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October 23, 2018

Jeff Rice, Engineer III
El Paso County PCD Engineering Division
2880 International Circle, Colorado Springs, CO 80910

**RE: PPR-18-026 New Widefield PK-8 School
First Submittal**

Dear Mr. Rice,

Please see below for response (*in blue italics*) to **PCD-Engineering Review Comments** for the above referenced project, dated July 9, 2018. Responses include input from project design engineers and consultants as follows: Drexel, Barrell & Co. for civil; William Guman & Associates for landscaping; LSC Transportation Consultants, Inc. for traffic.

Site Development Plan and Landscaping

1. See electronic SDP and Landscape Plan redlines.
 - a. SITE DEVELOPMENT PLAN COMMENT: Provide details for concrete ramped/mountable curb & gutter. ***RESPONSE: See revised architectural SD sheets.***
 - b. LANDSCAPE PLAN COMMENT: PUD calls for 35' setback depth for landscaping – show that. ***RESPONSE: The PUD indicates a 20' minimum setback required with a 35' setback provided on the north side of Fontaine Blvd., west of the school site. A 20' minimum setback is therefore required on the north side of Fontaine Blvd. at the school site. A 50' setback is provided.***
 - c. LANDSCAPE PLAN COMMENT: Include a table of how many trees are required and provided per the PUD guidelines that were attached in another comment. ***RESPONSE: All minimum landscape planting requirements have been met (and/or exceeded). See Letter of Intent and sheet LS4.0.***
 - d. LANDSCAPE PLAN COMMENT: Make sure trees do not cause too much debris in the right of way. – license agreement with county engineer. ***RESPONSE: Trees along Lamprey Dr. are relocated away from right of way. See LS2.0 & LS4.0.***
 - e. LANDSCAPE PLAN COMMENT: Verify site distances and adjust trees if necessary. ***RESPONSE: No plantings encroach within the site distance triangle at any intersection.***
2. The proposed landscaping along Lamprey Drive needs to be adjusted. Typically the required landscape strip needs to be 8 feet between the curb and sidewalk to allow for trees in the County right-of-way. Possible adjustments could include meandering sidewalk, shifting the sidewalk 4 feet back, or moving trees behind the sidewalk. ***RESPONSE: PUD Development Guidelines show street section for Lamprey Drive with 4' between back of curb and sidewalk. The sidewalk design and construction are by the developer. The trees along Lamprey Dr. are***

relocated to the opposite site of the sidewalk. See LS2.0 & LS4.0.

Verify that the proposed trees will meet clear zone requirements from the sidewalk and the street and will not infringe on sight distance triangles.

RESPONSE: No plantings encroach within the site distance triangle at any intersection. Per ECM sections 2.5.2.B.8 and 2.5.2.H (Figure 2-35), the minimum horizontal clearance (for sidewalks) around utility structures, furniture, and other encroachments (trees) shall be 4 feet or greater. See Agreements comment below regarding the need for a license agreement.

3. Provide construction details including spot elevations for all access points. **RESPONSE: See construction details on architectural SD sheets and spot elevations on civil C3-series sheets in resubmitted Site Development Plan.**

Grading and Erosion Control Plan / SWMP

RESPONSE: See attached Drexel Barrell response letter.

1. See electronic GEC and SWMP redlines.
2. Ensure that all GEC Plan and SWMP checklist items (attached) are provided. The items highlighted in blue and yellow were not found or need additional discussion. All checklist items will be verified with the final submittal.

Transportation/Traffic Impact Study (TIS)

RESPONSE: See attached TIS response comments.

1. Address the Countywide Road Fee and whether the property will enter the 5-mill PID or not. Reference <https://publicworks.elpasoco.com/road-impact-fees/>
2. See electronic TIS redlines.

Final Drainage Report (FDR)

RESPONSE: See attached Drexel Barrell response letter.

1. See electronic FDR redlines.
2. Verify status of drainage fee payments for Tract J, Pioneer Landing Filing No. 2.
3. Provide applicable excerpts from Lorson Ranch East Filing No. 1 FDR once it is approved.

Agreements/Forms/Other

RESPONSE: See attached Drexel Barrell response letter.

