



## MEMORANDUM

TO: Tony Konkol, Community Development Director  
John M. Lewis, P.E., Public Works Director  
Carrie Richter, Deputy City Attorney

Cc: Pete Walter, Associate Planner

FROM: Aleta Froman-Goodrich, P.E., City Engineer

DATE: February 9, 2015 (for City Commission Hearing February 18, 2015)

SUBJECT: **AP 14-01 and AP 14-02:** Appeals of Community Development Director's approval on November 14, 2014 of file number **SP 14-01**, a Site Plan and Design Review application for 120 Apartments Units and 59 Live-Work Units on 9.7 acres (Zoned MUC-1).

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### **STAFF RECOMMENDATION:**

Staff recommends the City Commission deny the two appeals, one filed by the applicant, Beaver Creek Road LLC, AP 14-01, and one filed by Elizabeth Graser-Lindsey, AP 14-02, and uphold the Community Development Director's decision to conditionally approve the applicant's request to construct 120 Apartments Units and 59 Live-Work Units on 9.7 acres on the east side of Beaver Creek Road including conditions as set out in the staff decision, and adopt the revised conditions of approval that are set forth below.

### **BACKGROUND**

The Site Plan and Design Review application, SP 14-01, for the development *Beaver Creek Rd Apartments*, was submitted by the applicant, Beaver Creek Road LLC, for review by the Community Development Director on January 22, 2014. Following two public comment periods and review by staff, the Community Development Director conditionally approved the application on November 14, 2014.

### **PROPOSAL**

(See Project Overview on Page 8 of SP 14-01 Staff Report)

**This Public Works Memorandum addresses additional materials received and issues raised through February 4, 2015.**

### **ISSUES, FINDINGS, and CONCLUSIONS**

#### **Sanitary Sewer Collection System Capacity in Glen Oak Road Basin**

The 2014 Sanitary Sewer Master Plan (SSMP) evaluates the impacts of flows on the existing downstream collection system in the Glen Oak Road basin from various flow routing alternatives. The SSMP presents the results of the analysis, describes the surcharged pipes and potential flooding locations, and recommends improvements to mitigate for the capacity deficiencies.

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The following flow routing scenarios are presented with the determination of adequacy for the Glen Oak Road existing sanitary sewer collection system. Each scenario is based on modeling parameters for wet weather flows 1-in 10-year storm event, extrapolating flow and capacity data from the SSMP results, and determining the adequacy of the existing collection system infrastructure.

**Scenario 1 - Existing Glen Oak Rd Basin Flows plus Beaver Creek Rd Apartments Flow**

For flow routing Scenario 1, the existing flows from the Glen Oak Rd basin, plus the future buildout flows from the addition of Beaver Creek Rd Apartments flow (approximately 105 gpm), are routed through the existing Glen Oak Rd collection system. Results predict there is no surcharging and/or sanitary sewer overflows, SSOs (flooding), in the Glen Oak Rd collection system.

**Scenario 2 - Existing Glen Oak Rd Basin plus Beaver Creek Rd Apartments plus Three Mountains Flows**

For flow routing Scenario 2, the existing flows from the Glen Oak Rd basin, plus the future buildout flows (approximately 135 gpm total), that include the buildout flows from the addition of Beaver Creek Rd Apartments flow (approximately 105 gpm), plus the flows from approximately 24 properties within *Three Mountains* subdivision that are currently on individual septic systems, are routed through the existing Glen Oak Rd collection system. Results predict there is no surcharging and/or sanitary sewer overflows, SSOs (flooding), in the Glen Oak Rd collection system.

**Scenario 3 - Existing and Future Buildout Glen Oak Rd Basin Flows plus Beaver Creek Rd Apartments Flow Plus Three Mountains Flows**

For flow routing Scenario 3, the existing flows from the Glen Oak Rd basin plus the future buildout flows (approximately 315 gpm total), that include the buildout flows from the Glen Oak Rd basin, plus the flows from *Three Mountains* subdivision that are currently on individual septic systems, plus the addition of Beaver Creek Rd Apartments flow (approximately 105 gpm), are routed through the existing Glen Oak Rd collection system. Results predict there is surcharging that is within 5 feet of the ground surface at two different manholes located in a sanitary sewer easement south of Glen Oak Road near Hwy 213 and no sanitary sewer overflows, SSOs (flooding), in the Glen Oak Rd basin collection system.

**Scenario 4 - Existing and Future Buildout Glen Oak Rd Basin Flows plus Beaver Creek Rd Apartments plus Three Mountains plus Glen Oak Basin portion of the Beaver Creek Rd Concept Plan Area Flows**

For flow routing Scenario 4, the existing flows from the Glen Oak Rd basin plus the future buildout flows (approximately 510 gpm total), that include the buildout flows from the Glen Oak Rd basin, plus the flows from *Three Mountains* subdivision that are currently on individual septic systems, plus the addition of Beaver Creek Rd Apartments flow (approximately 105 gpm), plus the small section of the Beaver Creek Rd Concept Plan area most likely to be routed to the Glen Oak Rd basin with the Beaver Creek Rd Apartments, are routed through the existing Glen Oak Rd collection system. Results predict there is surcharging that is within 5 feet of the ground surface at four different manholes one located in Glen Oak Road and three located in a sanitary sewer easement south of Glen Oak Road near Hwy 213, and one sanitary sewer overflow, SSO (flooding), at one manhole in Glen Oak Road.

**Conclusion of the Sanitary Sewer Collection System Capacity in Glen Oak Road Basin**

Today, the existing Glen Oak Rd sanitary sewer collection system has the capacity to accommodate the Beaver Creek Rd Apartments flow plus the Three Mountains flow without the need to construct capacity improvements, Scenario 1 and Scenario 2. Capacity improvements are recommended prior to conveying the total additional wastewater flows that are estimated from the complete buildout of the areas described in Scenario 3, the Glen Oak Rd basin, the Three Mountains subdivision, and the Beaver Creek Rd Apartments.

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When the complete buildout of the Glen Oak Rd basin as identified in the SSMP develops to the full zoning density, the Three Mountains subdivision and Beavercreek Rd Apartments connect to the Glen Oak Rd basin, portions of the sewer system are inadequate to convey the buildout flows and there will need to be capacity improvements made downstream of the Glen Oak Rd basin collection system to provide for adequate sanitary sewer service. The capacity improvements will need to eliminate the predicted surcharging condition(s) and sanitary sewer overflow(s), SSOs, as may be applicable.

Based on the SSMP and the scenarios described in this memorandum, the timing to implement the capacity improvements should be prior to completion of the full buildout listed in Scenario 3, approximately 315 gpm total additional flows being added to the Glen Oak Rd basin collection system.

#### **Planned Improvements to Meet Capacity Needs for the Full Buildout of Scenario 3 and Scenario 4**

The SSMP recommends a capital improvement (CI) program that includes upsizing sewer pipes, rehabilitating and replacing sewer facilities, and an infiltration/inflow (I/I) abatement program. The CI program was developed with the intent to preserve and upgrade the condition of the sanitary sewer collection system as well as control and reduce infiltration/inflow (I/I), and provide the needed improvements required to convey the existing and future wastewater flows.

The City plans to implement an I/I abatement program in areas where I/I improvements would most likely result in the reduction of flows conveyed to the Hwy 213 trunk sewers directly downstream of the Glen Oak Rd basin. By reducing the I/I flows and flows conveyed to the Hwy 213 trunk sewers, the capacity impacts from the buildout flows will be less. The expectation is the reduction in I/I, that will be possible by payment of the fee-in-lieu as required by Condition 37, will be great enough to completely offset the additional buildout flows so that there will be no need to upsize the Hwy 213 trunk sewers downstream of the Glen Oak Rd basin. However, although I/I is an identified solution to reduce flows, the engineering and design work, and costs associated with these efforts, have yet to be completed.

#### **Conclusion of the Planned Capacity Improvements to Meet the Full Buildout of Scenario 3 and Scenario 4**

The I/I abatement program will include analyses to determine the most beneficial improvements that should be made in the system for the reduction of I/I. With the implementation of the I/I improvements and reduction of flows conveyed to the Hwy 213 trunk sewers, it is expected that the Hwy 213 upsizing improvements will not need to be constructed for the total buildout as described in Scenario 3. However, the applicant's proportional share costs of \$545,000 for the Glen Oak Rd basin capacity improvements shall be used to fund I/I improvement project(s) identified and recommended to improve the capacity in the existing collection system. This amount will be adequate to make necessary I/I reductions or improvements to increase pipe capacities to accommodate the increased flows contributed by the Beavercreek Rd Apartments.

#### **Bolting Down Manhole Covers**

There is industry practice of bolting down manhole covers for specific situations in a sanitary sewer collection system. Security is one reason that a manhole cover may be bolted down, to help ensure that the cover is not removed or tampered with by unauthorized individuals. Another reason to bolt down and seal the covers is to pressurize a section of the system. This second reason would require careful consideration and determination that this is operationally beneficial to the system and there are no adverse impacts as a result of pressurizing a section of the system.

The Applicant's engineer, in the Technical Memo dated September 9, 2014, recommended that the covers of the manholes near Hwy 213, located in the easement referred to in Scenario 3, be bolted down and sealed. The findings at this time are that the City has not made consideration or performed an analysis, and will not be bolting down the covers of these manholes or requiring the Applicant to bolt down and seal the covers.

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**Land Use Decision, Condition 34**

Condition 34 is:

*34. The applicant shall provide 8-inch sanitary sewer collection system in the existing and future public right-of-way with the connection to the existing collection system at the manhole located in Meyers Road at Emerson Court. A short section of the collection system shall be located in a 15-foot wide public easement that extends from the western end of "B" Street to the Beaver Creek Road ROW.*

The applicant has requested modification of Condition 34 to allow for the consideration of connecting the proposed 8-inch sanitary sewer to the manhole located in an easement just east of the Emerson Court cul-de-sac.

***Findings:***

Staff has reviewed the City's Public Works Sanitary Sewer Design Standards for minimum slopes, minimum cover, and clearance requirements between other underground utilities. It appears, based on the City's record AsBuilt drawings, that the City's standards may be met with a connection to the manhole that is located in an easement at the end of the Emerson Court cul-de-sac, identified as Option 1 in the Applicant's February 4, 2015, letter to the Mayor and City Commission. During the design phase for the proposed sanitary sewer facilities to serve the development, the applicant shall be required to make field verifications and surveys of the existing facilities to ensure that the proposed sanitary sewer facilities can be designed to meet the City's Public Works Sanitary Sewer Design Standards.

**Staff recommends replacing Condition 34 in its entirety with the following Condition 34:**

*34. The applicant shall provide 8-inch sanitary sewer collection system in the existing Meyers Road and Beaver Creek Road public right-of-ways, and in the future public right-of-ways within the development to the maximum extent practicable. The connection of the new 8-inch system to the existing collection system shall be at the manhole located in Meyers Road at Emerson Court or the manhole located in the existing sanitary sewer easement at the east end of Emerson Court cul-de-sac. During the design phase, the applicant shall be required to make field verifications and surveys of the existing facilities to ensure that the proposed sanitary sewer facilities can be designed to meet the City's Public Works Sanitary Sewer Design Standards. Prior to construction plan approval, the field verification shall be completed and coordination made with City Public Works Engineering staff for final approval of the connection location. A short section of the proposed 8-inch collection system shall be located in a 15-foot wide public easement that extends from the western end of "B" Street to the Beaver Creek Road ROW.*

**Water System Standards and Proposed Water Service to Beaver Creek Rd Apartments**

The City's 2012 Water Distribution Master Plan (WMP) provides the design standards required of new developments for providing adequate water service. Design standards include the minimum water system pressure (psi) during peak hour and average day demand conditions. The minimum required system pressure is 40 psi for both conditions.

At this time, the City's existing water distribution system along Beaver Creek Rd is a 16-inch waterline within the City's Upper Zone where the minimum pressure is less than 40 psi at approximate elevation of 480 feet. The Beaver Creek Rd Apartments site development has ground surface elevations from 480 feet to 500 feet and cannot be served by the existing water system. Future water infrastructure, as identified in the WMP, are planned as part of the Fairway Downs Zone water system expansion that will provide water system pressure for the portion of the Beaver Creek Road Concept Plan that currently cannot be served by the Upper Zone due to the higher ground surface elevations greater than 480 feet.

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Prior to the Fairway Downs Zone expansion, an interim proposal is recommended which includes the construction of a new CRW water meter at the intersection of Beaver Creek Rd and Glen Oak Rd, a new City owned 12-inch waterline in Beaver Creek Rd (part of the future Fairway Downs Zone expansion system), and connection between the new 12-inch waterline and site waterlines for Beaver Creek Rd Apts. The new CRW water meter shall provide the City with adequate water service to serve the Beaver Creek Rd Apts which includes the needed minimum system operating pressure.

**Land Use Decision, Condition 37**

Condition 37 as initially proposed by staff states:

*37. The applicant shall pay fee-in-lieu of downstream improvements in the Glen Oak Basin required due to the cross basin connection. The amount of the fee-in-lieu shall be \$545,000 in accordance with the documentation provided in the "Public Works Engineering File Memorandum" (November 5, 2014).*

Beaver Creek Road LLC has requested a modification to Condition 37 to allow for reimbursement of the fee imposed for the upsizing of pipes in Glen Oak Road in the event that upsizing is not necessary. As explained above, upsizing is not the only alternative available to accommodate additional flows. Upsizing of pipes or I/I reduction will be necessary to off-set the impacts resulting from re-directing Beaver Creek Road LLC flows into Glen Oak. In the event that Beaver Creek Road LLC flows are redirected back into the Beaver Creek Road basin before the Glen Oak improvements are made, these funds will be used to cover the costs associated with the Beaver Creek Road sewer extension.

Beaver Creek Road LLC has expressed concerns that payment of the fee-in-lieu when coupled with the payment of SDCs and the potential for assessment through a local improvement district provides the City with a "triple dip" recovery for the same impacts. SDCs are used to fund construction or other improvements necessary to provide capacity within the sewer system city-wide; they are not project specific. For example, they could be used to install a trunk line downstream from the Highway 213 improvements identified in the staff report. Further, the City's current SDC assessment structure is based on improvements identified in the City's 2003 Sewer Master Plan, which did not include the identified Glen Oak or Beaver Creek Road improvements.

With regard to concerns over the creation of an LID, any LID assessment created pursuant to OCMC Chapter 3.08 must be proportional to the benefits derived. By complying with the conditions of approval, Beaver Creek Road LLC is paying to offset its impacts and realizing a benefit that would, in effect, preclude assessment through an LID in the future. Therefore, in order to provide greater certainty that the applicant will not have to pay twice for the same benefit, staff recommends the following revisions to Condition 37:

*37. The applicant shall pay fee-in-lieu of downstream improvements in the Glen Oak Basin required due to the cross basin connection. The amount of the fee-in-lieu shall be \$545,000 in accordance with the documentation provided in the "Public Works Engineering File Memorandum". Upon payment of this fee, the creation of any local improvement district to fund gravity sewer extensions in Beaver Creek Road as identified in the City's 2014 Sewer Master Plan, Figure 5-4 that would otherwise include the subject property, shall not be assessed.*