

DRAFT MEYERS ROAD ALTERNATIVES ANALYSIS MEMORANDUM



Prepared for

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INTRODUCTION

This memorandum reviews the preferred alternative for extending Meyers Road to connect Highway 213 and High School Road in Oregon City. In addition, this memorandum summarizes the process for developing the preferred alternative including assessing different alternatives, the criteria used to determine the preferred alternative for making the connection, and the traffic considerations guiding the development of the alternative and preferred alternative. The alternatives assessment is divided into the following sections:

- Summary of Project Management Team meetings and information gathering from stakeholders.
- Key Considerations: This section provides a matrix with key considerations, by topic, to help inform the conceptual alternatives development process.
- Alternatives Development and Analysis: This section reviews the development of the three preliminary alternatives and the development of the hybrid/preferred alternative.
- Preferred Alternative Assessment: This section assesses the advantages of the preferred alternative relative to the project criteria, environmental issues, transportation issues, engineering issues and anticipated cost.

PROJECT MANAGEMENT TEAM MEETINGS AND PROCESS

Oregon City convened a Meyers Road Extension Project Management Team (PMT) which included: participants from three Oregon City departments (Public Works, Planning, and Parks); the Oregon Department of Transportation; the Clackamas Community College (CCC); Oregon City School District (OCSD), and the consultant team to guide the development of the project to reflect the needs of the key stakeholders. Minutes from the PMT 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 for alternatives 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 the need to adequately provide bike and pedestrian facilities for students and people wanting to reach the park and other destinations.

- PMT #3 April 30, 2015: The team discussed input from the Caulfield neighborhood meeting, a preferred Loder Road connection to Meyers Road, and the implications of a roundabout connection to inform design decisions. In addition, the PMT reviewed three preliminary alternative alignments, preliminary cross section treatments, and discussed how well they met the project screening criteria. The PMT discussed the need for more traffic analysis to understand the implications of adding right turn lane at Meyers Road and Highway 213. After review, the PMT provided direction to create a new, hybrid alternative with a new cross section as a preferred alternative. The features of the preferred alternative are discussed below.

In addition to the PMT meetings, the City engaged the Caulfield Neighborhood Association, the Oregon City Transportation Advisory Committee (TAC), TriMet, and the adjacent property owners to get feedback on road design and alignments. In general, the Caulfield Neighborhood was supportive of the connection with a concern about additional residential development impacting traffic. They were also supportive of having Loder Road connect to High School Road rather than directly into the Meyers Road extension. The project was discussed at the TAC on 4/22/15 and 5/19/15. (See Appendix A.) The TAC was generally supportive, but had questions about the best treatment for connecting to Loder Road and providing bicycle facilities. Property owners were generally supportive with concerns about each having direct access to the new roadway and not having their properties divided into small remnants that would be difficult to develop. Minutes and summaries from the property owner interviews are saved in Appendix B.

KEY CONSIDERATIONS

DESIGN CONSIDERATIONS SUMMARY MATRIX

The project design team developed three potential alignments based on design considerations included in the table below; engineering functionality and safety; discussions with the Meyers Road Project Management Team (PMT), adjacent property owners, and City conversations with the neighborhood association; and the alternative screening criteria developed by the consultant and refined by the PMT (see next section). The PMT asked that the roadway be designed for a 30-mile per hour travel speed for safety.

Table 1 summarizes the design considerations applied when developing alternatives based on existing conditions.

Table 1. Key Design 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.

Topic	Description	Key Considerations
	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.

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 environmental resources protection consistent with regional, state, and federal regulations.

ALTERNATIVE SCREENING CRITERIA

In addition to the key design considerations and engineering functionality and safety, as discussed above the consultant developed screening criteria to compare how well each of the alternatives met the needs of the project. The eleven screening criteria were taken into consideration when developing the preliminary alternatives. The alternatives were also reviewed for how well they met these criteria by the consultant team and the PMT. (See Appendix C for screening criteria table and Appendix A for summary of PMT meeting #3.)

SCREENING CRITERIA

- Consistent with current regional plans (TSP, RTP, School District, Parks, CCC Masterplan)
- Meet street functional classification requirements
- Provide options for connecting to (future) Loder Road extension.
- Maximize multimodal opportunities
- Design maximizes safety for all modes
- 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 on the adopted plans (Transportation System Plan, 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, a 30 mile per hour speed limit design, and the Industrial Arterial road design standard. In addition, although the TSP describes Meyers Road as a five-lane arterial, the cross sections were designed with three lanes as the additional two lanes are not necessary to meet capacity needs. In addition, a narrower footprint would have less property impacts.

The three preliminary alternatives and the Preferred Alternative are shown on Figure 1. The typical cross section for the preliminary alternatives is shown on Figure 2.

