

CITY OF BELLEVUE
BELLEVUE TRANSPORTATION COMMISSION
MINUTES

June 12, 2008
6:30 p.m.

Bellevue City Hall
City Council Conference Room 1E-113

COMMISSIONERS PRESENT: Chair Northey, Commissioners Glass, Simas, Tanaka

COMMISSIONERS ABSENT: Commissioners Kiel, Larrivee

STAFF PRESENT: David Cieri, Goran Sparrman, Kristi Oosterveen, Eric Miller, Mark Poch, Department of Transportation

GUEST SPEAKERS: None

RECORDING SECRETARY: Gerry Lindsay

1. CALL TO ORDER

The meeting was called to order at 6:40 p.m. by Commissioner Tanaka who presided until Chair Northey arrived.

2. ROLL CALL

Upon the call of the roll, all Commissioners were present with the exception of Chair Northey, who arrived at 6:43 p.m., and Commissioners Kiel and Larrivee, both of whom were excused.

3. STAFF REPORTS

Mr. Cieri reported that on June 2 the Council approved the 2009-2014 TIP as recommended by the Transportation Commission.

Department of Transportation Director Goran Sparrman informed the Commission that things are shaping up to be somewhat different relative to the usual approach for selecting projects for funding in the budget process. He allowed that for a number of years the city has been falling behind in funding capital projects, and over the last 18 months there have been many discussions at the direction of the City Council focused on taking a longer term look at all the needs in the city, both on the capital side and on the operating side. Recently the Council had the opportunity to look at some additional staff work that tried to zero in on key projects and options for addressing them. The discussions have all been playing out outside the normal CIP and TFP prioritization process.

Mr. Sparrman said the Commission will still be asked to weigh in with regard to projects, but the Council will be indicating which projects it believes should be at the top of the list. Eventually the Council's top picks and the Commission's top picks will need to be melded into a prioritized comprehensive package and adopted as part of the formal budget, but the process of getting to that point will be different from past years.

The top projects identified by the Council were NE 4th Street extension east to 120th Avenue NE; 120th Avenue NE between NE 4th Street and the new NE 15th Street/NE 16th Street; the new NE 15th Street/NE 16th Street segment between 116th Avenue NE and 124th Avenue NE; 124th Avenue NE between NE 15th Street/NE 16th Street and Northup Way; and NE 6th Street HOV expansion eastward to 120th Avenue NE. Additionally, the Council has expressed an interest in identifying funding for widening NE 2nd Street; expanding and improving the ITS system; bringing online the downtown circulator; additional ped/bike projects.

Mr. Sparrman said there is still a lot of work to do on the financing side. He said staff expects that in the coming months the Council will give much clearer direction about finalizing the package. He added that the Commission will undoubtedly have a role to play.

Mr. Sparrman added that the staff are very excited the Council is tackling the tough issue of project funding. The needs have been piling up for a long time and there is a sense of urgency to move on some of the complex and expensive projects, all of which are needed in order for the city to provide the kind of transportation system the city will need in the coming years. The latest budget survey places transportation as the top priority.

4. COMMUNICATIONS FROM CITY COUNCIL, COMMUNITY COUNCILS, BOARDS AND COMMISSIONS – None
5. REPORTS FROM COMMISSIONERS

Chair Northey took a moment to introduce new Commissioner Ernie Simas and welcomed him. She noted that Commissioner Simas currently serves as chair of the Chamber of Commerce transportation committee.

Commissioner Glass said he along with Chair Northey and Commissioner Larrivee attended the Light Rail Best Practices Committee meeting on June 3. He said the committee has worked through each of the nine sections in the draft report and is set to adopt a plan on June 17.

6. PETITIONS AND COMMUNICATIONS

Mr. Jim Benter, 3010 132nd Place NE, spoke as a Bridle Trails resident, co-president of the Winchester Estates Homeowners Association, and a member of the advisory board of the Bridle Trails Community Club. He said the neighborhood has an existing six-foot

multipurpose path that along 140th Avenue NE. The path on the east side of the roadway has been in place since the early 1990s; the facility on the west side of the road extending to the north city limit. Both are enjoyed by the neighborhood. The city has a tree preservation policy in place for Bridle Trails; permits are needed to cut down any trees. Any widening of the path along 140th Avenue NE will require the removal of additional trees contrary to current policy. The Bridle Trails Community Club recently submitted to the city a resolution which voiced total opposition to any changes to 140th Avenue NE. Widening the roadway would increase traffic and traffic speeds and would subtract from the rural nature of the area.

Mr. Warren Halvorson, 13701 NE 32nd Place, said his residence is just off of 140th Avenue NE. He said there are 16 homes in his subdivision of Cantorgreen Estates. On the east side of 140th Avenue NE adjacent to Cantorgreen Estates there is 14 feet of asphalt from the edge of the curb to the roadway. On the west side there is another 12 feet of asphalt. In consideration of the proposal to widen the facility along 140th Avenue NE, there is room but anything additional would be overkill. The position of the neighborhood and the Bridle Trails Community Club should be supported.

Ms. Marianne Halvorson, 13701 NE 32nd Place, said she and her husband moved to their current home because of the equestrian aspect. She said they have had horses on their property for all the years they have lived there. For a number of reasons, horses and bicycles do not mix well. At the time Cantorgreen came into being, the city of Bellevue was good enough to solicit input from people in the area, and plans were made for the developer to put an equestrian trail along 140th Avenue NE and 32nd Place NE to connect with an existing trail. The plan did not represent a wise use of funds. The same can be said of the current proposal; there is very little bicycle traffic along 140th Avenue NE currently, but there is ample room for bicycles to travel along there safely.

7. APPROVAL OF AGENDA

Motion to approve the agenda as submitted was made by Commissioner Glass. Second was by Commissioner Tanaka and the motion carried unanimously.

8. STUDY SESSION

A. Traffic Signal Timing Practices, Capital Programs, and TFP Update and Candidate Projects

Traffic Engineering Manager Mark Poch said one of the questions his group commonly fields is why the signals are always red when driving around the downtown. He explained that traffic signals are needed to assign right of way at at-grade intersections; absent the signals, everyone would be crossing at the same time. Right of way is assigned through the process of stopping traffic from one direction to allow traffic from another direction to move.

Signals operate in phases over a cycle. The simplest type of signal has two phases, one that allows the main street traffic to move, and one that allows the side street traffic to move. The main street is generally given more green time, but the sum of both phases is the cycle length.

The intersections in the downtown are mostly complex and involve a combination of movements, including left turns and through traffic; the number of phases they have usually is eight. Each phase gets a percentage of the cycle length.

Mr. Poch said there are a couple of different ways to run traffic signals. The free approach has the vehicles actuating the green lights through detectors in the road. The other method is called coordinated or synchronized. In non-complex situations, the free approach allows the main street signal to remain on green until a vehicle on a side street triggers a detector. The cycle length can vary significantly depending on traffic flow. In coordinated operations, part of each cycle is given a fixed amount of time for the main and side streets; if the time allocated to the side street phase is not needed as determined by detectors in the road, the remaining time defaults to the coordinated phase, which is a set amount of time needed to facilitate traffic from one green light to the next. The cycle length in coordinated operations are always fixed, and that allows for coordinating adjacent intersections.

There are three reasons for coordinating traffic signals. One is to progress traffic from green light to green light. A second reason is to manage queue lengths to avoid blocking adjacent intersections. A third reason is to reduce the overall cumulative delay of all directions of all the intersections in a corridor.

Unfortunately, in places like downtown there are some significant issues with progression. One is the superblock grid that necessitate eight-phase signals at all the nodes. Another is the fact that there is a lot of two-way traffic, and still another is coordinated arterials that intersect. The need to facilitate the movement of pedestrians across the roadways is another challenge to traffic progression.

It is a simple matter to coordinate one-way traffic. On two-way streets, however, signal timing is far more complicated. As one leg is given a green light, the other legs must wait. Where the traffic flow in each direction is roughly equal, it is not possible to favor one direction of travel over another.

Chair Northey asked if there is a point beyond which signal timing cannot be used to fix high-volume traffic flows. Mr. Poch said situations like that are called saturation and suggested that at some point the downtown will likely face saturation. Effort is always put into getting exiting traffic onto non-city systems, such as a freeway. However, when the freeway backs up, the queue backs up and gridlock results. The 2030 downtown traffic models show a lot of traffic, though with a much higher modesplit. The anticipation is that so long as the regional system is functional, it will be possible to move traffic into and out of the downtown.

Mr. Poch explained that on two-way streets that have equal flow in both directions, the approach taken is to turn all intersection signals in one direction green at the same time to allow traffic to progress as far as possible before giving the same preference to the other direction. That approach is being used more and more in the downtown.

The Commissioners were told that prior to 2000 green times on NE 8th Street exceeded those for 108th Avenue NE; the intersection was served with a single green light and there were no left-turn arrows. Growing volumes of traffic and pedestrians triggered the need for separate left-turn arrows, which in turn necessitated the need to allocate more green time to 108th Avenue NE. The smaller green time for NE 8th Street has not surprisingly resulted in more backups on that roadway. The good news is that by managing the signal timing plans and coordinating signals, it is still possible to reduce the overall delay and manage the queues.

Mr. Poch said his team is often asked about pedestrian scramble intersections. He explained that the practice involves stopping vehicle traffic in all directions and allowing pedestrians to cross the intersection in whatever direction they want. In many situations, the operation works very well. The approach is difficult to implement at bigger intersections, however. Using the intersection of Bellevue Way and NE 8th Street as an example, Mr. Poch explained that the eight-phase operation has a 140-second cycle length. The 120-foot pedestrian crossing takes about 40 seconds to accomplish comfortably, and a scramble would mean that amount of time would need to be included as a new phase. Adding the 40 seconds could be accomplished by eliminating two of the 20-second left-turn phases, by reducing the amount of green time, or by increasing the cycle length to 180 seconds. The problem with the latter option is that the new cycle length would no longer match any of the other downtown intersection cycle lengths. For that reason, pedestrian scrambles occur only at intersections that run free.

Hopefully over the next year or two projects will be implemented which will improve the signal system. The Commission recommended a CIP allocation that is scheduled to start in 2009.

Answering a question asked by Commissioner Glass, Mr. Poch said the cycle length at free intersections varies depending on the direction of traffic flow. A car coming to the intersection on a side street will trigger the detector, but the signal is programmed to continue serving the main street until there is a gap in traffic detected. When that happens, the light will turn and the side street will go green. Intersections that run in coordinated mode will give the allotted green time to the main street before allowing the side street to move.

Commissioner Glass asked if the coordinated signal plans operate on a daily or weekly clock. Mr. Poch said they operate primarily based on time of day and day of the week. An effort is under way to move in the direction of a traffic responsive approach in which detectors in the roadway count traffic and select from a library of plans based on volume counts. About 70 percent of the city now operates on a traffic responsive system.

Commissioner Glass asked what role the traffic operations center plays with all the cameras they have to see what is happening at various intersections. Mr. Poch said they can manually override signal operations based on real-time conditions. That is often done for special events such as the holidays and arts and crafts fairs. Traffic operations center staff are also using the visual clues to design timing plans and test how well they work once they are implemented. About 90 percent of the signals in the city can be operated from the control room.

Commissioner Glass asked what the proposed CIP investments in the signal system will buy for the city. Mr. Poch said the signal system is fully dependent on good communications. The current system is plagued with bugs; it is old technology and has a lot of failures. Timing plans fail when there is a breakdown in communications. Support staff spend quite a lot of their time chasing down communication problems. By changing from copper wires to fiber optics, it will be possible to increase efficiency and decrease malfunctions. Additionally, as the downtown continues to grow it will be necessary to accommodate buses and carpools through transit signal priority; the current system will not do that very well. There are also some things that need to be done with left-turn movements in conjunction with the busiest times of the day. The proposed revisions to the system technology will also better accommodate pedestrian movements.

Chair Northey commented that the system in Bellevue works far better than the systems in all other Puget Sound cities. She suggested that too often Bellevue citizens take that fact for granted. The city could do a better job of explaining how the system works and what aspects are targeted for improvements.

Mr. Poch said the Traffic Signals Group has three CIP programs that help in being responsive to Bellevue citizens and in being more efficient. M-2 includes the signals minor capital or intersection upgrade program, which gets \$150,000 per year. The program is designed to address small signal-related projects, most of which are triggered by citizen concerns. The traffic camera at Lakemont and 171st Avenue SE and the improvements to the intersection of Factoria Boulevard and SE 36th Street both came about as part of the program.

I-84 is the signal warrants safety program; it also gets \$150,000 per year. The program is designed to address larger capital needs, with priority given to installing new traffic signals quickly where no roadway widening is needed. The next lowest priority is larger or street lighting needs. The program was recently used to install lighting for the unsignalized pedestrian crossings on 148th Avenue NE and the new traffic signal at NE 36th Street and 136th Avenue NE.

PW-R-46, the major safety program, gets \$100,000 per year. It gives priority to accident reduction projects. The program was used to address the 132nd Avenue NE and NE 40th Street curve in the Bridle Trails area, the highest fatality location in the city, with guardrails and a re-sloping of the road. The program was also used to established Stevenson and Sunset elementary school speed zones, and improved signal displays at 102nd Avenue NE and Main

Street. The accident reduction program has resulted in saving about \$2 million annually in public accident costs, not counting pain and suffering.

Mr. Poch said the M-2 program spends its budget allocation every year. PW-R-46 historically has both overspent and underspent; it is currently overspent so there will be no 2008 projects to allow for getting caught up. I-84 is currently spent through 2009.

With regard to TFP projects, Mr. Poch explained that FES-4 is a project at 150th Avenue SE and SE 37th Street. He said the onramp to eastbound I-90 has a meter, and when the freeway mainline gets heavy the meter will backup traffic to the point of gridlocking the intersection. When the 150th Avenue NE project was designed, it included an extra lane on SE 37th Street so people would not get trapped in the backup. Unfortunately that element was taken out of the project in order to meet budget. FES-4 puts that lane back in. The arguments for the project focus on its obvious benefits. The arguments against the project include the suggestion that the problem is really a WSDOT issue that they should pay for. WSDOT is doing an I-90 corridor study currently, so there is the hope that they will be able to address the problem.

FES-6 is the Factoria Boulevard at Newport Way project. The problem is that the eastbound left turn from Factoria Boulevard to Newport Way is very heavy during the evening peak. The result is a queue that comes back to the left turn lane for Newport High School. The proposed solution is to put double turn lanes in for Factoria Boulevard onto Newport Way. The arguments against the project include the fact that the problem only occurs for about an hour daily. While the project is probably not ready to move into the CIP, it should stay in the TFP so that any developers who come along can be required to setback to the plan limits; in time redevelopment could end up building the project.

Chair Northey noted that a property owner has on occasion come forward claiming that the project could severely impact access to his property. Mr. Poch said it would take at least designing to the ten percent level to determine where the right-of-way lines would be and what the actual access impact would be.

Mr. Poch explained that FES-11 is a project that would extend the current I-84 project to rebuild the signal at 148th Avenue NE and NE 8th Street and all of the signals on 148th Avenue south of that point, with the exception of the signal at Lake Hills Boulevard. The signal standards for those intersections are located on islands and get hit often. Another concern for each of the intersections is the street lighting, which is tall enough to be out of reach of the city's bucket trucks and so old that parts can no longer be obtained. The underground wiring for the signals has been in conduit for 30 years and malfunctions frequently. The arguments for the project are strong. The arguments against the project include using the I-84 program for its intended purpose, and the fact that in the context of BROTS it is possible that something different will be done with 148th Avenue.

Chair Northey asked Mr. Poch to hum a few bars about the M-19 program. He explained that

the program is managed by the capital projects group. The project list is long but is fairly well documented. Over time the program will fill an intermediate need; as such it will likely need more money as the city's infrastructure continues to age.

****BREAK****

B. 2009-2020 TFP and 2009-2015 CIP Updates - Preliminary Prioritization of Candidate Roadway/Intersection Projects

Capital Programming Coordinator Kristi Oosterveen briefly reviewed the timeline. She said the goal is to have a combined roadway intersection and bicycle/pedestrian prioritized project list for both the CIP and TFP by July 24. The recommended projects will then be submitted to the City Council for consideration in the budget process and the development of the EIS. The Council will act to adopt the budget early in December, and the schedule calls for adoption of the TFP by the end of 2008 or early in 2009.

Capital Programming Implementation Manager Eric Miller noted that a project had been added to the list, and that a couple of projects had been removed. He said the Northup Way project was pulled from the candidate list since it is now fully funded on the CIP; on June 9 the Council awarded a updated design contract for the project so it can go to construction by the fall of the year. The project for 110th Avenue NE from NE 6th Street to NE 8th Street, funded for design only, has also been pulled from the candidate list. The project is in the TFP and in the CIP funded for design only, and the hope is that development will build the project. The Bravern project on the east side of 110th Avenue NE is under construction and will implement the entire frontage on their side of the road.

Mr. Miller said the project added to the list involves striping modifications. He noted that throughout the city most of the lane stripings throughout the city involve raised buttons which are vulnerable to steel-bladed snow plows. The proposed project replaces raised buttons with indented reflectors on all snow routes.

Mr. Miller said staff are continuing their work to analyze the projects and refine their cost estimates. Staff have also been focused on putting together project information as requested by the Council regarding a supplementary funding package.

Chair Northey commented that to some extent the Commission's exercise to prioritize projects will be more informed when it is known where the revenue line will be. If there is the hunch that some of the big ticket projects will be funded from an independent revenue source, the Commission may elect to give them less of a priority, allowing other projects to move up. Mr. Miller said the Council's discussion that involves some \$300 million in projects may have taken into account the regular funding streams as well as new revenue dollars.

Commissioner Tanaka asked at what point the Commission is supposed to balance off the cost

of projects against the benefit of the individual projects on the list. Mr. Miller said the Commission and staff will both ultimately have to work toward achieving prioritized lists. That may entail identifying placeholders, especially for the bigger projects. The conversation at the Council retreat on June 10 appeared to indicate the Council is willing to significantly increase revenues over the next seven to ten years.

Chair Northey suggested the Commission should hold back on the prioritization exercise until the Council provides some clarity with regard to the role they want the Commission to play. It would not make sense to move forward with developing a recommendation that will carry very little weight with the Council.

Commissioner Glass concurred. He said he would prefer to know roughly how much money will be on the table, and said he could be persuaded to take several lower cost projects and move them up on the list so more projects can be done within the funding line. It is the job of the Commission to make a recommendation to the Council, but if the Council has a direction in mind and does not need a recommendation from the Commission, that is their prerogative.

Commissioner Tanaka agreed the Commission should avoid investing hours and hours in the prioritization process, but suggested the Commission should do some of that work.

Commissioner Simas voiced the opinion that the Commission should wait and see what comes out of the Council discussions before moving ahead.

9. OLD BUSINESS

Commissioner Glass said he listened to part of the Council meeting at which they discussed the design for the proposed NE 15th Street/NE 16th Street in Bel-Red. The gist of the discussion was they did not like the design and wanted staff to go back to the drawing board. He asked what approach will be taken. Mr. Cieri said he will seek a better understanding of what the Council directed and what role the Commission will need to play.

Chair Northey said she is working with Commissioner Tanaka and staff on the Commission retreat. A date in early to mid-September is most likely.

10. NEW BUSINESS

Chair Northey suggested it would be helpful for the Commission to receive a briefing on the I-90 corridor study being done by WSDOT. She also asked staff to clarify how the Bridle Trails tree preservation ordinance might impact the proposed project on 140th Avenue NE.

11. PETITIONS AND COMMUNICATIONS – None

12. APPROVAL OF MINUTES

A. April 24, 2008

It was agreed to postpone approving the minutes until the next meeting.

13. REVIEW CALENDAR

A. Commission Calendar and Agenda

The Commission reviewed the items scheduled for discussion at upcoming meetings.

There was agreement to hold open the possibility of scheduling a Commission meeting for August 7.

B. Public Involvement Calendar

14. ADJOURNMENT

Chair Northey adjourned the meeting at 9:21 p.m.

Secretary to the Transportation Commission

Date

Chairperson of the Transportation Commission

Date