RED SOILS
MASTER PLAN

August 2017 Update

CLACKAMAS COUNTY

SERA

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August 2017 Update

by the Clackamas County Planning & Zoning Division

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1 Executive Summary

Executive Summary

1.1 Overview

The Red Soils Campus is a mixed-use, approximately 68-acre site in the City of Oregon City that consolidates most of Clackamas County's government services and facilities into a cohesive, campus-like setting. The campus will integrate public civic areas, private commercial development, sustainable design and building practices, and open spaces. The proposed plan is designed to guide development over the next 20 years.

The Master Plan for the Red Soils campus creates a mutually advantageous situation for the City of Oregon City and Clackamas County. The City is assured that the land will be developed over time in a holistic and comprehensive manner, and that the proposed land uses are compatible with those of the surrounding residential neighborhoods. In addition, the Master Plan provides the City with an understanding of the impact of development on public services and traffic. In return for thinking creatively and establishing a clear vision for the site, Clackamas County is assured of a more efficient, economical, and expedited review process with the knowledge that proposed buildings or landscape designs will be approved by the City.

The current planning process began with development of the 1998 Facilities Plan, which identified County departments operating in dilapidated facilities or in separate locations spread around the County. This initial planning effort was driven by the County's desire to consolidate its services into a single location, develop better facilities for county employees, and better serve the citizens of Clackamas County. That plan was endorsed by the Clackamas County Board of Commissioners and met both the regulatory and design intent of the City of Oregon City. Six subsequent planning efforts have followed since 1998. They developed the initial site design and refined and amended the plan and resulted in the Clackamas County Red Soils Site Master Plan which was adopted by the Board of County Commissioners in 2000. It was supplemented in 2001 and an alternative to that plan was prepared and adopted in 2004. In 2006, the County Commissioners and the City of Oregon City adopted a further revised Red Soils Site Master Plan. Updates were made in 2007 and 2009.

The Plan is designed to be flexible. Any of the proposed buildings shown and described here in the Master Plan can be developed at any point in the 20 year planning period.

The Red Soils Master Plan proposes approximately 1,120,852 square feet of development. The majority of the proposed land uses are dedicated to institutional, civic, and support activities associated with Clackamas County's government services. This includes the Public Services Building (PSB) in 2006, the Development Services Building (DSB) completed in 2008, the Central Facilities Utility Plant (CUP) completed in 2008, the Civic Plaza, additions and renovations to the existing Detention Facility completed in 2011, and the following proposed facilities: an Adult Detention Facility (ADF), a Courthouse Building (CB) that includes Courts and District Attorney functions, two County Office Buildings (COB1 and COB2), an Evidence Processing and Storage Facility (Silver Oak), a multi-level parking garage, a Communications Center (C-COM) and a new Juvenile Detention Facility (JDF), Shaver Building, and other potential private development. Approximately 150,000 square feet out of the total are assigned to a combination of private commercial and office spaces that will front onto Beavercreek Road.

This August 2017 update reflects changes on page 60 to include temporary facilities.


AV DAVIS
WARNER MILNE
LELAND
BEAVERCREEK
MARYSVILLE
DALLAS
REDFORD
RED SOILS
BEVERLY
MOLALLA
ROSEBERY
FORTUNA
CLAIRMONT
WHITNEY
MEYERS
AUTUMN
EASTBORNE
Taxlots
Red Soils Campus Site
Parks
Existing Building Footprints
Silver Oak
Wetlands
600
Feet

Context Map

1.2 Guiding Principles

The planning objectives guiding the planning process were established by the project's Steering Committee in 1998 as part of the Facilities Master Plan.

The following principles served as the foundation for this Master Plan:

Create an enduring image for the campus.

The campus and its new buildings shall communicate a sense of quality, permanence, and dignity.

Design a great place for county employees to work.

The built environment of the Red Soils Campus from its architecture to its central plaza and ample connections to surrounding neighborhoods will encourage staff and visitors to interact and promote the exchange of ideas.

Develop a plan that makes both short-term and long-term fiscal sense.

The design, construction, and operation of the buildings on the Red Soils Campus shall focus on reducing the life-cycle costs with the construction of the Central Utility Plant.

Build a place that employs environmentally-sustainable practices.

The campus will employ various measures to improve its long-term environmental impacts including reducing energy use through the proper orientation of buildings and insulation, creating efficient mechanical systems, managing stormwater run-off on-site, and implementing daylighting improvements. All newly constructed buildings will meet Leadership in Energy and Environmental Design (LEED®) Silver Certification.

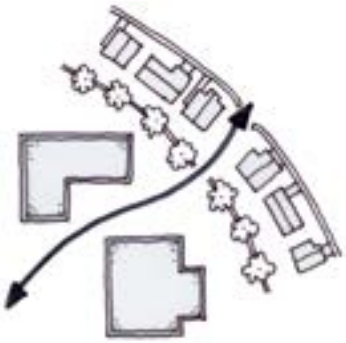
1.3 Key Features

The Master Plan follows thirteen years of work between the City of Oregon City and Clackamas County. During this time, Clackamas County and their consulting team developed a number of master plan alternatives and designed and constructed Clackamas County's Public Services Building and the Development Services Building. The Development Services Building, Central Utility Plant, and the Central Plaza were all developed under the umbrella of the adopted March 2006 Master Plan.

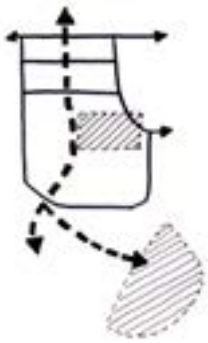
Acquisition and incorporation of Silver Oak triggered the Fall 2011 land use review.

Key features of the Red Soils Master Plan include:

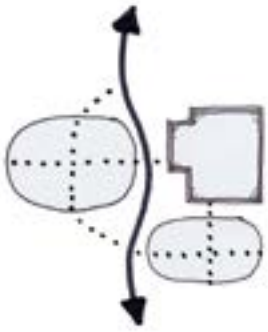
Create a central plaza that is the heart of the Red Soils Campus and serves as a gathering place for employees and visitors.



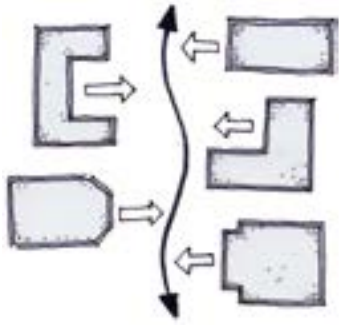
Integrate pedestrian and bicycle links from the campus with the single-family residential neighborhoods to the west (via Hiefield Court), Hillendale Park to the southeast, and Warner Milne Road to the north.



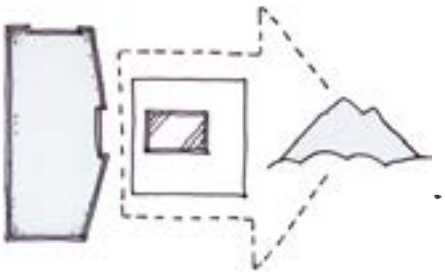
Articulate an internal north-south "pedestrian and bike spine" between Warner Milne Road and Hillendale Park. The proposed connection will link all the buildings within the site and bring people to the Central Plaza.



Incorporate surface parking areas adjacent to the buildings in a manner that does not visually detract from the pedestrian realm and does not increase pollution associated with stormwater run-off.



Orient the front doors of all the buildings to the pedestrian spine and/or the plaza.



Site buildings in a manner that creates a central public plaza and maintains views of Mt. Hood.

Require all new buildings on campus to meet USGBC LEED® Silver Certification criteria.

Site Rooms: Given the scale of the site, and in order to create a more understandable and manageable approach, the Master Plan divides the site up into three zones based on how the proposed campus buildings are oriented and to shape civic spaces, as well as their function. These zones, or "rooms," are defined in the plan with regards to their character, programming, and the hierarchy of private to public spaces. The rooms include a "Living Room," a "Front Room," and a "Back Room."

The rooms are discussed in more detail in Section 4 of this document detailing the overall Master Plan. While the three rooms have distinct edge conditions that give each space its own identity, the three will function as an integrated whole, given the connections proposed between each room. A serpentine bicycle and pedestrian path is proposed as a primary link between the rooms, extending north-south from Warner Milne Road to Hillendale Park and east-west from Hiefield Court to Red Soils Court. A secondary trail will include a link from Hiefield Court along Mud Creek to Hillendale Park. In addition to proposed bike and pedestrian trails, all roads are planned with sidewalks and, where it makes sense, stand alone bike facilities or opportunities for bicyclists to share the lane with autos. Temporary sidewalks will be built in conjunction with parking areas constructed during the early phases of implementation.

Room Division of Campus

1.4 Phasing

The development of the Red Soils Campus envisions a 20-year build-out period with completion by 2030. The following potential development sequence remains speculative given the financial realities of what can be built and when. As observed over recent years, growth of the campus may not always proceed as anticipated. Therefore, the Master Plan should be considered as a snapshot of what can occur rather than a blueprint. Current Architectural and Engineering site plans can be found in the Appendix.

Phase One (2008): The Public Services Building (PSB), the Development Service Building (DSB), the Central Plaza, the Central Utility Plant (CUP), and an initial pedestrian and bike spine comprise the first phase of completed construction.

The Public Services Building (PSB), a USGBC LEED® Silver Certified building located on the south side of the Central Plaza, was built in 2004. This building incorporates a number of simple sustainable building principles that include: orienting the building to optimize solar control, reducing surface parking through traffic demand management and public transit programs, and integrating stormwater measures to reduce the impact of runoff on local watersheds.

The PSB, with 110,000 gross square feet, is home to the Clackamas County Commissioners, County administration offices, County Counsel, Employee Services, the Finance Department, Public and Government Affairs, the County Clerk's office, Department of Human Services, and the Treasurer's office. The lobby of the building has a campus information booth and a public exhibit space.

The Development Services Building (DSB) opened in the fall of 2008 and frames the north side of the Central Plaza. This four-story, 178,000 gross square foot facility (including below-grade parking on the north-west side of the building) houses Assessment and Taxation, Transportation and Development, the County Surveyor, Water Environment Services, Business and Community Services, and Tourism. The building has two public entrances; one facing the Central Plaza and the existing Public Services Building, and the other facing the parking deck. The DSB received a LEED® Silver Certification, in 2010.

Additional parking for this area and the DSB is currently accommodated with surface parking lots designed to meet City Code requirements and located adjacent to the building across Library Court. Parking spaces in the adjacent below grade parking structure are reserved for assigned county vehicles. It is understood that some of the surface parking spaces associated with the DSB will be removed in the future as a result of the construction of the Courthouse.

Phase Two (Future): The County plans to construct a new Adult Detention Facility (ADF) capable of accommodating up to 800 beds, which are currently allowed on the site as a conditional use. The ADF is to be located north of Mud Creek, east of Kaen Road, and south of the east-west pedestrian and bike spine.

Full Build-Out: For the following developments to occur, the first building to be built in the sequence will likely be the County Office Building (Building #9 as noted on the Illustrative Master Plan). The proposed parking garage could then be constructed following the relocation of the two information service building functions to either the Public Services Building or the Central Utility Plant. Depending on the overall campus parking needs, this Parking Garage will be a 3 to 4-story structure with a potential for 832 spaces.

Once the Parking Garage is constructed, the Courthouse could be built, providing a west face to the Central Plaza. Once these steps are completed, the Courthouse will provide a public face to the Central Plaza and for people entering the campus from Beavercreek Road.

With the completion of the Courthouse, or even in conjunction with its construction, Clackamas County may opt to offer to an outside developer the land to the east side of the relocated Beavercreek Road for retail and/or office uses (these are noted as Buildings 11 and 12 in the Illustrative Master Plan). Another County Office Building could be developed in the Front Room on the corner of Warner Milne Road and Beavercreek Road and would complete the north end of the campus.

The Living Room and the Back Room could be developed over the following twenty years by reusing a portion of the existing County Jail. Juvenile Services could be moved into the portion of the building built in 1990 while the unused portions of the existing Jail could be demolished to provide an area to expand Central Communications toward the southeast or to build a new facility. The County is exploring alternative uses for the Jail.

Access to the area south of Mud Creek will continue to be provided via the existing old Kaen Road right-of-way and the Mud Creek Wetland crossing, provided that the ADF is not built out in a later phase. This connection provides the shortest distance over the wetland and therefore poses the least impacts on the resource. The balance of the area will be used for staff parking for the proposed new ADF, Central Communications, and Juvenile Services with a visitors' area for Juvenile Services on the southeast side of the site next to Hillendale Park. Construction of the new ADF and its associated parking will require the removal of the structures for Dog Services.

