MEYERS ROAD EXTENSION CONCEPT PLAN

Prepared for

City of Oregon City
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Oregon City, Oregon 97045

Prepared by

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SEPTEMBER 2015

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INTRODUCTION

This plan describes the Meyers Road Extension Concept Plan, which refines the alignment and design of the Oregon City Transportation System Plan (TSP) Project D64: Meyers Road Extension. Summarized in the plan is the process for developing the preferred alternative for the Meyers Road extension, including assessment of different alternatives, the criteria used to select the preferred alternative, and the traffic considerations guiding the development of the alternatives, including the preferred alternative. This plan is divided into the following sections:

- Stakeholder and Public Involvement Process: This section summarizes the stakeholder and public involvement meetings and information gathering.
- Alternatives Development and Alternatives: These sections review the development of the three preliminary alternatives and the development of the hybrid/preferred alternative, including a matrix of key considerations, organized by topic, that was used to help inform development of the alternatives.
- Preferred Alternative Assessment: This section presents the preferred alternative, and assesses the advantages of the preferred alternative relative to the project criteria, environmental issues, transportation issues, and engineering issues.
- Concept Plan Summary: This section summarizes the concept plan and how it integrates with other City of Oregon City TSP projects.

In addition, the appendices contain more detail documenting the plan development, including the public involvement process, the existing conditions analysis (Baseline Conditions Report), the alternatives evaluation criteria, and a detailed cost estimate.

STAKEHOLDER AND PUBLIC INVOLVEMENT PROCESS

Public involvement, coordination, and outreach included the following:

Project Management Team (PMT): The City of Oregon City (the City) convened a Meyers Road Extension PMT, which included: participants from three Oregon City departments (Public Works, Planning, and Parks); the Oregon Department of Transportation; Clackamas Community College (CCC); Oregon City School District (OCSD), and the consultant team. The purpose of the PMT was to guide the development of the project to reflect the needs of the key stakeholders. The PMT meetings are summarized below, and minutes from the meetings are included in Appendix A of this document.

- PMT #1, March 12, 2015: The PMT confirmed existing conditions and constraints, and weighed in on project screening criteria that would be used to assess alternatives.
- PMT #2, April 9, 2015: The PMT reviewed the findings from stakeholder interviews with adjacent property owners, reviewed and finalized project screening criteria with minor edits, reviewed preliminary road design and discussed the desire for a 30-mile-per-hour design for curves in the extension, and discussed the need to adequately provide bike and pedestrian facilities for students and people wanting to reach the proposed Glen Oak park and other destinations.
- PMT #3, April 30, 2015: The team discussed input received from the Caufield Neighborhood Association meeting, a preferred Loder Road connection to Meyers Road, and the implications of a roundabout connection in informing design decisions. In addition, the PMT reviewed three preliminary alternative alignments and preliminary cross section treatments, and discussed how well these met the project screening criteria. The PMT discussed the need for more traffic analysis to understand the implications of adding a right-turn lane at Meyers Road and OR 213. After review, the PMT provided direction to create a new, hybrid alternative with a new cross section as a preferred alternative.
- PMT # 4, June 25, 2015: The team reviewed the preferred alternative and project evaluation criteria. The meeting included an update on outreach, traffic analysis, and resulting intersection design needs. The team also talked about the process and required materials for taking the preferred alternative through the adoption process.

Neighborhood Associations: The City engaged in outreach to the Caufield Neighborhood Association and the Gaffney Neighborhood Association for the Meyers Road Extension project. In general, the neighborhood associations are supportive of the connection, although they were concerned about additional residential development affecting traffic. They were also supportive

of having Loder Road connect to High School Road rather than directly into the Meyers Road extension.

Adjacent Property Owners: Property owners were contacted to get feedback on road design and alignments. Property owners were generally supportive, although they have concerns about several issues, such as concerns about each property having direct access to the new roadway and about not having their properties divided into small remnants that would be difficult to develop. Minutes and summaries from the property owner interviews are included in Appendix A. Additionally, the project was presented to the OCSD (an adjacent property owner) for input on July 20, 2015, (Also presented to CCC on July 22, 2015.)

City of Oregon City Advisory Groups:

City Planning Commission – There was a work session on August 10, 2015, and a hearing on August 24, 2015, with the City Planning Commission. At the work session, the project cross section was modified to provide trees in the swales and provide a 6-foot bike lane with a 2-foot buffer and 6-foot sidewalks. The City Planning Commission unanimously recommended approval of the Meyers Road Extension plan to the City Commission.

Oregon City Transportation Advisory Committee (TAC) – The TAC reviewed the preferred alternative concept on April 22, 2015, and May 19, 2015. (See Appendix A.) The TAC was generally supportive of the project, but had questions about the best treatment for connecting to Loder Road and providing bicycle facilities.

Natural Resource Advisory Committee – The project team presented the alternative alignments for the project to the City of Oregon City Natural Resource Advisory Committee on August 12, 2015. The Natural Resource Advisory Committee generally approved of the preferred alternative, but it would like measures to minimize impacts to natural resources, including upland habitat, to be considered as design progresses.

ALTERNATIVES DEVELOPMENT

EXISTING CONDITIONS SUMMARY

Existing conditions in the project study area were identified and are reviewed in the Baseline Conditions Report (Appendix B). The Baseline Conditions Report identified regional and local plans and policies in consideration of developing alternatives for the extension of Meyers Road. An environmental site reconnaissance was also conducted to identify natural resources in the project area. The report provides a review of the transportation system in the project area, including intersection performance. All six of the existing intersections in the project area have

been shown to meet the adopted mobility performance standard or the next 20-year period. The performance of each of the six intersections was analyzed using the TSP, recent traffic counts performed for land development applications, and other studies.

Key design considerations from the baseline conditions review are included in the following table. As the design for the Meyers Road Extension develops, additional detailed studies may be needed. The key design considerations, along with engineering and safety considerations, were used by the project design team to help inform the development of feasible alternatives.

Table 1. Key Design Considerations

Topic	Description	Key Considerations
Transportation Facilities - Oregon City TSP & Regional Transportation Plan (RTP)		
Road Classification/Cross Section	• Meyers Road – Industrial Arterial. • Loder Road – Industrial Collector. • Both roads are planned local truck routes.	• Cross section standards.
Alignment Location	• Varies in TSP, RTP, CCC Plan, OCSD.	• Consistency across plans.
Intersections	• Planned roundabout at Meyers Road and Loder Road.	• Intersection type and use of road.
Bike/Ped Connections	• Planned shared use path along Loder Road. • Park trail facilities connections. • CCC trail connections.	• Trail connectivity and crossings.
Transit	• Future transit facilities as part of CCC Plan.	• Potential for future transit access and stops.
Land Use		
Zoning	• Most of area is zoned campus industrial. CCC and Park are institutional. Adjacent residential zoning of varying densities.	• Parcel fragmentation and future development potential of parcels for larger uses.
Comprehensive Plan	• Mostly consistent with zoning except high school area is designated public/semipublic.	• Parcel fragmentation and future development potential of parcels for economic development.
CCC Master Plan	• The concept plan establishes a framework for future development and focuses on infrastructure. The concept plan extends through 2020. • Adopted by Oregon City in 2008 (Section 17.65.050 of development code).	• Meyers Road proposed extension alignment. • Parking access. • Stormwater improvements. • Future transit center. • Vehicular circulation route. • Master Plan boundary.
OCSD Transportation and Maintenance Facility	• Proposed facility on the school district property. • Development application submitted.	• Cross section and alignment consistency with other plans. • Development timing. • Bus accommodations.
Glen Oak Park	• Approximately 9-acre park planned.	• Meyers Road alignment and master plan coordination. • Pedestrian and bicycle connections coordination.
Powerline	• Bonneville Power Administration (BPA) corridor	• Easement issues.

Topic	Description	Key Considerations
	runs through project area with power lines, towers, and easements.	• Tower placement.
Environmental		
Wetlands	A string of wetlands runs diagonal northwest to southeast through site.	• Impacts to wetlands will likely require a Joint Permit Application. Impacts to buffer regulated under NROD. Both require mitigation.
Streams	Drainage including underground stream to be determined in subsequent design phases.	• Impacts to any water resource buffers are regulated under the Natural Resource Overlay District (NROD) and may require mitigation.
Habitat/Species	Trees and wetlands likely provide habitat and wildlife corridors and connectivity.	• Oak stands. Turtles near wetland areas and bird habitat.
Floodplain	Federal Emergency Management Agency (FEMA) mapped floodplains	• None in immediate project area. Drainage patterns to be identified in subsequent design phases.
Hazmat	Permitted hazmat generator sites and underground storage tanks in project vicinity.	• None at this phase of project. Future project phases should conduct detailed hazmat survey.
Geologic	No areas of concern according to City webmaps.	• None at this phase of project.

Notes: RTP refers to the Portland metropolitan region's Regional Transportation Plan created by Metro, TSP refers to the Oregon City Transportation System Plan. NROD refers to the Natural Resources Overlay District in the Oregon City Zoning Code, which is provides code requirements on protection of environmental resources consistent with regional, state, and federal regulations.

ALTERNATIVE SCREENING CRITERIA

In addition to the key design considerations, engineering functionality, and safety, the consultant team also developed screening criteria to compare how well each of the alternatives met the needs of the project. The eleven screening criteria that were determined were taken into consideration when developing the preliminary alternatives. The consultant team and the PMT evaluated the alternatives based on how well they met these screening criteria (see Appendix C for the screening criteria table and Appendix A for a summary of PMT Meeting #3).

SCREENING CRITERIA

- Consistency with current regional plans (TSP, RTP, OCSD, Parks, CCC Master Plan)
- Meet street functional classification requirements
- Provide options for connecting to (future) Loder Road extension
- Maximize multimodal opportunities
- Maximize safety for all modes in design
- Be cost-effective
- Provide access to (future) park
- Optimize access to adjacent properties
- Minimize environmental impacts (generally measured by acres of impacts)
- Consider the objectives of all stakeholders
- Maximize developable land and minimize land remnants

ALTERNATIVES

THREE PRELIMINARY ALTERNATIVES

Three alternatives were developed based on the alignments shown in the adopted plans (TSP, Regional Transportation Plan, and CCC Master Plan), the need to seamlessly connect Meyers Road to the roadway extension being designed south of the new bus facility, the 30 miles per hour (mph) speed limit design, and the Industrial Arterial road design standard. Although the TSP describes Meyers Road as a five-lane arterial, the cross sections were designed with three lanes, because the additional two lanes are not necessary to meet capacity needs. In addition, a narrower footprint would have fewer property impacts. The three preliminary alternatives

were: the North Alternative (Green), the Middle Alternative (Red), and the South Alternative (Black) (see Figure 1).

The three preliminary alternatives and the preferred alternative are shown on Figure 1, and the preliminary cross section is shown on Figure 2.

SIMILAR OVERALL PERFORMANCE FOR THE THREE PRELIMINARY ALTERNATIVES

With the same typical cross section and comparable alignments, each of the three preliminary alternatives did a similar job of meeting most of the screening criteria. (A table discussing each criterion for each alternative was presented and discussed at PMT Meeting #3. The table is included in Appendix C, and the meeting summary is included in Appendix A.)

The differences in how well the three preliminary alternatives performed were minor. The North Alternative (Green) scored slightly better than the other two in maximizing multimodal opportunities, because it had more direct access to existing trails and the CCC. The North Alternative (Green) was also slightly more cost-effective when the new roadway connection to Kildeer Road at CCC was taken into account (because the connector would be shorter). Overall, roadway costs were very similar, except for the extension to CCC. In addition, none of the alternatives were anticipated to induce traffic impacts that would violate the City standards.

Access from adjacent properties to Meyers Road was slightly better for the Middle (Red) and South (Black) alternatives, because they provided direct access for the Berg property (see Figure 6 Alternatives Anlaysis Report), while the North Alternative (Green) did not.

All three of the preliminary alternatives appeared to have very minimal and similar impacts to wetlands, because the field survey found only small intermittent wetlands along the routes. The North Alternative (Green) performed slightly better in that it completely avoids two sensitive areas that are not regulated (oak woodland and fir forest), while the other two alternatives would have some impact to these areas.

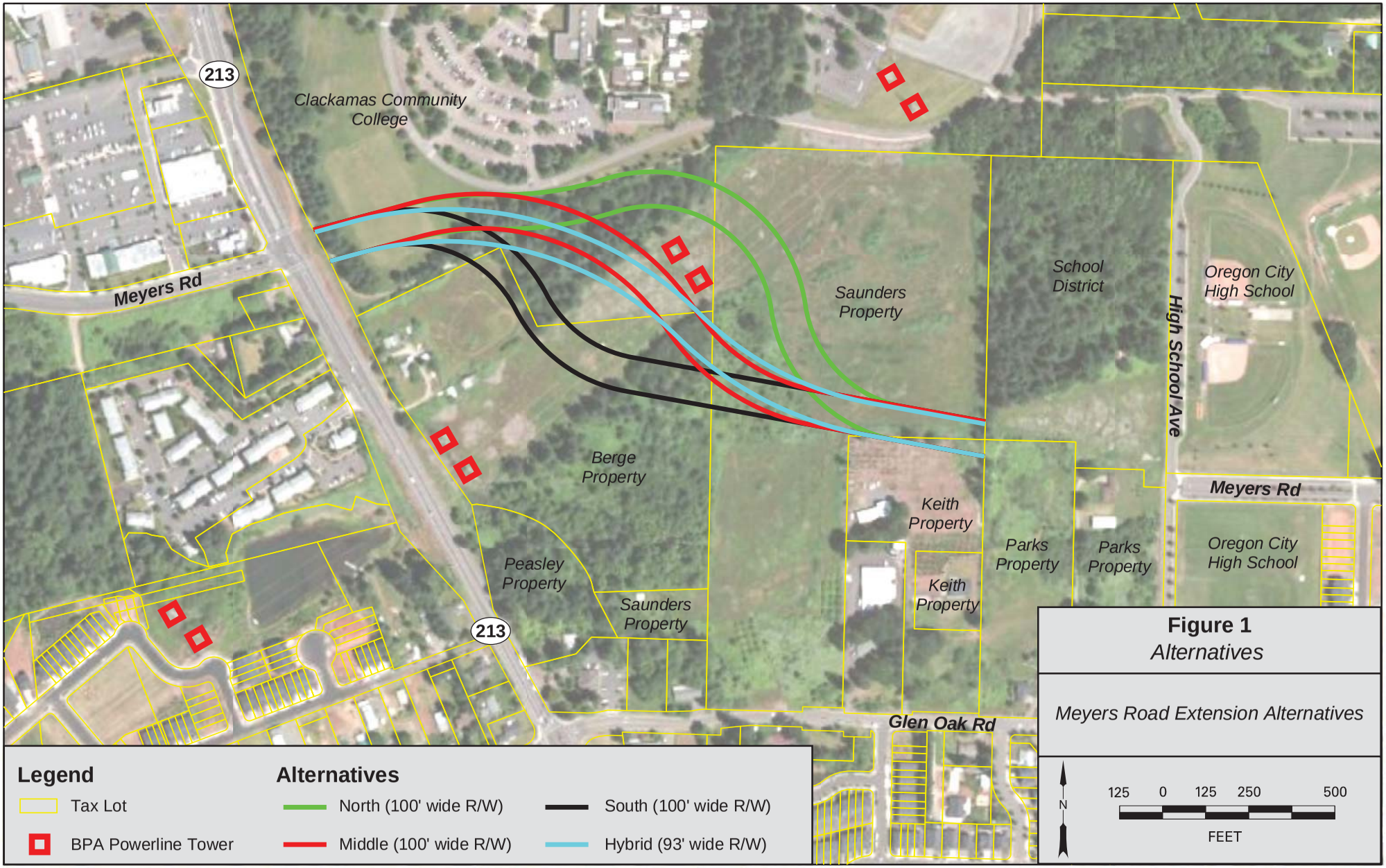


Figure 1
Alternatives

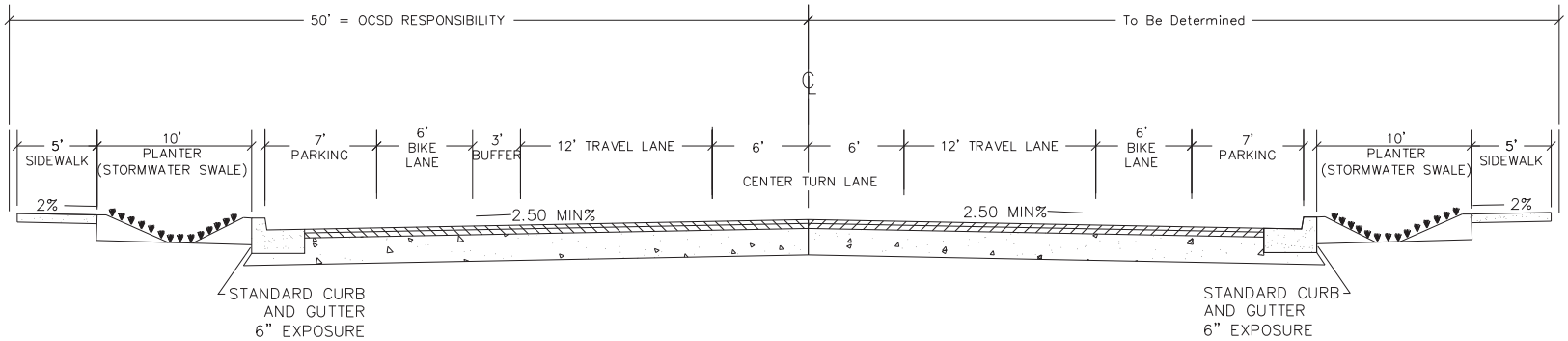
Meyers Road Extension Alternatives

CITY OF OREGON CITY

MEYERS ROAD EXTENSION ALTERNATIVES

Meyers Road Typical Section - Draft

4/28/2015



Meyers Extension

Oregon City School District Conditions of Approval

(Looking East)

Figure 2
Typical Cross Section for Preliminary Alternatives

Meyers Road Extension Alternatives
North Alternative

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PREFERRED ALTERNATIVE ASSESSMENT

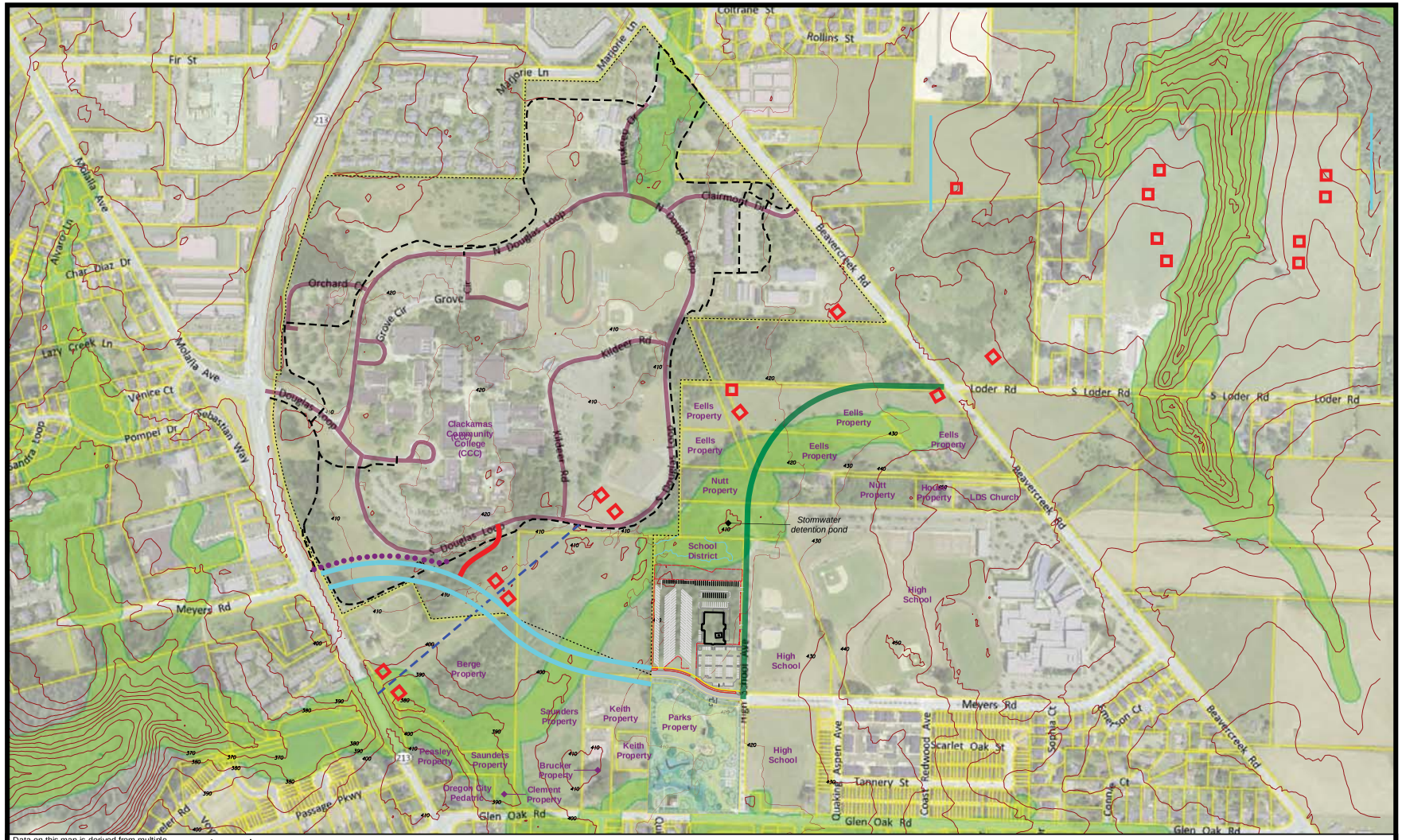
While the PMT agreed that all three of the three preliminary alternatives met the screening criteria, the team developed a hybrid alternative at PMT Meeting #3 that optimized the alternatives while meeting the project purpose (see summary in Appendix A).

This hybrid/preferred alternative is most similar to the Middle Alternative (Red). However, compared to the Middle Alternative (Red), the hybrid/preferred alternative alignment has flatter curves, and its cross section is narrowed to 93 feet of right-of-way with parking removed from the north side of Meyers Road. (See Figure 3: Preferred Alternative Map.)

The narrower cross section was developed to meet the needs of the stakeholders while reducing property and environmental impacts, thus allowing for improved trail connections, improved safety for pedestrians, and access to the future park. Removing parking on the north side of the Meyers Road extension would discourage jaywalking to and from the new park (a major pedestrian destination). The narrower and redesigned alignment would optimize the size and configuration of parcel remainders.

The hybrid alternative alignment would:

- Tie into CCC at South Douglas Loop rather than Kildeer Road;
- Allow for a new trail connection on the north side of the new Meyers Road extension on the west end; and
- Potentially allow, for a proposed trail connection through the BPA power line easement to better connect CCC and the existing trail system with Highway 213 south of the Meyers Road intersection. Such a connection would further implement multimodal plans for the area. In addition, the alignment was designed to provide 50 feet of distance between the roadway alignment and the BPA towers running through the project area in order to avoid any potential conflicts.



Data on this map is derived from multiple sources including but not limited to the City of Oregon City online webmaps, the City of Oregon City Transportation System Plan (TSP) (Effective 8/16/2013), Clackamas Community College (CCC) Master Plan (Approved 6/23/2008), and the Oregon City School District (OCSD) Transportation and Maintenance Facility improvement plans. This information was developed at multiple scales and accuracies. No warranty is made with this map. This map is for informational purposes only and is not suitable for legal, engineering, or surveying purposes.

Legend

- Meyers Road Extension Alternative (Industrial Minor Arterial) 93' Right-of-Way Width
- CCC Connector (Industrial Local Road)
- CCC Master Plan Vehicular Circulation Routes (6/23/2008)
- Loder Road Extension (Future)
- Existing Trail
- Proposed Trail
- Future BPA Trail
- Powerline Tower
- Natural Resource Overlay District
- Clackamas Community College Master Plan Boundary (6/23/2008)

Meyers Road Extension Alternatives

Figure 3: Preferred Alternative Map

June 3, 2015

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OREGON CITY

0 400 800 1,600 Feet

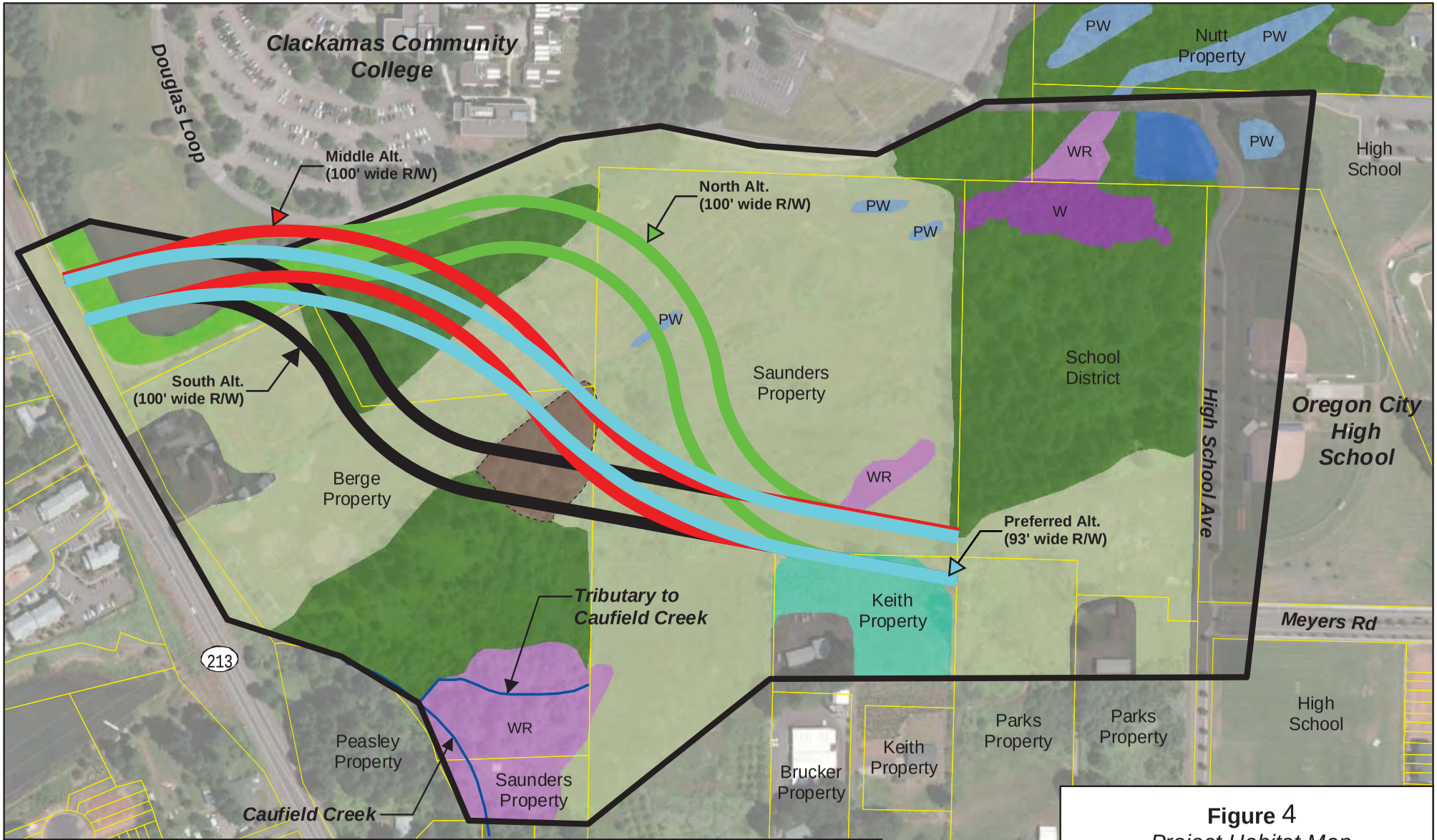
Table 2, below, presents a comparison of the potential property effects for the three preliminary alternatives and the hybrid alternative. The table shows the approximate acreage required for right-of-way and the size of remaining parcel remnants. It shows how many parcels remaining are smaller than 5 acres for each alternative. The preferred alternative requires the least amount of acreage for right-of-way and creates similar sized remnants as the Middle Alternative (Red).

Table 2: **Potential Property Effects Comparison**

Potential Impacts	Preliminary Alternatives						Hybrid/Preferred Alternative	
	North Alternative (Green)		Middle Alternative (Red)		South Alternative(Black)		Preferred Alternative(Blue)	
	Acres (Approx.)	Owner	Acres (Approx.)	Owner	Acres (Approx.)	Owner	Acres (Approx.)	Owner
Right-of-way needs	2.7	CCC	2.6	CCC	1.5	CCC	2.4	CCC
			0.4	Berg	1.5	Berg	0.3	Berg
	2.4	Saunders	1.8	Saunders	1.7	Saunders	1.6	Saunders
	0.2	Keith	0.2	Keith	0.2	Keith	0.2	Keith
Total	**5.3 acres**	**3 owners**	**5.0 acres**	**4 owners**	**4.9 acres**	**4 owners**	**4.5 acres**	**4 owners**
Property Remnants	5.4	CCC	3.1	CCC	1.1	CCC	2.4	CCC
			>0.1	Berg	1.1	Berg	>0.1	Berg
			14.2	Berg	12	Berg	14.2	Berg
	9.9	Saunders	12.8	Saunders	13.1	Saunders	12.7	Saunders
	10.2	Saunders	7.9	Saunders	7.7	Saunders	8.1	Saunders
	4.1	Keith	4.1	Keith	4.1	Keith	4.1	Keith
Remnants under 5 acres	**1**	**Keith (1)**	**3**	**CCC (1), Berg (1), Keith (1)**	**3**	**CCC (1), Berg (1), Keith (1)**	**3**	**CCC (1), Berg (1), Keith (1)**

Notes: Pink indicates remnants smaller than 5 acres. Property impacts from a connecting roadway to CCC were not included in these calculations. Additional right-of-way needs for the connection would vary by alternative; the most land would be needed for the Middle and South alternatives connections.

In addition, the team reviewed impacts to habitat for the alternatives based on the research and reconnaissance discussed in the Baseline Conditions Report. As shown in Figure 4, all three preliminary alternatives had very limited, and very similar, impacts to wetlands. The preferred alternative provided a balance between providing safety and having only a small impact to oak woodland and fir forest which, although not regulated, does provide habitat.



Legend

- Reconnaisance Study Area with Site Access
- Stream
- Tax Lot

Habitat

- Developed/Semi-Developed
- Douglas Fir Forest
- Fir Trees with Maintained Understory
- Non-Native Pasture/Shrubs
- Oak Woodland
- Tree Farm
- Water Quality Pond
- PW Potential Wetland
- W Wetland (delineated)
- WR Wetland (recon)

Figure 4
Project Habitat Map

Reconnaisance level mapping based on April 23, 2015 site visit

Document Path: P:\O\ORCT00000041\0600INFO\GS\Maps\Fig_07_Habitat_Mapping.mxd

TRAFFIC ANALYSIS OF PREFERRED ALTERNATIVES

Traffic analysis indicates that the appropriate configuration of Meyers Road between OR 213 and High School Avenue/Loder Road is a three-lane section with a center turn lane and a single travel lane for motor vehicles in each direction. This is consistent with Meyers Road's designation as a Minor Arterial in the TSP. A detailed traffic analysis is included in the Baseline Conditions Report in Appendix B. The key conclusions of the traffic analysis identify the following roadway configurations/improvements for the Meyers Road Extension to meet applicable 2035 mobility standards:

- Three-lane section is appropriate for Meyers Road
- Four-way STOP-control is acceptable for Meyers Road/High School Avenue/Loder Road
- T-intersection for Meyers Road/new CCC access with STOP signs for new CCC access
- Additional lane needed northbound on OR 213 at Meyers Road
- Separate left-, through-, and right-turn lanes on Meyers Road in both directions at OR 213

PREFERRED ALTERNATIVE AND SCREENING CRITERIA

This section lists the 11 screening criteria and demonstrates how the preferred alternative meets all of these criteria.

- **Consistent with current regional plans (TSP, RTP, OCSD, Parks, CCC Master Plan)**

The preferred alternative provides the extension identified in the TSP and RTP from OR 213 to High School Avenue It also makes the important connection to CCC, and allows for additional trail connections to the existing Loop Trail and a new north-south trail connection between CCC and OR 213.

- **Meet street functional classification requirements**

The TSP identifies Meyer Road as an Industrial Arterial, and the RTP identifies it as Principal Arterial. The preferred street configuration accommodates all modes as required by the TSP and RTP. The cross-section is narrower than the standard 100-foot cross-section, because it does not include parking on the south side of Meyers Road. This is a context-sensitive solution to improve safety as discussed below.