1. A revised/redlined Private Detention Basin/BMP Agreement will be provided when available.
2. Note: a license agreement for landscaping in the right-of-way will be required. A draft will be provided when available.
3. See Engineering Final Submittal Checklist for items required by EPC PCD for approval.

Jeff Rice, Engineer III
El Paso County PCD Engineering Division
October 23, 2018

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If you have any questions or comments regarding the above, please do not hesitate to call me at (719) 473-8446.

Sincerely,

The LKA Partners, Inc.

A handwritten signature in blue ink, appearing to read "Todd Kimes".

Todd Kimes

cc: Andy Lewis, LKA

F:\General\PROJECTS\17-001 Widefield K8\15 Codes\EPC Planning & Engineering\El Paso County
Submittal - Second Round\17-001 EPC PCD-Engineering Review Response 1.doc

SITE DEVELOPMENT AND LAND USE

Land Use

A school for students from pre-school to eighth grade is planned to be located northeast of the future intersection of Fontaine Boulevard and Lamprey Drive within the Lorson Ranch development. The school is planned to be constructed in a single phase. At buildout the school is planned to support about 990 students. This includes about 90 preschool-aged students (45 students during the morning session and 45 students in the afternoon session) and 100 students in each grade from kindergarten to eighth grade.

The school district is currently in the process of updating their school boundary map, however they anticipate that a very high percentage of the students who will attend the proposed school would live within the Lorson Ranch development. A bell schedule has also not been set, however, based on the bell schedule of existing schools within the district and the constraints of the school bus schedules, it is anticipated that the middle level students (sixth through eighth grade) would start 30 to 45 minutes before the elementary level students and the preschool would start 30 minutes after the elementary level students.

Provide times assumed in this report.

Access Points

The site plan is shown in Figure 2. A bus loop is planned on the north side of the campus with access to Lamprey Drive about 1,250 feet northeast of Fontaine Boulevard aligning with Chavers Drive. The district estimates about four buses will

Access for staff and visitor parking and the parent drop-off/pick-up area is planned on Fontaine Boulevard. An entrance-only access is proposed about 480 feet to the west of the site. A turn only exit is proposed about 480 feet to the west of the site. The exit will turn right to travel east on Fontaine Boulevard after exiting the Fontaine/Lamprey roundabout intersection.

LSC Response: Although the report includes this general information regarding anticipated staggering of middle, elementary and preschool bell times, specific bell times are not known at this time. The trip generation estimate and traffic analysis have been based on ITE trip generation rates. The ITE "morning peak hour of adjacent street traffic" trip generation rates for the school have been utilized for the morning peak hour analysis. ITE "Afternoon Peak Hour of the Generator" trip generation rates have been used for the mid-afternoon school dismissal time period and the "Afternoon Peak Hour of adjacent street traffic" trip generation rates have been used for the evening "commuter" peak hour. Note: The on-site queuing analysis has been based on the North Carolina DOT MST4 model and assumes staggered start times for the middle and elementary schools.

Sight Distance

Figure 3 shows the sight distance analysis for the bus loop intersection to Lamprey Drive. The analysis is based on a design speed of 40 miles per hour.

Pedestrian and Bicycle Route Analysis

Figure 4 shows a pedestrian and bicycle route analysis for the school.

On-Site Circulation


The parent pick-up/drop-off loop shown on the site plan shows about 500 feet of on-site stacking distance. Based on an empirical formula developed by the Municipal School Transportation

Summary of Comments on LSC Responses to PCD TIS Redline Comments (9-10-18).pdf

Page: 3

 Number: 1 Author: dsdrice Subject: Text Box Date: 7/9/2018 4:27:20 PM

Provide times assumed in this report.

 Number: 2 Author: jchodsdon Subject: Text Box Date: 9/11/2018 3:49:37 PM

LSC Response: Although the report includes this general information regarding anticipated staggering of middle, elementary and preschool bell times, specific bell times are not known at this time. The trip generation estimate and traffic analysis have been based on ITE trip generation rates. The ITE "morning peak hour of adjacent street traffic" trip generation rates for the school have been utilized for the morning peak hour analysis. ITE "Afternoon Peak Hour of the Generator" trip generation rates have been used for the mid-afternoon school dismissal time period and the "Afternoon Peak Hour of adjacent street traffic" trip generation rates have been used for the evening "commuter" peak hour. Note: The on-site queuing analysis has been based on the North Carolina DOT MSTA model and assumes staggered start times for the middle and elementary schools.