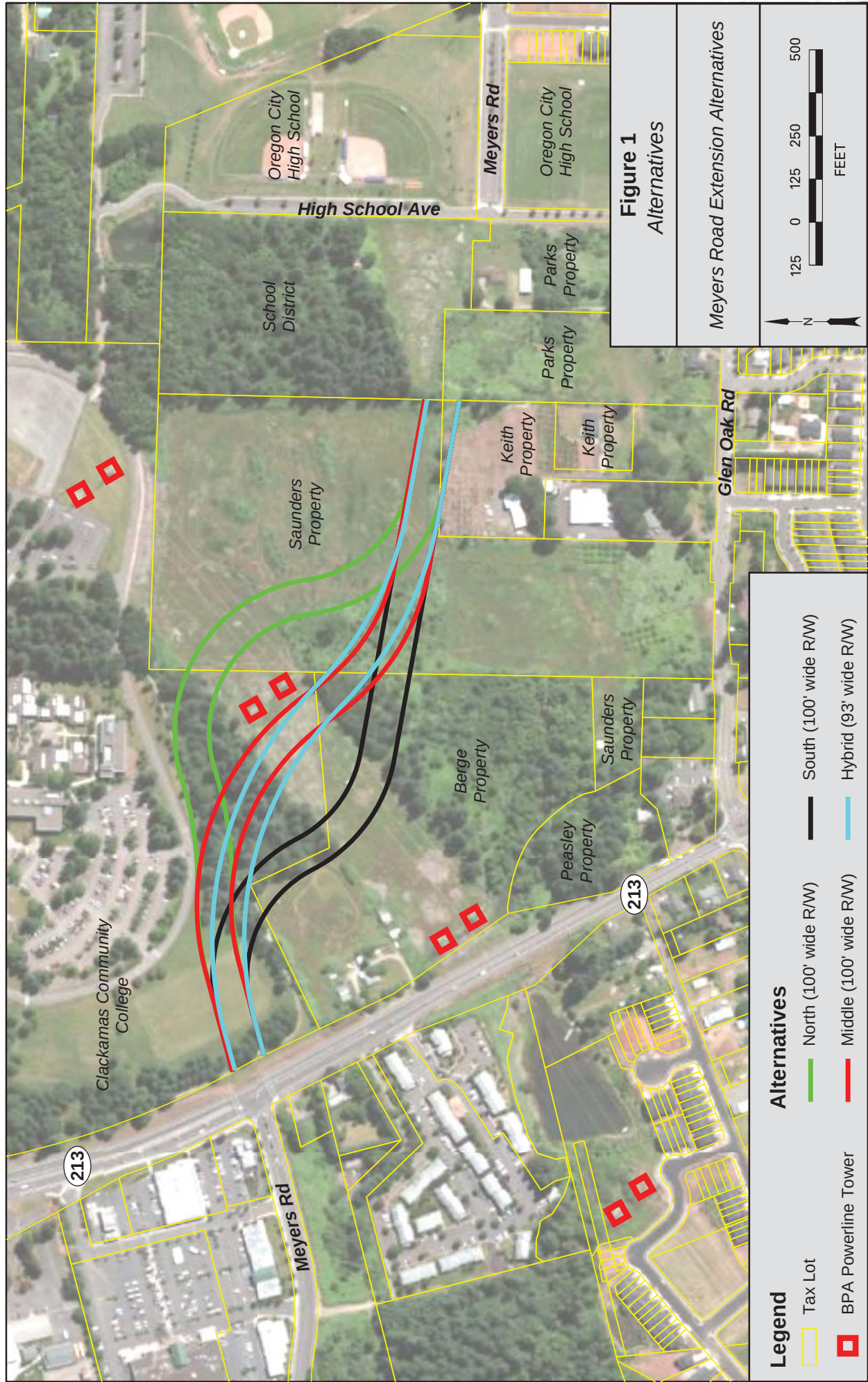
SIMILAR OVERALL PERFORMANCE FOR THREE PRELIMINARY ALTERNATIVES

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 #3. It is included in Appendix C.)

The differences in how they 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. It was also slightly more cost-effective when the new roadway connection to Kildeer Road at CCC was taken into account (as the connector would be shorter). (Overall, roadway costs were very similar, except for the extension to CCC.) Also, 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, while the North (Green) alternative did not.

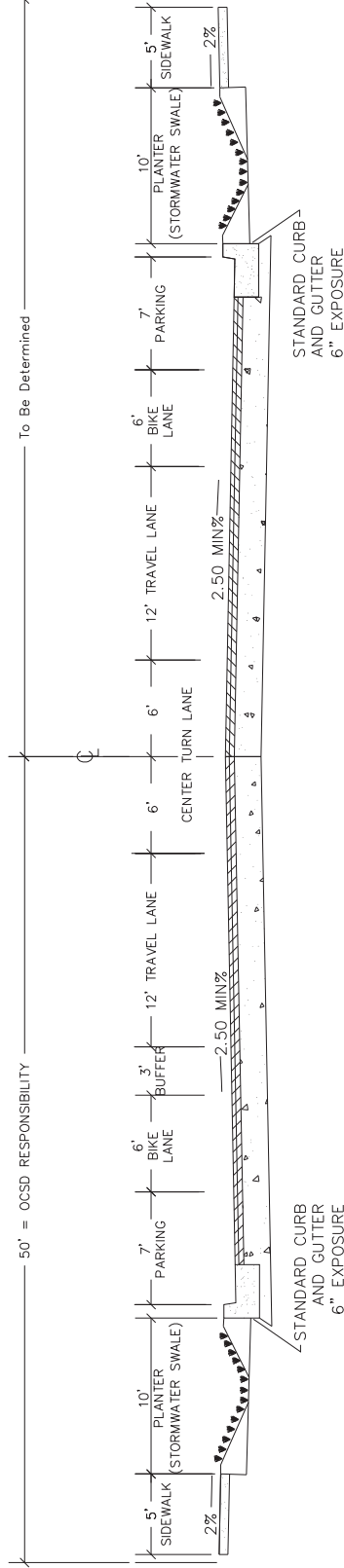
All three preliminary alternatives appeared to have very minimal and similar impacts to wetlands, as the field survey found only small intermittent wetlands along any of the possible routes. The North Alternative (Green) performed slightly better in regards to completely avoiding two sensitive areas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