- **Provide options for connecting to the future Loder Road extension.**

The City has determined that the preferred connection for Loder Road in the area will be via High School Road rather than by a direct connection to the Meyers Road Extension. Therefore, this criterion is met, because the Meyers Road connects directly to High School Avenue.

- **Maximize multimodal opportunities**

As mentioned above, the preferred alternative provides the extension identified in the TSP and the RTP from OR 213 to High School Road and is designed to accommodate automobile, truck, bicycle, and pedestrian modes. The extension creates an important connection to CCC, and allows for additional trail connections to the existing Loop Trail. It provides the opportunity for a new trail connecting CCC to Highway 21, which would be consistent with the City's Trails Master Plan, as well. The roadway will include quality bike and pedestrian facilities with 6-foot bike lanes and 2-foot buffers on both sides of the street, and 6-foot sidewalks on both sides of the street that are separated from other traffic by 10-foot stormwater swales.

- **Design maximizes safety for all modes**

The roadway was developed to maximize safety by design through reducing the design speed to 30 mph, removing parking on one side of the street, providing separated sidewalks, and providing wide bike paths (6 feet wide with a 2-foot buffer). The parking was removed on the north side of the street near the bus facility to improve safety. The design will discourage people from jaywalking to reach the park when they park on the north side of Meyers Road, and will improve site distance for buses accessing and exiting the new bus facility just north of the park.

- **Be cost-effective**

The preferred alternative would have a similar capital cost as the other three alternatives. Final cost estimates are forthcoming.

- **Provide access to (future) park**

The preferred alternative includes excellent connections to the future park by providing pedestrian facilities (6-foot sidewalk on each side of the street separated from the roadway by a 10-foot swale), bike facilities (6-foot bike lanes with a 2-foot buffer on both sides), two auto lanes, and parking on the south side, adjacent to the future park.

- **Optimize access to adjacent properties**

The preferred alternative provides direct access to all adjacent properties, as shown Figure 6.

- **Minimize environmental impacts (generally measured by acres of impacts)**

The preferred alternative minimizes environmental impacts by avoiding delineated and reconnaissance wetland areas, as well as avoiding bisecting the oak woodland identified in the reconnaissance.

- **Consider the objectives of all stakeholders**

The preferred alternative takes into account the primary stakeholders' objectives as measured by the screening criteria and through input by the PMT (made up of primary stakeholders). It also reflects input from the adjacent property owners and input from the neighborhood associations and the TAC.

- **Maximize developable land and minimize land remnants**

The narrower footprint and alignment of the preferred alternative maximizes developable land and minimizes right-of-way needs. In addition, the parcel sizes are still developable.

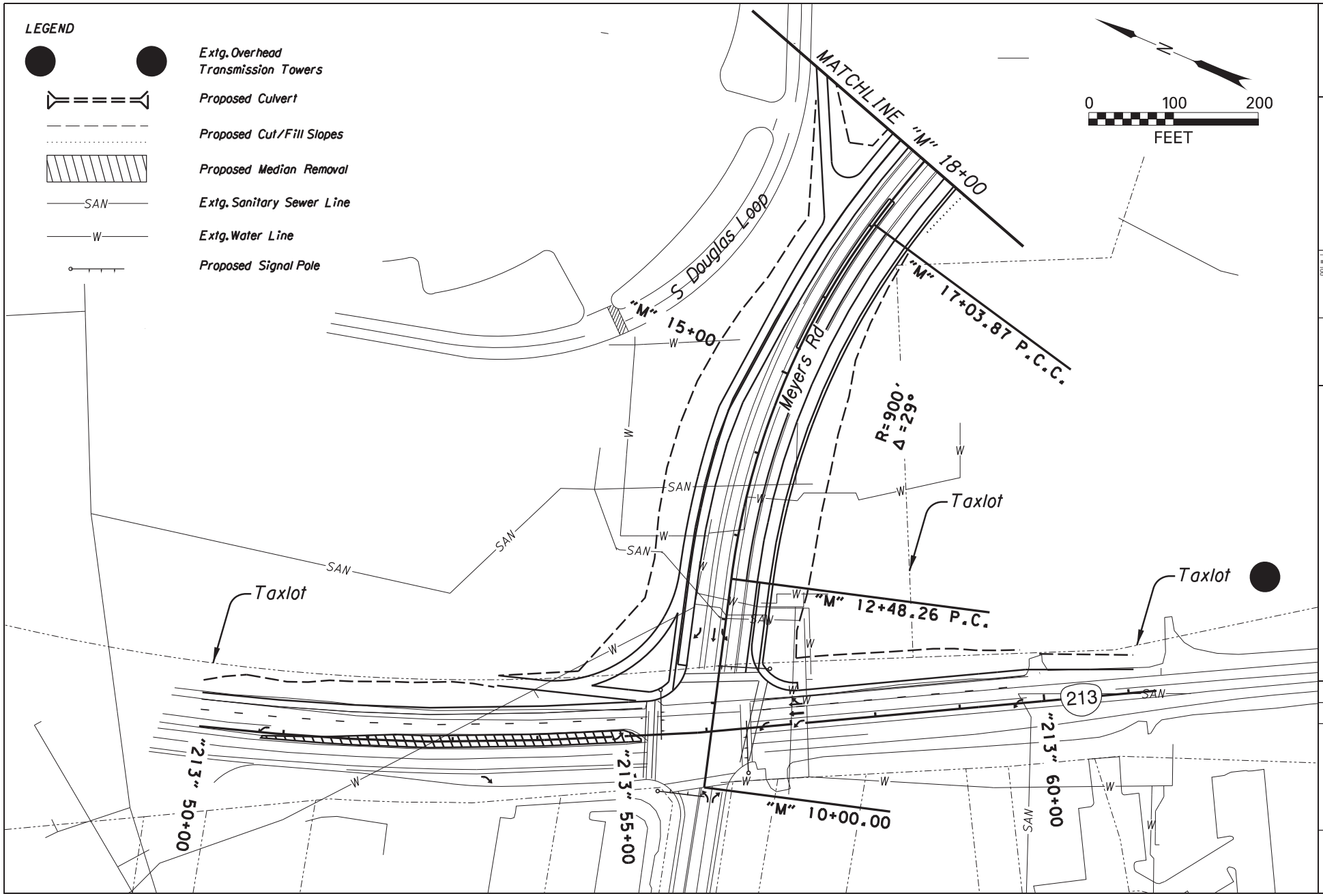
CONCEPT PLAN SUMMARY

The Meyers Road Extension Project will provide a new, safe multimodal connection to existing development, such as CCC, and will provide for future development of Campus Industrial lands that are located in an Enterprise Zone, which is intended to foster development of family-wage jobs. The roadway extension will support future infill development of the large parcels of underdeveloped and vacant land. The Meyers Road Extension Concept Plan has been formulated with input from the adjacent neighborhood associations, the property owners, the TAC, the PMT, and the City of Oregon City staff and advisory groups (which includes primary stakeholders), and is based on minor refinements to the preferred alternative after it was vetted by stakeholders and advisory groups.

The Concept Plan calls for a Meyers Road extension that will tie into CCC at South Douglas Loop rather than at Kildeer Road; allow for a new trail connection on the north side of the new Meyers Road extension on the west end; and could allow for a proposed trail connection through the BPA power line easement to better connect CCC and the existing trail system with OR 213 south of the Meyers Road intersection, thus furthering multimodal plans for the area. In addition, the Concept Plan includes an alignment that was designed to provide 50 feet of distance between the roadway alignment and the BPA towers running through the project area to avoid any potential conflicts.

The Meyers Road Extension Concept Plan was designed to improve the safety of pedestrians and bicyclists by providing safe bicycle and pedestrian routes through the corridor that would connect to major destinations, including CCC and Oregon City High School. The design includes

a multi-use path in the northwest section of the extension, sidewalks the whole length of the project, and bicycle lanes the whole length of the project. In addition, the Minor Arterial is designed with a 30 mph design to slow traffic, and parking would be restricted on the north side of the extension near the bus facility to protect site distance for buses and to discourage jaywalking by people parking on the roadway extension and then crossing to access the new Glen Oak Park. The construction of the intersection improvements at the Meyers Road/OR 213 intersection would improve the safety of pedestrians, bicyclists, and vehicles by installing signals and painted crosswalks. The construction of the Meyers Road/High School Avenue intersection would provide a four-way STOP sign control and painted crosswalks, which would improve the safety of the pedestrian and bicycle crossing of the Minor Arterial. The Concept Plan is shown in Figure 5 and Roadway Typical Sections are shown in Figure 6.



FINAL

OREGON CITY

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2100 SW River Parkway
Portland, OR 97201
Phone: 503.223.6663

PROJECT MANAGER: John Lewis

FILE NUMBER: ORCT00000041

DATE: 9/9/2015

DRAWN: RJXM

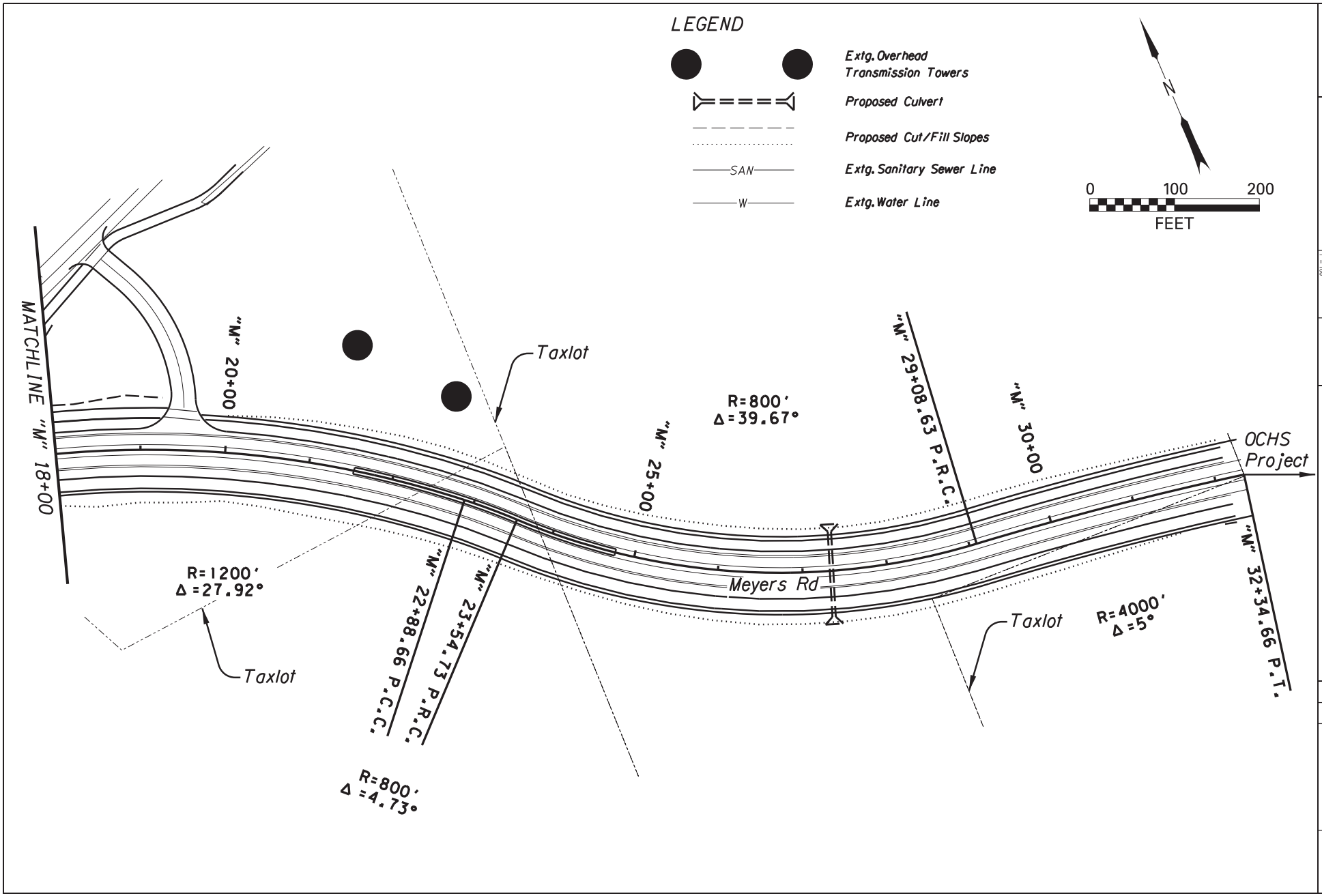
SCALE: 1" = 100'

CITY OF OREGON CITY
MEYERS ROAD EXTENSION

ROADWAY PLAN
MEYERS ROAD & OR213
FIGURE 5 - PAGE 1 OF 3

REVISIONS

DRAWING NUMBER:
R1
SHEET 1 OF 4



FINAL

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PROJECT MANAGER: John Lewis

FILE NUMBER: ORCT00000041

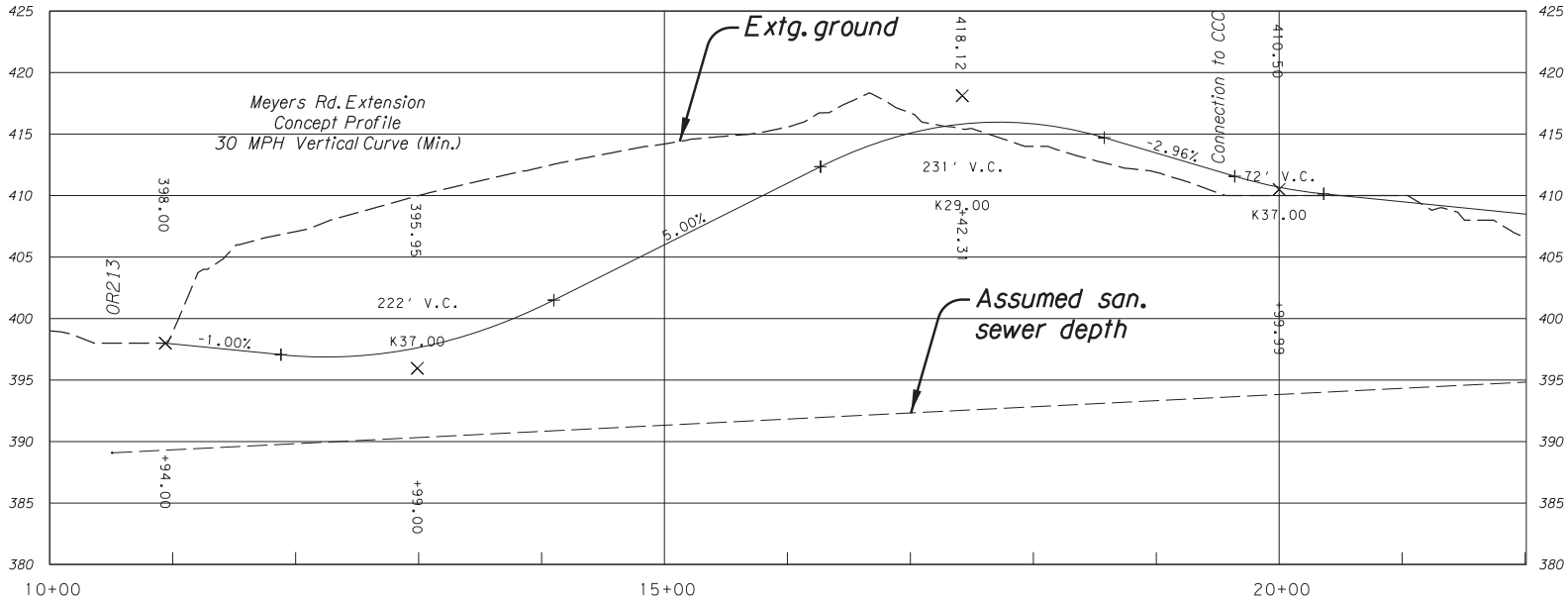
M.Hall
1"=5'
1"=10'

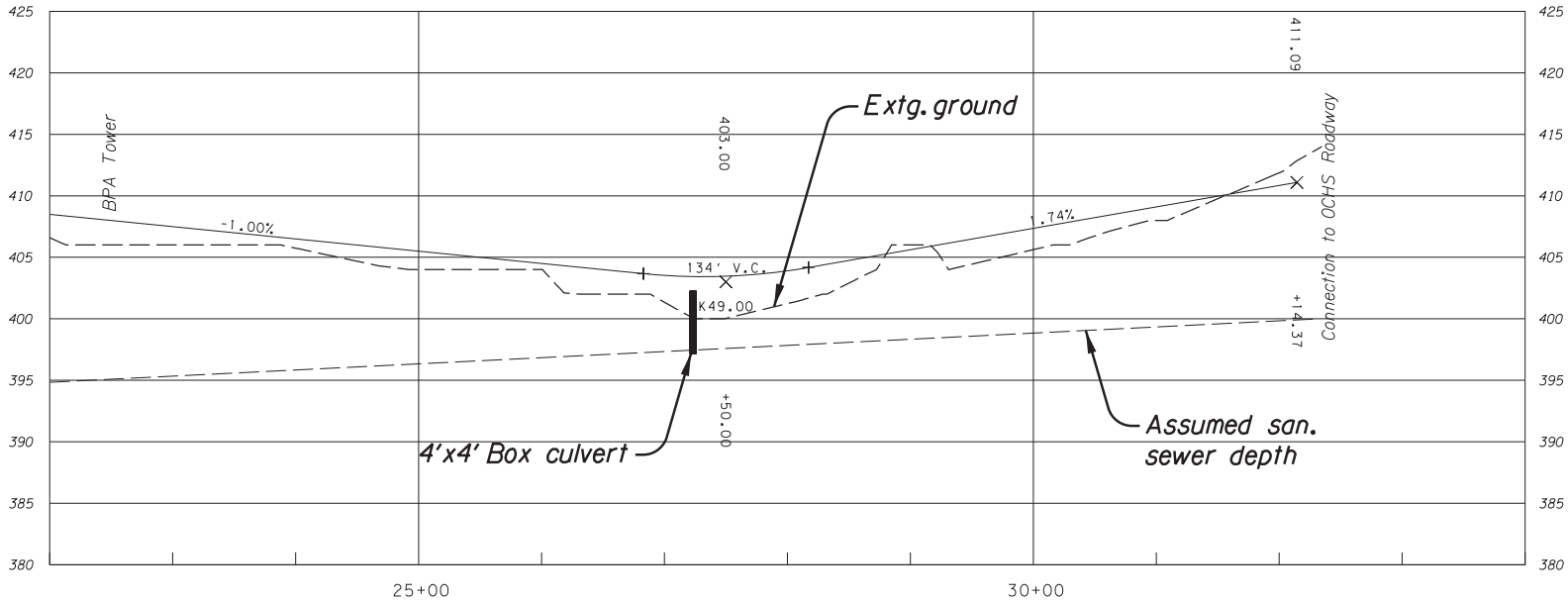
03/9/2015
R.VAN
DAN

CITY OF OREGON CITY
MEYERS ROAD EXTENSION
ROADWAY PROFILE
MEYERS ROAD
FIGURE 5 - PAGE 2 OF 3

REVISIONS

DRAWING NUMBER:
R2
SHEET 2 OF 4





FINAL

OREGON CITY

DAVID EVANS AND ASSOCIATES INC.
2100 SW River Parkway
Portland, OR 97201
Phone: 503.223.6663

PROJECT MANAGER: John Lewis

FILE NUMBER: ORCT60000041

DATE: 9/9/2015

DRAWN: RJXM

CHECKED:

SCALE: H: 1" = 20' V: 1" = 10'

CITY OF OREGON CITY
MEYERS ROAD EXTENSION

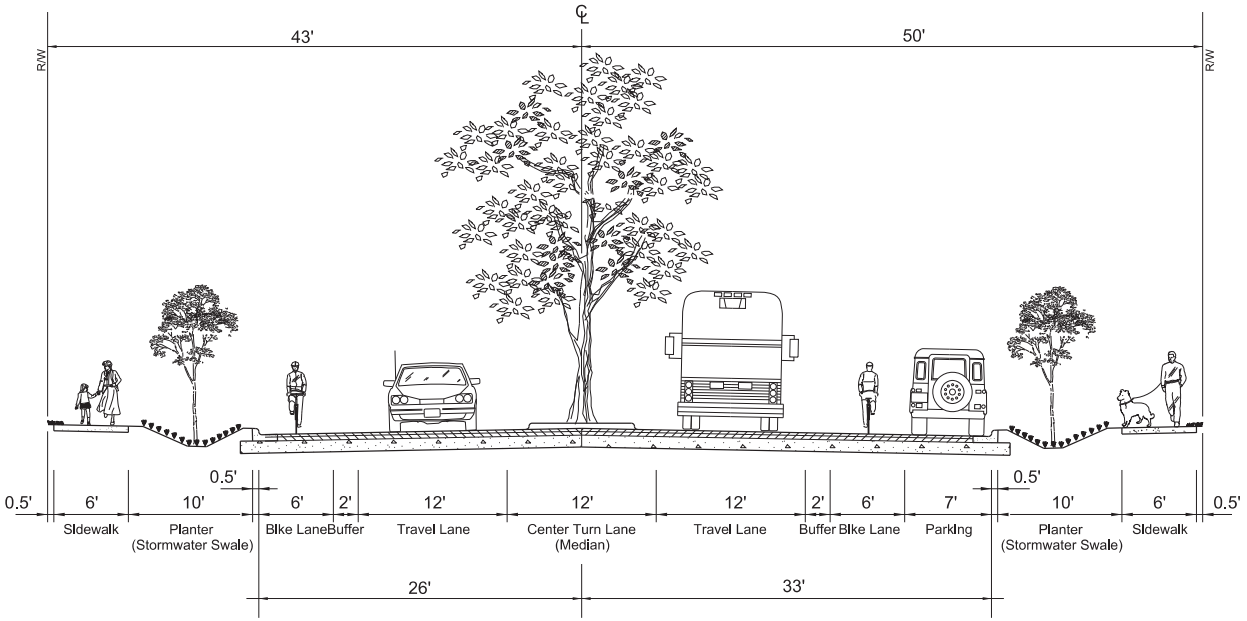
ROADWAY PROFILE
MEYERS ROAD
FIGURE 5 - PAGE 3 OF 3

REVISIONS

DRAWING NUMBER:

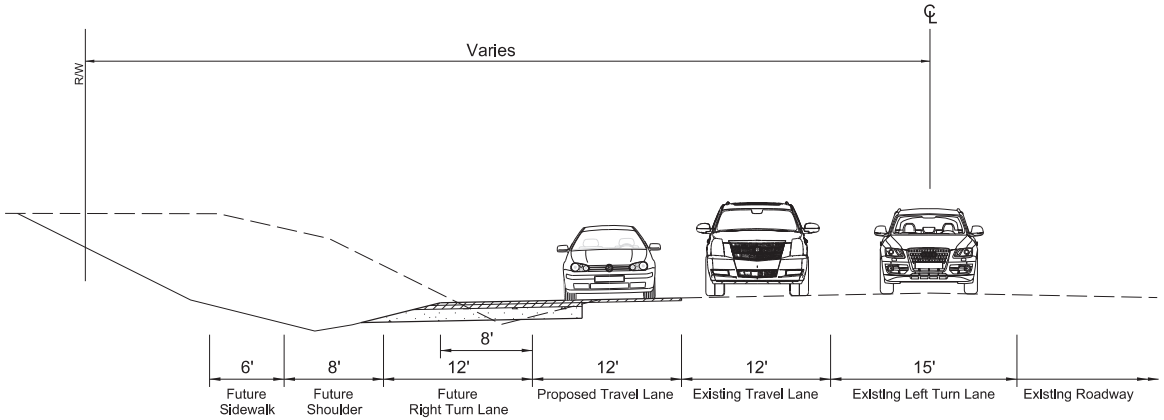
R3

SHEET 3 OF 4



TYPICAL SECTION

OR213 to High School Ave.
(Looking East)



TYPICAL SECTION

OR213 South of Meyers Road
(Looking South)

FINAL

OREGON CITY

FILE NUMBER:

PROJECT MANAGER:
John Lewis

DAVID EVANS AND ASSOCIATES INC.
2100 SW River Parkway
Portland, OR 97201
Phone: 503.223.6663

PROJECT NO.	ORCT60000041
DATE	9/9/2015
DRAWN BY	RJXM
CHECKED BY	
SCALE	1" = 10'

CITY OF OREGON CITY
MEYERS ROAD EXTENSION

TYPICAL SECTIONS
MEYERS ROAD & OR213
FIGURE 6 • PAGE 1 OF 1

REV. NO.	DATE	DESCRIPTION

REVISIONS

DRAWING NUMBER:

R4

SHEET 4 OF 4

TRANSPORTATION SYSTEM PLAN CONSISTENCY

The Meyers Road Extension Concept Plan provides additional specificity related to the implementation of Meyers Road as a Minor Arterial as specified in the TSP. Consistent with the TSP's focus on multimodal streets, the concept plan specifies the configuration of the roadway and intersections, and includes bike lanes and sidewalks. The planned configuration of Meyers Road provides opportunities to facilitate increased travel opportunities for vehicles, as well as for pedestrians and bicyclists, by providing a complete travel facility. Implementation of the concept plan will result in a more complete transportation system with a variety of multimodal travel options. The Meyers Road Extension Concept Plan includes a compilation of projects identified in the TSP, as described in Table 3.

Table 3. Meyers Road TSP Projects

Project #	Project Name	Location	Description	How Proposed Concept Plan Impacts Project
D46	Meyers Road West Extension	OR 213 to High School Avenue	Extend Meyers Road from OR 213 to High School Avenue as an Industrial Minor Arterial. Create a local street to Douglas Loop.	Refines project design with multimodal features.
D45	Meyers Road Extension/ Loder Road Extension Operational Enhancement	Meyers Road Extension/ Loder Road Extension	Install a single-lane roundabout.	Removes roundabout from TSP. Proposed intersection is four-way stop.
D64	Loder Road Extension	Beavercreek Road to Glen Oak Road	Extend Loder Road from Beavercreek Road to Glen Oak Road as an Industrial Collector. Add a sidewalk and bike lane to the west side of the street, with a shared-use path to be added on the east side per project S18. Create a local street connection to Douglas Loop. Install a roundabout at Meyers Road (per project D45).	Refines the location of the Loder Road corridor identified in the TSP. Instead of Loder Road intersecting with Meyers Road approximately midway between OR 213 and High School Avenue, the Concept Plan proposes that Loder Road intersect with Meyers Road where Meyers Road and High School Avenue currently intersect. The original TSP proposal for a roundabout is replaced with a four-way stop (per project D45.)

Project #	Project Name	Location	Description	How Proposed Concept Plan Impacts Project
W31	OR 213 Sidewalk Infill	Molalla Avenue to Conway Drive	Complete sidewalk gaps on both sides of the street (included in project D77).	Improves the multi-use path adjacent to OR 213, and include sidewalk ramps at the Meyers Road intersection. The Concept Plan will not preclude the development of sidewalks on OR 213 as part of future projects.
S23	Meyers Road Shared-Use Path	Meyers-Beavercreek Shared-Use Path to OR 213	Add a shared-use path on the south side of Meyers Road between the Meyers-Beavercreek Shared-Use Path and the CCC Shared-Use Path.	Adds a shared-use path on the north side of the Meyers Road extension through part of the CCC property. The Concept Plan will provide bike lanes and sidewalks the length of the Meyers Road extension and will not preclude a future multi-use path in the area.
D77	OR 213 Safety Improvement	Molalla Avenue to Conway Drive	Widen to five lanes (two travel lanes in each direction, with a center turn lane/median) with bike lanes and sidewalks.	Includes adding a northbound lane on OR 213 from approximately 600 feet south of Meyers Road to approximately 600 feet north of Meyers Road, where it currently transitions to two northbound through lanes and a left-turn lane for the intersection of OR 213 with Molalla Avenue.
C13	Meyers Road Extension/Loder Road Extension Shared-Use Path Crossing	Meyers Road Extension/Loder Road Extension intersection	Install crosswalk and pedestrian activated flasher on Meyers Road.	Includes Loder Road connecting into High School Avenue, rather than Meyers Road. The intersection of Meyers Road and High School Avenue would include a four-way stop and a crosswalk.

COST ESTIMATE

A cost estimate for construction of the Meyers Road Extension project is included in Appendix D. The cost estimate is presented in 2015 dollars and includes improvements for the Meyers Road extension, CCC access, and OR 213. Costs are based on Oregon Department of Transportation (ODOT) average unit costs, with adjustments for local conditions. Prices used assume all construction activities will be completed under one contract. An estimate was developed using the Metro planning cost estimate guide as a basis of comparison. The cost for construction is included as an *anticipated programmed project cost estimate – prospectus*, shown on the bottom of the cost estimate summary in Appendix D.

APPENDIX A: PUBLIC INVOLVEMENT MEETING SUMMARIES

Meyers Road Extension Alternatives (OREGON CITY)

PMT #1 (Kickoff) Meeting

City Hall, Commission Chambers, 625 Center Street, Oregon City

Thursday, March 12th, 2015

1:00 PM – 3:00 PM

(Linking Education and the Community)

Invitees:

John Lewis, City PM, Director of Public Works	Mike Hickey, Consultant PM DEA
Kelly Moosbrugger, Planner	Elizabeth Mros, Senior Planner DEA
Martin Montalvo, Public Works Operations Manager,	Anneke Van der Mast, Asst. Planner DEA
Abraham Tayar ODOT Development Review Engineering Lead	KC Cooper, Communication Strategist DEA
Bob Cochran, Dean of Campus Services CCC	Seth Burmley, Planner ODOT
Wes Rogers, Director of Operations OCSD	Scott Archer, Community Services Director (Parks contact)

PROJECT OVERVIEW (HICKEY & LEWIS)

- *History and Key Issues* –scope of work collectively developed by City, CCC and OCHS.
- *Process and outcomes* – a series of meetings is planned to address concerns and develop opportunities
- *Keep elected (decision makers informed)*
- *Definition of Success*

Collaboration, reach consensus, address Meyers and Loder Rd., develop adopted plan and obtain dedicated R/W, improve traffic, obtain financing , meet schedule, bus circulation, reduce congestion, develop 213 and Meyers intersection, park development, one planning commission meeting, break ground in July, safety.

CURRENT DESIGN, STATUS AND SCHEDULE (HICKEY & LEWIS)

- *Review roles and responsibilities* – John is very busy Martin will function as the City PM. Each representative from the PMT will keep their decision makers informed.

- *Base Map/Aerial Review – Project Limits*

Bergs not yet contacted (co-owned with Terry Emmert, Keith interested in access)
Loder quick response grant awarded for streetscape design
Pacific Habitat has done some wetland delineation.
Martin will provide owner contact info from GIS.
Bob has strategic assessment update for campus.
Scott provided map of parks master plan for viewing.
An apartment complex for students is planned east of Beavercreek Rd.
A roundabout takes more room but requires less maintenance.
TSP classification for Meyers is minor arterial.

- *Schedule – program expectations*

Received NTP	*February 12, 2015*
PMT meeting #1	*March 12 -Thursday*
PMT meeting #2	*April 9-Thursday*
Pre-application conference	*probably June (Kelly & Martin)*
Caufield neighborhood mtg.	*April 28 - Tuesday*
PMT meeting #3	*April 30-Thursday*
City TAC briefing	*May 12-Tuesday*
PMT meeting #4	*June 25-Thursday*
Presentation to CCC and OCSD	*July 21-Tuesday*
Attend City Planning Commission meeting	*August 11-Tuesday*

PLAN FOR ON-GOING COMMUNICATIONS (HICKEY)

- Monthly (or as required) design coordination meetings
- Frequent e-mail updates
- Consultant project manager to be 'copied' on all DEA internal email & written communications
- Project Leader and Client (John and Martin) to be copied on all external email and written communications
- Regular meeting time and place will be at city hall Thursday afternoons
- Public information distribution
  - ✓ Stakeholder interviews
  - ✓ Neighborhood meeting
- Stakeholder outreach

  1. Tight Timeline – targeted -focus is on the most affected stakeholders

  2. Set up and update a project page on the City's website

  3. We'll also help develop talking points for the PMT to keep boards/electeds informed

  4. During alternatives development we'll meet with the property owners and major stakeholders for input—future development, property owner issues, etc. We expect to follow up 2-3 times as we move thru process

5. We will also meeting with the Caufield NH association and the CIC to gather their feedback, both for the alternatives developed and the preferred alternative. Promote these meetings to attract others who might be interested.

