

## Review Letter

HRG RESPONSE: COMMENTS WERE INCORPORATED INTO CITY OF FOUNTAIN REVIEW LETTER (DATED 05/31/22- ATTACHED) ALL OF WHICH ARE ADDRESSED IN THE RESPONSE LETTER AT ATTACHED TO THIS DOCUMENT.

**DATE:** May 4, 2022

**TO:** Ken Huhn, HR Green – Colorado Springs  
*Sent Via Email to:* [khuhn@hrgreen.com](mailto:khuhn@hrgreen.com)

**FROM:** Jonathan Moore, PE, District Engineer

**RE:** The Cottages at Mesa Ridge – Construction Drawings and Final Plat dated April 5, 2022

The above document has been referred to the Fountain Sanitation District (District) for review and comment.

## Construction Drawings (City of Fountain)

### Sheet 1

1. Add FSD signature block

### Sheet 2

1. Remove FSD general service plan notes 1-6, no service lines are proposed with this set of drawings.
2. Remove Sanitary Sewer Construction notes 1-31, but keep FSD Sanitary Sewer Construction Notes 1-31.

### Sheet 7

1. Create a plan and profile sheet with the plan on top and the profile on the bottom of the page.
2. Label the sanitary sewer in the plan view as Prop. San. Swr. (Public) 8" PVC SDR-35.
3. Remove ex. sanitary sewer pipe between MH-01 and MH (Sta: 1+46.12), add a new pipe.
4. Add MH #'s to each manhole.
5. Remove note on profile at sta: 3+56.78 regarding end of City of Fountain Sewer. The sanitary sewer system is all Fountain Sanitation District, we are not part of the City.
6. Add Prop. 8" PVC SDR-35, 208.18LF at 2.97% (Public) to the pipe label in profile view.
7. Show the next manhole to the north in profile view.
8. Show the san. swr. radius in plan view, a minimum of 270' is allowed, the centerline radius is labelled as 200', add additional manholes as needed.
9. Show all utility crossings in profile view, a minimum of 18" of vertical separation is required. Label all vertical separations in profile view.
10. Profile vertical lines should be spaced per the vertical scale. FSD prefers a horizontal scale of 30 and a vertical scale of 5.
11. All san. swr. manholes must be a minimum of 5' in diameter.

### Sheet 8

1. A minimum of 18" vertical separation between san. swr. and storm is required, revised design.

## Sheet 12

1. Remove FSD detail DWG-3B.
2. Add FSD details DWG-3 and 11B.

## Construction Drawings (El Paso County)

### Sheet 1

1. Add FSD signature block.

### All Sanitary Sewer Design P&P Sheets

1. Add FSD signature block.
2. Create a plan and profile sheet with the plan on top and the profile on the bottom of the page, see FSD design regulations, Part B.
3. Label the sanitary sewer in the plan view as Prop. San. Swr. (Public) 8" PVC SDR-35.
4. Add Prop. 8" PVC SDR-35, xxxx LF at x.xx% (Public) to the pipe label in profile view.
5. Show the san. swr. radius in plan view, a minimum of 270' is allowed, add additional manholes as needed.
6. Show all utility crossings in profile, a minimum of 18" of vertical separation is required. Label all vertical separations in profile view.
7. Profile vertical lines should be spaced per the vertical scale. FSD prefers a horizontal scale of 30 and a vertical scale of 5.
8. All san. swr. manholes must be a minimum of 5' in diameter.

### Sheet 13

1. Scale up drawing to a minimum of 1"=30'
2. FSD needs to be able to drive our vac truck to Manhole #4, reconfigure your site layout.
3. In Typical Service Detail – change one-way clean-out to two-way clean-out.
4. Duplexes require two san. swr. service lines.
5. For duplexes that are stacked, how is the builder going to connect two san. swr. service lines?

### Sheet 14

1. Show all sanitary sewer line crossings with vertical separation.

### Sheet 16

1. Remove FSD detail DWG-3B
2. Add FSD details DWG- 3A, 8B, and 11B.

## Final Plat

### Sheet 3

1. Need a sanitary sewer easement across Fountain Mutual Irrigation Canal.
2. Sanitary/utility easement where Landover Lane enters the site needs to be defined.

<http://fsdnew.fountainsanitation.com/>

Please contact Fountain Sanitation District with any questions or comments.



