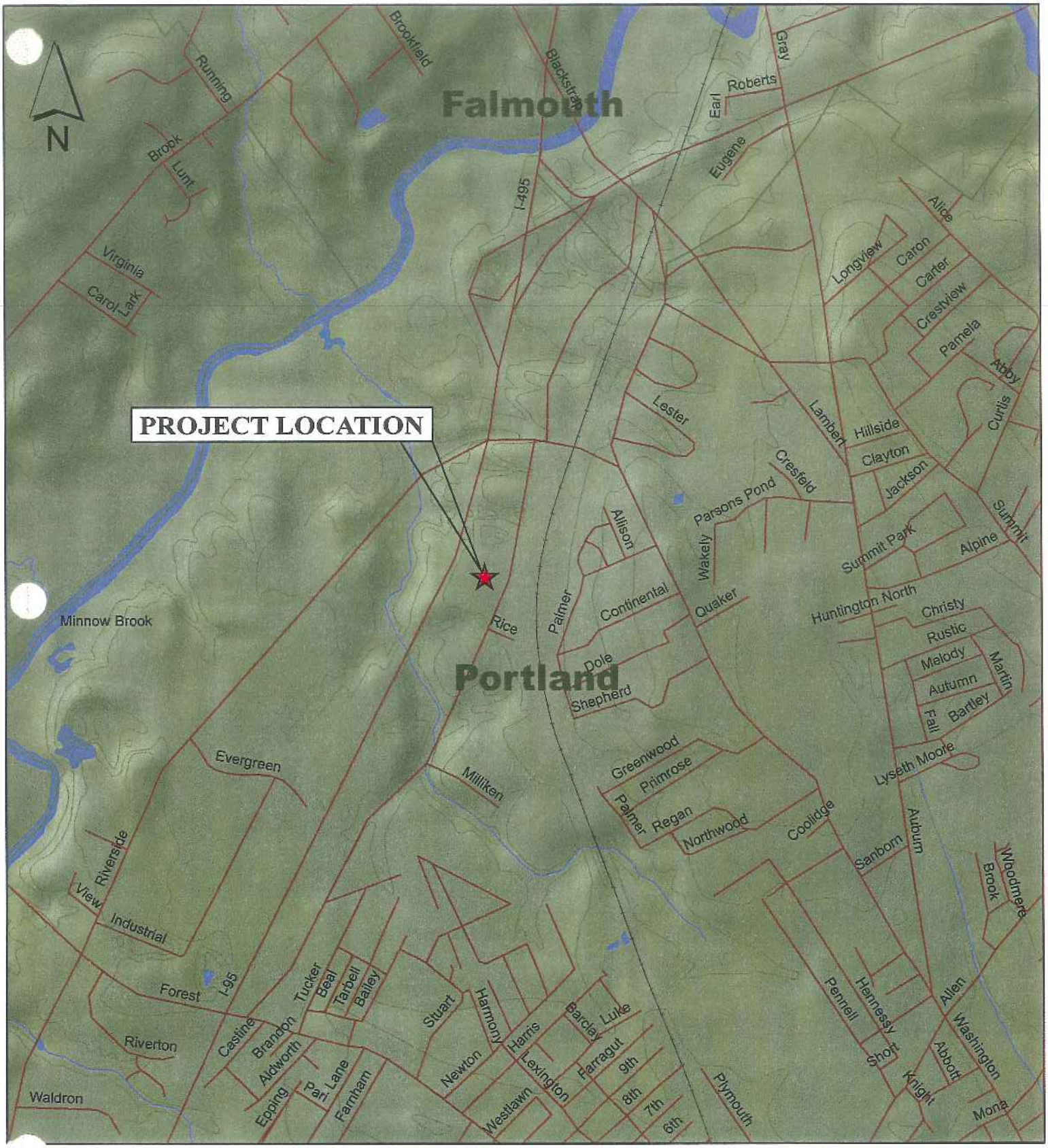
Note: Depending on the size and scope of the proposed development, the Planning Board or Planning Authority may request additional information, including (but not limited to):

- drainage patterns and facilities;
- erosion and sedimentation controls to be used during construction;
- a parking and/or traffic study;
- a wind impact analysis.
- an environmental impact study;
- a sun shadow study;
- a study of particulates and any other noxious emissions; and
- a noise study;

Other comments:

Location Map

Figure No. 1



UNIFIRST SITE EXPANSION, PORTLAND, MAINE

GP Gorrill-Palmer Consulting Engineers, Inc.

Traffic and Civil Engineering Services

PO Box 1237
15 Shaker Road
Gray, ME 04039

207-657-6910
Fax: 207-657-6912
mailbox@gorrillpalmer.com
www.gorrillpalmer.com

FEET
1,000 0 1,000 2,000

JN:1540
DATE:JUL 2006
FILE: 1540_LOCMAP.MXD
SOURCE: MAINE GIS WEBSITE

QUIT-CLAIM DEED WITH COVENANT

063937

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, by purchase and assignment of partnership interests dated October 10, 1986, UNIFIRST CORPORATION, a Massachusetts corporation having a principal place of business at 15 Olympia Avenue, Woburn, Massachusetts 01801 ("Grantee") acquired all of the partnership interests in THE CROATTI FAMILY PARTNERSHIP, a Massachusetts general partnership located in said Woburn, in the County of Middlesex and Commonwealth of Massachusetts ("Grantor");

WHEREAS, such transaction vested legal ownership of the property described below (the "Property"), as well as other property, in the Grantee;

WHEREAS, the amount of the consideration for the transaction described above which is allocated to the Property is $696,000, which represents the full and fair consideration for this conveyance; and

WHEREAS, record title to the Property stands in the name of the Grantor;

NOW, THEREFORE, in order to convey record title to the Property to the Grantee, the Grantor does hereby REMISE, RELEASE, BARGAIN, SELL AND CONVEY, and forever QUIT-CLAIM unto the said Grantee, its successors and assigns forever, a certain lot or parcel of land, with the buildings thereon, situated on

the westerly side of Riverside Industrial Parkway in the City of Portland, County of Cumberland and State of Maine, said parcel being further bounded and described as follows:

> Beginning at an iron set in the ground on the westerly side of Riverside Industrial Parkway in said Portland, said iron being one thousand two hundred ninety-three and one hundredth (1,293.01) feet southerly along the westerly sideline of said Riverside Industrial Parkway from the former southerly line of Riverside Street; thence running South 14° 11' West along said sideline of Riverside Industrial Parkway ninety-six and ninety-nine hundredths (96.99) feet to an iron set in the ground; thence running South 18° 38' West along said sideline of Riverside Industrial Parkway three hundred three (303) feet to an iron set in the ground; thence running North 71° 22' West by land formerly of ADC Building Fund Incorporated four hundred thirty-six and eighteen hundredths (436.18) feet to an iron set in the ground at land of the Maine Turnpike Authority; thence running in a general northeasterly direction along land of the Maine Turnpike Authority three hundred sixty-eight and fourteen hundredths (368.14) feet to an iron set in the ground at land formerly of ADC Building Fund Incorporated; thence running South 75° 49' East by said last mentioned land formerly of ADC Building Fund Incorporated four hundred twelve and fifty-one hundredths (412.51) feet to an iron set in the ground and the point of beginning.

Being the same premises conveyed to the Grantor by IUSC, Realty, Inc. ("IUSC") by deed dated August 31, 1983 and recorded in the Cumberland County Registry of Deeds (the "Registry") in Book 6638, Page 283.

This conveyance is made subject to municipal real estate taxes of the City of Portland assessed after July 1, 1986 and to a Mortgage and Conditional Assignment of leases and rents from Grantor to IUSC, both dated August 31, 1983, recorded in the Registry in Book 6638, Page 286 and Book 6638, Page 296, respectively, securing outstanding indebtedness of $5,031,150

($499,533 of which is allocated to the Property), which taxes and indebtedness the Grantee assumes and agrees to pay.

IN WITNESS WHEREOF, the said CROATTI FAMILY PARTNERSHIP has caused this instrument to be sealed and signed in its name by UNIFIRST CORPORATION, its general partner, by John B. Bartlett, its Senior Vice President hereunto duly authorized, this 16th day of October, 1986.

THE CROATTI FAMILY PARTNERSHIP

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF:

BY: UNIFIRST CORPORATION
General Partner

By: _____
John B. Bartlett
Senior Vice President
hereunto duly authorized

THE COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss. October 16, 1986

Then personally appeared the above-named John B. Bartlett, Senior Vice President of UNIFIRST CORPORATION, general partner of said grantor partnership as aforesaid and acknowledged the above instrument to be the free act and deed of said corporation in said capacity and the free act and deed of said partnership.

Before me,

_____
Notary Public
My commission expires: 10-26-90
(notarial seal)
ADAM N. WEISENBERG

SVS:1832/U

RECEIVED
RECORDED REGISTRY OF DEEDS
1986 NOV 20 AM 10:53
CUMBERLAND COUNTY

AFFIDAVIT

063936

THE COMMONWEALTH OF MASSACHUSETTS)
)
SUFFOLK, SS.) October 16, 1986

I, William H. Gorham, of full age, on my oath, duly sworn, depose and say as follows:

1. I am a member in good standing of the bar of The Commonwealth of Massachusetts, having been admitted to practice in 1958.

2. I am the president of William H. Gorham, P.C., a Massachusetts professional corporation, which is a partner of the law firm of Goodwin, Procter & Hoar, Exchange Place, Boston, Massachusetts 02109.

3. William H. Gorham, P.C. is counsel to IUSC Realty, Inc., a Massachusetts corporation ("IUSC"), The Croatti Family Partnership, a Massachusetts general partnership (the "Partnership"), and UniFirst Corporation, a Massachusetts corporation ("UniFirst"), and has served in such capacities from before 1983.

4. William H. Gorham, P.C. participated in a transaction on August 31, 1983 involving IUSC's conveyance to the Partnership of certain land in Portland, Cumberland County, Maine, described in a deed from the Partnership to UniFirst recorded herewith (the "Deed"), and I am personally familiar with that transaction.

5. On August 31, 1983, the sole partners of the Partnership were Ronald Croatti, Frederick Croatti, Cecile Levenstein, and Cynthia Croatti Brown, and such persons remained the sole partners of the Partnership until October 10, 1986.

6. William H. Gorham, P.C. participated in and I am personally familiar with a transaction on October 10, 1986 wherein UniFirst acquired, by purchase and assignment thereof, all of the partnership interests in the Partnership, from the above-named persons. Such transaction vested legal title to the property described in the Deed in UniFirst.

7. The Deed recorded herewith has been entered into in order to vest record title to the property described therein in UniFirst, as set forth in the Deed.

8. I certify that the facts stated herein are relevant to the title to the property described in the Deed and will be of benefit and assistance in clarifying the chain of such title.

Further I say not.

Dated: 10/16/86

William H. Gorham

Subscribed and sworn to before me this 16th day of October, 1986.

Notary Public
My commission expires: 10-26-90
ADAM M WEISENBERG

THE COMMONWEALTH OF MASSACHUSETTS

Suffolk, SS. October 16, 1986

Then personally appeared before me the above-named William H. Gorham and acknowledged the foregoing instrument to be his free act and deed.

Notary Public
My commission expires: 10-26-90
ADAM M WEISENBERG

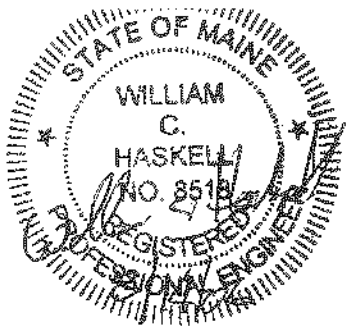
SVS:1906/U

RECEIVED
RECORDED REGISTRY OF DEEDS
1986 NOV 20 AM 10:52
CUMBERLAND COUNTY

JN 1540
7/21/2006

Unifirst Expansion City of Portland, Maine					
Tax Map/Block/Lot	Company	Address	City/Town	State	Zip Code
Chart 370A Block A Lot 2	The Albus Business Group	50 Allen AVE	Portland	ME	04103
Chart 370A Block B Lot 1	Milliken Bros INC	474 Riverside Industrial PKY	Portland	ME	04103
Chart 354 Block A Lot 3	Grass Properties	PO BOX 10109	Portland	ME	04104
Chart 354 Block B Lot 3	Grass Properties	PO BOX 10109	Portland	ME	04104
Chart 357 Block B Lot 1	City Of Portland	389 Congress Street	Portland	ME	04101
Chart 354 Block B Lot 2	Unifirst	68 Jonspin RD	Wilmington	MA	01887
	Maine Turnpike Authority	430 Riverside Street	Portland	ME	04103

STORMWATER MANAGEMENT REPORT



I. Introduction

Gorrill-Palmer Consulting Engineers, Inc in has been retained to prepare civil design plans and water resource narratives for a proposed development site located at the existing Unifirst site in Portland. The site is bordered by Riverside Industrial parkway to the east, and the Maine Turnpike to the west. The following narrative contains the stormwater analysis, which is appropriate for the site.

II. Development Description

This project will occur in one phase. The construction shall consist of a 2240 s.f. addition to the existing Unifirst building. In addition two parking areas will be constructed containing space for 41 vehicles. The existing parcel is characterized as follows;

Existing Parcel Parameters	
Parcel Area	3.76 acres
Existing Impervious Area	2.35 acres
Existing Pervious Area	1.39 acres
Proposed Impervious Area	2.67 acres
Proposed Pervious Area	1.08 acres

III. Surface Water and Downstream Waterbodies

The site currently drains to two stormwater ponds that are allocated to the rear of the site, water from the roof flows to both ponds. Rainfall landing in the current drive way flows towards the southern pond. Rainfall form the loading area is collected in a catch basin and transported toc the western pond.

IV. General Topography

The site is generally level, with a slight pitch form the center to the edge of the property line.

V. Flooding

According to the FEMA maps the site is not located within the 100-year flood area. The 100-year flood elevation is at 33 feet above datum (NGVD 29). No part of the subject lot is below the 100-year flood elevation.

Alterations to Land Cover

Alterations to land cover include the placement of pavement over a parcel of existing grass area on the south side. There will also be pavement placed on the westerly side of the lot. The existing impervious coverage is 63 percent. The alterations will increase the impervious area to 71 percent.

VI. Natural Drainage Ways

The project as currently proposed does not include alterations of any natural drainage ways.

IX Water Quantity Control

A pre- and post-development stormwater model was prepared for this project because of the anticipated increase in overall impervious surface and the need to maintain post-development peak flows at or below the pre-development levels. Subsurface stormwater detention is required to reduce the post-development peak flows.

IX.1 Pre-development Conditions

As indicated in Section II of this report the predevelopment impervious area is about 2.31 acres. Stormwater flows from the high point which is the building site and flows down to one of two detention ponds. The site was delineated into seven subcatchments (S1 – S7) to assess the stormwater impacts from development. The following table summarizes the pre-development stormwater peak flows. Detailed stormwater calculations are included in Attachment D. Watershed maps are included in Attachment C.

Subcatchment/POI	Composite CN	Tc (min)	Peak Flow (cfs)		
			2-year	10-year	25-year
S1	87	5	1.68	3.13	3.82
S2	87	5	1.17	2.18	2.65
S3	84	5	0.71	1.40	1.73
S4	85	5	0.82	1.54	1.96
S5	84	5	1.02	2.01	2.48
S6	98	5	0.28	0.44	0.51
S7	98	5	2.86	4.52	5.30
POI #1	--	--	0.89	1.36	5.01
POI #2	--	--	4.06	7.00 (1)	6.45 (1)
POI #3	--	--	0.71	1.40	1.73
POI #4	--	--	0.82	1.59	1.96
POI #5	--	--	1.02	2.01	2.48

IX.2 Post-development Conditions

As indicated in Section II, the post-development impervious surface for the total development is anticipated to increase from 2.31 acres to 2.68 acres, therefore stormwater detention is needed. A post-development stormwater plan is included in Attachment C. The following table summarizes the post-development stormwater peak flows with detention.

Comparison of Pre- & Post-Development Flows w/Existing Pond						
Subcatchment/POI	Peak Flow Comparison (cfs)					
	2-yr Pre	2-yr Post	10-yr Pre	10-yr Post	25-yr Pre	25-yr Post
POI #1	0.89	1.29	1.36	8.03 (1)	5.01	8.83 (1)
POI #2	4.06	4.06	7.00 (1)	7.00 (1)	6.45 (1)	6.95 (1)
POI #3	0.71	0.70	1.40	1.38	1.73	1.71
POI #4	0.82	0.14	1.59	0.22	1.96	0.26
POI #5	1.02	1.05	2.01	2.00	2.48	2.45
Notes 1. Ponds 1S & 2S overtops in the 10 & 25 year storm						

As shown, the post-development peak flows exceed the pre-development flows, therefore we have designed a pond that would allow for the flows to be equal or lower then the pre flows.

Subcatchment/POI	Composite CN	Tc (min)	Peak Flow (cfs)		
			2-year	10-year	25-year
S1	87	5	1.39	2.58	3.14
S2	87	5	1.17	2.18	2.65
S3	84	5	0.71	1.38	1.71
S4	98	5	0.14	0.22	0.26
S5	86	5	1.05	2.00	2.45
S6	98	5	0.28	0.44	0.51
S7	98	5	2.86	4.52	5.30
S8	98	5	0.15	0.24	0.29
S9	96	5	1.41	2.37	2.79
POI #1	--	--	0.41	0.57	0.67
POI #2	--	--	4.06	7.00 (1)	6.95 (1)
POI #3	--	--	0.70	1.38	1.71
POI #4	--	--	0.14	0.22	0.26
POI #5	--	--	1.05	2.00	2.45
Notes 1. Pond 2S overtops in the 10 & 25 year storm					

Comparison of Pre- & Post-Development Flows w/Designed Pond						
Subcatchment/POI	Peak Flow Comparison (cfs)					
	2-yr Pre	2-yr Post	10-yr Pre	10-yr Post	25-yr Pre	25-yr Post
POI #1	0.89	0.41	1.36	0.57	5.01	0.67
POI #2	4.06	4.06	7.00 (1)	7.00 (1)	6.45 (1)	6.95 (1)
POI #3	0.71	0.70	1.40	1.38	1.73	1.71
POI #4	0.82	0.14	1.59	0.22	1.96	0.26
POI #5	1.02	1.05	2.01	2.00	2.48	2.45
Notes 1. Pond 2s overtops in the 10 & 25 year storm. No additional flow is directed to this pond.						

As shown in the previous table, the detention system results in the post-development peak flows being at or below the pre-development levels. The following table summarizes the pond performance

Pond 1 Performance – Designed			
	Pond Performance		
	2-Year	10-Year	25-Year
Peak Inflow (cfs)	3.25	5.58	6.68
Peak Outflow (cfs)	0.41	0.57	0.67
Stage (max elev)	74.18	74.74	75.00
Storage (max cf)	4282	8206	10069
Depth above outlet (ft)	-2.53	-1.97	-1.71

X Stormwater Quality

The City of Portland Technical Design Standards Section V.H requires that the runoff from parking lots be treated for water quality. The proposed design will direct water from part of the access drive and portions of the new truck parking area and existing parking lot to a water quality treatment device, which is currently proposed as an underdrained soil filter pond. The filter pond will drain the "first flush" runoff treatment volume into the detention pond and will allow runoff from larger storm events to pass over the sod spillway into the detention pond.

XI Stormwater Management

The stormwater facility will be maintained by the owner, or their assigned, heirs after construction is completed. The contract documents will require the contractor to designate a person responsible for maintenance of the sedimentation control features during construction as required by the Erosion Control Report. Long-term operation/maintenance planned for the stormwater management facilities is presented below.

The "Parties" may contract with such professionals as may be necessary in order to comply with this provision and may rely on the advice of such professionals in carrying out its duty hereunder, provided, that the following operation and maintenance procedures are hereby established as a minimum for compliance with this section.

1. Inspect detention pond for build up of sediment.
2. Check to insure outlet pipe if free of debris.

XII Conclusion

There is a net increase in impervious area therefore stormwater detention is required. Water run off will need to be directed to the detention pond.

