424-A-41 2007-0058 166 Presumpsodt St. General Courier Dispatch Ctr. Corvaine Atlas

add to Spreadsheet

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

2007-0058

	Planning Copy	Application I. D. Number
Loweine Atlana		4/3/2007
Applicant		Application Date
127 Pleasant Avenue, Portland, ME 04103		General Courier Dispatch Center
Applicant's Mailing Address		Project Name/Description
Belanger Engineering	166 - 166 Presumpso	
Consultant/Agent	Address of Proposed S	ite
Applicant Ph: (207) 767-6004 Agent Fax:	424 A041001	
Applicant or Agent Daytime Telephone, Fax	Assessor's Reference:	Chart-Block-Lot
Proposed Development (check all that apply): ✓ New B Manufacturing Warehouse/Distribution Page 1		Use Residential Office Retail Other (specify)
Proposed Building square Feet or # of Units	Acreage of Site	Zoning
Check Review Required:		
✓ Site Plan (major/minor) Zoning Cond	itional - PB 🔲 Subdivision # of lots	
		—
Amendment to Plan - Board Review Zoning Cond		ic Preservation DEP Local Certification
Amendment to Plan - Staff Review	Zoning Variance Flood	Hazard Site Location
After the Fact - Major	Stormwater Traffic	Movement Uther
After the Fact - Minor	PAD Review 14-40	3 Streets Review
Fees Paid: Site Plan\$400.00 Subdivision	Engineer Review	Date 4/3/2007
Planning Approval Status:	Reviewer	
Approved M/See Attached		ed
Approval Date Approval Expira	ation Extension to	Additional Sheets
OK to Issue Building Permit		Attached
signatur	e date	
Performance Guarantee Required*	☐ Not Required	
* No building permit may be issued until a performance gu	uarantee has been submitted as indicated below	N
Performance Guarantee Accepted)	
	date amount	expiration date
Inspection Fee Paid		
	date amount	
☐ Building Permit Issue		
	date	
Performance Guarantee Reduced		
	date remaining bala	nce signature
☐ Temporary Certificate of Occupancy	Conditions (See Att	ached)
	date	expiration date
Final Inspection		
	date signature	
Certificate Of Occupancy		
	date	
Performance Guarantee Released		
	date signature	
Defect Guarantee Submitted	-	
	itted date amount	expiration date
Defect Guarantee Released		

date

signature

CITY OF PORTLAND, MAINE ZONING BOARD OF APPEALS

Peter Coyne
Philip Saucier-sec
Peter Thornton
Kate Knox
Jill E. Hunter
David Dore, chair
Gordon Smith

May 4, 2007

Lorraine Atlas General Courier 127 Pleasant Ave. Portland, ME 04103

RE:

166-172 Presumpscot St.

CBL:

424 A041

ZONE:

 Π_{λ}

Dear Ms Atlas:

As you know, at its May, 3, 2007, meeting, the board voted 5-0 and granted the Practical Difficulty Variance Appeal with condition a variance time period is extended from six months to one year.

2007-0058

Enclosed please find the billing for the Zoning Board Appeals legal ad and abutter's notification; also a copy of the board's decision.

Should you have any questions please feel free to contact me at 207-874-8701.

Sincerely,

Gayle Guertin
Office Assistant

CITY OF PORTLAND, MAINE

ZONING BOARD OF APPEALS

APPEAL AGENDA

The Board of Appeals will hold a public hearing on Thursday, May 3, 2007 at 6:30 p.m. on the second floor, Room 209, City Hall, 389 Congress Street, Portland, Maine to hear the following appeals:

To: City Clerk

From: Marge Schmuckal, Zoning Administrator

Date: May 4, 2007

RE: Action taken by the Zoning Board of Appeals on May 3, 2007.

The meeting was called to order at 6:34pm.

Roll call as follows:

Members Present: David Dore (chair), Jill Hunter, Peter Thornton, Gordon Smith and Peter Coyne (acting secretary).

Members Absent: Kate Knox and Philip Saucier.

1. New Business:

A. Practical Difficulty Variance Appeal:

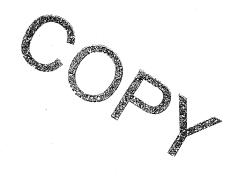
166-172 Presumpscot Street, Andrew Card, owner, Tax Map #424 Block A Lot #041 in the IL Industrial Zone. The appellant is seeking a Practical Difficulty Variance Appeal under section 14-234 (h) of the City of Portland Zoning Ordinance. Appellant is requesting a set back variance for driveway pavement located between the proposed development of a dispatch center and auto maintenance garage. Section 14-234 (h) requires a fifteen foot pavement set back from property lines instead of the approximate four foot set back shown. Representing the appeal is the applicant Lorraine Atlas and Chris Belanger (agent). Board voted 5-0 and granted the Practical Difficulty Variance Appeal with condition (variance time period is extended from six months to one year).

2. Other Business: None

3. Adjournment: 7:08pm

Enclosure:

Agenda of May 3, 2007
Copy of Board's Decision
CC: Joseph Gray, City Manager
Alex Jaegerman, Planning Department
Lee Urban, Planning & Development Director
T.J Martzial, Housing & Neighborhood Services



J.11 Hunter Peter Thornton Peter Coyne

CITY OF PORTLAND, MAINE ZONING BOARD OF APPEALS

"Practical Difficulty" Variance Appeal

DECISION

Date of public hearing: Mey 3, 2007

Name and address of applicant: Lorrzine Atles

127 Pleasat Ave Portlad, ME 04103

Location of property under appeal: 166-172 Presumps cut 5t

Portlad

For the Record:

Names and addresses of witnesses (proponents, opponents and others):

Chris Belenger Jim Drela (propured)

Beleiger Engineering 7 Robbins St 63 Saund Ave Dullad ME

G3 Second Ave Portland, ME August & ME

Exhibits admitted (e.g. renderings, reports, etc.):

Plut Plan

CODY

Findings of Fact and Conclusions of Law:

"Practical Difficulty" Variance standard pursuant to Portland City Code §14-473(c)(3):

1. The application is for a variance from dimensional standards of the zoning

ordinance (lot area, lot coverage, frontage, or setback requirements).

Satisfied ____ Not Satisfied ____ Reason: Delwary subsulc

5-0

2. Strict application of the provisions of the ordinance would create a practical difficulty, meaning it would both preclude a use of the property which is permitted in the zone in which it is located and also would result in significant economic injury to the applicant. "Significant economic injury" means the value of the property if the variance were denied would be substantially lower than its value if the variance were granted. To satisfy this standard, the applicant need not prove that denial of the variance would mean the practical loss of all beneficial use of the land.

Satisfied ___ Not Satisfied ___ Reason: W. + hout wehicle occes, velve is sign-furato reduced

3. The need for a variance is due to the unique circumstances of the property and not to the general conditions in the neighborhood.

Satisfied ____ Not Satisfied ____

Reason: Odd Shope of Lut

		cter of the	ranting of the neighborhoo fair market	d and will n	ot have an	unreasonal			
5-0		Satisfied		Not Satisfi	ed				
		Reason:	Similar	use	to	others	いてい	و ی	
5-0	prior	5. The prowner.	ractical diffic	culty is not t	he result o	f action take	en by the a	applicant or	а
.		Satisfied		Not Satisfi	ed	•			
			Prupurts of cr		C17	, re z t c)	d.ff.	ults 1	nut
		6. No oth	ner feasible a	lternative is	available	to the applic	cant, exce	ot a varianc	e.
5.0		Satisfied		Not Satisfi	ed				
		Reason:	Applic a	ts cp	prozeh	Seems	mw	+ fesil	ءار ر
	•	÷	•						
5-0	natura	7. The gr l environm	anting of a volent.	ariance will	not have a	an unreason	ably adve	se effect or	1 the
		Satisfied		Not Satisfi	ed				
		Reason:	Smell	Impec	. \ \ \ \ \	175U n	2v 2v	و مح	

50	8. The property is not located, in whole or in part, within a shoreland area, as defined in 38 M.R.S.A. § 435, nor within a shoreland zone or flood hazard zone.
	Satisfied Not Satisfied Reason: Confirmul by Zoning Pert
	Reason: Confirmed by Zoning Pert
	Conclusion: (check one)
S-0	Option 1: The Board finds that the standards described above (1 through 8) have been satisfied and therefore GRANTS the application. Option 2: The Board finds that while the standards described above (1 through 8) have been satisfied, certain additional conditions must be imposed to minimize adverse effects on other property in the neighborhood, and therefore GRANTS the application SUBJECT TO THE FOLLOWING CONDITIONS: + yellow the conditions with the application of the property in the neighborhood of the property in the neighborhood.
	Option 3: The Board finds that the standards described above (1 through 8) have NOT all been satisfied and therefore DENIES the application.
	Dated: $5/3/67$

O:\OFFICE\FORMS\variance appeal practical difficulty.doc



March 31, 2007

Mr. Robert Green Project Manager Maine DEP 312 Canco Road Portland, ME 04103

RE: Tier 1 Application

Proposed General Courier Dispatch Center

166 Presumpscott Street

Portland, ME

Dear Mr. Green:

Enclosed please find a site plan for the proposed development of a 3171 s.f. office and 1440 s.f. garage along with parking and infrastructure being completed for General Courier Dispatch Center located at 166 Presumpscott Street in Portland. A Tier 1 permit is being submitted for review and approval.

The proposed project develops 0.53 acres of new impervious area and 0.98 acres of developed area which does <u>not</u> trigger the stormwater law. The project proposes to fill approximately 8050 s.f. of freshwater wetlands therefore a Tier 1 permit will be required with this development.

Avoidance and Minimization Statement

As required the proposed project is required to minimize impacts as far as practical. The proposed Dispatch Center and Garage is being developed on the 2.18 acre parcel. We have located the proposed parking and buildings on the upland areas of the lot as far as practical. The proposed office is developed in the rear upland area of the property. The garage is located on the lower portion of the property adjacent to the access drive. The proposed buildings are required to meet 25' setbacks. The proposed driveway and garage is located on the lower portion of the lot. Approximately 5' of fill is needed to match the existing road grade. As a result we need to cross wetland fingers to access the rear area. It is necessary to provide parking for 30 vehicles and provide an office and garage on the lot. The remaining parking area is located across Eben Hill Drive in the upland area. We have located the developed areas on upland areas as much as practical. The dominant wetland area is being preserved on the sourtherly side of Eben Hill Drive. Fill Slopes are minimized at 2:1. Developed areas have been minimized to support the proposed development.

Mr. Robert Green Tier 1 Application 3/31/2007

Should you have questions, please call.

Very truly yours,

Chtphe 5. Belanger

Christopher S. Belanger, P.E. President





Department of Environmental Protection Bureau of Land & Water Quality 17 State House Station Augusta, Maine 04333 Telephone: 207-287-3901

FOR DEP USE	
ATS #	
L	
Total Fees:	
Date: Received	

APPLICATION FOR A NATURAL RESOURCES PROTECTION ACT PERMIT

Applicant:	General Courier Dispatch Center Lorraine Atlass						anger Engineering ristopher S. Belanger			
2. Applicant's Mailing Address:	P.O. BOX 1072 PORTLAND, ME 04104			5. Agent's Mailing Address:			63 Second Avenue Augusta, ME 04330			
3. Applicant's Daytime Phone #:	207-767-6004				s Daytime	207-622-1462				
'. Location of Activity: 166 Presumpscot Street (Nearest Road, Street, Rt.#)			Street	8. Town:	Portland		9. County:	Cumbe	rland	
10. Type of Resource: (Check all that apply) □ Great Pond □ Coastal Wetland □ Freshwater Wet □ Wetland Special □ Significant Wildl □ Fragile Mountain		1 Coastal Wetland			11. Name of Resource:		ime	•		
		d Special Sig ant Wildlife H	nificance	12. Amount of Impact: (Sq.Ft.)			Fill: 8050 s.f. Dredging/Veg Removal/Other:			
13. Type of Wetland: (Check all that apply)	☑ Foreste □ Scrub S □ Emerge □ Wet Me	ed Shrub ent		Tier 1	R WETLANDS/N		Tier 2		CONLY	
	□ Peatland □ Open Water □ Other		□ 0 - 4,999 sq. ft. □ 5,000 – 9,999 sq. ft. □ 10,000 – 14,999 sq. ft.			□ 15,000 – 19,999 sq. ft. □ 20,000 – 43,560 sq. ft. □ > 43,560 sq. ft.				
14. Brief Activity Description	Fill 8050 s	s.f. of wetlan	d to support Ge	neral Couri	er Dispatch C	enter, G	arage, and p	arking fo	or 30 cars	
15 Size of Let or Bor	ool:									
		_squ	are feet, or ☑ _	2.18	acres					
16. Title, Right or Inte	erest:	squ □ own Book#: 6739	□ lease		acres ourchase option p and Lot Nun		□ writte	n agreem	ent ot #: 41	
16. Title, Right or Inte 17. Deed Reference N 19. DEP Staff Previou	□ erest: Numbers:	□ own	□ lease Page: 136	☑ p 18. Ma 20. Par	ourchase option p and Lot Nun t of a larger	nbers:		the- □	ot #: 41 Yes	
 15. Size of Lot or Par 16. Title, Right or Inte 17. Deed Reference N 19. DEP Staff Previou Contacted: 21. Resubmission of Application? 	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	own Book#: 6739 Robert Gree If yes, pre- application	□ lease Page: 136 en vious	☑ p 18. Ma	ourchase option p and Lot Nun t of a larger t:	nbers: ☐ Yes ☑ No ous proj	Map #: 42	4 Lo	ot #: 41 Yes No	
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16. Title, Right or Intel 17. Deed Reference M 19. DEP Staff Previou Contacted: 21. Resubmission of Application? 22. Written Notice of Violation?	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	own Book#: 6739 Robert Gree If yes, pre application If yes, namenforceme	lease Page: 136 en vious # ne of DEP	☑ p 18. Ma 20. Par project	ourchase option p and Lot Nun t of a larger t: Previo	nbers: ☐ Yes ☑ No ous proj ager:	Map #: 42d After-Fact: ect 23. Previous	the-	Yes No	
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16. Title, Right or Intel 17. Deed Reference M 19. DEP Staff Previou Contacted: 21. Resubmission of Application? 22. Written Notice of Violation? 24. Detailed Direction to the Project Site 25. TIEF ☑ Fee ☑ Topographic Map ☑ Plan or Drawing (8	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	own Book#: 6739 Robert Gree If yes, pre- application If yes, namenforceme esumpscot St	lease Page: 136 Page:	20. Par project	purchase option p and Lot Nun t of a larger t: Previo	yes No ous proj ager: before A VIDUAL Alterna Descri Compo	After-Fact: ect 23. Previous Alteration Apartments. PERMITS atives Analys ption of Avoi ensation Plar	the- Wetlandon: is, if required dance/Mire (if require)	Yes No Yes No No No No No No No	
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<u>IMPORTANT</u>: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following:

DEP SIGNATORY REQUIREMENT

PRIVACY ACT STATEMENT

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require permits authorizing activities in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed or a permit be issued.

CORPS SIGNATORY REQUIREMENT

USC Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry shall be fines not more than \$10,000 or imprisoned not more than five years or both. I authorize the Corps to enter the property that is subject to this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein.

DEP SIGNATORY REQUIREMENT

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Chtopher S. Belanger

SIGNATURE OF AGENT/APPLICANT

Date: March 31, 2007

Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in the application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

NOTE: Any changes in activity plans must be submitted to the DEP and the Corps in writing and must be approved by both agencies prior to implementation. Failure to do so may result in enforcement action and/or the removal of the unapproved changes to the activity.

1-800-698-5035 207-767-6004 207-767-7159 FAX P.O. Box 1072 Portland, ME 04104 generalc@maine.rr.com www.generalcourier.com

Portland's Only Total Courier Service

Feb. 2, 2007



to whom it may Concern,

This letter is to inform you that

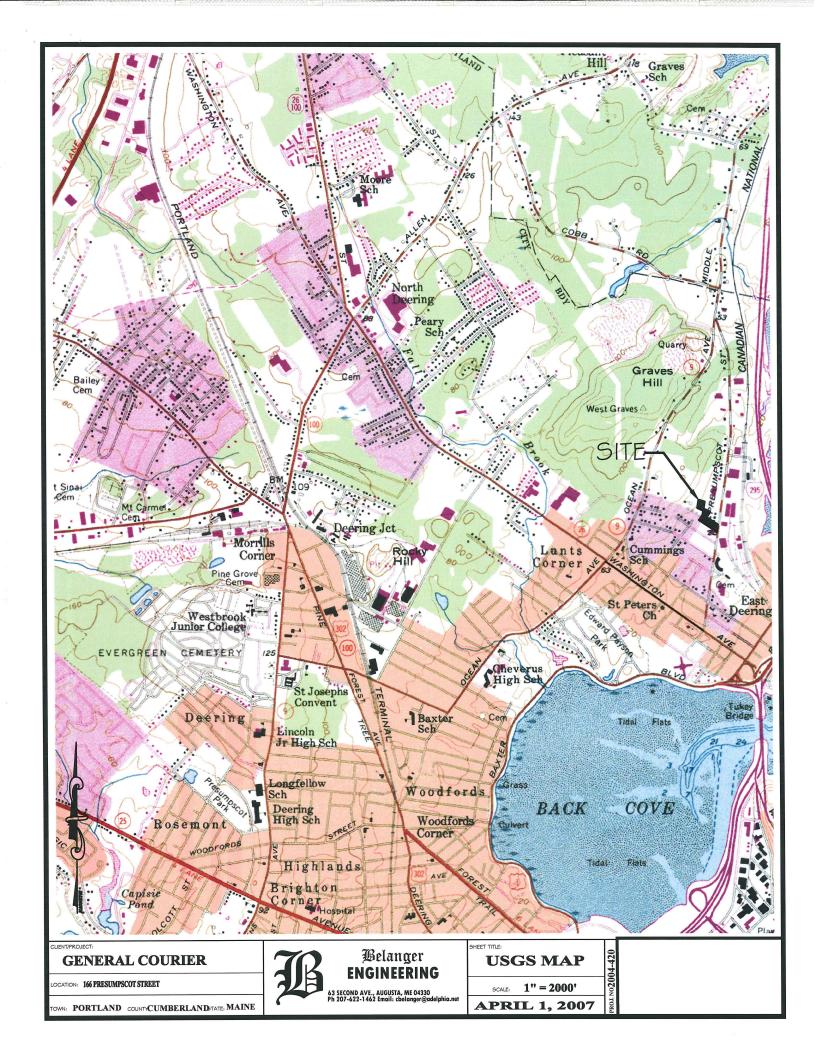
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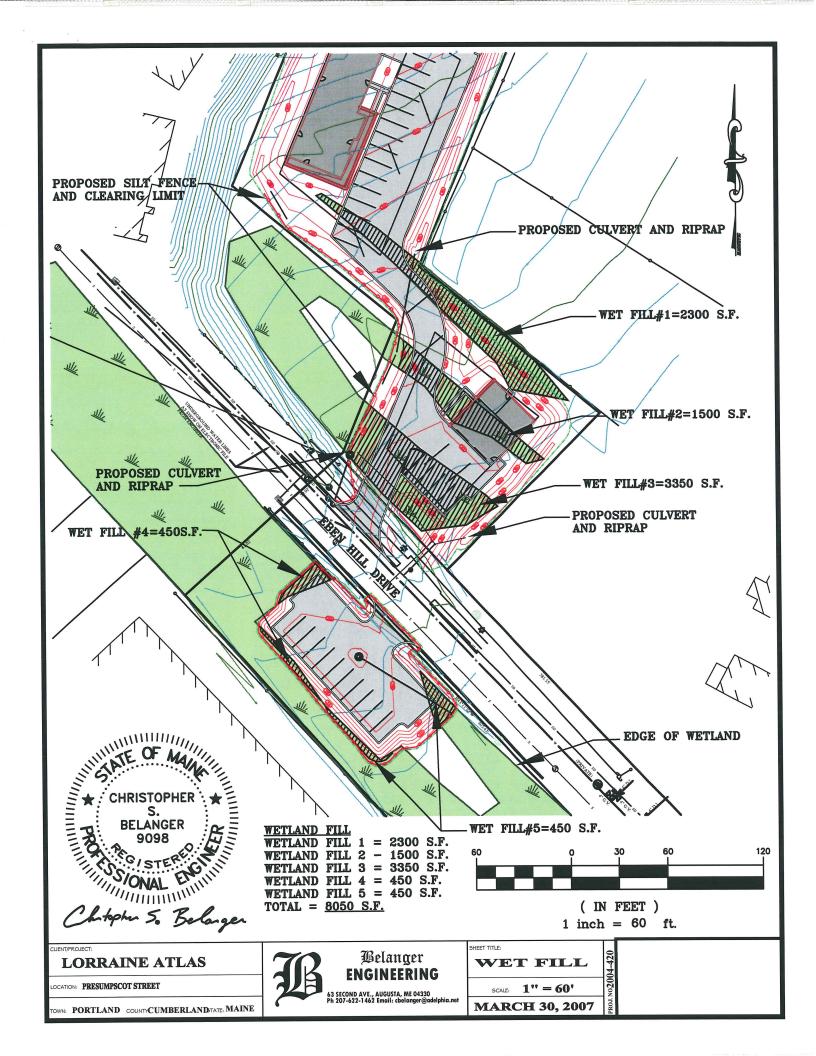
Me in the DEP and City Hall approval process.

Bor the Project at 166 Presumpscot st.

Thank you

Jai atlass











CONTRACT FOR THE SALE OF REAL ESTATE

Date: 1/19/07

One Canal Plaza, Portland, ME 04101 (207) 772-1333

RECEIVED OF: Lorraine Atlass whose mailing address is 127 Pleasant Avenue, Portland, ME 04103, hereinafter called the Purchaser(s), the sum of Ten Thousand Dollars (\$10,000) as earnest money deposit and in part payment of the purchase price of the following described real estate, situated in the municipality of Portland, County of Cumberland, State of Maine and located at 166 Presumpscot Street, Portland, ME being all the property owned by the Seller(s) at the above address, and described at said County's Registry of Deeds Book 6739, Page 136 and further described as: a 2.18+/- acre parcel of land further identified by the City of Portland Assessor's office as Map 424, Block A, Lot41 upon the terms and conditions indicated below:

- 1. PERSONAL PROPERTY: The following items of personal property are included in this sale (if applicable): N/A
- 2. PURCHASE PRICE: The TOTAL purchase price being <u>One Hundred Ninety Thousand</u> Dollars (\$190,000) to be paid as follows: <u>earnest money deposit herewith and the balance to be paid in cash or certified funds at closing</u>.
- 3. EARNEST MONEY/ACCEPTANCE: <u>CBRE/The Boulos Company</u> shall hold said earnest money in a non-interest bearing account and act as Escrow Agent until closing; this offer shall be valid until <u>January 23, 2007</u> at <u>5:00</u> PM; and, in the event of the Seller's non-acceptance, this earnest money shall be returned promptly to the Purchaser(s).
- 4. TITLE: That a deed, conveying good and merchantable title in accordance with standards adopted by the Maine Bar Association shall be delivered to the Purchaser(s) and this transaction shall be closed and the Purchaser(s) shall pay the balance due and execute all necessary papers on or before April 24, 2007. If Seller(s) is unable to convey in accordance with the provisions of this paragraph, then the Seller(s) shall have a reasonable time period, not to exceed thirty (30) days, from the time the Seller(s) receives written notice of the defect, unless otherwise agreed to by both parties, to remedy the title, after which time, if such defect is not corrected so that there is merchantable title, the Purchaser(s) may, within fifteen (15) days thereafter, at Purchaser's option, withdraw said earnest money and neither party shall have any further obligation hereunder. If the Purchaser(s) does not withdraw the earnest money and declare the contract void within the period set forth above, the Purchaser(s) shall have waived the right to object to title. The Seller(s) hereby agrees to make a good-faith effort to cure any title defect during such period.
- 5. DEED: That the property shall be conveyed by a <u>warranty deed</u>, and shall be free and clear of all encumbrances except building and zoning restrictions of record, restrictive covenants and conditions of record and usual public utilities servicing the property and shall be subject to applicable land use and building laws and regulations.
- 6. POSSESSION /OCCUPANCY: Possession/occupancy of premises shall be given to Purchaser(s) immediately at closing, subject to any leases, unless otherwise agreed by both parties in writing.
- 7. LEASES/TENANT SECURITY DEPOSITS: Seller(s) agrees to transfer at closing to Purchaser(s) all Seller(s)' rights under the current leases to the property and all security deposits held by Seller(s) pursuant to said leases.
- 8. RISK OF LOSS: Until the transfer of title, the risk of loss or damage to said premises by fire or otherwise, is assumed by the Seller(s) unless otherwise agreed in writing. Said premises shall then be in substantially the same condition as at present, excepting reasonable use and wear.
- 9. PRORATIONS: The following items shall be prorated as of the date of closing:
 - a. Real Estate Taxes based on the municipality's tax year. Seller is responsible for any unpaid taxes for prior years.
 - b. Fuel
 - c. <u>N/A</u>
 - d. Rents
 - e. Metered utilities, such as water and sewer, shall be paid by Seller(s) through the date of closing.
 - f. Purchaser(s) and Seller(s) shall each pay its transfer tax as required by the State of Maine.
- 10. INSPECTIONS: The Purchaser(s) is encouraged to seek information from professionals regarding any specific issue of concern. Purchaser(s) acknowledges receipt of disclosure form attached hereto. The Agent makes no warranties regarding the condition, permitted use or value of the Seller's real or personal property. This Contract is subject to the following inspections, with the results being satisfactory to the Purchaser(s):

Seen and agreed to:

Seller(s)

Purchaser(s)

Page 1 of 3 Rev. 3/2001

TYPE OF INSPECTION	YES	NO	RESULTS	TYPE OF INSPECTION	YES	NO	RESULTS
			REPORTED				REPORTED
a. General Building		\boxtimes	Within days	g. Lead Paint		\boxtimes	Within days
b. Sewage Disposal		\boxtimes	Within days	h. Pests		\boxtimes	Within days
c. Water Quality		\boxtimes	Within days	i. ADA		\bowtie	Within days
d. Radon Air Quality		\bowtie	Within days	j. Wetlands	\boxtimes		Within 30 days
 e. Radon Water Quality 		\boxtimes	Within days	 k. Environmental Scan 	\boxtimes		Within 30 days
f. Asbestos Air Quality		\boxtimes	Within days	l. Other: N/A			Within days

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

- 11.FINANCING: This contract is subject to an approved <u>1st</u> mortgage of <u>80</u>% of the purchase price, at an interest rate not to exceed <u>8.5</u>% per annum and amortized over a period of not less than <u>15</u> years.
 - a. If Seller, or Sellers agent, is not notified to the contrary in writing within <u>thirty</u> days of the effective date of this contract, then this financing condition shall be deemed to have been waived by Purchaser(s).
 - b. The Purchaser(s) is under a good-faith obligation to seek and accept financing on the above-described terms. The Purchaser(s) acknowledges that a breach of this good-faith obligation to seek and accept financing on the above-described terms will be a breach of this Contract.
- 12. AGENCY DISCLOSURE: The Purchaser(s) and Seller(s) acknowledge that they have been informed that the Selling Licensee is acting as a <u>Seller's</u> agent in this transaction and is representing <u>the Seller(s)</u> and that the Listing Licensee is acting as a <u>Seller's</u> agent in this transaction and is representing <u>the Seller(s)</u>.
- 13.DEFAULT: If the Purchaser(s) fails to consummate this transaction, Seller(s) shall have the option of either retaining the earnest money as full and complete liquidated damages or employing all available legal and equitable remedies. Should Seller(s) elect to retain the earnest money, this Contract shall terminate and neither party shall be under any further obligation hereunder. In the event of default by either party, the Escrow Agent will not return the earnest money to Purchaser(s) or turn over the deposit to the Seller(s) without written releases from both parties.
- 14.MEDIATION: Any dispute or claim arising out of or relating to this Contract or the premises addressed in this Contract shall be submitted to mediation in accordance with the Maine Residential Real Estate Mediation Rules of the American Arbitration Association. This clause shall survive the closing of this transaction.
- 15.PRIOR STATEMENTS: Any verbal presentations, statements and agreements are not valid unless contained herein. This Contract completely expresses the obligations of the parties. This is a Maine contract and shall be construed according to the laws of Maine.
- 16.HEIRS/ASSIGNS: This Contract is assignable ☐ Yes ☒ No. This Contract shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns (if assignment is allowed by the terms of this Contract), of the respective parties.
- 17. COUNTERPARTS: This Contract may be signed on any number of identical counterparts, including telefacsimilie copies, with the same binding effect as if the signatures were on one instrument. Original or telefacsimilied signatures are binding.
- 18.BINDING CONTRACT: This Contract is a binding contract when signed by both Seller(s) and Purchaser(s) and when that fact has been communicated to all parties or to their agents. The Effective Date of the Contract is noted below. Time is of the essence of this Contract.
- 19.REVIEW OF LEASES AND INCOME AND EXPENSE INFORMATION: The Seller(s) shall provide the Purchaser(s) with copies of all leases and income & expense information regarding the subject property within ______ (______) days of the effective date of this contract. Purchaser(s) shall have ______ (_______) days from such delivery to review leases and income & expense information regarding the property. If the result of the review is unsatisfactory to the Purchaser(s), Purchaser(s) may declare the Contract null and void by notifying the Seller(s) in writing within the specified number of days set forth above, and any earnest money shall be returned to the Purchaser(s). If the Purchaser(s) does not notify the Seller(s) that the review is unsatisfactory within the time period set forth above, this contingency is waived by the Purchaser(s).
- 20. Seller(s) and Purchaser(s) acknowledge receipt of the Maine Real Estate Commission Disclosure of Agency Relationship Form (Form #2), if the property is, or has a component of, one to four residential dwelling units.

21. ADDENDA: This Contract has addenda containing additional terms and conditions: YES ⊠ NO □

Seen and agreed to:

Seller(s)

Purchaser(s)

Page 2 of 3 Rev. 3/2001

A COPY OF THIS CONTRACT IS TO BE RECEIVED BY ALL PARTIES AND, BY SIGNATURE, RECEIPT OF A COPY IS HEREBY ACKNOWLEDGED. IF NOT FULLY UNDERSTOOD CONSULT AN ATTORNEY.

Seller(s) acknowledges that the laws of the State of Maine provide that every buyer of real property located in Maine must withhold a withholding tax equal to 2 1/2% of the consideration unless the Seller(s) furnishes to the Buyer(s) a certificate by the Seller(s) stating, under penalty of perjury, that Seller(s) is/are a resident of Maine or the transfer is otherwise exempt from withholding.

ai atlan	1-20.07
Purchaser	Date
Lorraine Atlass	004-62-0731
Name/Title	Soc. Sec. # or Tax I.D. #
Purchaser	Date
Name/Title	Soc. Sec. # or Tax I.D. #
forth above and agrees to pay the Broker the commission for ser Listing Agreement the sum of: per listing agreement closing of this transaction. Seller agrees that Broker may apply toward commissions due and payable under this Agreement. If the distributed between the Broker and the Seller(s), provided, howe commission specified. In the event the Seller(s) defaults on its contitled to costs of collection, including reasonable attorneys' fee Signed this 23 day of 2000 CBRE/T	The obligation to pay said commission or sum shall survive the any deposit(s) received in connection with the sale of the Property the earnest money is forfeited by Purchaser(s), it shall be evenly ever, that Broker's portion shall not exceed the full amount of the obligations hereunder, CB Richard Ellis/The Boulos Company shall bess. 7. Effective date of Contract: 23 January, 2007. The Boulos Company (Company).
The Selling Licensee is <u>Andrew Nelson</u> of <u>CBRE/The Boulos</u> (
Seller (a. Coul (POA) Andrew T. Card Name/Title Seller Clifford A. Card Name/Title	Date 06-18-7353 Soc. Sec. # or Tax I.D. # Date 05-24-4440 Soc. Sec. # or Tax I.D. #
Offer reviewed and refused on	_,, Seller
Page 3 of 3 Rev. 3/2001	Seen and agreed to: Seller(s) Purchaser(s)

ADDENDUM A

TO CONTRACT FOR SALE OF REAL ESTATE LOCATED AT 166 PRESUMPSCOT STREET PORTLAND, MAINE BETWEEN

SELLERS: ANDREW T. CARD & CLIFFORD A. CARD PURCHASER: LORRAINE ATLASS DATED: JANUARY 19, 2007

22. This contract is subject to purchaser receiving City of Portland and Maine Department of Environmental Protection approvals within ninety (90) days of the effective date of the contract.

SEEN AND AGREED TO:

Lorraine Atlass, Purchaser

Andrew T. Card, Seller Garderan Date

Clifford D. Card, Seller

Date

Date

BODE 6739PAGE 136

QUITCLAIM DEED WITHOUT COVENANT (RELEASE DEED) Maine Statutory Short Form 1341()

Know all Men by these Presents,

Chai We, Andrew T. Card and Clifford A. Card

, commy dixx

XSXXXXXXX

asing annunrated for consideration paid, release, to the said Andrew T. Card, whose mailing address is Pond Street, Billerica, MA 01821, and Clifford A. Gard

& kx

σ£χ

*XXXXXXXXXXXXXX

YOURSE.

whose mailing address is Minuteman Lane, Sudbury, MA 01776, as Tenants in Common

the land in Portland

, County of Cumberland

State of Maine, described as follows:

A certain lot or parcel of land in Cumberland County, State of Maine, with any buildings thereon, located in Portland, County of Cumberland and State of Maine, having the address of 25 True Street, Portland, Maine and being a part of the premises conveyed to Linwood R. Card and Grantees herein by warranty deed of Elizabeth M. Card and Clifford R. Card dated December 28, 1976, and recorded in the Cumberland County Registry of Deeds at Book 3957, Page 340.

Reference is further made to the deed of Linwood R. Gard to the Grantors herein dated August 2, 1981 and recorded in said Registry of Deeds in book 4844, Page 338.

And

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Witness

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(など day of the month of

April . 1985 .

Signed, Sented und Beitvered

in urespace of

Nadar 193

Massachuseers

State of Moine, County of

Middlesex

m. 12 April

19 85

Then personally appeared the above named

Clifford A. Card

acknowledged the foregoing instrument to be

has free act and deed.

EKI

Hey connectasion oppus

Allorneral law

Before me

Notary Public >

Xlean Herkadodus Person

W.

