



April 10, 2020

Sam Bishop
Community Development Director
City of Castle Pines
360 Village Square Lane, Suite B
Castle Pines, CO 80108

RE: 2nd Comment Letter for the Lagae Family Trust Minor Development Review

Mr. Bishop,

Please accept this letter as our response to comments on the 2nd comment letter for the Lagae Family Trust minor development review as provided in the letter dated March 6, 2020. Responses to these comments are included in blue beneath the original comments.

2nd Submittal Comment Letter (Lindy Howard, JACOBS, Project Manager)

S. Survey Comments

- S1. Based on the Parcel Description, the area of the Plat is 10.33 acres, please update the title at the top on both sheets.
RESPONSE: Area of the plat has been updated to 10.325 acres.

- S2. Please update number of lots in the title at the top of both pages. The plat shows 6 lots and 1 tract.
RESPONSE: Title updated to 6 lots and 1 tract.

- S3. In the Plat Closure Report, on Lot 5, the Segment #2 curve should have a radius of 1,262.00°. Please correct.
RESPONSE: The radius has been updated to 1262'.

T. Traffic Comments

- T1. [Comment made for previous TIS submission.] Page 38, first sentence in Project Description. Add "square-foot" after 40,000. Same comment was made for previous submission.
RESPONSE: Comment addressed in revised report.

- T2. Per the previous comment *Page 15, Exhibit 6. Please confirm if there is adequate space to execute an eastbound u-turn through existing intersection geometry at the Castle Pines Parkway intersection with Lagae Road.* The first submittal was revised to acknowledge this comment. A recommendation was added to the 2022 list of improvements on Page 30, for the eastbound approach to Lagae Road on Castle Pines Parkway. However, this recommendation to move the buffer to the left-side of the left-turn lane is not acceptable. This would move the eastbound to northbound left-turn

driver's line of sight further from the opposing through traffic and create a sight-distance issue when vehicles are present in the opposing left-turn lane. Also, the assumed 32-foot width between north curb and eastbound left-turn lane includes the bike lane. It is not acceptable to promote vehicles intruding into the bike lane to complete a u-turn maneuver.

Per AASHTO, the minimum turning path for the outside of a passenger vehicle is 23.8 feet, which would result in a portion of the vehicle intruding into the bike lane. This is the minimum; thus likelihood is high that some drivers would exceed this turning radius and damage the existing curb. To prevent these issues, this corner of the intersection and a portion of the westbound curb would have to be reconstructed by the developer to accommodate u-turning vehicles.

Acceptable options for the trips destined to the west of the project site are: 1) turn left to northbound Lagae Road, complete a u-turn within the cul-de-sac at the end of Max Drive, and then turn right to westbound Castle Pines Parkway or 2) turn right to southbound Lagae Road, perform a u-turn through the Hyland Hills roundabout, and then left to westbound Castle Pines Parkway. Please perform this analysis for both the morning and evening peak hours for both these options in the year 2022 and year 2040 to confirm the level of service under the volume conditions that result from these assumptions. Also, include as a recommended improvement the installation of a 30" x 36" R3-4 (no u-turn) sign on the eastbound traffic signal mast arm.

RESPONSE: The revised analysis no longer assumes that vehicles exiting the project site driveway on Castle Pines Parkway would make a u-turn from the eastbound left turn lane at the Castle Pines Parkway/Lagae Road intersection. At your request, the MUTCD R3-4 sign is recommended to be installed to prohibit u-turn maneuvers in the eastbound left turn lane.

The revised analysis assumes that 90% of the outbound vehicles from the west side of the project site would make an eastbound to northbound left turn at the intersection with Lagae Road, make a u-turn at Max Road and proceed south, and then turn right onto westbound Castle Pines Parkway.

The other 10% of the outbound vehicles from the west side of the project site are assumed to proceed to the second driveway on Lagae Road and proceed south, then make a u-turn at the Lagae Road/Hyland Hills Road roundabout and proceed north, and then turn left from Lagae Road onto westbound Castle Pines Parkway. The distance of this second option to access westbound Castle Pines Parkway is considerably longer and therefore only 10% are assumed to use this option. By contrast, 100% of the outbound traffic from the east side of the project site is assumed to exit at Lagae Road and u-turn at the Hyland Hills Road roundabout to access westbound Castle Pines Parkway, since the east side of the site is immediately adjacent to Lagae Road.

