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January 18, 2023

Attention: Michael Walton
Senior Development Review Engineer
Town of Parker
20120 E. Mainstreet
Parker, CO 80138

RE: SUB21-055 Lincoln Professional Park MDP – 5th Review
HKS Project No. 200829

Dear Mr. Walton,

Please find responses (in blue italics) below for comments received December 22, 2022, regarding the proposed Lincoln Professional Park Filing No. 1 (Master Development Plans)

Traffic and Roadway Review Comments

1. 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, November 2020. Additional regulatory and planning documents may have been utilized in the review and are referenced in the comments where appropriate.

HKS RESPONSE: Acknowledged.

Construction Plans – Civil Comments

1. Please consider potential alternatives to consolidate the access points provided along the existing access drive off Lincoln Avenue. There are concerns with the safety impacts of providing the limited spacing proposed between access points along this private access drive and if feasible combining these into a single access point or having the secondary access provided along the proposed rather than existing access road would greatly decrease the safety risk at this intersection.

HKS RESPONSE: Per meeting with Town of Parker engineers Alex Mestdagh and Michael Walton, access point cannot be adjusted. Northern flowline of access drive has been set 100 ft from the Lincoln Avenue flowline. The intent of the access point is to provide an additional entrance/exit for fuel trucks entering/exiting the Maverik Site. Shifting the access south will make the drive unusable for the Maverik trucks and impact the Lot 2 usable area.

2. Provide a horizontal control plan for all roadways including the private drives to ensure adequate radii are provided around all proposed curves.
HKS RESPONSE: Horizontal Control Plan for private drives added, horizontal control information for the public roadways added to the plan & profile sheets.
3. Please note a cross pan will be required at the Dransfeldt intersection. Please ensure this is clearly called out and detailed on the plans.
HKS RESPONSE: Cross pans added to plans and detail added to detail sheet.
4. Please provide additional details on the roadway plan and profile sheets for how the proposed drive is intended to tie into the existing grades along Dransfeldt.
HKS RESPONSE: Note added to plan & profiles to refer to intersection design plans. Additional information added to intersection design plan for clarity.
5. Provide all necessary details as shown on Town standard detail 31 for the provided intersection detail sheets.
HKS RESPONSE: Details added per standard detail 31.
6. Provide cross slope labels at regular intervals along the Dransfeldt widening on the flowline plan and profile sheets.
HKS RESPONSE: Slope labels added every 50 ft.
7. SHT 20: Revise note 3 to state that “The Town Requires Connections to Be Bored...” rather than prefers.
HKS RESPONSE: Note 3 revised.
8. SHT 38: Remove the diagonal striping identified within striped medians in Dransfeldt.
HKS RESPONSE: Diagonal striping removed within medians in Dransfeldt
9. SHT 38: Remove the Chevrons identified in the northern striped median on Dransfeldt and have the end of the median mimic the adjacent striped rounded median.
HKS RESPONSE: Chevrons removed from median, median ending updated to mimic the adjacent striped rounded median.
10. SHT 38: Extend the viewport to include the other side of the intersection at Lincoln Ave to ensure the through lanes are adequately shown and aligned.
HKS RESPONSE: Viewport extended to show other side of Lincoln Ave.
11. Ensure all pedestrian ramps and approaching walks proposed meet all applicable ADA requirements.
HKS RESPONSE: Ramps reviewed for ADA Compliance.
12. SHT 39: Please consider use of Town standard detail 18 for the curb ramp proposed in the Dransfeldt Rd Site Access NE intersection plan. The attached walk would then need to be bumped out slightly to tee bone into the other walk just above the pedestrian ramp.
HKS RESPONSE: Detaching the sidewalk per detail 18 would impact the pond volume and grading. The curb ramp will stay as proposed.

Public Improvement Cost Estimate Comments

1. Please note that all interior site improvements (ie. the detention pond, on site storm sewer, demolition of existing infrastructure interior to the site,...etc.) will not be considered public and will not be eligible for maintenance assistance through the Town. These items do not need to be financially secured and can be removed from the public improvement cost estimate. Please also note while these improvements will not need to be secured, they will still be required to be designed in constructed in accordance with all Town criteria.

