CSA Planning, Ltd
4497 Brownridge, Suite 101
Medford, OR 97504

Telephone 541.779.0569
Fax 541.779.0114

Jay@CSAplanning.net

May 1, 2018

City of Ashland Mayor and Council
Attn: Derek Severson, Senior Planner
51 Winburn Way
Ashland, OR 97520

RE: ***Rebuttal to Anderson Letter Dated May 1, 2018; Planning Action 2018-154***

Dear Mayor and Council:

The City received a letter this morning from Craig Anderson raising certain objections under the Transportation Planning Rule (TPR). The relevant rule is Oregon Administrative Rule 660-012-0060. This letter constitutes Applicant's written rebuttal to the opposition letter submitted by Mr. Anderson, as follows:

PREFACE:
TPR has alternative regulatory paths in which transportation planning is balanced with land use planning. These regulatory paths are set forth in the rule. The objection primarily focuses on one such path at OAR 660-012-0060(9). The objection characterizes this rule as a "loophole". Oregon Administrative Rules are not loopholes. The particular rule at issue is one which is "permissive" because it is one which cities may apply but need not. In the subject application, the original application submittal took a different regulatory path to TPR compliance by providing a traffic study that demonstrated compliance with subsections (1), (2) and (3). The evidence in the record demonstrates that this regulatory path can be satisfied through the imposition of a trip cap, as allowed by these rules.

At the Planning Commission meeting, the Planning Staff suggested the City need not impose the trip cap and could instead determine TPR compliance under Subsection (9). ODOT provided comments on April 12 disagreeing with the Planning Staff's analysis and the findings in this regard adopted by the Planning Commission.

Regardless of the correct legal position, Applicant's position on the OAR 660-012-0060(9) matter is as follows:

1. The original application included a stipulation to a trip cap that demonstrates compliance with the TPR without the necessity of resolving the Subsection (9) issue. The City can impose the stipulated trip cap and this issue is moot.

2. As a technical matter the Applicant is inclined to agree with the application of Subsection (9) suggested by the Planning Staff at the Planning Commission. However, the Applicant has no interest in being the test case for this legal issue. Applicant would prefer that the trip cap be imposed and TPR compliance be determined under prior Subsections of that rule.

3. Ultimately, we believe more job opportunities in Ashland will be better for the region's transportation system.

REBUTTAL OF SPECIFIC ISSUES RAISED:

Opponent's Statewide Planning Goal Objection: Opponent states that the Statewide Planning Goals are directly applicable to annexation and zone change because the City of Ashland does not have annexation criteria within its Comprehensive Plan.

Rebuttal: The City of Ashland has adopted and acknowledged annexation criteria within its Land Development Ordinance which implements the Comprehensive Plan and requires certain specific compliance with the Comprehensive Plan. As such, Applicant does not concede that the Statewide Planning Goals are directly applicable to the subject quasi-judicial annexation and zone change that does not propose any comprehensive plan amendments.

Opponent's "Planned Improvements" Objection #2: Based upon point #1 on page 2 of the letter and a later point at the end of page 3 and top of page 4, it appears that opponent is arguing that the traffic analysis cannot assume construction of Independent Way in its traffic analysis for purposes of demonstrating compliance with TPR under subsections (1) through (3) of the TPR. There also appears to be a corollary argument that the proposed annexation and zone change is effectively an update to the Regional Transportation Plan.

Rebuttal: The objection letter does not reference the relevant rule, as follows:

(4) Determinations under sections (1)–(3) of this rule shall be coordinated with affected transportation facility and service providers and other affected local governments.

- In determining whether an amendment has a significant effect on an existing or planned transportation facility under subsection (1)(c) of this rule, local governments shall rely on existing transportation facilities and services and on the planned transportation facilities, improvements and services set forth in subsections (b) and (c) below.

(b) Outside of interstate interchange areas, the following are considered planned facilities, improvements and services:
  (A) Transportation facilities, improvements or services that are funded for construction or implementation in the Statewide Transportation Improvement Program or a locally or regionally adopted transportation improvement program or capital improvement plan or program of a transportation service provider.
  (B) Transportation facilities, improvements or services that are authorized in a local transportation system plan and for which a funding plan or mechanism is in place or approved. These include, but are not limited to, transportation facilities, improvements or services for which: transportation systems development charge revenues are being collected; a local improvement district or reimbursement district has been established or will be established prior to development; a development agreement has been adopted; or conditions of approval to fund the improvement have been adopted.
  (C) Transportation facilities, improvements or services in a metropolitan planning organization (MPO) area that are part of the area's federally-approved, financially constrained regional transportation system plan.
  (D) Improvements to state highways that are included as planned improvements in a regional or local transportation system plan or comprehensive plan when ODOT provides a written statement that the improvements are reasonably likely to be provided by the end of the planning period.
  (E) Improvements to regional and local roads, streets or other transportation facilities or services that are included as planned improvements in a regional or local transportation system plan or comprehensive plan when the local government(s) or transportation service provider(s) responsible for the facility, improvement or service provides a written statement that the facility, improvement or service is reasonably likely to be provided by the end of the planning period.

(c) Within interstate interchange areas, the improvements included in (b)(A)–(C) are considered planned facilities, improvements and services, except where:

(A) ODOT provides a written statement that the proposed funding and timing of mitigation measures are sufficient to avoid a significant adverse impact on the Interstate Highway system, then local governments may also rely on the improvements identified in paragraphs (b)(D) and (E) of this section; or
(B) There is an adopted interchange area management plan, then local governments may also rely on the improvements identified in that plan and which are also identified in paragraphs (b)(D) and (E) of this section.

(d) As used in this section and section (3):
(A) Planned interchange means new interchanges and relocation of existing interchanges that are authorized in an adopted transportation system plan or comprehensive plan;
(B) Interstate highway means Interstates 5, 82, 84, 105, 205 and 405; and
(C) Interstate interchange area means:
(i) Property within one-quarter mile of the ramp terminal intersection of an existing or planned interchange on an Interstate Highway; or
(ii) The interchange area as defined in the Interchange Area Management Plan adopted as an amendment to the Oregon Highway Plan.

(e) For purposes of this section, a written statement provided pursuant to paragraphs (b)(D), (b)(E) or (c)(A) provided by ODOT, a local government or transportation facility provider, as appropriate, shall be conclusive in determining whether a transportation facility, improvement or service is a planned transportation facility, improvement or service. In the absence of a written statement, a local government can only rely upon planned transportation facilities, improvements and services identified in paragraphs (b)(A)–(C) to determine whether there is a significant effect that requires application of the remedies in section (2).

