

846 Main St., Suite 3  
Westbrook, Maine 04092  
Telephone 207-591-7000  
Facsimile 207-591-7329  
info@stgermain.com

May 4, 2007

Ms. Jeanie Bourke  
City of Portland Building Inspections Division  
Room 315  
389 Congress Street  
Portland, Maine 04101

RE: City of Portland, Maine.  
General Building Permit Application  
Riverside Transfer Station  
Portland, Maine  
St.Germain File No.: 2844.1



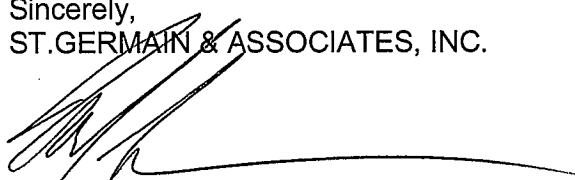
Dear Ms. Bourke:

St.Germain & Associates, Inc., on behalf of City of Portland Department of Public Works, is pleased to present the following General Building Permit application for a universal waste building at the Riverside Transfer Station. Enclosed please also find a compact disc with all of the contents of this application in pdf format.

It is our understanding that as this is a City application the fees will be waived.

Should you have any questions during the review of the enclosed materials, please contact Troy Moon at (207) 874-8467 or me at (207) 591-7000.

Sincerely,  
ST.GERMAIN & ASSOCIATES, INC.

  
Mark S. St.Germain  
Project Manager

enclosures

cc: Troy Moon, City of Portland  
Jim Hiltner, CPRC Corp.



# General Building Permit Application


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

Location/Address of Construction: <b>910 Riverside St., Portland</b>		
Total Square Footage of Proposed Structure <b>1,276 sf +/-</b>		Square Footage of Lot <b>11,891,880 sf +/- contiguous (incl. golf course property)</b>
Chart# Block# Lot# 357 A 1 358 A 1 359 A 1	Chart# Block# Lot# 360 A 1 361 A 2 362 & 363 & 364 & 365 & 366 & 367-A-1	Owner: <b>City of Portland</b> Telephone: <b>(207) 874-8300</b>
Lessee/Buyer's Name (If Applicable)	Applicant name, address & telephone: <b>City of Portland Public Works</b> <b>55 Portland St.</b> <b>Portland, Maine 04101</b>	Cost Of Work: \$ <u>N/A</u> Fee: \$ <u>waived</u> C of O Fee: \$ _____
Current legal use (i.e. single family) <u>Universal Waste Sorting Area</u> If vacant, what was the previous use? _____ Proposed Specific use: <u>Universal Waste Building</u> Is property part of a subdivision? <u>No</u> If yes, please name _____ Project description: <b>Construct a building for the storage and handling of universal wastes.</b>		
Contractor's name, address & telephone:  Who should we contact when the permit is ready: <u>Troy Moon, Solid Waste Manager</u> Mailing address: <b>55 Portland Street</b> Phone: <u>(207) 874-8467</u> <b>Portland, ME 04101</b>		

Please submit all of the information outlined in the Commercial Application Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

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

Signature of applicant: 	Date: <b>May 4, 2007</b>
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This is not a permit; you may not commence ANY work until the permit is issued.



# Certificate of Design Application

From Designer:

Bruce W MacLeod, PE

Date:

4/22/07

Job Name:

Universal Waste Building

Address of Construction:

Riverside Street, Portland, Me.

## 2003 International Building Code

Construction project was designed to the building code criteria listed below:

Building Code & Year 2003 IBC Use Group Classification (s) S (Storage)

Type of Construction IV

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC NO

Is the Structure mixed use? Yes If yes, separated or non separated or non separated (section 302.3) non-sep.

Supervisory alarm System? NO Geotechnical/Soils report required? (See Section 1802.2) Yes

### Structural Design Calculations

NO Submitted for all structural members (106.1 - 106.11)

### Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (1603.1.1, 1807)

Floor Area Use	Loads Shown
<u>N/A</u>	<u>N/A</u>

### Wind loads (1603.1.4, 1609)

Design option utilized (1609.1.1, 1609.6)

95 Basic wind speed (1809.3)

1, 60 = II Building category and wind importance Factor,  $I_w$  (table 1604.5, 1609.5)

C Wind exposure category (1609.4)

0.18 Internal pressure coefficient (ASCE 7)

per code Component and cladding pressures (1609.1.1, 1609.6.2.2)

+14.4 / -6.8 Main force wind pressures (1603.1.1, 1609.6.2.1)

### Earth design data (1603.1.5, 1614-1623)

II Design option utilized (1614.1)

1 Seismic use group ("Category")

0.35 / 0.10 Spectral response coefficients,  $S_D$  &  $S_1$  (1615.1)

D Site class (1615.1.5)

### Live load reduction

Roof live loads (1603.1.2, 1607.11)

42 Roof snow loads (1603.7.3, 1608)

60 Ground snow load,  $P_g$  (1608.2)

42 If  $P_g > 10$  psf, flat-roof snow load  $P_f$

1.0 If  $P_g > 10$  psf, snow exposure factor,  $C_e$

1.0 If  $P_g > 10$  psf, snow load importance factor,  $I_s$

1.0 Roof thermal factor,  $C_t$  (1608.4)

N.A. Sloped roof snowload,  $P_s$  (1608.4)

C Seismic design category (1616.3)

E.L.F. Basic seismic force resisting system (1617.6.2)

7.0 Response modification coefficient,  $R$ , and

4.5 deflection amplification factor,  $C_d$  (1617.6.2)

Simplified Analysis procedure (1616.6, 1617.5)

0.06 Design base shear (1617.4, 1617.5.1)

### Flood loads (1803.1.6, 1612)

Flood Hazard area (1612.3)

Elevation of structure

### Other loads

Concentrated loads (1607.4)

Partition loads (1607.5)

Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404)



# New Commercial Permit Application Checklist

All of the following information is required and must be submitted. Checking off each item as you prepare your application package will ensure your package is complete and will help to expedite the permitting process.

## One (1) complete Set of construction drawings must include:

Note: Construction documents for costs in excess of \$50,000.00 must be prepared by a Design Professional and bear their seal.

- Cross sections w/framing details
- Detail of any new walls or permanent partitions
- Floor plans and elevations
- N/A  Window and door schedules
- Foundation plans with rebar specifications and required drainage and damp proofing (if applicable)
- N/A  Detail egress requirements and fire separations
- Insulation R-factors of walls, ceilings, floors and U-factors of windows as per the IEBC 2003
- Complete the Accessibility Certificate and The Certificate of Design
- A statement of special inspections as required per the IBC 2003
- N/A  Complete electrical and plumbing layout.
- N/A  Mechanical drawings for any specialized equipment such as furnaces, chimneys, gas equipment, HVAC equipment (air handling) or other types of work that may require special review.
- Reduced plans or electronic files in PDF format are required if originals are larger than 11" x 17".
- N/A  Per State Fire Marshall, all new bathrooms must be ADA compliant.

Separate permits are required for internal & external plumbing, HVAC and electrical installations.

Nine (9) copies of the minor (< 10,000 sf) or major (> 10,000 sf) site plan application is required that includes:

- A stamped boundary survey to scale showing north arrow, zoning district and setbacks to a scale of  $\geq 1" = 20'$  on paper  $\geq 11" \times 17"$
- The shape and dimension of the lot, footprint of the proposed structure and the distance from the actual property lines. Photocopies of the plat or hand draw footprints not to scale will not be accepted.
- Location and dimensions of parking areas and driveways, street spaces and building frontage
- Finish floor or sill elevation (based on mean sea level datum)
- Location and size of both existing utilities in the street and the proposed utilities serving the building
- Existing and proposed grade contours
- Silt fence (erosion control) locations

**Fire Department requirements.**

The following shall be submitted on a separate sheet: **SEE ATTACHMENT 5**

- Name, address and phone number of applicant and the project architect.
- Proposed use of structure (NFPA and IBC classification)
- Square footage of proposed structure (total and per story)
- Existing and proposed fire protection of structure.
- Separate plans shall be submitted for
  - a) Suppression system
  - b) Detection System (separate permit is required)
- A separate Life Safety Plan must include:
  - a) Fire resistance ratings of all means of egress
  - b) Travel distance from most remote point to exit discharge
  - c) Location of any required fire extinguishers
  - d) Location of emergency lighting
  - e) Location of exit signs
  - f) NFPA 101 code summary
- Elevators shall be sized to fit an 80" x 24" stretcher.

**For questions on Fire Department requirements call the Fire Prevention Officer at (207) 874-8405.**

**Please submit all of the information outlined in this application checklist. If the application is incomplete, the application may be refused.**

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

**Permit Fee: \$30.00 for the first \$1000.00 construction cost, \$10.00 per additional \$1000.00 cost**

**This is not a Permit; you may not commence any work until the Permit is issued.**



# Accessibility Building Code Certificate

Designer: Bruce W MacLeod, PE

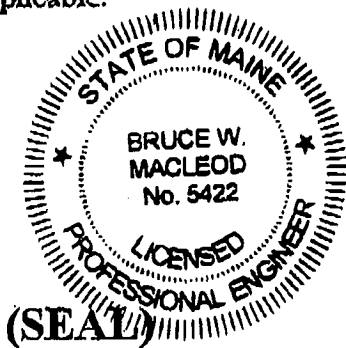
Address of Project: Riverside Street, Portland, Me

Nature of Project: Universal Waste Transfer Building

\_\_\_\_\_

\_\_\_\_\_

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act. Residential Buildings with 4 units or more must conform to the Federal Fair Housing Accessibility Standards. Please provide proof of compliance if applicable.



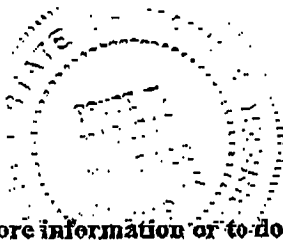
Signature: Bruce W MacLeod, PE

Title: President

Firm: MacLeod Structural Engineers, PPA

Address: 404 Main Street  
Gorham, Me.

Phone: 207-839-0980



For more information or to download this form and other permit applications visit the Inspections Division on our website at [www.portlandmaine.gov](http://www.portlandmaine.gov)



## Certificate of Design

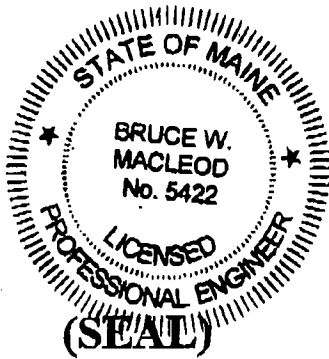
Date: 4/22/07

From: Bruce W. MacLeod, PE

These plans and / or specifications covering construction work on:

The Universal Waste Building at the Solid Waste  
Transfer Facility Portland, Me.

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the *2003 International Building Code* and local amendments.



Signature: Bruce W. MacLeod, PE

Title: President

Firm: MacLeod Structural Engineers, PA

Address: 404 Main St  
Gorham, Me 04038

Phone: 207-839-0980

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**ATTACHMENT 1**

**Construction Drawings**





**GENERAL NOTES:**

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
2. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
3. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE STRUCTURE AND PERSONNEL DURING ERECTION. THIS INCLUDES THE ADDITION OF THE NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUTS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
4. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
5. IT IS THE OWNER'S SOLE RESPONSIBILITY TO EMPLOY ONE OR MORE SPECIAL INSPECTORS (IF REQUIRED) TO PROVIDE INSPECTIONS IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF IBC 2003.

**FOUNDATION NOTES:**

1. FOUNDATION DESIGNED BASED ON RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER. REFER TO THEIR REPORT FOR ADDITIONAL INFORMATION. DUE TO THE PRESENCE OF FILL SOILS BENEATH THE FOUNDATION, LONG TERM DIFFERENTIAL SETTLEMENT OF THE FOUNDATION MAY OCCUR, REQUIRING PERIODIC MAINTENANCE/REPLACEMENT OF THE CONCRETE SLAB.
2. DESIGN OF EXTERIOR FOUNDATIONS IS BASED ON A FROST DEPTH OF 4'-6" BELOW FINISHED GRADE.
3. NO HORIZONTAL JOINT WILL BE PERMITTED IN THE WALLS UNLESS NOTED OTHERWISE.
4. FOUNDATION CONTRACTOR SHALL SET COLUMN ANCHOR RODS AND LEVELING PLATES, INCLUDING GROUTING, AS PER THE STRUCTURAL STEEL CONTRACTOR'S DRAWINGS.

5. EXCAVATING AND BACK FILLING AT NEW FOUNDATION WALLS SHALL BE DONE SUCH THAT SYMMETRICAL LOADING SHALL BE MAINTAINED ON BOTH SIDES. WHERE DESIGN CONDITIONS REQUIRE DIFFERENT BACK FILL HEIGHTS, WALLS SHALL BE FIRMLY SHORED IN POSITION, AND SHORES SHALL REMAIN UNTIL FLOORS ARE PLACED AND PROPERLY SET, TO PROVIDE FULL SUPPORT.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN, INSTALLATION, AND FINAL CLEARANCE OF ANY NEEDLING, SHORING, OR BRACING OF EXISTING STRUCTURES.

7. VAPOR BARRIER BENEATH SLAB SHALL BE "STEGO WRAP" OR APPROVED EQUAL. POLYETHYLENE "IS NOT" AN ALTERNATE PRODUCT.

**STRUCTURAL DESIGN CRITERIA:**

1. BUILDING CODE: IBC 2003 INTERNATIONAL BUILDING CODE
2. DESIGN WIND LOADS - MAIN WIND FORCE RESISTING SYSTEM:  
DESIGN WIND SPEED = 95 MPH  
BUILDING USE IMPORTANCE FACTOR (WIND) = 1.0  
BUILDING EXPOSURE CATEGORY = C
3. DESIGN WIND LOADS - COMPONENTS AND CLADDING:  
EXPOSURE CATEGORY = C

4. SNOW:  
GROUND SNOW LOAD = 60 PSF  
IMPORTANCE FACTOR, I = 1.0  
FLAT ROOF SNOW LOAD = 42 PSF

5. ROOF DEAD LOAD  
TOP CHORD = 10.0 PSF  
BOTTOM CHORD = 10.0 PSF

6. FLOOR LOADS  
FIRST FLOOR LIVE LOAD = 125 PSF

7. SEISMIC  
EQUIVALENT LATERAL FORCE PROCEDURE

USE GROUP (CATEGORY)	=	I	SITE CLASS	=	D
SDs	=	0.35	R	=	7.0
SDI	=	0.10	Cd	=	4.5
SEISMIC DESIGN CATEGORY	=	C			
SEISMIC RESISTING SYSTEM	=	LIGHT FRAMED WALLS WITH SHEAR PANELS			
SEISMIC BASE SHEAR, V	=	0.06 X W			

MacLeod Structural Engineers, PA



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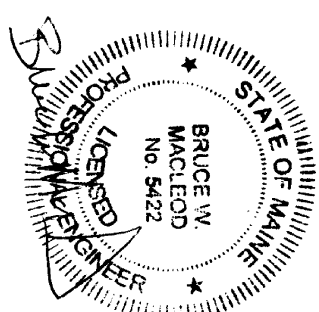
UNIVERSAL WASTE BUILDING  
SOLID WASTE TRANSFER FACILITY

PORTLAND MAINE

SHEET TITLE: GENERAL NOTES

THIS DRAWING IS ISSUED:  Submitted For Permit DATE: 4/20/2007

DRN BY: BWM/RAW	DATE: 3/14/2007	PROJ. NO: 2007-136
GK'D BY: BWM	SCALE: AS NOTED	DWG: S9 OF 10



**CONCRETE NOTES:**

1. ALL CONCRETE WORK SHALL CONFORM TO ACI-318.
2. ALL CONCRETE EXCEPT INTERIOR AND EXTERIOR SLABS ON GROUND SHALL BE 3000 PSI AT 28 DAYS AND A MAXIMUM SLUMP OF 4". ALL INTERIOR AND EXTERIOR SLABS ON GROUND SHALL BE 4000 PSI AT 28 DAYS AND A MAXIMUM SLUMP OF 4". MAXIMUM SIZE AGGREGATE SHALL BE 3/4" (WALL/FOOTINGS) AND 1 1/2" (SLABS ON GROUND).
3. CONCRETE TO REMAIN EXPOSED TO WEATHER SHALL BE AIR ENTRAINED. NO AIR ENTRAINMENT IN INTERIOR CONCRETE SLABS.
4. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
5. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60. DEFORMED BARS SHALL BE DETAILED AND FABRICATED IN ACCORDANCE TO ACI-315 LATEST EDITION, AND PLACED IN ACCORDANCE WITH ACI-318.
6. SPLICES OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH ACI-318.
7. ANCHOR RODS SHALL CONFORM TO ASTM F1554-36.
8. HOOKS NOT DIMENSIONED SHALL BE ACI STANDARD HOOKS.
9. CONCRETE COVER OVER REINFORCEMENT SHALL BE AS FOLLOWS:  
 CONCRETE CAST AGAINST EARTH = 3"  
 CONCRETE EXPOSED TO EARTH OR WEATHER = 1 1/2"  
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER = 3/4"

**WOOD FRAMING NOTES:**

1. STRUCTURAL LUMBER: SPRUCE PINE FIR NO1/NO2 OR BETTER  
 Fb = 875 PSI Fv = 70 PSI  
 Fc = 1150 PSI E = 1400000 PSI
2. DESIGN CODE: IBC 2003 / NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.
3. NAILING REQUIREMENTS FOR PLYWOOD SHEATHING:  
 PROVIDE 8d NAILS AS FOLLOWS UNLESS SHOWN OTHERWISE:  
 8d NAILS @ 6" o.c. ALONG PANEL EDGES  
 8d NAILS @ 8" o.c. ALONG INTERMEDIATE MEMBERS  
 PROVIDE BLOCKING AT ALL PANEL EDGES
4. SPIKE TOGETHER ALL FRAMING MEMBERS WHICH ARE BUILT-UP USING MULTIPLE 2x LUMBER.

