



Date: February 8, 2017

To: Stacy Nerger at TheTown of Parker

From: John Prestwich
PCS Group Inc.
1001 16TH St. – B-180
Denver CO 80265

RE: Trails at Crowfoot – PD Amendment, Sketch Plan, Preliminary Plat

Please see response to comments below regarding the first submittal of the PD amendment, Sketch Plan and Preliminary Plat plans for The Trails at Crowfoot Project. Please see attached resubmittal set with revisions per your comments. Please don't hesitate to call with any questions or comments. We look forward to working with you as these plans move forward.

Town of Parker

Subject: Trails at Crowfoot Filing No. 1 – Engineering 1st Review

The Engineering Department has reviewed the documents submitted for Trails at Crowfoot Filing No. 1. The submittal consisted of the following documents:

Based on our review we have the following comments:

Traffic and Roadway Review Comments

The following comments concern traffic, access, roadway design, and construction standard issues for the subject property. They are based upon our review of the submittal documents in accordance with the criteria presented in the Town of Parker's Roadway Design and Construction Criteria Manual (RDCCM), as revised, July 2015. Additional regulatory and planning documents may have been utilized in the review, and are referenced in the comments where appropriate.

Minor comments have been redlined in the accompanying set but excluded from the comments below.

General Comments



1. Please note that with each final plat submittal for this development, all associated Public Improvement obligations will be required to be constructed or otherwise satisfied in accordance with the Annexation Agreement for the Property. The developer will be required to enter into a Subdivision Improvement Agreement codifying these requirements at that time.
(E5X) Response: Acknowledged and noted

Preliminary Plan

1. Please add a Tract Summary Table that defines the use and intended ownership of each tract.
Response: Tract table added, see sheet 2 of Preliminary Plat.
2. Clarify where any blanket easements are intended to be dedicated.
Response: At this time there are no blanket easements planned. Should blanket easements be necessary, they will be defined during the Final Plat phase.
3. Please show any necessary sight easements on the preliminary plan per Town Standard Detail 25. These will be dedicated to the Town at the final plat stage.
Response: CVL is coordinating with the Town staff to add appropriate sight easements where needed. The current plan shows easements per the Town standards.
4. Sheet 4 – label ultimate width of Crowfoot Valley Road right-of-way and the width of right-of-proposed to be dedicated with this development.
Response: Crowfoot Valley Road ultimate ROW width has been added.
5. Sheet 6 – label Street D right-of-way at North Pinery Parkway.
Response: The typical Street D right-of-way has been labeled.

Preliminary Construction Plans

6. On future submittals, use the Town's updated signature block. This has been uploaded to Trakit.
Response: The updated Town signature block has been added to the Preliminary Plan.
7. The Street E intersections with Street Y and Street Z do not meet Town criteria for intersection spacing, both with each other and with North Pinery Parkway. Residential Collector roadways require 425 feet for full movement access points and 250 for restricted movements.
Response: Street Z has been modified to a cul-de-sac with emergency access only to Street E.



8. At local-to-local intersections located adjacent to collector roadways, it should be confirmed that adequate intersection sight distance is being provided for conflicting movements. This specifically applies to left turns that may be in conflict with traffic turning off the collector (i.e. left turns from Street I to Street D in the face of right turns from North Pinery Pkwy) Generally, lower speeds than posted can be assumed for the turning movements these areas, and between 175 feet and 200 feet of ISD is typically appropriate per AASHTO.
[Response: Sight distance lines have been added to the plans, and discussed in a meeting with Town staff.](#)
9. Please investigate reconfiguring the proposed lot layout to shift the northern leg of Street H south from Street E. It may be advantageous to design Street H in this area as a private road, which would not be required to adhere to Town's geometric criteria and standard roadway templates.
[Response: Street configurations have been removed from Planning Area 35 and 36. Proposed internal street configurations will be submitted in a separate submittal in the future.](#)
10. On future submittals, provide separate sheets for separate the roadway and storm sewer profiles.
[Response: The storm sewer information has been removed from the roadway sheets and included as separate sheets.](#)
11. Show all utility crossings are shown on the storm sewer profiles, and ensure that a minimum of 18 inches of separation is provided between storm sewer and water or sanitary crossings.
[Response: Utility crossings have been added to the storm sewer profiles and the separation distance has been labeled.](#)
12. Please ensure that all intersections adhere to the Town's criteria for minimum curb radii (Table 4-8 of the *Roadway Design and Construction Criteria Manual*). This may have impacts to proposed right-of-way radii/dimensions.
[Response: Curb radii has been reviewed and is in compliance with the *Roadway Design and Construction Criteria Manual*.](#)
13. Crosspans will be necessary at local-local intersections where there is a negative slope and a sag condition leading into the intersection (i.e. the intersection of Street A and Street B).
[Response: Cross pans have been added at the intersections of Street A and B.](#)



