

## Memo

Subject: Engineering Comments for Calida Land Use Application

Date: June 4, 2022

By: Terry, Keyes, P.E., City Engineer

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These comments are based on existing conditions on the site and the preliminary site plan submitted with the land use application

While these comments are not the final engineering comments for the development, staff makes every effort to address all the important engineering issues related to public infrastructure, stormwater treatment, and erosion control.

### General

- Final engineering plans must meet the requirements of Clean Water Services' Design and Construction Standards and the City of Cornelius Public Works Standards.
- A performance bond is required for all public infrastructure construction, erosion control, stormwater detention & treatment facilities (public and private).
- After construction, maintenance bonding is required for public infrastructure and stormwater detention & treatment facilities.
- The landowner is required to sign a *Private Stormwater Facility Maintenance Agreement* to ensure long-term maintenance of private stormwater detention and treatment facilities.
- If the project is gated, the applicant needs to provide ready access to public water and sewer mains to Public Works crews for maintenance and emergencies.
- A final Service Provider Letter and resolution of the wetland issue on the east side of the project is required before final engineering plans can be reviewed and approved.

### Streets

The site currently only has public street access on the south side of the parcel from Baseline. However, the Plaza Los Amigos (PLA) project immediately to the west is constructing Davis Street, a new public collector street, to the western edge of the parcel. Davis Street through PLA is generally following the existing Fred Meyer private driveway from N. 19<sup>th</sup> Avenue. The Calida project will continue constructing Davis Street as a public collector street through the project to the eastern boundary of the parcel. When the parcels to the east of Calida develop, they will be responsible for completing the construction of Davis Street to N. 26<sup>th</sup> Avenue.

The portion of Davis Street adjacent to the Fred Meyer parking lot will be constructed as a  $\frac{3}{4}$  street with curb/gutter on both sides, new 20-foot wide AC pavement, 6-foot parkway strip on the north side, and 12-foot multi-use path on the north and east side. The east-west

section of Davis between and east of buildings 5 and 6 will be a full street with 12-foot multi-use path on the south side and 6-foot sidewalk on the north side.

The existing driveway on the east side of the Fred Meyer parking lot will continue to exist as a private street from Davis Street to the existing signalized intersection at Baseline, southeast of Burger King.

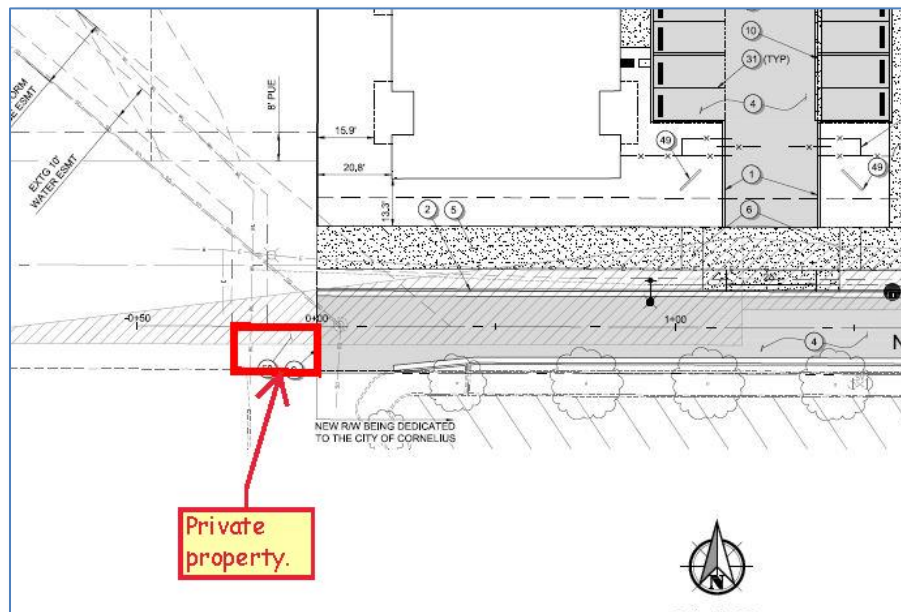
The geometric configuration for Davis Street shown in the preliminary plans meets the city's Public Works Standards and is acceptable. The Baseline frontage is complete with curb/gutter and sidewalk, so not improvements in those areas are required by the City.

**Cobra-head street lights are required along the new public Davis Street and Baseline.** These lights are shown on the preliminary plan on Davis but are not evident on the section of plans for Baseline.

**Street trees meeting the city's Public Works Standards are also required along all public street frontages.**

ODOT may have additional requirements for the Baseline frontage and the existing signalized intersection of Baseline with the Fred Meyer driveway.