At full build-out of the Adult Detention Facility, the Loop Road will need to be constructed running along the western property line from Warner Milne Road to and around the north side of the Mud Creek Wetland and up to the eastern property line to Beavercreek Road. The portion of Kaen Road constructed with the Public Services Building in Phase 1 has been connected to the area currently used for parking and landscape treatment, clearing a site area that can then be used to construct an addition to the Adult Detention Facility of up to 672 cells.

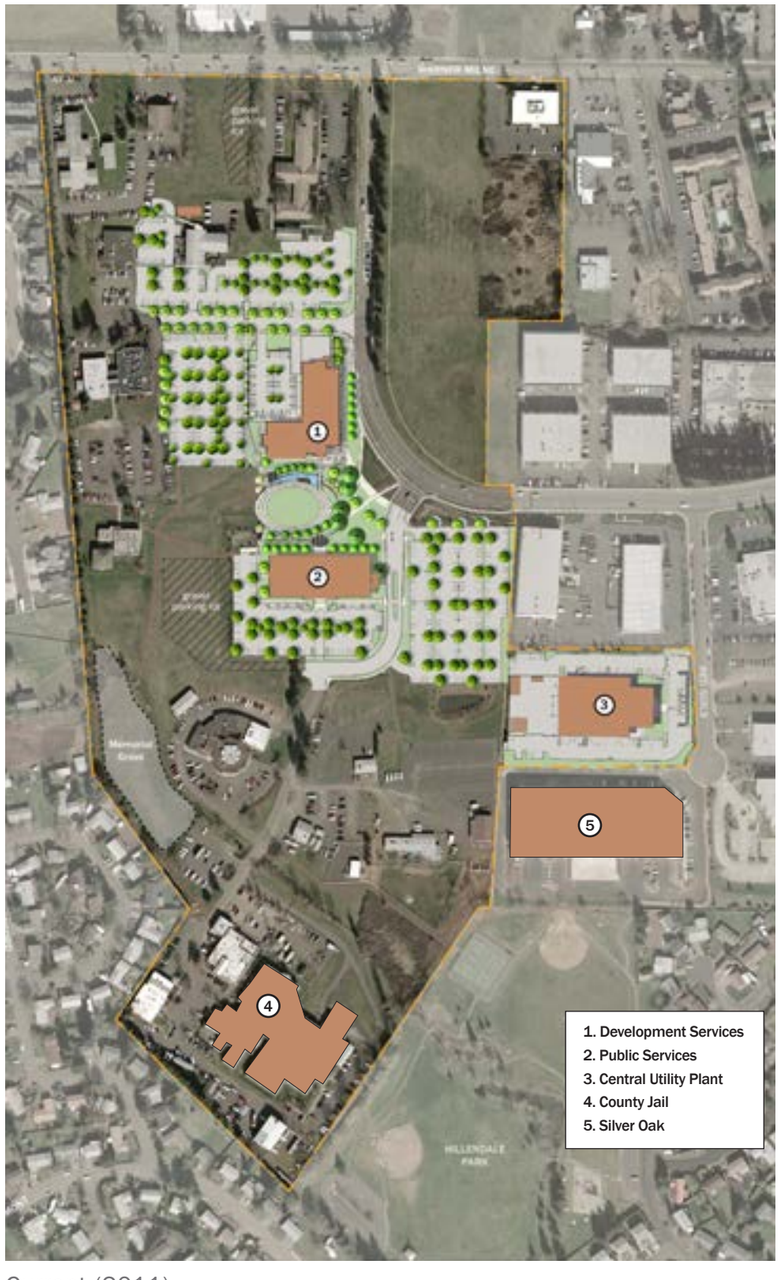
Developed in this sequence, the campus at full build-out will contain 1,120,852 square feet of buildings and approximately 16.2 acres of site area dedicated to usable landscaping and open space.

In order to ensure that the goals and objectives of the Master Plan are met, a plus or minus 10% maximum is placed on all quantifiable elements. The Master Plan establishes the proposed uses for the site and restricts the number and magnitude of allowable changes of these uses. Changes to the established criteria above, and beyond the plus or minus 10% threshold, will trigger a Type III Procedure Land Use Review and Amendment as explained in Chapter 17.65.080.B of the City of Oregon City Zoning Code.

Beyond 2030 : Further expansion beyond 2030 within the overall Red Soils site (and build-out total) is possible east of the Loop Road and adjacent to the proposed Adult Correction Facility. This open area, away from the neighboring single-family residential neighborhoods, will enable the Adult Detention Facility and its potential addition to be served by the site's hierarchy of vehicular connections further increasing overall safety and efficiency.

For example, as the majority of truck deliveries to the campus will occur from Red Soils Court and the driveway fronting the Central Utility Plant, direct access to the ADF across the Loop Road will be simple and straight forward. Visitors, including legal personnel and employees, will be able to approach the building from the parking areas to the building's north and south entries.

Phase 1 (2008)



Current (2011)

Full Build-Out (2030)

Red Soils Campus: Program by Phase

Public Facilities	2008 (Phase 1) Gross SF	2012 Update Gross SF	2030 Full Build-Out
Existing Facilities			
Community Health	17,742	17,742	
Beavercreek Clinic Annex	1,797	1,797	
Stewart Community Center	15,080	15,080	
Oregon City Hilltop	17,394	17,394	
Community Health WIC Program	5,757	5,757	
County Jail	74,965	74,965	
South Station	6,800	6,800	
Property Room	10,500	10,500	
Jail Maintenance Facilities	1,187	1,187	
County Communications (CCOM)	11,536	11,536	
OSU Extension	4,310	4,310	
OSU Extension Annex	2,082	2,082	
Technology Services	5,993	5,993	
Technology Services Annex (former Assessor)	12,016	12,016	
Juvenile Intake & Assessment	17,621	17,621	
Juvenile Annex Mod (former Dog Services Admin)	9,016	9,016	
Juvenile Annex (former Facilities Building)	14,315	14,315	
Storage Building (former Dog Services Shelter)	6,690	6,690	
County Work Crew Facility	2,742	2,742	
Shaver Building	9,415	9,415	9,415
Phase 1			
Public Service Building	110,000	110,000	110,000
Development Service Building	178,000	178,000	178,000
Central Utility Plant	52,159	52,159	52,159
2012 Update			
Silver Oak Building		85,697 **	136,838 ***
Current Total Area	587,117	672,814	
Current Floor Area Ratio (FAR)		0.23	
Full Build Out (2030)			
Adult Detention Facility			200,542 *
Central Communications			24,000
Juvenile Facilities			72,500
Courthouse			215,756
County Office Building 1			100,711
County Office Building 2			75,608
Retail and Office SM (Beavercreek/Warner Milne)			8,620
Retail and Office (Beavercreek)			70,000
Full Build-Out Total Area			1,254,149
Full Build-Out Floor Area Ratio (FAR)			0.40

Notes:

1. All numbers are gross square footages for the entire building area.
2. Total Area of the Campus is square feet: 2,989,868

* At Full Build-Out a projected 205,289 gross square foot addition could be made to the Adult Detention Facility (ADF) bringing the facility to a total of 405,831 gross square feet and the overall campus to 1,629,525 gross square feet (FAR=0.54). This projection may change based upon final design and constructions bids received for the facility.

**For the 2012 Update the proposed total area for the Silver Oak Building is 85,697 gross square feet, with 32% Office and 68% Storage Warehouse. The enlarged area from the building footprint of 68,419 gross square feet represents a proposed fully accessible two story space within part of the building to maximize the storage warehouse potential.

***For the Full Build-Out the proposed total area for the Silver Oak Building is 136,838 gross square feet, with 18% Offices and 82% Storage Warehouse. The enlarged area from the building footprint of 68,419 gross square feet represents a proposed fully accessible two story space within the building to maximize the storage warehouse potential.

Full Build-Out (2030)

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2 Background

2.1 Overview of Previous Planning Efforts

Background

Urban Alternative, February 2004

Suburban Alternative, February 2004

2.1 Overview of Previous Planning Efforts

This section reviews the prior planning efforts that led to the current Red Soils Master Plan. Principles emerged in each planning effort that defined themes and key design moves summarized in this Master Plan Update. The January 2012 Update is preceded by the seven planning efforts listed to the right.

The initial 1998 planning effort identified needs; the 2000 planning effort chose the site and developed the initial site design; the 2001 and 2004 planning efforts established the project's goals and objectives; the 2006 planning effort refined the plan and was adopted; the 2007 planning effort amended the adopted plan based on the new acquisition of the Central Utility Plant property located adjacent to the campus to the east of the area assigned for the Central Utility Plant (CUP); and the 2009 presented an update to the Mud Creek Wetlands and revisions to the existing Detention Facility in the Back Room of campus.

- Dec. 1998 — Clackamas County Facilities Master Plan
- Feb. 2000 — Clackamas County Red Soils Site Master Plan
- Nov. 2001 — Clackamas County Supplement to the Red Soils Site Master Plan
- Sept. 2004 — Clackamas County Red Soils Site Master Plan Alternative
- Mar. 2006 — Clackamas County Adopted Red Soils Master Plan
- Apr. 2007 — Clackamas County Red Soils Master Plan Amendment
- Oct. 2009 — Mud Creek Wetlands Update and Detention Facility Revisions

Adopted Master Plan, March 2006

Master Plan Update, October 2009

The Clackamas County Commissioners initiated the Facilities Master Plan in an effort to improve customer service and to meet the growing facility and space requirements of the County. The Facilities Master Plan evaluated existing County facility conditions, analyzed department space needs, and suggested alternative sites for a centralized campus of County service facilities as the planning process concluded that the County needed to develop a new campus that consolidated all their services. Consequently, a preferred concept was identified through public feedback.

With the site selected through the Facilities Master Planning process, the Clackamas County Red Soils Master Plan formally commenced in February 1999 with three goals:

- Design a campus master plan for the Red Soils site.
- Determine the adequacy of the site to accommodate the County's program needs.
- Determine the site's expansion capacity beyond the 2008 planning horizon.

In response to these goals, the first draft of the Red Soils Site Master Plan was developed over a 20 month period from February 1999 through October 2000. A key feature of this plan was the relocation of Beavercreek Road, which allowed the development of a campus with building clusters that helped eliminate some of the conflicts between pedestrians and vehicles. This plan also introduced the idea of moving parking to the perimeter of the site and allowing parking to occur along Beavercreek Road.

The November 2001 supplement to the Red Soils Master Plan refined the October 2000 Master Plan. A need to reduce project costs prompted a revision of the site plan and building program. This revision introduced a more ambitious private sector development strategy to share development costs engaging a Utility Service Provider to take responsibility for the energy utilization, space conditioning, and lighting of the buildings on the campus.

The Utility Services Provider concept was part of the design-build procurement utilized by Clackamas County for the design and construction of the Public Services Building (PSB). A Provider was selected to design, construct, and manage the energy consumption for the PSB. This sustainable approach was further anticipated in the design and construction of the Central Utility Plant.

Detailed programmatic requirements from Clackamas County and further analysis of the site led to the revision of the 2001 Master Plan. Commonly referred to as Alternative Four, this plan was adopted in concept by the City of Oregon City in 2004 and serves as the foundation for the Red Soils Master Plan adopted in 2006.

The following list, presented to the City of Oregon City on September 7, 2004, summarizes the major themes and features incorporated into the design of Alternative Four, which served as the starting point for the Adopted 2006 Master Plan:

Beavercreek Road

- Relocate Beavercreek Road to slow down traffic and allow parallel parking along the road for a more urban setting.
- Sculpt the curve along Beavercreek to enhance the sense of entry to the core of the campus.
- Protect mature trees and other vegetation, where feasible, to emphasize a sense of a green landscaped setting.

Campus Town Center Feeling

- Develop the plaza to serve as the pedestrian and activity center of the campus.
- Orient buildings to the plaza and Beavercreek Road and place parking behind buildings so as not to detract from the pedestrian environment.
- Cluster public buildings and services to the west of Beavercreek Road to promote easy inter-facility access and allow the development of private retail/ office buildings.

Pedestrian Spine

- Design the Pedestrian Spine as a landscaped, multi-use pathway with a series of nodes along the corridor to preserve open space and provide access to buildings within the site.
- Design the Pedestrian Spine to improve access for the maintenance and installation of utilities.
- Orient future development in the main campus to the Pedestrian Spine as a means of encouraging internal pedestrian circulation and minimizing pedestrian-vehicle conflicts.

