

SEI SHELLEY ENGINEERING, INC.
STRUCTURAL CONSULTANTS

131 Preble
34 I 1
06/030

Fax Memorandum

To: Genie Bourke **From:** Tim Shelley

874-8716 **Pages:** 2

Company: City of Portland **Date:** 7/19/07

Re: **CC:**

Urgent For Review Please Comment Please Reply For Your Use

• **Comments:**

Genie:

Attached is the final letter on Special Inspections for the 52 Kennebec St. Project, Portland, Maine.

If you have any questions, please do not hesitate to contact me.

Regards:

Tim Shelley

cc: Tod Dana @ Asia West

Trevor Thaxter @ The Thaxter Co. (878-5424)

SEI **SHELLEY ENGINEERING, INC.**
STRUCTURAL CONSULTANTS

City of Portland
City Hall, Rm. 315
389 Congress St.
Portland, Maine 04101

July 19, 2007
Job No: 2007-035
Pg. 1 of 1

Subject: Special Inspections Letter for the 52 Kennebec St. Project, Portland, Maine.

Attention: Ms. Genie Bourke

Hi Genie:

This letter serves to inform you that the all-structural work for the 52 Kennebec St. Project are now complete. The project basically consisted of the installation of a new lobby area, new elevator and masonry shaft, new stairs, a new exterior wall, a new exterior canopy and a new roof.

I made regular site visits to project through out the duration of the project. I received field reports from Summit Engineering for soil compaction and concrete compressive strengths. All reports provided results that met or exceeded project specifications. All reinforcing steel for the new frost wall, column footings, retaining wall, elevator shaft mat foundation and shaft walls were installed per project specifications. All structural steel were installed per project specifications, including and all bolted and welded connections. The canopy and wood framed roof were installed per project specifications. The stairs and railings were installed per project specifications. My final inspection was made on July 18, 2007.

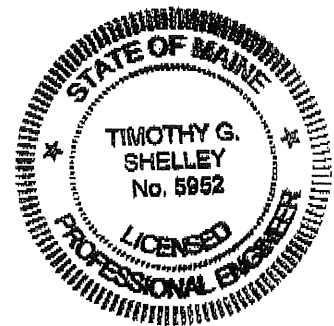
I can now state all structural components for this project are complete and in full compliance with the project specifications.

Please call if you have any questions.

Sincerely,


Timothy G. Shelley, P.E.

cc: Tod Dana @ Asia West, Trevor Thaxter @ The Thaxter Co.

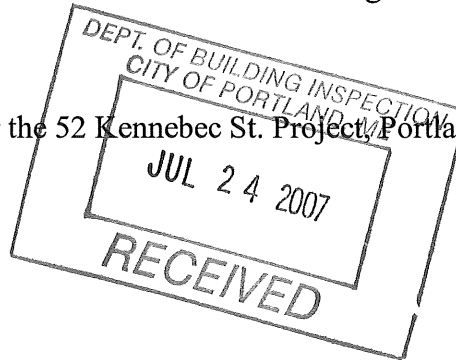


City of Portland
City Hall, Rm. 315
389 Congress St.
Portland, Maine 04101

July 23, 2007
Job No: 2007-035
Pg. 1 of 1

Subject: Special Inspections Letter for the 52 Kennebec St. Project, Portland, Maine.

Attention: Ms. Genie Bourke



*131 Prieble
34 I /
08030*

Hi Genie:

This letter serves to inform you that the all-structural work for the 52 Kennebec St. Project are now complete. The project basically consisted of the installation of a new lobby area, new elevator and masonry shaft, new stairs, a new exterior wall, a new exterior canopy and a new roof.

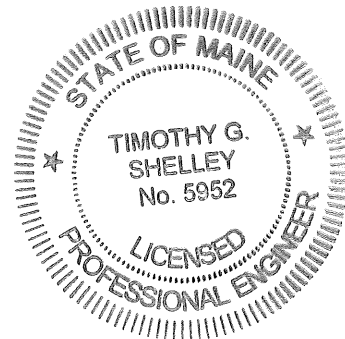
I made regular site visits to project through out the duration of the project. I received field reports from Summit Engineering for soil compaction and concrete compressive strengths. All reports provided results that met or exceeded project specifications. All reinforcing steel for the new frost wall, column footings, retaining wall, elevator shaft mat foundation and shaft walls were installed per project specifications. All structural steel were installed per project specifications, including and all bolted and welded connections. The canopy and wood framed roof were installed per project specifications. The stairs and railings were installed per project specifications. My final inspection was made on July 18, 2007.

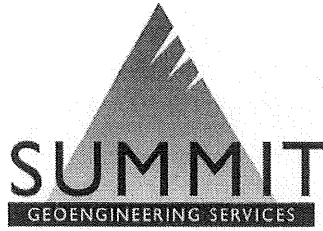
I can now state all structural components for this project are complete and in full compliance with the project specifications. Attached is the Geotechnical Report, Soil Compaction Test Results, Concrete Compressive Test Results, Steel Stair Shop Drawings, Concrete Reinforcing Steel Shop Drawings.

Please call if you have any questions.

Sincerely:

Timothy G. Shelley
Timothy G. Shelley, P.E.



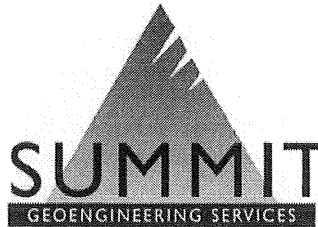


Geotechnical Report

**Elevator/Stairwell Addition
123 Kennebec Street
Portland, Maine**

Prepared for:
Tod Dana

Summit Job Number 17102
October 2006



October 17, 2006
Summit #17102

Tod Dana
c/o Asia West
219 Commercial Street
Portland, Maine 04101

Reference: Geotechnical Engineering Evaluation
Proposed Elevator/Stairwell Addition, 123 Kennebec Street, Portland, Maine

Dear Tod;

We have completed the geotechnical investigation for the proposed addition at the site referenced above. Our scope of services included performing 1 test boring 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 elevator/stairwell addition to the former mattress factory located between Preble Street and Elm Street in Portland, Maine. Currently the site is developed with two existing wood framed buildings and surrounding pavement areas.

The elevator/stairwell building has dimensions of approximately 12 feet by 35 feet. We understand that the elevator portion, 10 feet by 12 feet, will be constructed on a structural mat foundation, anticipated to be 24 inches thick. The average contact pressure at the base of the elevator mat is approximately 1,500 psf. The remaining exterior walls and any interior columns will be constructed on isolated or continuous spread footings. We understand that the bottom of the elevator slab will be approximately 6 feet below the existing grade. We also understand that the addition foundation will not be attached to any existing building foundations.

2.0 Exploration and Subsurface Conditions

Summit observed the subsurface conditions at the site with the drilling of 1 boring on September 22, 2006. The boring was drilled by Northern Test Borings under contract to and the direction of Summit. The boring was drilled a depth of 26 feet, then rod probed to refusal at a depth of 58.7 feet, using 4" casing with rotary wash. Split spoon samples were obtained continuous to a depth of 16 feet and then at selected intervals. Vane shear tests were performed in the boring at

selected depths. An undisturbed tube samples was obtained at a depth of 20 feet. The boring was drilled at or near the center of the elevator portion of the addition. A log of the boring is attached. The boring was located by others prior to drilling by Summit.

Due to some uncertainty of exact locations for on-site underground utilities, Dig Smart of Maine was contracted by Summit to verify the boring location was free from subsurface utilities.

Addition exploration at the site included the excavation of test hole adjacent to the existing building, performed by others and observed by Summit, on October 6, 2006. The test pit was excavated to expose the existing footings.

The soil encountered in the boring consisted of 1.5 inches of pavement over 12.5 feet of sandy fill, over 35.5 feet of silty clay, over a loose to compact glacial marine sand. Refusal was encountered at a depth of 58.7 feet. We believe that refusal was on bedrock.

The *sandy fill* is described as brown to dark brown sand with a little silt, grading to a silty sand with a little clay and ash debris, grading to a brown sand with a little gravel and silt. This soil was generally loose and wet below a depth of 8.5 feet. The fill soil is visually classified as SM or SM-SP in accordance with the USCS. SPT-N values for the fill ranged from 4 blows per foot (bpf) to 8 bpf and averaged 6 bpf, indicating loose soil conditions.

The *silty clay deposit* grades from a firm olive-gray slightly mottled silty clay to a very soft gray silty clay. This layer was 35.5 feet thick. SPT-N values ranged from 1 bpf to 5 bpf. Moisture contents were determined at various depths as follows.

DEPTH	MOISTURE CONTENT
13 ft	36.0%
14 ft	40.9%
24 ft	45.9%

Vane shear tests taken in the boring resulted in the following undrained shear strengths:

DEPTH	MOISTURE CONTENT
18 ft	870 psf
19 ft	925 psf
22 ft	545 psf
23 ft	650 psf

An Atterberg limit (ASTM D4318) performed on a sample of the soft silty clay at a depth of 24 to 26 feet, resulted in a liquid limit of 49 and a plasticity index of 27. The silty clay soil is classified as CL in accordance with the USCS.

The *glacial marine sand* was encountered at a depth of 48 feet. Spoon samples were not obtained for direct examination of the soil. Blow counts on the probe sampler ranged from hydraulic push to 48 blows per foot.

Refusal, presumed to be bedrock, was encountered at a depth of 58.7 feet. Samples of the refusal material were not obtained.

Groundwater was at a depth of 8.5 feet, based on moisture changes observed in the samples obtained in the boring. Mottling in the upper layer of the silty clay soil indicates that groundwater elevations will likely fluctuate seasonally during wet and dry periods.

4.0 Foundation Recommendations

A. General

Based on the anticipated elevator footing depth, the proposed mat will be constructed within the existing granular fill. The soil below the fill consists of stiff silty clay over soft silty clay. The bottom of the mat is estimated to be 6 feet below the existing ground surface. Due to the looseness and potential variability of the existing fill, improvement of the subgrade soil beneath the mat is recommended. With the subgrade soil improvement, the existing soils will be suitable to support the mat footing as proposed. Interior and exterior column and wall footings in other areas of the addition can be constructed on conventional spread footing foundations.

B. Allowable Bearing Pressure

The footings for the building and elevator mat footing can be proportioned using an allowable bearing pressure of 1,500 psf. Settlement for the mat was estimated in the upper fill layer and the upper stiff and lower soft silty clay layers. For the proposed load and presumed soil bearing conditions, the total computed settlement of the elevator mat was calculated to be 0.5 inches. Settlement from the interior footings and exterior walls will be less than this. Differential settlement between the elevator mat and the footings will be tolerable for the structure.

This allowable bearing pressure is based on the following conditions.

- Exterior continuous footings, interior isolated footings, and the elevator mat are constructed on 12-inch minimum thickness of $\frac{3}{4}$ inch crushed stone placed over the existing proofrolled sandy fill soil, to create a uniform condition immediately beneath the footings. The crushed stone should be compacted using a vibratory roller. Proofrolling should consist of making 3 passes in an east-west direction and 3 passes in a north-south direction using a vibratory compactor.
- Soft, loose and otherwise unsuitable soil pockets, if present, are removed and replaced with crushed stone.

Seasonal groundwater is anticipated to be below the footings. If groundwater is present above the base of the footings, the excavations should be dewatered prior to constructing the footings.

C. Frost Protection

Based on the required frost protection depth, spread footings for the exterior walls and interior columns should be constructed at a minimum depth of 4 feet below the exterior finished grade. The 12 inches of crushed stone can be included in the frost depth, allowing the footing to be constructed 3 feet below the finished grade. This frost penetration depth is based on a design air-freezing index of 1,250-degree days for the Portland area. We recommend that the footings be backfilled with Foundation Backfill. The portion of Foundation Backfill passing the 3 inch sieve should meet the following gradation specification:

FOUNDATION BACKFILL	
Sieve Size	Percent finer
3 inch	100
No. 40	0 to 70
No. 200	0 to 5

Reference: MDOT 703.20, Granular Borrow (modified)

The maximum particle size should be limited to 6 inches. The Foundation Backfill should be compacted to a minimum of 95 percent of its maximum dry density, determined in accordance with ASTM D1557.

D. Groundwater Control

Observations of the soil samples indicate that groundwater was at a depth of 8.5 feet below the existing ground surface. This depth is below the anticipated footing depths. Based on this a perimeter footing drain is not strictly necessary. Having said that, we note that it is also generally good practice to install underdrains to account for unobserved conditions or future changes in local hydrogeology.

Underdrains, if used, should consist of 4 inch rigid perforated PVC surrounded by 6 inches of $\frac{3}{4}$ inch crushed stone wrapped in geotextile filter fabric. We recommend that the ground surface slope away from the building and the ground surface on the exposed sides of the addition be sealed with pavement or a low permeability soil to reduce infiltration of roof and building wall water runoff into the Foundation Backfill.

In order to prevent frost action from lifting concrete entrance pads and potentially blocking entrances, we recommend that where they are connected to the building, concrete entrance pads be constructed on frost walls. The footings should be at least 4 feet below the finished grade.

E. Seismic Design

The soils at the site are categorized as Site Class E, Soft Soil Profile, for foundations constructed on soil in accordance with the 2006 International Building Code.

F. Building Slab

We recommend the building addition slab be constructed on a minimum 12-inch thick layer of Structural Backfill soil. The portion passing the 3 inch sieve meet the following gradation specifications:

STRUCTURAL BACKFILL	
Sieve Size	Percent finer
3 inch	100
1/4 inch	0 to 70
No. 200	0 to 10

Reference: MDOT Specification 703.20, Gravel Borrow

The maximum particle size should be limited to 6 inches. The Structural Backfill should be placed in 8 to 12-inch lifts and should be compacted to 95 percent of its maximum dry density determined in accordance with ASTM D1557. The existing fill subgrade soil should be proofrolled prior to placing the Structural Fill.

For the conditions described above, the slabs can be designed using a subgrade modulus of 150 pci.

The slab will be above the groundwater and no drains are necessary.

5.0 Earthwork Considerations

Based on visual observations of the existing fill it will not meet gradation requirements for Foundation Backfill or Structural Backfill.

Excavations below 4 feet should be sloped no greater than 1.5H to 1V. This slope is based on the current OSHA Excavation Guidelines.

The maximum angle of repose of the existing fill soil is estimated to be 1H:1V. Excavated sidewalls steeper than this will collapse, potentially undermining the existing footings. Based on this, shoring of the existing building superstructure will be necessary where excavations extend below the existing footings. Voids beneath the existing foundations created by sloughing soil, should be filled with lean concrete or flowable fill.

6.0 Closure

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

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.

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 Geoenvironmental Services,



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



EXPLORATION REPORT COVER SHEET

The exploration report has been prepared by the geotechnical engineer from both field and laboratory data. Differences between field logs and exploration reports may exist.

It is common practice in the soil and foundation engineering profession that field logs and laboratory data sheets not be included in engineering reports, because they do not represent the engineer's final opinion as to appropriate descriptions for conditions encountered in the exploration and testing work. The field logs will be retained in our office for review. Results of laboratory tests are generally shown on the borings logs or are described in the text of the report as appropriate.

Drilling and Sampling Symbols:

SS = Split Spoon	Hyd = Hydraulic advance of probes
ST = Shelby Tube – 2” OD, disturbed	WOH = Weight of Hammer
UT = Shelby Tube – 3” OD, undisturbed	WOR = Weight of Rod
HSA = Hollow Stem Auger	GS = Grain Size Data
CS = Casing – size as noted	PI = Plasticity Index
Sv = Vane Shear	LL = Liquid Limit
PP = Pocket Penetrometer	w = Natural Water Content
RX = Rock Core – size as noted	USCS = unified Soil Classification System

Water Level Measurements:

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. In pervious soils, the indicated elevations are considered reliable groundwater levels. In impervious soils, the accurate determination of groundwater elevations may not be possible, even after several days of observations; additional evidence of groundwater elevations via observation or monitoring wells must be sought.