14. Pavement widths and radii for Streets AA, BB, and U will need to be evaluated for on-street parking as well as fire-life safety regulations. Please coordinate with Town staff to resolve this issue. This may affect the necessary right-of-way or easement width for these roadways.

[Response: Pavement widths have been increased to 24' in Streets AA, BB, and U.](#)

Landscape Plans

15. On future submittals, please include storm sewer on the landscape plans and ensure no trees are placed within seven feet of any storm sewer.

[\(PCS\) Response: Storm sewer is shown on the plans and no trees are located within 7' of it.](#)

16. Show sight triangles on the landscape plans and ensure no trees or plantings taller than three feet are placed within the sight triangles.

[\(PCS\) Response: Sight Triangles are shown on the landscape plans and no trees and shrubs taller than 3' are placed within them and tree canopies will be no lower than 8 feet within the sight triangle. This note has been added to page L0.2.](#)

Stormwater Review Comments

The following comments concern drainage, erosion and sediment control, and non-point source pollution control issues for the subject property. They are based upon our review of the submittal documents against the criteria presented in the Town of Parker's, *Storm Drainage and Environmental Criteria Manual (SDECM)*, as revised, February, 2014. Additional regulatory and planning documents were utilized in the review, and are referenced in the comments where appropriate.

Preliminary Drainage Report

17. On future submittals, please include the "Inlet Management" sheet from the UD-Inlet workbook to facilitate a full review of the storm sewer system.

[Tables on drainage map updated to reflect similar information so Inlet Management sheet not provided. \(Acknowledged through correspondence with reviewer\).](#)

18. Please revisit the flow summary table on the drainage map – provide direct flow and cumulative flow columns to facilitate review.

[Basin summary and Design Point summary tables added to drainage map. Basin summary corresponds to "direct flow" and Design Point summary to "cumulative flow".](#)

19. Please revisit the proposed inlet spacing in regards to maximum allowable gutter capacity for the initial storm; it appears several areas are in violation of this criteria. An



updated criteria for maximum allowable gutter capacity that reflects the current street templates has been uploaded for your use.

[Inlet design updated based on updated criteria.](#)

20. Please progress all detention pond sizing in the final drainage report.

[Initial design for detention pond added to final drainage report.](#)

21. Please note that areas of the development proposed to be released undetained will be subject to the Town's compensatory storage requirements. All developed areas should be routed to a detention facility unless it can be demonstrated that it cannot feasibly be done.

[All developed areas are routed through detention facility.](#)

Construction Plans

22. Coordinate offsite pond B tie in with Cielo development drawings and show tie-in locations and details.

[Response: CVL has coordinated with the Cielo development for the tie-in locations for pond B.](#)

23. Address how detention pond from Cielo development flows from the pond outfall to the toe of slope for North Pinery Parkway. This will require a roadside swale.

[Response: The site has been graded to direct the flows from the Cielo detention pond easterly along North Pinery Parkway to the east boundary.](#)

24. Address southern boundary fringe grading flows adjacent to Pond B and how the area will drain.

[Response: The area adjacent to Pond B has been regraded to allow flows into Pond B.](#)

25. Please provide clear design point flows for the sub-regional channel adjacent Crowfoot Valley Road and preliminary drainage way sizing. Also, investigate a wide and shallow drainage way to reduce drops and possibly increase channel slope.

[Channel sections with preliminary drop location provided in drainage report and plans.](#)

26. Please show grading for tributary swales into the regional as shallow low flow water quality channels.

[Swale stability charts indicated that grass lining for swales is not a viable option. Buried riprap is used as lining for all swales. In addition, water quality for the site is provided in Detention Pond A.](#)

27. Please address Pond A location as the approved PD shows it located on the southwest corner of the intersection. A park was designated in the proposed location for pond A.



