Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Please Read Application And Notes, If Any, Attached

Permit Number: 051394

This is to certify that HERITAGE ACQUISTION CORP /Langford & Low, Inc.

has permission to Pilings Foundation Only connected to permit #[illegible]219

AT 1 BEAN POT CIR [illegible] L 447 A001001

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is lathed or covered-in. HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. _____

Health Dept. _____

Appeal Board _____

Other _____

DepartmentName

9/23/05

Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No:	Issue Date:	CBL:
05-1394		447 A001001

Location of Construction:	Owner Name:	Owner Address:	Phone:
1 BEAN POT CIR	HERITAGE ACQUISTION CORP	4 GATEHALL DR STE 110	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Langford & Low, Inc.	PO Box 662 Portland	2077975141
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	**Zone:**
		Foundation Only/Commercial	
Past Use:	**Proposed Use:**	**Permit Fee:**	**Cost of Work:**	**CEO District:**
Commercial / B & M Building	Commercial/ [redacted] Only PILINGS Only connected w/ permit #051219		$0.00	4

FIRE DEPT: ☐ Approved ☐ Denied

Signature

INSPECTION: Use Group: Type: PILINGS ONLY 9/23/05

Signature:

Proposed Project Description:
Foundation Only connected w/ permit #05 1219

Action: ☐ Approved ☐ Approved w/Conditions ☐ Denied

Signature: Date:

Permit Taken By:	Date Applied For:
ldobson	09/23/2005

1.

2. Building permits do not include plumbing, septic or electrical work.
3. Building permits are void if **work** is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
☐ Shoreland	☐ Variance	☐ Not in District or Landmark
☐ Wetland	☐ Miscellaneous	☐ Does Not Require Review
☐ Flood Zone	☐ Conditional Use	☐ Requires Review
☐ Subdivision	☐ Interpretation	☐ Approved
☐ Site Plan	☐ Approved	☐ Approved w/Conditions
Maj ☐ Minor ☐ MM ☐	☐ Denied	☐ Denied
Date:	Date:	late:

CERTIFICATION

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

SIGNATURE OF APPLICANT ADDRESS DATE PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK. TITLE DATE PHONE

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, **Fax:** (207) 874-8716

Permit No:	Date Applied For:	CBL:
05-1394	09/23/2005	447 A001001

Location of Construction:	Owner Name:	Owner Address:	Phone:
1 BEAN POT CIR	HERITAGE ACQUISTION CORP	4 GATEHALL DR STE 110	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Langford & Low, Inc.	PO Box 662 Portland	(207) 797-5141
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		Foundation Only/Commercial	

Proposed Use:	Proposed Project Description:
Commercial/ PILINGS Only connected w/ permit #05 219	PILINGS Only connected w/ permit #05 12 9

Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Marge Schmuckal **Approval Date:**

Note: **Ok to Issue:** ☐

1) Previously approved with main permit

Dept: Building **Status:** Approved with Conditions **Reviewer:** Mike Nugent **Approval Date:** 09/23/2005

Note: **Ok to Issue:** ☐

SECTION 02458

STEEL H PILES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes steel H piles.

1.2 SUBMITTALS

A. Product Data: For each type of pile product, accessory, and paint indicated.

E. Shop Drawings: Show fabrication and installation details for piles, including driving points, splices, field-cut holes, and pile caps.
   1. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld.

C. Welding certificates.

D. Pile-Driving Equipment: Include type, make, maximum rated energy, and rated energy per blow of hammer; weight of striking part of hammer; weight of chive cap; details, type, and structural properties of hammer cushion: and details of follower andjetting equipment.

E. Pile-Driving Records: Submit within two days of driving each pile.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: A firm experienced in installing driven piles similar in material, design, and extent indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
   1. Installer's responsibility includes providing a qualified professional engineer to prepare pile-driving records.

B. Testing Agency Qualifications: An independent testing agency qualified according to ASTM E 329 for testing indicated, as documented according to ASTM E 548.

C. Comply with requirements of the following publications:
   1. AISC's "Specificationfor Structural Steel Buildings--Allowable Stress Design and Plastic Design."

