University of Houston
Transportation Management Plan

TexITE Fall Meeting
Garland, Texas
September 16, 2011
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WALTER P MOORE
Background

- 2006 Framework Plan
- UH Tier 1 Quest
- Cullen Closure
- Proposed LRT Lines
- UH Energy Research Park
- Enrollment Expansion
- More On-Campus Housing
Introduction

• Evaluated several improvement options from Campus Framework Plan 2006
• Reviewed impact of LRT lines
• Conducted traffic analysis at critical intersections
• Developed phased implementation plan for transportation improvements
Campus Framework Plan 2006

- Transportation Principles
  - Close Cullen Boulevard
  - Develop loop road
  - Create limited access streets
  - Incorporate LRT into campus
  - Provide sufficient parking
  - Strategically locate parking garages
Cullen Closure

(Framework Plan, Cooper, Robertson & Partners, Architects)

CULLEN TODAY

CULLEN CLOSED
Phase 1

CULLEN CLOSED
Phase 2

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Traffic Analysis
Current Traffic Analysis

- Used traffic data from previous studies
- Eight intersections analyzed
- Eight scenarios analyzed
  - Existing Conditions
  - Future Conditions with variables
    - Campus Framework Plan
      » Phase 1 (2020 growth)
      » Phase 2 (2025 growth)
    - LRT
    - Cullen Closure
    - Mobility Improvements
METRO LRT Routes & Intersections
Results

• With background growth, some decline in LOS at intersections
• With addition of LRT, decline of some intersections to LOS D or LOS E
• With addition of Cullen closure from Holman to Cougar Place, decline of more intersections to LOS D or LOS E
• Proposed mitigation improves all intersections to LOS C or better
Need for Improvements

- To maintain acceptable levels of mobility
- Growth in campus and neighborhood traffic
- Increasing demand and decreasing capacity due to Cullen closure and LRT
- Desire to create a pedestrian oriented campus
General Recommendations

• Shift trips from cars to transit
• Shift car traffic to Spur 5
  – Improve way-finding on freeways and area roadways
  – Upgrade shuttle bus service
• Implement intersection and roadway mobility improvements
• Work together with local governmental agencies to implement these improvements (METRO, TxDOT, City of Houston)
Recommended Local Transportation Improvements

- Encourage access from Spur 5
- Extend Wheeler across RR-?
- Extend Spur 5 to IH 610
Area Roadway Network
Questions?
Phased Implementation Plan
Phased Implementation

- Phase 1: Close Cullen from Holman to Cougar Place
- Phase 2: METRO LRT Lines Completed
- Phase 3: Close Cullen from Cougar Place to Wheeler
Implementation Plan
Phase 1
2008-2010
Phase 1

• Expected timeframe: 2008-2010
• Events
  – Close Cullen from Holman to Cougar Place
  – Existing conditions
Phase 1: Close Cullen from Holman to Cougar Place
Phase 1: Mitigation Plan

• Improve IH 45 and Spur 5 signage
• Improve campus wayfinding signage
• Wheeler/Scott
  – Add WB right turn bay
• Holman/Scott
  – Add second SB left turn bay
  – Add NB right turn bay
• Other lower priority improvements if funds are available
Implementation Plan
Phase 2
2010-2012
Phase 2

• Expected timeframe: 2010-2012
• Events
  – METRO LRT Lines
  – UH Campus Development
    • Professional Zone
    • Wheeler Zone
    • East Garage
  – Improved shuttle system
Phase 2: METRO LRT Lines Completed
Phase 2: Mitigation Plan

- Secure approval of driveway access to Spur 5 frontage road
- Move LRT crossing of Wheeler east of Cullen intersection
- Improve shuttle bus system
- Construct parking garages
- Wheeler/Scott
  - Add second SB left turn bay
  - Widen Wheeler between Scott and Cullen
Phase 2: Mitigation Plan (cont.)

• Cougar Place/Cullen
  – Improve parking lot access off of Cougar Place
• Scott/Elgin
  – Extend WB left turn bays
  – Add second SB and NB left turn bays
Implementation Plan
Phase 3
2012-2014
Phase 3

• Expected timeframe: 2012-2014
• Events
  – Close Cullen from Cougar Place to Wheeler
  – UH Campus Development
    • Stadium Zone
    • Arts Zone
    • West/North Garages
  – Transit Oriented Development
Phase 3: Close Cullen from Cougar Place to Wheeler
Phase 3: Mitigation Plan

- Extend Spur 5 to IH 610
- Increase transit ridership
Next Steps
Next Steps

• Develop proposal packages for local governmental agencies
• Provide input to METRO regarding rail alignment, station locations, and intersection crossings
Previous Traffic Analysis

- **October 2001 (TEI)**
  - Cullen closure from Holman to Wheeler
  - Redesign Calhoun
  - Direct roadway betw/ Entrances 16 & 19
  - Roundabout at University/Calhoun
- **March 2006 (Walker)**
  - Cullen closure from Holman to Wheeler
- **July 2007 (Gunda)**
  - Cullen closure from Holman to Wheeler
- None of the studies covered full campus area
## Scenarios

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