XIII Attachments

Attached to this section are the following items:

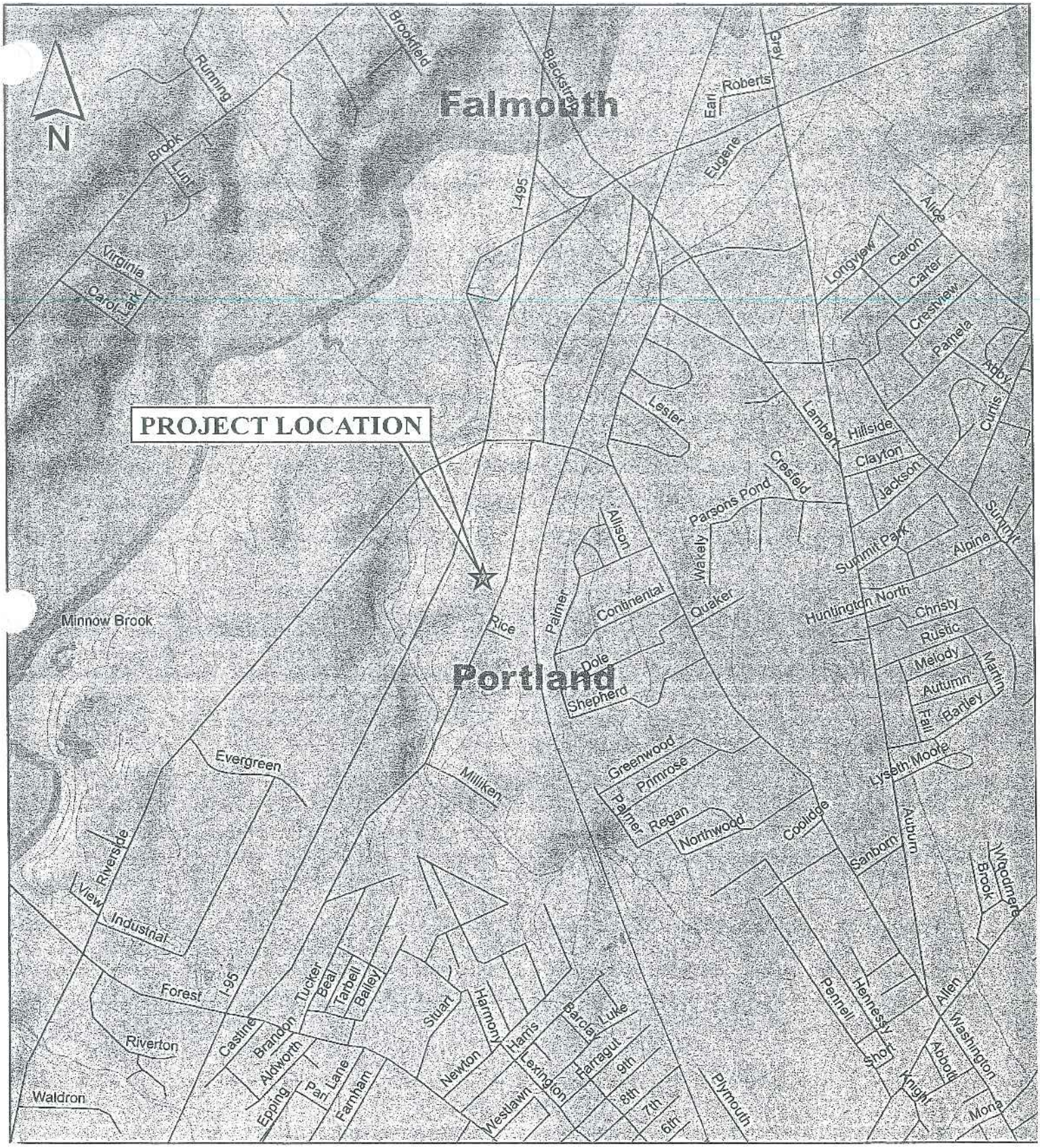
Attachment A – Location Map
Attachment B – Pipe Sizing Calculations
Attachment C – Watershed Maps
Attachment D – HydroCAD Calculations
Attachment E – Water Quality Calculations

Attachment A

Location Map

Location Map

Figure No. 1



UNIFIRST SITE EXPANSION, PORTLAND, MAINE

FEET
1,000 0 1,000 2,000

GP Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
Fax: 207-657-6912
mailbox@gorrillpalmer.com
www.gorrillpalmer.com

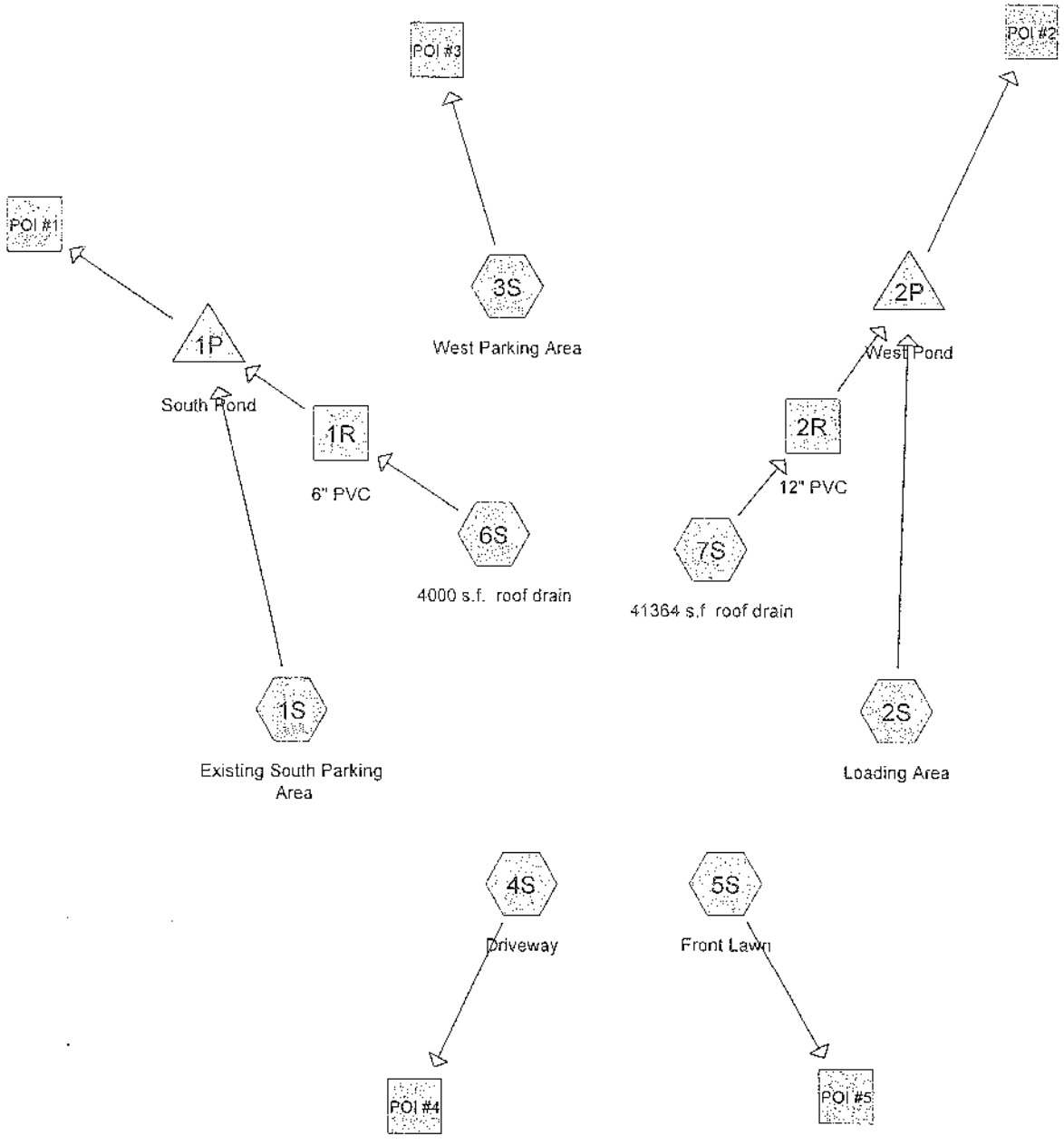
JN:1540
DATE:JUL 200(
FILE: 1540_LOCMAP.MXD
SOURCE: MAINE GIS WEBSITE

Attachment B

Watershed Maps

Attachment C

HydroCAD Calculations



Subcat Reach Pond Link

Drainage Diagram for 1540 watershed pre

Prepared by Gorrill-Palmer Consulting Engineers, INC. 7/21/2006

Area Listing (all nodes)

Area (acres)	CN	Description (subcats)
1.397	74	>75% Grass cover, Good, HSG C (1S,2S,3S,4S,5S)
2.360	98	Paved parking & roofs (1S,2S,3S,4S,5S,6S,7S)
3.757		

Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing South Parking Area Runoff Area=34,672 sf Runoff Depth>1.62"
Tc=5.0 min CN=87 Runoff=1.68 cfs 0.108 af

Subcatchment 2S: Loading Area Runoff Area=24,111 sf Runoff Depth>1.62"
Tc=5.0 min CN=87 Runoff=1.17 cfs 0.075 af

Subcatchment 3S: West Parking Area Runoff Area=16,791 sf Runoff Depth>1.41"
Tc=5.0 min CN=84 Runoff=0.71 cfs 0.045 af

Subcatchment 4S: Driveway Runoff Area=18,589 sf Runoff Depth>1.48"
Tc=5.0 min CN=85 Runoff=0.82 cfs 0.053 af

Subcatchment 5S: Front Lawn Runoff Area=24,114 sf Runoff Depth>1.41"
Tc=5.0 min CN=84 Runoff=1.02 cfs 0.065 af

Subcatchment 6S: 4000 s.f. roof drain Runoff Area=4,000 sf Runoff Depth>2.64"
Tc=5.0 min CN=98 Runoff=0.28 cfs 0.020 af

Subcatchment 7S: 41364 s.f roof drain Runoff Area=41,364 sf Runoff Depth>2.64"
Tc=5.0 min CN=98 Runoff=2.86 cfs 0.209 af

Reach 1R: 6" PVC Avg. Depth=0.20' Max Vel=3.73 fps Inflow=0.28 cfs 0.020 af
D=6.0" n=0.011 L=105.0' S=0.0150 '/' Capacity=0.81 cfs Outflow=0.28 cfs 0.020 af

Reach 2R: 12" PVC Avg. Depth=0.53' Max Vel=6.73 fps Inflow=2.86 cfs 0.209 af
D=12.0" n=0.011 L=80.0' S=0.0150 '/' Capacity=5.16 cfs Outflow=2.85 cfs 0.209 af

Reach POI #1: Inflow=0.89 cfs 0.128 af
Outflow=0.89 cfs 0.128 af

Reach POI #2: Inflow=4.06 cfs 0.284 af
Outflow=4.06 cfs 0.284 af

Reach POI #3: Inflow=0.71 cfs 0.045 af
Outflow=0.71 cfs 0.045 af

Reach POI #4: Inflow=0.82 cfs 0.053 af
Outflow=0.82 cfs 0.053 af

Reach POI #5: Inflow=1.02 cfs 0.065 af
Outflow=1.02 cfs 0.065 af

Pond 1P: South Pond Peak Elev=75.18' Storage=901 cf Inflow=1.96 cfs 0.128 af
Outflow=0.89 cfs 0.128 af

Pond 2P: West Pond Peak Elev=76.60' Storage=1,111 cf Inflow=4.02 cfs 0.284 af
Outflow=4.06 cfs 0.284 af

Total Runoff Area = 3.757 ac Runoff Volume = 0.574 af Average Runoff Depth = 1.83"
37.18% Pervious Area = 1.397 ac 62.82% Impervious Area = 2.360 ac

Subcatchment 1S: Existing South Parking Area

Runoff = 1.68 cfs @ 12.07 hrs, Volume= 0.108 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
15,297	74	>75% Grass cover, Good, HSG C
19,375	98	Paved parking & roofs
34,672	87	Weighted Average
15,297		Pervious Area
19,375		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, flow A-B-C**

Subcatchment 2S: Loading Area

Runoff = 1.17 cfs @ 12.07 hrs, Volume= 0.075 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
11,001	74	>75% Grass cover, Good, HSG C
13,110	98	Paved parking & roofs
24,111	87	Weighted Average
11,001		Pervious Area
13,110		Impervious Area

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

Subcatchment 3S: West Parking Area

Runoff = 0.71 cfs @ 12.08 hrs, Volume= 0.045 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
9,784	74	>75% Grass cover, Good, HSG C
7,007	98	Paved parking & roofs
16,791	84	Weighted Average
9,784		Pervious Area
7,007		Impervious Area

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

Subcatchment 4S: Driveway

Runoff = 0.82 cfs @ 12.08 hrs, Volume= 0.053 af, Depth> 1.48"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
8,249	98	Paved parking & roofs
10,340	74	>75% Grass cover, Good, HSG C
18,589	85	Weighted Average
10,340		Pervious Area
8,249		Impervious Area

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

Subcatchment 5S: Front Lawn

Runoff = 1.02 cfs @ 12.08 hrs, Volume= 0.065 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
9,694	98	Paved parking & roofs
14,420	74	>75% Grass cover, Good, HSG C
24,114	84	Weighted Average
14,420		Pervious Area
9,694		Impervious Area

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

Subcatchment 6S: 4000 s.f. roof drain

Runoff = 0.28 cfs @ 12.07 hrs, Volume= 0.020 af, Depth> 2.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
4,000	98	Paved parking & roofs
4,000		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Roof drain to 6in pipe

Subcatchment 7S: 41364 s.f roof drain

Runoff = 2.86 cfs @ 12.07 hrs, Volume= 0.209 af, Depth> 2.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
41,364	98	Paved parking & roofs
41,364		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 41364 s.f. roof

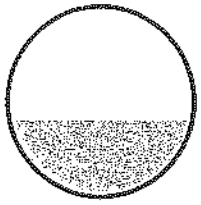
Reach 1R: 6" PVC

Inflow Area = 0.092 ac, Inflow Depth > 2.64" for 2 year event
Inflow = 0.28 cfs @ 12.07 hrs, Volume= 0.020 af
Outflow = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.73 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.29 fps, Avg. Travel Time= 1.4 min

Peak Storage= 8 cf @ 12.08 hrs, Average Depth at Peak Storage= 0.20'
Bank-Full Depth= 0.50', Capacity at Bank-Full= 0.81 cfs

6.0" Diameter Pipe, n= 0.011
Length= 105.0' Slope= 0.0150 '/'
Inlet Invert= 78.06', Outlet Invert= 76.49'



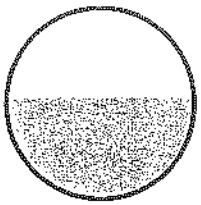
Reach 2R: 12" PVC

Inflow Area = 0.950 ac, Inflow Depth > 2.64" for 2 year event
Inflow = 2.86 cfs @ 12.07 hrs, Volume= 0.209 af
Outflow = 2.85 cfs @ 12.08 hrs, Volume= 0.209 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.73 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.36 fps, Avg. Travel Time= 0.6 min

Peak Storage= 34 cf @ 12.07 hrs, Average Depth at Peak Storage= 0.53'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 5.16 cfs

12.0" Diameter Pipe, n= 0.011
Length= 80.0' Slope= 0.0150 '/'
Inlet Invert= 75.04', Outlet Invert= 73.84'



Reach POI #1:

Inflow Area = 0.888 ac, Inflow Depth > 1.73" for 2 year event
Inflow = 0.89 cfs @ 12.25 hrs, Volume= 0.128 af
Outflow = 0.89 cfs @ 12.25 hrs, Volume= 0.128 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Reach POI #2:

Inflow Area = 1.503 ac, Inflow Depth > 2.27" for 2 year event
Inflow = 4.06 cfs @ 12.08 hrs, Volume= 0.284 af
Outflow = 4.06 cfs @ 12.08 hrs, Volume= 0.284 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Reach POI #3:

Inflow Area = 0.385 ac, Inflow Depth > 1.41" for 2 year event
Inflow = 0.71 cfs @ 12.08 hrs, Volume= 0.045 af
Outflow = 0.71 cfs @ 12.08 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Reach POI #4:

Inflow Area = 0.427 ac, Inflow Depth > 1.48" for 2 year event
Inflow = 0.82 cfs @ 12.08 hrs, Volume= 0.053 af
Outflow = 0.82 cfs @ 12.08 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Reach POI #5:

Inflow Area = 0.554 ac, Inflow Depth > 1.41" for 2 year event
Inflow = 1.02 cfs @ 12.08 hrs, Volume= 0.065 af
Outflow = 1.02 cfs @ 12.08 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Pond 1P: South Pond

Inflow Area = 0.888 ac, Inflow Depth > 1.73" for 2 year event
Inflow = 1.96 cfs @ 12.08 hrs, Volume= 0.128 af
Outflow = 0.89 cfs @ 12.25 hrs, Volume= 0.128 af, Atten= 55%, Lag= 10.3 min
Primary = 0.89 cfs @ 12.25 hrs, Volume= 0.128 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs / 5
Peak Elev= 75.18' @ 12.25 hrs Surf.Area= 1,268 sf Storage= 901 cf

Plug-Flow detention time= 7.1 min calculated for 0.128 af (100% of inflow)
Center-of-Mass det. time= 7.0 min (784.1 - 777.1)

Volume	Invert	Avail.Storage	Storage Description
#1	74.00'	2,275 cf	**South Pond (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
74.00	161	0	0
75.00	1,047	604	604
76.00	2,294	1,671	2,275

Device	Routing	Invert	Outlet Devices
#1	Device 4	73.41'	**4.5" Vert. 4.5" Orifice** C= 0.600
#2	Device 4	74.91'	**0.50' W x 0.25' H Vert. 3"x6" Orifice** C= 0.600
#3	Device 4	76.71'	**24.0" Horiz. Grate** Limited to weir flow C= 0.600
#4	Primary	73.41'	**12.0" x 40.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 72.72' S= 0.0172 '/' Cc= 0.900 n= 0.011

Primary OutFlow Max=0.89 cfs @ 12.25 hrs HW=75.18' (Free Discharge)
└**4=Culvert** (Passes 0.89 cfs of 4.26 cfs potential flow)
  ├**1=4.5" Orifice** (Orifice Controls 0.67 cfs @ 6.05 fps)
  ├**2=3"x6" Orifice** (Orifice Controls 0.22 cfs @ 1.75 fps)
  └**3=Grate** (Controls 0.00 cfs)

Pond 2P: West Pond

Inflow Area = 1.503 ac, Inflow Depth > 2.26" for 2 year event
Inflow = 4.02 cfs @ 12.08 hrs, Volume= 0.284 af
Outflow = 4.06 cfs @ 12.08 hrs, Volume= 0.284 af, Atten= 0%, Lag= 0.0 min
Primary = 4.06 cfs @ 12.08 hrs, Volume= 0.284 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 76.60' @ 12.08 hrs Surf.Area= 1,257 sf Storage= 1,111 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 5.4 min (749.9 - 744.5)

Volume	Invert	Avail.Storage	Storage Description
#1	73.41'	1,111 cf	**South Pond (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
73.41	100	0	0
74.00	130	68	68
75.00	461	296	363
75.87	1,257	747	1,111

Device	Routing	Invert	Outlet Devices
#1	Device 4	73.41'	**4.5" Vert. 4.5 " Orifice** C= 0.600
#2	Device 4	74.99'	**1.00' W x 0.25' H Vert. 3"x12" Orifice** C= 0.600
#3	Device 4	76.41'	**24.0" Horiz. Grate** Limited to weir flow C= 0.600
#4	Primary	66.41'	**12.0" x 65.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 65.92' S= 0.0075 '/' Cc= 0.900 n= 0.011

Primary OutFlow Max=4.05 cfs @ 12.08 hrs HW=76.60' (Free Discharge)
└**4=Culvert** (Passes 4.05 cfs of 11.39 cfs potential flow)
  ├**1=4.5 " Orifice** (Orifice Controls 0.92 cfs @ 8.34 fps)
  ├**2=3"x12" Orifice** (Orifice Controls 1.47 cfs @ 5.86 fps)
  └**3=Grate** (Weir Controls 1.67 cfs @ 1.42 fps)

Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing South Parking Area Runoff Area=34,672 sf Runoff Depth>3.09"
Tc=5.0 min CN=87 Runoff=3.13 cfs 0.205 af

Subcatchment 2S: Loading Area Runoff Area=24,111 sf Runoff Depth>3.09"
Tc=5.0 min CN=87 Runoff=2.18 cfs 0.143 af

Subcatchment 3S: West Parking Area Runoff Area=16,791 sf Runoff Depth>2.81"
Tc=5.0 min CN=84 Runoff=1.40 cfs 0.090 af

Subcatchment 4S: Driveway Runoff Area=18,589 sf Runoff Depth>2.90"
Tc=5.0 min CN=85 Runoff=1.59 cfs 0.103 af

Subcatchment 5S: Front Lawn Runoff Area=24,114 sf Runoff Depth>2.81"
Tc=5.0 min CN=84 Runoff=2.01 cfs 0.130 af

Subcatchment 6S: 4000 s.f. roof drain Runoff Area=4,000 sf Runoff Depth>4.26"
Tc=5.0 min CN=98 Runoff=0.44 cfs 0.033 af

Subcatchment 7S: 41364 s.f roof drain Runoff Area=41,364 sf Runoff Depth>4.26"
Tc=5.0 min CN=98 Runoff=4.52 cfs 0.337 af

Reach 1R: 6" PVC Avg. Depth=0.26' Max Vel=4.20 fps Inflow=0.44 cfs 0.033 af
D=6.0" n=0.011 L=105.0' S=0.0150 '/' Capacity=0.81 cfs Outflow=0.44 cfs 0.033 af

Reach 2R: 12" PVC Avg. Depth=0.73' Max Vel=7.40 fps Inflow=4.52 cfs 0.337 af
D=12.0" n=0.011 L=80.0' S=0.0150 '/' Capacity=5.16 cfs Outflow=4.51 cfs 0.337 af

Reach POI #1: Inflow=1.36 cfs 0.238 af
Outflow=1.36 cfs 0.238 af

Reach POI #2: Inflow=7.00 cfs 0.490 af
Outflow=7.00 cfs 0.490 af

Reach POI #3: Inflow=1.40 cfs 0.090 af
Outflow=1.40 cfs 0.090 af

Reach POI #4: Inflow=1.59 cfs 0.103 af
Outflow=1.59 cfs 0.103 af

Reach POI #5: Inflow=2.01 cfs 0.130 af
Outflow=2.01 cfs 0.130 af

Pond 1P: South Pond Peak Elev=75.89' Storage=2,098 cf Inflow=3.56 cfs 0.238 af
Outflow=1.36 cfs 0.238 af

Pond 2P: West Pond Peak Elev=76.77' Storage=1,111 cf Inflow=6.68 cfs 0.480 af
Outflow=7.00 cfs 0.490 af

Total Runoff Area = 3.757 ac Runoff Volume = 1.040 af Average Runoff Depth = 3.32"
37.18% Pervious Area = 1.397 ac 62.82% Impervious Area = 2.360 ac

Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing South Parking Area Runoff Area=34,672 sf Runoff Depth>3.81"
Tc=5.0 min CN=87 Runoff=3.82 cfs 0.253 af

Subcatchment 2S: Loading Area Runoff Area=24,111 sf Runoff Depth>3.81"
Tc=5.0 min CN=87 Runoff=2.65 cfs 0.176 af

Subcatchment 3S: West Parking Area Runoff Area=16,791 sf Runoff Depth>3.51"
Tc=5.0 min CN=84 Runoff=1.73 cfs 0.113 af

Subcatchment 4S: Driveway Runoff Area=18,589 sf Runoff Depth>3.61"
Tc=5.0 min CN=85 Runoff=1.96 cfs 0.128 af

Subcatchment 5S: Front Lawn Runoff Area=24,114 sf Runoff Depth>3.51"
Tc=5.0 min CN=84 Runoff=2.48 cfs 0.162 af

Subcatchment 6S: 4000 s.f. roof drain Runoff Area=4,000 sf Runoff Depth>5.02"
Tc=5.0 min CN=98 Runoff=0.51 cfs 0.038 af

Subcatchment 7S: 41364 s.f roof drain Runoff Area=41,364 sf Runoff Depth>5.02"
Tc=5.0 min CN=98 Runoff=5.30 cfs 0.397 af

