**From:** Shay Stark
**Sent:** Wednesday, August 3, 2022 8:01 AM
**To:** Royce Swensen
**Subject:** RE: Your Review of Builder/Developer Checklist for CE-3

Royce,

I appreciate that the city is trying to provide a checklist that will give the applicant clarity as to what is required and will also guide how these applications are reviewed so the review process is applied consistently. I also appreciate that fact that the CE-3 Checklist seems to be a clear list of the items that the CE-3 code requires the applicant to consider and address. However, my initial reaction was that this list is very onerous for the applicant of a preliminary application when realizing that this is not the only information that needs to be included in a Preliminary Application. In 2014 the city assembled a Preliminary application with a checklist that includes a checklist for the drawings and other submittal items that are required. My first suggestion would be to find that application and compare the two check lists determining duplicate items, what items are unique to the CE-3 Zone checklist and what items can be added into other required drawings and information on the preliminary checklist.

My second suggestion would be to ask what purpose does each of the items on the CE-3 checklist serve, are they all necessary and which ones are necessary at preliminary? As I read through the checklist it seems the purpose of this information is to help the applicant and the City determine what portions of their property are suitable for development. The preliminary process vests the applicant with a density and a general configuration of the subdivision. It is not appropriate to require complete engineering of the subdivision at preliminary when the subdivision is totally at risk. Once preliminary approval is granted the applicant is more comfortable to spend money on engineering as they know they can move forward without fear that the project will be totally denied if they follow the city requirements. The city does not need to have construction level engineering at preliminary. It is also helpful to understand that configuration is subject to change based on the engineering that occurs in the final plat process. The City must balance the requirements that are necessary to comfortably determine that the proposed subdivision meets the zoning requirements and the intent of the General Plan and other City planning documents. The final engineered design must meet the Land Use and Development Code requirements and city development and construction standards. If there are exceptions or variances necessary they must be requested with justification showing how the city requirements are infeasible and pose a hardship that is not imposed on others or that makes it impossible to for the applicant to reasonable utilize the land. Sometimes it is appropriate at preliminary to ask for additional information in areas where it is obvious that a design requirement such being able to tie into the existing sewer system may be of concern.

Please see my specific checklist comments below. My comments are based upon the presumption that the purpose of these requirements is to determine what portions of a parcel are suitable for development:

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| **Preliminary Plat Checklist** |  |
| Listed Item | Comment |
| Location of designated setbacks | Preliminary; May be controlled by sensitive area findings;  Should be located on the Preliminary Plat/Site Plan. |
| Building envelope | Preliminary; May be controlled by sensitive area findings;  Should be located on the Preliminary Plat/Site Plan and/or Sensitive Area Plan |
| Cuts and fills area | Fianl Plat; Should be shown on Final Grading Plans. |
| Retention areas | Preliminary Showing General area capable of Preliminary Stormwater Report volumes. Should be shown on Site Plan and either a Utilities or Granding and Drainage Plan |
| Limits of disturbance | Preliminary; Sensitive Areas Plan will provide some initial limits but will be further flushed out in the Final Plat. Cut and fill is something that will be finalized with engineering of the streets for construction. I would expect this to show up on a overall site grading plan in the Final Plat package so the contractors clearly know where they can and can’t disturb.  |
| Open space areas | Preliminary; This is a product of the Sensitive Area Plan. It should also show up on the Preliminary Site Plan. At Final Plat this may be designated on the plat depending on how it is protected. |
| Chapter 15 B Planning Commission Review | Preliminary; These items should be specifically noted in the checklist. A lot of this is already covered in the current Preliminary Application Checklist. That checklist should be updated and can be further clarified . |
| Sensitive Area Plan | Preliminary; |
| Slope Analysis Plan | Preliminary; Personally I think this should be the base for the sensitive areas plan but that is up for discussion. |
| Revegetation/Retention Plan (high level at this point) | Final Plat to understand where retention will be required there will need to be some significant engineering done and this would occur with the final plat. Revegetation can’t be considered until the disturbed areas from the improvements are understood. The extent of cuts and fill will not be known until the streets are fully designed at final. |
| Erosion Control Plan (high level at this point) | Final Plat; The SWPPP is purely a construction issue and should be addressed at Final Plat. All land disturbance over a acre is required by State and Federal law to have a SWPPP. The City does have a role in this process but the mandate and enforcement lies on the State unless the City is an MS4 which then the City takes a greater role. We do not mandate what specific best management practices they choose to use. And the BMP’s and SWPPP plans will change as construction progresses. |
| Stormwater Runoff Plan | Preliminary; A Preliminary Stormwater Report should include predevelopment site calculations, on-site generation calculations, and run-on calculations. The report should also show proposed routing of stormwater, basin locations and rough sizing based upon preliminary calculation and show how run-on will be addressed or passed through. At final plat this report should be expanded to show the calculations for the full stormwater system. I can provide more specifics here if we determine that what is referenced in Chapter 15 is not enough. |
| Geotechnical Report | Preliminary; The full report should be provided as this is essential to the Sensitive Areas Consideration, locations for streets and building lots and will provide the applicant an upfront idea of where additional engineering and special construction will be required in the project.   |
| Fire Protection Plan | I see these more as principles that should reflect in the overall design of the development and not as a specific plan. |
| Trails Plan (if proposed trails are shown on City Trail Map) | Preliminary; Proposed trails should show up on the over all site plan and a cross section showing what the trail should look like should also be included in the plan. |
| Wildlife Corridors Plan | It is my understanding that in discussion with state wildlife officials there are no mapped corridors in Elk Ridge  They end to the north of Woodland Hills. The state also said that the urban deer population is different from the roaming wild population. The wild population will generally stay away from the urban areas unless there are extreme conditions. The urban population does not migrate as it has found a habitat that it can easily get food and meet its other needs. The City has state and federal land above the CE-3 zone there is plenty of undeveloped land to the south that is easily for the deer and other wildlife to pass by the town. |
| **Sensitive Area Plan** | Preliminary; This plan helps the City to decide what are can be developed. |
| Listed Item | Comment |
| Slope analysis & aerial map – prior to grading | Slope Analysis or Aerial not both; An appropriate slope analysis map will be covered in contour lines and solid colors representing the various ranges of slope. The slope analysis should be surveyed contour data. Each project should have a record of survey preformed that includes an alta survey this basic information should be the basis for their preliminary design and the sensitive areas plan as it shows contours and points out other physical features on the site. It shows the drainages, the slopes, and the ridges. You can usually pick of rock outcroppings and the contours come together at those locations. An aerial map will need to be reviewed in tandem to verify some of the features. |
| Map Overlay: current vegetation, clusters & groves | Again I am not totally convinced that this has much bearing on what should and shouldn’t be developed.  |
| Map Overlay: natural features: ravines/drainage | The survey for the slope analysis should point this out.  |
| Map Overlay: steep slopes | The survey for the slope analysis should point this out. |
| Map Overlay: ridgelines | The survey for the slope analysis should point this out. |
| Map Overlay: fault lines | This information should be provided by the Geo-tech and the report should be referenced on the Sensitive Areas Plan. If there are mapped faults then they should be shown on the Sensitive Areas Plan. Otherwise the reference is plenty. |
| Map Overlay: unique soil features | This information should be provided by the Geo-tech and the report should be referenced on the Sensitive Areas Plan. |
| Map Overlay: wildlife corridors | See my previous comments. |
| Planning Commission review | This is just process and does not require anything specific from the applicant so it should be in the application explanation of process but not on the checklist. Unless the City is wanting to reference notes from the considerations and approvals.  |