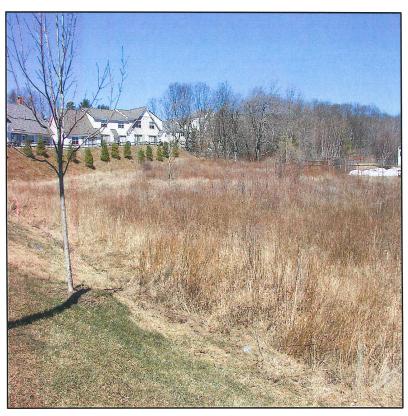
Print Name THOMAS G. COURTNEY

4-SEAL

IPIT 24 MH II: 36



SITE PHOTOS LOOKING AT WET IMPACT AREA # 1-3



SITE PHOTOS LOOKING AT WET IMPACT AREA # 1-3

GENERAL COURIER

OCATION: 166 PRESUMPSCOT STREET

TOWN: PORTLAND COUNTYCUMBERLAND TATE: MAINE



SITE PHOTOS

SCALE: NONE

APRIL 1, 2007



SITE PHOTOS LOOKING AT WET IMPACT AREA # 4-5



SITE PHOTOS LOOKING AT WET IMPACT AREA # 4-5

GENERAL COURIER

LOCATION: 166 PRESUMPSCOT STREET

TOWN: PORTLAND COUNTYCUMBERLAND TATE: MAINE



SITE	PHOTOS

SCALE: NONE

APRIL 1, 2007



EXISTING BUILDING ABUTTING SITE



FED EX BUILDING ABUTTING SITE

GENERAL COURIER

LOCATION: 166 PRESUMPSCOT STREET

TOWN: PORTLAND COUNTYCUMBERLAND TATE: MAINE



Belanger ENGINEERING

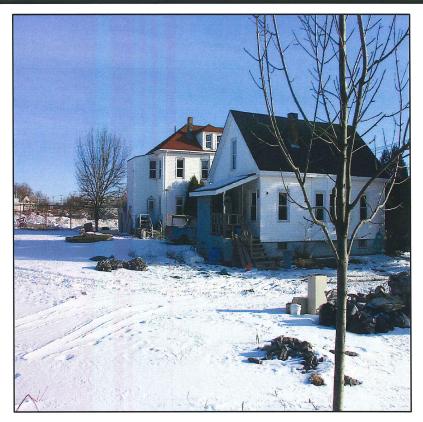
63 SECOND AVE., AUGUSTA, ME 04330 Ph 207-622-1462 Email: cbelanger@adelphia.net SHEET TITLE:

SITE PHOTOS

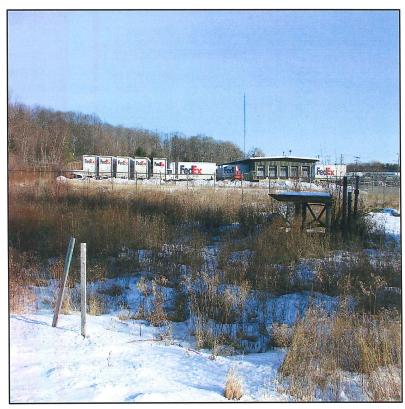
SCALE: NONE

APRIL 1, 2007

PROJ. NO.2004-420



EXISTING HOUSES BELOW SITE



FED EX BUILDING ABUTTING SITE

GENERAL COURIER

LOCATION: 166 PRESUMPSCOT STREET

TOWN: PORTLAND COUNTYCUMBERLAND TATE: MAINE



SUCCI IIITE:	
SITE	PHOTOS

SCALE: NONE

APRIL 1, 2007



March 31, 2007

Mr. Michael Johnson Maine Historic Preservation Commission 65 State Street Augusta, ME 04333

RE: General Courier

Tax Map 424 Lot 41

166 Preseumpscot Street, Portland

Dear Mr. Johnson;

Enclosed please find a proposed site plan for the proposed General Courier Dispatch Center on Eben Hill Drive in Portland. The plans are being submitted to Maine DEP for a Tier 1 permit. As required we are submitting a plan and photos of the area. Please verify that no historic or archeological areas exist on the property.

Should you have questions, please call.

Shaphu S. Belager

Very Truly Yours;

Christopher S. Belanger, P.E.

Chtphu S. Belager

Project Consultant

enclosure



PORTLAND MAIN

Strengthening a Remarkable City, Building a Community for Life * www.portlandmaine.gov

Planning and Development Department Lee D. Urban, Director

Planning DivisionAlexander Jaegerman, Director

April 19, 2007

Belanger Engineering Chris Belanger 63 Second Avenue Augusta, ME 04330

RE: Site Plan Review: 166 Presumpscot Street

3171 sq. ft. Building and 1440 sq. ft. Garage Application # 2007-0058; CBL 124 A041001

Dear Mr. Belanger,

I refer to the Site Plan Review Application for a proposed 3,171 sq. ft. building and 1,440 sq. ft. garage that will be located at 166 Presumpscot Street, as submitted on April 3, 2007.

The various departments have not completed review of the proposal. As I get the comments from the different departments, I will forward them to you. The following are items that need to be submitted to have the application complete:

- 1. Capacity letters for sewer and water
- 2. Financial and technical capability letter
- 3. There are no sidewalks or curbs shown on the site plan. If none are being proposed then applicant will need to submit a waiver.
- 4. Provide wetlands assessment/analysis.
- 5. For commercial buildings, any site with driveway access to a street shall have a 24 foot wide driveway for a two-way ingress and egress (Technical and Design Standards and Guidelines, Section III (2)(A)(b)).
- 6. Parking spaces shall be 9 feet by 19 feet per Technical and Design Standards and Guidelines, Section III (3)(A).
- 7. A lighting/photometric plan and catalogue cuts will need to be provided for the proposed lighting.

8. Fire Department Comment:

• The Fire Department is unable to review the site plan; they need the Fire Department checklist items to be addressed. Please contact the Fire Department at 874-8405.

9. Zoning Comments:

- Need more clarification as to the status of the Eben Hill Street or Right of Way. Does it split the lot, or is it just a right of way thru this lot?
- Is there an apparent exit stair structure at the rear of the garage; if it is a structure, it is setting within a required setback.
- Zoning would like confirmation of a final total impervious figure that includes what appears to be Eben Hill right of way. The plans show only the new impervious figure.

10. Department of Public Works comments:

- Details and sizing information have not been provided for the riprap aprons.
- The City of Portland requires that all catch basin drain pipes be at least 10 inches in diameter. The drain pipe for the catch basin in the parking lot across the street from the buildings is shown to be only 6 inches in diameter; a cover with an orifice will be required.
- There are significant issues with the stormwater management plan. They include, but are not limited to, creating detention ponds on property not owned by the applicant, no modeling of the stormwater collection system within Eben Hill Road which the project proposes to tie into demonstrating capacity, ditching schemes where the slope of the ditches is so flat that water will not flow as designed, and no treatment of the stormwater is proposed as required by the creation of 25 parking spaces. A meeting to discuss these issues would be extremely helpful.
- The City of Portland standard details for catch basins call for a minimum of 3 courses of brick to adjust catch basins to grade. The typical catch basin detail shows a minimum of 1 course and a maximum of 3 layers of brick.
- Letters need to be provided showing that the water and sewer systems have the capacity to support the proposed buildings. In addition, a letter from the Fire Chief needs to be submitted stating that the fire protection system meets the required specifications.
- Details have not been provided for the dumpster enclosure, chain link fence, or stockade fence.
- No detail is provided for the handicap ramps, and the ramps are not shown on the preliminary building plans.
- No curbing or sidewalk details are shown. Based on the survey and the tip down detail, it appears that sidewalk is already in place along the northeastern side of Eben Hill Drive; however this is not labeled on the site plan. If no new sidewalk is to be installed, the cross section and curbing information is still necessary for the construction of the tip down ramp. Curbing may also be necessary around the perimeter of the parking areas.
- The sewer connection as proposed is not acceptable. The proposed connection ties two services into an existing lateral with an unknown invert elevation. Then multiple bends and long runs of pipe are being proposed with no manholes or cleanouts. The applicant should core into the existing manhole directly in front of the proposed driveway with a new sewer line. This line should then extend into the property and terminate at a new manhole. The sewer services for the garage and building can then tie into the new manhole.

• The pipe trench detail should show 12 inches, not 6 inches, of crushed stone over the pipe.

Please submit the information at your earliest convenience. If you have any questions please do not hesitate to call me on (207) 756-8083 or at shukriaw@portlandmaine.gov.

Sincerely,

Shukria Wiar Planner

cc Barbara Barhydt, Development Review Manager

To:

FILE

From:

Marge Schmuckal

Dept: Zoning

Subject: Application ID: 2007-0058

Date: 4/5/2007

This applicant is not meeting the 15' pavement setback requirement of 14-234(h). I spoke with Lorraine Atlass on 4/3/07 and sent her a practical difficulty application package on 4/5/07.

I would like more clarification as to the status of the Eben Hill Street or Right of Way. Does it split the lot, or is it just a right of way thru this lot?

I want to confirm the apparent exit stair structure that is at the rear of the garage. If it is a structure, it is setting within a required setback. I would also like confirmation of a final total impervious figure that includes what appears to be Eben Hill right of way. The plans show only the new impervious figure.

Marge Schmuckal Zoning Administrator

To:

FILE

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Dept: Zoning

Subject: Application ID: 2007-0058

Date: 4/5/2007

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Marge Schmuckal Zoning Administrator

To:

FILE

From:

Cptn Greg Cass

Dept: Fire

Subject: Application ID: 2007-0058

Date:

Unable to review. Need F.D. Checklist.



TO: Barbara Barhydt

FROM: Dan Goyette, PE, and Lauren Swett, EIT

DATE: April 10, 2007

RE: General Courier Dispatch Center

Woodard & Curran has reviewed the Minor Site Plan submission for the General Courier Dispatch Center. The proposed project includes the construction of a dispatch center, garage, and associated driveways and parking located on Eben Hill Drive. An additional parking lot will be constructed across the street from the proposed buildings.

Documents Reviewed

- Minor Site Plan Application for General Courier Dispatch Center, Prepared by Belanger Engineering for Lorraine Atlass, dated April 3, 2007.
- Engineering Plan Sheets 1-4 for General Courier, Prepared by Belanger Engineering, dated April 1, 2007.

Comments

- Details and sizing information have not been provided for the riprap aprons.
- The City of Portland requires that all catch basin drain pipes be at least 10 inches in diameter. The
 drain pipe for the catch basin in the parking lot across the street from the buildings is shown to be
 only 6 inches in diameter; a cover with an orifice will be required.
- There are significant issues with the stormwater management plan. They include, but are not limited to, creating detention ponds on property not owned by the applicant, no modeling of the stormwater collection system within Eben Hill Road which the project proposes to tie into demonstrating capacity, ditching schemes where the slope of the ditches is so flat that water will not flow as designed, and no treatment of the stormwater is proposed as required by the creation of 25 parking spaces. A meeting to discuss these issues would be extremely helpful.
- The City of Portland standard details for catch basins call for a minimum of 3 courses of brick to adjust catch basins to grade. The typical catch basin detail shows a minimum of 1 course and a maximum of 3 layers of brick.
- Letters need to be provided showing that the water and sewer systems have the capacity to support the proposed buildings. In addition, a letter from the Fire Chief needs to be submitted stating that the fire protection system meets the required specifications.
- Details have not been provided for the dumpster enclosure, chain link fence, or stockade fence.
- No detail is provided for the handicap ramps, and the ramps are not shown on the preliminary building plans.
- No curbing or sidewalk details are shown. Based on the survey and the tip down detail, it appears
 that sidewalk is already in place along the northeastern side of Eben Hill Drive; however this is not
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- The sewer connection as proposed is not acceptable. The proposed connection ties two services into an existing lateral with an unknown invert elevation. Then multiple bends and long runs of pipe are being proposed with no manholes or cleanouts. The applicant should core into the existing



manhole directly in front of the proposed driveway with a new sewer line. This line should then extend into the property and terminate at a new manhole. The sewer services for the garage and building can then tie into the new manhole.

- The pipe trench detail should show 12 inches, not 6 inches, of crushed stone over the pipe.
- A photometric plan has not been provided for the proposed lighting.

Please contact our office if you have any questions.

DRG/LJS 203943



April 3, 2007 Ms. Barbara Barhydt, Development Review Services Manager Department of Planning and Development Portland City Hall 389 Congress Street Porland, ME 04101

RE: Site Plan Application – Minor Review
Proposed General Courier Dispatch Center
For Lorraine Atlass
166 Presumpscott Street, Tax Map 424 Lot 41

Dear Ms. Barhydt:

Enclosed please find a site plan, application form, check for \$600, and supporting information for the proposed development of a 3171 s.f. footprint (4683 s.f. gross) Dispatch Center and 1440 s.f. maintenance garage to be located at 166 Presumpscott Street in Portland. Lorraine Atlass intends to develop the property and currently has a purchase option on the property. A purchase and sale agreement and letter of authorization is enclosed.

General Courier has owned and operated their business in the Portland area for many years and needs to expand its facilities. They propose to purchase the 2.18 acre parcel to support the new development. The property is shown on City Tax Map 424 Lot 41. The dispatch center (2 floors) and garage develops 6123 s.f. of floor area. The floor area ratio is 6.4% (6123/94961=0.064). Ground coverage is 4.8% (4611/94961).

Parking and vehicle circulation is provided for 27 vehicles. Additional space is available for several other vehicles if need permit adjacent to the loading area. A parking ratio of 4.4 spaces per 1000 s.f. is provided. The developer believes this is sufficient to support the development.

The project is located off of Eben Hill Drive which is a private road supporting Townhomes at Ocean East Condominiums located above the site. The private way passes through the property. Rights of access, utility connections are granted in a Warranty Deed Book 19620 Pages 73-79 which is enclosed for review.

The project will connect to City Water and Sewer lines located within Eben Hill Drive. Service laterals existing for sewer and storm drain connections. The existing water service stub could not be field verified, therefore a new service tap will be proposed to service the buildings. The Portland Water District has not record of a service line. The service connections will be coordinated with the Portland Water District as required. Should the existing water service stubs exist, they will be utilized.

Ms. Barbara Barhydt Minor Site Plan Review 4/3/2007

Underground Power, Phone and Cable extensions are being proposed. It appears that a new pole may be needed near the proposed entrance. Power and other utilities will extend underground from this new pole (or appropriate pole as designated by the utility) into the site. A transformer pad is shown. Pad and utility pole locations will be coordinated with the respective utility and will be extended based on their requirements.

The proposed use will be General Courier Dispatch Center and maintenance garage. General Courier currently has approximately 50 employees. These employees work independently and do not commute to the dispatch center. Periodically meetings will occur but is not part of the day to day operations. Five employees will be based within the Dispatch Center and One mechanic will be located at the Garage. As such, significant traffic is not expected to be generated by this project. Operating hours will be 7:30 A.M. to 5:00 P.M.

Site Lighting will be (175 watt to 250 watt) metal halide cutoff fixtures to prevent glare onto abutting properties. (150-250 watt) walpaks are expected adjacent to the garage door areas. 100 watt entry lights are proposed at the entrance locations. All lights will be cut off fixtures to prevent impacts onto neighboring properties. The pole lights will match the existing lighting located along Eben Hill Drive. A picture of similar lighting proposed is shown below.





Ms. Barbara Barhydt Minor Site Plan Review 4/3/2007

During the preliminary meeting with the City, it was suggested that the proposed building be located adjacent to the Condominium project so the building could provide buffering of the front entrance and parking area. As a result we have re-configured the layout to maximize the buffering of the condominium areas as well as provide parking and circulation in front of the facility. The garage has been located as far away from the condo areas as far as practical. The garage doors have been oriented toward Eben Hill Drive to shield it from the Condo area.

Landscaping is provided to buffer and break up the existing elevation views. A stockade fence will be located around the proposed dumpster pad and garage area. Landscape Evergreens and Arbovitae will be planted to provide additional buffering. Green Chain Link fencing will be located around the perimeter of the project boundaries. Currently landscaping existing along the back side of the Condo areas which will provide effective buffering when it matures. The condominium areas are elevated which makes a visual barrier difficult but we believe the selected features and site modifications meets the intent.

Preliminary architectural elevations and floor plans for the dispatch center and garage are enclosed for review.

The proposed project develops 0.53 acres of new impervious area and 0.98 acres of developed area which does <u>not</u> trigger the stormwater law. The project proposes to fill approximately 8050 s.f. of freshwater wetlands therefore a Tier 1 permit from DEP will be required with this development. A Tier 1 permit application has been submitted and a copy of the submittal has been provided to the City.

Stormwater Management

Currently the site is undeveloped weeds and brush. The project is located below the Ocean East Condominium project. Some of the projects developed areas drains overland to an existing wetland located downstream of the development. This wetland drains directly onto and through the property via wetland fingers. These fingers discharge onto the lower abutting land and drains toward and existing 8" culvert within Presumpscot Street. I have spoken with tenants living in the houses and they have confirmed that flooding and erosion has occurred on several occasions. As part of this project we have taken steps to capture the upper watershed runoff and discharge the flows directly into the street storm drain system within Eben Hill Drive. These connections are necessary to prevent flooding of the proposed project as well as the residence downstream. Two connections are proposed to provide stormwater outlets. The first is located above the projects access drive. This outlet is being restricted to 6" to provide on site detention as discussed with the City Engineering Department. This outlet provides an upper watershed relief and natural detention for the area. An outlet structure is proposed with a grate elevation set to allow temporary flooding during larger storm events but will drain within a 24 hour period. Once the grate is



Ms. Barbara Barhydt Minor Site Plan Review 4/3/2007

breached runoff will flow into a 12" storm drain. This storm drain connects directly into the drain manhole located within Eben Hill Drive which has a 16" outlet. The second area is below the access drive and a swale has been graded around the proposed development. This swale drains to an existing 6" storm drain stub. The swale shall connect to the existing stub. This should eliminate further upper watershed runoff from traveling across the neighboring property. The area adjacent to the proposed garage will be graded to drain to a detention pond. The bottom of pond will drain via a 6" pipe into the existing storm drain stub. A 6" overflow pipe is proposed which drains runoff toward the northerly side of the entrance drive when flooding reaches 1' below pavement.

Proposed parking is also located across Eben Hill Drive to support the project. The parking lot has been graded to drain to a catch basin located within the center of the parking area. This basin will have an oars pad and snout installed on the outlet to prevent floatable and sediment from entering the wetland area. After this pre-treatment runoff will discharge to the adjacent wetland where it will be detained and outlet via a 4" drain into the street system. It will also help contain sediment from sanding during winter months. Photos of the existing outlets are shown below.



Existing 8" outlet adjacent to Presumpscot Street





Existing 4" outlet draining southerly side of Eben Hill Drive

Currently the project area drains toward Presumpscot Street through neighboring homes and properties. This runoff has caused erosion of the properties. It was evident that stone has been periodically brought in to help stabilize the area. Preventing the downstream flooding of the neighboring property will improve current water quality conditions. Runoff from the project has been graded to drain to grassed swales prior to discharge to the wetland storage area. These grass lined ditches will provide coarse pollutant removal and pre-treatment prior to entering the wetland area. The proposed catch basins will also be equipped with a snout and oars pad to help trap and capture pollutants prior to discharge into the adjacent wetland areas. This will provide effective treatment of runoff prior to entering the City systems.



Ms. Barbara Barhydt Minor Site Plan Review 4/3/2007

As requested by Engineering Staff, a hydrocad calculation was completed for the property. Pre and Post development impacts to the City Storm Drain located at the Intersection of Eben Hill and Presumpscot Street were analyzed (Pond 8P). As the results show, the additional storm drain connections are below Pre development levels. The wetland storage area and the direct connections to the storm drain help maintain the projects predevelopment flow. In addition, runoff draining onto the abutting land has reduced.

The results are as follows:

Pond 8P (Pre) = Pond 8P (Post)

Event	Pre-Develop.	Post-Develop.	
2 year	1.43 cfs	0.94 cfs	
10 year	3.68 cfs	2.42 cfs	
25 year	4.67 cfs	3.50 cfs	
100 year	6.19 cfs	4.95 cfs	

Noise is not expected to impact surrounding neighbors or properties. Hours of operation are during normal business hours. Normal noise associated with this project will be from vehicles traveling to and from the facility. Typical garage noise such as air compressors will periodically occur. Most noise generating items will be located within the garage which is furthest away from the residential use. Outside manufacturing or sales is not part of this project and is not expected to cause significant noise.

Odors are not expected to be generated with this development.

The developer may choose to install a sign at a later date. The sign will meet the City requirements and will be submitted separately.

Solid waste generated by the project will be consistent with typical office and dispatch areas facilities. We estimate 5 c.y. per week will be generated with the development. Solid waste includes recyclables such as paper, cardboard, etc. is expected at the facility. A dumpster will be located on site to contain solid waste generated by the development. The dumpster will be maintained by a commercial hauler.



Ms. Barbara Barhydt Minor Site Plan Review 4/3/2007

Should you have questions or require further information, please call.

Very truly yours,

Chtphu 5. Belager

Christopher S. Belanger, P.E. President







Site Plan Application Department of Planning and Development Portland Planning Board

Address of Proposed Development: 166 Pasampsot Street Zone: I-L								
Project Name: GENERAL Co	Project Name: GENERAL COURSET DISPATCH CENTER - LOVAING ATLAS							
Existing Building Size: 8 sq. ft. Proposed Building Size: 31715F sq. ft.								
Existing Acreage of Site: 2.18A6	sq. ft.	Proposed Acreage	of Site: Z.18 AC sq. ft.					
Tax Assessor's Chart, Block & Lot: Chart# Block # Lot#	Property Owners M ANDREW CA 24 MINUTER	TO	Telephone #: Cell Phone #:					
424 41	SUDBURY, M.	4 01776						
Consultant/Agent Contact Name and mailing address, Telephone # and Cell Phone #:	Applicant's Name/	Atlass	Telephone #: 207-767-6004					
BELANGER ENGINEERING OHRIS BELANGER 63 SECO-O AVE Augusta, ME 04330	PORTLAND,		Cell Phone #:					
207-622-1462 207-242-57/3 Fee For Service Deposit (all application	18)	. (\$200.00)						
Proposed Development (check all that apply) New Building Building Addition Change of Use Residential Office Retail Manufacturing Warehouse/Distribution Parking lot Subdivision (\$500.00) + amount of lots (\$25.00 per lot) \$ + major site plan fee if applicable Site Location of Development (\$3,000.00) (except for residential projects which shall be \$200.00 per lot) Traffic Movement (\$1,000.00) Storm water Quality (\$250.00) Section 14-403 Review (\$400.00 + \$25.00 per lot) Other								
Major Development (more than 10,000 sq. ft.)								



City of Portland, Maine Site Plan Checklist

GENERAL Courier DISPARH CENTER, 166 Prosupscot St. Project Name, Address of Project App

Application Number

Submitted () & Date (b,c)	Item	Required Information Section	14-525
V	(1)	Standard boundary survey (stamped by a registered surveyor, at a	1
	` '	scale of not less than 1 inch to 100 feet and including:	•
i	(2)	Name and address of applicant and name of proposed development	a
	(3)	Scale and north points	b
- V	(4)	Boundaries of the site	c
	(5)	Total land area of site	ď
1	(6)	Topography - existing and proposed (2 feet intervals or less)	e
	(7)	Plans based on the boundary survey including:	2
i de la companya de l	(8)	Existing soil conditions	
	(9)	Location of water courses, marshes, rock outcroppings and wooded areas	a b
	(10)	Location, ground floor area and grade elevations of building and other c	D
to the second se	(10)	structures existing and proposed, elevation drawings of exterior	
		facades, and materials to be used	
1	(11)	Approx location of buildings or other structures on parcels abutting the site	.1
100	(12)	Location of on-site waste receptacles	d
	(13)	Public utilities	e
17		Water and sewer mains	c
	(14)		e
	(15)	Culverts, drains, existing and proposed, showing size and directions of flows	, e
V	(16)	Location and dimensions, and ownership of easements, public or private	f
5 //	<i>(</i> 2 = 5	rights-of-way, both existing and proposed	
	(17)	Location and dimensions of on-site pedestrian and vehicular access ways	g
	(18)	Parking areas	g
	(19)	Loading facilities	g
· ·	(20)	Design of ingress and egress of vehicles to and from the site onto public streets	g
	(21)	Curb and sidewalks	g
	(22)	Landscape plan showing:	h
	(23)	Location of existing proposed vegetation	h
	(24)	Type of vegetation	h
	(25)	Quantity of plantings	h
2-3"CALIPER	(26)	Size of proposed landscaping	h
	(27)	Existing areas to be preserved	h
	(28)	Preservation measures to be employed	h
	(29)	Details of planting and preservation specifications	h
	(30)	Location and dimensions of all fencing and screening	i
	(31)	Location and intensity of outdoor lighting system	i
1	(32)	Location of fire hydrants, existing and proposed	k
	(33)	Written statement	c
	(34)	Description of proposed uses to be located on site	1
NA	(35)	Quantity and type of residential, if any	i
	(36)	Total land area of the site	b2
5%	(37)	Total floor area and ground coverage of each proposed building and structure	b2
	(38)	General summery of existing and proposed easements or other burdens	c3
	(39)	Method of handling solid waste disposal	4
	(40)	Applicant's evaluation of availability of off-site public facilities, including sewer, water and streets	5
	(41)	Description of any problems of drainage or topography, or a representation that there	6
FALL 2007V	/400	are none	~
1771	(42)	An estimate of the time period required for completion of the development	7
Lor.	(43)	A list of all state and federal regulatory approvals to which the development may be	8

	NIA	(45) (46) (47)	The status of any pending applicati Anticipated timeframe for obtainin A letter of non jurisdiction Evidence of financial and technical including a letter from a responsibl planned development and would so	g such permits capability to u e financial inst	h indertake and complete the development itution stating that is has reviewed the	8 8
infor N/A - N/A -	rmation, including (but drainage patterns and	not limited to facilities; ation controls ic study;		N/A - N/A - N/A - N/A - N/A -	d or Planning Authority may request addition an environmental impact study; a sun shadow study; a study of particulates and any other noxic a noise study;	

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Feb. 2, 2007



to whom it may Concern,

This letter is to inform you that

Belanger Engineering has authoration to represent

Me in the DEP and City Hall approval process.

Bor the Project at 166 Presumpscot st.

Thank you

Jai atlass Lorraine Atlass







CONTRACT FOR THE SALE OF REAL ESTATE

Date: 1/19/07

One Canal Plaza, Portland, ME 04101 (207) 772-1333

RECEIVED OF: Lorraine Atlass whose mailing address is 127 Pleasant Avenue, Portland, ME 04103, hereinafter called the Purchaser(s), the sum of Ten Thousand Dollars (\$10,000) as earnest money deposit and in part payment of the purchase price of the following described real estate, situated in the municipality of Portland, County of Cumberland, State of Maine and located at 166 Presumpscot Street, Portland, ME being all the property owned by the Seller(s) at the above address, and described at said County's Registry of Deeds Book 6739, Page 136 and further described as: a 2.18+/- acre parcel of land further identified by the City of Portland Assessor's office as Map 424, Block A, Lot41 upon the terms and conditions indicated below:

- 1. PERSONAL PROPERTY: The following items of personal property are included in this sale (if applicable): N/A
- 2. PURCHASE PRICE: The TOTAL purchase price being <u>One Hundred Ninety Thousand</u> Dollars (\$190,000) to be paid as follows: <u>earnest money deposit herewith and the balance to be paid in cash or certified funds at closing</u>.
- 3. EARNEST MONEY/ACCEPTANCE: <u>CBRE/The Boulos Company</u> shall hold said earnest money in a non-interest bearing account and act as Escrow Agent until closing; this offer shall be valid until <u>January 23, 2007</u> at <u>5:00</u> PM; and, in the event of the Seller's non-acceptance, this earnest money shall be returned promptly to the Purchaser(s).
- 4. TITLE: That a deed, conveying good and merchantable title in accordance with standards adopted by the Maine Bar Association shall be delivered to the Purchaser(s) and this transaction shall be closed and the Purchaser(s) shall pay the balance due and execute all necessary papers on or before April 24, 2007. If Seller(s) is unable to convey in accordance with the provisions of this paragraph, then the Seller(s) shall have a reasonable time period, not to exceed thirty (30) days, from the time the Seller(s) receives written notice of the defect, unless otherwise agreed to by both parties, to remedy the title, after which time, if such defect is not corrected so that there is merchantable title, the Purchaser(s) may, within fifteen (15) days thereafter, at Purchaser's option, withdraw said earnest money and neither party shall have any further obligation hereunder. If the Purchaser(s) does not withdraw the earnest money and declare the contract void within the period set forth above, the Purchaser(s) shall have waived the right to object to title. The Seller(s) hereby agrees to make a good-faith effort to cure any title defect during such period.
- 5. DEED: That the property shall be conveyed by a <u>warranty deed</u>, and shall be free and clear of all encumbrances except building and zoning restrictions of record, restrictive covenants and conditions of record and usual public utilities servicing the property and shall be subject to applicable land use and building laws and regulations.
- 6. POSSESSION /OCCUPANCY: Possession/occupancy of premises shall be given to Purchaser(s) immediately at closing, subject to any leases, unless otherwise agreed by both parties in writing.
- 7. LEASES/TENANT SECURITY DEPOSITS: Seller(s) agrees to transfer at closing to Purchaser(s) all Seller(s)' rights under the current leases to the property and all security deposits held by Seller(s) pursuant to said leases.
- 8. RISK OF LOSS: Until the transfer of title, the risk of loss or damage to said premises by fire or otherwise, is assumed by the Seller(s) unless otherwise agreed in writing. Said premises shall then be in substantially the same condition as at present, excepting reasonable use and wear.
- 9. PRORATIONS: The following items shall be prorated as of the date of closing:
 - a. Real Estate Taxes based on the municipality's tax year. Seller is responsible for any unpaid taxes for prior years.
 - b. Fuel
 - c. <u>N/A</u>
 - d. Rents
 - e. Metered utilities, such as water and sewer, shall be paid by Seller(s) through the date of closing.
 - f. Purchaser(s) and Seller(s) shall each pay its transfer tax as required by the State of Maine.
- 10.INSPECTIONS: The Purchaser(s) is encouraged to seek information from professionals regarding any specific issue of concern. Purchaser(s) acknowledges receipt of disclosure form attached hereto. The Agent makes no warranties regarding the condition, permitted use or value of the Seller's real or personal property. This Contract is subject to the following inspections, with the results being satisfactory to the Purchaser(s):

Seen and agreed to:

Seller(s)

Purchaser(s)

Page 1 of 3 Rev. 3/2001

TYPE OF INSPECTION	YES	NO	RESULTS	TYPE OF INSPECTION	YES	NO	RESULTS
			REPORTED				REPORTED
a. General Building		\boxtimes	Within days	g. Lead Paint		\boxtimes	Within days
b. Sewage Disposal		\boxtimes	Within days	h. Pests		\boxtimes	Within days
c. Water Quality		\boxtimes	Within days	i. ADA		\boxtimes	Within days
d. Radon Air Quality		\boxtimes	Within days	j. Wetlands	\boxtimes		Within 30 days
e. Radon Water Quality		\boxtimes	Within days	k. Environmental Scan	\boxtimes		Within 30 days
f. Asbestos Air Quality		\boxtimes	Within days	l. Other: N/A			Within days

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

- 11.FINANCING: This contract is subject to an approved 1st mortgage of 80% of the purchase price, at an interest rate not to exceed 8.5% per annum and amortized over a period of not less than 15 years.
 - a. If Seller, or Sellers agent, is not notified to the contrary in writing within thirty days of the effective date of this contract, then this financing condition shall be deemed to have been waived by Purchaser(s).
 - b. The Purchaser(s) is under a good-faith obligation to seek and accept financing on the above-described terms. The Purchaser(s) acknowledges that a breach of this good-faith obligation to seek and accept financing on the above-described terms will be a breach of this Contract.
- 12. AGENCY DISCLOSURE: The Purchaser(s) and Seller(s) acknowledge that they have been informed that the Selling Licensee is acting as a Seller's agent in this transaction and is representing the Seller(s) and that the Listing Licensee is acting as a Seller's agent in this transaction and is representing the Seller(s).
- 13.DEFAULT: If the Purchaser(s) fails to consummate this transaction, Seller(s) shall have the option of either retaining the earnest money as full and complete liquidated damages or employing all available legal and equitable remedies. Should Seller(s) elect to retain the earnest money, this Contract shall terminate and neither party shall be under any further obligation hereunder. In the event of default by either party, the Escrow Agent will not return the earnest money to Purchaser(s) or turn over the deposit to the Seller(s) without written releases from both parties.
- 14. MEDIATION: Any dispute or claim arising out of or relating to this Contract or the premises addressed in this Contract shall be submitted to mediation in accordance with the Maine Residential Real Estate Mediation Rules of the American Arbitration Association. This clause shall survive the closing of this transaction.
- 15.PRIOR STATEMENTS: Any verbal presentations, statements and agreements are not valid unless contained herein. This Contract completely expresses the obligations of the parties. This is a Maine contract and shall be construed according to the laws
- 16.HEIRS/ASSIGNS: This Contract is assignable \(\text{Yes} \) \(\text{No. This Contract shall extend to and be obligatory upon heirs,} \) personal representatives, successors, and assigns (if assignment is allowed by the terms of this Contract), of the respective parties.
- 17. COUNTERPARTS: This Contract may be signed on any number of identical counterparts, including telefacsimilie copies, with the same binding effect as if the signatures were on one instrument. Original or telefacsimilied signatures are binding.
- 18.BINDING CONTRACT: This Contract is a binding contract when signed by both Seller(s) and Purchaser(s) and when that fact has been communicated to all parties or to their agents. The Effective Date of the Contract is noted below. Time is of the essence of this Contract.
- 19. REVIEW OF LEASES AND INCOME AND EXPENSE INFORMATION: The Seller(s) shall provide the Purchaser(s) with copies of all leases and income & expense information regarding the subject property within _____ () days of the effective date of this contract. Purchaser(s) shall have _____ (____)days from such delivery to review leases and income & expense information regarding the property. If the result of the review is unsatisfactory to the Purchaser(s), Purchaser(s) may declare the Contract null and void by notifying the Seller(s) in writing within the specified number of days set forth above, and any earnest money shall be returned to the Purchaser(s). If the Purchaser(s) does not notify the Seller(s) that the review is unsatisfactory within the time period set forth above, this contingency is waived by the Purchaser(s).
- 20. Seller(s) and Purchaser(s) acknowledge receipt of the Maine Real Estate Commission Disclosure of Agency Relationship Form (Form #2), if the property is, or has a component of, one to four residential dwelling units.
- 21. ADDENDA: This Contract has addenda containing additional terms and conditions: YES NO ...

Seen and agreed to: C4-C
Seller(s)

Page 2 of 3 Rev. 3/2001

A COPY OF THIS CONTRACT IS TO BE RECEIVED BY ALL PARTIES AND, BY SIGNATURE, RECEIPT OF A COPY IS HEREBY ACKNOWLEDGED. IF NOT FULLY UNDERSTOOD CONSULT AN ATTORNEY.

