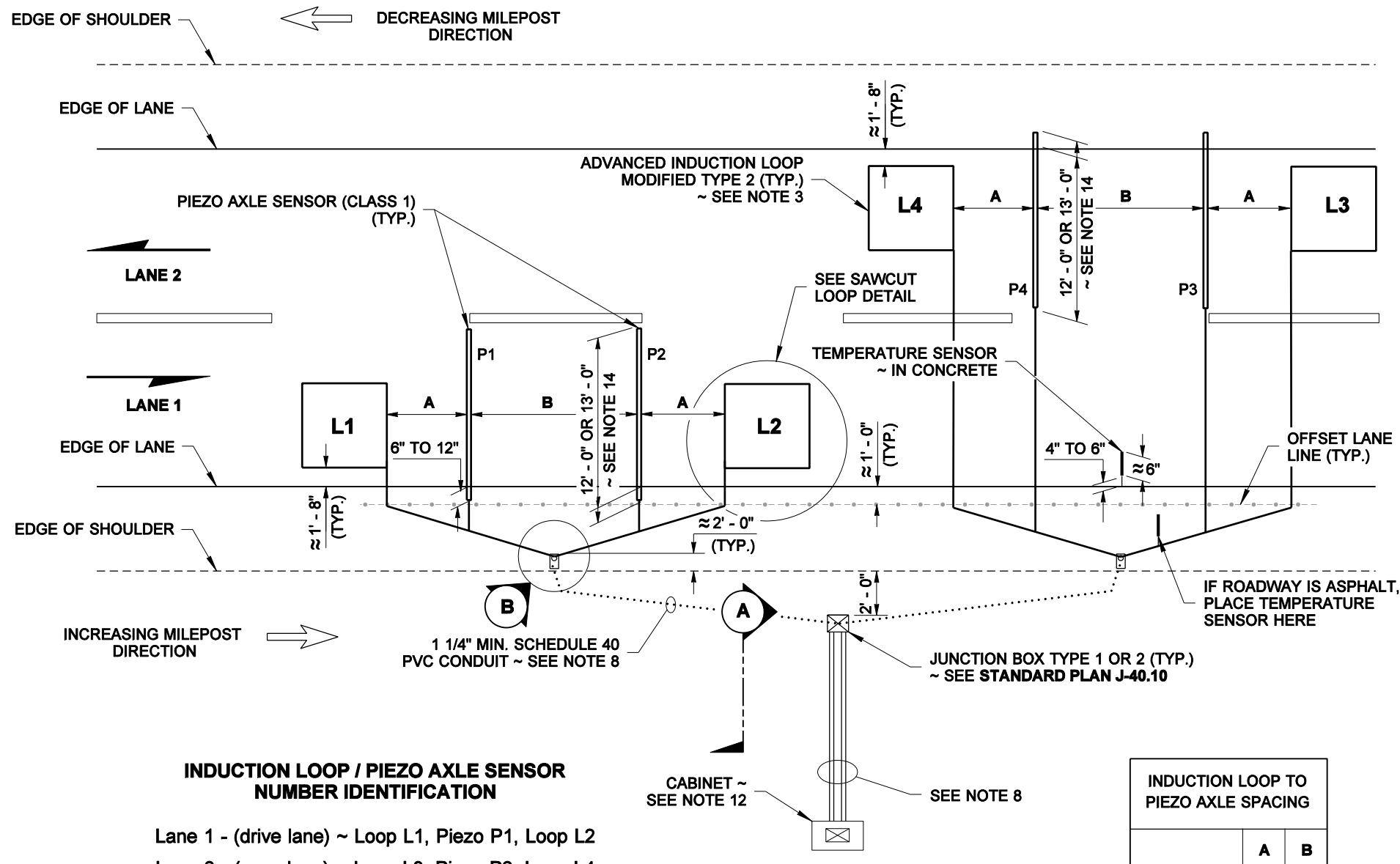


DRAWN BY: FERN LIDDELL

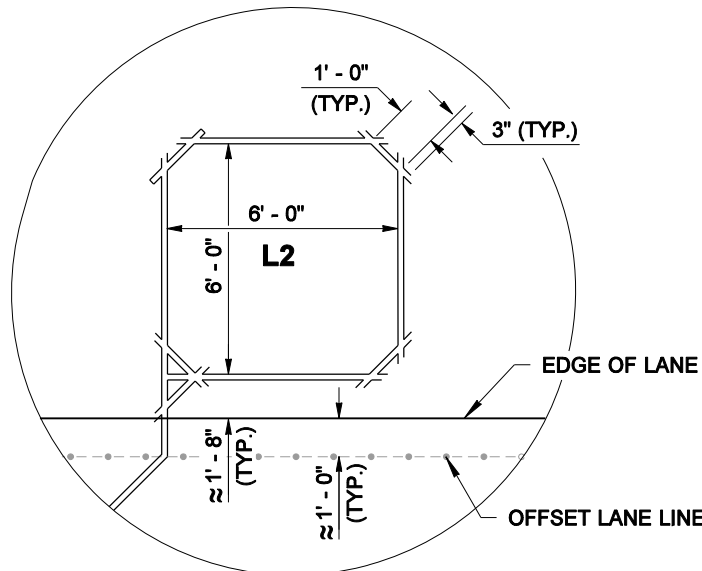


INDUCTION LOOP / PIEZO AXLE SENSOR NUMBER IDENTIFICATION

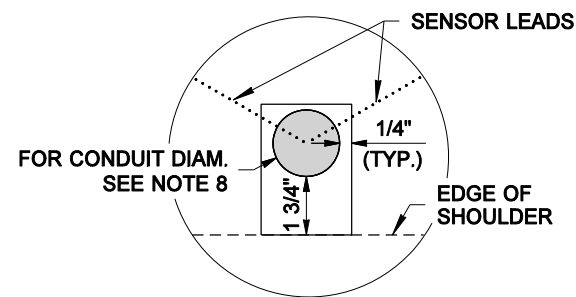
Lane 1 - (drive lane) ~ Loop L1, Piezo P1, Loop L2
 Lane 2 - (pass lane) ~ Loop L3, Piezo P2, Loop L4

**PLAN VIEW
 TYPICAL 2 - LANE WIM LAYOUT**

INDUCTION LOOP TO PIEZO AXLE SPACING		
	A	B
RURAL	6'	12'
URBAN	2'	10'



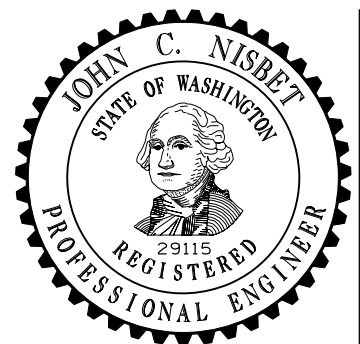
**LOOP SAW-CUT
 DETAIL**



**SHOULDER NOTCH
 DETAIL B**

NOTES

1. See **Standard Plan J-50.30** for Piezo Axle Sensor General Installation instructions, and Modified Type 2 Loop Wiring Details.
2. The Contractor shall notify the Statewide Travel and Collision Data Office (STCDO) (formerly TDO) a minimum of five working days prior to the scheduled site installation. An inspector from the WSDOT STCDO shall be on site for all phases of installation.
3. The loop inductance of two loops within the same lane shall be within 20 micro henries of each other. All piezo ohms readings shall be O/L from shield to center conductor. Class WIM piezo capacitance shall be 8nf to 20nf.
4. The loops and axle sensors shall be cut in the final lift of asphalt after lane striping is completed. All PTR loops shall be spaced @ 16 ft. leading edge to leading edge.
5. For concrete pavement lanes with asphalt shoulders, install all of the piezo sensors and splices in the concrete lane. Also, for concrete pavement lanes, install the loops 4" to 6" away from the expansion joints.