Reach 1R: 6" PVC Avg. Depth=0.29' Max Vel=4.36 fps Inflow=0.51 cfs 0.038 af
D=6.0" n=0.011 L=105.0' S=0.0150 '/' Capacity=0.81 cfs Outflow=0.51 cfs 0.038 af

Reach 2R: 12" PVC Avg. Depth=0.85' Max Vel=7.48 fps Inflow=5.30 cfs 0.397 af
D=12.0" n=0.011 L=80.0' S=0.0150 '/' Capacity=5.16 cfs Outflow=5.28 cfs 0.397 af

Reach POI #1: Inflow=5.01 cfs 0.290 af
Outflow=5.01 cfs 0.290 af

Reach POI #2: Inflow=6.95 cfs 0.532 af
Outflow=6.95 cfs 0.532 af

Reach POI #3: Inflow=1.73 cfs 0.113 af
Outflow=1.73 cfs 0.113 af

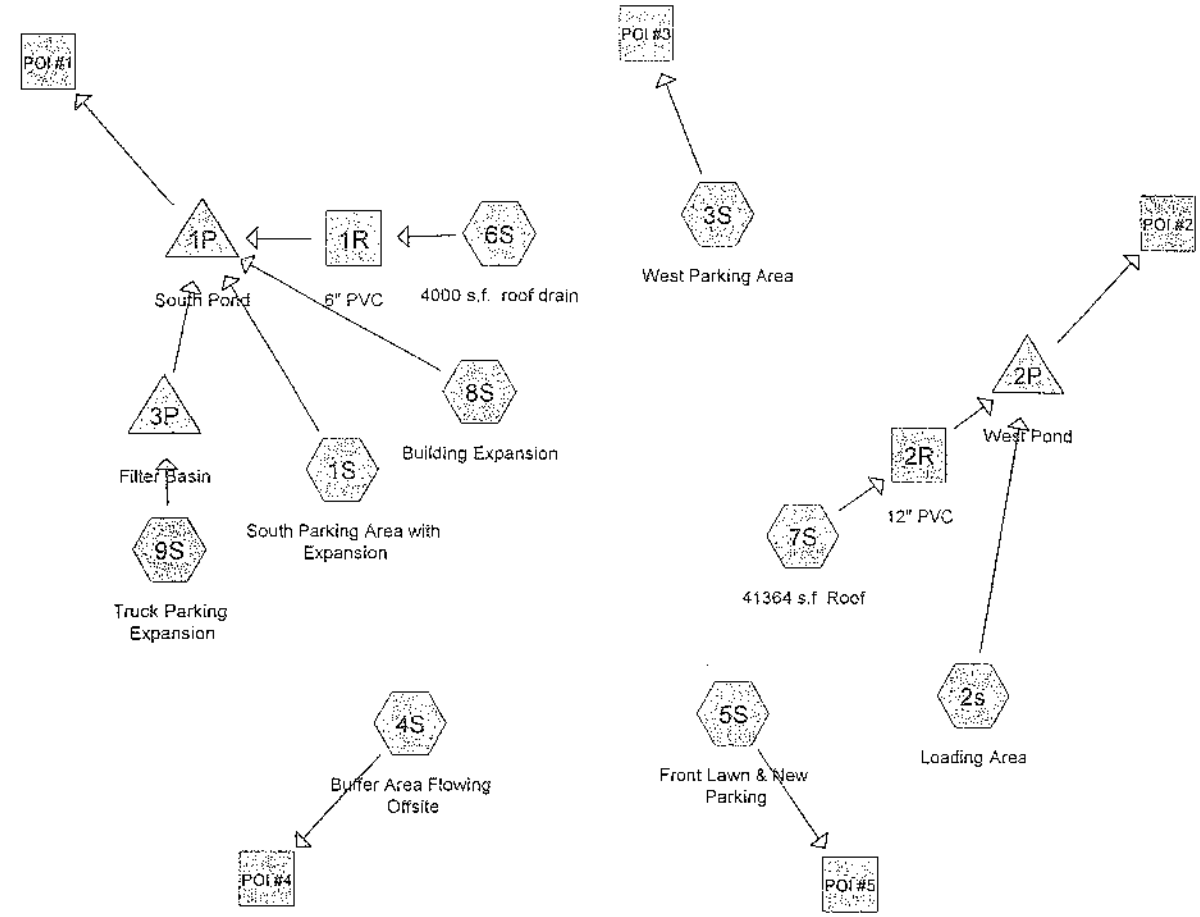
Reach POI #4: Inflow=1.96 cfs 0.128 af
Outflow=1.96 cfs 0.128 af

Reach POI #5: Inflow=2.48 cfs 0.162 af
Outflow=2.48 cfs 0.162 af

Pond 1P: South Pond Peak Elev=77.00' Storage=2,275 cf Inflow=4.32 cfs 0.291 af
Outflow=5.01 cfs 0.290 af

Pond 2P: West Pond Peak Elev=76.77' Storage=1,111 cf Inflow=7.93 cfs 0.573 af
Outflow=6.95 cfs 0.532 af

Total Runoff Area = 3.757 ac Runoff Volume = 1.267 af Average Runoff Depth = 4.05"
37.18% Pervious Area = 1.397 ac 62.82% Impervious Area = 2.360 ac



Subcat Reach Pond Link

Drainage Diagram for 1540 watershed post w_treatment basin
Prepared by Gorrill-Palmer Consulting Engineers, INC. 7/21/2006

Area Listing (all nodes)

Area (acres)	CN	Description (subcats)
1.083	74	>75% Grass cover, Good, HSG C (1S,2s,3S,5S,9S)
2.673	98	Paved parking & roofs (1S,2s,3S,4S,5S,6S,7S,8S,9S)
3.757		

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: South Parking Area with Expansion Runoff Area=28,556 sf Runoff Depth=1.74"
Tc=5.0 min CN=87 Runoff=1.39 cfs 0.095 af

Subcatchment 2s: Loading Area Runoff Area=24,111 sf Runoff Depth=1.74"
Tc=5.0 min CN=87 Runoff=1.17 cfs 0.080 af

Subcatchment 3S: West Parking Area Runoff Area=16,591 sf Runoff Depth=1.52"
Tc=5.0 min CN=84 Runoff=0.70 cfs 0.048 af

Subcatchment 4S: Buffer Area Flowing Offsite Runoff Area=1,992 sf Runoff Depth=2.77"
Tc=5.0 min CN=98 Runoff=0.14 cfs 0.011 af

Subcatchment 5S: Front Lawn & New Parking Runoff Area=22,721 sf Runoff Depth=1.66"
Tc=5.0 min CN=86 Runoff=1.05 cfs 0.072 af

Subcatchment 6S: 4000 s.f. roof drain Runoff Area=4,000 sf Runoff Depth=2.77"
Tc=5.0 min CN=98 Runoff=0.28 cfs 0.021 af

Subcatchment 7S: 41364 s.f Roof Runoff Area=41,364 sf Runoff Depth=2.77"
Tc=5.0 min CN=98 Runoff=2.86 cfs 0.219 af

Subcatchment 8S: Building Expansion Runoff Area=2,240 sf Runoff Depth=2.77"
Tc=5.0 min CN=98 Runoff=0.15 cfs 0.012 af

Subcatchment 9S: Truck Parking Expansion Runoff Area=22,066 sf Runoff Depth=2.55"
Tc=5.0 min CN=96 Runoff=1.47 cfs 0.108 af

Reach 1R: 6" PVC Avg. Depth=0.20' Max Vel=3.73 fps Inflow=0.28 cfs 0.021 af
D=6.0" n=0.011 L=105.0' S=0.0150 '/' Capacity=0.81 cfs Outflow=0.28 cfs 0.021 af

Reach 2R: 12" PVC Avg. Depth=0.53' Max Vel=6.73 fps Inflow=2.86 cfs 0.219 af
D=12.0" n=0.011 L=80.0' S=0.0150 '/' Capacity=5.16 cfs Outflow=2.85 cfs 0.219 af

Reach POI #1: Inflow=0.41 cfs 0.235 af
Outflow=0.41 cfs 0.235 af

Reach POI #2: Inflow=4.06 cfs 0.300 af
Outflow=4.06 cfs 0.300 af

Reach POI #3: Inflow=0.70 cfs 0.048 af
Outflow=0.70 cfs 0.048 af

Reach POI #4: Inflow=0.14 cfs 0.011 af
Outflow=0.14 cfs 0.011 af

Reach POI #5: Inflow=1.05 cfs 0.072 af
Outflow=1.05 cfs 0.072 af

Pond 1P: South Pond Peak Elev=74.18' Storage=4,282 cf Inflow=3.25 cfs 0.236 af
Outflow=0.41 cfs 0.235 af

Pond 2P: West Pond Peak Elev=76.60' Storage=1,111 cf Inflow=4.02 cfs 0.299 af
Outflow=4.06 cfs 0.300 af

Pond 3P: Filter Basin Peak Elev=77.14' Storage=731 cf Inflow=1.47 cfs 0.108 af
Outflow=1.44 cfs 0.108 af

Total Runoff Area = 3.757 ac Runoff Volume = 0.666 af Average Runoff Depth = 2.13"
28.83% Pervious Area = 1.083 ac 71.17% Impervious Area = 2.673 ac

Subcatchment 1S: South Parking Area with Expansion

Runoff = 1.39 cfs @ 12.07 hrs, Volume= 0.095 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
13,447	74	>75% Grass cover, Good, HSG C
15,109	98	Paved parking & roofs
28,556	87	Weighted Average
13,447		Pervious Area
15,109		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, flow A-B-C**

Subcatchment 2s: Loading Area

Tc was calculated per TR-55 methods to 2.4 minutes, revised to 5 minutes

Runoff = 1.17 cfs @ 12.07 hrs, Volume= 0.080 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
11,001	74	>75% Grass cover, Good, HSG C
13,110	98	Paved parking & roofs
24,111	87	Weighted Average
11,001		Pervious Area
13,110		Impervious Area

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

Subcatchment 3S: West Parking Area

Runoff = 0.70 cfs @ 12.08 hrs, Volume= 0.048 af, Depth= 1.52"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
9,584	74	>75% Grass cover, Good, HSG C
7,007	98	Paved parking & roofs
16,591	84	Weighted Average
9,584		Pervious Area

7,007 Impervious Area

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

Subcatchment 4S: Buffer Area Flowing Offsite

Runoff = 0.14 cfs @ 12.07 hrs, Volume= 0.011 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
1,992	98	Paved parking & roofs
1,992		Impervious Area

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

Subcatchment 5S: Front Lawn & New Parking

Runoff = 1.05 cfs @ 12.07 hrs, Volume= 0.072 af, Depth= 1.66"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
10,971	98	Paved parking & roofs
11,750	74	>75% Grass cover, Good, HSG C
22,721	86	Weighted Average
11,750		Pervious Area
10,971		Impervious Area

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

Subcatchment 6S: 4000 s.f. roof drain

4000 s.f roof drain

Runoff = 0.28 cfs @ 12.07 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
4,000	98	Paved parking & roofs
4,000		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof drain to 6in pipe**

Subcatchment 7S: 41364 s.f Roof

41364 s.f. roof drain

Runoff = 2.86 cfs @ 12.07 hrs, Volume= 0.219 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
41,364	98	Paved parking & roofs
41,364		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 41364 s.f. roof**

Subcatchment 8S: Building Expansion

Runoff = 0.15 cfs @ 12.07 hrs, Volume= 0.012 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
2,240	98	Paved parking & roofs
2,240		Impervious Area

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

Subcatchment 9S: Truck Parking Expansion

Runoff = 1.47 cfs @ 12.07 hrs, Volume= 0.108 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 year Rainfall=3.00"

Area (sf)	CN	Description
1,403	74	>75% Grass cover, Good, HSG C
20,663	98	Paved parking & roofs
22,066	96	Weighted Average
1,403		Pervious Area
20,663		Impervious Area

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

Reach 1R: 6" PVC

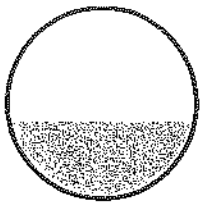
[52] Hint: Inlet conditions not evaluated

Inflow Area = 0.092 ac, Inflow Depth = 2.77" for 2 year event
Inflow = 0.28 cfs @ 12.07 hrs, Volume= 0.021 af
Outflow = 0.28 cfs @ 12.08 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.73 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.23 fps, Avg. Travel Time= 1.4 min

Peak Storage= 8 cf @ 12.08 hrs, Average Depth at Peak Storage= 0.20'
Bank-Full Depth= 0.50', Capacity at Bank-Full= 0.81 cfs

6.0" Diameter Pipe, n= 0.011
Length= 105.0' Slope= 0.0150 '/'
Inlet Invert= 78.06', Outlet Invert= 76.49'



Reach 2R: 12" PVC

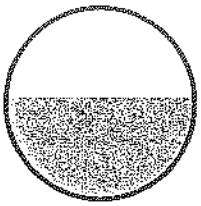
[52] Hint: Inlet conditions not evaluated

Inflow Area = 0.950 ac, Inflow Depth = 2.77" for 2 year event
Inflow = 2.86 cfs @ 12.07 hrs, Volume= 0.219 af
Outflow = 2.85 cfs @ 12.08 hrs, Volume= 0.219 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.73 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.25 fps, Avg. Travel Time= 0.6 min

Peak Storage= 34 cf @ 12.07 hrs, Average Depth at Peak Storage= 0.53'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 5.16 cfs

12.0" Diameter Pipe, n= 0.011
Length= 80.0' Slope= 0.0150 '/'
Inlet Invert= 75.04', Outlet Invert= 73.84'



Reach POI #1:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.305 ac, Inflow Depth > 2.16" for 2 year event
Inflow = 0.41 cfs @ 12.65 hrs, Volume= 0.235 af
Outflow = 0.41 cfs @ 12.65 hrs, Volume= 0.235 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach POI #2:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.503 ac, Inflow Depth = 2.40" for 2 year event
Inflow = 4.06 cfs @ 12.08 hrs, Volume= 0.300 af
Outflow = 4.06 cfs @ 12.08 hrs, Volume= 0.300 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach POI #3:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.381 ac, Inflow Depth = 1.52" for 2 year event
Inflow = 0.70 cfs @ 12.08 hrs, Volume= 0.048 af
Outflow = 0.70 cfs @ 12.08 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach POI #4:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.046 ac, Inflow Depth = 2.77" for 2 year event
Inflow = 0.14 cfs @ 12.07 hrs, Volume= 0.011 af
Outflow = 0.14 cfs @ 12.07 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Reach POI #5:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.522 ac, Inflow Depth = 1.66" for 2 year event
Inflow = 1.05 cfs @ 12.07 hrs, Volume= 0.072 af
Outflow = 1.05 cfs @ 12.07 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Pond 1P: South Pond

[79] Warning: Submerged Pond 3P Primary device # 2 by 0.68'

Inflow Area = 1.305 ac, Inflow Depth > 2.17" for 2 year event
Inflow = 3.25 cfs @ 12.08 hrs, Volume= 0.236 af
Outflow = 0.41 cfs @ 12.65 hrs, Volume= 0.235 af, Atten= 88%, Lag= 34.4 min
Primary = 0.41 cfs @ 12.65 hrs, Volume= 0.235 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 74.18' @ 12.65 hrs Surf.Area= 6,609 sf Storage= 4,282 cf

Plug-Flow detention time= 135.8 min calculated for 0.235 af (100% of inflow)
Center-of-Mass det. time= 130.2 min (1,016.3 - 886.2)

Volume	Invert	Avail.Storage	Storage Description
#1	73.50'	16,272 cf	**South Pond (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
73.50	5,692	0	0
74.00	6,361	3,013	3,013
75.00	7,741	7,051	10,064
75.75	8,814	6,208	16,272

Device	Routing	Invert	Outlet Devices
#1	Device 4	73.41'	**4.5" Vert. 4.5" Orifice** C= 0.600
#2	Device 4	74.91'	**0.50' W x 0.25' H Vert. 3"x6" Orifice** C= 0.600
#3	Device 4	76.71'	**24.0" Horiz. Grate** Limited to weir flow C= 0.600
#4	Primary	73.41'	**12.0" x 40.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 72.72' S= 0.0172 '/' Cc= 0.900 n= 0.011

Primary OutFlow Max=0.41 cfs @ 12.65 hrs HW=74.18' (Free Discharge)
└**4=Culvert** (Passes 0.41 cfs of 1.94 cfs potential flow)
  ├**1=4.5" Orifice** (Orifice Controls 0.41 cfs @ 3.67 fps)
  ├**2=3"x6" Orifice** (Controls 0.00 cfs)
  └**3=Grate** (Controls 0.00 cfs)

Pond 2P: West Pond

[93] Warning: Storage range exceeded by 0.73'
[88] Warning: Qout>Qin may require Finer Routing>1
[63] Warning: Exceeded Reach 2R inflow depth by 1.04' @ 12.13 hrs

Inflow Area =	1.503 ac,	Inflow Depth =	2.39"	for	2 year event
Inflow =	4.02 cfs @	12.08 hrs,	Volume=	0.299 af	
Outflow =	4.06 cfs @	12.08 hrs,	Volume=	0.300 af,	Atten= 0%, Lag= 0.0 min
Primary =	4.06 cfs @	12.08 hrs,	Volume=	0.300 af	

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 76.60' @ 12.08 hrs Surf.Area= 1,257 sf Storage= 1,111 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 6.0 min (780.4 - 774.4)

Volume	Invert	Avail.Storage	Storage Description
#1	73.41'	1,111 cf	**South Pond (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
73.41	100	0	0
74.00	130	68	68
75.00	461	296	363
75.87	1,257	747	1,111

Device	Routing	Invert	Outlet Devices
#1	Device 4	73.41'	**4.5" Vert. 4.5" Orifice** C= 0.600
#2	Device 4	74.99'	**1.00' W x 0.25' H Vert. 3"x12" Orifice** C= 0.600
#3	Device 4	76.41'	**24.0" Horiz. Grate** Limited to weir flow C= 0.600
#4	Primary	66.41'	**12.0" x 65.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 65.92' S= 0.0075 '/' Cc= 0.900 n= 0.011

Primary OutFlow Max=4.05 cfs @ 12.08 hrs HW=76.60' (Free Discharge)
└**4=Culvert** (Passes 4.05 cfs of 11.39 cfs potential flow)
  ├**1=4.5" Orifice** (Orifice Controls 0.92 cfs @ 8.34 fps)
  ├**2=3"x12" Orifice** (Orifice Controls 1.47 cfs @ 5.86 fps)
  └**3=Grate** (Weir Controls 1.67 cfs @ 1.42 fps)

Pond 3P: Filter Basin

Inflow Area =	0.507 ac,	Inflow Depth =	2.55"	for	2 year event
Inflow =	1.47 cfs @	12.07 hrs,	Volume=	0.108 af	
Outflow =	1.44 cfs @	12.09 hrs,	Volume=	0.108 af,	Atten= 2%, Lag= 0.9 min
Primary =	1.44 cfs @	12.09 hrs,	Volume=	0.108 af	

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 77.14' @ 12.09 hrs Surf.Area= 831 sf Storage= 731 cf

Plug-Flow detention time= 208.5 min calculated for 0.108 af (100% of inflow)

Center-of-Mass det. time= 208.3 min (983.3 - 775.0)

Volume	Invert	Avail.Storage	Storage Description
#1	76.00'	1,058 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	462	0	0
77.00	780	621	621
77.50	966	437	1,058

Device	Routing	Invert	Outlet Devices
#1	Device 2	73.50'	**6.0" x 18.0' long Culvert** RCP, sq.cut end projecting, Ke= 0.500 Outlet Invert= 73.50' S= 0.0000 '/' Cc= 0.900 n= 0.011
#2	Primary	73.50'	**0.4" Vert. Orifice/Grate** C= 0.600
#3	Primary	77.00'	**12.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=1.44 cfs @ 12.09 hrs HW=77.14' (Free Discharge)
- **2=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.16 fps)
  - **1=Culvert** (Passes 0.01 cfs of 1.74 cfs potential flow)
- **3=Broad-Crested Rectangular Weir** (Weir Controls 1.43 cfs @ 0.87 fps)

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: South Parking Area with Expansion Runoff Area=28,556 sf Runoff Depth=3.29"
Tc=5.0 min CN=87 Runoff=2.58 cfs 0.179 af

Subcatchment 2s: Loading Area Runoff Area=24,111 sf Runoff Depth=3.29"
Tc=5.0 min CN=87 Runoff=2.18 cfs 0.152 af

Subcatchment 3S: West Parking Area Runoff Area=16,591 sf Runoff Depth=3.00"
Tc=5.0 min CN=84 Runoff=1.38 cfs 0.095 af

Subcatchment 4S: Buffer Area Flowing Offsite Runoff Area=1,992 sf Runoff Depth=4.46"
Tc=5.0 min CN=98 Runoff=0.22 cfs 0.017 af

Subcatchment 5S: Front Lawn & New Parking Runoff Area=22,721 sf Runoff Depth=3.19"
Tc=5.0 min CN=86 Runoff=2.00 cfs 0.139 af

Subcatchment 6S: 4000 s.f. roof drain Runoff Area=4,000 sf Runoff Depth=4.46"
Tc=5.0 min CN=98 Runoff=0.44 cfs 0.034 af

Subcatchment 7S: 41364 s.f Roof Runoff Area=41,364 sf Runoff Depth=4.46"
Tc=5.0 min CN=98 Runoff=4.52 cfs 0.353 af

Subcatchment 8S: Building Expansion Runoff Area=2,240 sf Runoff Depth=4.46"
Tc=5.0 min CN=98 Runoff=0.24 cfs 0.019 af

Subcatchment 9S: Truck Parking Expansion Runoff Area=22,066 sf Runoff Depth=4.23"
Tc=5.0 min CN=96 Runoff=2.37 cfs 0.179 af

Reach 1R: 6" PVC Avg. Depth=0.26' Max Vel=4.20 fps Inflow=0.44 cfs 0.034 af
D=6.0" n=0.011 L=105.0' S=0.0150 '/' Capacity=0.81 cfs Outflow=0.44 cfs 0.034 af