D. Welding *Standards:* Qualify welding procedures and personnel according to AWS D1.l, "Structural Welding Code--Steel."

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver piles to Project site in such quantities and at such times to ensure continuity of installation. Handle and store piles at Project site to prevent physical damage. Support piles with webs in vertical position.
1. Protect pile coatings and touch up damage to coatings before driving piles.

1.5 PROJECT CONDITIONS

A. Protect structures, underground utilities, and other construction from damage caused by pile driving.

PART 2 - PRODUCTS

2.1 STEEL H PILES

A. Carbon Steel: ASTM A 36/A 36M.

2.2 PILE ACCESSORIES

A. Driving Points: Manufacturer's standard one-piece driving point, fabricated from steel castings as follows to provide full bearing of web and flange of pile tip. Cast driving point with integral tapered cutting wedges and with top alignment curbs to encase web and flanges of pile.
1. Carbon-Steel Castings: ASTM A 27/A 27M.

B. Splice Unit: Manufacturer's standard splice unit, fabricated from two connected steel plates, of same material as H pile, shaped and tapered to encase web and part of each flange.

2.3 FABRICATION

A. Fabricate and assemble piles in shop to greatest extent possible.

B. Fabricate Ill-length piles to eliminate splicing during driving, with ends square.

C. Fit and weld driving points to tip of pile according to manufacturer's written instructions and AWS D1.1 for procedures, appearance and quality of welds, and methods used in correcting welding work.

D. Pile-Length Markings: Permanently mark each pile with horizontal lines at 12-inch (300-mm) intervals; mark the distance from pile tip at 60-inch (1500-mm) intervals.

PART 3 - EXECUTION

3.1 DRIVING EQUIPMENT

A. Pile Hammer: Air-, steam-, or diesel-powered type capable of consistently delivering driving energy to pile within range recommended by hammer manufacturer for length and weight of pile and character of subsurface material anticipated.

B. Hammer Cushions and Driving Caps: Between hammer and top of pile, provide hammer cushion and steel driving cap recommended by hammer manufacturer for type of pile.

C. Leads: Use fixed or rigid-type piledriver leads that will hold full length of pile firmly in position and in axial alignment with hammer. Extend leads to within 24 inches (600 mm) of elevation at which pile enters ground.

3.2 DRIVING PILES

A. General: Continuously drive piles to elevations or penetration resistance indicated. Establish and maintain axial alignment of leads and pile before and during driving.

B. Heaved Piles: Redrive heaved piles to tip elevation at least as deep as original tip elevation with a driving resistance at least as great as original driving resistance.

C. Driving Tolerances: Drive piles without exceeding the following tolerances, measured at pile heads:
1. Location: 4 inches (100 mm) from location indicated after initial driving, and 6 inches (150 mm) after pile driving is completed.
2. Plumb: Maintain 1 inch (25 mm) in 10 feet (3 m) from vertical, or a maximum of 4 inches (100 mm), measured when pile is above ground in leads.
3. Batter Angle: Maximum 1 inch (25 mm) in 10 feet (3 m) from required angle, measured when pile is above ground in leads.

D. Withdraw damaged or defective piles and piles that exceed driving tolerances and install new piles within driving tolerances. Fill holes left by withdrawn piles as directed by *Architect.*
1. Rejected piles may be abandoned and cut off as directed by Architect.
2. Leave rejected piles in place and install new piles in locations as directed by Architect.
3. Fill holes left by withdrawn piles that will not be filled by new piles using cohesionless soil material such as gravel, broken stone, and gravel-sand mixtures. Place and compact in lifts not exceeding 72 inches (1800 mm).

E. Cutting Off: Cut off tops of driven piles square with pile axis and at elevations indicated.
1. Pile Caps: Weld steel plates, of same material as H pile, to top of steel pile square and level.

F. Pile-Driving Records: Maintain accurate driving records for each pile, compiled and attested to by a qualified professional engineer. Include the following data:
1. Project name and number.
2. Name of Contractor.
3. Pile location in pile group and designation of pile group.
4. Sequence of driving in pile group.
5. Pile dimensions.

