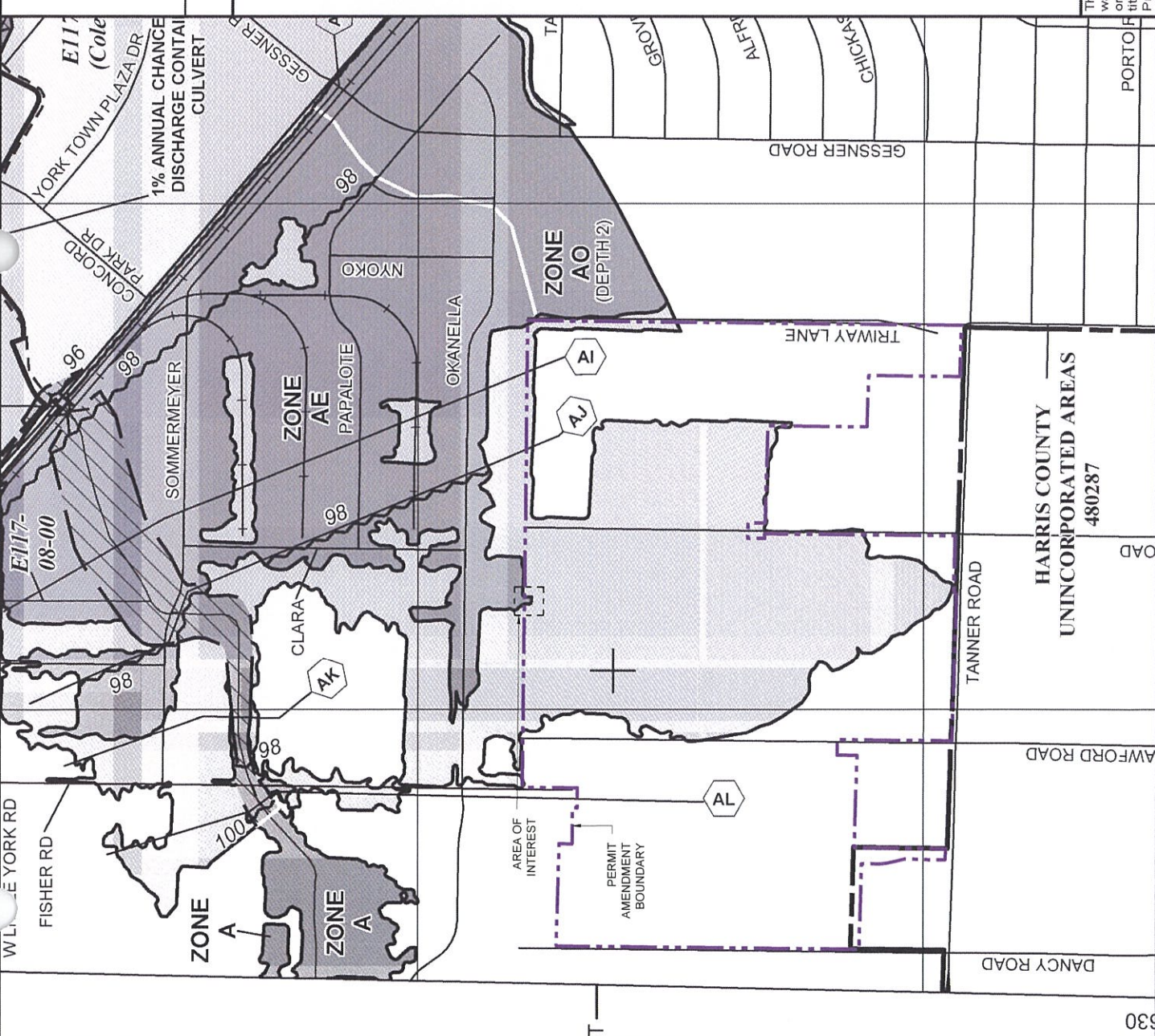


**APPENDIX III-2F-2**

**Firm Map Panel, LOMA, and FEMA Determination Letter**



MAP SCALE 1" = 1000'



**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0635M**

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**HARRIS COUNTY,**  
**TEXAS**  
**AND INCORPORATED AREAS**

**PANEL 635 OF 1150**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:	COMMUNITY	NUMBER	PANEL	SUFFIX
	HARRIS COUNTY	480287	0635	M
	UNINCORPORATED AREAS	480296	0635	M
	HOUSTON, CITY OF	480300	0635	M
	JERSEY VILLAGE, CITY OF	480300	0635	M

