

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Washington State Department of  
Transportation**

\_\_\_\_\_  
Petitioner,

vs.

**Central Puget Sound Regional  
Transportation Authority and the City of  
Lakewood**

\_\_\_\_\_  
Respondent

) DOCKET NO. TR-

)  
) PETITION TO MODIFY A  
) HIGHWAY-RAIL GRADE  
) CROSSING  
) **100<sup>th</sup> Street SW**

) USDOT CROSSING # **085402S**  
) UTC CROSSING # **1J 8.40**  
)  
)

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.....  
The Petitioner asks the Washington Utilities and Transportation Commission to approve modification of a highway-rail grade crossing.

*Section 1 – Petitioner’s Information*

<b>Washington State Department of Transportation</b>
_____ Petitioner <b>310 North Maple Park Ave SE</b>
_____ Street Address <b>Olympia, WA 98504</b>
_____ City, State and Zip Code <b>PO Box 47387, Olympia, WA 98504-7387</b>
_____ Mailing Address, if different than the street address <b>Kevin Jeffers</b>
_____ Contact Person Name <b>360-705-7982; JefferK@wsdot.wa.gov</b>
_____ Contact Phone Number and E-mail Address

*Section 2 – Respondent's Information*

**Central Puget Sound Regional Transportation Authority ("Sound Transit")**

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Respondent

**401 South Jackson Street**

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Street Address

**Seattle, WA 98104-2826**

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City, State and Zip Code

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Mailing Address, if different than the street address

**Jodi Mitchell**

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Contact Person Name

**206-398-5080; Jodi.Mitchell@SoundTransit.org**

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Contact Phone Number and E-mail Address

*Section 3 – Current Crossing Information*

1. Railroad company(ies) \_\_\_\_\_  
• Tracks owned by: Sound Transit  
• Operating railroad: Tacoma Rail, BNSF

2. Type of railroad at crossing     Common Carrier     Logging     Industrial  
 Passenger     Excursion

3. Type of tracks at crossing     Main Line, number of tracks 1 (a second track is still in the pavement, although it's a disconnected stub)  
 Siding or Spur, number of tracks \_\_\_\_\_

4. Average daily train traffic, freight 2 per day (trains typically operate 4-5 days/week, max.)  
Authorized freight train speed 10 mph    Operated freight train speed 10 mph

5. Average daily train traffic, passenger 0  
Authorized passenger train speed N/A    Operated passenger train speed N/A

6. Describe current crossing configuration including type of train detection, active warning devices, preemption, etc.:  
**This is currently a single active track crossing with cantilever-mounted flashing lights (no gates). There is the disconnected stub of a second track still in the pavement at this location, over which no trains can operate.**

\_\_\_\_\_ **The existing detection circuitry is either motion sensors or constant warning time.** \_\_\_\_\_  
\_\_\_\_\_ **There are no existing medians or crossing gates.** \_\_\_\_\_



*Section 5 – Proposed Temporary Crossing*

1. Will a temporary crossing be installed?      Yes       No

2. If so, describe the purpose of the crossing and the estimated time it will be needed

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Will the petitioner remove the crossing at completion of the activity requiring the temporary crossing?      Yes       No       N/A

Approximate date of removal \_\_\_\_\_

*Section 6 – Current Highway Traffic Information*

1. Name of roadway/highway 100<sup>th</sup> Street SW

2. Roadway classification Secondary Arterial  
City of Lakewood

3. Road authority \_\_\_\_\_

4. Average annual daily traffic (AADT) 23,050 (in year 2006)

5. Number of lanes 2 WB lanes, 2 EB lanes, plus Left Turn pocket for westbound traffic

6. Roadway speed 35mph

7. Is the crossing part of an established truck route?      Yes \_\_\_\_\_      No

8. If so, trucks are what percent of total daily traffic? 4.6% (PM peak)

9. Is the crossing part of an established school bus route?      Yes       No \_\_\_\_\_

10. If so, how many school buses travel over the crossing each day?      34

11. Describe any changes to the information in 1 through 7, above, expected within ten years:  
**AADT estimated to grow to 31,580 (in year 2020); as part of the project, a new median will be installed on east side of crossing, C-curb will be installed on west side of crossing. The median and C-curb will discourage motorists from evading the crossing gates.**

\_\_\_\_\_

*Section 7 – Alternatives to the Proposed Modifications*

1. Does a safer location for a crossing exist within a reasonable distance of the current or proposed location?      Yes       No

2. If a safer location exists, explain why the crossing should not be located at that site.

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3. Are there any hillsides, embankments, buildings, trees, railroad loading platforms or other barriers in the vicinity which may obstruct a motorist's view of the crossing?

