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For Halifax Water Standard Details, see Halifax Regional Water Commission Supplementary Standard Specifications Section 39 00 00 – Standard Details, latest edition

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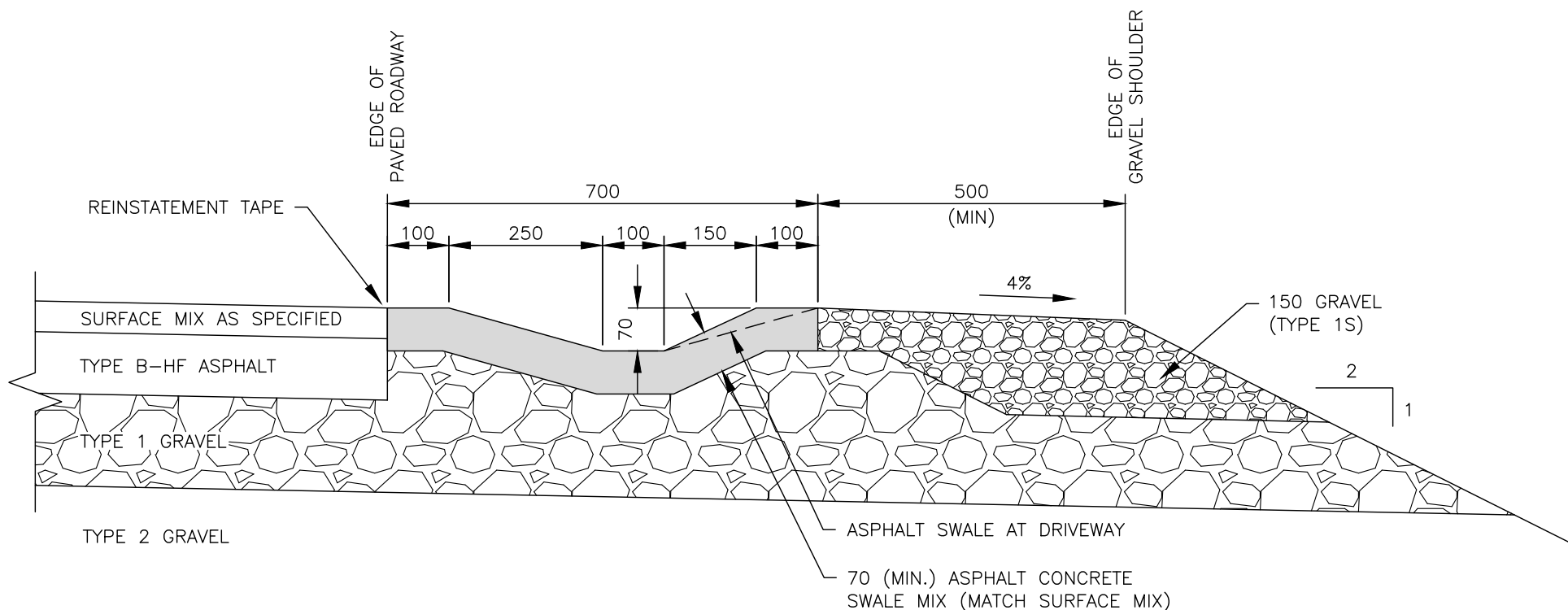
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**Traffic Signal Bases**

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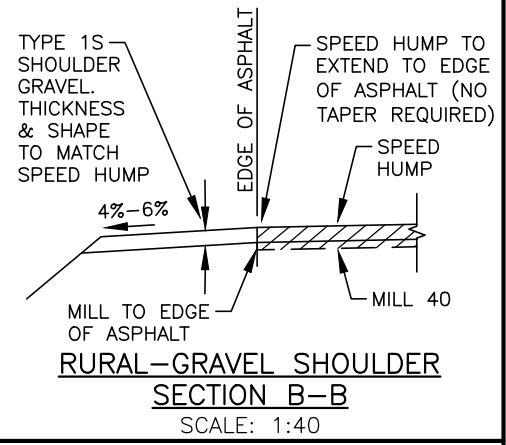
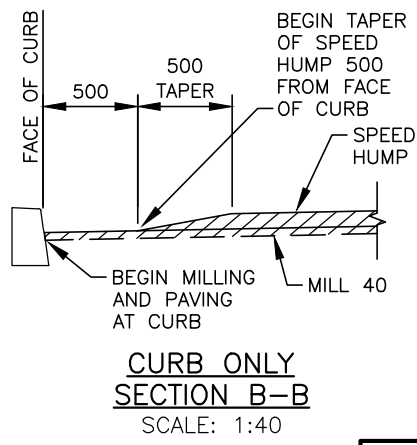
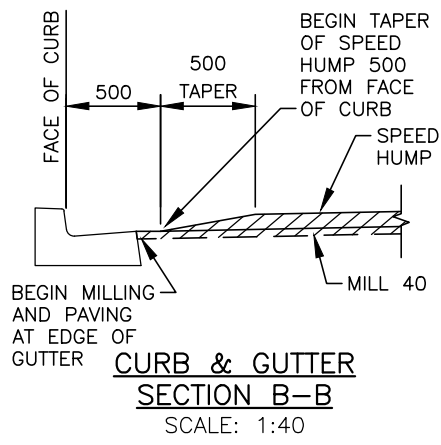
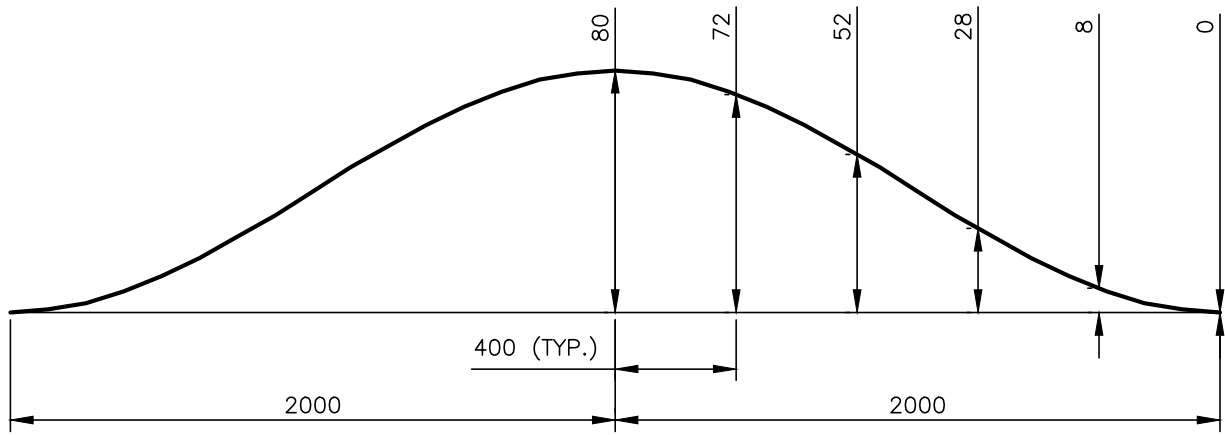
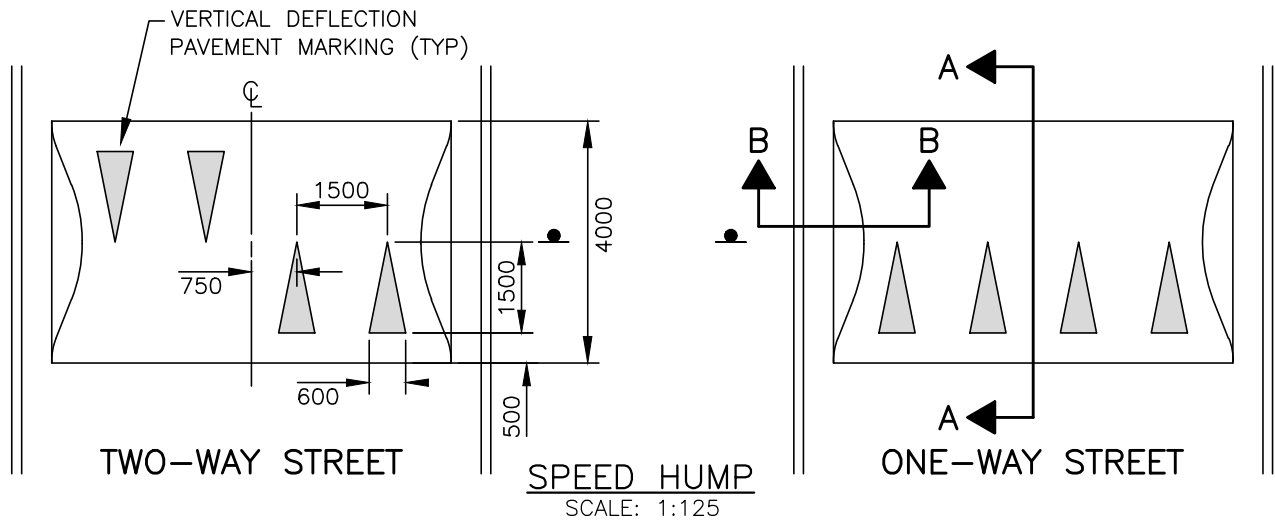
Traffic Signal Base for Configuration A	HRM 68	2021
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Street Lighting Power Enclosure Base	HRM 177	2021



