

R. W. Gillespie & Associates, Inc.

86 Industrial Park Road, Suite 4, Saco, ME 04072 207-286-8008  
200 International Drive, Suite 170, Portsmouth, NH 03801 603-427-0244

LETTER OF TRANSMITTAL

City of Portland, Portland Int. Jetport

1001 Westbrook Street

Portland, Maine 04102

Date:	29 November 2010	Project No.:	557-14
Attention:	Mr. Cuyler Feagles (cmf@portlandmaine.gov)		
Re:	Concrete Testing Terminal Enhancement, Portland Int. Jetport Portland, Maine		

We are sending you attached concrete cylinder test results.

Cylinder No. (s)	Age (Days)
67627	31
67628	31
67631	31
67632	31
67635	31
67636	31
67639	31
67640	31
67643	31
67644	31
67647	31
67648	31

Remarks:

Copy To:  
 Roy Williams: rsw@portlandmaine.gov  
 Jim Stanislaski: jim\_stanislaski@gensler.com  
 Cliff Takara: clifford\_takara@gensler.com  
 Lacey Fogg: Lacey.Fogg@amec.com  
 Mike Fusco: mfusco@tcco.com  
 Shaun Winner: swinner@tcco.com  
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 Elizabeth O'Toole: eotoole@tcco.com  
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 ldobson@portlandmaine.gov  
 rdixon@tcco.com  
 gemitchell@tcco.com  
 Remi Delcourt (remi@auburnconcrete.com)  
 Jeff Evans, Amec (jeff.evans@amec.com)

Signed: Bertha Dawn

If enclosures are not as noted, kindly notify us at once.

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**CONCRETE TEST/PLACEMENT REPORT**

<b>Project Name:</b>	Terminal Enhancement, Portland Int. Jetport	<b>Date Cylinders Cast:</b>	29-Oct-10
<b>Project No:</b>	557-14	<b>Concrete Supplier:</b>	Auburn
<b>Weather Conditions:</b>	Overcast with periods of Light Rain	<b>General Contractor:</b>	Turner
<b>Method of Placement:</b>	Pump	<b>Design Strength:</b>	3,500
<b>Admixtures:</b>	Mid Range Water Reducer	<b>Max Agg. Size:</b>	3/8
<b>Placement Location:</b>	Slabs on Deck: 5-1, 4-7, & portions of 3-3		
<b>Test Cylinder Location:</b>	Slab on Deck 5-1, See Attached Sketch		

**Date Report Issued:**

4x8 Cylinders	4	Cast by	Michael J. Kramlich	Time	
Load No.	2	Slump (in) ASTM C 143	7.0	Batched @	6:57
Ticket No.	179982	Air (°F)	44	Arrived @	7:20
Truck No.	99	Concrete (°F) ASTM C 1064	62	Total Time	40±
Cubic Yds.	10	Air Content (%) ASTM C 231	3.25		

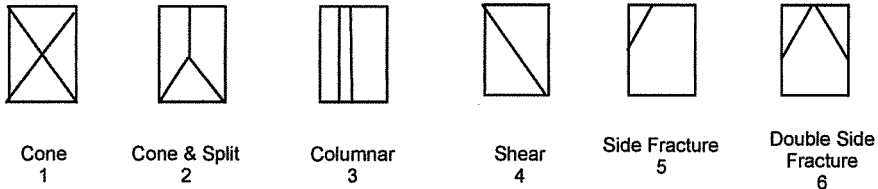
\*Concrete sampled by ASTM C 172

Specimen Storage ASTM C 31: Field cure days: 3  
 Date received 01-Nov-10  
 Condition of Cylinders: Good

Lab No.	Test Date	Avg Dia (in)	Area (in <sup>2</sup> )	Age (Days)	Load (lbs)	Compressive Strength (psi)	Break type
67626	05-Nov-10	4.020	12.69	7	49,520	3900	2
67627	29-Nov-10	4.007	12.61	31	67,820	5380	2
67628	29-Nov-10	4.007	12.61	31	62,460	4950	5
67629	HOLD			HOLD			