Yes       No

4. If a barrier exists, describe:

- ◆ Whether petitioner can relocate the crossing to avoid the obstruction and if not, why not.
- ◆ How the barrier can be removed.
- ◆ How the petitioner or another party can mitigate the hazard caused by the barrier.

**Views are obstructed a building in the southwest quadrant and fenced areas in the southeast quadrant. Eventually, the northeast quadrant will also have fenced areas.**

**It is infeasible to relocate the buildings, and the existing street grid cannot accommodate a crossing at another location. The barriers to sight lines will be addressed with active warning devices (relocated or new cantilever-mounted flashing lights, and new crossing gates), as well as revised advance pre-emption timing at the intersection of 100<sup>th</sup> Street SW and Lakeview Ave. Also, medians will be installed east of the crossing while west of the crossing a short median, with a C-curb extension, will be installed to discourage risky/illegal motorist behavior.**

**The curb return in the northeast quadrant of the 100<sup>th</sup> Street SW/Lakeview Ave SW intersection will be significantly modified to allow truck turning movements for nearly all WB-50 vehicles (the City's design vehicle), as well as turns for WB-67 vehicles (with some difficulty). The curb modifications will include shifting the curb "inward" nearly 12 feet. This will encourage smoother traffic flow at the intersection which, in turn, should help vehicles clear the tracks more quickly.**

**Finally, the tracks are being shifted eastward approximately 30', which moves the tracks away from an existing building and results in a marginal increase in motorist visibility down the tracks.**

5. Is it feasible to construct an over-crossing or under-crossing at the proposed location as an alternative to an at-grade crossing?

Yes       No

6. If an over-crossing or under-crossing is not feasible, explain why.

**The existing site has multiple businesses near the crossing, as well as nearby roadway intersections. The grades required for the roadway approaches would not meet AASHTO guidelines for vertical curvature unless the street grid in this area were significantly reconfigured.**

7. Does the railway line, at any point in the vicinity of the modified crossing, pass over a fill area or trestle or through a cut where it is feasible to construct an over-crossing or an under-crossing, even though it may be necessary to relocate a portion of the roadway to reach that point?

Yes  No

8. If such a location exists, state:

- ◆ The distance and direction from the proposed crossing.
- ◆ The approximate cost of construction.
- ◆ Any reasons that exist to prevent locating the crossing at this site.

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9. Is there an existing public or private crossing in the vicinity of the proposed modified crossing?

Yes  No

10. If a crossing exists, state:

- ◆ The distance and direction from the proposed crossing.
- ◆ Whether it is feasible to divert traffic from the proposed to the existing crossing.

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**Section 8 – Sight Distance**

1. Complete the following table, describing the sight distance for motorists when approaching the tracks from either direction after modification. “Number of feet from proposed crossing” is measured from the crossing gate along the centerline of the “outside” lane. Sight distance is measured from the edge of traveled way (edge of fog line or curb line) along the CL of track at the crossing. NOTE - for “Left” sight distances, the edge of traveled way is on the *opposite* side of the roadway. The sightlines are restricted by the skew of the crossing. Because this is a skewed crossing, the table is based on sight distances available beginning at the crossing gate, and within a 90-degree range of vision either side of the roadway centerline. Significantly longer sight distances are available in the field if the range of vision is increased beyond 90-degrees.

a. Approaching the crossing from WEST, the current approach provides an unobstructed view as follows: (North, South, East, West)

Direction of sight (left or right)	Number of feet from proposed crossing	Provides an unobstructed view for how many feet
Right	300	30
Right	200	35
Right	100	45
Right	50	230
Right	25	470
Left	300	30
Left	200	60
Left	100	730
Left	50	630
Left	25	630

b. Approaching the crossing from EAST, the current approach provides an unobstructed view as follows: (Opposite direction-North, South, East, West)

Direction of sight (left or right)	Number of feet from proposed crossing	Provides an unobstructed view for how many feet
Right	300	570
Right	200	505
Right	100	235
Right	50	120
Right	25	65
Left	300	230
Left	200	495
Left	100	495
Left	50	495
Left	25	495

2. Will the modified crossing provide a level approach measuring 25 feet from the center of the railway on both approaches to the crossing?

