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# MEMORANDUM

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**DATE:** February 21, 2006  
**TO:** City Council Members  
**FROM:** Jennifer Bruno, Policy Analyst  
**RE:** Motions regarding TRAX extension to the Intermodal Hub

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On February 14, 2006, the Administration and officials representing the Utah Transit Authority, presented policy background and current recommendations regarding the extension of the TRAX light rail system from the Delta Center station to the Intermodal Hub. Both the Administration and the UTA now agree that two stations should be constructed, one at 125 South 400 West, one at 525 West 200 South, and that if one station is built before the other, the 400 West station would be the first. UTA has indicated that they would build the “platform” of the 525 West station to decrease future construction expenditures on that station. They are proposing that operations at the 525 West station commence only when ridership and neighborhood density would warrant a station. UTA is proposing to negotiate the criteria for opening this second station with the Administration and including these criteria in the Interlocal Agreement between UTA and the City. The following are matters still to be negotiated, and would be included in the to-be-determined Interlocal Agreement:

- second station “trigger” criteria
- public way use agreements
- exact funding
- construction management

After the interlocal agreement with UTA has been successfully negotiated, it would again be before the Council for final approval. UTA is seeking to have this done by the end of April, in order to assure that construction of the extension is completed in time for the arrival of commuter rail at the end of 2007. The Council indicated that the proposed interlocal agreement(s) and specific funding proposal would need to be received in the Council Office no later than March 30 for consideration in April.

The Boyer Company, owner of The Gateway, has submitted a letter to the Council (received Thursday, February 16, 2006), stating their official position that they would like to see a single station, on 200 South, and see a left turn lane from 400 West into the Summer Parking Garage. This letter is attached.

The Administration has prepared a resolution for Council consideration that states the following:

- The Council approves the construction of two additional light rail stations at 525 West 200 South and 125 South 400 West;
- The Council authorizes the Administration to negotiate and draft an agreement with the UTA that is consistent with that concept.

The Council may wish to further clarify this resolution in the following ways:

- A. Specify which of the two stations the Council supports initial construction of, or if the Council supports the construction of two stations simultaneously;
- B. Specify a “not to exceed” amount for future construction needed at the second station (to ensure a minimal amount of construction is completed initially)
- C. Specify that the support of basic construction at the second station site is subject to review of the funding negotiations at a future date.

The following are potential motions relating to the resolution before the Council authorizing the extension of the TRAX system to the Intermodal Hub:

- 1. **["I move that the Council"]** Adopt a resolution authorizing the extension of the light rail system and the addition of two new stations at 525 West 200 South and 125 South 400 West, and authorizing the administration to negotiate and draft an agreement with the Utah Transit Authority that is consistent with this resolution.

OR

- 2. **["I move that the Council"]** Adopt a resolution authorizing the extension of the light rail system and the addition of one new station at 525 West 200 South, and authorizing the administration to negotiate and draft an agreement with the Utah Transit Authority that is consistent with this resolution.

OR

- 3. **["I move that the Council"]** Not adopt a resolution authorizing the extension of the light rail system and the addition of two new stations at 525 West 200 South and 125 South 400 West, .

OR

- 4. **["I move that the Council"]** Adopt a resolution authorizing the extension of the light rail system and the addition of two new stations at 525 West 200 South and 125 South 400 West, and authorizing the administration to negotiate and draft an agreement with the Utah Transit Authority that is consistent with this resolution, with the following points of clarification:

- a. The Council supports building the 125 South 400 West station during initial construction,

and/or

- b. The Council supports building the 525 West 200 South station to the platform level, to ensure minimal unexpected construction increases when the station opens in the future. This support is contingent upon review of City/UTA funding negotiations. The Council urges the Administration to negotiate a “not to exceed” level of construction cost for this station,

and/or

- c. The Council supports building the 525 West 200 South station to the very basic level (preparing the tracks and utilities but not constructing the platform).

and/or

- d. The Council supports building both the 525 West 200 South station and the 125 South 400 West station during initial construction,



14 February, 2006

To: Salt Lake City Council Members

Re: TRAX between Delta Center and Intermodal Hub

Dear Council Members:

As you will be discussing the above topic Tuesday, February 21 in you Council Meeting, I wanted to reiterate The Gateway position as expressed on several previous occasions.

It is still our feeling that The Gateway and the The Gateway District is better served by having one station only, located on 200 South which would allow a left hand turn into our Summer Parking Garage from northbound traffic on 400 West.

City administration maintains that two stations are critical to maximizing the development potential for the area. We remain amazed at the greater interest they show in unknown, speculative future development vs. a \$300 million already existing project. The administration argument for two stations as being necessary for the convenience of future development is shallow when the UTA study comparing the 1/3, 1/4, and the 1/2 mile walking distance for one vs. two stations shows almost no advantage of two stations. I will show this study to you Tuesday night. I am sure that no one from the administration has.

When we met with city administration people, TRAX, and other consultants several months ago and reiterated our desires, the conclusion was that we should hire a consultant (approved by the city) to answer several questions relating to engineering feasibility etc. of our request. The implication, we thought, was that if these questions could be answered satisfactorily, positive consideration would be given to our request. We hired the consultant, a study was done that accomplished what was requested, and now it appears to us that our exercise was in vain because no one seems to want to listen to the study results (copy of the study attached). It is also puzzling that UTA, who was at one time favoring the one station only approach, has now apparently caved into favoring the "two station scenario".

In conclusion, I remind you of the fragility of retail shopping habits. The Gateway seems to "working" right now. It is in all of our best interests to be thoughtful about decisions that could adversely affect The Gateway's attractiveness to shoppers.

Sincerely,

H Roger Boyer





FEHR & PEERS  
TRANSPORTATION CONSULTANTS

## MEMORANDUM

To: Jake Boyer, Boyer Company  
From: Dave Goeres, Ryan Hales, David Thompson  
Date: November 18, 2005  
SUBJECT: TRAX EXTENSION TRAFFIC SUMMARY F&P#: 1882-4

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### Background

Fehr and Peers served as the traffic consultant for the TRAX Extension Project. This project involved the evaluation and design of the TRAX extension from the existing Utah Transit Authority (UTA) TRAX terminus at the Delta Center (325 West South Temple) to the Intermodal Hub located at 300 South on 600 West. The TRAX extension route and a proposed station on 400 West were previously approved in two separate environmental documents. The 400 West portion was approved in the West/East Light Rail Project Final Environmental Impact Statement (FEIS), completed in 1999. The FEIS also approved a single station at 50 South 400 West, northwest of the existing station at the Delta Center. The 200 South and 600 West portions of the TRAX line were approved in the Intermodal Hub Environmental Assessment (EA) completed in May 1998.

The analysis completed by Fehr and Peers focused on four key areas of design of the proposed TRAX Extension:

- the track location;
- station location(s);
- the configuration of light rail alignment at the Intermodal Hub (600 West);
- and the streetscape design to be used along the project corridor.

The process and results of these analyses were provided to the design team and Salt Lake City in the *Traffic Operations Report* dated June 28, 2004

### Stations Locations and Traffic

As part of this study, Fehr and Peers completed the traffic analysis for different station location scenarios. Nearly every feasible location for a station along the corridor was reviewed during the station location analysis. Following a screening process, a more detailed analysis was conducted for four alternatives:

- No Stations along the alignment
- One station at 460 West/200 South;
- One station at 475 West/200 South; and
- A dual station alternative with stations at 125 South/400 West and 525 West/200 South.

An additional scenario was proposed for evaluation during the study. This alternative would accommodate northbound vehicles on 400 West, to turn left across the TRAX alignment into the Summer Parking entrance. This movement would be provided by means of a signal located on 400 West, at approximately 150 South. This alternative is only feasible if a one station alternative is selected, because

constructing a TRAX station on 400 West will block this potential access. The Summer Parking access signal will stop only southbound traffic on 400 West, while northbound through traffic will free-flow to the 100 South intersection.

The traffic evaluation in this study used *Synchro/SimTraffic* and *VISSIM* software to simulate more realistic traffic and transit conditions and to obtain more accurate results for each of the intersections. In addition to the analysis, F&P developed visual simulations (movies) of the alternatives. The conditions for the existing, future no-build, and future build scenarios, were presented in the report, and summarized in Table 14. (Provided as a copy to this memo.) The table provides the Level of Service (LOS) and average delay per vehicle for each scenario.

## Results

The results of the analysis revealed that each of the station alternatives can be designed to mitigate traffic operations to the generally accepted LOS D criteria standards. The critical intersection along the alignment is 200 South at 400 West. This intersection has the heaviest volume of traffic, and the TRAX alignment turns at this location.

Of all the alternatives, the single station on 200 South alternative provides the best traffic conditions at this critical intersection, LOS D with 37.7 seconds of delay per vehicle.

The two station alternative provides acceptable LOS D conditions (45 seconds) at the critical intersection. *"The 200 South intersection remains at LOS D, with some additional delay. Again, the southbound left-turn at 200 South incurs delay in a shortened storage lane, which increases delay at this intersection."* (June 28, 2004 report). The concern for traffic operations at this critical intersection is that if traffic grows beyond projected volumes, the short (75') southbound left turn storage lane on 400 West at 200 South will more rapidly be overwhelmed with traffic, which may more rapidly deteriorate the traffic conditions at the intersection.

The alternative with a single station on 200 South and the left-turn access on 400 West into the Summer Parking provides acceptable LOS D (46 seconds) traffic operations at the critical intersection, and fully acceptable LOS B (11 seconds of delay) at this new intersection. This alternative is planned with a longer (175') southbound left turn storage lane on 400 West at 200 South, which will better serve this critical intersection. (Parson preliminary design sheets for Open House)

Table 14  
Intersection LOS Evaluation

VISSIM <sup>2</sup> LEVEL OF SERVICE (LOS) <sup>1</sup>	Intersection	No TRAX		Existing Traffic - Build TRAX					Future (2020) Traffic - Build TRAX									
		Existing	Future (2020) No Build	460 West Sta. <sup>3</sup>	150 S/400 W NBL Sig. <sup>3,4</sup>	2 Stations (125S & 525W) <sup>3</sup>	2 Stations (125S & 525W) w/ 400 W Ped. <sup>3</sup>	No Station	125 South Station	125 South Station <sup>3</sup>	460 West Station	460 West Sta. <sup>3</sup>	2 Stations (125S & 525W) <sup>5</sup>	2 Stations (125S & 525W) w/ 400 West Ped. <sup>3,5</sup>	2 Stations (125S & 525W) w/ 400 West Half Ped Cross <sup>3,5</sup>	150 S/400 W Ped. Signal <sup>3,4</sup>	150 S/400 W NBL Sig. <sup>4</sup>	150 S/400 W NBL Sig. <sup>3,4</sup>
	400 West & South Temple	A 10.0	B 11.3	B 10.5	B 10.9	A 9.9	A 10.0	B 13.7	B 16.4	Note 6	B 13.7	Note 6	B 16.4	B 14.4	B 14.1		B 15.1	Note 6
	400 West & 100 South	B 11.5	B 15.9	B 13.6	B 13.2	B 15.6	B 16.1	C 27.1	D 40.2	D 35.8	C 27.1	C 26.8	D 40.2	D 39.0	D 38.1	D 38.2	D 36.1	C 23.9
	400 West & 200 South <sup>7</sup>	C 20.7	C 28.9	C 20.3	C 21.5	C 21.8	C 22.1	D 45.0	E 58.0	D 45.0	D 45.0	D 37.7	E 58.0	E 60.2	D 50.4	D 46.5	E 60.1	D 46.0
	200 South & Rio Grande	A 1.5	A 3.0	Note 6	Note 6	Note 6	Note 6	A 7.0	A 7.0	Note 6	A 7.1	Note 6	A 7.0	Note 6	Note 6	Note 6	A 7.3	Note 6
	200 South & 500 West	A 8.4	B 10.9	B 14.0	B 16.3	B 15.6	B 15.2	B 17.3	B 17.3	Note 6	B 17.3	Note 6	B 17.7	C 20.1	C 20.2	Note 6	C 20.5	Note 6
	200 South & 600 West	A 3.7	A 6.3	A 8.2	A 8.6	A 8.4	A 8.4	C 20.2	C 20.2	Note 6	C 23.3	Note 6	C 23.3	C 21.0	C 21.1	Note 6	B 19.7	Note 6
	200 South & 300 West	C 21.1	C 31.5	C 21.9	C 22.2	C 22.2	C 22.0	C 31.4	C 31.6	Note 6	C 31.4	Note 6	C 31.6	C 31.9	C 32.1	Note 6	C 32.8	Note 6
	100 South & 300 West	A 5.9	A 7.7	A 7.3	A 7.2	A 7.1	A 7.2	A 7.9	A 7.9	Note 6	A 8.1	Note 6	A 7.9	A 7.2	A 7.2	Note 6	A 7.9	Note 6
	200 South & 900 West	A 8.1	A 9.6	Note 6	Note 6	Note 6	Note 6	A 9.6	A 9.7	Note 6	A 9.8	Note 6	A 9.8	Note 6	Note 6	Note 6	A 9.8	Note 6
	400 West & Winter Park.	A 1.0	A	Note 6	Note 6	Note 6	Note 6	C 16.9	C 16.9	Note 6	C 16.9	Note 6	Note 6	Note 6	Note 6	Note 6	D 25.8	Note 6
	400 West & Summer Park.	A 0.7	A	Note 6	Note 6	Note 6	Note 6	A 9.9	A 9.9	Note 6	A 9.9	Note 6	Note 6	Note 6	Note 6	Note 6	C 21.7	B 11.0
	200 South & Summer Park.	A 0.1	A 0.1	Note 6	Note 6	Note 6	Note 6	A 0.4	A 0.4	Note 6	A 0.4	Note 6	A 0.1	Note 6	Note 6	Note 6	A 0.1	Note 6

Average Delay per Vehicle <sup>1</sup>		Stop Control
LOS	Signal	
A	≤ 10	≤ 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

<sup>1</sup> Though LOS may be the same, the delay can be 10 - 25 seconds more per vehicle.

<sup>2</sup> Using an avg of ten (10) runs

<sup>3</sup> SB LT @ 100 S added to mitigate 200 South LOS conditions

<sup>4</sup> 1 Station Scenario at 475 West

<sup>5</sup> No 500 W/200 S eastbound left

<sup>6</sup> Scenario analysis does not significantly affect this intersection

<sup>7</sup> Critical intersection on the TRAX Corridor

Salt Lake City  
Hub TRAX Connection  
Boyer Summer Parking Left Turn Criteria  
15 November 2005

**F&P Review and comments 21 November 2005.**

**The following responses to these questions are based on the evaluation completed for the TRAX extension by Fehr and Peers during the Preliminary Design and approval phase.**

**The traffic evaluation for the TRAX extension showed the following results.**

**The best alternative for traffic operations along the 400 West Corridor (100 South to 200 South) was the No Station on 400 West scenario.**

**The next best alternative was the NB LT into Summer Parking. The second worst alternative was the 2 Station, no 150 South Pedestrian Crossing.**

**The worst alternative was the 2 Station, 150 South Pedestrian Crossing.**

The following criteria are to be addressed as part of the evaluation of the northbound to westbound left turn from 400 West in the Summer Parking facility at Boyer's Gateway development.

1. TRAX operations should be assumed at busiest possible schedule which would be 5 min headways in one direction. This should be modeled to appear as a train passing the left turn in question every 2 ½ minutes (one from each direction).

**Existing TRAX VISSIM model was completed with 15 minute headways, trains passing in opposite directions at 7.5 minutes for all scenarios. This is the minimum headway currently operated on either the N-S or University Line. We are unaware of any increased operation / decreased headway that UTA is planning for the extension. Any further decrease to 10 min or 5 min headways, as suggested here, will create operational issues on the lines elsewhere in the system. If this increased TRAX frequency is requested for this scenario, all other previously evaluated scenarios should be recalibrated, since none were conducted with these operational conditions.**

2. The signal at 150 South should operate allowing left turns in a protected phase only, requiring stop of southbound traffic. The signal would be pre-empted to give priority to TRAX movements.

**The evaluations to date have used this configuration. The results were provided in Table 14 of the report.**

3. No left turns out of the parking garage will be allowed.

**The evaluations to date have used this configuration. The results were provided in Table 14 of the report.**

4. Number of traffic lanes should not change.

**Two through lanes are provided on 400 West in all scenarios. Appropriate turn storage lanes are provided in each scenario. The results are provided in Table 14 of the report.**

**Our previously stated concern with the selected, 2 station scenario is the short SB LT at 200 South on 400 West. This short (75') storage lane may more rapidly be overwhelmed with traffic, which may more rapidly deteriorate the traffic conditions at the intersection than any of the other scenarios.**

5. Traffic level of service and delay time of adjacent intersections (400 West/200 South and 400 West/100 South) should be analyzed along with the left turn into the Summer Parking to determine whether they operate relatively the same as without the left turn; and no or little delay to TRAX service.

**The evaluations to date have shown that the left turn into the summer parking operates at LOS B (11 seconds delay per vehicle) while maintain LOS D (46 sec/veh) at the critical 400 West / 200 South intersection. Since all of the scenarios were run with TRAX Priority, no delays were allowed for the TRAX in any scenario.**

6. Traffic analysis should consider that the left turn into the Summer Parking garage is not a free flow movement and that it is impacted by the location and traffic implications of the parking ticket machines inside the parking garage.

**The signal into Summer Parking was operated at 1/2 cycle (45 seconds) of the other main intersections. This cycle length allowed 6 vehicles to cross the TRAX line during the 12 seconds of green time. These 6 vehicles need to be accommodated in the receiving lanes of the parking garage.**

7. Traffic analysis should utilize the same basic assumptions used in the traffic analysis done for the TRAX extension project and match the same future year 2020 conditions.

**The evaluations to date have used this configuration. The results were provided in Table 14 of the report.**

8. Traffic analysis should consider the operation of this left turn signal with and without an associated east/west pedestrian crosswalk. The east/west pedestrian crosswalk must be located as close to mid-block (150 South) as possible.

**The evaluations for the Summer Parking signal did not provide a pedestrian crossing at 150 South. A pedestrian crossing at this location is not recommended because it detrimentally affects the operations of 400 West. Both NB and SB traffic has to be stopped to**



allow pedestrians to cross. Pedestrian activity currently is and will be sufficiently accommodated at 100 South and 200 South. The only scenario that included the pedestrian crossing was the two TRAX station scenario. This was requested to provide access to the end of the station platform. This two station scenario provided the worst traffic conditions along the study corridor. 400 West / 200 South intersection remained LOS D, but increased average delay to 50.4 seconds. Additionally, the 400 West / 100 South intersection increased delay to LOS D (38.1 seconds).

9. Impacts of right turning vehicles into the Summer Parking and stopping pedestrians on the sidewalk during the left turn phase must be included in the analysis.

**A pedestrian crossing signal will be installed to prevent pedestrian crossing of the garage entrance throat during the Left Turn green phase time. Right turning vehicles will be stopped by the SB signal on 400 West, and yield to LT vehicles, as at all signalized intersections.**

10. Traffic analysis must include recommendations on how to address potential problems, such as left turning vehicles backing onto the sidewalk, into the street and over the TRAX lines, if the modifications to the Summer Parking ticketing system do not produce the desired results of allowing adequate stacking and movement into the parking garage.

**The modifications to the summer parking will be designed and tested to accommodate the left turn vehicles. As with all existing signals and intersections, a malfunction in the signal is typically accommodated by other drivers yielding to the conditions.**

11. Traffic analysis should estimate how many vehicles will actually be able to access the Summer Garage by using the protected left turn. This should be expressed as a share of the total vehicles accessing the Gateway parking facilities, and as a share of the total accessing the Summer parking garage through the 400 West driveway. These figures should be provided both in absolute numbers and percentages of the total.

**The Boyer Company conducted parking counts at their garages. The counts revealed 555,000 cars enter the 400 West entrance annually. Using the highest quarterly count of 126,500 approximately 1,400 cars per day use this entrance. From the counts, approximately 65% of the entering vehicles approach from the south, and would therefore use the new protected left turn signal. Based on these counts and distribution, about 915 vehicles per day would use the new signal.**

**The signal timing at the Summer Parking was modeled at a 45-second cycle. This provides 80 cycles in a one-hour period, with 6 cars using the green time each cycle. At full capacity this signal could provide the protected left turn movement into the summer parking for 480**

**vehicles per hour. This capacity will not be fully utilized, and the 900+ vehicles will easily be accommodated in the signal timing.**

12. The study should include an estimate of all costs necessitated by the installation of a traffic signal at this location. The base case for this analysis should be the assumption of a center-running TRAX line, double-tracked, on 400 West, without a station or any provisions for a future station. The estimate should include all traffic signal equipment, semaphores, controllers, conduit, electrical power supply, startup, testing and programming, along with the ongoing costs of power supply and signal phase evaluation and adjustment for the initial 5 years of operation. The estimate must also include mitigation work to adjacent properties. This mitigation work includes narrowing the sidewalk in front of Dakota Lofts along 400 West (including reconfiguring their existing access stairs and potentially reconfiguring their business entries), reconfiguring the sidewalk at the southeast corner of the 400 W 200 S intersection, and potentially reconfiguring the truck-loading access to the Utah Paper Box property on 400 West.

**Installed full signal systems at intersections cost approximately \$125,000. The Summer Parking, Left turn signal is at most a 1/2 signal, controlling only SB and NB LT vehicles. However, the control must include coordination with the Transit Priority signal system, so the \$125,000 estimate is appropriate.**

**Other widening / narrowing costs must be added.**

**Though this alternative (based on preliminary plans submitted in 2004) does propose narrowing sidewalks by 3.5 feet on the southern half of the east side of 400 West, it provides a longer SB LT pocket at 200 South, which improves the operation of this intersection over the 2 station alternative. Also, the alternative provides parking on the northern half of the east side, which the two station alternative does not.**

**Sidewalks on both sides of 400 West, the intersection sidewalks, 400 West parking and truck access to the Paperbox will be reconfigured during the TRAX construction, regardless of the selected alternative.**

13. The study should calculate the cost per vehicle admitted to summer parking by way of the left turn phase, and evaluate the cost effectiveness of this solution.

**Signal Cost ~ \$125,000**

**Vehicles using the signal ~ 360,000 annually.**

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## M E M O R A N D U M

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**DATE:** February 9, 2006  
**TO:** City Council Members  
**FROM:** Russell Weeks  
**RE:** Trax Connection – Delta Center to Intermodal Hub  
**CC:** Cindy Gust-Jenson, Rocky Fluhart, DJ Baxter, Louis Zunguze, Alex Ikefuna, Tim Harpst, Gary Mumford, Mary Guy-Sell, Doug Dansie, Ralph Jackson

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This memorandum pertains to issues that may be raised in a February 14 briefing about the proposed light-rail connection between the Delta Center Trax station at South Temple and 400 West streets and the Intermodal Hub at 200 South and 600 West streets. Representatives from the Utah Transit Authority as well as Mayor Ross C. Anderson's Administration are expected to attend the briefing. The briefing is in advance of a scheduled February 21 public hearing on the issue. This memorandum contains a number of attachments that may be pertinent to the discussion.

### **KEY POINTS**

- The key issue before the City Council might be whether it is in Salt Lake City's interest to pursue immediate construction of two light-rail stations between the Delta Center Trax station at South Temple and 400 West streets and the Intermodal Hub at 200 South and 600 West streets.
- According to a number of representations from UTA officials, the transit agency now appears to agree with Mayor Ross C. Anderson's Administration that two stations should be built along the planned connection and that the first station to be built would be at 125 South 400 West – with some *caveats*.
- The Administration's written transmittal indicated that City and UTA officials agreed two stations should be built along the connection but that they disagreed on which station should be built first.
- However, according to a letter from UTA received Friday, the transit agency's main concerns now center on completing agreements – including accords on funding the project – between the City and UTA by the end of April and finishing construction of the light-rail connection by late 2007. (Please see Attachment No. 1.)
- The Administration's transmittal contains a proposed resolution authorizing the extension of the light-rail system and the addition of two new stations at 525 West 200 South and 125 South 400 West, pursuant to Planning Division Petition No. 400-04-52. The City and UTA filed the petition. (Please see Attachment No. 2.)
- If the City Council adopts the proposed resolution after the February 21 public hearing, significant details would remain to be worked out. The details include negotiation of an interlocal agreement addressing issues outlined in the Utah

Transit Authority letter such as budget, funding, and construction management of the proposed Trax extension; potential negotiation of criteria which, when met, would trigger construction of the second station; and negotiation of a public-way use agreement to grant UTA the use of City streets and related property.

- UTA has indicated that it would like to have the proposed extension ready to operate when UTA's commuter rail line between Ogden and Salt Lake City opens. UTA's publicly stated deadline for the commuter rail line to open is sometime between May and September 2008. However, the UTA letter indicates a potential for the commuter rail line to open in late 2007.

## **MATTERS AT ISSUE/QUESTIONS FOR CONSIDERATION**

- Again, UTA now appears to agree that two stations should be built on the proposed light-rail extension and that the first station built should be at 125 South 400 West.
- UTA's position on construction of a second station at 525 West 200 South appears to be that an interlocal agreement would contain negotiated criteria involving ridership numbers and development that would determine when the second station would be built. However, there has been some oral indication from UTA officials that initial construction of the Trax extension could include construction of a concrete base for the second station so that, in effect, everything except a station's "street furniture" might be included in initial construction. UTA's position raises two points:

- Previous interlocal agreements between the City and UTA have included definitions of what would be "betterments" to light-rail projects. In the Main Street to University project, "betterment" was defined as "any change in the Project requested by any Stakeholder other than UTA after the execution of the ... contract where the total of the changes requested within the same change order results in a net increase to the contract price for the Project ..." (Please see Attachment No. 3.) It should be noted that the Salt Lake City Redevelopment Agency financed construction of the light-rail station on 900 South 200 West. A question is then: How much of the proposed second station would be considered a "betterment?"
- Criteria for determining the appropriate level of riders has not been negotiated. The approach to the criteria could determine whether the second station would open for operation in the near future or the distant future.
- Operators of the Gateway Mall parking garage and some Capitol Hill residents have voiced concerns over locating a light-rail station at 125 South 400 West. Mall parking operators have voiced concerns over the effect on northbound vehicles' ability to turn left on 400 South into a parking garage. Some Capitol Hill residents have voiced concerns over the potential of a light-rail station to slow southbound automobile traffic on 400 West Street to the point where vehicles start to flow through residential neighborhoods.
  - City Council staff has encouraged the Administration to request a written response from the Gateway Mall parking operators about their position pertaining to a light-rail station at 125 South 400 West.
  - The Administration is prepared to provide additional information on the potential effect a station would have on southbound automobile traffic

along 400 West. It should be noted that the Transportation Advisory Board considered the issue in 2004.

- UTA officials have indicated that the letter to Salt Lake City from the Transit Authority is the Authority's position for negotiation of an interlocal agreement between the City and UTA.
- Besides agreement on the construction of a station at 125 South 400 West the letter proposes:
  - That all agreements between the City and UTA be signed by the end of April.
  - That the connection between the Delta Center and the Intermodal Hub be finished by the end of 2007.
  - That construction costs for the project be borne in the following way: 28 percent Salt Lake City, 28 percent UTA, 44 percent federal dollars.
  - That Salt Lake City's financial exposure would be about \$8.5 million.
  - That Salt Lake City turn over ownership of the Intermodal Hub at 600 South 200 West to UTA.
- The apparent change in UTA's previous positions raises some questions to consider:
  - As a matter of public policy is it in Salt Lake City's best interest to have the two stations built simultaneously, or should the second one be built at a later date?
  - Would it cost more to build a second station simultaneously and operate it, or to build a second station at a later date?
  - As a matter of public policy, should Salt Lake City pay construction costs for the second station or operating costs? (UTA estimates it would cost \$1 million to build a station, and \$150,000 to operate and maintain it.)
  - As a matter of public policy, is it in Salt Lake City's best interest to turn over ownership of the Intermodal Hub to UTA?
  - Although UTA appears to have revised its previous position, are there issues involving businesses and residents near the proposed 400 West Street station that need to be addressed?
  - City Council Members previously have heard arguments in favor of a single light-rail station. To what extent are the issues raised previously mitigated by new information or information that the City Council was not previously aware of?

## **Background**

Issues involving the proposed light-rail connection between the Delta Center Trax station at South Temple and 400 West streets and the Intermodal Hub at 200 South and 600 West streets appear to have moved rapidly in the past several weeks. The issue in a variety of respects appears to remain fluid.

It should be noted that the UTA letter attached to this memorandum and Administration transmittal reflects the position of the UTA Planning and Development Committee and UTA administrators. The full UTA Board of Trustees has yet to take a formal position. The Planning and Development Committee is made up of UTA Board Members.

It also should be noted again that the City Council briefing scheduled for February 14 originally was scheduled to address issues involving the number, the location of stations along the proposed light-rail connection between the Delta Center and the Intermodal Hub, and the timing of their construction. Although UTA appears to have moved toward placing a higher priority on other issues involved in the project, the number of stations and when they should be built are part of budgetary issues and issues of joint or separate responsibilities of the City and UTA.

To recap, a connection between the Intermodal Hub at 600 West 200 South and the light-rail system has been contemplated for a number of years. According to the September 1, 1998 study *Salt Lake City Intermodal Center Final Environmental Assessment* by the Sear-Brown Group methods of connecting the Intermodal Hub to the light-rail system included high frequency bus shuttles and extending the light-rail system to the Intermodal Hub. (Please see Attachment No. 4.)

The Administration and UTA have discussed issues involved in Petition No. 400-04-52 for about two years. The Salt Lake City Transportation Advisory Board voted to support the concept of a light-rail extension with two stations running in the middle of 400 West Street and 200 South Street in 2004. The Salt Lake City Planning Commission adopted a motion on November 30, 2005, to recommend that two stations be built as part of the development of the connection. However, the Planning Commission recommended that the option of building one station first and the other later be considered.

As late as November 22, 2005, UTA appeared to support construction of a single station on 200 South Street east of 500 West Street. (Please see letter UTA letter to Planning Commission in Planning Division Staff Report, Section 6 titled *Intermodal Hub Trax Extension Analysis Report*.) According to the Administration transmittal, the transit agency revised its position more recently to support a two-station, phased concept. However, the Administration and the transit agency differed on which station should be built first – UTA advocated building the station at 525 West 200 South first; the Administration favored building a station at 125 South 400 West first, according to the transmittal. As of the writing of this memorandum, UTA appears to agree that the station at 125 South 400 West should be built first.

Budgetary matters may not have been contemplated for the February 14 briefing, but in light of UTA's letter outlining its position on the project, it might be worth noting that most preliminary figures estimate construction of the project at roughly \$30 million to \$33 million. It should be noted that the figures include construction costs of building two stations.

If the proposed shares of construction costs become 28 percent City, 28 percent UTA, and 44 percent federal funding, Salt Lake City's share of the total cost could be about \$7.5 million to \$8.5 million. It should be noted that the Administration has estimated construction cost at \$9 million, to include the potential for inflation at a rate of 10 percent. Of that, the City has about \$2.4 million in Redevelopment Agency funds already allocated, and \$2 million in funds through a UTA cash contribution from about 2001. The Administration has requested roughly another \$4.1 million in funds in the *10-Year Capital Improvement Program*. The request is broken down roughly as \$1.8 million in Class C Road funds for improvements to 200 South Street, \$1.15 million in RDA funding, and \$1.15 million from the City's general fund. It should be noted that the \$4.1 million request actually is projected to help pay off \$6.5 million the City lent to the Intermodal Hub enterprise fund from the general fund in 1999.



February 10, 2006

Salt Lake City Council  
City & County Building  
451 South State Street  
Salt Lake City, Utah 84111

Re: Intermodal Hub and TRAX Connection

Dear Council Members:

Salt Lake City and UTA have been working together over the past several years to design, construct and operate the Intermodal Hub at 600 West and 300 South along with the light rail transit (LRT) TRAX Connection between the Hub and the existing Delta Center LRT Station. Recent discussion has focused on several issues including project schedule, agency funding participation and number of stations. Presented in the following sections of this letter is the UTA position with respect to each of these issues. As outlined below, it is of critical importance to UTA that decisions regarding these matters be made quickly so that the Intermodal Hub and TRAX Connection can be completed in time for revenue operation when commuter rail begins service.

## **I. HISTORY**

When Salt Lake City (City) made the decision to shorten the viaducts coming into downtown for economic and development opportunities, it became necessary to relocate the Amtrak operation from Rio Grande Station. After considerable study and deliberation, the decision was made to create a new Intermodal Hub on the west side of 600 West between 200 South and 400 South. This new location also required that rail operations of both Union Pacific and Amtrak would need to be adjusted and a new light rail connection to the existing TRAX line would be required. The City entered into an interlocal agreement (ILA) with UTA to facilitate federal funding participation in the project. A letter of no prejudice (LONP) for approximately \$40 million was secured from the Federal Transit Administration (FTA). An LONP grants the recipient authority to incur costs without prejudice prior to future Federal Grant approval. The authority to incur costs however does not constitute an FTA commitment that future Federal funds will be approved or authorized for the project.

Included in the LONP was a budget of \$12 million to design and construct a several block LRT TRAX connection to the Intermodal Hub from 400 West along 200 South to the Hub on 600 West. It was agreed in the ILA between the City and UTA that the Hub and TRAX Connection would be funded with FTA bus grants and the City would fund the local match. FTA bus grant funds would pay 80 percent with the City providing the remaining 20 percent local share. However, FTA does not guarantee the source of funding nor its matching ratio. No funding was assumed from UTA.

UTAH TRANSIT AUTHORITY

Initial planning for the West/East light rail transit (LRT) line was based on a corridor that extended from the University of Utah to Salt Lake City International Airport. It was decided that the LRT line would run along 400 South to 400 West, north on 400 West to North Temple and then west along North Temple to the Airport. An environmental Record of Decision was obtained for the planned West/East alignment.

As the West/East LRT line was eventually implemented, it did not extend along 400 South west of Main Street. No LRT line was therefore built along 400 West as originally planned. It therefore became necessary for the LRT TRAX Connection to include not only the segments on 600 West and 200 South, but also the segment along 400 West between 200 South and South Temple. Funding for the segment along 400 West, however, was not included in the original ILA budget for the Intermodal Hub.

The City has proceeded over the past several years to construct facilities at the Intermodal Hub. The cost to date has been approximately \$22 million. Greyhound commenced operation from the Hub location in August of 2005. Amtrak has been operating out of a temporary station along 600 West at the south end of the Hub site. UTA began operating local bus service to the Hub in December of 2005.

The original LONP expired October 31, 2005. A new LONP was negotiated with FTA for \$45 million total Federal and local matching funds which included \$30.5 million for the entire length of the Hub TRAX Connection along 600 West, 200 South and 400 West. Initially, FTA took the position that bus grant funds could be used to construct the Intermodal Hub, but not for construction of the TRAX Connection. Based on further discussion, FTA accepted a funding proposal submitted by UTA that allows bus funds to be applied to construction of the 600 West portion of the TRAX Connection. Environmental clearance for this TRAX Connection has been approved by FTA.

While the new LONP was being negotiated, UTA submitted a request to FTA to allow the use of approximately \$5 million total (Federal and local UTA) in unused funding for the Medical Center LRT Extension in order to construct a storage track along 400 West. In January of 2006, UTA received notice that the grant amendment was approved.

## **II. SCHEDULE**

UTA is currently constructing a commuter rail line from Weber County to the Intermodal Hub in Salt Lake City. This project is scheduled to be completed by September of 2008 or earlier. Depending upon winter weather conditions and construction progress, it is possible that commuter rail operation to the Hub could open in late 2007. Recent agreement has apparently been reached to construct the track realignment project in the vicinity of Grant Tower simultaneously with the commuter rail project.

UTA considers it critical to have the Intermodal TRAX connection in place at the time that commuter rail commences operation to the Hub. UTA also believes that this is the City's desire. It is therefore of great importance that a mutual agreement be reached in the very near future on funding and responsibility for completing the design and constructing the Hub TRAX Connection. Delay resulting from lack of agreement on schedule, funding and stations may have already foreclosed some of the options for completing final design and construction of the TRAX Connection.

UTA is prepared to work with the City to achieve the objective of having the TRAX Connection in operation by late 2007. Decisions regarding schedule, funding and stations need to be incorporated into an ILA by April



2006 in order to move forward with the project and open in time to meet the anticipated Commuter Rail schedule in late 2007. The critical milestones to achieve this objective follow:

- |                              |                |
|------------------------------|----------------|
| • Interlocal Agreement       | April 20, 2006 |
| • Advertise for Construction | April 30, 2006 |
| • Start Construction         | July 15, 2006  |
| • Substantial Completion     | Late 2007      |

### **III. FUNDING FOR THE LRT TRAX CONNECTION**

Under the current ILA, the City is responsible for the estimated full \$30.5 million (or whatever the actual costs are to construct the project) and then working together with UTA in seeking annual Federal matching funds to reimburse the City for up to 80% of the project cost. Past Federal grants have ranged from \$1 to 3.5 million per year. The FY06 appropriation is \$1.5 million. Currently the City has over matched the project by approximately \$4 million plus the costs of the current ongoing design efforts of \$1.7 million. Short falls in Federal grant reimbursements have been covered by the City. Financing costs have been absorbed by the City because they are not allowable for grant reimbursement.

The City's commitment for the project under the current ILA would require the obligation of an additional \$25.5 million; \$30.5 million less UTA's pledge of \$5 million in Medical Center funds. Assuming that the Federal funds continue to be appropriated at an average estimated amount of \$2 million per year, the time value of money or finance cost that the City will have to absorb could be in the range of approximately \$7.5 million. Since the Federal appropriations amount can not be guaranteed and a new LONP will need to be received from FTA every 5 years, there is inherent risk in determining the actual costs to the City.

UTA and the City have been working for some time to establish an alternative funding strategy for the LRT TRAX Connection from the Hub to the Delta Center. A funding proposal was developed and submitted to FTA in the Spring of 2005. This proposal was accepted by FTA as the basis for transferring \$5 million of remaining Medical Center funds to the TRAX Connection on 400 West. Under this proposal, the federal share is 44 percent. The local share is split with 28 percent (approximately \$8.5 million) from the City and 28 percent from UTA. A new ILA will need to be executed between the City and UTA in order to incorporate this revised funding approach,

Based on the most current cost estimate, the \$8.5 million in local share that would be paid by the City is approximately equal to the cost of design and construction for 200 South. This amount is also approximately equal to the estimated cost for street reconstruction and utilities for the entire alignment. Funds provided by UTA and FTA would pay for design and construction of the LRT TRAX portion of the project.

It should be acknowledged that the delay in moving this project forward has already escalated the costs. In fact, the design team has now estimated that the \$30.5 million cost estimate that was performed last May 2005 based upon 35% completed plans has now increased by 5 to 10 percent due to the inflating construction climate and the escalating costs of materials. As the design progresses, estimates may again be higher due to advancement of the design, continuing delays, and escalating material costs and will only be known when the design team completes an updated cost estimate. The current design includes some betterments that may have to be deleted or deferred from the project to meet the budget. Once a baseline scope and budget for the project is agreed to in

the ILA, any betterments or desires beyond the baseline will need to be deleted, deferred or otherwise paid for at the requesting agencies expense.

As discussed earlier, UTA and the City Staff have developed an alternative funding proposal to the one contained in the current ILA. This proposal is based upon UTA and the City each funding approximately 28 percent of the project with the remaining 44 percent of the funding coming from FTA. UTA recommends this funding assignment or split of costs with the City as it is consistent with the funding proposal already submitted to FTA. Under this alternative funding proposal, UTA would assume the City's risk of getting reimbursed by FTA for the federal share of the funding. In exchange for assuming this greater funding responsibility and the inherent risk in timing and securing future federal funding appropriations, UTA would assume control of the LRT TRAX connection project, ownership of the Hub from the City, and complete the remaining Hub plaza and other project improvements. The City would be reimbursed for its current overmatch from future Federal funds as agreed to in the ILA. UTA would pay the construction and financing costs for the TRAX portion of the project and future project improvements to the Intermodal Hub. Under this proposal, the City would have no further financial obligation beyond the approximately \$8.5 million to construct the roadway and utility elements of the project.

#### **IV. POTENTIAL RIDERSHIP RELATED TO INTERMEDIATE LRT STATIONS**

The Hub TRAX Connection will have a terminal station at the Hub on 600 West south of 300 South. The TRAX Connection will connect to the existing Delta Center Station on South Temple at 400 West. There has been considerable analysis and discussion regarding the number of intermediate stations between the Hub and the Delta Center. UTA submitted a letter to the Planning Commission in December of 2005 recommending a single station on 200 South between 400 West and 500 West. The City prefers two stations with one at 125 South 400 West and the second at 525 West 200 South.

Based on analysis and discussions that have taken place since the presentation to the Planning Commission, UTA is prepared to agree to two stations along the TRAX Connection with one being constructed initially and the second to be completed at a future date. UTA is prepared to support the station at 125 South 400 West as the first station with the station at 525 West 200 South to be constructed some time in the future. Criteria would be established in the new ILA stipulating when the second station would be constructed.

The UTA Board of Directors has established policies and goals related to investment per rider (IPR) and total transit ridership. It is UTA's position that to initially construct and operate two intermediate stations along the LRT TRAX Connection would not generate sufficient ridership to be consistent with established goals and objectives; it would be dictating to UTA to operate an inefficient transit system. The second intermediate station should therefore not be constructed until sufficient development has occurred to generate additional ridership that would meet UTA ridership and IPR goals.

To determine the eligibility of the second station today, UTA has analyzed the number of jobs that the 525 West 200 South second station would add to the number of jobs within a ¼ mile walk distance of the first station. The results of this analysis indicate that presently there would be less than 300 added jobs within ¼ mile walk distance of the second station, resulting in perhaps 150 new riders per day. However, the models also indicate that this new stop would reduce the commuter rail riders by 75 per day, thus there would be only 75 net new riders at the second station when the TRAX Connection starts operation. Commuter rail passengers would likely be frustrated riding TRAX trains that stop at a station with few or no passengers getting on or off.

In addition to the concern about low passenger boardings at the second station, UTA has also completed analysis that indicates a reduction in cost effectiveness for the system with the minimal passenger activity at the second station. This is because the low potential ridership does not justify the added capital and operating costs that would be involved. Based on these findings, UTA is not prepared to provide funds for construction and operation of the second station.

## **V. BUS SHUTTLE SYSTEM**

UTA has analyzed the requirements for a bus shuttle system should the LRT TRAX Connection not be built in time for the opening of commuter rail. UTA currently operates buses and routes in the downtown area that could be modified to serve the Intermodal Hub. UTA remains committed to constructing and operating the LRT TRAX Connection between the Intermodal Hub and the Delta Center. However, if agreement with the City regarding funding, schedule and stations cannot be reached in time to meet the scheduled opening of commuter rail, UTA is prepared to operate a bus system that would provide a circulation system to Downtown for commuter rail passengers.

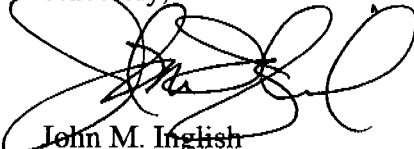
## **VI. RECOMMENDATION**

UTA looks forward to working with the City Council and staff in order to reach an agreement for the design and construction of the TRAX Connection to the Hub so that light rail will be in service when the commuter trains roll into downtown Salt Lake City. As documented in this letter, UTA has recommended appropriate solutions to the questions of schedule, funding and stations for the project. Although UTA has no responsibility for participating in funding of the Intermodal Hub and TRAX Connection under the current ILA, UTA is willing to provide up to 28 percent of the project funding along with assuming responsibility and risk for seeking reimbursement over time from FTA for the 44 percent federal portion of the project. This proposal is contingent, however, on UTA assuming ownership of the Intermodal Hub in return for the additional risk and investment in the project.

Due to the limited time now remaining to design and construct the Intermodal Hub TRAX Connection, it is imperative that agreement between the City and UTA be reached immediately and incorporated into a new ILA between the parties. If such an agreement cannot be reached on the schedule discussed above, UTA is prepared to provide the alternative of a bus shuttle system to transport commuter rail riders to downtown and the University.

UTA looks forward to working with the City to address these issues and move forward with this important project that will provide enhanced transportation access and promote future development for Downtown Salt Lake City.

Sincerely,

A handwritten signature in black ink, appearing to read "John M. English", is written over a large, stylized circular flourish.

John M. English  
General Manager/CEO