**NOTE:**

1. FOR ALL RURAL ROADS HAVING A GRADE EXCEEDING 7%, ASPHALT SWALES ARE REQUIRED ON EACH SIDE OF THE ROAD (ABUTTING THE ASPHALT TRAVELLED WAY) ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m OR UPSTREAM AT DRIVEWAYS.
2. ASPHALT SWALE SHALL EXTEND TO THE EDGE OF SHOULDER AND DOWN THE SLOPE BY 1 m MINIMUM.
3. MINIMUM SWALE CROSSFALL TO MATCH THE EXISTING SLOPE OF THE ROAD.
4. ASPHALT SWALE TO BE MACHINE PLACED.
5. 1 m ASPHALT APRON REQUIRED AT GRAVEL DRIVEWAYS.
6. DIMENSIONS ARE IN MILLIMETRES.

<h1>HALIFAX</h1>		
<b>STANDARD DETAIL</b>		
<b>ASPHALT SWALE</b>		
DATE: 2021	REFERENCE	APPROVED
SCALE: 1:10		FIG No.: <b>HRM 30</b>



**NOTES:**

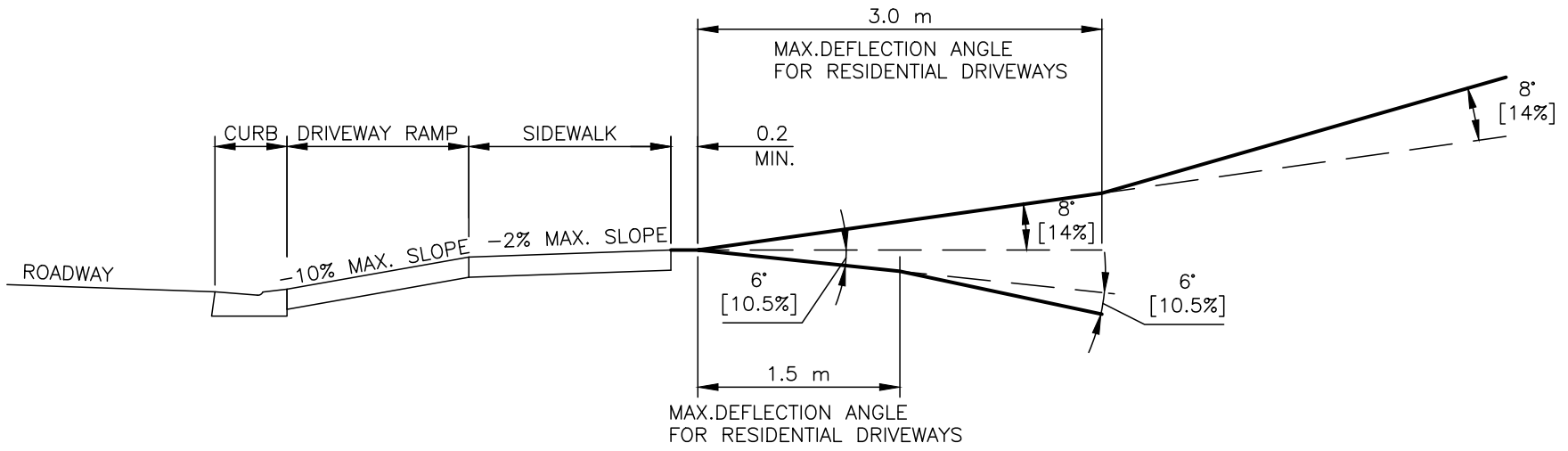
1. TOLERANCE FOR CONSTRUCTION IS +/- 10mm RELATIVE TO THE CURVE.
2. THE EXISTING ASPHALT SURFACE TO BE MILLED TO A DEPTH OF 40mm WHEN RETROFITTING.
3. SPEED HUMPS TO BE CONSTRUCTED USING TYPE D-HF ASPHALT (UNLESS OTHERWISE APPROVED BY HRM).
4. WHERE SPECIFIED, EXISTING UTILITY POLE OR EXISTING SIGN POSTS MAY BE USED FOR SIGNAGE.
5. DIMENSIONS ARE IN MILLIMETRES.