The "west project site" trip distribution was revised to account for both of these options to access westbound Castle Pines Parkway and is reflected in the revised analysis. Additional and modified improvements have been recommended to accommodate the revised project trips at the study intersections.

- T3. [Comment made for previous TIS submission.] Pages 24 and 29, Tables 7 and 8. Please confirm that the Synchro analysis and results reflect the eastbound u-turn movement and do not simulate these volumes as eastbound left-turn volumes. Please perform a sensitivity analysis that routes these u-turn volumes (for 2022 and 2040) through the Hyland Hills roundabout and as northbound left-turn lanes from Lagae Road to westbound Castle Pines Parkway. It may not be practical to assume all these drivers would be comfortable executing a u-turn through this particular intersection.
RESPONSE: U-turns from the eastbound left turn lane at the Castle Pines Parkway / Lagae Road intersection are no longer assumed in the analysis per our response to Comment T2. The revised analysis has outbound project traffic either making an eastbound to northbound left turn at the Castle Pines Parkway / Lagae Road intersection then u-turning at Max Road to return to westbound Castle Pines Parkway, or heading south on Lagae Road and u-turning at the Hyland Hills Road roundabout and making a northbound to westbound left turn at the Castle Pines Parkway / Lagae Road intersection.
- T4. Page 26, Exhibit 13. Please correct the southbound through volume in intersection 2, it is correctly shown in the Synchro report.
RESPONSE: Exhibit 13 has been corrected in the revised report.
- T5. Page 27, Exhibit 14. Please correct the southbound through volume in intersection 2, it is correctly shown in the Synchro report.
RESPONSE: The southbound through volume at Intersection #2 in Exhibit 14 already matched the Synchro report for the Horizon Year 2040 With Project scenario. However, the southbound through volume at Intersection #2 has changed per the project trip distribution revisions as described in my response to Comment T2. All exhibits have been updated to reflect the latest changes in the project trips.
- T6. Pages 31 and 39, Project Driveway 1 improvements. Eastbound approach, second bullet should be a through lane only, shared lane is not necessary with a right-turn lane provided to enter the site.
RESPONSE: Text error has been corrected in the revised report.
- T7. Pages 33 and 42, Project Driveway 1 improvements. Eastbound approach, second bullet should be a through lane only, shared lane is not necessary with a right-turn lane provided to enter the site.
RESPONSE: Text error has been corrected in the revised report.
- T8. Pages 34 and 35, Exhibits 16 and 17. Length of recommended right turn deceleration lane is 275 feet for intersection number 5.
RESPONSE: Exhibits 16 and 17 have been revised to show both the recommended pocket length and the total recommended length including the taper for clarification and to match the description of the improvements in the report text.

D. Drainage & Utility Comments

- D1. Section II Drainage Basins and Sub-Basins, Major Drainage Basins – The first sentence references that the Lagae Family Trust development is located in the Happy Canyon Creek Watershed while the General Location and Description, Site location indicates that the site is also part of the Spring Tributary.
RESPONSE: Most of the site is in the Happy Canyon Creek Watershed. Approximately 0.6 acres of the site is tributary to Spring Tributary, which is part of the Newlin Gulch Watershed.
- D2. Section II Drainage Basins and Sub-Basins, Major Drainage Basins – Please include the design point information in the description of each basin.
RESPONSE: Design Points have been added to the narrative.
- D3. Section II Drainage Basins and Sub-Basins, Major Drainage Basins – Please review the description of the basins as called out in the report versus what is shown in the drawings. Specifically, the area for 2A.
RESPONSE: Drainage basin descriptions have been reviewed.
- D4. Section IV Stormwater Management Facility Design, C Water Quality Enhancement BMPs - Please review the spelling of the second sentence.
RESPONSE: Spelling has been revised.
- D5. Time of Concentration Post-Project Condition – Please check the values of the C5 and C100 values in the table versus those shown on the drawings.
RESPONSE: C5 and C100 values have been verified.
- D6. Appendix A, 100-YR Post-Project Runoff – There appears to be two 100-YR Post-Project Runoff sheets with two different dates. Please include only one version.
RESPONSE: Comment noted.
- D7. Drainage Study Map Lagae Family Trust, Post-Project – Please review the 5-yr and 100-yr callouts versus what is shown in the legend. It appears that the 5 year runoff coefficient values are on the bottom and the 100 year on top in the drawing versus 5 year on top and 100 year on bottom.
RESPONSE: Comment noted, C-values have been corrected.