Access

- Develop vehicular access points to the campus.
- Connect pedestrians and bicyclists to the site from adjacent neighborhoods, parks and roadways through a network of on-street bicycle lanes, sidewalks, and pathways.
- Provide connectivity through the site by linking Warner Milne Road, Beavercreek Road, Hiefield Court, Hillendale Park, Library Court, Loop Road and Front Street.
- Locate visitor parking behind or to the side of the buildings so as not to interrupt the public realm.
- Design select pedestrian crosswalks, especially across Beavercreek Road.
- Coordinate with TriMet locating bus stops along Warner Milne and Beavercreek Road to provide transit access to the site.

Phasing

- Develop a comprehensive phasing scheme that enables the sale of strategic parcels to private developers.

Since the Master Plan was adopted by the City of Oregon City in March 2006, the Michael's Building (now Central Utility Plant) and site were added to the campus via a Master Plan Amendment process in 2007. This two–story, 41,000 SF building is now used and referred to as the Central Utility Plant (CUP). It provides all new facilities with energy-efficient heating and cooling via a loop system, and also houses the Clackamas County Facilities Department, Veterans' Services, and Elections. In addition to the Central Utility Plant, the County has completed construction of the Development Service Building and the public plaza, which opened to the public in the Fall of 2008.

The Red Soils Master Plan Update in 2008 amended the proposed site of the Adult Detention Facility (ADF), and the 2009 update addressed wetlands and revisions to the jail.

The January 2012 Update reflects the acquisition of Silver Oak of 68,419 SF and provides for revised guidelines on security and screen fencing appropriate to the re-use of this building as an evidence processing and storage facility.

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3 Existing Conditions

Existing Conditions

3.1. Introduction

The 1998 Facilities Master Plan commenced the co-location of County services onto the Red Soils Campus and incorporated the existing buildings on the Red Soils site into the Master Plan and Master Plan phasing process. The Adult Detention Facility, Sheriff Facilities, Juvenile Services, Community Health Buildings, Behavioral Health Buildings, Technology Services Annex (former Assessment & Tax building), OSU Extension Facility, and Technology Service buildings are existing buildings which are part of the Master Plan until Phase 3 build-out or until operational efficiencies are better served in alternate future planning efforts.

These existing facilities hold Mixed Use Employment (MUE) Permitted, Limited or Conditional Uses that will eventually be incorporated into new buildings or renovated in the future phases of the Master Plan. The existing facilities meet applicable code and Oregon City Zoning requirements for when they were constructed. Some of the existing facilities have specialized architectural needs, the Adult Detention Facility, for instance, built in 1959 has security, screening, fencing and access requirements that, for public safety, must be maintained for this use. Clackamas County has made efforts to reduce the visual impact of these existing features. Similarly, most of the existing facilities have mechanical equipment, generators, transformers or other visually challenged items which had been placed in the landscape, but screened in a similar approach with chain link fencing. Public and staff safety is a chief concern for the County and thoughtful pathway and streetscape design has been incorporated to provide an appealing visual backdrop in lieu of a visual connection to the facility itself. These specialized enclosures or screenings were in place before the 1998 Facilities Master Plan was adopted, and provide a first level of preventative security for these buildings.

The Red Soils site is located within the city limits of the City of Oregon City and is bounded by Warner Milne Road to the north, Hillendale Park and neighboring residential development to the south, commercial and office/industrial development to the east, and residential development to the west. The site is zoned MUE which allows the development for a variety of institutional, commercial, and retail uses. Appendix C further describes the uses, building heights and setback requirements amended as part of the March 2006 Master Plan to allow for greater height and reduced setbacks from public streets.

Aerial Photo (2009)

350 Feet

3.2 View Corridors and Topography

The site is relatively flat with slopes ranging from 0% to 6%. There are two high points: one located in the northwest corner of the site and one east of the Public Services Building. These high points provide views of Mt. Hood and the Cascade Range to the east. The view corridor from the west side of the property, looking east down the center line of the plaza to Beavercreek Road, is the most prominent site axis on campus. This view corridor aligns the front door of the future Courthouse and the center of the campus.

Existing Trees

Mud Creek Wetland, view from Juvenile Services and entrance to Adult Detention Facility

3.3 Trees

There are a number of tree groupings throughout the campus:

- Memorial Grove
- Recently installed street trees along Library Court
- West of the Central Plaza at the point where Beavercreek Road changes direction
- South of the Public Services Building and west of Kaen Road

For security and public safety concerns the Facilities Department of Clackamas County monitors tree growth adjacent to buildings and will endeavor to maintain existing trees and shrubs. If needed, for safety or security reasons, the County will coordinate with the City of Oregon City to change species or placement of trees outside of the Master Planning process.

3.4 Water Quality Resource Areas

The low points on the site correspond with two existing wetlands. The southern wetland is associated with Mud Creek. The other wetland is located in the northeast corner of the property and drains to Newell Creek. Both wetlands have been delineated by a professional wetland scientist and professional survey updates are current. The Mud Creek Wetland delineation (WD 03-0099) was approved by the Division of State Lands (DSL) and the Newell Creek Wetland delineation (WD 04-0433) was as well. These Title 3 wetlands are identified as Water Quality Resource Areas and are therefore under the protection of the City of Oregon City Development Code, Chapter 17.49.

The Water Quality Resource Area consists of the protected water feature and its vegetated corridor consisting of a vegetated buffer 50 feet wide from the edge of each of the delineated wetlands. Development within the resource area is limited to stormwater outfalls and walkways as allowed under the provisional use section of the code.

3.5 Drainage

Drainage is directed by an east - west “ridge”on the site just to the south of the Public Services Building with stormwater falling to the north of this ridge flowing toward Newell Creek and stormwater falling to the south flowing toward Mud Creek. The City of Oregon City mandates on-site stormwater retention and water quality treatment bioswales for new developments.

Bioswale

3.6 Vehicle Access and Circulation

Access to the site is from Warner Milne Road and Beavercreek Road. Warner Milne is classified as a major arterial in the City of Oregon City's Transportation Systems Plan. This designation is intended to accommodate traffic to the site with a limited number of intersections and driveways. Beavercreek Road is classified as a minor arterial. This designation is also intended to promote through traffic but is less restrictive about access to adjacent land parcels. Beavercreek Road is currently a three-lane cross-section with two through lanes and a center turn lane. Field observations have found that traffic speeds are generally higher than the posted speed for this facility. Contributing factors to this condition include the width of the roadway, the road grade as it curves, and the lack of adjacent buildings.

Once inside the campus Library Court and Kaen Road, private roads for public use, do not function as part of a larger street network. Kaen Road dead ends at the County's current Jail, and Library Court acts as a driveway to Behavior Health Centers, Technology Services, and the Development Services Building. Warner Milne at Molalla Avenue, Beavercreek Road, and Leland Road have traffic signals. The signal at the Warner Milne/Beavercreek Road intersection is the only controlled access point on the site. Traffic analysis has determined that most of the signalized intersections currently operate at acceptable Levels of Service during P.M. peak hours.

Path near memorial Grove and Mud Creek Wetland

3.7 Bicycle and Pedestrian Access

Bicycle and pedestrian access to the site is provided via public facilities on the previously-described streets. A pedestrian pathway that meanders through the campus, and receives high use by neighbors and staff for exercise and connectivity to adjacent uses. The Silver Oak Building has an easement on the east side of site for pedestrian and bicycle access to Hillendale Park. Bicycle lanes are provided on Beavercreek Road, Kaen Road and Library Court. All buildings receiving public visitors have exterior bicycle parking and the Development Services Building provides additional secure staff bicycle parking for the campus. Connectivity Guidelines in the Master Plan section further describes the proposed pattern of sidewalks and bicycle lanes on campus. See Appendix E for bicycle parking counts.

3.8 Parking

The campus provides a total of 1,651 parking spaces, including spaces in temporary use gravel parking lots. A summary of existing parking spaces is described in the following tables. See Appendix F for proposed future parking.

Bicycle Parking at PSB

3.9 Existing Fencing and Screening

As mentioned in the Introduction, Pulbic Safety Operations facilities such as the Adult Detention, Juvenile Services, Sheriff, County and Technology Services have existing fencing and screening. for public security The Adult Detention Facility (ADF) has 8-foot, 12-foot and 16-foot high chain link fencing with barbed or razor wire at the top for public safety. Other Public Safety Facilities have slatted chain link, and/or 12-foot high chain link with barbed or razor wire at the top to protect fleet vehicles, Court evidence and maintain the Chain of Custody required by State Laws and a fiscally responsible material. These existing fences and any future fence needs of this type are located in the Back Room (see Rooms section of the Master Plan section). Pedestrian and bicycle paths that are adjacent to these fences are proposed with landscape screening elements to reduce the visual impact of fences and screens.

Existing perimeter fence, ADF. Mud Creek Wetland foreground
Fence: Chain link with barbed wire, 8-foot high.

Existing screening of equipment at Technology Services
Fence: Slatted chain link, 4-foot high.
f

Existing perimeter fence at ADF
Fence: Chain link with barbed wire, 8-foot high.

Existing screening of equipment at Technology Services annex (former Assessment and Tax Facility
Fence: Painted wood slats, 8-foot tall.

Existing screening at Sheriff's Facility
Fence: Slatted chain link, 8-foot high.

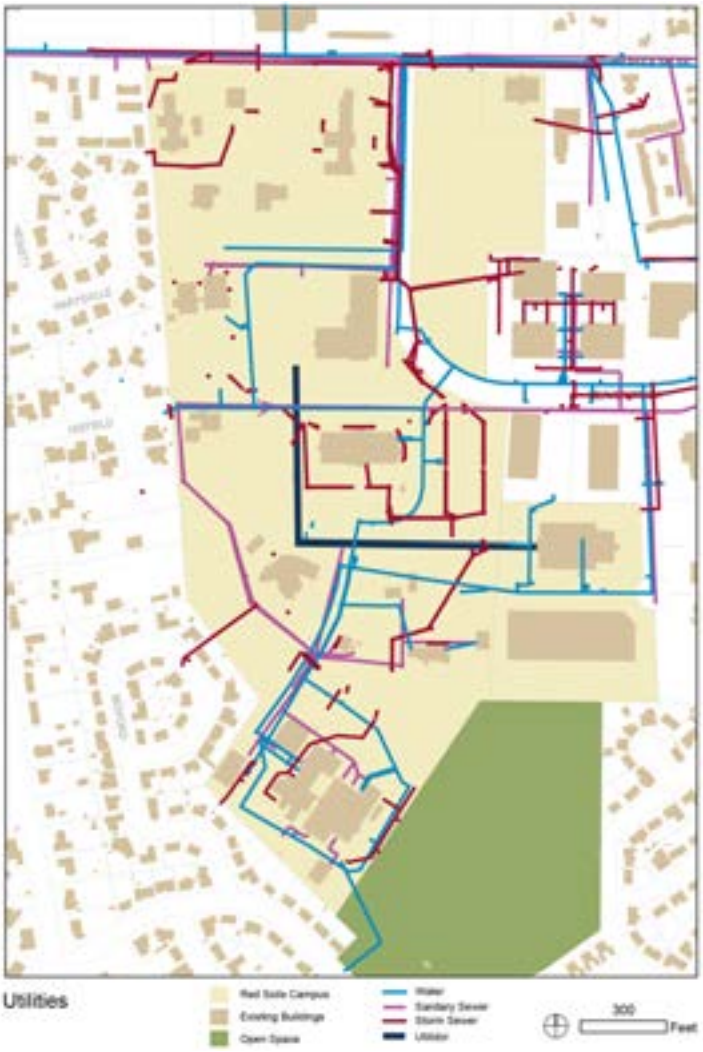
Other existing fencing and screening pre-dating the 1998 Facilities Master Plan on campus include slatted chain link and wood slats. These were permitted through the City of Oregon City Planning and Building Departments, and provide a first level of public safety preventative security for these buildings.

3.10 Utilities

Public water, sanitary sewer, and stormwater conveyance systems are presently available to the site, along with franchise utilities including power, phone, cable, natural gas, and county telecommunications. The backbone of these franchise utilities is located in a joint trench from Beavercreek Road, south on Kaen Road towards the existing Adult Detention Facility. County owned chilled/steam lines as well as telecommunications lines are located in a utility trench (the utilidor) running from the CUP to the Public Services Building and Development Services Building.