Seller(s) acknowledges that the laws of the State of Maine provide that every buyer of real property located in Maine must withhold a withholding tax equal to 2 1/2% of the consideration unless the Seller(s) furnishes to the Buyer(s) a certificate by the Seller(s) stating, under penalty of perjury, that Seller(s) is/are a resident of Maine or the transfer is otherwise exempt from withholding.

ai atlan	1.20.07
Purchaser	Date
Lorraine Atlass	Date 004-62-0731
Name/Title	Soc. Sec. # or Tax I.D. #
Purchaser	Date
Name/Title	Soc. Sec. # or Tax I.D. #
forth above and agrees to pay the Broker the commission for servicing Agreement the sum of: per listing agreement closing of this transaction. Seller agrees that Broker may apply a toward commissions due and payable under this Agreement. If the distributed between the Broker and the Seller(s), provided, howe commission specified. In the event the Seller(s) defaults on its one entitled to costs of collection, including reasonable attorneys' fee	The obligation to pay said commission or sum shall survive the any deposit(s) received in connection with the sale of the Property he earnest money is forfeited by Purchaser(s), it shall be evenly ever, that Broker's portion shall not exceed the full amount of the bligations hereunder, CB Richard Ellis/The Boulos Company shall be see.
Signed this 23 rd day of January 2007	7. Effective date of Contract: 23 January, 2007.
The Listing Licensee is Andrew Nelson of CBRE/The Boulos of CBRE/The B	he Boulos Company Company (Company).
Seller (a. Caud (POA) Andrew T. Card Name/Title Seller Clifford A. Card Name/Title	Date Date Date Docs + or Tax I.D. # Soc. Sec. # or Tax I.D. #
Offer reviewed and refused on	.,, Seller
Page 3 of 3 Rev. 3/2001	Seen and agreed to: Seller(s) Purchaser(s)

ADDENDUM A

TO CONTRACT FOR SALE OF REAL ESTATE LOCATED AT 166 PRESUMPSCOT STREET PORTLAND, MAINE BETWEEN

SELLERS: ANDREW T. CARD & CLIFFORD A. CARD PURCHASER: LORRAINE ATLASS DATED: JANUARY 19, 2007

22. This contract is subject to purchaser receiving City of Portland and Maine Department of Environmental Protection approvals within ninety (90) days of the effective date of the contract.

SEEN AND AGREED TO:

Andrew T. Card, Seller Card Date

Clifford A. Card, Seller

Date

1/23/07

Date

1-20-07

Date

BODE 739 PAGE 136

в£х

QUITCLAIM DEED WITHOUT COVENANT (RELEASE DEED) Maine Statutory Short Form 1341()

Know all Men by these Presents.

Chat We, Andrew T. Card and Clifford A. Gard

, county of XX

Ashigumnumritor for consideration paid, relative, to the said Andrew T. Card, whose mailing address is Pond Street, Billerica, MA 01821, and Clifford A. Gard NOWAR, XXVIIIIAXXXX øŔ× whose mailing address is Minuteman Lane, Sudbury, MA 01776, as Tenants in Common , County of Cumberland the land in Portland State of Maine, described as follows: A certain lot or parcel of land in Cumberland County, State of Maine, with any buildings thereon, located in Portland, County of Cumberland and State of Maine, having the address of 25 True Street, Portland, Maine and being a part of the premises conveyed to Linwood R. Card and Grantees herein by warranty deed of Elizabeth M. Gard and Clifford R. Card dated becember 28, 1976, and recorded in the Cumberland County Registry of Deeds at Book 3957, Page 340. Reference is further made to the deed of Linwood R. Gard to the Grantors herein dated August 2, 1981 and recorded in said Registry of Deeds in book 4844, Page 338. And hannang/milen og norgensker klander skander nork en energen sig her dynder og her med mil a her right en /之医 day of the month of hand 8 and scals this Mitness OUT April . 1985. Signed, Sented und Pelivered Massachuset (# Middlesex State of Maine, County of Clifford A. Card Then personally appeared the above named The state of the foregoing instrument to be the state of the foregoing instrument to be the state of the stat has free act and deed. Before me

Print Name THOMAS G. COURTNET

hovewbar 7, 198%

WARRANTY DEED (Maine Statutory Short Form)

CLIFFORD A. CARD of Sudbury, Massachusetts, whose mailing address is 24 Minuteman Lane, Sudbury, Massachusetts 01776, and ANDREW T. CARD of Billerica, Massachusetts, whose mailing address is 100 Dudley Road, Billerica, Massachusetts 01821 (the "Grantors"), for consideration paid, grant to OCEAN EAST OF PORTLAND, LLC, a Maine limited liability company having a place of business and mailing address of 247 Commercial Street, Rockport, Maine 04856 (the "Grantee"), With Warranty Covenants, a certain lot or parcel of land, with the buildings and improvements thereon, situated easterly of Ocean Avenue and westerly of Presumpscot Street in the City of Portland, County of Cumberland and State of Maine, more particularly bounded and described as follows:

A certain lot or parcel of land, with the buildings and improvements thereon, located approximately 700 feet westerly of Presumpscot Street and approximately 800 feet easterly of Ocean Avenue in the City of Portland, County of Cumberland, State of Maine, being more particularly described as follows:

Beginning at a 5/8 inch rebar proposed in a stone wall on the southwesterly line of land now or formerly of Timberland Development as recorded in Book 14375, Page 258 of the Cumberland County Registry of Deeds known as Wellstone Condominiums as shown on a plans recorded in Plan Book 144, Page 61 and Plan Book 173, Page 68 of the Cumberland County Registry of Deeds, said point of beginning being S 64° 20' 37" E and 80.65 feet from an iron pin at the most easterly corner of land now or formerly of Kent/McQuiddy as recorded in Book 6863, Page 1 of the Cumberland County Registry of Deeds;

Thence S 64° 20' 37" E along a stone wall and said land of Timberland Development a distance of 45.77 feet to a drill hole found at the most southerly corner of said land of Timberland Development;

Thence S 64° 20' 37" E along a stone wall and land of Ocean East of Portland, LLC as recorded in Book 17840, Page 68 (Parcel 2) of the Cumberland County Registry of Deeds a distance of 363.22 feet to a 3/4 inch iron pipe found at the most westerly corner of land now of formerly of G.J.L. Properties as recorded in Book 13325, Page 245 of the Cumberland County Registry of Deeds;

Thence S 63° 06' 40" E along a stone wall and said land now or formerly of G.J.L. Properties a distance of 66.13 feet to a 5/8 inch rebar proposed at land being retained by Clifford A. Card and Andrew T. Card shown as "Lot 2 Land to be Reserved by Card 2.18 Acres" as shown on a plan entitled "Recording Plat, Townhomes at Ocean East" by Coffin Engineering Surveying dated July 17, 2002 and revised through May 14, 2003;

Thence S 22° 34' 38" W along said land being retained by said Cards a distance of 170.18 feet to a 5/8 inch rebar proposed;

Thence S 50° 48' 27" E along said land being retained by said Cards a distance of 133.59 feet to a 5/8 inch rebar proposed;

Thence S 22° 34' 38" W along said land being retained by said Cards a distance of 90.24 feet to a 5/8 inch rebar proposed;

Thence S 48° 22' 58" W along said land being retained by said Cards and partially along the end of a 50 foot wide right-of-way running to Presumpscot Street a distance of 134.20 feet to a 5/8 inch rebar proposed at land now or formerly of Drake as recorded in Book 6389, Page 178 of the Cumberland County Registry of Deeds;

Thence N 41° 55' 34" W along said land now or formerly of Drake as recorded in Book 6389, Page 178 of the Cumberland County Registry of Deeds, the end of Kidder Street East, land now or formerly of Lightfoot as recorded in Book 4500, Page 168 of the Cumberland County Registry of Deeds, land now or formerly of Jordan and land now or formerly of Chase, 335.36 feet to an iron pin at land now or formerly of Wieland as recorded in Book 15049, Page 216 of the Cumberland County Registry of Deeds;

Thence N 57° 33' 01" W along said land now or formerly of Wieland and land now or formerly of Domenico as recorded in Book 2548, Page 168 of the Cumberland County Registry of Deeds a distance of 283.41 feet to an iron pin at the most southerly corner of land now or formerly of Todd R. Sniper as recorded in Book 12907, Page 330 of the Cumberland County Registry of Deeds;

Thence N 32° 26' 59" E along said land now or formerly of Sniper a distance of 50.00 feet to an iron pin at the most easterly corner of said land now or formerly of Sniper;

Thence N 57° 33' 01" W along said land now or formerly of Sniper a distance of 51.79 feet to a 5/8 inch rebar proposed at land being retained by said Cards shown as "Lot 1 Land to be Reserved by Card 1.27 Acres" on said plan entitled "Recording Plat, Townhomes at Ocean East" by Coffin Engineering Surveying dated July 17, 2002 and revised through May 14, 2003;

Thence N 32° 55' 41" E along said land being retained by said Cards shown as "Lot 1 Land to be Reserved by Card 1.27 Acres" on said plan a distance of 116.27 feet to a 5/8 inch rebar proposed;

Thence S 61° 04' 19" E along said land being retained by said Cards shown as "Lot 1 Land to be Reserved by Card 1.27 Acres" on said plan a distance of 44.15 feet to a 5/8 inch rebar proposed;

Thence N 32° 55' 24" E along said land being retained by said Cards shown as "Lot 1 Land to be Reserved by Card 1.27 Acres" on said plan a distance of 87.21 feet back to the point of beginning.

Said parcel comprises 4.14 acres of land as shown on said plan entitled "Recording Plat, Townhomes at Ocean East" by Coffin Engineering Surveying dated July 17, 2002 and revised through May 14, 2003.

All directions are Magnetic North 1999. All 5/8 inch rebar set are marked with a plastic surveyor's cap (Coffin Eng. PLS 1292 2290).

Being a portion of the premises described in a deed to the Grantors and Linwood R. Card from Clifford R. Card and Elizabeth M. Card dated December 28, 1976 and recorded in Book 3957, Page 340 of the Cumberland County Registry of Deeds, further reference being made to a deed from said Linwood R. Card to the Grantors dated August 20, 1981 and recorded in Book 4844, Page 338 of the Cumberland County Registry of Deeds and a deed from the Grantors to themselves dated April 12, 1985 and recorded in Book 6739, Page 136 of the Cumberland County Registry of Deeds.

The above-described premises conveyed herein are conveyed together with (a) perpetual rights and easements for pedestrian and vehicular access to and from the above-described premises conveyed herein and adjoining premises of the Grantee hereinafter referred to, together with the right to construct, maintain, repair and replace a paved roadway, sidewalks and associated improvements thereto, location, identification and directional signs, together with lighting associated therewith, bus shelter, street lights, landscaping, including trees, and such other improvements relating to the Grantee's development of the premises conveyed herein and said adjoining premises of the Grantee, (b) perpetual rights and easements for the installation, maintenance, repair and replacement of stormwater/surface water collection and drainage facilities and the like to serve the above-described premises conveyed herein and said adjoining premises of the Grantee, (c) and perpetual rights and easements for the installation, maintenance, repair and replacement of utilities including, but not limited to, sewer lines, power lines, water lines, telephone lines, cable television lines and other communication lines, above and below ground, to serve the above-described premises conveyed herein and said adjoining premises of the Grantee, said perpetual rights and easements hereinabove described to be over, under and through that portion of the Grantors' remaining property comprising a 50 foot wide easement extending from the northwesterly side of Presumpscot Street to the southeasterly side of the above-described premises conveyed herein, said 50 foot wide easement being more particularly described as follows:

Beginning at an iron pin on the northwesterly right-of-way line of Presumpscot Street at the most southerly corner of land now or formerly of Drake as recorded in Book 13586, Page 45 of the Cumberland County Registry of Deeds;

Thence S 22° 34' 38" W along said northwesterly right-of-way line of Presumpscot Street a distance of 54.83 feet;

Thence N 43° 11' 10" W through land being retained by said Cards shown as "Lot 2 Land to be Reserved by Card 2.18 Acres" on said plan entitled "Recording Plat, Townhomes at

Ocean East" by Coffin Engineering Surveying dated July 17, 2002 and revised through May 14, 2003, a distance of 405.44 feet to the southeasterly side of the above described parcel;

Thence N 48° 22' 58" E along the above described parcel a distance of 50.02 feet;

Thence S 43° 11' 10" E through land being retained by said Cards shown as "Lot 2 Land to be Reserved by Card 2.18 Acres" on said plan entitled "Recording Plat, Townhomes at Ocean East" by Coffin Engineering Surveying dated July 17, 2002 and revised through May 14, 2003, a distance of 98.54 feet to an iron pin at the most westerly corner of said land now or formerly of Drake as recorded in Book 13586, Page 45 of the Cumberland County Registry of Deeds;

Thence S 43° 11' 10" E along said land now or formerly of Drake a distance of 283.02 feet back to the point of beginning.

Said perpetual rights and easements conveyed herein shall further include the right to temporarily utilize the remaining land of the Grantors immediately adjacent to said 50 foot wide easement as may be reasonably necessary in order to undertake any work within said 50 foot wide easement undertaken in connection with the exercise of the rights and easements granted herein provided, however, that the Grantee shall, following the completion of any such work, promptly repair any damage to the remaining land of the Grantors resulting from such work so as to restore said land to substantially to its prior condition. Provided further, however, that improvements such as sloping, stormwater/surface water collection and drainage facilities and the like related to the improvements constructed by the Grantee within the 50 foot wide easement and on the above-described premises conveyed herein and said adjoining premises of the Grantee in accordance with the approved plans of the Grantee's proposed development on the abovedescribed premises conveyed herein and said adjoining premises of the Grantee shall be permitted to remain within the areas immediately adjacent to said 50 foot wide easement.

Said perpetual rights and easements conveyed herein shall further include the right to grant such rights and easements within said 50 foot wide easement to third parties including, but not limited to, utility and communication companies providing services to any development on the above-described premises conveyed herein and said adjoining premises of the Grantee, and to the City of Portland such as, for example, a sidewalk easement, as may be necessary in connection with the approval and development of the above-described premises conveyed herein and said adjoining premises of the Grantee, and the Grantors further agree, if requested by the Grantee or such third parties, to join in the such instruments granting of any such rights and easements.

Said perpetual rights and easements conveyed herein shall be appurtenant to and shall run with the above-described premises conveyed herein and said adjoining premises of the Grantee described in a Quitclaim Deed With Covenant from JMC Partners, LLC to the Grantee dated July 11, 2002 and recorded in Book 17840, Page 68 of the Cumberland County Registry of Deeds as they may be improved.

Reserving to the Grantors the right to use said 50 foot wide easement for pedestrian and vehicular access to and from the Grantors' remaining land adjacent thereto and for the installation, maintenance, repair and replacement of utilities including, but not limited to, sewer lines, power lines, water lines, telephone lines, cable television lines and other communication lines, above and below ground, to serve Grantors' remaining land adjacent thereto, provided, however, that the installation of such utilities does not interfere with or obstruct the use of said 50 foot wide easement by the Grantee in accordance with the rights and easements conveyed herein and provided further, however, that the Grantors, following the exercise of such reserved rights, shall promptly repair any damage to said 50 foot wide easement or to any facilities and improvements constructed or installed within or adjacent to said 50 foot wide easement by the Grantee, including without limitation the restoration of pavement, sidewalks, lawn and landscaping.

The Grantors agree that in the event they should commence regular use of the 50 foot wide easement for access to their remaining land adjacent thereto, they will contribute an equitable share of the costs and expenses associated with the usual and customary maintenance and repair of any road and sidewalk as may be constructed by the Grantee within said 50 foot wide easement as shall be fairly and reasonably determined and billed to the Grantors by the Grantee taking into account the nature and extent of the use of the road and sidewalk by the Grantors and the Grantee, which usual and customary maintenance and repair shall include snow and ice removal, resurfacing and such other maintenance as is necessary in order to permit regular and safe passage by vehicles and pedestrians. Provided further, however, that any such maintenance or repair necessitated by the act of either party or by the act of either party's employees, guests, invitees, contractors or agents which is not the result of normal wear and tear and is not due to a defective condition shall be borne solely by such party. Specifically, and not by way of limitation, if, during any period of construction on either party's land, damage to any portion of said road or sidewalk or facilities and improvements therein results from construction vehicles or equipment, or any other cause relating to such construction on such land, then the cost of repairing such damage shall be borne solely by the owner of such land.

Further reserving to the Grantors for the benefit of the Grantors' remaining land adjacent to the premises conveyed herein the right to connect with and use any sewer lines, power lines, water lines, stormwater drainage lines, telephone lines, cable television lines and other communication lines that may be installed by the Grantee in connection with the Grantee's development of the above-described premises conveyed herein and said adjoining premises of the Grantee (the "Utility Lines"), provided, however, that (a) the Grantors shall, prior to connecting with the Utility Lines, submit plans for such connection to the Grantee for review and approval, which approval shall not be unreasonably withheld, (b) such connection and use shall not, in the reasonable judgment of the Grantee, interfere with or obstruct the use of the Utility Lines serving the development on the above-described premises conveyed herein and said adjoining premises of the Grantee, (c) all costs and expenses associated with the Grantors' connection with the Utility Lines and the maintenance, repair and replacement of the connections thereto shall be borne by the Grantors, (d) the Grantors shall, prior to connecting with the Utility Lines, obtain all necessary permits and approvals from all necessary third parties with respect thereto including, but not limited to, amended site plan and subdivision approval from the City of

Portland, (e) the Grantors shall provide the Grantee with written confirmation from the utility and communication companies providing services through the Utility Lines that such services can be separately metered and charged to the Grantors, and (f) such services shall, in fact, be separately metered and charged to the Grantors. Provided, however, that the Grantors shall, following the completion of any such work, promptly repair any damage to the Utility Lines and to the Grantee's land resulting from such work at the Grantors' sole cost and expenses. Following any connection to the Utility Lines, the Grantors shall contribute an equitable share of the costs and expenses associated with the usual and customary maintenance, repair and replacement of any commonly used Utility Lines as shall be fairly and reasonably determined and billed to the Grantors by the Grantee, provided, however, that any such maintenance, repair or replacement necessitated by the act of either party or by the act of either party's employees, guests, invitees, contractors or agents which is not the result of normal wear and tear and is not due to a defective condition, shall be borne solely by such party.

The Grantee, by its acceptance of this deed, agrees that, provided there exist no material engineering or design impediments to doing so and provided all required permits and approvals to do so can be obtained, at such time as the Grantee installs sewer, water and stormwater drainage lines to serve the above-described premises conveyed herein, the Grantee shall (a) install "tee connections" from said sewer and water lines to as near as reasonably possible to the easterly side of that portion of the Grantors' retained property shown as "Lot 1 Land to be Reserved by Card 1.27 Acres" on said plan entitled "Recording Plat, Townhomes at Ocean East" by Coffin Engineering Surveying dated July 17, 2002 and revised through May 14, 2003 to which the Grantors can connect for sewer and water service to said Lot 1, and (b) install one or more "tee connections" from said sewer, water and stormwater drainage lines to which the Grantors can connect to serve that portion of the Grantors' retained property shown as "Lot 2 Land to be Reserved by Card 2.18 Acres" on said above-referenced plan. All costs and expenses associated with the installation of said "tee connections" including, but not limited to, the cost of all permits and approvals relating thereto, shall be borne by the Grantors and the Grantors' connection to said "tee connections" shall be subject to and in accordance with the terms and conditions of the Grantors' connection to the Utility Lines as set forth above. The Grantee's obligation to install such "tee connections" shall be subject to the following conditions:

- a. Prior to the installation of said "tee connections", the Grantee shall submit an estimate to the Grantors summarizing the location and all costs and expenses associated therewith; and
- b. The Grantors shall, within 30 days following the receipt of such estimate, pay all such costs and expenses to the Grantee by certified or bank check or wire transfer to an account designated by the Grantee, which payment shall be held by the Grantee in escrow to be used to pay all such costs and expenses.

In the event the Grantors fail to pay such costs and expenses to the Grantee within 30 days following the Grantors' receipt of said estimate, the Grantee's obligation to install said "tee connections" to which said estimate relates shall terminate and be of no further force and effect.

Nothing contained herein shall be deemed to create an obligation on the part of the Grantee to install said "tee connections" to serve the retained land of the Grantors, or any access road, sidewalk or utility lines to serve the above-described premises conveyed herein, at any particular time or on any particular schedule nor shall the Grantee be obligated to do so at all in the event the Grantee should decide not to proceed with the development of the above-described premises conveyed herein.

The rights and easements conveyed and reserved herein and the terms and conditions thereof shall be binding upon and shall inure to the benefit of the parties hereto, and their respective heirs, successors and assigns, and shall be appurtenant to and shall run with the above-described premises conveyed herein and said adjoining land of the Grantee and the remaining land of the Grantors in accordance with the terms and conditions thereof.

IN WITNESS WHEREOF, CLIFFORD A. CARD and ANDREW T. CARD have hereunto set their hands and seals as of the 24th day of June, 2003.

WITNESS:

Clifford A. Card

Andrew T. Carl

STATE OF MAINE COUNTY OF CUMBERLAND, ss.

June 24, 2003

Then personally appeared the above-named Clifford A. Card and Andrew T. Card and acknowledged the foregoing instrument to be their free act and deed.

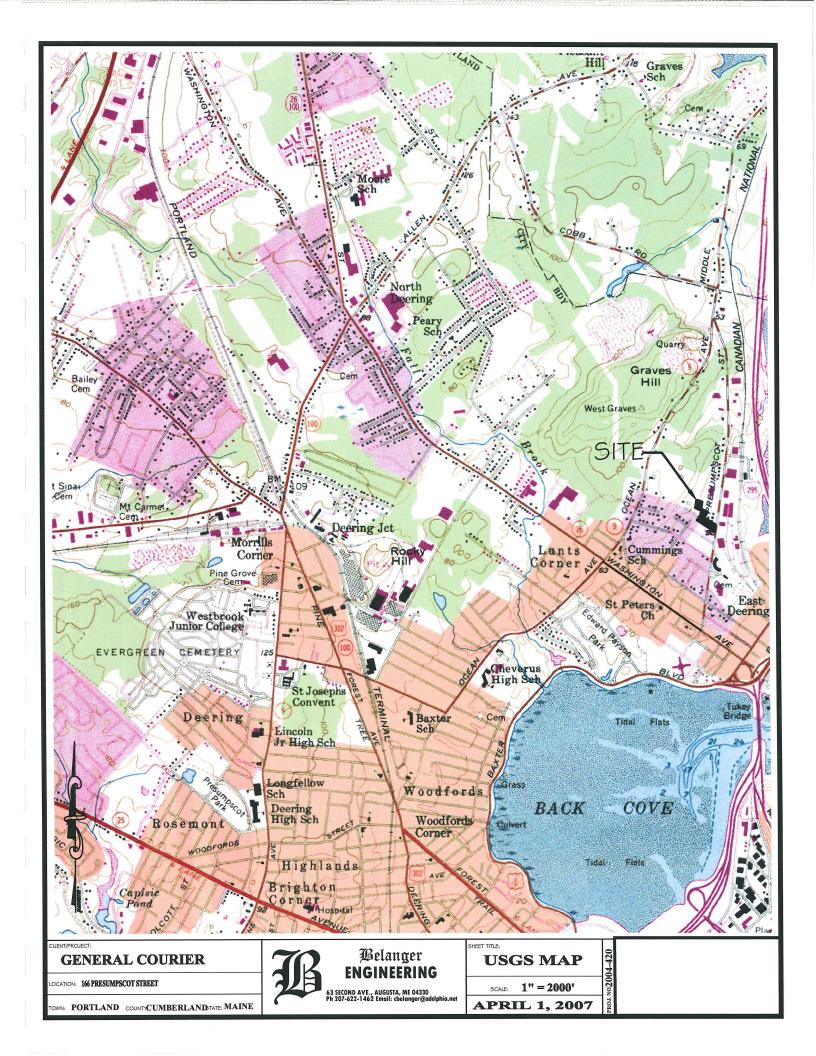
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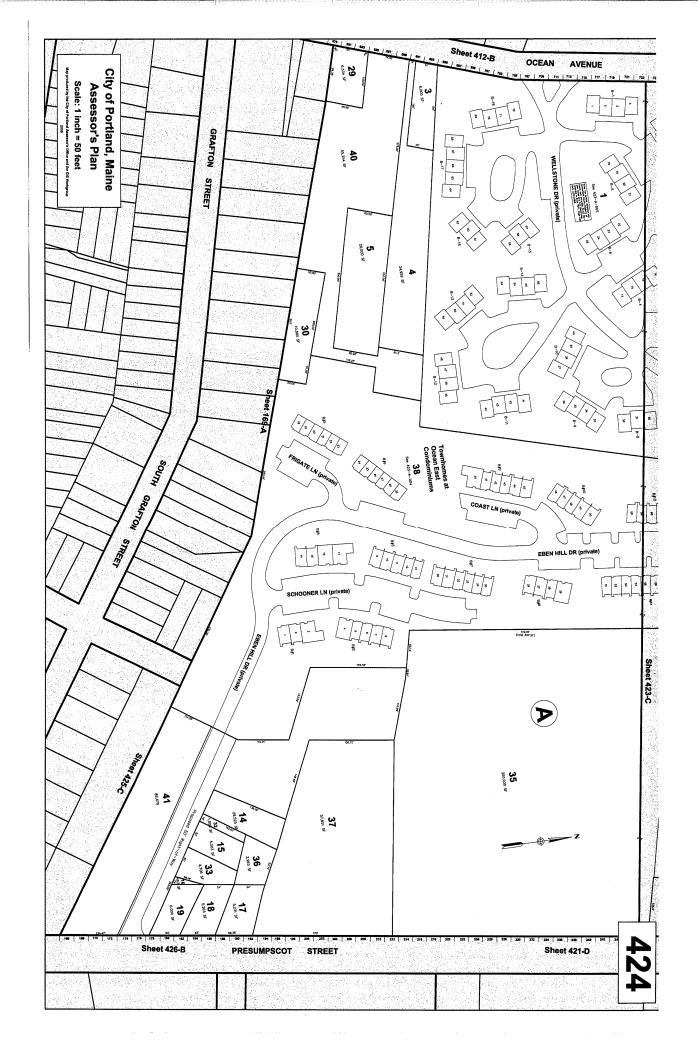
Jotany Public

Attorney At Law

Print name

Received
Recorded Resister of Deeds
Jun 24,2003 01:11:44P
Cumberland Counts
John B. O Brien







EXISTING BUILDING ABUTTING SITE



FED EX BUILDING ABUTTING SITE

GENERAL COURIER

LOCATION: 166 PRESUMPSCOT STREET

TOWN: PORTLAND COUNTYCUMBERLAND TATE: MAINE



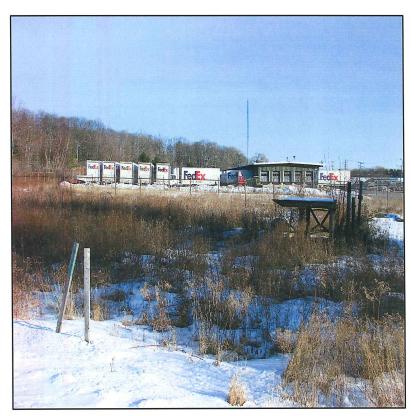
SHEET TITLE:		
SITE	PHOT	OS

SCALE: NONE

APRIL 1, 2007



EXISTING HOUSES BELOW SITE



FED EX BUILDING ABUTTING SITE

GENERAL COURIER

LOCATION: 166 PRESUMPSCOT STREET

TOWN: PORTLAND COUNTYCUMBERLAND TATE: MAINE



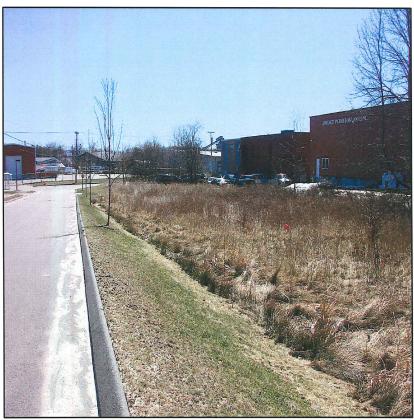
SHEET TITLE:	
SITE	PHOTOS

SCALE: NONE

APRIL 1, 2007



SITE PHOTOS LOOKING AT WET IMPACT AREA # 4-5



SITE PHOTOS LOOKING AT WET IMPACT AREA # 4-5

GENERAL COURIER

LOCATION: 166 PRESUMPSCOT STREET

TOWN: PORTLAND COUNTYCUMBERLAND TATE: MAINE



SHEET TITLE:
SITE PHOTOS

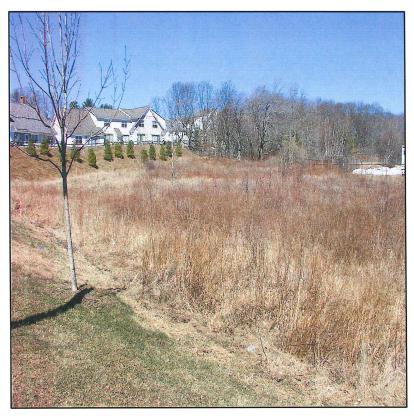
SCALE: NONE

APRIL 1, 2007

A. NO2004-420



SITE PHOTOS LOOKING AT WET IMPACT AREA # 1-3



SITE PHOTOS LOOKING AT WET IMPACT AREA # 1-3

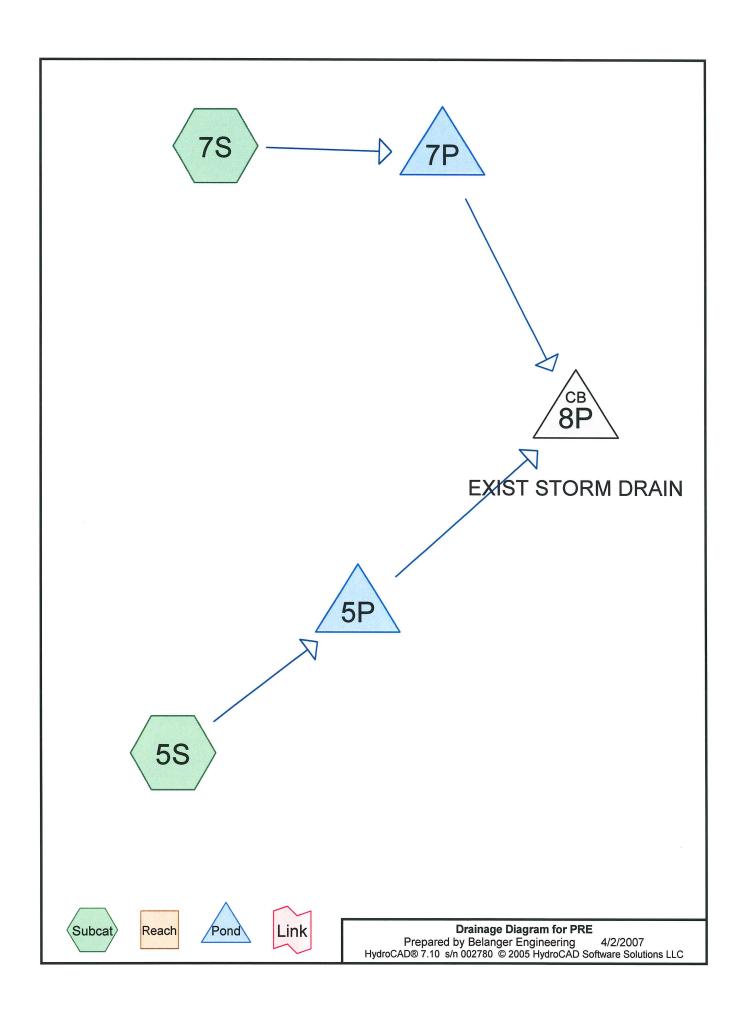
GENERAL COURIER

LOCATION: 166 PRESUMPSCOT STREET

TOWN: PORTLAND COUNTYCUMBERLAND TATE: MAINE



SHEET TITLE:	
SITE	PHOTOS
SCALE:	NONE
APR	IL 1, 2007



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Subcatchment 5S:

Runoff = 0.42 cfs @ 12.86 hrs, Volume=

0.072 af, Depth> 0.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2 YEAR Rainfall=3.00"

	A	rea (sf)	CN	Description		
		49,962	73	Brush, Good	d, HSG D	
	Tc (min)	Length (feet)	Slope (ft/ft)		Capacity (cfs)	Description
	38.6	100	0.0200	0.0		Sheet Flow, AB
	19.4	411	0.0200	0.4		Woods: Dense underbrush n= 0.800 P2= 3.00" Shallow Concentrated Flow, BC Forest w/Heavy Litter Kv= 2.5 fps
_	58.0	511	Total			

Subcatchment 7S:

Runoff = 1.52 cfs @ 12.71 hrs, Volume=

0.229 af, Depth> 1.02"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2 YEAR Rainfall=3.00"

Are	ea (sf)	CN	Description		
6	0,154	73	Brush, Good	d, HSG D	
4	5,300	80	>75% Grass	s cover, Goo	od, HSG D
	7,500	98	EXISTING	PAVED / I	BUILDINGS
	5,000	80	EXISTING	NON-PAV	ED AREA
11	7,954	78	Weighted A	verage	
Tc (min)	Length (feet)	Slope (ft/ft)		Capacity (cfs)	Description
32.8	100	0.0300	0.1		Sheet Flow, AB
16.7	433	0.0300	0.4		Woods: Dense underbrush n= 0.800 P2= 3.00" Shallow Concentrated Flow, BC Forest w/Heavy Litter Kv= 2.5 fps
49.5	533	Total			

Pond 5P:

Inflow Area =	1.147 ac, Inflow Depth > 0.76"	for 2 YEAR event
Inflow =	0.42 cfs @ 12.86 hrs, Volume=	0.072 af
Outflow =	0.22 cfs (a) 13.55 hrs, Volume=	0.071 af, Atten= 47%, Lag= 41.6 min
Primary =	$0.22 \text{ cfs } \widehat{\omega}$ 13.55 hrs. Volume=	0.071 af

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

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Peak Elev= 29.45' @ 13.55 hrs Surf.Area= 3,274 sf Storage= 762 cf Plug-Flow detention time=42.7 min calculated for 0.071 af (98% of inflow) Center-of-Mass det. time= 36.4 min (899.2 - 862.8)

Volume	Invert	Avail.	Storage	Storage I	Description	
#1	29.00'	12	2,970 cf	Custom	Stage Data (P	rismatic) Listed below (Recalc)
Elevation (feet)		:Area (sq-ft)		.Store c-feet)	Cum.Store (cubic-feet)	
29.00		110		0	0	
30.00		7,136		3,623	3,623	
31.00	1	11,558		9,347	12,970	
Device Ro	uting	Invert	Outlet I	Devices		
#1 Pri	mary	29.00'	4.0" x	55.0' long	Culvert CP	P, square edge headwall, Ke= 0.500
			Outlet I	nvert= 24.	30' S = 0.0855	'/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.22 cfs @ 13.55 hrs HW=29.45' (Free Discharge)

1=Culvert (Inlet Controls 0.22 cfs @ 2.6 fps)

Pond 7P:

Inflow Area = 2.708 ac, Inflow Depth > 1.02" for 2 YEAR event

Inflow = 1.52 cfs @ 12.71 hrs, Volume= 0.229 af

Outflow = 1.23 cfs @ 13.01 hrs, Volume= 0.229 af, Atten= 19%, Lag= 17.8 min

Primary = 1.23 cfs @ 13.01 hrs, Volume= 0.229 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 24.58' @ 13.01 hrs Surf.Area= 1,433 sf Storage= 2,022 cf Plug-Flow detention time= 27.5 min calculated for 0.229 af (100% of inflow) Center-of-Mass det. time= 26.4 min (871.0 - 844.6)