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

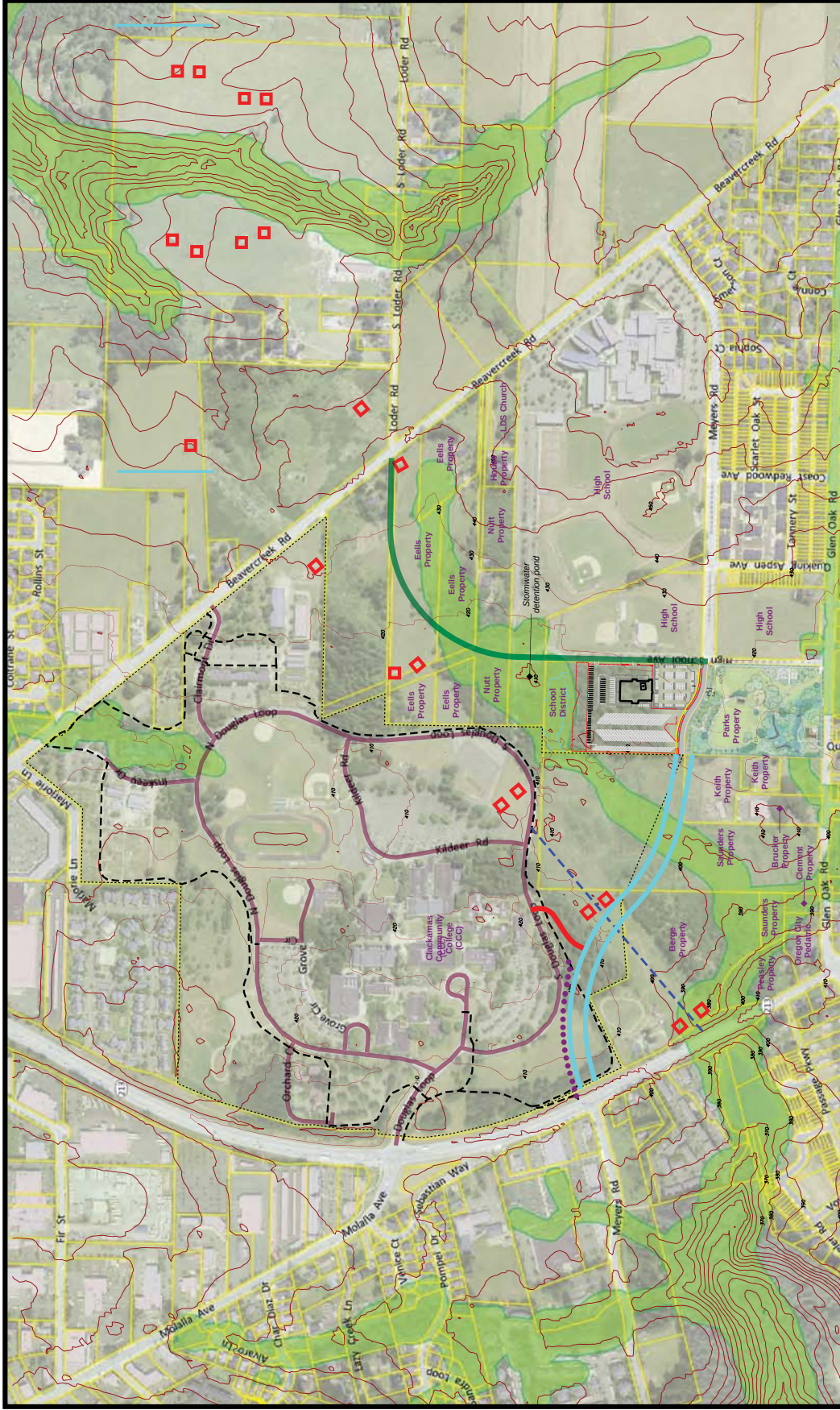
THE HYBRID/PREFERRED ALTERNATIVE

While the PMT agreed that the three preliminary alternatives all met the screening criteria fairly well, the team developed a hybrid alternative at the PMT #3 meeting that optimized the alternatives while meeting the project purpose.

The hybrid/preferred alternative is most similar to the Middle Alternative (Red). However, the alignment has flatter curves, and the cross-section is narrowed to 94 feet of right-of-way with parking removed from the north side of Meyers Road. (See Figure 3: Preferred Alternative.)

The narrower cross-section was developed to meet the needs of the stakeholders while reducing property and environmental impacts, allowing for improved trail connections, and improving safety for pedestrians and access to the future park. Removing parking on the north side the Meyers Road extension will 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 will tie into CCC at South Douglas Loop rather than Kildeer Road; allow for an excellent 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 Powerline easement to better connect CCC and the existing trail system with Highway 213 south of the Meyers Road intersection furthering 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 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/Updated 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.