Subsection 4 of the rule, makes clear that within determinations under subsections 1 through 3, applicants can rely on planned transportation facilities in (4)(b)(A-C) above regardless of whether you are in an interchange area or not. One potential argument being made by opponent is that a project must be on (4)(b)(A) and (4)(b)(B) and (4)(b)(C). This is absurd. In the first instance, MPO plans only apply in MPO areas so numerous planned facilities outside an MPO could not be relied upon all around the state. Under Subsection (B), facility improvement plans may be developed as part of the amendment process and the City and the Applicant could reach a funding agreement as part of the process. Under such a scenario, the improvement may not be in the MPO plan or any other adopted capital facility plan. For these reasons and other possible reasons as well, TPR allows traffic analyses that rely on (A) or (B) or (C). The Independent Way extension project is listed as project 162 in the RTP's financially constrained project list and the applicant is entitled to rely on it, per OAR 660-012-0060(4)(b)(C).

In response to the corollary objection, the Applicant rebuts as follows:

- The "planned projects" are not mutually exclusive to require listing on (4)(b) (A) and (B) and (C), as such nothing about the project is amending the regional transportation plan.

- OAR 660-012-0016 requirements are relevant to ***LEGISLATIVE*** obligations on the City of Ashland for transportation planning, but that does not preclude the reliance on planned projects under OAR 660-012-0060(4)(b)(C) for a ***QUASI-JUDICIAL*** annexation and zone change. If the opponent believes this a critical issue for Ashland's transportation system planning obligations there are other more appropriate remedies that do not have effect of rendering land that is identified as short-term employment land supply unavailable and upending the City's entire plan to comply with statewide planning Goal 9. The opponent could have, at any time, appeared at a regular Planning Commission or City Council meeting and requested the City take action under OAR 660-12-0016. If the opponent had taken such action, a simple finding of consistency under OAR 660-12-0060(0016) is all that is required.

- In the context of the subject application, the City's TSP includes Independent Way as a planned project and the RTP plans the project in its financially constrained list. The Applicant herewith testifies that they were directed by the City and ODOT to analyze the transportation impacts in this way. Approval of the zone change functions as a finding that the RTP is consistent with the Local TSP within the scope of this application.

- No argument has been presented that would cause one to conclude that the Independent Way extension project is inherently inconsistent with the RTP financially constrained list. All that is presented is an argument of plan consistency and timing. Moreover, Independent Way project went through its own land use entitlement process that was duly noticed and was approved to implement the City's TSP for this area and is a final land use decision. Construction of that project is consistent with City land use regulations.

Opponent's Transportation Demand Objection: Based upon point #3 on page 2 and point #2 on page 3 of the letter, it is difficult to know exactly what the objection is. Either the trip cap is too low or the City's development assumptions for the area are too high- or both? Ultimately, the objection alleges an internal inconsistency in the City's findings because the TIA estimates future traffic volumes of approximately 1,350 ADT when the opponent alleges they should be 8,600.

Rebuttal: The objection letter is geographically challenged. The 1,350 future year ADT from the Transportation Impact Analysis is specific to the section of Washington Street from Jefferson to Jefferson. The 45 acres of land development identified in the BLI is a wide area of land. See attached map.

Much of this potential land for development would not be expected to utilize the section of Washington Street between the Jefferson Street intersections very often. For example, the 7.5 acres in the North Washington area would be expected to use north Washington, Ashland and Tolman much more often. Perhaps fewer than 10 percent of their trips would utilize this section of Washington Street. The 7.7 acres on Jefferson Street would almost never use it, because it is completely out of the way. The 10.5 acres down by Benson would use it some but there are a lot of other choices from Crowson or Siskiyou. Perhaps 50% of those trips would use this section of Washington. That only leaves the middle 13.7 acres that would again, use Crowson and Siskiyou some and Washington some, perhaps 80% north and 20% south.

This all assumes that the rail crossing improvement is not constructed which would further distribute traffic.

Once the likely routing is considered, the actual acreage of development that will utilize the section of Washington Street between Jefferson Street Intersections is more like about 16 acres (approximately). Using this acreage with the 20 employees per acre figure in the PC findings yields about 321 employees. The ITE rate for office park is 3.5 trips per employee so that would be about 1124 trips additional plus the 325 that are currently on this street segment. This makes the Sandow Engineering estimate look pretty good.

Ultimately, this is why there are regional transportation models and traffic engineers. Transportation trip generation and distribution gets complicated quickly. The very brief analysis here is not intended to take the place of the analysis in the Sandow Engineering report. It merely points up that the assumptions in it a reasonable and the assertion that they are off by a factor of 6 is unreasonable because the analysis did not consider the origin and destinations and likely routing of future development in the area.

TRAFFIC ENGINEERING RELATED OBJECTIONS:
In addition to the planning related objections addressed herein, the Applicant's traffic engineer Kelly Sandow provided responses to those issues. Those responses are also submitted under cover of this letter.

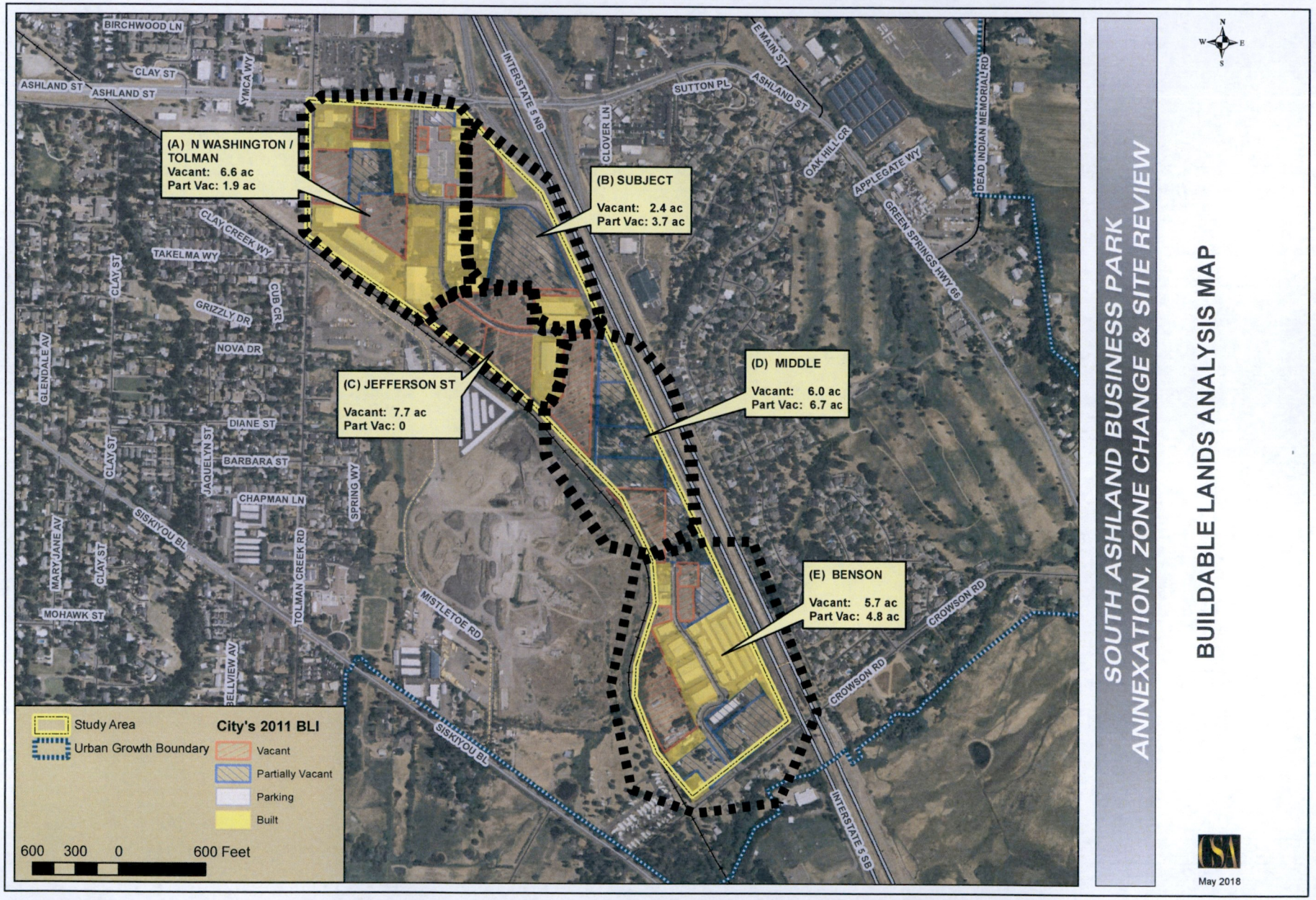
CONCLUSIONS:
There is substantial evidence in the record on transportation facility adequacy. The application can be approved under multiple regulatory paths under the TPR. If the Council is most comfortable imposing the trip cap, as originally stipulated, Applicant has no objection and we believe our traffic analysis provides adequate evidence to conclude the proposed zone change complies with TPR and any other applicable transportation regulations.

