West Bouldin
Del Curto Storm Drain Project

Public Meeting

September 3, 2015

City of Austin
WATERSHED
PROTECTION

Agenda

- Introductions
- South Lamar Neighborhood Resolutions
- Localized Flooding and Storm Drain Systems
- Current Storm Drain System and Flooding Problems
- Short-Term Options
- Question & Answer Session

Introductions

- Watershed Protection Department
  - Stephanie Lott, Public Information Specialist Senior
  - Jorge Morales, P.E., Supervising Engineer
  - Sergio Mendoza, P.E., Engineer B
- CAS Consulting & Services, Inc.
  - Andrew Rooke, P.E., Senior Engineer

Resolutions to Address Drainage

- Resolution No. 20140501-042: South Lamar Neighborhood Development
- Resolution No. 20141120-102: South Lamar Neighborhood Mitigation Plan
- Resolution No. 20141220-200: Interim Drainage Regulations for Portion of South Lamar Neighborhood
- Resolution No. 20150604-044: Flood Mitigation Task Force

Flooding Solution: Two Phases

- Phase 1: Construct “small-scale” projects to improve drainage and reduce flooding in 2016
- Phase 2: A larger project to address the flooding identified in the Preliminary Engineering Report

Two Types of Flooding

- **Creek Flooding:** Occurs when a creek rises over its banks.
- **Localized Flooding**: Occurs away from creeks.

Prioritization of Local Flood Projects

- 3-1-1 calls help identify problem areas
- Evaluate problem areas using computer models
- Assess the scope of the problem
  - *Safe access in and out of the neighborhood*
  - *Identify what floods (houses, garages, yards, etc…)*
  - *Determine if cost-effective solution exists*

Definition of a Storm Drain System

- System of ditches, pipes and culverts
- Drains rainfall from streets to prevent flooding
- Carries rain water through ditches/pipes to creek

Components of a Storm Drain System

1. Inlets and curbs capture rain water.

2. Underground pipes carry the water.

3. Rain water is released into a creek at the outfall. Sometimes it goes to a water quality or detention pond first.

West Bouldin Watershed

- South of Oltorf Street
- North of Manchaca Road
- Straddles South Lamar Boulevard

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Del Curto Project Area

Del Curto Existing Storm Drain

- 107 acres

Del Curto Existing Storm Drain

- 38 inlets
- 9,300 feet of pipe

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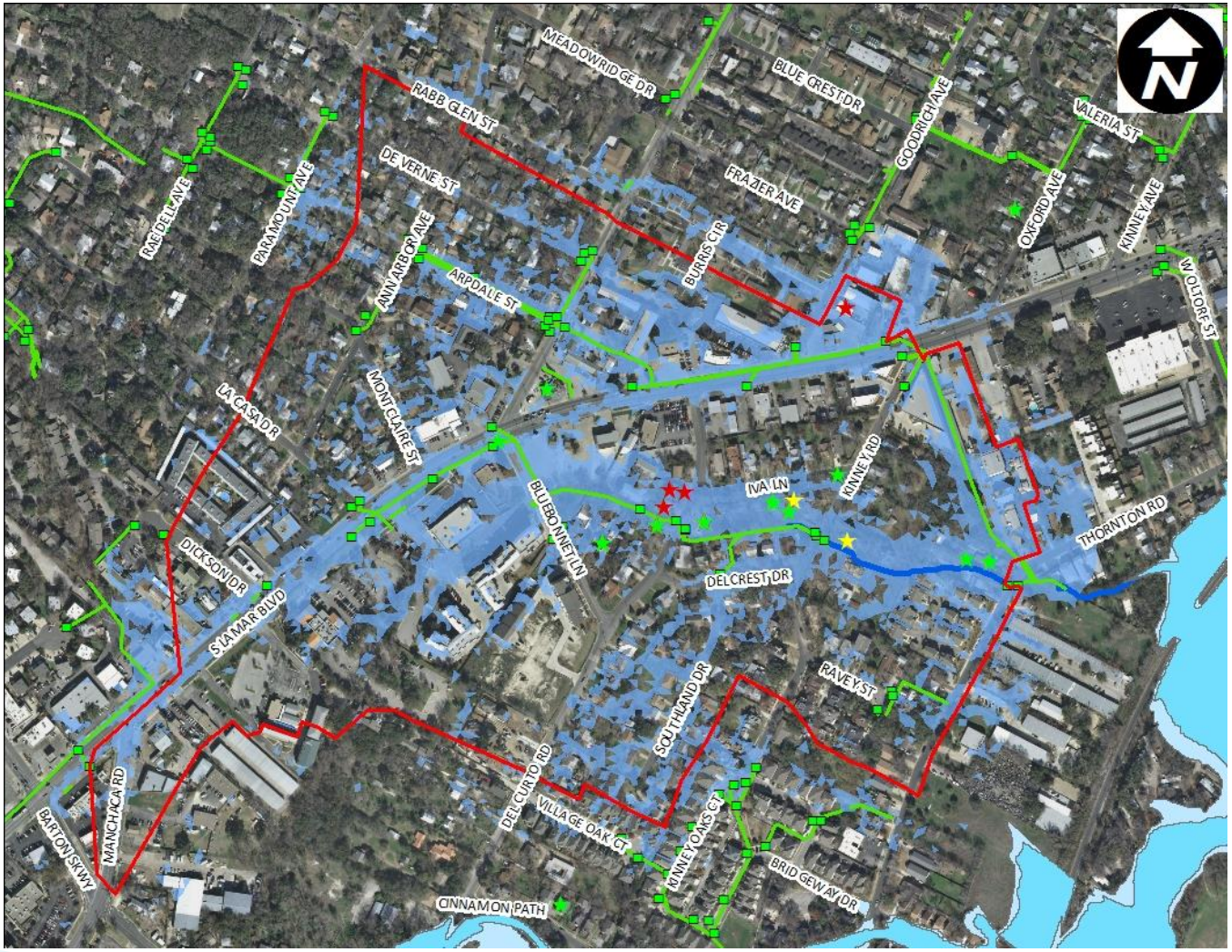
Del Curto Flooding