# Community Services Planning Department

May 31, 2022

Ken Huhn  
HR Green  
1975 Research Parkway Suite 230  
Colorado Springs, CO 80920

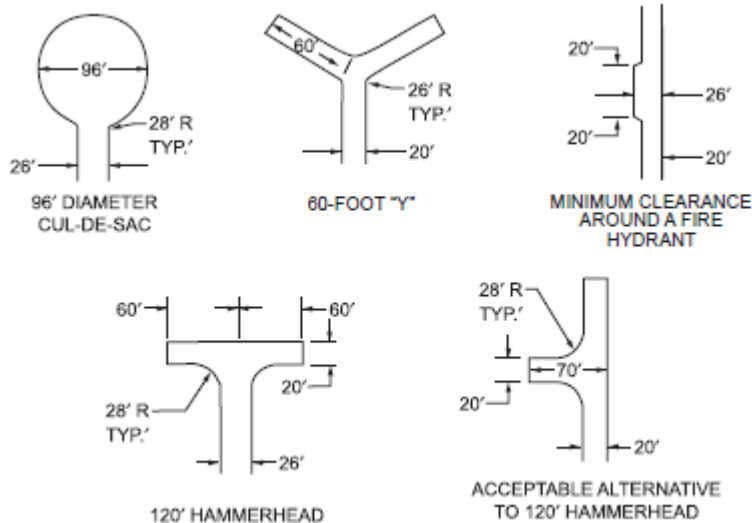
Reference: Cottages at Mesa Ridge Construction Plans – Lanover Lane

Dear Mr. Huhn:

I have completed my initial review of the Cottages at Mesa Ridge Construction Plans for the extension of Lanover Lane to the El Paso County project known as Cottages at Mesa Ridge. The property is generally located northeast of the intersection of Sneffels Road and Lanover Lane. The following are items that need to be corrected and/or modified. Once you have made the revisions, please provide 4 full size and one reduced (11 X 17) copy of the plan to the Planning Department along with a written response to all comments.

## FOUNTAIN FIRE DEPARTMENT

- Requires all Fire apparatus access road turnarounds be designed by the following dimensions.



- The minimum turning radius shall be 30' interior, 50' exterior
- Fire apparatus access roads shall not exceed 10 percent in grade.
  - {Intentionally left blank}

## FOUNTAIN ELECTRIC DEPARTMENT

Upon review the materials submitted for this project the City of Fountain Electric Department has determined that the storm drain to be installed in Landover Lane could be conflict with the existing underground electric infrastructure. The owner/contractor will be responsible for any costs associated with relocating any existing electric infrastructure should it interfere with your project.

Please note that the developer will be required to provide all on site and off site easements to serve this development, to include easements that will provide a redundant electric loop feed to ensure reliable service for the entire project. The developer will also be responsible for any costs associated with all on-site and off-site improvements included line extensions and street lighting, etc.

## FOUNTAIN SANITATION DISTRICT **Construction Drawings (City of Fountain)**

### **Sheet 1**

1. Add FSD signature block

### **Sheet 2**

1. Remove FSD general service plan notes 1-6, no service lines are proposed with this set of drawings.
2. Remove Sanitary Sewer Construction notes 1-31, but keep FSD Sanitary Sewer Construction Notes 1-31.

### **Sheet 7**

1. Create a plan and profile sheet with the plan on top and the profile on the bottom of the page.
2. Label the sanitary sewer in the plan view as Prop. San. Swr. (Public) 8" PVC SDR-35.
3. Remove ex. sanitary sewer pipe between MH-01 and MH (Sta: 1+46.12), add a new pipe.
4. Add MH #'s to each manhole.
5. Remove note on profile at sta: 3+56.78 regarding end of City of Fountain Sewer. The sanitary sewer system is all Fountain Sanitation District, we are not part of the City.
6. Add Prop. 8" PVC SDR-35, 208.18LF at 2.97% (Public) to the pipe label in profile view.
7. Show the next manhole to the north in profile view.
8. Show the san. swr. radius in plan view, a minimum of 270' is allowed, the centerline radius is labelled as 200', add additional manholes as needed.
9. Show all utility crossings in profile view, a minimum of 18" of vertical separation is required. Label all vertical separations in profile view.
10. Profile vertical lines should be spaced per the vertical scale. FSD prefers a horizontal scale of 30 and a vertical scale of 5.
11. All san. swr. manholes must be a minimum of 5' in diameter.