Gradation Description and Terminology:

Boulders:	Over 8 inches	Trace:	Less than 5%
Cobbles:	8 inches to 3 inches	Little:	5% to 15%
Gravel:	3 inches to No.4 sieve	Some:	15% to 25%
Sand:	No.4 to No. 200 sieve	Silty, Sandy, etc.:	Greater than 25%
Silt:	No. 200 sieve to 0.005 mm		
Clay:	less than 0.005 mm		

Density of Granular Soils and Consistency of Cohesive Soils:

CONSISTENCY OF COHESIVE SOILS		DENSITY OF GRANULAR SOILS	
SPT N-value blows/ft	Consistency	SPT N-value blows/ft	Relative Density
0 to 2	Very Soft	0 to 3	Very Loose
3 to 4	Soft	4 to 9	Loose
5 to 8	Firm	10 to 29	Compact
9 to 16	Stiff	30 to 49	Dense
17 to 32	Very Stiff	50 to 80	Very Dense
>32	Hard		

SUMMIT GEOENGINEERING SERVICES 640 Main Street Lewiston, Maine 04240					SOIL BORING LOG			Boring #: B-1																
Project: Asia West Elevator Shaft Portland, Maine					Project #: 17102 Sheet: 1 of 3 Prep by: JSIH																			
Drilling Co: Northern Test Borings					Ground Elevation:																			
Foreman: Mike Nadeau					Reference:																			
Summit: Craig Coolidge, E.I.T.					Date started: 9/22/2006		Date Comp: 9/22/2006																	
DRILLING METHOD		SAMPLER			GROUND WATER DEPTH																			
Vehicle: ATV Model: Diedrich D-50 Method: 4" Casing		Type: 24" SS Hammer: 140 LB Fall: 30"			Date	Depth	Elevation	Comments																
					9/22/2005	8.5		Observed Moisture Change																
Depth (ft.)	SAMPLE DATA				ENGINEERING DESCRIPTION			GEOLOGIC DESCRIPTION																
	No.	Pen/Rec (in.)	Depth (ft)	Blows																				
1	S-1	24/3	0 - 2	3	Brown SAND, little Silt, damp, SM-SF grading to dark brown silty SAND with little Debris, damp, loose, SM			Bit. Pavement = 1.5" FILL																
				4																				
				3																				
2				4	Black to dark brown silty SAND, little Clay trace Ash Debris, damp/moist, loose, SV			4" Casing (140 lb hammer)																
				4																				
3	S-2	24/3	2 - 4	2	Same as above			<table border="1"> <thead> <tr> <th>Depth</th> <th>Blows</th> </tr> </thead> <tbody> <tr> <td>0'-10'</td> <td>Push</td> </tr> <tr> <td>10'-11'</td> <td>24</td> </tr> <tr> <td>11'-12'</td> <td>24</td> </tr> <tr> <td>12'-13'</td> <td>24</td> </tr> <tr> <td>13'-14'</td> <td>24</td> </tr> <tr> <td>14'-15'</td> <td>24</td> </tr> </tbody> </table>			Depth	Blows	0'-10'	Push	10'-11'	24	11'-12'	24	12'-13'	24	13'-14'	24	14'-15'	24
	Depth	Blows																						
0'-10'	Push																							
10'-11'	24																							
11'-12'	24																							
12'-13'	24																							
13'-14'	24																							
14'-15'	24																							
				2																				
4				3	Brown SAND, little Gravel, little to trace Sil damp, compact, SF			2 1/4" HSA to 14', switch to RW																
				8																				
5	S-3	24/4	4 - 6	5	Dark brown SAND with little Gravel anc Silt, wet, loose, SM-SF																			
				4																				
6				4	Dark brown to brown SAND, little Gravel anc Silt, wet, loose, SM-SF																			
				4																				
7	S-4	24/20	6 - 8	5	Same as above																			
				5																				
8				3	Gray silty CLAY, little black Sand, wet, CI			PP=4000 to 3000 psf w = 36.0%																
				3																				
9	S-5	24/3	8 - 10	5	Firm olive gray slightly mottled silty CLAY, moist soft gray with black streaks silty CLAY, soft wet, CL			PP=500 psf or less w = 40.9%																
				2																				
10				2	GLACIAL MARINE																			
				3																				
11	S-6	24/16	10 - 12	2	Sv = 870 psf, 220 psf remold @ 18.7																			
				2																				
12				2	Sv = 925 psf, 165 psf remold @ 19.7																			
				2																				
13	S-7	24/24	12 - 14	4	very soft gray silty CLAY, wet, CI																			
				2																				
14				2																				
				2																				
15				1																				
				1																				
16				1																				
				1																				
17				1																				
				1																				
18				1																				
				1																				
19				1																				
				1																				
20				1																				
				1																				
21	UT-1	30/24	20 - 22.5	Push																				
				Push																				
				Push																				
				Push																				

SUMMIT GEOENGINEERING SERVICES 640 Main Street Lewiston, Maine 04240					SOIL BORING LOG				Boring #: B-1			
Project: Asia West Elevator Shaft Portland, Maine					Project #: 17102 Sheet: 2 of 3 Prep by: JSIH							
Drilling Co: Northern Test Borings Foreman: Mike Nadeau Summit: Craig Coolidge, E.I.T.					Ground Elevation: Reference: Date started: 9/22/2006 Date Comp: 9/22/2006							
DRILLING METHOD		SAMPLER			GROUND WATER DEPTH							
Vehicle: ATV Model: Diedrich D-50 Method: 4" Casing		Type: 24" SS Hammer: 140 LB Fall: 30"			Date		Depth		Elevation		Comments	
					9/22/2006		8.5				Observed Moisture Change	
Depth (ft.)	SAMPLE DATA				ENGINEERING DESCRIPTION				GEOLOGIC DESCRIPTION			
	No.	Pen/Rec (in.)	Depth (ft)	Blows								
22					Sv = 545 psf, 55 psf remolc				GLACIAL MARINE Large vane			
23												
24					Sv = 650 psf, 110 psf remolc				w = 45.9%			
25	S-9	24/24	24' - 26'	WOH								
26				1	very soft gray silty CLAY, wet, CI							
27				WOH								
28				1								
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330
Phone: (207) 621-8334 Fax: (207) 626-9094

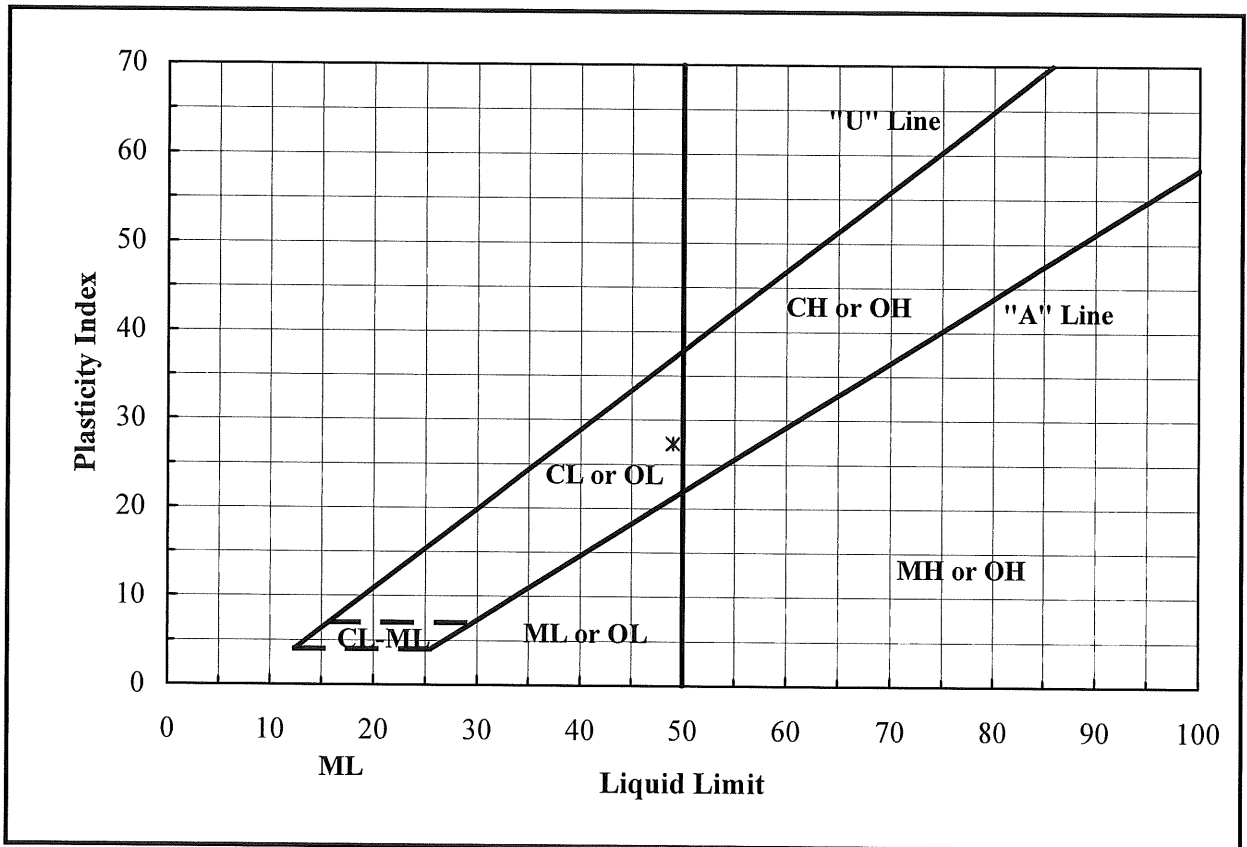
ATTERBERG LIMIT TEST - ASTM D4318

PROJECT NAME: Elevator Shaft
CLIENT: Asia West
SOIL DESCRIPTION: Clay
INTENDED USE: Soil Investigation

PROJECT #: 17102
SAMPLE #: S1
DATE: 38992
SOURCE: B1, S9, 24' to 26'
TECHNICIAN: Sullivan

DATA

Source	Depth	LL	PL	PI	Classification
B1, S9, 24' to 26'		49	22	27	CL Lean Clay



Notes:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 10/2/2006

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: (207) 626-9094



CONCRETE COMPRESSIVE STRENGTH TEST RESULTS - ASTM C39

Project No: 4897
 Project: Asia West Addition
 Client: Asia West
 219 Commercial Street
 Portland, Maine 04101

Field Test Data

Set No.: 4897-C1
 Placement Date: 1-Mar-07
 Lab Rec'd Date: 5-Mar-07
 Location: Addition footers and elevator mat

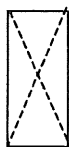
Technician: M. Walsh
 Supplier: P&K Gravel & Sand
 Mix Designation: 3/4" Aggregate
 Design Strength: 3,500 psi

Slump (initial) 4-3/4 in.
 Slump (placed) 5-1/4 in.
 Air Content 3.4 %
 Conc Temp. 59.7 °F
 Air Temp. 39.0 °F
 Volume (yds) 6.0 of 22-3/4
 Admixture: Polarset 1%

Laboratory Test Data

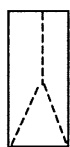
Sample No.	Test Date	Age	Type	Unit Wt.	Area (in ²)	Load (K)	Strength (psi)
C1a	8-Mar-07	7	2	144.3	28.27	68.8	2430
C1b	29-Mar-07	28	4	145.0	28.27	87.6	3100
C1c	29-Mar-07	28	6	144.5	28.27	93.1	3290
C1d	26-Apr-07	56					

Average 28 Day (psi): 3195



Cone

1



Cone and Split

2



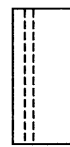
Cone and Shear

3



Shear

4



Columnar

5



Other

6

Remarks:

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: (207) 626-9094



CONCRETE COMPRESSIVE STRENGTH TEST RESULTS - ASTM C39

Project No: 4897
 Project: Asia West Addition
 Client: Asia West
 219 Commercial Street
 Portland, Maine 04101

Field Test Data

Set No.: 4897-C2
 Placement Date: 12-Mar-07
 Lab Rec'd Date: 13-Mar-07
 Location: Foundation walls.

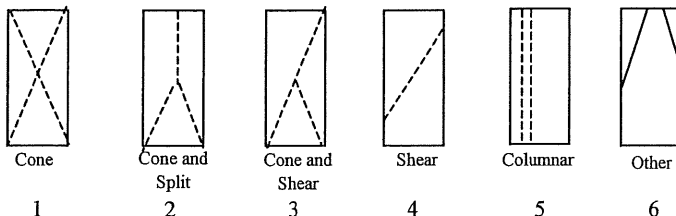
Technician: H. Gallin
 Supplier: P&K Gravel & Sand
 Mix Designation: 3/4" Aggregate
 Design Strength: 3,500 psi

Slump (initial) in.
 Slump (placed) 6 in.
 Air Content 3.8 %
 Conc Temp. 56.0 °F
 Air Temp. 54.0 °F
 Volume (yds) 8-1/4 of 8-1/4
 Admixture: Polarset 1%

Laboratory Test Data

Sample No.	Test Date	Age	Type	Unit Wt.	Area (in ²)	Load (K)	Strength (psi)
C2a	19-Mar-07	7	6	145.0	28.07	75.2	2680
C2b	9-Apr-07	28	6	142.5	28.43	105.8	3720
C2c	9-Apr-07	28	6	144.5	28.09	105.8	3770
C2d							

Average 28 Day (psi): 3745



Remarks: _____

Summit Geoenvironmental Services

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: (207) 626-9094



Project Name: Asia West Addition
Client: Asia West
Supplier: P&K Sand & Gravel

Project Number: 4897
Mix Designation: 3/4" Aggregate
Design Strength: 3,500 psi

Cylinder Set Number	Date Cast	Slump (inches)	Air Content (%)	Concrete Temp. °F	7 Day Result (psi) AVG.	14 Day Result (psi)	28 Day Result (psi)	28 Day Result (psi)	28 Day AVG. (psi)	Range	Design Strength (PSI)	3 Test Day Moving Ave.	28 Day Running Average	LOCATION OF PLACEMENT
1	1-Mar	4-3/4 / 5-1/4*	3.4	59.7	2430		3290	3100	3195	190			3195	Addition footers and elevator mat.
2	12-Mar	6*	3.8	56	2680		3770	3720	3745	50			3470	Foundation walls.

FOR ACCEPTABLE CONCRETE, ACI STATES THAT THE AVERAGE OF ALL SETS OF THREE CONSECUTIVE STRENGTH TESTS EQUAL OR EXCEED THE SPECIFIED STRENGTH, AND THAT NO INDIVIDUAL STRENGTH TEST (AVERAGE OF TWO CYLINDERS) FALLS BELOW THE SPECIFIED STRENGTH BY MORE THAN 500 PSI.

Remarks: *Denotes slump after addition of superplasticizer.

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330
 Phone: (207) 621-8334 Fax: (207) 626-9094



CONCRETE COMPRESSIVE STRENGTH TEST RESULTS - ASTM C39

Project No: 4897
 Project: Asia West Addition
 Client: Asia West
 219 Commercial Street
 Portland, Maine 04101

Field Test Data

Set No.: 4897-C1
 Placement Date: 1-Mar-07
 Lab Rec'd Date: 5-Mar-07
 Location: Addition footers and elevator mat

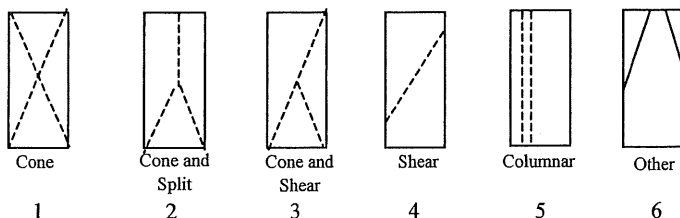
Technician: M. Walsh
 Supplier: P&K Gravel & Sand
 Mix Designation: 3/4" Aggregate
 Design Strength: 3,500 psi

Slump (initial) 4-3/4 in.
 Slump (placed) 5-1/4 in.
 Air Content 3.4 %
 Conc Temp. 59.7 °F
 Air Temp. 39.0 °F
 Volume (yds) 6.0 of 22-3/4
 Admixture: Polarset 1%

Laboratory Test Data

Sample No.	Test Date	Age	Type	Unit Wt.	Area (in ²)	Load (K)	Strength (psi)
C1a	8-Mar-07	7	2	144.3	28.27	68.8	2430
C1b	29-Mar-07	28	4	145.0	28.27	87.6	3100
C1c	29-Mar-07	28	6	144.5	28.27	93.1	3290
C1d	26-Apr-07	56					

Average 28 Day (psi): 3195



Remarks:

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 3/15/07

Project: Asia West Addition

Project #: 4897

Site Contacts: Trevor Thaxter - The Thaxter Co.

Purpose of Visit: Soil compaction testing.

Work Activities: Conducted testing of soil compaction during placement of foundation backfill on the southwest side of the walkway. Contractor (R.A. Pierce) placed lifts of 12 inches or less and compacted with a 500-lb. vibratory plate compactor. Test results meet the required 95% compaction per specification.

Test results: Compaction: 98.1%
 Dry density: 114.2 pcf
 Wet Density: 119.2 pcf
 Percent moisture: 4.3

Portal to Portal

Leave:	<u>8:45am</u>	<u>Expenses</u>	
Return:	<u>10:00am</u>	Mileage:	<u>10</u>
TOTAL:	<u>1.15hrs</u>	Density Gauge:	<u>1</u>
		Other:	<u> </u>

Signed: William Crosby

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/16/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 3/14/07
Project: Asia West Addition
Project #: 4897
Site Contacts: Trevor Thaxter - The Thaxter Co.
Purpose of Visit: Soil compaction testing.

Work Activities: Conducted testing of soil compaction during placement of foundation backfill on the southwest side of the addition foundation wall. Contractor (R.A. Pierce) placed lifts of 12 inches or less and compacted with a 500-lb. vibratory plate compactor.

Initial tests of second lift resulted in compaction of 93.3% of maximum density. Observations indicate that sufficient compaction was obtained and the result of less than 95% of maximum density were due to native subgrade conditions. Subsequent testing at 3.5 feet above top of footer resulted in 95.1% of maximum density after significant compaction and recompaction effort.

Recommended to Trevor Thaxter and Contractor that increasing moisture during placement would help to more easily achieve compaction requirements. Optimum moisture content is 9%, in-place results ranged from 2.4% to 2.5%.

Portal to Portal

Table with 4 columns: Leave/Return/TOTAL, Time, Expenses (Mileage, Density Gauge, Other), and values (8:45am, 1:30pm, 2.5 hrs, 10, 1).

Signed: Michael J. Walsh

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/16/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 3/13/07

Project: Asia West Addition

Project #: 4897

Site Contacts: Trevor Thaxter - The Thaxter Co.

Purpose of Visit: Concrete cylinder retrieval.

Work Activities: Retrieved one set of four cylinders (4897-2) for controlled storage and compressive strength testing.

Portal to Portal

Leave:

8:00am

Return:

8:45pm

TOTAL:

0.75 hr

Expenses

Mileage:

10

Density Gauge:

Other:

4 cylinders

Signed:

Michael J. Walsh

cc:

Reviewed:
Sent:

Darrell A. Gilman, CMT Manager
3/20/07



DAILY FIELD REPORT

Date: 3/12/07
Project: Asia West Addition
Project #: 4897
Site Contacts: Trevor Thaxter - The Thaxter Co.
Purpose of Visit: Concrete inspection.

Work Activities: Inspected concrete from two trucks for elevator and stairwell walls. Cast one set (#2) of four concrete test cylinders from truck #47, ticket #094620, and placed them in the heated building for retrieval at a later date. Concrete was supplied by P & K Products, and was a 3/4" stone mix containing 1% Polarset with a design strength of 3500 psi. Concrete was placed by a labor force of Rhodes Concrete.