5. PROVIDE GALVANIZED METAL TIES EQUAL TO SIMPSON H2.5 HURRICANE TIES BETWEEN ROOF RAFTERS OR TRUSSES AND SUPPORTING WALL MEMBERS, UNLESS SHOWN OTHERWISE. PROVIDE GALVANIZED METAL CONNECTORS EQUAL TO SIMPSON TC26 TRUSS CONNECTOR BETWEEN ALL ROOF SCISSOR TRUSSES AND SUPPORTING WALL MEMBERS, UNLESS SHOWN OTHERWISE.
6. PROVIDE PRESSURE TREATED LUMBER FOR ALL LUMBER IN CONTACT WITH MASONRY OR CONCRETE.
7. ROOF SHEATHING: 5/8" APA RATED SHEATHING, EXTERIOR OR STRUCTURAL I OR II RATED SHEATHING, SPAN RATING 32/16 (TRUSSES), 24/12 (JOISTS). INSTALL SHEETS WITH FACE GRAIN DIRECTION PERPENDICULAR TO SUPPORTING MEMBERS.
8. ALL NAILS, SPIKES, BOLTS ETC. FASTENING MEMBERS TO PRESSURE TREATED LUMBER SHALL BE EITHER STAINLESS STEEL OR HEAVY GALVANIZED.

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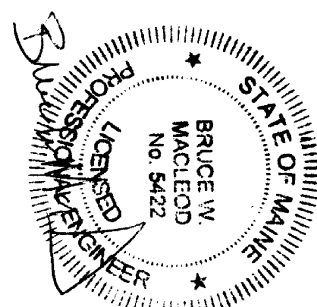
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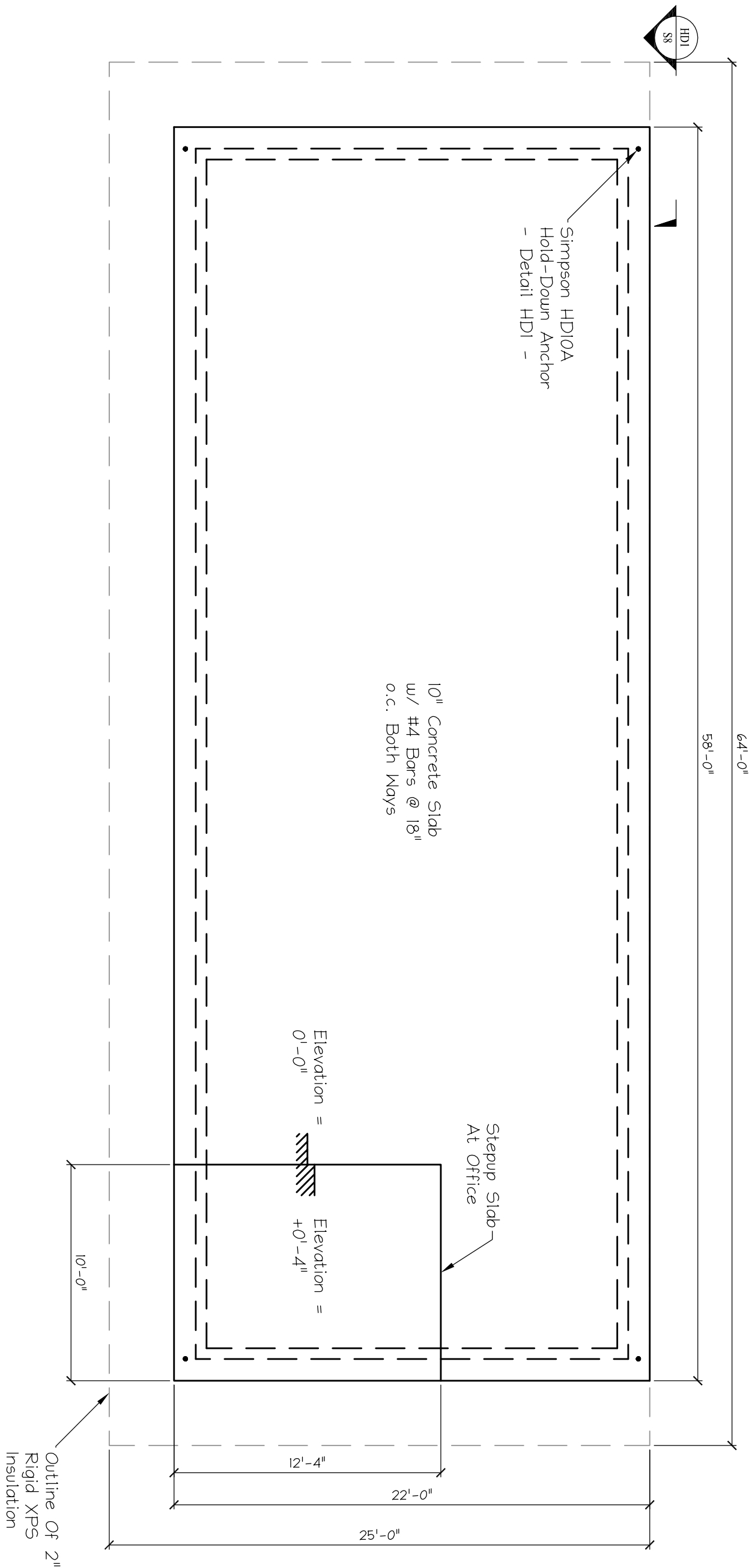
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**FOUNDATION PLAN**  
SCALE: 3/16" = 1'-0"

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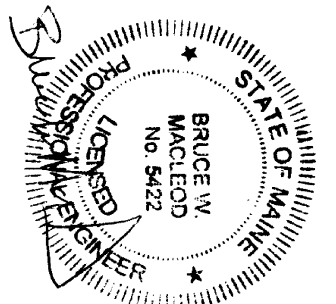
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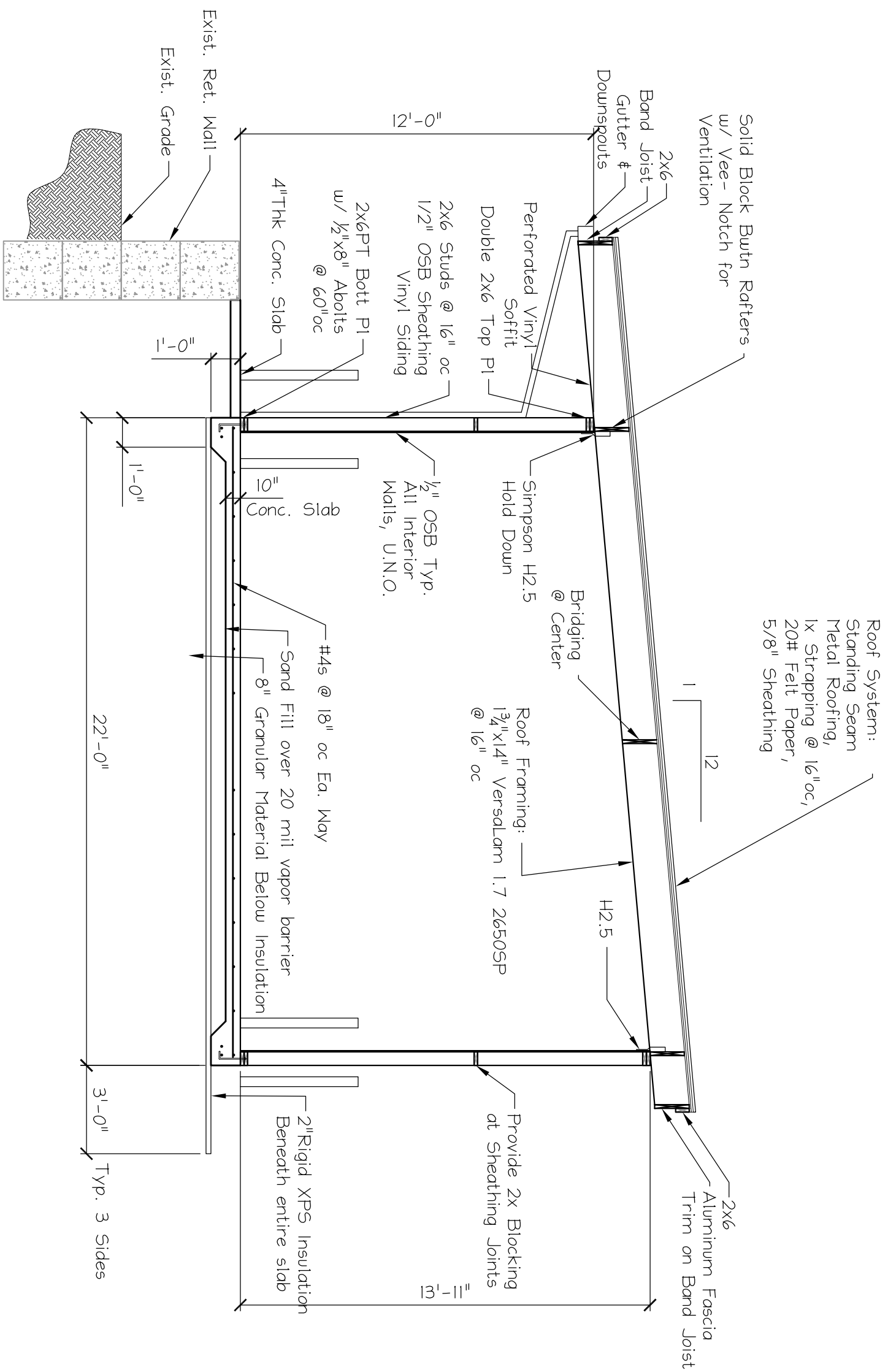
SHEET TITLE: FOUNDATION PLANS

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**SOLID WASTE BUILDING SECTION VIEW 'A-A'**  
 SCALE: 1/4" = 1'-0"

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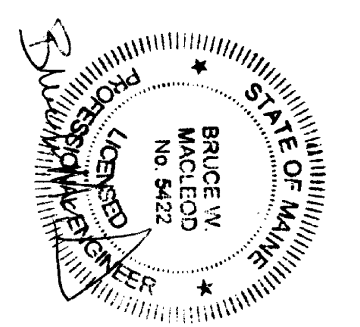
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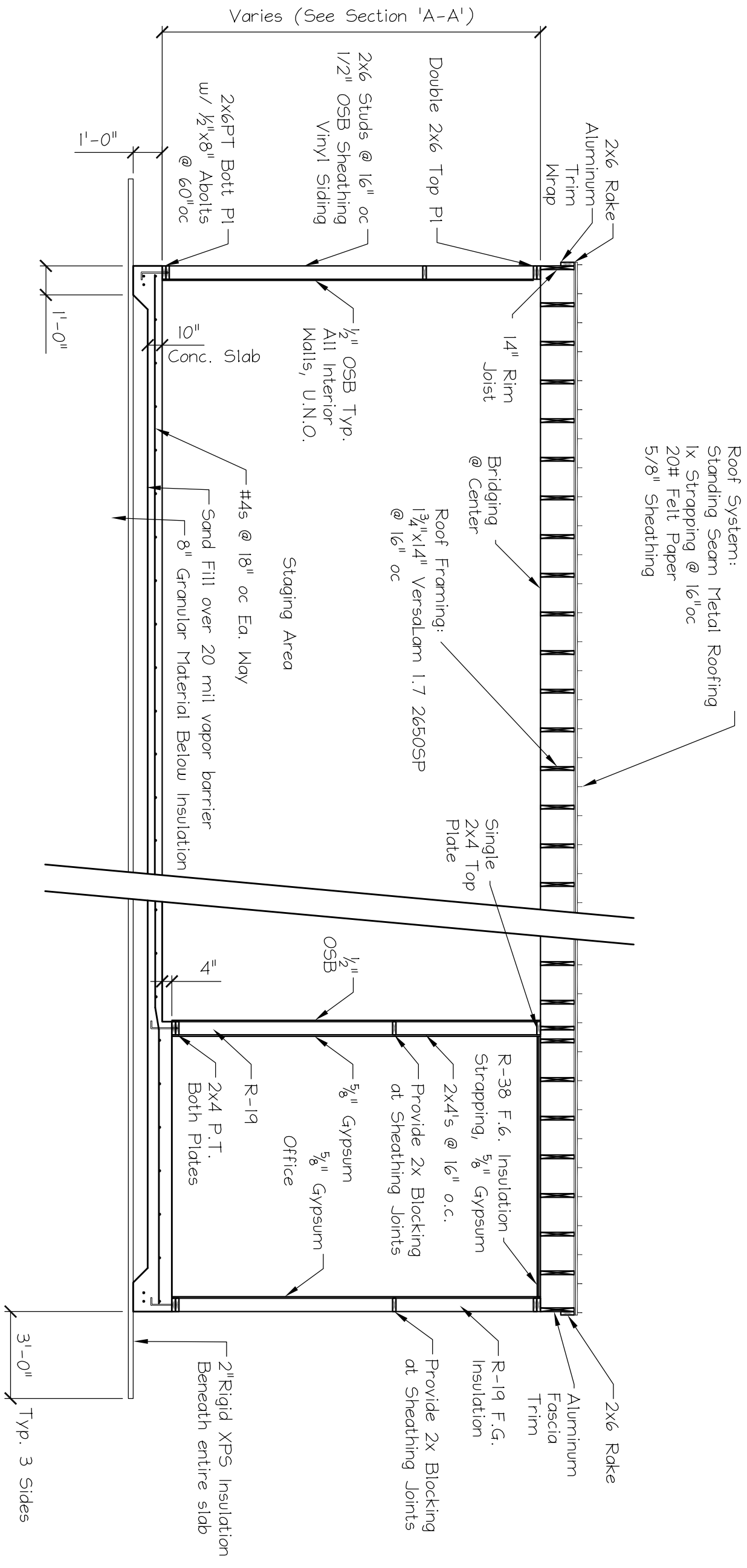
SHEET TITLE: SOLID WASTE BUILDING SECTION 'A-A'

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CHKD BY: BWM	SCALE: AS NOTED	DWG: S4 OF 10



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Roof System:  
 Standing Seam Metal Roofing  
 1x Strapping @ 16" oc  
 20# Felt Paper  
 5/8" Sheathing

**SOLID WASTE BUILDING SECTION VIEW 'B-B'**

SCALE: 1/4" = 1'-0"

MacLeod Structural Engineers, PA



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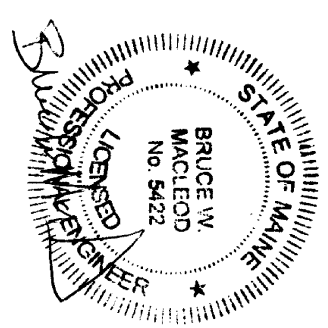
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SHEET TITLE: SOLID WASTE BUILDING VIEW 'B-B'

