

DATE	September 17, 2013
SUBJECT	TMC Mobility Study Steering Committee
LOCATION	Transtar Building

NAME	ORGANIZATION	PHONE NO.	EMAIL
Please see attached sign in sheet for attendees			

GENERAL INFORMATION
Meeting of the Texas Medical Center Mobility Study Steering Committee to review project status and give feedback on Specific Performance Measures, initial list of project concepts and planned community involvement.
The following comments relate to the presentation given at the meeting. Please refer to the attached presentation copy for specifics regarding specific evaluation criteria, project concepts and future work tasks.
<ol style="list-style-type: none"> 1. Evaluate study objectives against all 19 of the City of Houston (COH) CMP Process objectives. Evaluation criteria for TMC projects and evaluation criteria should conform to COH processes. 2. Project concepts included grade separations at select major intersections. Comments support concept as effective and the interchange design suggested minimized the amount of right of way (ROW) needed from adjacent property. Two level interchanges were proposed. Interchanges along Almeda may require three levels. 3. Direct connectors from SH 288 are proposed only from managed lanes. Comments suggested connectors from mixed flow lanes would be more effective. 4. Proposed one-way pairs and street extensions: <ol style="list-style-type: none"> A. Concerns regarding the feasibility of modifications to Main Street were expressed. Pedestrian and bicyclist use of the Main Street corridor are a concern for Rice University staff, students and visitors. B. Additional access to the University and TMC main campus were discussed. Extension of Travis Street has been considered in the past and recommended for enhanced mobility and circulation. The financial feasibility of acquiring the street is doubtful. 5. Concepts presented at the meeting did not include the operational analysis of Fannin Street

intersections. This was done because Fannin has a unique mix of high vehicle demand, closely spaced traffic signals, parking garage drives and a light rail line. Fannin will be analyzed separately to consider all modes and possible improvement scenarios as part of Fannin Street Corridor Analysis. Plans call for this work to be performed in approximately two months.

6. Vehicle parking is a major concern for all institutions. Provision of parking for institution staff and visitors. Parking operations impacting adjacent major thoroughfares creates traffic operations issues.

- A. Additional parking space will be needed as the TMC continues to develop. Satellite or remote parking was discussed. Hospital operations don't accommodate remote parking easily. Certain employee classifications require immediate or preferential access to parking near work locations.
- B. Employee use of remote parking is most effective when direct routes from parking lots to hospital are used. Visitor and patient parking is also a challenge for first time users. Point to point shuttle service is necessary for certain hospital operations.
- C. Routine visitors prefer less expensive parking making remote lots more attractive to them.
- D. Real time parking management with on the road advance message signs was recommended. Signing near garages displaying parking availability was recommended. Smart phone applications were discussed as a means to inform drivers of parking availability.
- E. Valet parking operations were discussed. Some member institutions value valet service for new patients and visitors. However, these operations often have adverse impacts on abutting major thoroughfares backing waiting vehicles onto the streets.
- F. Courtesy police access management also creates problems maintaining vehicle progression on thoroughfares.
- G. Recommendation was made to have a "parking planning session" to discuss parking operations in more detail.

7. Emergency vehicle access routes were discussed. Holcombe and Cambridge are currently used by emergency vehicles. Improving access through these streets is a priority.

8. Transit service project recommendations will be more likely successful if made on a corridor or area basis rather than specific routes. Long term transit opportunities should be evaluated and presented such as the commuter rail along US 90A, Park & Ride routes in Pearland and enhancements in routes serving TMC.

9. Pedestrian and bicyclist usage and resulting planning should focus more on long term facility planning. Pedestrian and bicycle corridors should be evaluated in terms of Level of Service. Study should focus on understanding the patterns of pedestrian use.

10. General comments about the presentation:

- A. Text on slide presentation is too small to effectively see during the presentation. Graphics and text should be more legible.

Action Items:

- 1. Convene a parking planning meeting/workshop.
- 2. Obtain current information on TxDOT plans for access from SH 288
- 3. Evaluate feasibility of two and three level intersections
- 4. Further examine opportunities for changes in street operations to increase roadway network capacity.
- 5. Consider long term visioning for pedestrian and bicycle accommodation.

Notes:

Copy of meeting Sign In Sheet is attached.

Copy of Specific Performance Measures is attached.

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Sign-in Sheet

Texas Medical Center Mobility Study Steering Committee Meeting # 2



17
September 16, 2013
Transtar Bldg.
Executive Conference Room
6922 Katy Road
Houston, TX

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SPECIFIC PERFORMANCE MEASURES

For each of the 19 CMP objectives, a set of criteria and performance measures have been identified for use in developing and evaluating mobility improvement options and final strategies for the TMC area. Table 5.1 presents this association. The various objectives and criteria can be weighed if desired by the stakeholders when conducting the overall evaluation of alternate mobility tools.