Test Results: Volume: 16-1/4 cu yds
Slump: 6" to 6-3/4"
Air: 3.5% to 3.8%
Concrete temperature: 54 to 56 deg F
Air temp: 52 deg F

Portal to Portal

Leave:	<u>6:30 & 2:30</u>	<u>Expenses</u>	
Return:	<u>9:00 & 6:00</u>	Mileage:	<u>11</u>
TOTAL:	<u>6 hrs</u>	Density Gauge:	<u> </u>
		Other:	<u>4 cys</u>

Signed: Hap Gallin

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/20/07



DAILY FIELD REPORT

Date: 3/6/07
Project: Asia West Addition
Project #: 4897
Site Contacts: Trevor Thaxter - The Thaxter Co.
Purpose of Visit: Compaction testing.

Work Activities: Scheduled to perform compaction testing during backfill of footer and elevator mat areas. Contractor was not present and subgrade protected by blankets and hay. No areas were ready for testing at time of visit.

Test Results: None

Portal to Portal

Leave:	<u>12:45pm</u>	<u>Expenses</u>	
Return:	<u>1:30pm</u>	Mileage:	<u>10</u>
TOTAL:	<u>0.75 hrs</u>	Density Gauge:	<u> </u>
		Other:	<u> </u>

Signed: Michael J. Walsh
cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/8/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 3/5/07

Project: Asia West Addition

Project #: 4897

Site Contacts: Trevor Thaxter - The Thaxter Co.

Purpose of Visit: Concrete cylinder retrieval.

Work Activities: Retrieved one set of four cylinders (4897-1) for controlled storage and compressive strength testing.

Portal to Portal

Leave:	<u>11:30am</u>	<u>Expenses</u>	
Return:	<u>12:15pm</u>	Mileage:	<u>10</u>
TOTAL:	<u>0.75</u>	Density Gauge:	<u> </u>
		Other:	<u>4 cylinders</u>

Signed: Michael J. Walsh

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/5/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 3/1/07

Project: Asia West Addition

Project #: 4897

Site Contacts: Trevor Thaxter - The Thaxter Co.

Purpose of Visit: Concrete testing.

Work Activities: Performed testing of concrete placed in addition footers and elevator mat. A 3,500 psi 3/4-inch mix supplied by P&K Sand and Gravel and placed by Rhodes Concrete via pump truck. Cast one set of four cylinders (4897-1) for compressive strength testing.

Test Results: Amount Delivered: 22.75 cubic yards
 Slump: 4-3/4" to 6"
 Air Content: 3.4%
 Concrete Temperature: 56.5 to 59.7 degrees F
 Ambient Temperature: 39 degrees F

Portal to Portal

Leave:	<u>1:30pm</u>	<u>Expenses</u>	
Return:	<u>5:00pm</u>	Mileage:	<u>10</u>
TOTAL:	<u>3.5 hrs</u>	Density Gauge:	<u> </u>
		Other:	<u>4 cylinders</u>

Signed: Michael J. Walsh

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/5/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 2/27/07

Project: Asia West Addition

Project #: 4897

Site Contacts: Trevor Thaxter - The Thaxter Co.

Purpose of Visit: Soil sample pickup.

Work Activities: Obtained a sample of backfill soil at Durgin Sand & Gravel in Gray. Contractor intends to use "screened sand" as foundation backfill. Grain size analysis and Proctor to be completed.

Portal to Portal

Leave:	<u>7:30am</u>	<u>Expenses</u>	
Return:	<u>8:30am</u>	Mileage:	<u>20</u>
TOTAL:	<u>1 hr</u>	Density Gauge:	<u> </u>
		Other:	<u> </u>

Signed: Michael J. Walsh

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/5/07



DAILY FIELD REPORT

Date: 2/26/07
Project: Asia West Addition
Project #: 4897
Site Contacts: Trevor Thaxter - The Thaxter Co.
Purpose of Visit: View subgrade conditions.

Work Activities: Performed site visit to view footer subgrade conditions. Contractor has excavated approximately 9 to 10 feet below grade in the addition area. Existing subgrade sand with some gravel, contractor is "proof-rolling" area with plate compactor prior to placing 12-inch thick 3/4" stone base. Conditions appear consistent with Geotechnical Report.

Remarks: Confirmed with Trevor Thaxter that Shelley Engineering will be performing rebar inspections prior to concrete placements.

Portal to Portal

Leave:	<u>1:30pm</u>	<u>Expenses</u>	
Return:	<u>2:15pm</u>	Mileage:	<u>10</u>
TOTAL:	<u>0.75 hrs</u>	Density Gauge:	<u>NA</u>
		Other:	<u> </u>

Signed: Michael J. Walsh

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/5/07



SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Tel: (207) 621.8334 Fax: (207) 626.9094

SUMMIT GEOENGINEERING FIELD DENSITY RESULTS SUMMARY

PROJECT NO: 4897

PROJECT NAME: Asia West Addition

CLIENT: Tod Dana/Shelley Engineering

Proctor Information:

4896-S1 Foundation Backfill Durgin Pit

116.5 pcf at 9.0% moisture

Test Number	Date	Location:	Lift Elevation	Moisture Content %	In-place Density DD PCF	Maximum Density PCF	Percent Compaction	Required Compaction	Remarks
1	3/14/07	Foundation backfill, NW side of addition	4' BTOW	2.5	108.8	116.5	93.3*	95	Failed ¹
2	3/14/07	Foundation backfill, NW side of addition	2' BTOW	2.4	110.8	116.5	95.1	95	Passed
1	3/15/07	Foundation backfill, SW side of addition	1' BTOW	4.3	114.2	119.2	98.1	95	Passed

Remarks: Note ¹: Sufficient compaction observed, underlying native subgrade may have limited compaction in this lift.



DAILY FIELD REPORT

Date: 3/15/07
Project: Asia West Addition
Project #: 4897
Site Contacts: Trevor Thaxter - The Thaxter Co.
Purpose of Visit: Soil compaction testing.

Work Activities: Conducted testing of soil compaction during placement of foundation backfill on the southwest side of the walkway. Contractor (R.A. Pierce) placed lifts of 12 inches or less and compacted with a 500-lb. vibratory plate compactor. Test results meet the required 95% compaction per specification.

Test results: Compaction: 98.1%
Dry density: 114.2 pcf
Wet Density: 119.2 pcf
Percent moisture: 4.3

Portal to Portal

Leave:	<u>8:45am</u>	<u>Expenses</u>	
Return:	<u>10:00am</u>	Mileage:	<u>10</u>
TOTAL:	<u>1.15hrs</u>	Density Gauge:	<u>1</u>
		Other:	<u> </u>

Signed: William Crosby
cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/16/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 3/14/07
Project: Asia West Addition
Project #: 4897
Site Contacts: Trevor Thaxter - The Thaxter Co.

Purpose of Visit: Soil compaction testing.

Work Activities: Conducted testing of soil compaction during placement of foundation backfill on the southwest side of the addition foundation wall. Contractor (R.A. Pierce) placed lifts of 12 inches or less and compacted with a 500-lb. vibratory plate compactor.

Initial tests of second lift resulted in compaction of 93.3% of maximum density. Observations indicate that sufficient compaction was obtained and the result of less than 95% of maximum density were due to native subgrade conditions. Subsequent testing at 3.5 feet above top of footer resulted in 95.1% of maximum density after significant compaction and recompaction effort.

Recommended to Trevor Thaxter and Contractor that increasing moisture during placement would help to more easily achieve compaction requirements. Optimum moisture content is 9%, in-place results ranged from 2.4% to 2.5%.

Portal to Portal

Leave:

8:45am

Return:

1:30pm

TOTAL:

2.5 hrs

Expenses

Mileage:

10

Density Gauge:

1

Other:

Signed:

Michael J. Walsh

cc:

Reviewed:
Sent:

Darrell A. Gilman, CMT Manager
3/16/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 3/13/07

Project: Asia West Addition

Project #: 4897

Site Contacts: Trevor Thaxter - The Thaxter Co.

Purpose of Visit: Concrete cylinder retrieval.

Work Activities: Retrieved one set of four cylinders (4897-2) for controlled storage and compressive strength testing.

Portal to Portal

Leave:	<u>8:00am</u>	<u>Expenses</u>	
Return:	<u>8:45pm</u>	Mileage:	<u>10</u>
TOTAL:	<u>0.75 hr</u>	Density Gauge:	<u> </u>
		Other:	<u>4 cylinders</u>

Signed: Michael J. Walsh

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/5/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 3/12/07

Project: Asia West Addition

Project #: 4897

Site Contacts: Trevor Thaxter - The Thaxter Co.

Purpose of Visit: Concrete inspection.

Work Activities: Inspected concrete from 2 trucks for elevator and stairwell walls. Cast one set (#2) of four concrete test cylinders from truck #47, ticket #094620, and placed them in the heated building for retrieval at a later date. Concrete was supplied by P & K Products, and was a 3/4 stone mix containing 1% Polarset with a design strength of 3500 PSI. Concrete was placed by a labor force of Rhodes Concrete.

Test Results:

Volume: 16-1/4 cu yds
 Slump: 6" - 6-3/4"
 Air: 3.5% - 3.8%
 Concr temp: 54 - 56 deg F
 Air temp: 52 deg F

Portal to Portal

Leave: 6:30 & 2:30

Return: 9:00 & 6:00

TOTAL: 6 hrs

Expenses

Mileage: 11

Density Gauge:

Other: 4 cyls

Signed: Hap Gallin

cc:

Reviewed: Darrell A. Gilman, CMT Manager
 Sent: 3/8/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 3/6/07
Project: Asia West Addition
Project #: 4897
Site Contacts: Trevor Thaxter - The Thaxter Co.
Purpose of Visit: Compaction testing.

Work Activities: Scheduled to perform compaction testing during backfill of footer and elevator mat areas. Contractor was not present and subgrade protected by blankets and hay. No areas were ready for testing at time of visit.

Test Results: None

Portal to Portal

Leave: 12:45pm
Return: 1:30pm
TOTAL: 0.75 hrs
Expenses: Mileage: 10, Density Gauge, Other

Signed: Michael J. Walsh

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/8/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 3/5/07

Project: Asia West Addition

Project #: 4897

Site Contacts: Trevor Thaxter - The Thaxter Co.

Purpose of Visit: Concrete cylinder retrieval.

Work Activities: Retrieved one set of four cylinders (4897-1) for controlled storage and compressive strength testing.

Portal to Portal

Leave:	<u>11:30am</u>	<u>Expenses</u>	
Return:	<u>12:15pm</u>	Mileage:	<u>10</u>
TOTAL:	<u>0.75</u>	Density Gauge:	<u> </u>
		Other:	<u>4 cylinders</u>

Signed: Michael J. Walsh

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/5/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone: (207) 621-8334 Fax: 626-9094



DAILY FIELD REPORT

Date: 3/1/07

Project: Asia West Addition

Project #: 4897

Site Contacts: Trevor Thaxter - The Thaxter Co.

Purpose of Visit: Concrete testing.

Work Activities: Performed testing of concrete placed in addition footers and elevator mat. A 3,500 psi 3/4-inch mix supplied by P&K Sand and Gravel and placed by Rhodes Concrete via pump truck. Cast one set of four cylinders (4897-1) for compressive strength testing.

Test Results: Amount Delivered: 22.75 cubic yards
Slump: 4-3/4" to 6"
Air Content: 3.4%
Concrete Temperature: 56.5 to 59.7 degrees F
Ambient Temperature: 39 degrees F

Portal to Portal

Leave:

1:30pm

Return:

5:00pm

TOTAL:

3.5 hrs

Expenses

Mileage:

10

Density Gauge:

Other:

4 cylinders

Signed:

Michael J. Walsh

cc:

Reviewed:
Sent:

Darrell A. Gilman, CMT Manager
3/5/07



DAILY FIELD REPORT

Date: 2/27/07

Project: Asia West Addition

Project #: 4897

Site Contacts: Trevor Thaxter - The Thaxter Co.

Purpose of Visit: Soil sample pickup.

Work Activities: Obtained a sample of backfill soil at Durgin Sand & Gravel in Gray. Contractor intends to use "screened sand" as foundation backfill. Grain size analysis and Proctor to be completed.

Portal to Portal

Leave:	<u>7:30am</u>	<u>Expenses</u>	
Return:	<u>8:30am</u>	Mileage:	<u>20</u>
TOTAL:	<u>1 hr</u>	Density Gauge:	<u> </u>
		Other:	<u> </u>

Signed: Michael J. Walsh
cc:



DAILY FIELD REPORT

Date: 2/26/07
Project: Asia West Addition
Project #: 4897
Site Contacts: Trevor Thaxter - The Thaxter Co.
Purpose of Visit: View subgrade conditions.

Work Activities: Performed site visit to view footer subgrade conditions. Contractor has excavated approximately 9 to 10 feet below grade in the addition area. Existing subgrade sand with some gravel, contractor is "proof-rolling" area with plate compactor prior to placing 12-inch thick 3/4" stone base. Conditions appear consistent with Geotechnical Report.

Remarks: Confirmed with Trevor Thaxter that Shelley Engineering will be performing rebar inspections prior to concrete placements.

Portal to Portal

Leave:	<u>1:30pm</u>	<u>Expenses</u>	
Return:	<u>2:15pm</u>	Mileage:	<u>10</u>
TOTAL:	<u>0.75 hrs</u>	Density Gauge:	<u>NA</u>
		Other:	<u> </u>

Signed: Michael J. Walsh

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/5/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330
Phone:(207) 621-8334 Fax:(207) 626-9094

GRAIN SIZE ANALYSIS - ASTM D422

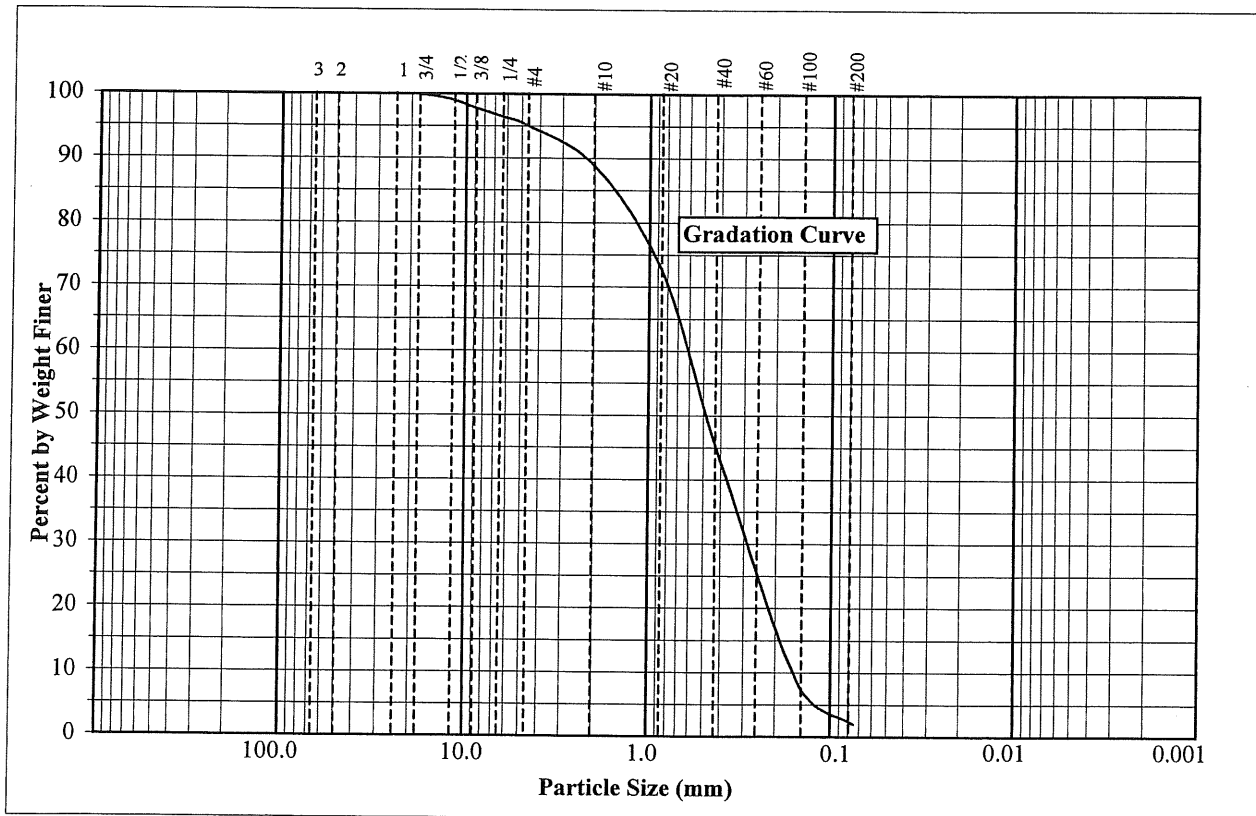


PROJECT NAME: Asia West Addition
CLIENT: Asia West
SOIL DESCRIP: Screened Sand
INTENDED USE: Foundation Backfill

PROJ #: 4897
SAMPLE: S1
DATE: 2/27/07
SOURCE: Durgin Pit - Gray
TECH: H. Gallin

DATA

<u>PARTICLE SIZE mm</u>	<u>% BY WT FINER</u>
76.20 (3 in)	100.0
50.80 (2 in)	100.0
38.10 (1-1/2 in)	100.0
25.40 (1 in)	100.0
19.05 (3/4 in)	100.0
12.70 (1/2 in)	99.2
9.53 (3/8 in)	98.1
6.35 (1/4 in)	96.4
4.75 (No. 4)	95.2
2.00 (No. 10)	88.8
0.85 (No. 20)	72.3
0.43 (No. 40)	45.1
0.15 (No. 100)	8.2
0.08 (No. 200)	2.0



REMARKS:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/1/07

Project:	Asia West Addition	Project Number:	4897
Client:	Asia West	Sample Number:	S1
Intended Use:	Foundation Backfill	Source:	Durgin Pit - Gray
Date:	02/27/07	Soil Description:	Screened Sand
		Technician:	H. Gallin

Water Content

A. Weight of wet soil & tare:	2010.6	D. Weight of tare:	475.6
B. Weight of dry soil & tare:	1953.1	E. Weight of dry soil: (B-D)	1477.5
C. Weight of water (A-B):	57.5	F. Water Content [(C/E) x 100]	3.9

Grain Size Analysis

	Total Sample + Tare	Tare Weight	Sample Weight
Total Sample Weight:	1953.1	475.6	A 1477.5
Split the Sample on #10 sieve: Plus #10=	541.1	365.2	B 175.9
Minus #10 Material: (A-B)			C 1301.6

Obtain Partial Sample of the minus #10 approx. 125 grams	397.60	256.70	D 140.90
Weight of washed +#200 material oven dried	395.60	256.70	E 138.90
Weight of washed -#200 material (D-E)			F 2.0

Project Specification

Tare Number:	Cumulative Weight Retained (G)	% Retained Total Sample (G / A)	% Finer Total Sample (100 - % Retained)	Project Specification
3 Inch	0.0	0.0	100.0	
2 Inch	0.0	0.0	100.0	
1-1/2 Inch	0.0	0.0	100.0	
1 Inch	0.0	0.0	100.0	
3/4 Inch	0.0	0.0	100.0	
1/2 Inch	11.1	0.8	99.2	
3/8 Inch	28.1	1.9	98.1	
1/4 Inch	52.7	3.6	96.4	
No. 4	71.1	4.8	95.2	
No. 10	165.5	11.2	88.8	
Pan	175.8	I ↑	J ↑	
Remarks				

Tare Number	Cumulative Weight Retained (H)	% Retained Total { I+[H (J / D)] }	% Finer Tot. Sample (100 - % Retained)	Project Specification
No. 20	26.10	27.7	72.3	
No. 40	69.40	54.9	45.1	
No.100	127.90	91.8	8.2	
No. 200	137.80	98.0	2.0	
Pan	138.90			
Minus #200 Wash	2.00			
Total minus #200	140.90	100.0	0.0	
Remarks				



DAILY FIELD REPORT

Date: 3/12/07
Project: Asia West Addition
Project #: 4897
Site Contacts: Trevor Thaxter - The Thaxter Co.
Purpose of Visit: Concrete inspection.