6. Presentation to CCC and OC School board – important to keep them in the loop as we progress.

PROJECT EXISTING CONDITIONS

- BPA line
- Wetlands and water quality facilities –overview from GIS only
- CCC master plan- several years old, a strategic plan is also available
- OCHS plans, School will provide additional plans
- Private land development plans are unknown or non-existent
- Transportation System Plan (TSP) plan is just a line on a map, does not show accurate location of planned improvements
- Glen Oak Park master plan
- Other

PROJECT SCREENING CRITERIA (ISSUES, OPPORTUNITIES AND CONSTRAINTS)

(draft)

a. Cost of project should be in line with the benefit provided
b. Minimize environmental impact
c. Options should meet the needs of most stakeholders
d. Consistent with current plans (TSP, School Dist, Parks)
e. Meet street functional classification requirements (minor arterial)
f. Manage access to properties
g. Safety-multimodal
h. Minimize land remnants
i. Connection to Loder Road
j. Maximize developable land

ACTION ITEMS / OTHER

- Martin will provide owner contacts
- DEA will provide FTP site to house information
- DEA will request CCC strategic plan, OCHS delineation and plans, Parks master plan
- KC will initiate property owner contact,
- City will provide permission of entry for wetland reconnaissance
- DEA to update schedule.
- DEA to update contact list and email to everyone.
- Kelly to upload background data onto FTP site- School District Plan, Maps, CCC Master Plan, Parks Plan, and anything else relevant.
- Bob to send any updates to the CCC plan.

Meyers Road Extension Alternatives (OREGON CITY)

PMT #2 DRAFT Meeting Notes

City Hall, Commission Chambers, 625 Center Street, Oregon City
Thursday, April 9th, 2015
1:00 PM – 3:00 PM

Attendees:

John Lewis, City PM	Mike Hickey, Consultant PM
Kelly Moosbrugger, City Planner	Elizabeth Mros, Lead Planner
Martin Montalvo, City Operations Manager,	KC Cooper, Public Involvement
Bob Cochran, Dean CCC	Scott Archer, Parks
Wes Rogers, OCHS	Abraham Tayar ODOT

MEETING PURPOSE (HICKEY)

- Review project findings from stakeholder interviews and existing conditions analysis
- Review and confirm project screening criteria
- Review and refine project alternatives based on 1 and 2

PROJECT PROGRESS (HICKEY, COOPER)

The graphic used to discuss the alternatives is available at:

ftp:\\ftp2.deainc.com\2015-04-07 Plan - 36x38L.pdf

- **Stakeholder interviews:** KC provided a summary of her interviews with the property owners of three properties potential affected by the road alignment:
  - The owners were open to alternatives and none are pursuing sales or development plans until the road is constructed.
  - They mentioned that the road should be safe, cost efficient and fair to all owners. There are no major physical (main made) obstacles on the properties that would affect design, other than a storage shed on the Keith property.
  - **Saunders:** The project should avoid creating remnants and maximize developable parcels.
  - **Keith:** Would prefer that the alignment run along the edge of his property, and doesn't want it to be farther north, so that he would need an easement from Saunders to access the road. He is ok if the road needs to go through the northern part of the property.
  - **Berge/Emmert:** Wants the City and CCC consider a "land swap" –trading what the City needs for the road for the CCC remnants adjacent to their property that would be caused by the road alignment. This would give them a continuous property line along the road.

- **Caufield Neighborhood Association meeting:** John, Kelly and Martin are attending the April 28 Caufield meeting to discuss the project and get feedback on what they would like to see in road design and alignments.

CURRENT DESIGN, STATUS AND SCHEDULE (HICKEY & LEWIS)

- **Base Map/Aerial Review :**
    - The group reviewed a base map that included information and potential alignments referenced in several documents including the TPS, RTP, CCC Master Plans and results of the PMT #1 discussions.
    - The multi-story parking indicated on the CCC campus should be removed.
    - There is a planned transit stop; TriMet should be included in the discussions in the future. The City expects transit service to increase in the next few years. Bus layover locations need to be considered at this site.
    -
- **Road Design issues**
    - The group agreed to reducing speed on the new section of Meyers to 30 mph. The City will look at improving signage for the school zone.
    - The currently planned road ROW is 94' feet. Alternative cross-sections should include the possibility of a multi-use path on the north side, instead of separate bike lanes and sidewalks. Multiuse paths normally range from 12-16 feet depending on the environment. A minimum of 100' right of way will likely be needed to accommodate the path.
    - The road provides a missing link to the trail system in the area, so design should consider the placement of pedestrian and bike facilities to optimize connections. It's expected that bike traffic will increase when the road comes in from those using the trail system and accessing the high school, park and CCC.
    - The design needs to consider where crossing areas should be located from the north side of Meyers to the park on the south, and from the south side off Meyers to the CCC campus.
    - Consider using design (eg curves, bulb outs, medians) to naturally reduce speed off vehicle traffic near the school zone.
    - The bus barn includes a single entrance and single exit onto Meyers Road.
    - The assumption is that the road needs to follow the property boundaries off the park and school bus barn property. Parks may not be able to do adjustment to the property line to allow for straightening the curve. City charter stipulates that they cannot sell, donate, swap City land with another property owner without a public vote. Scott will check into this. Designers need to look how to optimize this section and not affect the current boundaries by placement of drainage, access points and other methods.
    - The High school has designed the bus barn site but is willing to look at the potential of dedicating some of the land to improve the road safety. However, their design is going to bid April 22, so discussions need to happen at their next design meeting.
    - The CCC wants the connection from the Meyers extension to link to Kildeer Rd on their campus.

- **Selection Criteria review**
    - Change "Cost of project should be in line with the benefit provided" to "Be cost effective
    - Change "Options should meet the needs of most stakeholders" to "Consider the objectives of all stakeholders."
    - Change "Maximize multimodal environment" to Maximize multimodal opportunities"

- **Outreach:**
    - An article about the project will be in the next Trail News coming out in Early May.
    - Martin will attend both the April 28 and July 28 Caufield neighborhood meetings to get feedback on alternatives.
    - The public will be invited to the July 21 TAC meeting (6 pm) for a discussion on the preferred alternatives, before the final recommended alternative is selected

- **Next PMT meeting – April 30**
    - Draft alternatives Summary Maps and Performance matrix
    - Additional feedback from Caufield Neighborhood
    - Action item responses. (see below)

- **Action Items**
    - Scott to upload the park plan to the FTP site.
    - All PMT members are to review the list of Existing Conditions/Design Considerations to ensure everything is included. CCC to provide any master plan updates.
    - Mike to remove the planned CCC multi story parking structure from the map, and add contours. Typical to be revised to include a shared path on the north side and 100' right of way and median.
    - Martin to invite Vanessa Vissar (TriMet) to the April 30 PMT meeting.
    - Scott will double check the Charter interpretation that may prevent adjusting the property lines to straighten out the curve at High School Road.
    - Mike will talk to designers about the boundary issue between Parks and School District and look for ways to design to the current boundaries.
    - Mike and John are to attend the next (4/14) Parks/school district design meeting to discuss the boundary and design issue at the east end of the road extension
    - Martin to contact Caufield neighborhood to get on the July 28 agenda, and to put the alternatives discussion on the July 21 TAC agenda.
    - Mike to add July 21st TAC meeting to the calendar.

Meyers Road Extension Alternatives (OREGON CITY)

DRAFT PMT #3 Meeting Notes

City Hall, Commission Chambers, 625 Center Street, Oregon City

Thursday, April 30th, 2015

1:00 PM – 4:30PM

(Linking Education and the Community)

Attendees: Invitees:

John Lewis, City PM	Jake Johnston, Engineering
Kelly Moosbrugger, City Planner	Elizabeth Mros, Lead Planner
Martin Montalvo, City Operations Manager,	Anneke Van der Mast, Asst. Planner
Scott Archer, Parks	KC Cooper, Public Involvement
Abraham Tayar ODOT	Vanessa Vissar TriMet
Bob Cochran, Dean CCC	John Replinger, Traffic
Wes Rogers, OCHS	Dayna Webb, Engineering (OC)
Seth Burmley, Planner ODOT	

MEETING PURPOSE – SELECT PREFERRED ALTERNATIVE

Review alternatives in consideration of project evaluation criteria and select Preferred Alternative.

AGENDA ITEMS

WEBSITE AND OUTREACH UPDATE (MARTIN)

- Website is ready to go live. KC will confer with Martin after the meeting on what items to load up. It should include the selection criteria and the roadway x-section. Other maps to be loaded when they are edited

BASELINE CONDITIONS UPDATE (JOHN & ANNEKE)

- John Replinger provided information on traffic/existing conditions
    - John stated that although it is ideal to keep the roads as narrow as we can to meet the needs identified. However, an additional westbound right-turn lane at the intersection of Meyers Rd and Highway 213 may be merited. Additional analysis will need to be performed to determine the configuration of the intersection. This would mean adding another lane onto Meyers at the intersection. John Replinger will review volumes to assess whether it's warranted. A fourth lane at the intersection of new Meyers Extension and Hwy 213 may have impacts.
    - The most likely scenario is a stop sign at the extension of Kildeer Rd. at the intersection with Meyers.
    - All intersections (5) currently meet performance standards related to system plans.
    - Intersection of Glen Oak/Hwy 213 does not operate well. ODOT and the City are aware of this. It can't be addressed in this project process. He will take into consideration the performance today when he looks at future traffic. . The new extension should improve performance at that intersection.
    - The City has determined that Loder Road will connect to High School Road. A typical section needs to be determined at a later date. The right of way would include part of the parking and ball field to the east. It would be a 60' collector with an off-set center alignment. Will need to look at how this will intersect with Meyers Road.
- Anneke summarized the Environmental baseline conditions
    - No fatal flaws. A field survey for wetlands found only small intermittent areas of potential wetlands along the possible roadway routes.
    - Look at moving alignment south into Keith property to avoid the adjacent wetland
    - Keep the corners of the park in the public right of way, no remnants
    - There is a grove of Oak Trees that is good habitat but not regulated located on the Berge property.
    - Some areas that were on the wetlands map appear to be dry. Could be due to the new drainage area that the school district put in place at the north end of High School Avenue.

CAULFIELD NEIGHBORHOOD MEETING SUMMARY (JOHN)

- The neighborhood is supportive of and eager for the project to move forward. There was discussion about the School Districts new plans. Attendance included one of the

private property owners. The attendees were supportive of campus industrial development and somewhat concerned about bus traffic.

PARKS/SCHOOL DISTRICT SUMMARY (JOHN)

- Wes and John Replinger reported on the design of the school facility. The group looked at and issues related to the east end of the project (near HS road). There was concern the typical roadway section in this area would encourage people to park on the north side and jaywalk to reach the park. In addition, parking adjacent to the bus facility could reduce visibility and create conflicts between buses and cars.
- **After much discussion the group concluded that the 7' parking lane on the north side of the new extension would be eliminated and that a 3' bike lane buffer would be added to the south side of the road.** This would shrink the road width down to 96'. Access to the park would still be maintained, the sight lines for buses entering/leaving the bus lot would be improved. A half-street section is being built as park off the school district's development and will define the east end of Meyers Road.

ROUNDABOUT DESIGN (JAKE/JOHN R)

- Discuss implications of including a roundabout in alternatives:
    - Roundabouts need to be designed to the largest vehicles expected. Meyers Road is designated for freight. The larger the roundabout, the straighter the lanes, therefore large roundabouts don't encourage drivers to slow down.
    - A 250' diameter roundabout takes about one acre of land. More property would need to be taken from Saunders - assuming the connection to CCC is Killdeer Rd.
    - Roundabouts work best when the traffic from all legs is about equal. That would probably not be the case for access to CCC.
    - Motorists are good about noticing pedestrians and cyclist when they are entering the roundabout, but not when they are exiting.
    - Knowing what the land use will be helps to determine volumes to determine if an intersection should be a roundabout, stop control (1, 2 or 4-way) or a signalized intersection.
    - During the A.M. peak, it is expected that approximately 115 cars heading north on Hwy 213 may turn on Meyers to connect to the new road to CCC.
    - John noted that a standard intersection with turn lanes to the connector to CCC would be a reasonable solution.

WORKING SESSION – REVIEWING THE ALTERNATIVE (ALL)

- Reviewed updated alternatives and alternatives map: The north alignment (alt. 1) green, a middle alternative (alt. 2) red, and a south alignment (alt.3) black were presented. The three alternatives were studied by the group and the selection criteria were evaluated against each alternative.

- The group looked at how each alignment would be connected to an entrance to CCC. Some require more private property acquisition.
- BPA may require perpendicular entry across their corridor. This needs to be checked.
- South (black) alternative may stimulate a remnant swap between CCC and the Berge to have both properties front the new road. The CCC is willing to consider this. The property owner mentioned this as an option as well.
- The location of the shared use path on the north needs to be determined (related to CCC access. Engineering needs to look at the intersection at Hwy 213 to see how the path is placed there.
- Middle alignment (red) would leave a remnant for Saunders, but it is under the BPA lines so land use options are limited.
- Consider using remnants for wetland mitigation. It won't be useful for habitat impacts though.
- Keeping the impact to the Oak forest habitat to one side is better than cutting through the middle.
- While all the alternatives would work, each have drawbacks related to the criteria. The PMT was polled for their preferences
    - Martin: Prefers middle (red) alignment
    - John: Prefers south (black) alignment
    - Bob: Red alignment, or Black alignment with land swap
    - Wes: Red alignment adjusted slightly south
    - Kelly: Red and black alignments – if we realign the middle alignment we'll need to check the curve off of Hwy. 213
    - No one preferred the northern alignment
- **The Group decided that it was worth looking at a 4th alternative—a hybrid of the middle and south alignments.** Jake will do a hybrid, and check curves, etc. to see how this would work and present to the group. BPA will need to be contacted as well to see if it is acceptable.
- Martin will consider adding an extra PMT meeting, or, sharing the information via email and getting further comment.
- KC and Martin will discuss meeting with the private property owners to walk through the alignments and discuss the consensus of the PMT.

MATERIALS

- Workplan
- Evaluation Criteria Worksheet
- Acreage worksheets
- Typical Section
- Alternatives Maps

ACTION ITEMS / NEXT STEPS

- KC/Martin to discuss webpage uploads
- Martin to identify date for open house for alignment alternatives
- Jake to check with BPA (start internally with Chris Webber) on entrance requirements into their corridor (skew, perpendicular…)

- Martin is to schedule a meeting with TriMet to determine their needs and requirements with the alternatives. Martin will invite TriMet to future PMT meetings.
- Jake to provide suggestions on location of multi-use path on the north side, from Hwy 213 west.
- Martin to determine if an additional PMT is useful in finalizing a preferred alternative and conduct a doodle poll. He will notify the group of next steps to a preferred alternative.
- Martin and KC will discuss property owner meeting process and timeline.

DAVID EVANS
AND ASSOCIATES INC

Meyers Road Project
Property Owner Interviews Summary

The owners of three properties were separately interviewed on April 7, 2015 by KC Cooper of David Evans and Associates. Interviewees were asked to respond to a prepared list of questions that 1) provided information for a memo of baseline conditions for the area of potential alignment for the new Meyers Road Extension, and 2) elicited their opinions on the optimal alignment, for their individual properties, related to the road extension. Interviews began with a briefing on the process to get to the alternative selection. The interviewees were told that they would be contacted once the alternatives were designed so they could weigh in before the final alternative selection. The property owners were given copies of the workplan, a map of the area, and all signed consent forms to allow project team members to enter each property, with advanced notice, for surveying and other activities related to developing the baseline conditions report for the project.

During the interviews, there were some common themes:

1) The owners are in support of the road extension, have been following this project for some time and are ready to see it happen.

2) Owners are open to alternatives, even those that may impact their properties. However, reduction of remnants or unbuildable portions should be avoided.

3) None of the owners are pursing sales or development options until the extension is built.

4) All would like to be included in discussion about property access points along the new extension.

5) There are few obstructions (wells, vaults, utilities) within the project area that would affect alternatives.

6) Current zoning is a concern related to future development of the properties. Owners would like the city to review.

7) The location of the intersection of the new Loder Road extension is of interest to the owners and they would like to be included in the stakeholder outreach for that project.

The following pages summarize the results of the individual interviews.

Meyers Road Property Owner Interviewee: Ron Saunders, tax lots 3-2E-09C -00200, 3-2E-09C -00602

1) Do you have decision-making authority for what happens to your property, or are there other entities responsible as well? If so, who?

- Saunders is the owner

2) Do you have plans to sell your property either in the near or distant future?

- No plans at this time. He purchased the property many years to hold for 30-50 years.

3) How is the property currently used?

- No current uses. No revenue generated from it, it's mostly not maintained.

4) How do you currently access your property?

- Two gates, one off the CCC loop drive, the other off Glen Oaks Rd.

5) Do you have plans to redevelop your property in the near future? Long term?

- No real plans. He says he has made overtures to the college as a possible site for student housing. Turnover in college staff left this issue without conclusion. He said he discussed selling an eastern portion to the school district for as bus barn location for $3 million which was rejected. He had offered to make the southern portion of the property to the City for use as a dog park. He didn't get a positive response.
- He is waiting for Meyers Road to be extended before determining what development could occur. He would like a compatible use with the other properties in the area, perhaps student housing or a YMCA or other public facility.

6) Are there issues with the property that we should be aware of? (environmental, utility, etc.)

- None that he knows of. (Note: another property owner commented that he thought there were drainage pipes within the property but wasn't certain)
- Water drains through his property from northeast to southwest, but it isn't near as much as what used to drain through his property before the school's retention facility was built. He estimates he gets only 25% of the original flow.

7) (looking at map) What do you think is the optimal alignment(s) for your property?

- He would like the end result to provide usable parcels. He would like to know why the City hasn't considered running the road along the south side of CCC, then align between the Nut and church properties to connect to Beavercreek Road.
- For his own property, he indicated an alignment that would enter his property where it meets the Berge Property, head slightly south then directly east through the Keith and parks property to Meyers road.

8) What issues you see related to the property that the Project team should take into consideration when developing alternatives?

- He wants assurance that the project will treat the private property owners fairly. Other than that, he is willing to accept the results of the alternative selection.
- He is concerned that large trucks will use the road and won't be able to negotiate the turns at High School Road. Also concerned about poor driving habits by students. Road needs to be safe.
- There are conflicts in zoning that need to be looked at (he did not elaborate).

9) Do you have any other comments, questions or concerns about the project?

- He would like the road to be cost effective and efficient (criteria)
- He would like the School District to consider using the north portion of his property for the bus barn, to avoid tree removal.
- He would like the CCC to acknowledge the possibility of an alignment just south of their campus

Meyers Road Property Owner Interviewees: Rocky and Lavona Keith, tax lot 3-2E-09C -00300

1) **Do you have decision-making authority for what happens to your property, or are there other entities responsible as well**
   - The Keiths are the sole owners

2) **Do you have plans to sell your property either in the near or distant future?**
   - No

3) **How is the property currently used?**
   - They grow Christmas trees around the east and north perimeter of the property. The trees generate income; they don't take a tax credit for this business.
   - There is a large shed on the northwest part of the property. They use it to store paint supplies (they own a painting business) as well as the equipment for managing the tree farm. They include the shed as part of their business expenses.
   - The property was partitioned and their son owns a parcel to the NE (note: likely not affected by the road alternatives)

4) **How do you currently access your property?**
   - There is a driveway from Glen Oaks between their property and their son's property.

5) **Do you have plans to redevelop your property in the near future? Long term?**
   - No

6) **Are there issues with the property that we should be aware of? (environmental, utility, etc.)**
   - There is an underground electrical line to the shed from the south.

7) **(looking at map) What do you think is the optimal alignment(s) for your property?**
   - They would prefer that the alignment run along the edge of the property so that they would not need an easement to access the road through the Saunders property. They are not opposed to the road going through the north end of the property.

8) **What issues you see related to the property that the Project team should take into consideration when developing alternatives?**
   - None given

9) **Do you have any other comments, questions or concerns about the project?**
   - They would like to be kept informed about the alternatives for the Loder Road extension as it develops.

Meyers Road Property Owner Interviewees: Kathy Berge, Dan Berge, Terry Emmert, tax lot 3-2E-09C -00700

1) **Do you have decision-making authority for what happens to your property, or are there other entities responsible as well**
   - The property is owned jointly and equally by Kathy Berge and Terry Emmert. They have owned the property for over 20 years.

2) **Do you have plans to sell your property either in the near or distant future?**
   - Once the road is built they will consider it, unless they chose to do their own development

3) **How is the property currently used?**
   - There are two rental homes on the property. One is vacant; the other will be vacant in May of this year. They haven't decided whether they will rent them out, partially because of potential impacts to the property by the extension.

4) **How do you currently access your property?**
   - There are two driveways off of Hwy 213

5) **Do you have plans to redevelop your property in the near future? Long term?**
   - They have discussed several options including senior community (single family dwellings, commercial space (strip mall, or businesses to support housing if they build it), student housing, or a housing subdivision. The two owners do not have agreement on a development option.

6) **Are there issues with the property that we should be aware of? (environmental, utility, etc.)**
   - There is a well just north of the westernmost rental. It serves both dwellings.
   - There is a septic system that serves both homes which they think is between the two rentals but aren't certain.

7) **(looking at map) What do you think is the optimal alignment(s) for your property?**
   - Mr. Emmert had a previous alternative map with him showing how the alternative cut into two corners of their property. If this is the chosen alignment he would like the City and CCC to consider swapping the land they need from the owners for the remnants of CCC land that would be to the south of the alignment. Those parcels would be likely useless to the college, and they could have a straight boundary line against the road.

8) **What issues you see related to the property that the Project team should take into consideration when developing alternatives?**
   - Mr. Emmert assumes that ODOT will eventually force them to close the driveways off of Hwy 213. When Meyers is built they would like 2-3 curb cuts along the extension to access their property.

9) **Do you have any other comments, questions or concerns about the project?**
   - Mr. Emmert has concerned about the zoning of the area and would like the city to review and work with the property owners in making adjustments.

Transportation Advisory Committee Minutes

April 22, 2015

1. CALL TO ORDER AND ROLL CALL

The Transportation Advisory Committee meeting of **Wednesday, April 22, 2015**, was called to order by Chair La Salle at 6:02 PM in the Commission Chambers at Oregon City Hall, 625 Center Street, Oregon City, Oregon.

Committee members present included Chair Bob La Salle, Vice-Chair Henry Mackenroth, Gary Johnson, Steve Johnson, and Robert Mahoney. Thomas Batty arrived at 6:27pm. Cedomir Jesic arrived at 7:17pm. Scott Failmezger and John Anderson were excused. Chair Bob La Salle had to leave early at 6:49pm.

Staff members present included John Lewis, Public Works Director; Martin Montalvo, Operations Manager; and Lisa Oreskovich, Administrative Assistant.

2. APPROVAL OF THE MINUTES

Chair La Salle requested the "Chair Johnson" on page 1 of the February 9, 2015 minutes be changed to "Chair La Salle".

Chair La Salle requested that a correction be made to the last paragraph on page 5 of the February 17, 2015 minutes be changes to read "Mr. La Salle will contact Neighborhood Associations to come to their meetings", not to "TAC" meetings.

Mr. Anderson moved to approve the minutes of February 9, 2015 and February 17, 2015 with the corrections. Mr. Mackenroth seconded the motion and it **passed unanimously.**

3. AGENDA ANALYSIS

No changes were made to the agenda.

4. CITIZEN COMMENTS

Louisa Gonyou, 101 Center Street, Oregon City spoke to the TAC about the speeding concerns in her neighborhood. She noted that there is a lot of traffic in the morning as people leave for work, and as they return from work in the evening. A neighbor of hers had suggested one-way streets and she wondered if the City/TAC has thought of this. She mentioned that people speed as they go up to the hill. She invites people to sit on her porch and observe the speeding even though the data does now show concerns with speeding on Center Street. She mentioned other traffic calming devices such as painting lines on the

street, pedestrian crossings, and chevron lines to help decrease speeding.

Bob La Salle mentioned that he has observed a stop sign at S Center Street near the Public Works Operations building as drivers come down the hill, but not going the other direction and asked what the reason was for that.

John Lewis responded that it has been that way since he started with the City. He believes it might have to do with sight distance and the trucks coming and going from the Public Works Operations building. There is less need for a stop sign for those going up the hill. Typically, if a stop sign was placed everywhere there is thought to be a speeding problem people would see the liabilities associated with placing them in more locations. The location mentioned is an unusual location for a stop sign.

Michael Simon, 5th Street, Oregon City noted an increase in speeding on Linn Avenue at the last TAC meeting in February and is hoping to follow-up with the Committee. He has documented the speed increases and provided the information he gathered to Chair La Salle. He understands why Public Works does these studies to solve transportation issues, but criticizes the process that is used to achieve a result and gather information.

Chair La Salle asked for time to absorb the data and give feedback at a future date.

Denyse McGriff, resident of Oregon City and Chair of the McLoughlin Neighborhood Association, spoke on behalf of the McLoughlin Neighborhood Association. Since she first became involved in the Neighborhood Association in 1996, and every meeting since then, there has been concerns with traffic as a component. She mentioned that a recent conversation with Chief Band brought up that the chief complaint of residents is that of traffic and speeding. The public has forgotten that the speed limit in a residential neighborhood is 25mph unless specifically posted. She lives nearby and crosses Center Street on a regular basis. Walking on Center Street she noted four cars passing by as she stepped off the curb and had to cross behind a large truck because he blocked the crosswalk. The Neighborhood Association is weary and tired. The streets in 1988 were not as congested as they are now. It is very rare that the traffic control radar sign on Washington Street is ever 25mph or below. People know there are no consequences for traffic infractions in the City because they are rarely caught. The Neighborhood Association wants to work with the City to develop a traffic calming program. Funds were given to the City by the McLoughlin Neighborhood Association for the installation of the crosswalk at 7th Street.

Chair La Salle addressed the fact that he has heard of speeding concerns at all of the Neighborhood Association meetings he has attended. Dutch Bros. has been of concern to every Neighborhood Association, as well.

Mr. Lewis noted that the traffic delays and load are a different problem separate from speeding concerns. He corrected Ms. McGriff about the crosswalk sign on 7th Street. The McLoughlin Neighborhood Association contributed funds for the installation of the Washington Street speed radar sign. All citizens contributed to the 7th Street crosswalk.

Martin Montalvo confirmed this fact.

Ms. McGriff said the Neighborhood Association approved to provide funds to the City for the

7th Street crosswalk sign and will go back to the Neighborhood Association and cut a check to the City.

Mr. Lewis noted that most of the crosswalks and signs in the City are bought through gas taxes.

Mr. Mahoney stressed that speeding is becoming a crisis. If we do not address this on our own initiative we will be forced by the public to take some sort of political action. City Commission will have to pay attention to these neighborhoods.

Chair La Salle stated that his objective for going to these Neighborhood Association meetings is to gather information from citizens throughout the City and determine the trends. He wants to see what we can do to help the citizens and make corrections to their concerns and improve safety.

5. NEW BUSINESS/DISCUSSION ITEMS

a. Public Works Report

Mr. Lewis discussed neighborhood speeding concerns. He agrees with Ms. McGriff that just about everyone uses the McLoughlin Neighborhood if they drive a car. People forget about driving slowly through other neighborhoods and not their own. Radar speed signs are effective for most drivers because it makes them aware of how fast they are going. The Transportation Advisory Committee has been talking about the need for a Slow Down Campaign. There are still many questions such as what are we trying to accomplish, and who is the audience? City staff can't take on the whole effort ourselves. There is funding in budget to acquire signage. Placemats could be made much like Oregon Impact. There are education opportunities by going to Neighborhood Associations and the schools. The main concern heard is about neighborhood speeding. Public Work's feeling is that this is our mission. B&B Leasing has already agreed to be behind this campaign. For example, campaign stickers could be placed on garbage cans. What is the right message? Is there another slogan or message we want to consider?

Mr. La Salle would like to see an estimate of costs of garbage can signs, flyers, etc. He has time to help with this Campaign and feels comfortable going to restaurants and around town to explain the Campaign's objectives. He wanted to know if there were other Committees interested in starting this type of campaign.

Mr. Lewis said he does not know of any other committee or group that is coming up with a solution, but has heard similar concerns.

Mr. Mahoney said City Commission needs to be included in this effort and behind his Campaign. It takes a citywide commitment. The Campaign should start in the schools while children are young. These types of messages get back to the parents and helps parents take these messages to heart.

Mr. La Salle agreed kids remind parents of these things.

Mr. Mahoney said he challenges the City Commission to get on board. He worries most about pedestrians and their safety. They don't observe where they are when they step off curb.

Mr. Lewis noted he has looked for proclamations regarding safety campaigns in other cities to use as examples that would be appropriate. He did not find any, but had not reached out to them; maybe they do and it is just not public. This campaign has such a small budget that City Commission looks to Public Works to manage their own budget. The campaign could be presented to them once goals and a description have been solidified.

Mr. La Salle thinks City Commission should be given an idea of what can be done first before getting too far into the campaign.

Mr. Lewis suggested that City Commission should be told speeding and traffic safety is the TAC's lead issue and complaint from residents.

Ms. McGriff mentioned that she believes they are missing out on a whole other segment for education. Neighborhood leaders might be willing to work with TAC to go speak to other groups about the safety message and campaign. For example, her son went to St. John School. She became involved and sent messages to parents to explain if they are late they are late and no amount of speeding will solve that. She spoke to Clackamas County about the issue and began writing down truck and license plate numbers to speak with these speeding drivers. School District is another organization to speak with. Not all buses drive slow. How about hospital employees? The message is not just to people that live here, but people that come through here and work here every day. An education campaign is great, but what about other tools? The Neighborhood Association works every summer to raise money to spend on projects in the McLoughlin Neighborhood. She will suggest they give money to promote some of these ideas and campaigns. The City has to figure out how to pay for these campaign tools. The McLoughlin Neighborhood is willing to step up and help fund this campaign.

Mr. Mackenroth asked if 5th Street is on the list to be paved next year. He said that bump outs could be put on arterial streets during paving to help slow traffic.

Mr. Lewis said that they would look it up. He mentioned that curb extensions are tools utilized by the City. However, curb extensions are expensive. The City added a lot of curb ramps with PMUF projects just this last year. That was a challenge in and of itself. The complexity of existing grades and drainage systems when trying to incorporate curb extensions is high.

Gary Johnson suggested a Public Safety Month. He said enforcement could be increased during this this time, as well. Create a month of more education on traffic safety.

Mr. Mahoney suggested choosing a month during the school year.

Ms. McGriff recommended holding a campaign twice a year.

Mr. Lewis noted that the longer a Safety Campaign runs the more resources it takes. He felt reaching out to employers is a good idea.

Mr. Mahoney suggested that a statement about the Slow Down Campaign be put on the utility bill because it would reach a wide audience.

Ms. McGriff felt going to local places of business to discuss the campaign would be more effective than just sending information.

Mr. Mahoney recommended a Safety Summit to kick of the Slow Down Campaign. He said that the City could launch the Campaign in conjunction with the Oregon City School District and Clackamas County if they were willing to partner. L

Gary Johnson said he has seen slogans similar to "School is in session. Be extra alert". It helps residents remember that there are children on the streets and to pay attention to speeding.

Mr. Lewis would like to get buy in from the TAC before putting too much more effort into the Slow Down Campaign. Is this message specific to neighborhood speeding or should there be a children's safety component? What would the slogan be? He asked that they look at other, similar programs and then come back to discuss at the next meeting.

b. RAMS

Mr. Montalvo briefly discussed the Public Works Operations RAMS program which stands for Road Audit for Maintainability and Safety. The information provided shows the zones mapped out for sign maintenance and replacement.

c. Public Comment Matrix

Mr. Montalvo explained the reason behind the public comment matrix. He explained that it was the easiest way to provide the TAC with all of the comments provided at the February 17, 2015 meeting. He did want to go into detail for each individual comment as it would take a long time. He mentioned that several residents' concerns have already been addressed regarding Central Point Road and speeding signage concerns. Analysis is currently being done on this issue. The Gaffney Lane no parking zones have been taken care of, as well.

d. Radar Speed Signage

Mr. Montalvo handed out radar speed sign data to the TAC members for review prior to the meeting. He discussed the new radar speed sign purchased by Public Works which provides more mobility and is self-sufficient. The first location of the new sign was in front of the Operations Center at 122 S Center to help with calibration. The next location was further down Center Street. Lastly, the radar speed sign was moved to Central Point Road based on the public comment received last meeting. Public Works is currently working with the Oregon City Police Department to coordinate the use of each department's radar speed trailers so that

locations do not overlap. A spreadsheet accessible to both departments tells the location of each speed sign, length of time data was captured, and who made the request. This is to prevent one neighborhood monopolizing the radar speed signs.

Mr. Mahoney asked if there was black box recording data.

Mr. Montalvo said the signs contained computers that recorded the data. Bluetooth is used to download data. The intent is to start taking requests through the City's website. These radar speed signs can, also, be used in conjunction with the Slow Down Campaign.

Mr. Mahoney asked if technology would advance to the point where a vehicle can be tracked, a picture is taken of the license place, and the information be sent to a police car.

Mr. Montalvo said he had been involved recently in some red light camera vendor discussions. State legislature has placed restrictions on mobile radar trailer ticketing systems. Only 6 cities had them before restrictions were placed and they have been "grandfathered" in so to say. That option is not available to any other city now.

