CITY COUNCIL RAIL COMMITTEE TRANSCRIPT

Special Meeting
March 23, 2016

Chairperson Berman called the meeting to order at 8:33 A.M. in the Council Chambers, 250 Hamilton Avenue, Palo Alto, California.

Present: Berman (Chair), Burt, DuBois

Absent: Scharff

Oral Communications

Chair Berman: Thank you very much. So the first item on the Agenda is Oral Communications. Do we have any public comment cards for Oral? No. We don't.

None.

Agenda Items

1. Presentation by Stefan Heck on Transportation Alternatives at the East Meadow Drive Caltrain Grade Crossing.

Chair Berman: So we'll close our Oral Communications and move on to Action Item Number One which is a presentation by Stefan Heck on transportation alternatives at the East Meadow Drive Caltrain grade crossing.

James Keene, City Manager: May, could I just introduce this just for a second Mr. Chair?

Chair Berman: Please. Please, do.

Mr. Keene: Thank you, thanks so much. So partly scheduling this item for the reconstituted Rail Committee was a result of a conversation that Stefan and I had actually following this consortium meeting with about five regional cities and Stanford on sort of more regional planning and collaboration

related to our transportation network. Everything from linking our bike networks and all of those things and as we were doing some planning for an event that I'll brief you more fully on as we kind of get down the road a little bit in May, but after that Stefan said "Hey, why don't I just sort of share with you some observations that I've made in an hour or two's worth of time related to the crossing at East Meadow Drive." And it sort of it included some elements that I've heard from Mayor Burt at times about different kinds of undercrossings and just interesting ways about thinking about more capacity along the rail, even in our road network, and increasing safety. We're always dealing with these big billion dollar costs for grade separations as essential. I just thought it might be intriguing for the Committee for Stefan to do his thing with you. So… turn it over.

Stefan Heck, Stanford University C.E.O. Nauto, Incorporated: [Off microphone] Well thank you very much Mayor and Council Members. This button? Ok. Thank you very much Mayor and Council Members. As Jim teed up this is an idea so it's I'm going to give you a sketch. It's not an engineering study. I want to be clear about that up front. It's a concept to be explored. The question really… oops, I'm sorry. And I've taken East Meadow as an example. This doesn't mean that's the only place it applies, but I had to do some time and motion studies of one particular crossing to really get at the details. If you step back and say what are the top concerns about Caltrain, what comes to the top of the list?

Mayor Burt: Safety and congestion.

Mr. Heck: Safety and congestion, yes. Ok. Other things I've heard are noise, right? And can we get enough capacity crosstown given the crossings. So if that's our starting list how do we think about these and how do we look at the handful of crossings where we don't have grade separation yet and say is there a different way to operate these that allows us to get more crosstown traffic? Ultimately we want more capacity on Caltrain itself as well so we actually want capacity in both directions while maybe at the same time addressing some of the noise pollution and safety issues that have been a concern. The existing solutions our City Manager already teed up are very expensive, have some risks whether we, if we trench there's a lot of flooding risk. If we shift to buses as many of the companies have done we're adding more traffic to 101 if we start shifting traffic off Caltrain. And of course the backup option is always just to freeze growth, but that's really not viable for the tech companies who will just grow elsewhere. So with that as context I wanted to pick this intersection which I can assume all of you know at Meadow Drive and Alma Street and Caltrain. Today we have

a situation where it's a very complex intersection. You've got Alma Street and Caltrain both being crossed at the same time. There is already coordination between the train control signals and the traffic lights preemption, but it's run in a particular way as I'll get into in a moment. We have when there's two trains per hour during the middle of the day we don't really have an issue because the trains are so infrequent that it doesn't back up traffic. At rush hour when there's 10 trains per hour you can see actually traffic jams forming in both directions, both Alma Street gets backed up as well as East Meadow Drive and East Meadow Drive in both directions interestingly. I spent a bunch of time out there just videotaping and observing and I'm going to share with you the kinds of data I collected. So that's the status quo as is today. What I did is I took some measurements and I said how much of the time does each of the three directions because it's a three way signal so going westbound on Meadow Drive and go eastbound on Meadow Drive are separately controlled. How much of the time is the signal in each direction? And what you find is westbound gets 20 seconds, eastbound gets 30 seconds, Alma Street gets 66 seconds which is probably as it should be more or less. I don't know why the difference between westbound and eastbound, but I'm sure there's some traffic intensity basis for that. Alma Street clearly is the primary road with more traffic gets more time. So that's good, but what this hides and this is really the root of the insight of how we could do this a different way is this is the total time including all phases of the signal. And of course not during the entire time is actually traffic flow possible. So if you, if you add in the train what you find is when the train comes it takes about 25 seconds for the train to cross including the gates and the actual time for the train to cross. And in parallel with that the signal reverses so that Alma Street turns green, but that's a short period. It's 36 seconds instead of 66 seconds. And those two happen at the same time, but now I wanted to dig a little bit deeper into the signal phasing and maybe for background for everybody from a traffic engineering point of view which again I'm not a traffic engineer, but from reading the literature this is roughly the pattern. If you have a major road at higher speeds like Alma Street at 35 miles per hour (mph) you have 60 seconds of green and you have somewhere close to five seconds of yellow. That's again dependent on the speed and the level of traffic. The smaller the street the shorter that interval, but for Alma Street I measured it's between four and five seconds right now. Then you have a red phase of two seconds while that, while Alma is red before actually East Meadow Drive turns green. So there's a phase in there actually while nobody's moving which is for safety so that you don't have, you know, the rest of the intersection can clear. Then you have Meadow Drive turning green and it lasts about 20 seconds in total. Again you have a three second yellow phase

there because it's a smaller street with a lower speed limit so it's not five seconds but three seconds and then two seconds again where the entire intersection is red and nobody's supposed to move. If you look at it from a capacity point of view the first couple seconds of the green are really lost because everybody's still at a standstill before they really move into the intersection there's a couple of seconds there from my measurements it's somewhere between two and three seconds before the first car is really in the intersection and starting to cross. And then during that yellow phase most people start to break and stop in that yellow phase so you're really getting again I estimated about half the flow of the normal intersection during that time. The people who are mostly in keep going, but everybody who is more than a second away actually starts slowing down and to stop at the red light. So from a capacity point of view what you get is ok it's actually not the full 66 seconds that Alma Street has or the full 33 seconds, but it's a fraction of that. So what I wanted to do is dive deeper into those times during what's called from an operations research point of view the changeover times. So that's the lost time while the signal is switching while there's really no throughput in the signal. And if you add the changeover times you can see here the percentage time spent. So you get about seven percent of the total time that westbound Meadow Drive can actually flow through, but four percent of the time is lost to that changeover, 13 percent for eastbound. You can see Alma Street instead of being more than half the time is now down to a third, 33 percent of the time that it's really flowing. And what's most fascinating is if you look at Alma Street during the train because if you've observed that signal when the train first, the signal from when the train is first sent that the train is coming the Alma Street actually gets shut down. The remaining car that's sitting between Caltrain and Alma Street gets cleared, which is in my measurements its maximum two cars, often only one or even no cars. So they, that one car gets to move, but everybody else is at a standstill and then you reverse to have Alma Street flow, but it's Alma Street in that short phase. And because it's a shorter phase the changeover times are longer relative to the actual flow time. So that's where you see up there there's only actually 13 percent flow time and 11 percent change over time. So we're losing as much time for the changeover today as we are for the flow. And then the train itself interestingly because the public commentary has been oh, the trains are what slow us down, the actual time for the train to transit is three percent. So the train really doesn't take a long time. By the way that's not actually the train itself because the train itself takes five seconds to cross. That's the time for the barriers to come down, which is 20 seconds and then the train to cross for five seconds. So most of the time is really the gates coming down, not actually the train crossing and there's changeover time there as

well while the signals are changing for the train. So the aggregate picture winds up being that you're getting about two-thirds of the theoretical throughput of that intersection, a third of the time is really lost to all of this changeover time and on time of that I think there's a psychological effect of oh, both directions are being interrupted by the train because they do both initially turn red when the train comes. So if you're driving on Alma Street you go why am I being interrupted by the train? I'm not even crossing the train and yet I have this red light and then I have a very short green phase which because of the amount of changeover time is mostly frustration. And you see that. You typically have four or five light cycles if you're trying to go southbound on Alma Street before you actually get through. So all of this is status quo, but I wanted to highlight this concept of the changeover time because that's really what the idea adjusts that to align it better to reduce the changeover time and get more throughput from the intersection. So a little bit of a graphic of what could we do here? And if you really do the full analysis there's five modes coming together here, right? You have north and southbound train traffic, you have north and southbound vehicle traffic, east and westbound vehicle traffic, then I have pedestrians and I have bicycles. And from a point of view of safety the pedestrians and bicycles are really risky at this intersection because of the preemption of the signal light. So I witnessed two events where a bicyclist and a pedestrian were waiting to cross. The signal turned green to cross Alma Street. They got about three seconds into crossing Alma Street and the preemption changed the signal and they literally had to run the rest of the way to make it to that safe landing between Alma Street and Caltrain because the train shortens that phase. And right now the train doesn't anticipate what phase the traffic light's in; it just interrupts it whenever the train comes. So if you want to look at redesign of an intersection one part of the idea here is can we build an underpass like we have at Homer Avenue for pedestrians and bicycles that goes directly from Meadow Drive on one side to Meadow Drive on the other side. It could even be combined with a cycle track so you have a dedicated bike lane and pedestrian path on that side. You'd only need it on one side because you can safely cross the Meadow Drive further back at the nearest intersection. It's not very far away. There actually isn't and I looked, there are no other driveways in that first little segment so there's actually no reason for somebody to directly cross on the, on what on this picture here would be the right hand side of that road. So you could have a single tunnel on one side that would get you underneath. That dramatically improves safety because now there's no pedestrians crossing the train at all. That would all be going underneath and the same for bicycles for all the kids going to school crossing this intersection. The root of the idea is where I've drawn that X which is eliminating that dead space right now that is really a

holding camp for a dangerous set of vehicles that has to be cleared and eliminating that as part of the roadway and essentially moving the traffic signal further back to the other side of Caltrain so that the Caltrain part and the Alma Street part literally operate as if they were one intersection instead of today where we have two intersections that are linked through the signals. So operate them as one signal. Yet I've drawn in the turn lanes here on the Alma Street side everything would stay as is today. You've got two lanes of traffic that go straight; you've got a left turn lane coming northbound. You've got both a left and a right turn lane coming southbound. So those would stay as is. On the Meadow Drive side you would be net reducing one lane of traffic for the cycle path and the tunnel, but because you could put the tunnel further up as you see in the top part of the picture there, you'd still have the ability to make right turns there past the tunnel. You'd keep the one lane of traffic that goes straight and today there's already a left turn lane on this road that has a protected phase. Today the, as I said the westbound and the eastbound happen separately so you have both straight flow and turning flow that happen at the same time for each direction, separately though. What the proposal here would be to change that so then you have similar to what you see at Town & Country and El Camino Real for example. You have both left turns go initially and then you add the straight flow. Those would be triggered lights so you'd only have that left phase if in fact there are cars in that left turn lane otherwise you would just go immediately to straight. So that boosts the capacity because I'm combining the eastbound and the westbound. So I'm giving both directions a longer phase in which to cross. I have not changed the 60 second timing on the Alma Street at all in the modeling I've done. So Alma Street actually still gets that time. What changes and goes away is those short cycles, the 30 second cycles on Alma Street now disappear because we've got the traffic already stopped at the red light that is now on the other side of the train tracks and I don't have to spend time clearing that middle intersection. Again, I haven't looked at the traffic engineering to make clear and get the cars to hold there. Obviously you wouldn't want cars to… we have to retrain drivers essentially to realize that there's no space in between there so you're going to have to change the curbs and the pavement as a way to make that clear and obviously move the light itself. So coming back to the quantification then and this is really the essence of the proposal, what happens when we do this and we synchronize them in a different way? So you have combined the eastbound and westbound Meadow Drive so now Meadow Drive actually has 40 seconds total time which is useful while there's traffic flowing. A portion of that is left turns on both directions. A portion of that is the straight traffic and again that would be adjusted dynamically based on whether there are vehicles in the left turn

lane. The changeover time, the lost time is down to five percent here because I'm literally just I've got the three second yellow and I've got the two seconds of everybody's red to clear the intersection and that's all there is. There's no extra lost time. In the Alma Street direction as I've said I've preserved the full 60 seconds of green and that gives you more than half the time actually the intersection is letting Alma Street go at full capacity and then I've still got the five second changeover time there for both the yellow phase and the red phase. Importantly the train passes during that Alma Street phase so instead of interrupting Alma Street when the train comes what you would do is if, if in that, if the train comes early in the 60 seconds, the full train cycle remember takes 25 seconds, it already fits in that 60 seconds. If the train comes at the end of that Alma Street cycle, let's say it comes in second 55 you would simply stretch that Alma Street cycle to be longer and let the train pass before changing the light. So that's a different way of linking the signals today then we have today. So most of the time statistically again you're going to come somewhere in the middle so the train actually fits into the existing 60 second period. If the train comes late we'd have to just lengthen that signal time. But what that means is from a capacity point of view I've actually got the capacity for 30 trains an hour which again is way above anything that anybody has actually conceived of for Caltrain today because basically every 60 seconds or every two minutes I've got an opportunity for a train to pass. So I can literally run 30 trains an hour every other minute. Without any interruption this signal would operate exactly the same way when the train's coming versus not; again, the only difference is the Alma Street phase might be slightly longer, but because neither East and West Meadow Drive then have to wait because right now if one gets interrupted it goes back to the same sequence. It doesn't actually pick up the side that was the next turn, but here because they're both going at the same time both sides get a turn in any case. So you wouldn't have that issue. And look at the aggregate productivity, now you've got 90 percent useful time and only 10 percent lost time in aggregate for that intersection. So with this design just to summarize a little bit what are the pros and cons and again in the absence of any detailed engineering studies; we've boosted the throughput for vehicles by about 50 percent. I looked at the costs for the Homer Avenue tunnel. It's about $5 million so instead of trenching all of Caltrain even if we said we have to do this for all three of the grade level crossings today you're talking about $15 million for three tunnels. There would be some money to actually change and relocate the traffic light and changes for the intersection so a couple of million dollars for that. We've reduced two-thirds of the changeover time from a third of all the time available at that signal to less than 10 percent. So that's a significant gain in capacity right there for that. We've also because we've

removed the pedestrians and the bikes from that direction crossing Caltrain and crossing Alma Street we've dramatically improved the safety and reduced the risk of accidents. And essentially for any plan that anybody's ever contemplated for high speed rail or Caltrain we're not going to exceed 30 trains per hour in anything I've looked at. So we've bought ourselves enough capacity for whatever growth is needed there and again without any disadvantage to the other direction. If you compare that just for the sake of comparison to trenching we've increased the safety risk in a way because now we've got a bridge to jump off down onto the tracks. We've got the same peak changeover time that we have today even with the trenching because I have to… I actually still have the signals in the current pattern. I do have throughput gains in that mode because the train runs underneath now so it's no longer constrained by the cross signals and I can get even more trains because I could literally run trains at the minimum headway interval for trains which Caltrain right now says is about seven or eight minutes. In theory you could get it down to one minute. That would be 60 trains an hour. So that's it in a snapshot. Happy to entertain questions of course, as always.

Chair Berman: Great, thank you very much. Does the City Manager have anything to add?

Mr. Keene: Well, the only thing I would say is, is that well, first of all I'm not smart enough to follow what Stefan is saying for you know, to be able to deconstruct it and criticize it or anything, but I found it so intriguing and thought I'd understand it better a second time and a little bit I do. But the more interesting part I just thought was we have so much uncertainty in relation to how things are going to unfold for us in the City that it's useful to be thinking about are there are alternatives whether they are fallback alternatives or if we were to have really delayed implementation time is it even worthwhile to be thinking about adjustments we could be making to improve safety in crosstown traffic in addition to the capacity of Caltrain. So I didn't want to leave Stefan's thinking in my feeble hands so I wanted to be sure he was here before the Committee. So thanks. Thank you.

Chair Berman: Great, thank you very much. So I'll kick it open to colleagues for questions or comments. Pat?

Mayor Burt: Well thanks for the thought provoking presentation. One key thing is I wanted to make sure I understand, are you saying that you would,

we would be able to have that additional car capacity and at the same time that many trains?

Mr. Heck: Correct. That's right.

Mayor Burt: I've got to understand that modeling in more depth.

Mr. Heck: What we're eliminating is all of that signal changing or a lot of that signal changing time. We're taking it down to a third of what it is today.

Mayor Burt: Yeah.

Mr. Heck: And that's where we gain the extra capacity for the cars.

Mayor Burt: Ok, with that gate down time I'm just going to find that interesting. Just a couple of things on the cost modeling, I don't think it really changes the how we might look at this, but the Homer Avenue tunnel was a very short distance. So it only goes under Caltrain tracks and it doesn't have the on the east side there's virtually no ramp. So this tunnel… and that was a tunnel that was built 15-20 years ago and so if I was to estimate it's probably about a $15 million comparison, but still that's a small amount compared to full grade septs. Also the trenching alternative, that $900 million, was a one percent grade and we're not conceiving of having a one percent grade. We had a $510 million for a two percent grade and we haven't yet modeled a three percent. The two and the three percent would be contingent on being able to modify what the freight situation is; the passenger rail could handle that grade, but not the freight. So this coming months I think have some additional comparison points. And oh, just that they I think that elimination of the queuing that's, that is one thing that we've been hearing about. I guess in Europe I think do they call it a yellow box or whatever that prevents that very same kind of queuing. And let's see, final… I guess this is still getting the time to sit down on the modeling, but what we see right now is this irregular pattern of the go north and southbound trains where we often get gates just have risen, they go back down immediately and then there's no turnover in the traffic flow in that period. But I… that sounds like you're, you've accommodated that condition?

Mr. Heck: So in the, I actually observed one of those situations while I was there, right? Very short subsequent intervals. What happened in the new case is that Alma would just keep running. So yes, you're going to block

east, you're going to block Meadow Drive for longer because now you've got two times 25 seconds. So you're going to at worst case if they're really back to back you've got a minute that Meadow Drive is blocked. But the difference is Alma Street would continue to flow during that entire time because you're not actually turning that red versus right now even if the gates have just risen, no car has actually crossed yet we're still blocking Alma Street to clear those theoretical cars that are now not there and actually interrupting traffic [unintelligible] and that would simply go away. And that's where a lot of the savings comes from is that 17 percent of time that's right now devoted to that clearing interval while we're interrupting both roadways from flow. And I agree with you by the way on your comments about the cost. You know 3 times for the length of the tunnel times three so you're talking $50 million to do three crossings in Palo Alto. So.

Mayor Burt: Good and the alternative of full grade separation has not only significantly higher costs, but huge construction disruption impacts.

Mr. Heck: That's right, years of interrupting both Caltrain and Alma Street actually while you're doing that.

Mayor Burt: Ok, thanks. Dave, Tom?

Council Member DuBois: Thank you. It's always good to get a new idea and I'm glad you brought that up. I've often thought about that space with the two cars; it just seems very dangerous. I know you're with Stanford. I just noticed you're also CEO of company. Could you just tell us what Naruto does?

Mr. Heck: Yeah. We make safety devices for cars. It's basically if you know the Google car that drives itself; we use the same kind of machine learning capability as a retrofit for vehicles to give you augmented sensory awareness and warn you if you get into dangerous situations to help guide you. So it's for vehicles. It has nothing to do with trains.

Council Member DuBois: Trains, ok. Yeah, I just wanted to (interrupted)

Mr. Heck: But it's in the same broad space of transportation.

Council Member DuBois: So similar to Cruise which was acquired recently?

Mr. Heck: Similar to Cruise. We're more focused on the assistance mode at this point. Cruise actually tried to drive the car itself, but it's the same basic technology building blocks. That's right, yes.

Council Member DuBois: Ok. So again just trying to understand exactly what you said. You know this idea that there's a third of the time that's lost, but some of that's for safety, right? So how much of it is really… you got it down to 10 percent. Is that the minimum you think we need for safety?

Mr. Heck: So 10 percent preserves what the Federal Traffic Engineer Guidelines are, which is the number of seconds depending on the speed of the road for clearance. So it still preserves your five seconds for Alma Street of yellow phase and then two seconds where everything's red. So I've kept that.

Council Member DuBois: Right.

Mr. Heck: I had to change that. Basically it's now in the alternative idea model it is as if the railroad didn't exist that's how you would run that intersection. And I've simply fitted the railroad into those timing patterns.

Council Member DuBois: Yes, isn't the worst case though that the train comes during the Meadow Drive cycle? So you had that minute of Alma Street cycle. If it's in there you've eliminated stuff, but if it hits during Meadow Drive then it needs to reset.

Mr. Heck: Then it will change to Alma Street, but at least you're doing just one change to Alma Street and then Alma Street gets its full 60 second cycle. You wouldn't have that be a short cycle. You would just pick up the Meadow Drive again at the end of the full cycle instead of having these shortened cycles that we have today.

Council Member DuBois: So it seems like the biggest thing to model or look at is really what happens to Meadow Drive. So I've already seen in the morning Meadow Drive, West Meadow Drive backed up from Alma Street to El Camino Way and now you potentially would be backing it up out into further [unintelligible].

Mr. Heck: So I mean the let me go back to the numbers in that model. Because you're talking about running both directions at the same time, both

directions get a turn right now. Right now if you interrupt it goes back to the same side of Meadow Drive that is in that normal cycle. It doesn't actually matter which side got interrupted. So that's a part of why it backs up today is you don't get a "fair turn." It goes back into the regular cycle.

Council Member DuBois: Right, but basically we're favoring Alma Street so we would probably need to model that and just look at what happens to West Meadow Drive and if it gets preempted by the train.

Mr. Heck: So even if you, even if it's Meadow Drive that's interrupted to your example, right? Yes, you'd shorten that current Meadow Drive green phase, but Alma Street would have its green phase. But then you'd go back to the full Meadow Drive green phase. So unless you were really close to the 30 trains an hour (interrupted)

Council Member DuBois: Yeah.

Mr. Heck: Where you're constantly interrupting Meadow Drive, Meadow Drive is still going to gain because you had a longer green phase the next time you come. And remember the current train even if Meadow Drive is green also interrupts Meadow Drive because only the two cars in that island in the middle actually get to go. Both of the other parts of Meadow Drive were still blocked. So we're not really, we're not really reducing that amount of time in any way.

Council Member DuBois: Ok, I'm still saying that if Pat's example of one train then another train (interrupted)

Mr. Heck: Yep.

Council Member DuBois: Worst case would be like two minutes at Alma Street throughput so then we just need to look at what happens to Meadow Drive, if it's blocked for two minutes.

Mr. Heck: Yes. So the existing example of that is Alma Street at the northern end where it crosses onto, near the Palo Alto tree which operates in exactly that way. And there are periods when two trains cross when you have close to a minute and a half or so of gate downtime.

Council Member DuBois: Ok.

Mr. Heck: Because again the actual train gate downtime is only 25 seconds. Most of what we experience at that signal today is all these other changeovers which take much longer.

Council Member DuBois: Right. And then the other thing about noise is that we could potentially put a quiet crossing there as well?

Mr. Heck: Yes. Yes. So the requirements from the Federal Railroad Administration (FRA) are that the two directions have a separation barrier which if you look closely I didn't talk about it, but I've added that as the white line at the bottom there so that the north, the westbound and the eastbound would be separate. There would be one of the concrete F barriers in the middle or something like that or a planter. And between that and the signals you could make the signals quiet and the train not blow its whistle anymore which again we could make some of those improvements today without changing the signal timing. But if you're going to change the intersection you'd want to do that at the same time to reduce the (interrupted)

Council Member DuBois: Yeah, I wondered would you even move the gate on the Alma Street side all the way up to Alma Street, right? We have that, that box you have to keep cars out of there, right? Or would you let them go in there for the right turning from Alma Street towards the tracks?

Mr. Heck: No. So that's the one turn direction that would lose under the current model because you wouldn't allow right turns on red anymore. Because otherwise you still have some cars trapped in there and then you'd need that clearance interval. So you would have no right turn on red. If Meadow Drive is red in fact that's the one turn direction that does take a hit in this model because you can't allow that otherwise you have (interrupted)

Council Member DuBois: So you might want to move the gate back just to stop that from happening.

Mr. Heck: You need to move the gate back to where the red signal is up there on the western side of Caltrain. So at the very bottom end of the [picture].

Council Member DuBois: Yeah, no. On the other side would you actually move the gate to Alma? Or you know so there's no way to turn?

Mr. Heck: Yes, yes.

Council Member DuBois: You'd move the gate to Alma Street?

Mr. Heck: That's right.

Council Member DuBois: Great, ok. Thanks.

Mr. Heck: Yeah.

Chair Berman: Well this is enlightening and thought provoking. And I think the biggest surprise for me was just how much wasted time there is at these intersections, so thank you for doing the modeling or the analysis to quantify that. Tom and Pat kind of asked a couple of questions that I had. One of the questions that I have for staff, well one question I have is: is there a concern that with having the pedestrian/bike tunnel take up some part of the right turn… I mean maybe explain for me a bit where that is and what impact that's going to have on Meadow Drive. Is that actually starting in that right turn lane right now and so are we losing that kind of capacity?

Mr. Heck: So right now there isn't a dedicated right turn lane there, but you can turn right from the (interrupted)

Chair Berman: For this (interrupted)

Mr. Heck: Because I've changed it. So right now there's two south, two westbound and two eastbound.

Chair Berman: Yep.

Mr. Heck: I've shifted them over by one so there's only a single lane you see going up and that's what's created that right turn lane. So people turn right on red from what is up there, the second from the left arrow coming down. So there's doing that from the same lane. Depending on where you put the tunnel and this is really a cost optimization engineering question at some point, how far back do you put the tunnel entrance? The further back you put it the more expensive the tunnel becomes because it's longer, but there will be some gradient issues anyway of how steep do you want to make that tunnel as it goes down. So I haven't tried to work on those problems at all and look at the slope. If the tunnel's far enough back, the entrance is far

enough back it'd be much safer because you would create more visibility at the intersection and you create that opportunity for cars that are turning right to scoot into a dedicated right turn lane.

Chair Berman: So and I guess that was my concern was from on Meadow Drive going east it looks like what or no, excuse me, going west if there are too many cars that want to turn right and then there are cars all of sudden in the street lane that want to go right (interrupted).

Mr. Heck: Yeah.

Chair Berman: I mean but they have to wait they're essentially blocking up that lane and not allowing other cars to go straight through so.

Mr. Heck: That's correct although that's the situation today, because there is no dedicated right turn lane. So they're blended between people that want to go straight and people that want to go right, but you're right. If there's a lot of people that also want to go straight they would block the right turn lane if they stack up.

Chair Berman: Ok. And I guess a question for Staff would be what do you guys, I hope you got that this presentation before we did. I know Jim did, but in your mind what would next steps be in terms of kind of analyzing this idea and determining the feasibility of it?

Josh Mello, Chief Transportation Official: So I think there's a lot of great ideas here. As you know our signal timing in general needs to be updated. We are working aggressively to do that starting this year. We've actually developed some scopes of work for the Churchill Avenue crossing and the Charleston Road crossing that are very similar to this in that they would add an advance signal and eliminate that trap area between the tracks and Alma. There's no question that a signal cycle with protected left turns, which is what's shown here, is much more efficient than the split phasing that's out there today. I think we can take a lot of these ideas and run with them as we do our signal timing upgrades in the next couple of years.

Ed Shikada, Assistant City Manager: If I could also add and actually in full disclosure I should note that I am a traffic engineer. So I'm really fighting the emotional propensity to geek out on this stuff as they say because believe it or not traffic engineers do geek out on this type of thing. Maybe just to start at that point and then put it in a broader context from a City

Manager's Office perspective, the ideas that are presented really are very provocative and I think present some really interesting and some great possibilities to address some issues that have been issues of concern on safety and the like as well as the capacity. A couple of notes just on the geek out piece would be the slope and the length of that tunnel would actually probably be driven most by Americans with Disabilities Act (ADA) and the steepness of the ramping as well as the structural thickness necessary to support the train, train crossing, and the street. So those are the kinds of issues that would need to be looked at more closely as we got into it, but again it presents some really interesting and great possibilities. The and for example to your point Chair there could be examination of prohibiting right turns if that were a possibility which does lead into the issue of the circulation study that is a part of the recommended work plan and next steps both for specifically things like turning restrictions and the like, but then more broadly what are some of the options and the community engagement that would be involved in looking at options like this. Because I think Stefan is an extreme example given his expertise, but as we know our community is, has its own propensity to geek out on some of these issues. So I think that opening the dialogue to those kinds of solution generation will bring forward some options that we probably haven't considered to this point. And again, in terms of the more conventional highway/rail grade separations would again be different solutions than the traffic engineering concepts would necessarily bring forward. So I think that the work plan as we go forward really does provide us the opportunities to explore these more deeply and really open that dialogue.

Chair Berman: Great. And I think Pat you had a follow up and then we have two members of the public who'd like to speak to this as well.

Mayor Burt: Yes. Just that if we're going to begin to look at this in greater depth a permutation that we may want to consider is one where, one we look at what type of pedestrian tunnel? So today's pedestrian tunnels typically like the Homer Avenue one have not only lanes for bikes going each direction, but lanes for pedestrians each direction. Perhaps in a tunnel you can have a narrower pedestrian that is shared, but the bikes going each direction need quite a bit of real estate. And then we run into the problems of if it's on one side how do those, especially bikes, cross and especially if we're looking at something like this for church, excuse me, well both Churchill Avenue and Charleston Road are the really heavy bike volumes because of the school commute routes. So then there's the other question of are there some small potential right of way pickups that we could do and one consideration for instance we don't know whether the ramp would

necessarily be for instance if you're going to… well, I'll just say that we have a very wide median on Alma Street. In this case it's just south of Meadow Drive that's that wide median because we have an unusual kind of situation just to the north there. But the other thing that I'm basically leading to is given that the significant cost difference between a pedestrian tunnel and a conventional vehicular grade separation we could consider two tunnels for pedestrians on either side and that they would be narrower and potentially have much greater safety of not having those bikes and pedestrians (peds) needing to cross Meadow Drive and frankly more expeditious for bikes. Basically if the bikes have to figure out how to wait for a signal to cross safely or more likely what we see in kids and you can observe it at the Churchill Avenue crossing which is high schoolers will take that advantageous signal when it's green, when there's a pedestrian green from Churchill Avenue coming westbound and they're going eastbound they'll just ride and cut across the street and it's really unsafe. Whereas if you give them a tunnel on each side and there's no signal waiting when they're on bikes so we eliminate that temptation. So I just wanted to make sure that we were thinking that we could even conceive two tunnels at a small fraction of the cost of what we were considering with either trenching or conventional grade separations.

Mr. Heck: Thanks and may I make a comment to that? So I think these are really good issues and I started experimenting as I was drawing this page with where would you put it? I wound up putting it on the left hand side because it's I think for both Churchill Avenue and this intersection more of where the traffic is going winds up actually on that left hand side, but to your point if we kept the current bike lanes only you would have an issue of people having to cross to get to that tunnel. So that's why in this design it's really proposing that we have a cycle track that takes one of those lanes if you look closely at Meadow Drive further east of this point it actually narrows to one lane in any case. So we wouldn't be shrinking the lanes at all by continuing that cycle track and you'd have two way bike traffic on that all the way. Not just through the tunnel, but actually for the rest of that stretch.

Mayor Burt: Oh, you're saying that lane would be a separated bike lane on Meadow.

Mr. Heck: That's correct. Separated two way bike lane that would go straight into the tunnel. You'd come out and keep going in that way on both sides so that it is perfectly safe. There's no extra crossing. The, most of the

bike destinations are happen to be on that left hand side in this case. You could put it either side obviously depending on (interrupted)

Mayor Burt: We actually had as one of the alternatives in our recent crosstown bike design was a separated lane as I recall it on Meadow Drive. Is that right, Josh?

Mr. Mello: Yeah, we're actually working on that concept now.

Mayor Burt: Yeah, ok great. Thanks.

Mr. Heck: There is room for it there. And then to your point you could have a two way pedestrian on the far left here, right? That both your pedestrians walk in both directions. They'd wind up directly on the curb and the bikes would wind up from that side dedicated cycle track onto, back onto a dedicated cycle track. But again those are all you can play with both sides and both options and have dual tunnels. I think all of those are legitimate options to consider, but not to design it entirely this morning. But when you [say that are] on the left side, all the schools are on the right side. They'd have to cross at some point, right?

Mayor Burt: Sorry.

Mr. Heck: If you continue the cycle track up Jane Lathrop Stanford Middle School (JLS), Fairmeadow are all across the street.

Council Member DuBois: Yes, but there's already a bike path that intersects with where there's a crossing for the bike.

Mr. Heck: So you'd take it all way up to Waverley Street or whatever (interrupted)

Council Member DuBois: Right, you'd have to get to that point.

Mr. Heck: Yep, ok.

Council Member DuBois: And then at the Churchill Avenue side you're going to the High School which is on that side. So that's right.

Chair Berman: So we have two members of the public who'd like to speak to this item and then if there are any members of the public that want to speak to Items Two or Three please fill out a speaker card now. We're going to take that public comment before those items, but we'll treat this like a study session, which it was. So the first speaker is Nadia Naik who will get three minutes. Do you want to just? Thank you. To be followed by Steve Van Pelt. Thanks, Nadia.

Nadia Naik: Hi, Nadia Naik from Californians Advocating Responsible Rail Design (CARRD). Thank you for doing the work that you're doing. This is great. So one point of clarification is because nobody got the presentation then nobody could read it ahead of time so nobody could sort of come in here and comment. So if we could certainly get that posted and maybe have Mr. Heck come back so that we could sort of ask more questions because I think that sort of everyone is caught off guard and it just makes it easier to have a better dialogue. Couple of comments just from the intense session; by changing the ability to turn right on Meadow Drive you're going to have so all the people that sort of sneak on the right on red and by eliminating a lane going across you're now going to have more of a backup. And if you're not able to also have a tunnel at Charleston Road because it's only three-quarters of a mile the concern is going to be Number One not only the backup that happens, but then the people who know the neighborhood well enough to go ok, I'm going to cut through here and cut through there because I'll be able to make my right turn. So I think to talk about the circulation issues we're really got to look really carefully at what that means. Second is what about the eastbound traffic? Well we talked about the right on red. Sorry, third one is talking about the height of the tunnels. So as the Assistant City Manager said it depends a lot on Americans with Disabilities Act (ADA). So the Homer Avenue tunnel is really short. Part of the reason it's not half as scary from a kid's biking perspective as the California tunnel is that it's very short and it's very wide and a lot of sunlight comes in on both sides. The kind of tunnel we're talking about would be very long which makes it pretty dark, which makes it sort of the creepy place that nobody wants to go to after a certain hour. So I think that's one of the issues we have to look at. Californians Advocating Responsible Rail Design (CARRD) has looked extensively at what would happen if the road went down because we looked at that when we looked at high speed rail. The problem again the deeper the tunnel has to go or the wider it has to be the further back it has to start into the neighborhoods and the question starts to become what are the impacts to the houses that are there? At Meadow Drive and Charleston Road it's not exactly the same configuration, but at Churchill Avenue you have driveways that are right

there. So if you're dropping the road in front of someone's house you start to talk about homes being taken or trying to figure out access into the driveway. That gets dicey. The distance may be shorter at Churchill Avenue because you've got more as Mayor Burt said you've got more land takes that you could pick up so there's a lot more space. You've also got implications of sound. The longer the tunnel is the more sound that's going to carry through that tunnel and in the places where we have California Avenue (Cal Ave.) and Homer Avenue you don't have houses there so they're not hearing any echo of the kids who yell through the fish tunnel when they run through, but that happens. That's what little kids do particularly on bikes, particularly in a long fun tunnel. So you have to think about what's going to happen with the neighbors and what can we do to help with the sound implications. Also the spacing of the tunnel entrance so when the bikes would come out at this intersection on the west side you have Park Boulevard is a bike intersection. So what happens when people are flying out of that tunnel and you're coming up to the people that are coming on the bike boulevard and the other thing, right? And he just mentioned at the tail end getting to Bryant Street which is the other bike boulevard. That's a lot of digging in that neighborhood and all of those homes are right up against the road. I don't see how you meet the road and the driveway and have all these bikes flying out. So I'll leave it there. Thank you.

Chair Berman: Thank you very much and our next speaker is Steve Van Pelt.

Steve Van Pelt: Hi, I'm Steve Van Pelt. I'm a resident of Menlo Park so I'm just going to make my comments from a perspective of how I have to coexist with the bicyclists in my community, but I know you can block pedestrians from crossing an intersection, but I believe that a bicycle legally can still use the road. So I'm a little concerned about what are you going to do to try to force all the bikes to use the tunnel. And is there a way that you can actually do that because that would be a complication. And I realize we're at the conceptual stage. I thought this was a great presentation and a lot of great [unintelligible] ideas and things like that, but I hope there's somebody here that can comment on what the law really is about this concerning bikes. Thank you.

Chair Berman: Well thank you very much and I think so that'll close Item One. Thank you very much Stefan for your presentation. I think Assistant City Manager Shikada used the word provocative, which indeed it is. And so there's still a lot of questions and comments and analysis that needs to happen and obviously that would be a very open community driven process, but we look forward to kind of discussing this idea further. Thank you. Oh,

ok. That's for Agenda Items Two and Three, I believe. Yes. So we'll get to that right now. Oh yeah, no we're going yeah. So we're going to move from Item One to Item Two.

NO ACTION TAKEN

2. Update on Envision Silicon Valley Large Project/Program Modeling and Scoring.

Chair Berman: So speaking of which we'll start Item Two, which is an update on Envision Silicon Valley Large Project/Program Modeling and Scoring and what let's have is a quick staff presentation then we'll take public comment and then we'll have Council Member question and comments at that time. Just so everyone's clear on the process.

Josh Mello, Chief Transportation Official: Great, thank you very much. So when this staff report was prepared I originally had just intended to give you an update on the modeling that had been conducted by Santa Clara Valley Transportation Authority (VTA), but over the last couple of weeks quite a bit has transpired in the discussion around the sales tax allocations. So I wanted an update that, update you on that as well. So included in your Packet is the draft results of the Large Project and Program Modeling that VTA staff completed. This includes any projects or programs that are valued over $100 million and were submitted by any of the agencies within the County for consideration under the Sales Tax funding. There's some notes in your Staff Report. We were very happy to see that the Caltrain grade separations program preformed relatively well when compared to some of the other more high profile projects including the Bay Area Rapid Transit (BART) extension to San Jose in Santa Clara. There were some questions as to why some of the roadway projects including the expressways Tier One and Tier Two programs performed so well in some of the categories including transit access. The answer to that question is there's a whole series of smaller performance measures that make up each one of those goals that you see on the evaluation scorecards and a lot of the roadway projects include managed lanes or High-Occupancy Vehicle (HOV) lanes which would improve bus transportation, public transit service along those corridors, and potentially improve service for some of the folks that are dependent on transit. So that's why some of the roadway projects scored higher than you would expect on the transit category. Since we prepared the staff report there's been a couple meetings that I've been able to attend. One was at the VTA which has convened an ad hoc working group to look at the

modeling results and start to discuss some of the potential funding allocations under the sales tax. There's a little bit of a difference of opinion that's starting to emerge on some of the categories. Thankfully it seems that all of the parties are generally on board as to what categories should be funded under the Sales Tax, but there's a difference of opinion as to what the allocation should be under each of those. As far as the allocation that City Council approved and directed us to advocate for there are some key differences emerging from both VTA and the Silicon Valley Leadership Group in relation to what we were directed to advocate for. More specifically there doesn't seem to be as much of an interest in funding the railroad grade separations and the Caltrain modernization from the other parties. We had requested a floor of $1.2 billion total for Caltrain. It's looking more like the draft allocations may be somewhere around $900 million, $914 million with $600 million to grade separations and then $314 million to Caltrain modernization. There's also quite a bit of discussion going on around the congestion relief program. There's a little bit of a difference of opinion on whether that's intended to be County wide Transportation Management Association (TMA), transit mode shift funding or whether it should be directed directly at the Highway 85 corridor. We had requested that $500 million be allocated to that category. It's looking like the number is going to be somewhere around $250 million in the draft that comes out of VTA and possibly the Leadership Group. There's also a little bit of a difference in the funding that's being recommended for the active transportation bicycle and pedestrian category. I've seen $400 million and $250 million. Our ask was actually $500 million. And then there's a new category that's being discussed by both VTA, the City of San Jose, and the Leadership Group which is core transit for disabled seniors and low income folks. And San Jose has asked for $1.6 billion be allocated to that category and the Leadership Group is currently recommending $350 million. I think there may be an opportunity there for us to if that is, does make the cut for the eventual allocations under the Sales Tax we may be able to develop some type of program for local transit service in Los Angeles. The Measure R sales tax they actually dedicate a little bit of funding to local transit service like the Palo Alto Shuttle and some of the other shuttle systems that communities operate. So there could be some opportunity for us in that. There's also quite a big difference of opinion on how much funding should go towards the local streets category. San Jose has asked for $1.8 billion. We in our allocation we recommended $1 billion and the Leadership Group is currently advancing a number somewhere around $1.2 billion. It does look like if a community's Pavement Condition Index (PCI) score is above 80 which ours will likely be by the time the Sales Tax passes they're going to allow cities that have a PCI over 80 to actually use that funding for what

they're calling complete streets programs and projects. So we would be able to build our bicycle infrastructure, use it for pedestrian amenities and things besides just resurfacing. So that's an ongoing discussion about what that program's going to look like as well. That's kind of where we are today. VTA's planning to bring a lot of materials to the board in a study session in April. It will include the modeling results and it'll probably include a similar discussion regarding the allocation categories that I just discussed.

Chair Berman: Great, thank you very much. So I think we have three members of the public who'd like to speak to this item so we'll open it up to them and then come back at Council for questions and comments. The first member of the public is Stephen Rosenblum.

Stephen Rosenblum: Thank you for the opportunity to speak. Yeah, I'm here to talk mostly about grade separation again and both of the Items Two and Three deal with that issue to a large extent. I was looking at the evaluation card for the grade separation and I was surprised to see that congestion relief and improve efficiency only got a score of three. It seems to me I don't know what, how they come up with the number. There's nothing about the methodology, but it seems to me from the discussions we heard before about the all the problems of traffic getting across these intersections pedestrians and risk to vehicles and people and bicycles crossing these tracks that that should have received a higher score. And of course if you raised that to a four or even a five that average at the end there would be a lot higher. So I think that bears a little looking into what the methodology is for rating that. And when I come back to talk about Item Three I'll mention some more issues about grade separation, but that was the only thing that came to my mind on looking at this. Thank you.

Chair Berman: Thank you very much. And the next speaker will be Herb Borock to be followed by Nadia Naik.

Herb Borock: Chair Berman and Committee Members, the City Council's guiding principles for this Committee are that the Committee should forward their recommendations to the Council for final action if the Committee determines that it is feasible to do so within the time available. Staff just mentioned an Ad Hoc Committee. I mean there is a Technical Advisory Committee of VTA that's meeting on April 14th so there's clearly time if that's the staff committee to forward a recommendation from this Committee to the full Council for its action to staff because the guiding principles only have this Committee being delegated the authority to do things if there's not

enough time for something to go to the Council. This is similar to the previous item. We've just heard a lot of information that's not in writing. It wasn't available for anyone to see beforehand and in addition is not on the agenda description. That is the agenda description is not about the funding allocations in the Sales Tax. In regard to the evaluation criteria they're better understood when this goes to the Council if the Council has the three page evaluation criteria that go together with the goals and strategies and one of which a goal and strategy are related to the scoring on expand transit ridership and promote quality transit for everyone. Shows the two bullet points under goals and strategy, but doesn't include the rest of the goal and strategy which says to every [after] for everyone it says including low income areas. And you'll better understand why Caltrain rated low if you had seen the evaluation criteria. Of the seven items, goals, four of them have both quantitative and qualitative evaluation criteria. Two of them have only qualitative evaluation criteria and this particular one has only quantitative evaluation criteria. And just to give you an example of why it's important to send this along to the Council with this item here are the quantitative evaluation criteria that were used: improve access to seniors, low income individuals, people with disabilities, and students; increased access to existing planned dense residential, jobs, and mixed-use areas; increase access to jobs reached by transit in 30 minutes; increased ridership; increased number of services accessed by transit; increase access for rent/housing burdened individuals. So you can see from there why Caltrain did rate lower and why it's not intuitive if you don't have the evaluation criteria before you. Thank you.

Chair Berman: Thank you very much and our next speaker is Nadia Naik.

Nadia Naik: Hi again. Nadia Naik from Californians Advocating Responsible Rail Design (CARRD). So sort of to echo what everyone is saying I think my concern about the way the Caltrain grade separations are being cast is that it looks more like it's a safety improvement when actually it's a huge capacity improvement. By changing the capacity you would increase not just the congestion relief, but expand transportation choices. Better capacity means a better schedule. It means more likely more people are likely to take the train because you would have a better schedule. They don't take it now because it doesn't run as often as they would like it to and that would change with grade separations. Same thing for promote healthy communities and environmental sustainability. The more transit choices you have, the more we're doing to reduce greenhouse gases and getting people out of their cars and improving the traffic. And same with improve system financial sustainability and maintenance. Again, more people riding the train

is more money for Caltrain that goes to be able to financially sustain them. So when you change the phrasing from being a safety, a grade separation for safety versus a grade separation for capacity improvements to Caltrain's overall service and bottom line you really move those numbers. And so it's really all about the optics and the framing around what's being said. Thank you.

Chair Berman: Thank you very much. So that'll close public comment and we'll open it up to colleagues with questions and comments. Flip a coin.

Mayor Burt: Let's see, a couple things. First, I appreciate the public's comments on really looking at the evaluation criteria. This is something that when I had seen the Envision scorecard it was a head scratcher, but I had never seen the accompanying evaluation criteria so I couldn't quite figure out how they had come up with these. But if you look at Goal Number Four of expand transit ridership and promote quality transit for everyone and they're talking about Caltrain grade separations score a one, the lowest possible, it doesn't make good sense. And so I think that one of the most important things we can do is challenge this scoring methodology. Second, Goal Number Seven is to continue to support Silicon Valley's economic vitality. And one of the things that a number of us had been arguing is that the Caltrain is really the transit backbone to Silicon Valley and BART is a spur line. And BART to San Jose and Santa Clara is really a spur line. It has value, but nowhere near the value to the economic vitality of Silicon Valley that Caltrain has. And I actually maybe I didn't flip and see how they scored BART to… yeah. So not only should we look at how Caltrain has been scored, but by comparison how BART has been scored. Now interestingly we, the Silicon Valley Leadership Group has just done additional polling and my understanding is that based upon the revised wording in the polling Caltrain actually scores higher in the polling than BART, nominally. And that's in comparison to a BART system that has had essentially 20 years of marketing for getting, building support for it for prior ballot measures and Caltrain having basically zero marketing for those same ballot measures or even this current one. So then just a few other thoughts; Josh you mentioned that the proposal was to allow the local roads dollars to be used at local discretion provided that a city had a PCI the pavement index of 80. My understanding is that the intention is for over a number of 75. We'll want to clarify that. We think as a city we're on a cusp of being the only city in the County to exceed 80 and so maybe it's going to be a moot point for us, but I believe it's 75 and that will open up for other cities as well. I did want to comment on the difference between our original proposal for Caltrain grade separations. We were proposing $900 million, but that was

$900 million for either nine or 10 grade separations. There's actually one south of Diridon that is in the mix. And the $600 million my understanding is it's from Sunnyvale northward. So it's $600 million for seven grade separations. So it comes in to something close to the same dollars per grade separations for the ones we care about and frankly with four in Palo Alto it's a very significant funding. Something we've never had on the horizon before. And then finally you mentioned that there was on the bike funding we had originally proposed $500 million. There's a $400 or $250. Who has proposed the $400?

Mr. Mello: So San Jose has requested $400 and then the Leadership Group the latest number I saw was $250 from them.

Mayor Burt: Ok, I didn't realize that $400 was San Jose's number. So we in that case we do like what San Jose's thinking. Alright, great. Thanks.

Chair Berman: Tom?

Council Member DuBois: So I have seen the detailed evaluation criteria, but ultimately when you look at the scores it still can feel fairly subjective I think. I think we could quibble with scores here and there. I think one thing that's maybe useful is to look at programs that have similar aspects under certain goals and compare the scores. So I was looking at like grade separation thinking more of a trench compared to the subway in San Jose and I think we could make arguments that some of the goals, that the separations should score higher if they're going to score the subway higher for those goals. Another one is the expressway. So they scored it Tier One and Two for health of community scored fairly high, but then expressway is Tier Three. It scored lower and so what, why are those less healthy I guess is a question. I had a question about the again, the local streets scoring high. I was in some earlier VTA meetings and I thought they were talking about being able to use that money for TMA programs, not just complete streets. And I think it would be in our interest to maintain as much flexibility as possible because there is money for bike programs. There will be some congestion relief money, but then if we get additional money from local streets it would be great if we could use it in either category. Has that changed to more of a complete street focus?

Mr. Mello: So the discussion at the ad hoc group at VTA in that group there's been a definition of the local streets Program that's been discussed. And it would basically include any improvements to the public right of way

including bicycle amenities, motor vehicle facilities, bikeways, sidewalks, pedestrian amenities, transit shelters. They're leaving it pretty broad to include anything with, but to date there's been no discussion of having programs like TMA or non-infrastructure programs included.

Council Member DuBois: So again I think if we can hit that quality level it would be great to have the flexibility to use it for other kinds of congestion relief.

James Keene, City Manager: Could I just add to that? I mean…

Council Member DuBois: Certainly.

Mr. Keene: It's certainly been my sense in the conversations with the Leadership Group folks and I thought even earlier on it was being expressed as almost completely fungible if we had met this as don't worry about some of the other things that you're trying to achieve, you would have some of this flexibility once you've hit that. So I agree. I think we need (interrupted)

Council Member DuBois: Yeah, if you're in those meetings continue to advocate for that. I guess the other thing you look at these scores is there's scores based on a dollar amount. And I would question some of these things are not necessarily fungible if you get a lower dollar amount you can't complete the project. And so for grade separations (septs) it's $1.6 billion in here that they scored and then we have all these other numbers floating around and how are cities supposed to deal with that? And I'm sure San Jose would make the same argument for BART to Santa Clara. It's a $4.7 billion request and it's scored extremely high. And so again I think somehow right now it feels like we have two or three sets of numbers, negotiated numbers floating around and we have the scoring criteria. It feels very up in the air. So actually you rattled off a bunch of numbers. I think it'd be very helpful if we could continue to track that both in this Committee and at Council and get a table of numbers proposed by VTA, Palo Alto, Silicon Valley Leadership Group and also definitions around each category to make sure we're talking about the same things. And then finally maybe it's this item, maybe it's the next item. On the grade septs item I'd really like to see this group hold a joint meeting with some representatives from the other cities. There's a lot of activity going on right now. People are funding different projects and it feels like we're potentially losing some opportunities. So Mountain View just had a discussion about Castro Street

and then we get into San Mateo County; Menlo Park has been looking at funding a grade septs studies I think of $600,000. Atherton's looking at quiet gates. So I would just like to put in a plug that the Rail Committee maybe schedule a joint session with some of those other communities.

Mayor Burt: Just one other consideration is that the over the course of this tax there will be many dollars that would be coming at a particular for a capital projects from other funding sources and that these would prospectively be leveraged against those; so regional, state, and federal dollars that would be available to the County for these sorts of measures and dollars that are anticipated to exceed what's in this measure.

Mr. Keene: Still a follow up? I don't know if the Mayor wants to head anything in response to Council Member DuBois' comment about the Rail Committee. We had this North County regional kind of Ad Hoc group. There's a meeting I think today. And I mean so there are some conversations and we also have the Tri-Cities meeting scheduled with the three, with Menlo Park and Environmental Protection Agency (EPA). So I mean northward facing and transportation issues are one of the topics that we'll at least in I think the meeting is on April 1st be having. So we may want to think about how we also report back to the Committee on that.

Council Member DuBois: Yeah specifically on rail. So I recently reached out to Menlo Park Council Members prior to their discussion about this study on grade separations. Their proposal was not looking at all at a trenching option and I think it's unfortunate we didn't have a conversation before that. And several of them are interested in that, but the Request for Proposal (RFP) had already been written up. So I just want us to be aware of that typically around rail.

Chair Berman: So I agree with the vast majority of the comments made by the public and by my colleagues. I guess one question I'd have is: is it publicly, are the more detailed evaluations and how they arrived at these scores publicly available from the VTA so we can actually see what their kind of deliberations and thought process was?

Mr. Mello: Yeah, there's a gigantic spreadsheet that I'm holding in my hand that is very complicated and a little bit hard to follow. That is available. I didn't want to include that in the packet because it's just pretty illegible unless you were at a meeting where it was explained by VTA staff. So I'd be glad to point you to the link for that.

Chair Berman: and where these deliberations… thank you. And I mean yeah, it would be helpful I guess if you could email that around to the extent that it's not that easy to follow that doesn't really help, but was it, it says here modeling, score, and [unintelligible] by this by the VTA. I mean was this, was the scoring done by VTA staff and then proposed to the Board or did the Board sit down and kind of go through the guts of it? Or you know and how public and transparent was that process so that we can other than this illegible table if members of the public or Council wanted to get a better understanding of how they came to the scores they did.

Mr. Mello: So the draft scoring criteria was presented at the Advisory Committees at VTA prior to running the actual modeling. But as I said, it was a little bit hard to follow. There's probably 20 plus sub goals underneath each one of those goals and there are qualitative and quantitative measures. A lot of the data that was, that populated the table came directly from their Regional Travel Demand Model which we don't really have access to; that's run by VTA staff. So I mean I would say it was relatively open and transparent, but a lot of it was done using the model and the qualitative items were a lot of them were a judgment call made by VTA staff.

Chair Berman: Ok. And then this is just preliminary scoring so does that mean do you feel like there's really an opportunity for us to push back at on a lot of the good points that were made today about questioning how they came up with the scores they did on certain topics.

Mr. Mello: Yeah so the evaluation cards that are in your packet are not being presented to the VTA Board until April. So we do have an opportunity if you question any of the scores for a particular project we can bring that back to the Advisory Committees and see if they can make some modifications.

Chair Berman: And do you guys feel like you got enough kind of guidance today on certain concerns that we have?

Mr. Keene: Yeah, I think we do. If I could just repeat though I mean not all the details, but I don't think we should underestimate even the impact that even a draft Envision evaluation card has. I mean we're going to have a campaign for a Sales Tax measure and any opponent who wanted to could pull this draft evaluation card out and use some of the data to make false arguments. Particularly on the grade septs stuff is Nadia's point that we got one for expanded transit ridership and I would point out that the County

Expressway Program got two points for expanded transit ridership. I can't figure that one out. I'm sure there's some crazy details that led to that, but I do think it's important that we unless what we're understanding the Committee we do really need to assert ourselves to be sure that there are some corrections made. Ok.

Chair Berman: Yep, yep. Great. Just wanted to make sure that that was everyone was on the same page with that. So any other comments or else we're going to, yep.

Council Member DuBois: Yeah, so to be specific for what it's worth Josh and Jim on the grade septs yeah, I agree. The expanding ridership jumped out and again on continuing to support Silicon Valley's economic vitality I think that category should be compared to the San Jose Subway which scored a four and we scored a two. And so if you bumped those two up it would make a big difference. And then on BART to Santa Clara they scored fives and under Goals Two, Three, and Five where again when you compare them to other projects it seemed like somebody really liked this project and scored it very high and I would just if a couple of those went down to fours again it makes a big change in that overall rank. So those in particular are the ones that jumped out at me.

Chair Berman: Great, so we're going to move on to Item Number Three. Before we do so let me just check with colleagues and staff. This meeting was technically tentatively scheduled to end at 10:00 which I don't think will happen. Is everybody ok to go to 10:30 or?

Mayor Burt: No, we have a conflicting meeting so.

Chair Berman: Starting at 10:00?

Mayor Burt: In Mountain View at 10:30.

Chair Berman: Ok, so we're going to go really quickly then and try to get because as soon as we lose one Council Member we lose quorum.

NO ACTION TAKEN

3. Discussion and Direction on a City of Palo Alto Comment Letter Regarding the Draft 2016 California High Speed Rail Authority Business Plan.

Chair Berman: So Item Number Three we have two members or I guess the Staff presentation then we have two members of the public who would like to speak.

Richard Hackmann, Management Analyst: Yes, thank you Chair Berman, Council Member, and Mayor. I had a few brief remarks, but in the spirit of recognizing we need to move quickly I'll skip over those and just let you know the key ask in the draft letter before you as that a this California High Speed Rail Authority recognize the differences we have, but identify in their 2016 Business Plan Funding for grade separations approximately how much and an estimated time frame as it relates to Palo Alto.

Chair Berman: Thank you, Richard. And the members of the public who'd like to speak are Stephen Rosenblum followed by Herb Borock.

Mayor Burt: Before we continue Richard I just realized that in the packet we don't have a copy of Chair Richard's response letter to the City.

Mr. Hackmann: That letter was regarding the context sensitive solutions process.

Mayor Burt: Well it was both. You're correct. It's the so the correspondence between, you're right. I'm mixing two things, but we had sent a letter regarding our concerns over the process for reviewing the Peninsula corridor both we focused on a program and funding for grade separations and the context sensitive solutions process and he responded and I see that that's not part of the packet. And that's it's connected to the Business Plan because this corridor is the most important part of the Business Plan to us, but it's not it's also separate from any broader responses on the Business Plan.

Chair Berman: Ok. The first speaker is Stephen Rosenblum to be followed by Herb Borock.

Stephen Rosenblum: I'll try to be brief here in the interest of time. I just wanted to make a quick comment on Dr. Heck's proposal. I think his

proposal seems to me to be a short term fix to a problem which is not going to solve the long term problem which is the safety and the disruption caused by the Caltrain or High Speed Rail Corridor running right through the middle of town. I think Palo Alto started out with that train line there when it was rural and there was no problem with surface trains [now and] incidentally densely settled area I think the time has come to do a grade separation. With regard to the letter I think there's two points I'd like to make. One is that this solution has to be regional solution as Council Member DuBois pointed out. If Menlo Park is going to go with an elevated train and we want to go with a trench train that doesn't work. So I think there should be something in this letter that points out that Palo Alto's position needs to be coordinated across the whole corridor in order for it to be successful and cost effective. The second this is that I think near the end of the letter there should be some point made about Palo Alto preferring a trench separation and the fact that it has already invested its own fund with Hatch Mott Macdonald to do a partial study of the costs and feasibility of doing that. I think it's worth alluding to because the high speed rail would need to understand that the City is seriously committed to this idea and that we've already put our own money into it. Thank you.

Chair Berman: Thank you very much. Our next speaker is Herb Borock to be followed by Nadia Naik.

Herb Borock: Thank you, Chair Berman. In regard to the fact that we have to cut time short for another meeting occurring in Mountain View I'm aware in the Brown Act of an exemption for the public meeting law for an Ad Hoc Committee of members of a Legislative Body, but I'm not aware of any exemptions for multiagency committees. So I'm a little concerned that that's continuing to go on. Also I want to thank Mayor Burt for bringing up a letter from Dan Richard about the context sensitive solutions because that relates to the comment I'm going to make. First as I said on the previous item this letter before you there's enough time to make a recommendation to the Council because the Council's meeting on April 11th and this is not needed before the High Speed Rail Authority until April 18th. And in regard to context sensitive solutions I'd want you to consider the possibility of adding language and that would be better informed if we have a copy of Dan Richard's letters to see whether it makes sense they add the language and that is to add some history about that subject. The letter essentially says we'd like to do it, but you've told us you don't want to do it. And six years ago when there was a Peninsula Rail Program that was high speed rail that was committed to context sensitive solutions. Now the only place that context sensitive solutions is mentioned in the high speed rail documents

that I can find, but it's mentioned in a different way then we're talking about it. Context sensitive solutions is a process and if you go back to the Californians Advocating Responsible Rail Design (CARRD) website from six years ago it indicates [unintelligible] on three different subject matters as examples of things with context sensitive solutions. So you may want to include those as what you're talking about in addition to the prior history, but there's something else that the Authority has adopted the phrase context sensitive solutions for an outcome. And the outcome is intensive development by rail stations that's more intensive than existing development. So if you go look for the words context sensitive solutions the only place it exists now for the Rail Authority is in its station development areas and what it's talking about is what is the end of a process rather than the process. And that's sort of a sneaky way of using the same words. So after taking a look at what the Authority's letter is you may want to consider whether it's necessary to add additional language to the letter to spell out those, that history and those differences. Thank you.

Chair Berman: Thank you very much and our final speaker will be Nadia Naik.

Nadia Naik: Hi, so my copy of the Packet doesn't have any of the letters. So I apologize I haven't read them, but my comments in general would be in our read of the Business Plan there are a lot of things that it talks about improvements of Caltrain that don't have necessarily a dollar figure associated and are not clear on what those things are. I think separate from the letter that we're writing we need to be talking to Caltrain about what kind of schedule they're developing and how our City gets to be involved in those conversations because I don't feel like they're being had at a public level or at a Board level. Second, the Business Plan notes that for example how they cut the costs in San Jose is by getting rid of some aerial structures and returning them to at grade. It also says very clearly that this is not something that's been exposed to the public yet nor made it through any environmental review. Our big concern is what are, is that even possible? What are the financial impacts of that? And so I think it's important for the City to point out that a lot of their assumptions are based on things that haven't even been made public so how are we even to be able to comment on what they are if we don't know what they are? I mean they're saying clearly well, we know and we're not telling which seems a bit childish. So I think that's of concern. And lastly I don't know when the letter is due back at Council again because I can't see, but I would offer that CARRD would be happy to meet with staff to go through any other specific comments we have on the Business Plan because we've certainly looked at it. Thanks.

Chair Berman: Thank you very much. Now we'll kick it up to colleagues' time.

Council Member DuBois: So I think, I think we do need to make some changes to this letter. On Paragraph Seven on the second page where it starts with "this understanding the City of Palo Alto formally requests" and we start to talk about grade separations I would actually recommend that we get more specific and we talk about instead of dedicating funding for construction at grade septs in Palo Alto that we talk about a rail trench in the mid-peninsula and we start to use the language about it being a regional solution, not just Palo Alto. And instead of saying grade septs further in that paragraph again I'd like to say "trench." And I think we, I think again we should mention several of the cities in the mid-peninsula. And then to build on that I think it would be useful to talk about tunnels that are being discussed in Los Angeles and in San Francisco and perhaps even looking at the cost of land in Silicon Valley compared to those other areas to kind of bolster that case. I think the point about that we've already expended funds is a good one to bring in. And then finally when you look at this letter I'm surprised that there aren't other areas that we have concerns with at the Business Plan. So to follow up on Nadia's comments I think it'd be really useful to generate a list of other comments about other facets of the Business Plan those which we have concerns. I mean we're focused on grade separations in the CSS process, but I am sure that there are other issues in that Business Plan that we may want to comment on. So I think we need to do a lot of work on this letter. I think if we have time it should come to Council. Thanks.

James Keene, City Manager: Yeah, we have time. It's April 18th is when the letter's due. Is that correct? So we will bring it to Council and I can't imagine you would direct us to do differently, but I think the suggestion to engage with CARRD is a good one and we'll do that as a staff following this meeting.

Chair Berman: Great. Pat?

Mayor Burt: Yeah, I'll try and quickly run through a number of things. I think on this letter it might be helpful if the Chair were to consider pointing at Council Member DuBois and myself to work with staff on a draft that would go to Council. And I think that we actually need more than one letter. We need an additional response letter to the one that was sent back to the City and to me from Dan Richard in response to our one specifically about

the process for the San Jose to San Francisco corridor. And I had thought that we were going to have that discussion today and that's not here at all. And that's an important response. I have the local policy maker group tomorrow evening which now is every other month run by the High Speed Rail Authority. The two months ago it was actually Dan Richard who chaired that meeting. He certainly has heard not only from me, but now from essentially a consensus of the local policy maker group folks there of a strong interest in a CSS type process and funding and a plan for grade separations and the local policy maker group has started to talk about how they can have a stronger voice than what they've had. Also on this letter it's addressed to Dan Richard. Frankly it's the Legislature who is reviewing the Business Plan and I think that should be our primary audience. And it's fine that we send something to the Authority, but it's really the Legislature that we want to speak to about the Business Plan in my mind. I also see that the Point One acknowledges a theoretical system cost reduction. I don't know why we're putting that in the letter. They've basically it stands alone as if this is all value engineering that they've done and there are a whole bunch of questionable issues about the cost of the what they design as well as it really needing to acknowledge that the cost constraints have also been because they keep chopping off what the system would be which then goes into the whole ridership model. And we're, we don't have any comments about the viability of a system that would run from 20 miles north of Bakersfield to San Jose. And finally it says that the acceleration at Point Three the construction timeline for San Francisco to San Jose is now to be completed by 2025. Well the Business Plan actually says there's no funding for San Francisco to San Jose. They only have in the Business Plan funding to San Jose. And so there is no real plan for San Jose to San Francisco, which is one of the big developments of the Business Plan. They've said they now have dollars to get to San Jose and no dollars to get to San Francisco. They might have concepts about why or how they might obtain future dollars, but and the fundamental flaw too is that the dollars to get to San Jose are based upon cap and trade dollars that actually terminate in 2020 as it now stands in the Legislature. So there are a whole bunch of things that I think we need to do on this and I think it would be good for us to work with staff prior to the Council meeting to work on all of these.

Chair Berman: Thank you. So I would be plenty happy for the two of you to work with staff to kind of strengthen the letter a little bit. I also read an analysis I think it was done by Adina Levin talking about the impact that this would have on the Caltrain schedule and if it were to be implemented in the way that they're claiming it should be and without getting into all the details it seems like it's not good. And so I think there are a lot of arguments to

make about the inadequacies of the Plan, the impact that it'll have on Caltrain and up and down the corridor, and I'd like to see this letter have a little more teeth to it. I mean it kind of it gently points out that we asked you for this and you said no, but I think we can all find a happy ending and that doesn't that hasn't worked in the past and I don't think they're taking us seriously or as seriously as they should be. So I know that Mayor Burt and staff have to run to a meeting in Mountain View, but let's defiantly strengthen the letter considerably. And I think that's it. So unless staff has any other comments to make we'll conclude Item Three and adjourn the meeting and look forward to continuing. Thanks.

NO ACTION TAKEN

Future Meetings and Agendas

None.

ADJOURNMENT: The meeting was adjourned at 10:07 A.M.