### **Sheet 8**

1. A minimum of 18" vertical separation between san. swr. and storm is required, revised design.

### **Sheet 12**

1. Remove FSD detail DWG-3B.
2. Add FSD details DWG-3 and 11B.

### **Construction Drawings (El Paso County)**

#### **Sheet 1**

1. Add FSD signature block.

#### **All Sanitary Sewer Design P&P Sheets**

1. Add FSD signature block.
2. Create a plan and profile sheet with the plan on top and the profile on the bottom of the page, see FSD design regulations, Part B.
3. Label the sanitary sewer in the plan view as Prop. San. Swr. (Public) 8" PVC SDR-35.
4. Add Prop. 8" PVC SDR-35, xxxx LF at x.xx% (Public) to the pipe label in profile view.
5. Show the san. swr. radius in plan view, a minimum of 270' is allowed, add additional manholes as needed.
6. Show all utility crossings in profile, a minimum of 18" of vertical separation is required. Label all vertical separations in profile view.
7. Profile vertical lines should be spaced per the vertical scale. FSD prefers a horizontal scale of 30 and a vertical scale of 5.
8. All san. swr. manholes must be a minimum of 5' in diameter.

#### **Sheet 13**

1. Scale up drawing to a minimum of 1"=30'
2. FSD needs to be able to drive our vac truck to Manhole #4, reconfigure your site layout.
3. In Typical Service Detail – change one-way clean-out to two-way clean-out.
4. Duplexes require two san. swr. service lines.
5. For duplexes that are stacked, how is the builder going to connect two san. swr. service lines?

#### **Sheet 14**

1. Show all sanitary sewer line crossings with vertical separation.

#### **Sheet 16**

1. Remove FSD detail DWG-3B
2. Add FSD details DWG- 3A, 8B, and 11B.

### **CITY ENGINEER**

The City of Fountain Engineering Department reviews plans and reports to ensure general conformance with the adopted standards and criteria. The engineering consultant is responsible for compliance with all applicable criteria, including other governmental regulations. Notwithstanding anything depicted in the plan in words or graphic representation, all design and construction related to roads, storm drainage, and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted criteria the City of Colorado Springs Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any modifications necessary to meet overlooked criteria after-the-fact will be the

developer's responsibility to rectify.

The following are Engineering Department comments regarding the submitted documents for the subject application. A written response to all comments is required for review of the re-submittal. Additional comments may be generated on items added or altered after the original comments.

#### Grading and Erosion Control Plans

The City of Fountain follows the City of Colorado Springs Stormwater Construction Manual (SCM) and Drainage Criteria Manual (DCM) standards for temporary and permanent BMP's. These criteria must be used for the preparation of the Grading and Erosion Control plan. The following comment are from the SCM manuals' check list.

1. General vicinity map – Show the relationship of the site to existing and planned roadways, jurisdictional boundaries, major creeks, and streams. – **Needed. Show the jurisdictional boundary on the map and label Landover Lane.**
2. Standard GEC Plan notes – See Appendix C. – **Needed.**
3. Cost estimate of the Construction Control Measures including seeding and all installation and maintenance until final stabilization is achieved. A minimum of 40% of the total cost shall be added to the cost estimate for maintenance. A unit price list may be obtained from the ~~Stormwater Enterprise~~ City of Fountain Engineering Department. - **Needed. See attached Financial Assurance Form. Note, the assurance must be posted prior to plan approval.**
4. Property lines for the site on which the work will be performed. – **Needed. Please add a legend item or label the right-of-way line on the plan.**
5. Vegetation – existing vegetation to remain and proposed seeding areas. A note referencing the Landscaping Plan must be included on the GEC Plan if proposed vegetation will not be shown. – **Needed.**
6. Flow arrows that depict stormwater flow directions. – **Needed.**

#### Miscellaneous Grading and Erosion Control Plan Comments

1. What is the source of the topographic base mapping? Was the pond and storm sewer route surveyed?
2. Provide erosion control blanket in all areas that have 3:1 slopes or greater (i.e. – all along the north side of Landover Lane).
3. On sheet 10, please provide additional pond information (e.g. – Full spectrum extended detention basin label, contours, access road, all inflow pipes, label Landover Lane, property lines, micropool, trickle channel, etc.). Note – if a micropool or any other permanent extended detention basin feature does not exist, installation will be required to bring the facility into full compliance.
4. On sheet 10, label the existing orifice hole sizes and show the entire proposed orifice label.
5. Label all proposed elevations on the outlet structure detail (i.e. – water surface for minor and major storms, EURV and WQCV).
6. How is the proposed portion of the outlet structure going to connect to the existing structure? Please provide additional information.
7. Provide energy dissipation measures (includes details) for all outlet structure and outfall piping.

8. Any off-site improvements will necessitate property owner permission to construct on their property. This must be in the form of a signature block on the plans or a signed letter and exhibit showing the area affected.
9. All pond elements must be improved to current standards.
10. Provide a full map of the pond facility and include labels for all elements.

### Street Plans

The City of Fountain follows the City of Colorado Springs Subdivision Policy Manual (see Plan and Profile check list in Chapter 6, section 6.5) and Traffic Manual. This criteria must be used for the preparation of the street and signing & striping plans.

1. Provide a truck turning template exhibit to ensure fire trucks can make the turnaround movement within the cul-de-sac.
2. Remove the Public Works Department Approval block. Each agency has their own signature block requirements. Note – Fountain Sanitation District is not a City of Fountain agency.
3. Label the proposed curb and gutter and include the height and type (i.e. – ramp or vertical curb).
4. Label the utility easement width and included the ownership of the easement.
5. Verify there is adequate line of sight for the vertical curve and the eyebrow turning movement(s).
6. The City of Fountain requires 6' wide attached sidewalks.
7. Show and label the proposed storm sewer system, size, type and material.
8. Vertical curves are needed for the eyebrow flow line design profile, otherwise grade breaks are being proposed. Note - a 1% grade break is permitted. A cross pan is require between the typical Landover cross section and the knuckle.
9. Please label the high point in the private drive (Pitcher Point) at the end of the street improvements to ensure flow does not turn the corner and head west. Please verify the correct drainage pattern is to the south. Note that if the flow direction is supposed to go to the south, then a cross pan will be required.



10. On the typical section, please reference a City of Colorado Springs standard curb and gutter type and if vertical curb, call out a height of either 6" or 8" (the height needs to match the existing curb height currently installed in Landover Lane).

### Storm Sewer Plans

The City of Fountain follows the City of Colorado Springs Drainage Criteria Manual (DCM), Volume 1 and associated policy clarifications. These criteria must be used for the preparation

of the storm sewer plans. Specific comments based on your current design submittal are as follows:

1. The City of Fountain requires all storm sewer to be privately owned and maintained. Revise all callouts and state who will own and maintain the system.
2. Per criteria, the minimum radius for a 24" storm sewer pipe is 270'. Please revise the design accordingly.
3. The drop within manholes cannot exceed 1'. Revise as needed.
4. Provide the minor and major storm HGL's for all pipe segments shown on the plans.
5. Storm sewer utility crossing clearances must be a minimum of 1.5'. A special design for these crossing locations is necessary. Contact the Fountain Sanitation District for additional information.
6. Temporary construction easements may be required due to anticipated excavation depths and trench excavation width constraints. Show and label the anticipated limits of disturbance on the storm sewer plan and state the assumption made (i.e. – open cut or trench box).
7. Label the utility/access easements as existing or proposed. A drainage easement will be necessary for the storm sewer pipe. Easement widths for deep systems must be based on OSHA requirements and DCM criteria. Refer to the DCM for guidance.
8. Correct all typos and overwrites in the profile views.
9. Provide an energy dissipation feature at the 24" RCP outfall. Support calculations must be provided with the drainage report.
10. Specify the RCP pipe strength class.
11. Label each proposed inlet and identify if it is a sump or at-grade type.
12. Storm sewer manholes for systems in excess of 15' deep must be specially designed for access/maintenance. Refer to criteria for design guidance.
13. All system components with depths in excess of 15' must be designed to have a service life of 100 years.
14. Provide reinforcement for the outlet structure modification connection to the existing structure (e.g. – dowels).

#### Miscellaneous Comments

1. Provide a Storm Water Management Plan with the next submittal.
2. Provide a copy of the existing Inspection and Maintenance Plan for the pond facility. Updates to the Plan may be necessary due to potential changes in the pond.

#### WIDEFIELD WATER

No comments.

The following agencies have not provided comments as of the date of this letter. If comments are received, they will be forwarded to you for review and comment.

Black Hills Energy

CenturyLink

Comcast

This concludes the review comments on the drawings and documents for the above project. Should you have any questions, please feel free to contact me at (719) 322-2015.



Sincerely,

Kristy Martinez, AICP  
Planning Supervisor

CC: File

August 22, 2022

Kristy Martinez, AICP

Planning Supervisor  
 City of Fountain

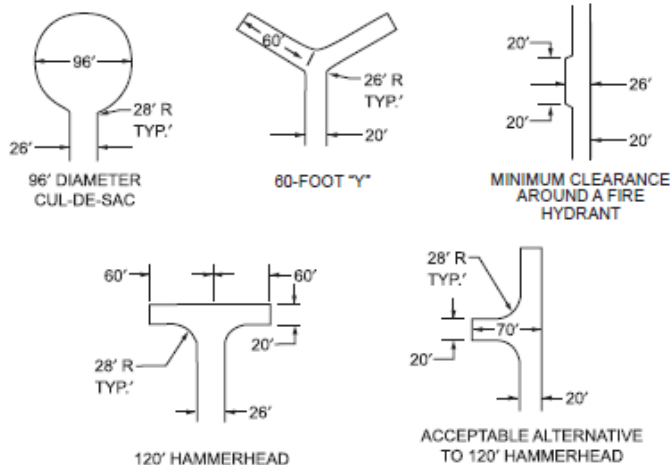
Re: Cottages at Mesa Ridge Construction Plans – Landover Lane

Dear Kristy Martinez,

We are in receipt of your review letter dated May 31, 2022. Below is a point-by-point response to these comments prepared in coordination with the (Developer) and Design Team.

### Fountain Fire Department

- Requires all fire apparatus access road turnarounds be designed by the following dimensions:



**Response:** Fire access turnaround has been revised to a 'Acceptable Alternative to 120' hammerhead' as shown above.

- Fire apparatus access roads shall not exceed 10 percent in grade.

**Response:** Noted. Fire access road does not exceed 10 percent in grade.

### Fountain Electric Department

- Upon review the materials submitted for this project the City of Fountain Electric department has determined that the storm drain to be installed in Landover Lane could be conflict with the existing underground electric infrastructure. The owner/contractor will be responsible for any costs associated with relocation any existing electric infrastructure should it interfere with your project.

**Response:** Noted.

- Please note that the developer will be required to provide all on site and off site easements to serve this development, to include easements that will provide a redundant electric loop feed to ensure reliable service for the entire project. The developer will also be responsible for any costs associated with all on-site and off-site improvements included line extensions and street lighting etc.

**Response:** Noted.

## Fountain Sanitation District

---

### Construction Drawings (City of Fountain)

#### Sheet 1

1. Add FSD signature block  
**Response: Not addressed. Updated survey determined sanitary constructed across FMIC and no sanitary proposed within this set any longer.**

#### Sheet 2

1. Remove FSD general service plan notes 1-6, no service lines are proposed with this set of drawings.  
**Response: Addressed, notes removed.**
2. Remove Sanitary Sewer Construction notes 1-31 but keep FSD Sanitary Sewer Construction Notes 1-31.  
**Response: Addressed, however; all notes removed as sewer no longer proposed within this set of plans.**

#### Sheet 7

1. Create a plan and profile sheet with the plan on top and the profile on the bottom of the page.  
**Response: Sheet has been removed. Updated survey determined sanitary constructed across FMIC.**
2. Label the sanitary sewer in the plan view as Prop. San. Swr. (Public) 8" PVC SDR-35.  
**Response: Sheet has been removed. Updated survey determined sanitary constructed across FMIC.**
3. Remove ex. sanitary sewer pipe between MH-01 and MH (Sta: 1+46.12), add a new pipe.  
**Response: Sheet has been removed. Updated survey determined sanitary constructed across FMIC.**
4. Add MH #'s to each manhole.  
**Response: Sheet has been removed. Updated survey determined sanitary constructed across FMIC.**
5. Remove note on profile at sta: 3+56.78 regarding end of City of Fountain Sewer. The sanitary sewer system is all Fountain Sanitation District, we are not part of the City.  
**Response: Sheet has been removed. Updated survey determined sanitary constructed across FMIC.**
6. Add Prop. 8" PVC SDR-35, 208.18LF at 2.97% (Public) to the pipe label in profile view.  
**Response: Sheet has been removed. Updated survey determined sanitary constructed across FMIC.**
7. Show the next manhole to the north in profile view.  
**Response: Sheet has been removed. Updated survey determined sanitary constructed across FMIC.**
8. Show the san. swr. radius in plan view, a minimum of 270' is allowed, the centerline radius is labelled as 200', add additional manholes as needed.  
**Response: Sheet has been removed. Updated survey determined sanitary constructed across FMIC.**

9. Show all utility crossings in profile view, a minimum of 18" of vertical separation is required. Label all vertical separations in profile view.  
**Response: Sheet has been removed. Updated survey determined sanitary constructed across FMIC.**
10. Profile vertical lines should be spaced per the vertical scale. FSD prefers a horizontal scale of 30 and a vertical scale of 5.  
**Response: Sheet has been removed. Updated survey determined sanitary constructed across FMIC.**
11. All san. swr. manholes must be a minimum of 5' in diameter.  
**Response: Addressed, manhole diameters set to 5'.**

#### Sheet 8

1. A minimum of 18" vertical separation between san. swr. and storm is required, revised design.  
**Response: Sheet has been removed. Updated survey determined sanitary constructed across FMIC.**

#### Sheet 12

1. Remove FSD detail DWG-3B.  
**Response: Addressed, detail removed.**
2. Add FSD details DWG-3 and 11B.  
**Response: Detail sheets have been removed. No proposed sanitary sewer within Fountain CD set.**

#### Construction Drawings (El Paso County)

##### Sheet 1

1. Add FSD signature block.  
**Response: Addressed.**

##### All Sanitary Sewer Design P&P Sheets

1. Add FSD signature block.  
**Response: Addressed.**
2. Create a plan and profile sheet with the plan on top and the profile on the bottom of the page, see FSD design regulations, Part B.  
**Response: Addressed. Plan and profile adjusted accordingly.**
3. Label the sanitary sewer in the plan view as Prop. San. Swr. (Public) 8" PVC SDR-35.  
**Response: Labels updated.**
4. Add Prop. 8" PVC SDR-35, xxxx LF at x.xx% (Public) to the pipe label in profile view.  
**Response: Labels updated.**
5. Show the san. swr. radius in plan view, a minimum of 270' is allowed, add additional manholes as needed.  
**Response: Addressed, curvilinear sections not meeting minimum radius have been removed/revised.**
6. Show all utility crossings in profile, a minimum of 18" of vertical separation is required. Label all vertical separations in profile view.

**Response: All utility crossings are shown in profile view with a minimum 18" vertical separation.**

7. Profile vertical lines should be spaced per the vertical scale. FSD prefers a horizontal scale of 30 and a vertical scale of 5.

**Response: Profile views adjusted to show vertical lines. Vertical scale set at 3.**

8. All san. swr. manholes must be a minimum of 5' in diameter

**Response: Addressed.**

### Sheet 13

1. Scale up drawing to a minimum of 1"=30'

**Response: Plan and profile scale adjusted to 1"=30'.**

2. FSD needs to be able to drive our vac truck to Manhole #4, reconfigure your site layout.

**Response: Site layout has been revised to provide access to all manholes.**

3. In Typical Service Detail – change one-way clean-out to two-way clean-out.

**Response: Addressed, detail updated to two-way clean outs.**

4. Duplexes require two san. swr. service lines.

**Response: Per coordination with the FSD, the two story (stacked units) will have a single shared service, all other units will have separate service lines.**

5. For duplexes that are stacked, how is the builder going to connect two san. swr. service lines?

**Response: Per coordination with the FSD, the two story (stacked units) will have a single shared service, all other units will have separate service lines.**

### Sheet 14

1. Show all sanitary sewer line crossings with vertical separation.

**Response: All utility crossings are shown in profile view with a minimum 18" vertical separation.**

### Sheet 16

1. Remove FSD detail DWG-3B

**Response: Addressed, detail removed.**

2. Add FSD details DWG- 3A, 8B, and 11B.

**Response: Addressed, detail DWG-3 and 11B added to plans.**

## City Engineer

### Grading and Erosion Control Plans

1. General vicinity map – Show the relationship of the site to existing and planned roadways, jurisdictional boundaries, major creeks, and streams. – Needed. Show the jurisdictional boundary on the map and label Landover Lane.

**Response: EPC and City of Fountain line and label added to vicinity map as well as Landover Lane label.**

2. Standard GEC Plan notes – See Appendix C. – Needed.

**Response: Standard GEC plan notes added.**

3. Cost estimate of the Construction Control Measures including seeding and all installation and maintenance until final stabilization is achieved. A minimum of 40% of the total cost shall be added to

the cost estimate for maintenance. A unit price list may be obtained from the Stormwater Enterprise City of Fountain Engineering Department. - Needed. See attached Financial Assurance Form. Note, the assurance must be posted prior to plan approval.

**Response: Addressed, FAE has been completed for the GEC plans and included with this submittal.**

4. Property lines for the site on which the work will be performed. – Needed. Please add a legend item or label the right-of-way line on the plan.

**Response: Additional property line and ROW labels added to plan. Please note that this GEC plan is for the offsite improvements and does not include onsite area of the Cottages at Mesa Ridge development. The 'site' is the existing ROW of Landover Lane and the proposed utility easement along the west side of Landover Lane.**

5. Vegetation – existing vegetation to remain and proposed seeding areas. A note referencing the Landscaping Plan must be included on the GEC Plan if proposed vegetation will not be shown. – Needed.

**Response: Addressed, note added to GEC plans referencing the landscaping plans for final vegetation/landscaping.**

6. Flow arrows that depict stormwater flow directions. – Needed.

**Response: Addressed, existing and proposed flow arrows added to plan.**

#### **Miscellaneous Grading and Erosion Control Plan Comments**

1. What is the source of the topographic base mapping? Was the pond and storm sewer route surveyed?

**Response: Field survey was the source of the topographic mapping for the on-site area, storm sewer route along Landover lane, and the pond outlet structure. The pond area contours were not surveyed, contours shown based on provided design data and pond volume based on record drawing dated 02/25/11 included in FDR for reference).**

2. Provide erosion control blanket in all areas that have 3:1 slopes or greater (i.e. – all along the north side of Landover Lane).