D. Construction Plans

- D8. Please identify the structure used for the connection of the outfall of EDB 1 on the drawing. Is this a proposed manhole?
RESPONSE: Yes, this is a proposed 5' manhole. The drawings have been updated to reflect this.
- D9. Please include the hydraulic grade lines associated with the minor and major storm events on the profiles for the storm sewers.
RESPONSE: HGLs for the 5-year and 100-year storm have been provided.

- D10. Please identify the pipe segments shown on sheet SD-02 and SD-03 on sheet SD-01.
RESPONSE: Pipe tables have been updated to reflect the pipes shown on the sheet.
- D11. Please include the design information for the spillways and outlet structures.
RESPONSE: Spillway and outlet information has been included in Appendix B of Drainage Report.

D. Engineer's Projection of Probable Costs

- D12. Review Engineer was unable to find the second manhole included in the quantities. Please review to confirm there are two manholes.
RESPONSE: In the previous submittal, a manhole in the construction drawings was erroneously labelled as existing. However, updates to the stormwater network have meant the removal of another proposed manhole; therefore, there is currently only one proposed manhole and the cost estimate has been updated to reflect this.
- D13. Review Engineer was unable to find the Forebays included in the quantities. Please review to confirm there are three forebays and that they are shown on the drawings.
RESPONSE: Three forebays are depicted on the construction drawings.

PW. Public Works/Transportation Comments

- PW1. Construction Plans, Sheet 4, Existing Conditions: The right-of-way at the southwest corner of the Lagae Road/Castle Pines Parkway intersection shown on the Construction Documents is not identical to the ROW shown on the final plat. Please revise so that the existing ROW along the property frontage is the same on these two documents.
RESPONSE: The ROW on the construction documents has been updated to reflect the plat.
- PW2. Construction Plans, Sheet 5, Grading Plan:
- a. Thank you for providing slope arrows with proposed grades along both entrance roads per our previous comment. Per section 13.3 of the Douglas County Roadway Design & Construction Standards, a maximum grade of 4% along the centerline of the commercial driveway shall be a minimum of 50' measured from the flowline intersection of the roadway. Please revise the grade near both Lagae Road and Castle Pines Parkway to meet these requirements.
RESPONSE: The site entrances have been updated to comply with Douglas County criteria. Refer to the street profiles
 - b. Please delete the duplicate note regarding building department review. (Delete either note 2 or 3).
RESPONSE: Duplicate note deleted
- PW3. Construction Plans, Sheets 6-9:
- a. Please correct Note 1 to refer to Sheet ST-01 for Signage & Striping Plan.
RESPONSE: The sheet reference has been updated.