A comparison of the property effects for the alternatives is included in Table 2, below. 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, as well. Figures 5-8 also show the property effects of the three preliminary alternatives and the Preferred 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)	
	Acre (Approx.)	Owner	Acre (Approx.)	Owner	Acre (Approx.)	Owner	Acre (Approx.)	Owner
Right-of-way needs	2.7	CCC	2.6	CCC	1.5	CCC	2.4	CCC
	2.4	Saunders	0.4	Berg	1.5	Berg	0.3	Berg
	0.2	Keith	1.8	Saunders	1.7	Saunders	1.6	Saunders
			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
	9.9	Saunders	>0.1	Berg	1.1	Berg	>0.1	Berg
	10.2	Saunders	14.2	Berg	12	Berg	14.2	Berg
	4.1	Keith	12.8	Saunders	13.1	Saunders	12.7	Saunders
			7.9	Saunders	7.7	Saunders	8.1	Saunders
			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 five 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 with the most land needed for the middle and south alignment connection.

In addition, the team reviewed impacts to habitat for the alternatives based on the research and reconnaissance discussed in the Baseline Conditions. As shown in Figure 9, all three had very limited, and very similar impacts to wetlands. However, as mentioned above, the North Alternative (Green) avoided impacts to two sensitive areas (oak woodland and fir forest) which although not regulated do provide habitat advantages.

