CARSON CITY STORM DRAINAGE ADVISORY COMMITTEE Minutes of the August 9, 1999 Meeting Page 1

A special meeting of the Carson City Storm Drainage Advisory Committee was held at 6:30 p.m. on Monday, August 9, 1999 in Marlette Hall at the Western Nevada Community College, 2201 West College Parkway, Carson City, Nevada.

PRESENT: Chairperson Jay Aldean

Vice Chairperson Howard Anderson

James Bawden Robert Hildebrand Susan Oakwood Delacy Perry Russell Plume

STAFF: Dan St. John, Deputy City Manager

Mahmood Azad, Development Services Manager

John Givlin, Senior Engineer, Development Engineering Angie Sturm, Assistant Engineer, Development Engineering

Kathleen King, Recording Secretary

(SDAC 08/09/99; 1-001)

NOTE: Unless indicated otherwise, each item was introduced by Mr. Azad. A tape recording of these proceedings is on file in the Clerk-Recorder's Office and is available for review and inspection during regular business hours.

CALL TO ORDER (1-002) - The meeting was called to order at 6:45 p.m. Mr. Azad explained the process and purpose of the information exchange. He distributed a chart of Selected Adopted Drainage Design Criteria for Roadways/Streets at Curb and Gutter for various communities in Nevada as well as for Fort Collins, Colorado. He emphasized that the criteria listed for Carson City is proposed criteria. An Introduction to the Carson City Storm Drainage Citizen Advisory Committee ("SDAC") was also distributed.

ROLL CALL (1-028) - Roll call was taken; a quorum was present.

LEVEL OF PROTECTION FROM STORM FLOWS (1-032) - Mr. Azad reviewed the Selected Adopted Drainage Design Criteria, including a comparison of Carson City with other Nevada counties. The proposed criteria does not include retrofitting existing facilities; it is designated for new developments only. Development of the proposed criteria was done after reviewing criteria from neighboring counties. Mr. Azad emphasized that the proposal is a "first cut" for review and discussion by the Committee, the development community, and the public. At the request of Chairperson Aldean, Mr. Azad diagramed the proposed collector criteria for a 100-year storm with a 1' gutter depth and a 12' dry lane. Discussion ensued with regard to the practical aspects of these conditions such as the level of water which would be on the sidewalk. Mr. Azad confirmed that encroachment of the right-of-way would occur with water moving at 6' per second, resulting in erosion. Vice Chairperson Anderson suggested that the flood control standard should match the building standard. Discussion ensued with regard to these standards being applied to new developments only, retrofitting, current standards, and solving existing drainage problems. Mr. Azad explained that existing drainage problems will not be solved by the proposed criteria; however, the master plan storm water drainage infrastructure will solve many of the existing regional drainage problems, such as Highway 50 flooding. The proposed criteria listed will solve the problems new development causes. Discussion regarding a comparison of Clark County's criteria followed, and Mr. Givlin suggested invoking a caveat that the proposed criteria apply only to areas other than special flood hazard areas. Mr. Azad explained the current drainage facilities are designed for 5-year storms. Mr. St. John discussed the cost of retrofitting existing problem areas. He explained that as the requirements for new development are raised to a higher standard, public works projects will become subject to a higher standard as well. The cost of improvements will dictate the level of protection which can be addressed by retrofitting, however. Member Hildebrand discussed the Clark County Flood Control District established in the 1970s and the history and cost of retrofitting projects over the years. Chairperson Aldean stressed the importance of levels of service

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and City staff interaction with the public in assisting with existing problems. (1-391) Tony Marangi discussed the current problems being in existence since the 1950s and 1960s, detention basins in Fresno, California being used as parks in the summer, and the displacement of water over the years as new developments have been constructed. (1-431) Mark Rotter suggested determining criteria for minor storm systems before determining criteria for major storm systems. He discussed his background in engineering subdivisions in northern Nevada. The minor systems have been designed for five-year events, and work very effectively in "every-day rainfall situations". Washoe County is designed for five-year events and, as the county has built out, the interconnection of pipe systems works together well. Mr. Rotter disagreed with the proposed criteria being applied only to new development, and expressed the opinion that the same type of standard should be followed for all projects. He questioned the reasoning behind changing criteria for minor events from a five-year design to a ten-year design. Mr. St. John reviewed water levels handled by the five-year and ten-year design systems in Washoe County. (1-575) Mr. Marangi discussed the need for addressing the flooding problems in the older developments. Mr. Rotter reiterated that the five-year design will accommodate minor events. (1-B-001) Member Hildebrand discussed the difference between major and minor events. Chairperson Aldean suggested providing a practical comparison between major and minor storms for the benefit of the public. (1-B-077) Lou deBottari discussed public perception of financing a flood control project if the problems in the downtown area will not be addressed. Mr. Azad reiterated that the regional infrastructure being addressed in the master plan will solve the flooding problems downtown. Member Hildebrand suggested that a definition of terms, together with graphic representations, be provided to the public at the information exchanges. (1-B-107) Mr. Givlin discussed cost versus benefit of five-year storm drainage facilities. Mr. Azad responded by explaining that the Storm Drainage Master Plan will provide direction on major routing locations, locations and sizes of collector pipes, and integration of the smaller pipes. Vice Chairperson Anderson commented that one of the major problems is the systems between the various subdivisions are not tied together. Mr. St. John assured Mr. Anderson that this issue is being addressed and went on to explain the function of detention facilities in minor events. developments are required to include detention facilities capable of handling five-year events. These ensure that peak runoff after development does not exceed peak runoff prior to development. However, for any event larger than a five-year event, the peak runoff in post-development will exceed peak runoff in predevelopment. He confirmed that an impact on regional facilities occurs downstream with five-year designs during minor events. Member Bawden pointed out the importance of hearing from the development community before making the determination to specify five-year design or ten-year design. (1-B-173) Mr. Rotter expressed his opinion that the decision between five- and ten-year designs is not a major issue. The major issue to be addressed is major events and the criteria acceptable for them, i.e., water being allowed to flow over sidewalks but not into garages, homes, or structures. Member Oakwood discussed the probability factor as related to cost and benefit. (1-B-195) Mr. Rotter reiterated that differentiating between the minor event and the major event is a very important issue. He suggested that it is unrealistic to consider designing for ten-year events for better protection and a "bigger bang for the buck" because of the common occurrence of five-year events, and that a 25-year design be considered instead. Mr. Azad reiterated that regional infrastructure will address water flows from higher regions, such as Timberline/Combs. Member Hildebrand discussed inherent problems with retrofitting projects due to the unknown design of underground utilities downtown and in the older subdivisions. Chairperson Aldean diagramed the "futility" of trying to determine a difference between five- and ten-year events and stressed the importance of determining and designing for levels of service for minor storms and for major storms. Mr. Azad advised that this topic will be left open for comments. Once comments have been received, a preliminary report will be prepared and presented to the Board of Supervisors, at which time the topic is once again open for public comment. The Board will then provide direction to City staff with regard to criteria for the master plan. (1-B-441) Mr. Rotter requested that a workshop with the engineering community be scheduled and discussion ensued with regard to the same. (1-B-453) Andy Burnham concurred that a workshop with the engineering community would be helpful to "fill in" the criteria. Mr. Rotter discussed the criteria having an effect on addressing retroactive projects as well as new development. Discussion ensued with regard to curb requirements. (1-B-546) Mr. Marangi emphasized that when the engineers discuss these issues, cost effectiveness must be considered and financing must be broad based. He referred to the newspaper article addressing financing for these projects and Mr. Azad explained that Finance Director David Heath had provided input with regard to all possible financing mechanisms. Mr. Marangi went on to express that since the flooding problems are City-wide,

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"everyone should pay their share." Mr. Azad reiterated that this topic would remain open for comments until the next SDAC meeting on September 13, 1999. Chairperson Aldean requested staff to "translate" the drainage design criteria into lay language.

2. FINANCING OF REGIONAL STORM DRAINAGE INFRASTRUCTURE (1-B-603) - Mr. Azad advised that the citizens had made their ideas on funding these projects very clear at the five information exchanges previously conducted. (2-001) The general opinion was that every citizen has a responsibility to contribute to funding storm drainage facilities. Mr. St. John discussed the merits of creating a storm water utility district. (2-034) Lou deBottari expressed the opinion that since "WNCC is one of the biggest contributors to run off problems, it ought to be paying part of the storm water fees." Mr. St. John pointed out that the City has no jurisdiction over State-owned buildings. Discussion ensued with regard to including a storm water utility fee in the State of Nevada's utility bill. Mr. Azad advised that the storm drainage master plan would include a section on funding mechanisms.

Member Oakwood left the meeting at 8:30 p.m. A quorum was present.

(2-104) Mr. Rotter discussed the research done and procedure implemented by Washoe County in presenting to the public statutory methods for generating funding of storm drainage facilities. He explained that the flood control district could not be implemented in Carson City because of population requirements. Mr. St. John discussed the flood control district being more appropriate to areas with multiple jurisdictions, however, due to Carson City being a consolidated municipality, the Board of Supervisors could designate a "quasi-flood control district." Discussion ensued with regard to raising the gas tax, the ability of a new Board of Supervisors to change the ad valorem tax, the amount which a storm drainage utility fee may raise water/sewer bills, and levels of service being cut from the Streets Department if a portion of the gas tax was used for storm drainage.

ADJOURNMENT (2-218) - Member Plume moved to adjourn the meeting at 8:37 p.m. Member Hildebrand seconded the motion. Motion carried 6-0-1-0.

					Storm	Drainage	Advisory	Committee	meeting	are	so	approved	this
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JAY ALDEAN, Chairperson													