6. The shoulder notch length along the roadway shall be 4" or the conduit diameter plus 2" or whichever is larger. The shoulder notch width perpendicular to the roadway shall be the conduit size plus 1/4".
7. After all sensor leads are installed, seal the end of the conduit with conduit sealant. Use asphalt cold-patch to fill notch unless otherwise specified in Contract.
8. Use Schedule 40 PVC conduit from the Junction Box to the Cabinet. Where there are 2 to 4 lanes, use one 1 1/4" min. conduit for each direction of travel. Where there are 5 lanes in either direction of travel, use one 2" min. conduit for each direction. Where there are 6 or more lanes in either direction, use one 3" min. conduit for each direction.
9. Use Schedule 80 PVC, HDPE, or steel conduit under the roadway. For conduit installation, see **Standard Specification 8-20.3(5)**.
10. Junction Boxes installed in the paved shoulder or median shall be a Heavy Duty Junction Box. If box is installed in unpaved shoulder use type 1 or 2. See **Standard Plan J-40.10** for size and type. See **Standard Specification 9-29.2(1)B**. for further information.
11. All loop wire, loop leads, and piezo leads shall be labeled with colored electrical tape at all Junction Boxes, Pull Boxes and Cabinets. For Wire Color Code Identification Chart & Detail see **Standard Plan J-50.30**.
12. Cabinet can be placed on either side of the road depending on terrain/slope, etc. It does not have to be placed on increasing milepost side of the roadway.
13. For 6-lane layouts and above, see Contract.
14. Concrete lanes shall use 11' class 1 piezos. Asphalt lanes with 1' shoulder or less may use 12' piezos. For shoulders over 1', use 13' piezos.



NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT UNLESS IT IS SIGNED BY THE ENGINEER AND APPROVED FOR BY THE STATE OF WASHINGTON. THE ENGINEER'S SEAL AND SIGNATURE MUST BE FILED AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

**WEIGH-IN-MOTION
 SITE INSTALLATION
 DETAILS
 STANDARD PLAN J-50.25-00**

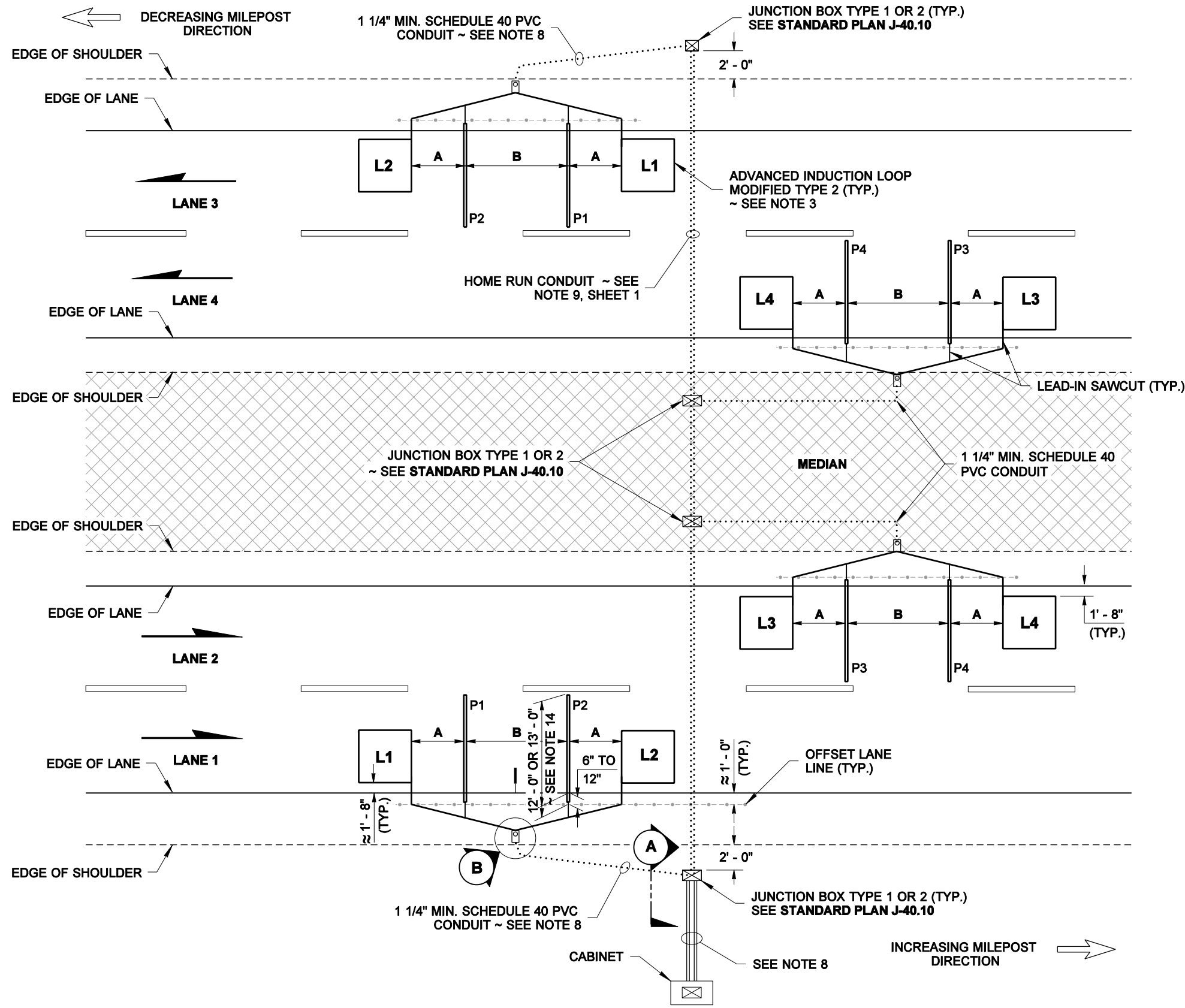
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