Reach 2R: 12" PVC Avg. Depth=0.73' Max Vel=7.40 fps Inflow=4.52 cfs 0.353 af
D=12.0" n=0.011 L=80.0' S=0.0150 '/' Capacity=5.16 cfs Outflow=4.51 cfs 0.353 af

Reach POI #1: Inflow=0.57 cfs 0.411 af
Outflow=0.57 cfs 0.411 af

Reach POI #2: Inflow=7.00 cfs 0.516 af
Outflow=7.00 cfs 0.516 af

Reach POI #3: Inflow=1.38 cfs 0.095 af
Outflow=1.38 cfs 0.095 af

Reach POI #4: Inflow=0.22 cfs 0.017 af
Outflow=0.22 cfs 0.017 af

Reach POI #5: Inflow=2.00 cfs 0.139 af
Outflow=2.00 cfs 0.139 af

Pond 1P: South Pond Peak Elev=74.74' Storage=8,206 cf Inflow=5.58 cfs 0.411 af
Outflow=0.57 cfs 0.411 af

Pond 2P: West Pond Peak Elev=76.77' Storage=1,111 cf Inflow=6.68 cfs 0.505 af
Outflow=7.00 cfs 0.516 af

Pond 3P: Filter Basin Peak Elev=77.19' Storage=775 cf Inflow=2.37 cfs 0.179 af
Outflow=2.33 cfs 0.179 af

Total Runoff Area = 3.757 ac Runoff Volume = 1.167 af Average Runoff Depth = 3.73"
28.83% Pervious Area = 1.083 ac 71.17% Impervious Area = 2.673 ac

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: South Parking Area with Expansion Runoff Area=28,556 sf Runoff Depth=4.04"
Tc=5.0 min CN=87 Runoff=3.14 cfs 0.221 af

Subcatchment 2s: Loading Area Runoff Area=24,111 sf Runoff Depth=4.04"
Tc=5.0 min CN=87 Runoff=2.65 cfs 0.186 af

Subcatchment 3S: West Parking Area Runoff Area=16,591 sf Runoff Depth=3.73"
Tc=5.0 min CN=84 Runoff=1.71 cfs 0.118 af

Subcatchment 4S: Buffer Area Flowing Offsite Runoff Area=1,992 sf Runoff Depth=5.26"
Tc=5.0 min CN=98 Runoff=0.26 cfs 0.020 af

Subcatchment 5S: Front Lawn & New Parking Runoff Area=22,721 sf Runoff Depth=3.94"
Tc=5.0 min CN=86 Runoff=2.45 cfs 0.171 af

Subcatchment 6S: 4000 s.f. roof drain Runoff Area=4,000 sf Runoff Depth=5.26"
Tc=5.0 min CN=98 Runoff=0.51 cfs 0.040 af

Subcatchment 7S: 41364 s.f Roof Runoff Area=41,364 sf Runoff Depth=5.26"
Tc=5.0 min CN=98 Runoff=5.30 cfs 0.416 af

Subcatchment 8S: Building Expansion Runoff Area=2,240 sf Runoff Depth=5.26"
Tc=5.0 min CN=98 Runoff=0.29 cfs 0.023 af

Subcatchment 9S: Truck Parking Expansion Runoff Area=22,066 sf Runoff Depth=5.03"
Tc=5.0 min CN=96 Runoff=2.79 cfs 0.212 af

Reach 1R: 6" PVC Avg. Depth=0.29' Max Vel=4.36 fps Inflow=0.51 cfs 0.040 af
D=6.0" n=0.011 L=105.0' S=0.0150 '/' Capacity=0.81 cfs Outflow=0.51 cfs 0.040 af

Reach 2R: 12" PVC Avg. Depth=0.85' Max Vel=7.48 fps Inflow=5.30 cfs 0.416 af
D=12.0" n=0.011 L=80.0' S=0.0150 '/' Capacity=5.16 cfs Outflow=5.28 cfs 0.416 af

Reach POI #1: Inflow=0.67 cfs 0.495 af
Outflow=0.67 cfs 0.495 af

Reach POI #2: Inflow=6.95 cfs 0.562 af
Outflow=6.95 cfs 0.562 af

Reach POI #3: Inflow=1.71 cfs 0.118 af
Outflow=1.71 cfs 0.118 af

Reach POI #4: Inflow=0.26 cfs 0.020 af
Outflow=0.26 cfs 0.020 af

Reach POI #5: Inflow=2.45 cfs 0.171 af
Outflow=2.45 cfs 0.171 af

Pond 1P: South Pond Peak Elev=75.00' Storage=10,069 cf Inflow=6.68 cfs 0.496 af
Outflow=0.67 cfs 0.495 af

Pond 2P: West Pond Peak Elev=76.77' Storage=1,111 cf Inflow=7.93 cfs 0.603 af
Outflow=6.95 cfs 0.562 af

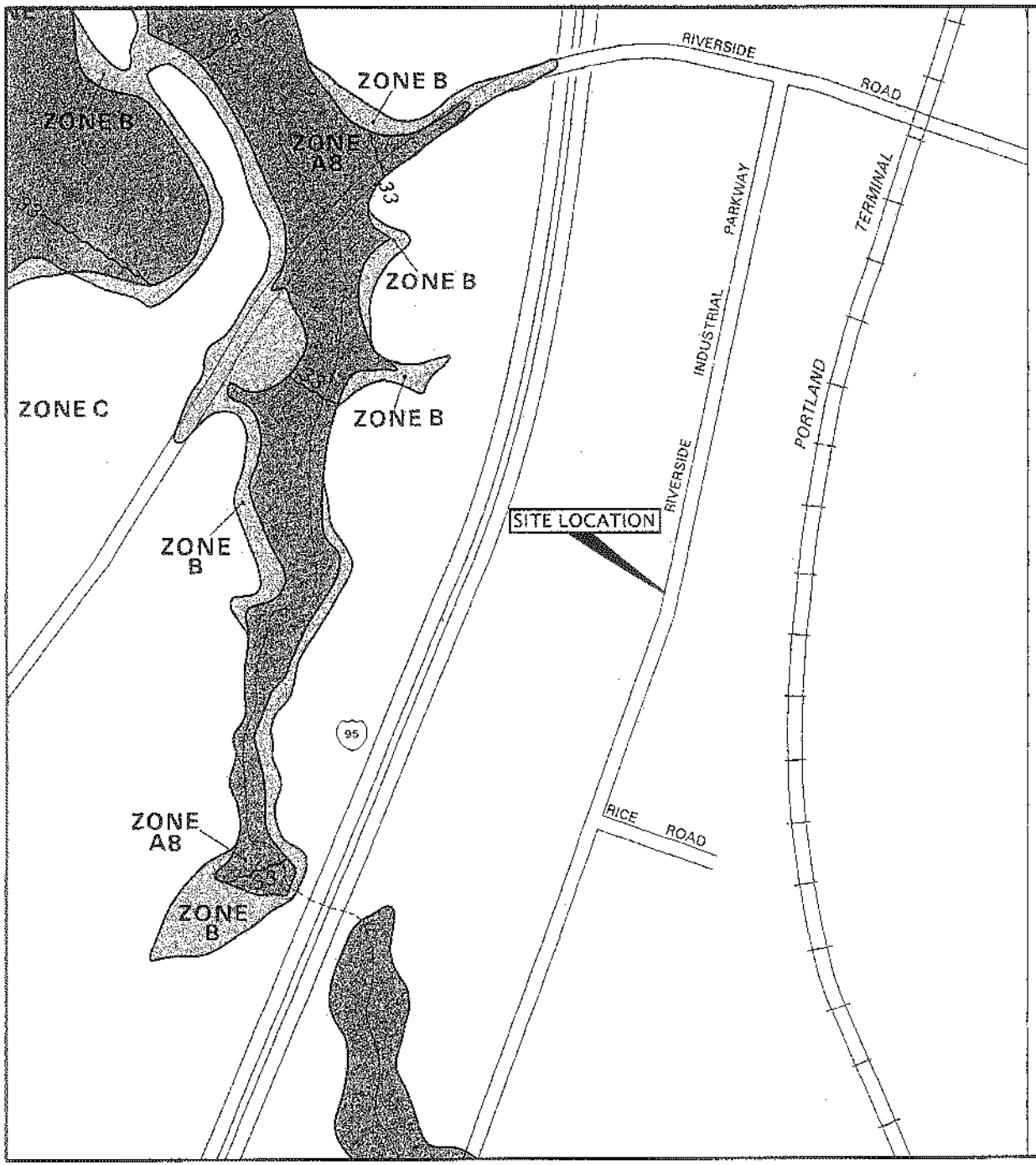
Pond 3P: Filter Basin Peak Elev=77.21' Storage=793 cf Inflow=2.79 cfs 0.212 af
Outflow=2.75 cfs 0.212 af

Total Runoff Area = 3.757 ac Runoff Volume = 1.408 af Average Runoff Depth = 4.50"
28.83% Pervious Area = 1.083 ac 71.17% Impervious Area = 2.673 ac

Attachment D

Typical Site Photos

1540
Unifirst Expansion – Portland Maine



APPROXIMATE SCALE

400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

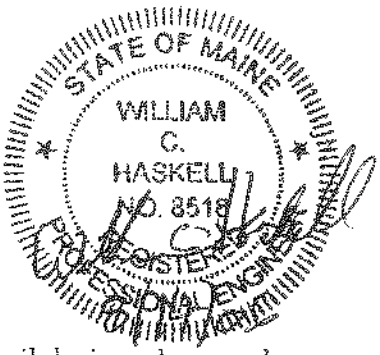
CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 1 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0001 B

EFFECTIVE DATE:
JULY 17, 1986

Federal Emergency Management Agency



Erosion and Sedimentation Control Plan

Introduction

Gorrill-Palmer Consulting Engineers, Inc in has been retained to prepare civil design plans and water resource narratives for a proposed development site located at the existing UniFirst site in Portland. The site is bordered by Riverside Industrial parkway to the east, and the Maine Turnpike to the west. This narrative contains the general erosion and sedimentation control measures, which are appropriate for the construction of the project.

Narrative

Existing Conditions and Soil Types

The project consists of Block B, Lot 2 on Portland's Assessor's Map 354, comprising of approximately 3.76 acres of land. The lot currently is developed for commercial use with a large building and parking areas. The site is served with public water, sewer, gas and electricity.

The site is surrounded by the following uses:

- Maine Turnpike to the West
- Commercial/Industrial Use to the North
- Riverside Industrial Parkway and Commercial/Industrial Use to the East
- Commercial/Industrial Use to the South

The site currently drains in to two stormwater ponds that are allocated to the rear of the site, water from the roof flows to the western pond. Water landing in the current drive way flows towards the southern pond. Water form the loading area is collected via catch basin and transported to the western pond. The site is currently heavily developed, with approximately 2.68 Ac. of the site covered by impervious surfaces. Topography on the site varies from relatively flat slopes; 1%-2% adjacent to the existing business and parking area. Elevations on the site range from 81 to 74 feet (City of Portland Datum).

The area of the development appears mapped with the soils as shown in the table below. The Cumberland County Medium Intensity Soil Survey SCS mapping for this site was used to determine the soil types, though the majority of the existing site is currently covered by building or pavement. The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. The higher values are indicative of the more erodible soils. The following table lists the K values for the soils onsite:

	K VALUE	
Type	**Subsurface**	**Substratum**
Scantic	0.49	0.49

Based on a review of the K Values, the on-site soil susceptibility to erosion is medium.

Existing Erosion Problems

Gorrill-Palmer Consulting Engineers, Inc. is not aware of any existing erosion problems on site.

Critical Areas

Gorrill-Palmer Consulting Engineers, Inc. is not aware of any critical areas onsite.

Protected Natural Resources

Gorrill-Palmer Consulting Engineers, Inc. is not aware of any protected natural resources onsite.

Erosion Control Measures and Site Stabilization

The primary emphasis of the erosion/sedimentation control plan, which will be implemented for this project, is as follows:

- Development of a careful construction sequence.
- Rapid revegetation of denuded areas to minimize the period of soil exposure.
- Rapid stabilization of drainage paths to avoid rill and gully erosion.
- The use of on-site measures to capture sediment (stabilized construction entrance/stone check dams/silt fence, etc.)

The following temporary and permanent erosion and sediment control devices will be implemented as part of the site development. These devices shall be installed as indicated on the plans or as described within this report. For further reference, see the Maine Erosion and Sediment Control BMP's, published by the Maine DEP in March 2003 or current revision.

Temporary Erosion Control Measures

The following measures are planned as temporary erosion/sedimentation control measures during construction:

1. Crushed stone-stabilized construction entrance shall be placed at the construction entrance used for the proposed development.

2. Siltation fence shall be installed downstream of any disturbed areas to trap runoff- borne sediments until grass areas are revegetated. The silt fence shall be installed per the details provided in this package and inspected immediately after each rainfall and at least daily during

prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence, the barrier shall be replaced with a stone check dam.

3. Straw or hay mulch including hydroseeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15 and September 15 on slopes of less then 15 percent shall be anchored by applying water; mulch placed on slopes of equal to or steeper than 15 percent shall be covered by a fabric netting and anchored with staples in accordance with manufacturer's recommendation. Fabric netting and staples shall be used on disturbed areas within 100 feet of lakes, streams, and wetlands regardless of the upstream slope. Mulch placed between September 15 and April 15 on slopes equal to or steeper than 8 percent shall be covered with a fabric netting and anchored with staples in accordance with the manufacturer's recommendations. Slopes steeper than 3H:1V and equal to or flatter than 2H:1V, which are to be revegetated, shall receive Curlex blankets manufactured by American Excelsior or approved equivalent. Slopes steeper than 2H:1V shall receive riprap as noted on the plans. Mulch application rates are provided in Attachment A within the Temporary & Permanent Seeding Plans. Mulch shall not be placed over snow.

4. Temporary stockpiles of stumps, grubbings, or common excavation will be protected as follows:

   a) Temporary stockpiles shall not be located within 50 feet of any wetlands, which will not be disturbed and located away from drainage swales.

   b) Stockpiles shall be stabilized within 7 days by either temporarily seeding the stockpile by a hydroseed method containing an emulsified mulch tackifier or by covering the stockpile with mulch, such as hay, straw, or erosion control mix.

   c) Stockpiles shall be surrounded by sedimentation barrier at the time of formation.

5. All denuded areas that are within 100 feet of an undisturbed wetland, which have been rough graded and are not located within a building pad, parking area, or access drive subbase area, shall receive mulch or erosion control mesh fabric within 7 days of initial disturbance of soil. All areas within 100 feet of an undisturbed wetland shall be mulched prior to any predicted rain event regardless of the 7-day window. In other areas, the time period may be extended to 14 days.

6. For work, which is conducted between September 15 and April 15 of any calendar year, all denuded areas will be covered with hay mulch or wood-waste erosion control mix, applied at twice the normal application rate and anchored with a fabric netting. The time period for applying mulch shall be limited to 7 days for all areas.

7. During grubbing operations stone check dams shall be installed at any evident concentrated flow discharge points and as shown on the plans.

8. Silt fencing with a minimum stake spacing of 6 feet should be used, unless the fence is supported by wire fence reinforcement of minimum 14 gauge and with a maximum mesh spacing of 6 inches, in which case stakes may be spaced a maximum of 10 feet apart. The bottom of the fence should be anchored.

9. Water and/or calcium chloride shall be furnished and applied in accordance with MDOT specifications – Section 637 – Dust Control.v

10. Loam and seed is intended to serve, as the primary permanent revegetative measure for all denuded areas not provided with other erosion control measures, such as riprap. Application rates for temporary and permanent seeding are provided in Attachment A of this section. Seeding shall not occur over snow.

11. Storm drain catch basin inlet protection shall be provided through the use of stone sediment barriers. Installation details are included within the plan set. The barriers shall be inspected after each rainfall and repairs made as necessary. Sediment shall be removed and the barrier restored to its original dimensions when the sediment has accumulated to ½ the design depth of the barrier. The barrier shall be removed when the tributary drainage area has been stabilized.

Permanent Erosion Control Measures

The following permanent erosion control measures have been designed as part of the Erosion/Sedimentation Control Plan:

1. All areas disturbed during construction, but not subject to other restoration (building, paving, riprap, etc.) will be loamed, limed, fertilized, mulched, and seeded. Fabric netting, anchored with staples, shall be placed over the mulch in areas as noted in paragraph 3 of **Temporary Erosion Control Measures**. Native topsoil shall be stockpiled and reused for final restoration when it is of sufficient quality.
2. Catch Basins will be provided with 3-foot deep sediment sumps and inlet hoods for all outlet pipes that are 12 inches in diameter.

Implementation Schedule

The following construction sequence shall be required to ensure the effectiveness of the erosion and sedimentation control measures are optimized:

Note: For all grading activities, the contractor shall exercise extreme caution not to overexpose the site by limiting the disturbed area.

1. Clear area as necessary for buildings and parking.
2. Install perimeter siltation fence as required.
3. Grub work area and remove existing pavement and buildings.
4. Commence earthwork operations.
5. Install catch basins, and storm drain piping.
6. Commence installation of underground utilities, as required
7. Continue earthwork and grading to subgrade as necessary for construction.
8. Complete installation of underground utilities, as required
9. Complete remaining earthwork operations.
10. Install subbase and base course gravels within parking areas.
11. Install base course paving for parking areas.
12. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
13. Install surface course paving for parking areas. Stripe pavement as indicated on plan.
14. Once the site is stabilized and a 90 percent catch of vegetation has been obtained, remove all temporary erosion control devices.
15. Touch up loam and seed.

Note: All denuded areas not subject to final paving shall be revegetated.

Prior to construction of the project, the contractor shall submit to the owner a schedule for the completion of the work, which will satisfy the following criteria:

1. The above construction sequence should generally be completed in the specified order; however, several separate items may be constructed simultaneously. Work must also be scheduled or phased to prevent the extent of the exposed areas as specified below. The intent of this sequence is to provide for erosion control and to have structural

measures such as silt fence and construction entrances in place before large areas of land are denuded.

2. The work shall be conducted in sections which will:

   a) Revegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 14 days.

   b) Incorporate planned inlets and drainage system as early as possible into the construction phase.

Erosion, Sedimentation and Stabilization Control Plan

The Erosion Control Plan is included in the plan set.

Details and Specifications

The Erosion Control details and specifications are included in the plan set.

Winter Stabilization Plan

As a summer/fall construction schedule to complete the project is not possible and construction is necessary between November 15 and April 15 of any calendar year, the contractor shall submit a schedule, which will satisfy the following criteria:

1. Limit the amount of exposed area to those areas in which work is expected to be undertaken during the proceeding 15 days and that which can be mulched in the event of a predicted snow event.

2. During the construction process, all disturbed areas shall be covered with mulch within 7 days of final grading. Mulch shall not be placed over snow.

3. Once final grade has been established, the contractor may choose to dormant seed the disturbed areas prior to placement of mulch and placement of fabric netting anchored with staples.

   a. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 pounds/1000 s.f. Seeding shall not occur over snow.

      All areas seeded during the winter months shall be inspected in the spring for adequate catch. All areas sufficiently vegetated (less than 90 percent catch) shall be revegetated by replacing loam, seed and mulch.

   b. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

4. The area of denuded non-stabilized construction shall be limited to the minimum area practicable. An area shall be considered to be denuded until the subbase gravel is installed or the areas of future loam and seed have been loamed, seeded, and mulched. The mulch rate shall be twice the rate specified in the seeding plan (for example, 115 pounds/1,000 s.f. x 2 = 230 pounds/1,000 s.f.).

5. The schedule shall be subject to the approval of the Owner.

The Contractor must install any added measures, which may be necessary to control erosion/sedimentation from the site dependent upon the actual site and weather conditions. The Contractor shall note that all areas shall be temporarily stabilized with 7 days.

Conclusion

The Applicant has provided temporary and permanent erosion control measures as well as specifying a sequence of construction as measures to minimize erosion and sedimentation.

Attachments

Attachment A

- Temporary Seeding Rate
- Permanent Seeding Rates
- Permanent Seeding Rates Within Detention Pond
- Permanent Seeding Rates Within Filter Pond

Attachment A

Temporary and Permanent Seeding

Temporary Seeding

Project: Unifirst - Expansion

Site Location: 430 Industrial Parkway, Portland, Maine

☐ Permanent Seeding ☒ Temporary Seeding

1. Instruction on preparation of soil: Prepare a good seed bed for planting method used.
2. Apply lime as follows: _____# / acres, OR 138 # /M Sq. Ft.
3. Fertilize with _____ pounds of _____ N-P-K/ac. OR 18.4 pounds of 10-20-20 N-P-K/M Sq. Ft.
4. Method of applying lime and fertilizer: Spread and work into the soil before seeding.
5. Seed with the following mixture:

   100% Annual Ryegrass (normal seeding), or

   100% Winter Rye (winter seeding)
6. Mulching instructions: Apply at the rate of _____per acre, OR 115 pounds per M. Sq. Ft.

	Amount	Unit # Tons. Etc.
7. TOTAL LIME	138	#/1000 sq. ft.
8. TOTAL FERTILIZER	18.4	#/1000 sq. ft.
9. TOTAL SEED	1.03	#/1000 sq. ft.
10. TOTAL MULCH	115	#/1000 sq. ft.
11. TOTAL other materials, seeds, etc.		
12. REMARKS		

Spring seeding is recommended, however, late summer (prior to September 1) seeding can be made. Permanent seeding should be made prior to August 5 or as a dormant seeding after the first killing frost and before the first snowfall. If seeding cannot be done within these seeding dates, temporary seeding and mulching shall be used to protect the site. Permanent seeding shall be delayed until the next recommended seeding period.

Permanent Seeding

Project: Unifirst - Expansion

Site Location: 430 Industrial Parkway, Portland, Maine

☒ Permanent Seeding ☐ Temporary Seeding

13. Instruction on preparation of soil: Prepare a good seed bed for planting method used.
14. Apply lime as follows: _____# / acres, OR 138 # /M Sq. Ft.
15. Fertilize with _____ pounds of _____ N-P-K/ac. OR 18.4 pounds of 10-20-20 N-P-K/M Sq. Ft.
16. Method of applying lime and fertilizer: Spread and work into the soil before seeding.
17. Seed with the following mixture:

    33% Kentucky Bluegrass

    34% Chewings Fescue

    33% Perennial Ryegrass
18. Mulching instructions: Apply at the rate of _____per acre, OR 115 pounds per M. Sq. Ft.