Volume	Inv	ert Avail.	Storage	Storage I	Description	
#1	22.	00'	2,655 cf	Custom	Stage Data (P	rismatic) Listed below (Recalc)
Elevatio		Surf.Area (sq-ft)		c.Store c-feet)	Cum.Store (cubic-feet)	
22.0	0	110		0	0	
23.0	0	600		355	355	
24.0	0	1,200		900	1,255	
25.0	00	1,600	1,600		2,655	
Device	Routing	Invert	Outlet 1	Devices		
#1	Primary	22.00'	4.0" x	30.0' long	Culvert CPI	P, square edge headwall, Ke= 0.500
	·					'/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Primary	24.50'		_		ad-Crested Rectangular Weir
			Head (1	eet) 0.20	0.40 0.60 0.80	0 1.00 1.20 1.40 1.60

Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

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Primary OutFlow Max=1.22 cfs @ 13.01 hrs HW=24.58' (Free Discharge)

1=Culvert (Barrel Controls 0.64 cfs @ 7.3 fps)

2=Broad-Crested Rectangular Weir (Weir Controls 0.58 cfs @ 0.7 fps)

Pond 8P: EXIST STORM DRAIN

Inflow Area =	3.855 ac, Inflow Depth > 0.93"	for 2 YEAR event
Inflow =	1.43 cfs @ 13.01 hrs, Volume=	0.300 af
Outflow =	1.43 cfs @ 13.01 hrs, Volume=	0.300 af, Atten= 0%, Lag= 0.0 min
Primary =	1.43 cfs @ 13.01 hrs, Volume=	0.300 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 20.96' @ 13.01 hrs Flood Elev= 24.83' Plug-Flow detention time=0.0 min calculated for 0.299 af (100% of inflow)

Center-of-Mass det. time=0.0 min (877.7 - 877.7)

Device Routing Invert Outlet Devices

Device	Routing	Invert	Outlet Devices	
#1	Primary	20.40'	16.0" x 50.0' long Culvert CPP, square edge headwall, Ke= 0.500	•
			Outlet Invert= 19.90' $S= 0.0100 \text{ l/}$ $Cc= 0.900 \text{ n} = 0.010 \text{ PVC}$, smooth interior	

Primary OutFlow Max=1.42 cfs @ 13.01 hrs HW=20.96' (Free Discharge)
1=Culvert (Inlet Controls 1.42 cfs @ 2.5 fps)

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Subcatchment 5S:

Runoff = 1.09 cfs @ 12.82 hrs, Volume=

0.177 af, Depth> 1.85"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10 YEAR Rainfall=4.70"

_	A	rea (sf)	CN	Description		
		49,962	73	Brush, Good	l, HSG D	
	Tc (min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description
	38.6	100	0.0200	0.0		Sheet Flow, AB
	19.4	411	0.0200	0.4		Woods: Dense underbrush n= 0.800 P2= 3.00" Shallow Concentrated Flow, BC Forest w/Heavy Litter Kv= 2.5 fps
-	58.0	511	Total		2000	

Subcatchment 7S:

Runoff = 3.43 cfs @ 12.69 hrs, Volume=

0.508 af, Depth> 2.25"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10 YEAR Rainfall=4.70"

Aı	rea (sf)	CN	Description		
(60,154	73	Brush, Good	d, HSG D	
4	45,300	80	>75% Grass	cover, Goo	od, HSG D
	7,500	98	EXISTING	PAVED / I	BUILDINGS
	5,000	80	EXISTING	NON-PAV	ED AREA
1	17,954	78	Weighted A	verage	
Tc (min)	Length (feet)	Slope (ft/ft)	_	Capacity (cfs)	Description
32.8	100	0.0300	0.1		Sheet Flow, AB
16.7	433	0.0300	0.4		Woods: Dense underbrush n= 0.800 P2= 3.00" Shallow Concentrated Flow, BC Forest w/Heavy Litter Kv= 2.5 fps
49.5	533	Total	-		

Pond 5P:

Inflow Area =	1.147 ac, Inflow Depth > 1.85"	for 10 YEAR event
Inflow =	1.09 cfs @ 12.82 hrs, Volume=	0.177 af
Outflow =	0.36 cfs @ 13.92 hrs, Volume=	0.173 af, Atten= 67%, Lag= 66.1 min
Primary =	0.36 cfs @ 13.92 hrs, Volume=	0.173 af

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

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Peak Elev= 29.89' @ 13.92 hrs Surf.Area= 6,331 sf Storage= 2,851 cf Plug-Flow detention time=92.5 min calculated for 0.173 af (98% of inflow) Center-of-Mass det. time=85.6 min (929.8 - 844.1)

Volume	Invert A	vail.Storage	Storage D	escription	
#1	29.00'	12,970 cf	Custom S	Stage Data (P	rismatic) Listed below (Recalc)
Elevation (feet)	Surf.Are (sq-f		c.Store c-feet)	Cum.Store (cubic-feet)	
29.00	11	0	0	0	
30.00	7,13	6	3,623	3,623	
31.00	11,55	8	9,347	12,970	
Device Ro	uting Inv	vert Outlet	Devices		
#1 Pri	mary 29.		_		y, square edge headwall, Ke= 0.500

Primary OutFlow Max=0.36 cfs @ 13.92 hrs HW=29.89' (Free Discharge)
1=Culvert (Inlet Controls 0.36 cfs @ 4.1 fps)

Pond 7P:

Inflow Area = 2.708 ac, Inflow Depth > 2.25" for 10 YEAR event

Inflow = 3.43 cfs @ 12.69 hrs, Volume= 0.508 af

Outflow = 3.42 cfs @ 12.71 hrs, Volume= 0.507 af, Atten= 0%, Lag= 1.3 min

Primary = 3.42 cfs @ 12.71 hrs, Volume= 0.507 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 24.73' @ 12.71 hrs Surf.Area= 1,492 sf Storage= 2,238 cf Plug-Flow detention time=22.5 min calculated for 0.505 af (99% of inflow) Center-of-Mass det. time=21.5 min (849.2 - 827.7)

Volume	In	vert Avail	.Storage	Storage	Description		
#1	22	.00'	2,655 cf	Custom	Stage Data (P	rismatic) Listed below (Recalc)	
Elevation (fee		Surf.Area (sq-ft)		c.Store c-feet)	Cum.Store (cubic-feet)		
22.0	00	110		0	0		
23.0	00	600		355	355		
24.0	00	1,200		900	1,255		
25.0	00	1,600	1,600		2,655		
Device	Routing	g Invert	Outlet 1	Devices			
#1	Primar	22.00'	4.0" x	30.0' lon	g Culvert CPI	P, square edge headwall, Ke= 0.500	
#2	Primar	24.50'	10.0' lo	utlet Invert= 21.00' S= 0.0333 '/' Cc= 0.900 n= 0.010 PVC, smooth interior 0.0' long x 10.0' breadth Broad-Crested Rectangular Weir ead (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60			

Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

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Primary OutFlow Max=3.41 cfs @ 12.71 hrs HW=24.73' (Free Discharge)

1=Culvert (Barrel Controls 0.65 cfs @ 7.5 fps)

2=Broad-Crested Rectangular Weir (Weir Controls 2.76 cfs @ 1.2 fps)

Pond 8P: EXIST STORM DRAIN

Inflow Area = 3.855 ac, Inflow Depth > 2.12" for 10 YEAR event

Inflow = 3.68 cfs @ 12.72 hrs, Volume= 0.680 af

Outflow = 3.68 cfs @ 12.72 hrs, Volume= 0.680 af, Atten= 0%, Lag= 0.0 min

Primary = 3.68 cfs @ 12.72 hrs, Volume= 0.680 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 21.38' @ 12.72 hrs Flood Elev= 24.83' Plug-Flow detention time=0.0 min calculated for 0.680 af (100% of inflow)

Center-of-Mass det. time= 0.0 min (869.7 - 869.7)

DeviceRoutingInvertOutlet Devices#1Primary20.40'16.0" x 50.0' long CulvertCPP, square edge headwall, Ke= 0.500
Outlet Invert= 19.90'S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=3.67 cfs @ 12.72 hrs HW=21.37' (Free Discharge)
1=Culvert (Inlet Controls 3.67 cfs @ 3.4 fps)

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Subcatchment 5S:

Runoff = 1.44 cfs @ 12.81 hrs, Volume=

0.233 af, Depth> 2.44"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25 YEAR Rainfall=5.50"

_	A	rea (sf)	CN	Description		
		49,962	73	Brush, Good	d, HSG D	
	Tc (min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description
	38.6	100	0.0200	0.0		Sheet Flow, AB
	19.4	411	0.0200	0.4		Woods: Dense underbrush n= 0.800 P2= 3.00" Shallow Concentrated Flow, BC Forest w/Heavy Litter Kv= 2.5 fps
-	58.0	511	Total			

Subcatchment 7S:

Runoff = 4.38 cfs @ 12.68 hrs, Volume=

0.652 af, Depth> 2.89"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25 YEAR Rainfall=5.50"

Aı	rea (sf)	CN	Description		
(60,154	73	Brush, Good	d, HSG D	
	45,300	80	>75% Grass	cover, Goo	od, HSG D
	7,500	98	EXISTING	PAVED / I	BUILDINGS
	5,000	80	EXISTING	NON-PAV	TED AREA
117,954 78 Weighted Av		verage			
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
32.8	100	0.0300	0.1		Sheet Flow, AB
					Woods: Dense underbrush n= 0.800 P2= 3.00"
16.7	433	0.0300	0.4		Shallow Concentrated Flow, BC
					Forest w/Heavy Litter Kv= 2.5 fps
49.5	533	Total			

Pond 5P:

Inflow Area =	1.147 ac, Inflow Depth > 2.44"	for 25 YEAR event
Inflow =	1.44 cfs @ 12.81 hrs, Volume=	0.233 af
Outflow =	0.40 cfs (a) 14.07 hrs, Volume=	0.221 af, Atten= 72%, Lag= 75.9 min
Primary =	$0.40 \text{ cfs} \bigcirc 14.07 \text{ hrs} \text{ Volume} =$	0.221 af

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

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Peak Elev= 30.07' @ 14.07 hrs Surf.Area= 7,459 sf Storage= 4,156 cf Plug-Flow detention time= 120.7 min calculated for 0.220 af (95% of inflow) Center-of-Mass det. time= 104.0 min (942.4 - 838.4)

Volume	Volume Invert Avail.S		.Storage	Storage De	escription			
#1	29	00' 12,970 cf		Custom Stage Data (Prismatic) Listed below (Recalc)				
Elevatio (feet		Surf.Area (sq-ft)	Inc. (cubic	Store -feet)	Cum.Store (cubic-feet)			
29.0	0	110		0	0			
30.0	0	7,136	3	3,623	3,623			
31.0	0	11,558	Ģ	9,347	12,970			
Device	Routing	g Invert	Outlet D	evices				
#1	Primary	29.00'	4.0" x 55.0' long Culvert CPP, square edge headwall, Ke= 0.500 Outlet Invert= 24.30' S= 0.0855 '/' Cc= 0.900 n= 0.010 PVC, smooth interior					

Primary OutFlow Max=0.40 cfs @ 14.07 hrs HW=30.07' (Free Discharge)

1=Culvert (Inlet Controls 0.40 cfs @ 4.6 fps)

Pond 7P:

Inflow Area = 2.708 ac, Inflow Depth > 2.89" for 25 YEAR event

Inflow = 4.38 cfs @ 12.68 hrs, Volume= 0.652 af

Outflow = 4.38 cfs @ 12.70 hrs, Volume= 0.650 af, Atten= 0%, Lag= 1.1 min

Primary = 4.38 cfs @ 12.70 hrs, Volume= 0.650 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 24.78' @ 12.70 hrs Surf.Area= 1,512 sf Storage= 2,311 cf Plug-Flow detention time= 20.9 min calculated for 0.650 af (100% of inflow) Center-of-Mass det. time= 20.0 min (842.2 - 822.2)

Volume	In	vert Avail.	.Storage	Storage	Description			
#1	22	.00'	2,655 cf	Custom	Stage Data (Pr	ismatic) Listed below (Recalc)		
		G 0.4	-	a .	G G			
Elevation	on	Surf.Area	Inc.Store		Cum.Store			
(fee	et)	(sq-ft)	(cubi	c-feet)	(cubic-feet)			
22.0	00	110		0	0			
23.0	00	600		355	355			
24.0	00	1,200		900	1,255			
25.0	00	1,600	1,600		2,655			
Device	Routing	g Invert	Outlet I	Devices				
#1	Primary	22.00'	4.0" x 30.0' long Culvert CPP, square edge headwall, Ke= 0.500					
			Outlet I	nvert=21	.00' S= 0.0333	$^{\prime\prime}$ Cc= 0.900 n= 0.010 PVC, smooth interior		
#2	Primary	24.50'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir					
	·		Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60					
			Coef (I	English)	2.49 2.56 2.70	2.69 2.68 2.69 2.67 2.64		

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Primary OutFlow Max=4.37 cfs @ 12.70 hrs HW=24.78' (Free Discharge)

1=Culvert (Barrel Controls 0.66 cfs @ 7.5 fps)

2=Broad-Crested Rectangular Weir (Weir Controls 3.71 cfs @ 1.3 fps)

Pond 8P: EXIST STORM DRAIN

Inflow Area = 3.855 ac, Inflow Depth > 2.71" for 25 YEAR event

Inflow = 4.67 cfs @ 12.71 hrs, Volume= 0.871 af

Outflow = 4.67 cfs @ 12.71 hrs, Volume= 0.871 af, Atten= 0%, Lag= 0.0 min

Primary = 4.67 cfs @ 12.71 hrs, Volume= 0.871 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 21.55' @ 12.71 hrs Flood Elev= 24.83'

Plug-Flow detention time=0.0 min calculated for 0.868 af (100% of inflow) Center-of-Mass det. time=(not calculated: outflow precedes inflow)

Device Routing Invert Outlet Devices

#1 Primary 20.40' 16.0" x 50.0' long Culvert CPP, square edge headwall, Ke= 0.500
Outlet Invert= 19.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=4.67 cfs @ 12.71 hrs HW=21.55' (Free Discharge)
1=Culvert (Inlet Controls 4.67 cfs @ 3.6 fps)

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Subcatchment 5S:

Runoff = 1.98 cfs @ 12.80 hrs, Volume=

0.322 af, Depth> 3.37"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100 YEAR Rainfall=6.70"

_	A	rea (sf)	CN	Description		
	49,962		73	Brush, Good	d, HSG D	
	Tc (min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description
•	38.6	100	0.0200	0.0		Sheet Flow, AB
	19.4	411	0.0200	0.4		Woods: Dense underbrush n= 0.800 P2= 3.00" Shallow Concentrated Flow, BC Forest w/Heavy Litter Kv= 2.5 fps
-	58.0	511	Total			

Subcatchment 7S:

Runoff = 5.86 cfs @ 12.68 hrs, Volume=

0.877 af, Depth> 3.88"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100 YEAR Rainfall=6.70"

Area (sf)	CN	Description							
60,154	73	Brush, Good, HSG D							
45,300	80	>75% Grass	cover, Goo	od, HSG D					
7,500	98	EXISTING	PAVED / I	BUILDINGS					
5,000	80	EXISTING	NON-PAV	TED AREA					
117,954	78	Weighted A	verage						
Tc Length (min) (feet)	Slope (ft/ft		Capacity (cfs)	Description					
32.8 100	0.0300	0.1		Sheet Flow, AB					
16.7 433	0.0300	0.4		Woods: Dense underbrush n= 0.800 P2= 3.00" Shallow Concentrated Flow, BC Forest w/Heavy Litter Kv= 2.5 fps					
49.5 533	Total								

Pond 5P:

Inflow Area =	1.147 ac, Inflow Depth > 3.37"	for 100 YEAR event
Inflow =	1.98 cfs @ 12.80 hrs, Volume=	0.322 af
Outflow =	0.46 cfs (a) 14.28 hrs, Volume=	0.276 af, Atten= 77%, Lag= 89.2 min
Primary =	$0.46 \text{ cfs } \bigcirc 0.14.28 \text{ hrs. Volume} = 0.46 \text{ cfs } \bigcirc 0.14.28 \text{ hrs. Volume} = 0.46 \text{ cfs.} \bigcirc 0.46 $	0.276 af

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

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Peak Elev= 30.35' @ 14.28 hrs Surf.Area= 8,672 sf Storage= 6,369 cf Plug-Flow detention time= 152.7 min calculated for 0.276 af (86% of inflow) Center-of-Mass det. time= 114.1 min (945.5 - 831.4)

Volume	Invert	Avail.	Storage	Storage I	Description			
#1	29.00'	12	2,970 cf	Custom	Stage Data (P	rismatic) Liste	ed below (Recalc)	
Elevation (feet)	Surf. (s	Area sq-ft)		Store -feet)	Cum.Store (cubic-feet)			
29.00		110	0		0			
30.00	7	,136		3,623	3,623			
31.00	11	11,558		9,347	12,970			
Device Ro	outing	Invert	Outlet D	evices				
#1 Pr	imary	29.00'		_	•		headwall, Ke= 0 n= 0.010 PVC	

Primary OutFlow Max=0.46 cfs @ 14.28 hrs HW=30.35' (Free Discharge)

1=Culvert (Inlet Controls 0.46 cfs @ 5.2 fps)

Pond 7P:

Inflow Area = 2.708 ac, Inflow Depth > 3.88" for 100 YEAR event

Inflow = 5.86 cfs @ 12.68 hrs, Volume= 0.877 af

Outflow = 5.85 cfs @ 12.69 hrs, Volume= 0.874 af, Atten= 0%, Lag= 0.9 min

Primary = 5.85 cfs @ 12.69 hrs, Volume= 0.874 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 24.85' @ 12.69 hrs Surf.Area= 1,539 sf Storage= 2,414 cf Plug-Flow detention time=19.2 min calculated for 0.871 af (99% of inflow) Center-of-Mass det. time=18.1 min (833.7 - 815.6)

Volume	: Inv	vert Avail.	Storage Storage	Description	
#1	22	.00'	2,655 cf Custom	n Stage Data (Prismatic) Listed below (Recalc)	
Elevation		Surf.Area	Inc.Store	Cum.Store	
(fee	et)	(sq-ft)	(cubic-feet)	(cubic-feet)	
22.0	00	110	0	0	
23.0	00	600	355	355	
24.0	00	1,200	900	1,255	
25.0	00	1,600	1,400	2,655	
Device	Routing	g Invert	Outlet Devices		
#1	Primary	22.00'	4.0" x 30.0' lon	ng Culvert CPP, square edge headwall, Ke= 0.500	
	•		Outlet Invert= 21	1.00' S= 0.0333 '/' Cc= 0.900 n= 0.010 PVC, smooth interio	r
#2	Primary	24.50'	10.0' long x 10.	.0' breadth Broad-Crested Rectangular Weir	
	-		Head (feet) 0.20	0 0.40 0.60 0.80 1.00 1.20 1.40 1.60	
			Coef. (English)	2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64	

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Primary OutFlow Max=5.84 cfs @ 12.69 hrs HW=24.85' (Free Discharge)

1=Culvert (Barrel Controls 0.66 cfs @ 7.6 fps)

2=Broad-Crested Rectangular Weir (Weir Controls 5.18 cfs @ 1.5 fps)

Pond 8P: EXIST STORM DRAIN

Inflow Area = 3.855 ac, Inflow Depth > 3.58" for 100 YEAR event

Inflow = 6.19 cfs @ 12.70 hrs, Volume= 1.150 af

Outflow = 6.19 cfs @ 12.70 hrs, Volume= 1.150 af, Atten= 0%, Lag= 0.0 min

Primary = 6.19 cfs @ 12.70 hrs, Volume= 1.150 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 21.91' @ 12.70 hrs Flood Elev= 24.83'

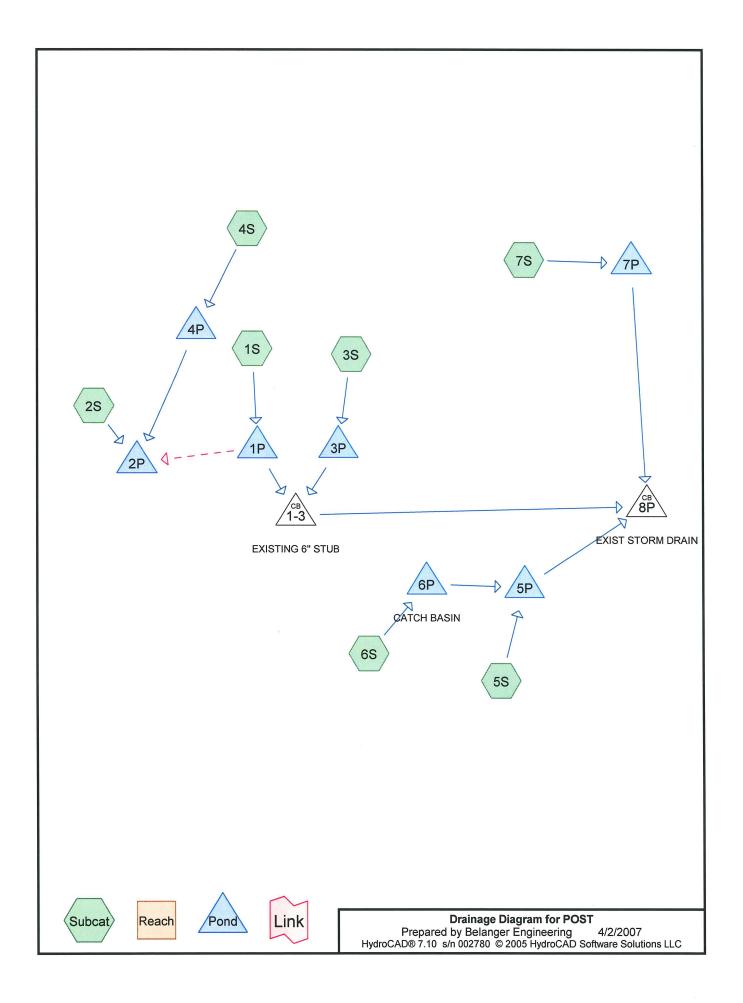
Plug-Flow detention time=0.0 min calculated for 1.146 af (100% of inflow)

Center-of-Mass det. time=(not calculated: outflow precedes inflow)

Device Routing Invert Outlet Devices

#1 Primary 20.40' 16.0" x 50.0' long Culvert CPP, square edge headwall, Ke= 0.500
Outlet Invert= 19.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=6.19 cfs @ 12.70 hrs HW=21.91' (Free Discharge)
1=Culvert (Inlet Controls 6.19 cfs @ 4.4 fps)



Subcatchment 1S:

Runoff = 0.31 cfs @ 12.01 hrs, Volume=

0.019 af, Depth> 2.32"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2 YEAR Rainfall=3.00"

	Area (sf)	CN	Description							
	3,590	98	PAVED / P	PAVED / POND						
	771	80	>75% Grass	75% Grass cover, Good, HSG D						
	4,361 95 Weighted Average									
To _(min	2	Slope (ft/ft		Capacity (cfs)	Description					
0.6	5 44	0.0200) 1.1		Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.00"					

Subcatchment 2S:

Runoff = 0.79 cfs @ 12.60 hrs, Volume=

0.108 af, Depth> 1.14"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2 YEAR Rainfall=3.00"

Are	ea (sf)	CN	Description		
2					
5,000 98 EXISTING PAVEMENT					
5,000 80 EXISTING NON-PAVED AREA					
6,000 80 PROPOSED NON-PAVED DEV AREA					
	4,908	98			
4	19,612	80	Weighted A	verage	
	•		· ·		
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
38.6	100	0.0200	0.0		Sheet Flow, AB
					Woods: Dense underbrush n= 0.800 P2= 3.00"
2.9	86	0.0400	0.5		Shallow Concentrated Flow, BC
					Forest w/Heavy Litter Kv= 2.5 fps
41.5	186	Total			

Subcatchment 3S:

Runoff = 0.29 cfs @ 12.09 hrs, Volume=

0.019 af, Depth> 1.34"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2 YEAR Rainfall=3.00"

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A	rea (sf)	CN	Description			
`	538	73	Brush, Good	d, HSG D		
	5,391	80	PROP NON	I-PAVED I	DEV AREA	
	1,547	98	ROOF AND) WALK		
	7,476 83 Weighted Average					
Tc (min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description	
3.7	50	0.0600	0.2		Sheet Flow, AB	
					Grass: Short $n=0.150 P2=3.00$ "	
1.8	165	0.0100	1.5		Shallow Concentrated Flow, BC	
					Grassed Waterway Kv= 15.0 fps	
5.5	215	Total				

Subcatchment 4S:

Runoff 0.46 cfs @ 12.37 hrs, Volume= 0.051 af, Depth> 1.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2 YEAR Rainfall=3.00"

A	rea (sf)	CN	Description		·				
	5,584	73	Brush, Good, HSG D						
5,094 80 PROPOSED NON PAVED DEVELOPED AREA									
	7,410	98	PAVEMEN	T, ROOFS	, WALKS				
	18,088	85	Weighted A	verage					
			_						
Tc	Length	Slope	e Velocity	Capacity	Description				
(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
24.9	100	0.0600	0.1		Sheet Flow, AB				
					Woods: Dense underbrush $n=0.800 P2=3.00$ "				
1.4	174	0.0200	2.1		Shallow Concentrated Flow, BC				
					Grassed Waterway Kv= 15.0 fps				
26.3	274	Total							

Subcatchment 5S:

0.37 cfs @ 12.86 hrs, Volume= Runoff

0.064 af, Depth> 0.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2 YEAR Rainfall=3.00"

	Area (sf)	CN	Description
·	41,329	73	Brush, Good, HSG D
	3,015	80	PROP NON-PAVED DEV AREA
	44,344	73	Weighted Average

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_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	38.6	100	0.0200	0.0	,	Sheet Flow, AB
						Woods: Dense underbrush n= 0.800 P2= 3.00"
	19.4	411	0.0200	0.4		Shallow Concentrated Flow, BC
						Forest w/Heavy Litter Kv= 2.5 fps
•	58.0	511	Total		•	

Subcatchment 6S:

Runoff = 0.38 cfs @ 12.01 hrs, Volume=

0.025 af, Depth> 2.59"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2 YEAR Rainfall=3.00"

 Area (sf)		CN	Description		
	5,015	98	PAVED		
 Tc (min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description
 0.7	45	0.0200	1.1		Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.00"

Subcatchment 7S:

Runoff = 1.04 cfs @ 12.34 hrs, Volume=

0.110 af, Depth> 1.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2 YEAR Rainfall=3.00"

A	rea (sf)	CN	Description										
	45,300	80	>75% Grass	75% Grass cover, Good, HSG D									
	2,500	98	PAVED / R	OOFS									
47,800 81			Weighted A	verage									
Tc (min)	Length (feet)	Slope (ft/ft)	-	Capacity (cfs)	Description								
22.6	100	0.0200	0.1		Sheet Flow, AB								
1.2	186	0.0300	2.6		Grass: Bermuda n= 0.410 P2= 3.00" Shallow Concentrated Flow, BC Grassed Waterway Kv= 15.0 fps								
23.8	286	Total		-									

Pond 1-3: EXISTING 6" STUB

Inflow Area =	0.272 ac, Inflow Depth > 1.68"	for 2 YEAR event
Inflow =	0.43 cfs @ 12.11 hrs, Volume=	0.038 af
Outflow =	0.43 cfs @ 12.11 hrs, Volume=	0.038 af, Atten= 0%, Lag= 0.0 min
Primary =	0.43 cfs (a) 12.11 hrs, Volume=	0.038 af

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Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 31.45' @ 12.11 hrs

Plug-Flow detention time=(not calculated: outflow precedes inflow)

Center-of-Mass det. time=0.0 min (785.9 - 785.9)

Device	Routing	Invert	Outlet Devices
#1	Primary	31.00'	6.0" x 30.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= 30.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.42 cfs @ 12.11 hrs HW=31.45' (Free Discharge)

1=Culvert (Inlet Controls 0.42 cfs @ 2.3 fps)

Pond 1P:

Inflow Area =	0.100 ac, Inflow Depth > 2.32"	for 2 YEAR event
Inflow =	0.31 cfs @ 12.01 hrs, Volume=	0.019 af
Outflow =	0.24 cfs (a) 12.06 hrs, Volume=	0.019 af, Atten= 24%, Lag= 3.4 min
Primary =	0.24 cfs (a) 12.06 hrs, Volume=	0.019 af
Secondary =	0.00 cfs (a) 5.00 hrs, Volume=	0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 33.35' @ 12.06 hrs Surf.Area= 305 sf Storage= 101 cf Plug-Flow detention time= 18.4 min calculated for 0.019 af (98% of inflow)

Center-of-Mass det. time=13.2 min (763.8 - 750.6)

Volume	Invert	Avail.	Storage	Storage	Description				
#1	33.00'	1	,571 cf	Custom	Stage Data (Pr	ismatic) Listed	d below (Re	ecalc)	
Elevatio	on Sur	f.Area		.Store	Cum.Store				
(fee	t)	(sq-ft)	(cubi	c-feet)	(cubic-feet)				
33.0	0	267		0	0				
34.0	0	376		322	322				
35.0	35.00 595		486		807				
36.0	00	932		764	1,571				
Device	Routing	Invert	Outlet 1	Devices					
#1	Primary	33.00'	6.0" x	15.0' lon	g Culvert CPP	, projecting, no	headwall,	Ke = 0.900	
	•		Outlet 1	Invert=31	.00' S= 0.1333	$^{\prime\prime}$ Cc= 0.900	n=0.010	PVC, smooth interior	
#2	Secondary	35.00'	6.0" x	50.0' lon	g Culvert CPP	, projecting, no	headwall,	Ke = 0.900	
	•		Outlet 1	Invert= 34	S = 0.0100	$^{\prime\prime}$ Cc= 0.900	n = 0.010	PVC, smooth interior	

Primary OutFlow Max=0.23 cfs @ 12.06 hrs HW=33.35' (Free Discharge)
1=Culvert (Inlet Controls 0.23 cfs @ 1.6 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=33.00' (Free Discharge) =2=Culvert (Controls 0.00 cfs)

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Pond 2P:

Inflow Area = 1.554 ac, Inflow Depth > 1.22" for 2 YEAR event 1.18 cfs @ 12.51 hrs, Volume= Inflow 0.158 af

Outflow = 0.89 cfs @ 12.81 hrs, Volume= 0.158 af, Atten= 25%, Lag= 18.1 min

0.89 cfs @ 12.81 hrs, Volume= Primary 0.158 af

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

Peak Elev= 34.63' @ 12.81 hrs Surf. Area= 1,332 sf Storage= 813 cf

Plug-Flow detention time=9.5 min calculated for 0.157 af (99% of inflow)

Center-of-Mass det. time= 8.2 min (834.7 - 826.5)

Volume	Inve	rt Avail.	Storage	Storage I	Description	
#1	33.50)' ∠	1,690 cf	Custom	Stage Data (Prismatic) Listed below (Recalc)
Elevetic	n S	Surf.Area	Inc	.Store	Cum.Store	
				.store c-feet)	(cubic-feet	
(fee	τ)	(sq-ft)	(Cubic	-1eet)	(Cubic-leet	
33.5	50	110		0	(
35.0	00	1,736		1,385	1,385	
36.0	00	4,875		3,306	4,690	
Device	Routing	Invert	Outlet I	Devices		
#1	Primary	33.40'	12.0" x	30.0' lor	g Culvert (CPP, square edge headwall, Ke= 0.500
	,					00 // Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	33.50'			e/Grate C=	,
#3	Device 1	35.50'	24.0" H	Ioriz. Ori	fice/Grate	Limited to weir flow $C=0.600$

Primary OutFlow Max=0.89 cfs @ 12.81 hrs HW=34.63' (Free Discharge)

1=Culvert (Passes 0.89 cfs of 3.22 cfs potential flow)

-2=Orifice/Grate (Orifice Controls 0.89 cfs @ 4.5 fps)

-3=Orifice/Grate (Controls 0.00 cfs)

Pond 3P:

0.172 ac, Inflow Depth > 1.34" for 2 YEAR event Inflow Area = 0.29 cfs @ 12.09 hrs, Volume= Inflow 0.019 af

Outflow 0.23 cfs @ 12.16 hrs, Volume= 0.019 af, Atten= 21%, Lag= 4.1 min

0.23 cfs @ 12.16 hrs, Volume= 0.019 af **Primary**

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

Peak Elev= 31.80' @ 12.16 hrs Surf.Area= 416 sf Storage= 101 cf

Plug-Flow detention time=15.3 min calculated for 0.019 af (99% of inflow)

Center-of-Mass det. time=10.1 min (808.1 - 798.0)

Volume	Invert	Avail	.Storage	Storage	Description		
#1	31.50'		983 cf	Custon	n Stage Data (Pri	smatic) Listed below (Recalc)	
Elevation (feet)		Area (sq-ft)		c.Store c-feet)	Cum.Store (cubic-feet)		
31.50		258		0	0		
33.00		1,052		983	983		

36.00

37.00

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Device	Routing	Invert	Outlet Devices
#1	Primary	31.50'	6.0" x 20.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= $31.00'$ S= 0.0250 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.23 cfs @ 12.16 hrs HW=31.80' (Free Discharge)

1=Culvert (Inlet Controls 0.23 cfs @ 1.9 fps)

Pond 4P:

Inflow Area = 0.415 ac, Inflow Depth > 1.47" for 2 YEAR event

Inflow = 0.46 cfs @ 12.37 hrs, Volume= 0.051 af

Outflow = 0.46 cfs @ 12.39 hrs, Volume= 0.051 af, Atten= 0%, Lag= 1.5 min

Primary = 0.46 cfs @ 12.39 hrs, Volume= 0.051 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 35.34' @ 12.39 hrs Surf.Area= 208 sf Storage= 52 cf Plug-Flow detention time= 3.4 min calculated for 0.051 af (100% of inflow) Center-of-Mass det. time= 2.4 min (811.2 - 808.8)

420

1.032

Volume Invert Avail.Storage Storage Description #1 35.00' Custom Stage Data (Prismatic) Listed below (Recalc) 986 cf Elevation Surf.Area Inc.Store Cum.Store (feet) (sq-ft) (cubic-feet) (cubic-feet) 35.00 100 0 0

260

986

Outlet Invert= 34.40' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

37.00		1,032	120	00	
Dovice	Routing	Invent	Outlet Devices		
Device	Rouning	mvert	Outlet Devices		
#1	Primary	35.00'	12.0" x 60.0' long Culvert	CPP, square edge headwall, Ke= 0.500	

Primary OutFlow Max=0.46 cfs @ 12.39 hrs HW=35.34' (Free Discharge)
1=Culvert (Inlet Controls 0.46 cfs @ 2.0 fps)

260

726

Pond 5P:

Inflow Area = 1.133 ac, Inflow Depth > 0.94" for 2 YEAR event

Inflow = 0.41 cfs @ 12.84 hrs, Volume= 0.089 af

Outflow = 0.23 cfs @ 13.49 hrs, Volume= 0.088 af, Atten= 42%, Lag= 38.5 min

Primary = 0.23 cfs @ 13.49 hrs, Volume= 0.088 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 29.48' @ 13.49 hrs Surf.Area= 3,470 sf Storage= 856 cf Plug-Flow detention time=44.1 min calculated for 0.088 af (98% of inflow) Center-of-Mass det. time=38.2 min (865.6 - 827.4)