HKS RESPONSE: Cost estimate revised.

Stormwater Review Comments

1. 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.

HKS RESPONSE: Acknowledged.

Construction Plans – Environmental Comments

General Comments

1. Please add notes stating – “The VTC pad for a CWA does not need to conform to the formal VTC detail”, and “The true location of the CWA may be determined by the Town and the ECS”.

HKS RESPONSE: Notes added to Initial CBMP Plan.

2. Show additional Portable Toilets (PTP) on the site, a site this size needs at least 3 Portable Toilets. Additionally, provide a note stating “The True location of the PTP may be determined by the Town and the ECS”.

HKS RESPONSE: Additional Portable Toilets and note added to Initial CBMP Plan.

3. The legend identifies hatching for the Debris and Trash Control (DTC) but no hatching is provided on the plans. Please either remove the hatching from the legend and increase number of labels provided in the plans or provide hatching in the areas where DTC will be required.

HKS RESPONSE: Hatching is shown along gutter lines along both sides of Dransfeldt, the south side of Lincoln (adjacent to the site), and along the south side of the existing drive in the northeast corner of the site on the Initial CBMP Plan, and along both side of the proposed roadways in the Interim CBMP Plan. Hatching will remain and additional DTC labels added.

4. Provide text block callouts on the adjacent properties to identify “NO WORK SHALL OCCUR IN THIS AREA” to ensure that the note provided is not unintentionally overlooked by the contractor during construction.

HKS RESPONSE: Callouts added to all CBMP Plans.

Initial CBMP Plans Comments

5. Remove the proposed roadway, stormwater infrastructure, and lotting linework from the Initial CBMP sheet.

HKS RESPONSE: Proposed roadway, stormwater infrastructure, and lotting linework removed from the initial CBMP Plan.

6. Provide and identify a Temporary Sediment Basin (TSB) at the northwest corner of the site and provide all necessary design information within a callout in accordance with UDFCD Vol. 3 as amended. Additionally, provide a Diversion Ditch (DD) along the western extents of the site to route the disturbed flows to the TSB through the overlot grading of the site.

HKS RESPONSE: Standard Sediment Basin per UDFCD Vol. 3 with required design information shown and diversion ditch along the west of the site added to Initial CBMP Plan.

7. Show Jersey Barriers or Construction Fence on the sides of the VTC to ensure use of the entire 50-foot pad. Make sure the 50-foot VTC is shown to the scale.

HKS RESPONSE: Construction fence added along VTC pad, 50' length of VTC pad added as well.

Interim/Final CBMP Plans Comments

8. Provide all notes to the Interim CBMP plan sheet as well.

HKS RESPONSE: All notes from the Final CBMP Plan added to the Interim CBMP Plan.

9. Show ECB along both sides of the channel in the Detention Pond drawings.

HKS RESPONSE: ECB added to final CBMP plans.

10. Revise slope labels on the Final CBMP sheet to reflect the ratio rather than percentage to match those shown on the Interim sheet.

HKS RESPONSE: Slope labels on Final CBMP Plan changed to ratio.

11. Please note that the Erosion Control Blanket (ECB) will be left in place following installation in the interim phase. Please remove shading from the ECB on the Final CBMP sheet to avoid potential confusion in the field on whether it should be left in place at final

HKS RESPONSE: Shading removed from Erosion Control Blanket on Final CBMP Plan.

Construction Plans – Stormwater Comments

1. Provide a minimum of 7-feet from any existing or proposed tree to the edge of any existing or proposed storm sewer. Specifically noted 4 trees at the northwest corner of the site as conflicting with this criterion.

HKS RESPONSE: All trees have been located at least 7-ft off any existing or proposed storm sewer utility lines.

2. Please note that all trees proposed within the extents of the detention facility must be planted above the 100-year water surface elevation to avoid drowning of the proposed landscape elements. Two trees appear to be proposed below this elevation on either side of the Forebay.

HKS RESPONSE: Trees have been placed above the 100-yr water surface elevation.