| City Council review | This is just process and does not require anything specific from the applicant so it should be in the application explanation of process but not on the checklist. Unless the City is wanting to reference notes from the considerations and approvals. |
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| **Slope Analysis Plan** | Preliminary; This can be part of the Sensitive Area Plan because it makes up the basis for several items on the sensitive areas plan. |
| Listed Item | Comment |
| Contour lines at two-foot intervals | Actual surveyed contours. |
| Color coding slopes: under 15%, 15% to 19%, 20% to 29%, 30% to 39%, 40% and over | I don’t care about the slop differentiation beyond 30 percent as it is totally un buildable. I would prefer to see 0-5% and 6 to 10% 11 to 15% 16 to 20% 21 to 30% and 31% plus or some similar gradation. |
| Proposed lots | Also shown on Preliminary Site Plan. |
| Building envelopes | Also shown on Preliminary Site Plan. |
| Roads | Also shown on Preliminary Site Plan. |
| Trails | Also shown on Preliminary Site Plan. |
| Open space | Also shown on Preliminary Site Plan. |
| Area of disturbance | Agree but see comments under Limits of Disturbance |
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| **Revegetation/Retention Plan** | Final Plat |
| Listed Item | Comment |
| Area for removal of vegetation material and retention | Instead of vegetation removal areas show areas of revegetation. Show seed mixes, plantings, landscaping drawings and irrigation drawings where applicable. Also all plans should note that the City will require disturbance outside of the revegetation areas shown will require revegetation if the disturbed area is left unimproved. |
| No conflicts with Fire protection plan | Agree this should also conform to fire protection principles. |
| Revegetation with natural plants in areas of cuts and fills, around retention walls, area of previous activities with disturbed natural conditions | Agree |
| Plan for retention over 4 ft by licensed civil engineer | Agree these plans should show not only the plan view but sections and applicable construction details. The Design Calculations should be included in a report. |
| City engineer and Planning commission approval | This is just process and does not require anything specific from the applicant so it should be in the application explanation of process but not on the checklist. Unless the City is wanting to reference notes from the considerations and approvals. |
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| **Erosion Control Plan** | Again this is a construction issue and should be submitted with the Final Plat application. |
| Listed Item | Comment |
| Stormwater Pollution Prevention Plan (SWPPP): Site description, Pollution Prevention Team, Activities that may cause pollution, Control measures with schedules and procedures | Agree |
| Stormwater Runoff Plan: Runoff from property will not adversely impact other properties | Agree |
| **Preliminary Geotechnical Report** | The geotechnical Report should be submitted at Preliminary Application. |
| Listed Item | Comment |
| Field Exploration | Agree |
| Laboratory Testing | Agree |
| Geologic & Seismic Conditions | Agree |
| Site Conditions | Agree |
| Site Preparation and Grading | Agree |
| Foundation Recommendations | Agree |
| Lateral Earth Pressures | Agree |
| Floor Slabs | Agree |
| Drainage Recommendations | Agree |
| Pavements | Agree |
| Quality Control | Agree |
| Limitations | Agree |
| Appendix: Site Plan, Test Pit Logs. Key to Symbols | Agree |
| Address all recommendations in any reports prepared by the Utah geological survey (UGS) or consult with appropriate UGS official –addressing the geological conditions affecting the area, and provide those comments | These reports are typically referenced. I have not experienced a situation where additional consultation with UGS was necessary but I guess that it could happen if necessary. |
| If unsafe geologic conditions that may affect the property and the probability that those conditions will detrimentally impact the proposed development or surrounding properties within fifty (50) years from the date of the statement, the environmental impact of the proposed action, including a projected “worst case scenario” of the detrimental effects the proposed action or development may have on the safety and environmental stability of the property and adjacent properties | This is unique. I would be curious to see if a geo-tech was comfortable to include this type of projection.  |
| Any adverse environmental effects that cannot be avoided, should the proposal be implemented, as well as alternatives to the development to avoid any unsafe geologic conditions | This is not the role of the geo-tech.  |
| Stamped and signed by a licensed professional geotechnical engineer registered in the state of Utah with experience in preparing and rendering geotechnical reports | Agree |
| The City can require that the report undergo a peer review by a separate engineering firm selected by the city at the applicant’s expense | Agree This is the case with any reports and documents submitted with the application. |
|  | Please add percolation tests at proposed stormwater basin sites. Tests need to below the proposed finish floor level of the basin. Provide methodology for the test. |
| **Fire Protection Plan** | **Preliminary Again I .see these as a checklist of items the city should be looking for in the application and not a specific drawing** |
| Listed Item | Comment |
| Collector road with 2 exit/access – for concurrent emergency response and civilian evacuation | Agree Should show up on site plan at preliminary. |
| UFA Wildland-Urban Interface Code – for defensible space, buildings protection, cul-de-sacs, etc. | There will be some consideration of this during the Preliminary and Final Applications but the real consideration will come at the time of site plan review for building permit. Before then no one knows the actual building footprints to apply the defensible space boundaries. |
| Cul-de-sac size | Agree Should show up on site plan at preliminary. |
| Fire engine access to adjacent to 4 AC buildings | Mostly addressed at Building Permit with the site plan review. |
| Fire hydrant flow and pressure tests | Part of the State mandated modeling that the City completes. |
| Trails as fire protection and emergency access | Agree Should show up on site plan at preliminary. |
| Applicable construction code requirements (IBC, NFPA, LSC) | Mostly addressed at building permit. |

I hope these comments are useful. Let me know if you have any questions or need any additional information.

Thanks,

**SHAY STARK – PLANNER/DESIGNER**

**AQUA ENGINEERING**