Very Truly Yours,

CSA Planning, Ltd.

Jay Harland
Principal

cc. File



SOUTH ASHLAND BUSINESS PARK
ANNEXATION, ZONE CHANGE & SITE REVIEW

BUILDABLE LANDS ANALYSIS MAP

May 2018

Technical Memorandum

CSA Planning, Ltd
4497 Brownridge, Suite 101
Medford, OR 97504
Telephone 541.779.0569
Fax 541.779.0114
Mike@CSAplanning.net

To: Jay Harland

Date: May 1, 2018

Subject: BLI Analysis

The attached map titled, "Buildable Lands Analysis Map" was derived using the following methodologies.

Step 1. Identify the Study Area which is reflected by the yellow hatch on the attached map.

Step 2. Crop and Georeference the City's 2011 Adopted BLI Map obtained from the City of Ashland's Website at the following locations, into our GIS:

- http://www.ashland.or.us/Files/2011_BLI_approved.pdf
- http://www.ashland.or.us/Files/bli_2011_map.pdf

Step 3. Apply the City's BLI categories of Vacant, Partially Vacant, and Parking to Tax Lots in our GIS that correspond to the same values in the City's BLI map. All lands not attributed in one of the above categories was categorized as Built.

Step 4. Overlay the above on a 2016 georeferenced aerial photograph from USDA.

Step 5. Identify five distinct subareas within the study area based on their proximity to the local transportation network. The five categories include; (A) N Washington; (B) Subject; (C) Jefferson St; (D) Middle; and (E) Benson.

Step 6. Use GIS to remove duplicate records in Tax Lots so that each polygon corresponds with each tax lot. Calculate the acres of each category for the entire study area, with the following results.

- Total Tax Lot Acres: 88.1; Built & Parking: 34.5; Vacant: 28.45; Gross Partially Vacant: 25.1.
- Total of Vacant and Partially Vacant: 53.55

Step 7. Based on the calculations in the City's 2011 BLI for the area, there are 45 vacant and partially vacant acres of land available. The City's BLI assumed portions of the Partially Vacant lands are not and would not be available thus there is a difference between gross partially vacant acres and net partially vacant acres. For the purposes of this analysis I assumed the entirety of vacant lands is available and the difference between 53.55 acres and 45 acres was attributed to the partially vacant lands at the factor of 84%. (45 / 53.55 = 84%) Thus, for the buildable / available area for each lot identified as partially vacant I assumed a factor of 84% (For example, a 1 acre partially vacant tax lot was shown to have .84 acres available.

Step 8. Summarize each subarea by Vacant and Partially Vacant lands and illustrate the results on the map.

CSA Planning, Ltd.

Michael Savage
Associate

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Table 8.3.1 Project List by Jurisdiction

PROJECT NUMBER	LOCATION	DESCRIPTION	TIMING	COST	Cost by Range	Funds Available	Federal Funds Needed	Conformity Status	Within PM10/CO Maintenance Areas
Ashland									
120	Laurel St. RR Crossing	R/R X-ing improvements, surface improvements (175-ft, 0.03 Miles)	short	$ 813,552				Exempt - Table 2 - Safety	PM10
160	Hersey St: N. Main to Oak St Sidewalk	Sidewalk Construction (1,760-ft, 0.33 Miles)	short	$ 829,000				Exempt - Table 2 - Air Quality	PM10
161	E. Nevada Street Extension	Extend street over Bear Creek to link roadway at Kestrell; sidewalks, bicycle lanes (675-ft, 0.13 Miles)	short	$ 5,055,500				Non-Exempt	PM10
162	Independent Way	Extend street from Washington St to Tolman Creek Rd; sidewalks, bicycle lanes (715-ft, 0.13 Miles)	short	$ 1,055,000				Non-Exempt	PM10
166	Chip Seal	project entails grading, prepping and installing a double chip seal on approximately 44,903 square yards of existing dirt roads within the Ashland City limits. (approx. 5.3 miles)	short	$ 561,648				Exempt - Table 2 - Safety	PM10
				Short Range (2017-2021) Total	**$ 8,314,700**	**$ 8,706,000**			
163	Intersection Improvements: Ashland-Oak Knoll-E. Main	Realign intersection, install speed-reduction treatments (950-ft, 0.18 Miles)	medium	$ 1,184,195				Exempt - Table 3	PM10
				Medium Range (2022-2030) Total	**$ 1,184,195**	**$ 6,499,000**	**$ -**		
164	Normal Avenue Extension	Extend roadway to East Main; sidewalks, bicycle lanes (2,250-ft, 0.43 Miles)	long	$ 5,916,032				Non-Exempt	PM10
165	Clear Creek Drive Extension	Extend road to connect with N. Mountain Ave. (2,000-ft, 0.38 Miles)	long	$ 4,601,359				Non-Exempt	PM10
				Long Range (2031-2042) Total	**$ 10,517,391**	**$ 12,754,000**	**$ -**		
PROJECT NUMBER	**LOCATION**	**DESCRIPTION**	**TIMING**	**COST**	**Cost by Range**	**Funds Available**	**Federal Funds Needed**	**Conformity Status**	**Within PM10/CO Maintenance Areas**
Central Point									
232	Twin Creeks Rail Crossing	Add new at grade crossing and signal, sidewalks at OR99 and Twin Creeks Crossing (1,080 ft)	short	$ 3,900,000				Non-Exempt	PM10
233	E. Pine Street Downtown Improvement Projects	New Sidewalks, street lights, and new signals at 2nd and 4th Streets. New Pedestrian Crossing at 6th Street (1,600 ft, 0.3 miles)	short	$ 5,000,000				Exempt-Table 3 - Signalization	PM10
234	W. Pine Street Reconstruction: Glenn Way to Brandon Ave	Widen W. Pine St between Glenn Way and Brandon Ave; add sidewalks, curb and gutter, & bike lanes; 2 paved travel lanes and 1 continuous left turn lane. Drainage will also be installed/upgraded (2,200 ft, 0.42 miles)	short	$ 4,549,000				Exempt - Table 2 - Safety	PM10
				Short Range (2017-2021) Total	**$ 13,449,000**	**$ 14,143,000**			
215	OR 99: Traffic Calming Unit 3	Traffic Calming (300 ft)	medium	$ 259,043				Exempt-Table 2 - Safety	PM10
227	W. Pine St., Hanley St. to Haskell St.	Widen to add center turn lane, bike lanes , sidewalks (no new travel lanes) (2,150 ft)	medium	$ 3,286,685				Exempt-Table 2 - Safety	PM10
				Medium Range (2022-2030) Total	**$ 3,545,727**	**$ 18,276,000**	**$ -**		
214	Scenic Ave., Mary's Way to Scenic Middle School	Widen to add bike lanes and sidwalks (urban upgrade - no new travel lanes) (700 ft)	long	$ 865,078				Exempt-Table 2 - Safety	PM10
219	Table Rock Rd. & Vilas Rd Intersection	Widen to add turn lanes	long	$ 1,751,803				Exempt-Table 3 - Channelization	PM10
224	Scenic Ave, 10th St. to Scenic Middle School	Widen to add continuous turn lane with bike lanes and sidewalks (no new travel lanes) (700 ft)	long	$ 1,117,473				Exempt-Table 2 - Safety	PM10
				Long Range (2031-2042) Total	**$ 3,734,354**	**$ 9,001,000**	**$ -**		