Finally, a small section of private property exists at the west end of Davis Street that prevents the Calida portion of the new Davis Street collector from fully connecting with the Plaza Los Amigos portion of Davis Street. This piece of private property is shown in the drawing below.



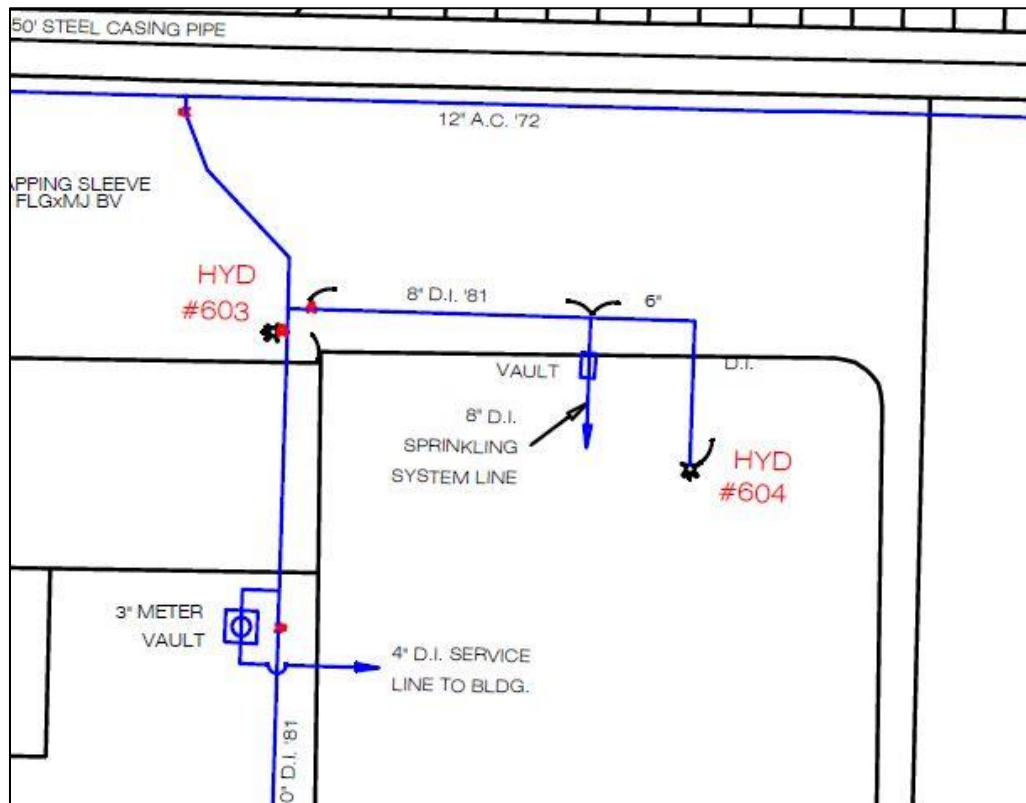
The applicant needs to acquire this piece of private property, dedicate it as right-of-way, and build the new Davis Street across it to connect to Davis Street on the west.

### Water

The applicant proposes to construct an 8" public water main through the project from Davis Street on the west side of the project to Baseline. The public main will be located through the center of the project thereby allowing very efficient placement of fire hydrants and connections to the buildings.

The preliminary plans do not show a connection for the existing hydrant (#604) and 8" sprinkler system line for the Fred Meyer site. These are now fed by an 8" DI water main that runs under the Fred Meyer driveway that will be replaced by Davis Street as shown in the drawing below.

The final engineering plans need to connect the proposed water mains in the Calida project with these existing public water mains on the Fred Meyer property.



### **Sanitary Sewer**

The applicant proposes to serve the site primarily with private sanitary sewers. The portion of the project north of Davis Street will flow north into the existing public sanitary sewer running along the north edge of the project. The sections south of Davis will drain to the public sanitary sewer in Baseline. The Baseline connection will include 235 feet of public sanitary sewer running north along the eastern property line. This approach to providing the project with sanitary sewer is acceptable to the City.

### **Stormwater**

The stormwater system serving the parcels will be private. The pipes, treatment swales, and detention systems are all proposed to be privately maintained. Treatment and Low-Impact Development Approaches (LIDA) requirements will be met with biofiltration swales. Detention requirements will be met with underground storage chambers.

The stormwater system serving the public Davis Street will be public. It also will use biofiltration swales and underground detention.

These approaches are acceptable to the City. The City will review the stormwater system in more detail during final plan review.

### **Erosion Control**

The site requires preparation and submittal of erosion control plans meeting the CWS requirements for 1200-C. Normally, these plans accompany the stormwater treatment plans.