CITY OF OREGON CITY

MEYERS ROAD EXTENSION ALTERNATIVES

Meyers Road Typical Section - Draft

5/6/2015

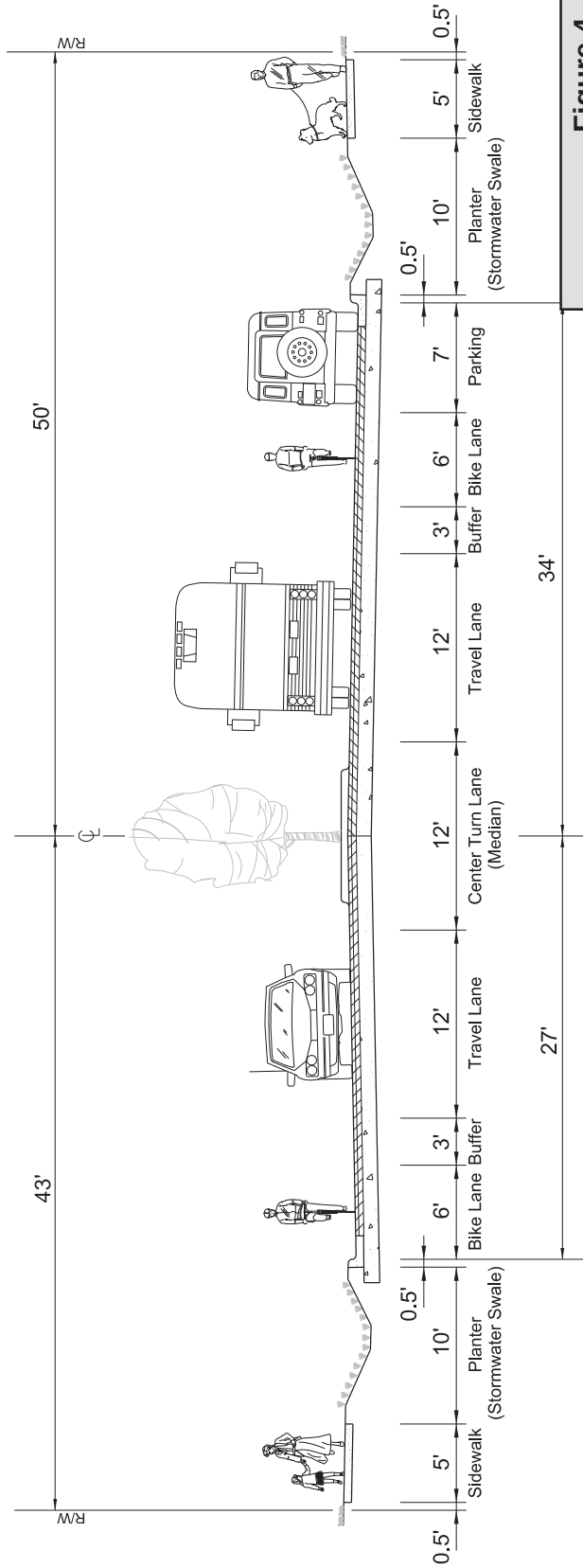
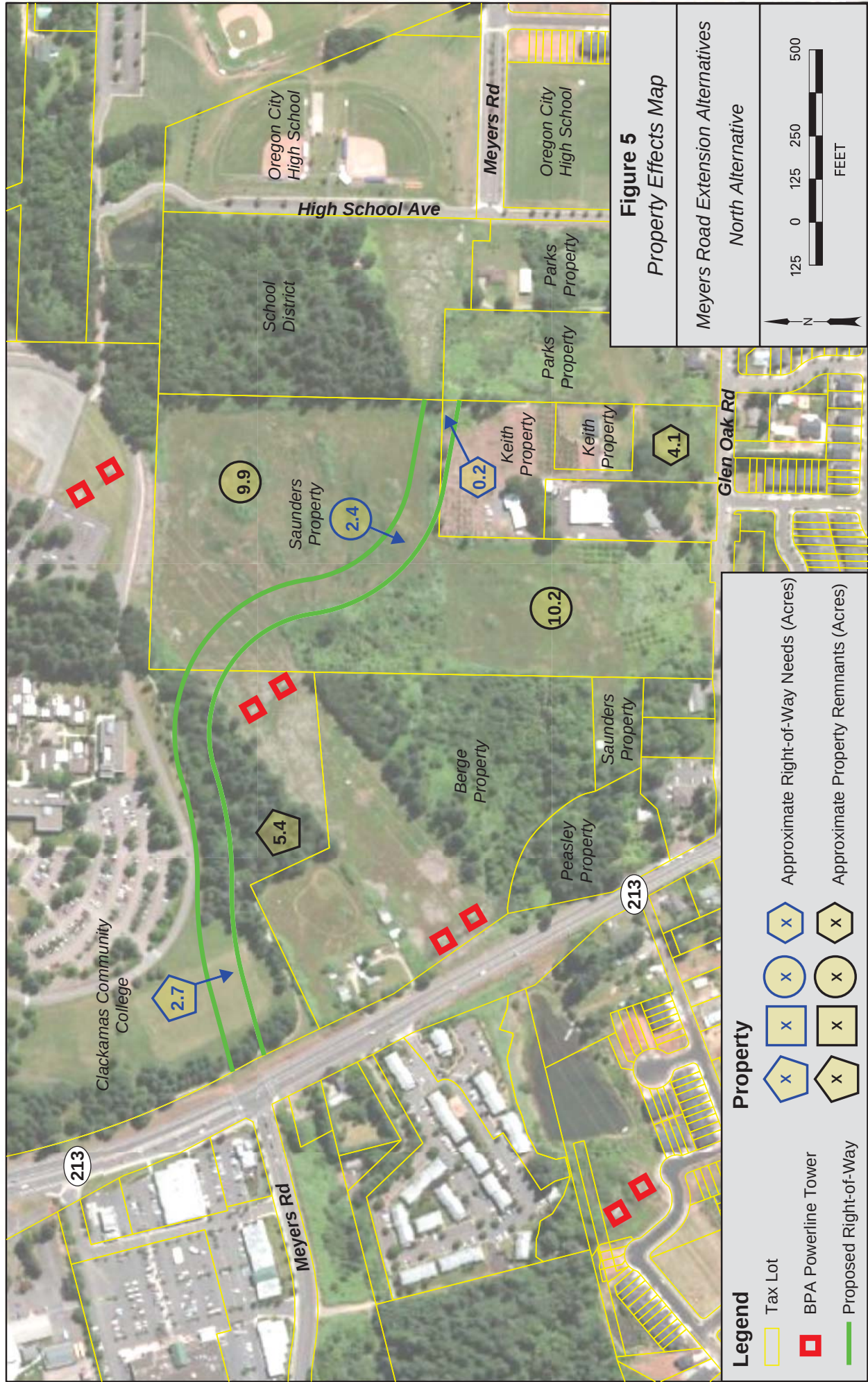
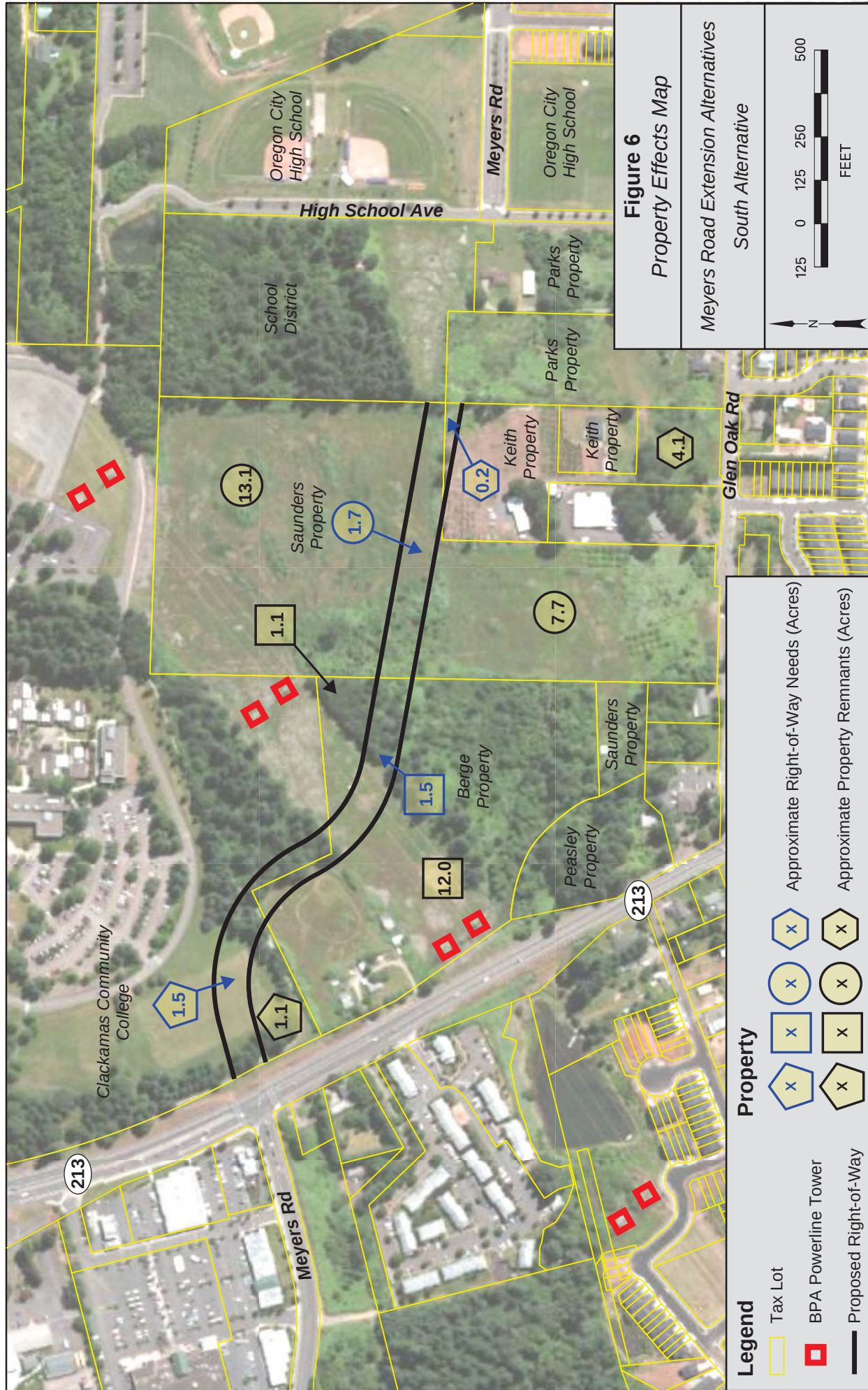
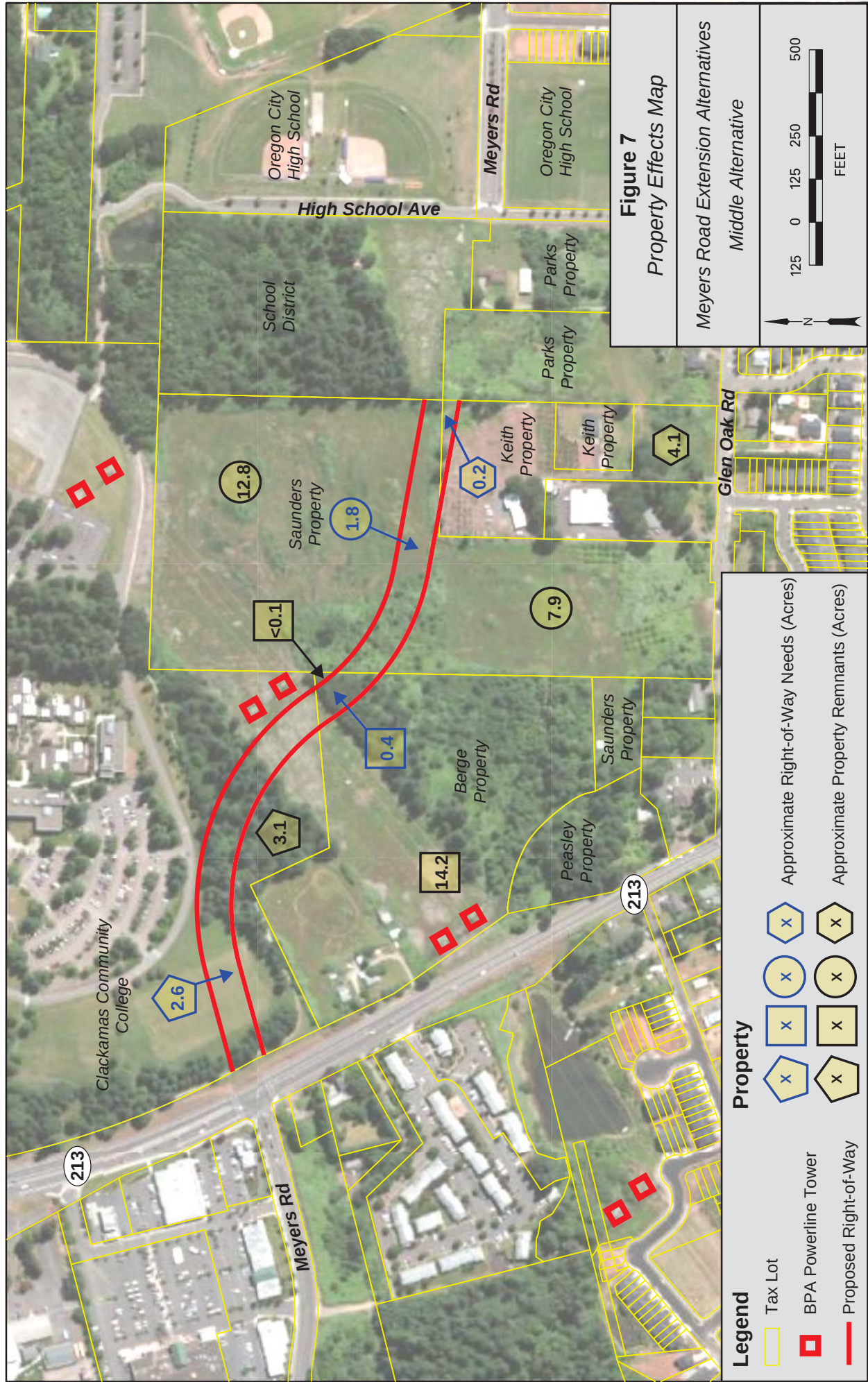