	Amount	Unit # Tons, Etc.
19. TOTAL LIME	138	#/1000 sq. ft.
20. TOTAL FERTILIZER	18.4	#/1000 sq. ft.
21. TOTAL SEED	1.03	#/1000 sq. ft.
22. TOTAL MULCH	115	#/1000 sq. ft.
23. TOTAL other materials, seeds, etc.		
24. REMARKS		

Spring seeding is recommended, however, late summer (prior to September 1) seeding can be made. Permanent seeding should be made prior to August 5 or as a dormant seeding after the first killing frost and before the first snowfall. If seeding cannot be done within these seeding dates, temporary seeding and mulching shall be used to protect the site. Permanent seeding shall be delayed until the next recommended seeding period.

Permanent Seeding

Project: Unifirst - Expansion

Site Location: 430 Industrial Parkway, Portland, Maine

☒ Permanent Seeding – Within Detention Pond ☐ Temporary Seeding

25. Instruction on preparation of soil: Prepare a good seed bed for planting method used.
26. Apply lime as follows: _____# / acres, OR 138 # /M Sq. Ft.
27. Fertilize with _____ pounds of _____ N-P-K/ac. OR 18.4 pounds of 10-20-20 N-P-K/M Sq. Ft.
28. Method of applying lime and fertilizer: Spread and work into the soil before seeding.
29. Seed with the following mixture:

    48% Creeping Fescue

    4% Red Top

    48% Perennial Ryegrass
30. Mulching instructions: Apply at the rate of _____per acre, OR 115 pounds per M. Sq. Ft.

	Amount	Unit # Tons. Etc.
31. TOTAL LIME	138	#/1000 sq. ft.
32. TOTAL FERTILIZER	18.4	#/1000 sq. ft.
33. TOTAL SEED	1.03	#/1000 sq. ft.
34. TOTAL MULCH	115	#/1000 sq. ft.
35. TOTAL other materials, seeds, etc.		
36. REMARKS		

Spring seeding is recommended, however, late summer (prior to September 1) seeding can be made. Permanent seeding should be made prior to August 5 or as a dormant seeding after the first killing frost and before the first snowfall. If seeding cannot be done within these seeding dates, temporary seeding and mulching shall be used to protect the site. Permanent seeding shall be delayed until the next recommended seeding period.

Permanent Seeding

Project: Unifirst - Expansion

Site Location: 430 Industrial Parkway, Portland, Maine

☒ Permanent Seeding – Within Filter Pond ☐ Temporary Seeding

37. Instruction on preparation of soil: Prepare a good seed bed for planting method used.
38. Apply lime as follows: _____# / acres, OR 138 # /M Sq. Ft.
39. Fertilize with _____ pounds of _____ N-P-K/ac. OR 18.4 pounds of 10-20-20 N-P-K/M Sq. Ft.
40. Method of applying lime and fertilizer: Spread and work into the soil before seeding.
41. Seed with the following mixture:

    Contractor shall submit specification of Wet Mix Seed information to engineer for approval
42. Mulching instructions: Apply at the rate of _____per acre, OR _____ pounds per M. Sq. Ft.

	Amount	Unit # Tons. Etc.
43. TOTAL LIME	0	#/1000 sq. ft.
44. TOTAL FERTILIZER	0	#/1000 sq. ft.
45. TOTAL SEED	SUBMIT	#/1000 sq. ft.
46. TOTAL MULCH	SUBMIT	#/1000 sq. ft.
47. TOTAL other materials, seeds, etc.		
48. REMARKS		

Spring seeding is recommended, however, late summer (prior to September 1) seeding can be made. Permanent seeding should be made prior to August 5 or as a dormant seeding after the first killing frost and before the first snowfall. If seeding cannot be done within these seeding dates, temporary seeding and mulching shall be used to protect the site. Permanent seeding shall be delayed until the next recommended seeding period.

ATA

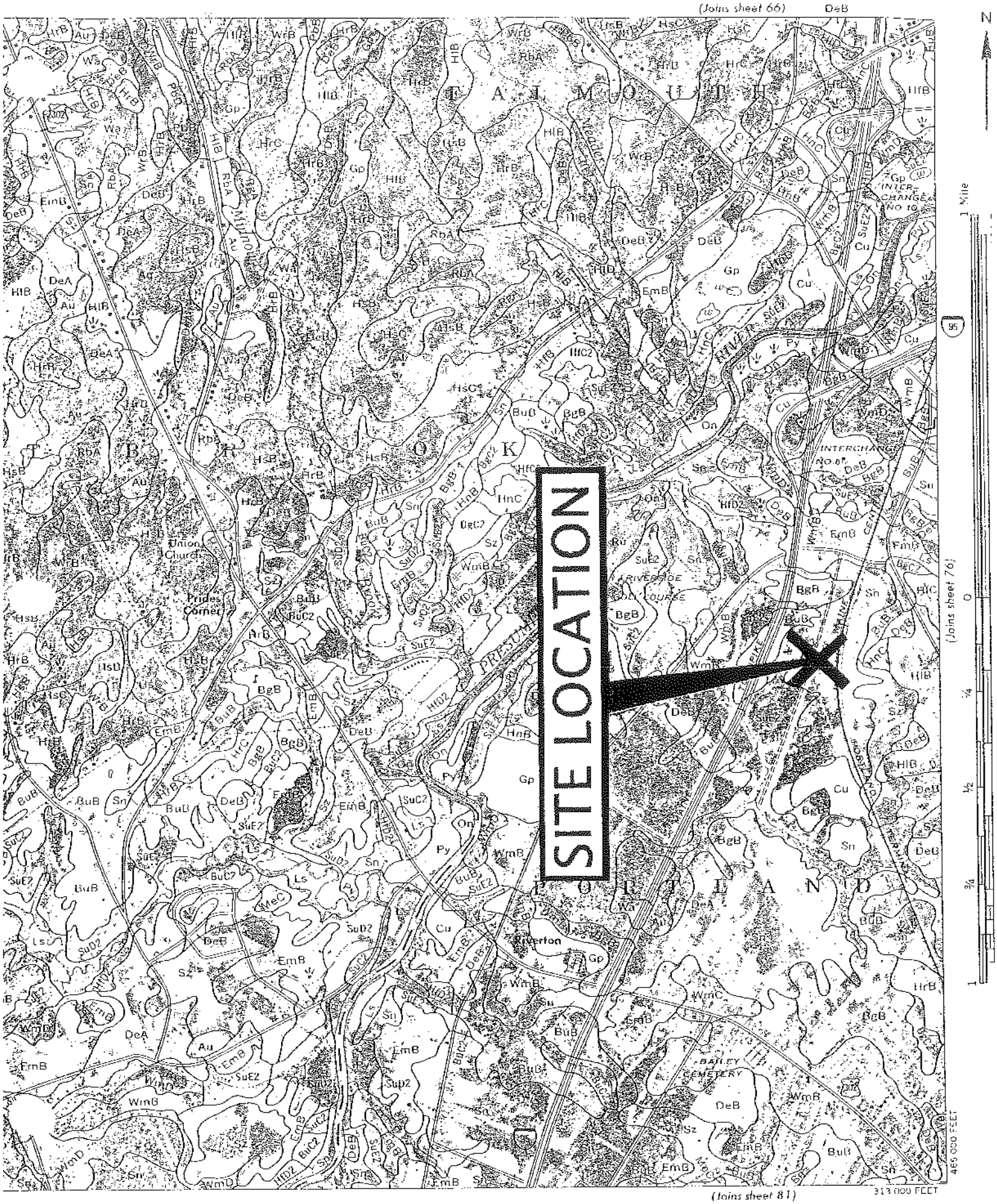
SOIL LEGEND

The first capital letter is the initial one of the soil name. A second capital letter, A, B, C, D, or E, shows the slope. Most symbols without a slope letter are those of nearly level soils, but some are for land types that have a considerable range of slope. A final number, 2, in the symbol shows that the soil is eroded.

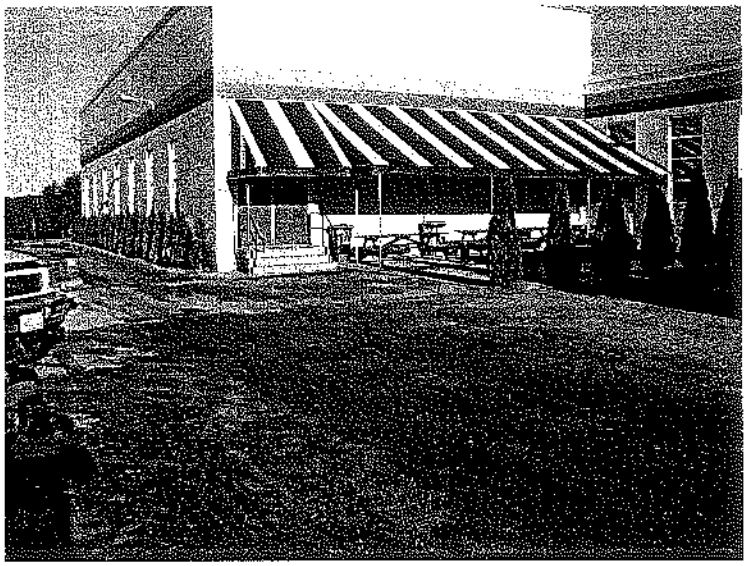
SYMBOL	NAME
Au	Au Gres loamy sand
BgB	Belgrade very fine sandy loam, 0 to 8 percent slopes
BgC2	Belgrade very fine sandy loam, 8 to 15 percent slopes, eroded
Bu	Biddeford silt loam
BuB	Buxton silt loam, 3 to 8 percent slopes
BuC2	Buxton silt loam, 8 to 15 percent slopes, eroded
CaB	Canaan sandy loam, 3 to 8 percent slopes
CaC	Canaan sandy loam, 8 to 15 percent slopes
CeB	Canaan very rocky sandy loam, 3 to 8 percent slopes
CeC	Canaan very rocky sandy loam, 8 to 20 percent slopes
CeE	Canaan very rocky sandy loam, 20 to 60 percent slopes
Ck	Coastal beaches
Cu	Cut and fill land
DeA	Deerfield loamy sand, 0 to 3 percent slopes
DeB	Deerfield loamy sand, 3 to 8 percent slopes
Du	Duxe land
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes
Gp	Gravel pits
HfB	Hartland very fine sandy loam, 3 to 8 percent slopes
HfC2	Hartland very fine sandy loam, 8 to 15 percent slopes, eroded
HfD2	Hartland very fine sandy loam, 15 to 25 percent slopes, eroded
HgB	Hermon sandy loam, 3 to 8 percent slopes
HgC	Hermon sandy loam, 8 to 15 percent slopes
HgD	Hermon sandy loam, 15 to 25 percent slopes
HhB	Hermon very stony sandy loam, 3 to 8 percent slopes
HhC	Hermon very stony sandy loam, 8 to 15 percent slopes
HhD	Hermon very stony sandy loam, 15 to 30 percent slopes
HkC	Hermon extremely stony sandy loam, 8 to 20 percent slopes
HkE	Hermon extremely stony sandy loam, 20 to 60 percent slopes
HlB	Hinckley gravelly sandy loam, 3 to 8 percent slopes
HlC	Hinckley gravelly sandy loam, 8 to 15 percent slopes
HlD	Hinckley gravelly sandy loam, 15 to 25 percent slopes
HnB	Hinckley-Suffield complex, 3 to 8 percent slopes
HnC	Hinckley-Suffield complex, 8 to 15 percent slopes
HnD	Hinckley-Suffield complex, 15 to 25 percent slopes
HrB	Hollis fine sandy loam, 3 to 8 percent slopes
HrC	Hollis fine sandy loam, 8 to 15 percent slopes
HrD	Hollis fine sandy loam, 15 to 25 percent slopes
HsB	Hollis very rocky fine sandy loam, 3 to 8 percent slopes
HsC	Hollis very rocky fine sandy loam, 8 to 20 percent slopes
HsE	Hollis very rocky fine sandy loam, 20 to 35 percent slopes

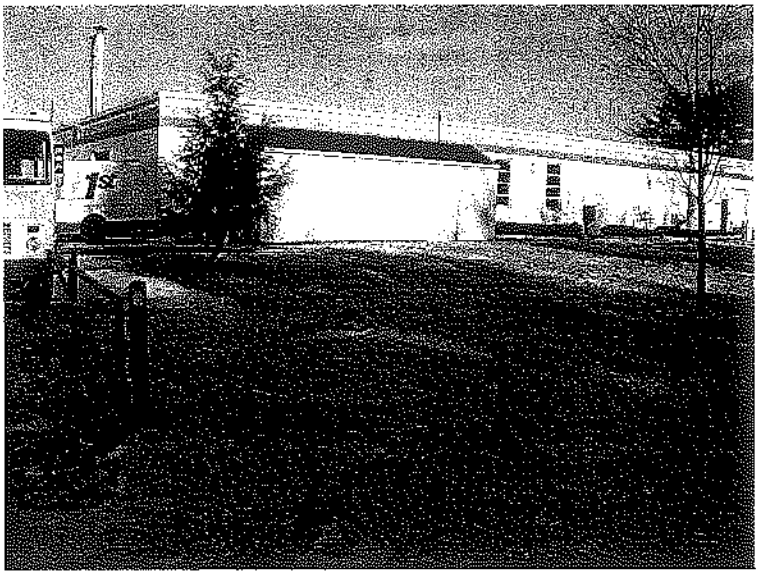
SYMBOL	NAME
Ls	Limerick-Saco silt loams
LyB	Lyman fine sandy loam, 3 to 8 percent slopes
LyC	Lyman fine sandy loam, 8 to 15 percent slopes
LzB	Lyman very rocky fine sandy loam, 3 to 8 percent slopes
LzC	Lyman very rocky fine sandy loam, 8 to 20 percent slopes
LzE	Lyman very rocky fine sandy loam, 20 to 45 percent slopes
Md	Made land
MeC	Melrose fine sandy loam, 8 to 15 percent slopes
MkB	Merrimac fine sandy loam, 3 to 8 percent slopes
MkC	Merrimac fine sandy loam, 8 to 15 percent slopes
On	Ondawa fine sandy loam
PbB	Paxton fine sandy loam, 3 to 8 percent slopes
PbC	Paxton fine sandy loam, 8 to 15 percent slopes
PbD	Paxton fine sandy loam, 15 to 25 percent slopes
PfB	Paxton very stony fine sandy loam, 3 to 8 percent slopes
PfC	Paxton very stony fine sandy loam, 8 to 15 percent slopes
PfD	Paxton very stony fine sandy loam, 15 to 25 percent slopes
PkB	Peru fine sandy loam, 0 to 8 percent slopes
PkC	Peru fine sandy loam, 8 to 15 percent slopes
PlB	Peru very stony fine sandy loam, 0 to 8 percent slopes
PlC	Peru very stony fine sandy loam, 8 to 15 percent slopes
Py	Podunk fine sandy loam
RbA	Ridgebury fine sandy loam, 0 to 3 percent slopes
RgA	Ridgebury very stony fine sandy loam, 0 to 3 percent slopes
Ro	Rock land
Ru	Rumney fine sandy loam
Sd	Sougatuck loamy sand
Sn	Scantic silt loam
So	Scarboro sandy loam
Sp	Sebago mucky peat
SuC2	Suffield silt loam, 8 to 15 percent slopes, eroded
SuD2	Suffield silt loam, 15 to 25 percent slopes, eroded
SuE2	Suffield silt loam, 25 to 45 percent slopes, eroded
Sz	Swanton fine sandy loam
Tm	Tidal marsh
Wa	Walpole fine sandy loam
Wg	Whately fine sandy loam
Wh	Whitman fine sandy loam
WmB	Windsor loamy sand, 0 to 8 percent slopes
WmC	Windsor loamy sand, 8 to 15 percent slopes
WmD	Windsor loamy sand, 15 to 30 percent slopes
WrB	Woodbridge fine sandy loam, 0 to 8 percent slopes
WrC	Woodbridge fine sandy loam, 8 to 15 percent slopes
WsB	Woodbridge very stony fine sandy loam, 0 to 8 percent slopes
WsC	Woodbridge very stony fine sandy loam, 8 to 15 percent slopes

CUMBERLAND COUNTY, MAINE — SHEET NUMBER 75



Existing Building
Unifirst – Expansion

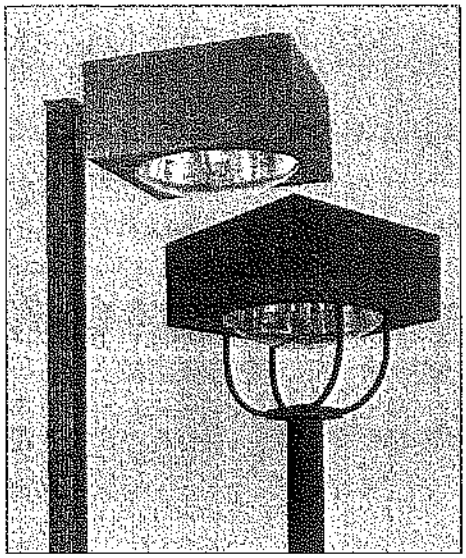




Architectural Square Vertical

KVE 250M R4SC

KVE



Intended Use

For streets, parking lots and surrounding areas.

Features

Housing – Square-shaped, rugged, heavy-gauge, extruded aluminum housing. Fully gasketed for weather-tight integrity. Standard finish is dark bronze (DDB) corrosion-resistant polyester powder. Other architectural colors available.

Lens – Impact-resistant, clear, 3/16" thick, tempered drop lens.

Mounting – Extruded aluminum arm with integral splice compartment for wall or pole mounting is shipped in fixture carton. Optional mountings available.

Optics – Segmented, anodized aluminum optics are interchangeable and rotatable. Vertically lamped sealed optics include symmetric, symmetric cutoff, asymmetric and asymmetric cut-off. Design redirects light around optimum lamp life and maximum el horizontal lamp cutoff distributions (roadway), R3 (asymmetric), R4SC (fc sharp cutoff) R4W (wide, forward th (symmetric).

Electrical – Constant-wattage autc high-power factor ballast. Ballas wound and 100% factory tested power tray and positive locking disc

Socket – Mogul-base porcelain soc per alloy, nickel-plated screw shel contact. UL Listed 1500W, 600V.

Listings

UL Listed (standard). CSA Certified c fied (see Options). UL Listed for wet patent no. D417,026.

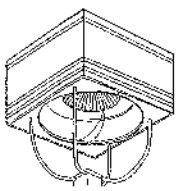
Ordering Information

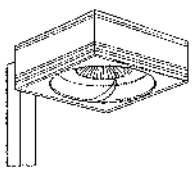
Example: KVE2 250S SYM 120 RP

Designation		Distribution		Voltage	Mounting[9]	Options/accessories
High pressure sodium		Vertical lamp distribution		120	Included	Installed
KVE2	250S	SYM	Symmetric[4,5]	208[7]	SPV04 4" square pole arm (std.)[9,10]	LPI Lamp included
KVE2	400S	SYMC	Symmetric (n/a 1000S)[6]	240[7]	SPV06 6" square pole arm[9,10]	L/LP Less lamp
KVE3	400S	ASY	Asymmetric[5]	277	SPV09 9" square pole arm[9,10]	SF Single fuse, 120V, 277V, 347V (n/a TI
KVE3	1000S	ASYC	Asymmetric[6]	347	SPV12 12" square pole arm[10]	DF Double fuse, 208V, 240V, 480V (n/a T
Metal halide		Horizontal lamp distribution		480[7]	SPV14 14" square pole arm	PER NEMA twist-lock receptacle only (no
KVE2	175M	R2	Type II roadway	TB[7]	RPV04 4" round pole arm[9,10]	QRS Quartz restrike system (250W max., not included)
KVE2	200M[1]	R3	Type III asymmetric		RPV06 6" round pole arm[9,10]	GFL Glass flat lens[11]
KVE2	250M[2]	R4SC	Type IV forward throw, sharp cutoff		RPV09 9" round pole arm[9,10]	CR Enhanced corrosion resistance
KVE2	320M[1,3]	R4W	Type IV forward throw (1000M only)[3]		RPV12 12" round pole arm[10]	EC Emergency circuit
KVE2	350M[1,3]	R5S	Type V symmetric square[3]		RPV14 14" round pole arm	HS House-side shield (ASY, ASYC only. R2 separately)
KVE2	400M[2,3]				WBV09 9" wall bracket	SCWA Super CWA pulse start ballast (n/a HF 1000M horizontal)
KVE3	400M[2]				Shipped separately	LS Lamp support (size 3 horizontal optic
KVE3	1000M[2]				PT4 Post-top, 4" OD open-top pole	CSA CSA Certified
					PT45 Post-top, 4-1/2" OD open-top pole	NOM NOM Certified (consult factory)
					PT5 Post-top, 5" OD open-top pole	For optional architectural colors, see page 543.
					PT6 Post-top, 6" OD open-top pole	Shipped separately
					RPF20 Round pole fitter (2-3/8" OD tenon)	PE1 NEMA twist-lock PE (120-240V)
					RPF25 Round pole fitter (2-7/8" OD tenon)	PE3 NEMA twist-lock PE (347V)
					SPF20 Square pole fitter (2-3/8" OD tenon)	PE4 NEMA twist-lock PE (480V)
					SPF25 Square pole fitter (2-7/8" OD tenon)	PE7 NEMA twist-lock PE (277V)
						SC Shorting cap for PER option

NOTES:

1. Must be ordered with SCWA.
2. May be ordered with SCWA.
3. 320W, 350W, 400W MH requires ED28 lamp; 1000WMH requires BT37 lamp (n/a KVE3 1000S).
4. Meets IES cutoff criteria for 1000W high pressure sodium luminaire.
5. Meets IES semi-cutoff criteria with metal halide lamp sources.
6. Meets IES cutoff criteria.
7. Consult factory for availability in Canada.
8. Optional multi-tap ballast (120V, 208V, 240V, 277V). In Canada 120V, 277V, 347V; ships as 120V/347V.
9. For KVE2 luminaires, SPV12, RPV12, SPV14 or RPV14 must be used when two or more luminaires oriented on a 90° drilling pattern.
10. For KVE3 luminaires, SPV14 or RPV14 must be used when two or more luminaires oriented on a 90° drilling pattern.
11. 400W maximum.