6. Ground elevation.
7. Elevation of tips after driving.
8. Final tip and cutoff elevations of piles after driving pile group.
9. Records of redriving.
10. Elevation of splices.
11. Type, make, d e l , and rated *energy* of hammer.
12. Weight and stroke of hammer.
13. Type of pile-driving cap used.
14. Cushion material and thickness.
15. Actual stroke and blow rate of hammer.
16. Pile-driving start and finish times, and total driving time.
17. Time, pile-tip elevation, and reason for interruptions.
18. Number of blows for each 12 inches (300 mm) of penetration, and number of blows per 1 inch (25 mm) for the last 6 inches (150 mm) of driving,
19. Pile deviations from location and plumb.
20. Preboring, jetting, *or* special procedures used.
21. Unusual occurrences during pile driving.

3.3 TOUCHUP PAINTING

A. Clean field welds, splices, and abraded painted areas and field-apply paint according *to* SSPC-PA 1. Use same paint and apply same number of coats as specified for shop painting.

1. Apply touchup paint before driving piles to surfaces that will be immersed *or* inaccessible after driving.

3.4 DISPOSAL

A. Remove withdrawn piles and cutoff sections of piles from site and legally dispose of them off Owner's property.

END OF SECTION

ASSOCIATED DESIGN PARTNERS INC.
80 Leighton Road, Falmouth, ME. 04105

FAX MEMO

DATE: 9/23/05

TO: M. NUGENT FAX: 874-8716

FROM: A. WILSON

PHONE: 207-878-1751 FAX: 207-878-1788

RE: B & M PILE DRIVING

Number of pages including cover sheet: 8

Message

SEE ATTACHED

PILE SET CRITERIA

B+M BAKED BEANS ADDITIONS

ONE BEAN POT CIRCLE

PORTLAND, ME

SEPTEMBER 8, 2005

CONTRACTING ✦ ENGINEERING
H. B. FLEMING
SO. PORTLAND, MAINE

ENGINEERING NEWS RECORD FORMULA

HAMMER MKT DE-30 OR MKT DA-35 (SINGLE ACTING MODEL)

$P = 2WH/(S+.1)$

P = 38 TON, 76,000 # PILE CAPACITY

W = 2800 # RAM WEIGHT

H = 8 FOOT STROKE

S = SET CRITERIA (INCHES/BLOW)

$$S = \frac{2(2800)(8')}{76{,}000\ \#} - .1 = .489 \text{ INCHES/BLOW}$$

OR 2.04 BLOWS/INCH

- USE 3 BLOWS/INCH FOR SIX CONSECUTIVE INCHES WITH AN 8 FOOT STROKE OR 3 BLOWS FOR ANY 1/2" OF MOVEMENT OR 2 BLOWS WITH NO MOVEMENT.

LANGFORD & LOW, INC.
Approved for submittal:

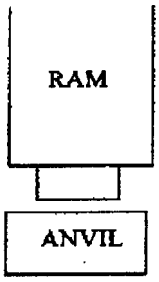
Date: 9/8/05 No. 1-02000

H.B. FLEMING PILE EQUIPMENT DATA SHEET

Project: B&M Baked Beans
Location: Portland, ME

Date: 9/8/2005
Client Langford & Low

HAMMER



Manufacturer:	MKT
Model:	DE-30 or DA-35
Type:	Single Acting Diesel
Length of Stroke:	10' - 6"
Rated Energy at Given Stroke:	*28,000* ft-lb
Modifications:	None

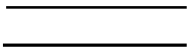
HAMMER CUSHION

Material:	Hamortex
Thickness:	2.5"
Area:	283.5 in^2
Modulus of Elasticity:	125,000 psi
Coefficient of Restitution:	0.78

DRIVE HEAD

Weight:	1200 lb

PILE CUSHION



Cushion Material:	N/A
Thickness:	N/A
Modulus of Elasticity:	N/A
Coefficient of Restitution:	N/A

PILE

Pik Type:	HP 8x36
Length in Leads:	Up to 65'
Weight/LF:	36 lb
Wall Thickness:	.445"
Taper:	N/A
Cross Sectional Area:	10.6 in^2
Design Capacity	37.5 tons
Splice Description:	Full Penetration Butt Weld
Tip Treatment Description:	Cast Steel Point

HIGH PILE PRODUCTIVITY

...through choice of high or low frequency blows

on the **anvil,** *drive* cap and **pile. Next, the** ram-piston strikes *the* **anvil** which transmits **the** impact energy to the pile.