Yes      No X

3. If not, state in feet the length of level grade from the center of the railway on both approaches to the crossing. From the west, the grade is nearly level within 55' of the crossing.

**From the east, the roadway slopes down from the crossing at approximately 1%. The 1%**

slope begins approximately 17' from the edge of the crossing panels. The roadway grade to the east is nearly level within 17' of the crossing panels.

4. Will the modified crossing provide an approach grade of not more than five percent prior to the level grade?

Yes  No

3. If not, state the percentage of grade prior to the level grade and explain why the grade exceeds five percent.

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### *Section 9 – Illustration of Modified Crossing Configuration*

Attach a detailed diagram, drawing, map or other illustration showing the following:

- ◆ The vicinity of the modified crossing.
- ◆ Layout of the railway and highway 500 feet adjacent to the crossing in all directions.
- ◆ Percent of grade.
- ◆ Obstructions of view as described in Section 7 or identified in Section 8.
- ◆ Traffic control layout showing the location of the existing and proposed signage.

**Existing features (buildings, trees, etc) that are obstructions are shown on the accompanying plan in “screened” or “grayscale” lines.**

### *Section 10 – Proposed Warning Signals or Devices*

1. Explain in detail the number and type of proposed automatic signals or other warning devices planned at the crossing, including a cost estimate for each. If the proposed modifications include adding or modifying preemption, contact UTC for the additional worksheets.

**Modifications to the existing warning devices include relocating the existing cantilever on the east side of the tracks. The cantilever will be relocated approximately 40' eastward to accommodate the construction of a new second main track. (The new second track will be located approximately 15' east of the existing single track). The existing cantilever is in good condition, and will receive new LED flashing light units.**

**A new cantilever and gate will be installed on the west side of the tracks. A new gate will be installed on the east side of the tracks.**

**The control equipment for the railroad warning devices will be upgraded to modern constant warning time units, replacing the existing bungalow and hardware. The new circuitry will allow for additional advanced pre-emption time. The interconnection between the grade crossing control equipment and the roadway signal traffic controller will be upgraded to a 6-wire supervisory configuration. The roadway authority can use 2 or 6 of these wires, depending upon their interconnection wiring preferences.**

**An activated blank-out sign with the message or symbol "No Right Turn" is proposed at the intersection of 100<sup>th</sup> Street SW and Lakeview Ave SW, visible to northbound motorists on Lakeview Ave SW. During railroad pre-emption of the traffic signal at this intersection, the blank-out sign will illuminate, thus discouraging northbound motorists on Lakeview Avenue from turning right (eastbound) onto 100<sup>th</sup> Street SW.**

**After the railroad advance pre-emption is in effect, and after the crossing gates have had sufficient time to descend, the green phase on east/westbound 100<sup>th</sup> Street will end. At this time, northbound and southbound traffic on Lakeview Ave will be given green lights in order to minimize effects on traffic. However, during this phase, southbound left turns off Lakeview onto eastbound 100<sup>th</sup> will be prevented by a "No Left Turn" activated blank-out sign.**

**The approximate cost for crossing improvements at 100<sup>th</sup> Street SW is \$514,000.**

*Section 11 – Justification of Installation of Wayside Horn (if applicable)*

1. Describe in detail why this crossing should have a wayside horn installed. Also include a description of where the wayside horns and indicator lights will be installed at the crossing.

**With higher speed operations, wayside horns are being installed to help avoid creating noise for residents adjacent to the track. With higher speed trains, the train horn would begin sounding farther from the crossing, near residential areas and schools. The indicator lights will be installed on top of the cantilever masts, mounted high so that engineers can see them from a distance. Wayside horns will be installed in the northeast and southwest quadrants of the crossing.**

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*Section 12 – Additional Information*

Provide any additional information supporting the proposal, including information such as the public benefits that would be derived from modifying the crossing as proposed.

**The tracks will be shifted approximately 30' eastward from their current location.**

**New concrete crossing panels will be installed on both tracks, and the roadway repaved to match the elevation of the panels.**

**The lane for westbound traffic turning right off 100<sup>th</sup> Street SW onto Lakeview Ave SW will be widened to accommodate truck turning movements. New sidewalks will be added to each side of the crossing. (Please see section 7 for additional information).**

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*Section 13 – Waiver of Hearing by Respondent*

**Waiver of Hearing**

The undersigned represents the Respondent in the petition to modify a highway-railroad grade crossing.