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Volume	Invert	Avail.	Storage	Storage I	Description	
#1	29.00'	12	,970 cf	Custom	Stage Data (Pi	rismatic) Listed below (Recalc)
Elevation (feet)	Sur	f.Area (sq-ft)		Store c-feet)	Cum.Store (cubic-feet)	
29.00		110		0	0	
30.00		7,136	3,623		3,623	
31.00		11,558		9,347	12,970	
Device Ro	uting	Invert	Outlet 1	Devices		
#1 Pri	mary	29.00'			,	P, square edge headwall, Ke= 0.500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.23 cfs @ 13.49 hrs HW=29.48' (Free Discharge)

1=Culvert (Inlet Controls 0.23 cfs @ 2.7 fps)

Pond 6P: CATCH BASIN

Inflow Area = 0.115 ac, Inflow Depth > 2.59" for 2 YEAR event

Inflow = 0.38 cfs @ 12.01 hrs, Volume= 0.025 af

Outflow = 0.38 cfs @ 12.01 hrs, Volume= 0.025 af, Atten= 1%, Lag= 0.2 min

Primary = 0.38 cfs @ 12.01 hrs, Volume= 0.025 af

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

Peak Elev= 32.41' @ 12.01 hrs Surf.Area= 12 sf Storage= 5 cf

Flood Elev= 36.00' Surf.Area= 2,787 sf Storage= 1,524 cf

Plug-Flow detention time=0.8 min calculated for 0.025 af (100% of inflow)

Center-of-Mass det. time= 0.5 min (735.7 - 735.2)

Volume	Invert	Avail.	Storage	Storage I	Description	
#1	32.00'	4	,152 cf	Custom	Stage Data (Pi	rismatic) Listed below (Recalc)
Elevation (feet)		Area sq-ft)	****	Store c-feet)	Cum.Store (cubic-feet)	
32.00		12		0	0	
34.00		12		24	24	
35.00		100		56	80	
36.00	2	2,787		1,444	1,524	
36.70	2	1,724		2,629	4,152	
Device Ro	outing	Invert	Outlet I	Devices		
#1 Pri	imary	32.00'				P, square edge headwall, Ke= 0.500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.36 cfs @ 12.01 hrs HW=32.40' (Free Discharge)
1=Culvert (Inlet Controls 0.36 cfs @ 2.2 fps)

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Pond 7P:

Inflow Area = 1.097 ac, Inflow Depth > 1.20" for 2 YEAR event

Inflow = 1.04 cfs @ 12.34 hrs, Volume= 0.110 af

Outflow = 0.53 cfs @ 12.72 hrs, Volume= 0.110 af, Atten= 49%, Lag= 22.7 min

Primary = 0.53 cfs @ 12.72 hrs, Volume= 0.110 ar, Atten= 49%, Lag= 22.7 m

•

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 23.75' @ 12.72 hrs Surf.Area= 1,052 sf Storage= 977 cf

Plug-Flow detention time=16.1 min calculated for 0.110 af (100% of inflow)

Center-of-Mass det. time= 14.8 min (832.3 - 817.5)

Volume		Invert	Avail.	Storage	Storage	Description				
#1		22.00'	2	2,655 cf	Custom	Stage Data (P	rismatic) Listed below (Recalc)			
Elevatio		Sui	rf.Area (sq-ft)		c.Store c-feet)	Cum.Store (cubic-feet)				
22.0	22.00 110			0	0					
23.0	00		600		355	355				
24.0	00		1,200	900		1,255				
25.0	00		1,600	1,600		2,655				
Device	Rout	ing	Invert	Outlet 1	Devices					
#1	Prima	ary	22.00'	4.0" x	30.0' lon	g Culvert CP	P, square edge headwall, Ke= 0.500			
				Outlet 1	Invert= 2	1.00' S= 0.033	3 '/' Cc= 0.900 n= 0.010 PVC, smooth interior			
#2	Prim	ary	24.50'		10.0' long x 10.0' breadth Broad-Crested Rectangular Weir					
				`	Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60					
				Coef. (English)	2.49 2.56 2.70	2.69 2.68 2.69 2.67 2.64			

Primary OutFlow Max=0.53 cfs @ 12.72 hrs HW=23.75' (Free Discharge)

—1=Culvert (Inlet Controls 0.53 cfs @ 6.1 fps)

-2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 8P: EXIST STORM DRAIN

Inflow Area = 2.502 ac, Inflow Depth > 1.13" for 2 YEAR event
Inflow = 0.85 cfs @ 12.20 hrs, Volume= 0.235 af

Outflow = 0.85 cfs @ 12.20 hrs, Volume= 0.235 af, Atten= 0%, Lag= 0.0 min

Primary = 0.85 cfs @ 12.20 hrs, Volume= 0.235 af

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

Peak Elev= 20.83' @ 12.20 hrs

Flood Elev= 24.83'

Plug-Flow detention time=0.0 min calculated for 0.235 af (100% of inflow)

Center-of-Mass det. time=0.0 min (837.2 - 837.2)

Device	Routing	Invert	Outlet Devices
#1	Primary	20.40'	16.0" x 50.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= 19.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

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Primary OutFlow Max=0.85 cfs @ 12.20 hrs HW=20.83' (Free Discharge)
1=Culvert (Inlet Controls 0.85 cfs @ 2.2 fps)

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Subcatchment 1S:

Runoff = 0.51 cfs @ 12.01 hrs, Volume

0.032 af, Depth> 3.89"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10 YEAR Rainfall=4.70"

A	rea (sf)	CN	Description								
	3,590	98	PAVED / P	PAVED / POND							
	771	80	>75% Grass	75% Grass cover, Good, HSG D							
	4,361	95	Weighted Average								
			C								
Tc	Length	Slope	e Velocity	Capacity	Description						
(min)	(feet)	(ft/ft) (ft/sec)	(cfs)							
0.6	44	0.0200	1.1		Sheet Flow, AB						
					Smooth surfaces $n=0.011$ P2= 3.00"						

Subcatchment 2S:

Runoff = 1.70 cfs @ 12.58 hrs, Volume=

0.230 af, Depth> 2.43"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10 YEAR Rainfall=4.70"

	A	rea (sf)	CN	Description		
		28,704	73	Brush, Good	d, HSG D	
		5,000	98	EXISTING	PAVEMEN	NT
		5,000	80	EXISTING	NON-PAV	ED AREA
		6,000	80	PROPOSEI	O NON-PA	VED DEV AREA
_		4,908	98	PAVEMEN	T, ROOFS	
		49,612	80	Weighted A	verage	
_	Tc (min)	Length (feet)	Slope (ft/ft	-	Capacity (cfs)	Description
	38.6	100	0.0200	0.0		Sheet Flow, AB
سند	2.9	86	0.0400	0.5		Woods: Dense underbrush n= 0.800 P2= 3.00" Shallow Concentrated Flow, BC Forest w/Heavy Litter Kv= 2.5 fps
	41.5	186	Total			

Subcatchment 3S:

Runoff = 0.58 cfs @ 12.08 hrs, Volume=

0.039 af, Depth> 2.72"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10 YEAR Rainfall=4.70"

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Are	ea (sf)	CN	Description					
538 73 Brush, Good, HSG D								
	5,391 80 PROP NON-PAVED DEV AREA							
	1,547	98	ROOF AND) WALK				
****	7,476	83	Weighted A	verage				
Tc (min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description			
3.7	50	0.0600	0.2		Sheet Flow, AB			
1.8	165	0.0100	1.5		Grass: Short n=0.150 P2=3.00" Shallow Concentrated Flow, BC Grassed Waterway Kv=15.0 fps			
5.5	215	Total						

Subcatchment 4S:

Runoff = 0.90 cfs @ 12.36 hrs, Volume=

0.100 af, Depth> 2.89"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10 YEAR Rainfall=4.70"

 A	rea (sf)	CN	Description						
	5,584	73	Brush, Good, HSG D						
	5,094	80	PROPOSED NON PAVED DEVELOPED AREA						
	7,410	98	PAVEMEN	T, ROOFS,	, WALKS				
	18,088	85	Weighted A	verage					
 Tc (min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description				
24.9	100	0.0600	0.1		Sheet Flow, AB				
1.4	174	0.0200	2.1		Woods: Dense underbrush n= 0.800 P2= 3.00" Shallow Concentrated Flow, BC Grassed Waterway Kv= 15.0 fps				
26.3	274	Total							

Subcatchment 5S:

Runoff = 0.96 cfs @ 12.82 hrs, Volume=

0.157 af, Depth> 1.85"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10 YEAR Rainfall=4.70"

Area (sf)	CN	Description
 41,329	73	Brush, Good, HSG D
3,015	80	PROP NON-PAVED DEV AREA
 44,344	73	Weighted Average

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	38.6	100	0.0200	0.0		Sheet Flow, AB
						Woods: Dense underbrush n= 0.800 P2= 3.00"
	19.4	411	0.0200	0.4		Shallow Concentrated Flow, BC
_						Forest w/Heavy Litter Kv= 2.5 fps
	58.0	511	Total			

Subcatchment 6S:

Runoff 0.60 cfs @ 12.01 hrs, Volume=

0.040 af, Depth> 4.15"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10 YEAR Rainfall=4.70"

Area (sf)		CN	Description		
	5,015		PAVED		
T (mir	c Length (feet)	Slope (ft/ft		Capacity (cfs)	Description
0.	7 45	0.0200	1.1		Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.00"

Subcatchment 7S:

Runoff 2.19 cfs @ 12.33 hrs, Volume= 0.231 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (st) CN Description								
		45,300	80	>75% Grass cover, Good, HSG D					
2,500			98	PAVED / ROOFS					
47,800		81	Weighted A	verage					
	Tc (min)	Length (feet)	Slope (ft/ft)	~	Capacity (cfs)	Description			
	22.6	100	0.0200	0.1		Sheet Flow, AB			
	1.2	186	0.0300	2.6		Grass: Bermuda n= 0.410 P2= 3.00" Shallow Concentrated Flow, BC Grassed Waterway Kv= 15.0 fps			
	23.8	286	Total						

Pond 1-3: EXISTING 6" STUB

0.272 ac, Inflow Depth > 3.12" for 10 YEAR event Inflow Area = Inflow 0.78 cfs @ 12.11 hrs, Volume= 0.071 af 0.78 cfs @ 12.11 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min Outflow =

0.78 cfs @ 12.11 hrs, Volume= 0.071 af Primary =

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Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 31.94' @ 12.11 hrs

Plug-Flow detention time=(not calculated: outflow precedes inflow)

Center-of-Mass det. time=0.0 min (773.3 - 773.3)

Device	Routing	Invert	Outlet Devices
#1	Primary	31.00'	6.0" x 30.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= 30.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.77 cfs @ 12.11 hrs HW=31.92' (Free Discharge)
1=Culvert (Inlet Controls 0.77 cfs @ 3.9 fps)

Pond 1P:

Inflow Area =	0.100 ac, Inflow Depth > 3.89"	for 10 YEAR event
Inflow =	0.51 cfs @ 12.01 hrs, Volume=	0.032 af
Outflow =	0.38 cfs @ 12.07 hrs, Volume=	0.032 af, Atten= 26%, Lag= 3.6 min
Primary =	0.38 cfs @ 12.07 hrs, Volume=	0.032 af
Secondary =	0.00 cfs (a) 5.00 hrs, Volume=	0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 33.50' @ 12.06 hrs Surf.Area= 322 sf Storage= 147 cf

Plug-Flow detention time=15.3 min calculated for 0.032 af (99% of inflow)

Center-of-Mass det. time=11.0 min (752.8 - 741.8)

Volume	Inve	rt Avail.	Storage	Storage	Description			
#1	33.00) ' 1	,571 cf	Custom	Stage Data (Pr	i <mark>smatic)</mark> Listed b	pelow (Recalc)	
Elevatio	on S	Surf.Area	Inc	Store	Cum.Store			
(fee		(sq-ft)		c-feet)	(cubic-feet)			
33.0	00	267		0	0			
34.0	00	376		322	322			
35.0	00	595		486	807			
36.0	00	932		764	1,571			
Device	Routing	Invert	Outlet l	Devices				
#1	Primary	33.00'	6.0" x	15.0' lon	g Culvert CPP	, projecting, no h	eadwall, Ke=	0.900
Outlet Invert= 31.00' S= 0.1333 '/' Cc= 0.900 n= 0.010 PVC, smooth with the secondary Secondary 35.00' S= 0.1333 '/' Cc= 0.900 n= 0.010 PVC, smooth with the secondary					0.900			

Primary OutFlow Max=0.37 cfs @ 12.07 hrs HW=33.49' (Free Discharge)
1=Culvert (Inlet Controls 0.37 cfs @ 1.9 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=33.00' (Free Discharge) =2=Culvert (Controls 0.00 cfs)

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Pond 2P:

Inflow Area = 1.554 ac, Inflow Depth > 2.55" for 10 YEAR event

Inflow = 2.46 cfs @ 12.50 hrs, Volume = 0.330 af

Outflow = 1.56 cfs @ 12.89 hrs, Volume= 0.329 af, Atten= 37%, Lag= 23.6 min

Primary = 1.56 cfs @ 12.89 hrs, Volume= 0.329 af

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

Peak Elev= 35.56' @ 12.89 hrs Surf. Area= 3,485 sf Storage= 2,839 cf

Plug-Flow detention time=18.6 min calculated for 0.329 af (100% of inflow)

Center-of-Mass det. time=17.6 min (828.2 - 810.6)

Volume	In	vert Avail.	Storage	Storage 1	Description	
#1	33	.50'	4,690 cf	Custom	Stage Data (P	rismatic) Listed below (Recalc)
	Elevation Surf.Area (feet) (sq-ft			Store -feet)	Cum.Store (cubic-feet)	
33.5	50	110	`	0	0	
35.0	00	1,736		1,385	1,385	
36.0	00	4,875		3,306	4,690	
Device	Routing	g Invert	Outlet [Devices		
#1	#1 Primary		12.0" x	30.0' lo	ng Culvert CF	PP, square edge headwall, Ke= 0.500
110	ъ :	1 22.50				'/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2 Device		1 33.50'	6.0" Ve	rt. Orific	ce/Grate C= 0	.600

35.50' **24.0"** Horiz. Orifice/Grate Limited to weir flow C= 0.600

Primary OutFlow Max=1.55 cfs @ 12.89 hrs HW=35.56' (Free Discharge)

-1=Culvert (Passes 1.55 cfs of 4.87 cfs potential flow)

Device 1

#3

—2=Orifice/Grate (Orifice Controls 1.27 cfs @ 6.5 fps)

-3=Orifice/Grate (Weir Controls 0.28 cfs @ 0.8 fps)

Pond 3P:

Inflow Area = 0.172 ac, Inflow Depth > 2.72" for 10 YEAR event

Inflow = 0.58 cfs @ 12.08 hrs, Volume = 0.039 af

Outflow = 0.45 cfs (a) 12.15 hrs, Volume= 0.039 af, Atten= 22%, Lag= 4.2 min

Primary = 0.45 cfs @ 12.15 hrs, Volume= 0.039 af

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

Peak Elev= 31.97' @ 12.15 hrs Surf. Area= 507 sf Storage= 180 cf

Plug-Flow detention time=12.2 min calculated for 0.039 af (99% of inflow)

Center-of-Mass det. time= 8.5 min (790.4 - 781.8)

Volume	Invert	Avail.Storag	e Storage	Description	
#1	31.50'	983 c	f Custon	n Stage Data (Pr	ismatic) Listed below (Recalc)
Elevation (feet)			Inc.Store	Cum.Store (cubic-feet)	
31.50		258	0	0	
33.00		1,052	983	983	

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Device	Routing	Invert	tlet Devices					
#1	Primary	31.50'	6.0" x 20.0' long Culvert CPP, square edge headwall, Ke= 0.500					
			Outlet Invert= $31.00'$ S= 0.0250 '/' Cc= 0.900 n= 0.010 PVC, smooth interior					

Primary OutFlow Max=0.45 cfs @ 12.15 hrs HW=31.97' (Free Discharge)
1=Culvert (Inlet Controls 0.45 cfs @ 2.3 fps)

Pond 4P:

Inflow Area = 0.415 ac, Inflow Depth > 2.89" for 10 YEAR event

Inflow = 0.90 cfs @ 12.36 hrs, Volume= 0.100 af

Outflow = 0.89 cfs @ 12.38 hrs, Volume= 0.100 af, Atten= 0%, Lag= 1.3 min

Primary = 0.89 cfs @ 12.38 hrs, Volume= 0.100 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 35.48' @ 12.38 hrs Surf.Area= 255 sf Storage= 86 cf Plug-Flow detention time= 2.8 min calculated for 0.100 af (100% of inflow) Center-of-Mass det. time= 2.0 min (795.4 - 793.4)

Volume	Invert	Avail.	Storage	Storage De	escription				
#1	35.00'		986 cf	Custom S	tage Data (Pris	matic) Listed	d below (R	ecalc)	
Elevation (feet)		Area sq-ft)		Store c-feet)	Cum.Store (cubic-feet)				
35.00		100		0	0				
36.00		420		260	260				
37.00	1	1,032		726	986				
Device Ro	uting	Invert	Outlet l	Devices					
#1 Pri	mary	35.00'			Culvert CPP, 0' S= 0.0100 '/'			Ke= 0.500 PVC, smooth interior	

Primary OutFlow Max=0.89 cfs @ 12.38 hrs HW=35.48' (Free Discharge)

1=Culvert (Inlet Controls 0.89 cfs @ 2.4 fps)

Pond 5P:

Inflow Area = 1.133 ac, Inflow Depth > 2.08" for 10 YEAR event

Inflow = 1.01 cfs @ 12.81 hrs, Volume= 0.197 af

Outflow = 0.36 cfs @ 13.86 hrs, Volume= 0.193 af, Atten= 64%, Lag= 62.9 min

Primary = 0.36 cfs @ 13.86 hrs, Volume= 0.193 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 29.91' @ 13.86 hrs Surf.Area= 6,521 sf Storage= 3,025 cf Plug-Flow detention time=93.2 min calculated for 0.192 af (98% of inflow) Center-of-Mass det. time= 86.2 min (907.7 - 821.5) Prepared by Belanger Engineering

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Volume	Invert	Avail.	Storage	Storage I	Description	
#1	29.00'	12	,970 cf	Custom	Stage Data (P	rismatic) Listed below (Recalc)
Elevation (feet)			Inc.Store (cubic-feet)		Cum.Store (cubic-feet)	
29.00		110		0	0	
30.00		7,136		3,623	3,623	
31.00		11,558		9,347	12,970	
Device Re	outing	Invert	Outlet I	Devices		
#1 Pr	rimary	29.00'		,	-	P, square edge headwall, Ke= 0.500

Primary OutFlow Max=0.36 cfs @ 13.86 hrs HW=29.91' (Free Discharge) 1=Culvert (Inlet Controls 0.36 cfs @ 4.2 fps)

Pond 6P: CATCH BASIN

Inflow Area = 0.115 ac, Inflow Depth > 4.15" for 10 YEAR event 0.60 cfs @ 12.01 hrs, Volume= Inflow 0.040 af 0.59 cfs @ 12.01 hrs, Volume= Outflow = 0.040 af, Atten= 2%, Lag= 0.3 min Primary 0.59 cfs @ 12.01 hrs, Volume= 0.040 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 32.63' @ 12.01 hrs Surf.Area= 12 sf Storage= 8 cf

Flood Elev= 36.00' Surf.Area= 2,787 sf Storage= 1,524 cf

Plug-Flow detention time=0.7 min calculated for 0.040 af (100% of inflow)

Center-of-Mass det. time=0.4 min (732.0 - 731.6)

Volume	Invert	Avail.	Storage	Storage	Description						
#1	32.00' 4,152 cf		Custom	Stage Data	ı (Prisma	tic) Listed	below (R	ecalc)			
Elevation (feet)		f.Area (sq-ft)		Store c-feet)	Cum.St (cubic-fe						
32.00		12		0		0					
34.00		12		24		24					
35.00		100		56		80					
36.00		2,787		1,444	1,5	524					
36.70		4,724		2,629	4,1	152					
	outing	Invert	Outlet I								
#1 P1	rimary	32.00'	6.0'' x	60.0' lon	g Culvert	CPP, squ	are edge he	adwall,]	Ke = 0.50	00	

Outlet Invert= 31.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.57 cfs @ 12.01 hrs HW=32.61' (Free Discharge)

1=Culvert (Inlet Controls 0.57 cfs @ 2.9 fps)

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Pond 7P:

Inflow Area = 1.097 ac, Inflow Depth > 2.53" for 10 YEAR event

Inflow = 2.19 cfs @ 12.33 hrs, Volume= 0.231 af

Outflow = 1.84 cfs @ 12.50 hrs, Volume= 0.231 af, Atten= 16%, Lag= 10.4 min

Primary = 1.84 cfs @ 12.50 hrs, Volume = 0.231 af

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

Peak Elev= 24.63' @ 12.50 hrs Surf.Area= 1,453 sf Storage= 2,093 cf

Plug-Flow detention time=23.7 min calculated for 0.230 af (99% of inflow)

Center-of-Mass det. time=22.7 min (823.7 - 801.0)

Volume	I	nvert	Avail	.Storage	Storage	Description	
#1	2	22.00'		2,655 cf	Custom	Stage Data (P	rismatic) Listed below (Recalc)
(feet)			f.Area (sq-ft)		Inc.Store Cum (cubic-feet) (cubic		
22.00			110		0	0	
23.00			600		355	355	
24.0	00		1,200		900	1,255	
25.0	00		1,600		1,400	2,655	
Device	Routi	ng	Invert	Outlet l	Devices		
#1	Prima	ıry	22.00'	4.0" x	30.0' lon	g Culvert CP	P, square edge headwall, Ke= 0.500
							5'/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Prima	ıry	24.50'	10.0' lo	ng x 10.	0' breadth Bro	ad-Crested Rectangular Weir
				Head (f	eet) 0.20	0.40 0.60 0.8	0 1.00 1.20 1.40 1.60
				Coef. (1	English)	2.49 2.56 2.70	2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.82 cfs @ 12.50 hrs HW=24.63' (Free Discharge)

—1=Culvert (Barrel Controls 0.64 cfs @ 7.4 fps)

—2=Broad-Crested Rectangular Weir (Weir Controls 1.18 cfs @ 0.9 fps)

Pond 8P: EXIST STORM DRAIN

Inflow Area = 2.502 ac, Inflow Depth > 2.37" for 10 YEAR event

Inflow = 2.38 cfs @ 12.50 hrs, Volume= 0.494 af

Outflow = 2.38 cfs @ 12.50 hrs, Volume= 0.494 af, Atten= 0%, Lag= 0.0 min

Primary = 2.38 cfs @. 12.50 hrs, Volume = 0.494 af

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

Peak Elev= 21.15' @ 12.50 hrs

Flood Elev= 24.83'

Plug-Flow detention time=(not calculated: outflow precedes inflow)

Center-of-Mass det. time=0.0 min (849.3 - 849.3)

Device	Routing	Invert	Outlet Devices
#1	Primary	20.40'	16.0" x 50.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= 19.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

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Primary OutFlow Max=2.36 cfs @ 12.50 hrs HW=21.15' (Free Discharge)
1=Culvert (Inlet Controls 2.36 cfs @ 2.9 fps)

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Subcatchment 1S:

Runoff = 0.60 cfs @ 12.01 hrs, Volume=

0.039 af, Depth> 4.62"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25 YEAR Rainfall=5.50"

	A	rea (sf)	CN	Description							
		3,590	98	PAVED / P	AVED / POND						
		771	80	>75% Grass	5% Grass cover, Good, HSG D						
		4,361	95	Weighted Average							
(1	Tc min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description					
	0.6	44	0.0200	1.1		Sheet Flow, AB Smooth surfaces	n= 0.011	P2= 3.00"			

Subcatchment 2S:

Runoff = 2.15 cfs @ 12.57 hrs, Volume=

0.293 af, Depth> 3.08"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25 YEAR Rainfall=5.50"

A	rea (sf)	CN	Description		
	28,704	73	Brush, Good	d, HSG D	
	5,000	98	EXISTING	PAVEMEN	NT
	5,000	80	EXISTING	NON-PAV	ED AREA
	6,000	80	PROPOSEI	O NON-PA	VED DEV AREA
	4,908	98	PAVEMEN	T, ROOFS	
	49,612	80	Weighted A	verage	
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
38.6	100	0.0200	0.0		Sheet Flow, AB
					Woods: Dense underbrush n= 0.800 P2= 3.00"
2.9	86	0.0400	0.5		Shallow Concentrated Flow, BC
					Forest w/Heavy Litter Kv= 2.5 fps
41.5	186	Total			

Subcatchment 3S:

Runoff = 0.72 cfs @ 12.08 hrs, Volume=

0.049 af, Depth> 3.41"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25 YEAR Rainfall=5.50"

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A	rea (sf)	CN	Description		
	538	73	Brush, Good	l, HSG D	
	5,391	80	PROP NON	-PAVED D	DEV AREA
	1,547	98	ROOF AND) WALK	
	7,476	83	Weighted A	verage	
Tc (min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description
3.7	50	0.0600	0.2		Sheet Flow, AB
1.8	165	0.0100) 1.5		Grass: Short n= 0.150 P2= 3.00" Shallow Concentrated Flow, BC Grassed Waterway Kv= 15.0 fps
5.5	215	Total			

Subcatchment 4S:

Runoff = 1.11 cfs @ 12.36 hrs, Volume=

0.124 af, Depth> 3.59"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25 YEAR Rainfall=5.50"

_	A	rea (sf)	CN	Description		
		5,584	73	Brush, Good	d, HSG D	
		5,094	80	PROPOSEI	NON PAV	VED DEVELOPED AREA
_		7,410	98	PAVEMEN	T, ROOFS,	WALKS
		18,088	85	Weighted A	verage	
	Tc (min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description
	24.9	100	0.0600	0.1		Sheet Flow, AB
	1.4	174	0.0200	2.1		Woods: Dense underbrush n= 0.800 P2= 3.00" Shallow Concentrated Flow, BC Grassed Waterway Kv= 15.0 fps
_	26.3	274	Total			

Subcatchment 5S:

Runoff = 1.27 cfs @ 12.81 hrs, Volume=

0.207 af, Depth> 2.44"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25 YEAR Rainfall=5.50"

Area (sf)	CN	Description
41,329	73	Brush, Good, HSG D
 3,015	80	PROP NON-PAVED DEV AREA
 44,344	73	Weighted Average

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.6	100	0.0200	0.0		Sheet Flow, AB
					Woods: Dense underbrush n= 0.800 P2= 3.00"
19.4	411	0.0200	0.4		Shallow Concentrated Flow, BC
					Forest w/Heavy Litter Kv= 2.5 fps
58.0	511	Total			

Subcatchment 6S:

Runoff = 0.70 cfs @ 12.01 hrs, Volume

0.047 af, Depth> 4.87"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25 YEAR Rainfall=5.50"

Area (sf)		rea (sf)	CN	Description		
		5,015	98	PAVED		
_(n	Tc nin)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description
	0.7	45	0.0200	1.1		Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.00"

Subcatchment 7S:

Runoff = 2.75 cfs @ 12.33 hrs, Volume =

0.292 af, Depth> 3.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 25 YEAR Rainfall=5.50"

A	rea (sf)	CN	Description					
	45,300 2,500	80 98	>75% Grass cover, Good, HSG D PAVED / ROOFS					
47,800 81 Weighted Average								
Tc (min)	Length (feet)	Slope (ft/ft)		Capacity (cfs)	Description			
22.6	100	0.0200	0.1		Sheet Flow, AB			
1.2	186	0.0300	2.6		Grass: Bermuda n= 0.410 P2= 3.00" Shallow Concentrated Flow, BC Grassed Waterway Kv= 15.0 fps			
23.8	286	Total						

Pond 1-3: EXISTING 6" STUB

Inflow Area = 0.272 ac, Inflow Depth > 3.83" for 25 YEAR event
Inflow = 0.91 cfs @ 12.12 hrs, Volume= 0.087 af

Outflow = 0.91 cfs @ 12.12 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min

Primary = 0.91 cfs @ 12.12 hrs, Volume= 0.087 af

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

Peak Elev= 32.18' @ 12.12 hrs

Plug-Flow detention time=(not calculated: outflow precedes inflow)

Center-of-Mass det. time=0.0 min (769.2 - 769.2)

Device	Routing	Invert	Outlet Devices
#1	Primary	31.00'	6.0" x 30.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= 30.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.90 cfs @ 12.12 hrs HW=32.16' (Free Discharge)
1=Culvert (Inlet Controls 0.90 cfs @ 4.6 fps)

Pond 1P:

Inflow Area =	0.100 ac, Inflow Depth > 4.62"	for 25 YEAR event
Inflow =	0.60 cfs @ 12.01 hrs, Volume=	0.039 af
Outflow =	0.43 cfs @ 12.07 hrs, Volume=	0.038 af, Atten= 28%, Lag= 3.7 min
Primary =	0.43 cfs @ 12.07 hrs, Volume=	0.038 af
Secondary =	0.00 cfs (a) 5.00 hrs, Volume=	0.000 af

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

Peak Elev= 33.58' @ 12.07 hrs Surf.Area= 330 sf Storage= 173 cf

Plug-Flow detention time=14.3 min calculated for 0.038 af (99% of inflow)

Center-of-Mass det. time= 10.3 min (749.7 - 739.4)

Volume	Inve	rt Avail.	Storage	Storage	Description	
#1	33.00)'	,571 cf	Custom	Stage Data (Pr	ismatic) Listed below (Recalc)
Elevation (fee		Surf.Area (sq-ft)		c.Store c-feet)	Cum.Store (cubic-feet)	
33.0	00	267		0	0	
34.0	00	376	376		322	
35.0	00	595	595		807	
36.0	00	932		764	1,571	
Device	Routing	Invert	Outlet 1	Devices		
#1	Primary	33.00'	6.0" x	15.0' lor	ng Culvert CPP	projecting, no headwall, Ke= 0.900
#2	Outlet Invert= 31.00' S= 0.1333 '/' Cc= 0.900 n= 0.010 PVC, smooth interior					

Primary OutFlow Max=0.42 cfs @ 12.07 hrs HW=33.57' (Free Discharge)
1=Culvert (Inlet Controls 0.42 cfs @ 2.1 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=33.00' (Free Discharge)

2=Culvert (Controls 0.00 cfs)

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Pond 2P:

Inflow Area = 1.554 ac, Inflow Depth > 3.22" for 25 YEAR event

Inflow = 3.09 cfs @ 12.49 hrs, Volume = 0.417 af

Outflow = 2.54 cfs @ 12.74 hrs, Volume= 0.416 af, Atten= 18%, Lag= 14.6 min

Primary = 2.54 cfs (a) 12.74 hrs, Volume= 0.416 af

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

Peak Elev= 35.65' @ 12.74 hrs Surf.Area= 3,787 sf Storage= 3,189 cf

Plug-Flow detention time=18.1 min calculated for 0.416 af (100% of inflow)

Center-of-Mass det. time=17.2 min (822.6 - 805.4)

Volume	Inver	t Avail.	Storage	Storage 1	Description	
#1	33.50	' /	1,690 cf	Custom	Stage Data (1	Prismatic) Listed below (Recalc)
	~	2.4		~		
Elevatio	on Si	urf.Area	lno	c.Store	Cum.Store	
(fee	t)	(sq-ft)	(cubi	c-feet)	(cubic-feet)	
33.5	0	110		0	C	
35.0	0	1,736	1,385		1,385	
36.0	0	4,875		3,306	4,690	
Device	Routing	Invert	Outlet 1	Devices		
#1	Primary	33.40'	12.0"	x 30.0' lo	ng Culvert C	CPP, square edge headwall, Ke= 0.500
	•	•		Invert= 33	1.10' S= 0.010	0' /' $Cc = 0.900$ n= 0.010 PVC, smooth interior
#2	Device 1	33.50'	6.0" V	ert. Orifi	ce/Grate C=	0.600
#3	Device 1	35.50'	24.0" I	Horiz. Or	ifice/Grate	Limited to weir flow C= 0.600

Primary OutFlow Max=2.53 cfs @ 12.74 hrs HW=35.65' (Free Discharge)

1=Culvert (Passes 2.53 cfs of 5.01 cfs potential flow)

-2=Orifice/Grate (Orifice Controls 1.30 cfs @ 6.6 fps)

-3=Orifice/Grate (Weir Controls 1.23 cfs @ 1.3 fps)

Pond 3P:

Inflow Area = 0.172 ac, Inflow Depth > 3.41" for 25 YEAR event

Inflow = 0.72 cfs @ 12.08 hrs, Volume = 0.049 af

Outflow = 0.53 cfs @ 12.16 hrs, Volume= 0.048 af, Atten= 26%, Lag= 4.7 min

Primary = 0.53 cfs @ 12.16 hrs, Volume= 0.048 af

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

Peak Elev= 32.06' @ 12.16 hrs Surf.Area= 555 sf Storage= 228 cf

Plug-Flow detention time=11.4 min calculated for 0.048 af (99% of inflow)

983

Center-of-Mass det. time= 8.2 min (784.7 - 776.5)

1,052

33.00

Volume	Invert	Avail.Stora	age Storage	e Description
#1	31.50'	983	cf Custon	m Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.		Inc.Store cubic-feet)	Cum.Store (cubic-feet)
31.50		258	0	0

983

Type III 24-hr 25 YEAR Rainfall=5.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	31.50'	6.0" x 20.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= $31.00'$ S= 0.0250 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.52 cfs @ 12.16 hrs HW=32.06' (Free Discharge)

1=Culvert (Inlet Controls 0.52 cfs @ 2.7 fps)

Pond 4P:

Inflow Area = 0.415 ac, Inflow Depth > 3.59" for 25 YEAR event

Inflow = 1.11 cfs @ 12.36 hrs, Volume= 0.124 af

Outflow = 1.10 cfs @ 12.38 hrs, Volume= 0.124 af, Atten= 0%, Lag= 1.3 min

Primary = 1.10 cfs @ 12.38 hrs, Volume= 0.124 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 35.55' @ 12.38 hrs Surf.Area= 275 sf Storage= 102 cf Plug-Flow detention time= 2.6 min calculated for 0.124 af (100% of inflow) Center-of-Mass det. time= 1.9 min (790.2 - 788.3)

Volume	Invert	Avail.	Storage	Storage D	escription				
#1	35.00'		986 cf	Custom S	Stage Data (Pri	smatic) Listed	d below (Re	ecalc)	
Elevation (feet)		Area sq-ft)		Store c-feet)	Cum.Store (cubic-feet)				
35.00		100		0	0				
36.00		420		260	260				
37.00	1	1,032		726	986				
Device Ro	uting	Invert	Outlet I	Devices					
#1 Pri	mary	35.00'		12.0" x 60.0' long Culvert CPP, square edge headwall, Ke= 0.500 Outlet Invert= 34.40' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior					