Response: Pond A was relocated to the north to accommodate the adjacent flood plain elevations with the storage requirements of the pond.

28. Please note that the Pond C outfall location and configuration will require approval from Douglas County Public Works.

Acknowledged.

29. All outfalls to detention ponds shall be via inlets/storm pipe into concrete forebays.

To alleviate the concern of maintenance, shaped concrete drop structure will be provided at end of channel. Pond structural details will be provided with Final Drainage Report.

30. Please show preliminary channel design for the regional channel.

Response: The channel profile and cross section has been added to the drainage report. Final construction documents will include additional detail.

Erosion and Sediment Control Plans

31. Please ensure CBMP plans adhere to Town details. A full review of these plans will be performed at final plat stage.

Response: The final erosion and sediment control plans will include the necessary details per the Town's requirements.

The submittal is not in general conformance with the Town of Parker's *Roadway Design and Construction Criteria Manual* and *Storm Drainage and Environmental Criteria Manual*. The submittal must be revised and re-submitted for review. All submittals should be through the Town Community Development Department, accompanied by a letter that responds to each comment herein. Direct submittals to the Engineering Department will not be accepted. An attempt has been made to identify all of the items that do not meet the Town of Parker's design criteria; however, it remains the developer's responsibility to ensure that all criteria are met.

If you have any questions regarding the comments please do not hesitate to contact the Engineering Department at (303) 840-9546.

Douglas County

Project Name: Trails at Crowfoot F1 Preliminary Plan

Project Number: SUB16-051 **Jurisdiction:** Town of Parker

Date Received: 2016-11-15 00:00:00 **Due Date:** 2016-12-09 00:00:00



Addressing Comments:

You may begin proposing street names for approval to be placed on the final plat. Please follow these instructions to find possible names to propose: In the Search box from www.douglas.co.us enter a query such as NAMING STREETS. The results should include a link called ADDRESS AND STREET NAMING - DOUGLAS COUNTY COLORADO. This will take you to a page with a link called DOUGLAS COUNTY STREET NAME REFERENCE which will open a spreadsheet of all the streets currently in our database. On the next screen, click on VIEW DATA. An associated instruction pdf for using this spreadsheet can be found by clicking on the red ABOUT box in the upper right corner, then scrolling down to the ATTACHMENT called HOW TO NAME STREETS IN DOUGLAS COUNTY.pdf. The spreadsheet is easiest to use if downloaded to Excel by clicking on the light blue EXPORT button and choosing CSV FOR EXCEL.

The dark blue FILTER button may also be used. If filtering, click on ADD A NEW FILTER CONDITION and change STREET_EID to STREET_NAME. Then change IS to CONTAINS. From that point the proposed name can be typed into the query box and the Enter button will bring up existing results.

[Response: Proposed street names have been submitted to Chris Boyd at the County for approval and will be added to the final plan sets.](#)

Planner Comments:

Thank you for providing the opportunity for Douglas County Community Development to provide comment. Douglas County Planning Services has reviewed the project for consistency with the Town of Parker and Douglas County Intergovernmental Agreement (IGA) and Comprehensive Development Plan. The proposal is within Region 1 of the Town Urban Growth Area and is required to comply with Section 5.0 of the IGA. Following review of the development requirements within Section 5.1, the proposal appears compliant with the IGA requirements for development within the Urban Growth Area adjacent to a Community Separation Buffer Area. In addition to Planning Services comments, please see the Douglas County Engineering Services December 7, 2016 comments regarding this project. Planning Services agrees with and supports the comments provided by Engineering Services.

Engineering Comments:

Engineering has reviewed the Preliminary Plan (external referral) for the above Referenced project and the following comments have been generated:

1. Please submit an updated Traffic Impact Study (TIS) to Douglas County Engineering for review and comment. It is unclear what lane length, taper length and additional right-of-way (ROW) will be required along Bayou Gulch Road for the south bound accel lane from Street D.

[Response: An updated traffic impact study will be provided during the final design phase.](#)



2. Please verify that Street D is, in fact, proposed as a right in/ right out access to Bayou Gulch Road as required by the County.