We have investigated the conditions at the crossing proposed for modification. We are satisfied the conditions are the same as described by the Petitioner in this docket. We agree the crossing be modified and consent to a decision by the commission without a hearing.

Dated at \_\_\_\_\_, Washington, on the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

\_\_\_\_\_  
Printed name of Respondent

\_\_\_\_\_  
Signature of Respondent's Representative

\_\_\_\_\_  
Title

\_\_\_\_\_  
Phone number and e-mail address

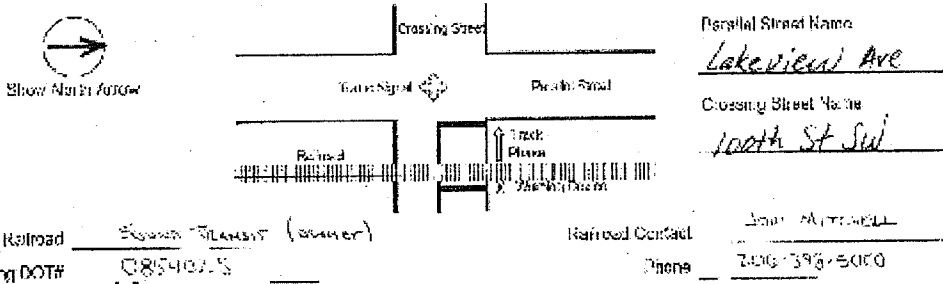
\_\_\_\_\_  
Mailing address

# GUIDE FOR DETERMINING TIME REQUIREMENTS FOR TRAFFIC SIGNAL PREEMPTION AT HIGHWAY-RAIL GRADE CROSSINGS



## GUIDE FOR DETERMINING TIME REQUIREMENTS FOR TRAFFIC SIGNAL PREEMPTION AT HIGHWAY-RAIL GRADE CROSSINGS

City Lakewood Date 6/3/2008  
 County Pierce Completed by Tommy Wang  
 District \_\_\_\_\_ District Approval \_\_\_\_\_



### SECTION 1: RIGHT-OF-WAY TRANSFER TIME CALCULATION

#### Preempt verification and response time

Item	Value	Remarks
1. Preempt delay time (seconds)	0	
2. Controller response time to preempt (seconds)	0	Controller type: <u>TMP-390</u>
3. Preempt verification and response time (seconds); add lines 1 and 2	0	

#### Worst-case conflicting vehicle time

Item	Value	Remarks
4. Worst-case conflicting vehicle phase number	2	
5. Minimum green time during right-of-way transfer (seconds)	6.0	
6. Offset green time during right-of-way transfer (seconds)	0	
7. Yellow change time (seconds)	3.5	
8. Red clearance time (seconds)	2	
9. Worst-case conflicting vehicle time (seconds); add lines 5 through 8	11.5	

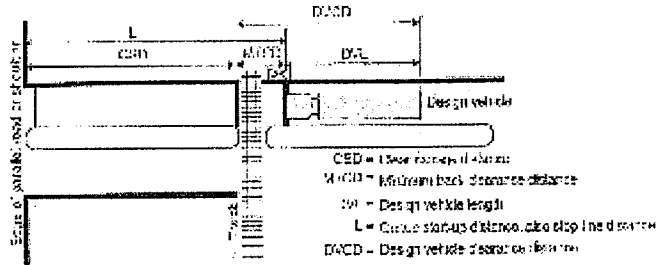
#### Worst case conflicting pedestrian time

Item	Value	Remarks
10. Worst-case conflicting pedestrian phase number	2	
11. Minimum walk time during right of way transfer (seconds)	0	Omitted
12. Pedestrian clearance time during right of way transfer (seconds)	16.0	
13. Vehicle yellow change time, if not included on line 12 (seconds)	3.5	
14. Vehicle red clearance time, if not included on line 12 (seconds)	2	
15. Worst-case conflicting pedestrian time (seconds); add lines 11 through 14	3.5	

#### Worst-case conflicting vehicle or pedestrian time

16. Worst-case conflicting vehicle or pedestrian time (seconds); maximum of lines 9 and 15	11.5
17. Right-of-way transfer time (seconds); add lines 3 and 16	11.5

SECTION 2: QUEUE CLEARANCE TIME CALCULATION



18. Clear storage distance (CSD) (feet) .....	18.	150	Remarks
19. Minimum track clearance distance (MTC), (feet) .....	19.	81	<i>Reviewed</i>
20. Design vehicle length (DVL), (feet) .....	20.	67	Design vehicle type: _____
21. Queue start up distance, L (feet); add lines 18 and 19 .....	21.	231	Remarks
22. Time required for design vehicle to start moving (seconds); calculate as $2 \cdot (L+20)$ .....	22.	2.55	
23. Design vehicle clearance distance, DVCD (feet); add lines 19 and 20 .....	23.	148	
24. Time for design vehicle to accelerate through the DVCD (seconds) .....	24.	16.9	Use from Figure 2 in Introduction.
25. Queue clearance time (seconds); add lines 22 and 24 .....	25.	30.45	

SECTION 3: MAXIMUM PREEMPTION TIME CALCULATION

26. Right-of-way transfer time (seconds); line 17 .....	26.	11.5	Remarks
27. Queue clearance time (seconds); line 25 .....	27.	30.5	
28. Desired minimum separation time (seconds) .....	28.	1.0	
29. Maximum preemption time (seconds); add lines 26 through 28 .....	29.	46	

SECTION 4: SUFFICIENT WARNING TIME CHECK

30. Required minimum time, M1 (seconds) per regulations .....	30.	20	Remarks
31. Clearance time, CT (seconds); get from railroad .....	31.	4.0	<i>Rail signal design</i>
32. Minimum warning time, MWT (seconds); add lines 30 and 31 .....	32.	24.0	Excludes buffer time (BT)
33. Advance preemption time, APT, if provided (seconds); get from railroad .....	33.	22.6	
34. Warning time provided by the railroad (seconds); add lines 32 and 33 .....	34.	46.0	
35. Additional warning time required from railroad (seconds); subtract line 34 from line 29, round up to nearest full second, enter 0 if less than 0 .....	35.	0	

If the additional warning time required (line 35) is greater than zero, additional warning time has to be requested from the railroad. Alternatively, the maximum preemption time (line 29) may be decreased after performing an engineering study to investigate the possibility of reducing the values on lines 1, 5, 6, 7, 8, 11, 12, 13 and 14.

Remarks: \_\_\_\_\_



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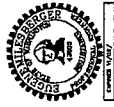
**ROADWAY CHANNELIZATION NOTES**

14. PAINTED TWO WAY LEFT TURN STRIP WITH RAISED PAVEMENT MARKERS PER C.O.T. CHANNELIZATION DETAILS. RAISED PAVEMENT MARKERS AND PAINT STRIPING STD. PLAN.
15. PAINTED 4" LANE STRIPE WITH RAISED PAVEMENT MARKERS PER C.O.T. CHANNELIZATION DETAILS. RAISED PAVEMENT MARKERS AND PAVEMENT STRIPING STD. PLAN.
21. PLASTIC PAVEMENT "ONLY" PER C.O.T. PLASTIC PAVEMENT "ONLY" STD. PLAN.
22. THERMOPLASTIC TRAFFIC ARROW PER C.O.T. TYPICAL THERMOPLASTIC TRAFFIC ARROW STD. PLAN.
40. PLASTIC TYPE D STOP BAR PER WSDOT STD. PLAN M-11.10-01.
41. PLASTIC TYPE D RAILROAD CROSSING SYMBOL PER WSDOT STD. PLAN M-11.10-01. WITH EXCEPTIONS TO STANDARD LAYOUT DIMENSIONS AS NOTED IN PLAN VIEW.
42. PLASTIC TYPE D EDGE LINE YELLOW PER WSDOT STD. SPECIFICATIONS.
43. PLASTIC TYPE D EDGE LINE WHITE PER WSDOT STD. SPECIFICATIONS. (NOT USED)
44. CITY OF LAKEWOOD DURABLE MARKING TRAFFIC ARROW TYPE 2SR PER WSDOT STD. PLAN M-24.40-01.
45. PLASTIC TYPE D CROSSWALK LINE PER WSDOT STD. PLAN M-15.10-01. (NOT USED)
46. PLASTIC TYPE D WIDE LINE PER WSDOT STD. SPECIFICATIONS. (NOT USED)
47. PLASTIC TYPE D DOUBLE YELLOW CENTER LINE PER WSDOT STD. SPECIFICATIONS. (NOT USED)
48. PLASTIC TYPE D LANE LINE PER WSDOT STD. SPECIFICATIONS. (NOT USED)
49. CITY OF LAKEWOOD DURABLE MARKING RAILROAD CROSSING SYMBOL PER WSDOT STD. PLAN M-11.10-01. WITH EXCEPTIONS TO STANDARD LAYOUT DIMENSIONS AS NOTED IN PLAN VIEW.
50. CITY OF LAKEWOOD DURABLE MARKING STOP BAR PER WSDOT STD. PLAN M-11.10-00.
51. CITY OF LAKEWOOD DURABLE MARKING TRAFFIC ARROW TYPE 2SL PER WSDOT STD. PLAN M-24.40-01.
52. CITY OF LAKEWOOD DURABLE MARKING TRAFFIC LETTERS "ONLY". DIMENSIONS PER WSDOT STD. SPECIFICATIONS.
53. CITY OF LAKEWOOD DURABLE MARKING EDGE LINE YELLOW. DIMENSIONS PER WSDOT STD. SPECIFICATIONS.
54. CITY OF LAKEWOOD DURABLE MARKING 24" STOP BAR PER CITY OF LAKEWOOD STD. PLAN CH-1.
55. PLASTIC TYPE D TRAFFIC ARROW TYPE 2SL PER WSDOT STD. PLAN M-24.40-01. (NOT USED)
56. PLASTIC TYPE D TRAFFIC LETTERS "ONLY" PER WSDOT STD. SPECIFICATIONS. (NOT USED)
57. CITY OF LAKEWOOD DURABLE MARKING BICYCLE LANE SYMBOL PER WSDOT STD. PLAN M-9.50-01.
58. CITY OF LAKEWOOD DURABLE MARKING EDGE LINE WHITE. DIMENSIONS PER WSDOT STD. SPECIFICATIONS.
59. CITY OF LAKEWOOD DURABLE MARKING WIDE LINE. DIMENSIONS PER WSDOT STD. SPECIFICATIONS.
60. CITY OF LAKEWOOD DURABLE MARKING DOUBLE YELLOW CENTER LINE. DIMENSIONS PER WSDOT STD. SPECIFICATIONS.
61. TYPE 1 AND 2 RPM DOUBLE YELLOW CENTER LINE PER WSDOT STD. PLAN M-20.50.01. (NOT USED)
62. RAISED PAVEMENT MARKER TYPE 1Y DOUBLE YELLOW CENTER LINE PER WSDOT STD. PLAN M-20.50-01. (NOT USED)
63. RAISED PAVEMENT MARKER TYPE 1W AND LANE LINE PER DETAIL SHEET R00E112A.
64. RAISED PAVEMENT MARKER TYPE 1Y AND TWO WAY LEFT TURN LINE PER DETAIL SHEET R00E112A.
65. PLASTIC TYPE D TRAFFIC ARROW TYPE 6SL. DIMENSIONS PER WSDOT STD. PLAN M-24.40.01. LAYOUT PER LANE REDUCTION DETAIL ON SHEET R00E118A. (NOT USED)
66. PLASTIC TYPE D TRAFFIC ARROW TYPE 2SR PER WSDOT STD. PLAN M-24.40-01. (NOT USED)
67. CITY OF LAKEWOOD DURABLE MARKING CROSSWALK PER CITY OF LAKEWOOD STD. PLAN CH-1.
68. CITY OF LAKEWOOD DURABLE MARKING LANE LINE PER SPECIFICATION SECTION 01900. REVISIONS TO WSDOT STD. SPECIFICATION 81-22 AND 9-24. DIMENSIONS PER WSDOT STD. SPECIFICATIONS.
69. PLASTIC TYPE D STOP LINE PER WSDOT STD. PLAN M-15.10-01. (NOT USED)
70. PAINT TOP AND EXPOSED SIDES OF CURB YELLOW WITH GLASS BEADS. PER SPECIFICATION SECTION 01900.

**GENERAL NOTES - ROADWAY CHANNELIZATION**

1. ALL UNITS ARE IN FEET UNLESS OTHERWISE SPECIFIED.

FILE NAME	RD_ERICHENW.dwg	REVISION	DATE	BY
DATE	10/23/20			
DESIGNED BY	MLC 02/2008			
DESIGNED BY	challcott			
ENTERED BY	ROH			
CHECKED BY	XXX			
PROJ. ENGR.				
REGIONAL ADM.				



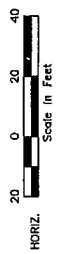
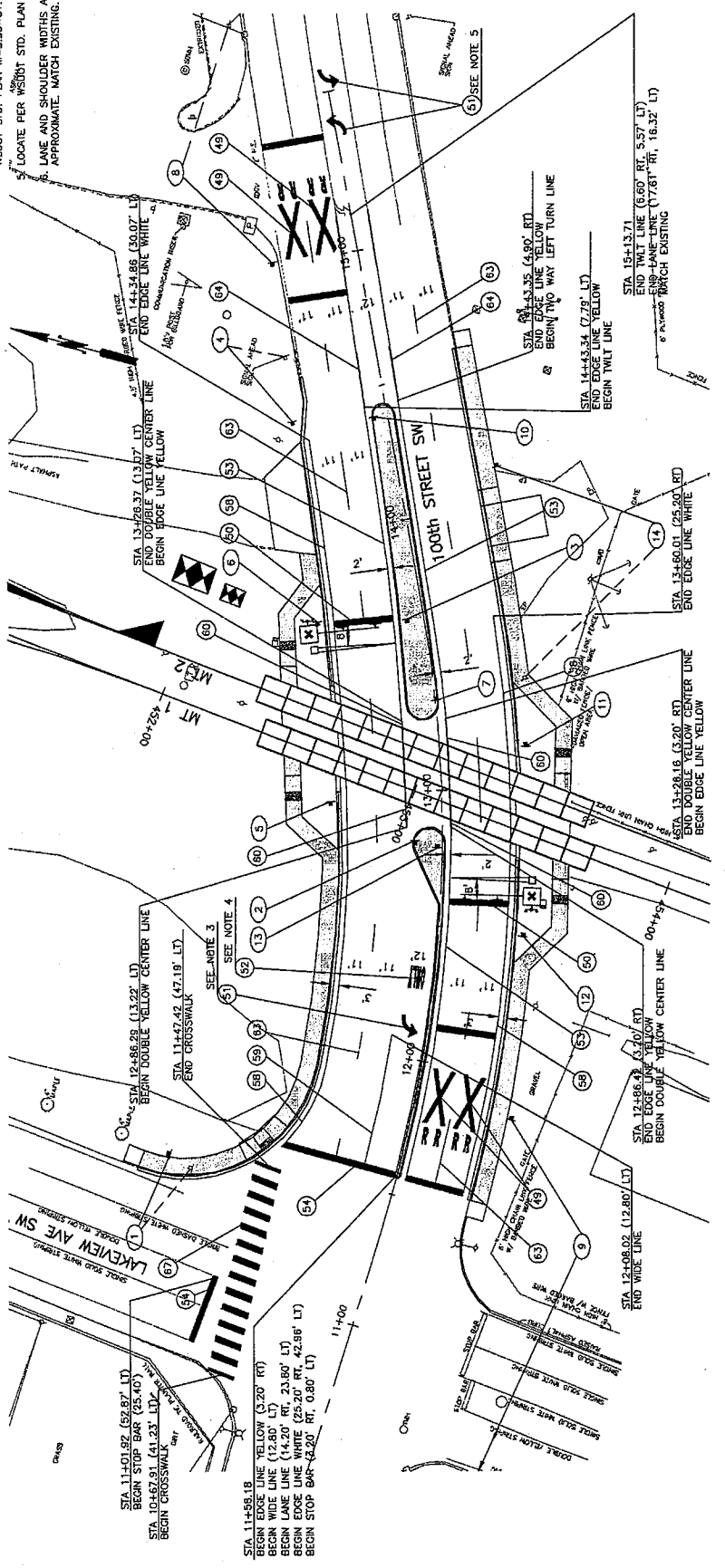
POINT DEFERENCE BYPASS PROJECT  
100% PS&E SUBMITTAL  
ROADWAY CHANNELIZATION NOTES

ROADWAY CHANNELIZATION NOTES

RDCH00A  
SHEET  
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SHEETS

**GENERAL NOTES:**

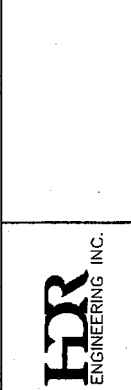
1. SEE DRAWING R08CH04 FOR CHANNELIZATION NOTES AND ADDITIONAL GENERAL NOTES.
2. SEE DRAWING R08112A FOR SIGN SCHEDULE AND R08110A FOR NOTES.
3. LOCATE PER WSDOT STD. PLAN M-3.20-01.
4. LOCATE PER LANE MESSAGE DETAIL ON WSDOT STD. PLAN M-3.50-01.
5. LOCATE PER WSDOT STD. PLAN M-3.40-01. LANE AND SHOULDER WIDTHS ARE APPROXIMATE. MATCH EXISTING.