Mr. Lewis explained how this information is helpful and shows Center Street is not problematic. There are instances where people speed there is no doubt, but this is not the majority of the drivers. Management of all of this data and mobile trailer signs has only been happening for the last 3-4 years. This is a new work item for Public Works. This information can be helpful, but the entire process can become time consuming.

e. Regional Transportation Conversations, Clackamas County Coordinating Committee (C4)

Mr. Lewis briefly discussed the C4. The group is elected from hamlets, water districts, and a variety of represented bodies. Clackamas County has used that group over the years to talk about a variety of issues, most of which are traffic related. Sometimes we feel underrepresented because it is made up of Metro cities, water district representatives, rural cities, and hamlets. In addition, there is a Metro C4 made up of electives and a Technical Advisory Committee to the C4 which is made up, typically, of metro cities. Mayor Holladay is now on the Committee and he wanted to make the TAC aware that this is another platform/body for the City of Oregon City to actively participate. In addition, granting agencies often times look to C4 to help narrow the list of applicants applying for funds.

Gary Johnson asked a question about the first item on Public Works Report – Linn Ave/Leland Rd/Meyers Rd Corridor Concept Plan. He wanted to know what the status was of the roundabout now that City Commission has had a chance to review this concept.

Mr. Lewis responded that a presentation was given at City Commission and then TAC was given copies of what was presented. Not much feedback was received.

City Commission saw the concept plan in their work session and Public Works was given their nod of approval. Through analysis the five-leg roundabout was the preferred design. Their main concern was the mini-mall property and the Savage family.

Mr. Mackenroth said that in the past, property was given to the Savage family, not taken away from them. They were supposed to give the City property for the sidewalk, but when the intersection was redone, the sidewalk was put back exactly where it was before. If you look at the first hydrant location, that is where the right of way was, and it is now up by the sidewalk.

Mr. Lewis said the implication was that property was taken from the Savage family in the past, but he would like to look into Mr. Mackenroth's present information and determine if property was given or taken away. He said the May 6th City Commission meeting is the first hearing of the adoption of the entire concept plan including the intersection analysis.

Gary Johnson asked if it is the responsibility of the Street Department to maintain the street trees on Main Street, as well as the decorative lights.

Mr. Montalvo said it was the Main Street organization that acquired a permit for the decorative lights and now maintains them and pays for the power.

Gary Johnson asked who maintained the elevator.

Mr. Montalvo said that the Street Department maintains the elevator and it has a dedicated funding source.

Gary Johnson asked if the City had any signal coordination systems that are maintained.

Lewis – most of the work we do on signals is through Clackamas County and a lot of those signals do coordinate through the County's overall signal system, but most don't. Most communicate through a command center. Others are outdated or do not have appropriate connectivity. One project Public Works want to put together soon, and has a budget, is to figure out where the City would get the most cost effective and better coordination. The region has been talking about how to give transit some priority on signalization.

f. Meyers Road Extension

Mr. Montalvo discussed the Meyers Road Extension project which is still at the concept level. The City is working in conjunction with the Oregon City School District and Clackamas Community College, stakeholders, private property owners, and the local Neighborhood Association. The current discussion has been about preferred alignment of the road for extending Meyers Road from High School Avenue to Hwy 213. David Evans and Associates is the primary consultant and is working through the concept level plan with the stakeholders. The City wants to know what the concerns are for everyone involved. This project will be brought to the TAC in next few months to speak more on the developments, but, currently, it is

still in the early stages and very conceptual. A big question is where Loder Road fits into the big picture.

g. COMMUNICATIONS

Mr. Mackenroth discussed his report regarding the Railroad Undercrossings that was requested by Chair La Salle. Lisa Oreskovich helped research code on the subject and discovered there wasn't any. ODOT has a very long term project to come through Oregon City and it would be nice to have a set of minimum standards ahead of their project. The City currently has a 100 year old Railroad Bridge which is a preformed concrete structure on piles and very difficult to expand without taking apart and relocating it. He recommends that the TAC pass on the recommendation to City Commission to adopt a requirement that anybody using aerial space over the City streets has a 16' clearance. Some Cities have air space over city streets and it is developable.

Mr. Lewis agreed about the amount of clearance space and noted the proposal in the Transportation System Plan to make a couplet design. There is concern with adequate vertical clearance. He asked if Mr. Mackenroth knew of a standard already developed elsewhere that would make a good model.

Mr. Mackenroth responded referring to the Interstate Highway's clearance requirement.

Mr. Mahoney asked if the TAC should adopt these recommendations by consensus.

Mr. Lewis responded that it would most likely be part of a design standard for our street standards. It could possibly be added to the City's list of code revisions to look at.

Gary Johnson – Hwy administration standards 7:39 look at his response. Recommended 17' instead of 16'.

Mr. Jesic asked if it was a possibility to lower any of the streets to meet the appropriate clearance.

Mr. Lewis said no because there are utilities that are flat and shallow under the ground.

Bicycle News Article

Ms. McGriff asked why mountain bike trails would be added if the area is slide prone.

Thomas Batty asked to address the Bicycle News article. He has been following the Metro Newell Creek concept plan closely. A properly engineered trail is no more slide prone or erosion prone than any other hikers, runner, or pedestrians use. If it is not appropriate for cycle trails then it is probably not appropriate for hikers,

either. Metro has commissioned a study and has not made the results official yet, but the results were not favorable. However, Metro did say they won't base their decision solely on this study. Bicycle tourism is an economic generator and as the City of Portland continues to remove options of urban cycling Oregon City is in a position to cash in on it.

Mr. Lewis reminded the TAC that everyone must go through a land use process, and he believes Metro still needs to do this. He mentioned that people are in support of mountain bike options.

h. ADJOURNMENT

There being no further business, the meeting adjourned at approximately 7:45 p.m.

Respectfully Submitted,

Lisa Oreskovich
Administrative Assistant

TAC Meeting: May 19, 2015

b. Meyers Road Extension

Mr. Lewis showed the TAC the brand new Meyers Road Preferred Alternative map. He mentioned that many different groups were talked with regarding this road extension and the hope was to get buy in from the affected property owners. He noted that the BPA easement, wetlands, and other obstructions added complexity to the alignment of this road. Three different alignments were initially discussed before they settled on this draft. The goal was to try not to encroach too much on the existing properties and any future properties the City may try to create.

In terms of Loder Road, there is no public right-of-way at this point. High School Avenue has already been acting as a cut through and they City has received buy in from the Oregon City School District that the future Loder Road alignment go through school district property. He noted that everything shaded in green on the map is the natural resource corridor. Also, much of the area is considered campus industrial that can be built on.

Clackamas Community College already has a master plan which includes additional buildings. In order to do so, they have to expand the current intersection or create a new connection. A proposed connection road is shown from Clackamas Community College to the proposed Meyers Road extension.

Mr. Montalvo noted that the Project Management team set up a list of project criteria for evaluation purposes. He read this criteria list to the TAC members. He noted it would, also, be made public on the City of Oregon City's website.
He reviewed the Meyers Road typical and what the street layout looks like. He discussed the importance of cyclist safety and protection. The drawing depicts a dedicated 5-foot sidewalk for pedestrians, as well. Parking will be on one side only.

Mr. Jesic asked if the City had looked at a separated bike lane. A bike lane attached to the sidewalk could be a better solution.

Mr. Montalvo said that type of design was talked about, but there was concern with the amount of right-of-way they felt comfortable asking from everyone.

Mr. Lewis talked about eliminating the paved bike lane on one side and adding a 14-16-foot shared use path in front of the school district's bus barn, but there were sight distance concerns. The Transportation System Plan calls for a shared use path and one is included on the draft. This shared use path would allow for bikes to travel onto the Clackamas Community College's trail. The design of this path was not taken much further because it reaches outside of the planning area.

Mr. Jesic mentioned the separated bike lane he has seen, and mentioned earlier, looks to be safer because it is separated from the road and from pedestrians.

Mr. Batty suggested another option like what he has seen on Broadway in Portland by Portland State University. They have a driving lane, parking lane, bicycle lane and then the sidewalk. He thinks that design is safer, too.

Mr. Lewis noted all of the various options for bike lane design. Kelly Moosbrugger,

Planner, just went to a conference about bike lanes and was talking about these ideas. The challenge is that this section isn't a long part of the road and has to match up to the rest of the extension.

Mr. Mackenroth asked why parking is only proposed to be on one side of the road.

Mr. Lewis noted that they had to take into account other organizations and department's master plans. The Parks Department has on-street parking in their master plan. They would like to build the street early due to traffic, and may do it in advance of the Parks design, but must take into account what they have designed. Their master plan was first.

Mr. Jesic said it looks like the City would be building way more street for this bike lane than if it was taken out of the street section.

Mr. Mackenroth said that they design structure is a four lane street, but restricting use to two lanes and allowing the rest of the design for other uses.

Mr. Jesic said he thinks it would be cheaper to separate the bike lane than to continue on with the current design plan. He suggests the consultant look at the cost difference.

Mr. Lewis mentioned that the Oregon City School District is going through the land use approval process and the Parks Department is moving through to adoption of their master plan, as well. It has been a struggle with not having those plans influence and guide decisions on what road sections should look like, but there land use timelines are much further ahead.

7:57 Gary Johnson - Short reverse curbs between the bus depot and parks property. Parks had the street straight across.

Mr. Lewis responded that he was not sure. They had not stepped in with their concept planning until both the Oregon City School District and the Parks Department had already put together their concepts. They are looking at 400' radius curbs.

Mr. La Salle said he agreed with Mr. Jesic on the cost saving regarding bike lanes. Sublayers are less expensive because you wouldn't have to build for cars, just bicycles. This could be a substantial savings.

Steve Johnson noted that this was definitely a better plan than the one proposed 15 years ago.

Gary Johnson asked if there was a soccer field near Highway 213 and wanted to know if it would be moved to a new location.

Mr. Lewis responded that there is a soccer field on the property that belongs to Clackamas Community College and he was not aware of what the plans were for it.

Mr. Anderson asked if the land around the Meyers Road extension was zoned

commercial or industrial. How wanted to know how many acres there were of this type of property.

Mr. Lewis responded that this campus industrial land has parcels of 15 acres in one section, 12 acres of another and about 40 acres in total of campus industrial.

Mr. Jesic said there would be less acreage because it would be less developable with the ordinances in place.

Mr. Lewis responded that Mr. Jesic was right, but not because of ordinances, but rather the natural resource corridor would be impacted. He still thinks there is about 40 acres of land and that does not include the wetlands.

Mr. Anderson noted that having a road go through the land there increases development opportunity and there is a value to that. He is not sure if the City can leverage that, but it is something to consider.

Mr. Lewis noted that SDC's would have to be paid and given the condition to build off street improvements when they develop. The transportation SDC reimburses the City and can be used on other projects.

Gary Johnson said at a recent meeting one of the property owners affected by the extension commented that he has been waiting for the Meyers Road extension to come through.

Mr. Anderson suggested the City consider assessing the appropriate values to the affected properties and vetting that. The City could provide leverage with an assessment history and create incentive for them to development by measuring the value to them and the value to the City.

Mr. Jesic asked how feasible it was to do the High School Avenue extension because the environmental zone looks tough to get permitted and could be costly.

Mr. Lewis responded that due to the high school property and the specific alignment needs that there is no way to get a Loder Road connection through without impacting these resource areas. Loder Road in Beavercreek concept plan shows it turning and teeing into Beavercreek Road, instead, and this could change the alignment down the road. He mentioned the City will follow-up on the shared use path and the Consultants said there was concerns with this path, particularly in front of the bus barn.

Mr. Jesic commented that the shared use path and a bike lane are two different things, two different concepts. It is something to look into.

APPENDIX B: BASELINE CONDITIONS REPORT

MEYERS ROAD EXTENSION ALTERNATIVES BASELINE CONDITIONS REPORT

Prepared for

City of Oregon City
625 Center Street
Oregon City, Oregon 97045

Prepared by

David Evans and Associates, Inc.
2100 SW River Parkway
Portland, Oregon

JUNE 2015

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INTRODUCTION

This memorandum summarizes the inventory of existing conditions within the study area. The existing conditions assessment is divided into the following sections:

- Key Considerations: This section provides a matrix with key considerations, by topic, to help inform the conceptual alternatives development process.
- Land Use Analysis: This section reviews existing land uses and development in the study area and regional and local plans and designations.
- Transportation Analysis: This section assesses the existing multimodal transportation network and reviews planned projects in the study area. Appendix A includes a Traffic Operations Technical Memorandum with more detail regarding traffic operations in the study area.
- Environmental Analysis: This section provides an overview of natural resources in the study area including information based on site visit reconnaissance by the project Ecologist, April 27, 2015.

DESIGN CONSIDERATIONS SUMMARY MATRIX

This memo identifies baseline resource information from a "visual windshield validation" perspective derived from plans, a site visit, and web sources and from Stakeholder Meetings and interviews (included in Appendix A). Additional detailed studies may be needed for potential design constraints such as for hazardous materials and archaeological resources of specific areas to determine design limitations for specific proposed projects. In addition, the baseline data identifies several other land use and environmental conditions that could potentially be affected by transportation improvements.

Table 1 summarizes the primary design considerations applied when developing alternatives based on existing conditions. These consideration areas are also reviewed in more depth in subsequent sections of this memorandum and in the appendices, as applicable.

Table 1. Existing Conditions Key Considerations

Topic	Description	Key Considerations
Transportation Facilities - Oregon City TSP & RTP		
Road Classification/Cross Section	• Meyers Road – Industrial Arterial • Loder Road – Industrial Collector • Both roads planned local truck routes	• Cross section standards
Alignment Location	• Varies from TSP, RTP, CCC Plan, OCSD	• Consistency across plans
Intersections	• Planned roundabout Meyers and Loder Road	• Intersection type and use of road
Bike/Ped Connections	• Planned shared use path along Loder Road • Park trail facilities connections • CCC trail connections	• Trail connectivity and crossings.
Transit	• Future transit facilities as part of CCC	• Potential for future transit access and stops
Land Use		
Zoning	• Most of area is zoned campus industrial. CCC and Park are institutional. Adjacent residential zoning of varying densities.	• Parcel fragmentation and future development potential of parcels for larger uses.
Comprehensive Plan	• Mostly consistent with zoning except high school area is designated public/semipublic.	• Parcel fragmentation and future development potential of parcels for economic development.
CCC Master Plan	• The concept plan establishes a framework for future development, and focuses on infrastructure. The concept plan extends through 2020. • Adopted by Oregon City in 2008 (Section 17.65.050 of development code)	• Meyers Road proposed extension alignment. • Parking access • Stormwater improvements • Future transit center • Vehicular circulation route • Master Plan boundary
OCSD Transportation and Maintenance Facility	• Proposed facility on the school district property. • Development application submitted	• Cross section and alignment consistency with other plans. • Development timing • Bus accommodations
Glen Oak Park	• Approximately 9 acre park planned.	• Meyers road alignment and master plan coordination • Pedestrian and bicycle connections coordination
Powerline	• BPA corridor runs through project area with powerlines, towers, and easements.	• Easement issues? • Tower placement.

Environmental		
Wetlands	A string of wetlands runs diagonal northwest to southeast through site.	• Impacts to wetlands will likely require JPA. Impacts to buffer regulated under NROD. Both require mitigation.
Streams	According to FEMA maps, no floodplains associated with streams in project area.	• Impacts to any water resource buffers are regulated under NROD and may require mitigation.
Habitat/Species	Trees and wetlands likely provide habitat and wildlife corridors and connectivity.	• Data still being collected on species in project area.
Floodplain	No FEMA mapped floodplains	• None.
Hazmat	Permitted hazmat generator sites and underground storage tanks in project vicinity.	• None at this phase of project. Future project phases should conduct detailed hazmat survey.
Geologic	No areas of concern according to OC webmaps.	• None at this phase of project.

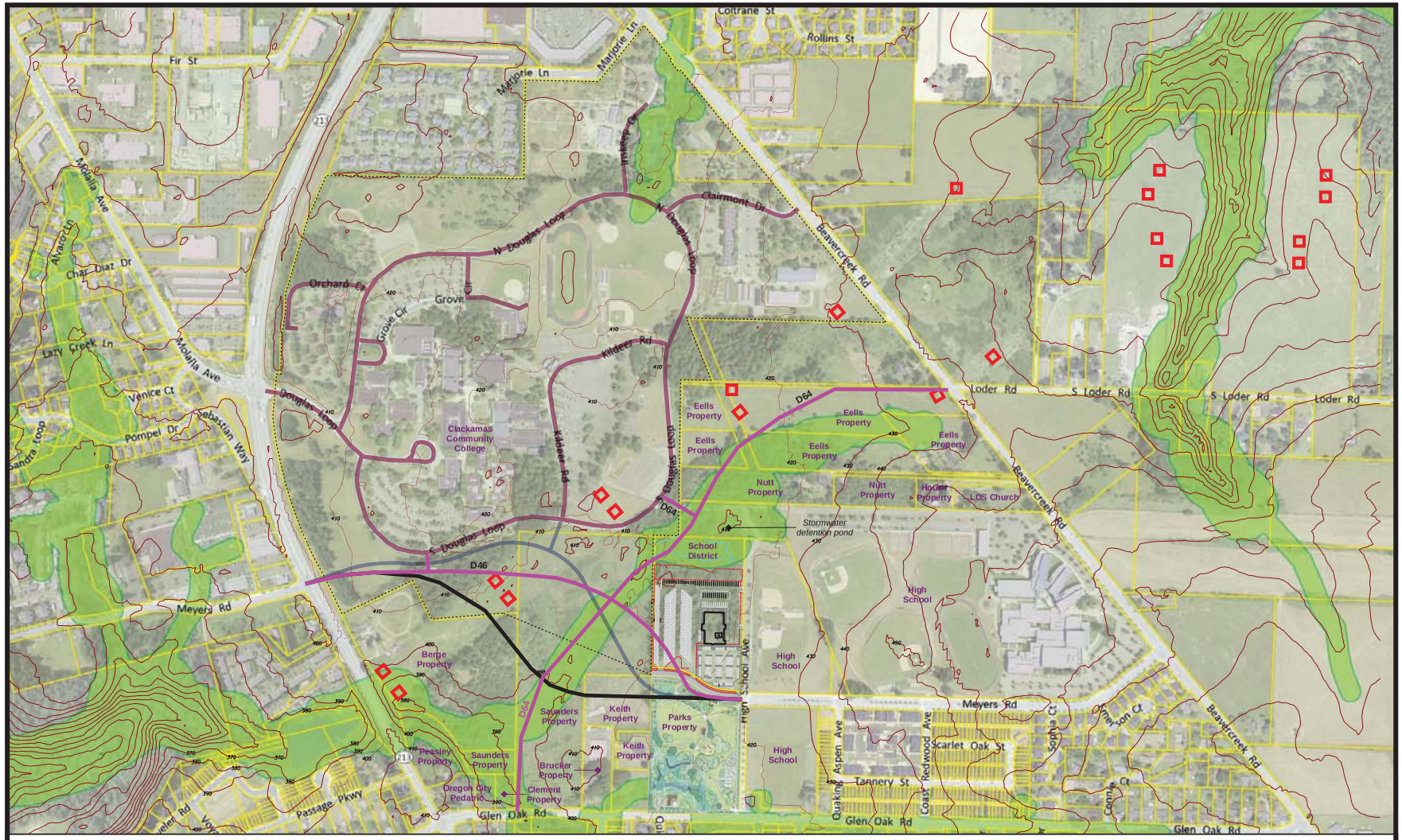
LAND USE ANALYSIS

EXISTING LAND USES

The project area is close to the southern edge of the Portland Metropolitan UGB in Oregon City, in the Caufield Neighborhood Association area. The project area generally encompasses the area south- southeast of Clackamas Community College between S Beavercreek Road and OR 213 and north of Glen Oak Road (See Figure 1, Existing Conditions Map). The area north of the Community College and northwest of OR 213 includes auto dependent commercial uses a subdivision south of the commercial area and a nursery and John Inskeep Environmental Learning Center south of the commercial area to the east. Clackamas Community College (CCC) is south of the subdivision.

South of CCC, in the area that Meyers Road would extend through, a BPA corridor approximately 200 feet wide bisects the project area. The rest of the immediate area where Meyers Road would extend is mostly rural residential uses that are on lots that are largely undeveloped. One of the lots grows Christmas trees. Oregon City high school is just southeast of CCC and includes a large area for sports fields east of High School Road. The Oregon City School District is planning on developing the lot west of the high school and High School Road as a bus facility shown on Figure 1. Glen Oak Park will be developed south of the bus facility. Figure 2 generally reflects the existing nature of development in the project area and vacant lands.

A medium-density residential subdivision is south of the high school and residences are also the primary use south of Glen Oak. Oregon City Golf Club is east of Beaver Creek Road south of Meyers Road. The area east of Beaver Creek Road is generally undeveloped although the Beavercreek Road Concept Plan outlines a vision for development of the area with a mix of land uses. The area west of OR 213 within the UGB is largely developed with residential development.



Data on this map is derived from multiple sources including but not limited to the City of Oregon City online webmaps, the City of Oregon City Transportation System Plan (TSP) (Effective 8/16/2013), Clackamas Community College (CCC) Master Plan (Approved 6/23/2008), and the Oregon City School District (OCSD) Transportation and Maintenance Facility improvement plans. This information was developed at multiple scales and accuracies. No warranty is made with this map. This map is for informational purposes only and is not suitable for legal, engineering, or surveying purposes.

Legend

- Transportation System Plan (Street Extensions)
- Regional Transportation Plan (Projects)
- Clackamas Community College Master Plan Alignment (6/23/2008)
- Clackamas Community College Master Plan Vehicular Circulation Routes (6/23/2008)
- D# Transportation System Plan Project Number
- Powerline Tower
- Natural Resource Overlay District
- Clackamas Community College Master Plan Boundary (6/23/2008)

Meyers Road Extension Alternatives

Figure 1. Existing and Planned Conditions Map

May 27, 2015

N

DAVID EVANS AND ASSOCIATES INC.

OREGON CITY

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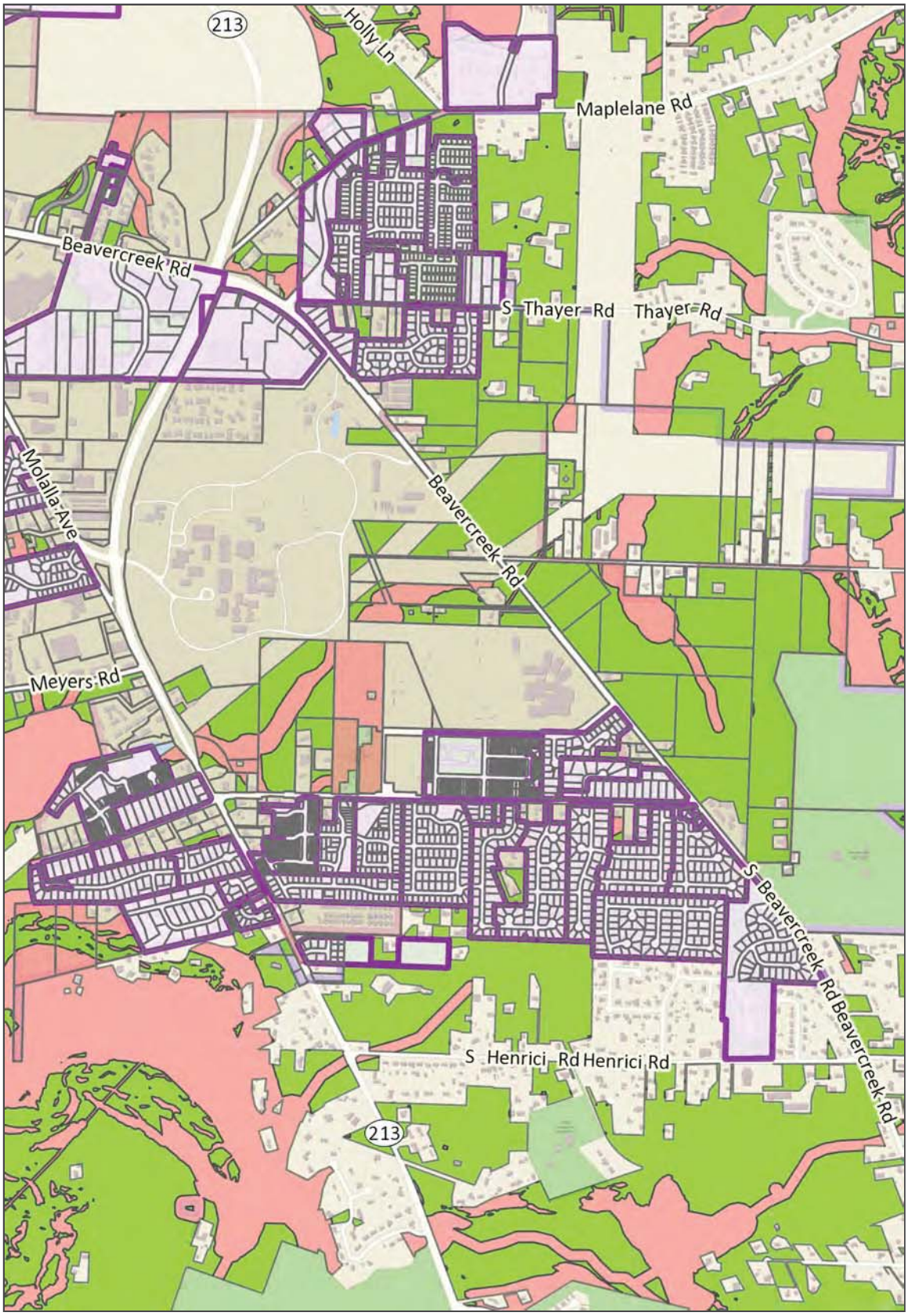
Figure 2. OR City GIS Vacant Lands Map

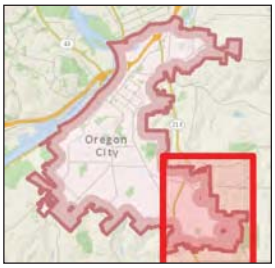


Legend

- Taxlots
- Unimproved ROW
- Subdivisions
- Vacant Lands - Constrained
- Vacant Lands - Unconstrained
- City Limits
- UGB
- Basemap

Notes

Overview Map



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Map created 4/25/2015

REGIONAL PLANNING

The 2040 Growth Concept is a long-range plan growth management plan for the Portland metropolitan area that was adopted by the Metro Council in 1995. Policies in the 2040 Growth Concept include and encourage:

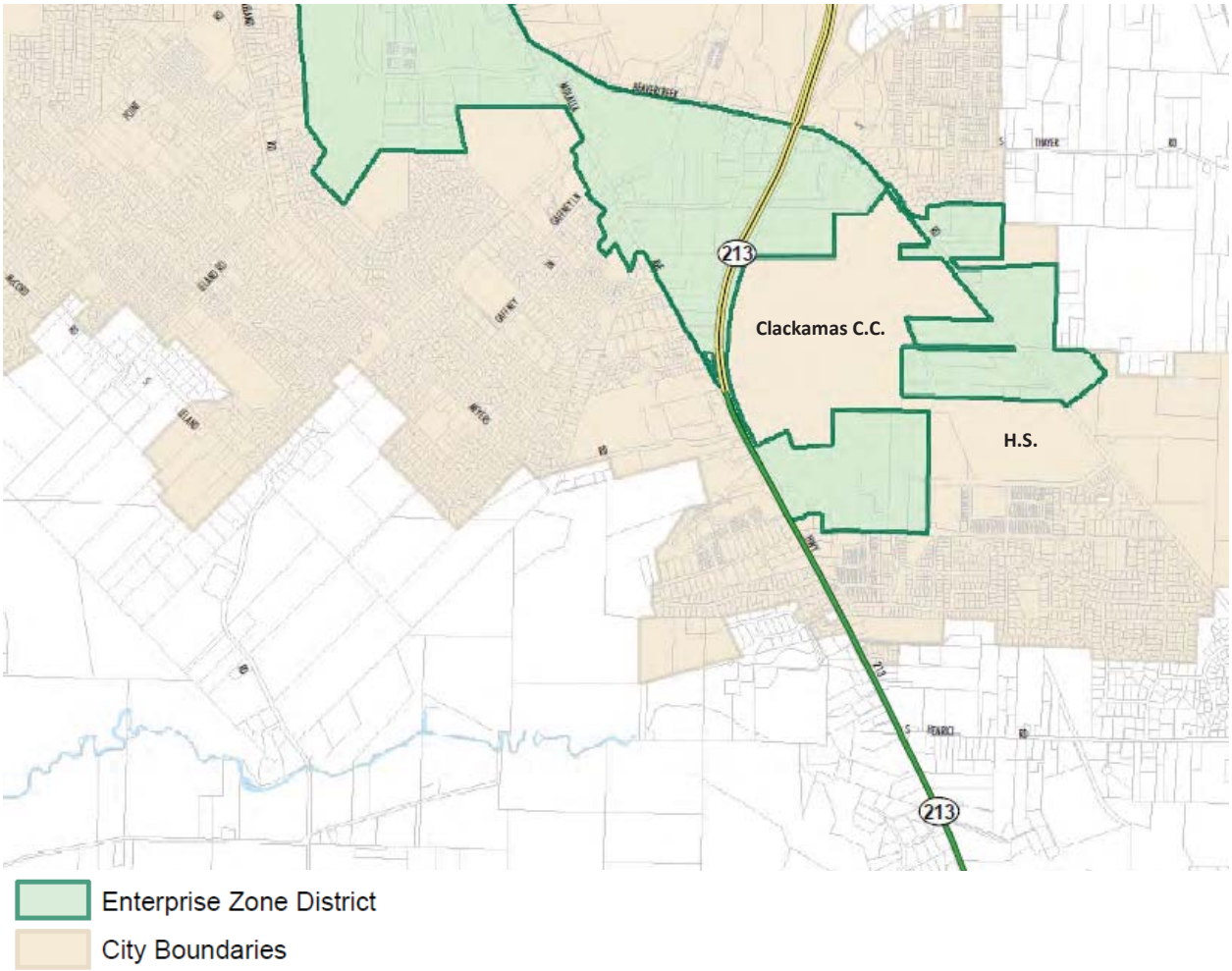
- safe and stable neighborhoods for families
- compact development that uses land and money efficiently
- a healthy economy that generates jobs and business opportunities
- protection of farms, forests, rivers, streams and natural areas
- a balanced transportation system to move people and goods
- housing for people of all incomes in every community.

The project area is designated as an Employment land area on the Metro 2040 Growth Concept Map (September 2014). The Urban Growth Management Functional Plan (Section 3.07 of the Metro Code) provides tools to meet goals of the 2040 Growth Concept. Title 4 provides provisions for protection of industrial and other employment areas by limiting the types and scale of non-industrial uses and provide provisions to encourage the benefits of "clustering" to those industries that operate more productively and efficiently in proximity to one another than in dispersed locations. Additionally, Title 4 seeks to protect the capacity and efficiency of the region's transportation system for the movement of goods and services.

ENTERPRISE ZONE

The state of Oregon designated portions of the project area as an Enterprise Zone in December 2014 (shown on Figure 3 below). The primary purpose of the Enterprise Zone is to stimulate new investments that create jobs and advance economic development. This designation provides incentives to businesses to invest in relocating, expanding, or starting a new business in the area. Cities that establish enterprise zones can temporarily abate taxes on businesses' capital investments for companies located within the zones. Eligible new investments within the Zone can be exempted from property taxes for a period of three years, and up to five years.

Figure 3. Oregon City Enterprise Zone District



Source: Clacakams County Geogrphic Informatin Systems.

CITY OF OREGON CITY COMPREHENSIVE PLAN

Oregon City's Comprehensive Plan provides a vision for the future growth and development of the city. This vision is based on the following principles:

- Promote sustainability and sustainable development.
- Contain urban development.
- Promote redevelopment.
- Protect natural resources.
- Foster economic vitality.

- Provide efficient and cost-effective services.
- Ensure a sense of history and place.

The Plan is broken up into sections which include goals and policies to guide implementation of the plan. Some of the key sections and goals for the project area are identified below; all applicable goals and policies are too lengthy to include herein, but will be considered as the project advances: Goals and policies:

Section 1 Citizen Involvement

Goal 1.2 Community and Comprehensive Planning

Ensure that citizens, neighborhood groups, and affected property owners are involved in all phases of the comprehensive planning program.

Goal 2.6 Industrial Land Development

Ensure an adequate supply of land for major industrial employers with family wage jobs.

Section 5

Open Spaces, Scenic and Historic Areas, and Natural Resources

Goal 5.4 Natural Resources

Identify and seek strategies to conserve and restore Oregon City's natural resources, including air, surface and subsurface water, geologic features, soils, vegetation, and fish and wildlife, in order to sustain quality of life for current and future citizens and visitors, and the long-term viability of the ecological systems.