[Response: In the interim condition, a left turn will be permitted. In the ultimate condition, Street D will be a right in/right out access to Bayou Gulch Road.](#)

3. Please provide the County with an electronic CADD file of the alignment of North Pinery Pkwy as it passes thru this subdivision. This alignment is required to be incorporated into the County's final alignment for North Pinery Pkwy as it extends eastward to HWY 83.

[Response: An electronic CAD file will be provided to the County.](#)

4. As the Cielo Subdivision to the southeast of this preliminary plan is in the platting stages, please verify that Trails at Crowfoot Street E "lines up" with Cielo Street A at their common boundary.

[Response: CVL has coordinated with the Cielo project to "line up" with Street E.](#)

Town of Parker

To: John Prestwich, Matt Janke

From: Patrick Mulready, Senior Planner, Town of Parker Community Development Department

Date: December 15, 2016

Requested PD Amendment, Sketch & Preliminary Plan

Case Files Z16-035, SUB16-050 & SUB16-051

Hess Ranch PO Amendment 1 and Filing 1 Sketch/Preliminary Plan (11The Trails at Crowfoot")
(First Submittal)

The following are the comments on your application. All comments must be responded to and if you disagree with a comment, please indicate the reasoning of your disagreement. Please sign and return this memo with your next submittal. If you have any questions or desire a follow-up meeting with the reviewing agencies to obtain additional guidance, please contact me to arrange a time



PD Amendment

1. The applicant is not proposing any increase in dwelling units or overall residential density. The PD Amendment is intended to shift internal planning areas around in order to accommodate an alignment for North Pinery Parkway as it departs the subject property to the east, into open space areas within Douglas County. The requested modifications, given these factors, are actually fairly minor compared to the currently approved Planned Development for this portion of Hess Ranch southeast of Crowfoot Valley Road. Staff therefore has no comment other than to ensure the Development Plan page contains the necessary signature blocks for Planning Commission, Town Council and Douglas County Clerk & Recorder Acceptance.

Complied: Yes

(PCS) Response: The Signature blocks have been added as requested

Sketch/Preliminary Plan:

2. Hess Ranch/Trails at Crowfoot has an interesting challenge from a neighborhood planning perspective: It is bisected by a regional arterial roadway (Chambers Road) which is anticipated to carry large volumes of traffic. As such, the challenge is how to make both halves of the Hess Ranch/Trails at Crowfoot develop in a way where they cohesively interact. Staff believes that the key to this is at the pedestrian scale, particularly as it pertains to the two planned signalized intersections crossing Chambers Road. (See the attached map.)

As part of a resubmittal, staff would like the applicant to address how to make those intersections friendly for pedestrians with close up details of the methods the applicant intends to employ. This can include enhanced paving details to visually differentiate the crosswalk, comfortable pedestrian refuges at mid-street median crossing, landscape features at all four corners which mirror one another or extend a landscape theme around the entire intersection, enhanced landscaping within the medians, or other methods to make these intersections less of a psychology barrier at the pedestrian level and more of an opportunity to link both sides of Chambers Road together.

Complied: Yes

Response: A color concrete crosswalk was added to those 2 lighted intersections along Chambers road. Similar landscaping and a secondary monument was also added to the corners opposite each other to show that the two halves cohesively interact.

3. Sheet 1 of the Sketch/Preliminary Plan exhibit contains a land use summary table. We would like a bit more substance to the categories of land use and would recommend following this type of format: (See Table)

Complied: Yes



Response: An updated land use summary table has been added to the plan.

4. Similar to item 3, a Tract Table, identifying tracts by size, function and future ownership condition should be included. It might be worthwhile to consolidate both the Land Use Summary Table and Tract Table onto a new sheet right behind the cover sheet. Item 5 will explain why.

Complied: Yes

Response: Tract Table and Land Use Summary Chart have been added to Sheet 2 of Preliminary Plat.

5. A Preliminary Plan can be thought of as a dress rehearsal of the Final Plat. Thus, the cover sheet must utilize the same Certifications and Signature Blocks as are required on a Final Plat. The applicant can find the text of the required Certifications in Section 13.07.130 of the Town's Land Development Ordinance.

Complied: Yes

Response: All required signature blocks and certifications have been added to sheets 1 and 2 of the Preliminary Plat.

