



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0016

Paul R. LePage  
GOVERNOR

David Bernhardt  
COMMISSIONER

October 9, 2013  
Subject: **Auburn**  
Federal Project No: STP-1159(920)X  
State WIN: 011599.20  
**Amendment No. 1**

Dear Sir/Ms:

The following questions have been received:

**Question:** Is there any geotechnical information available to enable the Contractor to properly estimate the soil nail design?

**Response:** The log for a boring in front of the wall is attached. A grab sample of fill taken through the face of the existing bin wall indicates that bank run gravel was used as fill. According to design charts for this type of wall, the back of the bin wall should be 7'7" behind the face. Fill in the bins of the existing wall appears to be medium dense to dense bank run gravel, and  $\phi=34^\circ$  should be used in design. The Maine Geologic Survey map of this quadrangle shows Till soils in the hill behind the wall, and  $\phi=32^\circ$  should be used for common borrow and native soils behind the back of the bin wall.

**Question:** Is the intent of the precast concrete facing to be attached to the existing bin wall?

**Response:** It is intended that the concrete facing be attached to the nail heads.

**Question:** What is the depth requirement for the facing?

**Response:** The facing should be a minimum thickness of 4" to allow approximately 2" of cover on each side.

**Question:** Is the void between the facing and the existing wall to be filled? If so, with what material?

**Response:** No fill is required, however a cap should be provided if this void is not filled.

**Question:** Is the facing required to project below existing grade?



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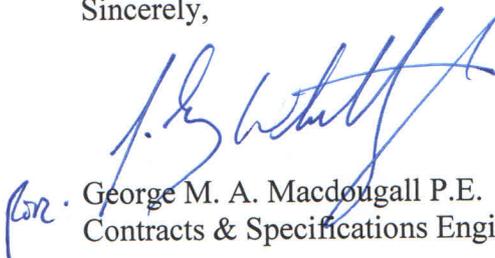
**Response:** No, it can end at the sidewalk. Due to the grade on the sidewalk, there may be small triangular areas between the bottom of the panels and the sidewalk that will not be covered by rectangular precast panels.

**Question:** The specification for the facing indicates it is to be plumb, however the existing bin wall is battered. Is the facing to be plumb or to follow the existing wall batter?

**Response:** The facing should follow the wall batter.

Consider this information prior to submitting your bid on October 23, 2013.

Sincerely,

  
George M. A. Macdougall P.E.  
Contracts & Specifications Engineer

Driller: MaineDOT	Elevation (ft.): 224.0	Auger ID/OD: 5" Solid Stem
Operator: Enos/Giles	Datum: NAVD88	Sampler: Standard Split Spoon
Logged By: B. Wilder	Rig Type: CME 45C	Hammer Wt./Fall: 140#/30"
Date Start/Finish: 12/11/12; 09:00-11:00	Drilling Method: Cased Wash Boring	Core Barrel: N/A
Boring Location: 111+75, 17.0 ft Rt. Minot Ave.	Casing ID/OD: NW	Water Level*: 4.6 ft bgs.

Hammer Efficiency Factor: 0.756      Hammer Type: Automatic  Hydraulic  Rope & Cathead

Definitions:  
D = Split Spoon Sample      R = Rock Core Sample      S<sub>u</sub> = Insitu Field Vane Shear Strength (psf)      S<sub>u(lab)</sub> = Lab Vane Shear Strength (psf)  
MD = Unsuccessful Split Spoon Sample attempt      SSA = Solid Stem Auger      T<sub>v</sub> = Pocket Torvane Shear Strength (psf)      WC = water content, percent  
U = Thin Wall Tube Sample      HSA = Hollow Stem Auger      q<sub>p</sub> = Unconfined Compressive Strength (ksf)      LL = Liquid Limit  
MU = Unsuccessful Thin Wall Tube Sample attempt      RC = Roller Cone      N-uncorrected = Raw field SPT N-value      PL = Plastic Limit  
V = Insitu Vane Shear Test, PP = Pocket Penetrometer      WOH = weight of 140lb. hammer      Hammer Efficiency Factor = Annual Calibration Value      PI = Plasticity Index  
MV = Unsuccessful Insitu Vane Shear Test attempt      WOR/C = weight of rods or casing      N<sub>60</sub> = SPT N-uncorrected corrected for hammer efficiency      G = Grain Size Analysis  
WO1P = Weight of one person      N<sub>60</sub> = (Hammer Efficiency Factor/60%)\*N-uncorrected      C = Consolidation Test

Depth (ft.)	Sample Information							Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N <sub>60</sub>	Casing Blows				
0							SSA	223.50		6" PAVEMENT.	
										Brown, damp, gravelly, fine to coarse SAND, trace silt, (Fill).	0.50
								221.50		Light brown, damp, fine to medium SAND, (Fill).	2.50
5	1D	24/20	5.00 - 7.00	2/2/2/3	4	5				Grey, wet, very soft, clayey-SILT, some fine sand.	4.00
	MV		7.00 - 7.04	Would not Push				217.00		Failed 55x110 mm vane attempt.	7.00
10	2D	24/18	10.00 - 12.00	2/2/3/7	5	6	7			Grey brown, wet, loose, fine to medium SAND, little silt.	13
										Grey, wet, very hard, fine to medium sandy SILT, little gravel, (Till).	14.00
15	3D	24/20	15.00 - 17.00	14/25/29/30	54	68	61			Grey, wet, very dense, fine to coarse SAND, some silt, little gravel, (Till).	170
								206.00		Bottom of Exploration at 22.00 feet below ground surface. NO REFUSAL	18.00
20	4D	24/19	20.00 - 22.00	21/38/44/49	82	103		202.00			22.00
25											

Remarks: