



Oregon

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DATE: June 6, 2008 **File:** T9-15

TO: Cyndi Buswell
Development Review Coordinator

FROM: Janet Lundeen, E.I.T.
Region 2 Traffic Investigator

SUBJECT: The Pointe at Wheeler Landing Multi-Use Development
Traffic Impact Study Technical Review
Region 2 – District 1
Oregon Coast Highway – US 101 (Highway #9)
Milepost 46.63 – 47.63
City of Wheeler
Tillamook County

These comments are based on a technical review of the following documents - the August 29, 2007 *The Pointe at Wheeler Landing* Traffic Impact Study (TIS) prepared by *CTS Engineers*, the September 11, 2007 Scope of Work and Addendum, both prepared by Stephen B. Wilson, the April 1, 2008 Addendum to the Traffic Impact Study prepared by *CTS Engineers* and the Wheeler Transportation System Plan. The focus of this review is the analysis methodologies and assumptions. As noted below, several items should be addressed and it is recommended that the *CTS Engineers'* documents be combined into a revised TIS, with appendix, and be resubmitted to Region 2 Traffic for review. Please note, the City of Wheeler is will verify that the proposed development uses are approved under the existing zoning. If a zone change is necessary, this office will provide a Scope of Work for the modified TIS.

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| n/a | General | The earlier TIS and Addendum should be combined and organized per ODOT Development Review Guidelines Chapter 3. If the TIS is submitted as a scanned document, please verify that the scanned photos and maps are of good quality. The photos and the site map contained in this TIS are unclear and need to be replaced. Hardcopy sheets may be submitted to supplement those unclear in the electronic file. |
| 1 4/1/08 & 8/29/07 | 1 | Note: Current zoning is WRC Water Related Commercial, IND Water Related Industrial, and ED Estuary Development. Is this proposed development compatible with the existing zoning? |

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| 1 4/1/08 | Traffic Safety Paragraph 2 | This section states four crashes were reported for the intersection, yet five crashes appear in the summary on Figure 4, as well as the Crash Analysis Worksheet. The intersection crash rate cannot be compared with the Statewide average crash rate. Therefore, in addition to the intersection crash rate analysis, a crash analysis for a one mile segment will also be required. |
| 2 8/29/07 | Proposed Development / Existing Conditions | <ul style="list-style-type: none"> - This section will need to include a discussion on any potential impacts to Port of Tillamook Bay railroad grade crossing. - Discuss the existing location and use of Marine Drive, as well as any potential impacts to Marine Drive, due to this development. Marine Drive is located within the railroad right-of-way however the development site plan seems to indicate parking spaces on the Marine Drive alignment. There is no mention of reconnecting Marine Drive. - The Wheeler TSP notes the possibility of converting Marine Drive into a public street and also mentions Marine Drive's importance to connectivity issues in the waterfront development plan. If Marine Drive has been used by the public for a noted time period, the public may have <i>Prescriptive Rights</i> to continue using it for ingress and egress. - Although the TIS states that this development will access Hwy 101 at Hemlock it is not clear if this development will block Marine Drive. If the developer does not intend to allow access via Marine Drive, then a letter stating such will need to be included with the TIS. However, if Marine Drive does remain as a potential access to this development, then a second study-area intersection (US 101 @ Rector Street) will need to be assessed as part of a revised traffic study. |
| | Plat Map | In addition to a vicinity map and site plan, a tax lot map will also need to be included in a revised TIS. |
| 8/29/07 & 4/1/08 | Figure 1A | The electronic copy of the proposed site plan was not legible. A cleaner copy was requested from Greg Kurahashi some time ago but has not yet been received. A clear site plan is necessary for review of storage length, parking and internal circulation, and will need to be submitted as part of a revised TIS. |
| 1 / App 4/1/08 | 3 rd | The Left Turn Lane analysis appears to follow ODOT analysis procedures and the results appear accurate. |
| 2 9/29/07 | 6 th | Pedestrian and Bicycling Considerations - Steve Jacobson, the ODOT Senior Planner assigned to Area 1, pointed out the Wheeler TSP calls for pedestrian and bicycle facilities between Hemlock and the commercial center at Rector and Gregory Streets. In his opinion this development will likely result in increased non-vehicular traffic between these two areas. The traffic study describes the existing shoulder bikeways along US 101 and states that the applicant will provide sidewalks/walking paths, curbs and gutters throughout the internal roadway system. Is it the applicant's intention that bicycles use the travel lanes within the development or will a multi-use path, wide enough to accommodate bicycles, be provided? Will there be connectivity with Marine Drive? |

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| | | A revised TIS will need a graphic or table summarizing the storage length requirements for all approaches, rounded to the next highest 25 foot increment. |
| 2 4/1/08 | 1 st | In-bound Vehicle Queue Length Analysis: The discussion regarding the influence of the railroad crossing on the inbound queuing, and why the AASHTO 2 minute Rule or SimTraffic methods are not appropriate is acceptable. The computations yielding a 4 minute wait time under the 'worst case' scenario does not appear to include time when the train is stopped. This computation should be revised if there is a time when the train would be stopped at Hemlock St. If the POTBRR has no reason to stop at this grade crossing, then there should be a statement to that fact in a revised TIS. |
| 3 / App 4/1/08 | 1 st | The Right Turn Lane Criterion analysis appears to follow ODOT analysis procedures, and the results appear to be reasonable. A dedicated right-turn lane in a low-speed urban setting is generally not recommended, and at Hemlock St. the volume warrant is not met. However, the TIS is correct in concluding the nearby railroad crossing can potential cause delays, and the addition of a southbound right turn lane would improve traffic operations and safety. |
| 3 4/1/08 | 2 nd | 3 rd line should refer to 'southbound' right turns. |
| 3 4/1/08 | 3 rd | The discussion for the 'Outbound Vehicle Queuing Analysis' refers to your HCM 2000 intersection capacity analysis via Traffix. ODOT does not accept queue lengths as reported by Traffix. Unsignalized queuing estimates must be developed using either the AASHTO Two-Minute Rule or SimTraffic micro-simulation. |
| 3 & 6 8/29/07 | n/a | There are two Table 3's, with one having a title referring to OR 18-B. |
| 5 8/29/07 | 2 nd | Should the title read '2010 Background Traffic Volumes'? |
| 5 8/29/07 | 2 nd | Yearly Background Growth rate appears to be accurate. |
| 6 8/29/07 | 2 nd | Under Site-Generated Traffic Volumes there is discussion regarding the trip rates for the 14 live/work units. "The primary concept of these live/work dwellings is that people do not have to leave their home to travel to a traditional office/work place. Thus to remove the double counts, trips generated by the live portion from the live/work units will not be included. " However, a reasonable worst case scenario would assume that <i>in addition</i> to the trips generated by work portion of the live/work units there would also be family members in the dwellings that would be making residential trips. These 'residential' trips should be included in the site generated trips. |
| 7 8/29/07 | Table 5 | The trip generation estimates listed in this Table appear to be accurate with the exception of not including the 'residential' trips mentioned above. |
| 8 8/29/07 | n/a | There are two Table 4's. The second Table 4 should be Table 6 with a new title |
| 8 8/29/07 | 1 | The title for the first paragraph should refer to Total Future 2010, and not 2008. |

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| 7 8/29/07 | Table 5 | The use of a non-standard Pass-By Trip percentage (55%) must be justified, or else the ITE Average Pass-By rate of 34% must be used. |
| 7 8/29/07 | 2 nd | Distribution and Assignment of Site Generated Traffic - Figure 6 is referenced in the study, however only Figures 6A and 6B are included in the appendix. |
| | Gen | The analyses assumed an Ideal Saturation Flow Rate (vphpl) of 1900, which is incorrect. An Ideal Flow rate of 1800 vphpl is required. Please see Table 3.3.8 in the Development Review Guidelines (DRG). |
| | Gen | The analyses assumed a heavy vehicle percentage of 10%. The analysis truck percentages must be based on the manual count data. |
| | Gen | A Peak Hour Factor (PHF) of 0.90 was used for all the intersection analyses. The PHF for the base year (2007) should be based on manual counts (except use 0.85 for Hemlock). The 2010 analyses should use the PHF's recommended in Table 3.3.8 from the Development Review Guidelines (DRG). |
| | LOS Summaries | The volume to capacity (v/c) ratios and average vehicle delays listed in report generally do correspond with analysis results developed as part of this review but will change due to the noted changes. |
| | Gen | The ODOT Scope of Work and Scope Addendum must be included as an appendix item in the TIS. |
| 8 8/29/07 4 4/1/08 | Conclusions | Conclusions listed should include all recommendations including proposed storage lanes, striping, signing etc. Also, if the current roadbed for Marine Drive is to be used for parking and if the connectivity of Marine Drive will be maintained then a new connection for Marine Drive should also be recommended. |

If you have any questions regarding my comments, please contact me by phone at (503) 986-5819 or by e-mail at janet.lundeen@odot.state.or.us.

Sincerely, 

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