Primary OutFlow Max=1.10 cfs @ 12.38 hrs HW=35.54' (Free Discharge)
1=Culvert (Inlet Controls 1.10 cfs @ 2.5 fps)

Pond 5P:

Inflow Area = 1.133 ac, Inflow Depth > 2.68" for 25 YEAR event

Inflow = 1.33 cfs @ 12.80 hrs, Volume= 0.253 af

Outflow = 0.41 cfs @ 14.01 hrs, Volume= 0.241 af, Atten= 70%, Lag= 72.4 min

Primary = 0.41 cfs @ 14.01 hrs, Volume= 0.241 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 30.10' @ 14.01 hrs Surf.Area= 7,575 sf Storage= 4,354 cf Plug-Flow detention time= 120.6 min calculated for 0.240 af (95% of inflow) Center-of-Mass det. time= 103.3 min (921.8 - 818.6)

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Volume	Invert	Avail.	Storage	Storage 1	Description			
#1	29.00'	12	2,970 cf	970 cf Custom Stage Data (Prismatic) Listed below (Recalc)				
Elevation (feet)	Sur	f.Area (sq-ft)		Store c-feet)	Cum.Store (cubic-feet)			
29.00		110	0		0			
30.00		7,136		3,623	3,623			
31.00		11,558		9,347	12,970			
Device Ro	outing	Invert	Outlet I	Devices				
#1 Pr	imary	29.00'			•	P, square edge headwall, Ke= 0.500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior		

Primary OutFlow Max=0.41 cfs @ 14.01 hrs HW=30.10' (Free Discharge)
1=Culvert (Inlet Controls 0.41 cfs @ 4.7 fps)

Pond 6P: CATCH BASIN

Inflow Area = 0.115 ac, Inflow Depth > 4.87" for 25 YEAR event

Inflow = 0.70 cfs @ 12.01 hrs, Volume= 0.047 af

Outflow = 0.69 cfs @ 12.01 hrs, Volume= 0.047 af, Atten= 2%, Lag= 0.4 min

Primary = 0.69 cfs @ 12.01 hrs, Volume= 0.047 af

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

Peak Elev= 32.77' @ 12.01 hrs Surf.Area= 12 sf Storage= 9 cf

Flood Elev= 36.00' Surf.Area= 2,787 sf Storage= 1,524 cf

Plug-Flow detention time=0.7 min calculated for 0.047 af (100% of inflow)

Center-of-Mass det. time= 0.4 min (731.1 - 730.7)

Volume	Invert	Avail.	Storage	Storage I	Description	l					
#1	32.00'	4	,152 cf	Custom	Stage Dat	a (Prisr	natic) Lis	ted below (Recalc)		
Elevation (feet)		Area (sq-ft)		.Store c-feet)	Cum.St (cubic-f						
32.00		12		0		0					
34.00		12		24		24					
35.00		100		56		80					
36.00		2,787		1,444	1,	524					
36.70		4,724		2,629	4,	152					
	uting	Invert	Outlet l								
#1 Pri	mary	32.00'	6.0" x	60.0' long	Culvert	CPP, se	quare edge	headwall,	Ke = 0.50	00	

Outlet Invert= 31.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.66 cfs @ 12.01 hrs HW=32.74' (Free Discharge)
1=Culvert (Inlet Controls 0.66 cfs @ 3.4 fps)

Volume

Invert

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Pond 7P:

Inflow Area = 1.097 ac, Inflow Depth > 3.20" for 25 YEAR event

Inflow = 2.75 cfs @ 12.33 hrs, Volume= 0.292 af

Outflow = 2.69 cfs @ 12.41 hrs, Volume= 0.292 af, Atten= 2%, Lag= 5.2 min

Primary = 2.69 cfs @ 12.41 hrs, Volume= 0.292 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 24.69' @ 12.41 hrs Surf.Area= 1,475 sf Storage= 2,176 cf Plug-Flow detention time= 22.1 min calculated for 0.292 af (100% of inflow) Center-of-Mass det. time= 21.2 min (816.8 - 795.6)

Avail.Storage Storage Description

#1	22.00'	2,655 cf Custo	om Stage Data (P	rismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)		
22.00	110	0	0	
23.00	600	355	355	
24.00	1,200	900	1,255	
25.00	1,600	1,400	2,655	

Device	Routing	Invert	Outlet Devices
#1	Primary	22.00'	4.0" x 30.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= $21.00'$ S= 0.0333 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Primary	24.50'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.63 cfs @ 12.41 hrs HW=24.68' (Free Discharge)

—1=Culvert (Barrel Controls 0.65 cfs @ 7.4 fps)

-2=Broad-Crested Rectangular Weir (Weir Controls 1.98 cfs @ 1.1 fps)

Pond 8P: EXIST STORM DRAIN

Inflow Area = 2.502 ac, Inflow Depth > 2.97" for 25 YEAR event

Inflow = 3.43 cfs @ 12.41 hrs, Volume= 0.619 af

Outflow = 3.43 cfs @ 12.41 hrs, Volume= 0.619 af, Atten= 0%, Lag= 0.0 min

Primary = 3.43 cfs @ 12.41 hrs, Volume= 0.619 af

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

Peak Elev= 21.33' @ 12.41 hrs

Flood Elev= 24.83'

Plug-Flow detention time=(not calculated: outflow precedes inflow)

Center-of-Mass det. time=(not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	20.40'	16.0" x 50.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= 19.90' $S= 0.0100 \text{l/}$ $Cc= 0.900 n= 0.010 \text{PVC}$, smooth interior

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Primary OutFlow Max=3.40 cfs @ 12.41 hrs HW=21.33' (Free Discharge) 1=Culvert (Inlet Controls 3.40 cfs @ 3.3 fps)

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Subcatchment 1S:

Runoff = 0.73 cfs @ 12.01 hrs, Volume=

0.048 af, Depth> 5.73"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100 YEAR Rainfall=6.70"

	A	rea (sf)	CN	Description		
		3,590	98	PAVED / P	OND	
_		771	80	>75% Grass	s cover, Goo	ood, HSG D
		4,361	95	Weighted A	verage	
_	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	1
	0.6	44	0.0200	1.1		Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.00"

Subcatchment 2S:

Runoff = 2.83 cfs @ 12.57 hrs, Volume=

0.389 af, Depth> 4.10"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100 YEAR Rainfall=6.70"

A	rea (sf)	CN	Description		
	28,704	73	Brush, Good	d, HSG D	
	5,000	98	EXISTING	PAVEMEN	NT
	5,000	80	EXISTING	NON-PAV	ED AREA
	6,000	80	PROPOSEI	O NON-PA	VED DEV AREA
	4,908	98	PAVEMEN	T, ROOFS	
	49,612	80	Weighted A	verage	
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
38.6	100	0.0200	0.0		Sheet Flow, AB
					Woods: Dense underbrush $n=0.800 P2=3.00$ "
2.9	86	0.0400	0.5		Shallow Concentrated Flow, BC
					Forest w/Heavy Litter Kv= 2.5 fps
41.5	186	Total			

Subcatchment 3S:

Runoff = 0.93 cfs @ 12.08 hrs, Volume=

0.064 af, Depth> 4.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100 YEAR Rainfall=6.70"

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A	rea (sf)	CN	Description		
1	538	73	Brush, Good	d, HSG D	
	5,391	80	PROP NON	I-PAVED I	DEV AREA
	1,547	98	ROOF AND) WALK	
	7,476	83	Weighted A	verage	
_					
Tc	Length	Slope		Capacity	Description
(min)	(feet)	(ft/ft	(ft/sec)	(cfs)	
3.7	50	0.0600	0.2		Sheet Flow, AB
					Grass: Short n= 0.150 P2= 3.00"
1.8	165	0.0100	1.5		Shallow Concentrated Flow, BC
					Grassed Waterway Kv= 15.0 fps
5.5	215	Total			

Subcatchment 4S:

Runoff = 1.42 cfs @ 12.35 hrs, Volume=

0.161 af, Depth> 4.66"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100 YEAR Rainfall=6.70"

A	rea (sf)	CN	Description		
	5,584	73	Brush, Good	d, HSG D	
	5,094	80	PROPOSEI	NON PA'	VED DEVELOPED AREA
	7,410	98	PAVEMEN	T, ROOFS	, WALKS
	18,088	85	Weighted A	verage	
Tc	Length	Slope	e Velocity	Capacity	Description
<u>(min)</u>	(feet)	(ft/ft) (ft/sec)	(cfs)	
24.9	100	0.0600	0.1		Sheet Flow, AB
					Woods: Dense underbrush n= 0.800 P2= 3.00"
1.4	174	0.0200	2.1		Shallow Concentrated Flow, BC
					Grassed Waterway Kv= 15.0 fps
26.3	274	Total			

Subcatchment 5S:

Runoff = 1.76 cfs @ 12.80 hrs, Volume=

0.285 af, Depth> 3.37"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100 YEAR Rainfall=6.70"

 Area (sf)	CN	Description
41,329	73	Brush, Good, HSG D
 3,015	80	PROP NON-PAVED DEV AREA
44,344	73	Weighted Average

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.6	100	0.0200	0.0		Sheet Flow, AB
					Woods: Dense underbrush n= 0.800 P2= 3.00"
19.4	411	0.0200	0.4		Shallow Concentrated Flow, BC
					Forest w/Heavy Litter Kv= 2.5 fps
58.0	511	Total			

Subcatchment 6S:

Runoff = 0.85 cfs @ 12.01 hrs, Volume=

0.057 af, Depth> 5.97"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100 YEAR Rainfall=6.70"

A	rea (sf)	CN	Description		
	5,015	98	PAVED		
Tc (min)	Length (feet)	Slope (ft/ft)		Capacity (cfs)	Description
0.7	45	0.0200	1.1		Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.00"

Subcatchment 7S:

Runoff = 3.62 cfs @ 12.32 hrs, Volume=

0.387 af, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100 YEAR Rainfall=6.70"

	A.	rea (sf)	CN	Description			
		45,300	80	>75% Grass	cover, Goo	od, HSG D	_
2,500 98 PAVED			PAVED / R	OOFS			
47,800 81		81 Weighted Average					
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description	
	22.6	100	0.0200	0.1		Sheet Flow, AB	
	1.2	186	0.0300	2.6		Grass: Bermuda n= 0.410 P2= 3.00" Shallow Concentrated Flow, BC Grassed Waterway Kv= 15.0 fps	
	23.8	286	Total				

Pond 1-3: EXISTING 6" STUB

Inflow Area =	0.272 ac, Inflow Depth > 4.90"	for 100 YEAR event
Inflow =	1.09 cfs @ 12.12 hrs, Volume=	0.111 af
Outflow =	1.09 cfs (a) 12.12 hrs, Volume=	0.111 af, Atten= 0%, Lag= 0.0 min
Primary =	1.09 cfs (a) 12.12 hrs, Volume=	0.111 af

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

Peak Elev= 32.60' @ 12.12 hrs

Plug-Flow detention time=(not calculated: no plugs found)

Center-of-Mass det. time=0.0 min (764.5 - 764.5)

Device	Routing	Invert	Outlet Devices
#1	Primary	31.00'	6.0" x 30.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= 30.70' S= 0.0100'/' Cc= 0.900 n= 0.010 PVC smooth interior

Primary OutFlow Max=1.08 cfs @ 12.12 hrs HW=32.57' (Free Discharge)

1=Culvert (Barrel Controls 1.08 cfs @ 5.5 fps)

Pond 1P:

Inflow Area =	0.100 ac, Inflow Depth > 5.73"	for 100 YEAR event
Inflow =	0.73 cfs @ 12.01 hrs, Volume=	0.048 af
Outflow =	0.50 cfs (a) 12.07 hrs, Volume=	0.047 af, Atten= 32%, Lag= 4.0 min
Primary =	0.50 cfs (a) 12.07 hrs, Volume=	0.047 af
Secondary =	0.00 cfs (a) 5.00 hrs, Volume=	0.000 af

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

Peak Elev= 33.70' @ 12.07 hrs Surf.Area= 343 sf Storage= 214 cf

Plug-Flow detention time=13.3 min calculated for 0.047 af (99% of inflow)

Center-of-Mass det. time= 9.6 min (746.4 - 736.8)

Volume	Inver	t Avail.	Storage	Storage l	Description	
#1	33.00	'	1,571 cf	Custom	Stage Data (Pi	rismatic) Listed below (Recalc)
	Elevation Surf.Area (feet) (sq-ft)		Inc.Store (cubic-feet)		Cum.Store (cubic-feet)	
	3.00 267		(*****	0	0	
34.0	00			322	322	
35.0	35.00 595			486	807	
36.00 932			764	1,571		
Device	Routing	Invert	Outlet I	Devices		
#1	Primary	33.00'	6.0" x	15.0' long	g Culvert CPF	P, projecting, no headwall, Ke= 0.900
			Outlet I	nvert=31	.00' S= 0.1333	'/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	35.00'	00' 6.0" x 50.0' long Culvert CPP, projecting, no headwall, Ke= 0.900			
			Outlet I	nvert= 34	.50' S= 0.0100	O'/Cc = 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.49 cfs @ 12.07 hrs HW=33.69' (Free Discharge) 1=Culvert (Inlet Controls 0.49 cfs @ 2.5 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=33.00' (Free Discharge)

2=Culvert (Controls 0.00 cfs)

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Pond 2P:

Inflow Area = 1.554 ac, Inflow Depth > 4.25" for 100 YEAR event

Inflow = 4.05 cfs @ 12.49 hrs, Volume= 0.551 af

Outflow = 3.74 cfs @ 12.64 hrs, Volume= 0.549 af, Atten= 8%, Lag= 9.0 min

Primary = 3.74 cfs @ 12.64 hrs, Volume= 0.549 af

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

Peak Elev= 35.74' @ 12.64 hrs Surf.Area= 4,056 sf Storage= 3,525 cf

Plug-Flow detention time=17.1 min calculated for 0.549 af (100% of inflow)

Center-of-Mass det. time= 16.2 min (815.3 - 799.0)

Volume	: Ir	ivert .	Avail.	Storage	Storage	Description		
#1	3.	3.50'	۷	4,690 cf	Custom	Stage Data (Prismatic) Listed below (Recalc)	
Elevatio	on	Surf.A	rea	Inc	.Store	Cum.Store		
(fee	(feet) (sq-ft)		-ft)	(cubi	abic-feet) (cubic-feet)			
33.5	50	1	10		0	C	_)	
35.0	00	1,7	736		1,385	1,385	5	
36.00		4,8	375		3,306	4,690		
Device	Routin	ng I	nvert	Outlet I	Devices			
#1	Primar	y 3	3.40'	12.0"	x 30.0' lo	ng Culvert C	CPP, square edge headwall, Ke= 0.500	
		•		Outlet I	nvert= 33	8.10' S = 0.010	$\frac{100 ^{1/2} $	
#2	Device	e 1 3	3.50'	6.0" Vert. Orifice/Grate C= 0.600				
#3	Device	e 1 3	5.50'	24.0" Horiz. Orifice/Grate Limited to weir flow C= 0.600				

Primary OutFlow Max=3.73 cfs @ 12.64 hrs HW=35.74' (Free Discharge)

-1=Culvert (Passes 3.73 cfs of 5.13 cfs potential flow)

2=Orifice/Grate (Orifice Controls 1.33 cfs @ 6.8 fps)

-3=Orifice/Grate (Weir Controls 2.39 cfs @ 1.6 fps)

Pond 3P:

Inflow Area = 0.172 ac, Inflow Depth > 4.47" for 100 YEAR event

Inflow = 0.93 cfs @ 12.08 hrs, Volume= 0.064 af

Outflow = 0.64 cfs @ 12.17 hrs, Volume= 0.064 af, Atten= 31%, Lag= 5.3 min

Primary = 0.64 cfs @ 12.17 hrs, Volume= 0.064 af

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

Peak Elev= 32.20' @ 12.17 hrs Surf.Area= 630 sf Storage= 312 cf

Plug-Flow detention time=10.9 min calculated for 0.064 af (99% of inflow)

Center-of-Mass det. time= 8.1 min (778.1 - 770.0)

Volume	Invert	Avail.Storag	ge Storage	Description	
#1	31.50'	983 (cf Custom	n Stage Data (Pri	smatic) Listed below (Recalc)
Elevation	Surf.	.Area	Inc.Store	Cum.Store	
(feet)	(sq-ft) (cı	ıbic-feet)	(cubic-feet)	
31.50		258	0	0	
33.00		1,052	983	983	

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Device	Routing	Invert	Outlet Devices
#1	Primary	31.50'	6.0" x 20.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= $31.00'$ S= 0.0250 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.63 cfs @ 12.17 hrs HW=32.19' (Free Discharge)

—1=Culvert (Inlet Controls 0.63 cfs @ 3.2 fps)

Pond 4P:

Inflow Area = 0.415 ac, Inflow Depth > 4.66" for 100 YEAR event

Inflow = 1.42 cfs @ 12.35 hrs, Volume= 0.161 af

Outflow = 1.41 cfs @ 12.38 hrs, Volume= 0.161 af, Atten= 0%, Lag= 1.3 min

Primary = 1.41 cfs @ 12.38 hrs, Volume= 0.161 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 35.63' @ 12.38 hrs Surf.Area= 302 sf Storage= 127 cf Plug-Flow detention time= 2.4 min calculated for 0.160 af (100% of inflow) Center-of-Mass det. time= 1.8 min (783.9 - 782.1)

Volume	Inve	rt Avail.	Storage	Storage	Description	
#1	35.0	0'	986 cf	Custom	Stage Data (P	rismatic) Listed below (Recalc)
Elevation (feet)	-	Surf.Area (sq-ft)		Store c-feet)	Cum.Store (cubic-feet)	
35.00		100		0	0	
36.00		420		260	260	
37.00		1,032		726	986	
Device I	Routing	Invert	Outlet I	Devices		
#1 I	Primary	35.00'			_	PP, square edge headwall, Ke= 0.500

Primary 35.00' **12.0" x 60.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 34.40' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=1.41 cfs @ 12.38 hrs HW=35.63' (Free Discharge)
1=Culvert (Inlet Controls 1.41 cfs @ 2.7 fps)

Pond 5P:

Inflow Area = 1.133 ac, Inflow Depth > 3.63" for 100 YEAR event

Inflow = 1.83 cfs @ 12.79 hrs, Volume= 0.343 af

Outflow = 0.46 cfs @ 14.21 hrs, Volume= 0.295 af, Atten= 75%, Lag= 85.4 min

Outflow = 0.46 cfs @ 14.21 hrs, Volume= 0.295 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 30.37' @ 14.21 hrs Surf.Area= 8,783 sf Storage= 6,588 cf Plug-Flow detention time= 151.6 min calculated for 0.295 af (86% of inflow) Center-of-Mass det. time= 112.2 min (926.7 - 814.5) Prepared by Belanger Engineering

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Volume	Invert	Avail.	Storage	Storage I	Description	
#1	29.00'	12	2,970 cf	Custom	Stage Data (P	rismatic) Listed below (Recalc)
Elevation (feet)		.Area sq-ft)		Store c-feet)	Cum.Store (cubic-feet)	
29.00		110		0	0	
30.00	,	7,136		3,623	3,623	
31.00	1.	1,558		9,347	12,970	
Device Ro	outing	Invert	Outlet 1	Devices		
#1 Pri	imary	29.00'			_	P, square edge headwall, Ke= 0.500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.46 cfs @ 14.21 hrs HW=30.37' (Free Discharge)
1=Culvert (Inlet Controls 0.46 cfs @ 5.3 fps)

Pond 6P: CATCH BASIN

Inflow Area = 0.115 ac, Inflow Depth > 5.97" for 100 YEAR event

Inflow = 0.85 cfs @ 12.01 hrs, Volume= 0.057 af

Outflow = 0.84 cfs @ 12.02 hrs, Volume= 0.057 af, Atten= 2%, Lag= 0.4 min

Primary = 0.84 cfs @ 12.02 hrs, Volume= 0.057 af

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

Peak Elev= 33.02' @ 12.01 hrs Surf.Area= 12 sf Storage= 12 cf

Flood Elev= 36.00' Surf.Area= 2,787 sf Storage= 1,524 cf

Plug-Flow detention time=0.6 min calculated for 0.057 af (100% of inflow)

Center-of-Mass det. time=0.3 min (730.2 - 729.8)

Volume	Invert Avai	1.Storage Storage	Description	
#1	32.00'	4,152 cf Custor	n Stage Data (Pr	ismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
32.00	12	0	0	
34.00	12	24	24	
35.00	100	56	80	
36.00	2,787	1,444	1,524	
36.70	4,724	2,629	4,152	
Device Ro	uting Inver	t Outlet Devices		
#1 Pri	mary 32.00			, square edge headwall, Ke= 0.500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.80 cfs @ 12.02 hrs HW=32.97' (Free Discharge)
1=Culvert (Inlet Controls 0.80 cfs @ 4.1 fps)

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Pond 7P:

Inflow Area = 1.097 ac, Inflow Depth > 4.23" for 100 YEAR event

Inflow = 3.62 cfs @ 12.32 hrs, Volume= 0.387 af

Outflow = 3.60 cfs @ 12.35 hrs, Volume= 0.386 af, Atten= 1%, Lag= 1.5 min

Primary = 3.60 cfs (0.386 af) 12.35 hrs, Volume= 0.386 af

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

Peak Elev= 24.74' @ 12.35 hrs Surf.Area= 1,496 sf Storage= 2,252 cf

Plug-Flow detention time=20.6 min calculated for 0.386 af (100% of inflow)

Center-of-Mass det. time=19.7 min (808.8 - 789.1)

Volume	I	nvert Ava	il.Storage	Storage	Description	
#1	2	2.00'	2,655 cf	Custom	Stage Data (Pr	ismatic) Listed below (Recalc)
Elevation	on	Surf.Area	Inc	c.Store	Cum.Store	
(fee	et)	(sq-ft)	(sq-ft) (cubi		(cubic-feet)	
22.0	00	110		0	0	
23.0	00	600		355	355	
24.0	00	1,200		900	1,255	
25.0	00	1,600		1,400	2,655	
Device	Routin	ng Inve	t Outlet	Devices		
#1	Prima	ry 22.00)' 4.0'' x	30.0' lon	g Culvert CPP	square edge headwall, Ke= 0.500
		•			•	Cc = 0.900 n= 0.010 PVC, smooth interior
#2	Prima	ry 24.50)' 10.0' lo	ong x 10.	0' breadth Broa	d-Crested Rectangular Weir
			Head (feet) 0.20	0.40 0.60 0.80	1.00 1.20 1.40 1.60
			Coef. (English)	2.49 2.56 2.70	2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=3.59 cfs @ 12.35 hrs HW=24.74' (Free Discharge)

—1=Culvert (Barrel Controls 0.65 cfs @ 7.5 fps)

2=Broad-Crested Rectangular Weir (Weir Controls 2.94 cfs @ 1.2 fps)

Pond 8P: EXIST STORM DRAIN

Inflow Area = 2.502 ac, Inflow Depth > 3.80" for 100 YEAR event

Inflow = 4.81 cfs @ 12.32 hrs, Volume = 0.792 af

Outflow = 4.81 cfs @ 12.32 hrs, Volume= 0.792 af, Atten= 0%, Lag= 0.0 min

Primary = 4.81 cfs @ 12.32 hrs, Volume= 0.792 af

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

Peak Elev= 21.57' @ 12.32 hrs

Flood Elev= 24.83'

Plug-Flow detention time=0.0 min calculated for 0.792 af (100% of inflow)

Center-of-Mass det. time=(not calculated: outflow precedes inflow)

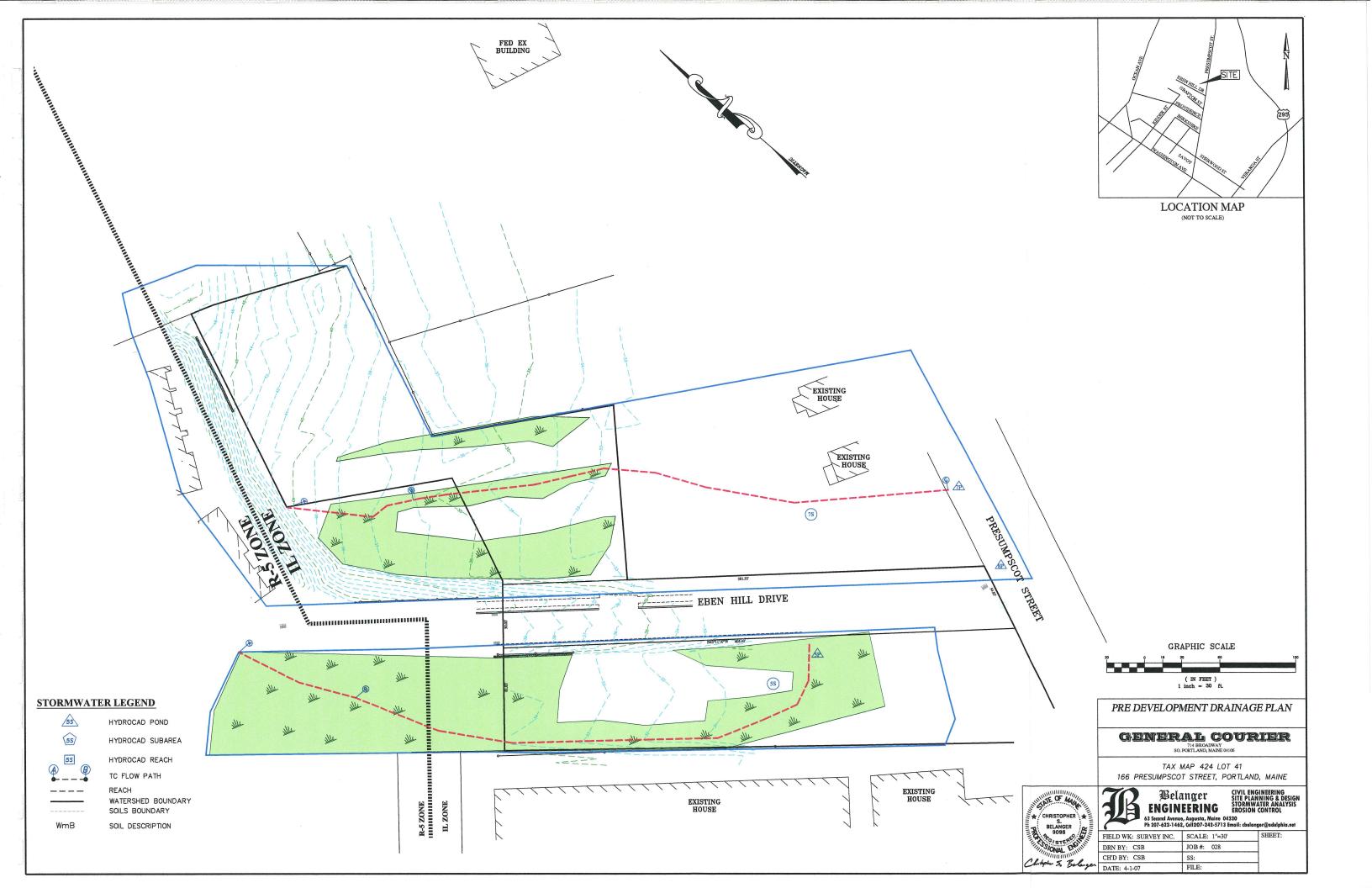
Device	Routing	Invert	Outlet Devices
#1	Primary	20.40'	16.0" x 50.0' long Culvert CPP, square edge headwall, Ke= 0.500
			Outlet Invert= 19.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior

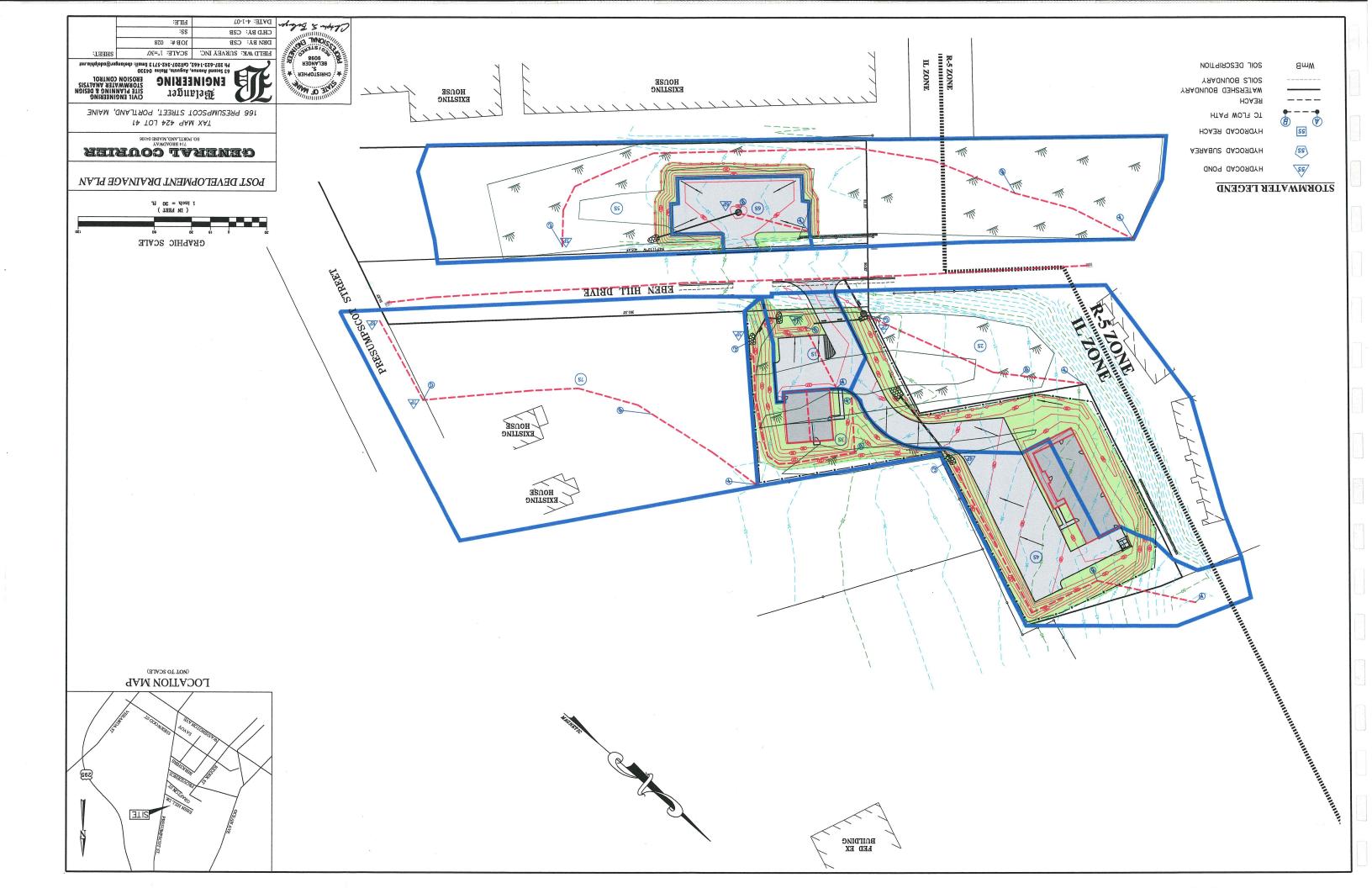
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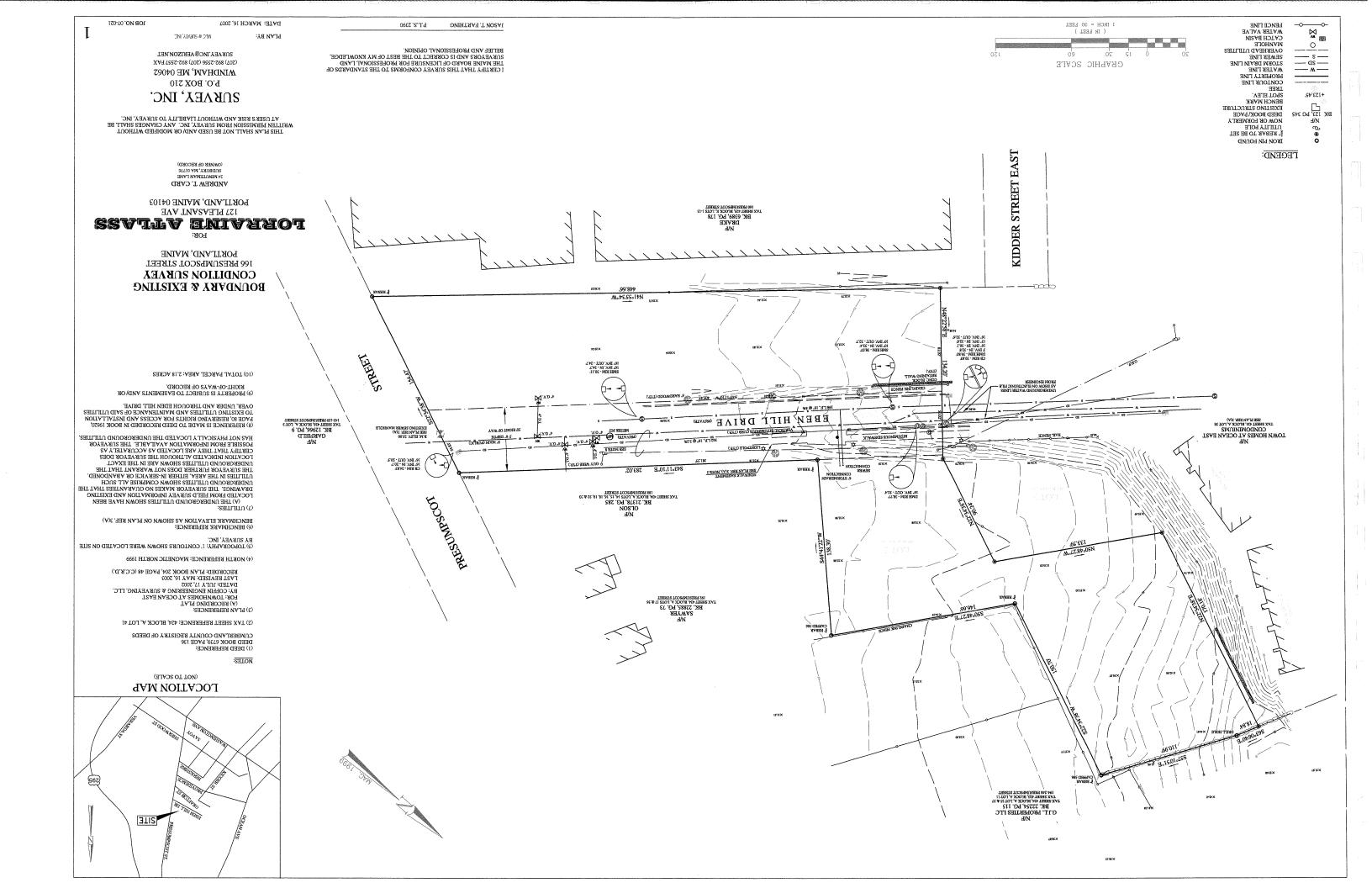
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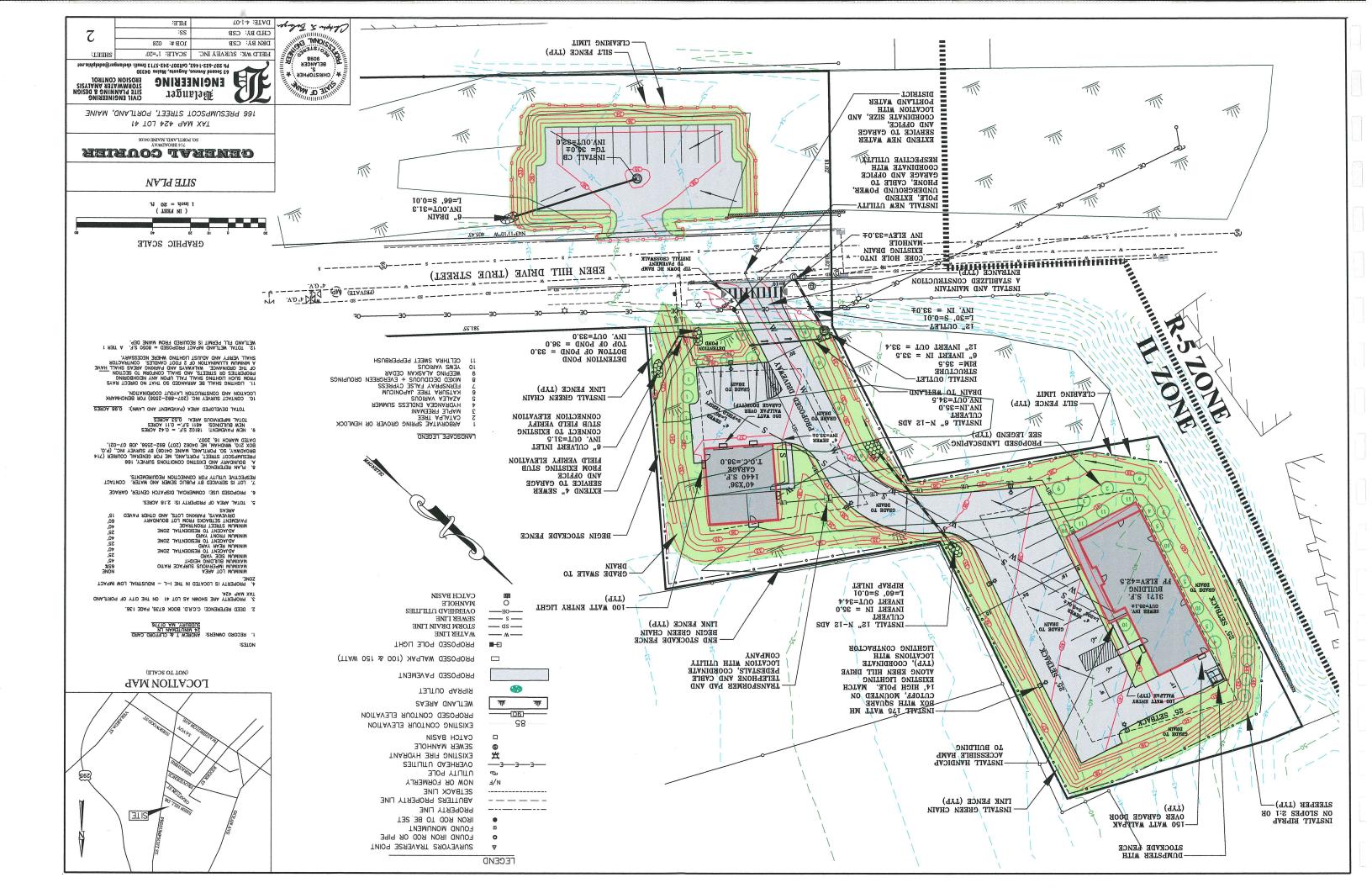
Primary OutFlow Max=4.66 cfs @ 12.32 hrs HW=21.55' (Free Discharge)

