



# Drainage Master Plan Update



## Project: BR01 - SH 6 West Briar Creek Road Overtopping

**Project Type:** Flooding  
**Date Identified:** 2001  
**Date Last Reported:**  
**Original Cost Year:** 2010  
**Drainage CIP Ranking:** 68  
**Total Weighted Score:** 618  
**Project Cost:** \$460,000  
**Study File Name:** Briar Creek Flood Hazard Study  
**Existing Study:** Yes  
**TxDot:** Yes  
**Panel #:** P12  
**Council District:** 3

### Description:

This project will include a study to determine the size and construction documents of the culverts.

### Justification:

The State Highway 6 West Frontage Road is undersized and the stream is overtopping the road to a depth of 0.78 feet during the 100-year storm and begins flooding during the 25-year storm. The existing culvert is 4 - 10'x9' RCBC. Forty-nine (49) houses lie in the Briar Creek Floodplain upstream of West Frontage Road. Highway 6 is a TxDOT ROW.

### Funding Options:

If cost beneficial, this project could potentially be considered for the Flood Mitigation Assistance Project Grant, or the Pre-Disaster Mitigation Grant. State Highway 6 is part of the Hurricane Evacuation Route. These funding options are suggestions and further investigation is needed to determine if this project qualifies for the suggested grants.

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$60,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Design/Survey</b>	<b>\$60,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Stormwater	\$400,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Const</b>	<b>\$400,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$460,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



### Ranking Criteria

<b>Life Safety:</b>	7	<b>Street Flooding:</b>	4	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	2
<b>Structures Flooding:</b>	3	<b>Frequency of Flooding:</b>	3	<b>Funding Source:</b>	0	<b>Project Cost:</b>	7
<b>Right-of-Way Availability:</b>	8						



# Drainage Master Plan Update



## Project: BR02 - Broadmoor Drive Road Overtopping

**Project Type:** Flooding  
**Date Identified:** 2001  
**Date Last Reported:**  
**Original Cost Year:** 2010  
**Drainage CIP Ranking:** 12  
**Total Weighted Score:** 875  
**Project Cost:** \$517,000  
**Study File Name:** Briar Creek Flood Hazard Study  
**Existing Study:** Yes  
**TxDot:** No  
**Panel #:** P11  
**Council District:** 3

### Description:

This project will include a study to determine the size and construction documents of the culverts.

### Justification:

Broadmoor Drive is an existing low water crossing that is overtopped by 1.34 feet during the 100-year storm and begins flooding during the 2-year storm event. Alternate access is available. The seven existing culverts are 9'x5' RCBC. 15 houses lie in the Briar Creek Floodplain upstream of Broadmoor Drive.

### Funding Options:

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$67,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Design/Survey</b>	<b>\$67,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Stormwater	\$450,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Const</b>	<b>\$450,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$517,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



### Ranking Criteria

<b>Life Safety:</b>	8	<b>Street Flooding:</b>	2	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	2
<b>Structures Flooding:</b>	10	<b>Frequency of Flooding:</b>	10	<b>Funding Source:</b>	0	<b>Project Cost:</b>	7
<b>Right-of-Way Availability:</b>	10						



# Drainage Master Plan Update

## Project: BR03 - Villa Maria Road Overtopping



**Project Type:** Flooding      **Drainage CIP Ranking:** 3      **Existing Study:** No      **TxDot:** No  
**Date Identified:** 2001      **Total Weighted Score:** 1004      **Panel #:** O11  
**Date Last Reported:**      **Project Cost:** \$431,250      **Council District:** 4  
**Original Cost Year:** 2010      **Study File Name:** Briar Creek Flood Hazard Study

### Description:

This project will include a study to determine the size and construction documents of the culverts.

### Justification:

Villa Maria is a minor arterial road, which is overtopped 1.4 feet by Briar Creek during the 100-year storm. The existing 2 undersized culverts are 10'x9' RCBC. Eleven (11) houses lie in the Briar Creek Floodplain upstream of Villa Maria. Villa Maria currently does not have a storm sewer system and water accumulates on the bridge.

### Funding Options:

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$56,250	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Design/Survey</b>	<b>\$56,250</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Stormwater	\$375,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Const</b>	<b>\$375,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$431,250</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



### Ranking Criteria

<b>Life Safety:</b>	8	<b>Street Flooding:</b>	9	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	4
<b>Structures Flooding:</b>	10	<b>Frequency of Flooding:</b>	10	<b>Funding Source:</b>	0	<b>Project Cost:</b>	7
<b>Right-of-Way Availability:</b>	10						





# Drainage Master Plan Update

## Project: BR05 - Ettle Street Road Overtopping



**Project Type:** Flooding      **Drainage CIP Ranking:** 5      **Existing Study:** Yes      **TxDot:** No  
**Date Identified:** 2001      **Total Weighted Score:** 987      **Panel #:** O11  
**Date Last Reported:**      **Project Cost:** \$287,500      **Council District:** 3  
**Original Cost Year:** 2010      **Study File Name:** Briar Creek Flood Hazard Study

### Description:

This project will include a study to determine the size and construction documents of the culverts. Channel widening and regrading may be necessary.

### Justification:

Ettle Street is a local street and is overtopped 2.79 feet by Briar Creek during the 100-year storm and begins flooding during the 2-year storm. The existing undersized culvert is 6'x5' RCB. The Ettle street culvert lies in a low density residential area and house upstream of the culvert are in the Briar Creek Floodplain.

### Funding Options:

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$37,500	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Design/Survey</b>	<b>\$37,500</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Stormwater	\$250,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Const</b>	<b>\$250,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$287,500</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



### Ranking Criteria

<b>Life Safety:</b>	10	<b>Street Flooding:</b>	3	<b>Infrastructure Damage:</b>	10	<b>Maintenance:</b>	2
<b>Structures Flooding:</b>	6	<b>Frequency of Flooding:</b>	10	<b>Funding Source:</b>	0	<b>Project Cost:</b>	8
<b>Right-of-Way Availability:</b>	10						



# Drainage Master Plan Update

## Project: BR06 - Ettle Street Road Overtopping



**Project Type:** Flooding      **Drainage CIP Ranking:** 37      **Existing Study:** Yes      **TxDOT:** Yes  
**Date Identified:** 2001      **Total Weighted Score:** 736      **Panel #:** O10  
**Date Last Reported:**      **Project Cost:** \$431,250      **Council District:** 3  
**Original Cost Year:** 2010      **Study File Name:** Briar Creek Flood Hazard Study

### Description:

This project will include a study to determine the size and construction documents of the culverts. Channel widening and regrading may be necessary.

### Justification:

William J Bryan is a major arterial street overtopped 0.81 feet by Briar Creek during the 100-year storm and begins flooding during the 2-year storm. Sue Haswell Park is upstream of William J Bryan and downstream is low density residential. The existing undersized culvert is 5'x3' RCBC. No houses lie in the floodplain upstream of the culvert. William J Bryan is a TxDOT ROW.

### Funding Options:

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$56,250	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Design/Survey</b>	<b>\$56,250</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Stormwater	\$375,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Const</b>	<b>\$375,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$431,250</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



### Ranking Criteria

<b>Life Safety:</b>	7	<b>Street Flooding:</b>	7	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	0
<b>Structures Flooding:</b>	3	<b>Frequency of Flooding:</b>	10	<b>Funding Source:</b>	0	<b>Project Cost:</b>	7
<b>Right-of-Way Availability:</b>	8						



## Drainage Master Plan Update



### Project: BR07 - SH 6 Freedom Boulevard Tributary Road Overtopping

**Project Type:** Flooding

**Drainage CIP Ranking:** 42

**Existing Study:** Yes

**TxDot:** Yes

**Date Identified:** 2001

**Total Weighted Score:** 718

**Panel #:** P12

**Date Last Reported:**

**Project Cost:** \$460,000

**Council District:** 4

**Original Cost Year:** 2010

**Study File Name:** Briar Creek Flood Hazard Study

#### Description:

This project will include a study to determine the size and construction documents of the culverts. Channel widening and regrading may be necessary.

#### Justification:

Freedom Boulevard Tributary overtops State Highway 6 Frontage Road, a TxDOT freeway, by 1.09 feet during the 100-year storm and begins flooding during the 2-year storm. The upstream land use is commercial. The existing undersized culvert is 8'x4' RCB. No houses lie in the floodplain upstream of the culvert.

#### Funding Options:

#### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$60,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Design/Survey</b>	<b>\$60,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Stormwater	\$400,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Const</b>	<b>\$400,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$460,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



#### Ranking Criteria

<b>Life Safety:</b>	8	<b>Street Flooding:</b>	4	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	0
<b>Structures Flooding:</b>	3	<b>Frequency of Flooding:</b>	10	<b>Funding Source:</b>	0	<b>Project Cost:</b>	7
<b>Right-of-Way Availability:</b>	8						





# Drainage Master Plan Update

## Project: BR08 - Red River Drive Road Overtopping



**Project Type:** Flooding      **Drainage CIP Ranking:** 64      **Existing Study:** Yes      **TxDot:** No  
**Date Identified:** 2001      **Total Weighted Score:** 635      **Panel #:** O11  
**Date Last Reported:**      **Project Cost:** \$316,250      **Council District:** 3  
**Original Cost Year:** 2010      **Study File Name:** Briar Creek Flood Hazard Study

### Description:

This project will include a study to determine the size and construction documents of the culverts. Channel widening and regrading may be necessary.

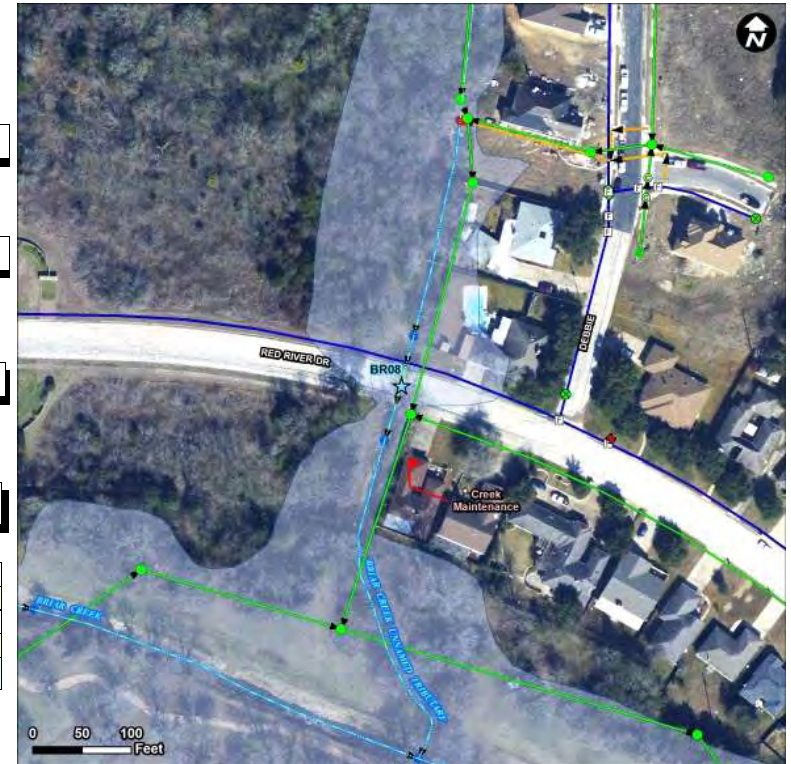
### Justification:

Red River Drive is a local street and is overtopped 0.49 feet by Red River Tributary during the 100-year storm. The existing undersized culvert is 8'x4' RCB. Upstream of the culvert is low density residential. No houses lie in the floodplain upstream of the culvert.

### Funding Options:

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$41,250	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Design/Survey</b>	<b>\$41,250</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Stormwater	\$275,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Const</b>	<b>\$275,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$316,250</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



### Ranking Criteria

<b>Life Safety:</b>	5	<b>Street Flooding:</b>	0	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	0
<b>Structures Flooding:</b>	3	<b>Frequency of Flooding:</b>	10	<b>Funding Source:</b>	0	<b>Project Cost:</b>	8
<b>Right-of-Way Availability:</b>	10						



# Drainage Master Plan Update



## Project: BR09 - Assisted Living Road Overtopping

**Project Type:** Flooding      **Drainage CIP Ranking:** 53      **Existing Study:** Yes      **TxDot:** No  
**Date Identified:** 2001      **Total Weighted Score:** 679      **Panel #:** O11  
**Date Last Reported:**      **Project Cost:** \$287,500      **Council District:** 3  
**Original Cost Year:** 2010      **Study File Name:** Briar Creek Flood Hazard Study

### Description:

This project will include a study to determine the size and construction documents of the culverts. Channel widening and regrading may be necessary.

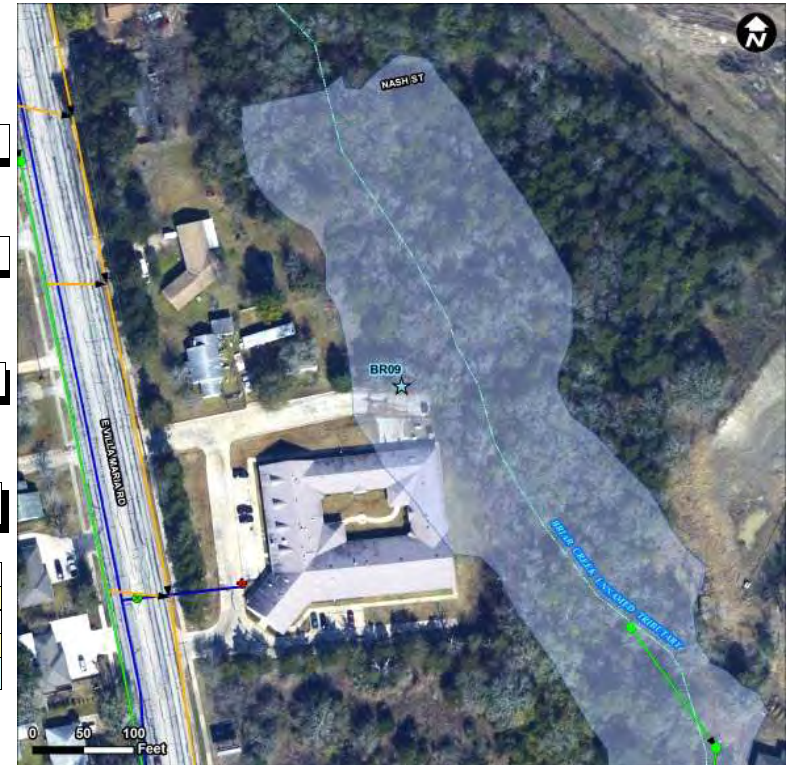
### Justification:

An access road behind the Assisted Living Complex, just east of Villa Maria in the woods, is overtopped 0.89 feet by Red River Tributary during the 100-year storm and begins flooding during the 2-year storm. The upstream land use is low density residential. The existing undersized culvert is an arch pipe 54"x38". No houses lie in the floodplain upstream of the culvert.

### Funding Options:

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$37,500	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Design/Survey</b>	<b>\$37,500</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Stormwater	\$250,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Const</b>	<b>\$250,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$287,500</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



### Ranking Criteria

<b>Life Safety:</b>	7	<b>Street Flooding:</b>	0	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	0
<b>Structures Flooding:</b>	3	<b>Frequency of Flooding:</b>	10	<b>Funding Source:</b>	0	<b>Project Cost:</b>	8
<b>Right-of-Way Availability:</b>	10						





# Drainage Master Plan Update



## Project: BR13 - Ettle Street Channel Maintenance

**Project Type:** Maintenance    **Drainage CIP Ranking:** 103    **Existing Study:** Yes    **TxDot:** No  
**Date Identified:** 2001    **Total Weighted Score:** 274    **Panel #:** O11  
**Date Last Reported:**    **Project Cost:** \$10,000    **Council District:** 3  
**Original Cost Year:** 2010    **Study File Name:** Briar Creek Flood Hazard Study

### Description:

This project includes maintenance to the upper portion of Briar Creek near Sue Haswell Park to prevent blockage of flow. The City will have to work with local contractors to develop a routine maintenance program. For budgeting purposes it assumed maintenance will be performed semi-annually. This may need to be adjusted for larger storm events that are not anticipated.

### Justification:

The Briar Creek Citizen Survey found residents complained the channels of upper Briar Creek near Sue Haswell Park are not well maintained and debris blocks flow.

### Funding Options:

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$10,000	Stormwater	\$0	\$0	\$0	\$0	\$0
Const	\$10,000		\$0	\$0	\$0	\$0	\$0
Total	\$10,000		\$0	\$0	\$0	\$0	\$0



### Ranking Criteria

Life Safety:	0	Street Flooding:	0	Infrastructure Damage:	0	Maintenance:	2
Structures Flooding:	0	Frequency of Flooding:	4	Funding Source:	0	Project Cost:	10
Right-of-Way Availability:	3						



# Drainage Master Plan Update

## Project: BR17 - Briarcrest Bridge Flooding



**Project Type:** Flooding      **Drainage CIP Ranking:** 60      **Existing Study:** Yes      **TxDot:** Yes  
**Date Identified:** 2001      **Total Weighted Score:** 642      **Panel #:** P12  
**Date Last Reported:**      **Project Cost:** \$460,000      **Council District:** 3  
**Original Cost Year:** 2010      **Study File Name:** Briar Creek Flood Hazard Study

### Description:

This project includes a study to determine a structure to convey Briar Creek solely in the culvert under Briarcrest Drive and construction of the improvement. Upon completion of this study, construction documents will be prepared for the culvert improvements.

### Justification:

Briarcrest crosses over Briar Creek by means of five 10'x9' RCBCs. The soffit of culverts on Briarcrest is higher than the main lanes of State Highway 6. The result is 100-year flows are not conveyed solely by the culvert on Briar Creek. State Highway 6 is a TxDOT ROW and conveys 0.74 feet of excess flow and begins flooding during the 25-year storm.

### Funding Options:

If this project is cost beneficial, the project may qualify for funding because Highway 6 is part of the Hurricane Evacuation Route. The project may qualify for the Flood Mitigation Assistance Grant, the Hazard Mitigation Grant Program, or the Pre-Disaster Mitigation Grant. These funding options are suggestions and further investigation would be necessary to determine if this project qualifies for the suggested grants.

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$60,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Design/Survey</b>	<b>\$60,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Stormwater	\$400,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Const</b>	<b>\$400,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$460,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



### Ranking Criteria

<b>Life Safety:</b>	7	<b>Street Flooding:</b>	7	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	0
<b>Structures Flooding:</b>	3	<b>Frequency of Flooding:</b>	4	<b>Funding Source:</b>	0	<b>Project Cost:</b>	7
<b>Right-of-Way Availability:</b>	8						





## Drainage Master Plan Update

Project: BR18 - E 26th Street from Dillard Street to S Coulter Drive



**Project Type:** Flooding  
**Date Identified:** 2010  
**Date Last Reported:**  
**Original Cost Year:** 2010

**Drainage CIP Ranking:** 81  
**Total Weighted Score:** 483  
**Project Cost:** \$25,000  
**Study File Name:**

**Existing Study:** No  
**Panel #:** O10  
**Council District:** 3  
**TxDot:** No

### Description:

This project requires a study to determine the cause of flooding and recommend alternatives to eliminate flooding in the area.

### Justification:

The City identified East 26th Street flooding from Dillard Street to South Coulter Drive. There has not been a study in this area, but the houses were built in the creek banks and subject to erosion as well as flooding from the stream.

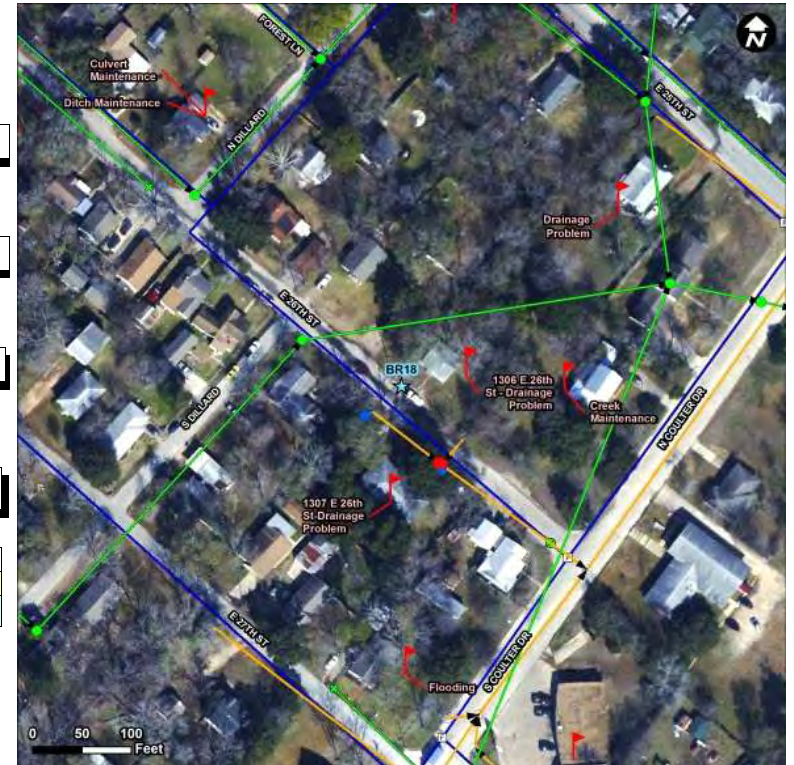
### Funding Options:

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$25,000	Stormwater	\$0	\$0	\$0	\$0	\$0
Design/Survey	\$25,000		\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$25,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

### Ranking Criteria

<b>Life Safety:</b>	0	<b>Street Flooding:</b>	0	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	2
<b>Structures Flooding:</b>	0	<b>Frequency of Flooding:</b>	7	<b>Funding Source:</b>	0	<b>Project Cost:</b>	10
<b>Right-of-Way Availability:</b>	10						







# Drainage Master Plan Update

## Project: BR19 - Briarcreek Court Flooding



**Project Type:** Maintenance    **Drainage CIP Ranking:** 84    **Existing Study:** No    **TxDot:** No  
**Date Identified:** 2010    **Total Weighted Score:** 451    **Panel #:** P11  
**Date Last Reported:**    **Project Cost:** \$25,000    **Council District:** 4  
**Original Cost Year:** 2010    **Study File Name:**

### Description:

This project requires a study to determine the cause of flooding and recommend alternatives to eliminate flooding in the area.

### Justification:

The City identified flooding on Briarcreek Court in Briarcrest Estates Phase 4 subdivision and labeled it as a local maintenance issue.

### Funding Options:

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$25,000	Stormwater	\$0	\$0	\$0	\$0	\$0
Design/Survey	\$25,000		\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$25,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



### Ranking Criteria

<b>Life Safety:</b>	0	<b>Street Flooding:</b>	0	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	0
<b>Structures Flooding:</b>	0	<b>Frequency of Flooding:</b>	7	<b>Funding Source:</b>	0	<b>Project Cost:</b>	10
<b>Right-of-Way Availability:</b>	10						



## Drainage Master Plan Update

### Project: BR20 - Briar Creek Estates Ph 1 Channel Erosion



**Project Type:** Erosion      **Drainage CIP Ranking:** 110      **Existing Study:** No      **TxDot:** No  
**Date Identified:** 2010      **Total Weighted Score:** 225      **Panel #:** P12  
**Date Last Reported:**      **Project Cost:** \$828,000      **Council District:** 3  
**Original Cost Year:** 2010      **Study File Name:**

#### Description:

This project requires a study, design and bank stabilization for the 800 LF of identified channel.

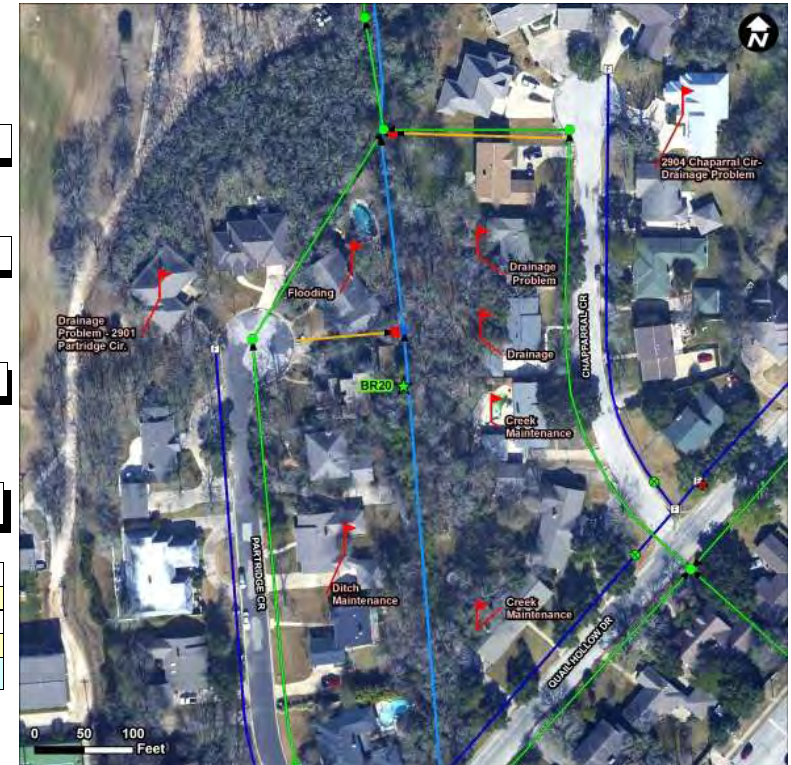
#### Justification:

The City identified channel erosion along 800 LF of Briar Creek in the Briarcrest Estates Ph 1 subdivision between Partridge Drive and Chapparral Circle. Both overbanks are developed which will need to be accounted for during design and construction.

#### Funding Options:

#### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$108,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Design/Survey</b>	<b>\$108,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Stormwater	\$720,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Const</b>	<b>\$720,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$828,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



#### Ranking Criteria

<b>Life Safety:</b>	0	<b>Street Flooding:</b>	0	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	4
<b>Structures Flooding:</b>	0	<b>Frequency of Flooding:</b>	0	<b>Funding Source:</b>	0	<b>Project Cost:</b>	6
<b>Right-of-Way Availability:</b>	0						



## Drainage Master Plan Update

### Project: BR21 - Freedom Blvd Culvert Flooding



**Project Type:** Flooding      **Drainage CIP Ranking:** 88      **Existing Study:** No      **TxDot:** No  
**Date Identified:** 2010      **Total Weighted Score:** 427      **Panel #:** P12  
**Date Last Reported:**      **Project Cost:** \$460,000      **Council District:** 4  
**Original Cost Year:** 2010      **Study File Name:**

#### Description:

This project requires study, design and construction of the Freedom Boulevard culverts.

#### Justification:

The City identified flooding at the Unnamed Tributary of Briar Creek and Freedom Boulevard culverts. The three existing undersized culverts are 48" RCP.

#### Funding Options:

#### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$60,000	Stormwater	\$0	\$0	\$0	\$0	\$0
Design/Survey	\$60,000		\$0	\$0	\$0	\$0	\$0
Stormwater	\$400,000	Stormwater	\$0	\$0	\$0	\$0	\$0
Const	\$400,000		\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$460,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

#### Ranking Criteria

<b>Life Safety:</b>	0	<b>Street Flooding:</b>	0	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	0
<b>Structures Flooding:</b>	1	<b>Frequency of Flooding:</b>	7	<b>Funding Source:</b>	0	<b>Project Cost:</b>	7
<b>Right-of-Way Availability:</b>	10						







# Drainage Master Plan Update



## Project: BR22 - River Forest and DeLee Street Cul-de-sac Flooding

**Project Type:** Flooding      **Drainage CIP Ranking:** 81      **Existing Study:** No      **TxDot:** No  
**Date Identified:** 2010      **Total Weighted Score:** 483      **Panel #:** P11  
**Date Last Reported:**      **Project Cost:** \$25,000      **Council District:** 4  
**Original Cost Year:** 2010      **Study File Name:**

### Description:

This project requires a local area analysis for the project area to determine the source of flooding. As part of this project proposed alternatives should be provided. One alternative may included the modification of the storm drain system the River Forest Circle and DeLee Street cul-de-sacs and the redesign of the streets.

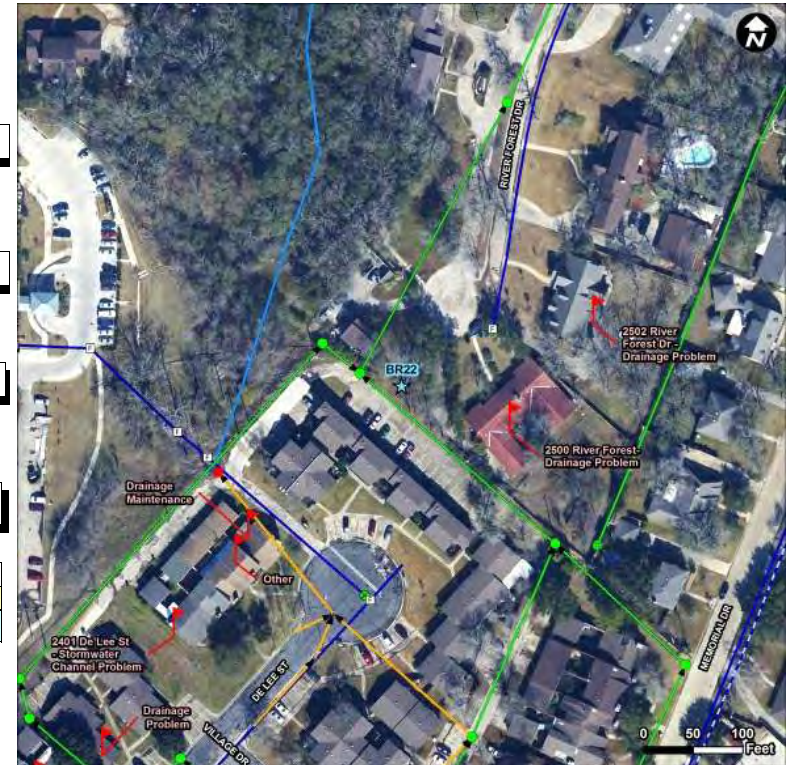
### Justification:

The City identified flooding south of River Forest Circle cul-de-sac and DeLee Street cul-de-sac. The source of flooding is unknown. There is not an existing study in this area.

### Funding Options:

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$25,000	Stormwater	\$0	\$0	\$0	\$0	\$0
Design/Survey	\$25,000		\$0	\$0	\$0	\$0	\$0
Total	\$25,000		\$0	\$0	\$0	\$0	\$0



### Ranking Criteria

Life Safety:	0	Street Flooding:	0	Infrastructure Damage:	4	Maintenance:	2
Structures Flooding:	0	Frequency of Flooding:	7	Funding Source:	0	Project Cost:	10
Right-of-Way Availability:	10						



# Drainage Master Plan Update



## Project: BR23 - Briar Creek Tributary D Flooding

**Project Type:** Flooding      **Drainage CIP Ranking:** 96      **Existing Study:** No      **TxDot:** No  
**Date Identified:** 2010      **Total Weighted Score:** 326      **Panel #:** S10  
**Date Last Reported:**      **Project Cost:** \$25,000      **Council District:** 5  
**Original Cost Year:** 2010      **Study File Name:**

### Description:

This project requires a local area analysis for the project area to determine the source of flooding. As part of this project proposed alternatives should be provided.

### Justification:

The City identified flooding along Briar Creek Tributary D from West Villa Maria south to Bryan's Bend Apartments.

### Funding Options:

### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$25,000	Stormwater	\$0	\$0	\$0	\$0	\$0
Design/Survey	\$25,000		\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$25,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



### Ranking Criteria

<b>Life Safety:</b>	0	<b>Street Flooding:</b>	0	<b>Infrastructure Damage:</b>	4	<b>Maintenance:</b>	0
<b>Structures Flooding:</b>	0	<b>Frequency of Flooding:</b>	7	<b>Funding Source:</b>	0	<b>Project Cost:</b>	10
<b>Right-of-Way Availability:</b>	0						





## Drainage Master Plan Update



### Project: BR25 - Apple Creek Circle in Briarcrest Estates Subdivision Erosion

**Project Type:** Erosion      **Drainage CIP Ranking:** 22      **Existing Study:** Yes      **TxDot:** No  
**Date Identified:** 2002      **Total Weighted Score:** 814      **Panel #:** P12  
**Date Last Reported:**      **Project Cost:** \$966,000      **Council District:** 3  
**Original Cost Year:** 2010      **Study File Name:** Briar Creek Flood Hazard Study

#### Description:

This project will include a study of current hydraulic conditions and approximately 1200 LF of channel improvements.

#### Justification:

Briar Creek discharges from a detention pond into a full concrete channel on Briarcrest Country Club near Apple Creek Circle. The concrete channel is 200 feet long, which ends in Briarcrest Estates and returns to a natural channel where erosion is occurring. Briar Creek has very steep side slopes in this area and property owners' could lose their fences. The cause of erosion is high velocities resulting from weir flow over the concrete spillway. The velocities range from 5 to 18 feet per second during the 100-year storm. There are 5 homes that are repetitive loss structures in this area.

#### Funding Options:

If a construction project is preferred and cost beneficial, this project has potential to qualify for the Severe Repetitive Loss Grant, the Flood Mitigation Assistance Project Grant, the Pre-Disaster Mitigation Grant, or the Hazard Mitigation Grant Program (following a declaration of a natural disaster). If a buy-out of the homes is preferred and cost beneficial, this project may qualify for the Severe Repetitive Loss Grant, the Repetitive Flood Claims Grant, the Pre-Disaster Mitigation Grant, and the Hazard Mitigation Grant Program. These funding options are suggestions and will need to be further investigated to ensure that the project qualifies for any of the suggested grants.

#### Funding Source Summary:

Type	Original	Source	2011	2012	2013	2014	2015
Stormwater	\$126,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Design/Survey</b>	<b>\$126,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Stormwater	\$840,000	Stormwater	\$0	\$0	\$0	\$0	\$0
<b>Const</b>	<b>\$840,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$966,000</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

#### Ranking Criteria

<b>Life Safety:</b>	5	<b>Street Flooding:</b>	3	<b>Infrastructure Damage:</b>	10	<b>Maintenance:</b>	10
<b>Structures Flooding:</b>	9	<b>Frequency of Flooding:</b>	4	<b>Funding Source:</b>	0	<b>Project Cost:</b>	6