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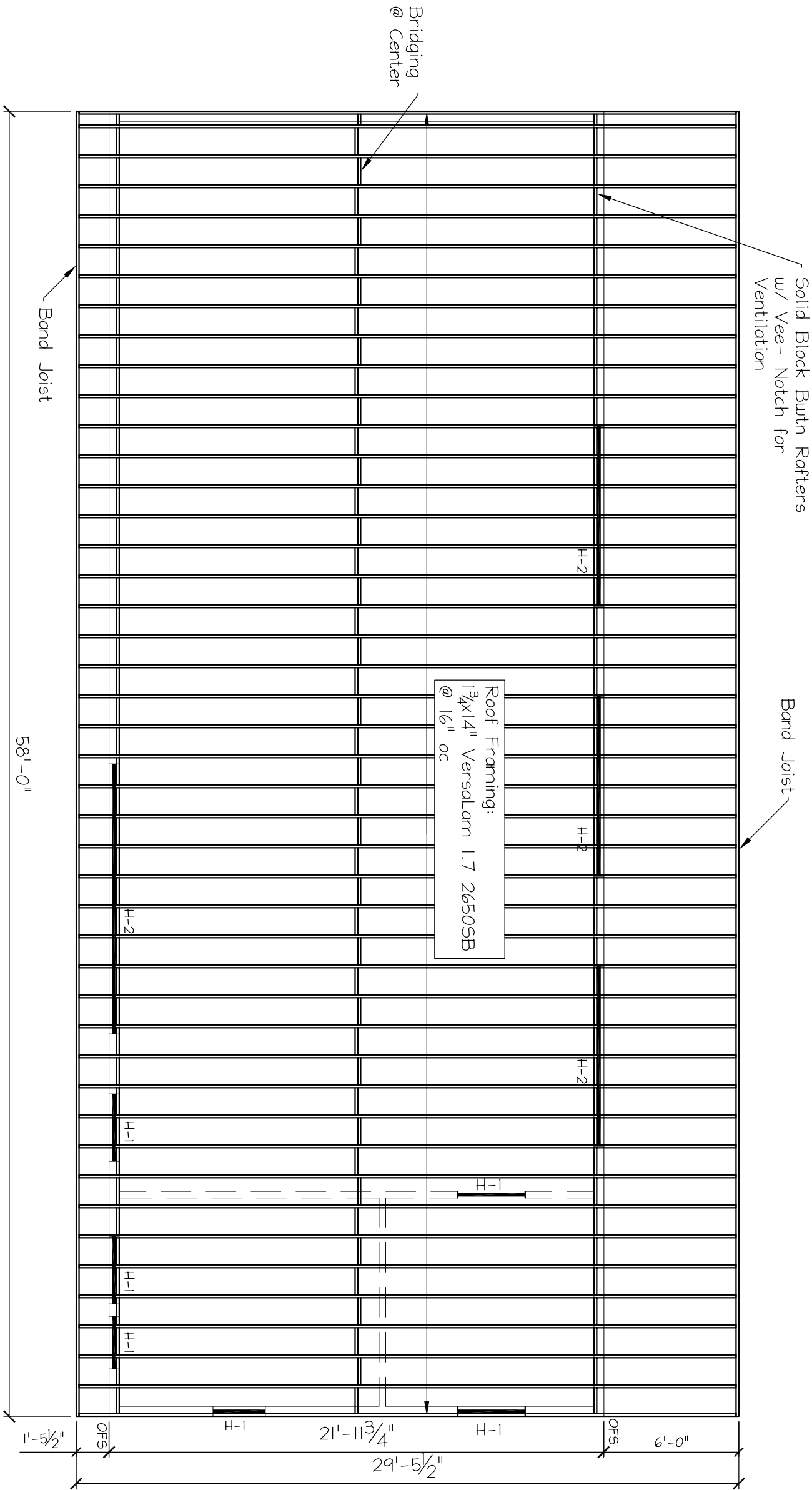


**ROOF FRAMING NOTES**

O.F.S. = Outside Face Of Stud.  
H-x = Indicates Opening Header Size, See Schedule

**OPENING HEADER SCHEDULE**

MARK	DESCRIPTION	JACK STUDS (NUMBER)	KING STUDS (NUMBER)
H-1	(3) 2x8's	(1) Stud	(1) Studs
H-2	5 1/4"x11 1/4" LVL	(2) Stud	(2) Studs



**ROOF FRAMING PLAN**

SCALE: 3/16" = 1'-0"

MacLeod Structural Engineers, PA



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**UNIVERSAL WASTE BUILDING  
SOLID WASTE TRANSFER FACILITY**

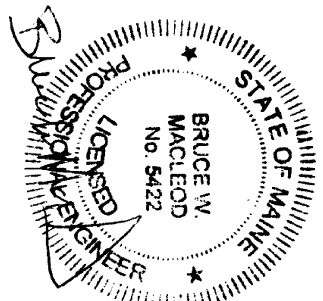
PORTLAND MAINE

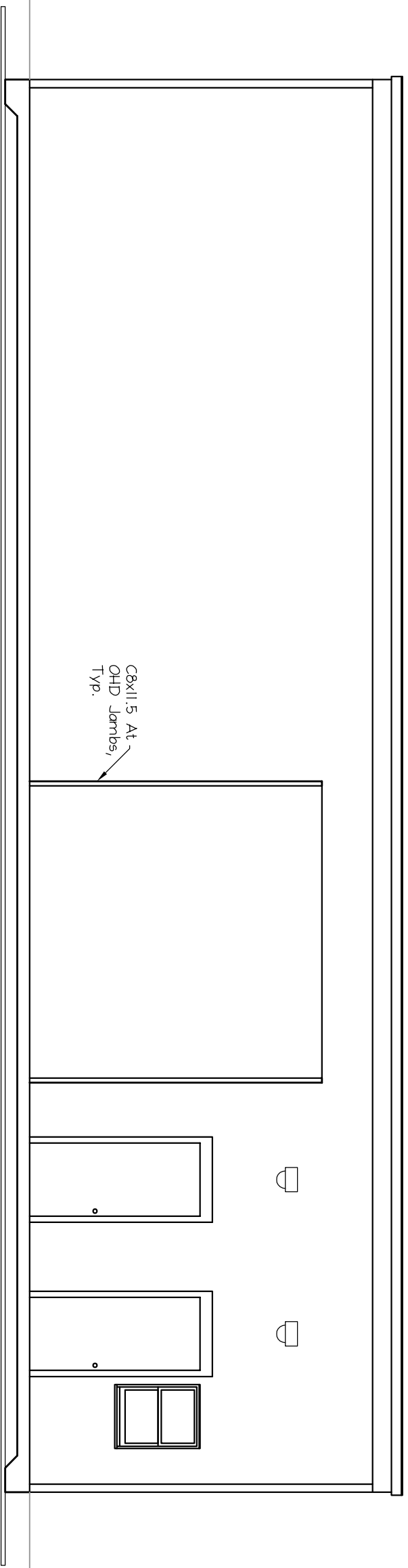
SHEET TITLE: **ROOF FRAMING PLAN**

THIS DRAWING IS ISSUED:  Submitted For Permit DATE: 4/20/2007

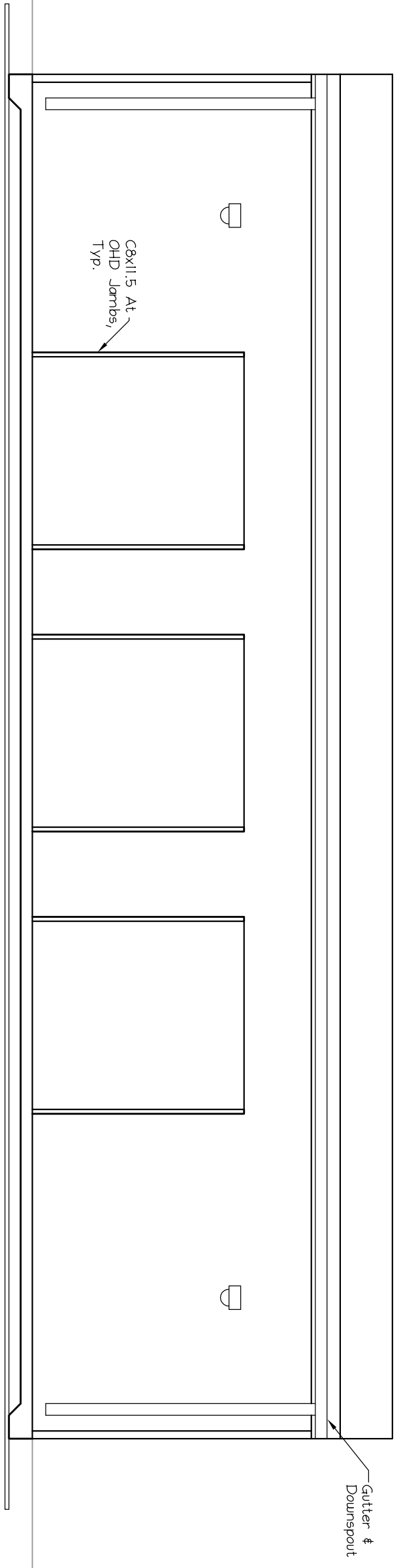
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DRN BY: BWM/RAW	DATE: 3/14/2007	PROJ. NO: 2007-136
GHKD BY: BWM	SCALE: AS NOTED	DWG: S7 OF 10





SOLID WASTE BUILDING SOUTH ELEVATION  
Scale: 1/4" = 1'-0"



SOLID WASTE BUILDING NORTH ELEVATION  
Scale: 1/4" = 1'-0"

MacLeod Structural Engineers, PA



404 Main Street  
Gorham, Maine 04038  
phone: (207) 839-0980  
fax: (207) 839-0982

UNIVERSAL WASTE BUILDING  
SOLID WASTE TRANSFER FACILITY

PORTLAND MAINE

SHEET TITLE: NORTH - SOUTH ELEVATIONS

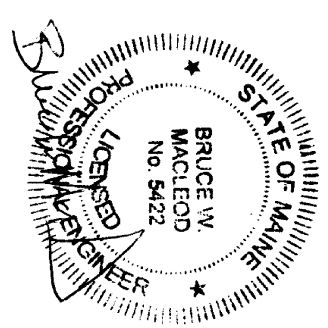
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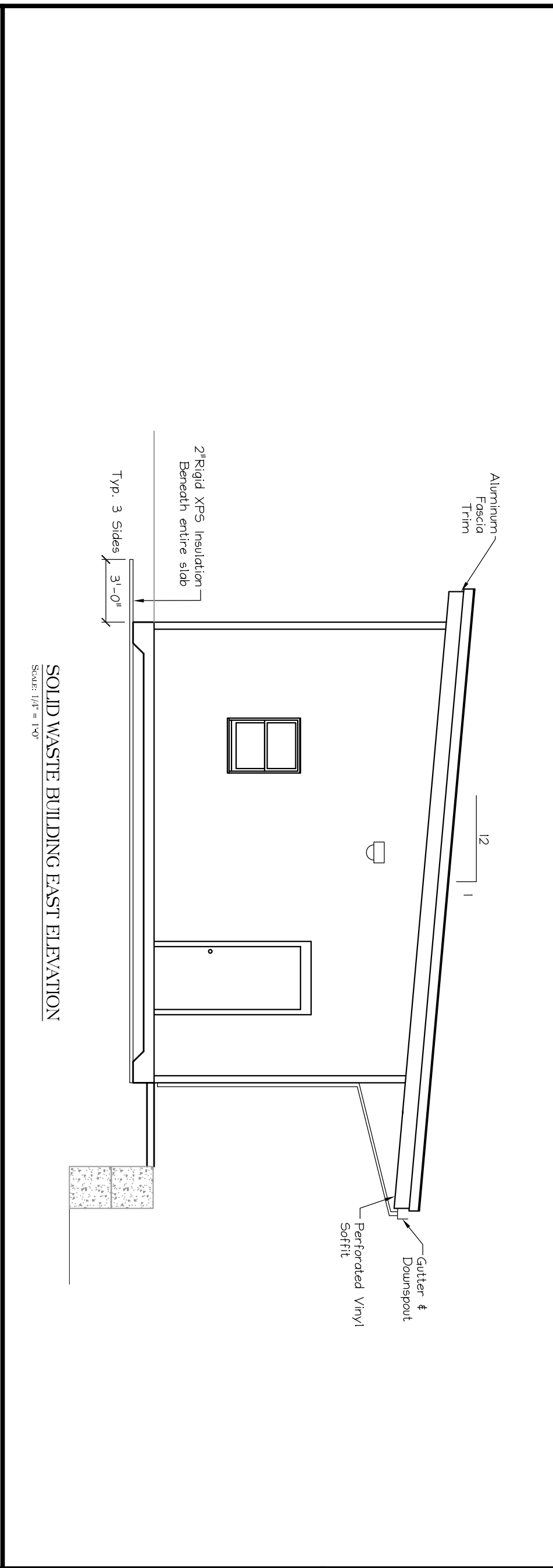
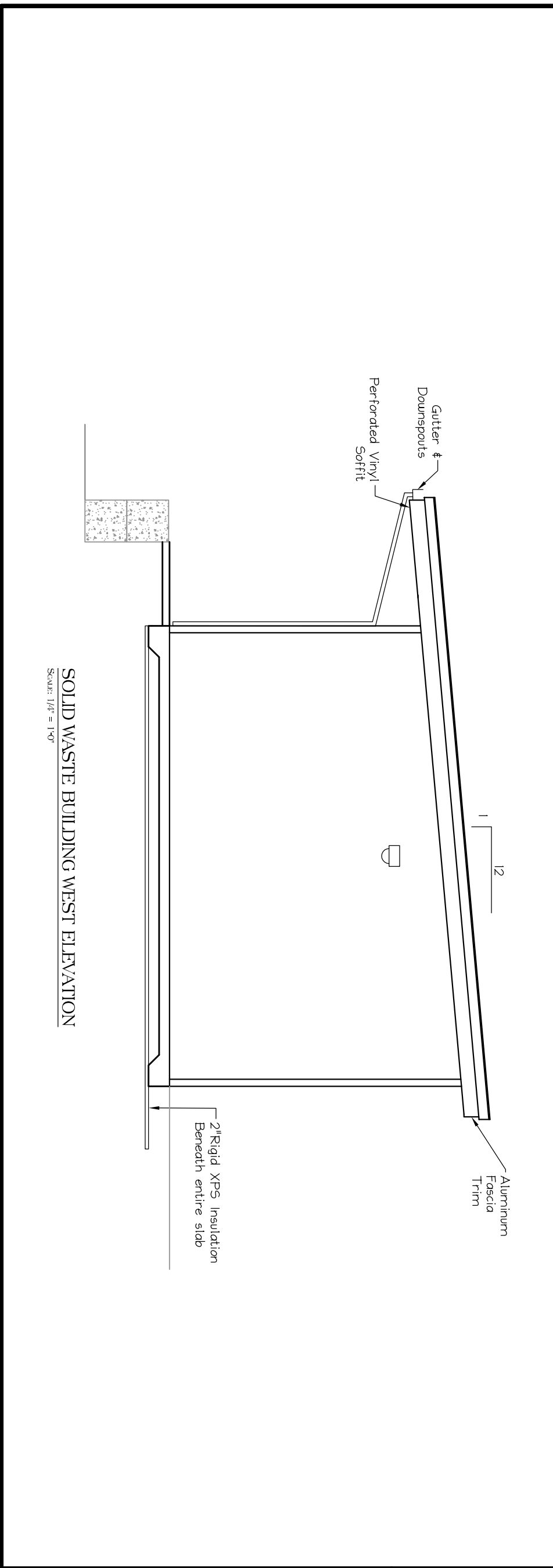
DRN BY: BWM/RAW  
CHKD BY: BWM

DATE: 3/14/2007  
SCALE: AS NOTED

PROJ. NO: 2007-136  
DWG: S2 OF 10







MacLeod Structural Engineers, PA

**M**

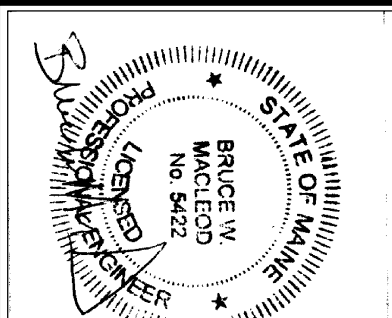
404 Main Street  
 Gorham, Maine 04038  
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 fax: (207) 839-0982