Existing public water is located along Beavercreek Road, Warner Milne Road, Library Court, Kaen Road and in two east-west lines crossing the site: one at Hiefield Court and one that runs through the proposed Adult Detention Facility (ADF). The Kaen Road public water line and the existing Jail public line both provide a looped public water system around the existing Jail located on the south end of the Campus. These two systems are a combination of 8-inch and 12-inch diameter water lines.

The Jail and other campus buildings South of the PSB were previously served by a private campus 6-inch line. This line was abandoned and the public loop systems in the area were improved in 2010. All buildings near the Jail are now metered individually and connected to the public water system. The PSB is served with water from the 12-inch public main line located in Kaen Road. The DSB is served with water from the existing public 12-inch main running east-west from Hiefield Court to Beavercreek Road. The campus buildings north of Library Court were previously served by a private campus 6-inch line. This line was also abandoned in 2010 and all the buildings are now metered individually and connected to the public water system.



An 8-inch public sanitary sewer main runs northwest from the existing Jail to Beavercreek Road, the PSB and DSB are connected to this public sewer line. This existing sanitary sewer system expands to 15-inch diameter prior to leaving the Red Soils Campus. A downstream analysis conducted by Harper Houf Peterson Righellis in January 2008 did not indicate any capacity issues resulting from the proposed ADF facility.

Public sanitary sewer is also located along Library Court which conveys flows to a public line in Beavercreek Road which flows north to a public main in Warner Milne. These City-owned lines continue east combining near Molalla Avenue. The system continues east to Highway 213 connecting to a Tri-County sewer interceptor main which conveys all sewage to the Tri-County sewage treatment plant located near the Clackamas River.

Private stormwater systems exist for the Mud Creek and Newell Creek drainage basins. These include the recently constructed treatment and detention facilities for the Public Services Building and Kaen Road which convey runoff to the Mud Creek basin. The DSB building, Central Plaza and parking lots are served with private stormwater detention and water quality facilities consisting of a combination of underground detention and stormwater treatment facilities as well as above ground treatment swales and flow-through treatment planters. The DSB also collects and stores stormwater for irrigation of the parking deck landscaping, the landscaping around the DSB, and the Central Plaza. Excess runoff from the DSB is directed off-site to the northeast respecting the original Newell Creek basin.

The Red Soils Campus contains a Water Quality Resource Overlay associated with Mud Creek and Newell Creek wetlands. The wetlands have been delineated and the Oregon Department of State Lands concur with their delineations. Development within the Water Resource Overlay District is subject to the requirements of Chapter 17.49 of the Oregon City Code.

3.11 Silver Oak

In 2010, Clackamas County acquired Silver Oak, leading to this Master Plan Update. Located at 1810 Red Soils Court, the building is 68,419 square feet and was in private use prior to acquisition by the County.

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4 Master Plan

Master Plan

4.1 Vision

The 2030 vision for the Red Soils Campus reflects Clackamas County's desire to consolidate the majority of its functions and to create a civic identity for the County that encourages the exchange of ideas while also showcasing a commitment to creating a state-of-the-art, sustainable government center.

4.2 Plan

The Master Plan is responsive to the needs of the employees of Clackamas County and to those of its neighbors. The proposed development has been crafted in response to a number of spatial, organizational, and growth concerns while seeking to remain easy to implement. In light of this, the Adopted Master Plan of 2006 included changes to the code such as modifying height limits in order to make the code more favorable to the type of desired development indicated in the Master Plan.

The vision for Red Soils Campus shapes its design: the proposed program, campus-wide circulation, infrastructure, and natural systems, and the connection between specific areas of the campus are designed to promote interaction and activity. This section details the unifying elements of the plan such as the pedestrian and bicycle connections and sustainability measures before describing in more detail the design framework and program.

The Master Plan has been carefully crafted to meet existing regulations. The proposed buildings comply with the Design Guidelines for Clackamas County and the City of Oregon City. For further details about how individual elements of the plan meet existing county zoning and design criteria see Appendix C and Appendix E.

Connectivity: The Master Plan proposes a multi-modal system consisting of a street hierarchy based upon function, transit service, sidewalks, bike paths and trails. This network is designed to reduce dependence on the automobile and link the site's three rooms.

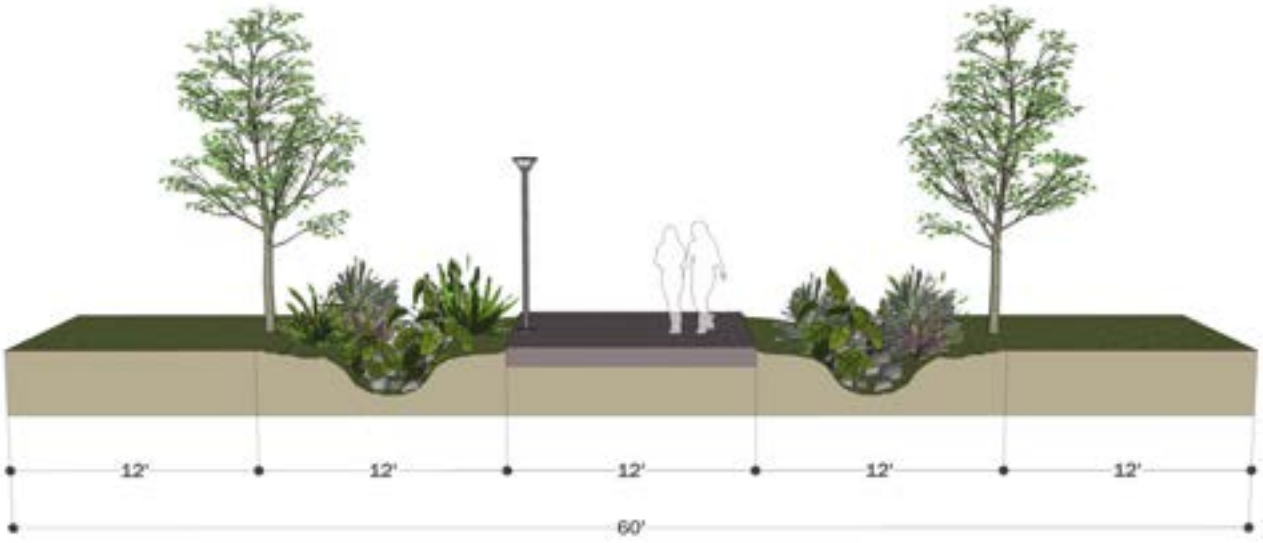
The proposed transportation network takes advantage of the existing infrastructure network, as well as adds new links to provide a complete multi-modal network. All planned pedestrian, bicycle, transit, and vehicular connections from the community will lead to and from the Living Room and its Central Plaza, the heart of the Red Soils Campus.

Beavercreek Road serves as the gateway to the campus from the east and the north. Coming from the east, visitors to the campus are greeted by a view of the Central Plaza framed by the Public Services Building and the Development Services Building and a frontal view of the Courthouse. Upon entering Beavercreek Road from the north, visitors will travel past County Office Buildings that frame the entrance from Warner Milne Road to the heart of the campus. This segment of Beavercreek Road will be developed in a manner characteristic of an urban commercial zone with wide sidewalks, street trees, attractive architectural façades, a family of attractive street furnishings, transit stops, and on-street parking. These street treatments are intended to mark an entry to the campus and provide an inviting pedestrian environment so people are invited to walk through the campus in a comfortable and attractive setting.

The proposed Loop Road will be the most important new roadway, passing north-south between the residential neighborhood on the western edge of the campus and the industrial uses and Hillendale Park on the eastern and southern edges of the campus.

The Loop Road will provide perimeter access to parking areas serving the county buildings in the center of the site thereby minimizing conflicts between pedestrians, bicyclists, and vehicles. Access to the Loop Road from Beavercreek Road will be controlled via a signalized intersection. Overflow parking areas will also be accessed via the Loop Road. Bicycle lanes will be provided along the Loop Road to encourage mixed traffic and to keep speeds relatively low.


WARNER MILNE
HEFFIELD
MARYSVILLE
HEFFIELD
RED SOILS
BEDFORD
Connectivity
Roadway 1
Roadway 2
Roadway 3
Bicycle and Pedestrian Greenway / Pathways
300
Feet



Cross Section of the Pedestrian-Bike Spine (at maximum width)

In addition to the network of streets, the campus will include a hierarchy of pedestrian and bicycle connections. With the exception of the west side of the Loop Road parallel to the adjacent residential neighborhood, all campus streets will include sidewalks. The majority of the sidewalks, designed with a curb side planting strip serving as a protective edge, will take pedestrians to the front door of all buildings, emphasizing the formal public entry to these civic buildings.

Many of the pedestrian and bike paths will be informal in nature. The primary pedestrian and bicycle "spine" will run north-south through the campus in a serpentine alignment, connecting facilities on Warner Milne Road to the center of the campus at the Central Plaza and then further south on to Hillendale Park. At the point where the path meets the Loop Road, it will head east, towards the Central Utility Plant before heading north between the DSB and the existing surface lot to Beavercreek Road. Additional east-west connections are proposed from Hiefield Court through the Courthouse portal to the Central Plaza, as well as an east-west connection south of Loop Road to Hillendale Park.

The serpentine path proposed through the center of the campus will serve not only as the primary pedestrian and bike connection from Warner Milne Road but also as an organizing and connecting device to the larger campus. This shared connection is to be a wide pathway with shade trees, stormwater management bioswales, and lush vegetation suitable to the Pacific Northwest's micro-climate along its edges. The constructed stormwater detention swale crossed by the path will help detain runoff from adjacent hard surfaces and buildings.

Other features will include pedestrian lighting to enhance security, signage to facilitate wayfinding, and shade trees to reduce heat island effects from paved surfaces. Additionally, a section of the spine southeast of the Courthouse will include a boardwalk system running across a vegetated wetland. The intent of this corridor feature is to provide a pleasant place for people to walk and bicycle between buildings on the campus while further limiting interactions with motor vehicles.

Wetlands: The Newel Creek and Mud Creek wetlands contribute to the overall character of the campus. The Newel Creek wetland is located on the east side of Beavercreek Road, north of the proposed commercial site. The Mud Creek wetland runs from west to east in the southern portion of the site. Periodically required delineation updates shall be prepared as administrative submissions.

The Newel Creek wetland will be enhanced with appropriate plantings and surrounded by a landscaped wetland park and an adjacent interpretive viewing area. The Mud

Sustainable Wetland Design Examples

Creek wetland will create additional natural resources for the campus and screening for neighboring residential uses. An interpretive kiosk and a pedestrian bridge will welcome visitors and direct them to the passive recreational trail network leading to Hillendale Park. Shade trees and native plants will flank the trails.

Landscape plantings in the area adjoining the Mud Creek wetlands are referred to as Memorial Grove with trees, planted in memory of deceased county personnel, and other plant materials compatible with the existing temporary gravel parking lot use. When the parking use is re-accommodated, this area will receive additional landscape plantings and treatments to complete the Memorial Grove as a special place on campus. While the majority of the trees and shrubs proposed comply with the City of Oregon City's landscape palette, the City does not regulate plant materials in wetlands. Nevertheless, all wetland plant materials will be selected to restore functional values of the wetlands. Restoration work may include introducing meanders, reducing channelization, creating weirs, or other improvements to wetland hydrology.

The Newel Creek and Mud Creek wetlands will be supplemented by stormwater facilities located to detain and improve the quality of run-off from impervious surfaces including roads, parking lots, and rooftops. The primary facility will be east of the ramp to the DSB to capture run-off from the plaza and to visually terminate the plaza's water feature. A secondary facility is planned around the future ADF to accommodate stormwater run-off from that building.

Mud Creek riparian buffer was re-vegetated in accordance with City of Oregon City's Natural Resource Overlay District (NROD) buffer mitigation standards. Plant species were selected that may naturally occur in the landscape setting, that provide food and cover for wildlife species, and provide seasonal landscape interest in leaf color, flowering, fruit and texture, for users of the trail. The plantings located in the Mud Creek riparian corridor are located adjacent to two parking lots and will also provide future shade to the creek, thereby enhancing water quality by reducing stream temperature.

Wetlands delineations are required to be updated on a periodic basis, typically every five years. Those updates will be prepared as independent reports submitted to City staff, separate from Master Plan updates. This will allow the updates to proceed on their own schedule, and allow Master Plan Updates to focus on substantive changes in program or development focus by the County.