Section 12 Transportation

Goal 12.1 Land Use-Transportation Connection

Ensure that the mutually supportive nature of land use and transportation is recognized in planning for the future of Oregon City.

Goal 12.3 Multi-Modal Travel Options

Develop and maintain a transportation system that provides and encourages a variety of multi-modal travel options to meet the mobility needs of all Oregon City residents.

Most of the project area is designated on the Comprehensive Plan map as Industrial except for CCC and the Oregon City High School which are designated as Public Facility. Glen Oak Park is

designated as a Park. There areas designated high density residential along Glen Oak, and OR 213 west, industrial east of Beavercreek Road to the City Limits.

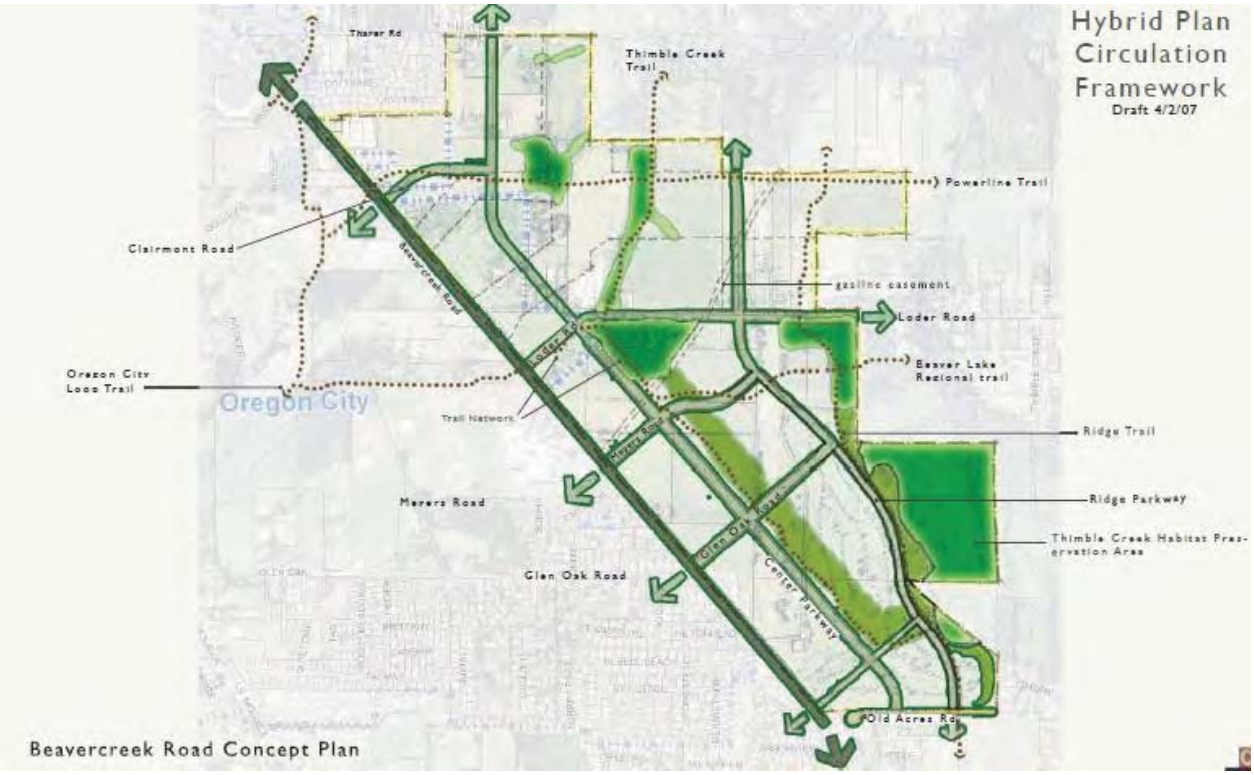
BEAVER CREEK ROAD CONCEPT PLAN

The Beavercreek Road Concept Plan covers an area just west of the project area. It provides a development framework for a community with a diverse mix of uses (an employment campus north of Loder Road, mixed use districts along Beavercreek Road, mixed use neighborhoods, and transit-oriented land uses) connected by open space, trails, and a network of green streets. Most of the 453-acre Concept Area site along Beavercreek Road was added to the regional urban growth boundary by Metro in 2002 and 2004. In general, the key concepts of the plan are:

- A complete mix of land uses;
- Policy support for employment and program connections with Clackamas Community College;
- Sustainability strategies;
- A trail framework that traverses all sub-districts and connects to city and regional trails;
- A street framework that provides for a logical and connected street pattern, parallel routes to Beavercreek Road, and connections at Clairmont, Meyers, Glen Oak, and the southern entrance to the site; and
- A draft Beavercreek Road Zone development code to implement the plan.

Although the Beaver Creek Road plan boundary is west of Beaver Creek Road, it identifies key travel corridors such as Loder Road, Meyers Road and trails, which connect to and influence the project area to connect with the College.

Figure 4. Circulation Framework



Source Beavercreek Road Concept Plan

The Concept Plan considers future transit that will support the area, but not a specific transit plan. However, three options were identified for future transit service in the Beavercreek area as excerpted below:

1. A route modification is made to existing bus service to Clackamas Community College (CCC) that extends the route through CCC to Beavercreek Road via Clairmont, then south to Meyers or Glen Oak, back to HWY 213, and back onto Molalla to complete the normal route down to the Oregon City Transit Center. To date, CCC has identified Meyers Road as a future transit connection to the college.

2. A new local loop route that connects to the CCC transit center and serves the Beavercreek Road Concept Plan area, the High School, the residential areas between Beavercreek and OR 213, and the residential areas west of OR 213 (south of Warner Milne).

3. A new “express” route is created from the Oregon City Transit Center, up/down OR 213 to major destinations (CCC, the Beavercreek Road Employment area, Red Soils, Hilltop Shopping Center, etc.).

OREGON CITY MUNICIPAL CODE

The Oregon City Municipal Code is a compilation of the applicable ordinances (rules, regulations or standards) of the municipality. Although development must be consistent with all sections of the code, only those most pertinent for the Meyers Road Extension Alternatives project are reviewed herein. A Pre Application meeting will be held with the Community Development Department to determine specific land use permitting requirements.

TITLE 12 - STREETS, SIDEWALKS AND PUBLIC PLACES

This section of the municipal code guides construction and implementation of streets, sidewalks and public places consistent with the TSP. The following sections are most applicable to Meyers Road at this stage of the design:

12.04.007 - Modifications. : This provides a process to make changes to roadways if at the time of design, they do not fit the context. An example of a design change would be reducing maximum design standards through a Type II review.

12.04.170 - Street design – Section 12.04.265: Provides the parameters for design based on the roadway classification as well as standards for access, pedestrian and bicycle safety, and mobility standards.

TITLE 17 ZONING

The zoning code purpose is *"...to promote public health, safety and general welfare through standards and regulations designed to provide adequate light and air; to secure safety from fire and other dangers; to lessen congestion in the streets; to prevent the overcrowding of land; to assure opportunities for effective utilization of land; to provide for desired population densities; and to facilitate adequate provision for transportation, public utilities, parks and other provisions set forth in the Oregon City Comprehensive Plan and the Oregon Land Conservation and Development Commission Statewide Planning Goals."*

The following sections of the zoning code are most applicable in considerations for developing alternatives for Meyers Road.

Chapter 17.04 - Definitions

17.04.1312 - Transportation facilities.

"Transportation facilities" shall include construction, operation, and maintenance of travel lanes, bike lanes and facilities, curbs, gutters, drainage facilities, sidewalks, transit

> *stops, landscaping, and related improvements located within rights-of-ways controlled by a public agency, consistent with the City Transportation System Plan.*
>
> *TRANSPORTATION FACILITIES ARE TO BE IDENTIFIED AS A PERMITTED USE IN ALL ZONING DESIGNATIONS WITH THE ADDITION OF THE FOLLOWING CODE SECTIONS:...*

Most of the area that Meyers Road would extend through is zoned Campus Industrial (CI) *(17.37* (See Figure 5). There is no minimum lot size in the CI zone *(17.37.040.A).* The purpose of the zone is described below.

> *The campus industrial district is designed for a mix of clean, employee-intensive industries, and offices serving industrial needs. These areas provide jobs that strengthen and diversify the economy. The uses permitted on campus industrial lands are intended to improve the region's economic climate and to protect the supply of sites for employment by limiting incompatible uses within industrial and employment areas and promoting industrial uses, uses accessory to industrial uses, offices for industrial research and development and large corporate headquarters.*

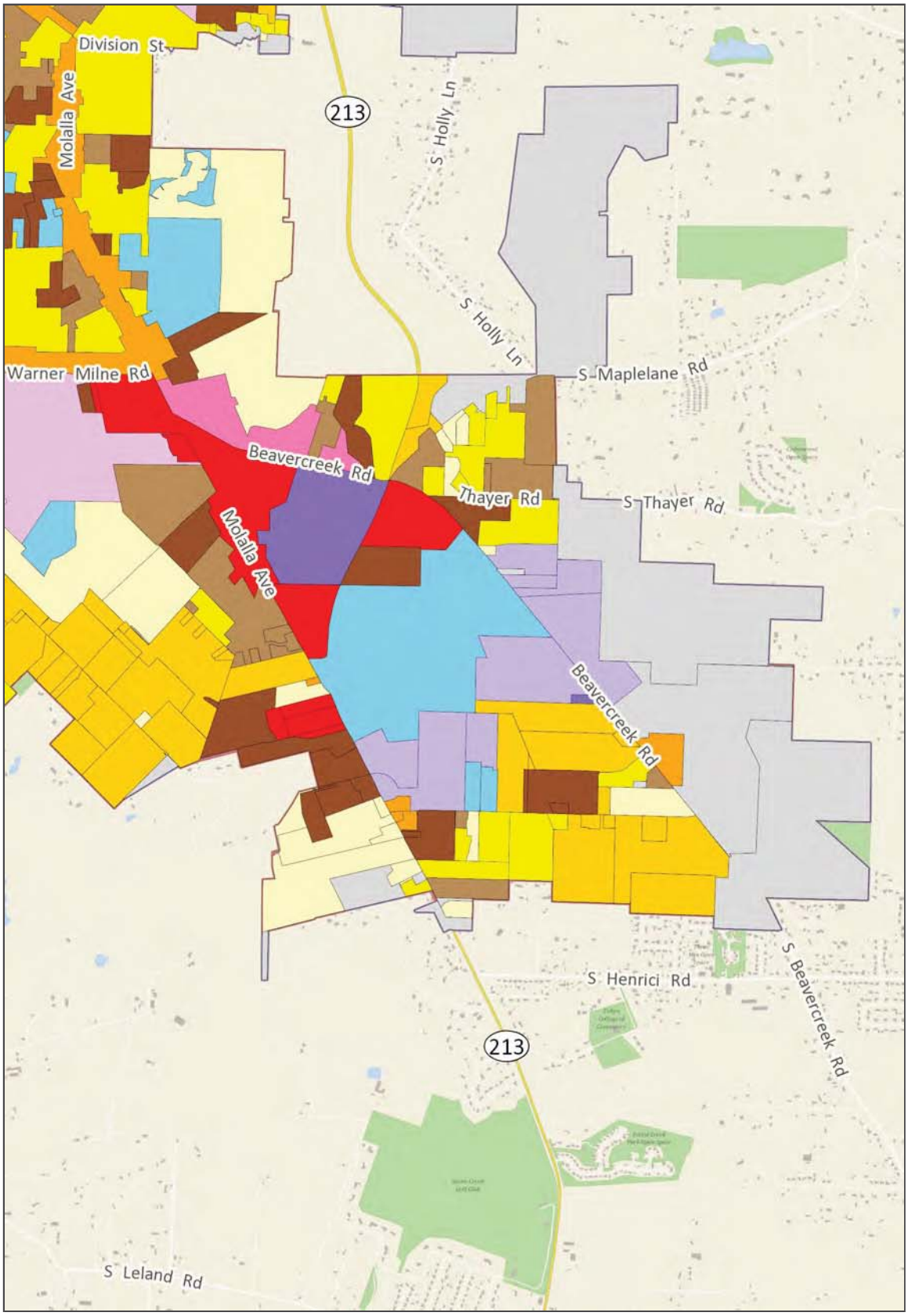
CCC, Glen Oak Park, and the Oregon School District Bus Facility are all Zoned Institutional 17.39. The main purpose of this district is

> *to facilitate the development of major public institutions, government facilities and parks and ensure the compatibility of these developments with surrounding areas. The Institutional zone is consistent with the public/quasi public and park designations on the comprehensive plan map.*

There is residential zoning of varying densities nearby, but not in the path of the Meyers Road extension alternatives. A natural resource overlay district (NROD) area bisects the Meyers Road extension area from northeast to southwest. The boundary generally follows a string of wetlands as reviewed in the Environmental section. The purpose of the NROD (Chapter 17.49) is:

> *The Natural Resource Overlay District designation provides a framework for protection of Metro Titles 3 and 13 lands, and Statewide Planning Goal 5 resources within Oregon City. The Natural Resource Overlay District (NROD) implements the Oregon City Comprehensive Plan Natural Resource Goals and Policies, as well as Federal Clean Water Act requirements for shading of streams and reduction of water temperatures, and the recommendations of the Metro ESEE Analysis. It is intended to resolve conflicts between development and conservation of habitat, stream corridors, wetlands, and floodplains identified in the city's maps...*

Figure 5. City of Oregon City Zoning



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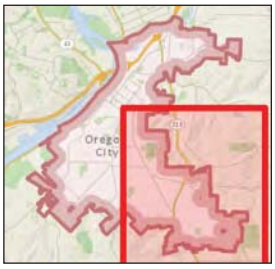
Zoning

ZONE

- R-10 - Single Family Dwelling
- R-8 - Single Family Dwelling
- R-6 - Single Family Dwelling
- RC-4 - McLoughlin Conditiona
- RD4-MDP - Manufactured Dw
- R-3.5 - Medium Density Resic
- R-2 - Multi-Family Dwelling
- C - General Commercial
- MUC-2 - Mixed Use Corridor
- MUC-1 - Mixed Use Corridor
- LO - Limited Office
- NC - Neighborhood Commerc
- HC - Historic Commercial
- WFDD - Willamette Falls Dow
- MUD - Mixed Use Downtown
- MUE - Mixed Use Employmer
- GI - General Industrial
- CI - Campus Industrial
- I - Institutional
- FU-10 - County Zoning
- County
- City Limits
- UGB
- Basemap

Notes

Overview Map



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Map created 4/9/2015

Roads and creek crossings are allowed in the NROD under prescribed conditions pursuant to a Type II process (Section 17.49.060) and mitigation. Mitigation for vegetated corridor impacts occurs at two-to-one ratio of mitigation area for disturbance area. (17.49.180 - Mitigation standards) If there is an area designated as NROD that may not have a resource, a verification can be processed by either a Type I or Type II process.

GLEN OAK PARK MASTER PLAN

Glen Oak Park Master Plan is a plan for an approximately 9-acre public park between Glen Oak and Meyers Road adjacent to the Meyers Road extension The master plan identifies 15 on-street parking spaces across from the Oregon School District Bus Facility on Meyers Road and access to a parking lot off of Meyers Road with 24 parking spaces. There are also stormwater planting and swales along Meyers Road. There will also be a small parking lot with 5 spaces along Glen Oak Road. The plan provides a concrete pathway network to provide bicycle and pedestrian access from Meyers Road to Glen Oak Road. Other features of the park include an: open lawn area; play area; basketball court; skate spot; and natural area with a boardwalks and wildlife viewing overlook, wetland and stream (Caufield Creek) planting areas.

OREGON CITY SCHOOL DISTRICT BUS FACILITY

The Oregon City School District has submitted a development application for the construction of a new Transportation Maintenance Facility and associated vehicle parking and sitework adjacent to the Meyers Road extension. The facility is a permitted use in the Campus Industrial (CI) zone. Per the development application, the project includes:

- New offices, shop areas and support facilities for the School District's Transportation and Maintenance Departments. The total building area equals 30,525 square feet.
- Parking for Staff and Visitors: 138 spaces including 5 accessible spaces will be provided. Larger and Mid-Size Bus Parking: 96 spaces for standard size buses will be provided. Small Buses, Vans and Miscellaneous Maintenance Vehicles: 96 (plus 6 after hour driver) spaces for small buses, vans and other maintenance vehicles (mowers, etc.) will be provided.
- Fencing: The bus/van/equipment storage compound area (illustrated on accompanying Site Plan) shall be fenced for security purposes. Proposed fencing is 8 feet high to provide effective security and Applicant requests allowance of the use of black vinyl coated cyclone fencing and gates. (Cyclone fencing currently is used around the perimeter of the adjacent Oregon City High School Site.)

- Off-Site Improvements in the Public Right-of-Way: A partial extension of Meyers Road is proposed as indicated on the attached Site Plans. Configuration of the extension will be coordinated with the City Parks Department which owns the neighboring property to the south. Lot line adjustments at the south end of the site will be required to create the public right-of-way for this extension.

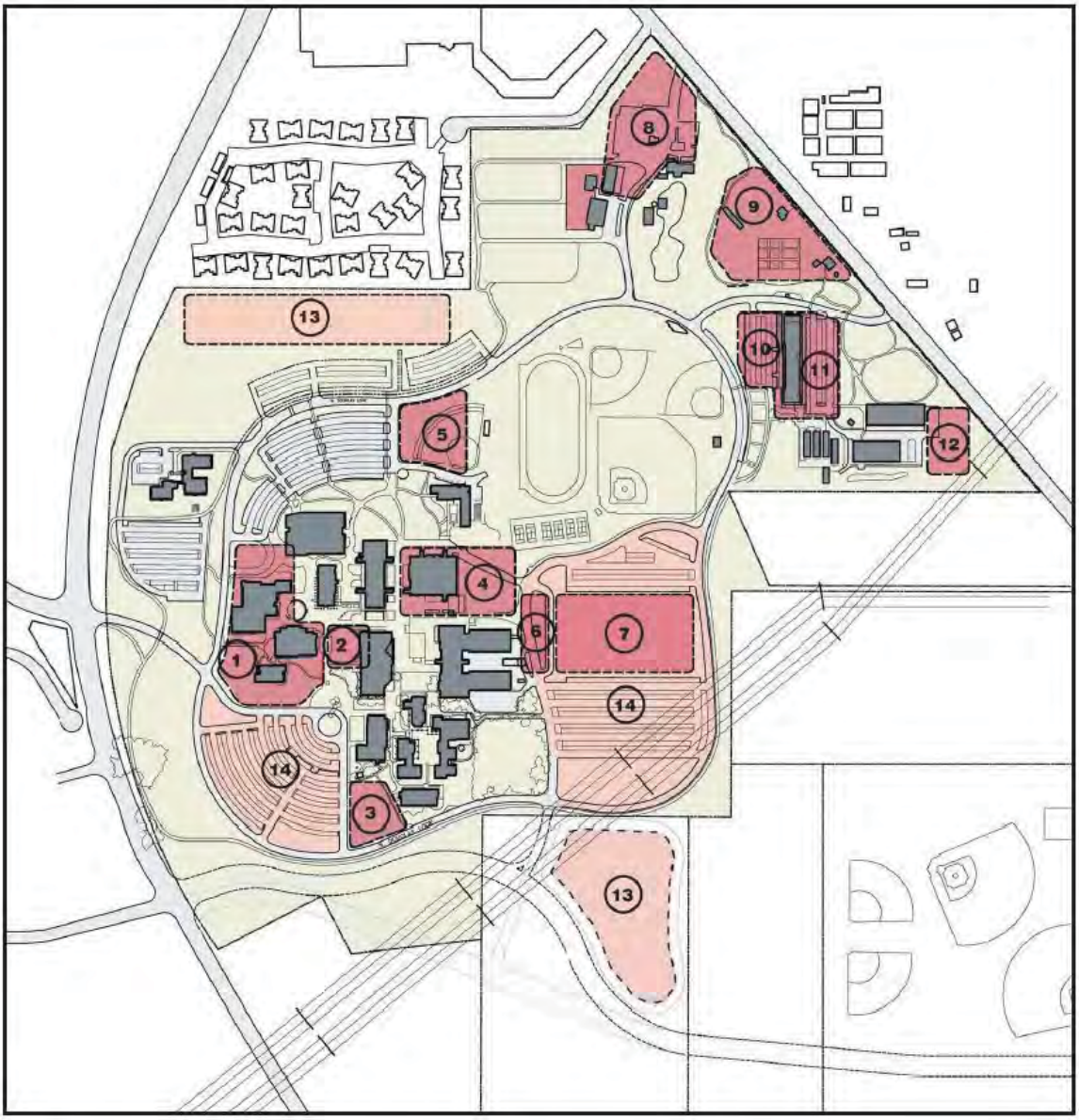
- The storm water management system for site runoff will be complete including storm detention areas.

CLACKAMAS COMMUNITY COLLEGE MASTER PLAN (CP 07-01)

On June 23, 2008 the Oregon City Planning Commission approved CP 07-01, a "Concept Development Plan" (Section 17.65.050) for the college that extends through 2020, through a Type III public process. The plan is currently being updated and anticipated development and access plans may change. However, this Meyers Road extension project is being developed in coordination with CCC to maintain consistency.

The concept plan establishes a framework for future development of the CCC Oregon City campus which plans for long-term growth, and to addresses impacts of the growth will have on neighboring properties and public infrastructure. The master plan identifies: reconstruction and rehabilitation of the Environmental Learning Center area; physical infrastructure necessary to expand existing programs and to accommodate increasing enrollment. The master plan has planned for future college expansion of up to 300,000 additional square feet of floor space up to 2020. The potential future development and the parking and access areas identified in the plan are shown in Figure 6 and Figure 7 below. .

Figure 6. Areas of Potential Future Development at CCC



Area	Potential Future Development
1-5	Campus Core
6	Transit Hub
7	Parking Structure
8	E.L.C. and Maintenance Yard
9-12	Beavercreek Cluster
13	Athletic and Recreation Use
14	Parking and Stormwater Retention

Key transportation features of the CCC Master Plan are identified below in Figure 7.

Figure 7. Potential Future Access and Parking Improvements

Number	Potential Future Improvement
1	Meyers Road Extension
2	Potential New Campus Entry
3	Surface Parking Improvements
4	Multi-Story Parking Structure
5	Future Transit Center
6	Improved Pedestrian Connections

TRANSPORTATION SYSTEM ANALYSIS

Meyers Road is an important east-west corridor in the southern part of Oregon City. Its western terminus is at Leland Road and extends to the city's eastern urban growth boundary. Meyers Road is complete and fully developed between Leland Road and Oregon Highway 213. The segment between High School Avenue and Beavercreek Road is also fully developed. The following section provides a review of the transportation system in the project area. Additional details about the calculations of the intersection performance can be found in the Traffic Operations Technical Appendix B.

ROADWAY SUMMARY

The segment of Meyers Road between OR 213 and High School Avenue, which is subject of this study, is a planned project specified in the city's adopted Transportation System Plan (TSP). It is specified in the TSP as project D46. The segment of Meyers Road to the east of Beavercreek Road is also planned. The first short segment of this easterly extension of Meyers Road will be implemented by a developer as part of a recently-approved land use action.

The two most important north-south roadways in the southern part of Oregon City are OR 213 and Beavercreek Road. Meyers Road is one of two important east-west corridors in this part of the city, the other being Glen Oak Road. Glen Oak Road is parallel to Meyers Road, but terminates at Beavercreek Road and OR 213.

The jurisdiction, functional classification, street type, truck route designation, and important attributes of the major roadways in the study area are summarized in Table 2.

Table 2. Major Roadways in Study Area

Road	Jurisdiction	Functional Classification[1]	Street Type[2]	Local Truck Route[3]	Attributes
OR 213	ODOT	Major Arterial (classified as expressway north of Molalla Ave.)	Commercial, industrial and residential depending on location	Meyers Road to I-205	Four lanes to the north then transitions to two lanes with turn lanes to the south.
Beavercreek Road	Clackamas County	Major Arterial	Commercial, industrial, residential and mixed use depending on location	Fir Street to Meyers Road	Two lanes with turn lanes in most areas. Transitions to 3 lanes plus turn lanes north of Clairmont Drive and 4 lanes plus turn lanes north of S Maplelane Road.
Meyers Road	Oregon City	Minor Arterial	Commercial, industrial, residential and mixed use depending on location	OR 213 to Loder Road	Two lanes with bike lanes plus some left turn lanes west of Hwy 213; two-lane boulevard configuration between High School Avenue and Beavercreek Road. School zone designation east of High School Avenue.
Glen Oak Road	Oregon City	Collector	Mostly residential with sections of industrial and mixed use	No	Two lanes with turn lanes at three key intersections. Terminates at Beavercreek Road at the east. Terminates at OR 213 at the west, though Caufield Road extends about ¼ mile further to the west.

Road	Jurisdiction	Functional Classification[1]	Street Type[2]	Local Truck Route[3]	Attributes
High School Avenue	Oregon City	Collector	Residential south of Meyers Road; industrial to the north	No	The collector designation applies between Glen Oak Road and Meyers Road. North of Meyers Road it is classified as a local street.
Loder Road	Oregon City	Collector	Industrial from Beavercreek Road to Glen Oak Road; otherwise mostly residential	Glen Oak Road to Meyers Road extension (east, near urban growth boundary)	Two lanes east of Beavercreek Road; conceptual alignment shown in TSP for remainder of road.

[1] *Functional classification specified in Oregon City Transportation System Plan, Figure 8*
[2] *Street type specified in Oregon City Transportation System Plan, Figure 8*
[3] *Local truck route specified in Oregon City Transportation System Plan, Figure 11*

BICYCLISTS AND PEDESTRIANS

The table below indicates existing facilities and planned facilities based on standards in the Oregon City Transportation System Plan.

Table 3. Existing and Planned Facilities

Road	Existing Facilities	Planned Facilities
OR 213	Shoulder bike lanes	On-street bike lanes and sidewalks when upgraded to urban standards
Beavercreek Road	Shoulder bike lanes	On-street bike lanes and sidewalks when upgraded to urban standards
Meyers Road	On-street bike lanes and sidewalks in developed sections west of Hwy 213 and between Beavercreek Road and High School Ave	On-street bike lanes and sidewalks
Glen Oak Road	On-street bike lanes and sidewalks	On-street bike lanes and sidewalks
High School Avenue	Sidewalks on east side only	On-street bike lanes and sidewalks for collector segment; sidewalks in all locations
Loder Road	None currently	Planned shared use path parallel with Loder Road shown in TSP Figure 10

KEY STUDY AREA PROJECTS SPECIFIED IN THE TRANSPORTATION SYSTEM PLAN

The table below provides the basic description for key projects in the study area contained in the TSP.

Table 4. Key TSP Projects

TSP Proj. #	Project Description	Project Extent	Project Elements	Priority
D44	Beavercreek Road/Loder Road Extension Operational Enhancement	Beavercreek Road/Loder Road Extension	Install a roundabout	Short-term
D45	Meyers Road Extension/ Loder Road Extension Operational Enhancement	Meyers Road Extension/ Loder Road Extension	Install a single-lane roundabout	Short-term
D46	Meyers Road West extension	OR 213 to High School Avenue	Extend Meyers Road from OR 213 to High School Avenue as an Industrial Minor Arterial. Create a local street connection to Douglas Loop.	Short-term
D47	Meyers Road East extension	Beavercreek Road to the Meadow Lane Extension	Extend Meyers Road from Beavercreek Road to the Meadow Lane Extension as an Industrial Minor Arterial. Between the Holly Lane and Meadow Lane extensions, add a sidewalk and bike lane to the south side of the street, with a shared-use path to be added on north side per project S19. Modify the existing traffic signal at Beavercreek Road	Medium-term
D64	Loder Road Extension	Beavercreek Road to Glen Oak Road	Extend Loder Road from Beavercreek Road to Glen Oak Road as an Industrial Collector. Add a sidewalk and bike lane to the west side of the street, with a shared-use path to be added on east side per project S18. Create a local street connection to Douglas Loop. Install a roundabout at Meyers Road (per project D45).	Short-term
S18	Loder Road Shared-Use Path	Glen Oak Road to Holly Lane Extension	Add a shared-use path on the south/east side of the Loder Road extension between Glen Oak Road and the Holly Lane extension.	Long-term
Source: TSP, Table 2: Likely to be Funded Transportation System				

KEY INTERSECTIONS IN STUDY AREA

For this study, six key intersections were identified where performance could be affected by the completion of Meyers Road between OR 213 and High School Avenue. These intersections and their attributes are summarized in the following table.

Table 5. Intersections in Study Area

Intersection	Traffic Control	Existing Configuration	Planned Configuration[1]
OR 213/ Molalla Ave/ Clackamas Community College Entrance	Signalized with protected left turn phases for all approaches	Four leg intersection	Four leg intersection
OR 213/ Meyers Road	Signalized with protected left turn phase for northbound approach	T-intersection (no westbound approach leg)	Four leg intersection (part of TSP Project D46)
OR 213/ Glen Oak Road/ Caufield Road	Signalized with protected left turn phases for north- and south-bound approaches	Four leg intersection	Four leg intersection
Beavercreek Road/ Loder Road	Stop-controlled for Loder Road	T-intersection with stop-control on minor street approach; single approach lane for Loder Road	Four leg intersection with roundabout (TSP projects D44 and D64)
Beavercreek Road/ Meyers Road	Signalized with protected left turn phase for northbound approach	T-intersection (no westbound approach leg)	Four leg intersection with left-lane and protected left turn phasing for all approaches (TSP Project D47)
Beavercreek Road/ Glen Oak Road	Stop-controlled for Glen Oak Road	T-intersection with stop-control on Glen Oak Road; separate left and right turn lanes on Glen Oak Road; northbound left turn lane on Beavercreek Road	Four leg intersection with roundabout (TSP Project D47)
Loder Road/ Meyers Road	Does not currently exist	Does not currently exist	Four leg intersection with roundabout (TSP Project D45)

[1] *Oregon City Transportation System Plan, June, 2013*

CITY OPERATIONAL STANDARD FOR INTERSECTIONS

Oregon City, Metro and the Oregon Department of Transportation base their operational standard for intersections on the volume-to-capacity (v/c) ratio. This allows for a systematic and quantifiable approach to evaluating intersection performance.

The City of Oregon City's mobility standard for intersections is specified in the Oregon City Municipal Code (OCMC) section 12.04.205. Because both OR 213 and Beavercreek Road are on the regional "Arterial and Throughway Network," all of the six key intersections in the study area are subject to the subpart B of that section of the code. It specifies that "a maximum v/c [volume-to-capacity] ratio of 0.99 shall be maintained. For signalized intersections, this standard applies to the intersection as a whole. For unsignalized intersections, this standard applies to movements on the major street. There is no performance standard for the minor street approaches."

EXISTING INTERSECTION PERFORMANCE

All six existing study area intersections have been shown to meet the adopted mobility performance standard. The performance of each of the six intersections has been analyzed using recent traffic counts performed for land development applications, the Transportation System Plan and other studies. The results are summarized in Table 5 below.

Table 6. Intersections Mobility Performance

Intersection	Mobility Standard	Calculated AM Peak Hour v/c	Calculated PM Peak Hour v/c
OR 213/ Molalla Ave/ Clackamas Community College Entrance	0.99	0.67	0.76
OR 213/ Meyers Road	0.99	0.77	0.55
OR 213/ Glen Oak Road/ Caufield Road	0.99	0.70	0.70
Beavercreek Road/ Loder Road	0.99	0.591	0.27[1]
Beavercreek Road/ Meyers Road	0.99	0.61	0.81
Beavercreek Road/ Glen Oak Road	0.99	0.42[2]	0.52[2]

[1] *v/c of northbound lane on Beavercreek Road at Loder Road*

[2] *v/c of northbound thru lane on Beavercreek Road at Glen Oak Road*

Additional details about the calculations of the intersection performance can be found in the Traffic Operations Technical Appendix A.

FUTURE CONDITIONS

Further analysis will be undertaken relating to development within the study area consistent with the city's comprehensive plan and applicable zoning. The establishment of a maintenance facility for the Oregon City School District's bus operation is among the anticipated developments in the study area. A land use action for that facility is currently pending as of April 2015. Various materials in support of the application including a Traffic Impact Study have been submitted and will be considered during the development of the Meyers Road Concept Plan.

ENVIRONMENTAL ANALYSIS

Potential natural resource-related permitting constraints within the various project alignments were analyzed at a reconnaissance level suitable for highlighting potential issues for each alternative and providing a fair comparison between alternatives. Review focused on streams, wetlands, riparian areas, and, potentially, upland habitats that may be regulated by the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Oregon Department of Fish & Wildlife, Oregon Department of Environmental Quality, Oregon Department of State Lands, and/or Oregon City. A review of potential sensitive species and their habitats (aquatic and terrestrial), and this review will be supported by data from the Oregon Biodiversity Information Center (ORBIC) database. Research included a review of publicly-available datasets and mapping, including National and Local Wetland Inventory data and Oregon City Natural Resource Overlay District (NROD) maps. A site reconnaissance field visit was conducted on April 23, 2015 on public properties and on private properties, where permission was granted for site verification.