FILE NAME		R08_R08CH112A.dwg	
DATE	3/27/08	STATE	10 WASH
DESIGNED BY	CLG:R08	JOB NUMBER	
ENTERED BY	CLG:R08	CONTRACT NO.	
CHECKED BY	CR	COMPTON	
PROJ. ENGR.	RB	REVISION	
REGIONAL ADM.		DATE	
		BY	

POINT DEFIANCE BYPASS PROJECT  
100% PS&E SUBMITTAL  
100th STREET SW

CHANNELIZATION AND SIGNING PLAN





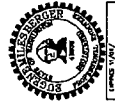
REVISION	DATE	BY

**GENERAL NOTES:**

1. SEE DRAWING ROST10A FOR SIGNING LEGEND AND ADDITIONAL GENERAL NOTES.

Sheet Number	Sign Number	Sign Code	Location	Size	Streeting Type	Letter Size or Code	Post Material	Post Size	Post Length	Clearance	Remarks	Action
				X	Y					V	W	
ROCH112A	1	W4-2L	11+39.97	36	36	-	WOOD	4"x4"	13.0'	7'	11.5'	RELOCATE
ROCH112A	2	W12-401L	12+41.20	12	36	III or IV	WOOD	4"x4"	10.0'	4'	2.5'	LANE ENDS LATERAL CLEARANCE MARKER (LEFT)
ROCH112A	3	R8-B	13+45.15	24	30	III or IV	WOOD	4"x4"	12.5'	7'	5'	DO NOT STOP ON TRACKS
ROCH112A	4	W3-3	14+42.80	36	36	STANDARD	WOOD	4"x4"	13.5'	7'	4.5'	SIGNAL AHEAD SYMBOL
ROCH112A	5	R8-B	12+86.03	24	30	III or IV	WOOD	4"x4"	13.0'	7'	6'	DO NOT STOP ON TRACKS
ROCH112A	6	R8-B	12+86.03	24	30	III or IV	WOOD	4"x4"	13.5'	7'	6'	STOP HERE WHEN FLASHING
ROCH112A	7	W12-401L	13+83.05	12	36	III or IV	WOOD	4"x4"	13.0'	7'	2.5'	LATERAL CLEARANCE MARKER (LEFT)
ROCH112A	8	W10-1	14+01.01	DIA	36	-	WOOD	4"x4"	13.0'	7'	2.5'	LATERAL CLEARANCE MARKER (LEFT)
ROCH112A	9	W10-1	11+65.43	DIA	36	-	WOOD	4"x4"	13.0'	7'	11'	RAILROAD ADVANCE SIGN
ROCH112A	10	W12-401L	14+89.27	12	36	III or IV	WOOD	4"x4"	9.5'	4'	3.5'	LATERAL CLEARANCE MARKER (LEFT)
ROCH112A	11	R8-B	13+14.05	24	30	III or IV	WOOD	4"x4"	12.5'	7'	6.7'	DO NOT STOP ON TRACKS
ROCH112A	12	R8-B	12+48.24	24	30	III or IV	WOOD	4"x4"	13.0'	7'	6'	STOP HERE WHEN FLASHING
ROCH112A	13	R8-B	12+78.78	24	30	III or IV	WOOD	4"x4"	13.0'	7'	5'	DO NOT STOP ON TRACKS
ROCH112A	14	R2-1	14+12.95	24	30	STANDARD	WOOD	4"x4"	12.5'	7'	11.2'	SPEED LIMIT 35

FILE NAME	PD_RDS112A.dwg	REVISION	DATE	BY
TITLE	10 WASH	CONTRACT NO.	08010778	
DATE	08/08/2008	CONTRACT NO.	08010778	
DESIGNED BY	CLC	CONTRACT NO.	08010778	
DESIGNED BY	CLC	CONTRACT NO.	08010778	
CHECKED BY	JTB	CONTRACT NO.	08010778	
CHECKED BY	CR	CONTRACT NO.	08010778	
PROJ. ENGR.	EB	CONTRACT NO.	08010778	
REGIONAL ADM.		CONTRACT NO.	08010778	

POINT DEFANCE BYPASS PROJECT  
100% PS&E SUBMITTAL  
100th STREET SW

SIGN SCHEDULE