Sustainability Measures: The Clackamas County Board of Commissioners required a sustainable design for the Red Soils Campus. This commitment to the environment includes the desire to reduce the life cycle, operating, and maintenance costs associated with county facilities, while better serving the citizens of Clackamas County and its employees.

The March 2006 Master Plan approved by the Clackamas County Board of Commissioners and adopted by the City of Oregon City articulated a strong commitment to sustainability. The Master Plan mandates that all new buildings achieve a minimum of USGBC Silver rating based on the Leadership in Energy and Environmental Design (LEED®) program, the preeminent strategy used in the United States to promote and measure sustainable design.

Beyond the LEED® requirements, another key sustainable feature incorporated in the Master Plan is the development of the Central Utility Plant (CUP) which connected to the PSB, the DSB, and the future ADF and Courthouse via a utility trench carrying both heated and chilled water to each building, eliminating the need for separate boilers, chillers, and cooling towers at each building. The CUP has the added capability of reducing peak electrical demand and saving money while reducing overall Greenhouse Gas emissions.

The Central Utility Plant capitalizes on the diverse campus utility loads and the economy of scale in addition to running high-efficiency equipment. As a result, cooling is anticipated to reduce energy consumption by over 60%, heating efficiency by over 20%, and waste heat recovered for use by other building loads. A further benefit of this approach is that it enables any necessary or periodic equipment upgrades to be extremely cost effective and to address all the buildings served simultaneously.

Potential Solar Panel Configuration

Solar PV: E Portland Community Center Aquatics Addition

Alternative Solar Panel Configuration

Chicago City Hall Green Roof

Solar panels

Urban Bioswale

Roadside Bioswale

Parking Lot Bioswale

Red Soils Campus Bioswale

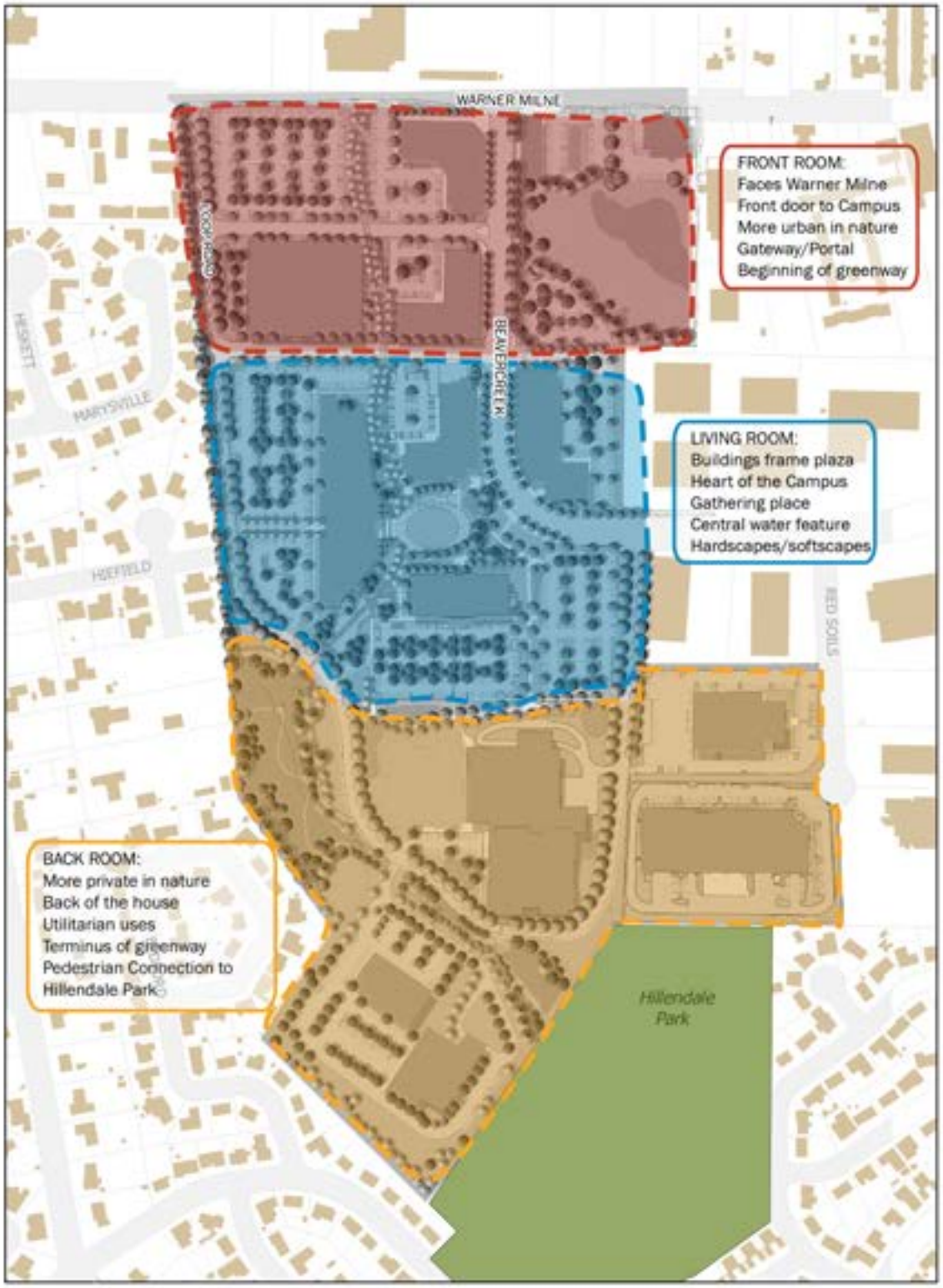
The Adult Detention Facility will integrate the new Oregon Administrative Rules (OAR 330–135–0010 to 330–135–0055) requiring contracting agencies to spend an amount equal to at least 1.5% of a public improvement contract for the construction or improvement of a public building for including appropriate solar energy technology in the building. Solar technologies applicable to the ADF include solar electric (photovoltaics), solar water heating, and/or passive solar building orientation and design treatments. The approach taken to satisfy this requirement will be left up to the design-build contractor, and determined as the project progresses.

Stormwater will be managed and treated on-site. Stormwater from the buildings will be treated initially by being channeled through bioswales and/or planters and then be directed to a 15,000 gallon cistern in the Development Services Building. The landscaping related to the DSB and the Central Plaza will be irrigated from a combination of roof-collected rainwater and/or foundation-drained water stored in the DSB cistern. Run-off from impervious plaza areas will also be channeled via an underground pipe to an attractive and functional secondary wetland area east of the pedestrian ramp to the DSB.

Stormwater management for the Adult Detention Facility is planned to include underground detention, retention cisterns, and bioswales. The underground storage systems will be used for summertime irrigation of landscaping areas around the new ADF.

Other measures to achieve long-term sustainability include orienting buildings, or wings of buildings, east-west to reduce solar exposure (heat-gain) and minimize the cooling load, creating a mix of land uses to reduce vehicle miles traveled – especially by single occupancy vehicles, and by encouraging greater pedestrian activity by providing invitingly attractive and efficient walks and pathways.

Silver Oak already has an underground detention and storage system designed to capture all building and site runoff on-site.



Rooms Concept

FRONT ROOM

4.3 Rooms

The design concept of "rooms" emerged from the vision and guiding principles. The campus was segmented into three distinct zones based on the orientation and function of campus buildings and civic spaces. These include the "Front Room," the "Living Room," and the "Back Room." Each of these rooms has its own identity and character, distinguished by land uses, landscaping, pedestrian/ bicycle/vehicular connections, and the incorporation of sustainable technologies.

The Front Room is bounded by Warner Milne Road to the north, the future Loop Road to the west, Library Court to the south, and the commercial buildings to the east side of Beavercreek Road. This is the most public of the three rooms as defined by its land uses and its proximity to Beavercreek and Warner Milne Roads. The campus entrance will be framed by the County Office Buildings and a small privately developed retail building anchoring the northeast corner of the Warner Milne and Beavercreek Road intersection. These buildings are intended to serve the needs of Clackamas County and the surrounding neighborhood, as well as accommodate related professionals associated with the Red Soils Campus.

Moving south toward the heart of the campus from the Beavercreek Road and Warner Milne Road intersection, visitors and employees will pass another County Office Building (COB2) on the west side of the road north of Library Court. The eastern edge of the Front Room will be defined by a privately developed commercial building at the point where the realigned Beavercreek Road begins to head east. This building is expected to include retail space and private offices for the County or firms that work with the County.

Beavercreek Road will be urban in nature through its alignment and with street trees evenly spaced in tree grates along the edge of the street, along with street lighting, and signage. The trees related to the County Office Buildings will offer shade and character to the street and those related to the commercial buildings will provide high visibility and ease of contact for pedestrians.

The realigned Beavercreek Road will consist of two travel lanes, a center turn lane, bicycle lanes, parallel parking on each side, and inviting sidewalks. Its character is to be very different than the central bike and pedestrian spine. The north-south central bike and pedestrian spine located between Beavercreek Road and the Loop Road is designed to be a more introspective and quiet space as reflected by its serpentine alignment, selection of plants, day-lit stormwater management swale and, most importantly, by its lack of cars.

The Loop Road entrance from Warner Milne and its alignment along the western edge of the campus will be less formal. The landscaping will emphasize screening and the separation of unrelated uses. Where the road is adjacent to the existing residential area, there will be no sidewalk on its west side providing additional privacy to the site's neighbors.

The other roadways of the Front Room parallel Warner Milne Road. Library Court and Front Road will each consist of two travel lanes, parallel parking, and comfortable curb side sidewalks without planting strips. In addition, these roads will not include bicycle lanes as it is presumed that traffic volumes and speeds will be low enough for bicyclists to comfortably share the roadway.

East Elevation, DSB

LIVING ROOM

The Living Room is bounded by Library Court to the north, the Loop Road to the west, and Beavercreek Road to the east. This is to be the most formal and public of the three rooms containing the Central Plaza, the heart of the campus, and the three County buildings most frequently visited by the general public.

The Central Plaza will be framed on the south by the Public Service Building (PSB), on the north by the Development Service Building (DSB), and by the Courthouse on the west. The long axis of the Central Plaza and the front door to the Courthouse align with Beavercreek Road and the distant view to Mount Hood. A mixed-use Office / Retail building is proposed on the east side of Beavercreek Road partially "closing" the northeast corner of this urban space as well as helping to frame the distant view.

The Central Plaza symbolizes the fundamental principles of the Red Soils Campus: democracy, service, and justice. Designed as a formal approachable space, the plaza has been constructed of high quality materials with a correspondingly high level of workmanship reflecting the pride of the citizens of Clackamas County. The incorporation of public art and the Plaza's central water feature reinforce this dedication.

The plaza can accommodate formal community gatherings as well as informal community uses. The plaza is a formal oval with a grassed center, surrounded by a perimeter pathway and is distinguished from the surrounding walkways and central greenway through its materials and its water feature.

The water feature is in front of the Development Services Building in order to optimize southern exposure and is intended to suggest the nearby Willamette Falls with white water simulated by pumping water from an upper pool over a curved aggregate wall. Once water arrives into the lower pool, it flows west to east, terminating at the ramp that leads to the DSB. The large stairs serve as a seating area and a small ADA accessible islet is surrounded by water on three sides. Basalt columns also make reference to the Willamette Falls, extending in a pattern from the water to the surrounding seating area and paved oval paths beyond. The water feature is illuminated from surrounding pedestrian lighting sources as well as light fixtures under the water directed upwards to highlight the basalt columns.

The area east of the DSB ramp is intended to be developed as a lush stormwater detention facility that provides a riparian-like habitat. This facility follows the existing topography and serves as a natural terminus to the water feature and the paved oval. A similar functional and aesthetic wetland is proposed as part of the construction of the future Courthouse. The future wetlands, on a much larger scale, are to be located between the Courthouse and the Public Services Building, and will be bridged over by a boardwalk that connects to the serpentine pedestrian and bike spine as well as links the Courthouse to the PSB.

These special central open space features are distinguished from other campus gathering spaces by their formality and ability to accommodate multiple activities in the form of a more regional park. Designed open spaces elsewhere on the campus will clearly “belong” to immediately adjacent uses such as seating areas near buildings or at places offering contemplative viewpoints, wetlands that are part of a system, or pocket parks that are part of the pedestrian corridor. Other open spaces, which include passive recreation areas such as the Memorial Grove in the Mud Creek Wetlands and a system of pocket parks and sitting areas lining pedestrian corridors, are secondary open spaces. Site furnishings, lighting, and paving have been selected carefully for the Central Plaza, as well as the larger campus and are referred to in Appendix D.