Work Activities: Inspected concrete from 2 trucks for elevator and stairwell walls. Cast one set (#2) of four concrete test cylinders from truck #47, ticket #094620, and placed them in the heated building for retrieval at a later date. Concrete was supplied by P & K Products, and was a 3/4 stone mix containing 1% Polarsset with a design strength of 3500 PSI. Concrete was placed by a labor force of Rhodes Concrete.

Test Results: Volume: 16-1/4 cu yds
Slump: 6" - 6-3/4"
Air: 3.5% - 3.8%
Concr temp: 54 - 56 deg F
Air temp: 52 deg F

Portal to Portal

Leave:	<u>6:30 & 2:30</u>	<u>Expenses</u>	
Return:	<u>9:00 & 6:00</u>	Mileage:	<u>11</u>
TOTAL:	<u>6 hrs</u>	Density Gauge:	<u> </u>
		Other:	<u>4 cyls</u>

Signed: Hap Gallin

cc:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/8/07

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone:(207) 621-8334 Fax:(207) 626-9094



MOISTURE DENSITY TEST - ASTM D1557

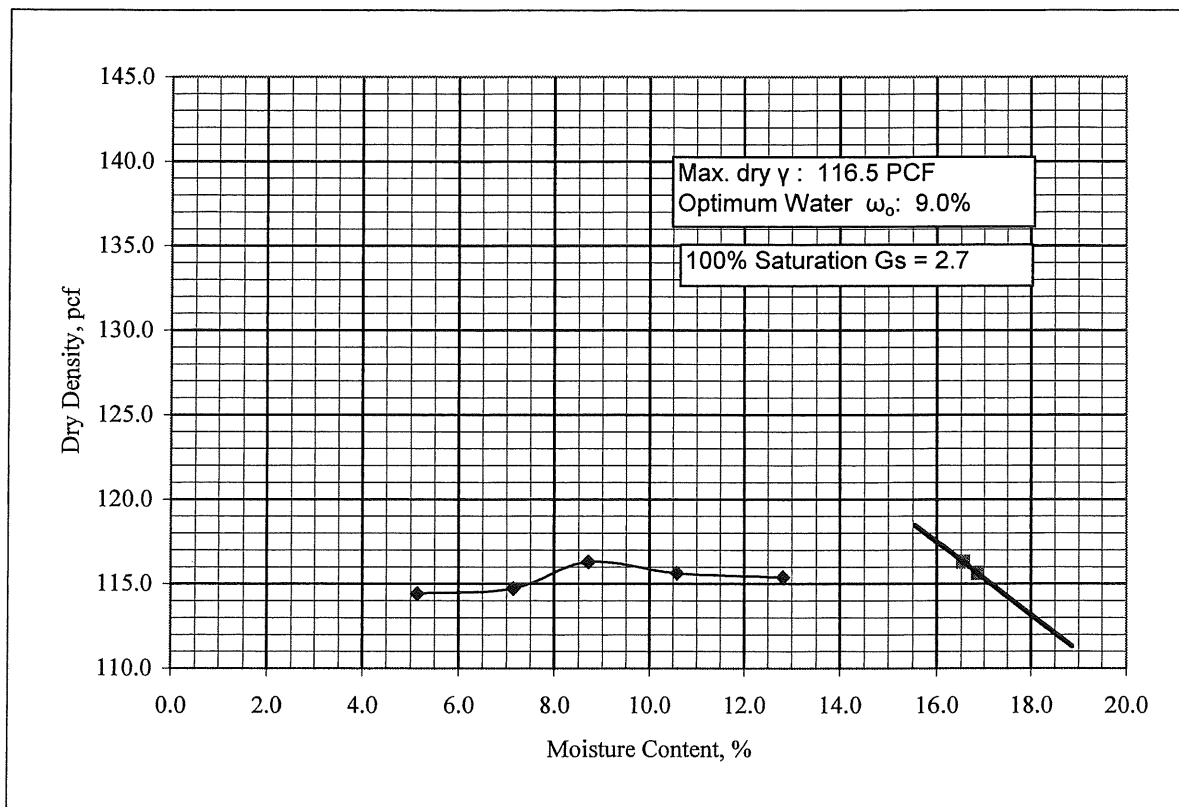
PROJECT NAME: Asia West Addition
CLIENT: Asia West
SOIL DESCRIPTION: Screened Sand
INTENDED USE: Foundation Backfill

PROJECT #: 4897
SAMPLE #: S1
DATE: 2/27/07
SOURCE: Durgin Pit - Gray
TECH.: H. Gallin

DATA

Method: A
Max. Particle Size (in): 4
Oversize Correction (%): 4.81

<u>Moisture Content %</u>	<u>Dry Density, pcf</u>
5.1	114.4
7.1	114.7
8.7	116.3
10.6	115.6
12.8	115.4



Remarks:

SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330
Phone:(207) 621-8334 Fax:(207) 626-9094



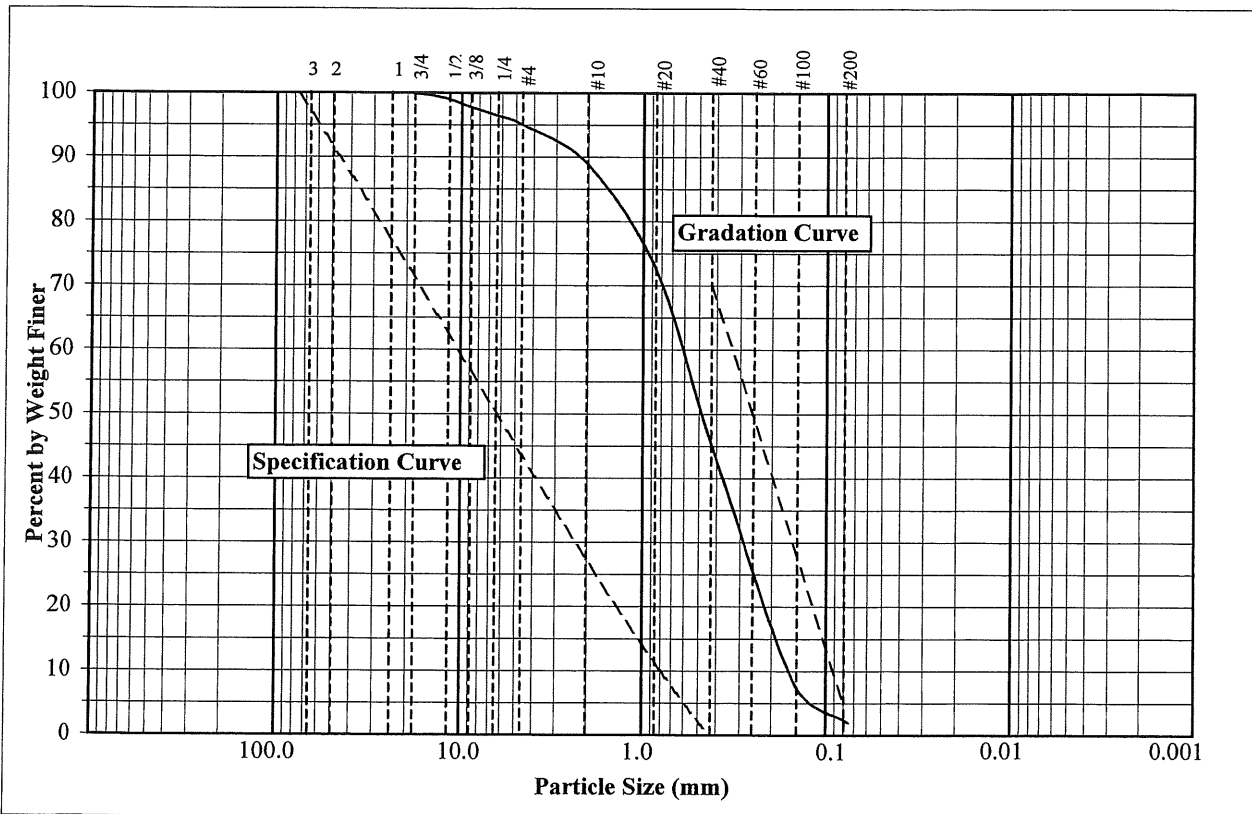
GRAIN SIZE ANALYSIS - ASTM D422

PROJECT NAME: Asia West Addition
CLIENT: Asia West
SOIL DESCRIP: Screened Sand
INTENDED USE: Foundation Backfill

PROJ #: 4897
SAMPLE: S1
DATE: 2/27/07
SOURCE: Durgin Pit - Gray
TECH: H. Gallin

DATA

<u>PARTICLE SIZE mm</u>	<u>% BY WT FINER</u>	<u>SPECIFICATION</u>
76.20 (3 in)	100.0	100
50.80 (2 in)	100.0	
38.10 (1-1/2 in)	100.0	
25.40 (1 in)	100.0	
19.05 (3/4 in)	100.0	
12.70 (1/2 in)	99.2	
9.53 (3/8 in)	98.1	
6.35 (1/4 in)	96.4	
4.75 (No. 4)	95.2	
2.00 (No. 10)	88.8	
0.85 (No. 20)	72.3	
0.43 (No. 40)	45.1	0-70
0.15 (No. 100)	8.2	
0.08 (No. 200)	2.0	0-5



SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330

Phone:(207) 621-8334 Fax:(207) 626-9094



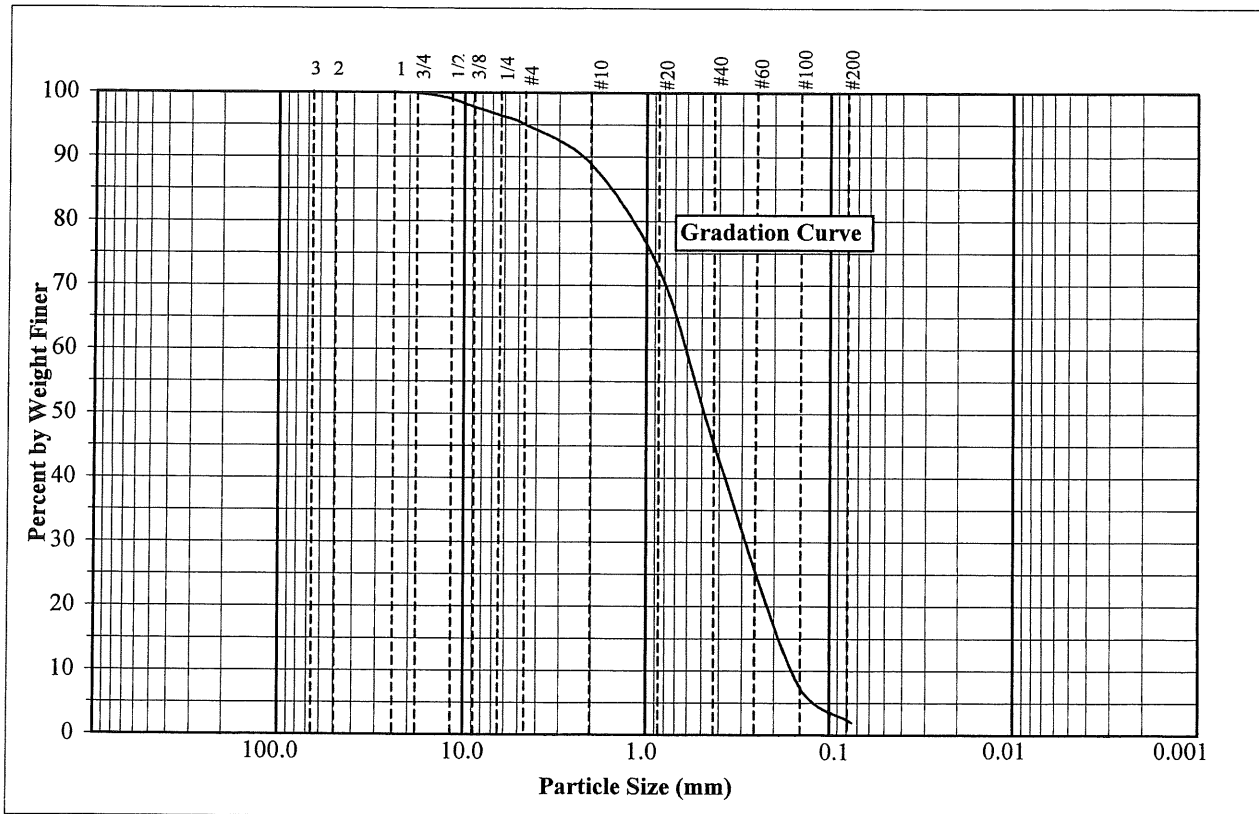
GRAIN SIZE ANALYSIS - ASTM D422

PROJECT NAME: Asia West Addition
CLIENT: Asia West
SOIL DESCRIP: Screened Sand
INTENDED USE: Foundation Backfill

PROJ #: 4897
SAMPLE: S1
DATE: 2/27/07
SOURCE: Durgin Pit - Gray
TECH: H. Gallin

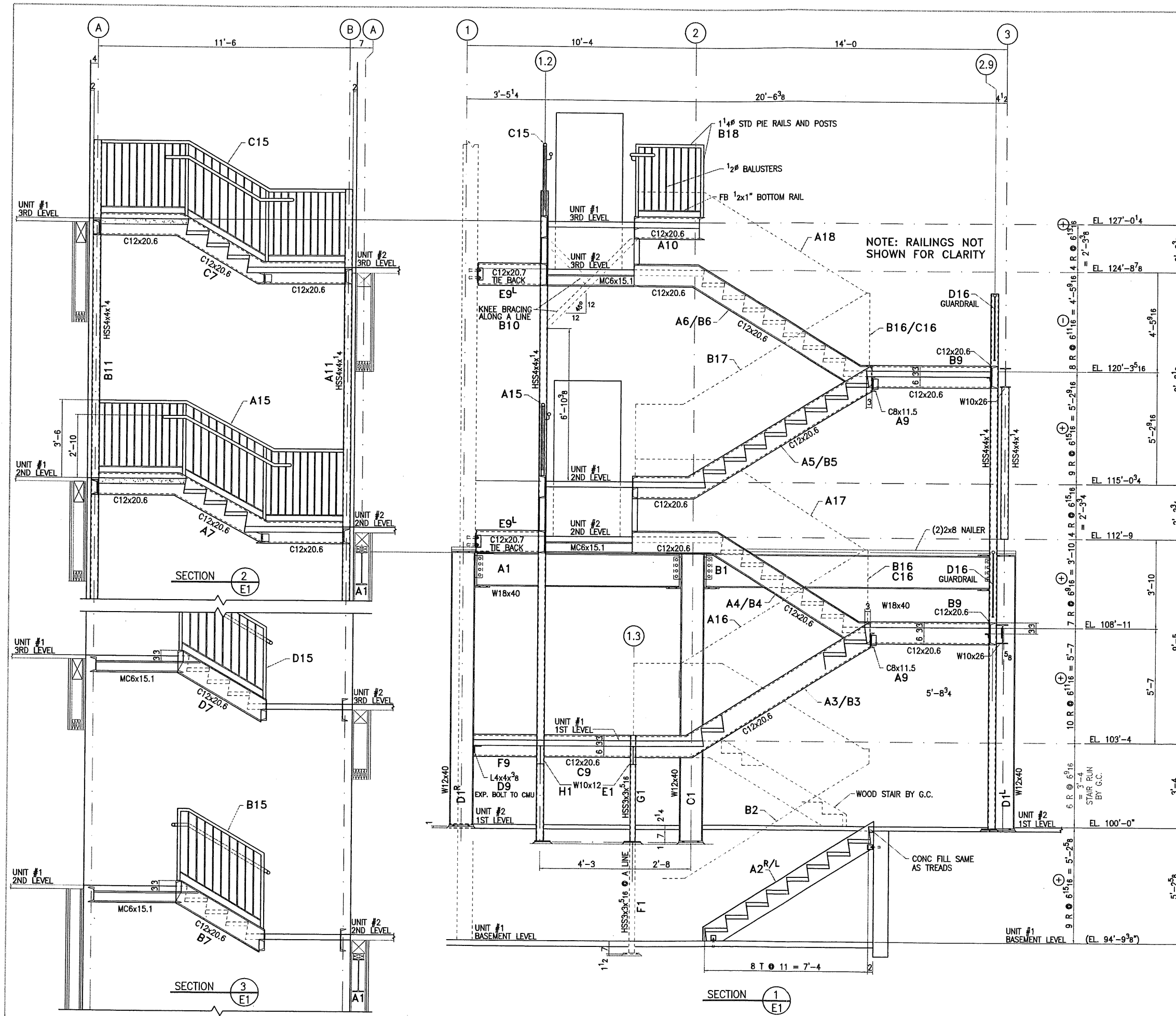
DATA

<u>PARTICLE SIZE mm</u>	<u>% BY WT FINER</u>
76.20 (3 in)	100.0
50.80 (2 in)	100.0
38.10 (1-1/2 in)	100.0
25.40 (1 in)	100.0
19.05 (3/4 in)	100.0
12.70 (1/2 in)	99.2
9.53 (3/8 in)	98.1
6.35 (1/4 in)	96.4
4.75 (No. 4)	95.2
2.00 (No. 10)	88.8
0.85 (No. 20)	72.3
0.43 (No. 40)	45.1
0.15 (No. 100)	8.2
0.08 (No. 200)	2.0