WILDLIFE HABITAT, WETLANDS AND WATERS

Wetland, upland, and waters habitats were mapped in the project area as shown on Figure 8. A discussion of each habitat type, whether it is regulated, and an avoidance priority recommendation is provided below[1].

Wetlands, Potential Wetlands, and Streams: Wetlands are typically regulated by the U.S. Army Corps of Engineers and the Oregon Department of State Lands. Regulations protecting wetlands require that impacts be avoided to the extent practicable. If impacts cannot be avoided, then they must be minimized and mitigated.

[1] REFERENCE "Oregon Department of Fish and Wildlife. 2006. Oregon Conservation Strategy. Oregon Department of Fish and Wildlife, Salem, Oregon."

Wetlands in the project area are shown on Figure 8 and are divided into delineated, recon, and potential categories. The delineated wetland has been formally delineated by Pacific Habitat Services (PHS) as part of the development proposal for a new Oregon City School District bus yard facility. This is a forested wetland dominated by Oregon ash and is of high quality due to the relatively low percent cover by non-native plants and a mature Douglas fir forest buffer. A pair of great horned owls was observed using the forested buffer area. A cacophony of bird songs was also noted, as well as deer and raccoon tracks. The wetland extends to the north and was mapped as "recon" were it extended beyond the study area for the PHS delineation and where site access was available for the Meyers Road reconnaissance visit. Further to the north the wetland was mapped as "potential" wetland where site access was not available, but conditions were observed from publicly accessible points. The distinction between "recon" versus "potential" wetland is that the "recon" designation carries a higher certainty that the feature would be considered a jurisdictional wetland since site access was available for direct observation and wetland indicators were very prominent. On the other hand, the "potential" wetland designation has a lower degree of certainty either because direct site access was not available or field indicators were marginal and additional formal delineation inspection is required to determine if the feature would qualify as a jurisdictional wetland. No stream was observed in this general location.

The above described wetlands are consistent with Local Wetland Inventory Mapping and the Oregon City NROD mapping. NROD mapping shows the wetlands and an associated drainage continuing to the southwest and joining with Caufield Creek. However, based on the April 2015 reconnaissance visit, there is no hydrologic surface connection between the above described wetlands and wetlands and creek mapped in the far southwest corner of the study area. The area between these two wetland areas is almost entirely upland, dominated by the non-native pasture and shrubland habitat described further, below. A few small potential wetland pockets were observed and a larger pasture wetland mapped as "recon" due to its more distinct wetland characteristics was also mapped. The small potential wetlands and recon wetlands within the larger area of upland non-native pasture and shrubland habitat are of low quality due to high presence of non-native species.

The large wetland area in the southwest corner of the study area is a relatively high quality Oregon ash and red alder forested wetland similar in character to the forest wetland in the northeast corner of the study area. It is also bordered by Douglas fir forest habitat. Caufield Creek flows through this wetland. Beaver activity was observed, in addition to deer and raccoon tracks. A small tributary to Caufield Creek was observed flowing out of a pipe along a fenceline that followed the edge of the wetland habitat and non-native pasture habitat. It is possible that a drainfield is situated in the pasture area and discharges from this pipe.

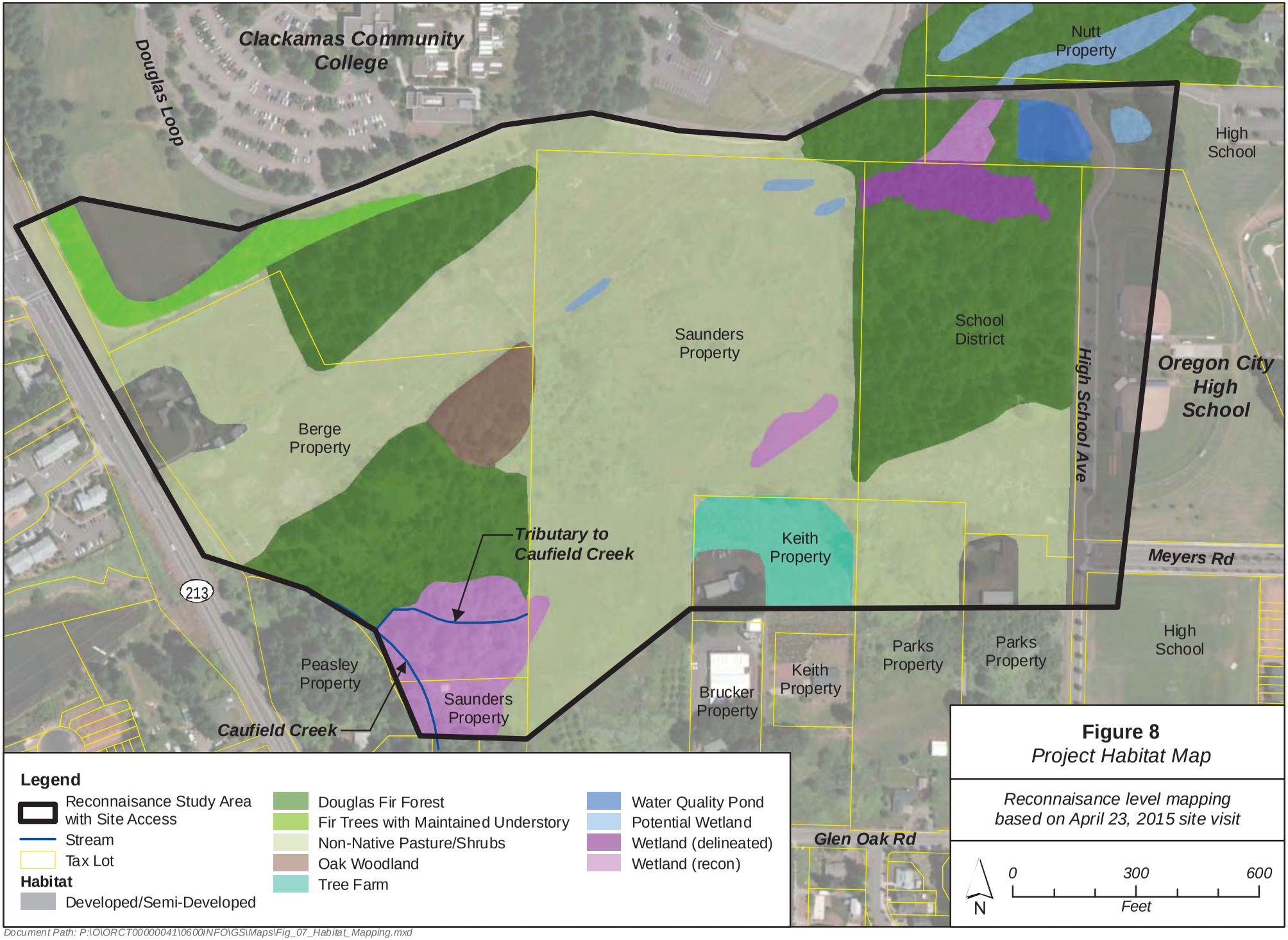


Figure 8
Project Habitat Map

Reconnaisance level mapping based on April 23, 2015 site visit

Document Path: P:\O\ORCT00000041\0600INFO\GS\Maps\Fig_07_Habitat_Mapping.mxd

Oak Woodland

A small, but still relevant patch of Oak Woodland was mapped in the study area. Oak woodland is not a regulated habitat; however, it is considered a Strategy Habitat by the Oregon Conservation Strategy (ODFW 2006), which is administered by ODFW. The patch of Oak Woodland habitat in the project area contains mature Oregon oak. The understory contains a mix of native and non-native shrubs and herb cover. Although not required, it is recommended that this habitat be avoided or impacts minimized to the extent practicable.

Douglas Fir Forest

Douglas fir forest habitat is mapped in three areas in the project study area. The habitat is characterized by Douglas fir trees estimated to be between 40 and 80 years old, with a mix of high quality native understory to highly degraded understory dominated by non-native shrubs, primarily Himalayan blackberry. This habitat is not regulated, nor is it considered a Strategy Habitat by the Oregon Conservation Strategy as its age is far too young to be considered late-successional Douglas fir forest (i.e. hundreds of years old). An exception to the non-regulated status is where the forest occurs within the NROD buffer, which is typically 50 feet from the edge of wetlands and streams, unless steep slopes are present in which case the buffer can be up to 200 feet. Although not required beyond the NROD buffer, it is recommended that this habitat be avoided or impacts minimized to the extent practicable.

Non-native pasture and shrubland

Much of the project area consists of non-native pasture and shrubland habitat, including the majority of the proposed Meyers Road alignments. This habitat type is not regulated, except where it may occur within the NROD buffer, nor is it an Oregon Conservation Strategy priority habitat. This habitat consists of disturbed areas that are dominated by non-native pasture grasses, such as tall fescue and orchard grass, and invasive shrub species including Himalayan blackberry and Scotch broom. Although wildlife will use this habitat, it is of generally lower habitat quality than the forested wetland and upland habitats previously described. That said, it does provide a corridor for wildlife movement between higher quality habitat areas. This habitat type is not recommended for avoidance or minimization of impacts by the Meyers Road project; however, if a wildlife corridor can be maintained between the higher quality forested upland habitats, that would be welcomed. The BPA corridor could potentially serve this purpose, as it is unlikely to be fully developed in the future.

Tree Farm

This area consists of a small patch of Christmas trees in the south portion of the project. It is not a protected habitat type. And it is not recommended for avoidance or minimization of impacts by the Meyers Road project.

Fir Trees with Maintained Understory

This habitat type consists of rows of fir trees where the understory is either lawn, mulch, or similarly maintained. The habitat occurs along an access road for the Community College Campus. It is not a protected habitat type, and, from an ecological perspective, it is not recommended for avoidance or minimization of impacts by the Meyers Road project.

Developed/Semi-developed

Developed/semi-developed areas refer to areas that contain roads, dwellings, ball fields, and similarly maintained areas. This is not a protected habitat type, and from an ecological perspective, it is not recommended for avoidance or minimization of impacts by the Meyers Road project.

THREATENED AND ENDANGERED SPECIES

The Oregon Natural Heritage Information Center (ONHIC) database documents the federally listed and state listed threatened and endangered (T&E) species. The State of Oregon and the federal government maintain separate lists of T&E species. These are species whose status is such that they are at some degree of risk of becoming extinct.

Under state law (Oregon Revised Statutes 496.171 to 496.192) the Fish and Wildlife Commission, through the ODFW, maintains the list of native wildlife species in Oregon that have been determined to be either threatened or endangered according to criteria set forth by rule (Oregon Administrative Rule [OAR] 635-100-0105). Plant listings are handled through the Oregon Department of Agriculture, while most invertebrate listings are conducted through the Oregon Natural Heritage Program.

Under federal law, the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) share responsibility for implementing the federal Endangered Species Act (ESA) of 1973 (Public Law 93-205, 16 United States Code (USC) § 1531), as amended. In general, USFWS has oversight for land and freshwater species and NOAA for marine and anadromous fish species. In addition to information about listed species listed, the USFWS Oregon Field Office maintains a list of Species of Concern.

Table 7. ONHIC-Identified Federal and State Listed Threatened or Endangered Species

Common Name	Scientific Name	Location	Status	
			Federal[1]	State[2]
Vertebrate Animal				
Steelhead (Lower Columbia River ESU, winter run)	*Oncorhynchus mykiss pop. 27*	Abernethy watershed	LT	SC
Painted Turtle	*Chrysemys picta*	Abernethy watershed/CCC	-	SC
Western Turtle	*Actinemys marmorata*	Abernethy watershed/CCC	SOC	SC

Acronyms: SOC = Species of Concern; LT = Listed Threatened; SV = Sensitive-Vulnerable; SC = Sensitive-Critical; C Candidate for Listing as Threatened or Endangered)
Source: Oregon Natural Biodiversity (ORBIC) database, 2015

Once it is listed as T&E, a species is afforded the full range of protections available under the ESA, including prohibitions on killing, harming or otherwise "taking" a species. In some instances, the listing of a species can be avoided by the development of Candidate Conservation Agreements that may remove threats facing the candidate species.

A species is listed as one of two categories, endangered or threatened, depending on its status and the degree of threat it faces. An "endangered species" is one that is in danger of extinction throughout all or a significant portion of its range. A "threatened species" is one that is likely to become endangered in the foreseeable future throughout all or a significant portion of its range. "Species of Concern" is an informal term under the federal listing that is not specifically defined in the federal ESA. The term commonly refers to species that are declining or appear to be in need of conservation.

Under Oregon's Sensitive Species Rule (OAR 635-100-040), a "sensitive" species classification was created that focuses fish and wildlife management and research activities on species that need conservation attention. "Sensitive" refers to naturally reproducing fish and wildlife species, subspecies, or populations that are facing one or more threats to their populations and/or habitats. Implementation of appropriate conservation measures to address the threats may prevent them from declining to the point of qualifying for threatened or endangered status.

Sensitive species are assigned one of two subcategories. "Critical" sensitive species are imperiled with extirpation from a specific geographical area of the state because of small population sizes, habitat loss or degradation, and/or immediate threats. Critical sensitive

species may decline to the point of qualifying for threatened or endangered status if conservation actions are not taken. "Vulnerable" sensitive species are facing one or more threats to their populations and/or habitats. Although not currently imperiled with extirpation from a specific geographical area of the state, vulnerable species could, however, become so with continued or increased threats to populations and/or habitats. For plants, there are no sensitive species candidates for listing as threatened or endangered.

APPENDIX A – STAKEHOLDER INTERVIEWS AND MEETING SUMMARIES

Baseline Conditions Report Appendix A

- Stakeholder Interviews
- Project Management Team Meeting (PMT) Agenda and Minutes for: PMT Meeting #1, PMT Meeting #2, and PMT Meeting #3
- Preapplication Conference Notes (To Be Held)
- Caufield Neighborhood Meeting Summary (Available by request from Oregon City Community Development Department)
- Oregon City TAC Meeting #1 Summary (Available by request from Oregon City Community Development Department)

DAVID EVANS
AND ASSOCIATES INC

Meyers Road Project
Property Owner Interviews Summary

The owners of three properties were separately interviewed on April 7, 2015 by KC Cooper of David Evans and Associates. Interviewees were asked to respond to a prepared list of questions that 1) provided information for a memo of baseline conditions for the area of potential alignment for the new Meyers Road Extension, and 2) elicited their opinions on the optimal alignment, for their individual properties, related to the road extension. Interviews began with a briefing on the process to get to the alternative selection. The interviewees were told that they would be contacted once the alternatives were designed so they could weigh in before the final alternative selection. The property owners were given copies of the workplan, a map of the area, and all signed consent forms to allow project team members to enter each property, with advanced notice, for surveying and other activities related to developing the baseline conditions report for the project.

During the interviews, there were some common themes:

1) The owners are in support of the road extension, have been following this project for some time and are ready to see it happen.

2) Owners are open to alternatives, even those that may impact their properties. However, reduction of remnants or unbuildable portions should be avoided.

3) None of the owners are pursing sales or development options until the extension is built.

4) All would like to be included in discussion about property access points along the new extension.

5) There are few obstructions (wells, vaults, utilities) within the project area that would affect alternatives.

6) Current zoning is a concern related to future development of the properties. Owners would like the city to review.

7) The location of the intersection of the new Loder Road extension is of interest to the owners and they would like to be included in the stakeholder outreach for that project.

The following pages summarize the results of the individual interviews.

Meyers Road Property Owner Interviewee: Ron Saunders, tax lots 3-2E-09C -00200, 3-2E-09C -00602

1) Do you have decision-making authority for what happens to your property, or are there other entities responsible as well? If so, who?

- Saunders is the owner

2) Do you have plans to sell your property either in the near or distant future?

- No plans at this time. He purchased the property many years to hold for 30-50 years.

3) How is the property currently used?

- No current uses. No revenue generated from it, it's mostly not maintained.

4) How do you currently access your property?

- Two gates, one off the CCC loop drive, the other off Glen Oaks Rd.

5) Do you have plans to redevelop your property in the near future? Long term?

- No real plans. He says he has made overtures to the college as a possible site for student housing. Turnover in college staff left this issue without conclusion. He said he discussed selling an eastern portion to the school district for as bus barn location for $3 million which was rejected. He had offered to make the southern portion of the property to the City for use as a dog park. He didn't get a positive response.
- He is waiting for Meyers Road to be extended before determining what development could occur. He would like a compatible use with the other properties in the area, perhaps student housing or a YMCA or other public facility.

6) Are there issues with the property that we should be aware of? (environmental, utility, etc.)

- None that he knows of. (Note: another property owner commented that he thought there were drainage pipes within the property but wasn't certain)
- Water drains through his property from northeast to southwest, but it isn't near as much as what used to drain through his property before the school's retention facility was built. He estimates he gets only 25% of the original flow.

7) (looking at map) What do you think is the optimal alignment(s) for your property?

- He would like the end result to provide usable parcels. He would like to know why the City hasn't considered running the road along the south side of CCC, then align between the Nut and church properties to connect to Beavercreek Road.
- For his own property, he indicated an alignment that would enter his property where it meets the Berge Property, head slightly south then directly east through the Keith and parks property to Meyers road.

8) What issues you see related to the property that the Project team should take into consideration when developing alternatives?

- He wants assurance that the project will treat the private property owners fairly. Other than that, he is willing to accept the results of the alternative selection.
- He is concerned that large trucks will use the road and won't be able to negotiate the turns at High School Road. Also concerned about poor driving habits by students. Road needs to be safe.
- There are conflicts in zoning that need to be looked at (he did not elaborate).

9) Do you have any other comments, questions or concerns about the project?

- He would like the road to be cost effective and efficient (criteria)
- He would like the School District to consider using the north portion of his property for the bus barn, to avoid tree removal.
- He would like the CCC to acknowledge the possibility of an alignment just south of their campus

Meyers Road Property Owner Interviewees: Rocky and Lavona Keith, tax lot 3-2E-09C -00300

1) **Do you have decision-making authority for what happens to your property, or are there other entities responsible as well**
   - The Keiths are the sole owners

2) **Do you have plans to sell your property either in the near or distant future?**
   - No

3) **How is the property currently used?**
   - They grow Christmas trees around the east and north perimeter of the property. The trees generate income; they don't take a tax credit for this business.
   - There is a large shed on the northwest part of the property. They use it to store paint supplies (they own a painting business) as well as the equipment for managing the tree farm. They include the shed as part of their business expenses.
   - The property was partitioned and their son owns a parcel to the NE (note: likely not affected by the road alternatives)

4) **How do you currently access your property?**
   - There is a driveway from Glen Oaks between their property and their son's property.

5) **Do you have plans to redevelop your property in the near future? Long term?**
   - No

6) **Are there issues with the property that we should be aware of? (environmental, utility, etc.)**
   - There is an underground electrical line to the shed from the south.

7) **(looking at map) What do you think is the optimal alignment(s) for your property?**
   - They would prefer that the alignment run along the edge of the property so that they would not need an easement to access the road through the Saunders property. They are not opposed to the road going through the north end of the property.

8) **What issues you see related to the property that the Project team should take into consideration when developing alternatives?**
   - None given

9) **Do you have any other comments, questions or concerns about the project?**
   - They would like to be kept informed about the alternatives for the Loder Road extension as it develops.

Meyers Road Property Owner Interviewees: Kathy Berge, Dan Berge, Terry Emmert, tax lot 3-2E-09C -00700

1) **Do you have decision-making authority for what happens to your property, or are there other entities responsible as well**
   - The property is owned jointly and equally by Kathy Berge and Terry Emmert. They have owned the property for over 20 years.

2) **Do you have plans to sell your property either in the near or distant future?**
   - Once the road is built they will consider it, unless they chose to do their own development

3) **How is the property currently used?**
   - There are two rental homes on the property. One is vacant; the other will be vacant in May of this year. They haven't decided whether they will rent them out, partially because of potential impacts to the property by the extension.

4) **How do you currently access your property?**
   - There are two driveways off of Hwy 213

5) **Do you have plans to redevelop your property in the near future? Long term?**
   - They have discussed several options including senior community (single family dwellings, commercial space (strip mall, or businesses to support housing if they build it), student housing, or a housing subdivision. The two owners do not have agreement on a development option.

6) **Are there issues with the property that we should be aware of? (environmental, utility, etc.)**
   - There is a well just north of the westernmost rental. It serves both dwellings.
   - There is a septic system that serves both homes which they think is between the two rentals but aren't certain.

7) **(looking at map) What do you think is the optimal alignment(s) for your property?**
   - Mr. Emmert had a previous alternative map with him showing how the alternative cut into two corners of their property. If this is the chosen alignment he would like the City and CCC to consider swapping the land they need from the owners for the remnants of CCC land that would be to the south of the alignment. Those parcels would be likely useless to the college, and they could have a straight boundary line against the road.

8) **What issues you see related to the property that the Project team should take into consideration when developing alternatives?**
   - Mr. Emmert assumes that ODOT will eventually force them to close the driveways off of Hwy 213. When Meyers is built they would like 2-3 curb cuts along the extension to access their property.

9) **Do you have any other comments, questions or concerns about the project?**
   - Mr. Emmert has concerned about the zoning of the area and would like the city to review and work with the property owners in making adjustments.

Meyers Road Extension Alternatives (OREGON CITY)

Kickoff Meeting Agenda

City Hall, Commission Chambers, 625 Center Street, Oregon City

Thursday, March 12th, 2015

1:00 PM – 4:00 PM

(Linking Education and the Community)

Invitees:

John Lewis, City PM	Mike Hickey, Consultant PM
Kelly Moosbrugger, City Planner	Elizabeth Mros, Lead Planner
Martin Montalvo, City Operations Manager,	Anneke Van der Mast, Asst. Planner
Aleta Froman-Goodrich, City Engineer	KC Cooper, Public Involvement
Abraham Tayar ODOT	
Bob Cochran, Dean CCC	
Wes Rogers, OCHS	
Seth Burmley, Planner ODOT	
Scott Archer, Parks	

PROJECT OVERVIEW (HICKEY & LEWIS)

- History and Key Issues –general scope
- Process and outcomes
- Keep elected (decision makers informed)
- Definition of Success

CURRENT DESIGN, STATUS AND SCHEDULE (HICKEY & LEWIS)

- Review roles and responsibilities
- Base Map/Aerial Review – Project Limits

- Schedule – program expectations

Received NTP	February 12, 2015
PMT meeting #1	March 12 -Thursday
PMT meeting #2	April 2-Thursday
Pre-application conference	TBD
PMT meeting #3	April 30-Thursday
City TAC briefing	May 12-Tuesday
PMT meeting #4	June 25-Thursday
Presentation to CCC and OCSD	July 21-Tuesday
Attend City Planning Commission meeting	August 11-Tuesday

PLAN FOR ON-GOING COMMUNICATIONS (HICKEY)

- Monthly (or as required) design coordination meetings
- Frequent e-mail updates
- Consultant project manager to be 'copied' on all DEA internal email & written communications
- Project Leader and Client (John and Martin) to be copied on all external email and written communications
- Regular meeting time and place
- Public information distribution
  - ✓ Stakeholder interviews
  - ✓ Neighborhood meeting
- Stakeholder outreach

PROJECT EXISTING CONDITIONS

- BPA line
- Wetlands and water quality facilities
- CCC master plan
- OCHS plans
- Private land development plans
- Transportation System Plan (TSP)
- Glen Oak Park master plan
- Other

PROJECT SCREENING CRITERIA (ISSUES, OPPORTUNITIES AND CONSTRAINTS)

(examples)

- Cost of project should be in line with the benefit provided
- Minimize environmental impact
- Options should meet the needs of most stakeholders

ACTION ITEMS / OTHER

Meyers Road Extension Alternatives (OREGON CITY)

PMT #1 (Kickoff) Meeting

City Hall, Commission Chambers, 625 Center Street, Oregon City

Thursday, March 12th, 2015

1:00 PM – 3:00 PM

(Linking Education and the Community)

Invitees:

John Lewis, City PM, Director of Public Works	Mike Hickey, Consultant PM DEA
Kelly Moosbrugger, Planner	Elizabeth Mros, Senior Planner DEA
Martin Montalvo, Public Works Operations Manager,	Anneke Van der Mast, Asst. Planner DEA
Abraham Tayar ODOT Development Review Engineering Lead	KC Cooper, Communication Strategist DEA
Bob Cochran, Dean of Campus Services CCC	Seth Burmley, Planner ODOT
Wes Rogers, Director of Operations OCSD	Scott Archer, Community Services Director (Parks contact)

PROJECT OVERVIEW (HICKEY & LEWIS)

- *History and Key Issues* –scope of work collectively developed by City, CCC and OCHS.
- *Process and outcomes* – a series of meetings is planned to address concerns and develop opportunities
- *Keep elected (decision makers informed)*
- *Definition of Success*

Collaboration, reach consensus, address Meyers and Loder Rd., develop adopted plan and obtain dedicated R/W, improve traffic, obtain financing , meet schedule, bus circulation, reduce congestion, develop 213 and Meyers intersection, park development, one planning commission meeting, break ground in July, safety.

CURRENT DESIGN, STATUS AND SCHEDULE (HICKEY & LEWIS)

- *Review roles and responsibilities* – John is very busy Martin will function as the City PM. Each representative from the PMT will keep their decision makers informed.

- *Base Map/Aerial Review – Project Limits*

Bergs not yet contacted (co-owned with Terry Emmert, Keith interested in access)
Loder quick response grant awarded for streetscape design
Pacific Habitat has done some wetland delineation.
Martin will provide owner contact info from GIS.
Bob has strategic assessment update for campus.
Scott provided map of parks master plan for viewing.
An apartment complex for students is planned east of Beavercreek Rd.
A roundabout takes more room but requires less maintenance.
TSP classification for Meyers is minor arterial.

- *Schedule – program expectations*

Received NTP	*February 12, 2015*
PMT meeting #1	*March 12 -Thursday*
PMT meeting #2	*April 9-Thursday*
Pre-application conference	*probably June (Kelly & Martin)*
Caufield neighborhood mtg.	*April 28 - Tuesday*
PMT meeting #3	*April 30-Thursday*
City TAC briefing	*May 12-Tuesday*
PMT meeting #4	*June 25-Thursday*
Presentation to CCC and OCSD	*July 21-Tuesday*
Attend City Planning Commission meeting	*August 11-Tuesday*

PLAN FOR ON-GOING COMMUNICATIONS (HICKEY)

- Monthly (or as required) design coordination meetings
- Frequent e-mail updates
- Consultant project manager to be 'copied' on all DEA internal email & written communications
- Project Leader and Client (John and Martin) to be copied on all external email and written communications
- Regular meeting time and place will be at city hall Thursday afternoons
- Public information distribution
  - ✓ Stakeholder interviews
  - ✓ Neighborhood meeting
- Stakeholder outreach

  1. Tight Timeline – targeted -focus is on the most affected stakeholders

  2. Set up and update a project page on the City's website

  3. We'll also help develop talking points for the PMT to keep boards/electeds informed

  4. During alternatives development we'll meet with the property owners and major stakeholders for input—future development, property owner issues, etc. We expect to follow up 2-3 times as we move thru process

5. We will also meeting with the Caufield NH association and the CIC to gather their feedback, both for the alternatives developed and the preferred alternative. Promote these meetings to attract others who might be interested.

6. Presentation to CCC and OC School board – important to keep them in the loop as we progress.

PROJECT EXISTING CONDITIONS

- BPA line
- Wetlands and water quality facilities –overview from GIS only
- CCC master plan- several years old, a strategic plan is also available
- OCHS plans, School will provide additional plans
- Private land development plans are unknown or non-existent
- Transportation System Plan (TSP) plan is just a line on a map, does not show accurate location of planned improvements
- Glen Oak Park master plan
- Other

PROJECT SCREENING CRITERIA (ISSUES, OPPORTUNITIES AND CONSTRAINTS)

(draft)

a. Cost of project should be in line with the benefit provided
b. Minimize environmental impact
c. Options should meet the needs of most stakeholders
d. Consistent with current plans (TSP, School Dist, Parks)
e. Meet street functional classification requirements (minor arterial)
f. Manage access to properties
g. Safety-multimodal
h. Minimize land remnants
i. Connection to Loder Road
j. Maximize developable land

ACTION ITEMS / OTHER

- Martin will provide owner contacts
- DEA will provide FTP site to house information
- DEA will request CCC strategic plan, OCHS delineation and plans, Parks master plan
- KC will initiate property owner contact,
- City will provide permission of entry for wetland reconnaissance
- DEA to update schedule.
- DEA to update contact list and email to everyone.
- Kelly to upload background data onto FTP site- School District Plan, Maps, CCC Master Plan, Parks Plan, and anything else relevant.
- Bob to send any updates to the CCC plan.

Meyers Road Extension Alternatives (OREGON CITY)

PMT #2 Meeting Agenda

City Hall, Commission Chambers, 625 Center Street, Oregon City

Thursday, April 9th, 2015

1:00 PM – 3:00 PM

(Linking Education and the Community)

Invitees:

John Lewis, City PM	Mike Hickey, Consultant PM
Kelly Moosbrugger, City Planner	Elizabeth Mros, Lead Planner
Martin Montalvo, City Operations Manager,	Anneke Van der Mast, Asst. Planner
Scott Archer, Parks	KC Cooper, Public Involvement
Abraham Tayar ODOT	
Bob Cochran, Dean CCC	
Wes Rogers, OCHS	
Seth Burmley, Planner ODOT	

MEETING PURPOSE (HICKEY)

- Review project findings from stakeholder interviews and existing conditions analysis
- Review and confirm project screening criteria
- Review and refine project alternatives based on 1 and 2

PROJECT PROGRESS (HICKEY, COOPER)

- FTP site
- Stakeholder interviews
- Caufield Neighborhood Association meeting

CURRENT DESIGN, STATUS AND SCHEDULE (HICKEY & LEWIS)

- Base Map/Aerial Review – Project Limits

- Schedule – program expectations

Received NTP	February 12, 2015
PMT meeting #1	March 12 -Thursday
PMT meeting #2	April 9-Thursday
Pre-application conference	June?
PMT meeting #3	April 30-Thursday
City TAC briefing	May 12-Tuesday
PMT meeting #4	June 25-Thursday
Presentation to CCC and OCSD	July 21-Tuesday
Attend City Planning Commission meeting	August 11-Tuesday

PROJECT EXISTING CONDITIONS – REVIEW FINDINGS (VAN DER MAST)

- BPA line
- Wetlands and water quality facilities
- CCC master plan
- OCHS plans
- Private land development plans
- Transportation System Plan (TSP)
- Glen Oak Park master plan
- Other

PROJECT SCREENING CRITERIA (ISSUES, OPPORTUNITIES AND CONSTRAINTS) (HICKEY/COOPER)

- Design Criteria- Typical Section, Design Speed
- Consistent with current regional plans (TSP, School Dist, Parks, CCC masterplan)
- Meet street functional classification requirements (minor arterial or major collector)
- Optimize access to properties
- Design maximizes safety for all modes
- Options should meet the needs of most stakeholders
- Minimize environmental impacts
- Cost of project should be in line with the benefit provided
- Maximize multimodal environment
- Maximize developable land and minimize land remnants
- Provide options for connecting to (future) Loder Road extension
- Provide access to (future) park

WORKING SESSION (ALL)

Review and refine existing alternatives
(for drawing preview see ftp://ftp2.deainc.com/2015-04-07 Plan - 36x38L.pdf)

ACTION ITEMS / NEXT STEPS

Meyers Road Extension Alternatives (OREGON CITY)

PMT #2 Meeting Notes

City Hall, Commission Chambers, 625 Center Street, Oregon City
Thursday, April 9th, 2015
1:00 PM – 3:00 PM

Attendees:

John Lewis, City PM	Mike Hickey, Consultant PM
Kelly Moosbrugger, City Planner	Elizabeth Mros, Lead Planner
Martin Montalvo, City Operations Manager,	KC Cooper, Public Involvement
Bob Cochran, Dean CCC	Scott Archer, Parks
Wes Rogers, OCHS	Abraham Tayar ODOT

MEETING PURPOSE (HICKEY)

- Review project findings from stakeholder interviews and existing conditions analysis
- Review and confirm project screening criteria
- Review and refine project alternatives based on 1 and 2

PROJECT PROGRESS (HICKEY, COOPER)

The graphic used to discuss the alternatives is available at:

ftp:\\ftp2.deainc.com\2015-04-07 Plan - 36x38L.pdf

- **Stakeholder interviews:** KC provided a summary of her interviews with the property owners of three properties potential affected by the road alignment:
    - The owners were open to alternatives and none are pursuing sales or development plans until the road is constructed.
    - They mentioned that the road should be safe, cost efficient and fair to all owners. There are no major physical (main made) obstacles on the properties that would affect design, other than a storage shed on the Keith property.
    - **Saunders:** The project should avoid creating remnants and maximize developable parcels.
    - **Keith:** Would prefer that the alignment run along the edge of his property, and doesn't want it to be farther north, so that he would need an easement from Saunders to access the road. He is ok if the road needs to go through the northern part of the property.
    - **Berge/Emmert:** Wants the City and CCC consider a "land swap" –trading what the City needs for the road for the CCC remnants adjacent to their property that would be caused by the road alignment. This would give them a continuous property line along the road.

