MEMORANDUM

To: Mayor and Council Members

From: Robert Spillar, P.E.,
Director, Austin Transportation Department

cc: Marc A. Ott, City Manager
Robert D. Goode, P.E., Assistant City Manager
John Sneed, Director of State Preservation Board
Linda Watson, President and CEO Capital Metro

Date: December 21, 2013

Subject: **Parking Revisions within State Capitol Complex**

This past week, crews from the Austin Transportation Department (ATD) were assisting the State Preservation Board in making modifications to parking within the State Capitol Complex. Specifically, crews were directed to relocate parking meters and stalls from Lavaca Street to selected locations on 10th Street (between Trinity and Colorado); San Jacinto (between Martin Luther King Boulevard and 16th Street); and 18th Street (between Trinity and San Jacinto). Crews were directed to stop work by State officials prior to full completion of the project. The purpose of this memorandum is to respond to questions raised by some Council Members related to our assistance provided to the State and the nature of the work effort.

The work effort in question consists of parking modifications necessitated by the introduction of Transit Priority Lanes on Lavaca Street and the need to relocate parking meters from that street. Council was previously notified about the MetroRapid Lavaca Street changes in a memorandum from ATD, dated September 12, 2013, that described the need for the Lavaca Street parking modifications. Removal of parking along Lavaca Street is essential to the safe and efficient operation of MetroRapid. Capital Metro has begun successfully testing the new MetroRapid Route 1 through the Guadalupe and Lavaca downtown street corridor, making use of the partially open transit priority lanes. Early tests indicate that with the priority lanes and signal prioritization provided by the City throughout the route, transit vehicles are saving up to ten minutes in running time. These time savings are phenomenal in the world of transit operations and will provide to the transit riders along this route a huge positive benefit, once full operations begin. Linda Watson, Capital Metro's Executive Director, has been very involved in supporting the introduction of these priority lanes and of the work necessary to relocate parking along the full downtown Guadalupe and Lavaca portion of the corridor.

As part of the process to introduce the transit priority lanes, ATD senior staff worked directly with Mr. John Sneed, Director of the Texas State Preservation Board (TSPB). TSPB is the entity that operates and manages on-street parking within the State Capitol Complex. It is our understanding that Mr. Sneed coordinated with the Texas Department of Public Safety (TDPS) to extend authorization to us

to make the changes in parking on the State's behalf (see attached e-mail from Mr. Sneed confirming our work with his agency). The Austin Transportation Department agreed to a scope of work with the TSPB to move the parking meters from Lavaca to the other street corridors and to make the necessary safety modifications to the streets to accommodate back-in angled parking. Authority for ATD to cooperate and work on behalf of the State is granted by an inter-local agreement (ILA) between the City and State that regulates management of the streets and enforcement of traffic laws within the State Capitol Complex dating back to October 1999.

On behalf of the State, City traffic engineers identified locations within the State Capitol Complex to where the displaced meters from Lavaca could be relocated. City traffic engineers focused on three key streets: 10th Street on the south border of the Capitol Complex; the three blocks of San Jacinto, immediately south of Martin Luther King Boulevard; and 18th Street between Trinity and San Jacinto (See attached map). These street segments were identified for introduction of the relocated parking capacity for three primary reasons:

1) Parking demand on and around these street segments was observed to be high and staff believed we could better serve the demand if greater parking capacity were provided;
2) Negative traffic congestion impacts were NOT anticipated if lane modifications were required on these streets; and.
3) In some cases (predominately on 10th Street), the existing street configuration prior to modification could be made safer and less confusing for motorists if modifications to the existing number and apportionment of lanes were made while at the same time increasing parking capacity.

As indicated, all street changes were coordinated with the State through the Texas State Preservation Board and are a result of the need to relocate the parking from Lavaca to assure a safe and efficient implementation of MetroRapid. All of the work for the State has been completed except for the striping of a half block on San Jacinto between 17th and 16th Streets. Crews were working on this last half block when they were requested to stop work by TDPS Officers. The stop-work effort is a result of a debate between multiple state agencies and not between the City and the State. ATD crews remain available, weather permitting, to assist the State on the project if minor adjustments to the current parking configurations are required or if the State desires completion of the project.

Key facts related to this project are as follow:

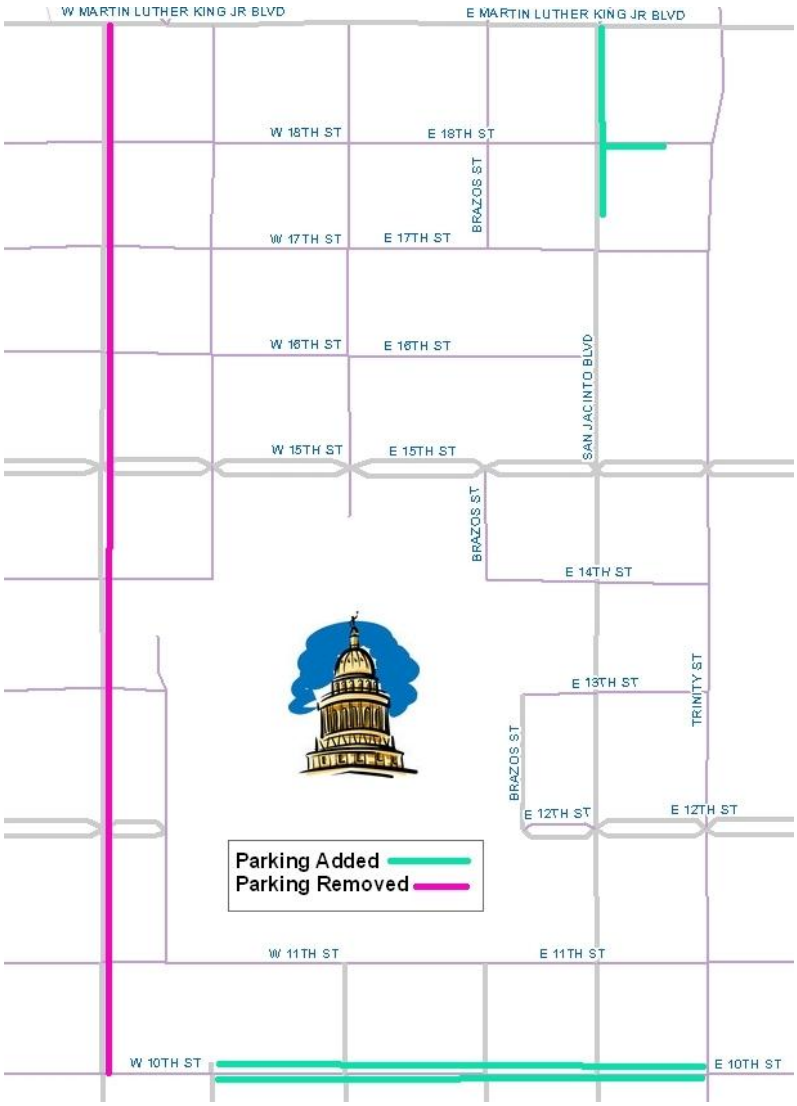
- Relocation of parking off of Lavaca Street is critical to the success of the transit priority lanes and MetroRapid. MetroRapid has been endorsed by Council, the Capital Metro Board and members of various state agencies who serve on regional transportation committees (e.g., the Project Connect Transit Working Group).
- Lane modifications and lane reductions on the affected street segments of San Jacinto, 18th, and 10th Streets, required to allow the relocation of parking, have NO negative impacts to mobility.
- Streets to where the parking has been relocated are potentially high-demand parking environments where prior parking capacity was not sufficient to meet demand.

- ATD operated in good faith under authority granted to the City by existing inter local agreements between the State and City, in full coordination with the Texas State Preservation Board.

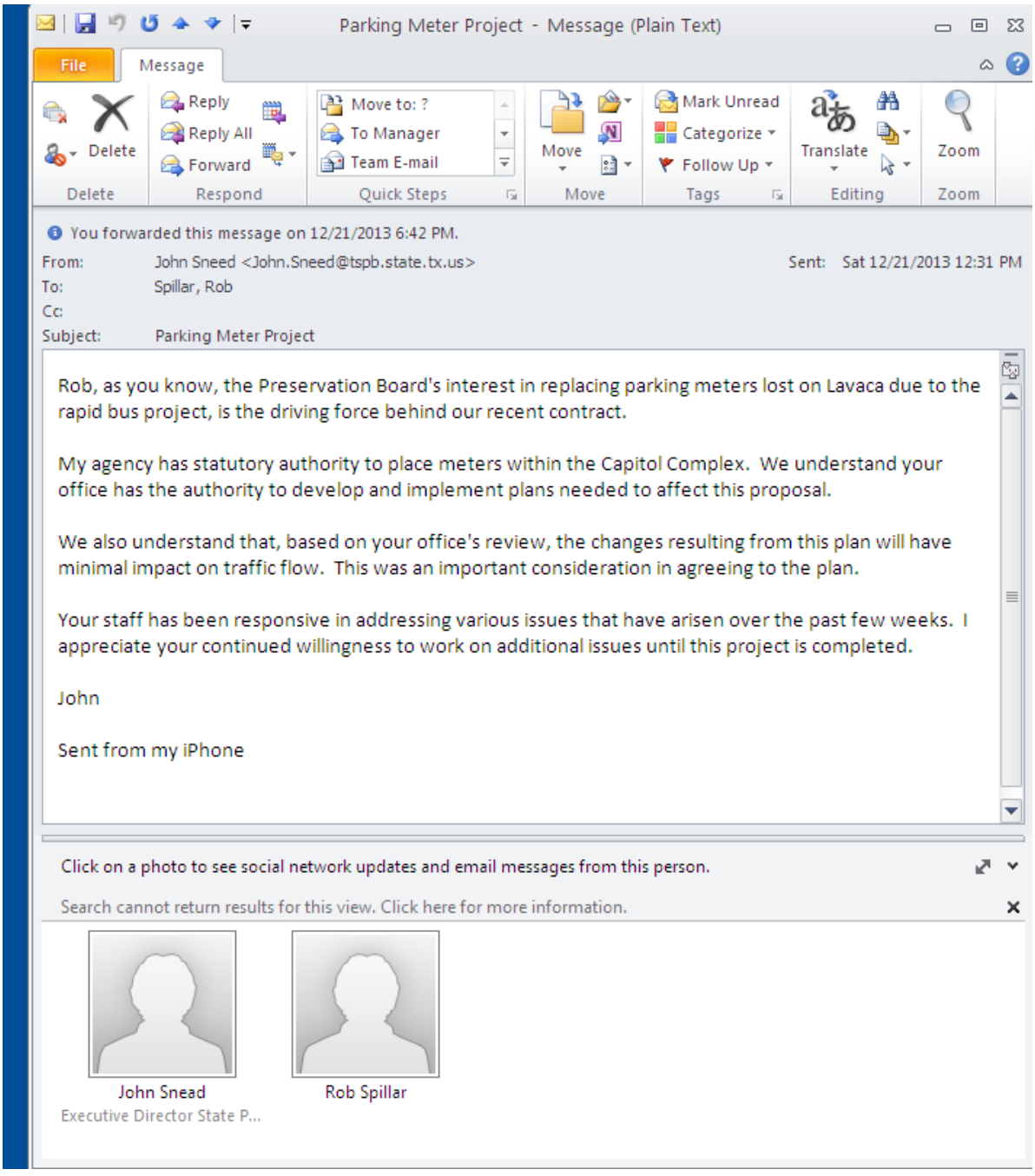
The lane and parking modifications that are the subject of this memorandum were all thoroughly vetted through detailed traffic analysis. I have included as a separate file with this memorandum an appendix providing a more detailed explanation of the modifications and the traffic analysis conducted in the vetting of the projects.

Should you have additional questions, please contact me directly 512-992-8428.

Capitol Complex
Parking Relocation Map



Attachment


Parking Meter Project - Message (Plain Text)
File
Message
Delete
Reply
Reply All
Forward
Move to: ?
To Manager
Team E-mail
Move
Mark Unread
Categorize
Follow Up
Translate
Zoom
Delete
Respond
Quick Steps
Move
Tags
Editing
Zoom
You forwarded this message on 12/21/2013 6:42 PM.
From: John Sneed <John.Sneed@tspb.state.tx.us>
Sent: Sat 12/21/2013 12:31 PM
To: Spillar, Rob
Cc:
Subject: Parking Meter Project
Rob, as you know, the Preservation Board's interest in replacing parking meters lost on Lavaca due to the rapid bus project, is the driving force behind our recent contract.
My agency has statutory authority to place meters within the Capitol Complex. We understand your office has the authority to develop and implement plans needed to affect this proposal.
We also understand that, based on your office's review, the changes resulting from this plan will have minimal impact on traffic flow. This was an important consideration in agreeing to the plan.
Your staff has been responsive in addressing various issues that have arisen over the past few weeks. I appreciate your continued willingness to work on additional issues until this project is completed.
John
Sent from my iPhone
Click on a photo to see social network updates and email messages from this person.
Search cannot return results for this view. Click here for more information.
John Snead
Executive Director State P...
Rob Spillar

Traffic Analysis Appendix
Parking Revisions within State Capitol Complex

This Appendix provides additional detail on the traffic analysis used to determine traffic impacts from the relocation of parking from portions of Lavaca Street to other streets segments within the Capitol Complex. The desire to relocate parking from Lavaca Street to other locations is driven by the need to establish transit priority lanes on Lavaca Street to assist the introduction of MetroRapid. Two primary receiving locations for parking were identified: 10th Street between Trinity and Colorado Streets and San Jacinto between Martin Luther King Boulevard and 16th Street along with 18th Street between Trinity and San Jacinto.

10th Street (between Trinity and Colorado Streets):

10th Street, between Trinity and Colorado Streets is a one way westbound minor downtown roadway. Prior to the parking modifications, the number of lanes along this corridor varied between two and four. The widths of those lanes varied from eight to approximately eleven feet. The alignment of the lanes meandered from side to side between the curb faces within the corridor, for reasons that were no longer explainable or justifiable. At the west end of this corridor, Colorado Street has been closed immediately to the north of 10th Street to better accommodate safety needs of the Governor's Mansion. The construction of the Brazos Street improvements two years ago impacted the use of 10th Street by removing State-operated on-street parking capacity on Brazos Street between 10th and 11th Streets and by changing intersection geometries at 10th Street. These changing transportation network conditions within the surrounding street grid cumulatively resulted in traffic safety concerns with the existing (prior to the parking modifications) street configuration of 10th Street. The relocation of some parking capacity from Lavaca Street to the 10th Street corridor allowed the Transportation Department to address the safety issues while at the same time allowing us to replace some of the lost parking from the Lavaca Street MetroRapid corridor.

Leading up to the constructed parking modifications on 10th Street, ATD had received numerous complaints about the intersection of Colorado and W 10th Street from pedestrians, drivers, and from Capitol Metro. The State Preservation Board had communicated similar complaints and has been working with ATD for the past two years to address the 10th Street issues. Prior to the modification, a double left turn from westbound 10th Street to southbound Colorado Street made it difficult for drivers to see pedestrians crossing Colorado on the south side of the intersection. The double left-turn was required so that Colorado Street north of 10th Street could be closed to improve the security at the Governor's Mansion. In addition, the width of 10th Street narrows between Congress Avenue and Colorado Street which left the north-most lane as a substandard and almost unusable 8ft in width (standard travel lanes are 10ft or wider). Similar safety concerns existed east of Congress where the number of lanes varied from two to four lanes, and lanes shifted in alignment causing observed confusion and driving difficulty for drivers.

Austin traffic engineers observed that volumes on 10th street were less than half the volumes observed on a single lane of Martin Luther King Jr. Boulevard. That roadway provides two lanes of capacity in each direction. Given this observation and the fact that 10th Street does not directly tie into IH 35 ramping as does Martin Luther King Jr. Boulevard, a consistent two-lane cross section for 10th Street from IH 35 to Colorado Street was identified as the optimum and most safe configuration for a redesign of 10th Street. The two-lane consistent cross-section from east to west would also provide room to implement back-in angle parking, and allow recouping of the spaces relocated from Lavaca Street.

At the intersection of Colorado and 10th Streets, the two-lane 10th Street configuration allowed ATD to install one left turn only lane and one through lane. Having one left turn lane reduces conflict which makes it much easier for the turning traffic to be aware of pedestrian traffic. The single through lane eliminates the lane shift that occurred as cars heading west bound crossed the intersection. The two-lane cross section makes the corridor uniform for the drivers and eliminates meandering within the corridor. To accomplish the safety goals along 10th Street of a consistent two-lane configuration, ATD installed back-in angle parking on both sides of 10th Street, thus narrowing the drivable cross-section. The increased parking capacity adds parking capacity in an area of rapid downtown growth where additional parking resources were needed and creates the consistent two-lane configuration.

Traffic operations were modeled on 10th Street in both its existing and modified configuration. The modified design was determined to provide safe and efficient operations without negative impact to traffic mobility on 10th Street or the intersecting roadways. Traffic volumes that were twice those observed today were modeled to verify the validity of the design. Based on the traffic analysis and the concern regarding developing safety conditions, ATD determined that a modification was warranted and appropriate. 10th Street has been modified this past week as described above and initial observations suggest that the resulting operations have been positively benefited as anticipated.