The **ball-pointed** ram-piston **mates perfectly with the anvil's** *cup,* displacing **the liquid fuel at** the moment of **impact** *to* **achieve perfect** timing. **The fuel is splashed** *into the* **annular** zone **around** the **ram-point and** anvil **where** it ignites on contact with **the** hot, **high-pressure air.**

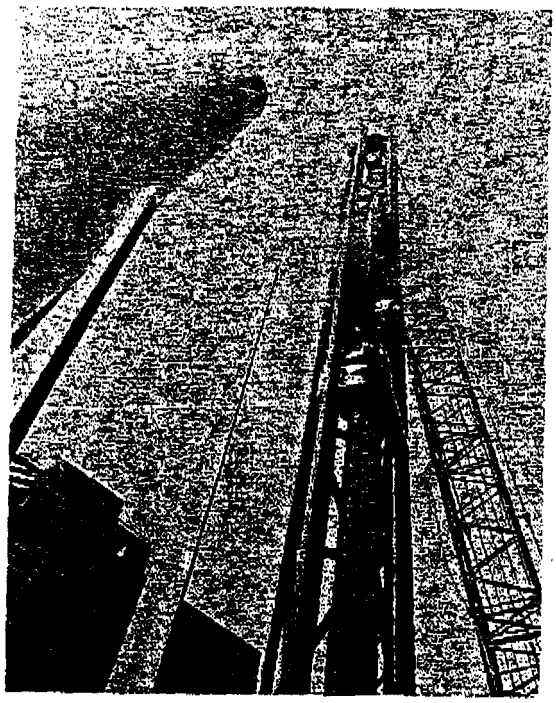
The **resultant explosive** force **drives** *the* **ram-piston upward and the pile downward,**

The pile is **subjected** *to* **a** prolonged **downward** force **by** the **three-stags blow:** pre-loading force, **impact** energy, and explosive force. This **also reduces pile head** deformation **because** the anvil **and drive cap are** forced ***against*** the **pile for a longer period.**

The impact of **the** ram on *the* **anvil block activates** the inertia **type lube** pump, forcing oil directly *to* **six** critical points in **the** cylinder.

On *the* **up-stroke, the** ram-piston opens exhaust ports (F) to discharge exhaust **gases.** It continues **freely upward** until stopped by compression developed in **the** bounce **chamber** (X).

Having reached the top of its stroke, **the** ram-piston descends again, ***repeating*** the cycle. **Hammer operation** *is* stopped **by** pulling **rope** (G), **disengaging fuel pump** cam (D).



SPECIFICATIONS	DA-35C		DA-55B	
	Double-acting	Single-acting	Double-acting	Single-acting
*Min. applicable energy rating (ft. lbs.)	15,600 at 35 psi to 23,000 at 80 psi	15,600 to 23,800	31,200 at 50 psi to 38,200 at 80 psi	30,000 to 42,600
**Speed (strokes/min. avg.)	78 to 82	40 to 50	38 to 42	40 to 50
*Fuel consumption (gal./hr. avg.)	2.7	1.7	3.7	2.7
Wgt. of ram-piston (lbs.)	2,800		5,000	
Fuel tank capacity (gals.)	18		30	
Lube tank capacity (gals.)	11		20	
Length overall w/drive cap (ft.)	17		17'4"	
Net weight (lbs.)	10,800		17,000	
Ship. wt. with univ. drive cap (lbs.)	12,100		18,800	

*See "diesel hammer selection", at left.
**Blows per minute will vary inversely with length of stroke.