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
48201C0635M

**MAP REVISED**  
JUNE 9, 2014

**Federal Emergency Management Agency**

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (REMOVAL)

COMMUNITY AND MAP PANEL INFORMATION		LEGAL PROPERTY DESCRIPTION
COMMUNITY	CITY OF HOUSTON, HARRIS COUNTY, TEXAS	Lot 18, and a portion of Lot 17, Block 4, Independence Gardens, as described in the General Warranty Deed recorded as Document No. 20110197277, in the Office of the County Clerk, Harris County, Texas  The portion of property is more particularly described by the following metes and bounds:
	COMMUNITY NO.: 480296	
AFFECTED MAP PANEL	NUMBER: 48201C0635M	
	DATE: 6/9/2014	
FLOODING SOURCE: E117-00-00 (COLE CREEK)		APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 29.857915, -95.554676 SOURCE OF LAT & LONG: LOMA LOGIC DATUM: NAD 83

### DETERMINATION

LOT	BLOCK/SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
17,	4	Independence Gardens	--	Portion of Property	X (shaded)	--	--	98.1 feet


Special Flood Hazard Area (SFHA) - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).

ADDITIONAL CONSIDERATIONS (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)

LEGAL PROPERTY DESCRIPTION  
PORTIONS REMAIN IN THE SFHA  
STATE LOCAL CONSIDERATIONS

This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Amendment for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the described portion(s) of the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document amends the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.

  
 Luis V. Rodríguez, P.E., Director  
 Engineering and Modeling Division  
 Federal Insurance and Mitigation Administration



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (REMOVAL)

### ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

#### LEGAL PROPERTY DESCRIPTION (CONTINUED)

COMMENCING at the northeast corner of said 8.207 acre tract; THENCE, South 87°46'28" West, with the northerly line of said 8.207 acres, a distance of 420.49 feet to the POINT OF BEGINNING of the herein described tract; THENCE, over and across said 8.207 acres the following 3 calls; 1. South 00 Degrees 17 Minutes 19 Seconds East, a distance of 50.07 feet; 2. South 89 Degrees 53 Minutes 45 Seconds West, a distance of 49.64 feet; 3. North 00 Degrees 06 Minutes 55 Seconds West, a distance of 48.24 feet to a point in the northerly line said 8.207 acres; THENCE, North 87 Degrees 46 Minutes 28 Seconds East, with the northerly line of said 8.207 acres, a distance of 49.52 feet to the POINT OF BEGINNING

Please note: All Elevations in this Determination Document are referenced to the North American Vertical Datum of 1988 (2001 Adjustment).


#### **PORTIONS OF THE PROPERTY REMAIN IN THE SFHA (This Additional Consideration applies to the preceding 1 Property.)**

Portions of this property, but not the subject of the Determination/Comment document, may remain in the Special Flood Hazard Area. Therefore, any future construction or substantial improvement on the property remains subject to Federal, State/Commonwealth, and local regulations for floodplain management.

#### **STATE AND LOCAL CONSIDERATIONS (This Additional Consideration applies to all properties in the LOMA DETERMINATION DOCUMENT (REMOVAL))**

Please note that this document does not override or supersede any State or local procedural or substantive provisions which may apply to floodplain management requirements associated with amendments to State or local floodplain zoning ordinances, maps, or State or local procedures adopted under the National Flood Insurance Program.

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.

  
Luis V. Rodriguez, P.E., Director  
Engineering and Modeling Division  
Federal Insurance and Mitigation Administration



# Federal Emergency Management Agency

Washington, D.C. 20472

July 17, 2020

MR. KYLE BLANK  
JONES|CARTER  
6330 WEST LOOP SOUTH  
SUITE 150  
BELLAIRE, TX 77401

CASE NO.: 20-06-2644A  
COMMUNITY: CITY OF HOUSTON, HARRIS  
COUNTY, TEXAS  
COMMUNITY NO.: 480296

DEAR MR. BLANK:

This is in reference to a request that the Federal Emergency Management Agency (FEMA) determine if the property described in the enclosed document is located within an identified Special Flood Hazard Area, the area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood), on the effective National Flood Insurance Program (NFIP) map. Using the information submitted and the effective NFIP map, our determination is shown on the attached Letter of Map Amendment (LOMA) Determination Document. This determination document provides additional information regarding the effective NFIP map, the legal description of the property and our determination.

