

# Hazard Mitigation Grant Program Drainage Project

**Project Overview** 

Presented by Chester Engineers, Inc.



## **Campus Drainage Analysis**

## Project Area



# Inundation Map 10-year Storm Existing Conditions





## **Stormwater Management Strategies**

- Capture, Store and Convey Campus Stormwater Runoff
- Incorporate Low Impact Development (LID) where Practical
- Protect and Preserve Historic Assets
- Minimize Maintenance Costs
- Create No Downstream System Impacts







## **Stormwater Control Components**

- Grassed Swales
- Stormwater Detention Pond
- Enhanced Use of Rear Campus Concrete Ditch
- Optimization of Subsurface Stormwater System



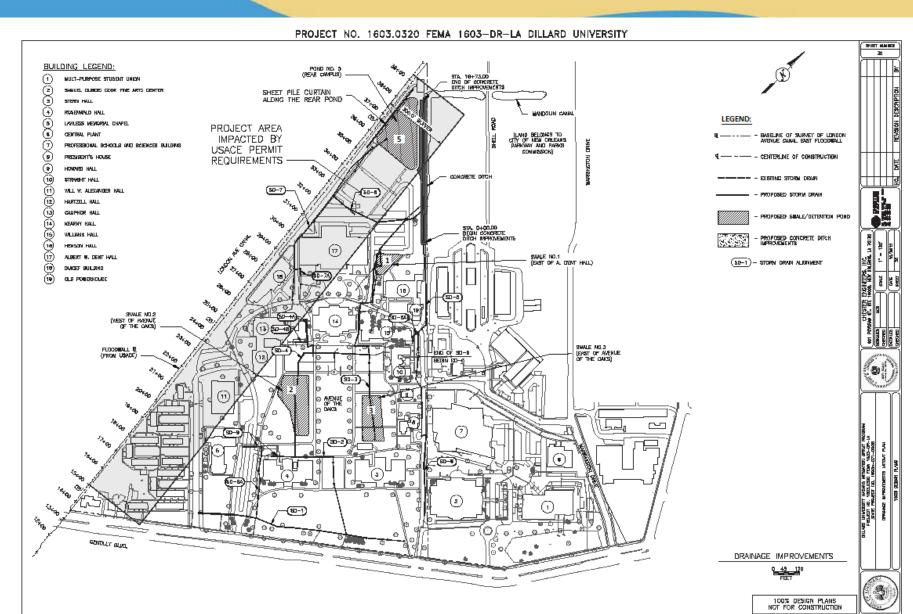


## **Stormwater Control Components**





## **Project Overview**





## **Project Summary**

- Conveyance Piping
  - Approx 7,000 LF
- 3 Swales
- Detention Pond
  - Approx. 39,000 SF
  - Steel Sheet Piling
  - Concrete Pad
- Concrete Lined Ditch
- Construction Cost Est.:
  - \$5.2 Million

## **Dillard HMGP Stormwater Improvements**

### **Opinion Of Probable Costs**

ltem			Item Budget
Description of Improvement Location			
SD 1 - Lawless Memorial Chapel			\$ 234,920.00
SD 2 - Avenue of Oaks West			\$ 345,210.00
SD 3 - Avenue of Oaks East			\$ 524,190.00
SD 4 - Storm Drain Line			\$ 147,410.00
SD 4A - Storm Drain Line			\$ 86,840.00
SD 5 Storm Drain Line			\$ 196,830.00
SD6 Storm Drain Line			\$ 249,985.00
SD 7 Storm Drain Line			\$ 297,345.00
SD 8 Storm Drain Line			\$ 137,750.00
SD 9 Storm Drain Line			\$ 88,110.00
SD 9A Storm Drain Line			\$ 67,740.00
Pond No. 5 - Rear Campus			\$ 1,927,355.00
Campus Ditch			\$ 371,125.00
Roadway Improvements - Arts Center to President's F	House		\$ 124,720.00
Roadway Improvements - Howard Hall			\$ 35,855.00
Roadway Improvements - Williams Hall			\$ 105,100.00
Roadway Improvements - Lawless Memorial Chapel			\$ 41,710.00
Mobilization			\$ 249,110.00
		TOTAL	\$ 5,232,000.00



## **Accomplishments**

- 100% Design Plans and Specifications Completed
- Permitting/ Letters of No Objection Received
  - USACE
  - OLD
  - CPRA
- Other Deliverables Completed
  - Environmental Impact Assessment (EIA)
  - Benefit Cost Analysis (BCA)
  - Hydrologic and Hydraulic (H&H) Study



## **Schedule**

**Finish** 

Wed 11/11/15

Tue 8/6/19

Tue 6/28/16

Fri 7/29/16

Mon 7/18/16

Wed 8/3/16

Wed 8/17/16

Thu 8/18/16

Thu 9/15/16

Thu 9/15/16

Tue 9/20/16

Tue 9/20/16

Wed 9/21/16

Tue 2/13/18

Tue 2/13/18

Tue 2/27/18

Tue 3/13/18

Tue 8/6/19

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Phase II Approval Request Letter Submission

Phase II Approval Letter from GOHSEP

**Duration** 

11 days

820 days

10 days

20 days

1 day

0 days

10 days

20 days

0 days

1 day

0 days

1 day

365 days

0 days

10 days

20 days

365 days

1 day

Start

Wed 10/28/15

Wed 6/15/16

Wed 6/15/16

Mon 7/4/16

Mon 7/18/16

Wed 8/3/16

Thu 8/4/16

Thu 8/18/16

Fri 8/19/16

Thu 9/15/16

Tue 9/20/16

Tue 9/20/16

Wed 9/21/16

Wed 9/21/16

Tue 2/13/18

Wed 2/14/18

Wed 2/14/18

Wed 3/14/18

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Phase II Construction

**Bid Advertisement** 

**Bid Submission** 

Notice to Award

**Contract Award** 

**Pre-Con Meeting** 

Notice to Proceed

**Construction Time** 

Final Acceptance

Warranty Period

**Substantial Completion** 

Mobilization

**Punch List** 

**Contract Negotiation** 

Mandatory Pre-Bid Meeting

Bid Evaluation and Selection

Task Name



# Questions

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