diesel hammer selection

Empirical pile driving criteria suggest that: I, **a diesel hammer chosen** for **a** specified job should **have a** ram weight to pile weight ratio of **no** more **than** 1:**4; and** 2, the specified **pile** load bearing, *to* **be determined** from **a** static **load bearing** formula, should **be reached** at **a pile** penetration rate of from *8* to 14 blows to **the** inch. In most cases, with these **criteria** met, it **will** *be* found that **the applied energy rating** *of* the **diesel hammer selected will be equal** to the hammer's ram **weight** times its average **ram** stroke **of** from *6 to* 9 feet **at** specified **pile refusal** (or **equivalent *stroke*** for "double-acting" **diesel** hammers).

SPECIFICATIONS DE-33/30/20C				
RAM-PISTON WEIGHT (LBS.)	2,000	2,800	3,300	4,000
ENERGY RATING (FT. LBS.)	20,000	28,000	33,000	40,000
BEARING, BASED ON EN FORMULA (TONS)	100	140	165	200
MAXIMUM OBTAINABLE STROKE	10'-6"	10'-6"	10'-6"	10'-6"
OVERALL LENGTH WITH DRIVE CAP	15'-11"	15'-11"	15'-11"	15'-11"
WEIGHT, HAMMER ONLY (LBS.)	6,450	7,250	7,750	8,450
WEIGHT, HAMMER AND UNIVERSAL DRIVE CAP (LBS.)	7,400	8,200	8,700	9,400

PUBLISHED ENERGY RATINGS ARE EQUAL TO RAM WEIGHT x 10.0 FT. RAM'S [illegible] ACTUAL ENERGIES DELIVERED ARE A FUNCTION OF THE OVERALL JOB CONDITIONS. BEARING RATINGS BASED UPON ENGINEERING NEWS FORMULA, PILE SET EQUAL TO 0.1 IN./BLOW.

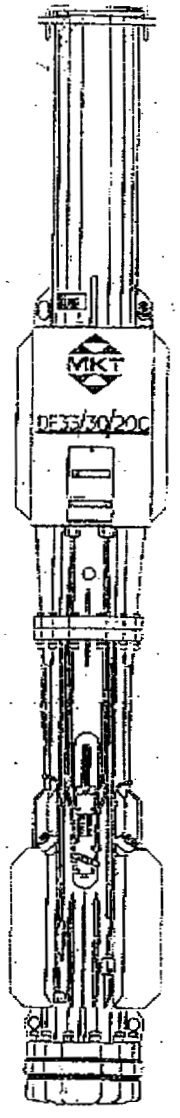
PRODUCT LIST

- SINGLE ACTING DIESEL PILE HAMMERS
- STEAM AIR PILE HAMMERS
- VIBRATORY PILE DRIVERS/EXTRACTORS
- VIBRATORY HAMMER ACCESSORIES
- PILE DRIVING LEAD SYSTEMS
- CUSTOM ENGINEERED PRODUCTS
- DOUBLE ACTING DIESEL PILE HAMMERS
- DRIVE CAPS AND ACCESSORIES
- HYDRAULIC POWER UNITS
- HYDRAULIC AUGER SYSTEMS
- BOTTOM BRACES AND LEAD ACCESSORIES

DISTRIBUTED BY:

NORTH EAST EQUIPMENT DISTRIBUTORS INC.

[illegible]



INTRODUCING THE VERSATILE NEW

DE33/30/20C

MAXIMUM DIESEL HAMMER FLEXIBILITY WITH RAM WEIGHTS TO 4,000 LBS.

ONE HAMMER . . . MULTIPLE RAM SIZES . . . AND ENERGY RANGES. ANOTHER MKT FIRST PROVIDING THE CONTRACTOR WITH HAMMER SIZE FLEXIBILITY AND REDUCED EQUIPMENT INVESTMENT COSTS. MKT DIESEL HAMMERS CONTINUE TO OFFER FEATURES WHICH INSURE DEPENDABLE AND PRODUCTIVE OPERATION.