Fontaine/Lamprey

The intersection of Fontaine/Lamprey is planned to be constructed as a one-lane modern roundabout. The one-lane roundabout would work with the interim Non-Residential Collector cross-section and all approaches are projected to operate at a LOS D or better during peak hours based on the projected short-term and 2040 total traffic volumes.

Fontaine Boulevard Site Access Points

All movements at the site access points to Fontaine Boulevard are projected to operate at LOS D or better during the peak hours based on the projected short-term and 2040 total traffic volumes as two-way stop-sign-controlled intersections.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

- The proposed school is projected to generate about 1,943 new vehicle trips on the average weekday, with about one-half of the vehicles entering and one-half of the vehicles exiting in a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 344 vehicles would enter and 293 vehicles would exit the site. During the afternoon peak hour of the school, which was assumed to occur for one hour between 2:30 to 4:30 p.m., about 154 vehicles would enter and 186 vehicles would exit the site. During the afternoon peak hour of the adjacent street traffic, which generally occurs for one hour between 4:30 and 6:30 p.m., about 73 vehicles would enter and 76 vehicles would exit the site.

Projected Levels of Service


- The signal-controlled Marksheffel Road/Fontaine Boulevard intersection is projected to continue to operate at level of service D or better based on the short-term and 2040 background and total traffic conditions.
- The intersection of Fontaine/Lamprey is planned to be constructed as a one-lane modern roundabout. The one-lane roundabout would work with the interim Non-Residential Collector cross section and all approaches are projected to operate at a LOS D or better during peak hours based on the projected short-term and 2040 total traffic volumes.
- All movements at the site access points to Fontaine Boulevard are projected to operate at LOS D or better during the peak hours based on the projected short-term and 2040 total traffic volumes as two-way stop-sign controlled intersections.

one?

1

LSC Response: We have revised this in the updated report.

2

 Number: 1 Author: dsdrice Subject: Cloud+ Date: 7/9/2018 4:39:35 PM

one?

 Number: 2 Author: jchodsdon Subject: Text Box Date: 9/10/2018 8:24:56 AM

LSC Response: We have revised this in the updated report.

Circulation

- During peak drop-off and pick-up times LSC recommends traffic cones be used to direct traffic in the pattern shown in Figure 5 to prevent vehicles from queuing on public streets. During afternoon parent pick-up time, as the proposed circulation plan routes parent pick-up vehicles through the parking lot drive aisles, parents will not be able to pull to a curb, temporarily park their vehicles (remaining in their vehicles) and wait for their children to exit the building and walk to the vehicles. Therefore, the school will need to develop a system using vehicle identification numbers and staff coordination whereby students are lined up in the loading zone ready to load the parent vehicles in order of position in queue.

Recommended Auxiliary Turn Lanes on Fontaine Boulevard

- Based on the projected long-term traffic volumes, a westbound right-turn deceleration lane would be required on Fontaine Boulevard approaching the proposed school entrance. This lane should be 235 feet long plus a 200-foot taper.
- Based on the projected long-term traffic volumes, an eastbound left-turn lane would be required on Fontaine Boulevard approaching the proposed school entrance. The Non-Residential Collector would provide one through lane in each direction plus a center two-way left-turn lane. This center painted median would accommodate left turns at this intersection.

Discuss if these improvements were (will be) provided with the Fontaine Blvd. improvements or will be provided by the school district, and when. If justified not to be constructed initially escrow may be required.

LSC TRANSPORTATION CONSULTANTS, INC.

By

Jeffrey C. Hodsdon, P.E., PTOE

Principal

Address the countywide traffic fee.


