



City of League City, TX

300 West Walker
League City TX 77573

Meeting Minutes City Council

Tuesday, August 14, 2018

5:00 PM

Council Chambers
200 West Walker Street

Council Work Session

The City Council of the City of League City, Texas, met in a work session in Council Chambers at 200 West Walker Street on the above date at 5:00 p.m.

Mayor:

Pat Hallisey

City Council Members:

**Dan Becker
Hank Dugie
Larry Millican
Todd Kinsey
Greg Gripon
Keith Gross
Nick Long**

City Manager:

John Baumgartner

Assistant City Manager

Bo Bass

Assistant City Manager

Michael Kramm

City Attorney:

Nghiem Doan

City Secretary:

Diana M. Stapp

Chief of Police:

Gary Ratliff

Director of Budget/Project Management

Angie Steelman

Director of Engineering:

Christopher Sims

Director of Finance:

Allena Portis

Director of Human Resources/Civil Service:

Janet Shirley

Director of Parks & Cultural Services:

Chien Wei

Director of Planning/Development:

David Hoover

Director of Public Works:

Jody Hooks

1. CALL TO ORDER AND ROLL CALL OF MEMBERS

Mayor Hallisey called the meeting to order at 5:00 p.m. and called the roll. All members of Council were present. Mr. Becker arrived at 5:06 pm. Mr. Gross arrived at 5:19

Present 8 - Mayor Pat Hallisey, Mr. Dan Becker, Mr. Hank Dugie, Mr. Larry Millican, Mr. Todd Kinsey, Mr. Greg Gripon, Mr. Keith Gross and Mr. Nick Long

2. **PRESENTATION AND DISCUSSION OF RECOMMENDATIONS FROM THE BAY RIDGE SUBDIVISION DRAINAGE STUDY (DIRECTOR OF ENGINEERING)**

Christopher Sims, Director of Engineering gave opening remarks and introduced Dr. John Grounds, Vice President of LJA Engineering and Director of Water Resources.

Bay Ridge & Gum Bayou P.E.R. (Preliminary Engineering Report) - a notice to proceed was given to LJA Engineering on October 16, 2017 to begin the Preliminary Engineering report. On March 20, 2018 a Public Meeting was held to go over preliminary findings with citizens. The goal of this report is to provide an analysis of what happened and potential mitigation solutions.

Dr. John Grounds gave a presentation that highlighted the following:

Rainfall:

Exceeded the 100-year (1%) event for all durations greater than 60 minutes.

Exceeded the 500-year (0.2%) event for all durations greater than 2 hour.

The City and County may want to fund and enter into an agreement with HCFCD (Harris County Flood Control District) to install more gages.

Eye Witness Accounts:

Residents of the Bay Ridge Subdivision were interviewed by LJA staff. Flood waters were approximately 8-12 inches deep for an elevation of approximately 14.9 feet.

Isolated depths of 3 feet.

According to City personnel, the flood waters did not overtop the levee from Gum Bayou.

League City Parkway flood waters entered the subdivision at Bay ridge Drive.

Aerial photography available from the NOAA Remote Sensing division was taken on September 3, 2017 and does not show the flooding extents from Hurricane Harvey.

Detention Pond Analysis approach:

Analyzed the entire subdivision as a “pond”.

LiDAR data from TNIRIS

Applied Harvey Rainfall

Routed through the pond and the 36” outfall

Adjusted the tailwater in Gum Bayou obtain to the “eye witness” water surface elevations in the subdivision

Near and Long-Term Improvements: Cost Estimates

All proposed improvements are conceptual at this time.

Detailed Preliminary engineering Reports are necessary to provide a more accurate scope that includes the scope and fee for permitting, survey, geotechnical, environmental, engineering, and construction management.

Costs provided are for engineering and construction only and are meant to provide a comparison of the relative cost for each alternative.
Actual costs will be based on final project scope.

Near Term Improvements: Overflow Swales

The City should continue the existing program of inspection and maintenance of the flap gate, inlets, storm sewers, outfalls and the removal of any debris.

Extreme event overflow swales at Seacrest Blvd., Anchor Way, Windward, and Baycrest Drive are recommended. This would allow for the free outfall into the detention pond should there be any clogging or a failure in the underground storm sewer system.

The estimated construction cost for the overflow swales is \$20,000 each.

Near Term Improvements: Internal Storm Sewer Improvements

Replace storm sewer along east side of subdivision with an open channel.

Increase capacity of outfalls into detention pond.

The estimated cost for these combined improvements is \$482,125.00

Near Term Improvements: Levee Improvements – FEMA FIRM

Proposed Base Flood Elevation (BFE) is 14 feet.