UNIVERSAL WASTE BUILDING  
 SOLID WASTE TRANSFER FACILITY

PORTLAND MAINE

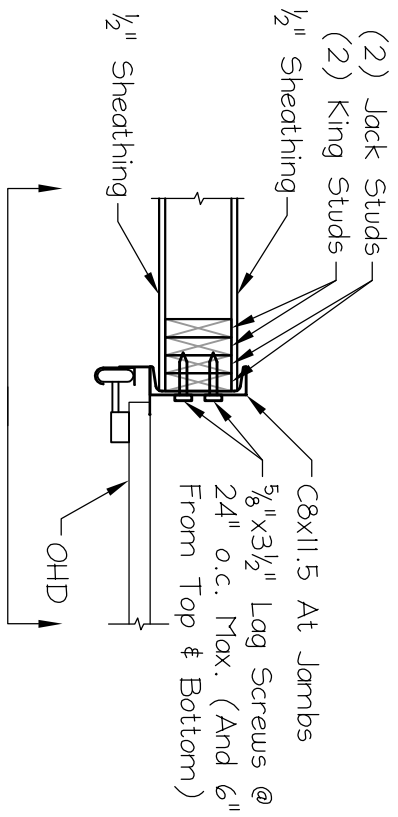
SHEET TITLE: EAST - WEST ELEVATIONS

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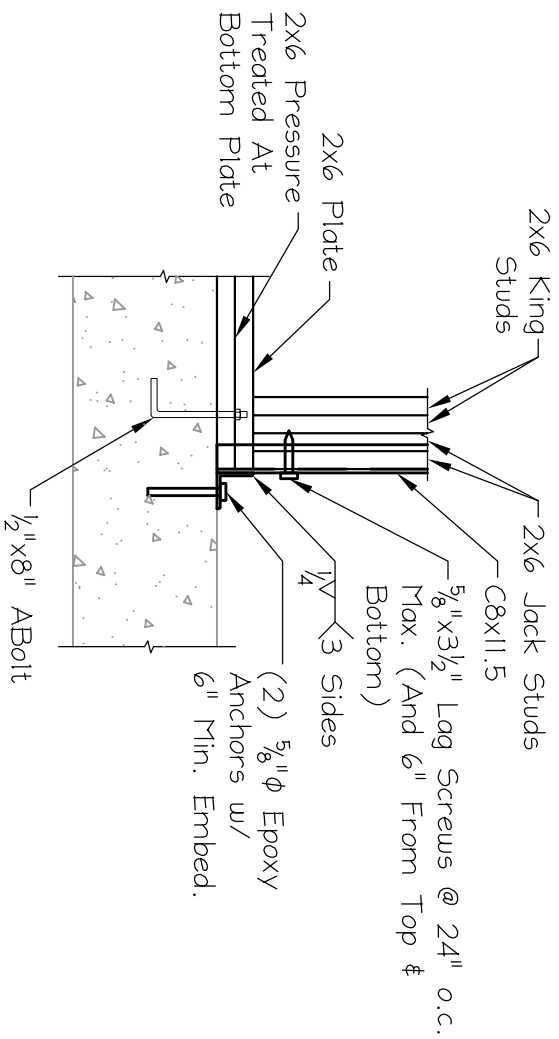
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DRN BY: BWM/RAW	DATE: 3/14/2007	PROJ. NO: 2007-136
CHKD BY: BWM	SCALE: AS NOTED	DWG: S3 OF 10



**PLAN DETAIL A**

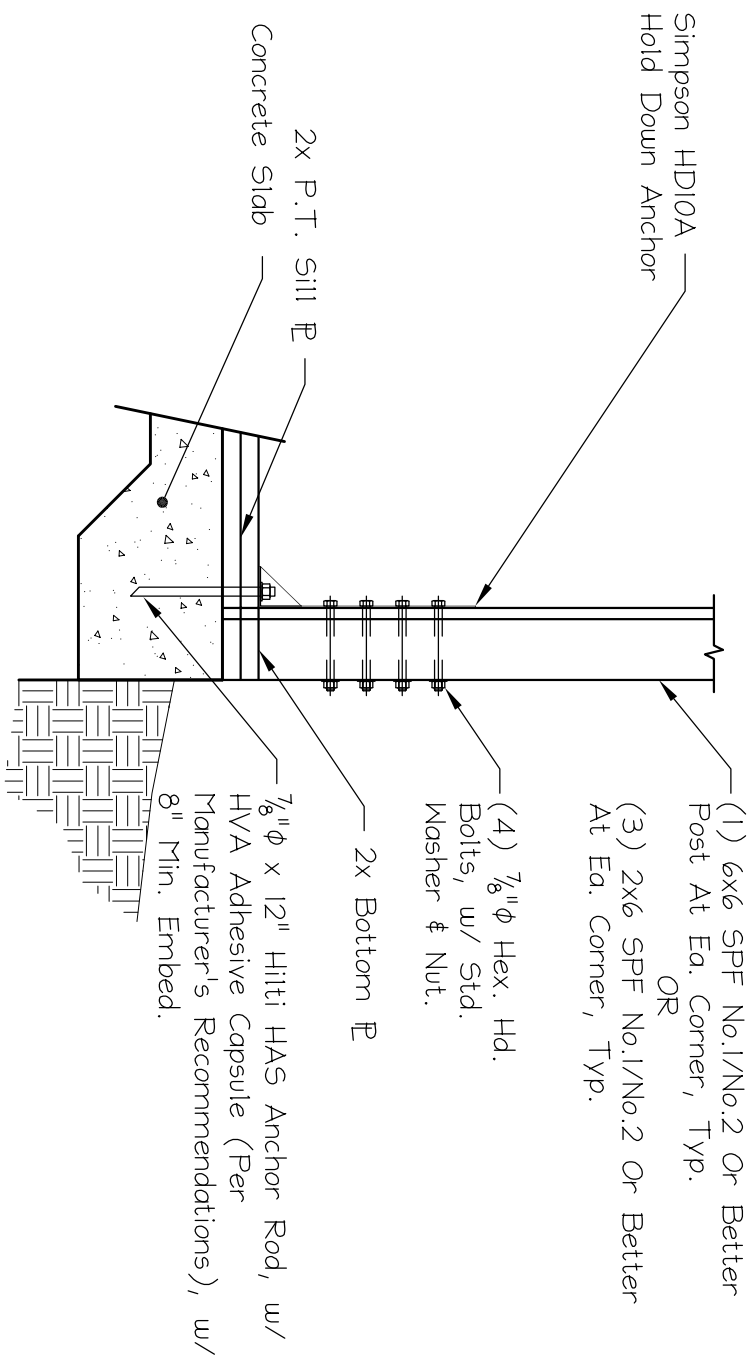
SCALE: 3/4" = 1'-0"



**SECTION**

SCALE: 3/4" = 1'-0"

**NOTE:** Attach All Non-Pressure Treated To Pressure Treated Lumber With **"HEAVY GALVANIZED FASTENERS ONLY"**, Typical. No Exceptions.



**DETAIL (HD1) - SIMPSON HD10A HOLD DOWN ANCHOR**

SCALE: 3/4" = 1'-0"

MacLeod Structural Engineers, PA



404 Main Street  
Gorham, Maine 04038  
phone: (207) 839-0980  
fax: (207) 839-0982

**UNIVERSAL WASTE BUILDING  
SOLID WASTE TRANSFER FACILITY**

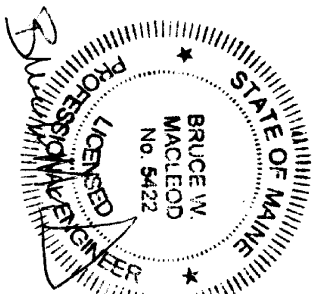
PORTLAND MAINE

SHEET TITLE: DETAILS

THIS DRAWING IS ISSUED:  Submitted For Permit DATE: 4/20/2007

DRN BY: BWM/RAW DATE: 3/14/2007 PROJ. NO: 2007-136

CHKD BY: BWM SCALE: AS NOTED DWG: S8 OF 10



**ATTACHMENT 2**

**Statement of Special Inspections**



# Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Soils and Foundations  | <input type="checkbox"/> Spray Fire Resistant Material         |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input checked="" type="checkbox"/> Wood Construction          |
| <input type="checkbox"/> Precast Concrete                  | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input type="checkbox"/> Masonry                           | <input type="checkbox"/> Mechanical & Electrical Systems       |
| <input type="checkbox"/> Structural Steel                  | <input checked="" type="checkbox"/> Architectural Systems      |
| <input type="checkbox"/> Cold-Formed Steel Framing         | <input type="checkbox"/> Special Cases                         |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator Bruce W. MacLeod	MacLeod Structural Engineers, PA (MSE)	404 Main St. Gorham, Me 839-0980
2. Inspector Craig Coblidge Summit Geotechnical Engineers	Summit	640 Main St. Leviston, ME 795-6009
3. Inspector		
4. Testing Agency Summit		
5. Testing Agency		
6. Other		

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	PE/GE GE	Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report.  Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill
2. Controlled Structural Fill	PE/GE GE	Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material.  Inspect placement, lift thickness and compaction of controlled fill.  Test density of each lift of fill by nuclear methods (ASTM D2922)  Verify extent and slope of fill placement.
3. Deep Foundations	PE/GE	Inspect and log pile driving operations. Record pile driving resistance and verify compliance with driving criteria.  Inspect piles for damage from driving and plumbness.  Verify pile size, length and accessories.  Inspect installation of drilled pier foundations. Verify pier diameter, bell diameter, lengths, embedment into bedrock and suitability of end bearing strata.
4. Load Testing		
4. Other:		

# Quality Assurance Plan

---

## Quality Assurance for Seismic Resistance

Seismic Design Category

Quality Assurance Plan Required (Y/N) N/A

Description of seismic force resisting system and designated seismic systems:

Light Framed walls w/ Shear walls.

## Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) 95

Wind Exposure Category C

Quality Assurance Plan Required (Y/N) N/A

Description of wind force resisting system and designated wind resisting components:

Wood Roof diaphragm, wood shear walls.

## Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

# Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

## Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT	Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

### American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

### American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

### American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.
------	---

### International Code Council (ICC) Certification

ICC-SMSI	Structural Masonry Special Inspector
ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-PCSI	Prestressed Concrete Special Inspector
ICC-RCSI	Reinforced Concrete Special Inspector

### National Institute for Certification in Engineering Technologies (NICET)

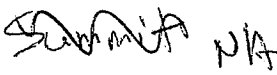
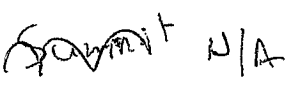


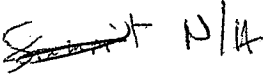
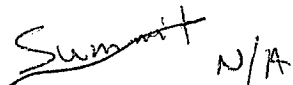
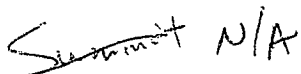
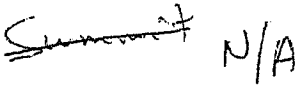
NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

### Exterior Design Institute (EDI) Certification

EDI-EIFS	EIFS Third Party Inspector
----------	----------------------------

Other



Item	Agency # (Qualif.)	Scope
1. Mix Design 	ACI-CCI ICC-RCSI	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
2. Material Certification		
3. Reinforcement Installation 	ACI-CCI ICC-RCSI	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters
4. Post-Tensioning Operations 	ICC-PCSI	Inspect placement, stressing, grouting and protection of post-tensioning tendons. Verify that tendons are correctly positioned, supported, tied and wrapped. Record tendon elongations.
5. Welding of Reinforcing 	AWS-CWI	Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.
6. Anchor Rods 		Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
7. Concrete Placement 	ACI-CCI ICC-RCSI	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.
8. Sampling and Testing of Concrete 	ACI-CFTT ACI-STT	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).
9. Curing and Protection 	ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures.
10. Other:		

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt  N/A		<i>Inspect shop fabrication and quality control procedures for wood truss plant.</i>
2. Material Grading  		
3. Connections  MSE		
4. Framing and Details  MSE		
5. Diaphragms and Shearwalls  MSE		<i>Inspect size, configuration, blocking and fastening of shearwalls and diaphragms. Verify panel grade and thickness.</i>
6. Prefabricated Wood Trusses  N/A		<i>Inspect the fabrication of wood trusses.</i>
7. Permanent Truss Bracing  		
8. Other:  		

**ATTACHMENT 3**  
**Site Plan Application**

846 Main St., Suite 3  
Westbrook, Maine 04092  
Telephone 207-591-7000  
Facsimile 207-591-7329  
info@stgermain.com

November 3, 2005

Ms. Sarah Hopkins  
City of Portland Planning Department  
City Hall, 389 Congress Street  
Portland, Maine 04101

**RE: City of Portland, Maine.  
Minor Site Plan Application  
Riverside Transfer Station  
Portland, Maine**



Dear Ms. Hopkins:

St.Germain & Associates, Inc., on behalf of City of Portland Department of Public Works, is pleased to present the following Minor Site Plan application for improvements to the existing Riverside Transfer Station.

As discussed in our recent meeting, the attached plans and narrative describe updates and improvements proposed to increase the operational efficiency of the facility. An application for a minor revision to the State of Maine Department of Environmental Protection (MEDEP) Solid Waste Permit for the facility was submitted in September 2005. A draft permit was issued for review last week and a final permit is expected within two weeks. It is the intent of the new facility operator, Commercial Paving and Recycling Company, to begin initiating the proposed site layout modifications as soon as the approval is granted by the Portland Planning Authority, preferably this fall. It is our understanding that as this is a City application the fees will be waived.

Should you have any questions during the review of the enclosed materials, please contact me at (207) 591-7000.

Sincerely,  
ST.GERMAIN & ASSOCIATES, INC.



Mark S. St.Germain  
Project Manager

enclosures:

cc: Troy Moon, City of Portland  
Jim Hiltner, CPRC

# **Application for Minor Site Plan Review Approval Improvements to the Riverside Solid Waste Transfer Facility**

## **Project Narrative**

### **Site Description**

The City of Portland Riverside Transfer Facility is located on Parcel ID Number 357 A001001, at 910 Riverside Street in the city of Portland. The parcel owned by the city comprises a total area of 273 acres (including the adjacent municipal golf course). The solid waste transfer facility is located within the Industrial Moderate Impact (IM) zone. The site currently operates as the main solid waste transfer facility in the city, accepting residential and commercial quantities of solid waste from Portland and the surrounding area.

### **Site Plan Modifications**

Several minor modifications are proposed to the current facility layout. These are aimed at improving the safety and efficiency of access and egress traffic movements, and operations activities within the site. The changes to the facility layout are described below.

### **Facility Layout and Traffic Circulation**

A new, separate residential drop off and loading area is proposed at the southern side of the facility, adjacent to the main entrance from Riverside Street. This will allow residential traffic to be separated from commercial traffic at the entrance to the facility increasing the safety and efficiency of traffic flow through the site. The residential traffic will pass a new attendants hut at the entrance to the drop off area, where incoming materials can be checked, and directions given as necessary. The new residential drop off area will comprise a universal waste, battery and pressurized container off-loading area and a raised ramp beside a series of segregated materials bins. The bins are to be set back from the access road on the north side to allow unloading vehicles space to maneuver. The access road continues past the bins and loading trailers, to a materials loading area, where residential quantities of loam, mulch etc. can be loaded. Several side-load containers are located at the east end of the raised ramp for collection of recyclable materials. The residential access road then proceeds down a ramp to the residential traffic exit, located at the current main facility entrance on Riverside Street.

Commercial traffic will continue to enter the site at the existing location and proceed to the scale for weighing. The entrance road has been modified to allow sufficient turning radius for trucks to enter the scale directly, rather than passing and backing onto the scale as is the current practice. A commercial traffic loop road then extends around the perimeter of the facility allowing commercial traffic to pass and/or offload at one of several commercial materials acceptance areas between the residential drop off area and the main processing and stockpile area of the facility. Commercial traffic will then proceed in a counter clockwise manner around the perimeter of the facility towards the exit. Materials loading areas are provided off the main loop road to allow loading of processed and export materials while allowing through traffic to pass. Commercial

traffic will leave the facility via the scale and a new exit onto Riverside Street at the southwest corner of the facility. The new exit offers improved sight distances in both directions and greatly simplifies the turning movement required to exit the site. The provision of a second exit also removes current conflicts between entering and exiting traffic at the facility.

The northern portion of the facility will house the main materials processing and stockpile areas. Unloaded materials will be segregated, and either processed and stockpiled for future transfer, or transferred directly to loading areas for onward transport and disposal. The internal processing and stockpile area is designed to allow efficient transfer of materials while minimizing conflicts between site operational machinery and external traffic. The stockpiles are configured to create a maximum individual storage area of 15,000 square feet, with minimum 25 foot wide fire access aisles between, as stipulated in the City of Portland correspondence with Maine Department of Environmental Protection dated October 4, 2001.

The facility layout improvements allow unloading, transfer, storage and loading of materials at the site as currently occurs, while minimizing conflicts between residential, commercial and internal site equipment traffic. This will greatly improve safety conditions and operational efficiency at the facility.

One new building, a gatehouse, is proposed at the entrance to the residential drop off area. A second building, for universal waste handling may also be provided at the site, pending State funding.