- b. Please correct Note 2 to refer to Sheets DT-01 to DT-09 for details.
RESPONSE: The detail reference has been updated.
- PW4. Construction Plans, Sheet 6: Please rename this sheet "Roadway Key Plan."
RESPONSE: The sheet name has been updated.
- PW5. Construction Plans, Sheet 7, Castle Pines Median Cut:
- a. Per previous comment, please add dimensions to indicate widths for existing lanes and for the proposed right turn lane into the site.
RESPONSE: Lane dimensions have been added for reference.
- b. Please correct the reference in the Legend Note 1 to refer to Sheet DT-02.
RESPONSE: Sheet reference has been corrected.
- PW6. Construction Plans, Sheets 8 & 9, Site Entrances: It is not clear how pedestrians will access the right-of-way. Please show the sidewalk connection from the site to both Lagae Road and Castle Pines Parkway.
RESPONSE: Connectivity of curb gutter and sidewalk are shown continuous along the project entrance to Castle Pines Parkway.
- PW7. Construction Plans, Sheet 8, Castle Pines Parkway Site Entrance: Per section 13.3 of the *Douglas County Roadway Design & Construction Standards*, a maximum grade of 4% along the centerline of the commercial driveway shall be a minimum of 50' measured from the flowline intersection of the roadway. Please revise the grade near Castle Pines Parkway to meet this requirement.
RESPONSE: The Castle Pines Parkway site entrance has been updated to comply with Douglas County criteria.
- PW8. Construction Plans, Sheet 9, Lagae Road Site Entrance:
- a. Per section 13.3 of the *Douglas County Roadway Design & Construction Standards*, a maximum grade of 4% along the centerline of the commercial driveway shall be a minimum of 50' measured from the flowline intersection of the roadway. Please revise the grade near Lagae Road to meet this requirement.
RESPONSE: The Lagae Road site entrance has been updated to comply with Douglas County criteria.
- b. Please correct the reference in the Legend Note 1 to refer to Sheet DT-02.
RESPONSE: Sheet reference updated.
- c. Thank you for providing the geometry for the median on the entry roadway. Please provide rounded corners for the median island.
RESPONSE: The median island has been updated with rounded corners.
- d. Please connect the curb and gutter and the sidewalk along the entrance road to the curb and gutter and sidewalk at the returns.
RESPONSE: Curb gutter and sidewalk are shown continuous along the project entrances.
- PW9. Construction Plans, Sheet 15, Signage & Striping: Is there an existing R4-7 sign on the Castle Pines Parkway median near station 110+00? If so, please show and note as existing, if not, please provide.

RESPONSE: There is an existing R4-7 sign on the median nose facing westbound traffic. This has been noted on the sheet.

PW10. Cost Estimate: Please break out roadway costs into specific items (curb & gutter, curb ramp, sidewalk, etc.) instead of the lump sums currently shown.

RESPONSE: Road costs have been aggregated into more specific items.

2nd Submittal Comments *(City Attorney's Office, Michow Cox & McAskin)*

MCM. General Comments

MCM1. The project narrative indicates that “[i]nternal circulation roads are intended to be private and will be designed and installed by individual lot owners at the SIP stage.” Given that these are presumably saleable lots after platting, where is the assured access to the general street system? The City does not want to be in a position of having approved saleable lots with no apparent assured right of access to the general street system. Seemingly the only easement (and right of access) being created on the plat is the “Emergency Access, Access & Utility Easement” that is presumably being dedicated to the City, not private lot owners. If left to individual lot owners, how will the contemplated private street system get built, timing-wise, in a way that serves the development as a whole? Piecemeal construction of stretches of road, driven by development timing on a particular lot or two, doesn’t seem realistic or ideal. What will be the arrangements for allocation of maintenance responsibilities as among lot owners? If the private internal road system is intended to be coterminous with the above-referenced EA, A & U Easement, who will own the fee simple interest in that street? Perhaps I’ve overlooked references to a POA or some other intended treatment of these issues.

RESPONSE: The “Emergency Access, Access & Utility Easement” depictions on the plat have been updated and split into two separate easements; a 50’ utility easement overlapped by a 30’ private access easement. Both will be permanent easements to the benefit of all Lot owners. A Reciprocal Easement Agreement for the private access easement will be recorded prior to the first conveyance of a lot to another owner. This agreement shall designate a Maintenance Manager who shall be responsible for maintaining designated common project access drives, landscaping, snow removal, drainage improvements, and other shared improvements or amenities. All lot owners shall be responsible for paying their share of such maintenance on a land-to-land area ratio. The private common project access drives within individual lots shall be owned by each lot owner respectively. The construction of the common project access drives shall be governed by one or more Development Agreement(s) among the lot owners that will be executed prior to the first conveyance of any lot to another owner. It is anticipated that under the Development Agreement(s), the first lot owner that desires to develop its lot shall be responsible for constructing the common project access drives that remain to be constructed after the initial site work is completed for the property. The Development Agreement(s) shall stipulate that all lot owners pay their appropriate share of such improvements.

MCM2. The Dedication Statement is problematic and should be corrected as provided below. The last sentence in the Dedication Statement does not appear applicable if there are no intended public streets, public parks, or other dedications (beyond the one EA, A, & U Easement) to the City. As to its reference to easements, an easement, by definition, is less than fee simple absolute, and so cannot be dedicated "in fee simple absolute." The sentence is removed in the below.