6. Staff appreciates the detail included in the Park Facilities Master Plan. It is staff's understanding that the applicant is in discussions with the Town's Recreation Department about partnering on a design for the large 17-acre park within the development, and after construction of the agreed Regional Park amenities, the park would be dedicated to the Town for ownership and maintenance, minus and neighborhood pool facilities. Staff is unable to ascertain if the design shown on the Parker Facilities master plan for this large park are consistent with the discussions the applicant has been having with representatives of our Recreation Department. We encourage the applicant to continue to work with our Recreation Department and provide staff with a summary of what design decisions have been made concerning how the park is to be programmed as a regional amenity to be owned by the Town as part of a resubmittal of the project.

Complied: Yes

(PCS) Response: Modifications to the Park have been done based on the comments from the Parks Department meeting on January 23rd, 2017.

7. The existing conditions map indicates that near the southerly boundary of the site, south of the Arapahoe Canal, there is existing vegetation. The Town will require a survey of this vegetation to confirm its size, species and condition in order to assess whether these existing plant species are subject to Tree and Shrub Mitigation under the Town's Land Development Ordinance. As part of the resubmittal of this project, the applicant should consult an arborist to inventory the plant species identified on the Existing Conditions Map and provide an



assessment of the condition of the vegetation. This information will be reviewed by both Planning staff and the Town's Open Space and Forestry Manager to determine its status relative to mitigation.

Complied: Yes

Response: An existing conditions map and a tree conservation plan showing existing vegetation is located on the Preliminary Landscape Plans on pages L0.3-L0.6.

8. Please compile a list of potential internal street names, including for the private streets associated with PAS and PA6. These should be submitted to Chris Boyd at the Douglas County Planning Department to confirm the names are not duplicates of names being used elsewhere in Douglas County. Once the County has confirmed the applicant's chosen names are not duplicates, these may be applied to the internal street network shown on the Sketch/Preliminary Plan exhibit with the revised submittal, and carried forward to the future Final Plat.

Complied: Yes

Response: Proposed street names have been submitted to Chris Boyd at the County for approval and will be added to the final plan sets.

Please sign below and acknowledge that all items referenced in this letter have been reviewed and complied with, or have been provided with an explanation concerning non-compliance.

Property Owner

Date

Print Name:-----

Title:

Project Representative (if different from Property Owner)

John Prestwich

02/08/2017

Print Name:-----

Date_____



Parker Water and Sanitation District

Thank you for forwarding the referral request for the above mentioned project. After a review of the documents submitted, the Parker Water & Sanitation District has the following comments:

- Submit completed PWSD Plan Requirements Checklist with the next submittal to ensure all plan requirements have been met. Checklist is available online at www.pwsd.org
Response: A Plan Requirements Checklist will be submitted during the final design phase.
- Please notify PWSD if this project will be broken up into smaller filings.
Response: The Trails at Crowfoot project will continue to meet with both the Town of Parker and PWSD to coordinate how the project will be broken up into smaller filings.
- Submit an executed Standard Improvement Agreement with all required exhibits.
Response: A Standard Improvement Agreement with the appropriate documentation will be prepared and coordinated with the District as the project moves into the final design stage.
- A wet stamped and signed Engineers Estimate with a 20% contingency must be submitted for verification and District approval. The approved document will be an Exhibit for the Standard Improvement Agreement and Letter of Credit.
Response: A Standard Improvement Agreement with the appropriate documentation will be prepared and coordinated with the District as the project moves into the final design stage.
- A copy of the signed/recorded Final Plat must be provided to the District prior to construction plan approval.
Response: Acknowledged.
- Please submit a Master Utility Report
Response: A Master Utility Report will be provided during the final design phase.
- Please provide and call out all wellsite's that will be dedicated to PWSD
Response: Approximate well sites have been added to the preliminary plan. Final location and size will be coordinated with PWSD during the final design.
- All easements must be called out and shown on the plans as well as the Plat. The District requires single utility easements to be 30-foot exclusive PWSD easements and multiple utilities



to be 50-foot non-exclusive PWSD easements (with 10-foot separation between any utility) . ALL easements must be done by separate document (on the District's standard Easement Agreement) regardless if they are done by Plat.