BACK ROOM

The Back Room is located south of the parking area behind the existing Public Services Building and is served by the Loop Road and Kaen Road. While the other rooms of the campus are designed to attract users or to be symbolic, the Back Room is designed to be functional. This room contains the county facilities that are not as frequently visited by the public and is the location of the existing Jail with its 2011 revisions, the Central Utility Plant, the recently acquired Silver Oak, a proposed 800-bed Adult Detention Facility, and the future Communications Center.

The Adult Detention Facility will be located just north of the Loop Road and the Mud Creek Wetlands and the remaining undeveloped portion of this defined site enables future expansion.

By 2030, vehicles will be able to access the Back Room via the Loop Road. As the Courthouse comes on line, the refined Loop Road will be needed to move cars around the new Adult Detention Facility and the existing Jail if necessary. Pedestrian and bicycle access to the Back Room, as well as to and from Hillendale Park, will be available via the Loop Road and the pedestrian/bicycle spine through the campus.

Since there is less contact with the general public in this portion of the campus, the amenities are straightforward and casual. The Public Safety Operations Facilities located in this Room require enhanced security features, restricted access, and facility screening options. This is partially realized by the curb-tight sidewalks without planting strips along the outside edge of the proposed Loop Road and the absence of parallel parking.

Silver Oak is to be used as a Mixed-Use Employment (MUE) facility.


WARNER ROAD
75,608 SF
8,435 SF
280,000 SF
320,711 SF
178,000 SF
76,000 SF
215,736 SF
41,000 SF
200,542 SF
49,325 SF
24,000 SF
72,500 SF
LOOP ROAD
HILLSDALE PARK
Program
County Office
Office/Commerical
Campus Facility/Parking
Courthouse
Detention Facility
County Administration
300
Feet

4.4 Program

The initial building program was established through a series of meetings with key stakeholders with growth measured over a ten-year period. As staff and area projections became more refined, a project management group was established consisting of representatives of essential project components. This team developed the current projections on which this Master Plan is based. The management group adopted the recommendation that land uses should be separated into three distinct rooms based upon their function and location on campus. It was also established that a mix of land uses would encourage walkability and greater pedestrian activity on the campus. The following descriptions detail each primary building yet unbuilt:

County Office Buildings: Two County Office Buildings are proposed for the campus Front Room. A first Office Building (COB1) is proposed north of the Development Services Building. Similar to the DSB, this Office Building will have two front doors; one facing Beavercreek Road and one opening to the central pedestrian and bike spine. This Office Building will be four stories and 100,711 gross square feet. The government departments to be accommodated here have yet to be determined. A second Office Building (COB2) is proposed at the corner of Beavercreek Road and Warner Milne Road. This will also be a four-story building but with 75,608 gross square feet. The County departments to be accommodated in this building have yet to be determined.

Courthouse: The Clackamas County Courthouse, the focal point of the campus, is proposed in the campus Living Room. It will contain 215,756 gross square feet accommodating 16 courtrooms, court offices, a law library, judges' chambers, District Attorney Offices, and Family Court services. Its north and south winds will be separated and joined by an open-roofed atrium and passage space coinciding with an utility easement. Additional Judicial functions will be housed in the five-story wing located north of the Central Atrium. A smaller four-story wing to the south will contain the District Attorneys' offices. The public entries for the Courthouse, Public Services Building, and Development Services Building will be arranged within easy sight of each other, enabling employees and visitors to navigate the area easily.

Adult Detention Facility: The current configuration of the existing Jail accommodates approximately 434 beds. The County anticipates constructing a new Adult Detention Facility of 200,542 gross square feet in the campus Back Room with a potential for up to 800 adult detention beds, which are a permitted conditional use on the site. Although the new building may have a larger footprint than the existing Jail, new facilities typically require a lower ratio of guards to inmates; this translates into fewer vehicle trips to the facility. In addition, the ADF will regulate the number of visitors that may visit the site at any one time.

Juvenile Facility: Juvenile Services is to be located in the 1990's portion of the existing Adult Detention Facility located south of the Mud Creek Wetlands in the campus Back Room. The existing Jail will be used for storage until some time in the future, at which time the pre-1990's portion of the building complex will be demolished. This will allow area for either the expansion of Central Communications or a new building and the development of the parking areas required to be in conformance with the Master Plan's parking objectives.

Private Development: The Master Plan recognizes private development as an element of the overall strategy for the Red Soils Campus. The County recognizes that a number of businesses and services in the private sector routinely locate near County offices given that their primary focus is doing business with the County. The Master Plan contemplates approximately 150,000 square feet to be available for a mix of commercial and retail uses.

Parking Garage: The parking garage in the Front Room is prepared to be a 3 to 4 story structure with potential for up to 832 spaces.

4.5 Systems

The Red Soil Master Plan is intended to bring together the spatial and programmatic needs of Clackamas County within the natural and built environment. To achieve this goal, conservation and stewardship principles are integrated into the plan.

The following diagrams and text explain the individual systems that comprise the larger Red Soils Campus including: Open Space, Connectivity (Bicycle, Pedestrian, Vehicular), and Infrastructure. Viewed as a whole, these elements help to create a vibrant place for those who work at and visit the Red Soils Campus.

Landscape Guidelines: Landscape elements including plant materials, street furnishings, pedestrian and vehicular lighting, and paving materials will be used to highlight buildings and public spaces. A primary view corridor will be established from the Courthouse down the center of Beavercreek Road to Mt. Hood along the east-west center of the campus. To reduce site irrigation needs, drought-resistant plantings will be specified and the use of toxic pesticide and fertilizers should be reduced. Furthermore, in order to reduce ambient site temperatures and reduce the amount of asphalt in surface parking areas, a high ratio of soft landscape to hardscape will be maintained

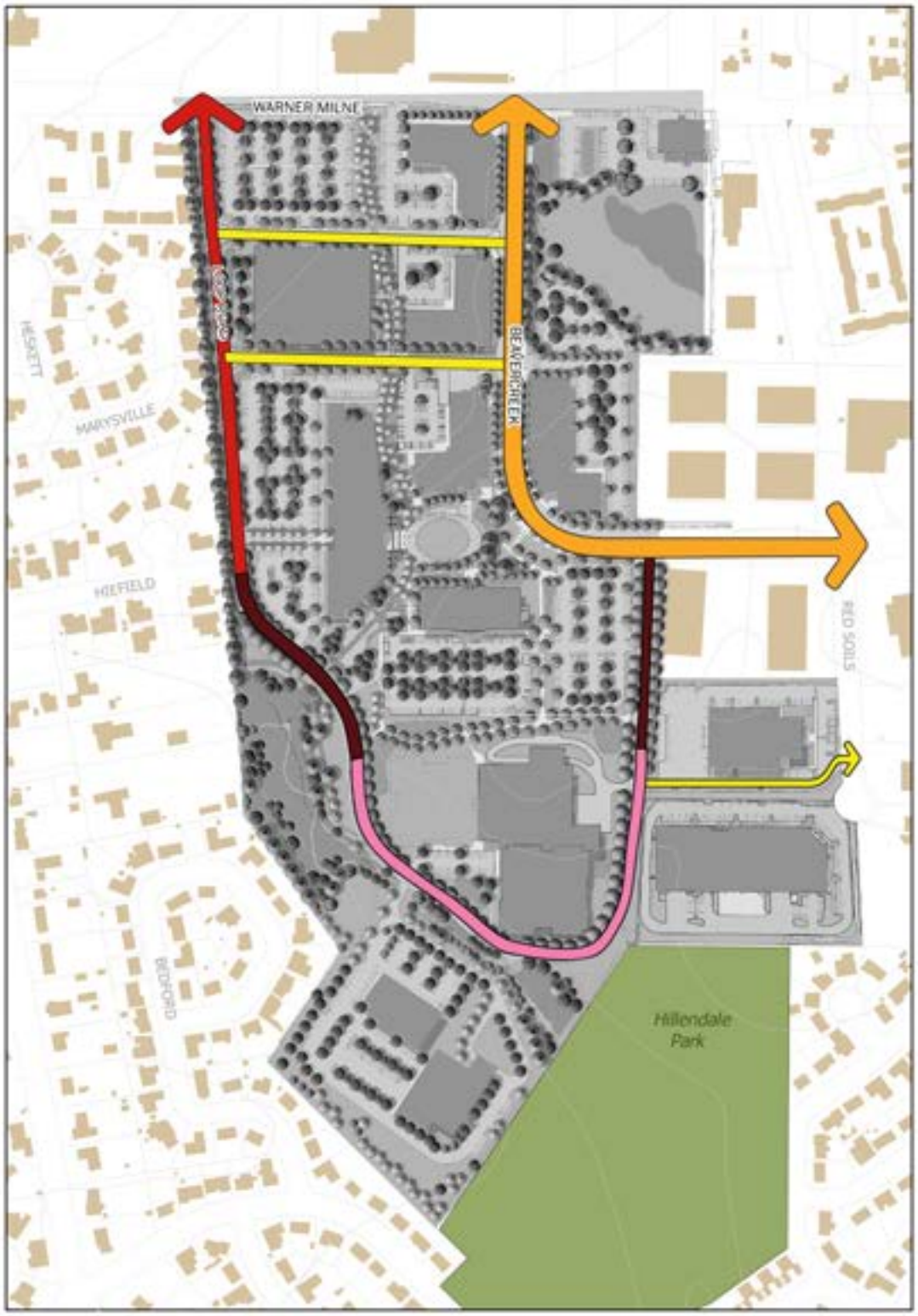
Pathways will be delineated throughout as passive or active with similar treatment given to open spaces and courtyards to better define and animate movement through the campus.

The primary pedestrian connection through the campus is the serpentine pedestrian/bike spine that extends from Warner Milne Road to the Central Plaza and then heads south to Hillendale Park along Mud Creek. East-west connections with the residential neighborhoods to the west and linkages to the Central Utility Plant and back to the Central Plaza will provide pleasant pathways separated from vehicular traffic.

Sidewalks are removed from streets where there are existing bark dust paths. Similar to a local residential streets, bikes are expected to share the drive lanes with cars in these areas.

Way-finding signage and lighting for paths, sidewalks, and the Central Plaza will be designed to facilitate safe navigation throughout the campus.


WARNER MILNE
HEGERT
MARYSVILLE
HEFFELD
BEDFORD
BEAVER CREEK
RED SOILS
Hillendale Park
Open Space
Wetland
Stormwater Treatment
Kiosk
Pocket Park
Civic Gathering
Pedestrian Pathways
300
Feet


WARNER MILNE
BEAVERCREEK
HILFIELD
Hillendale Park
Street Plan
Street Type A
Street Type B
Street Type C
Street Type D
Street Type E
300
Feet

Connectivity Guidelines

Streets: A Transportation Management Plan was prepared to guide the design of streets, roadways, and parking for the campus. Issues addressed include the slowing of traffic and enhancing bicycle and pedestrian paths, as well as placing an emphasis on the use of public transportation. Traffic is expected to be slowed through the Red Soils Campus by tightening up the curve along Beavercreek Road with a shorter radius curve promoting slower speeds. When this work is completed, the following four intersections should be signalized: Warner Milne Road and Beavercreek Road, Beavercreek Road and Library Court, Beavercreek Road and the proposed Loop Road, and the Loop Road and Warner Milne Road.

Alternative transportation and foot-traffic needs will be enabled through a network of bike and pedestrian links through the campus. Further emphasis on facilitating public transportation would also be beneficial.

With development of the Red Soils Campus and the siting of the proposed retail/office buildings fronting onto Beavercreek Road, this realigned roadway will take on a more local and urban character, allowing on-street parking to be provided. These design treatments and land uses will help to temper traffic speeds in the vicinity, and subsequently lower them.