### **Building Coverage**

There are currently two buildings on site, the vehicle maintenance shed and the office trailer. A new, larger Universal Waste building is proposed to the north of the existing scale and the rear of the existing vehicle maintenance building. A small gatehouse is proposed at the entrance of the residential drop-off area to provide shelter for attending facility staff. Although a stamped boundary survey is not available for the entire parcel, it is evident that the newly proposed buildings will meet the setback requirements of the zoning district. The current City of Portland Land Use Regulations require a minimum side yard setback of one foot for each one foot of building height, up to twenty five feet and a minimum front yard setback of one foot for each one foot of building height, in the IM Zone. The proposed new gatehouse is over 150 feet from the front property line and over 170 feet from the side line. The proposed new Universal Waste building is over 200 feet from the front and side lot lines.

### **Fire Fighting**

Several of the proposed improvements will improve the fire fighting capabilities on the site. The provision of a clear, paved perimeter access road will greatly improve access to the stockpile areas to the rear of the property. Fire access lanes are also provided between the stockpile areas, which have been reduced in size to a maximum area of

15,000 square feet. At a site meeting held on September 2, 2005, The City of Portland Fire Chief expressed concern at the current lack of access to water at the rear of the property. A new fire hydrant will be provided in the wall to the north of the residential drop off area to facilitate access to water for fire fighting purposes. The hydrant will connect to a permanent pipe located under the proposed residential drop off area. The pipe will be kept dry under normal circumstance and will have a second hose fitting at the southern end, adjacent to the existing fire hydrant on the east side of the current facility entrance drive. Should the fire department need water at the rear of the site a hose connection will be made between the existing hydrant and the southern end of the new pipe, allowing water to be drawn from the northern end of the pipe through the hose connection.

A second dry hydrant will be provided at the rear of the site. This outlet will connect to the existing sedimentation pond at the northeast side of the facility, allowing water from the pond to be drawn for fire fighting, if and when necessary.

The provision of additional hydrants will allow improved response times and more efficient fire fighting at the facility.

A new fire training area will be provided on the site for the use of the City of Portland Fire Department. A stabilized pad will be constructed, and a disused cape style residential home will be located on the pad and used for fire training exercises. The exercises will generally comprise filling the structure with smoke and undertaking fire training drills. The fire training area will be accessed via a side driveway off the new commercial exit from the main facility.

The new fire training area and the addition of the new commercial traffic exit will require modifications to the perimeter fencing of the site. This will also enable several sections of damaged fencing to be replaced on the western side of the facility. The updated fence locations are shown on the Site Plan. Fencing materials will be the same as existing, with a six-foot high chain link fence topped with razor wire.

### **Utilities**

The existing utilities connections to the site will be maintained and are considered sufficient for the continued operation of the facility. There is not expected to be any increase in water demand or sewer flow as a result of the proposed improvements.

### **Storm Water**

An extensive storm water analysis was conducted for the site by Sebago Technics in 1994. The proposed modifications to the layout of the facility will not result in a significant change to either the cover conditions on the site, or the existing drainage patterns. It is therefore intended that the major features of the current storm water management system will be retained.

The proposed grading of the facility will direct runoff from the center of the site towards the perimeter in a similar manner to the current configuration. Many of the existing swales, culverts and outlets at the perimeter of the site will remain unaffected by the proposed changes. The existing sedimentation basin at the east side of the site will also remain, although routine maintenance activities, including the removal of accumulated sediments may be required to ensure that the structure continues to function in accordance with the original design parameters.

Two of the existing storm water collection swales will be re-located in order to accommodate the new facility layout. These structures will retain similar contributing drainage areas and are sized to match the existing designs.

It is evident that some of the existing storm water management structures are in need of routine maintenance. An updated storm water system maintenance schedule is included with this submission. Storm water management provisions will also be reflected in an updated Storm Water Pollution Prevention Plan that will be produced for the new State of Maine Multi Sector General Permit for Stormwater Discharges Associated with Industrial Activity.

#### **Construction Plan and Schedule**

Construction of the proposed improvements to the facility will commence upon receipt of State and local permit approvals. It is expected that the new residential transfer area and commercial egress from the site will be constructed first, followed by the new loop road and stockpile areas. The improvement work will be phased to ensure that the facility continues to operate affectively throughout the construction period.

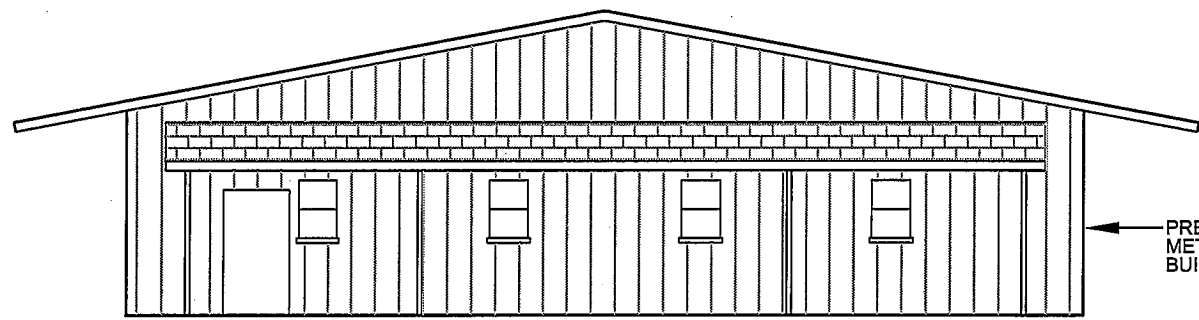
#### **List of Permit Federal, State and local Permitting Requirements**

The proposed minor modifications to the facility will require a Minor Modification to the MEDEP Solid Waste Permit. An application for this permit was filed with MEDEP in September 2005. A draft approval has been issued and the final permit is expected within two weeks.

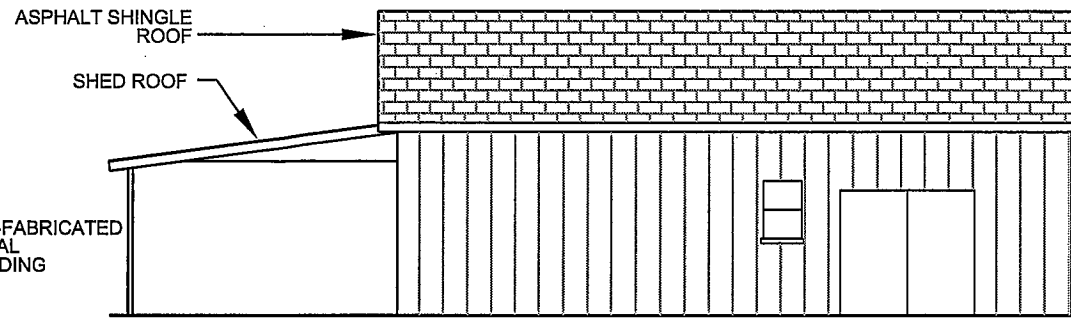
The facility is currently covered by the USEPA Multi Sector General Permit for Stormwater Discharge Associated with Industrial Activity (MSGP). Coverage under this permit expires on October 31, 2005 at which time the State of Maine Department of Environmental Management will assume control of the MSGP program. A Notice of Intent to comply with the new 2005 State of Maine MSGP will be submitted to obtain coverage for the facility under the new State of Maine program.

Upon approval of the Site Plan by the City of Portland Planning Authority, building permits will be required for any new structures to be constructed on the property.

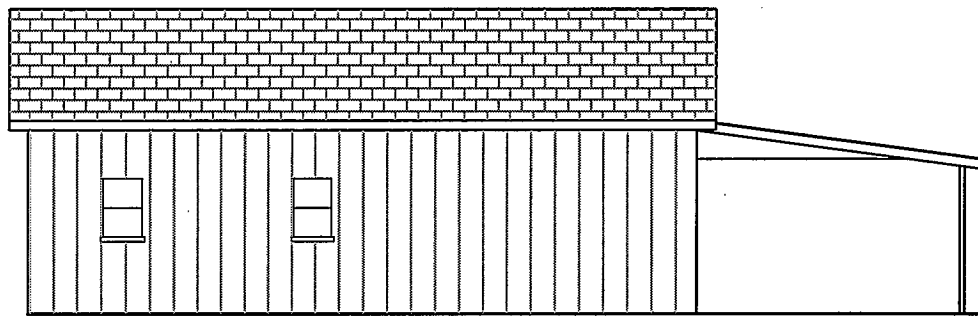




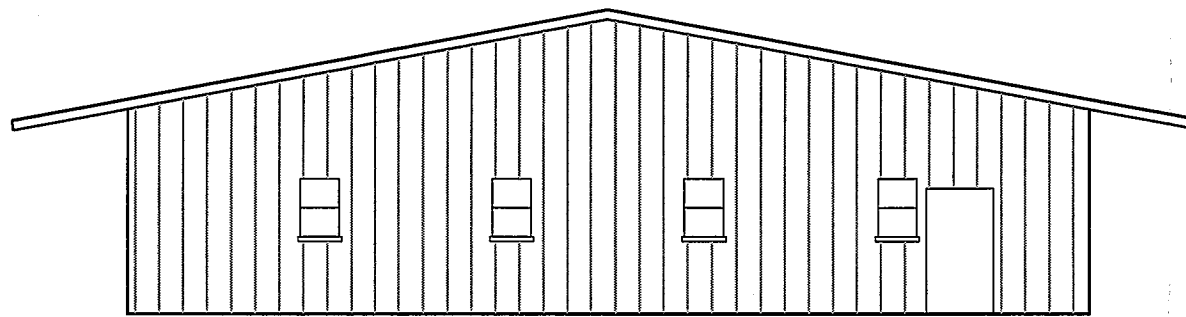
**UNIVERSAL WASTE BUILDING WEST ELEVATION**  
SCALE: 1"=10'



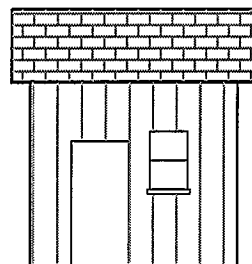
**UNIVERSAL WASTE BUILDING SOUTH ELEVATION**  
SCALE: 1"=10'



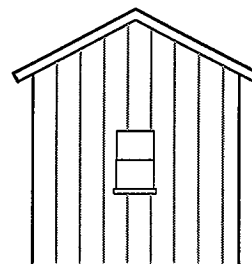
**UNIVERSAL WASTE BUILDING NORTH ELEVATION**  
SCALE: 1"=10'



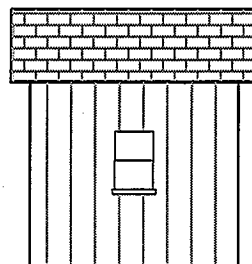
**UNIVERSAL WASTE BUILDING EAST ELEVATION**  
SCALE: 1"=10'



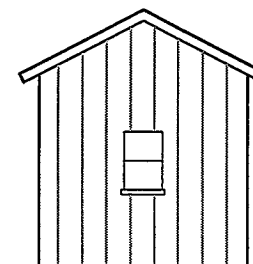
**RESIDENTIAL GATE HOUSE SOUTH ELEVATION**  
SCALE: 1"=10'



**RESIDENTIAL GATE HOUSE WEST ELEVATION**  
SCALE: 1"=10'



**RESIDENTIAL GATE HOUSE NORTH ELEVATION**  
SCALE: 1"=10'



**RESIDENTIAL GATE HOUSE EAST ELEVATION**  
SCALE: 1"=10'

**NOTES:**

1. CONCEPTUAL BUILDING ELEVATIONS.
2. EXACT FOOTPRINT AND LOCATIONS OF OPENINGS SUBJECT TO CHANGE.

SKETCH OF BUILDING ELEVATIONS  
SOLID WASTE TRANSFER FACILITY  
RIVERSIDE ROAD  
PORTLAND, MAINE

PREPARED FOR  
CITY OF PORTLAND  
MINOR SITE PLAN REVIEW  
APPLICATION

PROJECT: 2766.1 DATE: 09/16/05

SCALE: AS NOTED FILE: 2766.1 BLDG

ST. GERMAIN & ASSOCIATES, INC.  
846 MAIN STREET, SUITE 3  
WESTBROOK, MAINE 04092

TEL: (207) 591-7000 FAX: (207) 591-7329  
EMAIL: INFO@STGERMAIN.COM





**LEGEND:**

EXISTING FEATURES ARE SHOWN GRAY  
PROPOSED FEATURES ARE SHOWN BLACK

DESCRIPTION	SYMBOL
PROPERTY/ROW	---
BUILDING	▭
SIGN	▭
EDGE PAVEMENT	▭
GRAVEL ROAD	▭
TREELINE	▭
EXISTING CONTOURS	--- (gray)
PROPOSED CONTOURS	--- (black)
OVERHEAD ELEC. & TEL.	—○—
LIGHT POLE	○
UTILITY POLE	○
HYDRANT	○
CULVERT	▭
CHAIN LINK FENCE	▭
STOCKADE FENCE	▭
TREE	○
STOCKPILE LOCATION	▭
RESIDENTIAL TRAFFIC FLOW	→
COMMERCIAL TRAFFIC FLOW	→
GUARDRAIL	▭
SILT FENCE	▭
HAYBALE PROTECTION	▭
CHECK DAM	▭

- NOTES:**
- BASE INFORMATION, TOPOGRAPHY, FENCE LOCATION, STORMWATER FEATURES, BUILDING LOCATIONS ON SITE AND ADJUTING PROPERTY INFORMATION TAKEN FROM PLAN ENTITLED "SITE OPERATIONS PLAN OF RIVERSIDE STREET RECYCLING FACILITY" BY GERAGO TECHNIQS, DATED 05-21-01, REVISION B. SITE TOPOGRAPHY VERIFIED BY FIELD SURVEY BY ST. GERMAIN & ASSOCIATES, INC. UNDERTAKEN ON AUGUST 15TH AND 16TH 2005.
  - CONTENTS AND DIMENSIONS OF BINS AND STOCKPILE AREAS WILL VARY AS APPROPRIATE TO BEST FIT THE OPERATIONAL NEEDS OF THE FACILITY. STORAGE CELLS SHALL BE NO LARGER THAN 15,000 SQUARE FEET EACH, WITH A MAXIMUM AVERAGE OPERATING HEIGHT OF 25 FEET WITH OCCASIONAL EXCEEDENCES OF UP TO 35 FEET FOR NO MORE THAN TWO WEEKS DURATION.
  - WASTE BINS/CONTAINERS/SIDELOAD NOTE
 

1	30x20 LEAF/YARD WASTE
2	30x20 CLEAN WOODBRUSH
3	20x20 DEMO WOOD
4	20x20 NON-PROCESSABLE C+D
5	20x20 SHINGLES
6	20x20 GLASS AND PORCELAIN
7	20x20 GYPSUM
8	20x20 BULKY WASTE
9	20x20 INERT FILL
10	20x20 STREET DIMEPINDS
11	20x20 UNSCREENED LCM
12	ROLLOFF FERROUS
13	ROLLOFF NON-FERROUS
14	ROLLOFF (AS NEEDED)
15	SIDELOAD TIRES
16	SIDELOAD SILVER BULLET
17	SIDELOAD CARDBOARD
18	SIDELOAD (AS NEEDED)
19	SIDELOAD (AS NEEDED)
  - THE PURPOSE OF THIS PLAN IS TO OBTAIN MINOR SITE PLAN REVIEW APPROVAL FROM THE CITY OF PORTLAND FOR THE PROPOSED MODIFICATIONS TO THIS SITE ONLY.
  - THE OWNER OF RECORD AND THE APPLICANT IS THE CITY OF PORTLAND GO TROY MOON, SOLID WASTE MANAGER CITY OF PORTLAND PUBLIC WORKS DEPARTMENT, 55 PORTLAND STREET, PORTLAND, MAINE.
  - FLOOR ELEVATIONS AND BUILDING SQUARE FOOTAGE ARE APPROXIMATE.
  - NO FURTHER LANDSCAPING IS PROPOSED FOR THIS SITE. PERIMETER EXISTING LANDSCAPING TO REMAIN.
  - CURBS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
  - A WAIVER IS REQUESTED FOR THE SUBMISSION OF A STANDARD BOUNDARY SURVEY.
  - APPROXIMATE LAND AREA OF THE TRANSFER FACILITY IS 20 ACRES.
  - THE LOCATION OF UNDERGROUND UTILITIES IS UNKNOWN. NO NEW UTILITY CONNECTIONS ARE PROPOSED.
  - ELECTRICAL SERVICE FOR NEW BUILDINGS TO BE DESIGNED BY CENTRAL MAINE POWER COMPANY.

