Richland

Administration and Civil Engineering

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May 6, 2009

Mr. David W. Danner, Executive Director and Secretary
Washington State Utilities and Transportation Commission
P.O. Box 47250
1300 S. Evergreen Park Dr. SW
Olympia, WA 98504-7250

Subject: Docket TR-081325, Order 01

Dear Mr. Danner:

The City has recently completed all work associated with the Commission Orders given in Docket TR-081325.

Enclosed is a copy of the test report from the signal start-up and testing performed by our Consultant, Twin City Signal Incorporated.

It is our intention to turn this signal over to Tri-City and Olympia Railroad for future operation and maintenance.

Please call me at 509-942-7500 with any questions.

Sincerely,

Peter K. Rogalsky, P.E.
Public Works Director

C: Rydel Peterson, Tri-City and Olympia Railroad

Enclosure

To:

Andy Enloe
Engineering Manager
aenloe@progressrail.com
Twin City Signal
A Progress Rail Services Company
1515 Livingstone Road
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715.377.3671 Direct Line
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March 30th. 2009

From:

Michael D. Anderson
Signal Project Manager
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Twin City Signal
A Progress Rail Services Company
2454 Occidental Avenue Building "D"
Seattle, Wash. 98134
Seattle Office (206) 625-6454
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Subject:

Final inspection of reconfiguration of Battelle Boulevard MP 36.3 DOT# 922975L Richland WA.

Andy per your request a final inspection of Battelle Boulevard in Richland WA was completed on March 25th, 2009. In attendance were myself, O.J. Moe Signal Inspector for Midvale Electric, Scott Carmona and Mike Nealey Traffic Signal Technicians with the City of Richland, Scott Winther Operations Manager and Mike Phillips with Tri-Cities & Olympia Railroad.

Mike Phillips and Scott Winther were able to arrange for a switch engine to work with us to see two train moves in both directions across Battelle Blvd. One at 10 MPH. and one at 20 MPH. The Advance Preemption Time of 24 seconds and Prime Crossing Activation Time of 25 seconds were verified and recorded on a inspection report completed by O.J. Moe that was left in the Crossing Bungalow and were determined to be correct per design. Scott Carmona and Mike Nealey verified that the Advance Preemption conditioned the traffic Signals to allow for a clear out of any traffic stopped on the tracks and activated the No Right Turn Signal and took no exceptions to the operation of the traffic interconnect. Currently there are two conductors between the Traffic Signal equipment enclosure and the Highway Crossing Bungalow for the traffic interconnect. The wiring in the Crossing Signal was modified and wired to provide for a six wire interconnect which is preferred. Scott and Mike told me that the Traffic Signal Engineer was considering modifying the circuits and adding the additional conductors to allow for the preferred 6 wire design. It will be considerable work to pull the addition wire from across the road to the Traffic Signal enclosure and could be cost prohibitive.

I reviewed the Scope of Work and Grade Crossing Gate System Construction documents and found only the following two discrepancies to the installation as specified. A galvanized steel foundation was used in lieu of a concrete foundation that was specified in section 2.2.9 and the conduit on the bungalow end was not sealed with duct seal or grout. I see no reason to take exception to either issue. The other existing gate foundations are also galvanized steel and I was told that the conduit from the bungalow to the new gate was continuous so as not to allow for rodent entry.

Andy we were not able to see or verify any train moves across the adjacent Horn Rapids Road Crossing as planned. Scott Winther Operations Manager of the Tri-Cities & Olympia Railroad informed me that he was not authorized to allow a train move across the Horn Rapids road and that the Horn Rapids Crossing was considered as being out of service. It will be necessary to verify activation of the Horn Rapids crossing and warning time with the movement of a train before train service is resumed over the crossing. Also the crossings approaches are set up for 40 MPH. I was told by Scott Winther that the current speed in approach to and over the crossing at Battelle Blvd is 20 mph. If the speed is increased the activation and warning time will also need to be verified with a train move. Sereral other issues to note not related to the Gate installation are that it appears that the Sear II Event Recorder has never been set up to record events. I did verify that the wiring was complete. Also the RTU Alarm Unit is not in service.

I went over the following check list with O. J. Moe with Midail Electric of the testing that was completed and documented when the crossing was placed in service. I was told that Art Althauser with Midvail Electric was to provide the documentation of the testing performed along with the "AS INSLD" Circuit Plans to the City. The over all quality of the installation I found to be excellent.

Crossing Installation and testing Check List

- ☐ Housing was properly grounded and the ground wires were straight and direct to the ground rod.
- ☐ All arrestors and equalizers are the correct rating and installed properly.
- ☐ All terminals double nutted.
- ☐ Wires tagged properly.
- ☐ Insulation resistance tested
- ☐ Batteries:
- ☐ Clean
- ☐ Connections tight and lubricated
- ☐ Charging circuit correct
- ☐ Charge wire length to battery not excessive
- ☐ Power off tested
- ☐ T1 & R1 on same rail
- ☐ Cross and Grounds
- ☐ Verified proper signage (crossbucks, track signs, etc.).
- ☐ Verify old couplers/wide bands removed
- ☐ Lamps aligned
- ☐ Lamp voltage set
- ☐ Lamps synchronized
- ☐ Flash rate
- ☐ Gate torque
- ☐ Gate hold clear tested
- ☐ Gate stops adjusted
- ☐ Gate delay tested
- ☐ Gate power/up down tested
- ☐ Gate descend/ascend time adjusted
- ☐ Gate length correct
- ☐ Gate arm height above crown of road correct
- ☐ Checked bell
- ☐ Circuits have sufficient separation to prevent cross-talk or interference.
- ☐ Changes do not interfere with other crossing or wayside devices.
- ☐ Preemption tested
- ☐ Power off operation tested
- ☐ Motion/Predictors setup verified
- ☐ Island adjusted
- ☐ Motion/Predictors adjusted
- ☐ Shunt terminations
- ☐ Shunt 90%
- ☐ Shunt 50% on Predictors, Linearization.
- ☐ Verified warning time
- ☐ Power off light