

T e c h n i c a l
- m e m o r a n d u m -

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TO	Allen Hendy, PE	DATE	October 31, 2016
COMPANY	OTAK	PHONE	360-906-6786
ADDRESS	700 Washington St., Suite 401 Vancouver, WA 98660	PROJECT No.	16004
		PROJECT NAME	Wilsonville E-W Corridor
SUBJECT	Rail Crossing Status and Recommendations		

The City of Wilsonville is proposing an East-West Connector to provide traffic flow from Brown Road to Boones Ferry Road. This will involve crossing the Portland & Western Railroad, Oregon Electric District mainline at either Fifth Street or Bailey Street. Fifth St. is a permitted crossing with ODOT Rail. Bailey St. is a private crossing permitted with the Portland & Western Railroad (PNWR). We have met on site with Jason Sims (Director of Engineering) and Rob Rathburn (Roadmaster) from the PNWR and Rick Shankle (Manager, Crossing Safety) ODOT Rail to review the crossing proposals. Rick followed up with an email on July 13, 2016 outlining the ODOT Rail perspective for each crossing. The existing condition and requirements from PNWR and ODOT Rail for each crossing will be discussed in the following paragraphs.

Bailey Street

Currently, Bailey St. dead ends at the railroad right-of-way with a private crossing running parallel along south side that crosses the tracks. Private crossings are permitted with the railroad such that the property owner accepts all liability for the crossing. There is a spur track into OrePac starting just to the south of the proposed crossing location. This spur drops off a couple of feet in elevation to match to the existing paving elevation of the OrePac site. It continues north into one of the large buildings. The following are the conditions to be met to permit a crossing at this location:

- The OrePac siding will need to be raised 6 to 18 inches to match to the top of rail for the main line. This will have significant impact on the spur going into their site. It will require a significant area of the paving to be raised to provide for truck access and operations across the existing spur. There may be strong resistance from OrePac with this approach. It may be possible to skew the crossing to the south to reduce the amount of track raise on the spur. This may also reduce the amount of OrePac property required.
- The two track crossing is sufficiently close together that ODOT Rail will allow for a single set of railroad gates and lights instead of requiring a set at each track.
- The sidewalks will need to be oriented such that they are perpendicular to the tracks at each crossing. With the spur track curving away from the main line this will require additional space to provide this condition.
- The two tracks will each require track circuits. This will increase the cost of this crossing.
- ODOT Rail will require the closure of at least one public crossing on the same rail line, preferably 5th Street. In addition, the private crossing running adjacent to Bailey will need to be removed to allow placement of the public crossing. The PNWR is requiring 5th Street to be closed and would also prefer for the 2nd Street under crossing to be closed. The closure of 2nd may be

negotiable considering the City is proposing to make this a pedestrian/bicycle only undercrossing.

- There are overhead power lines on both sides of the tracks. They may require modification due to the height and location of the raised gate arm.
- This crossing has reduced sight clearance for a westbound vehicle looking left and right due to the location of the storage facility to the south and the landscaping on the parking lot to the north. This will present a challenge to overcome at this crossing.

Fifth Street

Currently, Fifth street is a small gravel/timber crossing serving a number of home sites and private roads. There are no serious obstacles to developing this crossing with the following conditions to be met to permit a crossing at this location:

- As Fifth Street is currently an Ordered crossing with ODOT Rail, the permit process is extremely simplified. It will require the submission of an application showing the widened condition and the inclusion of the concrete surface and gates and lights. No crossing closures will be required.
- Sidewalks will need to be oriented perpendicular to the tracks. As the crossing is perpendicular to the main line this will allow for the simplest condition for the placement of sidewalks.
- There are overhead power lines on both sides of the tracks. They may require modification due to the height and location of the raised gate arm. There are poles immediately adjacent to the crossing which will locate the lines at their highest location so this may not be as much of an issue as at Bailey.
- ODOT Rail would like to see the private crossing at Bailey closed with access provided from the new roadway. Even though they do not have jurisdiction over the issuance of private crossings, they are concerned with reducing all crossings to help reduce safety issues. With easy access now available from the proposed new roadway, the Portland & Western will also require this crossing to be closed as it increases maintenance costs and track deterioration.
- Sight visibility is good for both vehicular directions as the extra right-of-way width for the old station on the east side provides good clear distance and there are no sight obstructions on the west side.
- Provides an easy, perpendicular crossing with fairly level grades. Sidewalks should be easy to design.

ODOT Crossing Process

The ODOT Crossing process will be required for either crossing. The basic process is outlined below:

- Early efforts to build a consensus with ODOT Rail and the PNWR is essential. The process will simplify the time line further down the line by reviewing the proposed crossing plan with both parties periodically throughout the design process. Thus, when the application arrives, they are already in agreement and the process times can be reduced.
- At 60% design, it is recommended that a Draft application be submitted with all plans for review by the ODOT Rail Division. This allows the Rail Division to review and comment on the applications before it is required to follow the legislated process of review.
- At 90% design, the formal application may be completed and submitted by the City.
- Following Rail Division review, a Proposed Order (PO) will be developed and sent to the interested parties (railroads, road authorities, etc.). They have 20 days to comment. If there are no objections it moves to the finalization of the crossing Order. The interested parties have

60 days to request a reconsideration.

As outlined above, the 5th Street crossing will be the simplest to obtain the ODOT Rail Order and least expensive of the two crossings to construct from a rail perspective. The Rail Order process for 5th will also have fewer obstacles to overcome. Bailey Street has the following obstacles that may be more difficult to resolve:

- Raising the OrePac site - There are no guarantees that OrePac will approve of the significant track raise in their yard. It has the potential to have a large impact to their operations. As it is a requirement for the crossing design, not obtaining this would eliminate this option from consideration. This aspect could have a big impact on the time frame to obtain the ODOT Rail Order.
- Closing one to two other crossings. There could be objections raised by those affected by the proposed closure of 5th Street that could delay the ODOT Rail process.
- Both of these issues as well as the more complication design will increase the cost and length of time to obtain the ODOT Order for the Bailey crossing.
- If the objections noted above can not be resolved to the satisfaction of all parties and objections are raised to ODOT Rail, there could be a significant increase in the time to obtain the Order. As OrePac is a client of the railroad, they may object to the Order due to the disruption of service and impacts to their facility. This would then send the process to court and can delay it for a number of years. The longest I've seen a contested process take is 10 years to finalize.

In conclusion, the 5th Street crossing appears to be the simplest of the crossing to permit and approve with ODOT Rail and the Portland & Wester Railroad. The significant obstacles to Bailey Street could have impacts to the cost and schedule of the permitting process.

Thank You,



Thomas W. Wisner, P.E.

Consulting Railway Engineer