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CONCEPT NARRATIVE

TRANSIT CENTER
CLACKAMAS COMMUNITY COLLEGE
OREGON CITY, OREGON

1 SEPTEMBER 2017

CONCEPT NARRATIVE

INTRODUCTION

The site design for the new transit center and parking lot aims to create a safe, cultivating setting in a sustainable and aesthetic manner. The new development strives to balance the programmatic needs of the transit center with a clearly defined wayfinding system for pedestrian, personal vehicles, and transit vehicles. Visual and pedestrian connections to campus from the parking lot are achieved with multiple 10' wide concrete sidewalks. A large raised concrete plaza, lined with safety bollards at the head of the transit center defines the main campus entry, which will be a main hub for activity. Personal vehicle drop-off is accommodated to the west of the plaza, and a bus/shuttle drop-off to the right. The road along the north of the transit center runs one-way from east to west. This is 20' wide road is accessed from the Douglas Loop and Meyers road intersection by personal vehicles, service vehicles, and can serve as a potential fire route.

TRANSIT CENTER PLAN

The proposed transit center for Clackamas Community College (CCC) includes (1) a curb-side area for active passenger loading/unloading, (2) an egress route back to Douglas Loop and (3) a layover area that are all exclusively for transit operations. The active curbside area provides two pull-through lanes and two bypass lanes, with capacity for up to ten buses. The transit egress route includes a transit pullout at the campus pedestrian plaza for the CCC-Xpress and paratransit service. The transit layover facility can accommodate at least six buses, is separated from all other vehicular activity and is connected with sidewalks to indoor facilities the drivers may use. Transit vehicles can access the curb-side area from the Molalla Avenue-Douglas Loop entrance or the Meyers Road Extension entrance. Both entrances are available for transit to exit the campus, as well. This layout minimizes transit-pedestrian and transit-private vehicle conflicts and provides flexibility for revisions and expansion of transit services to the campus.

PARKING LOT

The parking lot is currently designed to accommodate approximately 300 parking stalls. This can also include designated park and ride spaces, as shown on the west side of the parking lot. This parking number was achieved by realigning Douglas Loop further west to create more room for the facilities.

The parking lot features 8' wide vegetated islands for stormwater conveyance. Stormwater treatment facilities are located at the bottom or south of the parking lot. These islands and the surrounding parking lot planting will include the approved city and campus shrubs, trees and groundcovers, and will be irrigated. Deciduous trees selected for the parking lots and plaza area will be drought-tolerant, hardy in urban conditions, and will be chosen for ease of maintenance. Water quality swales will be planted with rushes, sedges, shrubs, and select tree species. We will work with the local water quality agency to select plant material from their standards to achieve an aesthetically pleasing plant palette, safe visual access within and around these features, and accommodate maintenance needs.

SHARED USE PATH

The multi-use path is shown connecting from OR 213 on the north side of Douglas Loop Road, through the campus entry plaza, in front of the DeJardin addition, then heading south crossing Douglas loop road at the intersection of the Meyers Road extension, and continuing east to the ITC/Barlow lot along the South side of Douglas Loop Road. An alternative to this route would be a path that crosses Douglas Loop at the north, and loops around the south side of the road, connecting with the Meyers road sidewalk and heading east as it is proposed. This would limit the number of bike/pedestrian conflicts at the main entry plaza.

Below:
Diagram Civil Conditions. See Package for full size image.

CIVIL ENGINEERING CONSIDERATIONS

TOPOGRAPHY

The project site is relatively flat, with subtle slopes on the order of 1 to 2 percent throughout the existing parking lot. Some surface ponding is observed on the asphalt after rain events. The grades fall steadily to the south and west of DeJardin Hall. There are a number of existing stormwater treatment facilities located at the southwest edge of the parking lot, just to the north of Douglas Loop road, that are depressed in the range of 3 to 8 feet relative to adjacent grades.

NATIVE SOILS

According to the Natural Resource Conservation Service, the site soils are Bornstedt Silt Loams with fine textured soils. The soil's hydrologic group is class "C", with a relatively low hydraulic conductivity. The geotechnical site investigation by GRI confirmed these conditions. One of the field borings encountered refusal, suggesting the presence of cobble or a boulder, which have been found throughout the campus. These native soil types typically have a very low permeability and a high runoff potential.