NO.	DATE	DESCRIPTION	BY	CHKD

**NOT FOR CONSTRUCTION**

**SHEET 1 OF 3**

**SITE PLAN  
CITY OF PORTLAND  
SOLID WASTE TRANSFER FACILITY  
RIVERSIDE STREET  
PORTLAND, MAINE**

PROJECT NO.: 2766.1      DATE: 10-19-05  
SCALE: 1" = 60'      FILE: 2766.1 RIVERSIDE.DWG

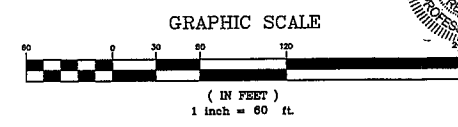
PREPARED FOR  
CITY OF PORTLAND  
MINOR SITE PLAN REVIEW  
APPLICATION

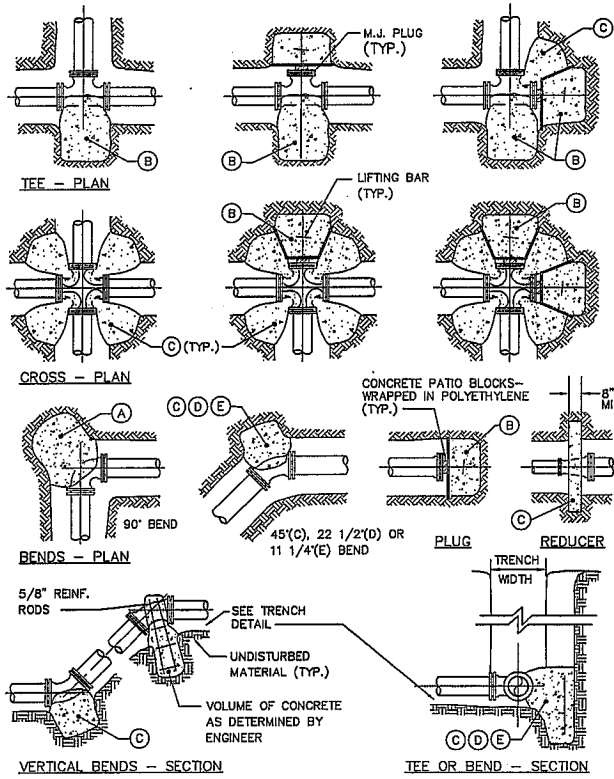
ST. GERMAIN & ASSOCIATES, INC.  
849 MAIN STREET, SUITE 3  
WESTBROOK, MAINE 04092  
TEL: (207) 591-7000      FAX: (207) 591-7239  
EMAIL: INFO@STGERMAIN.COM



**APPROVED: CITY OF PORTLAND  
PLANNING AUTHORITY**

UTILITY INFORMATION: THE LOCATIONS SHOWN ON THIS PLAN FOR ABOVE AND UNDERGROUND UTILITIES, INCLUDING WATER, ELECTRICITY, TELEPHONE, SEWER, AND STORM DRAINS ARE APPROXIMATE AND SHOULD BE VERIFIED BEFORE ANY EXCAVATION. FEDERAL AND STATE LAWS REQUIRE ANYONE PERFORMING ANY SORT OF EXCAVATION, INCLUDING DIGGING, BORING, BACKFILLING OR GRADING TO NOTIFY "DIG SAFE", (1-888-225-4977), AT LEAST 72 HOURS BEFORE THEY BEGIN WORK.



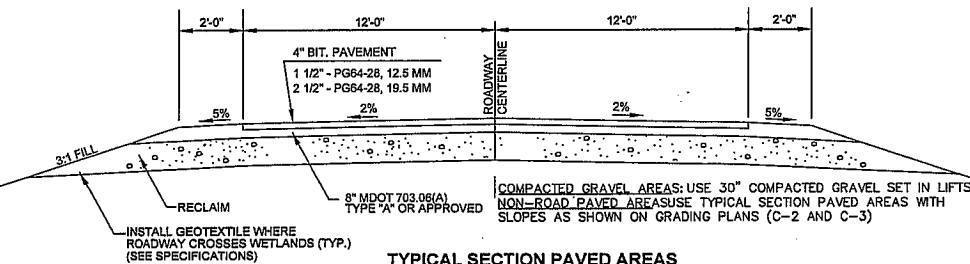


**THRUST BLOCK DETAILS**  
NOT TO SCALE

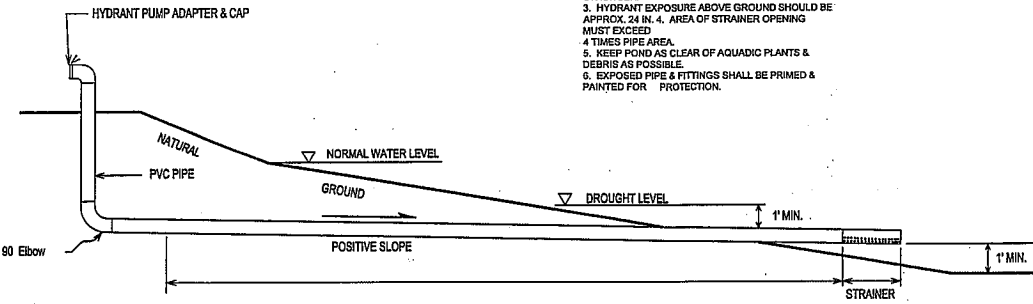
THRUST BLOCK SCHEDULE		SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL												
		PIPE SIZE												
REACTION TYPE		4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	
TEST PRESSURE (100 PSI)	(A)	0.89	2.19	3.82	5.57	8.92	10.91	15.41	18.02	24.06	34.64	53.83	77.39	
	(B)	0.65	1.55	2.78	4.19	6.09	8.37	10.89	13.87	17.01	24.49	38.06	54.72	
	(C)	0.48	1.19	2.12	3.01	4.66	6.91	8.34	9.71	13.02	18.75	29.13	41.88	
	(D)	0.25	0.60	1.08	1.54	2.37	3.01	4.25	4.97	6.64	9.56	14.85	21.35	
TEST PRESSURE (200 PSI)	(A)	0.13	0.30	0.54	0.77	1.19	1.52	2.12	2.51	3.33	4.79	7.45	10.71	
	(B)													
	(C)													
	(D)													
Other test pressures for the above reactions		TEST PRESSURE TO BE 200 PSI MIN. AT LOW END OF THE TEST SECTION. SQUARE FEET OF CONCRETE THRUST BLOCKING FOR OTHER TEST PRESSURES IS DIRECTLY PROPORTIONAL TO THE ABOVE TABLE. FOR INSTANCE, AT 200 PSI TEST PRESSURE FOR ABOVE NUMBERS DOUBLE.												

**NOTES:**

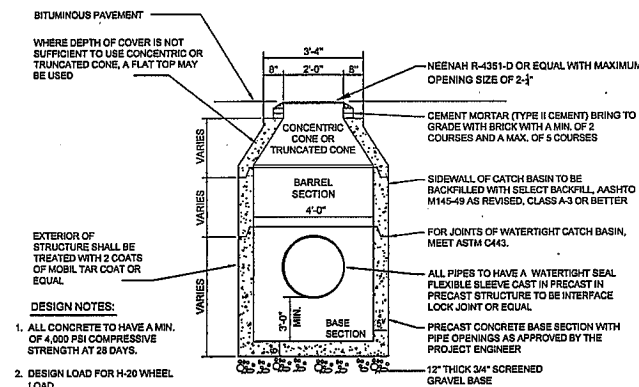
- POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
- ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
- PLACE CONCRETE PATIO BLOCKS IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCK.
- REQUIREMENTS OF THE ABOVE TABLE PRESUME MINIMUM SOIL BEARING OF 1 TON PER SQUARE FOOT, AND MAY BE VARIED BY THE ENGINEER TO MEET OTHER CONDITIONS ENCOUNTERED.
- MEGA-LUG RETAINER GLANDS ARE REQUIRED FOR ALL MECHANICAL JOINTS. THESE GLANDS DO NOT REDUCE THE REQUIREMENTS FOR THRUST RESTRAINT.
- ALL FITTINGS SHALL BE WRAPPED IN POLYETHYLENE OR BUILDING PAPER PRIOR TO INSTALLATION OF CONCRETE RESTRAINT.
- THREADED ROD SHALL BE ANSI A242 F150 PIPE RESTRAINT NUTS TO MATCH AWWA C111. THREADED RODS AND NUTS TO BE FIELD COATED WITH BITUMINOUS PAINT.
- THRUST RESTRAINT IS REQUIRED FOR ALL TEES, BENDS, REDUCERS, CAPS, PLUGS, OR CROSSES.
- INSTALL LIFT HOOKS INTO THRUST BLOCKS AT END CAPS AND PLUGS.



**TYPICAL SECTION PAVED AREAS**  
NOT TO SCALE

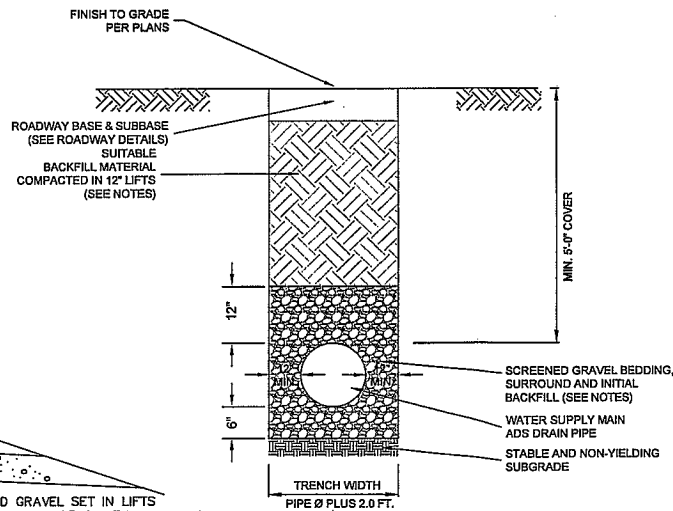


**DRY HYDRANT PROFILE**  
NOT TO SCALE



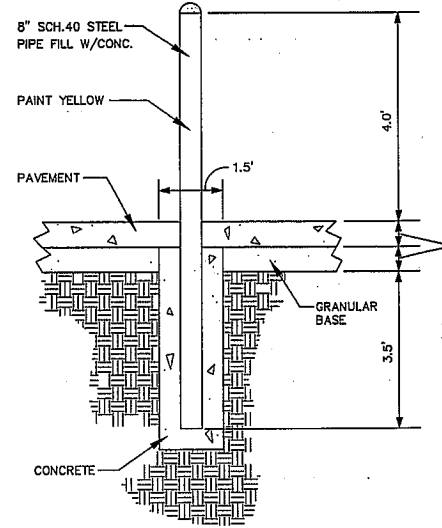
- DESIGN NOTES:**
- ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
  - DESIGN LOAD FOR H-20 WHEEL LOAD.
  - CATCH BASIN HOLE TO CONFORM TO ASTM-C478 SPECIFICATIONS.
  - REINFORCE TO 0.12 IN. S.Q.F.

**6'-0" PRECAST CATCH BASIN**  
NOT TO SCALE

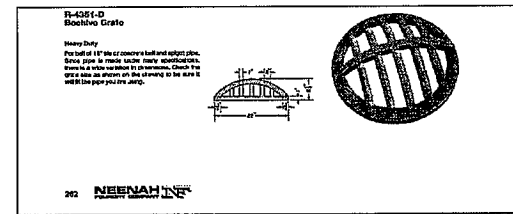


**DRAIN PIPE TRENCH DETAIL**  
NOT TO SCALE

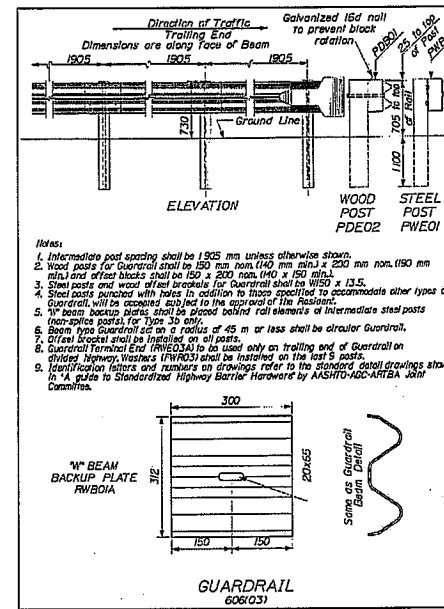
- \* NOTE: HYDRANT ASSEMBLY INCLUDES 90° PVC ELBOW, 6" TO 1/2" REDUCER, STRAINER, STEEL SNAP RING, AND SNAP-ON CAP.**
- DESIGN NOTES:**
- MAX. PUMPING HEAD WILL BE 18 FT.
  - PVC PIPE SHALL BE SCHEDULE 40 OR SDR-26 OR STRONGER.
  - HYDRANT EXPOSURE ABOVE GROUND SHOULD BE APPROX. 24 IN. 4. AREA OF STRAINER OPENING MUST EXCEED 4 TIMES PIPE AREA.
  - KEEP POND AS CLEAR OF AQUATIC PLANTS & DEBRIS AS POSSIBLE.
  - EXPOSED PIPE & FITTINGS SHALL BE PRIME & PAINTED FOR PROTECTION.



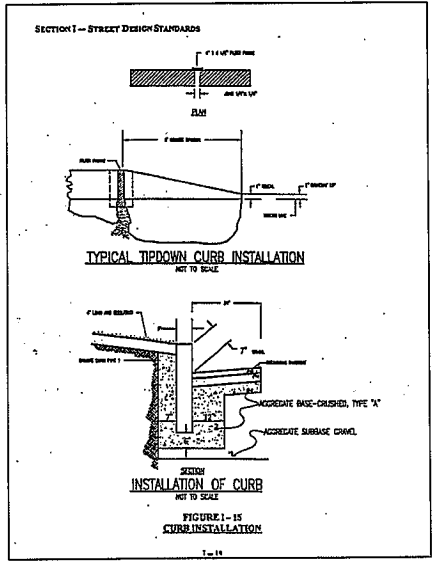
**BALLARD DETAIL**  
NOT TO SCALE



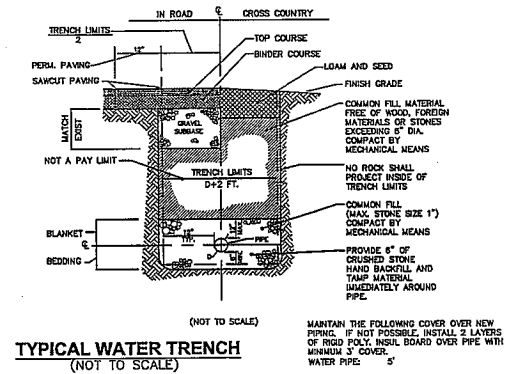
**CATCH BASIN GRATE DETAIL**  
NOT TO SCALE



**GUARD RAIL DETAIL**  
NOT TO SCALE



**CURB INSTALLATION DETAIL**  
NOT TO SCALE



**TYPICAL WATER TRENCH**  
(NOT TO SCALE)



NO.	DATE	DESCRIPTION	BY	CHKD

**NOT FOR CONSTRUCTION**

**PAGE 2 OF 3**

**DETAILS**  
CITY OF PORTLAND  
SOLID WASTE TRANSFER FACILITY  
RIVERSIDE STREET  
PORTLAND, MAINE

PROJECT NO.: 2786.1 DATE: 08-17-05  
SCALE: AS SHOWN FILE: 2786.1 RIVERSIDE.DWG

PREPARED FOR  
CITY OF PORTLAND  
MINOR SITE PLAN REVIEW  
APPLICATION

ST. GERMAIN & ASSOCIATES, INC.  
846 MAIN STREET, SUITE 3  
WESTBROOK, MAINE 04092  
TEL: (207) 591-7000 FAX: (207) 591-7320  
EMAIL: INFO@STGERMAIN.COM



**GENERAL NOTES AND SPECIFICATIONS FOR EROSION CONTROL**

- THE CONTRACTOR IS RESPONSIBLE FOR STORM WATER CONTROL AND RUNOFF DURING ALL PHASES OF CONSTRUCTION.
- THIS PLAN IS TO BE USED AS A GUIDELINE ONLY. ADDITIONAL EROSION CONTROLS MAY BE DICTATED BY FIELD CONDITIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- CONSTRUCTION SEQUENCE
  - CONSTRUCT PERMANENT STORMWATER DITCHES, TEMPORARY DIVERSION SWALES AND PIPING. ERECT HAY BALE DIKES AND/OR SILT FENCES AS SHOWN ON DRAWINGS AND AS MAY BE REQUIRED IN THE FIELD TO PROTECT PROPERTY, WATERWAYS, WELLS AND SPRINGS. EXCAVATE AND FILL FOR ROADWAY AND BUILDING SITES.
  - INSTALL HAY BALE FILTERS AT PIPE INLETS.
  - COMMENCE GRADING. STOCKPILE SOIL SO THAT EROSION IS MINIMIZED. EXTRA PRECAUTIONS SHALL BE TAKEN WHEN SOIL IS SATURATED.
  - GRADE SITE SO THAT SOIL EROSION CAUSED BY RUNOFF WILL BE MINIMIZED. ON STEEP SLOPE RUN DOZER PERPENDICULAR TO SLOPE SO THAT TREADS OF DOZER CREATE GROOVES TO TEMPORARILY SCARIFY SURFACE AND MINIMIZE RUNOFF VELOCITIES (CAN ALSO BE USED TO ANCHOR MULCH).
  - TEMPORARY SEED AND MULCH ALL EXPOSED GROUND.
  - INSTALL EROSION CONTROL BLANKET AS SPECIFIED.
  - ESTABLISH PERMANENT VEGETATION UPON COMPLETION OF FINAL GRADING IN A GIVEN AREA.

