

# Lancaster County Council Infrastructure and Regulation Committee

January 10, 2017

**County Council Conference Room  
Council Administration Building  
101 N. Main Street  
Lancaster, SC 29720**

1. **Call to Order – Committee Chair** 3:00 p.m.
2. **Approval of the agenda** *[deletions and additions of non-substantive matters]*
3. **Citizens Comments**
4. **Discussion / Action Items**
  - a. Budget review – *Kimberly Hill*
  - b. Slope repairs at EMS 8 – *Jeff Catoe*
5. **Adjournment**

*Anyone requiring special services to attend this meeting should contact 285-1565 at least 24 hours in advance of this meeting.*

*Lancaster County Council Public Safety Committee agendas are posted at the Lancaster County Administration Building and are available on the Website: [www.mylancastersc.org](http://www.mylancastersc.org)*

## Agenda Item Summary

Ordinance # / Resolution#:	Discussion Item
Contact Person / Sponsor:	Jeff Catoe
Department:	Public Services Director
Date Requested to be on Agenda:	January I&R Committee meeting

**Issue for Consideration:**

Repairs to Walnut Creek EMS Station slope.

**Points to Consider:**

We have plans and cost estimates (all attached) for the repair work.

We have two options and staff recommends the grading and sloping as recommended by the engineer.

We have budgetary authorization of \$350,000.

**Funding and Liability Factors:**

Some repair work must be completed. There is no option to take no action.

We recommend the following:

Proceed with Option 1 – sloping and grading - @ \$110,015

Add 15% contingency @ \$16,503

Monitoring service @ \$20,000

Project estimated cost of \$146,518

Unused portion would not be spent and released to return to Fund Balance.

**Council Options:**

Council has already acted by approving the budget. Unless the Committee desires to do otherwise, we will proceed as discussed with the Committee. The Committee may inform Council during Committee reports.

**Staff Recommendation:**

Proceed as outlined above.

**Committee Recommendation:**

To be determined.



## R. Joe Harris & Associates, Inc.

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127 Ben Casey Drive, Suite 101, Fort Mill, S.C. 29708  
(803) 802-1799

December 9<sup>th</sup>, 2016

Jeff Catoe  
Public Works Director  
Lancaster County Government  
101 North Main Street  
Lancaster, South Carolina 29720

**Re: Walnut Creek EMS Station Slope Repair**  
**Indian Land, South Carolina**  
RJH Project #2439

Dear Mr. Catoe:

R. Joe Harris & Associates, Inc. has completed our preliminary assessment and evaluation of the apparent slope failures that are occurring adjacent to the Walnut Creek EMS Station with the Walnut Creek Community in Indian Land. We are submitting this letter to provide potential resolutions (see attached plans) to address the slope failure and repair of the failing asphalt pavement driveway and provide cost estimates for the repairs (see attached cost estimates).

Upon our review of the preliminary geotechnical data provided, review of the site and preliminary engineering evaluations, we have attached a conceptual repair plan (70% drawings) and cost estimates for two different options to repair this area and they are as follows:

- Option #1: Re-grading of slope with additional fill and repair of failed pavement area  
Estimated Cost = \$110,014.50 (15% contingency is recommended for field modifications)  
Estimated Monitoring Services = \$20,000.00
- Option #2: Installation of retaining wall and repair of failed pavement area  
Estimated Cost = \$572,537.00 (15% contingency is recommended for field modifications)  
Estimated Monitoring Services = \$50,000.00

Given the two options that were requested to be studied, it is our recommendation that Lancaster County proceed with Option #1 with the following conditions:

1. RJH recommends providing a min. 15% contingency fund for field modifications/changes that are likely to be uncovered during the course of the work.
2. Work should be monitored by a licensed Construction Materials Testing Engineer and coordinated with the design engineer (RJH) – budget of \$20,000 for both professional firms.
3. Due to the moisture sensitivity of the native silty clay soils, work should be performed during drier weather seasons.
4. For the areas that are to be repaired, it is not recommended to plant trees, shrubs or other items that would penetrate the graded soils that would allow moisture to saturate into the soils (limit exposure of soils to moisture to max. extent practical).



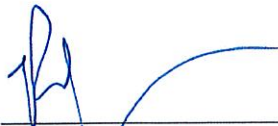

We are recommending against Option #2 solely due to the cost and limited benefit such a wall would provide. While it would provide more usable yard area for the employees, it does introduce added liability due to potential fall height and structural maintenance of the retaining wall. There are options for reducing the height of the proposed retaining wall and lowering the cost of Option #2 should Lancaster County so choose to pursue.

We appreciate this opportunity to be of service to Lancaster County and will await your decision on the final repair option. Once decided, we can complete final plans within 5 days and coordinate the advertisement and bid of the project with you.

If you should have any questions or require any additional information, please feel free to contact us at (803) 802-1799 or via email at [brandonpridemore@rjoe-harris.com](mailto:brandonpridemore@rjoe-harris.com) or [joeharris@rjoe-harris.com](mailto:joeharris@rjoe-harris.com).