3. Provide a minimum of 1-foot from finished grade down to the major storm's HGL along all extents of the storm sewer proposed.

HKS RESPONSE: HGLs and pond grading revised.

4. SHT 21: Manhole structure A1 missing from profile view.

HKS RESPONSE: Manhole A1 added to profile view.

5. SHT 21: Please upsize MH A3 to a 5-foot diameter structure to better accommodate the elliptical pipe size proposed.
HKS RESPONSE: Manhole A3 upsized to a 5-foot diameter.
6. SHT 21: Please consider alternatives to the 7-foot MH proposed for MH A1 as this will be potentially difficult and costly for the contractor to procure.
HKS RESPONSE: Alternatives analyzed for the 7-ft MH structure and elliptical pipe entering the pond. Unfortunately, the circular equivalent for the 29x45 HERCP is 36-inches, which causes the cover to be less than 1ft when taking the roadway depth into account. Reducing the pipe size to 30-inches causes the HGLs to be less than 1-ft below the finished grade. Alternatives will be discussed with the contractor if structure is difficult to procure.
7. SHT 24: Provide a minimum of 0.2-feet of drop between any invert into a structure and the invert out of the structure. Specifically noted as not provided at Inlet F1.
HKS RESPONSE: Inlet F1 updated to provide a 0.2' drop between inverts.
8. SHT 26: Minor and major storm hydraulic grade lines missing from Storm Line I profile. The response stating that the inlet is simply being replaced and the design team does not see this as their responsibility to analyze was noted, but please note that the inlet is being replaced due to the expansion of Dransfeldt Road which will increase the flows generated to the system at this location. Given this and the fact that both the inlet and storm sewer are being replaced in the process, the hydraulic capacity should be reanalyzed to ensure adequate capacity is provided in the system as part of the overall improvements in this area. It is Town Staff's understanding that the existing basin information has already been provided for these areas and that only minor modifications will be needed to analyze the hydraulics, but please coordinate with staff if this information has not yet been provided.
HKS RESPONSE: HGLs added to Storm Line I and proposed inlet analyzed. There are no concerns regarding capacity.
9. Please consider utilizing only one trickle channel section and simply increasing the slope as needed to meet the top of the trickle channel curb line. Please note that the 4-percent slope noted on the Town's standard detail is a minimum requirement and steeper slopes are allowed.
HKS RESPONSE: Acknowledged. Due to revised grading and maintenance path placement, an alternative trickle channel is being utilized for a reduced portion of the channel and is clearly called out on the pond plans. The use of this section eliminates the need for a variance for the wall footing being below the EURV.
10. Please consider revising the outlet structure provided to more closely reflect the standard outlet structure details provided in the Town's SDECM. Please also replace the trash rack proposed for the orifice plate with MHFD's standard well screen and provide all relevant MHFD well screen details.
HKS RESPONSE: Outlet structure revised. Trash Rack switched to Well Screen,
11. Please note that the freeboard appears to be mislabeled in the profile view of the spillway. The freeboard is adequately shown and labeled on the section view. Please revise to match. Please

also note that only 1-foot of freeboard is required in this case and embankments should be adjusted as applicable to help minimize the embankment height around the pond.

HKS RESPONSE: Spillway detail revised. Freeboard adjusted to match output on MHFD UD-Detention Spreadsheet.

Drainage Report Comments

1. Provide hydrologic and hydraulic analysis for all offsite Dransfeldt Road improvements. Please note this analysis should include evaluation of the ponding and spread at the two inlets receiving flow within Dransfeldt Road and Lincoln Avenue. It is Town Staff's understanding that the existing basin information has already been provided for these areas and that only minor modifications will be needed to analyze the hydrology and hydraulics, but please coordinate with staff if this information has not yet been provided

HKS RESPONSE: Proposed inlet on east side of Dransfeldt analyzed.

Please contact me if you have any questions or require additional information at omccracken@hkseng.com or 303-623-6300.

Sincerely,
HARRIS KOCHER SMITH

Olivia McCracken
Project Engineer