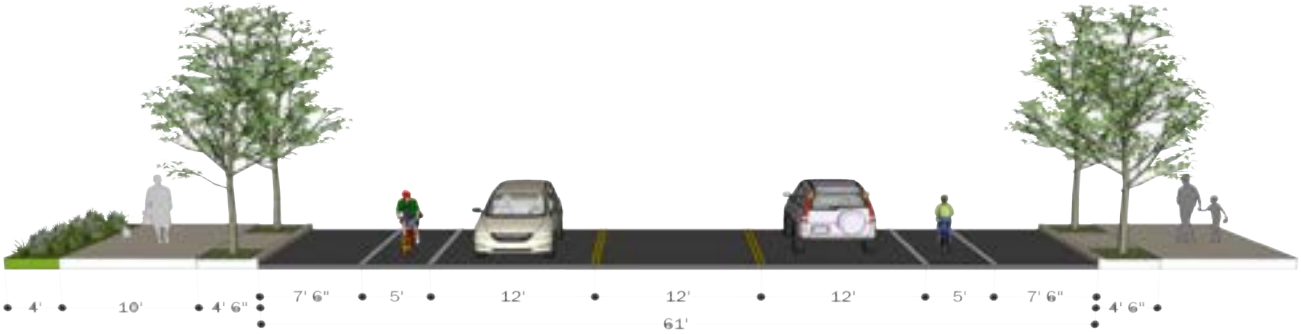
Trip Generation: Many County departments have been on the Red Soils Campus since 1970's, with the oldest being the Jail which was built in 1959. The most significant public facility moving to the site will be the Courthouse which is expected to be the last new building to be completed. At that point, full build-out of the Master Plan, the Campus is anticipated to generate approximately 1,043 additional vehicle trips during the A.M. peak hour and 1,129 vehicle trips during the P.M. peak hour over and beyond trip count records from 2005. In addition, the proposed private sector office / retail buildings are expected to generate about 200 vehicle trips during the A.M. peak hour and 325 vehicle trips during the P.M. peak hour.

The County is working with the City to develop mutually acceptable methods of assessing transportation impacts of Campus construction.

The Silver Oak building that is proposed for addition to the Red Soils Master Plan was originally developed and permitted as a light industrial land use. The proposed tenant improvements to the building will provide 55,257 square feet of archival storage space and 14,068 square feet of office space within the existing structure. No new site access is proposed.

Comparing the trip generation of the former light industrial use and the proposed County use, the trip generation of Silver Oak is expected to be reduced by approximately 130 daily trips and 28 weekday P.M. peak hour trips. Accordingly, the trips generated by Silver Oak on the roadway network are expected to be reduced upon incorporation into the Master Plan and subsequent re-use. The Sheriff's office evidence room is currently located within the Red Soils Campus and will move to Silver Oak. The current evidence room area will be re-used for storage, meaning there should be no change in campus trips as a result of building re-use on the campus through incorporation of Silver Oak (beyond the one-time on-campus transfer of storage materials during the evidence room relocation).

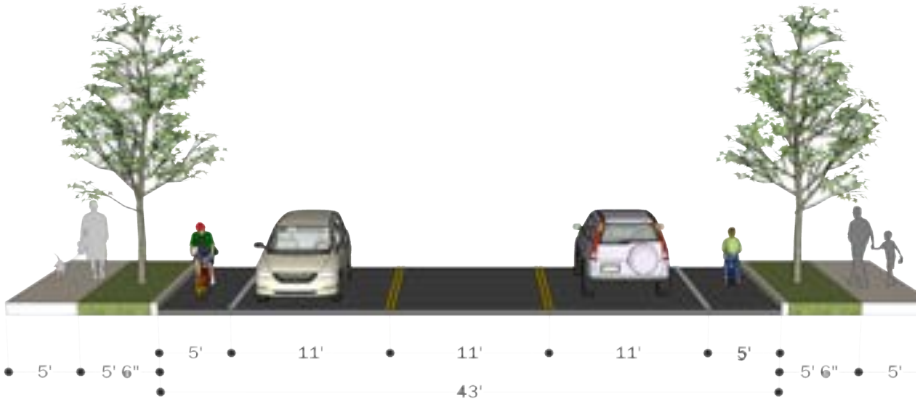
Based on an anticipated incremental reduction in daily and peak hour building trip generation, no additional traffic operational or safety analysis is needed for the proposed Master Plan modification to comply with the City of Oregon City Municipal Code and no Transportation System Development Charge payment should be required.



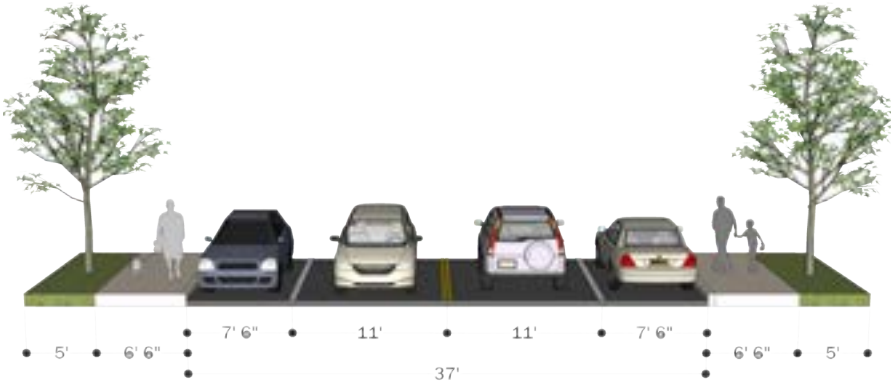
Street Type A - Beavercreek Road

Type A: Beavercreek Road is designed as a boulevard with two travel lanes in each direction, a center turn lane, bike lanes and parallel parking on each side of the street, and a 15' formal pedestrian zone with 10' clear walking zones. Within the curb-edge planting strip, trees with grates are to be spaced evenly and located approximately 30 feet on center. Street trees are characterized by larger canopies that shade the public realm reducing summer heat-island effects and encouraging pedestrian and bicycle activity. The emphasis on the pedestrian zone is further reinforced by the realignment of Beavercreek Road in Phase Three, involving a slight narrowing of the overall right-of-way and building a tighter radius curve in front of the Central Plaza, prompting vehicles to slow down thereby fostering a safer walking environment.

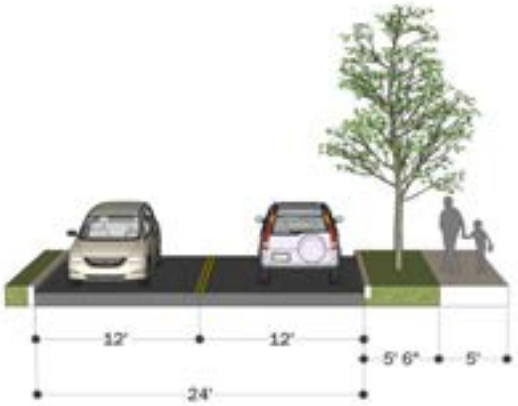
Type B: The Loop Road is divided into three segments representing its different street type conditions, access to parking areas, and adjacent land uses. The Loop Road segment north of the future ADF and south of the Courthouse will have one travel lane in each direction, a center turn lane, bike lanes, and a curb-edge planting zone running parallel to the street adjacent to a continuous 5' wide sidewalk.



Street Type B - Loop Road



Street Type C - Road

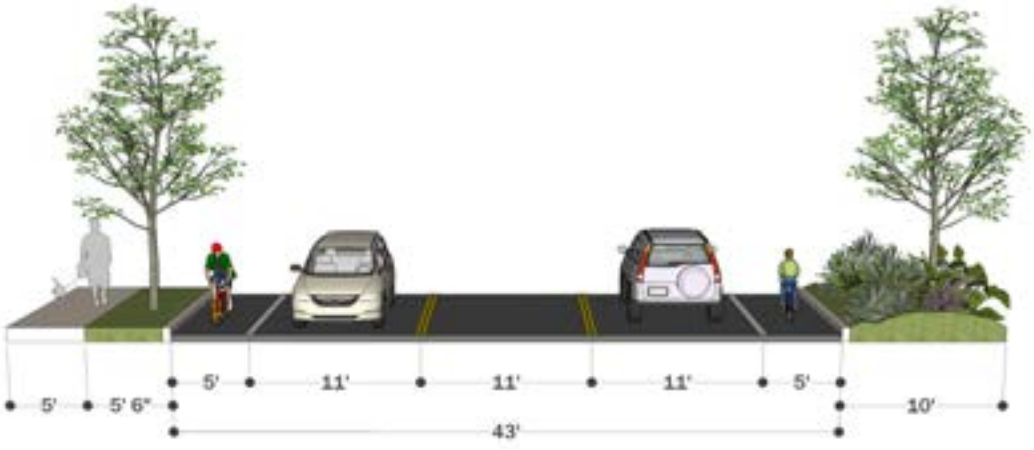


Street Type D: Loop Road

Type C: This Road segment is functional in nature and consists of one travel lane in each direction, on-street parking on both sides of the roadway, a curb-edge sidewalk, and outer planting strips.

Type D: This Loop Road segment consists of one 12' travel lane in each direction, no parallel parking, a curb-edge planting strip, and a 5-foot sidewalk on the east side of the street. The surrounding vegetation, especially in the Memorial Grove area, precludes need for a dedicated planting strip on the south side of the roadway.

Type E: This Loop Road segment consists of one travel lane in each direction, a center turn lane that allows access to the east-west streets, a bike lane on each side, curb-edge planting strips, and sidewalks on both sides of the street. Landscaping along the western edge of the site will be 10 feet wide to help provide an adequate visual screen buffer for the residential neighborhoods located along the western edge of the campus.



Street Type E - Loop Road
(Note: Section shown looking south.)

Parking

Parking Lot

Parking Capacity

Parking Entry

300 Feet

Parking Guidelines: Parking lots will be located behind or adjacent to buildings and in surface lots during the initial phases of development. In the full build-out, a parking structure will be constructed as shown on the Parking Plan in the area north of Library Court and west of the future County Office Building.

Per Section 17.52 of the Oregon City municipal code, a minimum of 1,935 parking spaces and a maximum of 2,905 parking spaces are required for the institutional and commercial land uses anticipated in the Master Plan. In response to the City's parking requirements, the plan shows 2,342 total spaces, of which 100 are dedicated to on-street parking along Beavercreek Road and 832 are in a 4-story parking garage. The 2,342 spaces shown on the plan includes 160 spaces for the detention facility.

Pedestrian Guidelines: Pedestrian traffic will be encouraged by creating a hierarchy of pathways and open spaces throughout the campus. The front doors of all public buildings will be oriented to the internal pedestrian and bike spine or the street. A comprehensive pedestrian system will be designed that includes connections to the campus from every direction.

Bicycle Guidelines: A comprehensive bike system will be created that includes bicycle routes from every direction. To encourage a safe and attractive internal bicycle path, a system will be created that moves bicyclists from the north edge of the campus at Warner Milne Road to the land uses south of Beavercreek Road. A bicycle/pedestrian spine will be developed that runs north-south through the campus, connecting to each building and terminating at the park.

Infrastructure Guidelines: For more information on the proposed infrastructure, see the technical engineering diagrams contained in Appendix B.

Pedestrian Circulation

Main Path
Secondary Path
Main Sidewalk
Secondary Sidewalk

300
Feet


WARNER MILNE
BEAVERCREEK
HESKETT
MARYSVILLE
HEFFELD
RED SOILS
REDFORD
Hillendale Park
Bicycle Access
Multi-use Greenway
Striped Bike Lanes
Shared Bike Lanes
Bike Parking
300
Feet

Water Guidelines: Fire and domestic water service for the campus buildings and irrigation needs will be provided per the City's public works design standards and the water system master plan.

The Master Plan will build on the existing network of public water mains to provide adequate water supply for domestic, irrigation and fire protection needs. A looped network of mains will provide redundant service insuring supply and providing for future maintenance, while allowing continuous service. Fire hydrants will be located to provide code required coverage to all buildings. Separate metered domestic services and fire service lines will provide service to all new buildings from the public mains.

It is anticipated that one 4-inch domestic meter with 6-inch service would be provided off of the public main along with an 8-inch fire service both with approved backflow prevention devices to serve the ADF. Three fire hydrants are required, two on the west and one on the east side of the ADF, per Fire Marshall requirements. The design will be further coordinated with the Fire Marshall to ensure access requirements, hydrant locations and FDC locations.

Stormwater Guidelines: The Master Plan will incorporate a number of detention and water qualities best management practices, including vegetative Type A treatment/detention ponds, underground detention pipes/vaults where above ground facilities are not feasible, and landscaped bio-filtration swales that are designed to treat sheet flow from all parking lots and the pedestrian/bike spine. The Master Plan will respect the two existing basins and preserve basin flow characteristics. Stormwater management will be provided for all new development per the City of Oregon City's Stormwater and Grading Design Standards.

Stormwater quantity control or detention facilities are required to detain runoff created by the new developed impervious surfaces. These facilities shall be designed per the following requirements:

The post-development peak stormwater discharge rate from the development site for the two-year, 24-hour duration design storm events shall at no time exceed 50% of the pre-development peak stormwater runoff rate for the same design storm event. The post-development peak stormwater discharge rate from the development site for the 5-year and 25-year, 24-hour duration design storm events shall at no time exceed the pre-development peak stormwater runoff rate for the same design storm events.