**Response: Addressed, erosion control blanket added to all 3:1 slopes or greater.**

3. On sheet 10, please provide additional pond information (e.g. – Full spectrum extended detention basin label, contours, access road, all inflow pipes, label Landover Lane, property lines, micropool, trickle channel, etc.). Note – if a micropool or any other permanent extended detention basin feature does not exist, installation will be required to bring the facility into full compliance.

**Response: Addressed, additional information regarding the pond volume, release rates etc added to sheet 10. Per meeting at the City of Fountain on June 28, 2022, only the modifications to the outlet structure will be required.**

4. On sheet 10, label the existing orifice hole sizes and show the entire proposed orifice label.

**Response: Addressed. Detail has been revised and existing plate will no longer be re-used. Proposed plate detail added to plans without existing orifice holes.**

5. Label all proposed elevations on the outlet structure detail (i.e. – water surface for minor and major storms, EURV and WQCV).

**Response: Addressed, WQCV, EURV, 5-year and 100-year water surface elevations added to outlet structure detail.**

6. How is the proposed portion of the outlet structure going to connect to the existing structure? Please provide additional information.  
**Response: Addressed, see outlet structure modification sheet. The plan shows a detail of the existing conditions/required demolition and a second detail of the modifications to the existing structure. Additional structural details and notes provided for how the connection will be constructed.**
7. Provide energy dissipation measures (includes details) for all outlet structure and outfall piping.  
**Response: Addressed, a riprap energy dissipation pad has been provided at the proposed outfall of the 24" RCP storm sewer on the north side of Landover Lane.**
8. Any off-site improvements will necessitate property owner permission to construct on their property. This must be in the form of a signature block on the plans or a signed letter and exhibit showing the area affected.  
**Response: Noted, the proposed off site storm sewer will be contained in a new Drainage Easement. Improvements within the FMIC right-of way will be allowed by the FMIC via an agreement (Draft agreement provided with this resubmittal). Executed easements and agreements will be provided prior to final approval. A signature block for the Mesa Ridge Metropolitan District No. 1 has been added to sheet.**
9. All pond elements must be improved to current standards.  
**Response: Per meeting at the City of Fountain on June 28, 2022, only the modifications to the outlet structure will be required.**
10. Provide a full map of the pond facility and include labels for all elements.  
**Response: Addressed, map added to Sheet 9.**

### Street Plans

1. The City of Fountain follows the City of Colorado Springs Subdivision Policy Manual (see Plan and Profile check list in Chapter 6, section 6.5) and Traffic Manual. This criteria must be used for the preparation of the street and signing & striping plans.  
**Response: Acknowledged, Chapter 6 Section 6.5 & Traffic Manual were utilized for the preparation of these street and signing & striping plans.**
2. Provide a truck turning template exhibit to ensure fire trucks can make the turnaround movement within the cul-de-sac.  
**Response: Truck turning template provided on sheet 7.**
3. Remove the Public Works Department Approval block. Each agency has their own signature block requirements. Note – Fountain Sanitation District is not a City of Fountain agency.  
**Response: Addressed. Block removed and replaced with individual agency approval blocks.**
4. Label the proposed curb and gutter and include the height and type (i.e. – ramp or vertical curb).  
**Response: Curb type and detail added to plans.**
5. Label the utility easement width and included the ownership of the easement.  
**Response: Addressed.**
6. Verify there is adequate line of sight for the vertical curve and the eyebrow turning movement(s).  
**Response: A separate exhibit has been provided to demonstrate adequate sight lines**
7. The City of Fountain requires 6' wide attached sidewalks.  
**Response: Addressed, 5' sidewalks increased to 6' sidewalks along the City of Fountain portion of Landover Lane.**

8. Show and label the proposed storm sewer system, size, type and material.  
**Response: Addressed, storm sewer added to plan.**
9. Vertical curves are needed for the eyebrow flow line design profile, otherwise grade breaks are being proposed. Note - a 1% grade break is permitted. A cross pan is required between the typical Landover cross section and the knuckle.  
**Response: Vertical curves added to flowline profile to remove grade breaks.**
10. Please label the high point in the private drive (Pitcher Point) at the end of the street improvements to ensure flow does not turn the corner and head west. Please verify the correct drainage pattern is to the south. Note that if the flow direction is supposed to go to the south, then a cross pan will be required.  
**Response: See revised drainage calcs. There is no flow-by at DP8 .**
11. On the typical section, please reference a City of Colorado Springs standard curb and gutter type and if vertical curb, call out a height of either 6" or 8" (the height needs to match the existing curb height currently installed in Landover Lane).  
**Response: Addressed, typical section updated with curb & gutter type. Existing curb and gutter in Landover is COS Type 2.**