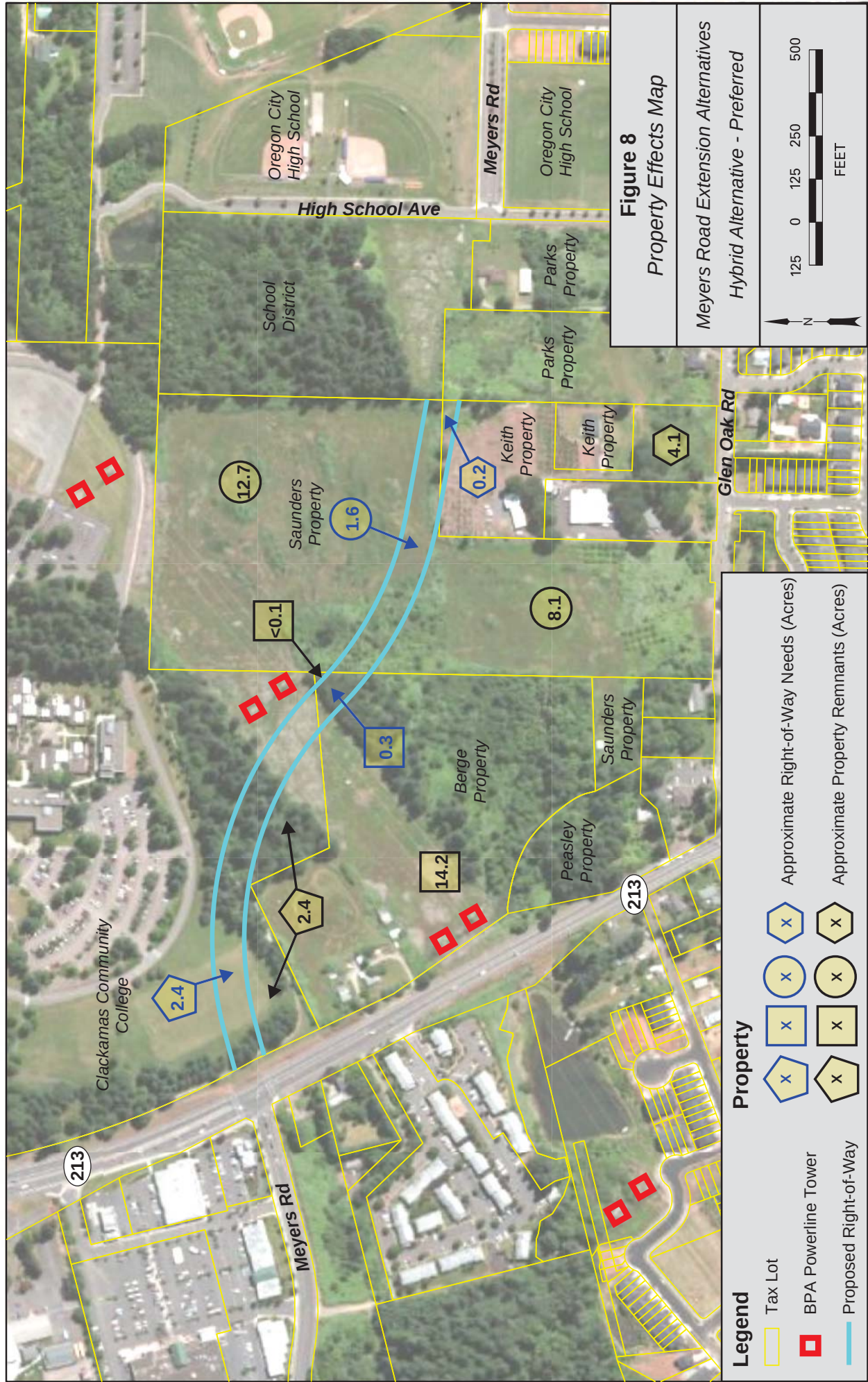
Figure 4
*Preferred Alternative
Cross Section*