- MATERIALS
  - HAY BALES: SECURELY TIED BALED HAY AT LEAST 14 INCHES BY 18 INCHES BY 30 INCHES LONG.
  - MULCH MATERIAL: SELECT MULCH MATERIAL FOR EROSION CONTROL THAT WILL BEST MEET THE SITE CONDITIONS FROM THE FOLLOWING:
    - HAY OR STRAW - SHALL BE DRY, FREE OF MOLD AND WEED SEEDS.
  - MULCH ANCHORING: WHEN MULCH MUST BE HELD IN PLACE, ONE OF THE FOLLOWING MULCH ANCHORING MATERIALS SHALL BE USED:
    - ASPHALT EMULSION - TYPES RS-1, RS-2, MS-2 OR SS-1 IN COMPLIANCE WITH ASTM D977.
    - MULCH NETTING (PAPER, TWINE, PLASTIC, OR PLASTIC AND WOOD FIBER).
  - FERTILIZER: COMPLETE FERTILIZER 10-20-20 (STANDARD PRODUCT).
  - LIME: GROUND LIMESTONE CONTAINING NOT LESS THAN 95% TOTAL CARBONATES (CALCIUM OR MAGNESIUM).
  - TEMPORARY SEED MIXTURE: WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT PROTECTIVE VEGETATION ON DISTURBED EARTH BY OCTOBER 15, USE "CONSERVATION MIX" OR THE FOLLOWING SEED MIXTURE:
 

KIND OF SEED	LBS PER ACRE
SWITCHGRASS (BLACKWELL OR SHELTER)	4.0
BIG BLUESTEM (NIAGRA OR KAW)	4.0
LITTLE BLUESTEM (CAMPER OR BLAZE)	2.0
SAND LOUVERGRASS (NE 27 OR BLAZE)	1.5
BIRDSFOOT TREFLOIL (VIRGIN)	2.0

- INCULCUM SPECIFIC TO BIRDSFOOT TREFLOIL MUST BE USED WITH THIS MIXTURE. IF SEEDING BY HAND, A STICKING AGENT SUCH AS MILK OR COCA SHALL BE USED TO STICK INCULCUM TO THE SEED. IF SEEDING WITH HYDROSEEDER, USE FOUR (4) TIMES THE RECOMMENDED AMOUNT OF INCULCUM.
- PERMANENT SEED MIXTURE FOR CLASS B (FIELD) RESTORATION NORMALLY USED FOR ALL SLOPE WORK. THIS SEED SHALL CONFORM TO THE TABLE BELOW UNLESS AMENDED BY THE ENGINEER TO SUIT SPECIAL LOCAL CONDITIONS ENCOUNTERED. THIS SEED SHALL BE FURNISHED ON A PLS BASIS.
 

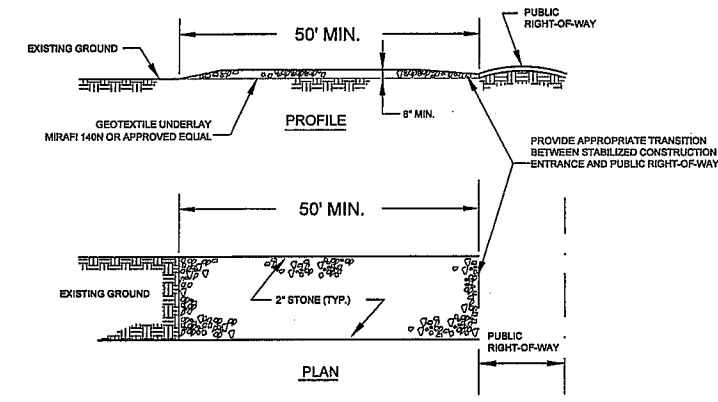
KIND OF SEED	PLS PER ACRE, LBS
CREeping RED FESCUE	20
REDTOP	2
TALL FESCUE	20
<b>TOTAL</b>	<b>42</b>

LONGITUDINAL CHANNEL SLOPE (F/F')	LENGTH (F/F')
0.020	100
0.030	60
0.040	50
0.050	40
0.060	25
0.100	20
0.120	17
0.150	13

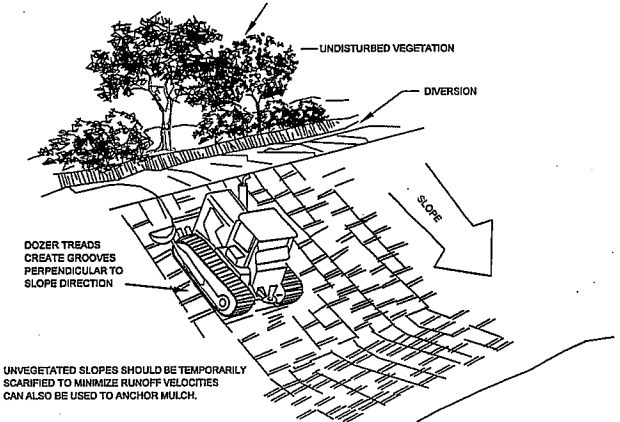
- SEEDING AND MULCHING
  - ALL AREAS WHICH WILL REMAIN OPEN SHALL BE SEEDED AND MULCHED WITHIN FIVE (5) DAYS OF BEING STRIPPED OR BACKFILLED AND GRADED.
  - THE FOLLOWING PROCEDURES SHALL BE FOLLOWED FOR TEMPORARY SEEDING:
    - APPLY LIME AT A RATE OF 75 TO 100 POUNDS PER 1000 SQUARE FEET. INCORPORATE INTO TOP TWO INCHES OF SOIL.
    - APPLY FERTILIZER AT A RATE OF 30 POUNDS PER 1000 SQUARE FEET. MIX THOROUGHLY INTO THE TOP TWO INCHES OF SOIL.
    - APPLY SEED MIXTURE AT A RATE OF TWO POUNDS PER 1000 SQUARE FEET EVENLY IN TWO INTERSECTING DIRECTIONS. RAKE LIGHTLY.
    - APPLY MULCH MATERIAL WITHIN 24 HOURS AFTER SEEDING IN ACCORDANCE WITH THE FOLLOWING:
 

MATERIAL	APPLICATION RATE
HAY OR STRAW	75 TO 100 POUNDS PER 1000 SQUARE FEET. SPREAD BY HAND OR WITH MACHINE. ANCHOR ON SLOPES AND WHERE SUBJECT TO BLOWING OR SLIPPING.
  - ANCHOR MULCH ON ALL SLOPES EXCEEDING 5% AND OTHER AREAS AS REQUIRED USING ONE OF THE FOLLOWING METHODS:
    - ASPHALT EMULSION: APPLY ASPHALT EMULSION AT A RATE OF 3.5 TO 4.5 GALLONS PER 1000 SQUARE FEET. MAY BE BLOWN ON WITH HAY OR STRAW OR SPRAYED ON AFTER SPREADING HAY OR STRAW. PROPER EQUIPMENT SHALL BE USED TO APPLY EMULSION.
    - MULCH NETTING: SPREAD OVER LOOSE MULCH AND PIN TO THE SOIL IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
- WHEN TEMPORARY SEEDING CANNOT BE ACCOMPLISHED TO HAVE ESTABLISHED OR VISIBLE GROWTH BY OCTOBER 15, THE DISTURBED AREAS SHALL BE COVERED WITH 6 INCHES OF MULCH FOR THE WINTER.

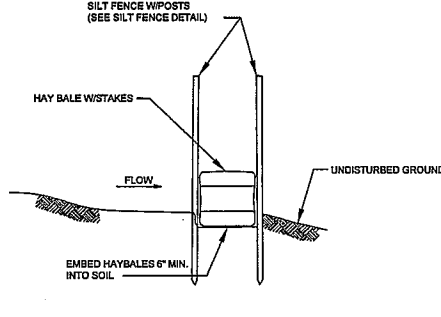
- MAINTENANCE OF EROSION CONTROL STRUCTURES
  - HAY BALES SHALL BE REPLACED WHEN THEY BECOME CLOGGED WITH SOIL PARTICLES OR AS DIRECTED BY THE ENGINEER OR OWNER.
  - WHEN THE SEDIMENT ACCUMULATION REACHES A DEPTH OF 12 INCHES BEHIND THE SILT FENCE OR CHECK DAMS, IT SHALL BE DISPOSED OF. REPAIR FENCE, EROSION CONTROLS AND CHECK DAMS AS NECESSARY.
  - REPAIR ALL DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION EQUIPMENT AT OR BEFORE THE END OF EACH WORKING DAY.
  - INSPECT, MAINTAIN AND/OR REPAIR ALL EROSION AND SEDIMENTATION CONTROLS EACH WEEK DURING DRY PERIODS. INSPECT, MAINTAIN AND REPAIR ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH PRECIPITATION EVENT OF 0.1 INCHES OR MORE.



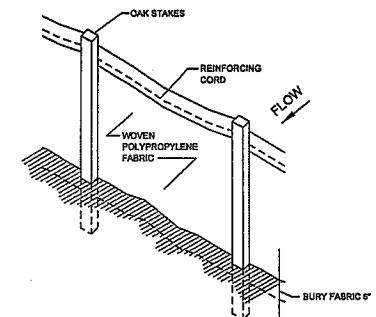
**STABILIZED CONSTRUCTION ENTRANCE DETAIL**  
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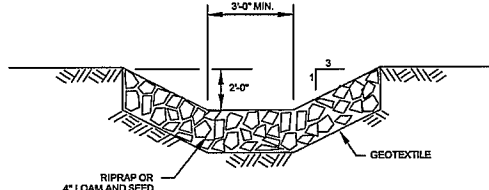
**BANK STABILIZATION DETAIL**  
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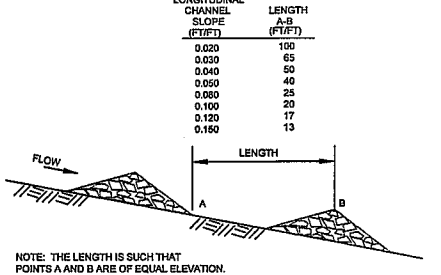
**HAY BALE/SILT FENCE BARRIER**  
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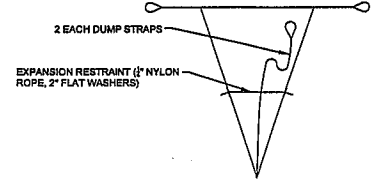
**SILT FENCE DETAIL**  
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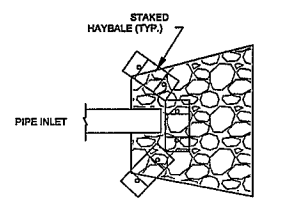
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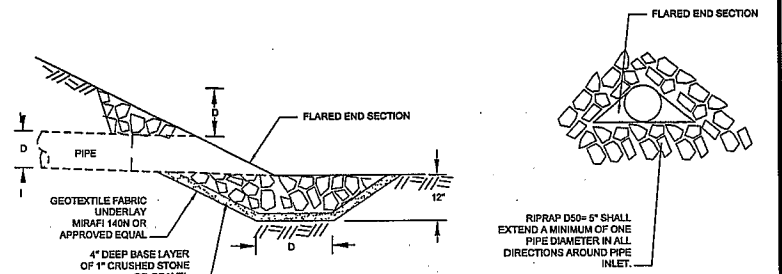
**CHECK DAMS**  
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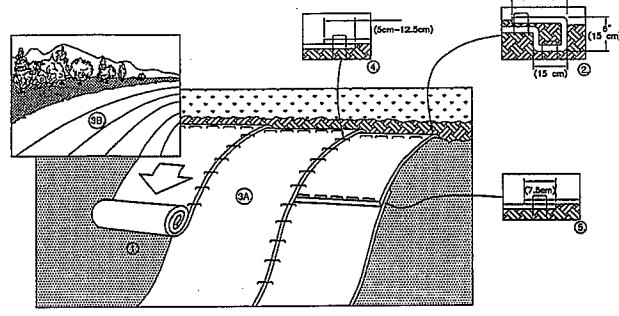
**BAG DETAIL**  
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**HAYBALE INLET PROTECTION**  
NOT TO SCALE



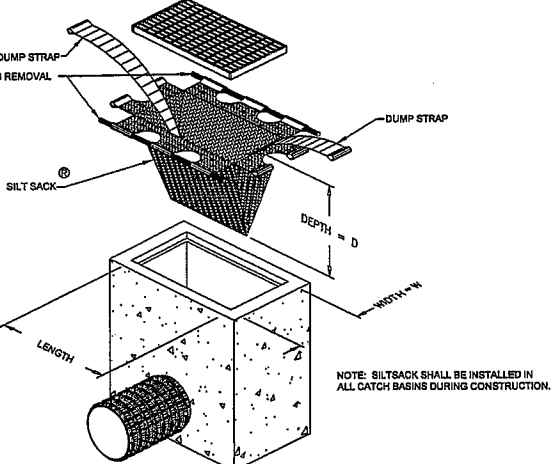
**TYPICAL CULVERT INLET DETAIL**  
NOT TO SCALE



- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY 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 DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 1" (25mm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 1" (25mm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PUNCHING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" (5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
- CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (75mm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKET.

**TYPICAL EROSION CONTROL BLANKET INSTALLATION**  
NOT TO SCALE



**SILTSACK DETAIL**  
NOT TO SCALE

- MAINTENANCE SCHEDULE:**
- EACH SILTSACK SHOULD BE INSPECTED AFTER EVERY MAJOR RAIN EVENT.
  - IF THERE HAVE BEEN NO MAJOR EVENTS, SILTSACKS SHALL BE INSPECTED EVERY 2-3 WEEKS.
  - THE YELLOW RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF THE CORD IS COVERED WITH SEDIMENT, THE SILTSACK SHOULD BE EMPTIED.