Pasco Bakotich III 06-03-11
 STATE DESIGN ENGINEER DATE

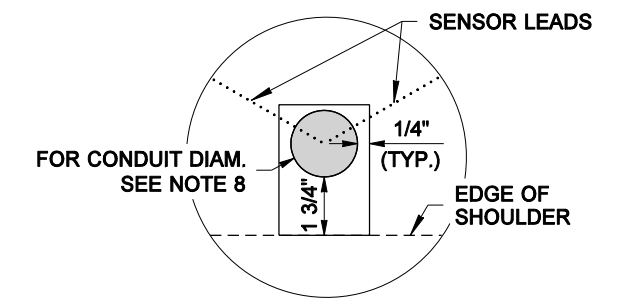


DRAWN BY: FERN LIDDELL

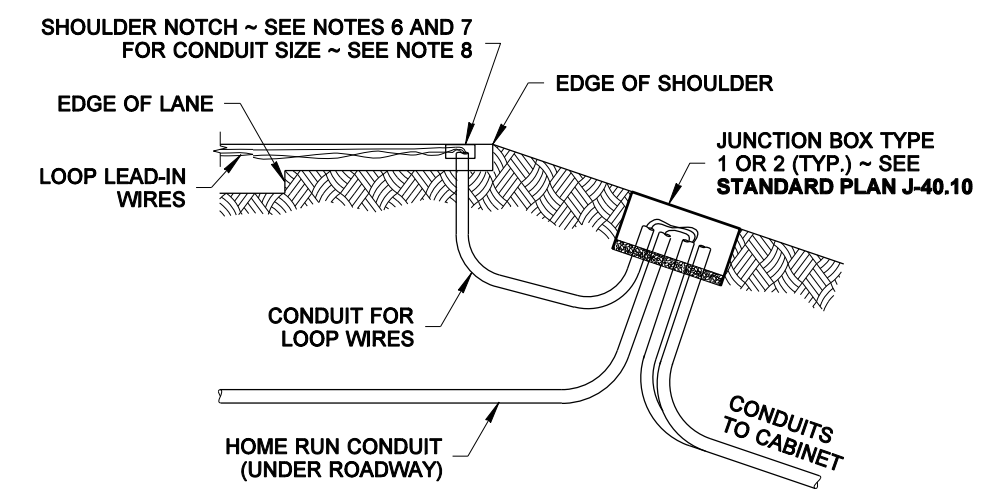


**PLAN VIEW
TYPICAL 4 - LANE WIM LAYOUT WITH MEDIAN**

- | | | |
|--|---|--|
| INCREASING DIRECTION | INDUCTION LOOP / PIEZO AXLE SENSOR
NUMBER IDENTIFICATION | DECREASING DIRECTION |
| Lane 1 - (drive lane) ~ Loop L1, Piezo P1, Piezo P2, Loop L2 | | Lane 3 - (drive lane) ~ Loop L1, Piezo P1, Piezo P2, Loop L2 |
| Lane 2 - (pass lane) ~ Loop L3, Piezo P3, Piezo P4, Loop L4 | | Lane 4 - (drive lane) ~ Loop L3, Piezo P3, Piezo P4, Loop L4 |

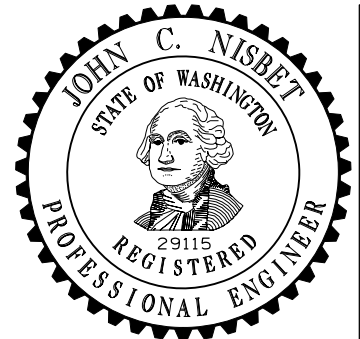


**SHOULDER NOTCH
DETAIL (B)**



SECTION (A)

INDUCTION LOOP TO PIEZO AXLE SPACING		
	A	B
RURAL	6'	12'
URBAN	2'	10'



NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT UNTIL IT IS SIGNED AND SEALED BY THE ENGINEER AND APPROVED FOR BY THE BOARD OF ENGINEERS AND SURVEYORS OF THE STATE OF WASHINGTON. THE ENGINEER AND SURVEYORS DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

**WEIGH-IN-MOTION
SITE INSTALLATION
DETAILS
STANDARD PLAN J-50.25-00**

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

Pasco Bakotich III **06-03-11**
STATE DESIGN ENGINEER DATE

Washington State Department of Transportation