Sincerely,

R. JOE HARRIS & ASSOCIATES, INC.

  
\_\_\_\_\_  
R. Joe Harris, Jr., PE  
President/Project Engineer  
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Brandon S. Pridemore, CPESC  
Vice President/Senior Consultant

**LANCASTER COUNTY PUBLIC WORKS DEPARTMENT**  
**WALNUT CREEK EMS STATION - SLOPE REPAIR**

**Engineer's Opinion of Preliminary Costs**

**Option #1 - Grading Only**

**November 21, 2016**

Description of Work		Units/Qty	Unit Price		Subtotal
1.0	Mobilization	1 LS	\$ 5,800.00	LS	\$ 5,800.00
2.0	Clearing & Grubbing (28,080 SF)	0.65 AC	\$ 5,500.00	AC	\$ 3,575.00
3.0	Silt Fence w/Wire Backing	360 LF	\$ 3.75	LF	\$ 1,350.00
4.0	Strip 8" of Surface Soils & Haul Offsite	695 CY	\$ 8.75	CY	\$ 6,081.25
5.0	Import Fill & Place (2200CY x 20% Shrinkage)	2640 CY	\$ 15.50	CY	\$ 40,920.00
6.0	Cut, Bench & Recompact Soils (assume 30% of slope)	1250 CY	\$ 7.50	CY	\$ 9,375.00
7.0	Slope Stabilization - Turf Mat & Seeding	2925 SY	\$ 5.75	SY	\$ 16,818.75
8.0	Remove & Replace 18" Curb & Gutter	80 LF	\$ 22.00	LF	\$ 1,760.00
9.0	Demolition of Asphalt Pavement	200 SY	\$ 10.00	SY	\$ 2,000.00
10.0	Pavement Subgrade Repair				
	a. excavate to depth of 5' (average)	113 SY	\$ 16.50	SY	\$ 1,864.50
	b. backfill with compacted ABC Stone ~135lbs/cf	310 TN	\$ 42.00	TN	\$ 13,020.00
	c. apply Tensar BX1100 Biaxial Geogrid	200 SY	\$ 6.50	SY	\$ 1,300.00
11.0	Pavement Schedule				
	a. 2" HMA Surface Course	200 SY	\$ 12.75	SY	\$ 2,550.00
	b. 3" HMA Binder Course	200 SY	\$ 18.00	SY	\$ 3,600.00
<b>Total of Estimated Construction Costs</b>					<b>\$ 110,014.50</b>
1.0	Does not include cost of geotechnical or other professional services fees				
2.0	Other than grassing, no landscaping is proposed nor recommended				
3.0	Changes in final scope may affect final pricing				
4.0	Assumes spoils/waste materials can be readily disposed of within 1 mile of site				

**LANCASTER COUNTY PUBLIC WORKS DEPARTMENT**  
**WALNUT CREEK EMS STATION - SLOPE REPAIR**

**Engineer's Opinion of Preliminary Costs**  
**Option #2 - Retaining Wall**  
**November 21, 2016**

Description of Work		Units/Qty	Unit Price		Subtotal
1.0	Mobilization	1 LS	\$ 5,800.00	LS	\$ 5,800.00
2.0	Clearing & Grubbing (28,080 SF)	0.65 AC	\$ 5,500.00	AC	\$ 3,575.00
3.0	Silt Fence w/Wire Backing	360 LF	\$ 3.75	LF	\$ 1,350.00
4.0	Strip 8" of Surface Soils & Haul Offsite	695 CY	\$ 8.75	CY	\$ 6,081.25
5.0	Retaining Wall Construction				
	a. Engineering & Permitting	9620 SF	\$ 1.75	SF	\$ 16,835.00
	b. Segmented Retaining Wall	9620 SF	\$ 18.50	SF	\$ 177,970.00
	c. Engineered Backfill (14135CY x 15% Shrink)	16255 CY	\$ 18.50	CY	\$ 300,717.50
	d. 4' Chain Link Fence (Protective Rail)	480 LF	\$ 16.50	LF	\$ 7,920.00
6.0	Cut, Bench & Recompact Soils (assume 30% of slope)	1250 CY	\$ 7.50	CY	\$ 9,375.00
7.0	Slope Stabilization - Turf Mat & Seeding	2925 SY	\$ 5.75	SY	\$ 16,818.75
8.0	Remove & Replace 18" Curb & Gutter	80 LF	\$ 22.00	LF	\$ 1,760.00
9.0	Demolition of Asphalt Pavement	200 SY	\$ 10.00	SY	\$ 2,000.00
10.0	Pavement Subgrade Repair				
	a. excavate to depth of 5' (average)	113 SY	\$ 16.50	SY	\$ 1,864.50
	b. backfill with compacted ABC Stone ~135lbs/cf	310 TN	\$ 42.00	TN	\$ 13,020.00
	c. apply Tensar BX1100 Biaxial Geogrid	200 SY	\$ 6.50	SY	\$ 1,300.00
11.0	Pavement Schedule				
	a. 2" HMA Surface Course	200 SY	\$ 12.75	SY	\$ 2,550.00
	b. 3" HMA Binder Course	200 SY	\$ 18.00	SY	\$ 3,600.00
<b>Total of Estimated Construction Costs</b>					<b>\$ 572,537.00</b>
1.0	Does not include cost of geotechnical or other professional services fees				
2.0	Other than grassing, no landscaping is proposed nor recommended				
3.0	Changes in final scope may affect final pricing				
4.0	Assumes spoils/waste materials can be readily disposed of within 1 mile of site				