**HALIFAX**

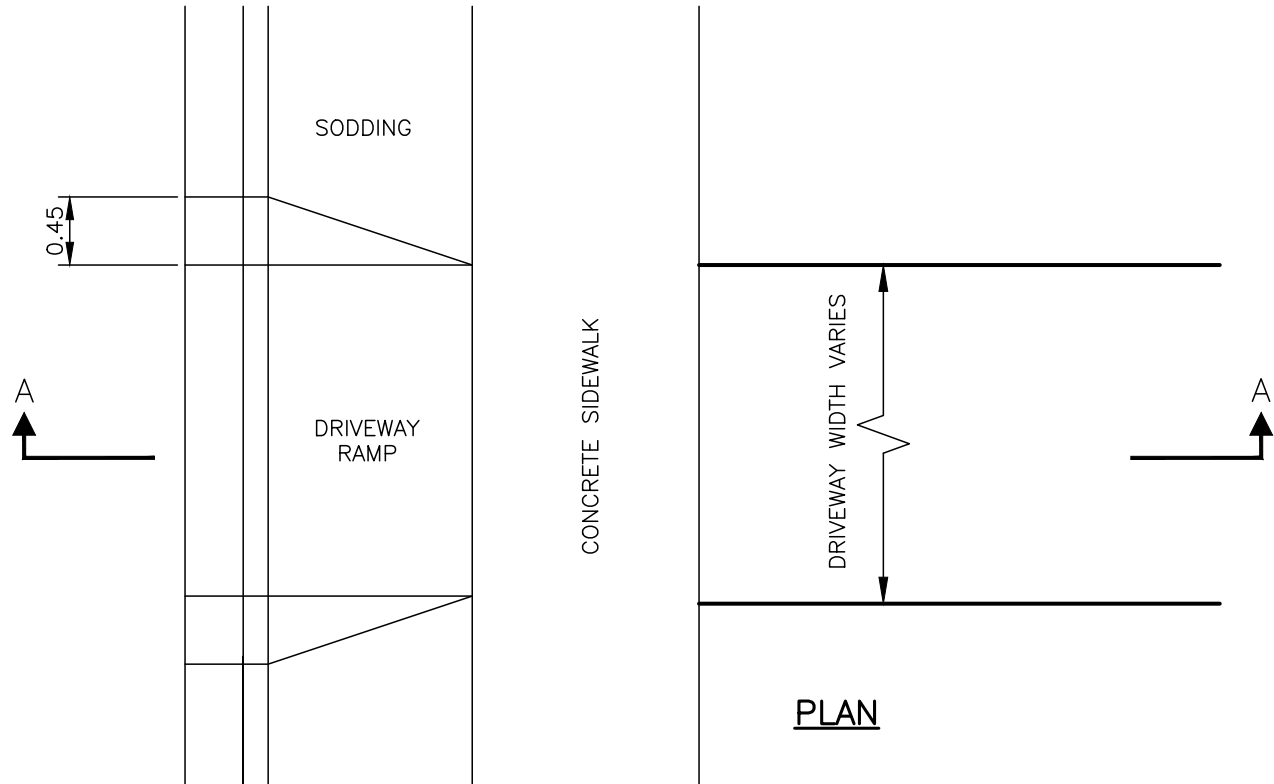
STANDARD DETAIL

**SPEED HUMP**

DATE: 2023	REFERENCE	APPROVED
SCALE: AS NOTED		FIG No.: HRM 31



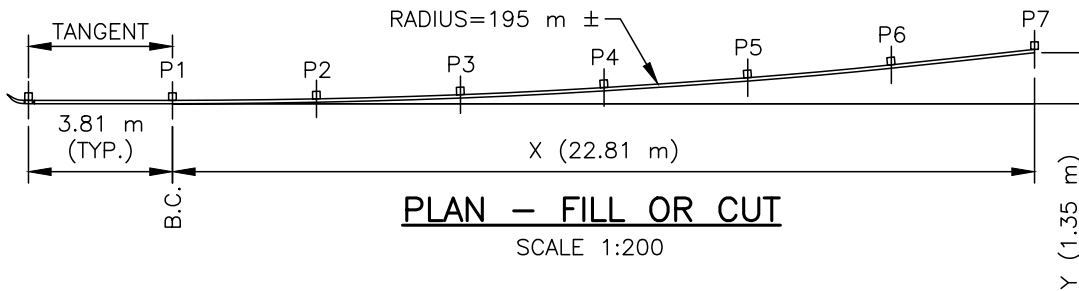
**SECTION A-A**



**NOTE:**

THIS DETAIL IS INTENDED FOR RETROFIT SITUATIONS, I.E. WHERE EXISTING DRIVEWAY GRADES MUST BE ADJUSTED TO MATCH NEW CONDITIONS IN THE STREET RIGHT-OF-WAY.

<b>HALIFAX</b>		
<b>STANDARD DETAIL</b>		
<b>DRIVEWAY DEFLECTION ANGLES &amp; GRADES</b>		
DATE:	2025	REFERENCE
SCALE:	1:50	APPROVED
		FIG No.:
		<b>HRM 32</b>

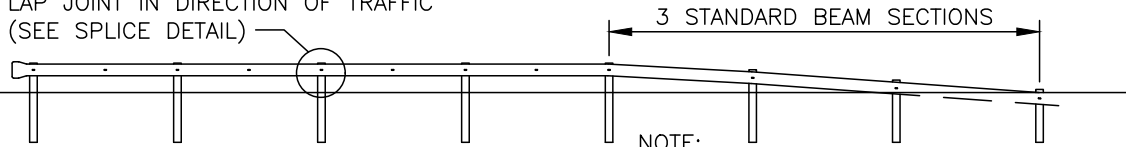


POST OFFSET TABLE		
POST #	X	Y
P1-P2	3.81	0.04
P1-P3	7.62	0.15
P1-P4	11.42	0.34
P1-P5	15.22	0.60
P1-P6	19.02	0.94
P1-P7	22.81	1.35

**PLAN - FILL OR CUT**

SCALE 1:200

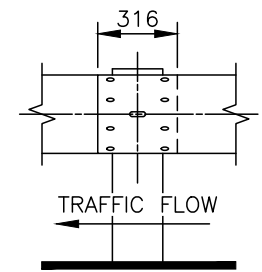
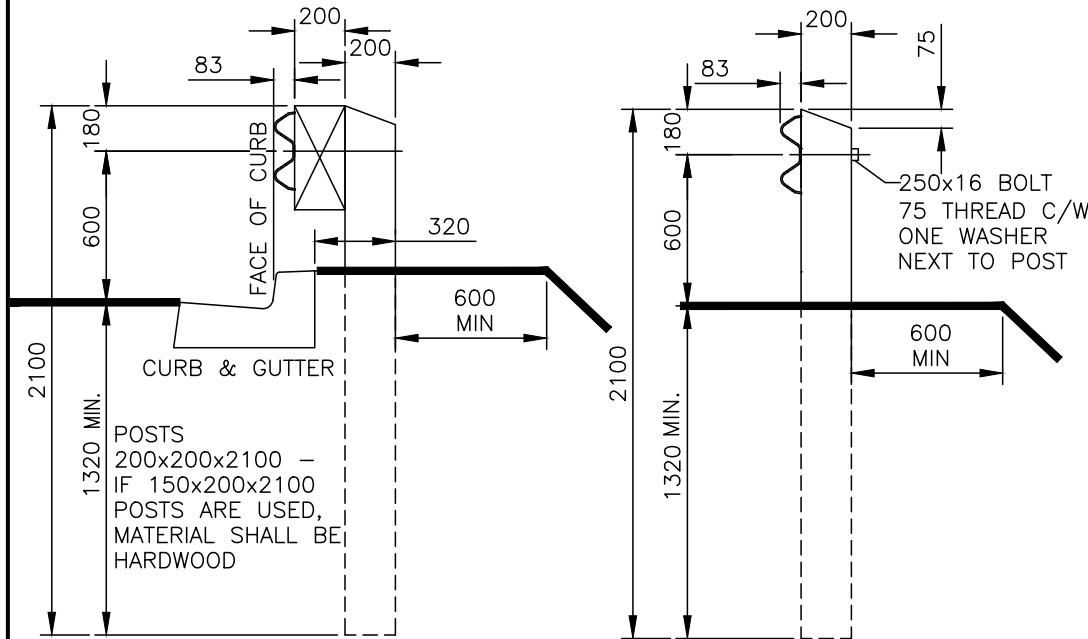
LAP JOINT IN DIRECTION OF TRAFFIC  
(SEE SPLICE DETAIL)



**ELEVATION**

SCALE 1:200

NOTE:  
FOR 2 LANE/2 WAY ROADWAYS,  
BURY BOTH ENDS.



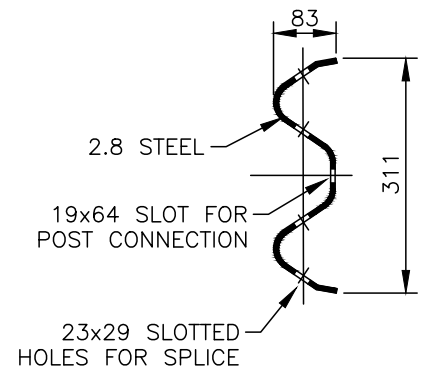
**SPLICE DETAIL**

SCALE 1:30

POSTS  
200x200x2100 -  
IF 150x200x2100  
POSTS ARE USED,  
MATERIAL SHALL BE  
HARDWOOD

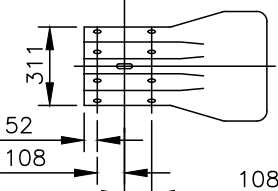
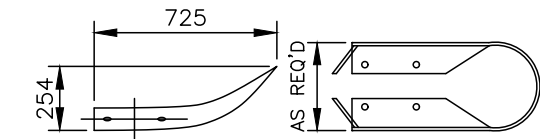
**SECTION**