Additional documents are enclosed which provide information regarding the subject property and LOMAs. Please see the List of Enclosures below to determine which documents are enclosed. Other attachments specific to this request may be included as referenced in the Determination/Comment document. If you have any questions about this letter or any of the enclosures, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.

Sincerely,

Luis V. Rodriguez, P.E., Director  
Engineering and Modeling Division  
Federal Insurance and Mitigation Administration

#### LIST OF ENCLOSURES:

LOMA DETERMINATION DOCUMENT (REMOVAL)

cc: State/Commonwealth NFIP Coordinator  
Community Map Repository  
Region



# Federal Emergency Management Agency

Washington, D.C. 20472

## ADDITIONAL INFORMATION REGARDING LETTERS OF MAP AMENDMENT

When making determinations on requests for Letters of Map Amendment (LOMAs), the Department of Homeland Security's Federal Emergency Management Agency (FEMA) bases its determination on the flood hazard information available at the time of the determination. Requesters should be aware that flood conditions may change or new information may be generated that would supersede FEMA's determination. In such cases, the community will be informed by letter.

Requesters also should be aware that removal of a property (parcel of land or structure) from the Special Flood Hazard Area (SFHA) means FEMA has determined the property is not subject to inundation by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This does not mean the property is not subject to other flood hazards. The property could be inundated by a flood with a magnitude greater than the base flood or by localized flooding not shown on the effective National Flood Insurance Program (NFIP) map.

The effect of a LOMA is it removes the Federal requirement for the lender to require flood insurance coverage for the property described. The LOMA *is not* a waiver of the condition that the property owner maintain flood insurance coverage for the property. *Only* the lender can waive the flood insurance purchase requirement because the lender imposed the requirement. *The property owner must request and receive a written waiver from the lender before canceling the policy.* The lender may determine, on its own as a business decision, that it wishes to continue the flood insurance requirement to protect its financial risk on the loan.

The LOMA provides FEMA's comment on the mandatory flood insurance requirements of the NFIP as they apply to a particular property. A LOMA is not a building permit, nor should it be construed as such. Any development, new construction, or substantial improvement of a property impacted by a LOMA must comply with all applicable State and local criteria and other Federal criteria.

If a lender releases a property owner from the flood insurance requirement, and the property owner decides to cancel the policy and seek a refund, the NFIP will refund the premium paid for the current policy year, provided that no claim is pending or has been paid on the policy during the current policy year. The property owner must provide a written waiver of the insurance requirement from the lender to the property insurance agent or company servicing his or her policy. The agent or company will then process the refund request.

Even though structures are not located in an SFHA, as mentioned above, they could be flooded by a flooding event with a greater magnitude than the base flood. In fact, more than 25 percent of all claims paid by the NFIP are for policies for structures located outside the SFHA in Zones B, C, X (shaded), or X (unshaded). More than one-fourth of all policies purchased under the NFIP protect structures located in these zones. The risk to structures located outside SFHAs is just not as great as the risk to structures located in SFHAs. Finally, approximately 90 percent of all federally declared disasters are caused by flooding, and homeowners insurance does not provide financial protection from this flooding. Therefore, FEMA encourages the widest possible coverage under the NFIP.

The NFIP offers two types of flood insurance policies to property owners: the low-cost Preferred Risk Policy (PRP) and the Standard Flood Insurance Policy (SFIP). The PRP is available for 1- to 4-family residential structures located outside the SFHA with little or no loss history. The PRP is available for townhouse/rowhouse-type structures, but is not available for other types of condominium units. The SFIP is available for all other structures. Additional information on the PRP and how a property owner can qualify for this type of policy may be obtained by calling the Flood Insurance Information Hotline, toll free, at 1-800-427-4661. Before making a final decision about flood insurance coverage, FEMA strongly encourages property owners to discuss their individual flood risk situations and insurance needs with an insurance agent or company.

FEMA has established "Grandfather" rules to benefit flood insurance policyholders who have maintained continuous coverage. Property owners may wish to note also that, if they live outside but on the fringe of the SFHA shown on an effective NFIP map and the map is revised to expand the SFHA to include their structure(s), their flood insurance policy rates will not increase as long as the coverage for the affected structure(s) has been continuous. Property owners would continue to receive the lower insurance policy rates.

