

CARSON CITY REGIONAL TRANSPORTATION COMMISSION
Minutes of the May 19, 1999, Meeting
Page 1

A regularly scheduled meeting of the Carson City Regional Transportation Commission was held on Wednesday, May 19, 1999, at the Community Center Sierra Room, 851 East William Street, Carson City, Nevada, beginning at 4:30 p.m.

PRESENT: Chairperson Jon Plank and Commissioners Steve Reynolds and Kay Bennett

STAFF PRESENT: Parks and Recreation Director Steve Kastens, Street Operations Manager John Flansberg, RTC Engineer Harvey Brotzman, and Recording Secretary Katherine McLaughlin (RTC 5/17/99 Tape 1-0010)

A. ROLL CALL AND DETERMINATION OF A QUORUM - Chairperson Plank convened the meeting at 4:35 p.m. Roll call was taken. The entire Commission was present constituting a quorum.

B. APPROVAL OF MINUTES - 10/14/98 (1-0018) - Chairperson Plank indicated that he had read the Minutes and, as he was the only current member present at that meeting, that he had not found any problems with the Minutes. Commissioner Reynolds moved to approve the Minutes. Commissioner Bennett seconded the motion. Motion carried 3-0.

C. MODIFICATIONS TO THE AGENDA (1-0029) - None.

D. PUBLIC COMMENT (1-0035) - Tom Metcalf indicated that he represented an unnamed client who had requested the Commission agendaize for the next meeting the RTC street project priorities and the street signalization list. His client has an option on the Snopko property at the corner of the proposed Sonoma and Carson Street and needs to move forward quickly. He is also concerned about how the Sonoma Street extension will interface with the Curry Street design which is being developed at this time. Additional comments were solicited but none given.

E. DISCLOSURES (1-0075) - Chairperson Plank explained that his wife drives through the Fifth and Edmonds intersection a minimum of four times a day. She had originally doubted that the roundabout would work but does not have a problem with it now. Commissioner Bennett indicated that she had had numerous conversations with a number of individuals who are affected by the roundabout. She could not possibly name all of the individuals. These individuals had shared both their pros and cons as well as their concerns. Commissioner Reynolds indicated that he had discussed it with his wife and neighbors. His wife and he drive through the intersection numerous times a day. He had heard many different comments about the roundabout.

F. PUBLIC MEETING ITEMS - DISCUSSION AND ACTION REGARDING INSTALLATION OF EITHER A ROUNDABOUT OR A TRAFFIC SIGNAL AT THE INTERSECTION OF FIFTH STREET AND EDMONDS DRIVE (1-0094) - RTC Engineer Brotzman explained NDOT's involvement with the roundabout. The research roundabout was installed on approximately April 13. Traffic analysis and monitoring had been conducted. Photographs of the roundabout had been posted in the room. A telephone survey of individuals calling in had been conducted. As of today's date he had only been informed about two accidents in the roundabout. One accident had occurred on the second day of its operation. The second accident occurred three or four days after its installation.

NDOT Representative Perry Gross indicated that the report had been made available on Monday. (A copy of his report is included in the file.) He then explained the reasons for conducting the study. Roundabouts have been used for the last two years in the United States. A software program had been used to analyze how roundabouts, two way and four way stops, and signalized intersections work. These models had been used to verify the study results. The study had indicated that the model's reliability is very high. The video also supports the model. He then used a computerized program to display the survey results for the period between 4:30 p.m. and 5:30 p.m. The program illustrated driver characteristics--slowing down, speeding up, stopping, etc., for the roundabout, a two-way stop, and a four-way stop. By the use of color coding, the time delay for entering and exiting the

intersection was illustrated.

Ida Cannon questioned the validity of the illustration, specifically, the truck volume and the east/west flow. The roundabout illustrated that the traffic flow was improved even though the volume remained the same. Ms. Cannon expressed her feeling that the east/west traffic did not stand a chance against the heavier north/south traffic volume. The circle was not large enough to handle the traffic volume. She also encouraged parents to carpool and the Commission to re-install the stop signs. The need for a second access/egress to her area was also iterated. Scott Maine felt that there was no curve in the roundabout and that it favors the north/south traffic. Traffic does not slow down on entering it. Mr. Perry explained that the design needs to be reconsidered as the one NDOT had installed was temporary in nature. Mr. Maine continued to stress his feeling that the presentation was incorrect about the north/south traffic flow.

Mr. Perry explained the computerized model and its geometry. He agreed with the need to increase the size of the roundabout, the height of the apron, and other design features. He felt that only five percent of the traffic runs over the apron. The speeds are within a small margin of each other. The Commission explained the rules of decorum for the audience. Mr. Perry then expressed a desire to show a video taken of the roundabout in operation. Due to technical difficulties with the video, a five minute recess was taken at 5:10 p.m. (The entire Commission was present when Chairperson Plank reconvened the meeting at 5:15 p.m., constituting a quorum.) Mr. Perry then explained his graphs and the video of the roundabout taken between 4:30 p.m. and 5:30 p.m. on Thursday, May 13, which was then shown. The video clearly showed the need to observe traffic right-of-way laws and for education on how the roundabout works. A car in the roundabout on the left has the right-of-way unless there is adequate space to merge. Learning curve issues relate to unnecessary stopping before entering and while in the roundabout. Traffic tickets can be written for failing to yield. Such failures are the normal reason for accidents. The roundabout's size was adequate to handle trucks. Once the driver has learned how to negotiate the roundabout, it does not pose a traffic problem for him. The roundabout is constructed so that the trailer could "ride" the apron. The experiment had made the apron "too flat" which encourages trucks to cross the apron. This design feature can be addressed. The permanent roundabout should have a 45 degree angle for the edge of the apron. The traffic speed was explained. Eighty-five percent of the traffic is traveling between 19 and 20 miles per hour. Perception is that a majority of the traffic is speeding. Even though the traffic flow, including the platoons, had remained the same, the queue time was reduced. Mr. Perry indicated that NDOT would, as a result of the study, recommend roundabouts in the future. The model and information from other states had been confirmed by the test.

(1-0820) Mr. Brotzman introduced Jerry Walsh from Odyssey Engineering. Mr. Walsh explained his preliminary design for the intersection. The comments which had been expressed were similar to those which his firm had noticed, i.e., the need to enlarge the center island, the path around the roundabout is too short, and that the north/south deflections are inadequate to slow down the vehicles. He then explained the pedestrian element of the roundabout which placed the sidewalks in front of the yield signs. This space is large enough for a car to fit between the crosswalk and the roundabout entrance. This eliminates the need for the driver to check for pedestrians. His/her only concern at that point is vehicular traffic. Vehicles behind that vehicle are to slow down and check for pedestrians. The directional islands create a refuge area for the pedestrian if he/she needs to stop in the middle.

Public comments were solicited. Jerry Ling from Cinderlite Blocks Trucking felt that the redesigned roundabout would be difficult for his tractor-trailer rigs to negotiate. The problems experienced by his drivers with the present roundabout were described to illustrate his concerns. His drivers are, purportedly, using Butti or Saliman to keep from making left turns onto Fifth Street when southbound. This increases his travel distance and time and could force a price increases. The north/south flow could be negotiated as long as the drivers use the apron. Roundabouts should be restricted to subdivisions. Edmonds is a truck route.

Mr. Walsh responded by explaining design changes which may address his concerns. The apron is engineered to allow a truck's rear tires to mount the apron. Cars are not supposed to do this. The gutter island has a three inch curb. The inner island has a six inch curb. The pedestrians do not use the middle of the roundabout in crossing the street. They use the directional islands on the outside. If a truck is across the sidewalk, the pedestrian would have to wait for it to pass into the roundabout before crossing.

CARSON CITY REGIONAL TRANSPORTATION COMMISSION

Minutes of the May 19, 1999, Meeting

Page 3

Mr. Ling continued to espouse his feeling that this is one example of Carson City's unfriendly consideration of truckers. He urged the Commission to install signals. Mr. Walsh agreed to modify the design to handle the triple trailers. Right-of-way concerns were expressed. The preliminary design fits within that right-of-way. Comments noted the cost difference between the roundabout and the signal. Commissioner Bennett voiced her support for designing the roundabout to handle triple trailers as it is a truck route even if this means acquiring additional right-of-way. Mr. Walsh indicated that a model has been developed which will illustrate whether triple trailers could negotiate the roundabout. He will test the design before it is installed to be sure that they can make the turning movements. Mr. Ling expressed a willingness to work with the City on it and continued to espouse his feeling that Carson City is not friendly toward truckers. Mr. Walsh reiterated the description of the island. Mr. Ling felt that his trailers would have to cross the six inch high center island to go onto Fifth Street. Mr. Walsh responded by explaining that a larger island will create a wider travel route for the turn. The current island is small and causes some turning movement problems. The current egg-shaped design will be maintained. It is caused by the angle at which the streets intersect. Right-angled streets support round circles. Mr. Walsh also indicated that the egg shape will only be used for the center island. The outside island would be round as the trucks will use the apron.

(1-1168) Beverly Amundson-Hall expressed her concern about the increase in traffic which would be created when Graves Lane is extended north of Highway 50. The increased traffic will make it more difficult for east/west bound traffic to enter the circle. She requested a traffic count of the Graves Lane traffic today and after the extension is completed. If the roundabout is approved, she requested that the Fifth Street traffic be given the same right turning movements which the Edmonds Street traffic has. Currently the volume of north/south traffic prohibits the east/west traffic from entering the roundabout. As the east/west traffic is being forced to stop now, road conditions during the winter need to be addressed particularly for west bound traffic on Fifth Street. She also felt that there had been a lack of law enforcement in the vicinity during the experiment. She had conducted a test of the additional time required to exit the East Fifth Street area via Highway 50. It had taken 17 minutes to traverse a 10-1/2 mile distance to Roop Street as compared to the seven minute travel time for the three mile shorter route to the same site. She questioned whether the residents in that area had been questioned about their experiences and whether the Commission should support a permanent structure at this time in this area. She also questioned what the cost differences were for a roundabout including a larger roundabout and the four-way signal. She then questioned the impact that the Graves Lane extension would have. She did not wish to spend the money for a roundabout which later must be replaced by a \$170,000 signal. She then explained her concern with school buses being able to safely negotiate the roundabout as she had observed a bus going through the experiment. The children had been "swaying" in an effort to maintain their balance. The larger roundabout may solve this problem. She had also been in the roundabout when an accident occurred. It, fortunately, had not been a serious accident, however, the roundabout did not provide an escape route. She requested consideration be given to this point.

Michael Derloshon indicated he was speaking as an individual and did not represent his State employer. He then indicated that he drives through the roundabout an average of 66 times a week during which he felt were the peak hours. He supported it. It saves him an average of 15 minutes per day. He agreed that the roundabout needed improvements including enlargement as well as additional education and enforcement. He encouraged obtaining the Highway Patrol and Sheriff's assistance to re-enforce education. He then referenced a May 12 Nevada Appeal article which had conducted a survey on the roundabout. It indicated that a majority of the respondents liked it. He supported removing the right turn lanes for the north/south bound traffic as it would provide a larger radius for the roundabout. Justification for leaving them in during the test was noted. He then explained his calculations on the cost and the savings which would be generated over a five year period if a signal had been installed.

Commissioner Bennett then explained her need to leave due to another commitment. She explained that she would have voted to support the roundabout if the vote had been taken during her presence. The design should include the ability to accommodate triple trailers even if it means acquiring additional right-of-way. It should also be lighted at night. She supported the suggestion that a post-Graves Lane study be conducted and was certain that the models will be able to conduct this study. The study should be for two, three, and five year timeframes. Commissioner Bennett then left the meeting--6:05 p.m. (A quorum was still present.)

Mr. Derloshon then suggested that a survey be conducted of the truck traffic which uses Edmonds on a regular basis. He had personally observed Granite trucks going through the roundabout without any apparent problems. He urged the Commission to consider the fact that there are many residents in the community who use the same

street. The trucking companies, many of whom are located in Carson City, do not own the right-of-way.

Scott Maine felt that both the pro and con comments indicated the need to enlarge the roundabout which will require a determination of the right-of-way area presently owned and the need for additional right-of-way. The savings generated by not installing the signal should be used for this purpose. He felt that the Edmonds traffic had a higher speed. He used the intersection approximately 66 times a week. He and his wife support the light. He urged the Commission to consider the safety issues as the present design is not as safe as it should be. He then suggested that the signs be changed to "yield to traffic on the left". People currently do not understand how the roundabout works or who has the right-of-way.

(1-1505) Robert Hilderbrand explained his personal use of the roundabout and his support for enlarging the roundabout and giving consideration to the triple trailer needs. Roundabouts have been used throughout the country. The biggest problem is the learning curve.

Change always creates a problem as people dislike change. The roundabout will be beneficial and safer for the users. If the traffic model indicates that the roundabout cannot handle the traffic volume created by extending Graves Lane, then the signal or another alternative should be considered. He also pointed out the maintenance costs for signals which should be considered in the calculations. He supported the roundabout.

Mr. Walsh explained the size of the roundabout for Jim Bagwell. Mr. Bagwell then explained that he was representing only himself and not his employer whom he identified. He had conducted his own study of the roundabout and purportedly found that traffic speeds were higher than NDOT had indicated, however, the traffic volume had not been as high. This could have caused the difference in speed. He then suggested and explained that the car island should be a minimum of 80 feet. Drivers are not signaling their intent to exit. This is causing 90 percent of the controversy. A larger roundabout will reduce this problem as it will increase the time within the circle. He had originally opposed the project but now supported it. He reiterated his recommendation that the circle be enlarged.

Tim Mueller supported improvement of the geometry. The roundabout improves the traffic flow by decreasing delay time and stacking in the queue. Brad Hall felt that a permanent roundabout will be installed. Due to environmental and visual concerns, he urged the Commission to include landscaping. The historical landmark could be included in the landscaping. Bob Cannon felt that if it is to be permanent it should be done right. The Graves Lane extension will increase the traffic volume. The larger roundabout will cost more money and may not create the savings which had been indicated. The additional \$100,000 cost of a light is warranted and the light should be installed.

Ida Cannon reiterated her concerns that education is necessary and questioned whether it is included in the driver's education manuals. She then questioned the reasons this intersection had been selected for the study. A light which is turned off and on as needed would be just as cost effective. Traffic at this intersection only occurs during two peaks hours Monday through Friday. She suggested that the public access television be used to help educate the public on how to use it. She then explained her feeling that trucks are using Butti to avoid the roundabout. This traffic impact had not been studied. She also suggested that NDOT provide its employees who operate the snow plows with training on how to negotiate the circle. Otherwise, the blade will remove the roundabout the first year. Roundabouts are purportedly not used back east for this reason. Chairperson Plank explained that the media and the schools had been given educational information about the roundabout by Mr. Gross. Mr. Gross then explained the State's search for an intersection for the study. A signal is only needed during the peak hour periods. A signal must be left operating at all times which creates an on-going unnecessary delay for vehicles. The roundabout alleviates this delay. As the intersection has the same consistent drivers every day, it was felt it would be a fair comparison for the other traffic control methods. Ms. Cannon responded by expressing her feeling that the traffic volume is not equal on all four streets. The north/south flow carries approximately 2/3rds of the volume. Mr. Gross explained that the residential traffic speeds are the same and that the test would be similar for all directions. The conclusion which had been reached is that the roundabout worked as models and experience in other areas indicated. He also explained that the driver's education handbook is being updated and will include roundabouts. Questions relating to it will be included on the test. Ms. Cannon continued to iterate her concern with the lack of education on the roundabout and its mandatory yielding to vehicles on the left which goes against the yield to the right training drivers have received. Mr. Gross explained that traffic yields to vehicles in the right-

of-way and that it is not necessary to yield to the right on all occasions. Ms. Cannon reiterated her support for a four-way signal which could be a flashing caution light in non-peak periods. Drivers are not yielding. The speed is too high. Chairperson Plank explained that his wife felt that the same was true of the east/west traffic. It is a matter of perspective. Ms. Cannon then indicated that the proposal is a step backward for U.S. design. The yield sign does not make sense to the drivers.

Mr. Brotzman then explained a survey that had been conducted of parents and faculty at Eagle Valley Junior High School. They purportedly prefer the roundabout. The Master Plan had included the traffic counts before and after the Graves Lane extension is constructed. It indicates that the traffic volume is less on the south side of Highway 50 than on the north side. NDOT has a tape of snow plowing in Norway. He felt that Norway has more snow than Carson City. Demark has approximately 6,000 roundabouts in operation at this time. Law enforcement issues are found with a majority of the City intersections and streets. He indicated that he would pass the comments on to the Sheriff's Department who will address it. The traffic counts are updated on a regular basis.

Deputy City Manager Dan St. John then explained the reasons the City had undertaken the study at this time--due to NDOT's request and funding. Staff also felt that if the study was successful and less expensive, it should be included in the street designs. Staff felt that once the drivers learn how to use it, the roundabout should remain rather than remove it, install another mechanism, and replace that mechanism with the roundabout at some future date. Installation at a future date would create a second learning curve for the drivers. Chairperson Plank supported retaining the roundabout once it had been installed if it was a successful test. Mr. Brotzman then explained the concrete treatment proposed for the roundabout. Commissioner Reynolds felt that traffic enters the roundabout at a higher speed than normally found at intersections with stop signs. Graves Lane traffic is increasing and will increase even more once the extension is completed. Its benefits have been provided as evidenced by the traffic flow through the intersection without extended delay. Concerns will be addressed with design changes. Mr. Brotzman then explained Table 2 in the staff report which described the impact created by four-way stops, roundabouts and signals. (A copy is included in the file.) A four-way stop sign will create a backup on Fifth Street to Hells Bells Road--over one-quarter of a mile away. A traffic count conducted by staff supported these projections. Mr. Brotzman then explained the design changes which have been proposed due to preliminary discussion with NDOT--enlarge the circle, relocating the deflection island so that it is an equal distance apart, and the test for triple trailers. A majority of the traffic through the intersection is north/south bound.

Commissioner Reynolds then moved that the Commission move toward the placement of a roundabout at the intersection of Edmonds and Fifth Street incorporating the design concerns for both safety and truck traffic as had been discussed this evening. Chairperson Plank seconded the motion. Ms. Cannon questioned the reasons no more people were present and why the meeting had not been advertised so that more people would have known where the meeting was. She, purportedly, had only been advised about the meeting due to a conversation she had had with individuals at City Hall, Channel 8, and NDOT. She wondered if more people who had opposed it had attended, if the Commission would have voted against it, and why more people were not told. Chairperson Plank responded by indicating that the meeting had been noticed as are all of the Commission meetings. This sometimes draw a lot of people and sometimes it does not. He thought that a lot of people just do not care. Mr. Brotzman indicated that staff had worked with the Nevada Appeal who had done an article on Page 3 of today's paper as well as one approximately one week ago. Staff works with the media sources. Chairperson Plank noted that the comments were not on the motion. Ms. Cannon reiterated her concerns related to the snow removal and the reflector. She had not been concerned about the roundabout itself. They do not have these back east. Their reflectors only stand up and tell you where the lines are. This had been what she meant. Chairperson Plank thanked her for her comments and asked for additional public comments. None were made. The motion to approve the installation of a roundabout at Edmonds Drive and Fifth Street as indicated was voted and carried 2-0. Chairperson Plank noted Commissioner Bennett's support for the motion providing the conditions included as part of the motion had been made. He thanked the public for attending and making comments. He also appreciated staff's and NDOT's work.

G. INTERNAL COMMUNICATIONS AND ADMINISTRATIVE MATTERS (NON-ACTION)

G-1. COMMISSIONER REPORTS (1-2180) - None.