LSC Response: These comments have been addressed in the updated report

JCH:KDF:bjwb


Enclosures: Table 2
Appendix Table 1
Figures 1-13
Traffic Count Reports
Level of Service Reports

 Number: 1 Author: dsdrice Subject: Text Box Date: 7/9/2018 4:41:12 PM

Discuss if these improvements were (will be) provided with the Fontaine Blvd. improvements or will be provided by the school district, and when. If justified not to be constructed initially escrow may be required.

 Number: 2 Author: dsdrice Subject: Text Box Date: 7/5/2018 11:52:56 AM

Address the countywide traffic fee.

 Number: 3 Author: jchodsdon Subject: Text Box Date: 9/10/2018 8:25:44 AM

LSC Response: These comments have been addressed in the updated report



Drexel, Barrell & Co.

August 29, 2018

El Paso County
Engineering
Attn: Jeff Rice

Engineers/Surveyors

Boulder
Colorado Springs
Greeley

3 South 7th Street
Colorado Springs,
Colorado 80905-1501

719 260-0887
719 260-8352 Fax

**RE: PPR-18-026 - New Widefield PK-8 School
First Submittal**

Mr. Rice,

Please accept this response letter to your review comments dated July 9, 2018 for the above application.

Our response comments to follow are in ***Bold Italics*** following each original review comment.

Site Development Plan and Landscaping

3. Provide construction details including spot elevations for all access points.
Construction details are on architectural sheets. Spot elevations are shown on Civil sheets C3.1-C3.4

Grading and Erosion Control Plan / SWMP

1. See electronic GEC and SWMP redlines. ***All GEC and SWMP redlines have been addressed***
2. Ensure that all GEC Plan and SWMP checklist items (attached) are provided. The items highlighted in blue and yellow were not found or need additional discussion. All checklist items will be verified with the final submittal.
Requested Grading and Erosion Control Plan Submittal Checklist items:
 - 4) Standard EPC Grading and Erosion Control Notes included ***Standard notes are included on the Grading and Erosion Control Cover sheet***
 - 9) Show existing vegetation ***Vegetation added to legend, however the site has already been overlot graded as part of an earlier phase and there is no existing vegetation on site***
 - 19) Temporary sediment ponds provided for disturbed drainage areas greater than one acre ***Temporary sediment ponds have been added to the plans***

Requested Stormwater Management Plan Submittal Checklist items:

- 1) Applicant (owner/designated operator), Prepared By, SWMP Administrator, and Contractor information ***Information is on the cover of the SWMP***
- 8) Soil erosion potential and potential impacts upon discharge ***Discussed in section 2.4***
- 16) SWMP Map... ***Map has been attached to SWMP and includes all required items. There are no dedicated asphalt/concrete batch plans as discussed in section 2.1. There are no springs, streams, wetlands or other surface waters on this site as discussed in section 2.2***
- 19) Technical drawing details for BMP installation and maintenance ***BMP details are included with the Grading and Erosion control plan set which is attached with the SWMP***

- 20) Procedure for how the SWMP will be revised *Discussed in section 7.0*
24) Record keeping procedures identified to include signature on inspection logs and location of SWMP records onsite *Discussed in section 7.0*

Final Drainage Report (FDR)

1. See electronic FDR redlines. *All electronic redlines have been addressed. The two items requested for reconsideration were looked into and were decided to remain as is.*
2. Verify status of drainage fee payments for Tract J, Pioneer Landing Filing No. 2.
3. Provide applicable excerpts from Lorson Ranch East Filing No. 1 FDR once it is approved. *Applicable information from the Lorson Ranch East 1 report is discussed in section 5.0.*

Agreements/Forms/Other

1. A revised/redlined Private Detention Basin/BMP Agreement will be provided when available. *All redlines have been addressed.*
2. Note: a license agreement for landscaping in the right-of-way will be required. A draft will be provided when available. *The County will provide this when available.*
3. See Engineering Final Submittal Checklist for items required by EPC PCD for approval. *These items are currently in progress*

We trust you find our responses to the review of the **Lorson East Grading and Utilities** acceptable. We look forward to working with the City in processing the submittal. Please call if you have any questions or require any additional information.

Respectfully,

Drexel, Barrell & Co.



Tim D. McConnell, P.E.
Senior Associate, Regional Manager