SCALE 1:30



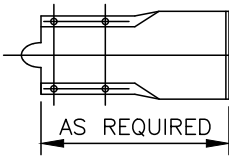
**BEAM SECTION (TYP.)**

SCALE 1:10



**TERMINAL END**

SCALE 1:30



**BUFFER END**

SCALE 1:30

**NOTES:**

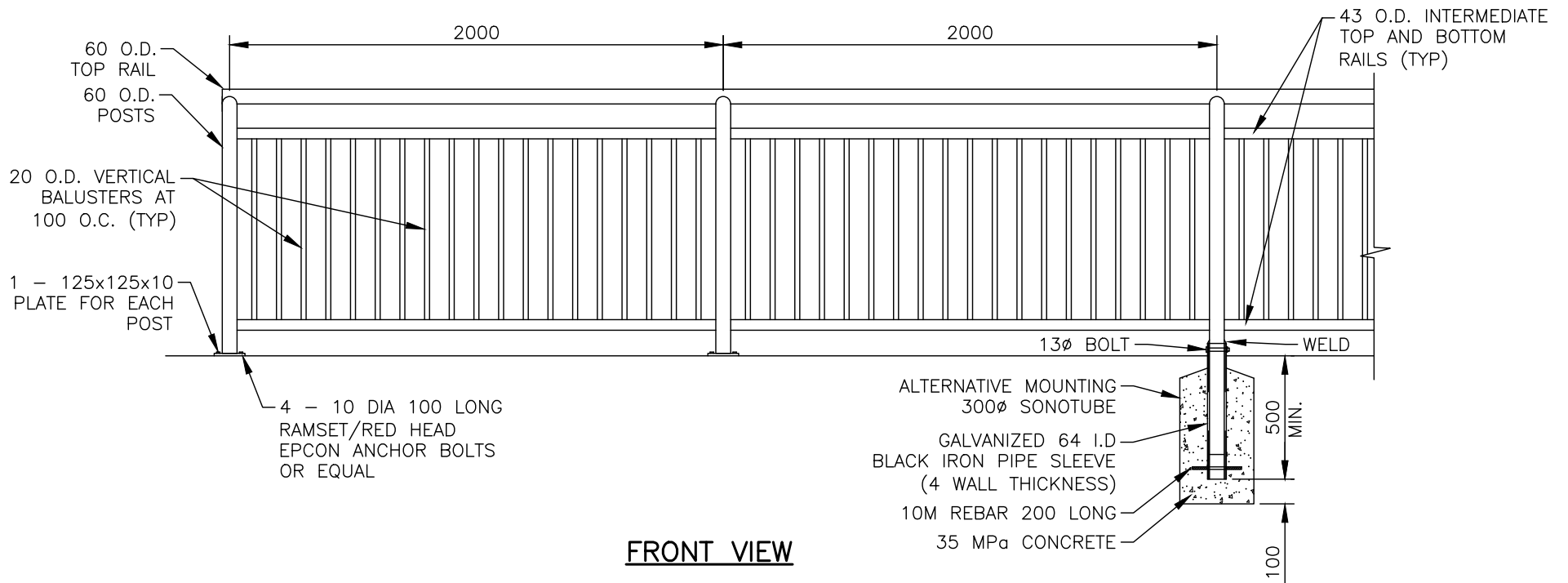
1. TWO 50x75 DELINEATORS ARE REQUIRED FOR EACH POST.
2. A WHITE DELINEATOR SHALL BE PLACED ON THE SIDE OF THE POST FACING TRAFFIC.
3. A YELLOW DELINEATOR SHALL BE PLACED ON THE OPPOSITE SIDE.
4. THE DELINEATOR SHALL BE PLACED ON THE OPPOSITE SIDE.
5. THE DELINEATOR SHALL BE LOCATED AT THE EDGE OF THE POST NEAREST THE ROAD, VERTICAL, WITH THE TOP 75 BELOW THE LOWEST POINT OF THE GUIDE RAIL PANEL.
6. THE DELINEATOR SHALL BE ATTACHED WITH GALVANIZED NAILS.

**HALIFAX**

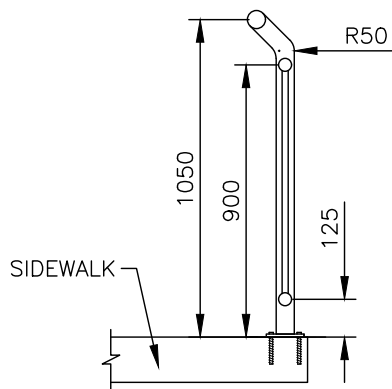
**STANDARD DETAIL**

**GUIDE RAIL  
INSTALLATION**

DATE:	2025	REFERENCE	APPROVED
SCALE:	AS NOTED		FIG No.:
			<b>HRM 36</b>



**FRONT VIEW**



**SIDE VIEW**

**NOTE:**

RAILING SYSTEM TO BE HOT DIPPED GALVANIZED AFTER FABRICATION. FIELD WELDS, IF NECESSARY SHALL BE PROTECTED WITH COLD GALVANIZING.