Response: Per discussions with PWSD, all necessary easements will be coordinated and prepared by separate document during the final design phase of the project.

- o There are multiple areas in this project that appear to have a 30' or less easement and have multiple utility's proposed to be in them, please revise to follow the above PWSD regulation

Response: Per discussions with PWSD, all necessary easements will be coordinated and prepared by separate document during the final design phase of the project.

- o Call out proposed easements on both the plan and profile and overall utility plan sheets.

Response: Per discussions with PWSD, all necessary easements will be coordinated and prepared by separate document during the final design phase of the project.

- o All proposed PWSD water mains, sanitary sewer mains and fire hydrants must be in ROW or a PWSD easement.

Response: Acknowledged.

- Please add a materials list to the cover sheet that includes all proposed PWSD material in it.

Response: Per discussions with PWSD, the materials list will be included on the cover sheet of the final design plan sets.

- List all fittings on overall utility and plan and profile sheets with numbers (man holes, blow offs, gate valves, butterfly valves, fire hydrants, air release valves, etc. i.e. TC-GV1 or TCMH1).

Response: Additional specific labeling will be included on the final design plans.

- The maximum distance between valves is 600-feet. Please ensure gate valves are placed 600 feet or less on all proposed water mains.

Response: Gate valves have been relocated on the plan. Additional adjustment may be required during the final phased construction documents.

- No more than one fire hydrant and/or 15 lots may be out of service with the closing of two or more valves.

- o There are multiple areas where more than one fire hydrant will be put out of service with the closing of valves (See Red line Utility Plan). Please revise plans to put no more than one fire hydrant out of service.



Response: Gate valves have been relocated on the plan. Additional adjustment may be required during the final phased construction documents.

- There must be 10-foot horizontal separation between all proposed water, sanitary sewer and storm mains and manholes (except for 90-degree crossings).
 - There are multiple areas throughout this project that have less than 10 feet of separation between proposed sanitary sewer mains and the storm lines, please revise.

Response: The utility alignments have been adjusted accordingly to ensure proper separation.

- The center-line of the water and sewer mains must be at least 5-feet from the lip of pan.
 - There are multiple area where the water and sanitary sewer mains are less than 5ft to the curb and gutter or lip and pan, please revise.

Response: The utility alignments have been adjusted accordingly to ensure proper separation.

- Please plan and profile the water main.

Response: Per conversations with the District, the water main will be profiled during the final design phase.

- Please create a water and sanitary sewer service table that shows stationing information for each lots water and sanitary sewer service line. Or PWSD allows each service line stub to have stationing numbering called out.

Response: A service table will be added to the final construction documents.

- All proposed water main lowering's are required to have low point blow off valves called out on the plans per PWSD standards. Please call out all necessary blow off valves in the plan and profile sheets.

Response: Low point blow off valves will be added to the final construction documents.

- The high points in the proposed water mains will require air-vac valves to be called out and installed to PWSD standards. Please see PWSD water specification section 4.2.6.

Response: Air-vac valves will be added to the final construction documents.

- On sheet 11 an 8" gate valve may need to be added to the existing mains proposed tie in location

Response: Gate valves have been relocated and will continue to be adjusted if necessary during the final construction document phase.



- Please note on sheet 11 proposed sanitary sewer tie in location does exist, however PWSD sanitary sewer main is not connect and does not cross Stroh Road(See attached PWSD Image of existing SS main).

Response: CVL has discussed the issue with PWSD for the tie in location. PWSD has stated that the District will complete the crossing at Stroh Road.

- PWSD does not permit split flow manholes in the district due to maintenance related issues. Please redesign and add manholes to eliminate the split flow ones.

Response: Split flow manholes have been removed.

- Manholes over 20-feet in depth will require an intermediate platform.

Response: Any Manholes over 20 feet in depth will have an intermediate platform at final design.

- Add and callout intermediate plat forms to TC-SSMH-5, TC-SSMH-242, TC-SSMH-OS-62, and TC-SSMH-OS-63.

Response: Any Manholes over 20 feet in depth will have an intermediate platform at final design.

- Please remove water detail sheets SS12, 13, W46, W47, W48, W71, and W72.

Response: The listed detail sheets have been removed.