LOMAs are based on minimum criteria established by the NFIP. State, county, and community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction in the SFHA. If a State, county, or community has adopted more restrictive and comprehensive floodplain management criteria, these criteria take precedence over the minimum Federal criteria.

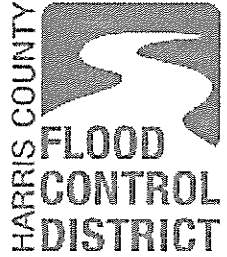
In accordance with regulations adopted by the community when it made application to join the NFIP, letters issued to amend an NFIP map must be attached to the community's official record copy of the map. That map is available for public inspection at the community's official map repository. Therefore, FEMA sends copies of all such letters to the affected community's official map repository.

When a restudy is undertaken, or when a sufficient number of revisions or amendments occur on particular map panels, FEMA initiates the printing and distribution process for the affected panels. FEMA notifies community officials in writing when affected map panels are being physically revised and distributed. In such cases, FEMA attempts to reflect the results of the LOMA on the new map panel. If the results of particular LOMAs cannot be reflected on the new map panel because of scale limitations, FEMA notifies the community in writing and revalidates the LOMAs in that letter. LOMAs revalidated in this way usually will become effective 1 day after the effective date of the revised map.

**APPENDIX III-2F-3**

**Harris County Flood Control District Response Letter**





October 30, 2020

Mr. Kyle Blank, P.E.  
Jones|Carter  
6330 West Loop South, Suite 150  
Bellaire, Texas 77401  
kblank@jonescarter.com

9900 Northwest Freeway  
Houston, Texas 77092  
346-286-4000  
www.hcfdc.org

SENT VIA ELECTRONIC MAIL: NO HARD COPY TO FOLLOW

RE: Project No. 2003020135  
Drainage and Detention Analysis for Hawthorn Park Landfill  
HCFCD Unit E117-07-00; Key Maps 409-Z, 410-W, 449-D, 450-A; Pct. 4

Dear Mr. Blank:

The referenced report has been reviewed pursuant to the HCFCD Policy, Criteria, and Procedure Manual and Section 3.02 of the *"Regulations of Harris County, Texas for the Approval and Acceptance of Infrastructure."* The goals of the review are to provide technical support to the Harris County Floodplain Administrator and to apply HCFCD policy and criteria where appropriate.

This review addresses issues regarding hydraulic and hydrologic drainage design criteria only. Design criteria regarding the site layout of the proposed development and drainage facilities will be reviewed upon submittal of site plans.

Our understanding of the report is described below. Please see the response contained within the *"Hydrologic & Hydraulic Technical Review"* section.

### **HCFCD Jurisdiction**

The project meets at least one of the following conditions; HCFCD criteria apply:

- The project directly affects HCFCD Infrastructure.
- The project proposes infrastructure to be maintained by HCFCD.
- The project is located within a watershed where HCFCD has a regional project adopted by Harris County Commissioners Court.
- A technical review has been requested by Harris County.

### **Submittal Information**

#### **Submitted Report**

Drainage and Detention Analysis for  
Hawthorn Park Landfill  
September 14, 2020

#### **Consulting Engineer**

Jones|Carter  
6330 West Loop South, Suite 150  
Bellaire, Texas 77401  
TBPE Registration No. F-439  
Mr. Kyle Blank, P.E.  
TX P.E. # 98442

**Project Summary**

This report identifies the drainage and detention requirements associated with the expansion of the Hawthorn Park landfill within the White Oak Bayou (E100-00-00) watershed. It evaluates existing and proposed stormwater detention storage for the landfill tract such that there are no adverse drainage impacts caused by the proposed site expansion based on Harris County Flood Control District (HCFCD) criteria. This report analyzes the hydrologic and hydraulic conditions of the tract using the Small Watershed Hydrograph Method (Method 2) as described in Section 6.11 of HCFCD's Policy, Criteria, and Procedure Manual (PCPM), dated July 2019.

The Hawthorn Park Landfill is located in the City of Houston within Harris County. The landfill is located north of Tanner Road, west of Gessner Road, and East of the Sam Houston Parkway. Hawthorn Park's existing land use is mostly landfill, with some areas of industrial, detention, road right-of-way, and undeveloped/wooded land uses. The project will utilize previously abandoned road right-of-way going through the site for expansion of the landfill. To accommodate the increase in runoff, the detention basin will be expanded, while keeping the existing outfall structure the same. The detention basin service area is approximately 253-acres.