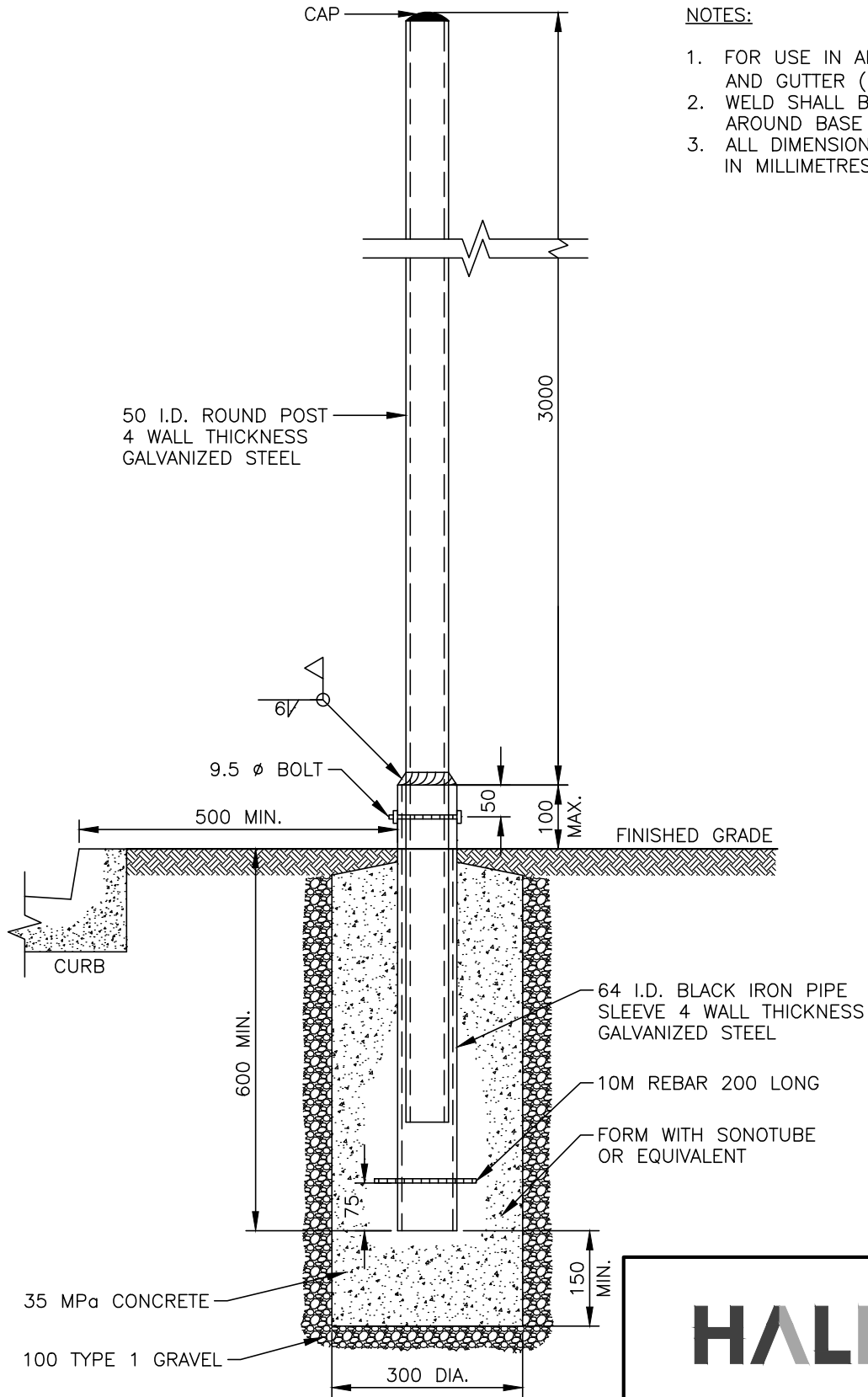
**HALIFAX**

STANDARD DETAIL

RAILING

DATE:	2021	REFERENCE	APPROVED
SCALE:	1:25		FIG No.: <b>HRM 37</b>

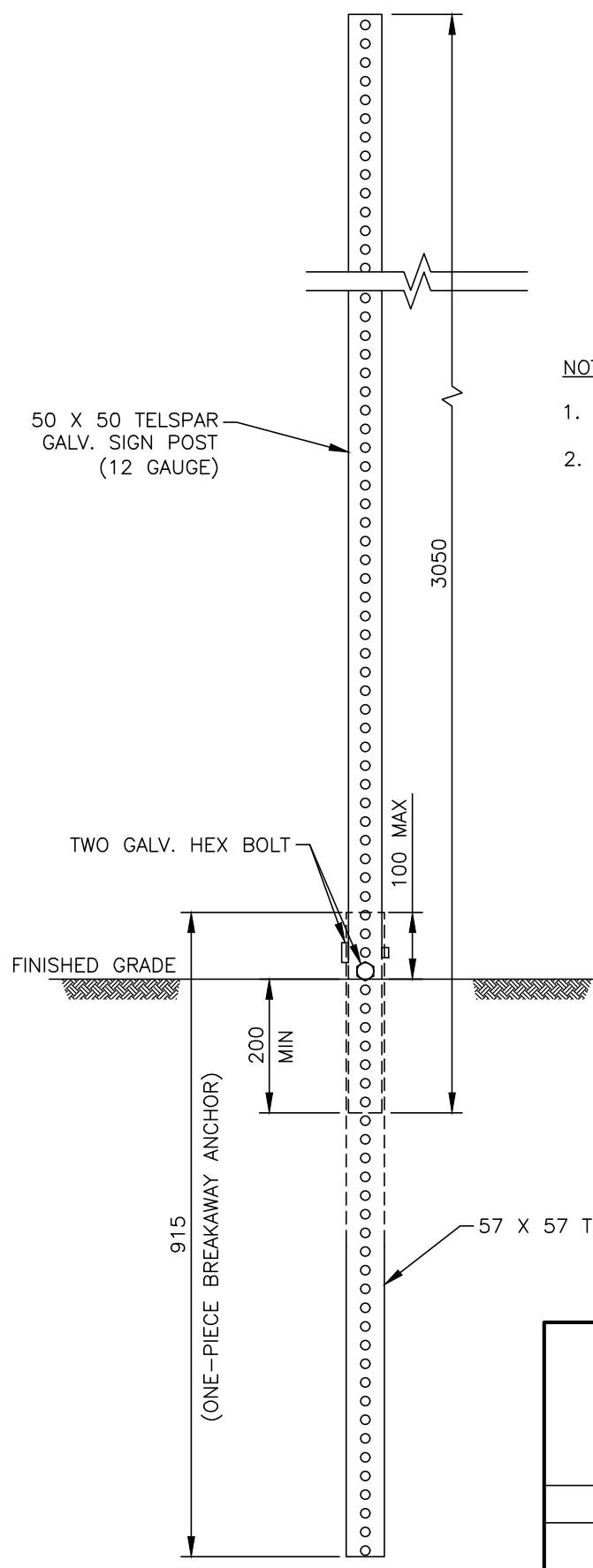




**NOTES:**

1. FOR USE IN AREAS WITH CURB AND GUTTER (URBAN LOCATIONS)
2. WELD SHALL BE COMPLETED AROUND BASE AND POST.
3. ALL DIMENSIONS ARE IN MILLIMETRES.

HALIFAX		
STANDARD DETAIL		
URBAN TRAFFIC SIGN POST		
DATE:	REFERENCE	APPROVED
2023		
SCALE:		FIG No.:
1:10		HRM 38



50 X 50 TELSPAR  
GALV. SIGN POST  
(12 GAUGE)

TWO GALV. HEX BOLT

FINISHED GRADE

200  
MIN

915  
(ONE-PIECE BREAKAWAY ANCHOR)

100 MAX

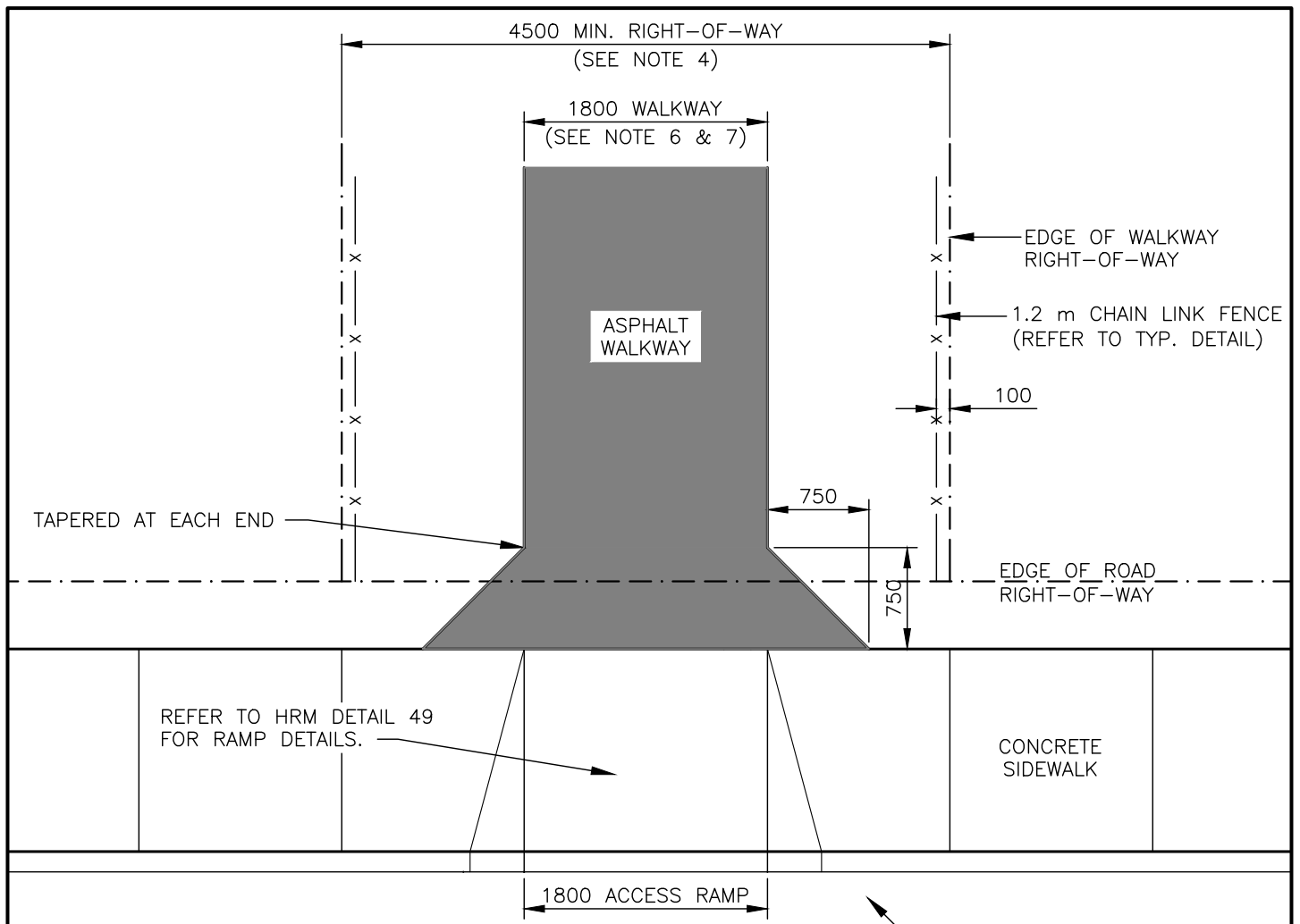
3050

57 X 57 TELSPAR GALV. SLEEVE

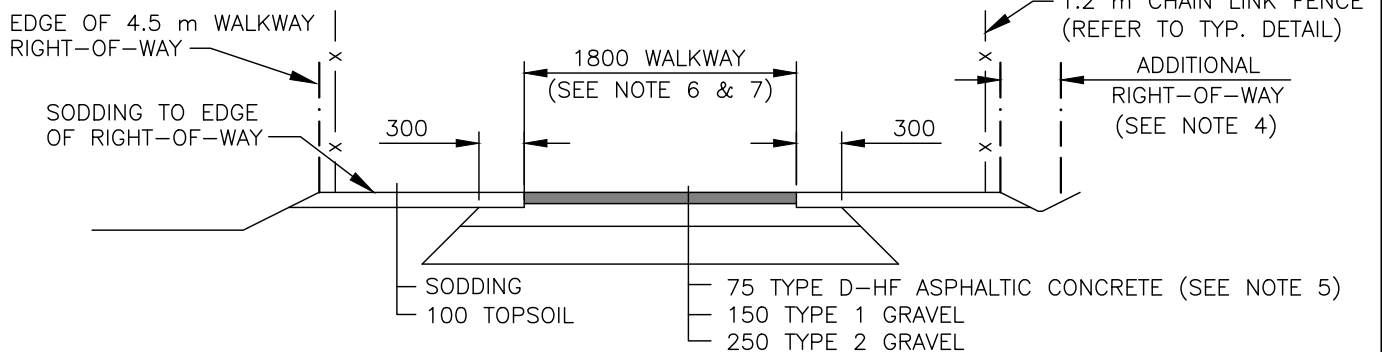
NOTES:

1. FOR USE IN AREAS WITHOUT CURB & GUTTER (RURAL LOCATIONS)..
2. ALL DIMENSIONS ARE IN MILLIMETRES

<h1>HALIFAX</h1>		
<b>STANDARD DETAIL</b>		
<b>RURAL TRAFFIC SIGN POST</b>		
DATE: 2023	REFERENCE	APPROVED
SCALE: 1:10		FIG No.: <b>HRM 39</b>



## PLAN



## PROFILE

### NOTES:

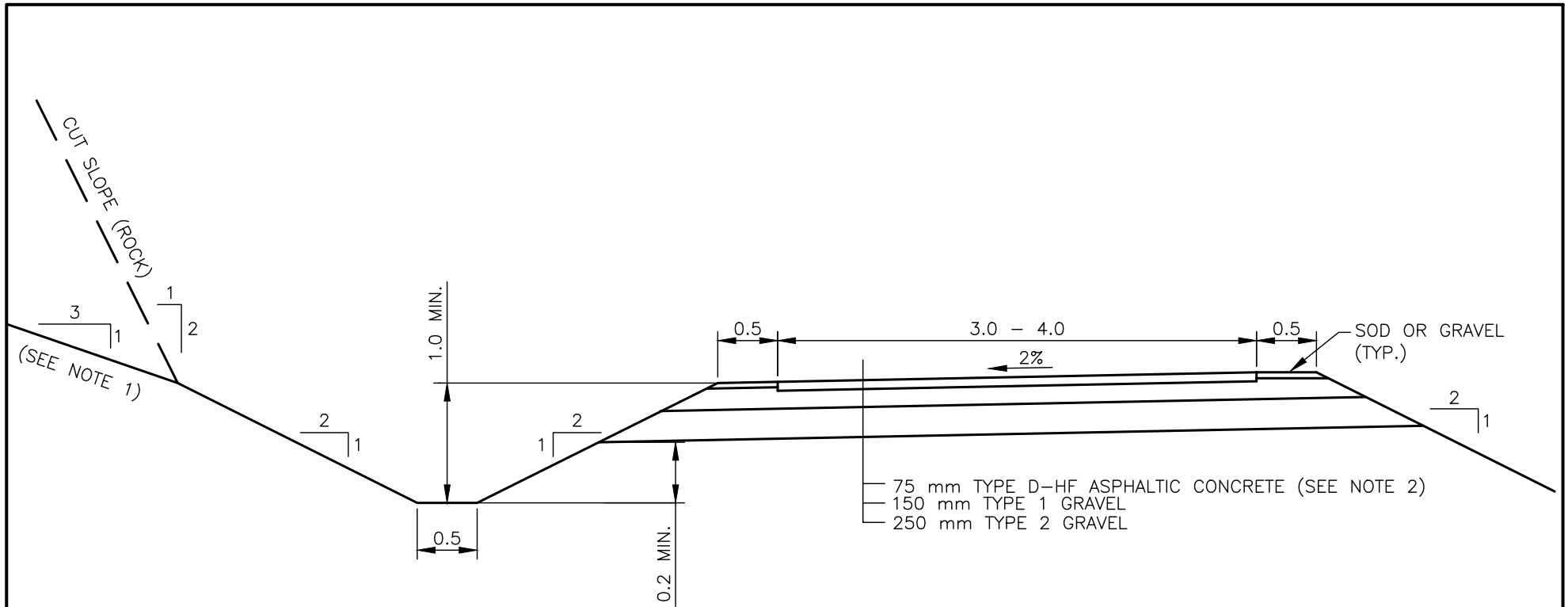
1. WALKWAY CROSSFALL TO BE 2% WITH NO CROWN.
2. THE ENGINEER MAY REQUIRE OR PERMIT USE OF LOW MAINTENANCE MATERIALS IN PLACE OF SODDING.
3. WHERE MUNICIPAL SERVICE SYSTEMS ARE REQUIRED THE MIN. R.O.W. IS TO BE INCREASED TO 6.0 m. THE CHAIN LINK FENCE SHALL BE LOCATED 100 FROM THE EDGE OF THE INCREASED 6.0 m R.O.W..
4. TO ACCOMMODATE SWALE OR CUT/FILL SLOPES ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED.
5. SURFACE MATERIAL TO BE ASPHALTIC CONCRETE UNLESS DIRECTED BY THE ENGINEER.
6. GRADE AS DIRECTED BY THE ENGINEER.
7. TO BE PLACED WITH SPREADER.

# HALIFAX

STANDARD DETAIL

TYPICAL WALKWAY

DATE:	2021	REFERENCE	APPROVED
SCALE:	1:50	FIG No.:	HRM 40



**NOTES:**

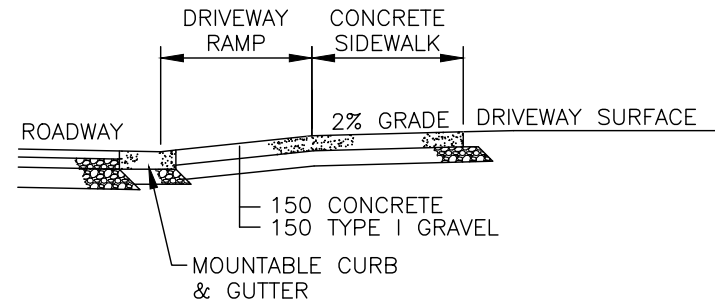
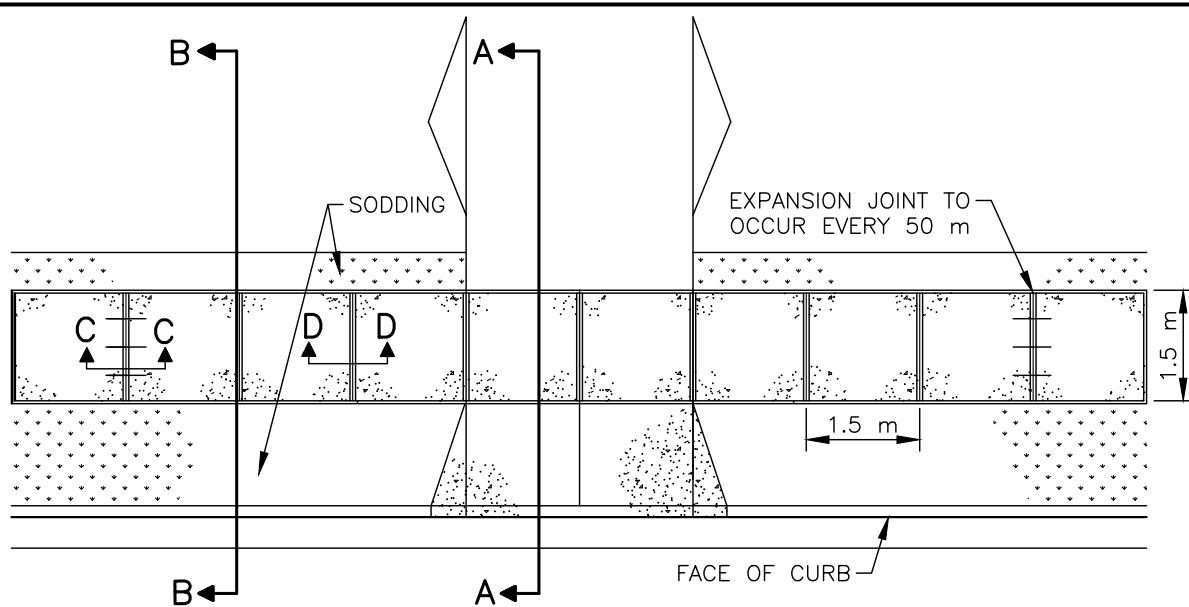
1. ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.
2. SURFACE MATERIAL TO BE ASPHALTIC CONCRETE UNLESS DIRECTED BY THE ENGINEER.
3. RAILING REQUIRED IN FILL GREATER THAN 1.5 m, OR ADJACENT TO WATER.
4. FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.
5. MINIMUM 3.0 m CLEAR WIDTH.