#### Storm Sewer Plans

The City of Fountain follows the City of Colorado Springs Drainage Criteria Manual (DCM), Volume 1 and associated policy clarifications. These criteria must be used for the preparation of the storm sewer plans. Specific comments based on your current design submittal are as follows:

1. The City of Fountain requires all storm sewer to be privately owned and maintained. Revise all callouts and state who will own and maintain the system.  
**Response: All proposed storm sewer notes as Private.**
2. Per criteria, the minimum radius for a 24" storm sewer pipe is 270'. Please revise the design accordingly.  
**Response: Pipe alignment revised, curves with radius less than 270' have been revised or removed.**
3. The drop within manholes cannot exceed 1'. Revise as needed.  
**Response: The drop into the manhole at station 8+38 exceeds the maximum but cannot be avoided due to the depth of the existing sanitary sewer and existing water line. We are requesting a variance to the criteria at this location.**
4. Provide the minor and major storm HGL's for all pipe segments shown on the plans.  
**Response: Due to the revised reconfiguration of the storm sewer we are requesting an initial review of the latest plan. If this configuration meets with your approval, we will add the HGLs to storm profiles on the next submittal.**
5. Storm sewer utility crossing clearances must be a minimum of 1.5'. A special design for these crossing locations is necessary. Contact the Fountain Sanitation District for additional information.  
**Response: Crossing at sta. 7+60: Storm is 0.83' above the existing sanitary sewer. Due to the depth of the existing water line at sta. 7+72 it is not possible to gain additional separation.**
6. Temporary construction easements may be required due to anticipated excavation depths and trench excavation width constraints. Show and label the anticipated limits of disturbance on the storm sewer plan and state the assumption made (i.e. – open cut or trench box).  
**Response: Temporary construction easements are noted where they are deemed necessary.**



7. Label the utility/access easements as existing or proposed. A drainage easement will be necessary for the storm sewer pipe. Easement widths for deep systems must be based on OSHA requirements and DCM criteria. Refer to the DCM for guidance.  
**Response: Easements labeled accordingly. The proposed drainage easement for the storm pipe has been prepared (recorded copy will be provided once available).**
8. Correct all typos and overwrites in the profile views.  
**Response: Addressed. If we missed any, please specifically note where typos/overwrites are located.**
9. Provide an energy dissipation feature at the 24" RCP outfall. Support calculations must be provided with the drainage report.  
**Response: Riprap energy dissipation pad has been proposed at the 24" RCP outfall. Riprap sizing calculations have been included in Appendix C of the FDR.**
10. Specify the RCP pipe strength class.  
**Response: RCP pipe classification added to plans. See note 1 on storm sewer sheets.**
11. Label each proposed inlet and identify if it is a sump or at-grade type.  
**Response: Addressed, sump and on-grade labels added to inlets.**
12. Storm sewer manholes for systems in excess of 15' deep must be specially designed for access/maintenance. Refer to criteria for design guidance.  
**Response: Storm sewer has been reconfigured to eliminate depths greater than 15'.**
13. All system components with depths in excess of 15' must be designed to have a service life of 100 years.  
**Response: Storm sewer has been reconfigured to eliminate depths greater than 15'.**
14. Provide reinforcement for the outlet structure modification connection to the existing structure (e.g. – dowels).  
**Response: Addressed, reinforcement details provided.**

#### Miscellaneous Comments

1. Provide a Storm Water Management Plan with the next submittal.  
**Response: SWMP report prepared and included with submittal.**
2. Provide a copy of the existing Inspection and Maintenance Plan for the pond facility. Updates to the Plan may be necessary due to potential changes in the pond.  
**Response: We have contacted Bobby Ingels from Norwood Development Group. He has determined that the Mesa Ridge Metro District #1 did not prepare a Maintenance Plan for the pond since it was not required at the time of the initial pond approval. Please provide us with additional guidance on how we should proceed with resolving this comment.**

#### Widefield Water

---

1. No comments.



The Cottages at Mesa Ridge  
August 22, 2022

Sincerely,

**HR GREEN, INC**

*Kenneth M. Huhn*

**Kenneth M. Huhn, P.E.**  
Senior Project Manager

CC: Dave Morrison, Goodwin Knight