SANDOWENGINEERING
160 MADISON STREET SUITE A • EUGENE OREGON 97402 • 541.513.3376

May 1, 2018

RENEWAL 06 / 30 /18

Ashland City Council
City Council Chambers
1175 E Main Street
Ashland, Oregon 97520

RE: South Ashland Business Park-Response to Comments from Craig Anderson

Dear City Council Members,

Sandow Engineering would like to provide a response to comments received by Craig Anderson on May 1, 2018 regarding the South Ashland Business Park Annexation and Ordinance 3154 Adoption Findings.

Comment #2 Page 2: *"Will Substantially increase turning volumes at Washington Street @ Ashland Street, a highly sub-standards intersection that is approximately ¼ the minimum recommended distance from the Southbound I-5 terminal (350 feet as compared to 1320 feet) a situation that "can increase the potential risk of collisions," and that creates "potential vehicular conflicts and delay that may impact safety and traffic operations at the interchange," according to the June 2010 Draft Interchange Area Management Plan (IAMP)"*

First off, it is worth noting that the statements quoted above of *"can increase the potential risk of collisions", and "potential vehicular potential vehicular conflicts and delay that may impact safety and traffic operations at the interchange"* are being taken out of context and misappropriated.

This first statement *"can increase the potential risk of collisions",* appears twice in the IAMP; page 4-25 under *2030 Land use Intensification Scenario #1* and page 4-27 under *2030 Land use Intensification Scenario #2*. Attachment A contains the pages from the IAMP in which the statement is provided. The sections are a discussion of conditions related to the theoretical maximum development beyond what the RVMPO model includes (Scenario #1), and the significant employment and residential growth in the area of Crowman Mill Site beyond what the RVMPO model includes (Scenario #2). The statement in the IAMP was made in relation to a discussion of conditions, under these scenarios, in which Ashland Street has a significant enough increase in traffic volumes by year 2030 that the infrequency of gaps in traffic increases the v/c ratio on Washington Street to above 2.0. When the v/c ratio reached these levels, it *could* result in conditions where drivers become inpatient resulting in an increase in the potential of collisions.

The sections state that, at the high levels of development that the IAMP analysis assumed, there is the potential for an increased risk of collisions. Mr Anderson misappropriated the statement by applying it to this development proposal when it was intended for the level of traffic that would increase the v/c ratio to greater than 2.0.

Further, the Traffic Impact Analysis and subsequent analysis revisions, shows that the v/c ratio for Washington Street is 0.57 for the year 2034 with the zone change. The v/c ratio is significantly better than the conditions discussed in the IAMP in which that statement was made.

The second statement *"potential vehicular conflicts and delay that may impact safety and traffic operations at the interchange," according to the June 2010 Draft Interchange Area Management Plan (IAMP)",* is found under the Problem Statement of the Executive Summary. See Attachment B for the section from the IAMP. The statement is a very generalized statement that there are numerous public and private approaches within ¼ mile of the interchange and that the approaches create potential vehicular conflicts with the interchange. The statement is not specific to a singular approach and does not speak to specifically to the operations of Washington Street approach

The TIA and subsequent analysis revisions also provided information on crash rates and queuing ta Washington Street. All levels are within the acceptable range.

Therefore, there is no substantial evidence to validate the statement that the intersection is currently highly sub-standard and that any significant safety concerns are currently present or will be present after the approval of the zone change.

Comment #4 Page 2: *"Along with other contemplated (or pre-approved?) developments in the area, has the potential to create the need for a very expensive intersection expansion at Tolman Creek Road @ Ashland Street and possibly a new I-5 interchange at Exit 14.*

The analysis provided in the TIA, took into consideration growth rate levels in the area consistent with the Ashland TSP and recently approved (but not yet built) developments. The rates are typical for TIA's of this type and they were reviewed by the City and ODOT and found to be appropriate. The intersection of Tolman Creek Road @ Ashland Street is projected to meet mobility standards at the year 2034 with the approval of the proposed zone change, even with the project traffic and the additional 105 trips assumed to occur due to background traffic growth through this intersection.

The interchange ramp signals are shown to exceed the mobility standard in the background conditions. With the proposed trip cap, the approval of the zone change will not have a significant effect on the intersections.

Therefore, this project has demonstrated that the proposed zone change will not significantly affect the adjacent transportation system and is not responsible for providing intersection improvements.

Comment #1 Page 3: *"ODOT's April 12, 2018 letter to the City states that, "comments were sent to Sandow Engineering on February 14, 2018 regarding several concerns within the TIA. A final response from Sandow Engineering regarding the ODOT comments was never sent to ODOT." The City did not respond to this comment while the applicant's representative said that ODOT "did not have any issues" with the TIA. It is reasonable to presume that ODOT suggested modifications to the methodology used in the analysis and that such modifications could have resulted in showing a greater level of impacts than were indicated in the January 5th document."*

Sandow Engineering has addressed the comments to date with supplemental analyses that were transmitted via email to ODOT traffic engineers on April 9, 2018 and April 25, 2018. These technical revisions did not have any meaningful impacts to the results indicated that the proposed zone change does not have a significant effect on intersection operations and the conclusions of the January 5th TIA remain valid.