The undersigned, being all of the owners, mortgagees, and beneficiaries of deeds of trust of the land described herein, have laid out, subdivide and platted said lands into lots and tracts as shown hereon under the name and style of Lagae Family Trust Minor Development. The utility easements shown heron and not of prior record are hereby dedicated to the City of Castle Pines, Colorado, for use directly, or through the various service providers, for all utility purposes, including but not limited to water, sewer, electricity, telephone, cable and other telecommunications. The City of Castle Pines and the entities responsible for providing the services for which the easements are established are hereby granted the perpetual right of ingress and egress from and to adjacent properties for installation, maintenance, and replacement of utility lines and related facilities.

RESPONSE: Additional Right-of-Way along Castle Pines Parkway to accommodate the deceleration and right turn lane for the project entry is being dedicated to the City. Easements shall be deeded to their owners by separate instrument prior to plat recordation. Therefore, the dedication statement has been revised to read as follows:

DEDICATION STATEMENT

THE UNDERSIGNED, BEING ALL OF THE OWNERS, MORTGAGEES, AND BENEFICIARIES OF DEEDS OF TRUST OF THE LAND DESCRIBED HEREIN, HAVE LAID OUT, SUBDIVIDE AND PLATTED SAID LANDS INTO LOTS AND TRACTS AS SHOWN HEREON UNDER THE NAME AND STYLE OF LAGAE FAMILY TRUST MINOR DEVELOPMENT. THE RIGHT-OF-WAY SHOWN HERON AND NOT OF PRIOR RECORD ARE HEREBY DEDICATED TO THE CITY OF CASTLE PINES, COLORADO, FOR USE DIRECTLY, OR THROUGH THE VARIOUS SERVICE PROVIDERS, FOR ALL UTILITY PURPOSES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, ELECTRICITY, TELEPHONE, CABLE AND OTHER TELECOMMUNICATIONS. THE CITY OF CASTLE PINES AND THE ENTITIES RESPONSIBLE FOR PROVIDING THE SERVICES FOR WHICH THE RIGHT-OF-WAY IS ESTABLISHED ARE HEREBY GRANTED THE PERPETUAL RIGHT OF INGRESS AND EGRESS FROM AND TO ADJACENT PROPERTIES FOR INSTALLATION, MAINTENANCE, AND REPLACEMENT OF UTILITY LINES AND RELATED FACILITIES. THE RIGHT-OF-WAY SHOWN HEREON IS DEDICATED AND CONVEYED TO THE CITY OF CASTLE PINES, CO, IN FEE SIMPLE ABSOLUTE, WITH MARKETABLE TITLE, FOR PUBLIC USES AND PURPOSES.

BY: DARWIN HORAN
TITLE: MANAGER, LS PARTNERS, L.L.C.

MCM3. Please correct the Planning Commission Certificate to refer to a minor development only (deleting the top half), so that it reads as follows:

Planning Commission Certificate

This minor development final plat (No. MDV19-001) was reviewed by the Planning Commission on _____.

Planning Director, on behalf of Planning Commission *Date*

RESPONSE: Updated

MCM4. On the plans themselves (first page), "Construction Plans" is shown as "Costruction Plans."

RESPONSE: Spelling corrected

35-Day Referral Response Letter (Mike Pesicka, Douglas County Community Development)

DC.. Addressing Comments

DC1. Lots will be addressed with site plan submittals.

RESPONSE: Noted and correct.

Final Plat Comment Letter (Scott Stene, South Metro Fire Rescue)

SM.. Comments

SM1. Sit Improvement Plans (SIP) will be submitted for by individual lot owners at a later date.

RESPONSE: Correct

SM2. Commercial water distribution systems will be submitted with each SIP.

RESPONSE: Correct

SM3. Road grading shall not exceed 6%.

RESPONSE: Correct

SM4. Dead-end fire apparatus access roads greater than 150 in length shall provide approved turnarounds.

RESPONSE: Noted. No dead-end fire access roads are proposed at this time. Prior to development of individual lots, a Development Agreement shall be signed assuring paved fire apparatus access roads will be completed to access each individual lot.