MKT MANUFACTURING INC.
1188 Pershall Road
St. Louis, Mo 63137
(314) 388-2254

NOTES:

1. 100% BUTT WELDED SPLICE.
2. EITHER TOP OR BOTTOM SECTION OF PILE MAY BE BEVELED.
3. ALL WELDERS WILL BE AWS CERTIFIED.
4. WELDING ELECTRODE WILL BE E70XX.

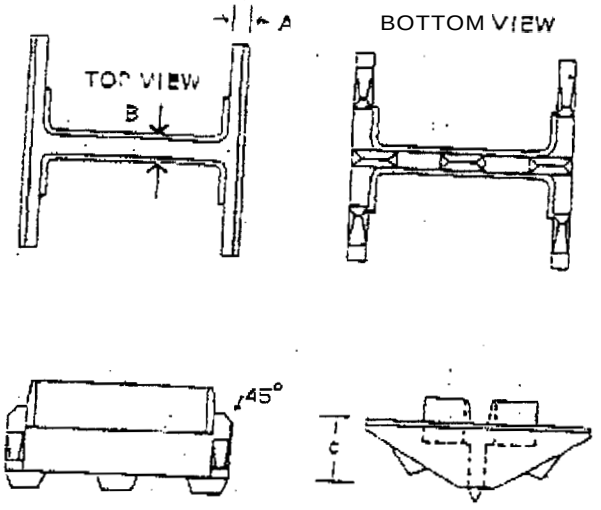
SECTION A-A

H.B. FLEMING

TYPICAL H-PILE SPLICE DETAIL

HARD-BITE

Dimensions



Material Cast Steel

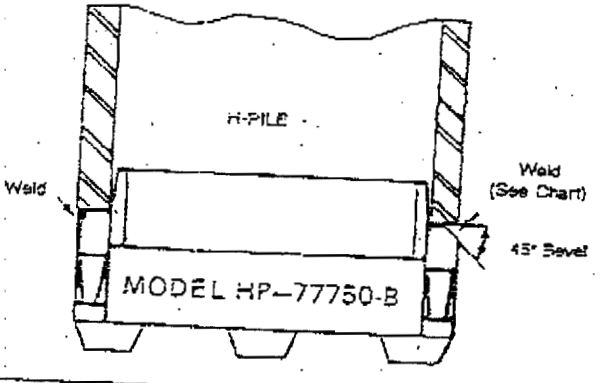
ASTM A27 65/35 - Heat Treated

	8"	10"	12"	14"
A	5/8"	3/4"	3/4"	1"
B	5/8"	3/4"	3/4"	1"
C	2-1/2"	3"	3-1/2"	4"

Installation Instructions

HARD-BITE POINT MODEL HP—77750-B

1. Fit point onto the end of a square cut pile end.
2. Weld point to the pile in either flat or vertical position using E60 or E70XX electrodes.
3. Weld across full width of flange following chart below for minimum size weld.



Pile Size	Flange Thickness	Min. Size Groove Weld
HP 14 x 117	.805	7/16
x 102	.705	3/8
x 89	.615	3/8
x 73	.505	5/16
HP 12 x 84	.685	3/8
x 74	.610	3/8
x 63	.515	5/16
x 53	.435	5/16
HP 10 x 57	.565	5/16
x 42	.420	5/16
HP 8 x 36	.445	5/16

ASSOCIATED DESIGN PARTNERS INC.
80 Leighton Road • Falmouth, Maine 04105
Office: 207.878.1751
Fax: 207.878.1788
e-mail: adp@adpengineering.com

September 23. 2005

Michael Nugent
Manager Inspection Services Program
389 Congress Street
Portland, **ME** 04101

Dear Mike,

H.B. Fleming has prepared pile driving criteria for the B&M Expansion Project. A copy of the driving criteria along with pile equipment data sheet, pile hammer cut sheets, splice details and point details are attached to this letter. I have reviewed the pile driving criteria and the other information and have determined that they conform to the specifications for this project.

Sincerely,

Robert Arledge, P.E.
Maine Registration Number 8708
Structural Engineer

Attachments: Pile driving criteria
Pile equipment data sheet
Pile hammer cut sheets
Splice details
Point detail