



# SAN FRANCISCO PLANNING DEPARTMENT

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## San Francisco Railyard Alternatives and I-280 Boulevard Feasibility Study (RAB)

1650 Mission St.  
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San Francisco,  
CA 94103-2479

### Citizen Working Group (CWG) – Meeting #2 Summary Notes

Reception:  
**415.558.6378**

**MEETING DATE:** Monday, August 19, 2016  
**MEETING TIME:** 6:30 pm – 8:00 pm  
**VENUE:** Walking tour – 4th & King Caltrain Station  
Meeting – Mercy Housing Community Room – 1180 4<sup>th</sup> Street

Fax:  
**415.558.6409**

Planning  
Information:  
**415.558.6377**

#### ATTENDEES:

**Members:** Ron Miguel, Devanshu Patel, Corinne Woods, James Haas, Rick Hall, Brian Scully, J.R. Eppler, Jennifer Stein, Tammy Chan, Ted Olsson, Adina Levin, Sophie Maxwell, David Brentlinger, Brian Shaw, Howard Strassner, Nathan Mee, Alice Light

**Citizens:** Peter Strauss,

**Study Team:** John Rahaim, Director Planning Department; Susan Gygi, RAB Study Manager; Joe Speaks, CH2 PM; Peter Lauterborn (facilitator), Sarita Williams, and Lisbet Sunshine from Barbary Coast Consulting; and Marsha Maloof from Al Williams Consultancy.

**RAB Study Agency Partners in Attendance:** Luis Zurinaga, SFCTA

**Makeup session CWG attendees:** Held 9/21/2016: Bruce Agid, Jackson Fahnstock, Daniel Murphy

#### PURPOSE: RAB STUDY CWG RAILYARD OVERVIEW AND WORK TO DATE OVERVIEW

#### SUMMARY - INCLUDING QUESTIONS AND COMMENTS FROM THE MEETING:

The CWG members met on the corner of 4<sup>th</sup> and King (Avalon Community Room) to observe the Caltrain rail yard and station operations.

Susan Gygi, Study Manager, provided overview information including the potential platform changes required with the interim condition of High Speed Rail at 4<sup>th</sup>/Kings well as DTX alignment and proposed 4<sup>th</sup>/Townsend station. Due to space limitations, only CWG members were invited to the 4<sup>th</sup>/King overview.

Following the 4<sup>th</sup>/King overview, the committee moved to the Mercy Housing Community Room and began the public meeting. Peter Lauterborn started the meeting by welcoming everyone and reviewing the agenda. Next, he provided a brief outline of the role of the CWG Chairperson that included helping the group to have the conversation it need to have to delve into the challenges and opportunities of the project and to keep the voices in the room balanced. Ron Miguel was nominated by Corinne Woods, a second and supporting remarks were offered by J.R. Eppler. With no other nominations submitted, Ron Miguel accepted the position. He made it known that as chair he will not insist on total consensus. He understands that there will have to be compromise overall and that moving forward, for some discussion(s) a agreement of the majority will be sufficient.

#### REFLECTIONS AND COMMENTS ON STUDY AREA, CHALLENGES AND OPPORTUNITIES

The group was asked to contribute their individual observations on the problems and needs related to the study area. Peter referenced the groups past comments on pedestrian safety, traffic impact and transit ridership. CWG comments and questions included:

- Concerned about the isolation of Mission Bay and that it will be difficult for people to get in and out.
- The existing plan is antiquated because it was approved twelve or more years ago.

- Overall capacity of the system.
- Concerns about issues affecting this area including sea level rise and liquefaction. Making sure infrastructure is designed appropriately for ground conditions.
- Potential impact (better or worse) of the traffic conditions for cars traveling to the train station. How will traffic be routed that will go through the neighborhoods?
- How to keep plans current and relevant in a rapidly changing area giving the fact that there will be more than 750 students living in the vicinity of UCSF in Mission Bay.
- Management of the local traffic consistent with the goal of decreasing the driving share below the current citywide mode split of private autos. How will the plan coordinate with City policies?
- Impact on timing and keeping projects moving forward on schedule, such as the DTX.

Susan Gygi, Project Manager, walked the group through the reviewed two components under study focusing on challenges of each, what has been completed prior to the Public Workshop in February as well as updates on work completed to date for the Rail Extension Alignment Options (Component 1) and the Transbay Transit Center Loop Track Options (Component 2) under consideration.

As a reminder, the RAB Study has five components - each studied individually to understand how they work independently and potentially together.

Those five components include:

1. Downtown Rail Extension (DTX) Alignment
2. Transbay Transit Center Loop Track
3. Reconfigure/Relocate some or all of the activities currently happening at the 4<sup>th</sup>/King Railyard
4. Boulevarding I-280 north of Mariposa/18<sup>th</sup> Street
5. Placemaking and Land Use

Tonight we will talk about the first two components. At the next meeting we will look at the last three. At the fourth meeting we will look at the full alternatives (made up of options of each of the 5 components under study). At that fourth meeting, the CWG will understand the alternatives, preliminary estimates of probable costs, potential schedule implications, and a benefit/costs pros and cons matrix. Note that none of the options for any of the components require I-280 to come down. Component 4 considers the potential costs and benefits of I-280 being changed into a Boulevard. (Note that definitions are in the glossary handout provided at tonight's meeting.)

#### **Component 1: Downtown Rail Extension (DTX) Alignment Alternatives:**

TJPA is currently constructing the Transbay Transit Center (TTC). In Phase I (currently under construction), the building is constructed, which is slated for opening in December 2017 with the bus facility and the rooftop park open for use. Phase II includes the connection from the current Caltrain surface tracks just south of the 4<sup>th</sup>/King railyard, through an underground station under the streets at 4<sup>th</sup>/Townsend, and tunneling tracks to connect to the TTC. Phase II is also known as the DTX. Please note, that with HSR's longer trains, the east end of the trainbox currently being constructed will be extended approximately 1 block further east. All of the rail components (track, concourse, platforms, fare gates, etc. that will be installed at the TTC are part of Phase II). The current budget for the DTX is \$4 Billion. Note that in the baseline (existing) configuration option, not all Caltrain trains stop at TTC or at 4<sup>th</sup>/King. It is one or the other (although there is the 4<sup>th</sup>/Townsend station, it is NOT directly connected to the 4<sup>th</sup>/King station or to the Central Subway. In both cases, a passenger must exit one station, walk and enter another).

**The first rail alignment option is called the Baseline Option** This option includes the existing plans for both Caltrain/HSR and the TTC including the existing surface tracks and the DTX along its proposed alignment. 4<sup>th</sup>/King operations, maintenance, and storage would remain (although in some suboptions on a smaller footprint). When HSR comes to the City, it is likely that 16<sup>th</sup> Street and Mission Bay Drive would need to be grade separated (streets would be trenched below the Caltrain/HSR tracks). As stated previously, not all

Caltrain trains will stop at TTC or at 4<sup>th</sup>/King. It is one or the other. Essentially this option is what will happen if the City follows the plans as outlined and builds the DTX as designed and currently environmentally cleared. This option allows for comparison to the other options and provides a baseline to compare the other options in terms of function and needs in the area for all modes. This option considers whether the 4th/King railyard could operate on a smaller footprint, and the impacts of potential grade-separation of 16th Street and Mission Bay Drive when train operations result in too much gate-down time to move traffic on these roads effectively.

What is being constructed today is the TTC (yellow box slide 11). The TTC is scheduled to open for bus operations in December 2017 (levels 3-5). What we will have is a concrete box underground that consists of Level 1 for the train, Level 2 the train concourse, Level 3 street level mezzanine, Level 4 bus level and Level 5 is the Park. The box being built for trains (Level 1 and 2) will need to be extended east during Phase II (DTX) of the project as it is not currently long enough to hold the anticipated length of HSR trains. To move a train stored at the 4<sup>th</sup>/King railyard to the TTC (or vice versa), the DTX SEIR/S calls for a turn-back track that takes a train south out of 4<sup>th</sup>/King with no passengers and crosses 16<sup>th</sup> Street where the engineer walks the length of the train from what is the first car in a SB train to what is the first car in a NB train reverses operations, travels back across 16<sup>th</sup> Street again traveling north into the DTX, through 4<sup>th</sup>/Townsend enroute to TTC. To store the train back at 4<sup>th</sup>/King after terminating at TTC, the process is reversed. The plan right now is multiple crossings of 16<sup>th</sup> Street, though these movements are not anticipated at peak hours, but could be. There will be an underground pedestrian access from TTC to BART. The DTX SIER/S also has included 150-feet of tail track (at the corner of 7<sup>th</sup>/Townsend to allow for a future opportunity to continue tracks underground further south and connecting to the tailtrack while operations continue through DTX uninterrupted.

The portion of the DTX on Townsend will be constructed as cut and cover, with the portion along 2<sup>nd</sup> Street as sequential mining. Construction for DTX is anticipated to take 7 years with the earliest operation using the current design scheduled for 2026. Caltrain does not have the money to fully electrify the fleet right now. Some trains will continue to be diesel. Diesel trains cannot run in a tunnel to the TTC. Currently Caltrain operates 5 trains per peak hour per direction (5trains/ph/d). After electrification, Caltrain will be cleared to operate 6 trains/ph/d). When HSR comes to the City they are anticipating up to 4 trains/ph/d. That totals up to 20 trains in the corridor during the peak hour. And, it represents up to 20 gate-down activities at each of the two crossings in the area. Caltrain currently closes these intersections on average between 60-100 seconds for each train. In the future, Caltrain wants to operate longer trains; HSR will operate longer trains. With the goal to move all the people and goods throughout the city (slide 13) it becomes more difficult to move across 16<sup>th</sup> Street and Mission Bay Drive.

**The second rail alignment option is tunneling under existing alignment.** This option is based on an idea that was studied and rejected for further study in previous work. Rather than grade separating by depressing 16<sup>th</sup> Street and Mission Bay Drive, could Caltrain be depressed under 16<sup>th</sup> Street in a tunnel? This option follows the exact same alignment of Caltrain but north of Mariposa, Caltrain/HSR would dive down, traveling in a tunnel and connecting up to the planned DTX. This option has not been found to be practical or desirable. Putting the tracks underground along their current alignment (under the freeway) would require significant work to the pilings and support structure of the I-280 freeway. In addition, Caltrain would need to be taken out of service for 6+ months as the tunnel excavation would be taking place in the Caltrain track right-of-way.

Due to the structural work and lack of operations for a significant time, this option will not be continuing through analysis.

**The third rail alignment option is Pennsylvania Avenue.** This option calls for an entirely new tunnel to be tunneled starting between 22<sup>nd</sup> Street and Cesar Chavez. The new tunnel will be constructed off-line while

Caltrain remains operational and could include the building of a new (or relocated) 22<sup>nd</sup> Street station. The alignment is just west of the current alignment, traveling under Pennsylvania and then under 7th Street, connecting up with the DTX along its existing proposed alignment. This alignment bypasses potentially both of the old rail tunnels that are over 100-years old, eligible for historic registration, and regularly flood (Slide 15, Tunnel 1).

Once the tunnel is built and operational, the surface tracks of Caltrain would be removed. With this option, the 4<sup>th</sup>/King Railyard would not be accessed from surface track so the maintenance/storage functions would need to move to another location and all operations would need to be accommodated in the 4<sup>th</sup>/Townsend station. The current 4<sup>th</sup>/King railyard could be made available for development i.

In summary, this option puts rail in a tunnel under 16th Street and Mission Bay Drive (grade-separate Caltrain/HSR in tunnel), frees up surface streets from rail conflicts, modifies the land use of the surface rail right of way, can be constructed off-line so as not to disrupt Caltrain Operations, and utilizes DTX alignment as currently proposed.

**The fourth rail alignment option is Mission Bay (Third Street).** This option calls for an entirely new tunnel to be built under 3<sup>rd</sup> Street in Mission Bay, east of the current alignment, with several connections locations to the existing rail still being considered somewhere south of 22<sup>nd</sup> Street station. Like the Pennsylvania option, the Mission Bay option could be constructed off-line while Caltrain remains operational and includes the building of a new (and/or relocated) 22<sup>nd</sup> Street station. The northern end of this alignment connects at the same location to enter the TTC throat on Second Street, but accesses that point from a deeper angle so would not make use of any of the current DTX tunnel design. Please note that with the construction of the T/3<sup>rd</sup> light-rail line, the utilities were cleared from under 3<sup>rd</sup> Street so the construction is significantly simplified along this alignment. There would also need to be a new Mission Bay station somewhere along the alignment as the 4<sup>th</sup>/King railyard would no longer be on the alignment. The size and capacity required for a new Mission Bay station depends on the Blended Service Operations plans currently being developed by Caltrain and High Speed Rail.

In summary, this alignment calls for tunneling an entirely new 3<sup>rd</sup> Street alignment, creates a new station on 3<sup>rd</sup> Street south of Mission Creek and allows for modifications or relocation to the 22<sup>nd</sup> Street station, increases access to Mission Bay, avoids the need to address 16<sup>th</sup> Street and Mission Bay Drive at-grade intersections, modifies the land use of the surface rail right of way, and can be constructed off-line so as not to disrupt Caltrain Operations. Once the tunnel is built and operational, the surface tracks of Caltrain would be removed. With this options, the 4<sup>th</sup>/King Railyard would not be accessed from surface track so the maintenance/storage functions would need to move to another location and all operations would need to be accommodated in the new Mission Bay station. This alignment links Central Subway/T-Line/Caltrain at the new Mission Bay station, and captures potential new ridership south of Mission Creek.

In addition, the MTC is currently undertaking a regional Core Capacity Study looking at where another Transbay crossing might be located. The Mission Bay option takes this into consideration.

There was a question as to why a Mission Bay station is even needed within a mile of the TTC. Another question asked if we have demographic studies identifying where people are traveling to and from to support station location decisions. To respond to both of these questions, the Study team does have some information on population densities, and some information on current use patterns to 4<sup>th</sup>/King. Caltrain currently serves an average of 62,416 passengers on an average weekday with 14,769 passengers using the 4<sup>th</sup>/King Railyard (2016 Caltrain Average Weekday Count)

TJPA has done further studies and projections on TTC ridership of which some information has been provided in the handouts today. The study team is working with Caltrain to understand what their future capacity might be. If this option moves forward, further analysis and outreach will be completed on the location as well as elements to be included in the station. Several CWG members voiced support of a station within this last mile and the need for additional transit service in Mission Bay.

There was some discussion on whether the study team had studied suggestions for rail to enter the TTC from other angles at other locations, but given the resources and design construction already completed in association with the construction of the TTC. It would take reconstructing some of the structural elements of the TTC to accommodate an alternate access point. This was not deemed feasible. All rail alignment options remaining under consideration connect to the TTC as constructed.

In an effort to help put costs into perspective, the Study team provided a comparison of the Central Subway (using tunnel boring technology) which is 1.6 miles with two tracks to the DTX (which is cut-and-cover, and sequential mining) which is 1.3 miles with three tracks. In addition, a comparison between stations (Grand Central Station, Union Station, TTC, and 4<sup>th</sup>/King) was made available as a handout to members

#### **Component 2 - Transbay Transit Center Loop Track:**

Of the options considered, Main Street and Spear Street were removed from further consideration, due to the tight turning radii, that would only accommodate Caltrain trains. A quick and preliminary cost/benefit analysis showed that the costs outweighed the benefits in both of these options. These two options will not continue through Phase II analysis. Steuart Street and what is called In the Bay options showed potential to increase capacity of the TTC and could return south or connect to the East Bay at various locations. Those two options remain through Phase II.

In Phase II, a threshold analysis will be performed to determine the number of passengers/day or trains/day that would be needed to trigger the need for the loop track option. Sketch-level engineering will be completed to provide high-level design. Slide 22 shows SOME of the potential connection points along the alignment for Steuart or In the Bay that could move forward. We want to make sure that we consider this so as not to waste resources when the process to consider another Bay crossing is started. No costs are anticipated for the loop track options as there will not be a year associated with providing the loop track. By identifying the possible options through this study it provides the groundwork

There was discussion on turn-around times for the trains at TTC and how this affects 4<sup>th</sup>/King and TTC operations. Interested individuals will have to wait for the blended service plan to better understand the overall operating requirements of the system in order to build appropriate infrastructure. The potential capacity needs are not yet known but will know more Caltrain and HSR blended services operations plan is completed. The study team is looking at the loop options to be prepared for plans for expanded service from TTC of a second (or third) Bay crossing and minimizing potential impacts to buildings within the potential loop right-of-way options.

Tunnel boring has come a long way and any construction will take into consideration climate change and sea level rise. With respect to poor soils in some of the alignments, Susan explained how a tunnel boring machine (TBM) can inject hardening agents while boring which hardens the earth around it and provides additional solutions to liquefaction. Joe Speaks (Project Manager from CH2MHill – the Consultants providing technical analysis for the Study) added that advancements in technology have improved certain options that were previously eliminated due to cost or feasibility. Joe also indicated that CH2M continues to consider soil conditions very seriously. While the conditions are challenging, CH2M believes that the alignments under consideration are feasible.

**GENERAL COMMENTS AND QUESTIONS:**

- Who will make the final decision on the alternative? The response is that this is a complex decision that involves many stakeholders beyond just the City. The Mayor's office and the Board of Supervisors will be asked to weigh in on what the City's preferred alternative is, but the TJPA, Caltrain, High Speed Rail, and MTC are all part of the process as well.
- What impact will this be on MUNI in and out of Mission Bay? The response is that the study is analyzing impacts to all modes and even more information will be available in subsequent phases. Overall, putting more trains underground provides less surface impact to all modes.
- Has the Study considered renaming? – the short answer is yes, but there are grants associated with the name that could become convoluted. As the second phase of the Study is wrapping up, there is talk of renaming for future phases.
- Is there more information on sea level rise? Many of the departments and agencies within the City and County are embarking on various studies and initiatives related to Sea Level Rise. The study team stated that some information would be available through the study but more through follow-on work and coordination with the various agencies/departments.
- The CWG would like to develop some criteria for thinking through trade-offs as a group. Members need more time in the individual CWG meetings to discuss elements among themselves. A request was made to get as much material and information as possible to the members at least a week prior to each CWG meeting to allow enough time to review prior to the CWG meeting. . We will all need to do homework in an effort to contribute to his process in a timely way.

**NEXT STEPS:**

- Next meeting (CWG#3) will focus on the last three components 3) Reconfigure/Relocate some or all of the activities currently occurring at the 4th/King Railyard; 4) Boulevarding I-280 north of Mariposa; and 5) With the other four components, there will be parcels of land that become available for employment, open space, and housing. What should that land use be and what potential for value capture is there to help pay for some of the infrastructure.