**HALIFAX**

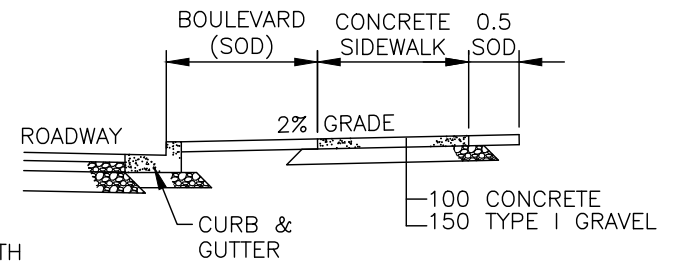
STANDARD DETAIL

ACTIVE TRANSPORTATION  
OFF ROAD TRAIL

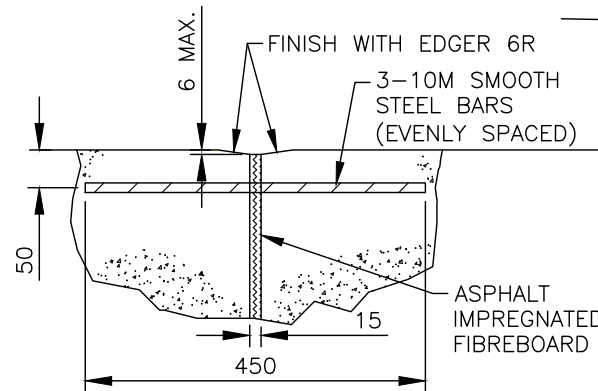
DATE:	2021	REFERENCE	APPROVED
SCALE:	1:50	FIG No.:	HRM 41



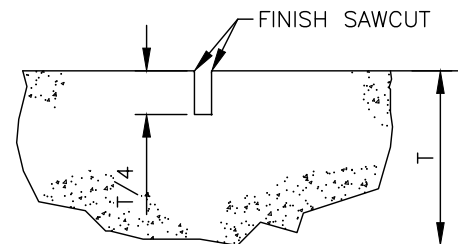
**SECTION A-A**  
(DRIVEWAY CROSS-SECTION)



**SECTION B-B**  
(SIDEWALK CROSS-SECTION)



**SECTION C-C**  
(EXPANSION JOINT)



**SECTION D-D**  
(CONTROL JOINT)

**NOTES:**

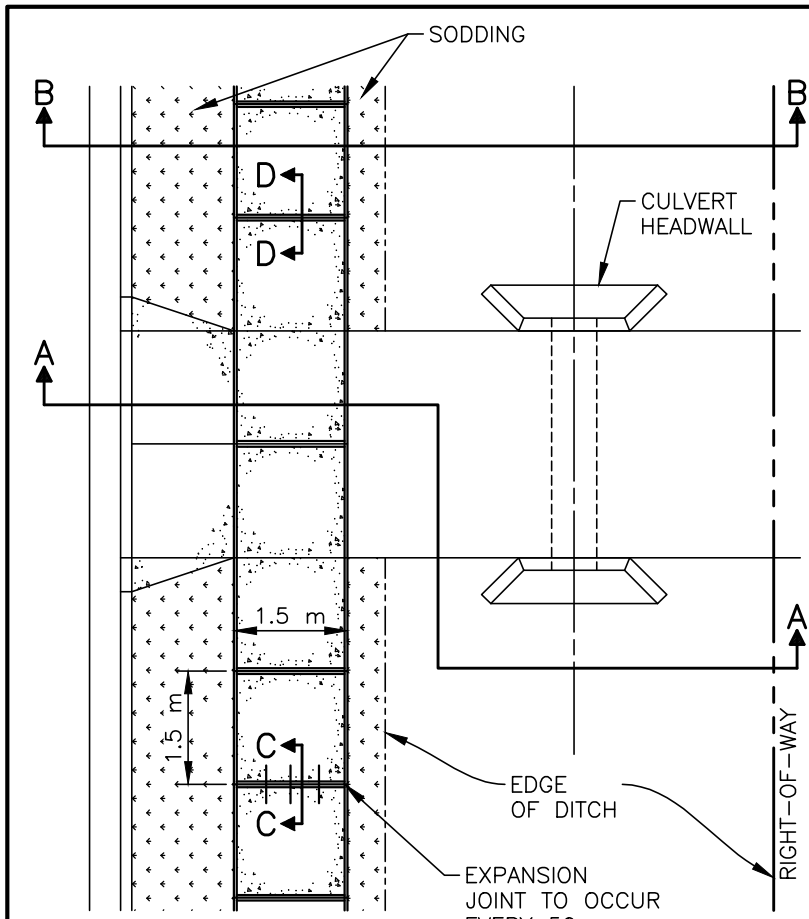
1. CONCRETE SIDEWALK AT COMMERCIAL DRIVEWAY TO BE 150 THICK WITH 150x150 WELDED WIRE MESH.
2. CRUSHED ROCK BASE TO EXTEND 150 BEYOND EDGE OF SIDEWALK STRUCTURE.
3. CONTROL JOINTS ARE TO BE SAW CUT.
4. SIDEWALK ABUTTING HIGH DENSITY AREAS SHALL HAVE FULL WIDTH (3 m) SIDEWALKS.
5. SIDEWALKS ABUTTING COMMERCIAL AREAS ARE TO BE FULL WIDTH (3 m) AND 150 mm THICKNESS.
6. EXPANSION JOINT BARS ARE TO BE GREASED ON ONE SIDE OF THE JOINT.
7. DURING CONSECUTIVE POURS, THE END OF EACH POUR IS TO OCCUR AT AN EXPANSION JOINT. WHERE THIS IS NOT FEASIBLE, AN ADDITIONAL EXPANSION JOINT IS TO BE INSTALLED.
8. INSTALL A 9 m LONG CONCRETE LANDING PAD AT ALL BUS STOP LOCATIONS. INCREASE THIS TO 14.5 m FOR ARTICULATED BUS ROUTES.
9. WHEN BOULEVARD IS LESS THAN 1.5 m OR WHEN THE SIDEWALK ABUTS THE CURB & GUTTER, REFER TO HRM 133.
10. SEE HRM 48 FOR SIDEWALK WITHIN 6 m OF TREES.
11. DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