Final Plat Comment Letter (Donna George, Xcel Energy, Right of Way Permits)

X1. Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has determined there are potential conflicts/issues with the above captioned project. Public Service Company has existing electric transmission lines and associated land rights as shown within this property. Any activity including grading, proposed landscaping, erosion control or similar activities involving our existing right-of-way will require Public Service Company approval. Encroachments across Public Service Company's easements must be reviewed for safety standards, operational and maintenance clearances, liability issues, and acknowledged with a Public Service Company License Agreement to be executed with the property owner. PSCo is requesting that, prior to any final approval of the minor development plat, it is the responsibility of the property owner/developer/contractor to go to the website at www.xcelenergy.com/rightofway or email coloradorightofway@xcelenergy.com to have this project assigned to a Land Rights Agent for development plan review and execution of a License Agreement.

RESPONSE: Rick Engineering had a meeting on January 9th 2020 with Tom Henley, Area Manager for Xcel Energy and Patrick Stewart of the Transmission Engineering team to review design compliance with the overhead high voltage lines existing on site. Xcel was satisfied in principle with the design and confirmed that a detailed

analysis will be confirmed during the encroachment application process. The encroachment application and requested plan review regarding a License agreement are underway.

- X2. Additionally, PSCo has a proposed high pressure natural gas transmission pipeline along part of Castle Pines Parkway and within the existing PSCo electric transmission easement. An engineering review may be necessary depending on the timing of either construction project. The property owner/developer/contractor must contact PSCo's Encroachment Team for development plan review and execution of a License Agreement (upload all files in PDF format) at:
https://www.xcelenergy.com/working_with_us/builders/encroachment_requests and click on Colorado if necessary. An engineer will then be in contact to request specific plan sheets. Please see the attached Exhibit B for more information.

RESPONSE: These guidelines for construction activities near transmission pipelines are noted. Rick Engineering had a meeting on December 6th 2019 with Tom Henley, Area Manager for Xcel Energy and Derek Loveland of the design team regarding the proposed high pressure gas main through our property. During our meeting, our design was compared with the bore design for the pipeline and it was determined that the pipe would have adequate cover and that our current design would comply with Xcel's requirements regarding the high pressure gas line to be installed. The encroachment application is currently underway.

- X2. As always, thank you for the opportunity to take part in the review process. To ensure that adequate utility easements are available within this development, PSCo requests that the following language or plat note is placed on the preliminary and final plats for the subdivision:
Minimum 10-foot wide dry utility easements are hereby dedicated on private property abutting all public streets and around the perimeter of each commercial/industrial lot in the subdivision or platted area including tracts, parcels and/or open space areas. These easements are dedicated to the City of Castle Pines for the benefit of the applicable utility providers for the installation, maintenance, and replacement of electric, gas, television, cable, and telecommunications facilities (Dry Utilities). Utility easements shall also be granted within any access easements and private streets in the subdivision. Permanent structures, improvements, objects, buildings, wells, water meters and other objects that may interfere with the utility facilities or use thereof (Interfering Objects) shall not be permitted within said utility easements and the utility providers, as grantees, may remove any Interfering Objects at no cost to such grantees, including, without limitation, vegetation. Public Service Company of Colorado (PSCo) and its successors reserve the right to require additional easements and to require the property owner to grant PSCo an easement on its standard form.

RESPONSE: As there are a number of existing PSCo easements on site and in lieu of the above note, the use of existing easements, non-exclusive utility easements and new 10' easements as specified on the plat are to be utilized. The location and size of these

was agreed with Donna George via email on April 8 2020. These easements shall be dedicated by separate instrument in the PSCo standard form prior to recordation of this plat.

- X2. The property owner/developer/contractor must complete the application process for any new natural gas service via xcelenergy.com/InstallAndConnect. 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.

RESPONSE: Noted. This will be completed by individual applicants at the SIP phase.

With this submittal we have provided collated point-by-point responses to all referral agency comments. We have also included revised application documents associated with these comments. Please let me know if you have any questions concerning this response letter and/or the enclosed documents.

Sincerely,

RICK ENGINEERING COMPANY



Jason Krall, PE
Principal Project Engineer

cc: Tom Clark, Ventana Capital