

## **Resilient Houston – Rehabilitation Projects and Green Stormwater Infrastructure**

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### **1. Introduction**

Resilient Houston provides a framework for collective action for every Houstonian; our diverse neighborhoods and watersheds; City departments; and local, regional, and global partners. The strategy links existing efforts with new ones that will collectively work to protect Houston against future disasters—from hurricanes to extreme heat waves—and chronic stresses such as aging infrastructure, poor air quality, and flooding.

### **2. Objective**

Rehabilitation Projects are planned improvements to extend the life and effectiveness of existing infrastructure delivered as a whole, versus providing solutions to isolated challenges. Projects may incorporate Green Stormwater Infrastructure when feasible and beneficial; we have done three rehabilitation projects including Green Stormwater Infrastructures – Porous concrete sidewalk, porous pavers and bioswale.

### **3. Rehabilitation**

Local Drainage Program (LDP) is one of the two major Drainage Rehabilitation Programs within Stormwater Operations Branch of Houston Public Works (HPW). LDP leads the design and construction of comprehensive rehabilitation projects that include upgrades to transportation and drainage infrastructure. LDP was established to address drainage infrastructure maintenance & rehabilitation that exceed internal maintenance capabilities. LDP is tasked with providing upgrades to existing drainage systems to provide acceptable levels of service during normal rain events. Locations are primarily nominated by maintenance sections when the scope of work exceeds maintenance capabilities and/or high-level maintenance/rehabilitation is required. LDP scope may include upgrades to enclosed and open drainage systems, curb & gutter adjustments to reduce/eliminate ponding, pavement resurfacing, overlays, installation and/or repair of sidewalks and other pedestrian and bicycle facilities, among others.

### **4. Presentation Takeaways**

In our on-going street and drainage rehabilitation program we are moving away from localized approach projects to provide comprehensive solutions to maximize benefits. Comprehensive approaches have been developed incorporating all roadway users

including safety, accessibility, connectivity, and drainage solutions to make it more resilient.

The presentation will focus on the procedures used for our rehabilitation projects and the benefits to the community from our projects. We will also share some of our key projects in which we used Green Stormwater Infrastructure, provided bike paths, sidewalks to provide connectivity. We take more holistic approach to address other existing issues within the right of way even though drainage is our main concern.

## 5. References

- Resilient Cities Network: <https://resilientcitiesnetwork.org/>
- Houston Public Works – Transportation and Drainage Operations: [www.publicworks.houstontx.gov/transportation-drainage](http://www.publicworks.houstontx.gov/transportation-drainage)
- City of Houston Incentives for Green Development: [www.houstontx.gov/igd/](http://www.houstontx.gov/igd/)
- Resilient Houston & Office of Resilience and Sustainability: <https://www.houstontx.gov/mayor/chief-resilience-officer.html>
- Resilient Houston Two-Year Report: <https://www.houstontx.gov/mayor/Resilient-Houston-Two-Year-Report.pdf>
- City of Houston GIS Portal (asset, project data, reference data): <https://opendata-cohpwe.hub.arcgis.com/>