Bay ridge Levee is between 15 and 16 feet (Survey needs to be performed). It is above the BFE.

FEMA requires a levee have at least 3 feet of freeboard.

Areas within the levee will be mapped within the 110-year floodplain (Zone AE) unless the levee is raised and certified by FEMA.

Certification costs are not included in any estimates.

Long Term Improvements: Levee, Pump Station, and Bay Ridge Drive Improvements

Raise the levee by at least 2 feet.

Improve the entrance at Bay Ridge Drive

Rebuilding the road to a higher grade.

Keep Gum Bayou and League City Parkway floodwaters from entering subdivision.

Install an automated flood gate that could impede access for emergency vehicles.

Install a 42,000 GPM Pump Station

Estimated Cost:

ALT 1: Rebuild Bay Ridge Drive \$3,711,250.00

ALT 2: Automated Flood Gate \$3,654,750.00

Long Term Improvements: Culvert and Ditch Improvements along League City Parkway and Gum Bayou – 100 Year Event

Gum Bayou has 100-year capacity

The culverts from north of League City Parkway do not have the capacity to convey the 100-year flow from South Shore Harbor to Gum Bayou

Water ponds along League City Parkway and could enter Bay Ridge

Upgrading the ditch north of and the culverts under League City Parkway would reduce and possibly eliminate the ponding

The estimated cost for these combined improvements is \$868,250.00

Long Term Improvements: Culvert and Ditch Improvements along League City Parkway and Gum Bayou – Harvey Event

To provide additional protection from a Hurricane Harvey Event:

Additional culverts would need to be installed

The ditch along League city parkway would require further expansion

Gum Bayou would need to be widened at least 25%

The estimated cost for these combined improvements is \$3,862,000.00

Long Term Improvements: League City Parkway Diversion to Galveston Bay

A channel along the north side of League City Parkway could divert stormwater to Galveston Bay

Reduce ponding along League City Parkway and reducing the possibility of an overflow from north of League City Parkway into the Bay Ridge Subdivision.

Reduce the flow in Gum Bayou reducing the tailwater of the Bay Ridge detention pond outfall and the water surface elevation downstream.

Significant wetlands along path

The estimated cost for these combined improvements is \$4,680,125.00, but Land and Environmental issues could drastically increase this cost.

Individual Homeowner Improvements: Buyouts

The City of League City can request and accept a FEMA grant and assumes responsibility and liability for managing a program that offers to its citizens, who own houses in a flood-prone area.

Grant is 25% League City and 75% FEMA

Buyout price is based on the pre-flood market value.

Property must remain open and cannot be redeveloped.

Priority given to Repetitive Loss properties AND those located in Special Flood Hazard Areas

Bay Ridge is currently mapped as Zone X Unshaded (areas outside of the 100-year floodplain). This may put these buyouts as a low priority with FEMA.

Cost per structure would be at least \$200,000.00.

For 433 houses, this would be \$86,600,000.00.

If FEMA were to provide grants for all properties, the League City 25% cost share would be \$21,650,000.00.

Individual Homeowner Improvements: House Elevation

If a home is substantially damaged by a flood, property owners will be required to meet the

Flood Damage Prevention Ordinance if they are mapped in a Special Flood Hazard Area (floodplain).

Flood insurance policyholders in Special Flood Hazard Areas can get up to \$30,000 to help pay the costs to bring their home into compliance with the City ordinance.

Unfortunately, this area is not mapped within a Special Flood Hazard Area on the Effective FIRMs and would not be eligible.

The homeowner may, on their own, choose to elevate their home above the Preliminary Base Flood Elevation plus 18 inches for freeboard to an elevation of 15.5 feet (which is near the current top of the levee).

A 1,500 square foot house would cost a minimum of \$129,000.00 to elevate at \$86/SF.

FEMA Policy Holders MAY be eligible for a \$30,000 Increased Cost of Compliance (ICC) Grant.

Next Steps:

Installation of an Emergency Pump Site for the existing Detention Pond.

Projects noted in study are eligible for Hazard Mitigation Grant Funding

- **Project 1, 2, 3b and 4b have been submitted as State NOI #190, in application phase now**

- **City cost if awarded would be 25% or roughly \$2.125 million**

Project 4c

- **Submitted as State NOI #209, in application phase now**
- **City cost if awarded would be 25% or roughly \$2.5 million depending on land cost**

3. PUBLIC COMMENTS

4. ADJOURNMENT

At 5:45 p.m., there being no further business the meeting was adjourned.

**PAT HALLISEY
MAYOR**

**DIANA M. STAPP
CITY SECRETARY**

(SEAL)

MINUTES APPROVED: October 9, 2018