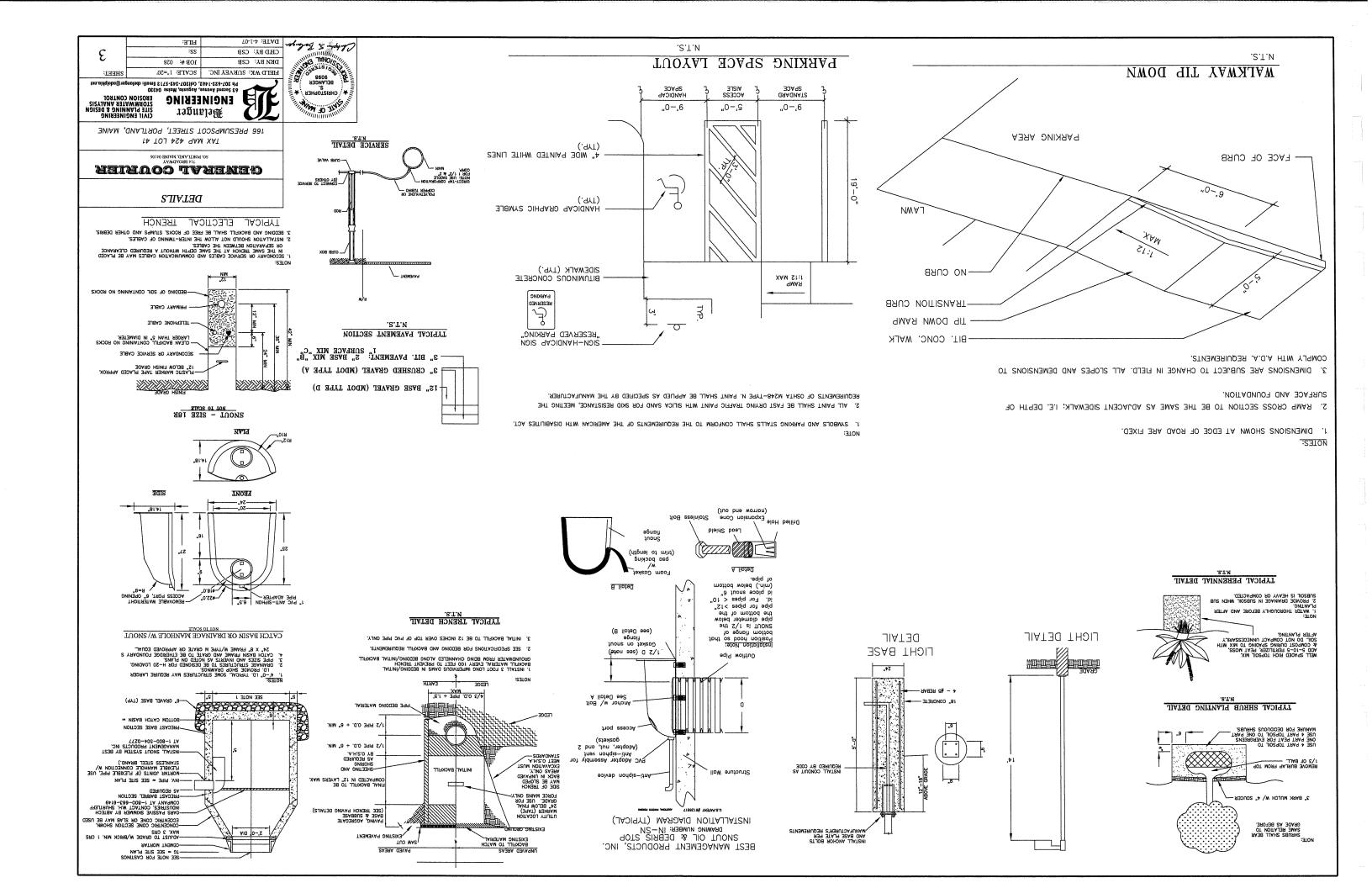
1=Culvert (Inlet Controls 4.66 cfs @ 3.6 fps)











- SHOKI- IEKW SEDIMENTATION WAINTENANCE SHAFT BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAN OUT ALL SWALES AND STRUCTURES PRIOR TO TURNING PROJECT OVER,
- IT SECOMMENDED THAT THE OWNER HIRE THE SERVICES OF THE DESIGN ENGINEER TO PRONDE COMPLIANCE INSPECTIONS (DURING ACTIVE CONSTRUCTION) RELATIVE TO INPLEMENTA

 THE STORMWATER AND EROSION CONTROL PLANS. SUCH INSPECTIONS SHOULD BE LIMITED TO ONCE A WEEK OR AS NECESSARY AND BE REPORTABLE TO THE OWNER, TOWN AND DEP

THE CRIENCY INSERT OF CHARGE BY THE GENERAL CONTRACTOR AS REQUIRED. DISPOSAL OF ALT TEMPORARY CONTRACTOR AND EPARED BY THE GENERAL CONTRACTOR AND EPARED BY THE STABILTY OF ALT DISTURBED AND ELOCATION ENDER THE GENERAL DISPOSAL STABLE OF THE STABILTY OF THE STABILTY OF THE STABLE AND STABLE AND STABLE AND STABLE AND CONTRACT OF THE STABLE AND STABLE A

SPECIFIED) AT INLETS AND OUTEES.

SOTECTED WITH STONE RIPRAP (D50 = 6" UNLESS OTHERWISE

PERDING SPECIFICATION.)

VG IS COMPLETE. (SEE POST-CONSTRUCTION REVEGETATION FOR

B. SEEDED WITH CONSERVATION MIX OF ANNUAL RYE GRASS (0.9 LBS/1000 SQ. FT)

4. ALL DISTURBED AREAS EXPECTED TO REMAIN LONGER THAN 30 DAYS SHALL BE EITHER: A. TREATED WITH ANCHORED MULCH IMMEDIATELY, OR

STOCKHIERD SOUL ONSERVATION MIX AND MULCHED IMMEDIATELY.

C. INSTALL SILT FENCE AROUND STOCKHIE AT BASE OF PILE.

SILT FENCE INSTALLED AT TIME OF ESTABLISHMENT AT BASE OF PILE.

ZIOCKHIE'ED 30IT).

Y. LIEFLED MILY PKOHOJED WOTCH (MIJHIN ? DVAZ OL JHE TYZI DEBOZIL OL BEREID MILY PKOHOJED WOTCH (MIJHIN ? DVAZ ZHAFIT BE: SZOCKHIE'S HATH THAKE "S IRLYBUD HEROE BETOM HERE WEGABOTEZEZ OL JIME OL INCTIONIC" BILL NOT IMPLED 10" MELTYNDZ" ZIEWWZ" VND OBEN MYLED BODICE YFT DEBYNDYCE CONGESE NO ZIOCKHIE ZHAFIT BE CFOZEL JHEN 100, OL Y MEZONUCE DOLIZHUT FOL BEGOON VAN DITT BE KEDLA YELW ZA VAN OLOKHIE ENZILLY ELW ZA ZOCKHIE'Z DWHEN MECESZYSKA IN YBESVZ MIHICH HANE MINIMON

2. PRIOR TO THE START OF CONSTRUCTION IN A SPECIFIC AREA, SILT FENCING AND/OI HAY BALES MILL BE INSTALLED AT THE TOE OF SLOPE AND IN AREAS AS LOCATED ON PLANS TO PROTECT ACAINST ANY CONSTRUCTION RELATED FROM SHALL BE FOLLOWING CONSTRUCTION OF CULLVERTS AND SWALES, RIP RAP APROVE SHALL BE INSTALLED, AS SHOWN ON THE PLANS.

1. ONLY THOSE AREAS UNDER ACTIVE CONSTRUCTION WILL BE CLEARED AND LEFT IN AN UNTREATED OR UNVECETATED CONDITION. IF FINAL GRADING, LOAMING AND SEEDING MILL NOT OCCUR WITHIN 15 DAYS, SEE ITEM NO. 4.

CONSTRUCTION OF THIS PROJECT. CONSLIKTION THASE: $\frac{1}{N} = \frac{1}{N} \frac{1}{N} \frac{1}{N} = \frac{1}{N} \frac{1}$

2. SLOPES GREATER THAN 2:1 WILL RECEIVE RIPRAP.

RESTORATION (PAYNG, RIPRAP, ETC.), WILL BE LOAMED, LIMED, FERTILIZED AND SEEDED.

EBOSION/SEDIMENTATION CONTROL PLAN: JHE FOLTOWING PERMENENT CONTROL MEASURES ARE REQUIRED BY THIS PERMANENT EROSION CONTROL MEASURES:

ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER

6. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE HAS BEEN STABILLZED OR IN AREAS WHERE PERMANENT EROSION CONTROL MEASURES HAVE

PIECHING SHAFT BE REDNCED TO A 12 DAY MAXIMUM.

PRIET OND ANCHEED WITH TAY WULCH, APPLIED AT TWICE THE NORMAL APPLICATION RATE. AND ANCHORED WITH FRENCH OFFICE AT TWICE THE NORMAL APPLICATION.

HOT REQUIRED.

NOT RECUIRED.

WITHIN THE BULLDING PAP, OF MICHAEL OF THE CONTROL OF THE CONTRACTOR MULTING, WHERE APPLICABLE IS MULTING MAD BY SO WHITH THE THE CONTROL OF D. SURROUND STOCKPILE SOIL WITH SILTATION FENCE AT BASE OF PILE.

HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE 3. PROTECT TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION OR REAL STOCKPILE SIDE SLOPES SHALL NOT EXCEED 2:1.

A. SOIL STOCKPILE SIDE SLOPES SHALL NOT EXCEED 2:1.

A. SOIL STOCKPILE SIDE SLOPES SHALL NOT EXCEED 2:1.

C. STABILIZE STOCKPILES WITHIN 15 DAYS TEMPORARIE SEEDING WITH A PROSECSEDING WITH A STABLE STOCKPILE STOCKPILES WITH S DAYS SEEDING WITH A STABLE STOCKPILE STOCK

2. HAY BALES PLACED AT KEY LOCATIONS TO SUPPLEMENT THE SILT FENCE.

CONSTRUCTION OF THE DEVELOPMENT:
PROVIDE THE FOLLOWING TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING LEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES.

STONES CREVIER JIHM 3% EUR STONES EXHOSED 10 DIRECT MINDS VND FOR PIT OTHER STONE CREVIER JIHM 3% EUR STONES EXHOSED 10 DIRECT MINDS VND FOR PIT OTHER ST.

AUTICH:

5. STRAM AND HAY MULCH: USED TO COVER DENDED AREAS UNTIL PERMANEIT SUE

6. STRAM AND HAY MULCH: USED TO COVER DENDED WEELS. GAN BE USED OVER

MULCH ONLY.

6. STRAM AND HAY MULCH: USED TO COVER DENDED WEELS HES HESH OVER

7. STRAM AND HAY MULCH: USED TO COVER DENDED WEELS HESH OVER

7. STRAM AND HAY MULCH: USED TO COVER DENDED WEELS HESH OVER

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7. STRAM AND HAY MULCH: USED TO COVER DENDED WEELS HEST OVER THE MESH OVER THE MULCH THE MULCH THE MULCH THE MULCH THE MESH OVER THE MULCH THE MULCH

** AND THE METCH: YEAR OLD THE METCH SEEDING WERE THE DISTURBED WERE SEEDING SEEDING SEEDING SEEDING SEEDING SEEDING SEEDING WILT BE REVECETIED WITHIN 8 DAYS OF KINAL GRADING: SEEDING SECONGENERS WE SEEDING SEEDING

 ${f 3}.$ RIPRAP: PROVIDE RIPRAP IN AREAS WHERE CULVERTS DISCHARGE OR AS SHOWN THE PLANS.

2. HYA PATES: HAY SHEES TO BE PLACED IN LOW FLOW DRAINAGE SWALES AND PATHS IN THY SHEES HAY BALES IN

1 SLIT ERICE: SLIT FENCE MILL BE INSTALLED ALONG THE DOWN GARDING EDICES OF DISTURBED AREAS TO TRAPP KUNGFF BORNE SEDIMENTS UNTIL THE SITE IS STABLIZED. IN PARES WHINTHIN THE DISCHARGES THE SLIT FENCE MILL BE REINFORGED WITH HAY BALES TO HELP MAINTHIN THE INTEGRITY OF THE SLIT FENCE AND TO PROVIDE DISTURBLY.

CONSTRUCTION ON THIS PROJECT. INSTALL THESE DEVICES AS INDICATED ON THE PLANS. CHARSHOUND A THE BOOLECT MACHT THESE DENCES ARE PROPOSED FOR GENERAL CONTROL DEVICES.

GENERAL EROSION AND SEDIMENTATION CONTROL PRACTICES:

HANDBOOM

EXOSION AND SEDIMENTATION NOTES:

EXOSION AND SEDIMENTATION NOTES:

EXOSION AND SEDIMENTATION NOTES:

OF MEINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL DENCES AFTER ACCEPTANCE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF

DIBLING MILES CONSIDER OF STORMEN ANT BE GENOADD BROW IN IN IN THE REVENT CE SHOW PRICE ON SHALL BE REMOVED FROM THE MAIN IN THE REVENT OF SHOWE PRICE THAN I MOST THE REPORT OF SHOWING PRICES OF SHOWING PRICES

8. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1 THE SAME APPLIES FOR ALL 3 OPPEC CREATER THAN 18%.

DECKEES AND DAY TIME TEMPERATURES REMAIN IN THE 30'S.

7. MULCH NETTNIC SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS OF UNECT WHODS AND FOR MITH A SUCPE SWALLES SWALLS BY WHITH A SUCPE GRAFIER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR MITH A SUCPE SWALLES SWALL BE WAYS WHITH EXPENDED WHITH STANDS AND FOR WAYS WALLES WAS A SWALLES WAS

DECREES AND DAY TIME TEMPERATURES REMAIN IN THE 20.2."

NOTICE OF THE STATE OF THE STATE STATE OF THE STATE O

LOTS) OR STRUCTURAL SAND. AN AREA IS ALSO CONSIDERED STABLE IF SODDED, COVERED WITH GRAVEL (PARKING PER 1000 S.F. (WIH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ANCHORED SUCH THAT SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCHED AND 5. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB.

A STADOSED WERE ANTH SE IMILED 10 JUGGE MERGY 10 GE MORK MEEK NO PHERS DAY BIGH SED WERE ANTHER SEND SE EACH MORK MEEK NO PHERS IN ONE

I' MINJER CONZIGNOLUON BERIOD: NOVEMBER I THROUGH APRIL 15. EKOSION CONTROL DURING WINTER CONSTRUCTION:

3:1 AND WITHIN 25' OF DRAINAGE COURSE. AT YOUNG TOOK GROUNT RULE. BEGINDED CONGROUNT STREET AND STREET HAS GROUND BESEEDED AS RESDECEDED AS RESDECED AS RESPECEDED AS RESDECED AS RESPECED AS RESDECED AS RESPECED AS

1/2 the height of the dam or riser. Distribute removed sediment off-site or to an area undergoing final grading. AND ALL HASPECT RIPRAP ONCE A WEEK OR AFTER EACH SIGNIFICANT RAINFALL AND REPAIR AS VAUALLY INSPECT RIPRAP ONCE A WEEK OF AFTER EACH SIGNIFICANT RAINFALL AND REPAIR AS

1. HAY BALE BARNIERS, SILT FENCE, AND STONE CHECK DAMS SHALL BE INSPECTED NU BECENTINGER ON ED A WALL BE EXCENDING, SHOULD THE HAY BALE BARNIERS FOOVE TO NO EX DISTIBULED.

THESE BARNIERS HALL BE EXCALATED WHEN IT REACHES, A DEPTH OF 6 "A MO REDISTIBULED."

THESE BARNIERS HALL BE EXCALATED WHEN IT REACHES, A DEPTH OF 6" AND REDISTIBULED.

THESE BARNIERS HALL BE EXCHANGE WHEN EACH TO SHOULD THE HAY BALES.

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MONITORING, MAINTAINING, REPAIRING, REPLICING MAIN ELECTRING ALL OF THE RECORD MAIN ESTABLED AS WELDE DURING HE ENTRE CONVERTING ON CYCLE, AFTER EACH RANKFALL, A NSUAL INSPECTION WILL BE MADE OF ALL ENTRE CONVERTING OF CYCLE, AFTER EACH RANKFALL, A NSUAL INSPECTION WILL BE MADE OF ALL MADE OF AL THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MONITORING SCHEDULE:

PE - COTOMOR DE LA RESEEDING MIT BE CARAGED OF LAS THE CONLEYCUOS MAJHIN 10 DRAS OF MOJEICATION BY THE ENGINE CALCH IS INADEQUARE.

METER FEMANSHY SEEDING IS NECESSARY, ANNUAL WINTER RYE (1.2 LBS/1000 SQ.FT) SHALL C. WHERE FEMANSHY SEEDING IS NECESSARY, ANNUAL WINTER OF THE PREVIOUSLY NOTED SERVING ARIE. D. THE PRE

C. WHERE PERMANENT SEEDING BE NECESSARY, ANNIAL WRED FOR SEEDING BETWEEN SEPTEMBER IS AND AWARD SEEDING AND MALCHING BE DONG OVER SONNE OF SEED.

A. ONLY WHINFOSEN LOAN SHALL BE FOLLOWED, ALSO REFER? TO WOITE 9 OF WHITER CONSTINUTION. PLOALWING PROCEDURE SHALL BE FOLLOWED, ALSO REFER? TO WOITE 9 OF WHITER CONSTINUTION. SOURCE WHO PROCEDURE SHALL BE FOLLOWED. ALSO REFER? ON ONTE 9 OF WHITER CONSTINUTION.

A CONSTITUTION SHALL BE FOLLOWED. ALSO REFER? TO WOITE 9 OF WHITER CONSTITUTION. STATEMBER IS AND WHITE SHALL BE FOLLOWED.

PARADES DEFENDED. (IMMY 3-A. SEEDED AREA. HYDRO-MULCH SHALL, WOOD FIBER OR PRPER B. HYDRO-MULCH SHALL CONSIST OF A MIXTURE OF EITHER ASPHALT, WOOD FIBER OR PRPER B. HYDRO-MULCH SHALL WETER SPRAYED OVER A SEEDED AREA. HYDRO-MULCH SHALL WOOD FIBER OR PRPER AND MATER SPRAYED AND ALSO.

GRADES GREATER THAN 5%.

GRADES GREATER THAN 5%. I' BEING DEINEN ONEE BY TRACKED CONSTRUCTION EQUIPMENT ON GRADES OF 5% AND LESS. SECURED BY EITHER: (NOTE: SOIL SHALL NOT BE WSBLE)

A. A MAREN SHALL BE WINCHED IMMEDIATELY RETER IS HAS BEEN SEEDED. MUICHING SHALL BE WAS WINCH SHALL BE WHOTEN AT THE RATE OF 25 TONGS PER ACRE. HAY MUICH SHALL BE THE AT HOTEN SHALL BE WHOTEN AT THE RATE OF 25 TONGS PER ACRE. HAY MUICH SHALL BE SECOND WATS OR ANY SUITABLE SUBSTITUTE DEEMED ACCEPTABLE BY THE DESIGNER.

A HAY MULCH SHALL BE WINGEL SOLD SHALL NOT BE ANSWELD.

SECURED BY ETHERS. (NOTE: SOLD SHALL NOT BE NISBLE)

ELECANIVE BLE CRASS 0.11 LB/1000 SE. KENTUCKY BLUEGERSS 0.46 LBS/1000 SE. $\overline{\text{LVMNS}}$ RED TOP 0.05 LBS/1000 SF. TALL PESCUE 0.46 LBS/1000 SF.

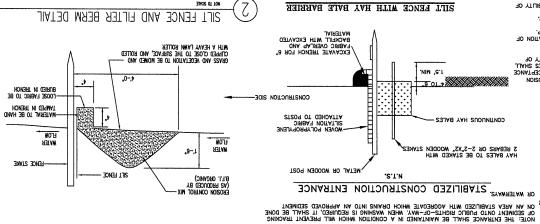
2. IF THALL GRADING IS REACHED DURING THE NORMAL GROWING SEASON (4/15 TO 9/15), PERMANENT SEEDING WILL BE DONE AS SECRETED BELOW, PRIOR TO SEEDING, MENTE OF 181 LESSYNES SHALL PERMANENT SEEDING WILL BE DONE AS SECRETED BELOW, PRIOR TO SEEDING, EASTONE SHALL PERMANENT SEEDING WILL BE OVER 182 SECRETED BELOW, PRIOR TO SEEDING FOR THE FOLLOWING RATES:

1 . A MININUM OF 4 °CF LOAM WILL BE SPREND OVER DISTURBED AFEAS AND GRADED TO A SURFACES. In a MININUM OF 4 CF COAM WILL BE SPREND OVER DISTURBED AFEAS WILL BE PLACED ON SLOPES IN A MININUM OF 4 CF. OF LOAM WILL BE SPREND OVER DISTURBED AFEAS WILL BE PLACED ON SLOPES IN A MININUM OF 4 CF. OF LOAM WILL BE SPREND OVER DISTURBED AFEAS WILL BE SPREND OVER DISTURBED AFFAS WILL BE SPREND OV

BEVOA LO NODERCO LINYT GRYDING:

LIE LOTTOWNO GENERY BRYDIGEZ WITT BE RESD LO BEEVENT EROSION YZ 200N YZ YN YBEV IZ

LIE LOTTOWNO GENERY BRYDING:



.z.T.N

PLAN VIEW

20, MIN'

SECTION

6" MIN.---

. 10° МІН.

акооир

OR EQUAL

MIRAFI 600X

СКОПИВ

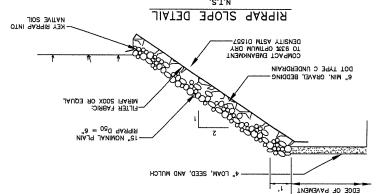
- EXIZING

BARRIERS SHOULD BE REMOVED WHEN THAY HAVE SERVED THEIR USEFULNESS, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED. PROMPTLY AS NEEDED. CHECK AFTER EACH RAINFALL. 2. INSPECTION SHOULD BE FREQUENT AND REPAIR OR REPLACEMENT MADE . INSTALL DOWNSLOPE OF ALL CONSTRUCTION ACTIVITIES AS NECCESSARY. SILTATION FENCING

00,00,00,00,00 TOE-IN METHODS -NATIVE SOIL TOINING SECTIONS PAVEMENT NATIVE SOIL ~BACKFILL רורזבת אםאוכן PAVEMENT COUPLER P. YENCH RACKFILL TOP MEW JFILIER FABRIC TAN TROPPUR

STACK OT TON

SECYCLED CONCRETE EQUIVALENT S. STONE OR RECLAIMED OR



---- EXIZING GROUND

BELOSE MOOD MAZIE COMPOZI\SHENIN WAS BEITER BINDEL BERNA TO MOODEMOUT DE MILIER BINDEL BERNA WOOD MAZIE COMPOZI\SHENIN BERNA BANDOW MOOD MAZIE COMPOZI\SHENIN BANDOW BERNA WOOD MAZIE COMPOZI\SHENIN BANDOW WAD MOOD MAZIE COMPOZI\SHENIN WAS BERNA WAD MAZIE COMPOZI\SHENIN WAD MAZIE COMPOZI\SHENIN\SHENI\SHENIN\SHIN\SHENIN\SHENI\SHIN\SHENIN\SHIN\SHENIN\SHIN\SHIN\SHIN\SHENIN\SHIN\SHIN\SHIN\S

SEDIMENT BARRIERS SHOULD NOT BE USED IN STREAMS & LARGE

3) SCHUBIEC SEALTS CONTENT IS LESS THAN 40 mmhoston.

N THE MAY OF SEALTS CLAYS OR THE SAND ARE OFT DECEDING THE DECEDING THE SAND ARE OFT DECEDING THE DECEDING THE OFT DECEDING THE OFT DECEDING THE D

WOOD WASTE COMPOST/BARK

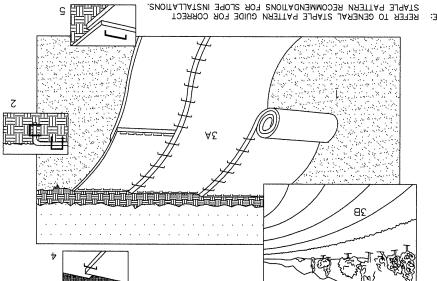
LO CONLOUM 10 EXIZUMO CAYDE, SEEDED & MULCHED.

• ENGOIND CONTROL MY SHAVE FATER COMPITICION SHOULD BE SPRE• ENGOIND CONTROL MY SHARIBES OF WEIGHT BE ELEY IN FACE SEDIMENT
• ENGOIND CONTROL MY SHARIBES OF METHOR IN FACE SEDIMENT
• ENGINEER SECONDED OF SEEDIMENT SHOULD SHOU

- VI LOE OL STHITTOM 2 FOREIGE - VILOUR CREATED AND STORES. BA BRILLS:
- LIVING-TORCE TORCE ON BUTCH LIBERS'
- LIVING-TORCE TORCE ON EVENT LIBERS'
- BUBGOES LIVING HOTE BURGE OF STHINDER LIPE BYBBIEDE OF STRIPPED STRIPP

- B PMBIERZ DECOMPAGNED I CLUSTED MY PROFILED THE PROFILED THE PROFILED THE REVOKED THE PROFILED THE REVOKED WHEN REVOKING ONE HEYE LIFE RECORDED A WHEN REVOKED THE RECORDED THE PROFILED THE PROFILED THE PROFILED THE PROFILED ONE DECREED HEIGHT S. MOUTH OF THE PROFILED ONE DECREED HEIGHT S. MOUTH S.

KEFER 10 GENERAL STAPLE PATTERN GUIDE FOR CORRECT



Chapter & Belinger DATE: 4-1-07

COLVERT INLET / OUTLET PROTECTION

ri/

CIII VERT D FLOW

PIPE LENGTH = ROAD + BOTH SHOULDERS + 4 * (COVER + D)

2' WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH

2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND

PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE:

WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE

APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

F. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.

3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.

.Z.T.N

(SLOPE INSTALLATION)

EKOSION CONLKOT BLANKET

S CHRISTOPHER

DETAIL

HAY BALE BARRIER

WEDGE LOOSE

WEDGE LOOSE

AND THE WIDTH

AND THE W

STREW BALE

2e, CRIACEM 2e, '01 e, \(\(\)\), \(\)2, \(\)e, \(\)15.

5t, CRIACEM 5t, \(\)01 e, \(\)2, \(\)5, \(\)t, \(\)8.

15. COLVERT 15. .01 6. 2. 1. 2. +.

OUTLET DIA. SLOPE DSO X 1D DEEP 2D SIDE 4D LONG

TO PREVENT PIPING-

4D FONG 10 DEEP BLUNGE POOL

LONG FLOW LINE T

S" STONE

CLUVERTS SIZE
TO BE 12"

NOITO

RECTION

CH.D BA: C2B

DKN BX: CSB

JIETD MK: SURVEY INC.

FILE:

3OB #: 058

2CVTE: 1,,=50,

166 PRESUMPSCOT STREET, PORTLAND, MAINE

14 101 424 LOT 41

GENERAL COURIER

EKOZION CONLKOT DELVITZ

2. ALL CULVERT INLETS AND OUTLETS SHALL HAVE RIPRARP PROTECTION AS SPECIFIED WITH THIS DETAIL.

SHEEL

EKOZION CONTROL

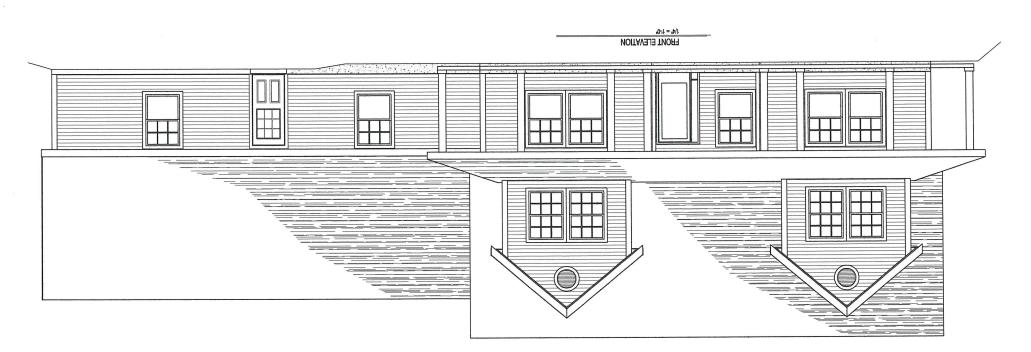
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SS

Ph 207-622-1462, Cell207-242-5713 Emai

ENCINEERING

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PRELIMINARY ELEVATION
Lorraine Atlass
Portland , Maine



2-Jo-£ Sheet Number: oroject: 07121106 Drawn By: PML Scale: 1/4"=1'-0" Date: 02/07/07

Revisions:

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5. CONTRACTOR TO VERFY CONDITIONS IN FIELD
AND STEP FND. AS REQUIRED PER GRADE.

DECK SUPPORTS TO BE 10" DIA, SONOTUBES W/FINISH GRADE AT TOO OR PKE CAST FOOTINGS W/FINISH GRADE AT TOO OR PER CONT.

BOTH WAYS.