Comment #3 Page 3: *"The City has used ODOT's recommendation in the Exit 14 IAMP that left-turn movements in/out of Washington Street @ Ashland Street be restricted via an extended median as justification for funding of the Independent Way project. No such recommendations have been acknowledged or assumed in the TPR Analysis. Changing assumptions to include left-turn restrictions in/out of Washington Street will show greater impacts at the Tolman Creek @ Ashland Street intersection."*

The evaluation considered existing infrastructure and improvements that are on the Regional Transportation System Plan Short Term List. The RTP has Independent Way listed as project #162 described as "Extend street from Washington St to Tolman Creek Rd: sidewalks, bicycle lanes (715-ft, 0.13 miles). The RTP does not have the median listed as an improvement. Additionally, during the scoping process the median was not requested to be considered by ODOT or by the City of Ashland. Therefore, it was not included as an infrastructure improvement in the TPR evaluation.

Comment #4 page 4 : *The trip distribution figures used by Sandow Engineering appear to minimize potential impacts at the Tolman Creek Road @ Ashland Street intersection. On page 17 of the TPR Analysis it is stated that, "the development trips were distributed through the study area network using the existing observed travel patterns as a base with modifications as per reasonable origins and destinations." Figure 5 shows 2019 pm peak hour westbound background traffic volumes at intersection #7 (Tolman Creek Road @ Independent Way) split roughly 30% southbound and 70% northbound on Tolman Creek. Figure 7 shows 2019 "build-out" (development-related) traffic at the same location split 40% southbound and 60% northbound. There is no explanation for the discrepancy, however, even a 30% southbound distribution at this location is not reasonable. The existing trip distribution in this area is heavily skewed by traffic generators such as the Ashland Tennis and Fitness Club and other businesses and employers that attract a relatively local clientele. Whereas, it is far more likely that a majority of the traffic to and from the proposed employment*

location will have an origin and destination that utilizes I-5/Exit 14 southbound (to) and northbound (from). A reasonable trip distribution aassumption would be that PM peak hour traffic from the proposed development that does not make a right turn from Washington Street onto Ashland Street (and then onto I-5) will primarily be destined westbound on Ashland Street and will use the Tolman Creek Road @ Ashland Street intersection via the newly-built Independent Way. It makes no sense that PM peak hour traffic leaving the proposed employment site would have a destination using southbound Tolman Creek Road. Merely changing the trip distribution at this one intersection to reflect a more "real-world" analysis could have far more detrimental impacts on the Tolman Creek Road @ Ashland Street intersection than have been divulged. When this issue is considered in the context of the other "approved but not completed IPCO development that was included as pipeline trips in the background" conditions (see Exhibit "A"), concerns about the impacts on Tolman Creek Road @ Ashland Street are compounded"

The trip distribution values were based on the following assumptions:

1) The development is primarily employment. Trips in the PM peak hour will be leaving and heading toward local residential and commercial areas, as the trips will be primarily work to home trips.
    i. There is a very large residential area south of Ashland Street that will be accessed by Tolman Creek to/from the south (see Exhibit 1)
    ii. Commercial and residential are accessed by Ashland Street to the west via Tolman Creek to/from the north
    iii. Use of I-5 for areas outside the City.

2) Traffic volumes on Tolman Creek Road are nearly a 50% split meaning that 50% traffic is traveling south and 50% is traveling north. Based on a traffic count taken on Tolman Creek near Independent Way connection.
3) Total traffic volumes entering and leaving the study area on the adjacent street network.

This information was the basis for determining the trip distribution pattern. Sandow Engineering assumed that 20% of all development trips be to/from Tolman Creek south of Independent Way based on traffic patterns and the proximity to existing and future households. Sandow Engineering believes is it is unreasonable to assume that a majority of traffic will use I-5 and that no traffic will use Tolman Creek to the south as stated in the comment above.

Thank you for allowing me the opportunity to respond to the comments.

Sincerely,

Kelly Sandow, PE

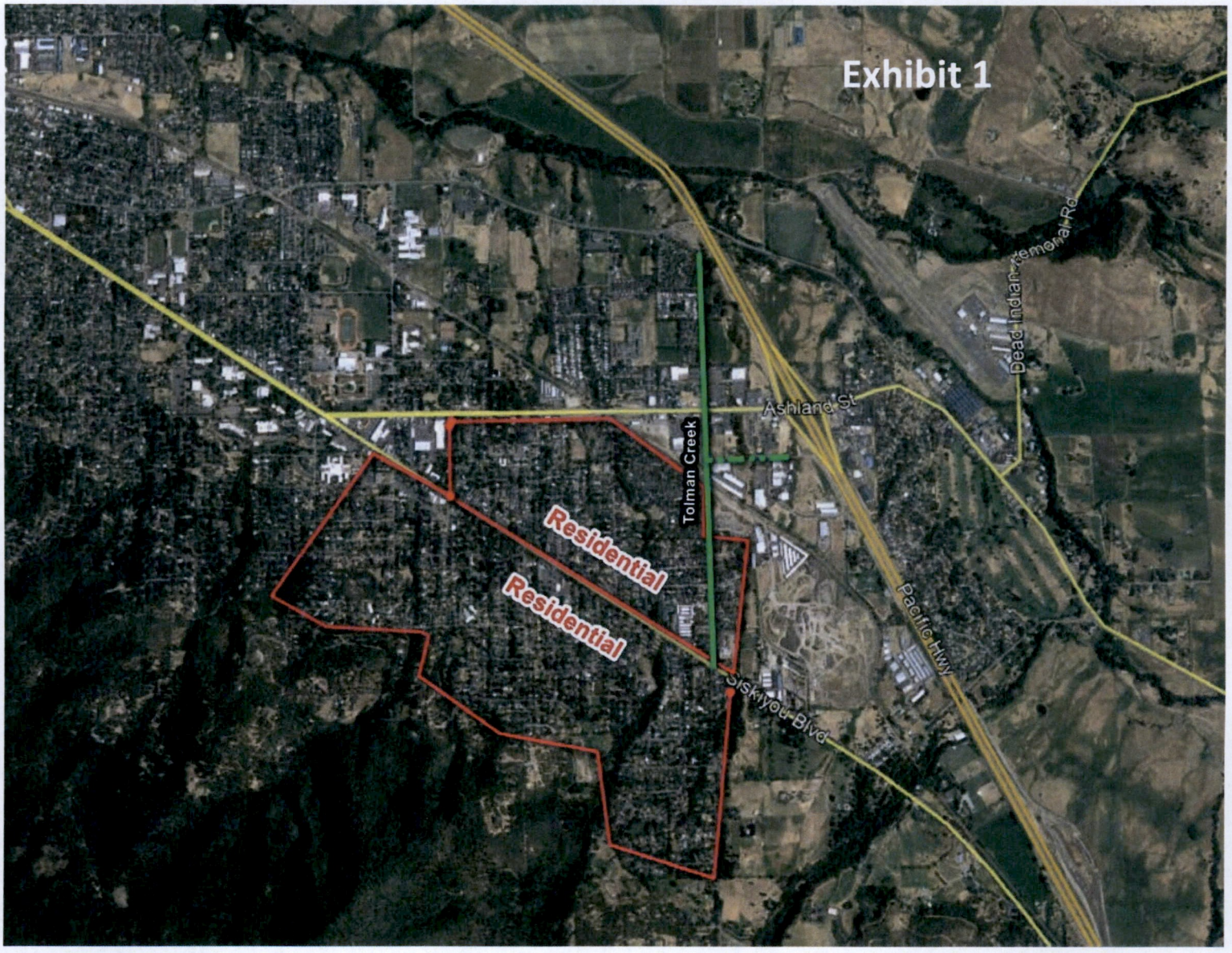
Exhibit 1
Dead Indian Memorial Rd
Ashland St
Tolman Creek
Residential
Residential
Pacific Hwy
Siskiyou Blvd