Electronic copies of the traffic modeling results (traffic simulation videos) for the 10th Street corridor are available upon request.

San Jacinto (between Martin Luther King Jr. Boulevard and 16th Street) and 18th Street (between Trinity and San Jacinto):

ATD identified the 2½ blocks of San Jacinto immediately south of Martin Luther King Jr. Blvd as well as the one block of East 18th Street between Trinity and San Jacinto as candidate locations to establish additional parking that could be counted as replacement to the parking relocated by the Lavaca Street MetroRapid project. Both streets (San Jacinto and 18th Street) are very wide in comparison to their relatively low volumes of traffic operating on these segments of the roadways. The proximity of these street segments to the University of Texas renders this area a high parking demand area where additional parking capacity is likely to be used.

San Jacinto is typically a three-lane southbound roadway. At the north-end of the State Capitol Complex and just south of Martin Luther King Jr. Boulevard, San Jacinto carries the equivalent traffic volume of just one lane of Martin Luther King, yet it provides three lanes to do so. The reason for the very low

volume and underutilized capacity on San Jacinto is that at any given time, the maximum number of lanes flowing into this section of San Jacinto would be two lanes from out of the University or just one lane from either the westbound left-turn lane or the east-bound right-turn lane off of Martin Luther King. Hence, the constraint in the network is not the number of lanes on San Jacinto, but the inability of the grid to feed more than two minor lanes into this roadway segment. Thus, the maximum number of lanes needed on the northern two blocks of San Jacinto within the State Capitol Complex would be two at most. In our evaluation of San Jacinto, we incorporated the potential affect that the state garage between 18th and 17th would have on the surrounding street operations if all of its capacity entered the street network during the peak hour. Based on this traffic analysis, a lane of San Jacinto was modified to provide additional parking along the east curb, reducing the number of lanes from three to two. An additional half block of San Jacinto between 17th and 16th Street is also proposed for a similar modification, but this work has not yet been completed, pending direction from the State.

East 18th Street, between Trinity and San Jacinto and prior to modification, consisted of a 38-foot wide roadway providing two parallel parking lanes and one very wide 22-foot un-striped travel lane. Traffic volumes using 18th Street are very, very low (55 vehicles during the peak hour). With the over-sized 22-foot lane, drivers could use it as a multi-lane roadway if they so desired at the intersection with San Jacinto. However, due to the very low volumes, it is rare that multiple vehicles arrive at the intersection of 18th with San Jacinto at the same time. Parking was modified along the south curb of 18th Street from parallel to back-in angled parking. The resulting street configuration consists of two lanes of parking, a more standard travel lane, and the ability for two cars to line up adjacent to each other at the intersection of 18th Street with San Jacinto (i.e., the same functional configuration as before, but with added parking capacity).

The Austin Transportation Department modeled the traffic on San Jacinto and on 18th Street using counts taken in 2011 and conservatively adding an additional 10%. To assure that the proposed lane changes would not negatively impact the State of Texas parking garage between 17th and 18th Street, we made an extremely conservative assumption that all vehicles parking in the garage (a possible 1750) would be exiting during the peak PM hour. This exit volume from the garage is higher than existing traffic counts on San Jacinto just downstream from the garage, thus suggesting that actual garage volumes would be much lower. Even with these conservative assumptions, the change on San Jacinto Blvd from three to two lanes and the lane width modification on 18th street demonstrated NO negative impact to traffic operations.

Based on this analysis, City of Austin traffic engineers determined that the proposed and now implemented traffic revisions were warranted and prudent. In coordination with the State Preservation Office we implemented the changes, except for the lane revisions between 17th and 16th Streets on San Jacinto where work was stopped by the State.

Traffic simulation videos for the portion of San Jacinto and 18th Streets where modifications were made are available upon request.

Conclusions:

The traffic evaluation completed on the identified roadway segments demonstrate that NO negative mobility impacts are created with the introduction of additional parking capacity or the modification of lane distribution on the identified links. In fact, for 10th Street, the improvements and adjustment in lane-count are believed to improve the operational efficiency and safety of that corridor. The introduction of the MetroRapid transit priority lane on Lavaca has previously been evaluated by ATD Traffic Engineers and shown to have minimal or no negative impacts to mobility while at the same time improving the safety and operational efficiency of that system which is now in testing mode prior to full operation early next year (2014).

Robert Spillar, P.E. (TXPE #81827)
Director, Austin Transportation Department