- **Caufield Neighborhood Association meeting:** John, Kelly and Martin are attending the April 28 Caufield meeting to discuss the project and get feedback on what they would like to see in road design and alignments.

CURRENT DESIGN, STATUS AND SCHEDULE (HICKEY & LEWIS)

- **Base Map/Aerial Review :**
    - The group reviewed a base map that included information and potential alignments referenced in several documents including the TPS, RTP, CCC Master Plans and results of the PMT #1 discussions.
    - The multi-story parking indicated on the CCC campus should be removed.
    - There is a planned transit stop; TriMet should be included in the discussions in the future. The City expects transit service to increase in the next few years. Bus layover locations need to be considered at this site.
    -
- **Road Design issues**
    - The group agreed to reducing speed on the new section of Meyers to 30 mph. The City will look at improving signage for the school zone.
    - The currently planned road ROW is 94' feet. Alternative cross-sections should include the possibility of a multi-use path on the north side, instead of separate bike lanes and sidewalks. Multiuse paths normally range from 12-16 feet depending on the environment. A minimum of 100' right of way will likely be needed to accommodate the path.
    - The road provides a missing link to the trail system in the area, so design should consider the placement of pedestrian and bike facilities to optimize connections. It's expected that bike traffic will increase when the road comes in from those using the trail system and accessing the high school, park and CCC.
    - The design needs to consider where crossing areas should be located from the north side of Meyers to the park on the south, and from the south side off Meyers to the CCC campus.
    - Consider using design (eg curves, bulb outs, medians) to naturally reduce speed off vehicle traffic near the school zone.
    - The bus barn includes a single entrance and single exit onto Meyers Road.
    - The assumption is that the road needs to follow the property boundaries off the park and school bus barn property. Parks may not be able to do adjustment to the property line to allow for straightening the curve. City charter stipulates that they cannot sell, donate, swap City land with another property owner without a public vote. Scott will check into this. Designers need to look how to optimize this section and not affect the current boundaries by placement of drainage, access points and other methods.
    - The High school has designed the bus barn site but is willing to look at the potential of dedicating some of the land to improve the road safety. However, their design is going to bid April 22, so discussions need to happen at their next design meeting.
    - The CCC wants the connection from the Meyers extension to link to Kildeer Rd on their campus.

- **Selection Criteria review**
    - Change "Cost of project should be in line with the benefit provided" to "Be cost effective
    - Change "Options should meet the needs of most stakeholders" to "Consider the objectives of all stakeholders."
    - Change "Maximize multimodal environment" to Maximize multimodal opportunities"

- **Outreach:**
    - An article about the project will be in the next Trail News coming out in Early May.
    - Martin will attend both the April 28 and July 28 Caufield neighborhood meetings to get feedback on alternatives.
    - The public will be invited to the July 21 TAC meeting (6 pm) for a discussion on the preferred alternatives, before the final recommended alternative is selected

- **Next PMT meeting – April 30**
    - Draft alternatives Summary Maps and Performance matrix
    - Additional feedback from Caufield Neighborhood
    - Action item responses. (see below)

- **Action Items**
    - Scott to upload the park plan to the FTP site.
    - All PMT members are to review the list of Existing Conditions/Design Considerations to ensure everything is included. CCC to provide any master plan updates.
    - Mike to remove the planned CCC multi story parking structure from the map, and add contours. Typical to be revised to include a shared path on the north side and 100' right of way and median.
    - Martin to invite Vanessa Vissar (TriMet) to the April 30 PMT meeting.
    - Scott will double check the Charter interpretation that may prevent adjusting the property lines to straighten out the curve at High School Road.
    - Mike will talk to designers about the boundary issue between Parks and School District and look for ways to design to the current boundaries.
    - Mike and John are to attend the next (4/14) Parks/school district design meeting to discuss the boundary and design issue at the east end of the road extension
    - Martin to contact Caufield neighborhood to get on the July 28 agenda, and to put the alternatives discussion on the July 21 TAC agenda.
    - Mike to add July 21st TAC meeting to the calendar.

Meyers Road Extension Alternatives (OREGON CITY)

PMT #3 Meeting Agenda

City Hall, Commission Chambers, 625 Center Street, Oregon City

Thursday, April 30th, 2015

2:00 PM – 4:30PM

(Linking Education and the Community)

Invitees:

John Lewis, City PM	Jake Johnston, Engineering
Kelly Moosbrugger, City Planner	Elizabeth Mros, Lead Planner
Martin Montalvo, City Operations Manager,	Anneke Van der Mast, Asst. Planner
Scott Archer, Parks	KC Cooper, Public Involvement
Abraham Tayar ODOT	Vanessa Vissar TriMet
Bob Cochran, Dean CCC	John Replinger, Traffic
Wes Rogers, OCHS	
Seth Burmley, Planner ODOT	

MEETING PURPOSE – SELECT PREFERRED ALTERNATIVE

Review alternatives in consideration of project evaluation criteria and select Preferred Alternative.

AGENDA ITEMS

WEBSITE AND OUTREACH UPDATE (MARTIN)

- Review status of website and process for updating website.

BASELINE CONDITIONS UPDATE (JOHN & ANNEKE)

- John Replinger will provide update on traffic findings. Anneke will provide update on wetland reconnaissance.

CAULFIELD NEIGHBORHOOD MEETING SUMMARY (KELLY)

- Summary of Caulfield Neighborhood Association being held on April 28, 2015.

PARKS/SCHOOL DISTRICT SUMMARY (JOHN)

- Update on design at east end of project along Park and School District property.

ROUNDABOUT DESIGN (JAKE)

- Discuss implications of including a roundabout in alternatives

REVIEW EVALUATION CRITERIA (ANNEKE)

- Evaluation criteria were further refined to provide for opportunities of measureable differences. These will be reviewed with the group.

WORKING SESSION – SELECTING THE PREFERRED ALTERNATIVE (ALL)

- Review updated alternatives and alternatives map
- Assess alternatives in consideration of project evaluation criteria
- Select Preferred Alternative or determine what additional information or process is needed.

MATERIALS

- Workplan
- Evaluation Criteria Worksheet
- Typical Section
- Alternatives Maps

ACTION ITEMS / NEXT STEPS

- Further refine Preferred Alternative

Meyers Road Extension Alternatives (OREGON CITY)

PMT #3 Meeting Notes

City Hall, Commission Chambers, 625 Center Street, Oregon City

Thursday, April 30th, 2015

1:00 PM – 4:30PM

(Linking Education and the Community)

Attendees: Invitees:

John Lewis, City PM	Jake Johnston, Engineering
Kelly Moosbrugger, City Planner	Elizabeth Mros, Lead Planner
Martin Montalvo, City Operations Manager,	Anneke Van der Mast, Asst. Planner
Scott Archer, Parks	KC Cooper, Public Involvement
Abraham Tayar ODOT	Vanessa Vissar TriMet
Bob Cochran, Dean CCC	John Replinger, Traffic
Wes Rogers, School District	Dana Webb, Engineering (OC)
Seth Burmley, Planner ODOT	

MEETING PURPOSE – SELECT PREFERRED ALTERNATIVE

Review alternatives in consideration of project evaluation criteria and select Preferred Alternative.

AGENDA ITEMS

WEBSITE AND OUTREACH UPDATE (MARTIN)

- Website is ready to go live. KC will confer with Martin after the meeting on what items to load up. It should include the selection criteria and the roadway x-section. Other maps to be loaded when they are edited

BASELINE CONDITIONS UPDATE (JOHN & ANNEKE)

- John Replinger provided information on traffic/existing conditions

- John stated that it is ideal to keep the roads as narrow as we can to meet the needs identified. A dedicated westbound right-turn lane at the intersection of Meyers Rd and Highway 213 may be merited. Additional analysis will need to be performed to determine the configuration of the intersection. This would mean adding another lane onto Meyers at the intersection. John Replinger will review volumes to assess whether it's warranted. A fourth lane at the intersection of new Meyers Extension and Hwy 213 may have impacts.
- The most likely scenario is a stop sign at the extension of Kildeer Rd. at the intersection with Meyers.
- All intersections (5) currently meet city and ODOT performance standards.
- Intersection of Glen Oak/Hwy 213 does not appear to operate as well as predicted by the traffic operations analysis software. ODOT and the City are aware of this. Performance issues at this intersection cannot be addressed in this project process. The construction of Meyers Road, however, can be expected to have a positive impact on operations at Glen Oak/213. He will take into consideration the performance today when he develops future traffic volumes for Meyers Road.
- The City has determined that Loder Road will connect to High School Road. A typical section needs to be determined at a later date. The right of way would include part of the parking and ball field to the east. It would be a 60' collector with an off-set center alignment. Will need to look at how this will intersect with Meyers Road.

- Anneke summarized the Environmental baseline conditions
  - No fatal flaws. A field survey for wetlands found only small intermittent areas of potential wetlands along the possible roadway routes.
  - Look at moving alignment south into Keith property to avoid the adjacent wetland
  - Keep the corners of the park in the public right of way, no remnants
  - There is a grove of Oak Trees that is good habitat but not regulated located on the Berge property.
  - Some areas that were on the wetlands map appear to be dry. Could be due to the new drainage area that the school district put in place at the north end of High School Avenue.

CAULFIELD NEIGHBORHOOD MEETING SUMMARY (JOHN)

- The neighborhood is supportive of and eager for the project to move forward. There was discussion about the School Districts new plans. Attendance included one of the private property owners. The attendees were supportive of campus industrial development and somewhat concerned about bus traffic.

PARKS/SCHOOL DISTRICT SUMMARY (JOHN)

- Wes and John Replinger reported on the design of the school bus maintenance facility. The group looked at issues related to the east end of the project (near HS road). There was concern the typical roadway section in this area would encourage people to park on the north side and jaywalk to reach the park. In addition, parking adjacent to the bus facility could reduce visibility and create conflicts between buses and cars.
- **After much discussion the group concluded that the 7' parking lane on the north side of the new extension would be eliminated and that a 3' bike lane buffer would be added to the south side of the road.** This would shrink the right-of-way width down to 93'. Access to the park would still be maintained, the sight lines for buses entering/leaving the bus lot would be improved. A half-street section is being built as park off the school district's development and will define the east end of Meyers Road.

ROUNDABOUT DESIGN (JAKE/JOHN R)

- Discuss implications of including a roundabout in alternatives:
    - Roundabouts need to be designed to the largest vehicles expected. Meyers Road is designated for freight. The larger the roundabout, the straighter the lanes, therefore large roundabouts don't encourage drivers to slow down.
    - A 250' diameter roundabout takes about one acre of land. More property would need to be taken from Saunders - assuming the connection to CCC is Killdeer Rd.
    - Roundabouts work best when the traffic from all legs is about equal. That would probably not be the case for access to CCC.
    - There are often concerns about pedestrian safety at roundabouts because motorists are good about noticing pedestrians and cyclist when they are entering the roundabout, but not when they are exiting.
    - Knowing what the land use will be helps to determine volumes to determine if an intersection should be a roundabout, stop control (1, 2 or 4-way) or a signalized intersection.
    - During the A.M. peak, it is expected that approximately 115 cars heading north on Hwy 213 may turn on Meyers to connect to the new road to CCC.
    - John noted that a for the intersection of Meyers Road and the connector to CCC, a standard intersection with turn lanes and with stop-control for the connector to CCC would be a reasonable starting point for the evaluation. All-way stop-control, a roundabout or a signalized intersection could be evaluated depending on the performance of the first option.

WORKING SESSION – REVIEWING THE ALTERNATIVE (ALL)

- Reviewed updated alternatives and alternatives map: The north alignment (alt. 1) green, a middle alternative (alt. 2) red, and a south alignment (alt.3) black were presented. The three alternatives were studied by the group and the selection criteria were evaluated against each alternative.

- The group looked at how each alignment would be connected to an entrance to CCC. Some require more private property acquisition.
- BPA may require perpendicular entry across their corridor. This needs to be checked.
- South (black) alternative may stimulate a remnant swap between CCC and the Berge to have both properties front the new road. The CCC is willing to consider this. The property owner mentioned this as an option as well.
- The location of the shared use path on the north needs to be determined (related to CCC access. Engineering needs to look at the intersection at Hwy 213 to see how the path is placed there.
- Select Preferred Alternative or determine what additional information or process is needed.
- Middle alignment (red) would leave a remnant for Saunders, but it is under the BPA lines so land use options are limited—maybe parking or stormwater treatment.
- Consider using remnants for wetland mitigation. It won't be useful for habitat impacts though.
- Keeping the impact to the Oak forest habitat to one side is better than cutting through the middle.
- While all the alternatives would work, each have drawbacks related to the criteria. The PMT was polled for their preferences
    - Martin: Prefers middle (red) alignment
    - John: Prefers south (black) alignment
    - Bob: Red alignment, or Black alignment with land swap
    - Wes: Red alignment adjusted slightly south
    - Kelly: Red and black alignments – if we realign the middle alignment we'll need to check the curve off of Hwy. 213
    - No one preferred the northern alignment
- **The Group decided that it was worth looking at a 4th alternative—a hybrid of the middle and south alignments.** Jake will do a hybrid, and check curves, etc. to see how this would work and present to the group. BPA will need to be contacted as well to see if it is acceptable.
- Martin will consider adding an extra PMT meeting, or, sharing the information via email and getting further comment.
- KC and Martin will discuss meeting with the private property owners to walk through the alignments and discuss the consensus of the PMT.

MATERIALS

- Workplan
- Evaluation Criteria Worksheet
- Acreage worksheets
- Typical Section
- Alternatives Maps

ACTION ITEMS / NEXT STEPS

- KC/Martin to discuss webpage uploads
- Martin to identify date for open house for alignment alternatives

- Jake to check with BPA (start internally with Chris Webber) on entrance requirements into their corridor (skew, perpendicular…)
- Martin is to schedule a meeting with TriMet to determine their needs and requirements with the alternatives. Martin will invite TriMet to future PMT meetings.
- Jake to provide suggestions on location of multi-use path on the north side, from Hwy 213 west.
- Martin to determine if an additional PMT is useful in finalizing a preferred alternative and conduct a doodle poll. He will notify the group of next steps to a preferred alternative.
- Martin and KC will discuss property owner meeting process and timeline.
- John R. will work on developing future traffic volumes and work with Kelly on assumptions for industrial land use along Meyers Road.

APPENDIX B- TRAFFIC OPERATIONS TECHNICAL

APPENDIX

TRAFFIC ANALYSIS TECHNICAL REPORT

SYNCHRO WORKSHEETS

AM PEAK HOUR

Loder Road & Beavercreek Road

Glen Oak Road/Caufield Road & Highway 213

Beavercreek Road & Glen Oak Road

Meyers Road & Highway 213

Beavercreek Road & Meyers Road

Molalla Ave/CCC Entrance & Highway 213

PM PEAK HOUR

Loder Road & Beavercreek Road

Glen Oak Road/Caufield Road & Highway 213

Beavercreek Road & Glen Oak Road

Meyers Road & Highway 213

Beavercreek Road & Meyers Road

Molalla Ave/CCC Entrance & Highway 213

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (veh/h)	7	35	10	687	920	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	38	11	747	1000	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1771	1003	1005			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1771	1003	1005			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	87	98			
cM capacity (veh/h)	90	294	689			

Direction, Lane #	WB 1	SE 1	NW 1
Volume Total	46	758	1005
Volume Left	8	11	0
Volume Right	38	0	5
cSH	213	689	1700
Volume to Capacity	0.21	0.02	0.59
Queue Length 95th (ft)	20	1	0
Control Delay (s)	26.4	0.4	0.0
Lane LOS	D	A	
Approach Delay (s)	26.4	0.4	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	12	6	15	2	296	1	848	15	161	378	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.97			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1676			1819	1599	1357	1806		1805	1831	
Flt Permitted		0.79			0.82	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1373			1552	1599	1357	1806		1805	1831	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	35	13	6	16	2	312	1	893	16	169	398	17
RTOR Reduction (vph)	0	4	0	0	0	276	0	0	0	0	1	0
Lane Group Flow (vph)	0	50	0	0	18	36	1	909	0	169	414	0
Heavy Vehicles (%)	4%	0%	50%	0%	0%	1%	33%	5%	0%	0%	3%	6%
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4		4						
Actuated Green, G (s)		10.2			10.2	10.2	0.8	80.9		19.4	99.5	
Effective Green, g (s)		10.7			10.7	10.7	0.8	82.9		19.4	101.5	
Actuated g/C Ratio		0.09			0.09	0.09	0.01	0.66		0.16	0.81	
Clearance Time (s)		4.5			4.5	4.5	4.0	6.0		4.0	6.0	
Vehicle Extension (s)		2.5			2.5	2.5	2.3	4.5		2.3	4.5	
Lane Grp Cap (vph)		118			133	137	9	1198		280	1487	
v/s Ratio Prot							0.00	c0.50		c0.09	0.23	
v/s Ratio Perm		c0.04			0.01	0.02						
v/c Ratio		0.43			0.14	0.26	0.11	0.76		0.60	0.28	
Uniform Delay, d1		54.2			52.9	53.5	61.7	14.3		49.2	2.9	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.8			0.3	0.7	3.2	4.5		2.9	0.5	
Delay (s)		56.0			53.2	54.2	64.9	18.8		52.1	3.3	
Level of Service		E			D	D	E	B		D	A	
Approach Delay (s)		56.0			54.1			18.8			17.4	
Approach LOS		E			D			B			B	

Intersection Summary			
HCM Average Control Delay	25.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	125.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	153	30	51	671	82	41
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	161	32	54	706	86	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			193		991	177
vC1, stage 1 conf vol					177	
vC2, stage 2 conf vol					814	
vCu, unblocked vol			193		991	177
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			96		78	95
cM capacity (veh/h)			1393		401	861

Direction, Lane #	SE 1	NW 1	NW 2	NE 1	NE 2
Volume Total	193	54	706	86	43
Volume Left	0	54	0	86	0
Volume Right	32	0	0	0	43
cSH	1700	1393	1700	401	861
Volume to Capacity	0.11	0.04	0.42	0.22	0.05
Queue Length 95th (ft)	0	3	0	20	4
Control Delay (s)	0.0	7.7	0.0	16.4	9.4
Lane LOS		A		C	A
Approach Delay (s)	0.0	0.5		14.1	
Approach LOS				B	

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	231	198	147	1035	373	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1805	1570	1787	1845	3505	1555
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1805	1570	1787	1845	3505	1555
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	233	200	148	1045	377	69
RTOR Reduction (vph)	0	165	0	0	0	32
Lane Group Flow (vph)	233	35	148	1045	377	37
Confl. Peds. (#/hr)	6	4	3			3
Heavy Vehicles (%)	0%	1%	1%	3%	3%	1%
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	14.1	14.1	11.0	57.9	42.9	42.9
Effective Green, g (s)	14.1	14.1	11.0	57.9	42.9	42.9
Actuated g/C Ratio	0.18	0.18	0.14	0.72	0.54	0.54
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	318	277	246	1335	1880	834
v/s Ratio Prot	c0.13		0.08	c0.57	0.11	
v/s Ratio Perm		0.02				0.02
v/c Ratio	0.73	0.13	0.60	0.78	0.20	0.04
Uniform Delay, d1	31.2	27.8	32.4	7.0	9.6	8.8
Progression Factor	1.00	1.00	1.00	1.00	0.31	0.00
Incremental Delay, d2	8.4	0.2	4.1	4.6	0.2	0.1
Delay (s)	39.6	28.0	36.5	11.7	3.2	0.1
Level of Service	D	C	D	B	A	A
Approach Delay (s)	34.2			14.8	2.7	
Approach LOS	C			B	A	

Intersection Summary			
HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	158	173	117	636	289	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1731		1770	1863	1770	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	1731		1770	1863	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	172	188	127	691	314	27
RTOR Reduction (vph)	49	0	0	0	0	19
Lane Group Flow (vph)	311	0	127	691	314	8
Turn Type			Prot			Perm
Protected Phases	6		5	2	4	
Permitted Phases						4
Actuated Green, G (s)	31.0		12.0	47.0	25.0	25.0
Effective Green, g (s)	31.0		12.0	47.0	25.0	25.0
Actuated g/C Ratio	0.39		0.15	0.59	0.31	0.31
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	671		266	1095	553	495
v/s Ratio Prot	0.18		0.07	c0.37	c0.18	
v/s Ratio Perm						0.01
v/c Ratio	0.46		0.48	0.63	0.57	0.02
Uniform Delay, d1	18.3		31.1	10.8	23.0	19.0
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	2.3		6.0	2.8	4.2	0.1
Delay (s)	20.6		37.2	13.6	27.2	19.1
Level of Service	C		D	B	C	B
Approach Delay (s)	20.6			17.2	26.5	
Approach LOS	C			B	C	

Intersection Summary			
HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	87	148	115	18	48	31	240	960	115	182	331	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3386	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3386	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	161	125	20	52	34	261	1043	125	198	360	146
RTOR Reduction (vph)	0	0	95	0	0	27	0	0	72	0	55	0
Lane Group Flow (vph)	95	161	30	20	52	7	261	1043	53	198	451	0
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	7.0	19.0	19.0	4.0	16.0	16.0	20.0	29.0	29.0	12.0	21.0	
Effective Green, g (s)	7.0	19.0	19.0	4.0	16.0	16.0	20.0	29.0	29.0	12.0	21.0	
Actuated g/C Ratio	0.09	0.24	0.24	0.05	0.20	0.20	0.25	0.36	0.36	0.15	0.26	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	155	442	376	89	373	317	443	1283	574	266	889	
v/s Ratio Prot	c0.05	c0.09		0.01	0.03		0.15	c0.29		c0.11	0.13	
v/s Ratio Perm			0.02			0.00			0.03			
v/c Ratio	0.61	0.36	0.08	0.22	0.14	0.02	0.59	0.81	0.09	0.74	0.51	
Uniform Delay, d1	35.2	25.5	23.7	36.5	26.3	25.7	26.4	23.0	16.8	32.5	25.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.69	1.00	1.00	
Incremental Delay, d2	16.8	2.3	0.4	5.8	0.8	0.1	4.1	4.2	0.2	17.1	2.1	
Delay (s)	52.0	27.8	24.1	42.3	27.1	25.8	28.2	25.2	11.9	49.7	27.2	
Level of Service	D	C	C	D	C	C	C	C	B	D	C	
Approach Delay (s)		32.6			29.6			24.6			33.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	28.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
5: Loder Road & Beavercreek

5/14/2015

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (veh/h)	4	18	37	1041	424	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	20	40	1132	461	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1676	464	467			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1676	464	467			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	97	96			
cM capacity (veh/h)	101	598	1094			

Direction, Lane #	WB 1	SE 1	NW 1
Volume Total	24	1172	467
Volume Left	4	40	0
Volume Right	20	0	7
cSH	315	1094	1700
Volume to Capacity	0.08	0.04	0.27
Queue Length 95th (ft)	6	3	0
Control Delay (s)	17.3	1.2	0.0
Lane LOS	C	A	
Approach Delay (s)	17.3	1.2	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	0	4	18	3	189	3	538	45	165	1030	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected		0.96			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1616			1821	1599	1357	1795		1805	1831	
Flt Permitted		0.74			0.80	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1249			1525	1599	1357	1795		1805	1831	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	24	0	4	19	3	199	3	566	47	174	1084	47
RTOR Reduction (vph)	0	4	0	0	0	185	0	2	0	0	1	0
Lane Group Flow (vph)	0	24	0	0	22	14	3	611	0	174	1130	0
Heavy Vehicles (%)	4%	0%	50%	0%	0%	1%	33%	5%	0%	0%	3%	6%
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4		4						
Actuated Green, G (s)		8.2			8.2	8.2	0.8	82.7		19.6	101.5	
Effective Green, g (s)		8.7			8.7	8.7	0.8	84.7		19.6	103.5	
Actuated g/C Ratio		0.07			0.07	0.07	0.01	0.68		0.16	0.83	
Clearance Time (s)		4.5			4.5	4.5	4.0	6.0		4.0	6.0	
Vehicle Extension (s)		2.5			2.5	2.5	2.3	4.5		2.3	4.5	
Lane Grp Cap (vph)		87			106	111	9	1216		283	1516	
v/s Ratio Prot							0.00	0.34		c0.10	c0.62	
v/s Ratio Perm		c0.02			0.01	0.01						
v/c Ratio		0.28			0.21	0.12	0.33	0.50		0.61	0.75	
Uniform Delay, d1		55.2			54.9	54.6	61.8	9.9		49.2	4.8	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3			0.7	0.4	12.3	1.5		3.1	3.4	
Delay (s)		56.5			55.6	54.9	74.1	11.3		52.3	8.2	
Level of Service		E			E	D	E	B		D	A	
Approach Delay (s)		56.5			55.0			11.6			14.1	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM Average Control Delay	18.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	125.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	685	155	19	267	64	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	721	163	20	281	67	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			884		1124	803
vC1, stage 1 conf vol					803	
vC2, stage 2 conf vol					321	
vCu, unblocked vol			884		1124	803
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			97		83	95
cM capacity (veh/h)			774		405	381

Direction, Lane #	SE 1	NW 1	NW 2	NE 1	NE 2
Volume Total	884	20	281	67	19
Volume Left	0	20	0	67	0
Volume Right	163	0	0	0	19
cSH	1700	774	1700	405	381
Volume to Capacity	0.52	0.03	0.17	0.17	0.05
Queue Length 95th (ft)	0	2	0	15	4
Control Delay (s)	0.0	9.8	0.0	15.7	15.0
Lane LOS		A		C	B
Approach Delay (s)	0.0	0.6		15.5	
Approach LOS				C	

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	194	262	150	634	1063	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1805	1568	1787	1845	3505	1552
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1805	1568	1787	1845	3505	1552
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	196	265	152	640	1074	207
RTOR Reduction (vph)	0	223	0	0	0	95
Lane Group Flow (vph)	196	42	152	640	1074	112
Confl. Peds. (#/hr)	6	4	3			3
Heavy Vehicles (%)	0%	1%	1%	3%	3%	1%
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	15.9	15.9	18.0	76.1	54.1	54.1
Effective Green, g (s)	15.9	15.9	18.0	76.1	54.1	54.1
Actuated g/C Ratio	0.16	0.16	0.18	0.76	0.54	0.54
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	287	249	322	1404	1896	840
v/s Ratio Prot	c0.11		0.09	c0.35	c0.31	
v/s Ratio Perm		0.03				0.07
v/c Ratio	0.68	0.17	0.47	0.46	0.57	0.13
Uniform Delay, d1	39.7	36.3	36.7	4.4	15.2	11.4
Progression Factor	1.00	1.00	1.00	1.00	0.29	0.07
Incremental Delay, d2	6.6	0.3	1.1	1.1	0.7	0.2
Delay (s)	46.2	36.7	37.8	5.4	5.1	1.0
Level of Service	D	D	D	A	A	A
Approach Delay (s)	40.7			11.7	4.4	
Approach LOS	D			B	A	

Intersection Summary			
HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	826	143	46	285	139	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.98		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1826		1770	1863	1770	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	1826		1770	1863	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	898	155	50	310	151	15
RTOR Reduction (vph)	8	0	0	0	0	12
Lane Group Flow (vph)	1045	0	50	310	151	3
Turn Type			Prot			Perm
Protected Phases	6		5	2	4	
Permitted Phases						4
Actuated Green, G (s)	48.0		4.0	56.0	16.0	16.0
Effective Green, g (s)	48.0		4.0	56.0	16.0	16.0
Actuated g/C Ratio	0.60		0.05	0.70	0.20	0.20
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	1096		89	1304	354	317
v/s Ratio Prot	c0.57		c0.03	0.17	c0.09	
v/s Ratio Perm						0.00
v/c Ratio	0.95		0.56	0.24	0.43	0.01
Uniform Delay, d1	15.0		37.1	4.3	28.0	25.6
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	18.1		23.2	0.4	3.7	0.1
Delay (s)	33.1		60.3	4.7	31.7	25.7
Level of Service	C		E	A	C	C
Approach Delay (s)	33.1			12.5	31.2	
Approach LOS	C			B	C	

Intersection Summary			
HCM Average Control Delay	28.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	127	76	457	75	119	264	284	486	61	109	802	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3445	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3445	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	83	497	82	129	287	309	528	66	118	872	189
RTOR Reduction (vph)	0	0	358	0	0	241	0	0	37	0	18	0
Lane Group Flow (vph)	138	83	139	82	129	46	309	528	29	118	1043	0
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	11.0	20.0	20.0	7.0	16.0	16.0	22.0	44.0	44.0	13.0	35.0	
Effective Green, g (s)	11.0	20.0	20.0	7.0	16.0	16.0	22.0	44.0	44.0	13.0	35.0	
Actuated g/C Ratio	0.11	0.20	0.20	0.07	0.16	0.16	0.22	0.44	0.44	0.13	0.35	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	195	373	317	124	298	253	389	1557	697	230	1206	
v/s Ratio Prot	c0.08	0.04		c0.05	0.07		c0.17	0.15		0.07	c0.30	
v/s Ratio Perm			c0.09			0.03			0.02			
v/c Ratio	0.71	0.22	0.44	0.66	0.43	0.18	0.79	0.34	0.04	0.51	0.86	
Uniform Delay, d1	42.9	33.5	35.1	45.3	37.9	36.3	36.9	18.4	16.0	40.5	30.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.80	0.71	1.00	1.00	
Incremental Delay, d2	19.5	1.4	4.4	24.4	4.5	1.6	14.2	0.5	0.1	8.0	8.4	
Delay (s)	62.4	34.9	39.5	69.8	42.4	37.9	45.9	15.4	11.4	48.5	38.7	
Level of Service	E	C	D	E	D	D	D	B	B	D	D	
Approach Delay (s)		43.3			44.3			25.5			39.7	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM Average Control Delay	37.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

APPENDIX C: PRELIMINARY ALTERNATIVES SCREENING CRITERIA TABLE

Alternative meets Screening Criteria

Alternative somewhat meets Screening Criteria

Alternative does not meet Screening Criteria

Meyers Road Extension Alternatives (OREGON CITY)

Screening Criteria	Alt 1 North (Green)	Alt 2 Middle (Red)	ALT 3 South (Black)	Considerations
Consistent with current plans (TSP, RTP, School District, Parks, CCC Master Plan)				All alternatives provide the extension identified in TSP and RTP from OR 213 to High School Road. All alternatives provide access to CCC from S Douglas Loop. This alternative is more consistent with CCC Plan with shorter extension of Killdeer Road.
Meet street functional classification requirements	TSP identifies Meyer Road as Industrial Arterial. RTP as Principal Arterial. Each alignment has same cross section: three-lane road with parking, sidewalks, stormwater swale/facility, and bike facility either on or off street. 100 foot ROW area			Industrial arterial configuration is five lanes wide. Narrowed, because the bus facility on the north side removed parking to discourages jaywalking to the park, and improves site distance for buses, improves safety
Provide options for connecting to (future) Loder Road extension	Intersection angle.	Intersection angle.	Intersection spacing.	Does not allow for safe connection of Loder Road alignment as represented on TSP due to intersection angles or intersection spacing. The Loder Extension alignment analyzed here was based on the TSP. All three alignments could work with a different Loder Road connection such as High School Road or between the Brucker and Keith properties.
Maximize multimodal environment	Dedicated bike/ped facilities have more direct access to existing development such as CCC and existing trail network.	Does not provide as direct multimodal access with long extension of Killdeer which may have less bike/ped infrastructure.	Does not provide as direct multimodal access with long extension of Killdeer which may have less bike/ped infrastructure.	
Design maximizes safety for all modes	All of been designed for safe curvatures, speed, and separation of travel modes. Cross section discussion today.			
Provide access to (future) park				
Optimize access to properties	Berge property does not have direct access.	Has most access to private properties.		