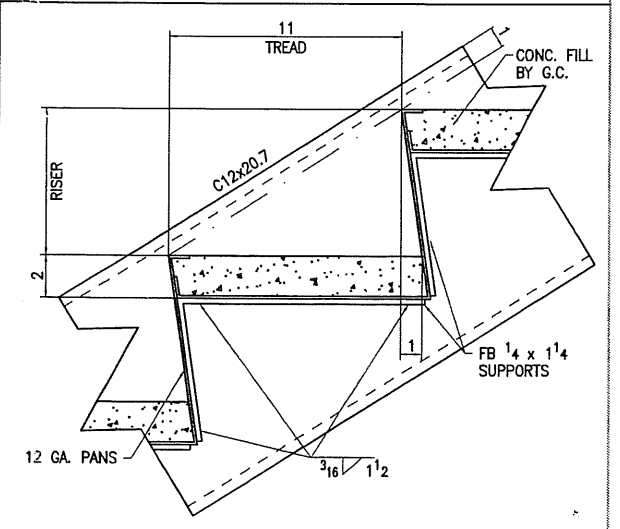


REMARKS:

Reviewed: Darrell A. Gilman, CMT Manager
Sent: 3/1/07



NOTE: RAILINGS NOT SHOWN FOR CLARITY

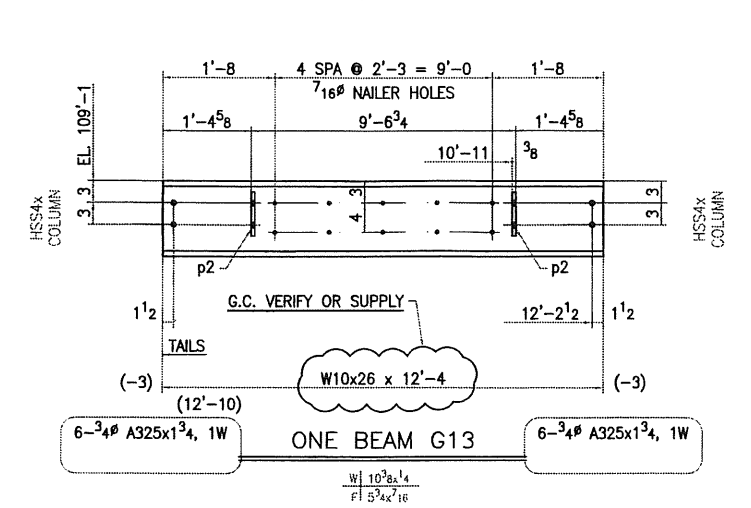
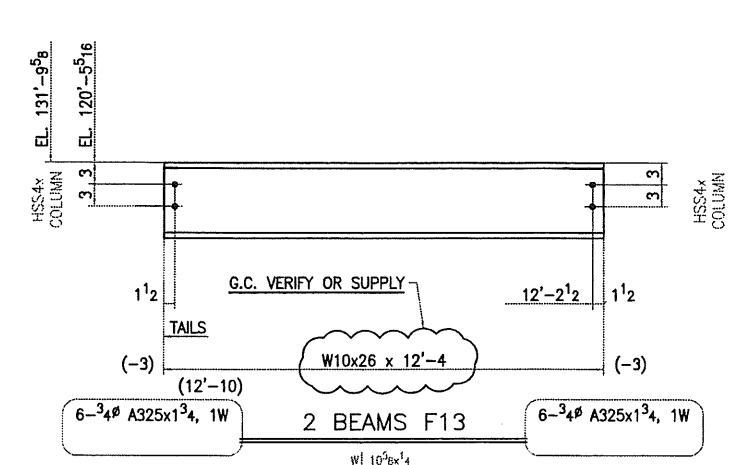
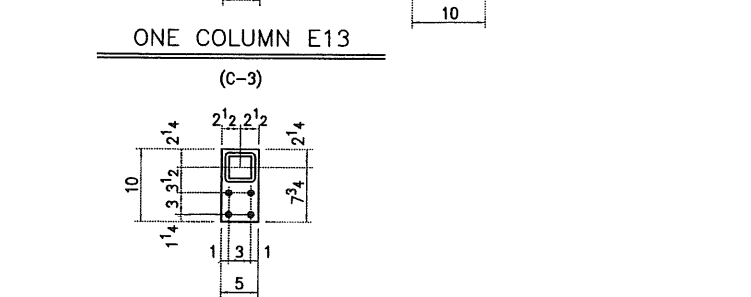
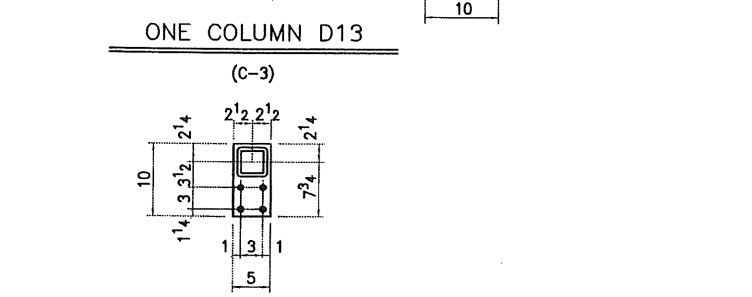
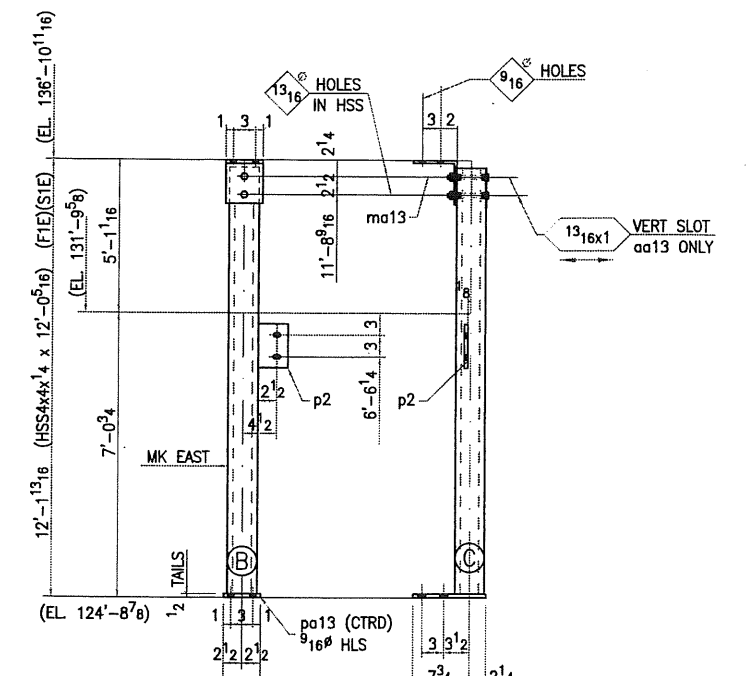
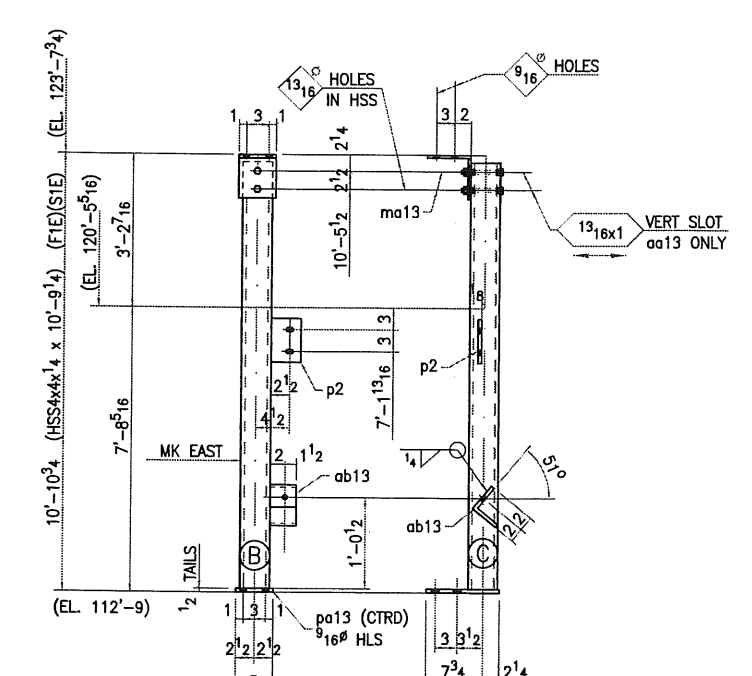
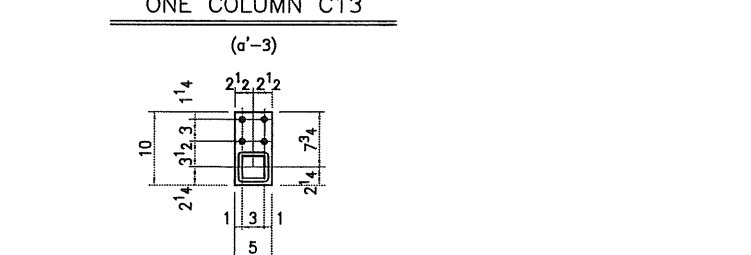
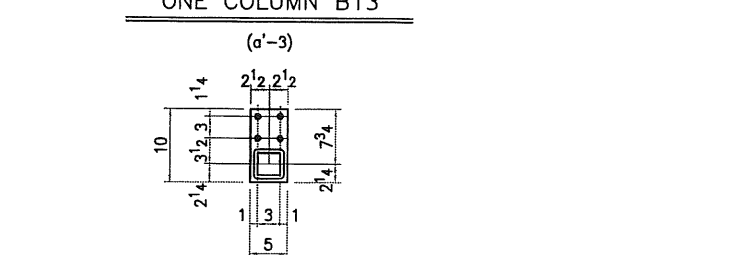
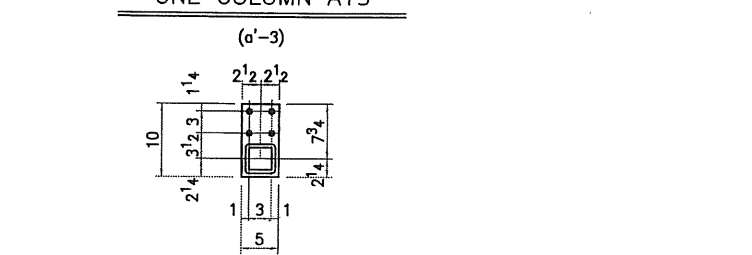
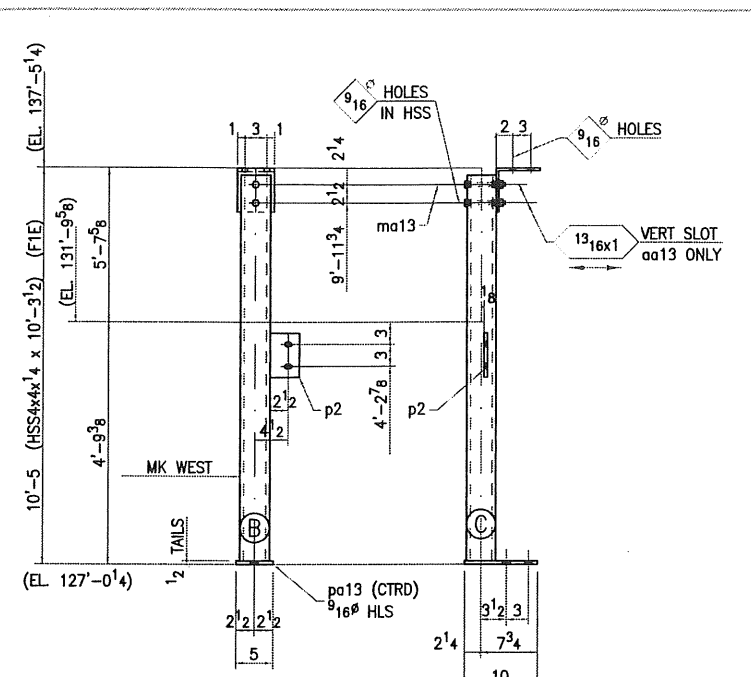
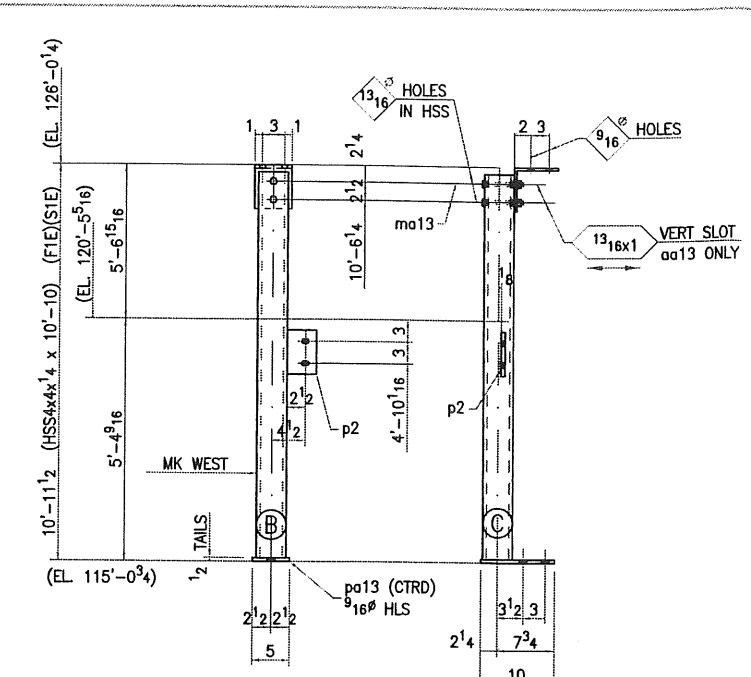
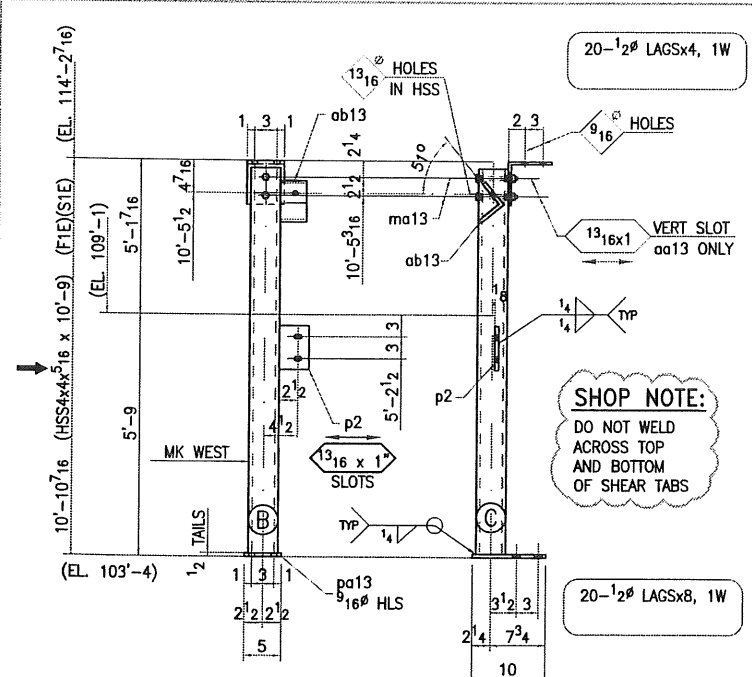


TYPICAL TREAD & RISER DETAIL

PRINT RECORD			MATERIAL: A992 GR 50	
USE	QUAN	DATE	HOLES: 13/16" UON	
○ F A	5	11-16-06	ELECTRODES: E70XX	
	e-MAIL	12-18-06	FIELD CONN: 3/4" A325N BOLTS UON	
	e-MAIL	12-28-06	SURFACE PREP: SSPC-SP3	
	e-MAIL	01-23-07	PAINT: ONE S/C PRIMER	
	e-MAIL	03-05-07		
	e-MAIL	04-04-07		
	e-MAIL	04-19-07		
SHOP	1	03-27-07	REF. DWGS:	