- Show and call out irrigations taps and sizes on Water and Sanitary Sewer construction plans.

Response: The irrigation plans are currently being designed. Irrigation tap locations and sizes will be included in the final plans

- All utility crossings must be called out in the plan and profile sheets.

Response: All utility crossings will be called out in the final design phase.

- Show and callout in the profile the requirement of a minimum of 18" clearance between utilities at all crossings.

Response: All utility crossings will be called out in the final design phase.

- Show and callout in the profile the requirement of a minimum of 4 112" of coverage/bury depth over all proposed PWSD water and sanitary sewer main infrastructure.

Response: Minimum coverage/bury depth will be added to the final construction documents.

- Submit landscape/irrigation plans for verification and calculation of tap size(s) (include completed PWSD landscape worksheet-one worksheet per tap). PWSD



Landscape/Irrigation worksheet is available online, at www.pwsd.org/developer.html. The approved worksheet must be shown on the approved landscaped plans.

(PCS) Response: This will be provided with the final plat submittal.

- Provide a physical address for all proposed irrigation taps on the Landscape/Irrigation Worksheet in the space provided.

(PCS) Response: This will be provided with the final plat submittal.

- ET based Smart Irrigation Controllers with rain sensors are required on all projects. Choose a controller from the Districts approved ET Controller list and specify the manufacturer and model number on the irrigation worksheet. [www.pwsd.org/pdf/Conservation/ A availableSmartIrrigationControiTechnologies.pdf](http://www.pwsd.org/pdf/Conservation/A%20availableSmartIrrigationControiTechnologies.pdf)

(PCS) Response: This will be provided with the final design.

Fire-Town of Parker

Application Type: **Subdivision Plan**
Status: **First Referral**
Application Name: Trails at Crowfoot
Case/AP#: **SUB16-050 & Sub16-051**
Referral Received: November 15, 2016
Comments Due: December 15, 2016

Application Location: Generally at the proposed Chambers/Bayou Gulch Road and North Pinery Parkway intersections

Review date: **December 7, 2016**
Plan reviewer: **Randall L. Capra**, rcapra@parkeronline.org
Phone: 303.805.3168

Code Reference: 2015 International Fire Code, 2015 International Building Code

UNRESOLVED ISSUES/COMMENTS

1. **It is the intent of the fire service to require that interconnectivity be provided between subdivisions; with regard to this project, Richlawn Parkway shall be interconnected with**



Bayou Gulch Road (possibly Street Q can be considered at an interconnection. A fire hydrant shall be extended to the connection at Richlawn Parkway.

Response: An emergency access has been graded in and an easement will be coordinated with the Town during the Final Plat phase.

2. The Town of Parker requires that fire apparatus access roads meet the clear-width and weight-bearing standards of the jurisdiction in which the project is located. Roadways shall be designed to support the imposed weight of fire apparatus, 24 ton two axle and 30 ton three axle vehicles. An unimpeded clear width of 20 feet shall be maintained at all times. As such, any location where parked vehicles would obstruct this clear width requirement will require “NO PARKING – FIRE LANE” signage. This signage shall be red on white.

Response: The final design of access roads will meet the required weight-bearing standards.

3. The applicant shall ensure that all dead-end access roads do not exceed 150 feet (as measured from the center point of the street perpendicular to the dead end) without providing an approved turn-around; this would be applicable with the pair home product locations shown on Sheet 4 of the utility drawings as the dead end that is shown on the east side of Bayou... east end off of Pinery Parkway that appears to be a road that will interconnect with other sub-areas.

Response: All dead-end access roads that exceed 15 feet will have either an emergency access easement or an acceptable turn-around.

4. The hydrant distribution layout is difficult to pinpoint due to the lack of an overall site plan; the following are examples of distribution deficiencies. The applicant shall provide a scaled overall utility plan so that the distribution can be correctly evaluated:

- Address the addition of fire hydrants along Bayou Gulch Road (none have been provided); divided roads require that hydrant distribution meet the requirements of [15 IFC Appendix C] with regard to spacing. The applicant must address N Pinery Parkway in the same way.

Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).

- Add a fire hydrant mid-point of Street G between Street F and Street D

Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).

- Add a fire hydrant at the entry point of Crowfoot Valley Road and N Pinery Parkway

Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).