**TABLE 5.1
 EVALUATION CRITERIA AND PERFORMANCE MEASURES RELATED TO
 TMC MOBILITY STUDY**

CMP Objectives	Evaluation Criteria Related to TMC	Performance Measures for TMC Mobility Study
1. Increase access to transit facilities.	Develop enhanced bus circulation within TMC area Improve pedestrian access to bus stops within TMC area Evaluate feasibility of higher-order people mover within TMC area	% of TMC destinations within a five-minute walk to transit outside buildings A convenient transit stop meeting ADA access standards, for all TMC destinations % of shelters provided at transit stops meeting METRO criteria for boardings per day Real-time passenger information provided at all transit stops meeting METRO criteria for boardings per day % of TMC employment with transit access
2. Increase access to pedestrian facilities.	Bring existing sidewalks to suitable width and condition Assure adequate ADA accessibility at all intersections	Miles of sidewalk improvements in TMC area % of intersection corners with ADA-compliant ramps
3. Increase access to bicycle facilities	Increase provision of bicycle facilities on streets within TMC area Develop consolidated multi-use paths where possible	Miles of on-street bike lanes in TMC area Miles of off-street multi-use paths in TMC area
4. Improve connectivity to the system	Improve roadway connections from SH 288 and I-610 to TMC area Reduce interruptions in roadway and sidewalk continuity Update street functional classification system within TMC area	Travel time for new connectors from SH 288 and I-610 to different TMC campuses Number of intersections per acre in TMC area Miles of sidewalks and paths per acre in TMC area

CMP Objectives	Evaluation Criteria Related to TMC	Performance Measures for TMC Mobility Study
5. Accommodate the movement of freight	Accommodate freight deliveries off-street to the extent possible Focus truck traffic on certain designated arterials in TMC area	% of TMC buildings with off-street loading facilities Miles of designated truck routes in study area
6. Cost efficiency.	Implement cost-effective roadway improvements Develop proper amount of parking facilities Increase application of TDM strategies	Benefit-cost ratio. Parking per 1,000 sq. ft. of development in TMC area Number of TMC institutions with TDM strategies
7. Minimize travel times.	Improve accessibility for employees to TMC from outlying areas Improve wayfinding for motorists for parking facilities in TMC area	Vehicle hours of travel Vehicle miles of travel 45 minute commute skims
8. Reliable commutes	Reduce delay on major access routes serving TMC	45 minute commute in PM peak hour by traffic analysis zone System delay
9. Reduce increase in congestion	Reduce extent of congested roadways in TMC area	% congested miles of roadway System delay
10. Minimize conflict points	Improve local access management on roadway system in TMC area Enhance pedestrian crossings of streets Reduce conflicts between vehicles and bicycles	Street route miles with raised median Conflict points per mile Number of designated at-grade pedestrian crossings of streets
11. Provide a safe and secure environment for pedestrians and bicyclists	Greater accommodation of separate bicycle facilities on roadway system Grade separation of pedestrian movements from major street traffic Added provision of sidewalks and multi-use paths connecting buildings in TMC area Improve ADA accessibility for sidewalks and pedestrian crossings at intersections	Number of miles of bike lanes on roadway system Number of new pedestrian sky bridges and grade separations in TMC area Miles of sidewalks and paths per acre in TMC area

CMP Objectives	Evaluation Criteria Related to TMC	Performance Measures for TMC Mobility Study
12. Neighborhood traffic	Reduce through traffic associated with TMC on sensitive neighborhood streets	Miles of roadway with new traffic calming treatments
13. Air quality conformity	Reduce amount of vehicle emissions	Change in NOX, VOC, and CO emissions from transportation system improvements in TMC area
14. Ability to maintain infrastructure	Reduce O&M costs	Average pavement condition by street classification
15. Maintain a system that is energy efficient	Reduce energy consumption	Change in fuel consumption from transportation system improvements in TMC area
16. Improve corridor aesthetics	Degree of roadways with improved streetscaping	Miles of roadway with boulevard street classification in TMC area
17. Expand pedestrian amenities	Bring existing sidewalks to suitable width and condition Grade separation of pedestrian movements from major street traffic Added provision of sidewalks and multi-use paths connecting buildings in TMC area	Miles of sidewalks with meeting ADA width requirements and suitable condition Number of new pedestrian sky bridges and grade separations in TMC area Miles of sidewalks and paths per acre in TMC area
18. Streets that are pedestrian scale	Added provision of sidewalks and multi-use paths along streets	
19. Facilitate all modes of travel	Balance of trips by auto, transit and pedestrian/bicycle modes Provision for intermodal transfer facilities	Person trips by mode Number of intermodal transfer stations Number of park-n-ride facilities/spaces