20 places flood

★ Building

★ Yellow Yard

★ Green Street



Storm Drain System Concerns

- Project cannot increase flooding or erode the Thornton Tributary or West Bouldin Creek
- Built under different standards
- Pipes are too small
- Not enough inlets
- Insufficient channel capacity

Preliminary Engineering Report (PER)

- PER completed by City of Austin WPD
- Additional inlets
- Upgrade existing pipe
- Additional pipe
- Keep storm drain within the public Right-of-Way

PER: Issues

- Cost range: **$16.7M - $24.0M**
- Construction along South Lamar Blvd.
- Long time-frame
  (to purchase easements, complete construction)

Phase I: Status

- Hired CAS Consulting & Services, Inc.
- Proposed smaller, more manageable projects
- Goal to start construction in 2016

Documented Flood Issues

Phase I: Alternatives

- 20 small projects were identified as having potential for flood reduction in the targeted area and may be implemented quickly
- Additional factors were considered, such as the potential for environmental or neighborhood benefits

Phase I: 20 Project Alternatives

1. Expanding Private Detention / Water Quality Facilities
2. Bypass: Bluebonnet to Kinney
3. Undergound Detention at Del Curto
4. Creek Enhancement
5. Property Buyouts
6. Curb and Gutter: Bluebonnet
7. Detention at 2323 S. Lamar
8. Stacked Ponds near Bluebonnet
9. Underground Detention options at Matt's El Rancho
10. Conveyance Enhancement (Open Channel/Combined)
11. Detention at Open Tract between Kinney and Thornton
12. Detention at Confluence with West Bouldin Creek
13. Green Streets on Iva and Delcrest (reduced width, 1-way)
14. Detention at 2303 Thornton
15. Conveyance: Thornton to Channel Outfall
16. Easements Acquisition
17. Rainwater Harvesting
18. Porous Pavement for any Current Development
19. Cost Participation with New Developments
20. Regional Stormwater Management Program (RSMP)

Phase I: Projects Ranking

- A brainstorming session was held with City staff to assess the technical capabilities of each alternative
- A scoring matrix was developed to rank the projects, not only for their ability to reduce flooding, with cost and supplemental benefits included
- 8 total project alternatives were selected for rapid implementation