Dimensions are shown in **inches (centimeters)** unless otherwise noted.

	KVE2 (arm)	KVE2 (post)	KVE3 (arm)	KVE3 (post)
EPA:	3.3 ft² (.31 m²)	3.4 ft² (.32 m²)	4.2 ft² (.39 m²)	4.5 ft² (.42 m²)
Square:	25 (63.5)	25 (63.5)	29 (73.7)	29 (73.7)
Height:	16-3/4 (42.5)	23 7/8 (60.6)	18-1/2 (47.0)	18-1/2 (47.0)
Max. weight:	77 lbs (34.9 kg)	87 lbs (39.5 kg)	87 lbs (39.5 kg)	97 lbs (44.0 kg)

NIGHTTIME FRIENDLY

Consistent with I & Green Globes™ for light pollution

Requires glass flat le

Meeting on Site 10.4.06

JF
Jim Carmody, City Trans Eng.
Will Haskell G-P
Gary Guerette Benchmark
? from Unipist (joined us late)

1) Parking / Traffic
   a) Traffic generation from 1997 is on its way
   b) Explained that trucks currently parking inside the building at the loading bay but this area now needed for operations (trucks also park all over the site). O/N parking only.
   c. Could lose a few spaces
   d. Agreed that island be cut back (leaving area around sign) and lose spaces at the front edge so access possible.
   e. Jim OK but also concerned re landscape buffers etc

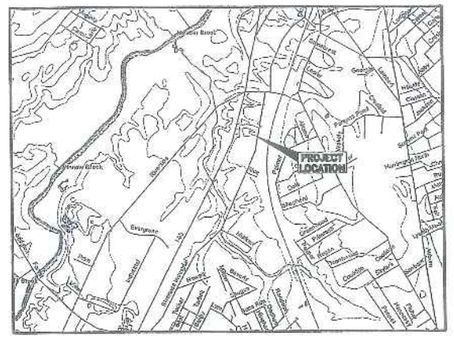
2) Landscape / Buffers
   a. JF confirmed that current view is that the net outcome with large scale paving for truck parking together with grading and extension of detention / treatment system was 'clear-cut' on south part of site + contrary to City Ordinance 14-526(25)

SITE PLANS
FOR
UNIFIRST SITE EXPANSION
PORTLAND, MAINE

PROJECT PARCEL SITE PORTLAND ASSESSOR'S MAP & LOT NUMBERS		
MAP	BLOCK	LOT
354	B	2

Owner & Applicant

UNIFIRST CORPORATION
430 RIVERSIDE INDUSTRIAL PARKWAY
PORTLAND, ME 04103



LOCATION MAP
N.T.S.

NOTES

GENERAL NOTES

1. EXISTING CONDITIONS INFORMATION FOR THE PROPERTY WAS PROVIDED FROM SURVEY PERFORMED BY TITCOMB ASSOCIATES, INC. OF FALMOUTH, MAINE DATED APRIL 24, 2006.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
3. MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE OWNER AND THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTIONS OF THE OWNER OR THEIR REPRESENTATIVES AT NO ADDITIONAL COST TO THE OWNER.
4. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
5. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CITY PORTLAND TECHNICAL STANDARDS AND SPECIFICATIONS, MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND THE SPECIFICATIONS ATTACHED TO THE PROJECT DOCUMENTS.
6. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL NECESSARY BARRICADES, LIGHTS, WARNING SIGNS AND OTHER DEVICES TO SAFEGUARD TRAFFIC PROPERLY WHILE WORK IS IN PROGRESS FOR THE DURATION OF THE PROJECT.

PERMITTING NOTES

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF A SITE PLAN REVIEW PERMIT FROM THE CITY OF PORTLAND WHICH WILL BE MADE A PART OF THE CONTRACT BID DOCUMENTS. THE CONSTRUCTION WILL BE GOVERNED BY THE ZONING ORDINANCES WHICH ARE AVAILABLE FOR VIEWING AT THE OFFICE OF THE ENGINEER OR THE MUNICIPAL OFFICE.
2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.

LAYOUT NOTES

1. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR BUILDING.
2. PROPERTY LINE AND R.O.W. MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS AT THE CONTRACTOR'S EXPENSE, BY A MAINE REGISTERED LAND SURVEYOR.

GRADING AND DRAINAGE NOTES

1. TOPSOIL STRIPPED IN AREAS OF CONSTRUCTION THAT IS SUITABLE FOR REUSE AS LOAM SHALL BE STOCKPILED ON SITE AT A LOCATION TO BE DESIGNATED BY THE OWNER. UNSUITABLE SOIL SHALL BE SEPARATED, REMOVED AND DISPOSED OF AT AN APPROVED DISPOSAL LOCATION OFF SITE.
2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.

EROSION CONTROL NOTES

1. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE THAT CAUSES THE LEAST PRACTICAL DISTURBANCE OF THE SITE.
2. PRIOR TO BEGINNING ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCES AND THE CONSTRUCTION ENTRANCES.
3. ALL GROUND AREAS GRADED FOR CONSTRUCTION WILL BE GRADED, LOAMED AND SEEDED AS SOON AS POSSIBLE. PERMANENT SEED MIXTURE SHALL CONFORM TO THE SEEDING PLAN CONTAINED IN THE EROSION CONTROL REPORT PREPARED FOR THIS PROJECT.
4. PRIOR TO PAVING, THE CONTRACTOR SHALL FLUSH SILT FROM ALL STORM DRAIN LINES. SILT SHALL NOT BE FLUSHED INTO THE MUNICIPAL INFRASTRUCTURE.
5. SILT FENCES SHALL BE INSPECTED, REPAIRED AND CLEANED AS NOTED IN THE EROSION CONTROL REPORT.
6. THE CONTRACTOR SHALL REPAIR AND ADD STONE TO THE CONSTRUCTION ENTRANCES AS THEY BECOME SATURATED WITH MUD TO ENSURE THAT THEY WORK AS PLANNED DURING CONSTRUCTION.
7. SILT REMOVED FROM AROUND INLETS AND BEHIND THE SILT FENCES SHALL BE PLACED ON A TOPSOIL STOCKPILE AND MIXED INTO IT FOR LATER USE IN LANDSCAPING OPERATIONS.
8. A FULL EROSION CONTROL PLAN ACCOMPANIES THIS PLAN SET AND IS CONTAINED ON DRAWING C103 OF THIS PLAN SET.
9. THE MAINTENANCE SCHEDULE FOR THE CATCH BASIN SEDIMENT SUMPS IS AS FOLLOWS:
   THESE DEVICES SHALL BE INSPECTED IN APRIL AND OCTOBER OF EACH YEAR. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE CATCH BASIN WHEN THE DEPTH OF THE SEDIMENT IS GREATER THAN ONE FOOT. THE SEDIMENT WILL BE REMOVED FROM THE SITE BY THE OWNER OR THE CATCH BASIN CLEANING CONTRACTOR AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
10. THE CONTRACTOR IS CAUTIONED THAT FAILURE TO COMPLY WITH THE SEQUENCE OF CONSTRUCTION, EROSION/SEDIMENT CONTROL PLAN, AND OTHER PERMIT REQUIREMENTS MAY RESULT IN MONETARY PENALTIES. THE CONTRACTOR SHALL BE ASSESSED ALL SUCH PENALTIES AT NO COST TO THE OWNER OR PERMITTEE.
11. ALL NON-PAVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE LOAMED AND SEEDED, UNLESS OTHERWISE DIRECTED BY THE OWNER.
12. SEE SHEET C402 FOR FULL EROSION AND SEDIMENTATION CONTROL NOTES.

PERMITS

TYPE OF PERMIT	GOVERNING BODY	STATUS
SITE PLAN REVIEW APPLICATION	CITY OF PORTLAND PLANNING DEPARTMENT	SUBMITTED 7/21/06

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	BUILDING	
	RIGHT OF WAY	
	PROPERTY LINE	
	PARKING SETBACK	
	BUILDING SETBACK	
	WETLAND BOUNDARY	
	EDGE OF PAVEMENT	
100	GRADING CONTOUR LINE	100
	SPOT ELEVATION	+100.31
	TREELINE	
	TREES & HEDGES	
	POLE WITH LIGHT FIXTURE(S)	
	UTILITY POLE	
	FREESTANDING SIGN	
	PAINTED DIRECTIONAL TRAFFIC ARROW	
OHE	OVERHEAD ELECTRIC/TELEPHONE/CABLE	OHE/T/C
	UNDERGROUND ELECTRIC/TELEPHONE/CABLE	UGE/T/C
12"W	WATER LINE	6"W
24"	STORM DRAIN LINE	18"SD
	CULVERT	18"CULVERT
	HYDRANT	HYD
	WATER GATE VALVE	
	WATER SHUT OFF VALVE	
	MANHOLE	
	CATCH BASIN	
	TEST PIT	
	IRON ROD (SET)	
	IRON ROD (FOUND)	
	MONUMENT	
	RIPRAP	
	SILT FENCE	
	STONE SEDIMENT BARRIER	
	CENTER LINE	
	FENCE	
	RETAINING WALL	

INDEX

UTILITIES

WATER:

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PORTLAND, MAINE 04102
(207) 761-8300

SEWER:

PORTLAND PUBLIC WORKS DEPT.
55 PORTLAND STREET
PORTLAND, MAINE 04101
(207) 874-8871

ELECTRIC:

CENTRAL MAINE POWER
162 CANCO ROAD
PORTLAND, MAINE 04103
(207) 826-2869

TELEPHONE:

VERIZON
5 DAVIS FARM ROAD
PORTLAND, MAINE 04103
(207) 797-1842

CABLE:

TIME WARNER CABLE
118 JOHNSON ROAD
PORTLAND, MAINE 04102
(207) 775-3431

CALL BEFORE YOU DIG 1-888-344-7233

Superseded

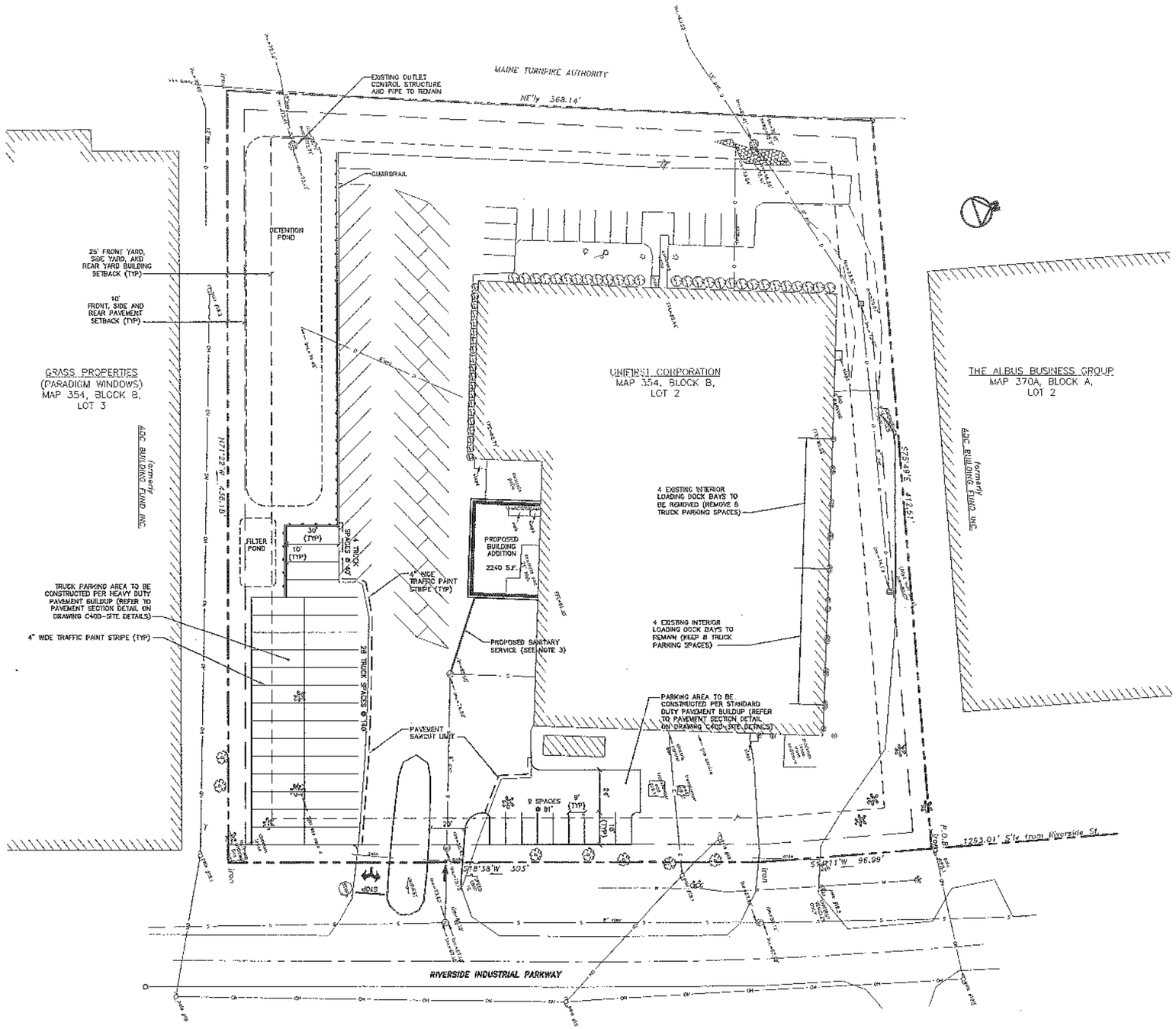
STATE OF MAINE — WILLIAM C. HASKELL — NO. 8318 — REGISTERED PROFESSIONAL ENGINEER — 8/14/06

Rev.	Date	Revision
–	–	–

Issued For	Date	By
SITE PLAN REVIEW APPLICATION	8/14/06	WCH

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES AND SHALL NOT BE USED FOR CONSTRUCTION.

Drawing No.
C001



SITE DATA & BULK STANDARDS

ZONE: I-M			
SITE AREA	163,641 S.F. ± 3.76 ACRES		
BUILDING AREA			
EXISTING	45,641 S.F.		
PROPOSED ADDITION	2,240 S.F.		
TOTAL	47,881 S.F.		
EXTERIOR PARKING	EXISTING 74		PROPOSED 115 *
	REQUIRED	EXISTING	PROPOSED
MAXIMUM IMPERVIOUS SURFACE RATIO:	75%	62.8%	71.2%
MAXIMUM BUILDING HEIGHT:	45'	<45'	<45'
SETBACKS			
FRONT YARD	25'	>25'	>25'
SOUTH SIDE YARD	25'	>25'	>25'
NORTH SIDE YARD	25'	>25'	>25'
REAR YARD	25'	>25'	>25'
PAVEMENT **	10'	10'	10'

* 32 NEW PARKING SPACES WILL BE USED FOR TRUCK/VAN PARKING.

** ALL PROPOSED PAVEMENT MEETS THE 10' PAVEMENT SETBACK

NOTES:

1. PROPERTY IS IDENTIFIED AS BLOCK B, LOT 2 ON CITY OF PORTLAND TAX MAP 354.
2. EXISTING CONDITIONS INFORMATION FOR THE PROPERTY WAS PROVIDED FROM SURVEY PERFORMED BY DITOMB ASSOCIATES, INC. OF FALMOUTH, MAINE DATED APRIL 24, 2006.
3. SANITARY SEWER SERVICE TO BUILDING ADDITION SHALL BE COORDINATED WITH BUILDING PLANS AND SHALL CONFORM TO ALL PORTLAND PUBLIC WORKS SANITARY SEWER STANDARDS. THERE IS NO ANTICIPATED INCREASE IN SEWER FLOW DUE TO THIS PROJECT.
4. PROPOSED BUILDING ADDITION WILL HOUSE RELOCATED INDUSTRIAL WASTE TREATMENT FACILITIES WHICH WILL ALLOW RECONFIGURATION OF & UPGRADE OF CLOTHING WASHERS AND DRYERS INSIDE THE EXISTING BUILDING.

STATE OF MAINE
WILLIAM C. HASKELL, JR.
NO. 8518
REGISTERED PROFESSIONAL ENGINEER

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES AND SHALL NOT BE USED FOR CONSTRUCTION.

30 0 15 30 60
1 inch = 30 ft.

Rev.	Date	Revision
-	-	-

Issued For	Date	By
SITE PLAN REVIEW APPLICATION	5/14/06	WCH

Design: JC | Drafn: GJL | Date: AUG 05
Checked: WCH | Scale: 1"=30' | Job No.: 1540
File Name: 1540_SP.dwg

Gorrill-Palmer Consulting Engineers, Inc.
PO Box 1237 / 15 Shaker Road, Gray, ME 04039
Traffic and Civil Engineering Services
207-657-6910 FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: Site Layout and Utility Plan
Project: UNIFIRST SITE EXPANSION
Client: UNIFIRST CORPORATION
430 RIVERSIDE INDUSTRIAL PARKWAY, PORTLAND, ME 04103

Drawing No. C100

NOTES:

1. * DENOTES AN EXISTING GROUND ELEVATION OBTAINED FROM THE EXISTING CONDITIONS SURVEY BY TITCOMB ASSOCIATES, INC. DATED APRIL 24, 2006.

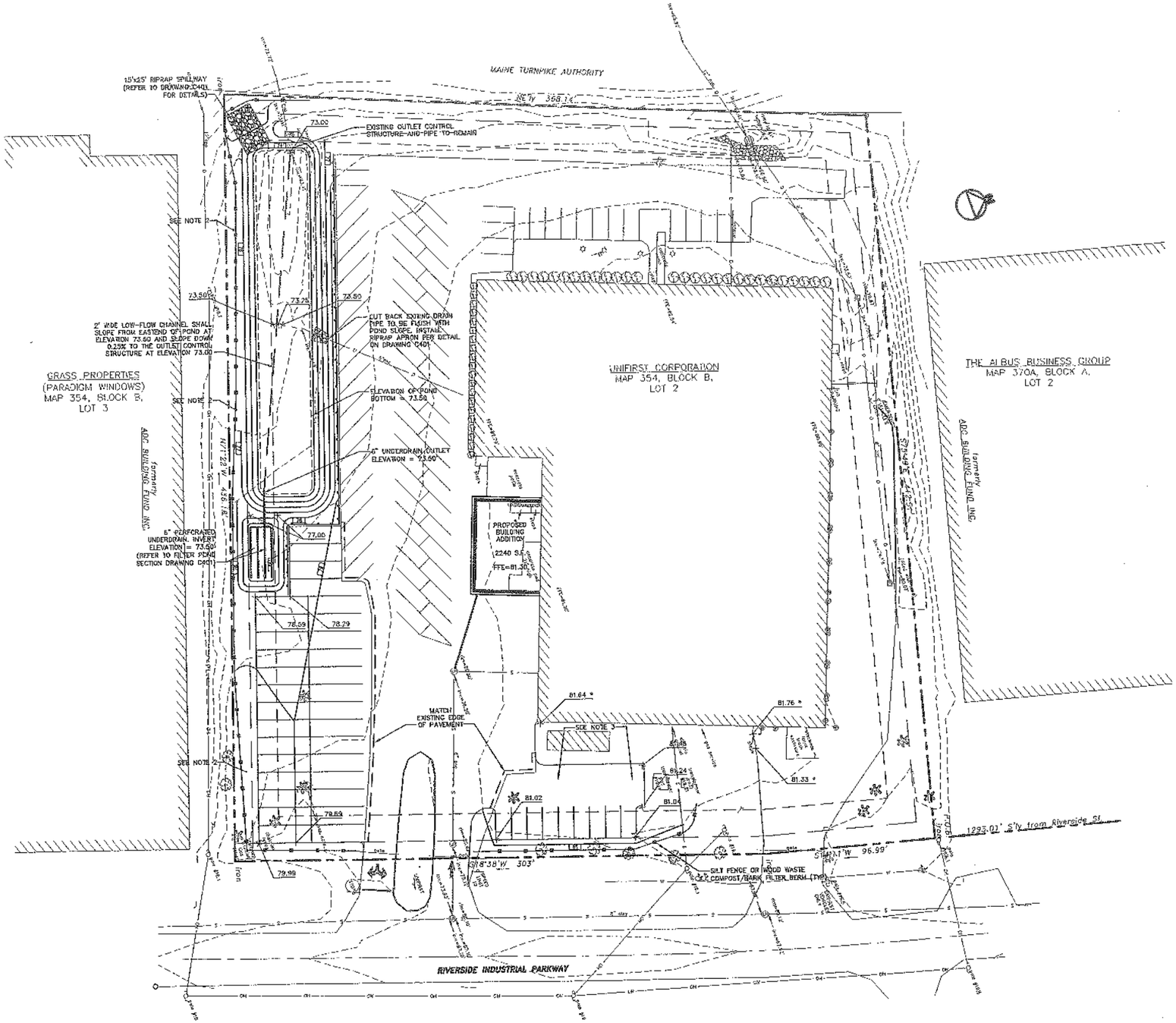
2. CONTRACTOR SHALL PRESERVE EXISTING ONSITE VEGETATION ADJACENT TO THE SOUTHERLY PROPERTY LINE TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION.

3. CONTRACTOR SHALL CONSTRUCT THE CAR PARKING AREA AT THE FRONT OF THE SITE IN SUCH A MANNER TO CREATE POSITIVE DRAINAGE OUTWARD AWAY FROM THE EXISTING BUILDING. CONTRACTOR SHALL ADJUST THE PROPOSED FINISHED GRADES AS NECESSARY TO ACCOMPLISH THIS REQUIREMENT.

4. CONTRACTOR SHALL SWEEP AND MAINTAIN THE EXISTING SITE PARKING & AND RIVERSIDE INDUSTRIAL PARKWAY TO PREVENT OFF-TRACKING OF MUD, SOIL, AND OTHER CONSTRUCTION DEBRIS.