DEEP FOOTINGS LARGER AT 8" C/C

DEEP FOOTINGS LARGER AT 8" C/C

THE OLIVE SHEET DIENG THE OLIVENS E STOCK CONC. LITTED THAT SCHOOLS STOCK CONC. LITTED THAT SCHOOLS OF THE SCHOOLS OLIVENS E STOCK CONC. CONCRED SCHOOLS OLIVENS STOCK OLIVENS SCHOOLS OLIVENS

0-0-SILE/SOIF CONDILIONS IN LIEFD'
CONILLOF TOINIZ PS HEO,D BEK
1, LIBERMEZH OK M'M'W' BEGONDE
1, LHICK CONC' STYB ON GRYDE CONT,/MASON TO V.I.F. THAT CONT,/MASON IN WAREHOUSE TO BE -" LOWER THEN TO TO BE -" LOWER THEN TO TO SUCH THAN THEN TO TO 0-4" REIN. CONC. SLAB, 8" BELOW TOP OF CONC. WALL. CONC. SLAB TO BE OF CONC. WALL. CONC. SLAB TO BE 7-.0.M. 8° FOR 0.H.D. → 0-

PRELIMINARY FOUNDATION Lorraine Atlass Portland , Maine

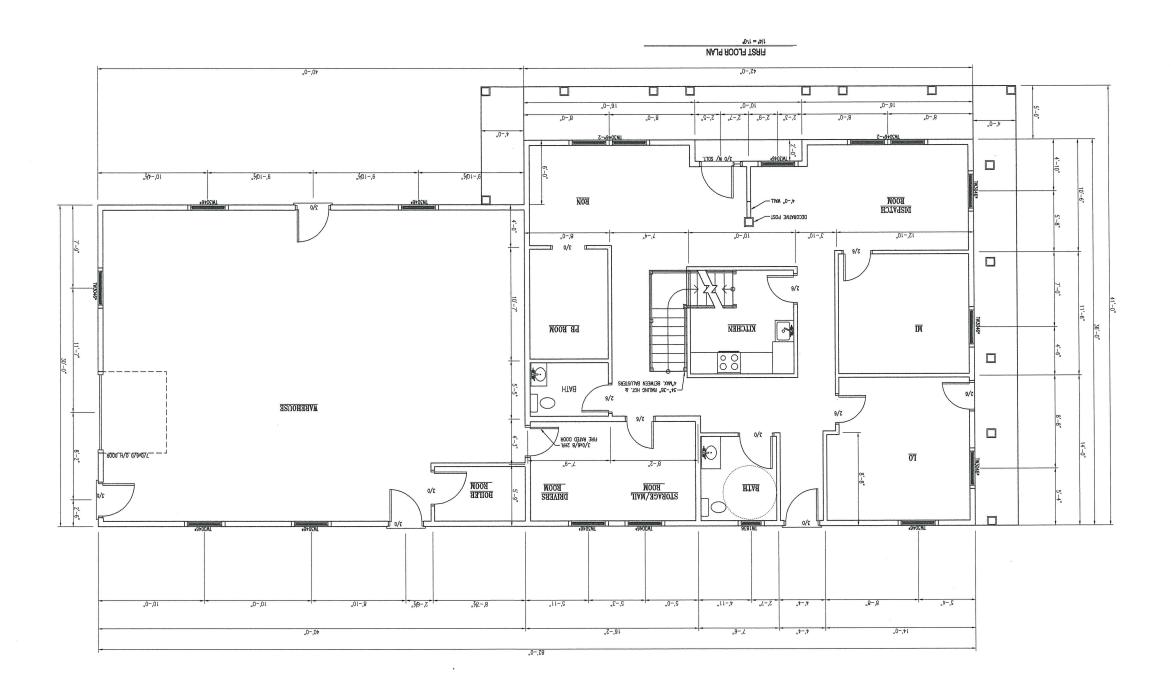


G-10-4 Sheet Number: Project: 0Y121106 Drawn By: PML Scale: 1/4"=1'-0" Date: 02/07/07 00/00/00 Revisions:

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PRELIMINARY FIRST FLOOR PLAN Lorraine Atlass Portland , Maine





S-10-S							
Project: 0Y121106							
Drawn By: PML							
Scale: 1/4"=1"-0"							
Date: 02/07/07							
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Revisions:							

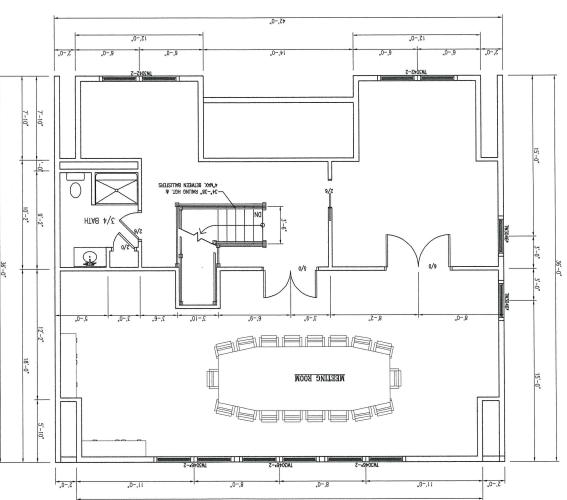
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PRELIMINARY SECOND FLOOR PLAN
Lorraine Atlass
Portland , Maine

SECOND FLOOR PLAN

NOTES: SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS

NAMBERSEN NERC CERTIFIED TOTAL UNIT PERFORMANCE 0.36 0.36 H-FACTOR B-VALUE 0.33 N-FACTOR R-VALUE H2AW-TJIT DOUBLE-HUNG TRANSOM U-FACTOR R-VALUE 0.33 U-FACTOR R-VALUE TILT-WASH DOUBLE-HUNG PICTURE 0.33 0.34 0.34 U-FACTOR B-VALUE TILT-WASH DOUBLE-HUNG U-FACTOR R-VALUE 0.33 WITHOUT GRILLES HP LOW-E: 400 SERIES WINDOWS ANDERSEN ANDERSEN NFRC CERTIFIED UNIT PERFORMANCE





1 /4' = 1'-0' 4" REIN. CONC. SLAB, 8" BELOW TOP OF CONC. WALL. CONC. SLAB TO BE OVER COMPACTED GRAVEL, SLOPED 1/8" PER 1'-O" TOWARD O.H.D. MIN. 4' BELOW GRADE TYP.

8" CONC. FROST WALL

COATING BELOW GRADE

THE STORM CRADE - 4" REIN. CONCRETE SLAB -R-19 INSUL. - 2x6 STUDS @ 16" O.C. 7/16" OSB SHEATHING YNYL SIDING CVEVCE — PERF, CONT, SOFFIT - IX8 EVECIV S/8" TYPE X FIRE-RATED SHEETROCK, ON ALL WALLS SHEETROCK, ON ALL WALLS SHEETROCK, ON ALL WALLS - METAL DRIP EDGE -36" MIN, ICE & WATER SHIELD AT EAVES 10 COLLAR TIES @ 16" 0.C. -R-38 INSUL. XIZ RAFTERS @ 16" O.C. -S_XIS, BIDGE FIDGE VENT

- Use JOpsi ground snow load for cases in which ground snow load is less than JOpsi and the root live load is equal to or less. Unon $20 \mathrm{psi}$

Spans are given in feet and inches. ** captul put 18**

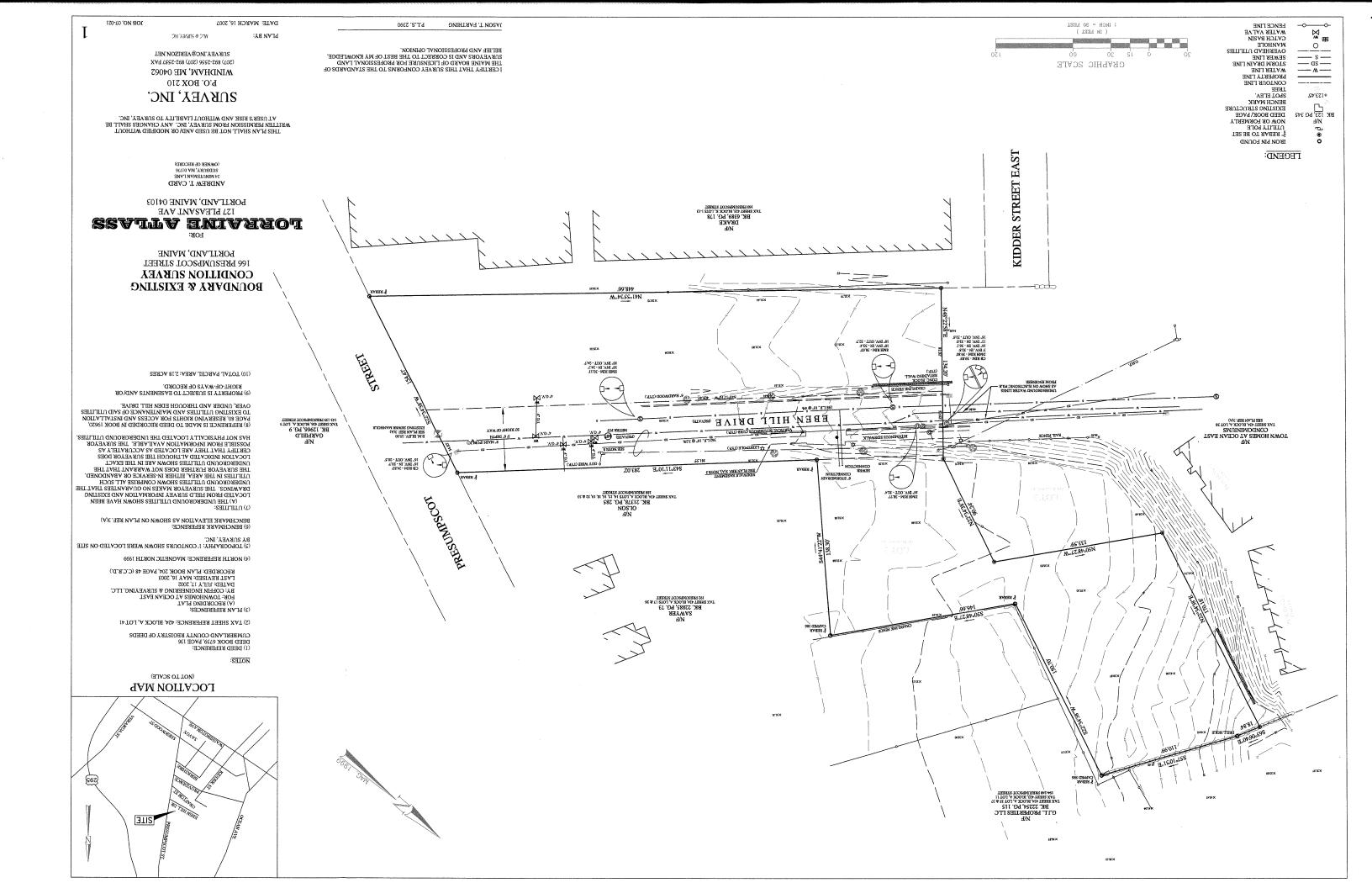
**Comparison of the comparison of the comparis For SI: 1 inch=25.4mm, 1 pound per squore foot=0.0479kN/m² Roof, ceiling and two clear span floor Roof, ceiling and two center-bearing floor 71×2-4 01×2-4 8×2-4 01×2-2 TWO floor only CIRDERS AND HEADERS CROBER SHARZ, AND HEVDER SHARZ, ENGLING SHORM LONG (PST)

STE BRONNO, 200A TONG (PST)

SHIPTONES SHARZ, WAN HEVDER SHARZ, PRAFT (PST)

CROBER SHARZ, WAN HEVDER SHARZ, EXCESSOR BEYRING WITTE SUPPORTING HEADERS AND CIRDERS Building Width (feet) Moximum spans for Douglas Re-larch, hern-fir, sauthern pine and spruce-pine-fix² and required number of jack studs).





3. LONG-TERM PRONSIONS FOR PERMANENT MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL DENCES. AFTER ACCEPTANCE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE OWNER, TOWN OR THEIR DESIGNEE. SHORT-TERM SEDIMENTATION MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAN OUT ALL SWALES AND STRUCTURES PRIOR TO TURNING PROJECT OVER.

IS RECOMMENDED THAT THE OWNER HIRE THE SERVICES OF THE DESIGN ENGINEER TO PROVIDE COMPLIANCE INSPECTIONS (DURING ACTIVE, CONSTRUCTION) RELATIVE TO IMPLEMENTAL BY SECORMENDED THAT THE OWNER HIS SECORMENDED THE OWNER, TOWN AND BE REPORTABLE TO THE OWNER, TOWN AND BE REPORTABLE TO THE OWNER, TOWN AND DEP.

LINE CREATER CONTRACTORS OF THE CENERAL CONTRACTOR AS REQUIRED. DISPOSAL OF ALL TEMPORARY AND ECONTROL DEVICES SHALL BE THE RESPONSIBILITY OF SHALL BOLL OF THE DESCRIPTION OF THE TRACTOR OF THE DEVICES OF THE DEVICE OF THE DEVICES OF THE DEVICE OF THE DEVICES OF THE DEVICES OF THE DEVICE OF THE DEVICE OF THE DEVICES OF THE DEVICE OF THE DEVIC " MEEKTA INSECTIONS' VE METE VE BOTHINE INSECTIONS FOLLOWING RAIN FAILS, SHALL BE CONDUCTED BY THE GENERAL CONTRACTOR OF ALL TEMPORARY AND PRINTENANCE:
SITE INSPECTION AND MAINTENANCE:

9. BETWEEN THE DATES OF OCTOBER 15 TO NOVEMBER 1, WINTER RYE IS NOT PEFFCATIVE. ACOUND NOVEMBER 15 OF THE ARE AND SOLE TEMPERATURES OF THE ARE AND SOLE PERFORMIT, DORWANT SEEDING IS EFFECTIVE. SPECIFIED) AT INLETS AND OUTLETS.

> SEEDING SPECIFICATION.) AFTER FINAL GRADING IS COMPLETE. (SEE POST-CONSTRUCTION REVEGETATION FOR 5. ALL GRADING WILL BE HELD TO A MAXIMUM 2:1 SLOPE WHERE PRACTICAL. ALL SLOPES WILL BE STRBILLZED WITH PERMANENT SEEDING, OR WITH STONE, WITHIN 5 DAYS

8. ALL CULVERTS WILL BE PROTECTED WITH STONE RIPRAP (D50 = 6" UNLESS OTHERWISE

ALL DISTURBED AREAS EXPECTED TO REMAIN LONGER THAN 30 DAYS SHALL BE ETHER: . SEEDED WITH ANOHORS MULKOH MINGHELY OF THE REPORT OF THE ANOHORS OF THAN THE REPORT OF THE STATE OF THE STATE

STOCKPILED SOUL). C CASEDED WITH CONSERVATION MIX AND MULCHED IMMEDIATELY. C INSTALL SILT FENCE AROUND STOCKPILE AT BASE OF PILE. STOCKPILES TO HAVE SILT FENCE INSTALLED AT TIME OF ESTABLISHMENT AT BASE OF PILE. A. TREATED WITH ANCHORED MULCH (WITHIN 5 DAYS OF THE LAST DEPOSIT OF

LEFTED MAIN TRANSCERON WITCH (WALTIN IS WANT OR A THEY TEROSE SHATT BE:
ALCOHOLIES AND THEY SEND THEY A SHATT BE:
ALCOHOLIES AND THEY BY SITVATION ELONG BETON LIFEN BEGWARDERS OR LINE OF
BLOCTIONS OF ALL NOT IMPLED OF MELTONS SILEWING YOU OBER MATERS BOOLES AT
DEVINEYE CONDES! NO SLOCKHITE SHATT BE CTOSEN LIFEN 100, OF A BESONDES 3. TOPSOIL WILL BE STOCKPILED WHEN NECESSARY IN AREAS WHICH HAVE MINIMUM POTENTIAL FOR EROSION AND WILL BE KEPT AS FAR AS POSSIBLE FROM THE EXISTING

2. PRIOR TO THE STATAT OF CONSTRUCTION IN A SECRETIC AREA, SLIT FENONG AND/OR PLANE AND SWALES, RIP RAPE ARE UNIVERSIATED AT THE TOE OF SLOPE AND RAPORD AND SWALES, RIP RAP AREALE WILL BE INSTALLED AT THE TOE SWALES, RIP RAP ARROWS SHALL BE INSTALLED AT THE TOE SWALES, RIP RAP ARROWS STATATED AT THE TOTAL OF THE TOT NOT OCCUR WITHIN 15 DAYS, SEE ITEM NO. 4.

1. ONLY THOSE AREAS UNDER ACTIVE CONSTRUCTION WILL BE CLEARED AND LEFT IN UNTREATED OR UNVECETATED CONDITION, IF FINAL GRADING, LOAMING AND SEEDING W

соизтвистом ог тніз рволест. THE FOLLOWING GENERAL BRACKINGS WILL BE USED TO PREVENT EROSION DURING CONSTRUCTOWING GENERAL PRACTICES WILL BE USED TO PREVENT BRACKING FOR THE PROPERTY OF THE PROPERTY OF

2. SLOPES GREATER THAN 2:1 WILL RECEIVE RIPRAP.

ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER

HE LOTTOMING ELEMINATING CONTROL IN NEASURES ARE REQUIRED BY THIS PERMANENT CONTROL MEASURES:

MULCHING SHALT BE REDUCED TO A 13 DAY MAXIMUM.

847E, AND ANCHORED WHILL AVERIC NETTHING: THE PROTOD BETWEEN FINAL GRADING AND

9. IF MORK IS CONDUCTED BETWEEN OCTOBER 13 AND APPRIL 16, ALL DEVINDED APEAS

11. MORK IS CONDUCTED BETWEEN OCTOBER 13 AND APPRIL 19.

IOI REGOINED.

D. SURROUND STOCKPILE SOIL WITH SILTATION FENCE AT BASE OF PILE.

A SOIR STOCKPILE AND HALLS.

A. SOIL STOCKPILE WITH MULCH.

C. STABILLES STOCKPILE WITH 15 DAYS BY TEMPORARILY SEEDING WITH A SOIL STOCKPILE WITH UNITED A SOIL STOCKPILE WITH US DAYS BY TEMPORARILY SEEDING WITH A SOIL STOCKPILE WITH SOIL STOCKPILE SOIL STOCKPILE WITH SOIL STOCKPIL

3. PROTECT TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION

2. HAY BALES PLACED AT KEY LOCATIONS TO SUPPLEMENT THE SILT FENCE.

1. SILTATION FENCE ALONG THE DOWNGRADIENT SIDE OF THE PARKING AREAS AND OF STREIS SEX PRESENTED SCOTONS, THE SILTATION FENCE WILL REMAIN IN PLACE UNTIL THE SITE IS SEX REVERTATED.

CONSIMINATION OF THE DEVELOPMENT:
PROVIDE THE FOLLOWING TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING

LEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES: SCOPES GREATER THAN 8%

6. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER

5. STRAW AND HAY MULCH; USED TO COVER DENUEDED RREAS UNTIL PERMANENT SEED OR EXCOSOU CONTROL MESSAGES. ARE IN PLACE; MULCH ONLY; CURIEX IS TO BE USED OVER MULCH ONLY; CURIEX IS TO BE USED OVER MULCH ONLY; CURIEX IS TO BE USED OVER WILL SEED THE WEST ONLY WILL SEED THE WEST OF THE WEST ONLY WILL SEED THE WEST OF THE WEST ONLY WILL SEED THE WILL SEED THE WEST ONLY W

4. LOAM, SEED, & MULCH: ALL DISTURBED AREAS, WHICH ARE NOT OTHERWSE TREATED, SHALL RECEIVE PERMARENT SEEDING AND MUCHON AND MUCHON SPECIFICATION.

THE DISTURBED AREAS WILL BE REVEGETATED WITHIN S DAYS OF TIMAL GRADING. SEEDING HE DISTURBED AT THE END OF THIS SPECIFICATION.

 $3.\,$ Riparp: Provde Riprap in areas where culverts discharge or as shown on the plans.

FLOWING WATER OR STREAMS. 2. HAY BALES: HAY BALES TO BE PLACED IN LOW FLOW DRAINAGE SWALES AND PRINES. IN PRAP SEDIMENTS AND REDUCE RUNDOFF VELOCITIES. DO NOT PLACE HAY BALES IN PROPERTY OF THE 99 STREAMS.

1 SILT FENCE: SILT FENCE WILL BE INSTALLED ALONG THE ODWN GRADING EDGES OF SILT FENCE AND TO PROVIDE NOTINGENESS THE SILT FENCE AND TO PROVIDE NOTINGENESS WILL HAVE SILT FENCE WILL BE REINFORCED WITH HAVE DELINEABLY.

3 SILT FENCE: SILT FENCE WILL BE INSTALLED ALONG THE DOWN GRADING EDGES OF THE SILT FENCE WILL BE RESPONDED. THE FOLLOWING EROSION SEDIMENTATION CONTROL DEVICES AR INDICATED ON THE PLANS.

EROSION/SEDIMENT CONTROL DEVICES: GENERAL EROSION AND SEDIMENTATION CONTROL PRACTICES:

PRINGEORY AND SEDIMENTATION NOTES:

READY TO UNDERGO FINAL GRADING.

SITT FENCE WITH HAY BALE BARRIER 'NIM .S'1 10. IN THE EVENT OF SNOWFALL (FRESH OR CUMULATIVE) GREATER THAN 1 INCH DURING WINTER CONSTRUCTION FERIOD ALL SNOW SHALL BE REMOVED FROM THE AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

INCH NELLING SHALL BE USED TO ANCHOR WULCH IN ALL DRAINGE SHALL BE ALL OTHER SLOPES GREETER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR WITH A SLOPE GREETER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR WITH A SLOPE GREETER THAN 5% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR SLOPES TO STATE OF THE SLOPES THAN STATE OF THE SLOPES TO SLOPES THE SLOPES THAN STATE OF THE SLOPES THAN SLOPES

,00°00°00°00° 10' MIN.

SECTION

-- NIM ..9

6" MIN. GRAVEL BEDDING-DOT TYPE C UNDERDRAIN

EDGE OF PAVEMENT 1

екопио

OR EQUAL

X009 IHARIM

GROUND - EXISTING

.a.T.N

DECEREE VAND DAY JIME JEMPEKAPIJNES BERVINI IN JHE 30,2"

ACHORITO NOL BE YLLIEMLED DIMITES 2016. IEMPEKAPINE ERWIND BETOM 20

BAPTES OF THE SHORE ON STORE CHECK DAWS IN VECORDOWNES BETOM 20

BAPTES OF HAY. SITL EEROE ON SLORE CHECK DAWS IN VECORDOWNES BETOM 20

CHECK SHOW, SITL SELONE ON SLORE CHECK DAWS IN VECORDOWNES BETOM 20

CHECK SHOWNES ACTION, DICHES 10 BE INICHED MILH JHE DERWINERLY

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CHECK SHOWNES ACTION, DICHES 10 BE INICHED MILH JHE DERWINERLY

EMPORENCE MENTER ECONIUMICATOR CHECK BOOM CHECK ATOMES TO HER EXPORTED

EMPORTED HE CONSIDERED IN WOULD BE DECORE LEBESJURO VIO JHE STORES

CHECK SHOWNES AND SHOWNES DEVINE SHEES AND SHEE SECRED VI VERLE OWN SHEED HER SHOWNES AND SHEE SHEES WHITH SHEED WAS ALBED TO ALBER SHEED WAS ALBED BE VIOLED BELOVED WHICH SHEED WAS ALBED WAS ALBED WAS ALBED BOOM SHEED WAS ALBED WAS DECREES AND DAY TIME TEMPERATURES REMAIN IN THE 30'S.

8. MULCH WETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE FOR ALL WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1 THE SAME APPLIES FOR ALL

AN AREA IS ALSO CONSIDERED STABLE IF SODDED, COVERED WITH GRAVEL (PARKING LOTS) OR STRUCTURAL SAND. PER 1000 S.F. (MTH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ANCHORED SUCH THAT SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCHED AND 5. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED LB. SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB.

CONINCE PROTECTION & LISTED IN ITEM 2 ABOVE.

BEGIN UNIT INE EXPOSED ACID SHAFEON THE SITE IS WITHOUT EROSION

BEGIN UNIT INE EXPOSED ACID SHAFEOR ON THE AREA BEING WORKED HAS BEEN

BEGIN UNIT INE EXPOSED ACID SHAFEOR ON THE AREAS SHALL NOT

BEGIN UNIT INE EXPOSED ACID SHAFEOR OF THE SITE IS WITHOUT EROSION

BEGIN UNIT SHAFEOR OF THE STAFFOR OF THE SITE IS WITHOUT THE SHAFE HAVE NOT

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DVA BIGHT TO FANZ AND REALT! THE END OF EYCH MORK MEEK NO PHEES "Y EXPOSED MEEK SHATT BE TRIMILED IO JHOSE VEEVE ALD GE WINTCHED IN ONE

2. MINTER EXCAVATION AND EASTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STRBILLZATION AT ANY ONE TIME.

1. MINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15. EROSION CONTROL DURING WINTER CONSTRUCTION:

2:1 AND WITHIN 25' OF DRAINAGE COURSE. **I YOUN MATHER JO GO'S GROWNLH FATE. BRONDE BEBWAPEN I BIBLYEE DE STOBEZ IN EXCEZS OF BYTHER DE STATE OF THE STATE OF THE

3' REVECETATION OF DISTURBED AREAS WITHIN 25' OF DRAINAGE-COURSE/STREAM WILL BE SEEDED

2. VISUALLY INSPECT RIPRAP ONCE A WEEK OR AFTER EACH SIGNIFICANT RAINFALL AND REPAIR AS UNEEDED. REMOVE SEDIMENT TRAPPED BEHIND THESE DEVICES ONCE IT ATTAINS A DEPTH EQUAL TO THE CONLINCTOR SHAFT INSTAIRT SIT LENGE BEHIND THE HAY BALES.

WEES HUNGEBOONG HAVE REVINED 3HOUTD THE HAY BALE BASHES.

WHEE PARBIERS SHAFT BE EXCONATED WHEN IT REFORES A DEPTH OF BASHED BOOKE TO BE INEFFECTIVE.

ONCE A WEEK OR INMEDIATELY FOLLOWING ANY SHAFT SEDIMENT EXDINGTION TO SHAFT.

"I HAY BALE BANGERS" SHAFT FEROE WAS COME CHECK.

MONILORING SEDIMENTATION CONTROLS AS FOLLOWS:

MONITORING THE REGISTER EACH RAINER, A WALL INSPECTION WILL BE MADE OF ALL

THE CONTRACTOR TO BO SO, MAINTERMORE MASSAURES WILL BE APPLIED AS WEEDED DURING THE

THE CONTRACTOR TO BE SEDIMENTATION. MONITORING, MAINTENING, REPARRING, REPLACING

THE CONTRACTOR TO SET AND THE TO SEDIMENTATION. MONITORING, REPARRING, REPLACING

MONITORING, SEDIMENTATION.

MOJEICCHION BA THE ENGINEER THE EXISTING CATCH IS INADEQUALE.
** COLOMING ONLY SESEEDING WILL BE CARRIED ONL BA THE CONTRACTOR WITHIN 10 DAYS OF

SPREAD BY MACHINERY. ALLONE WILL NOT SUFFICE.

** ALTERNATIVE HAY MULCH SHALL BE SECURED WITH PHOTODEGRADABLE/BIODEGRADABLE

** ALTERNATIVE HAY WILCH SHALL BE SECURED WITH PHOTODEGRADABLE/BIODEGRADABLE

** ALTERNATIVE HAY WILCH SHALL BE SECURED WILL HOT SUFFICE.

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** ALTERNATIVE HAY WILL BE SECURED WILL HAY WILL BE SECURED WILL HAY WILL BE SECURED WILL BE SECURE E. FERTILIZING, SEEDING AND MOLCHING SHALL BE APPLIED TO LOAM THE DAY THE LOAM IS

D. WHERE TEMPORARY SEEDING IS REQUIRED, ANNUAL WINTER RYE (2.6 LBS/1000 SQ. FT.) SHALL BE SOWN INSTEAD OF THE PREMOUSLY NOTED SEEDING RATE. C. WHERE PERMANENT SEEDING IS NECESSARY, ANNUAL WINTER RYE (1.2 LBS/1000 SQ.FT) SHALL BE ADDED TO THE PREMOUSLY NOTED AREAS.

C. WHERE BERNMENT SEEDING IS NECESSARY ANNIOTE WHILES AS THE STORY OF SEED AND STATEMENT SEED AND THE SEED AN

II SEE OND E GERERAL ONES A SEEDED AREA. HYDRO-MULCH SIALL NOT BE USED BETWEEN HYDRO-MULCH SHALL CONSTITUCION.
II SEE OND THE SPART SHALL CONSTITUCION.
II SEE OND THE SHALL CONSTITUCION.

3. AN AREA SHALL BE MULCHED IMMEDIATELY AFTER IS HAS BEEN SEEDED, MULCHING SHALL BE CONSISTION FAYN WULCH, HOND-MULCH, JUTHE RATE OF 5 TO NOWS THE CREGORY WITH SPRAY, ON MATE OR ANY SULFIER (NOTE: SOIL SHALL NOT BE NISHELE)

ANY SON ANY SULFIER (NOTE: SOIL SHALL NOT BE NISHELE)

ANY SON ANY SULFIER (NOTE: SOIL SHALL NOT BE NISHELE)

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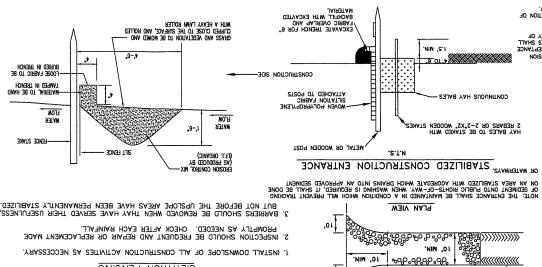
ANY SON ANY SULFIER (NOTE: SOIL SHALL NOT SULFIER SOIL SHALL S

PERENNIAL KYE GRASS U.T. LB/1000 SF. RED TOP 0.05 LBS/1000 SF. TALL FESCUE 0.46 LBS/1000 SF. KENTUCKY BLUEGRASS 0.46 LBS/1000 SF. CREEPING RED FESCUE 0.46 LBS/1000 SF. PEREVALLA BY CASASS 0.11 LB/1000 SF.

2. IF THAL GRADING IS REACHED URING THE NORMAL GROWING SEASON (4/15 TO 9/15). APPLIED AT A RATE OF 138 LES/1006 SQ. FT, AND 10:30:30 FERRILIZER AT A RATE OF 184, PERMANENT SEDING MILL BE DONE AS SECRIFICE BLOW. PRIOR TO SEDING, LIMESTONE SAIL.

l. A minimum of 4" of loam mill be spread over disturbed areas and stabled to stabilize Junform depth and natural appreadance, or stone will be placed on slopes to stabilize surfaces.

THE EQITOWING CENERAL PRACTICES WILL BE USED TO PREVENT EROSION AS SOON AS AN AREA IS POST-CONSTRUCTION REVECTORS.



PAVEMENT EXIZING

PAVEMENT

4 LUAM, SEED, AND MULCH

--- EXIZING GROUND

RECYCLED CONCRETE EQUIVALENT

2" STONE OR RECLAIMED OR

RIPRAP SLOPE DETAIL

MR38 3J8ATNUOM-JANOIT9O

COMPACT EMBANKMENT
TO 93% OPTIMUM DRY

BEFORE MOOD WASTE COMPOST/BARK)

CAMBINATION WITH SIT EXCECT TO MENOST, PRINCET COMPOST/BARK BEY

WEEVERAL CLOGGING OF THE WOOD WASTE COMPOST/BARK BEYN BY

WEEVERAL COMPOST/BARK BEYN BY

WASTE COMPOST/BARK BEYN BY

WASTE COMPOST/BARK BEYN

WASTE COMPOST/BARK

WASTE

SEDIMENT BARRIERS SHOULD NOT BE USED IN STREAMS & LARGE

COMPOSITION.

OUR POSITION.

OR REAL MATTER CONTENT IS 80 TO 100%, DRY WEIGHT BASIS.

O REGION LANTER CONTENT IS 80 TO 100%, DRY WEIGHT BASIS.

PART OF TOM, MANDIAU OF 63%, PASSING A 0.7% SCREEN.

THE REAL ORGANIC PORTION WEIGHT STORES THE SAMD ARE NOT ACCEPTED.

IN THE IMM.

SO SCUURIE SALTS CONTENT IS LESS THAN 4.0 MITMORY AND THE PART OF THE SALTS CONTENT IS LESS THAN 4.0 MITMORY AND THE PART OF THE SALTS CONTENT IS LESS THAN 4.0 MITMORY AND THE PART OF THE SALTS CONTENT IS LESS THAN 4.0 MITMORY AND THE SALTS CONTENT IS LESS THAN 4.0

MARIATE COMPOST/BARK

NOT TO SCALE

TOE-IN METHODS

-6"X6" TRENCH

NIAJ9 JANIMON "8:

- WHERE STAND-ALONE'S FAIL; A LARGE UP-GRADIENT CONTRIBUTING WATERSHED); , A LARGE UP-GRADIENT CONTRIBUTING WATERSHED); ,

COCYDONS WHERE OTHER BMP's SHOULD BE USED:

- YI LOE OL SHYTOM 210%-ES:

2 INMO-TOKE TER MINOTI BURICHOECENENT BIJ BIND, 8:

1 ALWOODEN HE CRYCZ BYTOME ON EIVAL SLENG
BUBGES JIVEL MONTO BYTOME SHY BURYL SLENG

1 ALWOODEN HE CRYCZ BYTOME SHY AND HODEL JIVE BYTOME SHY

1 MY GENERAL WOODEN ACCELIVED IN OND OF SHY HODEL JIVE BYTOME SHY

1 MY GENERAL SHOOTIO BE MINOTIN OE NINOTION CONTROLLOW FLOW,

2 TOWN OF WHIGHER SHOOTIO BE MINITING IN OE. 13, HIGH PERFORED OE.

2 TOWN OF SHY BYTOME SHOOTION SHIP SHY BYTOMES OF SHY BY BYTOMES OF SHY BYTOMES

10 CONFORM 10 EXISTING GRADE, SEEDED & MULTCHED.

- ENGOING COUNTROL ME PLOCE FREE CONCULENCING MICHOLD BE SAW

- ENGOING COUNTROL ME NOT SHEEPER SEED HE FEEL IN PLACE. SEDIMEN

- ENGOING COUNTROL MY SHEEPER SHEEPER SHEEPER SAW

- ENGLISH SHEEPER SHEEPER

- BYMINER DECORDINGUE OF COURSE OF C

PFILTER FABRIC

TAN TROPPORT

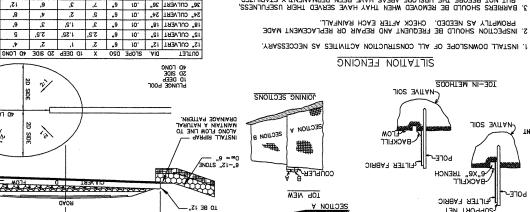
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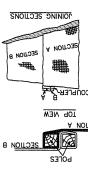
-NATIVE SOIL

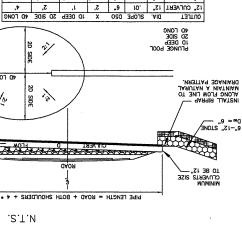
-BACKFILL

ארורזבא FABRIC

SILT FENCE AND FILTER BERM DETAIL







OIII VEBT D FLOW PIPE LENGTH = ROAD + BOTH SHOULDERS + 4 * (COVER + D) (SLOPE INSTALLATION)

\sqr

NOT TO SCALE

COLVERT INLET / OUTLET PROTECTION

25 2

Orthur & Bologe DATE: 4-1-07

DETAIL

HAY BALE BARRIER

A CONTINOUS BRRRIER A CONTINOUS BRRRIER OR A STRAW BRLE AND THE WIDTH A DEEP AND THE WIDTH A

RUNOFF WATER MATER WATER WATER

CHID BK: CZB

DKN BX: C2B

FIELD WK: SURVEY INC.

FILE:

970 # HOL

oh 207-622-1462, Cell207-242-5713 Email: chela

166 PRESUMPSCOT STREET, PORTLAND, MAINE

14 TOJ 424 GAM XAT

SO, PORTLAND, MAINE 04106

GENERAL COURIER

EKOSION CONLKOT DELVITS

2. ALL CULVERT INLETS AND OUTLETS SHALL IAVE RIPRAP PROTECTION AS SPECIFIED WITH HIS DETAIL.

REFER TO TRENCH DETAIL FOR BACK FILL

712" OF GRAVEL BEDDING & APPROPRIATE GEOTEXTILE FABRIC.

D∞= 6" 0∞= 6"

ENCINEERING

usgundsif

2CVTE: 1,,=50,

пання

EROSION CONTROL BLANKET

APPROXIMATELY 4" OVERLAP, STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART. 2' WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH

4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.

3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.

COMPACT THE TRENCH AFTER STAPLING. 3. BECIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND

WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED, NOTE:

