

#### **QUESTIONS & ANSWERS**

### **El Dorado Blvd Widening Project**

#### Is there another option if we do not want a Swale?

The Harris County Engineering Department and Houston Public Works have considered multiple alternatives to ensure that this project provides the required rainfall detention. As a result, the proposal to install a median swale was put forward for community feedback.

Maybe I missed something. You write "Due to budget constraints, a new option has been presented ..." However, I am at a loss at what the new option replaces and it's cost savings. The swale will not be as safe as underground drainage, if that is where you are saving money by not having it. If so, find the money in another part of the budget. Thank you for your consideration.

The initial scope of the El Dorado Blvd Widening Project did not include the installation of a median swale causing the design to be out of compliance with recently adopted rainfall detention regulations. Median ditches have been installed in other parts of Harris County and are not known to cause any new safety hazards for drivers.

# Does any other road in the Clear Lake Area have a similar swale? Swales just lead to ponding water and mosquitoes?

Harris County has used similar swales successfully on roads such as Birnamwood Drive. To avoid water ponding, the swale will be graded to flow to an inlet that drains directly into the existing main line. When the main line empties so will with swales.

Thank you for this information but there is not enough explanation here to make an informed opinion. Is the proposed swale simply a modification/addition to the median or a cheap substitute for other proposed drainage. Flooding on El Dorado has increased dramatically in the past several years, and it has been much worse since the Reserve subdivision was built. We need more water retention than currently exits now- even before the expansion. I live 3 houses down from El Dorado Blvd so I am very directly affected by any changes. It is disappointing that we are getting a notice now that budget is tight when there were less expensive options to the 17 foot median to choose from. Please help me understand what the full implications of this swale addition are to this design and the impact for water retention and flooding so I can provide the appropriate input. Thank you for the notification.

The initial scope of the El Dorado Blvd Widening Project did not include the installation of a median swale causing the design to be out of compliance with recently adopted rainfall detention regulations. The Harris County Engineering Department and Houston Public Works have considered multiple alternatives to ensure that the El Dorado Blvd Widening project meets current standards. As a result, a medium swale was proposed for community feedback. The addition of a swale will provide the necessary rainfall detention needed to mitigate flooding for the area.



Is the proposed swale in lieu of storm water retention? The email was very quiet regarding what the budget issue is. Is it for storm water retention? With problems of more water reaching Horsepen Bayou during storm events and homes on the Bayou flooding because of this water. You need to be upfront and tell citizens what the budget issue is and why you did not know of it earlier and additionally what the other options are. Is this to be discussed during the HCFCD virtual meeting on July 30?

The initial scope of the El Dorado Blvd Widening Project did not include the installation of a median swale causing the design to be out of compliance with recently adopted rainfall detention regulations. The Harris County Engineering Department and Houston Public Works have considered multiple alternatives. As a result, they have developed the most cost-effective and appropriate course of action to ensure the project meets all regulations. Questions about upcoming HCFCD virtual meeting agendas can submitted to the HCFCD Hotline: 346-286-4197.

I live in the Bay Forest subdivision, and have questions regarding the proposed design switch from a median to a swale: 1. Would this redesign in any way affect the 10' sidewalk currently called for in the overall design? 2. What budget constraints? Where is the project running over budget? Were there scope adders and/or other entities pining for money (this occurs often)? If a swale is to be installed, this is a drainage feature, so what existing drainage or water conveyance features are being altered such that the 17' flat grassy median now becomes a swale?

The installation of the median swale will not affect the proposed 10' sidewalk. The initial scope and funding agreement of the El Dorado Blvd Widening Project did not include the installation of a median swale, causing the design to be out of compliance with recently adopted rainfall detention regulations. The Harris County Engineering Department and Houston Public Works have considered multiple alternatives. As a result, they have developed the most cost-effective and appropriate course of action to ensure the project meets all regulations and does not disrupt the current funding agreement. Currently, the only change to the scope of work being proposed is the installation of the medium swale. The swale will be graded to flow to an inlet that drains directly into the existing main line.

Before I complete the survey, I would appreciate response to a couple of questions. 1) How does adding a 2' deep swale reduce cost? Please explain and/or share the other implications to the project. 2) While not related to the survey, please clarify if a new bridge is being constructed across Horsepen Bayou in order for the bridge to be 4 lanes also.

The installation of the medium will not create a reduction in the total cost of the project. Rather, the proposal for a medium swale was developed in order to ensure that the spending does not exceed the budget that was established prior the adoption of the new rainfall detention regulations. A new two lane bridge will be constructed alongside the existing. There will be four lanes of travel across Horsepen Bayou post construction.



I'm concerned the City hasn't accounted for the increased impermeable surface from doubling the lanes of traffic on El Dorado Blvd and if we have it hasn't been communicated effectively to the community.

A drainage analysis was performed and after a thorough review of the results it was determined that the storm sewer did not need to be resized. From the analysis it was determined that due to the recent adoption of new rainfall regulations, The Harris County Engineering Department and Houston Public Works needed to provide more rainfall detention. The proposal for the medium swale will bring the project into compliance and will mitigate potential flooding.

# I couldn't find anywhere in the study that explicitly calls out how we are accounting for the increase in impermeable surface. Can you point me in the right direction?

A drainage analysis was performed and after a thorough review of the results it was determined that this project would not negatively impact the storm sewer system. From the analysis it was determined that due to the recent adoption of new rainfall regulations, The Harris County Engineering Department and Houston Public Works needed to provide more rainfall detention. The proposal for the medium swale will bring the project into compliance and will mitigate potential flooding.

## The existing drainage study does not cover impermeable surface increases, nor does it include implications of a median swale and its capacity.

A drainage analysis was performed and after a thorough review of the results it was determined that this project would not negatively impact the storm sewer system. The storm sewer was originally constructed to accommodate the drainage of the full boulevard. The proposed medium swale will provide the necessary rainfall detention needed to mitigate flooding for the area.

I feel, from a non-engineer's perspective, we have not communicated how this drainage option will address the increasing severity of storms and impact these new lanes will have on the surrounding communities and bayous.

A drainage analysis was performed and after a thorough review of the results it was determined that this project would not negatively impact the storm sewer system. The storm sewer system was originally constructed to accommodate the drainage of the full boulevard. The proposed medium swale will provide the necessary rainfall detention needed to mitigate flooding for the area.

### How is the City of Houston accommodating the increase in impermeable surface?

A drainage analysis was performed and after a thorough review of the results it was determined that this project would not negatively impact the storm sewer system. The storm sewer system was originally constructed to accommodate the drainage of the full boulevard. The medium swale is being proposed due to the recent adoption of new rainfall regulations. The swale will provide the necessary rainfall detention.



#### Is there detention/retention baked into this project I'm not seeing in the design?

The Harris County Engineering Department and Houston Public Works have considered multiple alternatives to ensure that this project provides the required rainfall detention. As a result, the proposal to install a median swale was put forward for community feedback.

#### Is our drainage study sound?

Yes, a drainage analysis was performed and after a thorough review of the results it was determined that this project would not negatively impact the storm sewer system. The storm sewer system was originally constructed to accommodate the drainage of the full boulevard.

### Will only the new side of El Dorado drain into the swale and the old side use the current drains?

The new and old segments of El Dorado Boulevard will both drain into the existing storm sewer system through curb inlets. The purpose of the swale is to provide rainfall detention. Rainfall collected in the swale will flow into an inlet that drains directly into the existing main line.

# As the trees/shrubs grow to maturity and silt collects on the bottom over the years, how will the rapid storm water removal capacity of the swale be restored.

The City of Houston regularly inspects and maintains all off-road ditches, swales and detention systems. In addition, they are inspected after significant rain events to ensure proper operation and to identify any damage and/or blockages that may have occurred as a result of increased runoff.

### In a large storm how will debris from the trees/shrubs be prevented from blocking the pipe that travels under the intersections?

Inlets in the swales will be designed with appropriate grate coverings to prevent large debris from entering the storm sewer system and blocking flow.

# Since voting in the poll was not limited to one per household and anyone could theoretically vote more than once, how can the results be used as a basis for any decision?

We will take the necessary steps to address any error in the feedback received. To date, our data shows that 99% of the surveyors have submitted their name with their vote.

The press releases uses a photo along Birnamwood Rd. to represent the swale. Why was a wintertime photo of a virtually empty, newly mowed swale used instead of a recent photo showing it filled with tall grass, shrubs and much taller trees? (Photo attached from summer 2019)

Although the landscaping within the Birnamwood Rd median will differ from El Dorado Blvd, the photo was used to help residents visualize the depth and scale of the proposed swale.