- Add a fire hydrant mid-point between Crowfoot Valley Road and Street F

Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).



- **Add a fire hydrant at the intersection of Bayou Gulch Road and North Pinery Parkway (on the stagger s/w corner)**
Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).
- **Add a fire hydrant on Street D (Between Street E and Street A) and locate such that the distance between the hydrants does not exceed 500 feet (in some cases, more than one hydrant shall be required).**
Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).
- **Add a fire hydrant on Street C (Between Street E and Street A) and locate such that the distance between the hydrants does not exceed 500 feet (in some cases, more than one hydrant shall be required).**
Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).
- **Add a fire hydrant on Street B (Between Street E and Street A) and locate such that the distance between the hydrants does not exceed 500 feet (in some cases, more than one hydrant shall be required)**
Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).
- **Add a fire hydrant on the corner of Street D and Street I**
Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).
- **Relocate the hydrant on the knuckle of Street K (where it makes the curve) to the inside corner lot**
Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).
- **Add a fire hydrant to the side corner lot of Street K and Street L**
Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).
- **There are two adjacent hydrants at Street J and the un-temp named street to the right of Street O; move the extra hydrant up Street J so that the spacing between the hydrant at Street D and the un named street has correct spacing coverage**
Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).
- **Add a fire hydrant mid-point of Street O Between Street D and Street J.**
Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).
- **The hydrant distribution along the curve to the left of Street N exceeds 500 feet between hydrants...**
Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).
- **The hydrant distribution along Street E in the areas of Street Y, Street W, etc. does not meet hydrant spacing requirements of the code**



Response: CVL has coordinated with Randy Capra on the fire hydrant locations (See area utility plan).

The applicant shall set up a time to meet with me and we can work together to red-line a utility drawing so as to correctly address the hydrant distribution needs for this subdivision.

5. An updated signature block has been created with regard to the utility drawing package; typically, this signature block is located on the cover sheet and the overall utility page of the water drawings. The signature block is noted below.

Response: The signature block has been revised and included in the plans.

GENERAL COMMENTS

All engineering documents submitted to the Town of Parker shall bear the wet signature and seal of the engineer or architect in responsible charge of the design.

Water distribution and site access components shall be installed and in service prior to the construction of any portion of the structure, except by special permit issued by the Fire District.

Underground fire lines

When thrust blocks are used as part of the pipe restraint system, submitted plans for permit shall provide detailed documentation that the thrust blocks satisfy all requirements of 10 NFPA 24: 10.8.2, including specific thrust block dimensions and mathematical calculations for block dimensions per guidelines provided in Annex A.10.8.2.

Response: Thrust block submittals will be provided by the contractor prior to construction.

Xcel Energy

Re: Trails at Crowfoot Filing No. 1, Case #s SUB16-050 and SUB16-051

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the sketch plan and preliminary plat for **Trails at Crowfoot Filing No. 1**, and requests that all Tracts be dedicated for utility use in their entirety. If this is not possible, PSCo requests:



- Increase and/or add 10-foot dry utility easements along all rights-of-way within Tracts, B, K, X, Z, GG, JJ, LL, TT, VV, XX, ZZ, and the Tract in the southwest corner of North Pinery Parkway and Bayou Gulch Road (not identified)

Response: [Utility easements have been added to the Preliminary Plat.](#)

- 6-foot utility easements for natural gas are needed in certain lots within Blocks 11, 12, 13 and 14 that do not front a street

Response: [Utility easements have been added to the Preliminary Plat.](#)

PSCo also requests the 5-foot S.W.U.E.s be increased to 6-feet so that the gas mains are not entirely underneath the sidewalk (safety reasons).

Response: [Utility easements have been added to the Preliminary Plat.](#)

The property owner/developer/contractor must contact the **Builder's Call Line** at 1-800-628-2121 **or** <https://xcelenergy.force.com/FastApp> (*register* so you can track your application) and complete the application process for any new gas service. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details. Additional easements may need to be acquired by separate document for new facilities. As a safety precaution, PSCo would like to remind the developer to call the **Utility Notification Center** at 1-800-922-1987 to have all utilities located prior to any construction. Should you have any questions with this referral response, please contact me at 303-571-3306.
Donna George
Contract Right of Way Referral Processor
Public Service Company of Colorado