Alternative meets Screening Criteria

Alternative somewhat meets Screening Criteria

Alternative does not meet Screening Criteria

Meyers Road Extension Alternatives (OREGON CITY)

Screening Criteria	Alt 1 North (Green)	Alt 2 Middle (Red)	ALT 3 South (Black)	Considerations
Minimize environmental impacts	Small areas of potential wetland impact both at east end of alignment and near north curve.	Small areas of potential wetland impact at east end of alignment. Impacts to Oak Woodland; bisects Fir Forest.	Small areas of potential wetland impact at east end of alignment. Impacts to Oak Woodland; bisects Fir Forest.	
Consider the objectives of all stakeholders	To be discussed.			
Maximize developable land and minimize land remnant (Without Killdeer Extension)	Requires more acres for ROW, but doesn't bisect as many parcels. Fits into land use planned for CCC.	Leaves more land remnants.	Leaves more land remnants.	Remnants range from .5 acres to 10 acres in size. Smaller size remnants may be harder to develop.
Maximize developable land and minimize land remnant (With Killdeer Extension)	Requires fewer acres, has fewer remnants, but leaves half acre remnant.	Requires more acres for ROW and leaves more remnants.	Requires more acres for ROW and leaves more remnants.	
Be Cost Effective (Without Killdeer Extension)	$3.45M	$3.21M	$3.17M	Rough order of magnitude costs based on unit costs for comparison purposes only.
Be Cost Effective (With Killdeer Extension)	$3.73M	$3.83M	$3.82M	

APPENDIX D: COST ESTIMATE

CONCEPT PLAN - COST ESTIMATE

DAVID EVANS AND ASSOCIATES, INC. - ROADWAY ENGINEERING

SECTION				COUNTY	
Meyers Road Extension (Meyers Rd./OR213/CCC Access)				Clackamas	
KEY NUMBER	KIND OF WORK	LENGTH	DATE	ROADWAY DESIGNER	
N/A	Grading, Drainage, Paving, Signing, Illumination, Signals & Roadside Development	0.66 miles	9/10/15	David Evans & Assoc., Inc. Mike Hickey	
ITEM NUMBER	**ITEM DESCRIPTION**	**UNIT**	**AMOUNT**	**UNIT COST**	**TOTAL**
PART 00200 - TEMPORARY FEATURES AND APPURTENANCES					
0210-0100000A	MOBILIZATION	LS	All	10%	$305,450
0225-0100000A	TEMPORARY PROTECTION & DIRECTION OF TRAFFIC	LS	All	2%	$59,000
0280-0100000A	EROSION CONTROL	LS	All	1%	$30,000
0290-0100000A	POLLUTION CONTROL PLAN	LS	All	$3,000.00	$3,030
PART 00300 - ROADWORK					
0305-0100000A	CONSTRUCTION SURVEY WORK	LS	All	2%	$59,000
0320-0100000A	CLEARING AND GRUBBING	LS	All	$20,000.00	$20,200
0330-0105000K	GENERAL EXCAVATION	CUYD	35,700	$13.00	$464,100
0331-0109000J	18 INCH SUBGRADE STABILIZATION	SQYD	3,535	$20	$70,700
0350-0105000J	SUBGRADE GEOTEXTILE	SQYD	10,100	$1	$10,100
0390-0105000K	LOOSE RIPRAP, CLASS 50	CUYD	180	$110	$11,000
PART 00400 - DRAINAGE AND SEWERS					
0445-035024AF	24 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	2,525	$70	$176,750
0445-060006AF	12 INCH SAN. SEWER PIPE, 10 FT DEPTH	FOOT	2,500	$100	$250,000
0445-060012AF	12 INCH WATERLINE, 5 FT DEPTH	FOOT	2,500	$75	$187,500
0445-0735050F	VIDEO INSPECTION	FOOT	5,050	$3	$15,150
0470-0101000E	CONCRETE STORM SEWER MANHOLES	EACH	5	$4,000	$20,200
470	CONCRETE INLETS	EACH	10	$1,500	$15,300
0490-0104000E	CONNECTION TO EXISTING STRUCTURES	EACH	2	$5,000	$10,000
PART 00500 - BRIDGES					
0500	4' X 4' REINFORCED CONCRETE BOX CULVERT	FOOT	120	$300	$36,000
PART 00600 - BASES					
0620-0120000J	COLD PLANE PAVEMENT REMOVAL, 2 INCHES DEEP	SQYD	2,000	$1	$2,000
0641-0102000M	AGGREGATE BASE	TON	15,465	$25	$386,625
PART 00700 - WEARING SURFACES					
0745-0202000M	LEVEL 3, 1/2 INCH DENSE HMAC	TON	6,189	$60	$371,340
0745-0620000M	PG 64-22 ASPHALT IN HMAC	TON	258	$500	$129,050
0749-0100000E	EXTRA FOR ASPHALT APPROACHES	EACH	4	$475	$1,995
0759-0102000F	CONCRETE CURBS, MODIFIED	FOOT	0	$24	$0
0759-0103000F	CONCRETE CURBS, CURB AND GUTTER	FOOT	5,378	$17	$91,426
0759-0106000F	CONCRETE CURBS, LOW PROFILE MOUNTABLE CURB	FOOT	0	$15	$0
0759-0110000F	CONCRETE CURBS, STANDARD CURB	FOOT	1,000	$15	$15,000
0759-0126000J	CONCRETE DRIVEWAYS	SQFT	0	$6	$0
0759-0128000J	CONCRETE WALKS	SQFT	26,250	$6	$144,375
PART 00800 - PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES					
0851-0101000F	PAVEMENT LINE REMOVAL	FOOT	1,000	$0	$350
0855-0100000E	MONO-DIRECTIONAL WHITE TYPE 1 MARKERS	EACH	10	$5	$50
0855-0102000E	BI-DIRECTIONAL YELLOW TYPE 1 MARKERS	EACH	0	$5	$0
0865-0103000F	THERMOPLASTIC, PROFILE, 120 MILS, EXTRUDED	FOOT	1,000	$1	$1,000
0865-0107000F	THERMOPLASTIC, NON-PROFILE, 120 MILS, EXTRUDED	FOOT	200	$1	$200
0867-0103100E	PAVEMENT LEGEND, TYPE B-HS: ARROWS	EACH	11	$250	$2,625
0867-0131000E	PAVEMENT LEGEND, TYPE B-HS: BICYCLE LANE STENCIL	EACH	10	$250	$2,500
0865-0116500F	METHYL METHACRYLATE, EXTRUDED, SURFACE, PROFILED	FOOT	4,000	$2	$8,000
0867-0144000J	PAVEMENT BAR, TYPE B-HS	SQFT	1,020	$8	$8,160
PART 00900 - PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS					
0940-0107000J	SIGNS IN PLACE	SQFT	1,020	$50	$51,000
0970-0104000A	LUMINAIRES, LAMPS AND BALLASTS	LS	All	$50,000	$50,500
0970-0105000A	SWITCHING, CONDUIT AND WIRING	LS	All	$20,000	$20,200

CONCEPT PLAN - COST ESTIMATE

DAVID EVANS AND ASSOCIATES, INC. - ROADWAY ENGINEERING

SECTION				COUNTY	
Meyers Road Extension (Meyers Rd./OR213/CCC Access)				Clackamas	
KEY NUMBER	KIND OF WORK	LENGTH	DATE	ROADWAY DESIGNER	
N/A	Grading, Drainage, Paving, Signing, Illumination, Signals & Roadside Development	0.66 miles	9/10/15	David Evans & Assoc., Inc. Mike Hickey	
ITEM NUMBER	**ITEM DESCRIPTION**	**UNIT**	**AMOUNT**	**UNIT COST**	**TOTAL**
0990-0102000A	TRAFFIC SIGNAL MODIFICATION @ OR213 AND MEYERS RD	LS	All	$200,000	$200,000
PART 01000 - RIGHT-OF-WAY DEVELOPMENT AND CONTROL					
1030-0115000A	PERMANENT SEEDING, MIX NO. 1 - ROADSIDE SEEDING	ACRE	6	$2,000	$12,120
1030-0116000A	PERMANENT SEEDING, MIX NO. 2 - WATER QUALITY SEEDING	ACRE	2	$3,000	$6,300
1040-0101000K	TOPSOIL	CUYD	2,040	$30	$61,200
1040-0126000E	DECIDUOUS TREES, 1 INCH CALIPER	EACH	51	$201	$10,226
1040-0130000E	DECIDUOUS TREES, 2 INCH CALIPER	EACH	26	$266	$6,770
1040-0155000E	SHRUBS, NO. 3 CONTAINER	EACH	102	$12	$1,224
1040-0171000E	GROUNDCOVERS, NO. 1 CONTAINER	EACH	204	$10	$2,040
1040-0182000E	WETLAND PLANTS, BARE ROOT	EACH	1,000	$1	$1,000
1040-0194000K	COMPOST MULCH	CUYD	204	$33	$6,732
1040-0197000A	PLANT ESTABLISHMENT WORK	LS	All	$2,000	$2,040
1040-0206000F	ROOT BARRIER	FOOT	1,020	$8	$8,160
1040-	WEED KILLING & REMOVAL	LS	All	$2,000	$2,040
1120-0100000A	IRRIGATION SYSTEM	LS	All		$0
	GATEWAY FEATURE	LS	All	$10,000	$10,200
SUBTOTAL, Construction Items					**$3,359,928**
CONST. ENGINEERING		20.0% E&C =>		16.5%	$554,388
CONTINGENCIES				3.5%	$117,597
ANTICIPATED ITEMS					$0.00
TOTAL CONSTRUCTION COST ESTIMATE					**$4,031,913**
PRELIMINARY ENGINEERING				0.0%	$0.00
ENVIRONMENTAL					$0.00
RIGHT-OF-WAY COSTS					$0.00
OTHER					$0.00
ANTICIPATED PROGRAMMED PROJECT COST ESTIMATE - PROSPECTUS				*98%*	***$4,117,478.00***

CONCEPT PLAN - COST ESTIMATE

DAVID EVANS AND ASSOCIATES, INC. - ROADWAY ENGINEERING

SECTION				COUNTY	
OR213 only (Meyers Rd. Extension)				Clackamas	
KEY NUMBER	KIND OF WORK Grading, Drainage, Paving, Signing, Illumination, Signals & Roadside Development	LENGTH 0.21 miles	DATE 9/10/15	ROADWAY DESIGNER David Evans & Assoc., Inc. Mike Hickey	
ITEM NUMBER	**ITEM DESCRIPTION**	**UNIT**	**AMOUNT**	**UNIT COST**	**TOTAL**
PART 00200 - TEMPORARY FEATURES AND APPURTENANCES					
0210-0100000A	MOBILIZATION	LS	All	10%	$63,180
0225-0100000A	TEMPORARY PROTECTION & DIRECTION OF TRAFFIC	LS	All	2%	$13,000
0280-0100000A	EROSION CONTROL	LS	All	1%	$7,000
0290-0100000A	POLLUTION CONTROL PLAN	LS	All	$600.00	$600
PART 00300 - ROADWORK					
0305-0100000A	CONSTRUCTION SURVEY WORK	LS	All	2%	$12,000
0320-0100000A	CLEARING AND GRUBBING	LS	All	$4,000.00	$4,000
0330-0105000K	GENERAL EXCAVATION	CUYD	7,000	$13.00	$91,000
0331-0109000J	18 INCH SUBGRADE STABILIZATION	SQYD	700	$20	$14,000
0350-0105000J	SUBGRADE GEOTEXTILE	SQYD	2,000	$1	$2,000
0390-0105000K	LOOSE RIPRAP, CLASS 50	CUYD	20	$110	$2,200
PART 00400 - DRAINAGE AND SEWERS					
0445-035024AF	24 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	500	$70	$35,000
0445-060006AF	12 INCH SAN. SEWER PIPE, 10 FT DEPTH	FOOT	0	$100	$0
0445-060012AF	12 INCH WATERLINE, 5 FT DEPTH	FOOT	0	$75	$0
0445-0735050F	VIDEO INSPECTION	FOOT	1,000	$3	$3,000
470	CONCRETE STORM SEWER MANHOLES	EACH	1	$4,000	$4,000
470	CONCRETE INLETS	EACH	2	$1,500	$3,000
0490-0104000E	CONNECTION TO EXISTING STRUCTURES	EACH	0	$5,000	$2,000
PART 00500 - BRIDGES					
0500	4' X 4' REINFORCED CONCRETE BOX CULVERT	FOOT	0	$300	$0
PART 00600 - BASES					
0620-0120000J	COLD PLANE PAVEMENT REMOVAL, 2 INCHES DEEP	SQYD	400	$1	$400
0641-0102000M	AGGREGATE BASE	TON	3,000	$25	$75,000
PART 00700 - WEARING SURFACES					
0745-0202000M	LEVEL 3, 1/2 INCH DENSE HMAC	TON	1,200	$60	$72,000
0745-0620000M	PG 64-22 ASPHALT IN HMAC	TON	50	$500	$25,000
0749-0100000E	EXTRA FOR ASPHALT APPROACHES	EACH	1	$475	$380
0759-0102000F	CONCRETE CURBS, MODIFIED	FOOT	0	$24	$0
0759-0103000F	CONCRETE CURBS, CURB AND GUTTER	FOOT	1,000	$17	$17,000
0759-0106000F	CONCRETE CURBS, LOW PROFILE MOUNTABLE CURB	FOOT	0	$15	$0
0759-0110000F	CONCRETE CURBS, STANDARD CURB	FOOT	200	$15	$3,000
0759-0126000J	CONCRETE DRIVEWAYS	SQFT	0	$6	$0
0759-0128000J	CONCRETE WALKS	SQFT	0	$6	$0
PART 00800 - PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES					
0851-0101000F	PAVEMENT LINE REMOVAL	FOOT	200	$0	$70
0855-0100000E	MONO-DIRECTIONAL WHITE TYPE 1 MARKERS	EACH	2	$5	$10
0855-0102000E	BI-DIRECTIONAL YELLOW TYPE 1 MARKERS	EACH	0	$5	$0
0865-0103000F	THERMOPLASTIC, PROFILE, 120 MILS, EXTRUDED	FOOT	200	$1	$200
0865-0107000F	THERMOPLASTIC, NON-PROFILE, 120 MILS, EXTRUDED	FOOT	40	$1	$40
0867-0103100E	PAVEMENT LEGEND, TYPE B-HS: ARROWS	EACH	2	$250	$500
0867-0131000E	PAVEMENT LEGEND, TYPE B-HS: BICYCLE LANE STENCIL	EACH	2	$250	$500
0865-0116500F	METHYL METHACRYLATE, EXTRUDED, SURFACE, PROFILED	FOOT	800	$2	$1,600
0867-0144000J	PAVEMENT BAR, TYPE B-HS	SQFT	200	$8	$1,600
PART 00900 - PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS					
0940-0107000J	SIGNS IN PLACE	SQFT	200	$50	$10,000
0970-0104000A	LUMINAIRES, LAMPS AND BALLASTS	LS	All	$10,000	$10,000
0970-0105000A	SWITCHING, CONDUIT AND WIRING	LS	All	$4,000	$4,000

CONCEPT PLAN - COST ESTIMATE

DAVID EVANS AND ASSOCIATES, INC. - ROADWAY ENGINEERING

SECTION				COUNTY	
OR213 only (Meyers Rd. Extension)				Clackamas	
KEY NUMBER	KIND OF WORK	LENGTH	DATE	ROADWAY DESIGNER	
	Grading, Drainage, Paving, Signing, Illumination, Signals & Roadside Development	0.21 miles	9/10/15	David Evans & Assoc., Inc. Mike Hickey	
ITEM NUMBER	**ITEM DESCRIPTION**	**UNIT**	**AMOUNT**	**UNIT COST**	**TOTAL**
0990-0102000A	TRAFFIC SIGNAL MODIFICATION @ OR213 AND MEYERS RD	LS	All	$200,000	$200,000
PART 01000 - RIGHT-OF-WAY DEVELOPMENT AND CONTROL					
1030-0115000A	PERMANENT SEEDING, MIX NO. 1 - ROADSIDE SEEDING	ACRE	1	$2,000	$2,400
1030-0116000A	PERMANENT SEEDING, MIX NO. 2 - WATER QUALITY SEEDING	ACRE	0	$3,000	$1,200
1040-0101000K	TOPSOIL	CUYD	400	$30	$12,000
1040-0126000E	DECIDUOUS TREES, 1 INCH CALIPER	EACH	0	$201	$0
1040-0130000E	DECIDUOUS TREES, 2 INCH CALIPER	EACH	0	$266	$0
1040-0155000E	SHRUBS, NO. 3 CONTAINER	EACH	0	$12	$0
1040-0171000E	GROUNDCOVERS, NO. 1 CONTAINER	EACH	40	$10	$400
1040-0182000E	WETLAND PLANTS, BARE ROOT	EACH	0	$1	$0
1040-0194000K	COMPOST MULCH	CUYD	40	$33	$1,320
1040-0197000A	PLANT ESTABLISHMENT WORK	LS	All	$400	$400
1040-0206000F	ROOT BARRIER	FOOT	0	$8	$0
1040-	WEED KILLING & REMOVAL	LS	All	$0	$0
1120-0100000A	IRRIGATION SYSTEM	LS	All	$0	$0
	GATEWAY FEATURE	LS	All	$0	$0
SUBTOTAL, Construction Items					**$695,000**
CONST. ENGINEERING		20.0% E&C =>		16.5%	$114,675
CONTINGENCIES				3.5%	$24,325
ANTICIPATED ITEMS					$0.00
TOTAL CONSTRUCTION COST ESTIMATE					**$834,000.00**
PRELIMINARY ENGINEERING				0.0%	$0.00
ENVIRONMENTAL					$0.00
RIGHT-OF-WAY COSTS					$0.00
OTHER					$0.00

CONCEPT PLAN - COST ESTIMATE

DAVID EVANS AND ASSOCIATES, INC. - ROADWAY ENGINEERING

SECTION				COUNTY	
Meyers Road Only (Meyers Rd. Extension)				Clackamas	
KEY NUMBER	KIND OF WORK Grading, Drainage, Paving, Signing, Illumination & Roadside Development	LENGTH 0.41 miles	DATE 9/10/15	ROADWAY DESIGNER David Evans & Assoc., Inc. Mike Hickey	
ITEM NUMBER	**ITEM DESCRIPTION**	**UNIT**	**AMOUNT**	**UNIT COST**	**TOTAL**
PART 00200 - TEMPORARY FEATURES AND APPURTENANCES					
0210-0100000A	MOBILIZATION	LS	All	10%	$236,310
0225-0100000A	TEMPORARY PROTECTION & DIRECTION OF TRAFFIC	LS	All	2%	$46,000
0280-0100000A	EROSION CONTROL	LS	All	1%	$23,000
0290-0100000A	POLLUTION CONTROL PLAN	LS	All	$2,400.00	$2,400
PART 00300 - ROADWORK					
0305-0100000A	CONSTRUCTION SURVEY WORK	LS	All	2%	$45,000
0320-0100000A	CLEARING AND GRUBBING	LS	All	$16,000.00	$16,000
0330-0105000K	GENERAL EXCAVATION	CUYD	28,000	$13.00	$364,000
0331-0109000J	18 INCH SUBGRADE STABILIZATION	SQYD	2,800	$20	$56,000
0350-0105000J	SUBGRADE GEOTEXTILE	SQYD	8,000	$1	$8,000
0390-0105000K	LOOSE RIPRAP, CLASS 50	CUYD	80	$110	$8,800
PART 00400 - DRAINAGE AND SEWERS					
0445-035024AF	24 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	2,000	$70	$140,000
0445-060006AF	12 INCH SAN. SEWER PIPE, 10 FT DEPTH	FOOT	2,500	$100	$250,000
0445-060012AF	12 INCH WATERLINE, 5 FT DEPTH	FOOT	2,500	$75	$187,500
0445-0735050F	VIDEO INSPECTION	FOOT	4,000	$3	$12,000
470	CONCRETE STORM SEWER MANHOLES	EACH	4	$4,000	$16,000
470	CONCRETE INLETS	EACH	8	$1,500	$12,000
0490-0104000E	CONNECTION TO EXISTING STRUCTURES	EACH	2	$5,000	$8,000
PART 00500 - BRIDGES					
0500	4' X 4' REINFORCED CONCRETE BOX CULVERT	FOOT	120	$300	$36,000
PART 00600 - BASES					
0620-0120000J	COLD PLANE PAVEMENT REMOVAL, 2 INCHES DEEP	SQYD	1,600	$1	$1,600
0641-0102000M	AGGREGATE BASE	TON	12,000	$25	$300,000
PART 00700 - WEARING SURFACES					
0745-0202000M	LEVEL 3, 1/2 INCH DENSE HMAC	TON	4,800	$60	$288,000
0745-0620000M	PG 64-22 ASPHALT IN HMAC	TON	200	$500	$100,000
0749-0100000E	EXTRA FOR ASPHALT APPROACHES	EACH	3	$475	$1,520
0759-0102000F	CONCRETE CURBS, MODIFIED	FOOT	0	$24	$0
0759-0103000F	CONCRETE CURBS, CURB AND GUTTER	FOOT	4,000	$17	$68,000
0759-0106000F	CONCRETE CURBS, LOW PROFILE MOUNTABLE CURB	FOOT	0	$15	$0
0759-0110000F	CONCRETE CURBS, STANDARD CURB	FOOT	800	$15	$12,000
0759-0126000J	CONCRETE DRIVEWAYS	SQFT	0	$6	$0
0759-0128000J	CONCRETE WALKS	SQFT	25,000	$6	$137,500
PART 00800 - PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES					
0851-0101000F	PAVEMENT LINE REMOVAL	FOOT	800	$0	$280
0855-0100000E	MONO-DIRECTIONAL WHITE TYPE 1 MARKERS	EACH	8	$5	$40
0855-0102000E	BI-DIRECTIONAL YELLOW TYPE 1 MARKERS	EACH	0	$5	$0
0865-0103000F	THERMOPLASTIC, PROFILE, 120 MILS, EXTRUDED	FOOT	800	$1	$800
0865-0107000F	THERMOPLASTIC, NON-PROFILE, 120 MILS, EXTRUDED	FOOT	160	$1	$160
0867-0103100E	PAVEMENT LEGEND, TYPE B-HS: ARROWS	EACH	8	$250	$2,000
0867-0131000E	PAVEMENT LEGEND, TYPE B-HS: BICYCLE LANE STENCIL	EACH	8	$250	$2,000
0865-0116500F	METHYL METHACRYLATE, EXTRUDED, SURFACE, PROFILED	FOOT	3,200	$2	$6,400
0867-0144000J	PAVEMENT BAR, TYPE B-HS	SQFT	800	$8	$6,400
PART 00900 - PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS					
0940-0107000J	SIGNS IN PLACE	SQFT	800	$50	$40,000
0970-0104000A	LUMINAIRES, LAMPS AND BALLASTS	LS	All	$40,000	$40,000
0970-0105000A	SWITCHING, CONDUIT AND WIRING	LS	All	$16,000	$16,000

CONCEPT PLAN - COST ESTIMATE

DAVID EVANS AND ASSOCIATES, INC. - ROADWAY ENGINEERING

SECTION				COUNTY	
Meyers Road Only (Meyers Rd. Extension)				Clackamas	
KEY NUMBER	KIND OF WORK Grading, Drainage, Paving, Signing, Illumination & Roadside Development	LENGTH 0.41 miles	DATE 9/10/15	ROADWAY DESIGNER David Evans & Assoc., Inc. Mike Hickey	
ITEM NUMBER	**ITEM DESCRIPTION**	**UNIT**	**AMOUNT**	**UNIT COST**	**TOTAL**
0990-0102000A	TRAFFIC SIGNAL MODIFICATION @ OR213 AND MEYERS RD	LS	All	$0	$0
PART 01000 - RIGHT-OF-WAY DEVELOPMENT AND CONTROL					
1030-0115000A	PERMANENT SEEDING, MIX NO. 1 - ROADSIDE SEEDING	ACRE	5	$2,000	$9,600
1030-0116000A	PERMANENT SEEDING, MIX NO. 2 - WATER QUALITY SEEDING	ACRE	2	$3,000	$4,800
1040-0101000K	TOPSOIL	CUYD	1,600	$30	$48,000
1040-0126000E	DECIDUOUS TREES, 1 INCH CALIPER	EACH	50	$201	$10,025
1040-0130000E	DECIDUOUS TREES, 2 INCH CALIPER	EACH	25	$266	$6,638
1040-0155000E	SHRUBS, NO. 3 CONTAINER	EACH	100	$12	$1,200
1040-0171000E	GROUNDCOVERS, NO. 1 CONTAINER	EACH	160	$10	$1,600
1040-0182000E	WETLAND PLANTS, BARE ROOT	EACH	1,000	$1	$1,000
1040-0194000K	COMPOST MULCH	CUYD	160	$33	$5,280
1040-0197000A	PLANT ESTABLISHMENT WORK	LS	All	$1,600	$1,600
1040-0206000F	ROOT BARRIER	FOOT	1,000	$8	$8,000
1040-	WEED KILLING & REMOVAL	LS	All	$2,000	$2,000
1120-0100000A	IRRIGATION SYSTEM	LS	All	$0	$0
	GATEWAY FEATURE	LS	All	$10,000	$10,000
SUBTOTAL, Construction Items					**$2,599,453**
CONST. ENGINEERING		20.0% E&C =>		16.5%	$428,910
CONTINGENCIES				3.5%	$90,981
ANTICIPATED ITEMS					$0.00
TOTAL CONSTRUCTION COST ESTIMATE					**$3,119,343.00**
PRELIMINARY ENGINEERING				0.0%	$0.00
ENVIRONMENTAL					$0.00
RIGHT-OF-WAY COSTS					$0.00
OTHER					$0.00

CONCEPT PLAN - COST ESTIMATE

DAVID EVANS AND ASSOCIATES, INC. - ROADWAY ENGINEERING

SECTION				COUNTY	
CCC Access Only (Meyers Rd. Extension)				Clackamas	
KEY NUMBER	KIND OF WORK	LENGTH	DATE	ROADWAY DESIGNER	
	Grading, Drainage, Paving, Signing, Illumination & Roadside Development	0.04 miles	9/10/15	David Evans & Assoc., Inc. Mike Hickey	
ITEM NUMBER	**ITEM DESCRIPTION**	**UNIT**	**AMOUNT**	**UNIT COST**	**TOTAL**
PART 00200 - TEMPORARY FEATURES AND APPURTENANCES					
0210-0100000A	MOBILIZATION	LS	All	10%	$5,950
0225-0100000A	TEMPORARY PROTECTION & DIRECTION OF TRAFFIC	LS	All	0%	$10
0280-0100000A	EROSION CONTROL	LS	All	0%	$0
0290-0100000A	POLLUTION CONTROL PLAN	LS	All	$30.00	$30
PART 00300 - ROADWORK					
0305-0100000A	CONSTRUCTION SURVEY WORK	LS	All	2%	$2,000
0320-0100000A	CLEARING AND GRUBBING	LS	All	$200.00	$200
0330-0105000K	GENERAL EXCAVATION	CUYD	700	$13.00	$9,100
0331-0109000J	18 INCH SUBGRADE STABILIZATION	SQYD	35	$20	$700
0350-0105000J	SUBGRADE GEOTEXTILE	SQYD	100	$1	$100
0390-0105000K	LOOSE RIPRAP, CLASS 50	CUYD	80	$110	$0
PART 00400 - DRAINAGE AND SEWERS					
0445-035024AF	24 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	25	$70	$1,750
0445-060006AF	12 INCH SAN. SEWER PIPE, 10 FT DEPTH	FOOT	0	$100	$0
0445-060012AF	12 INCH WATERLINE, 5 FT DEPTH	FOOT	0	$75	$0
0445-0735050F	VIDEO INSPECTION	FOOT	50	$3	$150
470	CONCRETE STORM SEWER MANHOLES	EACH	0	$4,000	$200
470	CONCRETE INLETS	EACH	0	$1,500	$300
0490-0104000E	CONNECTION TO EXISTING STRUCTURES	EACH	0	$5,000	$0
PART 00500 - BRIDGES					
0500	4' X 4' REINFORCED CONCRETE BOX CULVERT	FOOT	0	$300	$0
PART 00600 - BASES					
0620-0120000J	COLD PLANE PAVEMENT REMOVAL, 2 INCHES DEEP	SQYD	0	$1	$0
0641-0102000M	AGGREGATE BASE	TON	465	$25	$11,625
PART 00700 - WEARING SURFACES					
0745-0202000M	LEVEL 3, 1/2 INCH DENSE HMAC	TON	189	$60	$11,340
0745-0620000M	PG 64-22 ASPHALT IN HMAC	TON	8	$500	$4,050
0749-0100000E	EXTRA FOR ASPHALT APPROACHES	EACH	0	$475	$95
0759-0102000F	CONCRETE CURBS, MODIFIED	FOOT	0	$24	$0
0759-0103000F	CONCRETE CURBS, CURB AND GUTTER	FOOT	378	$17	$6,426
0759-0106000F	CONCRETE CURBS, LOW PROFILE MOUNTABLE CURB	FOOT	0	$15	$0
0759-0110000F	CONCRETE CURBS, STANDARD CURB	FOOT	0	$15	$0
0759-0126000J	CONCRETE DRIVEWAYS	SQFT	0	$6	$0
0759-0128000J	CONCRETE WALKS	SQFT	1,250	$6	$6,875
PART 00800 - PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES					
0851-0101000F	PAVEMENT LINE REMOVAL	FOOT	0	$0	$0
0855-0100000E	MONO-DIRECTIONAL WHITE TYPE 1 MARKERS	EACH	0	$5	$0
0855-0102000E	BI-DIRECTIONAL YELLOW TYPE 1 MARKERS	EACH	0	$5	$0
0865-0103000F	THERMOPLASTIC, PROFILE, 120 MILS, EXTRUDED	FOOT	0	$1	$0
0865-0107000F	THERMOPLASTIC, NON-PROFILE, 120 MILS, EXTRUDED	FOOT	0	$1	$0
0867-0103100E	PAVEMENT LEGEND, TYPE B-HS: ARROWS	EACH	1	$250	$125
0867-0131000E	PAVEMENT LEGEND, TYPE B-HS: BICYCLE LANE STENCIL	EACH	0	$250	$0
0865-0116500F	METHYL METHACRYLATE, EXTRUDED, SURFACE, PROFILED	FOOT	0	$2	$0
0867-0144000J	PAVEMENT BAR, TYPE B-HS	SQFT	20	$8	$160
PART 00900 - PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS					
0940-0107000J	SIGNS IN PLACE	SQFT	20	$50	$1,000
0970-0104000A	LUMINAIRES, LAMPS AND BALLASTS	LS	All	$500	$500
0970-0105000A	SWITCHING, CONDUIT AND WIRING	LS	All	$200	$200

CONCEPT PLAN - COST ESTIMATE

DAVID EVANS AND ASSOCIATES, INC. - ROADWAY ENGINEERING

SECTION				COUNTY	
CCC Access Only (Meyers Rd. Extension)				Clackamas	
KEY NUMBER	KIND OF WORK	LENGTH	DATE	ROADWAY DESIGNER	
	Grading, Drainage, Paving, Signing, Illumination & Roadside Development	0.04 miles	9/10/15	David Evans & Assoc., Inc. Mike Hickey	
ITEM NUMBER	**ITEM DESCRIPTION**	**UNIT**	**AMOUNT**	**UNIT COST**	**TOTAL**
0990-0102000A	TRAFFIC SIGNAL MODIFICATION @ OR213 AND MEYERS RD	LS	All	$0	$0
PART 01000 - RIGHT-OF-WAY DEVELOPMENT AND CONTROL					
1030-0115000A	PERMANENT SEEDING, MIX NO. 1 - ROADSIDE SEEDING	ACRE	0	$2,000	$120
1030-0116000A	PERMANENT SEEDING, MIX NO. 2 - WATER QUALITY SEEDING	ACRE	0	$3,000	$300
1040-0101000K	TOPSOIL	CUYD	40	$30	$1,200
1040-0126000E	DECIDUOUS TREES, 1 INCH CALIPER	EACH	1	$201	$201
1040-0130000E	DECIDUOUS TREES, 2 INCH CALIPER	EACH	1	$266	$133
1040-0155000E	SHRUBS, NO. 3 CONTAINER	EACH	2	$12	$24
1040-0171000E	GROUNDCOVERS, NO. 1 CONTAINER	EACH	4	$10	$40
1040-0182000E	WETLAND PLANTS, BARE ROOT	EACH	0	$1	$0
1040-0194000K	COMPOST MULCH	CUYD	4	$33	$132
1040-0197000A	PLANT ESTABLISHMENT WORK	LS	All	$40	$40
1040-0206000F	ROOT BARRIER	FOOT	20	$8	$160
1040-	WEED KILLING & REMOVAL	LS	All	$40	$40
1120-0100000A	IRRIGATION SYSTEM	LS	All	$0	$0
	GATEWAY FEATURE	LS	All	$200	$200
SUBTOTAL, Construction Items					**$65,475**
CONST. ENGINEERING		20.0% E&C =>		16.5%	$10,803
CONTINGENCIES				3.5%	$2,292
ANTICIPATED ITEMS					$0.00
TOTAL CONSTRUCTION COST ESTIMATE					**$78,570.31**
PRELIMINARY ENGINEERING				0.0%	$0.00
ENVIRONMENTAL					$0.00
RIGHT-OF-WAY COSTS					$0.00
OTHER					$0.00