UTILITIES

Our understanding of the existing utilities is based on site survey mapping prepared by Northwest Surveying, Inc. and as-built record information provided by Clackamas Community College, gathered during the campus master plan update efforts. There are currently no known deficiencies with the infrastructure to meet demands.

Water

The existing water distribution system on campus is a private system, served from two large master meter connections to the public water system. As-built drawings suggest that there is an abandoned 6-inch water line located just southwest of the proposed DeJardin addition that runs in an east-west orientation to the outer edge of Douglas Loop road before bending to the northwest. This stretch of abandoned pipe was not located in the survey for this project. This project presents an opportunity to remove the abandoned water line during the construction of the Transit Center and rebuilding of Douglas Loop and the parking lot, if that is desired.

No changes are expected to be made to the water system associated with the Transit Center portion of the project. Site lighting and utility trenching will need to be coordinated with the existing water layout to avoid conflicts. The exception to this would be if portions of the system need to be lowered to maintain adequate cover with site grading or proposed storm facilities.

Sanitary Sewer

Surveyed information does not reveal any sanitary sewer utilities located throughout the limits of the Transit Center or parking improvements. It is not expected that sanitary sewer work will be incorporated with the improvements associated with this portion of the project.

Stormwater

Surface runoff from the newly improved impervious areas will be managed in accordance with the Oregon City Stormwater and Grading Design Standards. Drainage from all new and improved impervious surfaces must be routed through storm facilities that provide water quality treatment and flow control.

There are existing storm facilities located along the southern and southwestern edge of the parking lot that serve to manage and treat runoff from the parking surface. These facilities will be removed with the proposed improvements and new facilities will be constructed to manage the runoff from the redeveloped impervious area. The proposed

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storm facilities will be required to be sized at approximately 14 percent of the contributing impervious areas. With the current layout, it is expected that the project will need to provide approximately 40,000 square feet of vegetated storm facility. The current plan shows a smaller total treatment area than will be required. The facilities will need to be distributed appropriately to allocate adequate capacity for each contributing catchment area.

The primary strategy for runoff collection throughout the parking lot will be surface flow toward the interior landscape strip between bays. A shallow swale will convey the runoff south, toward the storm facilities along the southwest edge of the parking lot. The typical section for the storm facilities provides a 16-inch deep depression (12-inch surface storage, plus 4 inches of freeboard), 18 inches of a specified growing medium, and 12 inches of drainage fill, with a perforated underdrain. Each vegetated storm facility will have an overflow structure with an orifice that collects the underdrain and ties to a downstream conveyance system. There is a potential to integrate site drainage from the DeJardin Hall Addition with the Transit Center and parking lot improvements. This could eliminate the storm facility on the south side of the addition, but would require additional capacity in a downstream facility serving the parking lot. The design of those improvements is still under development and more effort is needed to verify compatibility with that approach.

Due to the realignment of Douglas Loop, as opposed to a grind and overlay, additional stormwater management facilities will be required. A number of catch basins and laterals will need to be added to route runoff to new storm facilities.

There is an existing storm main flowing west that passes south of DeJardin Hall within the Caufield Basin that discharges at the southwest corner of campus. The proposed improvements will attempt to maintain as much of this storm main as is feasible and connect new laterals to tie into the existing system.

We would recommend having this mainline evaluated by CCTV inspection to verify the condition of the pipe for preservation.

Additional secondary storm collection and conveyance will be required throughout the parking lot to route runoff to storm facilities.

ITEMS FOR IMMEDIATE DISCUSSION

:: At this time it is understood that neither CCC nor the Oregon City Firemarshal are in posession of a Fire Truck Access Plan. A meeting is being set up in order to discuss and the outcome could have implications to the design.

:: During the 8/8 Transit Center workshop, CCC requested that Douglas Loop be relocated to accommodate all parking within the bounds of the road. The concept drawings reflect this. However, in doing this it was realized how close the new location of Douglas Loop becomes to the new Meyers Road. This should be reviewed immediately.

:: Parking Counts provided by Winterbrook planning from October 2016 suggested that this new lot provide 282 spaces. However, our understanding is that providing 282 spaces still leaves the College at a debt of 126 spaces. The proposed plan provides approximately 300 spaces, still leaving the college at a debt of approximately 108 spaces. The college will need to decide immediately if they want to include those spaces in this lot, which is not recommended, or locate them elsewhere on campus.