FLOOD PLAIN PERMIT COMMITTEE MEETING
201 West Gray, Building A, Conference Room D

Monday, March 7, 2016
3:30 p.m.

Minutes

PRESENT:
Shawn O'Leary, Director of Public Works
Susan Connors, Director of Planning/Community Development
Scott Sturtz, City Engineer
Ken Danner, Subdivision Development Manager
Jane Hudson, Principal Planner
Sherri Stansel, Citizen Member

OTHERS PRESENT:
Todd McLellan, Development Engineer
John Clink, Capital Projects Manager
Rachel Warila, Staff
Lynne Miller, City Council Member
Robert Castleberry, City Council Member
Kathryn Walker, City Attorney
Alan Dennis, Garver
Ron Petrie, Garver
Austin Messerli, Garver
Dan Frashier, Citizen
Mona Randolph, Citizen
Roy Choate, Citizen
Teresa Choate, Citizen
Sally January, Citizen
Lonnie Hodges, Citizen
Sabra Hodges, Citizen
Victor Aktansel, Citizen

The meeting was called to order by O'Leary at 3:30 p.m.

Item No. 1, Approval of Minutes:

O'Leary called for a motion to approve the minutes from the meeting of February 15, 2016. A motion was made to approve the minutes by Sturtz and seconded by Danner. Approved 6-0

(Neil Suneson abstained due to not attending previous meeting). It was noted that seven members of the committee were present and a quorum was established.

O'Leary then announced that the first and only application of the day was for the removal of an existing bridge on West Main Street and the subsequent construction of the replacement bridge and associated Brookhaven Creek channel improvements. He then requested that McLellan present the Staff Report for this application.

Item No. 2, Flood Plain Permit Application No. 568:

McLellan introduced the applicant as the City of Norman represented by city staff member John Clink, Capital Projects Manager, Alan Dennis; Garver, L.L.C., Ron Petrie; Garver, L.L.C., and Austin Messerli; Garver, L.L.C. He then presented the Staff Report for Flood Plain Permit Application No #568.

McLellan stated that this application was for the removal of the existing bridge and the subsequent construction of a new bridge on West Main Street to span Brookhaven Creek, along with associated channel improvements. The existing West Main Street Bridge consists of two 55' long by 9.5' by 6.4' CGMP arch pipes that were originally constructed in 1972. According to McLellan, in the PBS&J Storm Water Master Plan this structure is identified as being "hydraulically deficient" because it is unable to convey a 10 year storm event and this condition likely caused the bridge to sustain serious flood damage on August 19, 2007. He added that during that storm event, city crews made temporary emergency repairs to keep the bridge in service and on January 27, 2009, the Norman City Council approved programming

Resolution No. R-0809-56 with Garver, L.L.C. for the preliminary design of the bridge replacement project. He explained that on June 11, 2010, City Council approved amendment No. 1 for the final design of the project.

McLellan stated that Norman voters approved a Bond Issue for 8 major transportation/storm water projects throughout Norman on August 28, 2012 with the total cost for these projects at $42.5 million dollars, with a total estimated project cost of $5,545,385 of which federal funds will pay $3,897,094, or 70.2% of the total cost of this project. He detailed that this project is estimated to start construction in the winter of 2016/17 and be competed by winter 2017/18.

For this project, McLellan noted that the existing arch pipe bridge structure will be removed and replaced with a triple cell 16’ by 8’ RCB bridge structure that will be skewed to align with the Brookhaven creek channel and have the capability to handle the 100 year storm with about 2,900’ of channel improvements that will occur from just upstream of Main Street south to Willow Grove Drive. Some of the improvements that McLellan mentioned were gabion baskets and turf reinforcement mat for the majority of the project installed at a 2:1 or 3:1 slope and in certain locations, due to space constraints, the walls will consist of Mechanically Stabilized Earth (MSE) or segmented block walls. The channel improvements will allow a larger discharge below the new bridge without raising the Base Flood Elevation (BFE) anywhere along the creek.

McLellan also mentioned several underground utilities that are being located as part of the West Main Street Bridge project including water line, sanitary sewer, storm sewer, AT&T,

and OG&E. On the south side of the bridge, the existing water line will be capped and a new section of water line bored below the creek channel using 14" HDPE pipe. A new section of 24" sanitary sewer will be installed on the east side of the bridge by boring under West Main Street and a new section of 8" sanitary sewer will be constructed on the north side of the bridge using the open cut method. To drain West Main Street, a 24" storm sewer consisting of reinforced concrete pipe (RCP) will be installed through both the east and west wing walls on the south side of the bridge.

McLellan stated that this project is in the floodway/floodplain of Brookhaven Creek Zone AE and Base Flood Elevations (BFE's) have been determined. The Flood Insurance Rate Maps was revised by FEMA in 2008, based on the 1993 HEC-2 model, which was converted to a HEC-RAS model by Garver, L.L.C., to create a Duplicate Effective Model (DEM) to model the creek from approximately 36th Ave NW to just south of the bridge on Willow Grove Drive.

For this new design, Garver performed field survey work and analyzed the DEM to see what affect the new bridge would have on the BFE, for this portion of Brookhaven Creek. McLellan explained that the model with the proposed bridge and channel improvements is referred to as the Revised Hydraulic Model (RHM). The new project will lower the Brookhaven Creek FEMA published BFE's by 0.3' to 2.8' from 36th Ave NW to Willow Grove Drive, as indicated in the following table from the Garver No-Rise Certification report dated January 5, 2016.

For this project, McLellan explained that FEMA required a Letter of Map Revision (LOMR) to be submitted within 6 months of completion of the project. This is necessary to update the Flood Insurance Rate Maps which reflect the revised BFE's. However, the City of Norman entered into a Cooperative Technical Agreement (CTP) with the Oklahoma Water Resources Board (OWRB) in 2015 to restudy Brookhaven Creek and develop new Flood Insurance Rate Maps and BFE's. According to McLellan, the new rate maps are tentatively scheduled for adoption in 2019.

McLellan then discussed the Applicable Ordinance Sections:

4(b)(1)(c) Fill Restrictions in the Flood Plain– McLellan explained that according to the new bridge and channel plans, more material is being removed from the floodplain than is being brought in; therefore, additional compensatory storage is not required.

4(b)(10) Utilities constructed to minimize flood damage- McLellan stated that all public utilities and facilities shall be constructed to minimize flood damage.

4(b)(11) New and replacement water line- McLellan detailed that the new water line will be bacteria and pressure tested prior to going into service.

4(b)(12) New and replacement sanitary sewer- McLellan noted that the entire system will be leak tested before going into service.

4(b)(17)(iii) City Council Approval of stream bank or flow line modifications- McLellan explained that the channel improvements will allow a larger discharge below the bridge without raising the Base Flood Elevation (BFE) anywhere along the creek. However, channel improvements must be approved by City Council.

5(a)(viii) No rise considerations- McLellan discussed that the applicant's engineer has certified that the project will not cause a rise in the BFE, which meets the ordinance requirements.

McLellan then stated that it was Staff's recommendation that Floodplain Permit Application #568 be approved. He then introduced Allen Dennis from Garver who gave a presentation of the project that showed photographs of the proposed gabion baskets, turf reinforcement mat and retaining walls. O'Leary then asked to bring the discussion back to the Floodplain Committee and remarked that after the discussion the committee would allow public questions or comments.

Suneson asked if in the approved resolution if it included channel improvements, or did the City only approve the bridge and the roadway approaches to the bridge. O'Leary responded that this involved a program resolution for funding and that it was different than the scope of this project. Clink responded that in 2009 it was the City's intent to use federal funding for the channel improvements downstream and that they worked with the Oklahoma Department of Transportation (ODOT) to get permission to use funding along streambanks. O'Leary then stated that ODOT had agreed to apply those funds to the channel improvements along with the new bridge.

Stansel then asked if the gabion baskets would be an effective design concept because she felt there were sedimentation issues occurring due to their use. Sturtz responded that the gabion baskets were fulfilling their purpose of maintaining the stream banks and that the deposition of the sediment in the middle of creeks would occur with or without the gabion baskets and that it was a separate issue that the City's Streets Department would have to address.

O'Leary then asked for public comments or questions. Sally January who lives at 4600 Willow Grove Drive asked if there was a need to construct a bridge that could send more water downstream. There would be more flood water coming down the stream and since the project improvements will stop at Willow Grove Drive near her residence, she was concerned that her property could be impacted. O'Leary responded that one of the conditions of the Floodplain Ordinance was to ensure that there would be no rise in the BFE, due to this project. Dennis then responded that this project would not increase the flow rate and that it would stay the same as it currently is at this point in time.

January then asked if there was no way to improve the Willow Grove Bridge to also handle the flood water. O'Leary remarked that there is not a project to improve the Willow Grove Bridge and that it was adequate to accommodate the projected flow rate. He then told January that the area in which she resides is entirely within the floodplain property and most likely would always experience flooding issues in that location. Sturtz then commented that there were two floodplains in that location, the Canadian River floodplain and the Brookhaven Creek floodplain and the confluence of these waterways makes it difficult to know which floodplain is impacting their area. He added that the Canadian River floodplain is a much more dominant floodplain and the flooding coming from Brookhaven Creek would be very minimal once it reached that far south at her location.

Suneson then asked if the City would be able to increase the channel flow downstream of Willow Grove Bridge to allow the flood waters to enter into the Canadian River. Allen then commented that the project stopped at the confluence of the Canadian River floodplain and the Brookhaven Creek floodplain. Lonnie Hodges from 4641 Willow Grove Drive then comented that it was mentioned that there would be an increased flow at Main Street bridge.

Sturtz then responded that it would increase flow underneath the bridge but not above it as it does now. Hodges responded that on one side of Willow Grove Bridge there is a retention area that captures some of the water and keeps it from coming into the residential neighborhood and with this project there will no longer be this retention area so the wing walls of the Willow Grove bridge will get washed out and the extra flow of water will come through and at that point the Willow Grove bridge will be gone. Sabra Hodges from 4641 Willow Grove Drive then asked about how the water from Ten Mile Creek, next to Willow Grove bridge, would be directed due to this project and how would erosion be prevented when the water comes through the area.

City Council member Robert Castleberry then introduced himself and said that his concern was the same as the residents in that the problem at Willow Grove Bridge is not being fixed but only maintained. O'Leary responded that the City was not making the problem any better or any worse than it already is. Castleberry then asked what it would take to make it better and O'Leary responded that it would probably take several million dollars and with the funding currently allocated for this project they have done the maximum extent that is possible and going any further is not in the scope of the budgeted funds. He also added that the Willow Grove Bridge was never identified as a concern in the Storm Water Master Plan (SWMP).

Dennis from Garver L.L.C. then gave a broader overview of the project scope and said that they only studied Brookhaven Creek and Sabra Hodges then commented that Ten Mile Creek and Brookhaven Creek have met before during rain events and she thought with this project there will be more water coming into Willow Grove than does currently. Councilman Castleberry then commented that he did not feel that it was very responsible for the City to look at things in isolation and only fix a certain area, leaving the rest of the streambanks in

bad condition and that he hoped sometime in the future there was a plan to address the other areas. O'Leary responded that this item would be on City Council agenda in 2-4 weeks and he would follow his guidance and the guidance of the City Council and Mayor, in regard to expanding the project or taking on additional projects.

Mona Randolph at 4401 Willow Grove Drive then explained that she lives right next to the Willow Grove Bridge and during rain events it turns into a raging river and fails to contain that capacity of water and it overflows the streambank. O'Leary responded that the flow at the Willow Grove Bridge would not be any different than what it currently is. Randolph then asked if the water would now be flowing faster and Clink responded that they would not be straightening out the channel and that the channel bottom would be left in its current state so there is not projected increase in velocity.

Councilmember Castleberry then inquired as to whether or not a Storm Water Utility would help to address some of these issues. O'Leary responded that maintenance resources could be enhanced with the adoption of a Storm Water Utility. O'Leary then brought the discussion back to the committee for further comment. Suneson then asked if there was verbiage in the Garver Report that stated there would be no rise in the BFE south of Willow Grove Road. Sturtz remarked that when it gets to Willow Creek bridge the water surface is back at the existing BFE. O'Leary then stated that where it gets complicated is downstream at the Canadian River confluence which is not within the scope of the project.

Teresa Choate from 4520 Willow Grove Drive then asked what the City would do with the water that would be pushed over the bridge into their neighborhood. O'Leary responded that more water would not be pushed over the bridge and that it would remain the same as before.

Hodges then asked if the flood water would have a higher velocity and Dennis responded that it was the same flow with the same velocity as before.

O'Leary then asked if there was a motion to approve Floodplain Application #568 and Sturtz made a motion to approve with conditional approval by City Council for streambank modifications as required by the floodplain ordinance, which was seconded by Danner. Approved 6-1 (Suneson nay vote).

Item No. 3, Miscellaneous Discussion

O'Leary then stated that in the packets provided to committee members there is a copy of a recent City Council Study Session package regarding possible changes to the Floodplain Ordinance. He then introduced Kathryn Walker from the City of Norman's Legal Department and City Council Oversight Committee member Lynne Miller. O'Leary then stated that revisons to the Floodplain Ordinance would be further discussed by City Council in a Study Session format on April 19th. Stansel expressed disappointment that she was not informed of previous study sessions or oversight committee meetings to discuss the proposed changes. O'Leary promised to keep all committee members informed of upcoming meetings to discuss proposed floodplain ordinance changes.

O'Leary then stated there were no applications for March 21, 2016 and that there are no pending applications at this time for the April 4, 2016 meeting. A motion was then made to adjourn the meeting by Sturtz, which was seconded by Suneson. Approved 7-0.