5. CONTRACTOR SHALL INSTALL CHECK-DAMS WITHIN THE DETENTION POND AS NECESSARY DURING THE VEGETATION GROWTH PERIOD UNTIL ADEQUATE VEGETATION CATCH (80% CATCH) IS OBTAINED. CHECK DAMS SHALL BE REMOVED AFTER ADEQUATE VEGETATION IS OBTAINED. A CHECK DAM SHALL BE INSTALLED ADJACENT TO THE OUTLET CONTROL STRUCTURE AT THE ONSET OF CONSTRUCTION AND SHALL BE MAINTAINED AND REPLACED WITH CLEAN STONE DURING ALL EARTHWORK ACTIVITIES ADJACENT TO THE POND TO PREVENT SEDIMENTATION IN AND DOWNSTREAM OF THE OUTLET CONTROL STRUCTURE.

6. BUILDING ADDITION FINISH FLOOR ELEVATION (FFE) SHALL BE CONSTRUCTED TO MATCH THE ELEVATION OF THE EXISTING BUILDING.



NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES AND SHALL NOT BE USED FOR CONSTRUCTION.

1 inch = 30 ft.

Rev.	Date	Revision
–	–	–

SITE PLAN REVIEW APPLICATION	8/14/06	WCH
Issued For	Date	By

Design: JG | Draft: GAL | Date: AUG '06
Checked: WCH | Scale: 1"=30' | Job No.: 1540
File Name: 1540_GRAD-EROS.dwg

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: Grading, Drainage and Erosion Control Plan
Project: UNIFIRST SITE EXPANSION
Client: UNIFIRST CORPORATION
430 RIVERSIDE INDUSTRIAL PARKWAY, PORTLAND, ME 04103

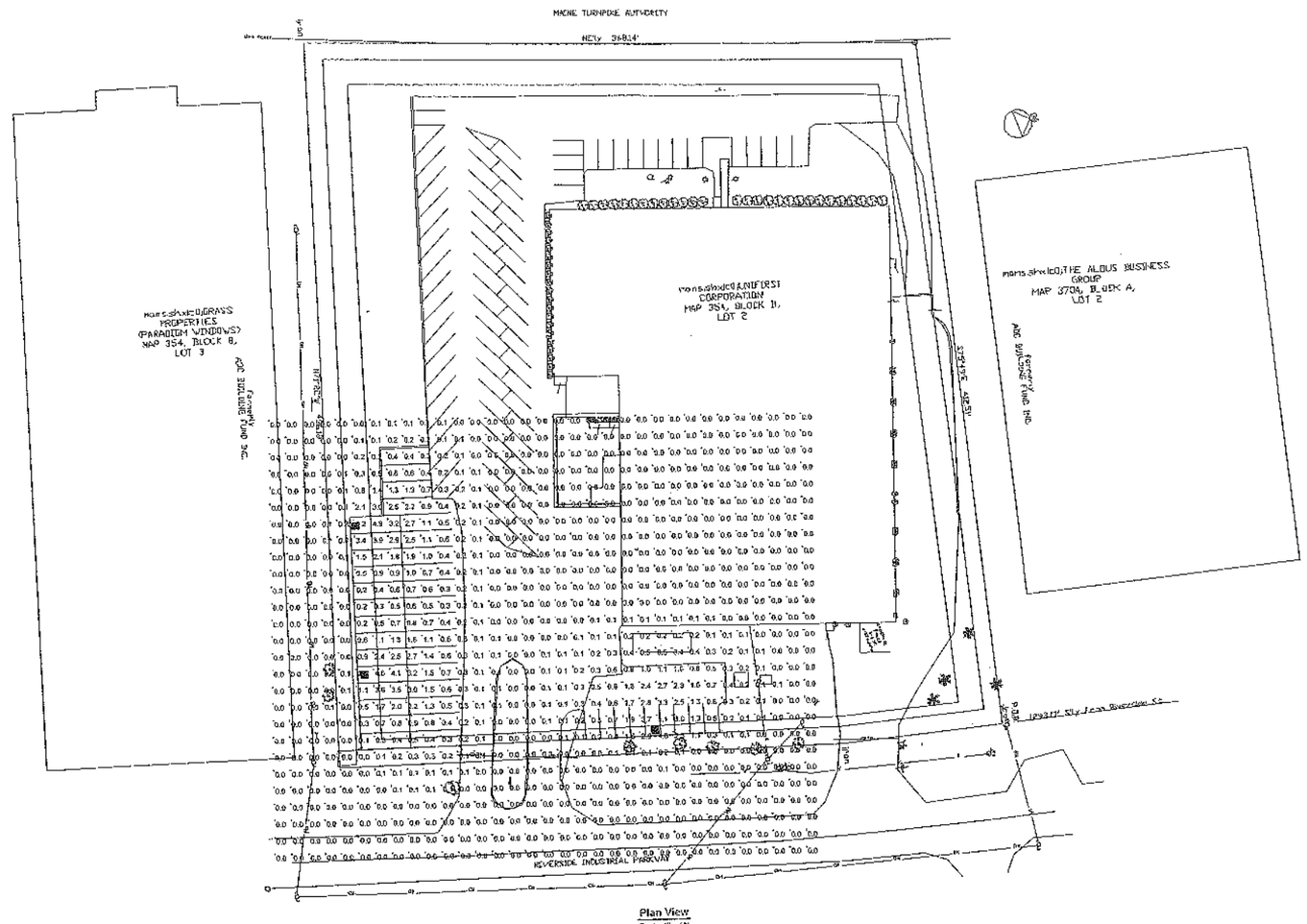
Drawing No. C101

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
▩	C	3	KVE2 250M R4SC	PREMIUM SQUARE AREA LIGHT WITH R4 DISTRIBUTION.	ONE 250-WATT CLEAR ED-28 METAL HALIDE, HORIZONTAL POSITION.	98100521.ies	20000	1.00	297

LUMINAIRE LOCATIONS

No.	Label	Location X	Location Y	Location Z	Mtg Ht	Orientation	Tilt	Aim X	Aim Y	Aim Z
1	C	91.0	166.3	20.0	20.0	87.4	0.0	55.0	186.5	0.0
2	C	95.0	95.6	20.0	20.0	87.8	0.0	98.0	96.8	0.0
3	C	272.8	57.5	20.0	20.0	-1.6	0.0	272.8	61.0	0.0



Plan View
Scale 1" = 40'

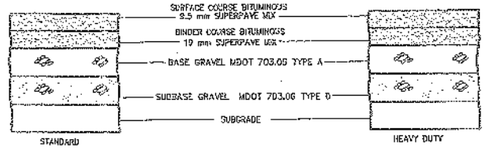
VISUAL

Unifirst Corporation Site Expansion

Photometric Plan

Portland, Maine

Designer	WCH
Date	Aug 11 2006
Scale	As Noted
Drawing No.	C102

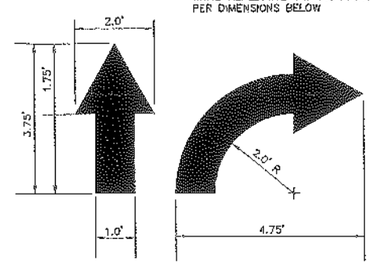


NOTE: COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557 (MODIFIED PROCTOR)

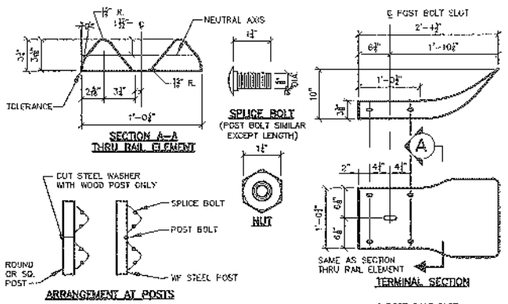
THICKNESS OF LAYERS		
STANDARD	LAYERS	HEAVY DUTY
1 1/2"	SURFACE COURSE MDOT 403.218 HOT MIX ASPHALT 3/8"	1 1/4"
1 3/4"	BINDER COURSE MDOT 403.207 HOT MIX ASPHALT 3/4"	2 3/4"
3"	BASE GRAVEL MDOT 703.06 TYPE A	3"
15"	SUBBASE GRAVEL MDOT 703.06 TYPE D	16"

BITUMINOUS PAVEMENT SECTION
N.T.S.

NOTE: ALL TRAFFIC FLOW ARROWS TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT AS PER DIMENSIONS BELOW



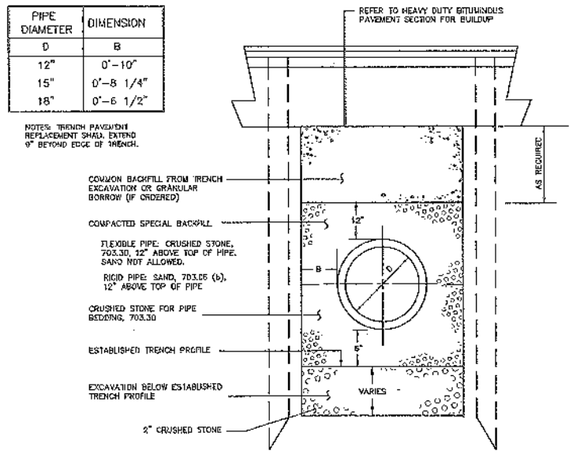
TRAFFIC FLOW ARROW
N.T.S.



CONTRACTOR SHALL FURNISH AND INSTALL GUARDRAIL POSTS, FASTENERS, AND ALL NECESSARY PARTS REQUIRED TO COMPLETE THE INSTALLATION.

STANDARD GUARDRAIL
N.T.S.

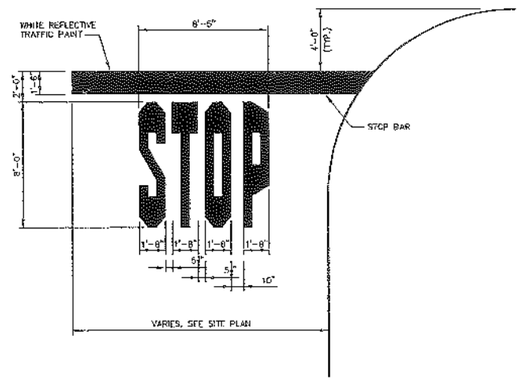
PIPE DIAMETER	DIMENSION
D	B
12"	0'-10"
15"	0'-8 1/4"
18"	0'-6 1/2"



NOTES: TRENCH PAVEMENT REPLACEMENT SHALL EXTEND 9" BEYOND EDGE OF TRENCH.

PIPE INSTALLATION
N.T.S.

NOTE:
ALL TRAFFIC MARKINGS TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT AS PER DIMENSIONS BELOW.



STOP BAR
N.T.S.

STATE OF MAINE
WILLIAM C. HASKELL
NO. 8518
REGISTERED PROFESSIONAL ENGINEER

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES AND SHALL NOT BE USED FOR CONSTRUCTION.

Rev.	Date	Revision
-	-	-

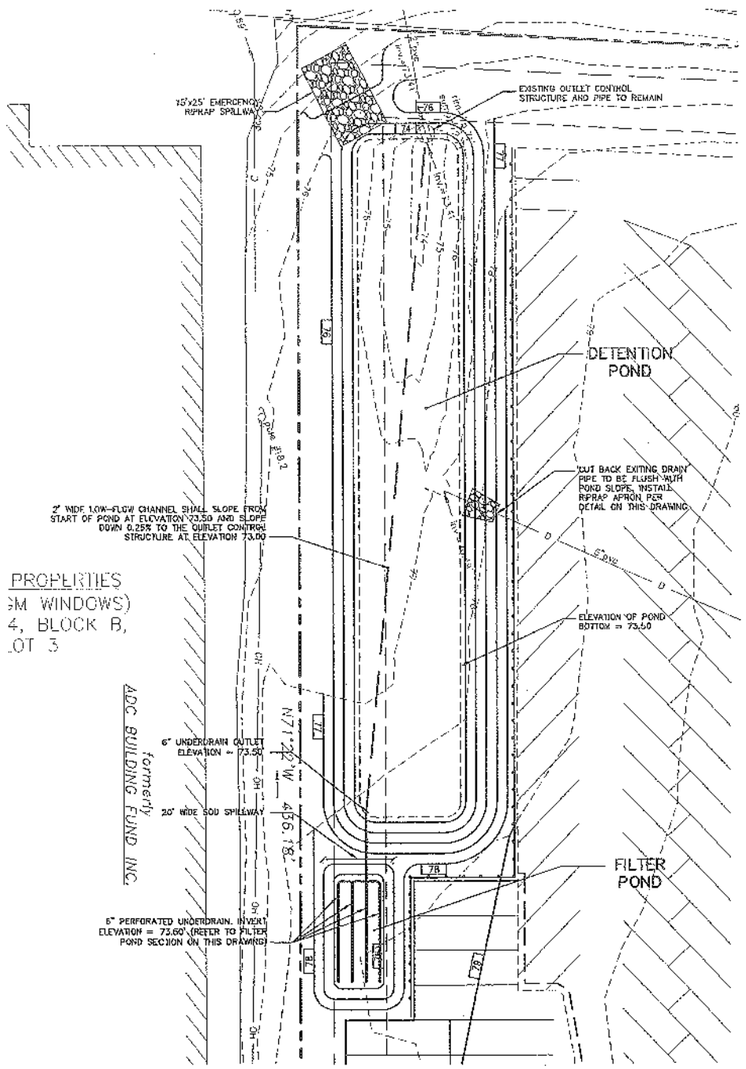
Issued For	Date	By
SITE PLAN REVIEW APPLICATION	8/16/06	WCH

Design: JG | Draft: GJL | Date: AUG 06
Checked: WCH | Scale: 1"=30' | Job No.: 1540
File Name: 1540_DET1.dwg

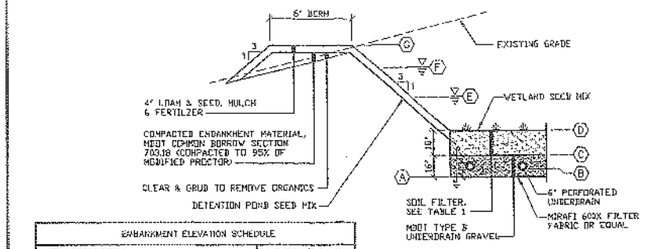
Gorrill-Palmer Consulting Engineers, Inc.
PO Box 1237 / 15 Shaker Road, Gray, ME 04039
Traffic and Civil Engineering Services
207-657-6910 FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: Site Details
Project: UNIFIRST SITE EXPANSION
Client: UNIFIRST CORPORATION
430 RIVERSIDE INDUSTRIAL PARKWAY, PORTLAND, ME 04103

Drawing No. C400



UNDERDRAINED SOIL FILTER POND & DETENTION POND
1"=20'



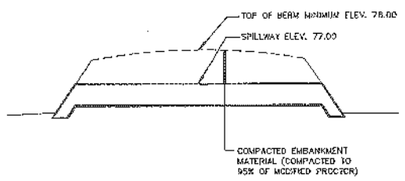
EMBANKMENT ELEVATION SCHEDULE	
ITEM DESCRIPTION	DIMENSION/ELEVATION
(A) BOTTOM OF UD GRAVEL	73.16
(B) UNDERDRAIN INVERT	73.50
(C) BOTTOM OF SOIL FILTER	74.50
(D) POND BASE ELEVATION	76.00
(E) PEAK ELEVATION – WATER QUALITY VOLUME	77.00
(F) PEAK ELEVATION – 25 YEAR STORM	77.21
(G) TOP OF BERM	78.21

TABLE 1 - SOIL FILTER MATERIAL			
OPTION 1	SAND	50%-55%	MEDOT SPECIFICATION #703.01 FINE AGGREGATE FOR CONCRETE (SEE TABLE 2)
	TOPSOIL	20%-30%	LOAMY SAND TOPSOIL WITH MINIMAL CLAY CONTENT AND BETWEEN 15-20% FINES PASSING THE #200 SIEVE
	MULCH	20%-30%	MODERATELY FINE, SHREDDED BARK OR WOOD FIBER MULCH WITH LESS THAN 5% PASSING THE #200 SIEVE
OPTION 2	COARSE LOAMY SAND SOIL	70%-80%	SEE TABLE 3
	MULCH	20%-30%	MODERATELY FINE, SHREDDED BARK OR WOOD FIBER MULCH WITH LESS THAN 5% PASSING THE #200 SIEVE

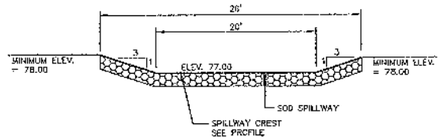
TABLE 2 - MEDOT #703.01 FINE AGGREGATE FOR CONCRETE	
SIEVE SIZE	% BY WEIGHT
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#50	10-30
#100	2-10
#200	0-5

TABLE 3 COARSE LOAMY SAND	
SIEVE SIZE	% BY WEIGHT
#10	85-100
#25	70-100
#60	15-40
#200	0-15

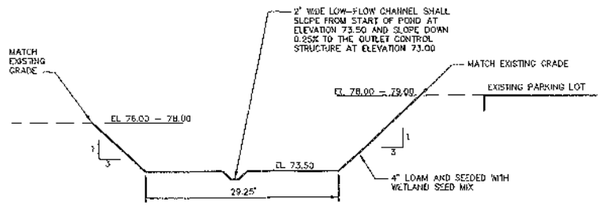
FILTER POND SECTION
N.T.S.



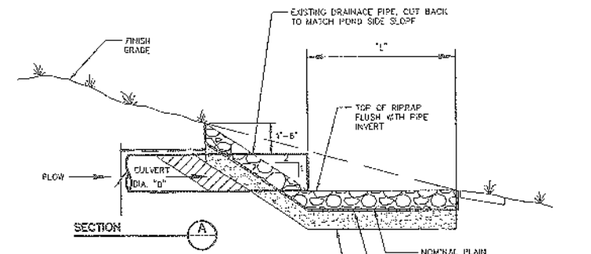
FILTER POND SOD SPILLWAY PROFILE
N.T.S.



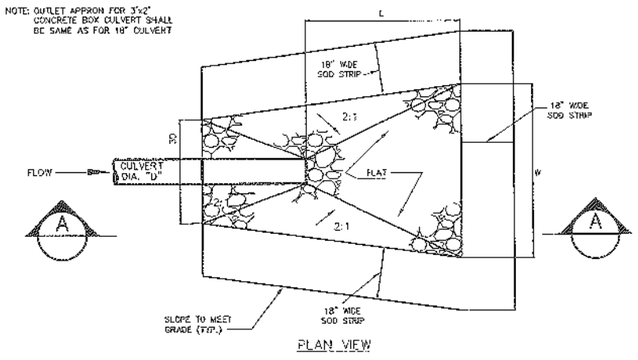
FILTER POND SOD SPILLWAY CROSS-SECTION
N.T.S.



DETENTION POND SECTION
N.T.S.



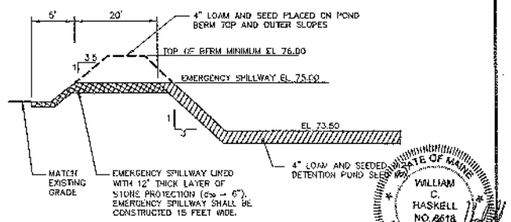
SCHEDULE – SINGLE CULVERT					
OUTLET	CULVERT DIAMETER (D)	LENGTH (L)	WIDTH (W)	STONE D_{50}	RIPRAP THICKNESS
DRAIN PIPE	6"	6'	6.5'	4"	8"



PLAN VIEW

DRAIN PIPE OUTLET APRON
N.T.S.

DETENTION POND SEED MIX	
SEED	LBS PER ACRE
CREEPING RED FESCUE	20 LBS PER ACRE
RED TOP	2 LBS PER ACRE
TALL FESCUE	20 LBS PER ACRE



DETENTION POND RIPRAP SPILLWAY PROFILE
N.T.S.

STATE OF MAINE
WILLIAM C. HASKELL
NO. 8618
REGISTERED PROFESSIONAL ENGINEER

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES AND SHALL NOT BE USED FOR CONSTRUCTION.

Rev.	Date	Revision
-	-	-

SITE PLAN REVIEW APPLICATION	8/14/06	WCH
Issued For	Date	By

Design: JP | Draft: GJL | Date: AUG '06
Checked: WCH | Scale: NONE | Job No.: 1540
File Name: 1540_DET1.dwg

Gorrill-Palmer Consulting Engineers, Inc.
PO Box 1237 15 Shaker Road Gray, ME 04039
Traffic and Civil Engineering Services
207-657-6910 FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: Pond Details
Project: UNIFIRST SITE EXPANSION
Client: UNIFIRST CORPORATION
430 RIVERSIDE INDUSTRIAL PARKWAY, PORTLAND, ME 04103

Drawing No. C401

I. Erosion Control Measures and Site Stabilization

The primary emphasis of the erosion/sedimentation control plan to be implemented for the infrastructure construction is as follows:
- Development of a careful construction sequence.
- Rapid revegetation of denuded areas to minimize the period of soil exposure.
- Rapid stabilization of drainage paths to avoid rill and gully erosion.
- The use of on-site measures to capture sediment (silt fence, check dams, etc.).

The following temporary and permanent erosion and sediment control devices will be implemented as part of the site development. These devices shall be installed as indicated on
the plans or as described within this report. For further reference, see the Maine Erosion and
Sediment Control Handbook for Construction: Best Management Practices.

A. Temporary Erosion Control Measures

The following measures are planned as temporary erosion/sedimentation control measures during construction:

1. Utilize the existing site entrance. Existing parking area and access driver shall be maintained during construction to prevent off-tracking of dirt and debris.

2. Siltation fence or wood waste compost berms shall be installed downstream of any disturbed areas to trap runoff borne sediments until adequate catch (90% or greater) has occurred. The silt fence and/or the wood waste compost berms shall be installed per the details provided in this package and inspected immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence or berm line. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind fence or berm, the barrier shall be replaced with a stone check dam. Wood waste compost berms are not to be used adjacent to wetland areas that are to be left undisturbed.