Water quality facilities are required for treatment of runoff from all new impervious surfaces. Water quality facilities shall be designed for treatment of 1/3 of the SCS 2-year, 24-hour design storm.

Water quality for parking areas shall be provided by bioswales (grassy swales) located within the landscape islands of the parking lot or other areas surrounding the building parking. Grading of the parking lots should allow for sheet flow of runoff directly to the swales through curb breaks, thus minimizing the need for excessive underground piped systems. If grading or site limitations prohibit the use of above ground vegetated surface facilities, below grade mechanical treatment systems may be used in accordance with City of Oregon City requirements.

The area around the proposed ADF drains to the Mud Creek basin. Stormwater management is required for both water quality and quantity in accordance with the City of Oregon City Stormwater and Grading Design Standards. The City and County encourage innovative design to stormwater management and will consider reasonable design strategies for water quality and quantity facilities with emphasis on "green" or sustainable strategies. Soil conditions in this area are typically not-conducive to infiltration of stormwater therefore retention of stormwater is unlikely, however the Geotechnical Investigation Report should be reviewed for infiltration feasibility. All stormwater management facilities shall provide adequate landscaping per section 4.2.2.3 T of the City of Oregon City Stormwater and Grading Design Standards.

Stormwater quantity control may be either buried underground detention vaults, or above ground detention ponds, or a combination of the two. Issues to consider include; sizing to accommodate full build-out of ADF, and location of pond with respect to the Water Quality Resource Area/Mud Creek vegetated corridor buffer.

Due to the above listed issues, a separate underground detention facility may be best suited for this phase. Anticipated detention volumes for the ADF roof drains, parking lot, and west side access road are estimated at between 12,000 and 15,000 cubic feet of volume. This facility must outfall to Mud Creek.

The existing dual purpose water quality/water quantity pond located northeast of the proposed ADF will need to be reconstructed in order to facilitate the ADF access road to Red Soils Court. This pond was constructed to manage storm flows from the Public Services Building parking lot and portions of Kaen Road. Reconstruction can be accomplished by re-grading the pond to include detention volume areas southeast of the access road with connections via pipe. A second option would be to create an underground storage system in order to place the road directly on top of the facility. Anticipated detention volumes for the existing pond redesign is estimated at between 8,000 and 12,000 cubic feet of volume.

Landscape irrigation may be provided by rainwater re-use. It is anticipated that this retention volume will be upstream and in series with the conventional stormwater detention and placed underground. Preliminary calculations indicate that the storage volume for the landscape irrigation will be around 15,000 gallons. It is anticipated that the storage volume will be created by Stormtech Arched Chambers or approved equal.

Sanitary Sewer Guidelines: Sanitary Sewer service to the Red Soils Campus is provided by two City owned and maintained lines, one in Beavercreek Road and one in Warner Milne Road. The campus re-development will provide new or re-configured sewer mains that will provide sewer service from new buildings to the existing City mains. Wastewater from these City mains will continue to be conveyed to the Tri-County treatment plant.

The ADF site is served with public sanitary sewer by an existing public sewer line that runs west from the existing jail, north, and then east to Beavercreek Road. The diameter of the public main at the connection area near the proposed ADF is 8 inches. This 8-inch line should be able to remain in its current location for the ADF construction. This needs to be verified against the final site plan/building location. It is anticipated that one or two laterals would be provided from the 8-inch sewer to the building along the west side, and connected to an existing public sanitary manhole in Kaen Road (approximately 150 feet south of the existing animal control driveway). The existing sanitary sewer system expands to 15-inch diameter prior to leaving the Red Soils Campus. A downstream analysis was conducted by Harper Houf Peterson Righellis, Inc. in January 2008. The results did not indicate any capacity issues resulting from the proposed ADF facility (City of Oregon City is currently reviewing).

Silver Oak is currently served directly from Red Soils Road. If required, additional service and/or connections should be easily made.

Grading Guidelines: Grading and Erosion Control shall be designed in accordance with Chapter 3 of the City of Oregon City Stormwater and Grading Design Standards, the IBC and the project Geotechnical Investigation Report. Grading activities within the Water Quality Resource Overlay shall comply with the City of Oregon City Municipal Code Chapter 17.49. A DEQ NPDES 1200-C permit is also required for the projects involving more than one acre of disturbed site area.

The site grading is planned to follow the natural slope characteristics, and to allow for the two natural drainage basins to be respected. Cut and fill slopes are intended to follow the requirements of the code and retaining walls are intended to be limited and are mainly utilized to protect the natural resource buffer areas. Roadway grades will be two to six percent and parking lot grades are anticipated to be less than five percent with ADA parking stalls at two percent maximum. Stormwater pond side-slopes are designed with a 4-foot horizontal to 1-foot vertical maximum grade. The Central Plaza area framed by the Courthouse, the Public Services Building, and the Development Services Building will be filled to create a level area for public gathering and use.

There is an approximate 13-foot fall across the proposed Adult Detention Facility building footprint, from north to south. The design of the building and site grading should consider options for stepping the building to accommodate the site grades and minimize site grading and site and foundation walls. Temporary gravel parking lots will be utilized to provide interim campus parking. Stormwater management for temporary gravel parking lots is not required. There is no regrading proposed in conjunction with the re-use of the Silver Oak building.

Temporary Flexible Space Guidelines: County functions occasionally require the use of flexible temporary space to accommodate peak-period staffing, isolation of work processes, or other factors. Such structures shall be allowed on the Red Soils campus when not located between a building and a public street frontage. When located between a building and non-County property, they shall be screened with fencing.

Temporary structures shall be allowed at the property located at 256 Warner Milne Road. Temporary spaces shall be exempt from the following criteria of the Oregon City Municipal Code when the temporary structures are screened with vegetation or a site obscuring fence and will not be located on the site for more than five years:

- 17.62.050(A)(9)- Pedestrian pathways and direct access to the street.
- 17.62.050(C)(5)- Increase front yard setback.
- 17.62.055(D)(2 and 3)- Front façade and primary entrance oriented towards street and maximum entry setback.
- 17.62.055 (G and H)- Variation in massing and minimum wall articulation.
- 17.62.055 (I)- Façade transparency.
- 17.62.055 (J)- Roof treatment.
- 17.62.080 (C)(1)- Main building entrances and transit streets.
- 17.52.060(A)(2)- Landscaping between temporary building and the property line.
- 17.52.060(C)- Landscaping between temporary and parking area.

Portland Dispatch Center's Forked Privacy Fence
Painted metal with forked top, 8-foot high.

Oregon City retail enclosure security fence

Central Utility Plant Equipment Enclosure
Fence: Split face CMU with metal panels

PSB generator equipment screening from Kaen Road
Slatted painted chain link, 6-foot high.

Fencing Guidelines: Providing a safe environment for public and staff safety is the most important consideration for the County. All departments in Federal, State and local agencies must be aware of a vast array of threats and incorporate recommendations from the Department of Homeland Security, State and local law enforcement agencies.

For buildings in the Front Room and Living Room, fencing and screening may be more decorative, and no taller than 6 foot, unless functional needs require screening to be higher. In the Back Room where screening and fencing are required for public safety related to law enforcement or emergency service activities, privacy fencing must be 8, 12 or 16-foot high unpainted chain link provided that appropriate landscape or other integrated environmental design is incorporated depending on the location.

Proposed allowed fencing types are:

Decorative Fence: Campus-wide application, to code allowable height:

- Louvered or perforated metal panel.
- Split-face Concrete Masonry Units (CMU).
- Slatted or un-slatted chain link, painted, 4- or 6-foot high.
- "Good neighbor" style, wooden rails or slats, painted or unpainted.
- Forked Privacy Fence, 6-foot (picture from Portland 911 Dispatch Center), painted.
- Tilt-up or site cast concrete, painted or unpainted.

Privacy Fence: At law enforcement or emergency service activities.

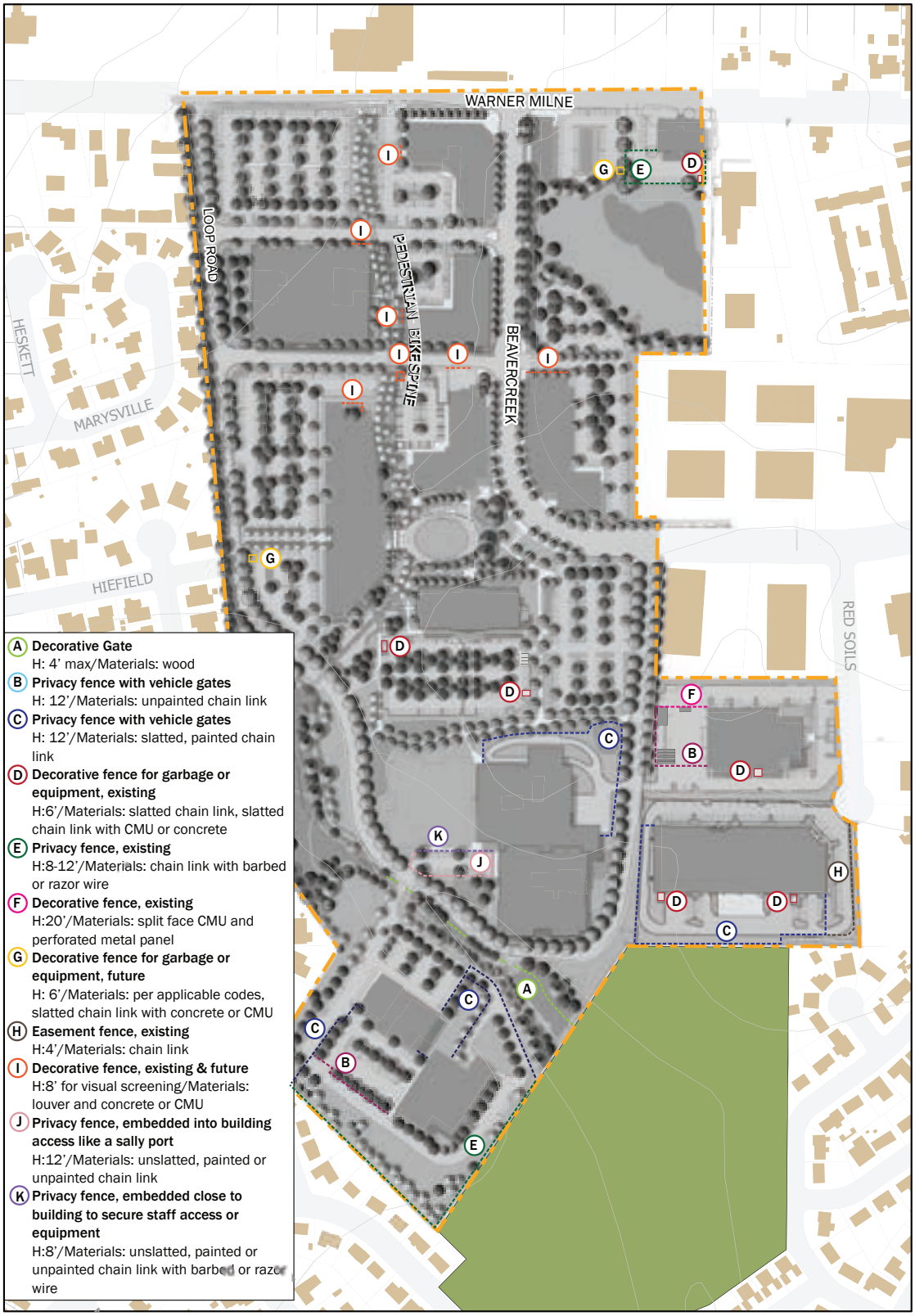
- Un-slatted, painted or unpainted chain link, 12-foot high.
- Un-slatted, painted or unpainted chain link for fences lower than 12-foot high with or without barbed or razor wire.
- Painted and slatted chain link, 12-foot high.

Louvered fence at DSB transformer, Library Court
Fence: Concrete and louvered metal panel, 12-foot high. Concrete and Mealt pane

Existing chain link fencing at Silver Oak easement
Fence: chain link, 4-foot high.

Garbage enclosure at Silver Oak
Fence: Slatted chain link and concrete, 6-foot high.

New medical wing addition at ADF
Fence: Chain link with barbed wire, 8-foot high.



Proposed Fencing Types

300 Feet

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