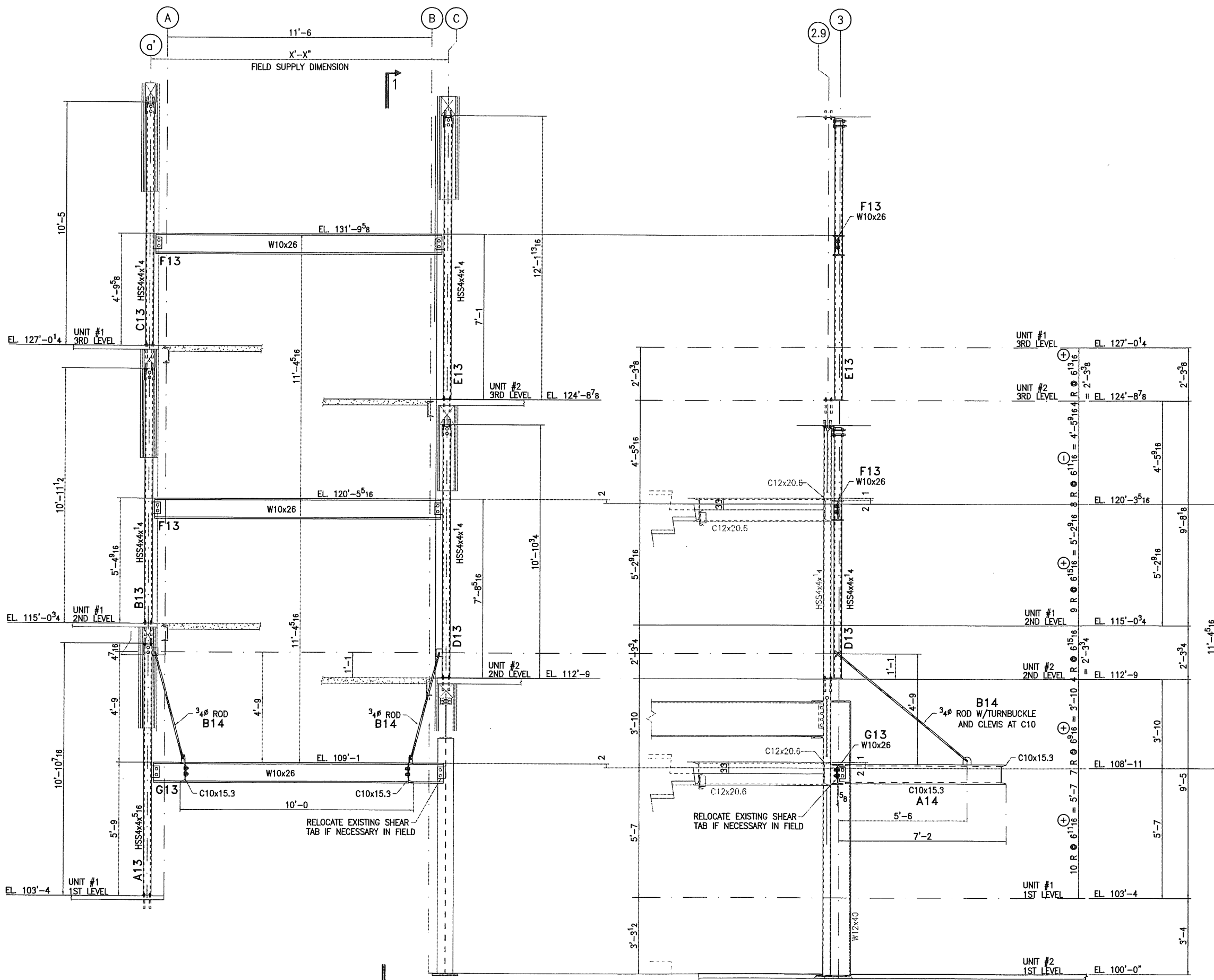
CUSTOMER: THE THAXTER CO.
 JOB: KENNEBEC STREET ADDITION - PORTLAND, ME
 DESCRIPTION: STAIR FRAMING LAYOUT
 ARCHITECT: ERIC STARK ARCHITECTURE
 ENGINEER: SHELLEY ENGINEERING, INC.

DRAWN BY	GRB 11-06-06	CHKD BY		DRAWING NUMBER	E2	REVISION NUMBER	▲
LMC LIGHT IRON, INC.						JOB NUMBER	
E RANGE ROAD - P.O. BOX 521 LIMERICK, MAINE 04048						2641	
TEL (207) 793-9957						FAX (207) 793-9919	



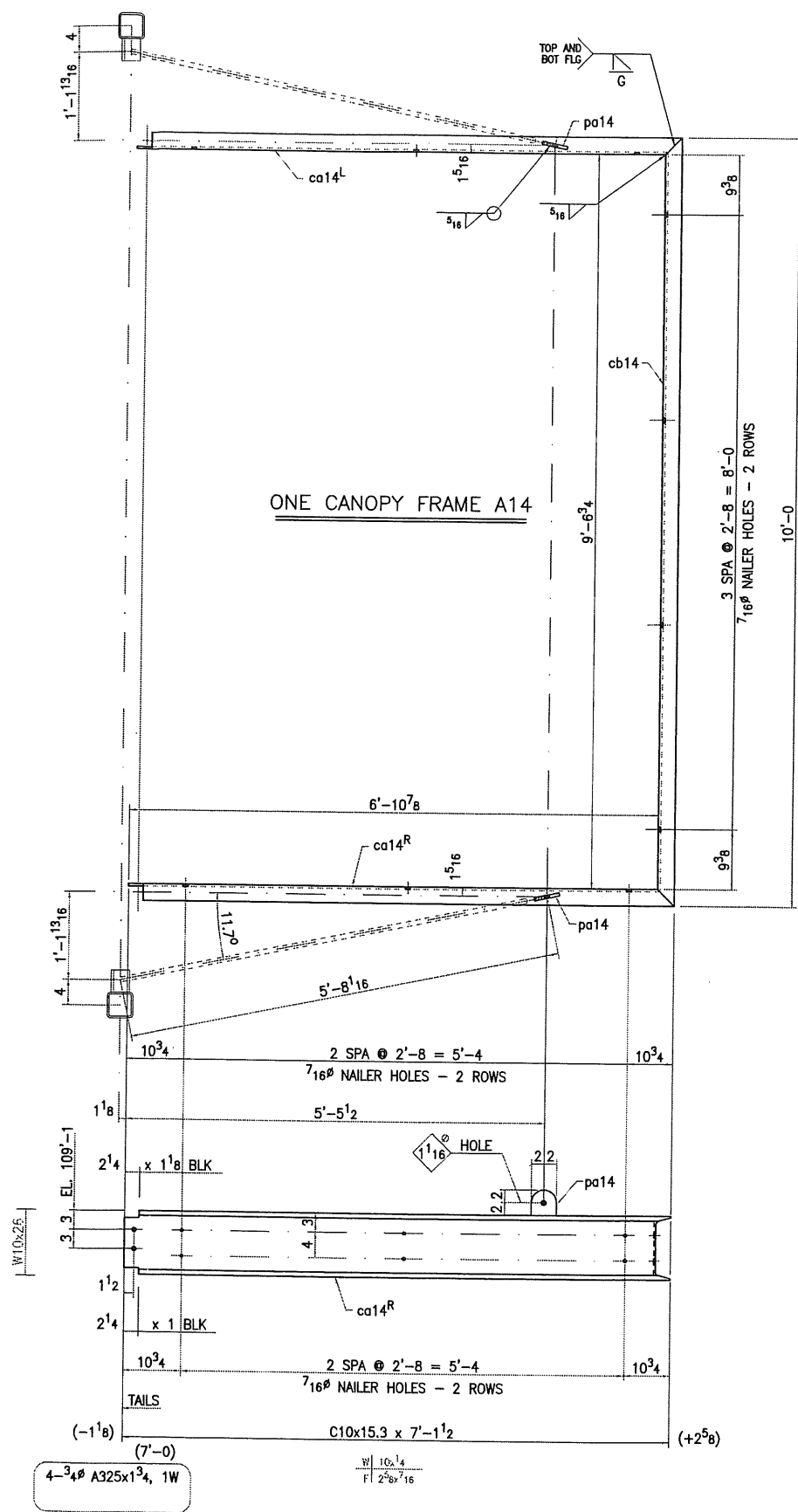
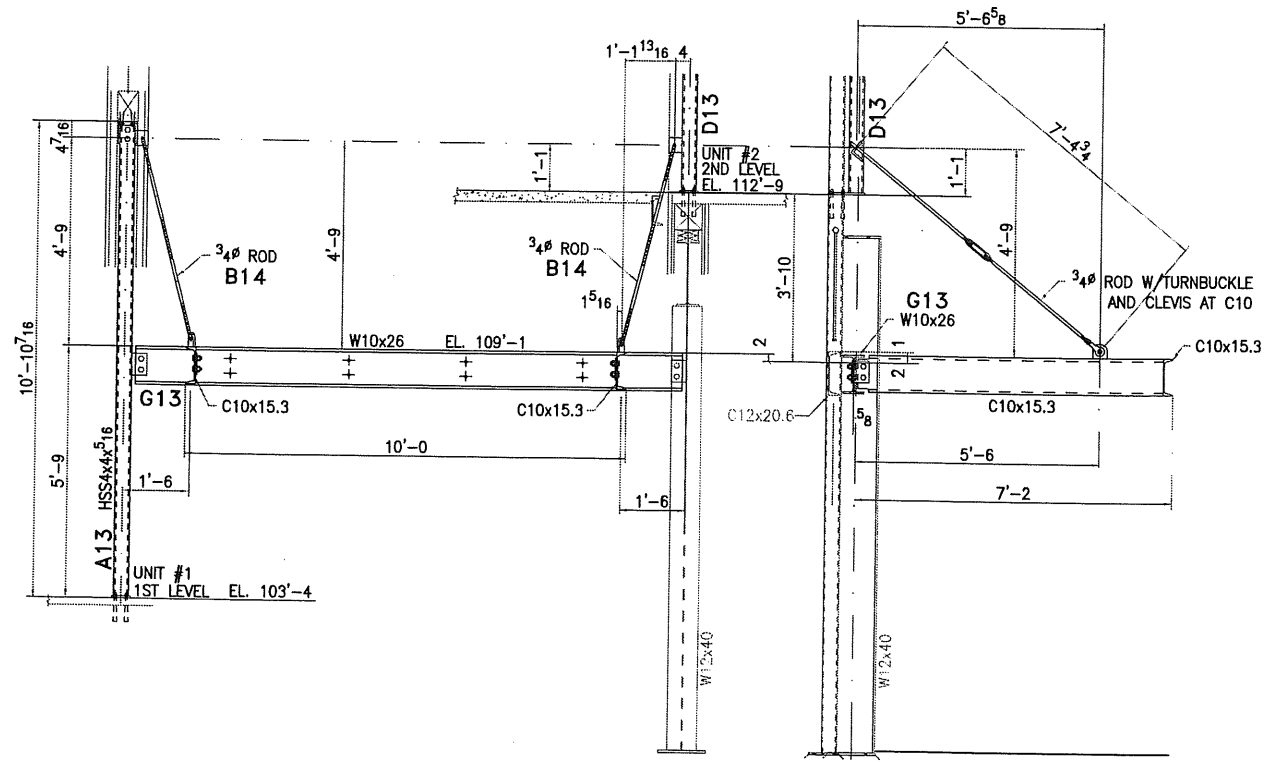
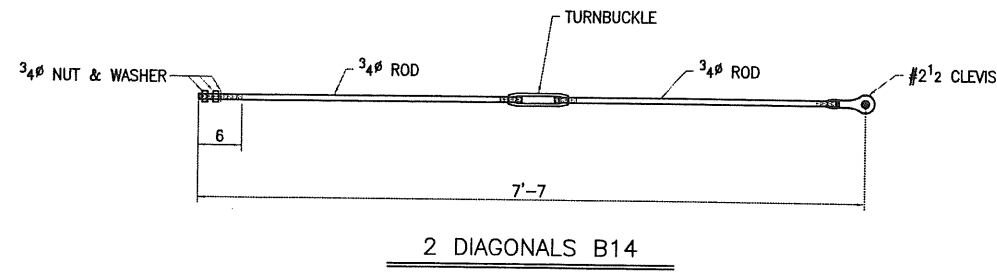
LINE	MARK	QUAN	PC MK	DESCRIPTION	FT	INCHES	WT	REMARKS
1	A13	ONE		HSS4x4x1/2 ←	10	9	159.4	(F1E)(S1E)
2		ONE	pa13	FB 1/2x5	0	10	7.1	
3		ONE	p2	FB3/8x4	0	6	2.5	
4		ONE	aa13	L6x6x3/8	0	5	6.2	
5		2	ma13	3/4 A307 BOLTS	0	6	2.3	C/W N+W
6		ONE	ab13	L4x4x1/2	0	3 1/2	3.7	
7								
8								
9	B13	ONE		HSS4x4x1/4	10	10	132.3	(F1E)(S1E)
10		ONE	pa13	FB 1/2x5	0	10	7.1	
11		ONE	p2	FB3/8x4	0	6	2.5	
12		ONE	aa13	L6x6x3/8	0	5	6.2	
13		2	ma13	3/4 A307 BOLTS	0	6	2.3	C/W N+W
14								
15								
16	C13	ONE		HSS4x4x1/4	10	3 1/2	126.7	(F1E)
17		ONE	pa13	FB 1/2x5	0	10	7.1	
18		ONE	p2	FB3/8x4	0	6	2.5	
19		ONE	aa13	L6x6x3/8	0	5	6.2	
20		2	ma13	3/4 A307 BOLTS	0	6	2.3	C/W N+W
21								
22								
23	D13	ONE		HSS4x4x1/4	10	9 1/4	131.5	(F1E)(S1E)
24		ONE	pa13	FB 1/2x5	0	10	7.1	
25		ONE	p2	FB3/8x4	0	6	2.5	
26		ONE	aa13	L6x6x3/8	0	5	6.2	
27		2	ma13	3/4 A307 BOLTS	0	6	2.3	C/W N+W
28		ONE	ab13	L4x4x1/2	0	3 1/2	3.7	
29								
30								
31	E13	ONE		HSS4x4x1/4	12	0 5/8	146.8	(F1E)(S1E)
32		ONE	pa13	FB 1/2x5	0	10	7.1	
33		ONE	p2	FB3/8x4	0	6	2.5	
34		ONE	aa13	L6x6x3/8	0	5	6.2	
35		2	ma13	3/4 A307 BOLTS	0	6	2.3	C/W N+W
36								
37								
38	F13	2		W10x26	12	4	962.0	
39								
40	G13	ONE		W10x26	12	4	962.0	
41		2	p2	FB3/8x4	0	6	5.1	
42								
43								
44								
45								
46								
47								
48								

PRINT RECORD		MATERIAL: A500 GR B[HSS] - A36[R]	
USE	QUAN	DATE	HOLES: 13/16 UON
OFA	e-MAIL	04-17-07	ELECTRODES: E70XX
		FIELD CONN: 3/4 A325N BOLTS UON	
SHOP		SURFACE PREP: SSPC-SP3	
		PAINT: ONE S/C PRIMER	
FIELD		REF. DWGS:	
CUSTOMER: THE THAXTER CO.			
JOB: KENNEBEC STREET ADDITION - PORTLAND, ME			
DESCRIPTION: CURTAIN WALL SUPPORT STEEL DETAILS			
ARCHITECT: ERIC STARK ARCHITECTURE			
ENGINEER: SHELLEY ENGINEERING, INC.			
DRAWN BY	GRB	04-12-07	CHKD BY
DRAWING NUMBER		13	REVISION NUMBER
LMC LIGHT IRON, INC.			JOB NUMBER
E RANGE ROAD - P.O. BOX 521			2641
LIMERICK, MAINE 04048			
TEL: (207) 793-9957			FAX: (207) 793-3919