Attachment A

would provide improved intersection operations because it would allow conventional phasing rather than the split phasing that would be necessary with a three-lane bridge configuration.

Analysis indicates that a five-lane bridge provides no operational benefit at either ramp terminal intersection compared to a four-lane bridge. The lane configuration at the northbound ramp terminal would be identical to the four-lane configuration. At the southbound ramp terminal, a five-lane bridge would allow for a westbound left-turn lane. However, analysis indicates that a left-turn lane would not provide any improvement in overall intersection v/c ratio due to the low westbound left-turning volume. Furthermore, the projected turning volumes are not sufficient to warrant a left turn signal.

Each of the interchange alternatives would provide acceptable traffic operations at both ramp terminal intersections. The calculated v/c ratio at the southbound ramp terminal is the same for all of the conventional diamond interchange configurations at 0.46. The calculated v/c ratio for the central SPUI intersection is 0.57, and the calculated v/c ratios for the DDI are 0.51 and 0.40 for the southbound and northbound ramp terminals, respectively.

The intersection of Ashland Street with Washington Street is expected to operate at a calculated v/c in excess of 1.50 for the critical northbound left-turn movement under all interchange alternatives. All of the remaining intersections within the study area are expected to operate with acceptable v/c ratios and queuing under 2030 baseline conditions. Like Washington Street, the intersection of Ashland Street with Clover Lane is unsignalized and located in close proximity to the interchange. However, analysis shows that the intersection will operate acceptably under future baseline conditions. This is primarily due to the significantly lower traffic volumes on Ashland Street to the east of the interchange compared with those to the west. If land on the east side of the interchange develops to a greater intensity than what is predicted in the RVMPO model (e.g., Land Use Scenario #1), then future operations at this intersection may fail to meet the applicable operational standards and mitigation such as turn restrictions may be necessary.

2030 Land Use Intensification Scenario #1

Table 4-8 and Table 4-9 show the operations and queuing results for Land Use Intensification Scenario #1. This scenario consists of a theoretical maximum development of parcels in the IAMP management area in excess of what is predicted in the RVMPO model. The analysis shows that the existing interchange is not adequate to accommodate the increased traffic volumes associated with this land use scenario, with calculated v/c ratios at both ramp terminals in excess of 2.00. In contrast, the calculated v/c ratios at each ramp terminal were well below 1.00 for each interchange design. However, the calculated v/c ratios at the southbound ramp terminal would marginally exceed the HDM mobility standard of 0.75 for each of the conventional interchange designs. The calculated v/c ratio at the northbound ramp terminal marginally exceeds the HDM mobility standard under the three-lane bridge design. Operational differences between the various interchange types are consistent with those described for the 2030 baseline scenario in the previous section.

Table 4-8. Intersection Traffic Operations (in feet) – 2030 Land Use Scenario #1 Conditions

Intersection	Interchange Alternative[1]							Mobility Standard V/C Ratio[2]		
	No-Build	3-Lane Bridge	3-Lane w/Loop	4-Lane Bridge	5-Lane Bridge	SPUI	DDI			
	V/C (LOS)	V/C (LOS)	V/C (LOS)	V/C (LOS)	V/C (LOS)	V/C (LOS)	V/C (LOS)	OHP[3]	HDM[4]	City[5]
Tolman Creek Rd & Ashland St (OR 66)	0.76 (F)	0.76 (D)	0.76 (D)	0.76 (D)	0.76 (D)	0.78 (D)	0.75 (D)	0.90	0.85	0.85
Washington St & Ashland St (OR 66)	>2.00 (F)	>2.00 (F)	>2.00 (F)	>2.00 (F)	>2.00 (F)	>2.00 (F)	>2.00 (F)	0.90	0.85	0.85
I-5 SB Ramps & Ashland St (OR 66)	>2.00 (F)	0.77 (B)	0.77 (B)	0.77 (B)	0.77 (B)	0.69 (C)	0.53 (A)	0.85	0.75	-
I-5 NB Ramps & Ashland St (OR 66)	>2.00 (F)	0.80 (C)	0.27 (A)	0.69 (B)	0.54 (B)		0.53 (B)	0.85	0.75	-
Clover Ln & Ashland St (OR 66)	0.74 (B)	0.74 (F)	0.74 (D)	0.74 (D)	0.74 (D)	0.74 (F)	0.74 (D)	0.90	0.85	0.85
E. Main St/Oak Knoll & Ashland St (OR 66)	0.62 (D)	0.62 (D)	0.62 (D)	0.62 (C)	0.62 (C)	0.63 (D)	0.63 (C)	0.90	0.85	0.85

Notes:

1. For unsignalized intersections, the v/c and LOS are for the critical movement, which is typically a stopped side street movement. For signalized intersections the v/c and LOS are for the overall intersection.
2. Intersections with v/c ratios that do not meet the applicable mobility standard are shaded in black.
3. 1999 Oregon Highway Plan Mobility Standards (Table 6); applies to No-Build only.
4. 2003 ODOT Highway Design Manual Mobility Standards (Table 10-1): applies to build alternatives.
5. Ashland Municipal Code requires that traffic operations on City facilities do not exceed capacity (v/c < 1.00) and defers to ODOT mobility standards (HDM shown) for intersections with State highways within the City.

The calculated v/c for the unsignalized Washington Street approach is greater than 2.00 under this land use scenario. The projected traffic volumes on Ashland Street would provide very few acceptable gaps for northbound traffic exiting from Washington Street, resulting in excessive delays for this movement. A potential result of v/c ratios far in excess of capacity is reduced safety because some drivers grow impatient and tend to accept smaller gaps in the traffic stream. This can increase the potential risk of collisions. If land develops to the extent projected by Land Use Scenario #1, some mitigation at Washington Street may be necessary. A possible mitigation could include turn restrictions through installation of a non-traversable median along Ashland Street. Ultimately, the Washington Street approach to Ashland Street should be closed and traffic routed to Tolman Creek Road.[3]

All other study area intersections are expected to operate with acceptable v/c ratios under this land use scenario. Long queuing on the northbound approach at the Tolman Creek intersection indicates the potential future need for intersection improvements, such as an additional northbound approach lane, if the pace of development significantly surpasses what is projected in the RVMPO model.