**Detention Summary**

The following detention summary was provided in the report.

Table 1 - Detention Summary Table

Hawthorn Park Landfill (E100-00-00)		2019-10-30		
Detention Basin Service Area		213 Acres		
Effective Storage Area		75 Acres		
Storm Event		10% (1 Year)	20% (10 Year)	1% (100 Year)
Flowing	Storm Runoff	1,111	430	370
	Maximum Allowable Outfall (no development) peak flow (existing catch)	140.8	121.7	214.3
	Maximum Allowable Outfall (no development) peak flow (development)	68.0	121.7	214.3
	Project Peak Flow (no development) (existing catch)	0.0	0.0	0.0
Detention (Peak)	Maximum Allowable Water Surface Elevation	75.10	69.80	66.20
	Existing Water Surface Elevation	74.62	67.80	65.00
	Water Surface Elevation Calculated	75.10	67.80	66.20
	Retention Storage Required (ac-ft)	5.81	11.02	101.1
Storage	Existing Storage Provided (ac-ft)	68.2	110.2	211.1
	Storage Rate Provided (ac-ft/yr)	0.27	0.44	0.80
	Retention (ac-ft) (existing)	0.0		
Outfall	Outfall Peak Flow (cfs)	1,111 cfs (100% peak flow)		
	Outfall Velocity (ft/s) (existing)	4.7	5.1	5.1
	Outfall Velocity (ft/s) (proposed)	4.7	5.1	5.1
	Outfall Structure (existing)	100% (no structure) (with advanced technology)		
Emergency Structure (proposed) (ac-ft/yr)		100% (no structure) (with advanced technology)		

**Floodplain Related Information**

A review of effective Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) Panel No.48201C0635M, revised June 9, 2014, shows most of the Hawthorn Park Landfill to be in Unshaded Zone X (areas outside of the effective 500-year floodplain) and Shaded Zone X (within the effective 500-year floodplain). The northern portion of the detention basin is within Zone AO (overflow zone from Cole Creek E117-00-00), and a very small area at the northern tract boundary is mapped within Zone AE (within the effective 100-year floodplain).

**Please also note that The City of Houston is the Floodplain Administrator for the receiving waterways. All issues regarding local floodplain regulations must be coordinated through The City of Houston.**

### **Report Findings**

The report states, *"Based on the results of this analysis, there is no adverse impact to existing flood hazards for storm events up to and including the Atlas 14 100-year event."*

### **Hydrologic & Hydraulic Technical Review**

HCFCDD offers the following:

The report includes statements that the project will cause no adverse impact to the receiving waterways in storm events up to and including the 100-year event. The documentation within the report generally supports the conclusions stated by the engineer. Based on the stated conclusions, HCFCDD interposes no objection to the referenced report. Please note, this acceptance does not necessarily mean that the entire report, including all supporting data and calculations, has been completely checked and verified. However, the report is signed, dated, and sealed by a Professional Engineer licensed to practice in the State of Texas, which therefore conveys the licensed engineer's responsibility and accountability.

### **Additional HCFCDD Criteria**

Site plans must be submitted to HCFCDD for review and signature.

All work proposed within existing and future HCFCDD right-of-way must be designed and constructed in accordance with the HCFCDD Policy, Criteria, and Procedure Manual.

### **Environmental Review & Permitting**

The Harris County Flood Control District's Regulatory Compliance Department requires that proposed projects impacting regulated waters of the U.S. obtain and document the required U.S. Army Corps of Engineers permit(s) for any portions of the project located within any existing or proposed HCFCDD right-of-way. The type of permit required (if any) must be stated on the site plans even if written permit authorization from the Corps of Engineers is not required. If written permit authorization is required, copies of approved Corps of Engineers permits must be submitted with the HCFCDD *Notification of Construction in Right-of-Way* and submitted to the HCFCDD Development Coordination and Inspection Department at least 48 hours prior to construction along with the *48-hour Pre-Construction Notification*.

Thank you for coordinating this project with the Flood Control District. If you have any questions regarding the technical comments, please contact Mr. Wen Zhang, P.E. via email at [Wen.Zhang@hcfcd.hctx.net](mailto:Wen.Zhang@hcfcd.hctx.net). For any other questions, you may contact me at [mike.vandewater@hcfcd.hctx.net](mailto:mike.vandewater@hcfcd.hctx.net).

Sincerely,



Mike Vandewater, P.E.  
Watershed Coordinator

MCV:ag