3. Straw or hay mulch including hydroseeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and September 15th on slopes of less than 15 percent shall be anchored by applying water; mulch placed on slopes of equal to or steeper than 15 percent shall be covered by a fabric netting and anchored with staples in accordance with a manufacturer's recommendation. Mulch placed between September 15th and April 15th on slopes equal to or steeper than 8 percent shall be covered with a fabric netting and anchored with staples in accordance with the manufacturer's recommendations. Slopes steeper than 3:1 and the drainage swale located in the I-295 Right-of-Way that are to be revegetated shall receive Curlex blankets by American Excelsior or Engineer approved equivalent. Mulch application rates are provided in Attachment A of this section. Mulch shall not be placed over snow.

4. Temporary stockpiles of stumps, grubbings, or common excavation will be protected as follows:

a) Temporary stockpiles shall not be located within 100 feet of any wetlands that are to be left undisturbed and any slopes exceeding 15%

b) Stockpiles shall be stabilized within 7 days by either temporarily seeding the stockpile with a hydroseed method containing an emulsified mulch tackifier or by covering the stockpile with mulch.

c) Stockpiles shall be surrounded by silt fence or wood-waste compost berms at the base of formation.

5. All denuded areas within 100 feet of an undisturbed wetland that have been rough graded and are not located within a roadway subbase area shall receive mulch or erosion control mesh fabric within 7 days of initial soil disturbance. All areas within 50 feet of undisturbed wetland area shall be mulched prior to any predicted rain event regardless of the 7-day window. In other areas, the time period may be extended to 14 days. All disturbed areas located within 100 feet of a protected natural resource must be protected with a double row of sediment barriers.

6. For work conducted between September 15th and April 15th of any calendar year, all denuded areas will be covered with hay mulch applied at twice the normal application rate and anchored with fabric netting. The time period for applying mulch as noted in Paragraph I.A.5 shall be limited to 7 days for all areas.

7. Marginal Way and Preble Street Extension shall be swept to control off-tracking of mud, debris, and dust as necessary.

8. During grubbing operations stone check dams will be installed at any evident concentrated flow discharge points.

9. Silt fencing with a maximum stake spacing of 6 feet should be used, unless the fence is supported by wire fence reinforcement of minimum 14 gauge and with a maximum mesh spacing of 6 inches, in which case stakes may be spaced a maximum of 10 feet apart. The bottom of the fence should be anchored.

10. Wood waste compost/bark berms may be used in lieu of siltation fencing. Berms shall be removed and spread into a layer not to exceed 3" thick once upstream areas are completed and a 90% catch of vegetation is attained. Wood waste erosion tubes may also be used for perimeter sediment control or check dams, or to reduce slope lengths. These tubes may be created by filling Filtrexx mesh tubes or approved equivalent with wood waste material and staking the tube to the ground where the control is necessary.

11. Inlet Protection measures shall be implemented for all catch basins located with the disturbed construction area. Measures shall be maintained regularly and shall not cause flooding in public right-of-ways.

12. Water shall be furnished and applied in accordance with MDOT specifications — Section 637 — Dust Control.

13. Loam and seed is intended to serve as the primary permanent revegetative measure for all denuded areas not provided with other erosion control measures such as riprap. Application rates are provided in Attachment A of this section. Seeding shall not occur over snow.

B. Permanent Erosion Control Measures

The following permanent erosion control measures have been designed as part of the Erosion and Sedimentation Control Plan:

1. All areas disturbed during construction but not subject to other restoration (building, paving, riprap, etc.) shall be loamed, limed, fertilized, mulched, and seeded. Fabric netting anchored with staples shall be placed over the mulch in areas as noted in Paragraph I.A.3. All disturbed areas within 100 feet of an undisturbed wetland area shall be mulched prior to any predicted rain event regardless of the 7-day window. Native topsoil shall be stockpiled and reused for final restoration if deemed to be of sufficient quality.

II. Implementation Schedule

The following construction sequence shall be required to insure that the effectiveness of the erosion and sedimentation control measures is optimized:

Note: For all grading activities, the contractor shall exercise extreme caution not to overexpose the site
by limiting the disturbed area.

1. Install perimeter siltation fence and/or wood waste berms prior to grubbing respective areas.

2. Clear and grub area as necessary for construction.

3. Remove existing pavement within work limits.

4. During grubbing operations, install stone check dams at any evident concentrated flow discharge
points.

5. Commence earthwork operations for proposed parking area and building foundation.

6. Continue grading to subgrade as necessary.

7. Commence installation of underground utilities.

8. Complete remaining earthwork operations.

9. Install subbase and base course gravels for driveways.

10. Complete installation of utility appurtenances.

11. Install surface course gravels for the driveways.

12. Loam, lime, fertilize, seed, and mulch remaining disturbed areas.

13. Remove accumulated sediment from ahead of any sediment barriers as necessary.

14. Once the site is stabilized and a 90% catch of vegetation has been obtained, remove all temporary erosion control measures.

15. Touch up loam and seed.
Note: All denuded areas not subject to final paving, riprap, or gravel shall be revegetated.

Prior to construction of the project, the contractor shall submit to the owner a schedule for the completion of
the work, which will satisfy the following criteria:

1. The above construction sequence shall generally be completed in the specified order; however, several separate items may be constructed simultaneously. Work must also be scheduled or phased to prevent the extent of the exposed areas as specified below. The intent of the above sequence is to provide for sufficient erosion and sedimentation control and to have structural measures such as silt fence and construction entrance in place before large areas of land are denuded.

2. The work shall be conducted in sections which will:

a) Limit the amount of exposed area to those areas in which work is expected to be undertaken during the proceeding 30 days.

b) Revegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event, or temporarily stabilized within 7 days of initial disturbance of soil for areas within 100 feet of an undisturbed wetland area and within 14 days for all other areas. Areas within 100 feet of an undisturbed wetland shall be mulched prior to any predicted rain event regardless of the 7-day window.

III. Winter Stabilization Plan

If a summer/fall construction schedule is not possible and construction is necessary between September 15th and April 15th of any calendar year, the contractor shall submit a schedule, which will satisfy the following criteria:

1. The extent of exposed area shall be limited to those areas in which work is expected to be undertaken during the proceeding 15 days and can be mulched in the event of a predicted snow event.

2. All disturbed areas shall be covered with mulch within 7 days of final grading. Mulch shall not be placed over snow.

3. Once final grade has been established, the contractor may choose to dormant seed the disturbed areas prior to placement of mulch and placement of staple-anchored fabric netting.

a. If dormant seeding is used for the site, all disturbed areas shall receive 6" of loam and seed at an application rate of 5 lbs. per 1000 s.f. Seeding shall not occur over snow.

All areas seeded during the winter months shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 80% catch) shall be revegetated by replacing loam, seed, and mulch as necessary to achieve 80% catch.

b. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

4. The area of denuded non-stabilized construction area shall be limited to the minimum area practicable. An area shall be considered denuded until the subbase gravel is installed or the areas of future loam and seed have been formed, seeded, and mulched at a rate twice that specified in the seeding plan (e.g. 145 lbs. per 1,000 s.f. x 2 = 290 lbs. per 1,000 s.f.).

5. The above schedule shall be subject to the approval of the Owner.

The Contractor shall install any added measures that may be necessary to control erosion and sedimentation from the site dependent upon the actual site and weather conditions.

The Contractor shall note that no areas within 100 feet of an undisturbed wetland shall remain denuded for longer than 7 days before being temporarily stabilized. All other areas shall be stabilized within 14 days. For construction between September 15th and April 15th of any calendar year, all areas shall be temporarily stabilized within 7 days.

IV. Inspection and Maintenance

The following inspection and maintenance standards shall be required to insure the effectiveness of the erosion and sedimentation control measures are optimized during construction.

For further reference, see the Maine Department of Environmental Protection Chapter 500 Stormwater Management Rules and the Maine Construction General Permit (MCGP) requirements.

1. Inspect disturbed and impervious areas, erosion control measures, materials storage areas exposed to precipitation and locations where vehicles enter or exit the site. Inspection should occur at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures.

2. Maintain all erosion and stormwater control measures until areas are permanently stabilized. If maintenance, modification, and/or installation of additional best management practices (BMPs) are necessary, implementation must be completed within 7 calendar days and prior to any storm event.

V. Housekeeping

The following standards shall be required. For further reference, see the Maine Department of Environmental Protection Chapter 500 Stormwater Management Rules.

1. Spill prevention controls must be utilized to prevent pollutants from being discharged from materials onsite.

2. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area or adjacent to the stormwater catch basins and drain manholes.

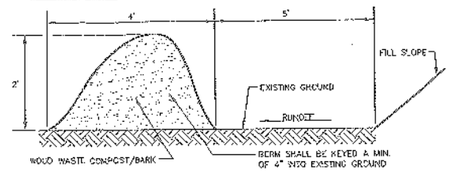
3. Action must be taken to ensure activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction.

4. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

5. Water collected as a result of trench dewatering must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site.

6. Identify and prevent contamination by non-stormwater discharges.

7. Additional requirements may be applied on a site-specific basis.

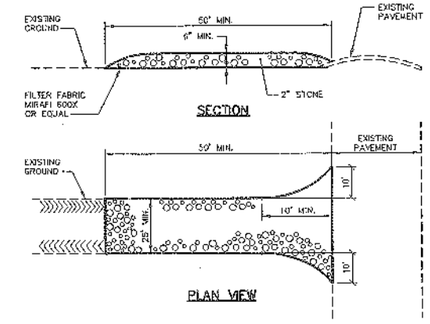


NOTES:

1. THE WOOD WASTE COMPOST/BARK MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:
   A. MOISTURE CONTENT — 30-50%
   B. pH — 5.0 — 8.0
   C. SCREEN SIZE — 100% LESS THAN 3", MAX. 70% LESS THAN 1".
   D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION.
   E. NO STONES LARGER THAN 2" IN DIAMETER.
   F. SILTS, CLAYS OR SUGAR SANDS ARE NOT ACCEPTABLE IN THE MIX.
2. THE COMPOST BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.
3. THE WOOD WASTE COMPOST/BARK FILTER BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.
4. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS COMPLETED OR 90% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN BELOW.
5. WOOD WASTE COMPOST/BARK FILTER BERM SHALL NOT BE USED IN WETLAND AREAS.

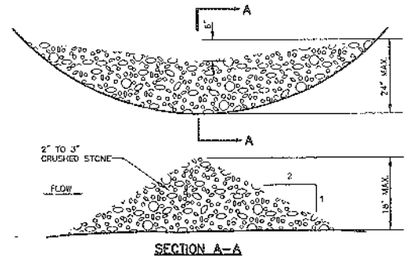
WOOD-WASTE COMPOST FILTER BERM

N.T.S.



STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

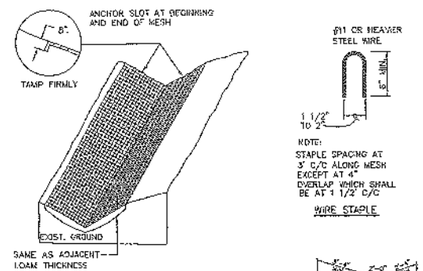


SPACING BETWEEN CHECK DAMS

So (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	10

STONE CHECK DAM

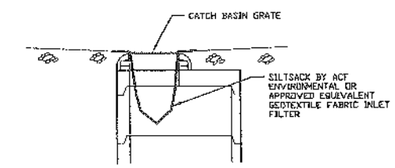
N.T.S.



STAPLES AT EDGES, AT QUARTER POINTS, AT 4" OVERLAP

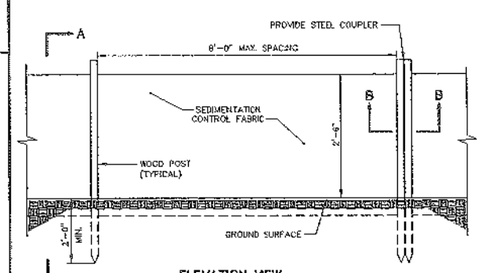
EROSION CONTROL MESH

N.T.S.

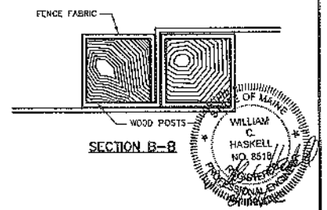


INLET PROTECTION

N.T.S.



SILT FENCE REINFORCEMENT	MAX. SPACING "A"
NONE	6'
WIRE REINFORCEMENT 14 GAUGE, 6" MESH	10'



SILTATION FENCE

N.T.S.

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-	-	-

SITE PLAN REVIEW APPLICATION	8/14/06	WCH
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Design: JG | Draft: GJL | Date: AUG 06
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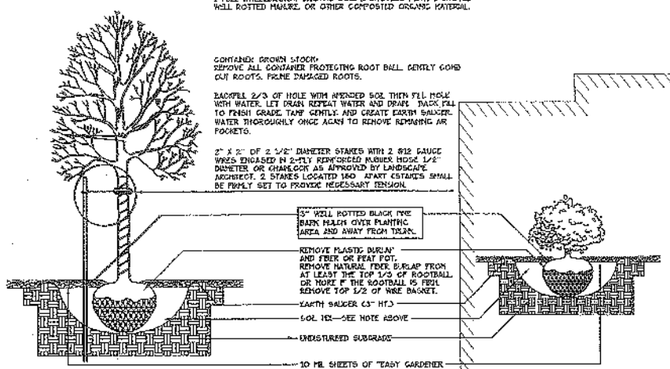
Drawing Name: Erosion and Sedimentation Control Details & Notes
Project: UNIFIRST SITE EXPANSION
Client: UNIFIRST CORPORATION
430 RIVERSIDE INDUSTRIAL PARKWAY, PORTLAND, ME 04103

Drawing No. C402



TREE AND SHRUB INSTALLATION DETAIL

NOTES

DIG HOLE AT LEAST 2 TIMES THE WIDTH OF ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED WITH TOP AT GROUND LEVEL OR SLIGHTLY HIGHER. CORRECT HOLE DEPTH AS NEEDED.

FOR DECIDUOUS AND NEEDLED EVERGREEN TREES AND SHRUBS 1 FULL WHEELBARROW EXISTING SOIL, 2 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL.

CONTAINER GROWN STOCK:
REMOVE ALL CONTAINER PROTECTING ROOT BALL. GENTLY COMB OUT ROOTS. PRUNE DAMAGED ROOTS.

BACKFILL 2/3 OF HOLE WITH AMENDED SOIL THEN FILL HOLE WITH WATER. LET DRAIN. REPEAT WATER AND DRAIN. BACK FILL TO FINISH GRADE. TAMP GENTLY AND CREATE EARTH SAUCER. WATER THOROUGHLY ONCE AGAIN TO REMOVE REMAINING AIR POCKETS.

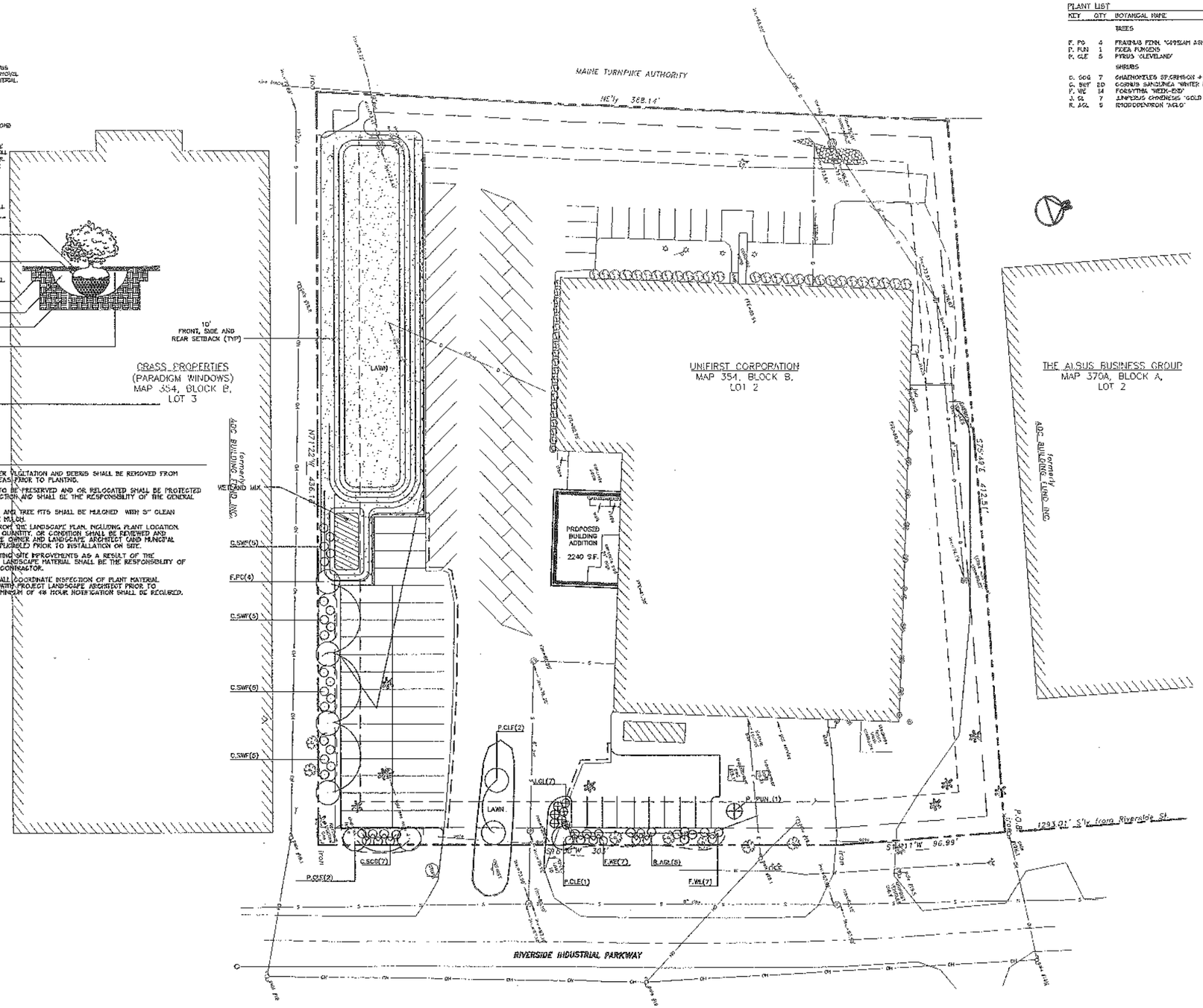
3" X 2" OF 2 1/4" DIAMETER STAKES WITH 2 #12 GAUGE WIRES ENCASED IN 2-PLY REINFORCED RUBBER HOSE 1/2" DIAMETER OR CHAINLOCK AS APPROVED BY LANDSCAPE ARCHITECT. 2 STAKES LOCATED 180° APART. STAKES SHALL BE FIRMLY SET TO PROVIDE NECESSARY TENSION.

GENERAL NOTES

1. CALL DIG-SAFE (1-888-344-7233) PRIOR TO BEGINNING WORK. THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES, PAVING, WALKS, CURBING, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO OWNER.
2. SITE CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.
3. DO NOT SCALE FROM DRAWINGS. ANY OMISSIONS IN DIMENSIONING SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECS. SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ANY ADDITIONAL WORK PROCEEDS.
4. PROVIDE SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.
5. SITE CONTRACTOR SHALL FURNISH AND PLACE 12 INCHES OF LOAM IN ALL SHRUB BEDS, 30 INCHES IN ALL TREE PITS, AND 6 INCHES UNDER ALL TURF AREAS. THE LANDSCAPE CONTRACTOR SHALL COORDINATE SUBGRADE PREPARATION WITH THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.
6. ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARDS FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN".
7. ALL PLANT MATERIAL SHALL BE FREE FROM INSECTS AND DISEASE.
8. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, MULCHING, STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM THE OWNER.
9. ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
10. EXISTING TREES TO BE PRESERVED AND OR RELOCATED SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
11. ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH.
12. ANY DEVIATION FROM THE LANDSCAPE PLAN, INCLUDING PLANT LOCATION, SELECTION, SIZE, QUANTITY, OR CONDITION SHALL BE REVIEWED AND APPROVED BY THE OWNER AND LANDSCAPE ARCHITECT (AND MUNICIPAL AUTHORITY, IF APPLICABLE) PRIOR TO INSTALLATION ON SITE.
13. DAMAGE TO EXISTING SITE IMPROVEMENTS AS A RESULT OF THE INSTALLATION OF LANDSCAPE MATERIAL SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
14. CONTRACTOR SHALL COORDINATE INSPECTION OF PLANT MATERIAL AND LOCATIONS WITH PROJECT LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. A MINIMUM OF 48 HOUR NOTIFICATION SHALL BE REQUIRED.

PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
		TREES		
F. PG	4	FRAXINUS PENN. 'PATMORE ASH'	PATMORE ASH	2-2 1/2" CAL
P. PUN	1	PICEA PUNGENS	COLORADO GREEN SPRUCE	6-8'
P. CLE	5	PYRUS 'CLEVELAND'	CLEVELAND PEAR	2-2 1/2" CAL
		SHRUBS		
D. GOG	7	CHAENOMELES SP.CRIMSON & GOLD	CRIMSON AND GOLD QUINCE	#2 CONT
C. SWF	20	CORNUS SANGUINEA 'WINTER FLAME'	WINTER FLAME DOGWOOD	#5 CONT
F. VIR	14	FORSYTHIA 'WEEK-END'	WEEK-END FORSYTHIA	#3 CONT
J. GL	7	JUNIPERUS CHINENSIS 'GOLD LACE'	GOLD LACE JUNIPER	#3 CONT.
R. AGL	5	RHODODENDRON 'AGLO'	AGLO RHODODENDRON	#3 CONT



LEGEND

EXISTING TREES

PROPOSED TREES and SHRUBS

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES AND SHALL NOT BE USED FOR CONSTRUCTION.

1 inch = 30 ft.

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Rev.	Date	Revision
1	7-18-06	ADJUST PLANTING TO REVISED BASE

Issued For	Date	By
SITE PLAN REVIEW APPLICATION	8/14/06	KOH

Design: JG | Draft: GJL | Date: AUG 06
Checked: WSM | Scale: 1"=30' | Job No.: 1540
File Name: 1540_LANDSCAPE.dwg

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Drawing Name: Landscape Plan
Project: UNIFIRST SITE EXPANSION
Client: UNIFIRST CORPORATION
430 RIVERSIDE INDUSTRIAL PARKWAY, PORTLAND, ME 04103

Drawing No. L101