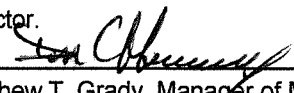
\*Concrete compressive strength by ASTM C 39

**Types of Breaks**



Load	Ticket Number	Truck Number	Cubic Yds	Slump (inches)	Air Temp (°F)	Conc Temp (°F)	(%) Air Content	Time (min.)
1	179981	94	10	6.50	--	--	--	45±
3	179984	116	10	--	--	--	--	--
4	179985	96	10	5.75	--	--	--	--
5	179986	107	10	--	--	--	--	40±
6	179988	94	10	--	--	--	--	40±
7	179989	99	10	--	--	--	--	35±

Remarks: Total loads = 31  
 Unit weight = 124.0 pcf  
 Cylinders were moved at approximately 9:00am by the concrete contractor.

Checked by:   
 EOT Matthew T. Grady, Manager of MTS

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**CONCRETE TEST/PLACEMENT REPORT**

<b>Project Name:</b>	Terminal Enhancement, Portland Int. Jetport	<b>Date Cylinders Cast:</b>	29-Oct-10
<b>Project No:</b>	557-14	<b>Concrete Supplier:</b>	Auburn
<b>Weather Conditions:</b>	Overcast with periods of Light Rain	<b>General Contractor:</b>	Turner
<b>Method of Placement:</b>	Pump	<b>Design Strength:</b>	3,500
<b>Admixtures:</b>	Mid Range Water Reducer	<b>Max Agg. Size:</b>	3/8
<b>Placement Location:</b>	Slabs on Deck: 5-1, 4-7, & portions of 3-3		
<b>Test Cylinder Location:</b>	Slab on Deck 5-1, See Attached Sketch		

**Date Report Issued:**

4x8 Cylinders	4	Cast by	Michael J. Kramlich	Time	
Load No.	8	Slump (in) ASTM C 143	4.0	Batched @	8:21
Ticket No.	179990	Air (°F)	44	Arrived @	8:41
Truck No.	116	Concrete (°F) ASTM C 1064	63	Total Time	30±
Cubic Yds.	10	Air Content (%) ASTM C 231	3.0		

\*Concrete sampled by ASTM C 172

Specimen Storage ASTM C 31: Field cure days: 3  
 Date received 01-Nov-10  
 Condition of Cylinders: Good

Lab No.	Test Date	Avg Dia (in)	Area (in <sup>2</sup> )	Age (Days)	Load (lbs)	Compressive Strength (psi)	Break type
67630	05-Nov-10	4.020	12.69	7	44,500	3510	5
67631	29-Nov-10	4.007	12.61	31	65,900	5230	2
67632	29-Nov-10	4.007	12.61	31	71,380	5660	5
67633	HOLD			HOLD			

\*Concrete compressive strength by ASTM C 39

**Types of Breaks**



Cone  
1



Cone & Split  
2



Columnar  
3



Shear  
4



Side Fracture  
5



Double Side Fracture  
6

Load	Ticket Number	Truck Number	Cubic Yds	Slump (inches)	Air Temp (°F)	Conc Temp (°F)	(%) Air Content	Time (min.)
9	179992	107	10	--	--	--	--	45±
10	179993	76	10	--	--	--	--	70±

Remarks: Total loads = 31  
 Unit weight = 123.8 pcf  
 Curing Temperatures: Max = 65°, Min = 39°

Checked by: Matthew T. Grady  
 For Matthew T. Grady, Manager of MTS

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**CONCRETE TEST/PLACEMENT REPORT**