3 Signalization would reduce delays for vehicles on Washington Street. However, projected intersection traffic volumes do not meet volume-based signal warrants. Furthermore, a signal at Washington Street would not comply with ODOT access management and signal spacing standards. Therefore, signalization does not appear to be a viable mitigation measure.

Table 4-9. 95th Percentile Queues (in feet) – 2030 Land Use Scenario #1 Conditions

Intersection	Movement	No-Build	3-Lane Bridge	3-Lane w/Loop	4-Lane Bridge	5-Lane Bridge	SPUI	DDI
Tolman Creek Rd & Ashland St (OR 66)	EBL	200	175	175	175	175	175	175
	EBT/R	2450[2]	350	325	400	350	475	400
	WBL	125	200	175	175	175	175	200
	WBT/R	150	325	325	350	350	525	450
	NBL	150	125	125	125	125	125	125
	NBT/R	825	800	900	875	875	700	525
	SBL	125	125	125	125	125	125	125
	SBT/R	1575	350	350	375	300	250	300
Washington St & Ashland St (OR 66)	NBL	100	125	125	125	125	125	125
	WBL	50	75	75	75	75	50	75
I-5 SB Ramps & Ashland St (OR 66)	SBL	650	175	175	175	175	200	175
	SBR	750	225	275	225	200	0	150
	WBL	100	450	350	250	50	75	125
	WBT					150	250	125
	EBT		255	275	200	300	175	175
	EBT/R		275	250	275	275	25	100
I-5 NB Ramps & Ashland St (OR 66)	NBL	800	75	75	100	75	75	50
	NBR		50	50	50	50	25	50
	EBL	3550[2]	400		225	225	225	200
	EBT		475		350	75	175	150
	WBT		325		200	225	250	100
	WBR		225		150	200	125	50
Clover Ln & Ashland St (OR 66)	NBL/R	125	350	200	200	250	125	200
	WBL	25	25	25	25	25	25	25
E. Main/Oak Knoll & Ashland St (OR 66)	NBL/T/R	75	75	75	75	75	75	75
	SBL	100	100	100	100	125	125	100
	SBT/R	175	175	175	125	125	150	125
	WBL/T/R	25	25	25	25	25	25	25
	EBL/T/R	150	150	150	150	150	175	175

Notes:

1. Shaded cells indicate either free or nonexistent movements where queues are not generated.
2. Queue spills into downstream intersection.

The potential improvements associated with this land use scenario do not constitute recommendations, but merely potential future needs. The potential needs are based on the projections of a speculative land use scenario and neither on the RVMPO model nor any proposed development. Future analysis will be required to determine appropriate mitigation as land use changes occur and as new development are proposed.

2030 Land Use Intensification Scenario #2

This land use scenario concentrates significant employment, commercial and residential development at the former Croman Mill site, which lies in the southwest quadrant of the interchange. The growth associated with this land use scenario is compounded with the growth projected in the RVMPO model. The calculated v/c ratios at the interchange ramp terminals and at all study area intersections east of the intersection are generally lower than those for Land Use Scenario #1 as displayed in Table 4-10, and the operational differences between interchange types remain consistent with those described for the baseline land use scenario. This land use scenario causes the calculated v/c ratio at the northbound ramp terminal to marginally exceed the HDM mobility standard of 0.75 under the three-lane bridge design.

Table 4-10. Intersection Traffic Operations – Land Use Scenario #2 Conditions

	Interchange Alternative[1]							Mobility Standard V/C Ratio[2]		
	No-Build	3-Lane Bridge	3-Lane w/Loop	4-Lane Bridge	5-Lane Bridge	SPUI	DDI			
Intersection	V/C (LOS)	V/C (LOS)	V/C (LOS)	V/C (LOS)	V/C (LOS)	V/C (LOS)	V/C (LOS)	OHP[3]	HDM[4]	City[5]
Tolman Creek Rd & Ashland St (OR 66)	0.85 (F)	0.85 (F)	0.85 (E)	0.85 (E)	0.85 (D)	0.87 (E)	0.86 (E)	0.90	0.85	0.85
Washington St & Ashland St (OR 66)	>2.00 (F)	>2.00 (F)	>2.00 (F)	>2.00 (F)	>2.00 (F)	>2.00 (F)	>2.00 (F)	0.90	0.85	0.85
I-5 SB Ramps & Ashland St (OR 66)	>2.00 (F)	0.68 (B)	0.68 (B)	0.68 (B)	0.68 (B)	0.70 (B)	0.51 (A)	0.85	0.75	-
I-5 NB Ramps & Ashland St (OR 66)	>2.00 (F)	0.76 (B)	0.14 (B)	0.58 (B)	0.58 (B)		0.39 (B)	0.85	0.75	-
Clover Ln & Ashland St (OR 66)	0.47 (B)	0.48 (D)	0.48 (C)	0.49 (C)	0.49 (C)	0.48 (C)	0.48 (B)	0.90	0.85	0.85
E. Main St/Oak Knoll & Ashland St (OR 66)	0.25 (B)	0.29 (C)	0.29 (B)	0.29 (B)	0.29 (B)	0.30 (B)	0.30 (B)	0.90	0.85	0.85

Notes:

1. For unsignalized intersections, the v/c and LOS are for the critical movement, which is typically a stopped side street movement. For signalized intersections the v/c and LOS are for the overall intersection.
2. Intersections with v/c ratios that do not meet the applicable mobility standard are shaded in black.
3. 1999 Oregon Highway Plan Mobility Standards (Table 6); applies to No-Build only.
4. 2003 ODOT Highway Design Manual Mobility Standards (Table 10-1): applies to build alternatives.
5. Ashland Municipal Code requires that traffic operations on City facilities do not exceed capacity (v/c < 1.00) and defers to ODOT mobility standards (HDM shown) for intersections with State highways within the City.

This land use scenario would cause excessive delay and calculated v/c ratios in excess of 2.00 for the critical northbound left-turning movement at Washington Street. The projected traffic volumes on Ashland Street would provide very few acceptable gaps for northbound traffic exiting from Washington Street, resulting in excessive delays for this movement. A potential result of v/c ratios far in excess of capacity is reduced safety because some drivers grow impatient and tend to accept smaller gaps in the traffic stream. This can increase the potential risk of collisions. If land develops to the extent projected by Land Use Scenario #2, some mitigation at Washington Street will be necessary. A possible mitigation could include turn restrictions through installation of a non-traversable median along Ashland Street. Ultimately, the Washington Street approach to Ashland Street should be closed and traffic routed to

Tolman Creek Road[4]. Hence, this measure is listed as a medium/long term action of the access management strategy and plan as described in Section 6.