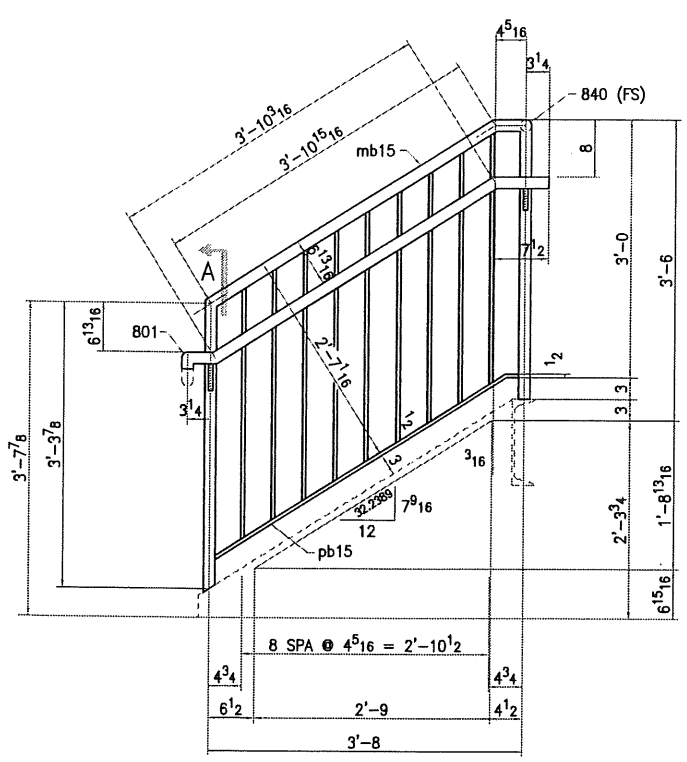


SECT. 1-1

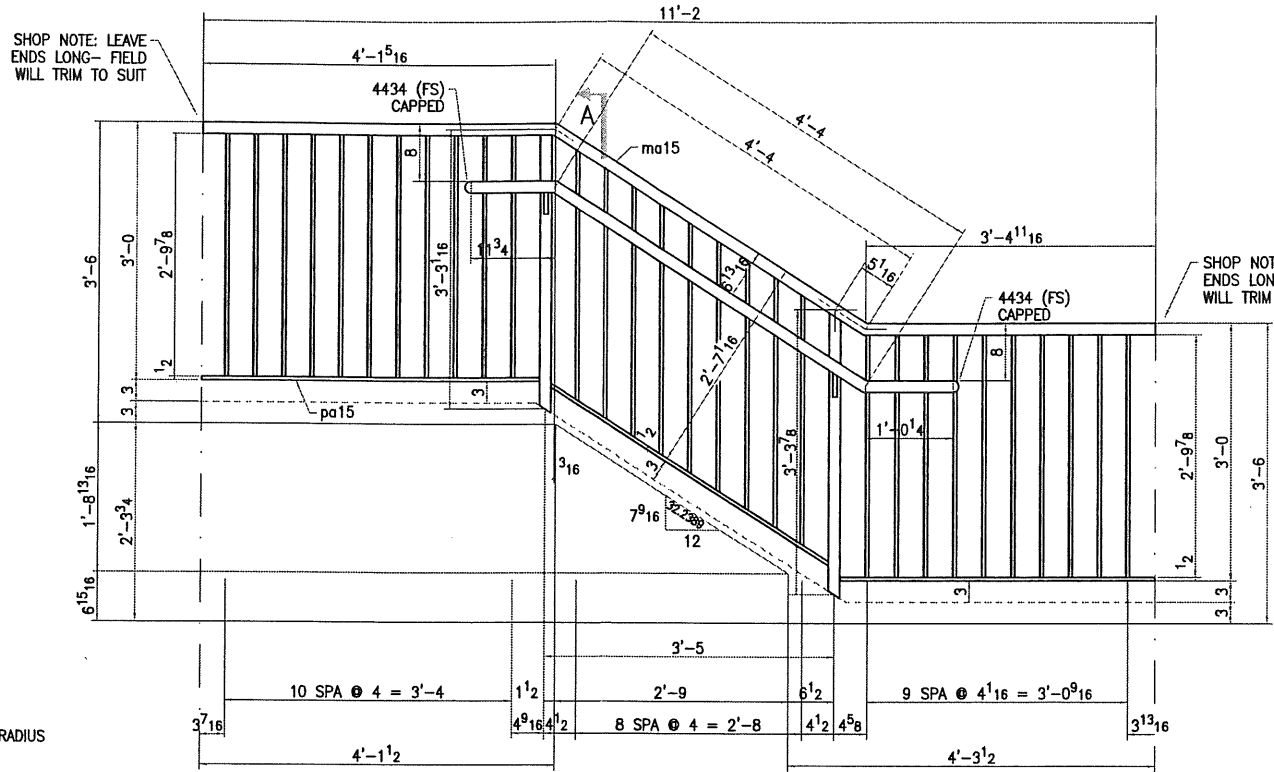
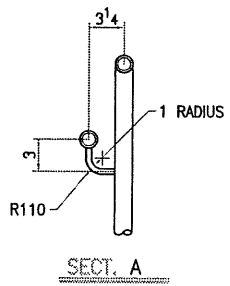
PRINT RECORD			MATERIAL: A992 GR 50 / A500 GR B	
USE	QUAN	DATE	HOLES: 1 3/16" UON	
OFA	e-MAIL	04-12-07	ELECTRODES: E70XX	
Pc MARKS	e-MAIL	04-17-07	FIELD CONN: 3/4" A325N BOLTS UON	
SHOP			SURFACE PREP: SSPC-SP3	
			PAINT: ONE S/C PRIMER	
FIELD			REF. DWGS:	
CUSTOMER: THE THAXTER CO.				
JOB: KENNEBEC STREET ADDITION - PORTLAND, ME				
DESCRIPTION: CANOPY AND CURTAIN WALL SUPPORT LAYOUT				
ARCHITECT: ERIC STARK ARCHITECTURE				
ENGINEER: SHELLEY ENGINEERING, INC.				
DRAWN BY	GRB	04-12-07	CHKD BY	
DRAWING NUMBER		E4		REVISION NUMBER
LMC LIGHT IRON, INC.				JOB NUMBER
E RANGE ROAD - P.O. BOX 521 LIMERICK, MAINE 04048				2641
TEL: (207) 793-9957				FAX: (207) 793-9919



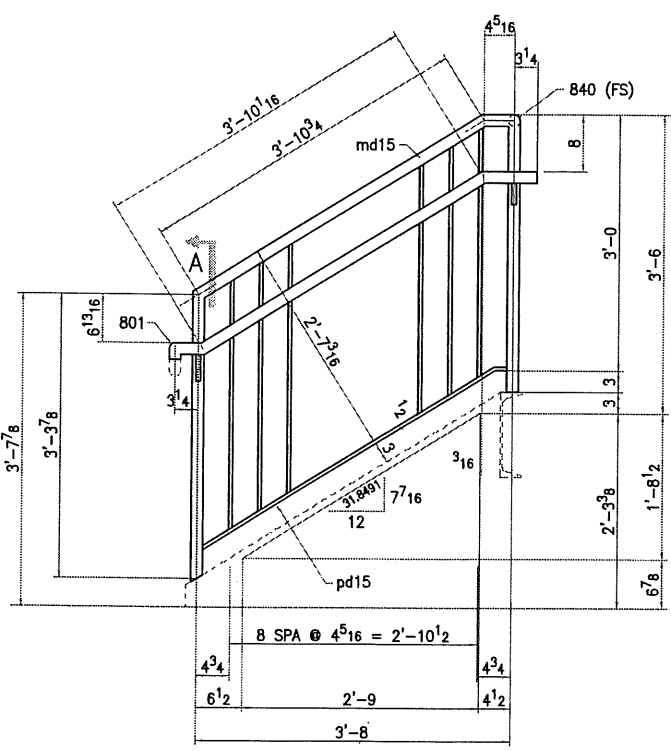
SHIP		BILL OF MATERIAL					
LINE	MARK	QUAN	PC MK	DESCRIPTION	FT INCHES	WT	REMARKS
1							
2							
3	A14	ONE		CANOPY FRAME			
4		2	ca14 ^{R/L}	C10x15.3	7 1 1/2	218.0	MITER ONE END
5		ONE	cb14	C10x15.3	10 0	153.0	MITER BOTH ENDS
6		2	pa14	R 1x4	0 4	4.5	SHAPE
7							
8							
9							
10							
11							
12	B14	2		DIAGONALS	7 7		
13		2	ma14	3/4" ROD	3 3	9.8	
14		2	mb14	3/4" ROD	3 8	11.0	
15		4		3/4" A325 NUTS			
16		2	mc14	#2 1/2 CLEVIS			1" PIN
17		2	md14	TURNBUCKLE	0 8 1/8		
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
PRINT RECORD		MATERIAL: A992 GR 50[C] - A36[BAR]					
USE	QUAN	DATE	HOLES: 7/16" UON				
OFA	e-MAIL	04-17-07	ELECTRODES: E70XX				
			FIELD CONN: 3/4" A325N BOLTS UON				
SHOP			SURFACE PREP: SSPC-SP3				
			PAINT: ONE S/C PRIMER				
FIELD			REF. DWGS:				
CUSTOMER: THE THAXTER CO.							
JOB: KENNEBEC STREET ADDITION - PORTLAND, ME							
DESCRIPTION: CANOPY DETAILS							
ARCHITECT: ERIC STARK ARCHITECTURE							
ENGINEER: SHELLEY ENGINEERING, INC.							
DRAWN BY	GRB	04-13-07	CHKD BY	DRAWING NUMBER	14	REVISION NUMBER	
LMC LIGHT IRON, INC.					JOB NUMBER		
E RANGE ROAD P.O. BOX 521					2641		
LIMERICK, MAINE 04048					TEL: (207) 793-9957 FAX: (207) 793-3919		



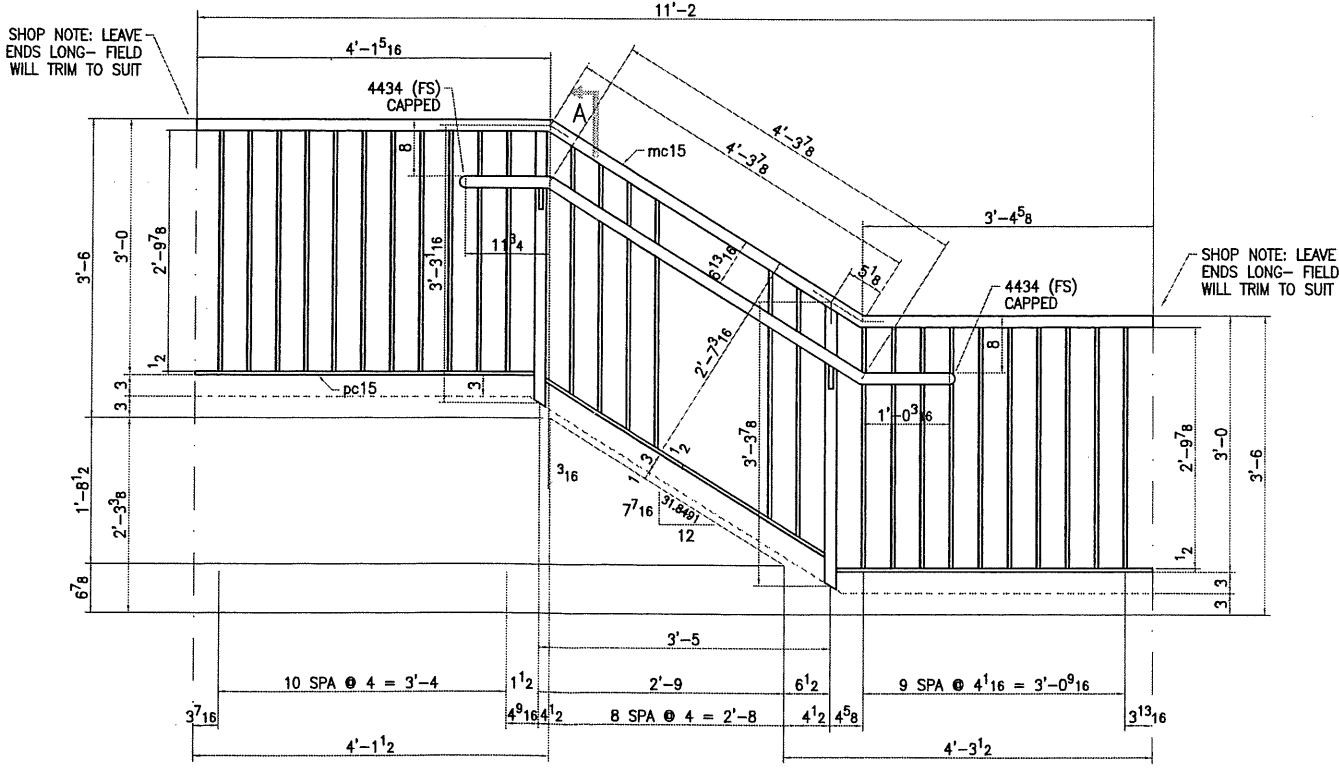
1 1/4" STD PIPE x 17'-0" (mb15)
 FB 1x2 x 11'-0" (pb15)
 PICKETS - 1/2" ROD x 28'-0" (bb15)
ONE HANDRAIL B15



1 1/4" STD PIPE x 25'-0" (ma15)
 FB 1x2 x 12'-0" (pa15)
 PICKETS - 1/2" ROD x 79'-0" (ba15)
ONE HANDRAIL A15



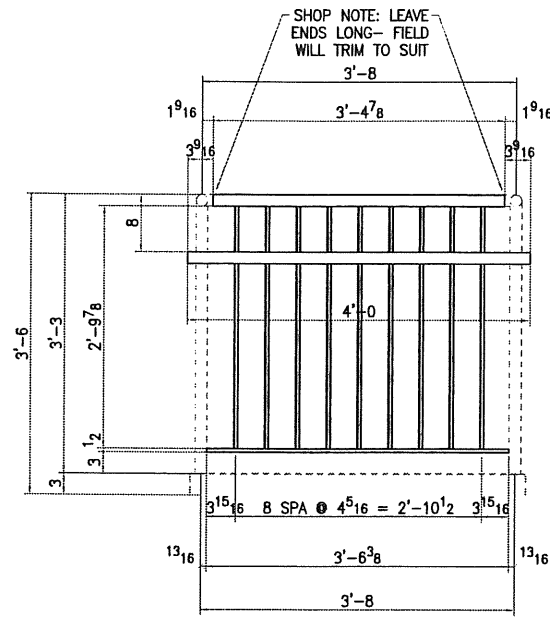
1 1/4" STD PIPE x 17'-0" (md15)
 FB 1x2 x 11'-0" (pd15)
 PICKETS - 1/2" ROD x 28'-0" (bd15)
ONE HANDRAIL D15



1 1/4" STD PIPE x 26'-0" (mc15)
 FB 1x2 x 12'-0" (pc15)
 PICKETS - 1/2" ROD x 79'-0" (bc15)
ONE HANDRAIL C15

SHIP		BILL OF MATERIAL					
LINE	MARK	QUAN	PC MK	DESCRIPTION	FT INCHES	WT	REMARKS
1							
2	A15	ONE		HANDRAIL			
3		ONE	ma15	1 1/4" STD PIPE	26 0	59.0	LIN/FT
4		ONE	pa15	FB 1x2x1	12 0	20.4	LIN/FT
5		2	R110	1/2" ROD	0 6	0.7	
6		ONE	ba15	1/2" ROD	79 0	52.7	LIN/FT
7				TOTAL WEIGHT:		132.8	
8							
9							
10	B15	ONE		HANDRAIL			
11		ONE	mb15	1 1/4" STD PIPE	17 0	38.6	LIN/FT
12		ONE	pb15	FB 1x2x1	11 0	18.7	LIN/FT
13		2	R110	1/2" ROD	0 6	0.7	
14		ONE	bb15	1/2" ROD	28 0	18.7	LIN/FT
15		ONE	840	1 1/4 WAG ELL 90°			1/8" RADIUS W/SO
16		ONE	801	1 1/4 WAG ELL 90°			1/8" RADIUS
17				TOTAL WEIGHT:		76.7	
18							
19							
20	C15	ONE		HANDRAIL			
21		ONE	mc15	1 1/4" STD PIPE	26 0	59.0	LIN/FT
22		ONE	pc15	FB 1x2x1	12 0	20.4	LIN/FT
23		2	R110	1/2" ROD	0 6	0.7	
24		ONE	bc15	1/2" ROD	79 0	52.7	LIN/FT
25				TOTAL WEIGHT:		132.8	
26							
27							
28	D15	ONE		HANDRAIL			
29		ONE	md15	1 1/4" STD PIPE	17 0	38.6	LIN/FT
30		ONE	pd15	FB 1x2x1	11 0	18.7	LIN/FT
31		2	R110	1/2" ROD	0 6	0.7	
32		ONE	bd15	1/2" ROD	28 0	18.7	LIN/FT
33		ONE	840	1 1/4 WAG ELL 90°			1/8" RADIUS W/SO
34		ONE	801	1 1/4 WAG ELL 90°			1/8" RADIUS
35				TOTAL WEIGHT:		76.7	
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							

PRINT RECORD		MATERIAL: A53[PIPE] - A36[BAR]	
USE	QUAN	DATE	HOLES: 7/16" UON
OFA	e-MAIL	04-19-07	ELECTRODES: E70XX
			FIELD CONN: 3/8" LAG SCREWS UON
SHOP	1	04-18-07	SURFACE PREP: SSPC-SP3
			PAINT: ONE S/C PRIMER
FIELD			REF. DWGS:
CUSTOMER: THE THAXTER CO.			
JOB: KENNEBEC STREET ADDITION - PORTLAND, ME			
DESCRIPTION: STAIR RAIL DETAILS			
ARCHITECT: ERIC STARK ARCHITECTURE			
ENGINEER: SHELLEY ENGINEERING, INC.			
DRAWN BY	GRB	04-13-07	CHKD BY
			DRAWING NUMBER
			15
			REVISION NUMBER
			JOB NUMBER
			2641
LMC LIGHT IRON, INC. E RANGE ROAD - P.O. BOX 521 LIMERICK, MAINE 04048 TEL: (207) 793-9857 FAX: (207) 793-3919			