Already Implemented

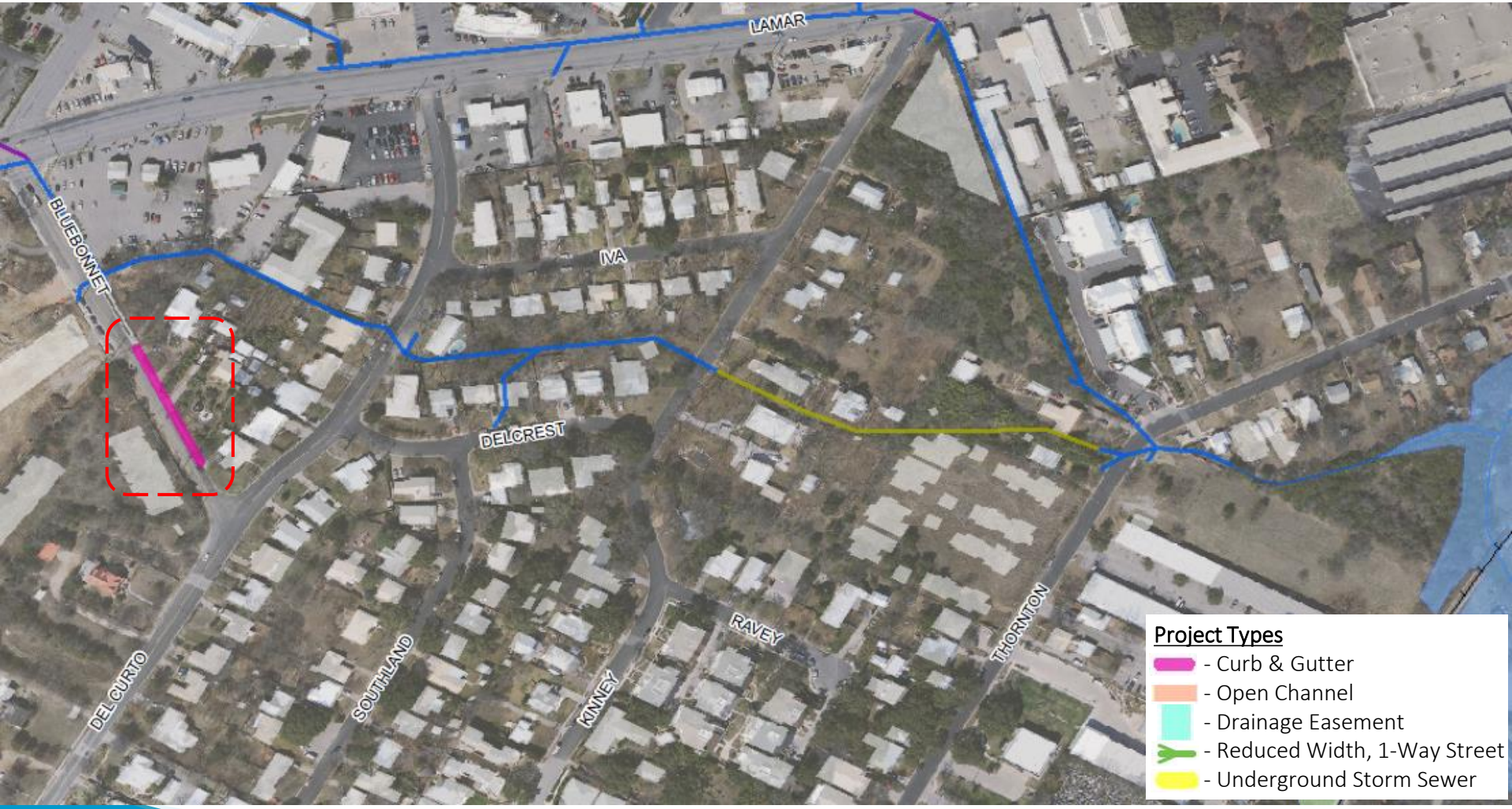
- Project 19 – Cost Participation with New Developments
- Project 20 – Regional Stormwater Management Program (RSMP)

Project Components

- Project 2 – By-Pass: Bluebonnet to Kinney
- Project 6 – Curb & Gutter along Bluebonnet
- Project 10 – Conveyance Enhancement: Kinney to Thornton
- Project 13 – Green Streets on Iva & Delcrest
- Project 15 – Conveyance Enhancement: Thornton to Channel Outfall
- Project 16 – Easements Acquisition

Project 2 – By-Pass: Bluebonnet to Kinney, w/Alternates

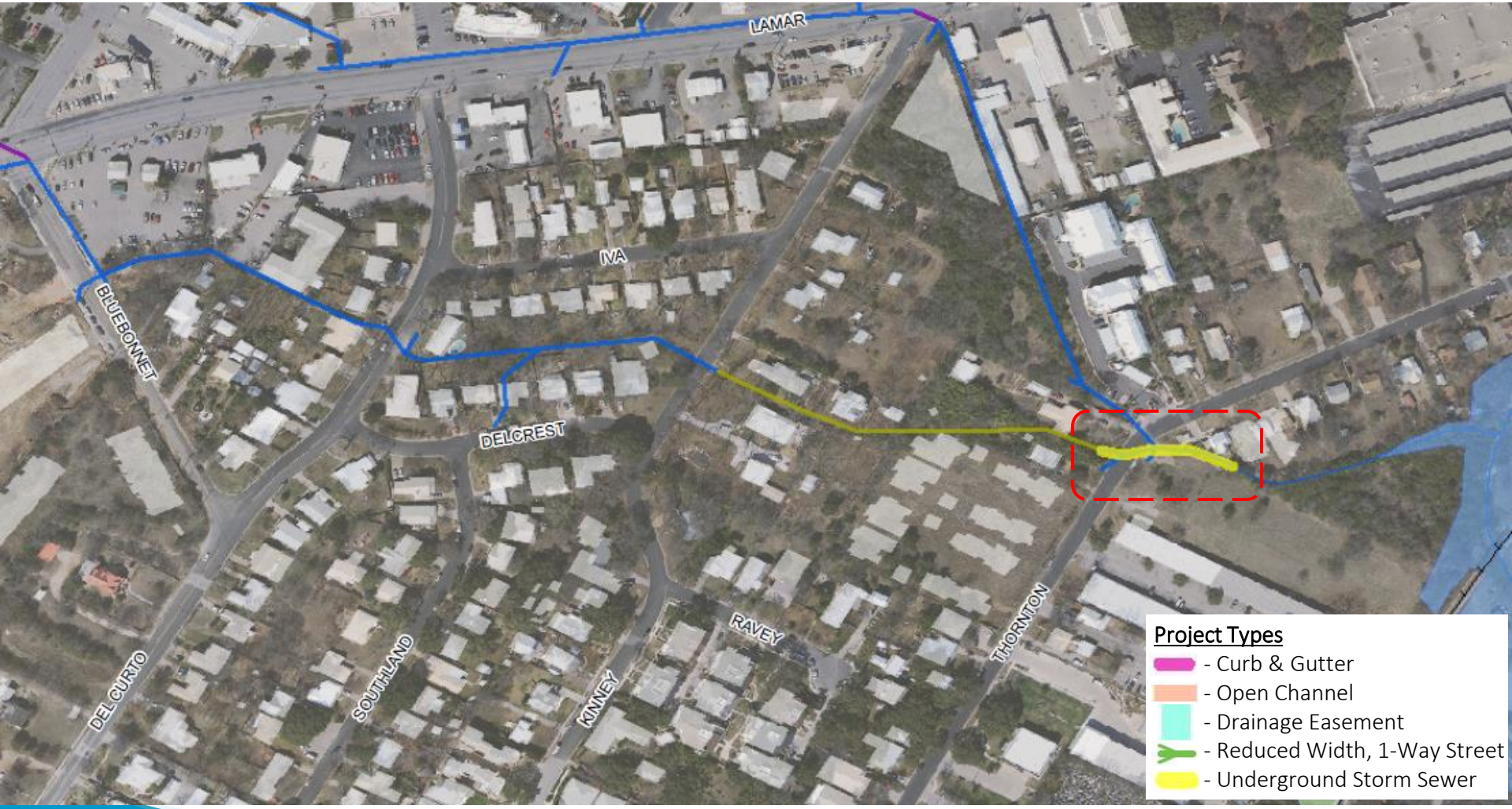
Project 6 – Curb & Gutter along Bluebonnet



Project 10 – Conveyance Enhancement: Kinney to Thornton

Project 13 – Green Streets on Iva & Delcrest

Project 15 – Conveyance Enhancement: Thornton to Channel Outfall



Project 16 – Easements Acquisition

Phase 1 – All Projects

Temporary Neighborhood Impacts

- Road closures / Detours
- Noise
- Dust
- Access to driveways
- Street Parking
- Work in yards for inlets
- Possible disruption to water service

Some Permanent Impacts

- Reduced flooding
- Additional Inlets
- Wider channel
- Narrower streets

Phase 2: Long-term Solution

- Scope includes the entire Del Curto drainage area
- Part of the South Lamar Neighborhood Mitigation Plan
- Preliminary work will be concurrent with Phase 1
- Detailed design will begin after Phase 1

Project Schedule

- **2015/2016** Design and permit Phase 1 projects
- **2016/2017** Begin Construction Phase 1 projects

  Preliminary planning for Phase 2 project
- **2018** Begin design for Phase 2 project

Ways you can help

- Avoid building in drainage easements
- Maintain the easements clear of all obstructions
- Report flooding and drainage concerns to 3-1-1
- Email floodpro@austintexas.gov and request information regarding flood-proofing

Available Resources

- Flood insurance
- Sign up for ATXfloods Alerts
- Check ATXfloods.com for road closures
- Austin 3-1-1 app
  - Google Play Store
  - iTunes Store
  - 311.austintexas.gov

Open Discussion