At the Tolman Creek intersection the analyses of this land use scenario revealed significant queuing and calculated v/c ratios at or marginally above the mobility standard threshold (see Table 4-11). The projected westbound left-turn volumes approach levels that may warrant an additional westbound left-turn lane. Dual westbound left-turn lanes would require widening of Tolman Creek for several hundred feet to the south of Ashland Street to accommodate two southbound receiving lanes. Mitigation for long queues on the northbound approach may include widening and provision of an additional northbound approach lane. It should be noted that closing or restricting some turn movements at Washington Street could create increased vehicular demand at the Tolman Creek intersection and increase the likelihood that one or more of the above-noted improvements would be needed. Additionally, constricted roadway geometry (curb-to-curb width) will limit the ability to maneuver U-Turns at the Tolman Creek intersection to passenger cars and small trucks. Larger vehicles will need to either proceed straight through the intersection or turn onto the cross street to find a more accessible locations to reverse course.

Table 4-11. 95th Percentile Queues (in feet) – 2030 Land Use Scenario #2 Conditions

Intersection	Movement	No-Build	3-Lane Bridge	3-Lane w/Loop	4-Lane Bridge	5-Lane Bridge	SPUI	DDI
Tolman Creek Rd & Ashland St (OR 66)	EBL	200	175	175	175	175	175	175
	EBT/R	2550[2]	400	350	425	350	475	550
	WBL	150	175	175	175	175	175	175
	WBT/R	125	450	450	350	350	525	525
	NBL	150	150	150	150	125	125	125
	NBT/R	850	900	900	900	900	700	700
	SBL	125	125	125	125	125	125	125
	SBT/R	1775	300	275	250	250	250	275
Washington St & Ashland St (OR 66)	NBL	150	125	125	125	125	125	125
	WBL	25	50	50	50	50	50	50
I-5 SB Ramps & Ashland St (OR 66)	SBL	675	150	150	150	175	200	150
	SBR	925	200	200	200	200	25	175
	WBL	50	300	250	125	50	50	50
	WBT					25	225	125
	EBT		325	350	300	400	125	175
	EBT/R		350	325	350	350	0	100

[4] Signalization of the Ashland Street/Washington Street intersection is not a viable mitigation measure. See discussion of Land Use Intensification Scenario #1 in previous section.

Table 4-11. 95th Percentile Queues (in feet) – 2030 Land Use Scenario #2 Conditions

Intersection	Movement	No-Build	3-Lane Bridge	3-Lane w/Loop	4-Lane Bridge	5-Lane Bridge	SPUI	DDI
I-5 NB Ramps & Ashland St (OR 66)	NBL	825	75	75	75	75	75	50
	NBR		50	50	50	50	25	50
	EBL	4075[2]	250		225	175	275	150
	EBT		350		25	50	125	150
	WBT		300		250	275	225	100
	WBR		225		175	175	50	25
Clover Ln & Ashland St (OR 66)	NBL/R	125	200	75	150	125	125	125
	WBL	25	25	25	25	25	25	25
E. Main/Oak Knoll & Ashland St (OR 66)	NBL/T/R	50	75	50	50	50	50	50
	SBL	75	75	75	100	75	75	75
	SBT/R	50	50	50	50	50	75	75
	WBL/T/R	25	25	25	25	25	25	50
	EBL/T/R	50	75	75	75	75	75	100

Notes:

1. Shaded cells indicate either free or nonexistent movements where queues are not generated.
2. Queue spills into downstream intersection.

The potential improvements associated with this land use scenario do not constitute recommendations, but merely potential future needs. The potential needs are based on the projections of a speculative land use scenario and neither on the RVMPO model nor any proposed development. Future analysis will be required to determine appropriate mitigation as land use changes occur and new development is proposed.

Preliminary Traffic Signal Warrant Analysis

The need for traffic signals at intersections is established by evaluating existing and projected traffic conditions against traffic signal warrants contained in the *2003 Manual on Uniform Traffic Control Devices* (MUTCD). The MUTCD provides eight signal warrants that consider different conditions under which a new signal may be warranted. The most commonly applied signal warrants are based on traffic volumes, although the MUTCD contains signal warrants based on crash experience, coordinated signal systems, and warrants for signals at pedestrian and school crossings.

The 2006 TAR reported the results of MUTCD signal warrants analysis for existing conditions. For years 2010 and 2030 conditions TPAU preliminary traffic signal warrants were evaluated. The TPAU preliminary warrants are based on MUTCD warrants, but require less data. TPAU developed these warrants for the purpose of projecting future traffic signal needs.

Meeting traffic signal warrants does not guarantee that a signal shall be installed. Before a signal can be installed a field warrant analysis is conducted by the Region. If warrants are met, the State Traffic Engineer will make the final decision on the installation of a signal.

Attachment B

SANDOW
ENGINEERING

EXECUTIVE SUMMARY

The existing bridge at I-5 Interchange 14 will be repaired and improved with funding provided by the OTIA III State Bridge Delivery Program. The bridge repairs will consist of a rehabilitation of the deck and bridge rails. Traffic signals will be installed at the ramp terminal intersections, and the bridge will be widened to provide three traffic lanes, bicycle lanes, and 7-1/2-foot sidewalks on both sides. The construction is scheduled to begin in mid 2010 and be completed by mid 2012.

As outlined in Oregon Administrative Rule (OAR) 734-051-0155(7), an Interchange Area Management Plan (IAMP) should be developed when there are substantial modifications to interchanges. Public investments for major interchange improvements are very costly and it is in the interest of the State, local governments, citizens of Oregon, and the traveling public to ensure that the interchange functions as it was designed for as long a time period as possible.

Development of this IAMP is the planning process intended to assess existing and potential land use and transportation conditions, opportunities and limitations, identify long-range needs, and identify recommended improvements to the Green Springs Interchange (I-5 Interchange 14). This process includes identifying necessary improvements to the local street network in the vicinity of the interchanges to ensure consistency with operational standards.

Problem Statement

The bridge structure, constructed in 1961, has been deemed structurally and geometrically deficient due to cracked cross beams, poor deck condition, narrow bridge width, substandard bridge railing, and substandard vertical clearance. Additionally, there are currently no provisions for bicycle and pedestrian traffic.

Analysis of existing and projected future traffic volumes show that the existing bridge and ramps are functionally obsolete to adequately serve the long-range transportation needs. Significant queuing and delay currently exists on several unsignalized approaches. As the area grows and traffic volumes increase, queuing and delays are expected to increase if no improvements are made to the interchange and the transportation system in the vicinity. The crash rate at the interchange is higher than the statewide average rate for comparable facilities, and the site ranks in the top ten percent of ODOT Safety Priority Index System (SPIS) sites.

There are numerous public and private approaches to Ashland Street within a quarter-mile of the interchange ramp terminals. These approaches create potential vehicular conflicts and delay that may impact safety and traffic operations at the interchange.

IAMP Goals and Objectives

The goals of this IAMP are to develop a plan for improvements that can be implemented over time to improve safety and operations of Interchange 14, identify adequate local street network improvements, and protect the investment in I-5 and its interchanges by maintaining the function of the interchange.