<b>Project Name:</b>	Terminal Enhancement, Portland Int. Jetport	<b>Date Cylinders Cast:</b>	29-Oct-10
<b>Project No:</b>	557-14	<b>Concrete Supplier:</b>	Auburn
<b>Weather Conditions:</b>	Overcast with periods of Light Rain	<b>General Contractor:</b>	Turner
<b>Method of Placement:</b>	Pump	<b>Design Strength:</b>	3,500
<b>Admixtures:</b>	Mid Range Water Reducer	<b>Max Agg. Size:</b>	3/8
<b>Placement Location:</b>	Slabs on Deck: 5-1, 4-7, & portions of 3-3		
<b>Test Cylinder Location:</b>	Slab on Deck 4-7, See Attached Sketch		

**Date Report Issued:**

4x8 Cylinders	4	Cast by	Michael J. Kramlich	Time	
Load No.	12	Slump (in) ASTM C 143	2.75		Batched @ 9:06
Ticket No.	179996	Air (°F)	50		Arrived @ 10:02
Truck No.	99	Concrete (°F) ASTM C 1064	63		Total Time 70±
Cubic Yds.	10	Air Content (%) ASTM C 231	3.5		

\*Concrete sampled by ASTM C 172

Specimen Storage ASTM C 31: Field cure days: 3  
 Date received 01-Nov-10  
 Condition of Cylinders: Good

Lab No.	Test Date	Avg Dia (in)	Area (in <sup>2</sup> )	Age (Days)	Load (lbs)	Compressive Strength (psi)	Break type
67634	05-Nov-10	4.020	12.69	7	43,920	3460	2
67635	29-Nov-10	4.007	12.61	31	63,060	5000	5
67636	29-Nov-10	4.007	12.61	31	58,520	4640	6
67637	HOLD			HOLD			

\*Concrete compressive strength by ASTM C 39

### Types of Breaks



Cone  
1



Cone & Split  
2



Columnar  
3



Shear  
4



Side Fracture  
5



Double Side Fracture  
6

Load	Ticket Number	Truck Number	Cubic Yds	Slump (inches)	Air Temp (°F)	Conc Temp (°F)	(%) Air Content	Time (min.)
11	179995	99	10	--	--	--	--	35±
13	179999	107	10	--	--	--	--	45±
14	180002	76	10	--	--	--	--	45±
15	180003	98	10	--	--	--	--	60±

Remarks: Total loads = 31  
 Curing Temperatures: Max = 65°, Min = 39°  
 Load #12 was sent away approximately half empty.  
 Unit weight = 123.8 pcf

Checked by: Matthew T. Grady  
 FOR Matthew T. Grady, Manager of MTS

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**CONCRETE TEST/PLACEMENT REPORT**

<b>Project Name:</b>	Terminal Enhancement, Portland Int. Jetport	<b>Date Cylinders Cast:</b>	29-Oct-10
<b>Project No:</b>	557-14	<b>Concrete Supplier:</b>	Auburn
<b>Weather Conditions:</b>	Overcast with periods of Light Rain	<b>General Contractor:</b>	Turner
<b>Method of Placement:</b>	Pump	<b>Design Strength:</b>	3,500
<b>Admixtures:</b>	Mid Range Water Reducer	<b>Max Agg. Size:</b>	3/8
<b>Placement Location:</b>	Slabs on Deck: 5-1, 4-7, & portions of 3-3		
<b>Test Cylinder Location:</b>	Slab on Deck 4-7, See Attached Sketch		

**Date Report Issued:**

4x8 Cylinders	4	Cast by	Michael J. Kramlich	Time
Load No.	16	Slump (in) ASTM C 143	4.0	Batched @ 10:42
Ticket No.	180005	Air (°F)	48	Arrived @ 11:25
Truck No.	116	Concrete (°F) ASTM C 1064	67	Total Time 100±
Cubic Yds.	10	Air Content (%) ASTM C 231	3.25	