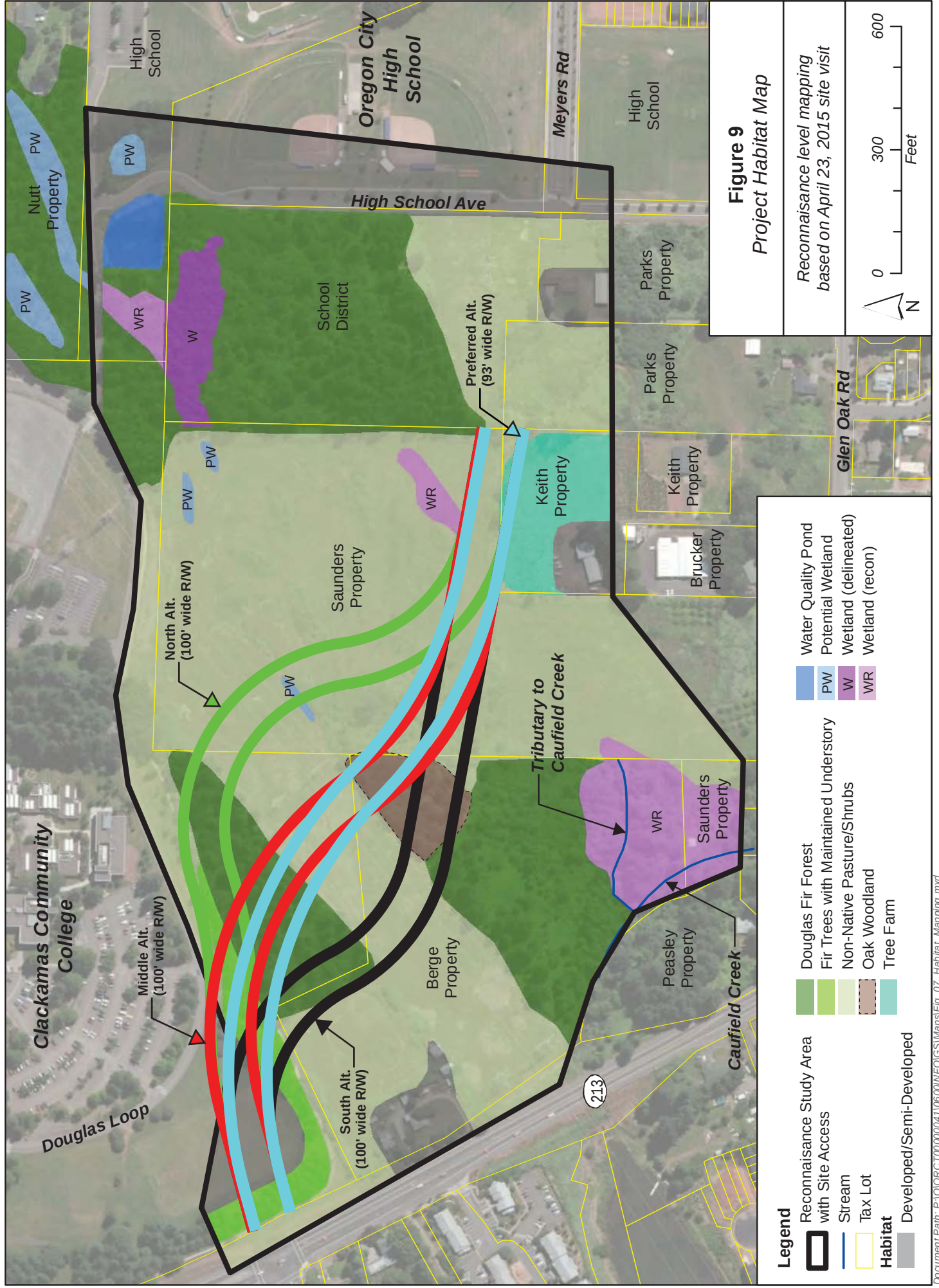
*Meyers Road Extension Alternatives
North Alternative*