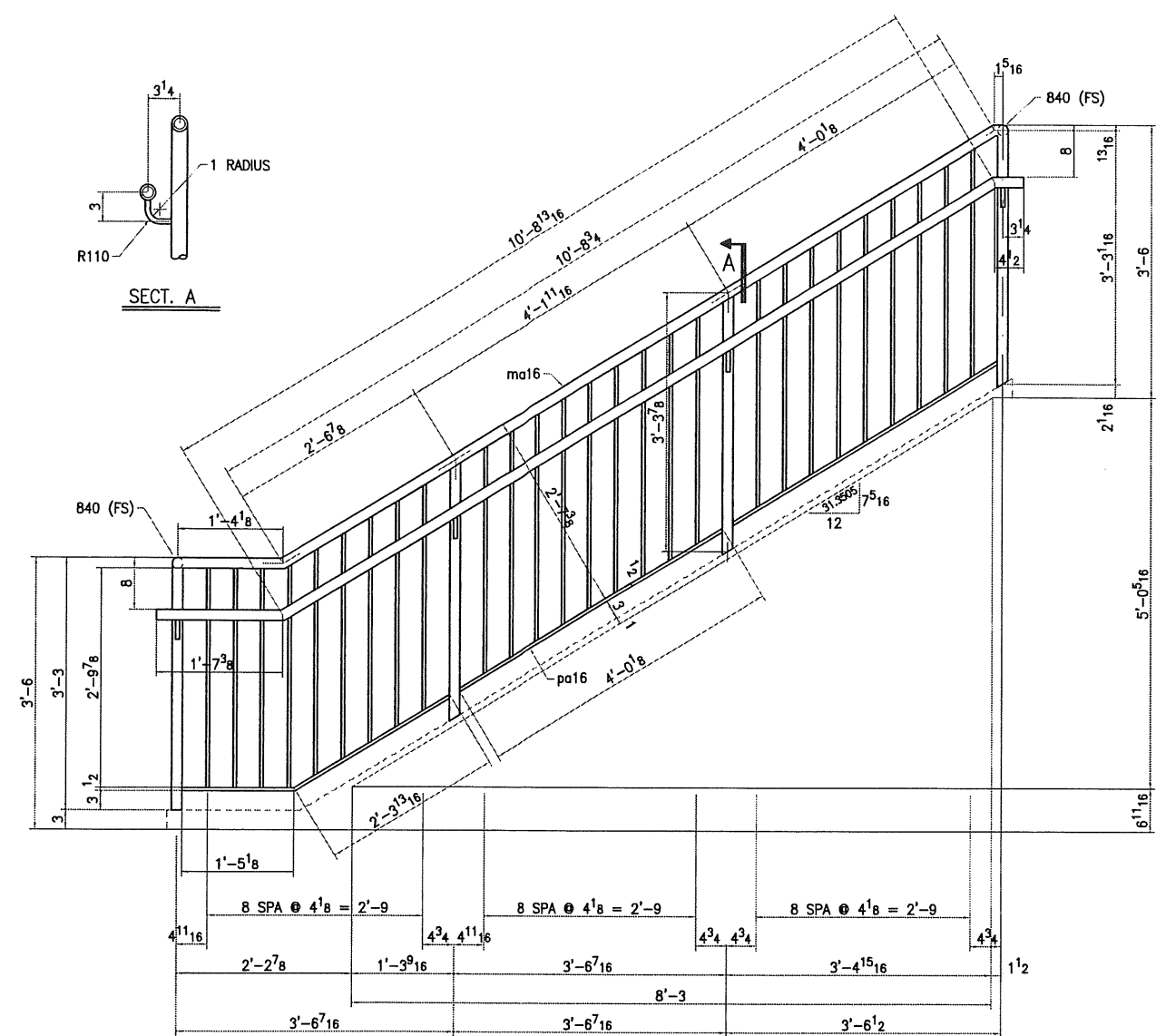
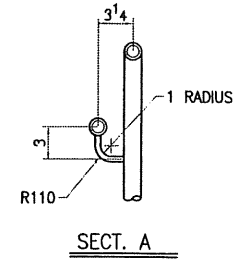


1¹/₄" STD PIPE x 3'-4⁷/₈ (mb16)
 FB 1²x1 x 19'-0 (pb16)
 PICKETS - 1²" ROD x 29'-0 (bb16)

2 GUARDRAILS B16

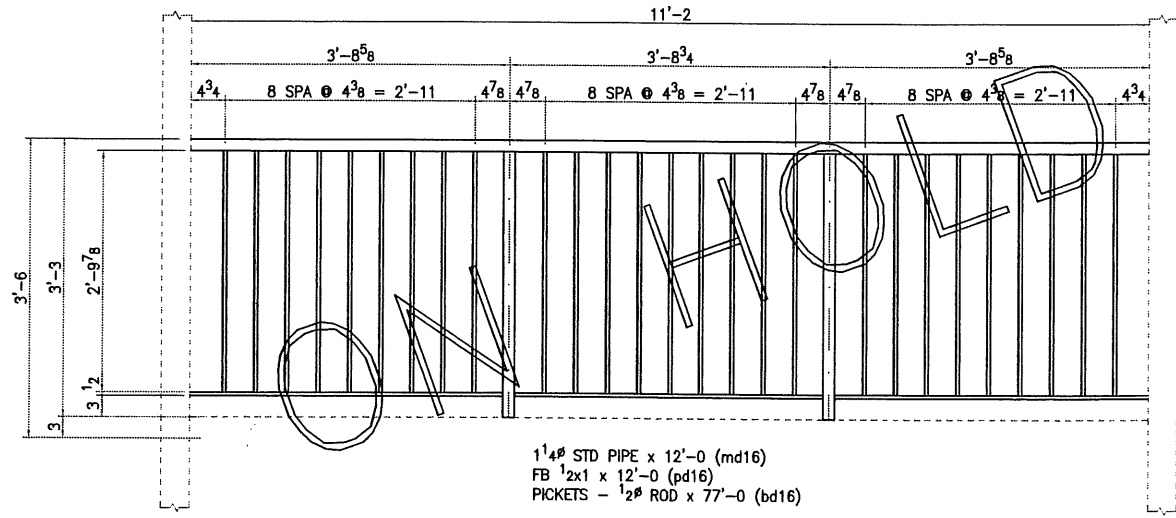
2 GRABRAILS C16

1¹/₄" STD PIPE x 4'-2¹/₂ (mc16)



1¹/₄" STD PIPE x 39'-0 (ma16)
 FB 1²x1 x 19'-0 (pa16)
 PICKETS - 1²" ROD x 97'-0 (ba16)

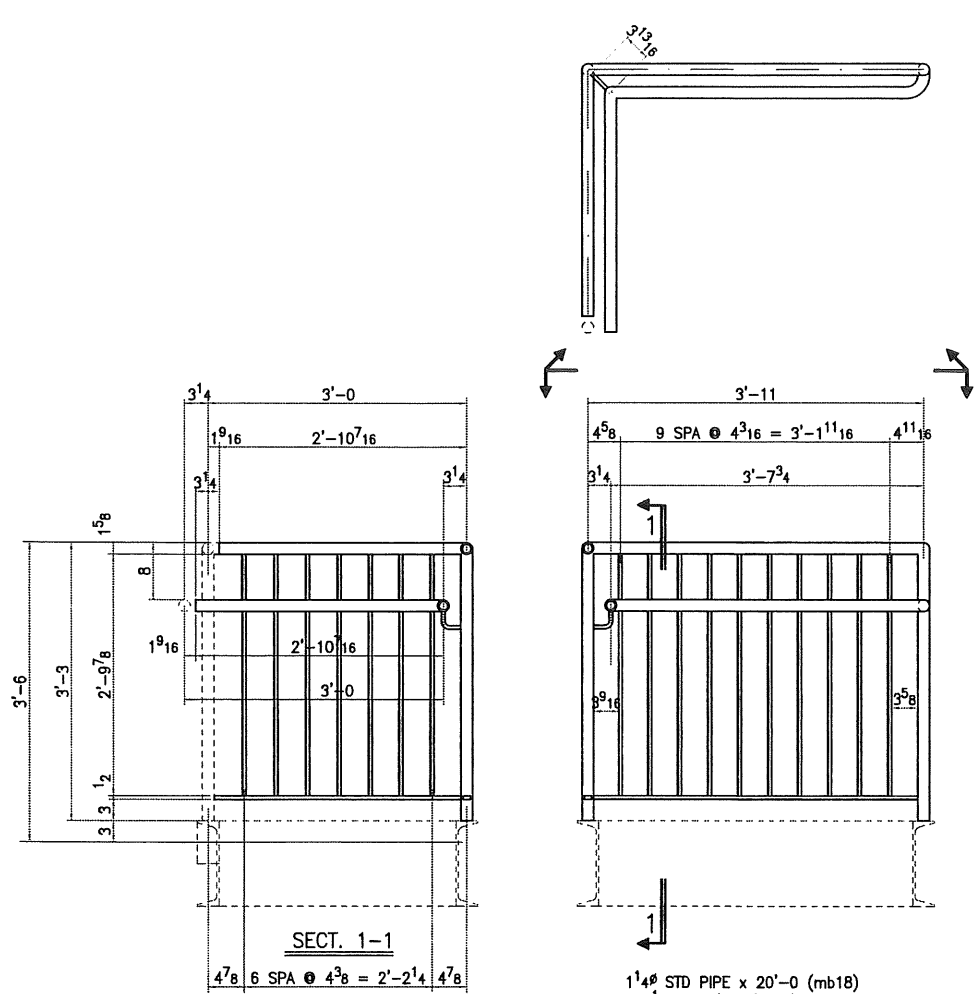
ONE HANDRAIL A16



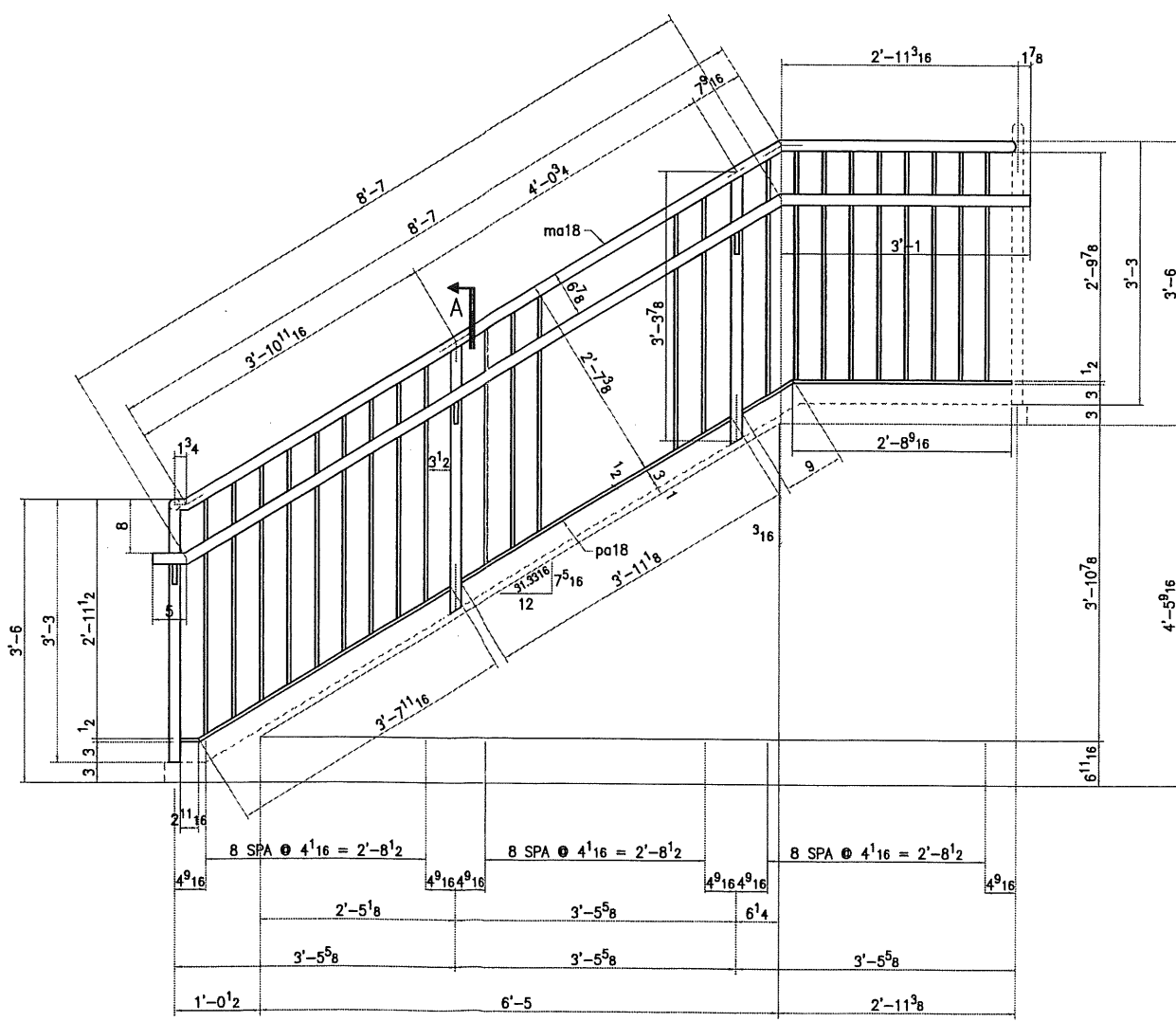
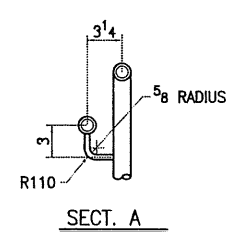
2 GUARDRAILS D16

LINE	SHIP						BILL OF MATERIAL			
	MARK	QUAN	PC MK	DESCRIPTION	FT	INCHES	WT	REMARKS		
1										
2	A16	ONE		HANDRAIL						
3		ONE	ma16	1 ¹ / ₄ " STD PIPE	39	0	88.5	LIN/FT		
4		ONE	pa16	FB 1 ² x1	19	0	32.3	LIN/FT		
5		4	R110	1 ² " ROD	0	6	1.3	BENT 90°		
6		ONE	ba16	1 ² " ROD	97	0	64.8	LIN/FT		
7		2	B40	1 ¹ / ₄ WAG ELL 90°					1 ¹ / ₁₆ " RADIUS W/SO	
8										
9										
10										
11	B16	2		GUARDRAILS						
12		ONE	mb16	1 ¹ / ₄ " STD PIPE	7	0	15.9	LIN/FT		
13		ONE	pb16	FB 1 ² x1	8	0	13.6	LIN/FT		
14		ONE	bb16	1 ² " ROD	29	0	19.4	LIN/FT		
15										
16										
17										
18	C16	2		GRABRAILS	4	2 ¹ / ₂				
19		ONE	mc16	1 ¹ / ₄ " STD PIPE	9	0	20.4	LIN/FT		
20										
21										
22										
23	D16	2		GUARDRAILS						
24		ONE	md16	1 ¹ / ₄ " STD PIPE	24	0	54.5	LIN/FT		
25		ONE	pd16	FB 1 ² x1	24	0	40.8	LIN/FT		
26		ONE	bd16	1 ² " ROD	154	0	102.8	LIN/FT		
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										

PRINT RECORD		MATERIAL: A53[PIPE] - A36[BAR]	
USE	QUAN	DATE	HOLES: 7 ¹⁶ " UON
OFA	e-MAIL	04-19-07	ELECTRODES: E70XX
SHOP		FIELD CONN: 3 ⁸ " LAGS UON	
FIELD		SURFACE PREP: SSPC-SP3	
		PAINT: ONE S/C PRIMER	
		REF. DWGS:	
CUSTOMER: THE THAXTER CO.			
JOB: KENNEBEC STREET ADDITION - PORTLAND, ME			
DESCRIPTION: STAIR RAIL DETAILS			
ARCHITECT: ERIC STARK ARCHITECTURE			
ENGINEER: SHELLEY ENGINEERING, INC.			
DRAWN BY	GRB	04-17-07	CHKD BY
DRAWING NUMBER	16		REVISION NUMBER
LMC LIGHT IRON, INC.			JOB NUMBER
E RANGE ROAD - P.O. BOX 521 LIMERICK, MAINE 04048			2641
TEL: (207) 793-9957			FAX: (207) 793-9919



1 1/4" STD PIPE x 20'-0" (mb18)
 FB 1/2x1 x 7'-0" (pb18)
 PICKETS - 1/2" ROD x 48'-0" (bb18)
ONE HANDRAIL A18



1 1/4" STD PIPE x 38'-0" (ma18)
 FB 1/2x1 x 12'-0" (pa18)
 PICKETS - 1/2" ROD x 90'-0" (ba18)
ONE HANDRAIL A18

LINE	SHIP BILL OF MATERIAL						
	MARK	QUAN	PC MK	DESCRIPTION	FT INCHES	WT	REMARKS
1							
2	A18	ONE		HANDRAIL			
3		ONE	ma18	1 1/4" STD PIPE	38 0	86.3	LIN/FT
4		ONE	pa18	FB 1/2x1	12 0	20.4	LIN/FT
5		3	R110	1/2" ROD	0 6	1.2	BEND
6		ONE	ba18	1/2" ROD	90 0	60.1	LIN/FT
7		ONE	840	1 1/4" WAG ELL 90°			1/8" RADIUS W/SO
8				TOTAL WEIGHT:		168.0	
9							
10							
11							
12	B18	ONE		HANDRAIL			
13		ONE	mb18	1 1/4" STD PIPE	20 0	45.4	LIN/FT
14		ONE	pb18	FB 1/2x1	7 0	11.9	LIN/FT
15		ONE	R110	1/2" ROD	0 6	0.3	BEND
16		ONE	bb18	1/2" ROD	48 0	32.0	LIN/FT
17		ONE	4434	1 1/4" WAG ELL 90°			1 5/8" RADIUS
18				TOTAL WEIGHT:		89.6	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
PRINT RECORD		MATERIAL: A53[PIPE] - A36[BAR]					
USE	QUAN	DATE	HOLES: 7/16" UON				
OFA	e-MAIL	04-19-07	ELECTRODES: E70XX				
SHOP			FIELD CONN: 3/8" LAGS UON				
			SURFACE PREP: SSPC-SP3				
			PAINT: ONE S/C PRIMER				
FIELD			REF. DWGS:				
CUSTOMER: THE THAXTER CO.							
JOB: KENNEBEC STREET ADDITION - PORTLAND, ME							
DESCRIPTION: STAIR RAIL DETAILS							
ARCHITECT: ERIC STARK ARCHITECTURE							
ENGINEER: SHELLEY ENGINEERING, INC.							
DRAWN BY	GBB	04-18-07	CHKD BY		DRAWING NUMBER	18	
					REVISION NUMBER		
LMC LIGHT IRON, INC.						JOB NUMBER	
E RANGE ROAD - P.O. BOX 521						2641	
LIMERICK, MAINE 04048							
TEL: (207) 793-9957						FAX: (207) 793-9919	