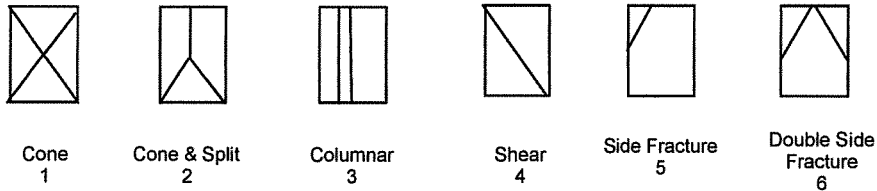
\*Concrete sampled by ASTM C 172

Specimen Storage ASTM C 31: Field cure days: 3  
 Date received 01-Nov-10  
 Condition of Cylinders: Good

Lab No.	Test Date	Avg Dia (in)	Area (in <sup>2</sup> )	Age (Days)	Load (lbs)	Compressive Strength (psi)	Break type
67638	05-Nov-10	4.020	12.69	7	42,840	3380	5
67639	29-Nov-10	4.007	12.61	31	62,400	4950	2
67640	29-Nov-10	4.007	12.61	31	63,160	5010	5
67641	HOLD			HOLD			

\*Concrete compressive strength by ASTM C 39

### Types of Breaks



Load	Ticket Number	Truck Number	Cubic Yds	Slump (inches)	Air Temp (°F)	Conc Temp (°F)	(%) Air Content	Time (min.)
17	180006	107	10	--	--	--	--	95±
18	180010	76	10	--	--	--	--	65±
19	180013	108	10	--	--	--	--	60±
20	180014	116	10	--	--	--	--	50±
21	180015	107	10	--	--	--	--	55±
22	180017	76	10	--	--	--	--	70±

Remarks: Total loads = 31  
 Curing Temperatures: Max = 65°, Min = 39°  
 Load #17 was sent away approximately half empty.  
 Unit weight = 124.0 pcf

Checked by: *Matthew T. Grady*  
 Matthew T. Grady, Manager of MTS

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<b>Weather Conditions:</b>	Overcast with periods of Light Rain	<b>General Contractor:</b>	Turner
<b>Method of Placement:</b>	Pump	<b>Design Strength:</b>	3,500
<b>Admixtures:</b>	Mid Range Water Reducer	<b>Max Agg. Size:</b>	3/8
<b>Placement Location:</b>	Slabs on Deck: 5-1, 4-7, & portions of 3-3		
<b>Test Cylinder Location:</b>	Slab on Deck 3-3, See Attached Sketch		

**Date Report Issued:**

4x8 Cylinders	4	Cast by	Michael J. Kramlich	Time	
Load No.	23	Slump (in) ASTM C 143	4.0	Batched @	1:19
Ticket No.	180018	Air (°F)	48	Arrived @	2:20
Truck No.	108	Concrete (°F) ASTM C 1064	66	Total Time	90
Cubic Yds.	10	Air Content (%) ASTM C 231	3.0		

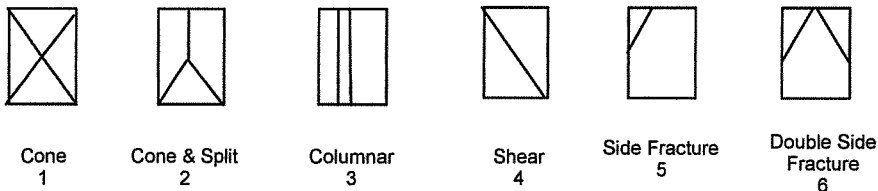
\*Concrete sampled by ASTM C 172

Specimen Storage ASTM C 31: Field cure days: 3  
 Date received 01-Nov-10  
 Condition of Cylinders: Good

Lab No.	Test Date	Avg Dia (in)	Area (in <sup>2</sup> )	Age (Days)	Load (lbs)	Compressive Strength (psi)	Break type
67642	05-Nov-10	4.020	12.69	7	43,240	3410	5
67643	29-Nov-10	4.007	12.61	31	56,540	4480	2
67644	29-Nov-10	4.007	12.61	31	60,300	4780	6
67645	HOLD			HOLD			