PREFERRED ALTERNATIVE AND SCREENING CRITERIA

While the PMT agreed that the three preliminary alternatives all met the screening criteria fairly well, they felt a hybrid alternative would best meet the project purpose. This section demonstrates how the Preferred Alternative meets all eleven screening criteria.

- Consistent with current regional plans (TSP, RTP, School District, Parks, CCC Masterplan)

The Preferred Alternative provides the extension identified in the TSP and RTP from OR 213 to High School Road. 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 Highway 213.

- Meet street functional classification requirements

The TSP identifies Meyer Road as an Industrial Arterial, and the RTP 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 which is a context-sensitive solution to improve safety as discussed below.

- Provide options for connecting to (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 Road.

- Maximize multimodal opportunities

As mentioned above, the Preferred Alternative provides the extension identified in TSP and 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 City's Trails Master Plan, as well. The roadway will include quality bike and pedestrian facilities with six-foot bike lanes with three-foot buffers on both sides of the street, and five-foot sidewalks on both sides of the street separated from other traffic by ten-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 miles per hour, removing parking on one side of the street, providing separated sidewalks, and wide bike paths (6 –feet with a 3-foot buffer). The parking was removed on the north side of the street to improve safety. The design will discourage people from jaywalking to reach the

park when parking on the north side of Meyers Road, and improve site distance for buses accessing and exiting the new bus facility just north of the park.

- Be cost effective

The Preferred Alternative would be 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 with pedestrian facilities (five-foot sidewalk on each side of the street separated from the roadway by a ten-foot swale), bike facilities (six-foot bike lanes with a three-foot buffer on both sides), two auto lanes, and parking on the south side adjacent to the 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 recon wetland areas and by 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 input by the PMT (made of primary stakeholders). It also reflects input from the adjacent property owners and input from the neighborhood association and the TAC.

- Maximize developable land and minimize land remnants

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

CONCLUSIONS

The Meyers Road extension Preferred Alternative has been designed with input from the neighborhood association, the property owners, the TAC, and the PMT (which includes primary stakeholders). While there remains some traffic analysis to confirm optimal intersection configuration, and consequently final design and cost estimates based on the configuration, it is clear the Preferred Alternative meets the eleven screening criteria and will help the City attain its transportation planning goals and project purpose.

APPENDIX A: PMT MEETING MINUTES AND TAC MEETING MINUTES

APPENDIX B: PROPERTY OWNER INTERVIEW SUMMARY

APPENDIX C: PRELIMINARY ALTERNATIVES SCREENING CRITERIA TABLE