NO.	DATE	DESCRIPTION	BY	CHKD

**NOT FOR CONSTRUCTION**  
**PAGE 3 OF 3**

**EROSION CONTROL DETAILS**  
**CITY OF PORTLAND**  
**SOLID WASTE TRANSFER FACILITY**  
**RIVERSIDE STREET**  
**PORTLAND, MAINE**

PROJECT NO.: 2766.1      DATE: 08-17-05  
SCALE: AS SHOWN      FILE: 2766.1 RIVERSIDE.DWG

PREPARED FOR  
**CITY OF PORTLAND**  
MINOR SITE PLAN REVIEW  
APPLICATION

ST. GERMAIN & ASSOCIATES, INC.  
845 MAIN STREET, SUITE 3  
WESTBROOK, MAINE 04092  
TEL: (207) 591-7000      FAX: (207) 591-7328  
EMAIL: INFO@STGERMAIN.COM





# City of Portland Site Plan Application

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

Address of Proposed Development: <b>910 Riverside St., Portland</b>		Zone: <b>IM</b>
Total Square Footage of Proposed Structure: <b>2,620 sf +/-</b>		Square Footage of Lot: <b>11,891,880 sf +/- contiguous (incl. golf course property)</b>
Tax Assessor's Chart, Block & Lot: Chart# Block# Lot#    Chart# Block# Lot# 357    A    1    360    A    1 358    A    1    361    A    2 359    A    1    362 & 363 & 364 & 365 & 366 & 367-A-1		Property owner's mailing address: <b>City of Portland 389 Congress St. Portland, Maine 04101</b>
Consultant/Agent, mailing address, phone # & contact person: <b>Mark St.Germain St.Germain &amp; Associates, Inc. 846 Main St., Suite 3 Westbrook, ME 04092    (207) 591-7000</b>		Telephone #: <b>(207) 874-8300</b>
Applicant's name, mailing address, telephone #/Fax#/Pager#: <b>City of Portland DPW 55 Portland St. Portland, Maine 04101</b>		Project name: <b>Riverside Transfer Station</b>

Fee For Service Deposit (all applications)    wa (\$200.00) waived

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

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

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

- Plan Amendments
- \_\_\_ Planning Staff Review (\$250.00)
  - \_\_\_ Planning Board Review (\$500.00)

~ Please see next page ~

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

Fees waived - City project

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

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

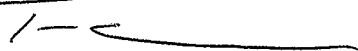
Amendment to Plans: Amendment applications should include 6 separate packets of the above (a, b, & c)

ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM

Section 14-522 of the Zoning Ordinance outlines the process which is available on our web site: [portlandmaine.gov](http://portlandmaine.gov)

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

Signature of applicant:



Date:

11/7/05

Troy Moon x 8467

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

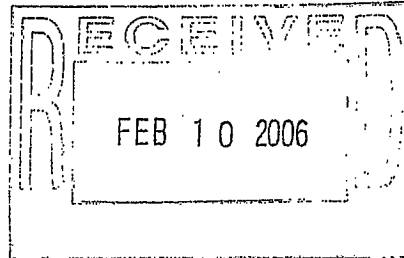


# PORTLAND MAINE

*Strengthening a Remarkable City, Building a Community for Life*™ [www.portlandmaine.gov](http://www.portlandmaine.gov)

Planning and Development Department  
Lee D. Urban, Director

Planning Division  
Alexander Jaegerman, Director



February 7, 2006

Troy Moon  
City of Portland  
Department of Public Works  
55 Portland Street  
Portland ME 04101

**RE: Riverside Transfer Station, 910 Riverside Street, Portland**  
**CBL: 357A1; 358A1; 359A1; 360A1; 361A2; 362A1; 363A1; 364A1; 365A1; 366A1; 367A1**

Dear Mr. Moon,

On February 7, 2006 the Portland Planning Authority approved updates and improvements to increase the operational efficiency of the existing Transfer Station located on Riverside Street, comprising the creation of a new residential drop-off area with separate access, a new exit onto Riverside Street for commercial traffic, a new perimeter access road and fire access lanes and a new fire training area for the City of Portland Fire Department, as shown on the approved plans with the following conditions:

- A. That the applicant will plant at least 20 white pines (or other species as recommended by the City of Portland Arborist) along the inside of the perimeter fence along Riverside Street, between the existing driveway (gated off) at the southwest of the site and the adjacent property (outside the fence) and to fill in gaps in the row of pines along Riverside Street on the outside of the perimeter fence, the exact locations to be assessed and agreed with the City of Portland Arborist. Such planting to take place before November 1, 2006.
- B. That the relocated trail will be constructed around the perimeter of the new fence, connecting to both ends of the existing trail, with the applicant undertaking any clearance required and constructing the trail with erosion control mix to provide a stable walking surface. Such works to be completed by November 1, 2006.
- C. That the details of the proposed new Universal Waste and Residential Gate House buildings, including lighting, be submitted for approval prior to issuance of a building permit for the structure(s).

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


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

1. Where submission drawings are available in electronic form, the applicant shall submit any available electronic Autocad files (\*.dwg), release 14 or greater, with seven (7) sets of the final plans.
2. A performance guarantee covering the site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.
3. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.
4. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
5. Prior to construction, a pre-construction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
6. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

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

If there are any questions, please contact Jean Fraser, Planner, at 874-8728 or [jf@portlandmaine.gov](mailto:jf@portlandmaine.gov).

Sincerely,

  
Alexander Jaegerman  
Planning Division Director

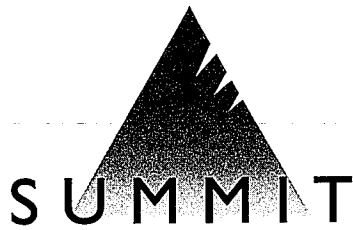
cc: Lee D. Urban, Planning and Development Department Director  
Alexander Jaegerman, Planning Division Director  
Sarah Hopkins, Development Review Services Manager  
Jean Fraser, Planner  
Jay Reynolds, Development Review Coordinator



Marge Schmuckal, Zoning Administrator Inspections  
Michael Bobinsky, Public Works Director  
Traffic Division  
Eric Labelle, City Engineer  
Bill Scott, Public Works  
Jeff Tarling, City Arborist  
Penny Littell, Associate Corporation Counsel  
Fire Prevention  
Assessor's Office  
Approval Letter File

cc. Andrew D. Johnston, PE, CEng, CEnv, MCIWEM  
Senior Civil Engineer  
St. Germain & Associates Inc.  
846 Main Street, Suite 3  
Westbrook, Maine 04092

**ATTACHMENT 4**  
**Geotechnical Report**



ENVIRONMENTAL CONSULTING • GEOTECHNICAL ENGINEERING • CONSTRUCTION MATERIALS TESTING

**Geotechnical Report**  
**Proposed Building**  
**Riverside Transfer Station**  
**Portland, Maine**

Prepared for:

St. Germain and Associates, Inc

Prepared by:

Summit Geoengineering Services  
Project #17183  
April 2007

**Lewiston:**

640 Main Street • Lewiston, ME 04240  
Tel: (207) 795-6009 • Fax: (207) 795-6128

**Bangor:**

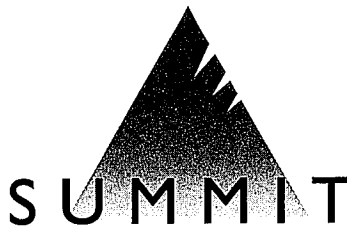
8 Harlow St., Suite 4A • Bangor, ME 04401  
Tel: (207) 262-9040 • Fax: (207) 262-9080

**Augusta:**

434 Cony Road • Augusta, ME 04330  
Tel: (207) 261-8334 • Fax: (207) 626-9094

**Portland:**

1 Industrial Way, Suite 7 • Portland, ME 04103  
Tel: (207) 221-6360 • Fax: (207) 221-6146



ENVIRONMENTAL CONSULTING • GEOTECHNICAL ENGINEERING • CONSTRUCTION MATERIALS TESTING

April 10, 2007  
Summit #17183

Mark St. Germain  
St. Germain and Associates, Inc.  
846 Main Street, Suite 3  
Westbrook, Maine 04092

Reference: Geotechnical Services  
Proposed Building, 910 Riverside Transfer Station, Portland, Maine

Dear Mark;

We have completed the geotechnical investigation in connection with the construction of a new building at the Riverside Transfer Station located Portland, Maine. Our scope of services included observing a test pit at the site and preparing this letter summarizing our findings and geotechnical recommendations.

### 1.0 Project and Site

The project will consist of constructing a new transfer station building with an approximate footprint of 22 by 58 feet located within the Riverside Transfer Station in Portland, Maine. Currently the site is underlain by reclaim soil overlying a thin clay later overlying approximately 80 feet of trash/debris fill as a former dump site. In general, the building location is a relatively flat area. An approximate 6 to 8 foot retaining wall was previously construction adjacent to the proposed building footprint. Summit previously provided geotechnical recommendations for the design and construction of this wall.

Based on our conversations with MacLeod Structural Engineers, we understand the proposed building will be a wood framed structure supported on a reinforced slab-on-grade. We further understand the following:

- Maximum slab loads of 150 psf or less
- Exterior foundation wall loads 700 lb/ft or less
- Building supported by a 12-inch thick reinforced concrete slab-on-grade
- Building is generally considered to an unheated structure
- No proposed underground utilities expect for possible power

---

**Lewiston:**

640 Main Street • Lewiston, ME 04240  
Tel: (207) 795-6009 • Fax: (207) 795-6128

**Bangor:**

8 Harlow St., Suite 4A • Bangor, ME 04401  
Tel: (207) 262-9040 • Fax: (207) 262-9080

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**Portland:**

1 Industrial Way, Suite 7 • Portland, ME 04103  
Tel: (207) 221-6360 • Fax: (207) 221-6146

## 2.0 Exploration

The subsurface conditions were explored by performing one test pit within the vicinity of the proposed building footprint. Test pit TP-1 was performed to a depth of 7 feet using a Volvo EC 210B provided and operated by the facility management. Summit was on site to coordinate and observe the exploration. A log of the test pit is included at the end of this report

## 3.0 Subsurface Conditions

The soil at the site consisted of 7 feet of bituminous *fill/reclaim*, overlying former bituminous pavement. Explorations below this depth were not made available. In general, we understand the subgrade conditions beneath the former bituminous pavement consist of imported granular fill (1 to 2 feet) overlying stiff to firm silty clay (4 to 5 feet) overlying trash and debris fill (estimated to be up to 80 feet in thickness).

The *fill/reclaim* encountered generally consisted of black to dark brown sand with little gravel and little silt and is visually classified as SM soil in accordance with the Unified Soil Classification System (USCS). The *fill/reclaim* was generally compact to loose, damp to slightly moist and contained occasional organics and bituminous pavement debris.

**Bedrock** was not encountered within the test pit exploration. The Bedrock Geologic Map by the Maine Department of Conservation indicates that the bedrock within the site location is part of the Vassalboro Formation (SOv) consisting of calcareous sandstone, interbedded sandstone and impure limestone.

**Groundwater** seepage was not encountered with the test pit exploration. In general, groundwater is anticipated to reside beneath the existing *fill/reclaim* section within the proposed building footprint.

## 4.0 Evaluation

The foundation for the proposed building will consist of a structural slab-on-grade at or near the existing grade. Based on the relatively light building loads and minimal site fill required beneath the building footprint, the depth and magnitude of loading imposed by the building and fill is considered to be minimal. We also understand that no underground utilities, except power, is planned for the building. Due to these conditions, the structure will be somewhat tolerable to higher total and differential settlement levels than conventional building foundations.

The building footprint will be located within a recently filled section overlying trash and debris fill. Composition and existing condition of the trash and debris fill is not fully known. Explorations for the underlying trash and debris fill were not considered feasible for this project. Based on this, it should be noted that the proposed building footprint area as a unit could potentially be subjected to settlement caused by creep/decay of the underlying trash and debris fill over time. The magnitude and time associated for this settlement is considered relatively unknown. In general, differential settlement realized by the structure is anticipated to be tolerable provided the settlement occurs relatively uniform over time.

## 5.0 Foundation Recommendations

### *A. General*

In general, the foundation soils explored to a depth of 7 feet are suitable to support the proposed foundation as planned. Recommendations for frost protection and set back requirements for retaining wall protection are detailed below. It should be noted that the building footprint area as a complete unit might be subjected to settlement caused by creep/decay of the underlying trash and debris fill over time. Potential damage to the proposed building structure from this condition could result depending on the magnitude of total and differential settlement realized.

### *B. Foundation Design Recommendations*

We recommend that the structural slab be designed using a maximum total contact pressure of 150 psf or less and a subgrade modulus of 100 pci. We further recommend the following:

- The structural slab is constructed at a minimum setback of 4 feet horizontally from the back of the existing retaining wall.
- The structural slab does not exceed a maximum contact pressure of 150 psf or have an exterior line load exceeding 700 lb/ft.
- The structural slab is constructed on a 24-inch thick layer of Structural Backfill.
- The existing ground surface is proof rolled beneath the building footprint prior to placing Structural Backfill. Proof rolling should consist of a minimum of three passes in a north-south direction and then three passes in an east-west direction using a small vibratory roller or large vibratory plate compactor.
- Fill required beneath the structural slab does not exceed 2 feet in thickness.

We recommend that the Structural Backfill be placed along and below the exterior perimeter of a reinforced slab and have a maximum particle size limited to 6 inches and meet the following gradation specifications passing the 3-inch sieve:

<b>STRUCTURAL BACKFILL</b>	
<b>Sieve Size</b>	<b>Percent finer</b>
3 inch	100
1/4 inch	25 to 70
No. 40	0 to 30
No. 200	0 to 5

**Reference:** MDOT Specification 703.06, Type C

The Structural Backfill should be placed in 6 to 12-inch lifts and should be compacted to 95 percent of its maximum dry density determined in accordance with ASTM D1557. Any debris and/or organic mater encountered during excavation or subgrade preparation beneath the building footprint should be removed and replaced with compacted Structural Backfill.

*C. Frost Protection*

The frost penetration depth based on a design air-freezing index of 1,250 degree days for the Portland area is 4 feet. In general, the subgrade soils beneath the proposed building slab will consist of granular material having fair to good permeability. Groundwater within the building slab footprint is anticipated to be below frost depth. Based on this, we recommend that the building slab be constructed on 24-inches of Structural Backfill for a minimum protection of 50% the design air-freezing index.

*D. Groundwater Control*

Groundwater is anticipated to be below exterior slab depths for the proposed building. Based on this, perimeter underdrains are not strictly necessary. We recommend that exterior grades slope away from the addition to reduce runoff water from infiltrating the Structural Backfill.

**6.0 Earthwork Consideration**

Based on our field observation, the existing granular fill/reclaim encountered beneath the proposed building at the site will likely contain too high fines content to meet Structural Backfill gradation requirements. It should be removed from beneath the building slab and replaced with Structural Backfill as described above.

Excavations performed near the existing retaining wall should be performed with care to prevent damage to existing geogrid reinforcement. We recommend that a minimum soil cover thickness of 6 inches be maintained at all times between the bottom of excavation and top of geogrid layer.

We recommend that a qualified geotechnical consultant be retained to monitor and test soil materials used during construction. Summit would welcome the opportunity to provide this service.

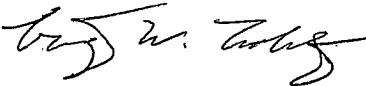
7.0 Closure

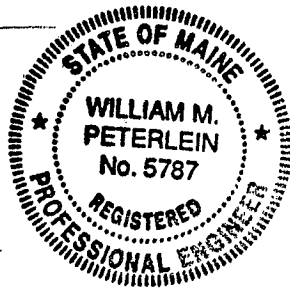
Our recommendations are based on professional judgment and generally accepted principles of geotechnical engineering and project construction information provided by others. Some changes in subsurface conditions from those presented in this report may occur. Should these conditions differ materially or should foundation and earthwork construction or design conditions change from those described in this report, Summit should be notified so that we can re-evaluate our recommendations.

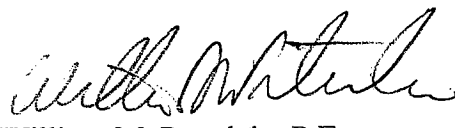
Due to the unknown composition of the trash and debris fill underlying the proposed building, Summit cannot guarantee the long-term performance of the foundation even if the recommendations in this report are followed.

We appreciate the opportunity to serve you during this phase of your project. If there are any questions or additional information is required, please do not hesitate to call.

Sincerely yours,  
**Summit Geoengineering Services,**

  
Craig W. Coolidge, E.I.T.  
Geotechnical Engineer



  
William M. Peterlein, P.E.  
Principal Geotechnical Engineer



**TEST PIT LOG**

<b>SUMMIT</b> <b>GEOENGINEERING SERVICES</b> 640 Main Street Lewiston, Maine 04240	<b>TEST PIT LOG</b>		Test Pit # <b>TP-1</b>
	Project: Riverside Transfer Station Proposed Building Portland, Maine	Project #: 17183	Groundwater: None Encountered
Contractor: Waste Management	Ground Surface Elevation: Not Available		
Equipment: Volvo EC 210B	Reference: Not Available		
Summit Staff: Craig Coolidge E.I.T.	Date: 3/28/2007	Weather: Sunny	

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
1.0	Compact to loose, black to dark brown SAND, little Gravel and Silt, trace organics and bituminous pavement debris, damp to slightly moist, SM	FILL/RECLAIM
2.0		
3.0		
4.0		
5.0		
6.0		
7.0		
8.0	End of exploration at 7', top of former pavement section	7'
9.0		
10.0		
11.0		
12.0		
13.0		
14.0		
15.0		
16.0		
17.0		
18.0		
19.0		
20.0		

**ATTACHMENT 5**

**Fire Department Requirements**

**Fire Department Requirements  
General Building Permit Application  
City of Portland, Maine  
May 2007  
St.Germain File No.: 2844.1**

**Applicant:** City of Portland, Maine  
55 Portland Street, Portland Maine 04101

**Location of proposed structure:** 910 Riverside Street, Portland

**Proposed use of structure:** S (storage)

**Square footage of proposed structure:** 1,276±

**Existing and proposed fire protection of structure:** Handheld Extinguishers

**Separate Plans for:**

**Suppression system:** N/A

**Detection system:** N/A

**Life Safety Plan:** N/A

**Elevators:** N/A