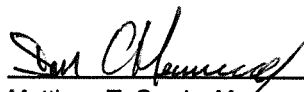
\*Concrete compressive strength by ASTM C 39

### Types of Breaks



Load	Ticket Number	Truck Number	Cubic Yds	Slump (inches)	Air Temp (°F)	Conc Temp (°F)	(%) Air Content	Time (min.)
24	180228	76	10	--	--	--	--	40±
25	180229	108	10	--	--	--	--	60±
26	180230	107	10	--	--	--	--	--

Remarks: Total loads = 31  
 Pump had to relocate.  
 Load #23 was sent away with approximately 7 yards left.  
 Unit weight = 123.4 pcf

Checked by:   
 For Matthew T. Grady, Manager of MTS

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<b>Project No:</b>	557-14	<b>Concrete Supplier:</b>	Auburn
<b>Weather Conditions:</b>	Overcast with periods of Light Rain	<b>General Contractor:</b>	Turner
<b>Method of Placement:</b>	Pump	<b>Design Strength:</b>	3,500
<b>Admixtures:</b>	Mid Range Water Reducer	<b>Max Agg. Size:</b>	3/8
<b>Placement Location:</b>	Slabs on Deck: 5-1, 4-7, & portions of 3-3		
<b>Test Cylinder Location:</b>	Slab on Deck 3-3, See Attached Sketch		

**Date Report Issued:**

4x8 Cylinders	4	Cast by	Michael J. Kramlich	Time	
Load No.	27	Slump (in) ASTM C 143	6.5	Batched @	4:13
Ticket No.	180231	Air (°F)	46	Arrived @	4:38
Truck No.	76	Concrete (°F) ASTM C 1064	65	Total Time	80±
Cubic Yds.	10	Air Content (%) ASTM C 231	3.0		

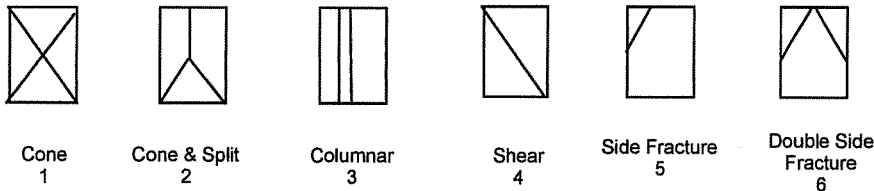
\*Concrete sampled by ASTM C 172

Specimen Storage ASTM C 31: Field cure days: 3  
 Date received 01-Nov-10  
 Condition of Cylinders: Good

Lab No.	Test Date	Avg Dia (in)	Area (in <sup>2</sup> )	Age (Days)	Load (lbs)	Compressive Strength (psi)	Break type
67646	05-Nov-10	4.020	12.69	7	48,340	3810	2
67647	29-Nov-10	4.007	12.61	31	64,400	5110	2
67648	29-Nov-10	4.007	12.61	31	60,800	4820	5
67649	HOLD			HOLD			

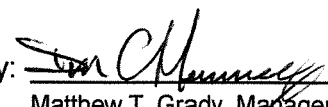
\*Concrete compressive strength by ASTM C 39

**Types of Breaks**



Load	Ticket Number	Truck Number	Cubic Yds	Slump (inches)	Air Temp (°F)	Conc Temp (°F)	(%) Air Content	Time (min.)
28	180233	82	10	--	--	--	--	50±
29	--	--	10	--	--	--	--	--
30	--	--	10	--	--	--	--	--
31	--	--	10	--	--	--	--	--

Remarks: Total loads = 31  
 Unit weight = 123.4 pcf  
 Curing Temperatures: Max = 57°, Min = 34°

Checked by:   
 Matthew T. Grady, Manager of MTS