**HALIFAX**

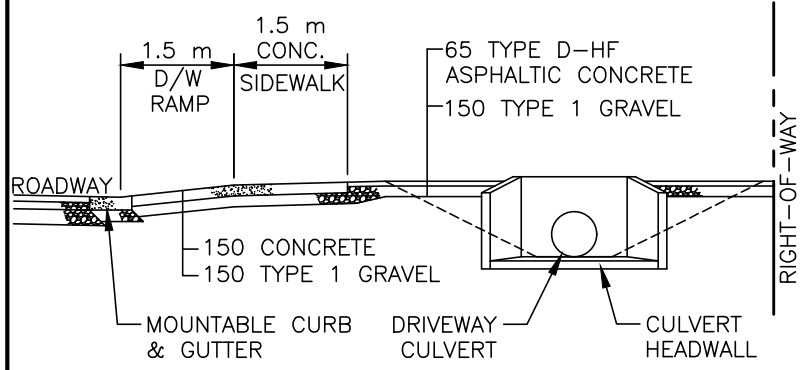
STANDARD DETAIL

URBAN SIDEWALK

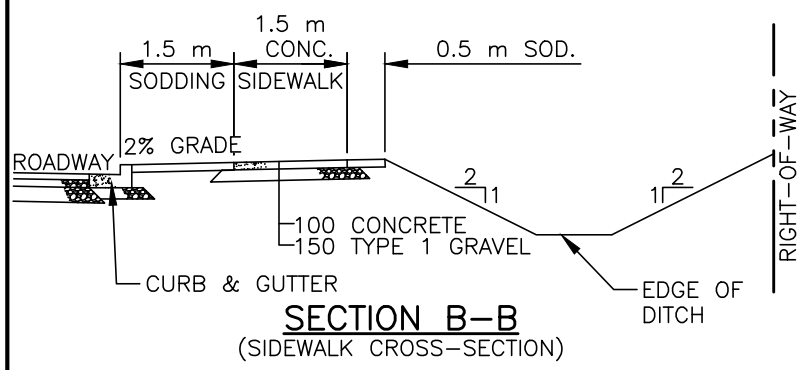
DATE: 2021	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 44



**PLAN**



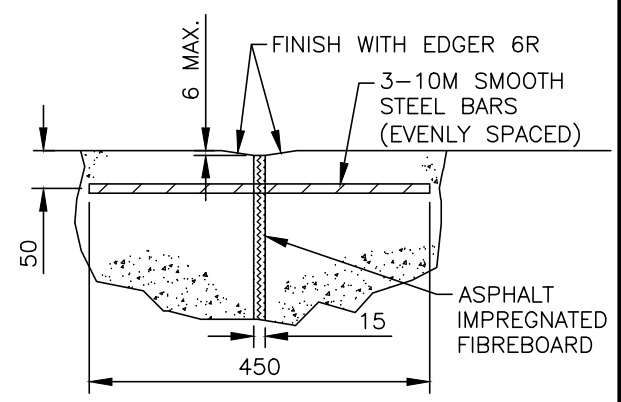
**SECTION A-A**  
(DRIVEWAY CROSS-SECTION)



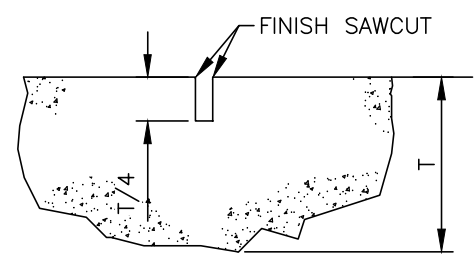
**SECTION B-B**  
(SIDEWALK CROSS-SECTION)

**NOTES:**

1. CONCRETE SIDEWALK AT COMMERCIAL DRIVEWAY TO BE 150 THICK WITH 150 x 150 WELDED WIRE MESH.
2. CRUSHED ROCK BASE TO EXTEND 150 BEYOND EDGE OF SIDEWALK STRUCTURE.
3. CONTROL JOINTS ARE TO BE SAW CUT.
4. SIDEWALKS ABUTTING COMMERCIAL AREAS ARE TO BE FULL WIDTH (3 m) AND 150 mm THICKNESS.
5. EXPANSION JOINT BARS ARE TO BE GREASED ON ONE SIDE OF THE JOINT.
6. DURING CONSECUTIVE POURS, THE END OF EACH POUR IS TO OCCUR AT AN EXPANSION JOINT. WHERE THIS IS NOT FEASIBLE, AN ADDITIONAL EXPANSION JOINT IS TO BE INSTALLED.
7. INSTALL A 9 m LONG CONCRETE LANDING PAD AT ALL BUS STOP LOCATIONS. INCREASE THIS TO 14.5 m FOR ARTICULATED BUS ROUTES.
8. WHEN BOULEVARD IS LESS THAN 1.5 m OR WHEN THE SIDEWALK ABUTS THE CURB & GUTTER, REFER TO HRM 133.
9. DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.



**SECTION C-C**  
(EXPANSION JOINT)



**SECTION D-D**  
(CONTROL JOINT)

**HALIFAX**

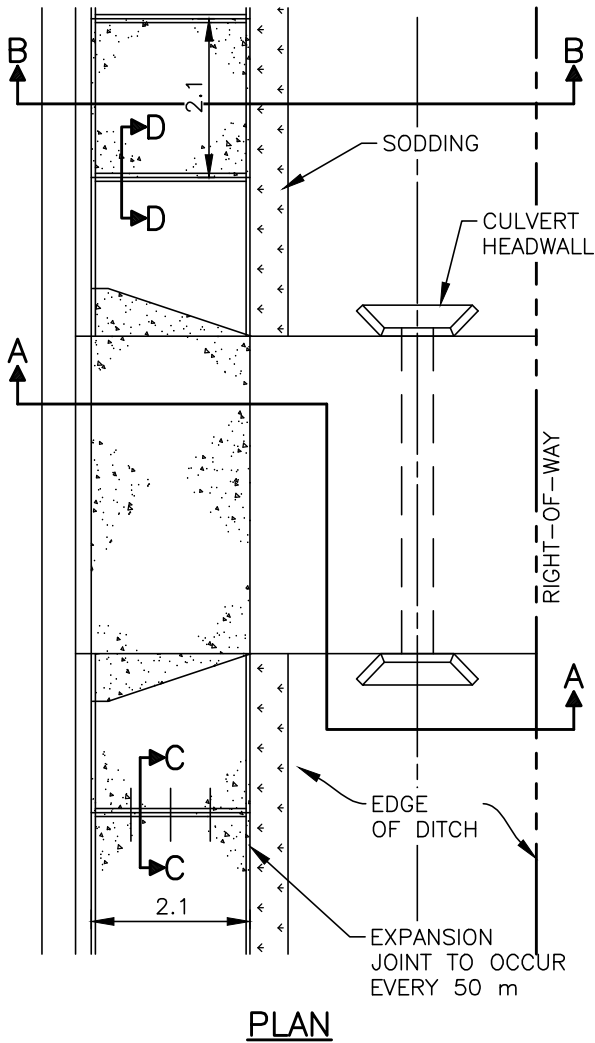
STANDARD DETAIL

**RURAL TYPE I  
SIDEWALK**

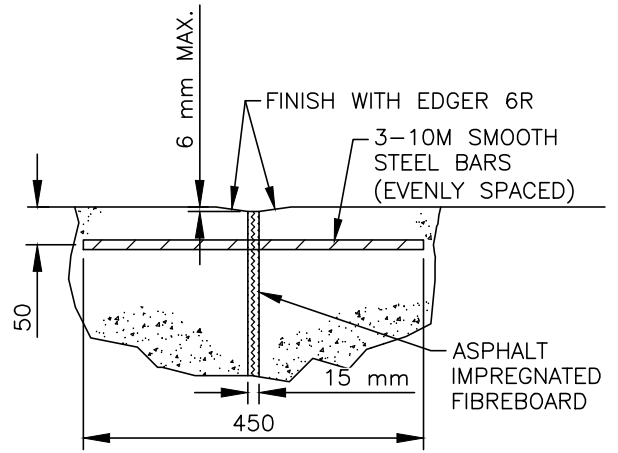
DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS		FIG No.:
			<b>HRM 45</b>

**NOTES:**

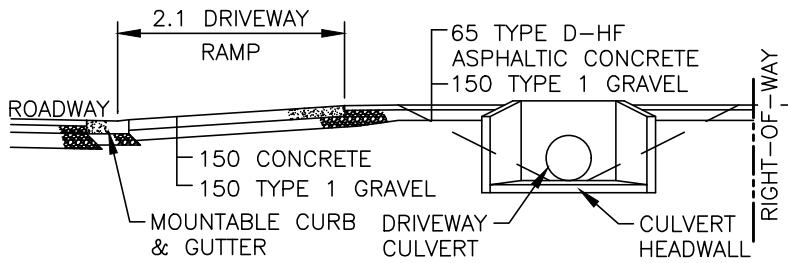
1. CONCRETE SIDEWALK AT COMMERCIAL DRIVEWAY TO BE 150 THICK WITH 150x150 WELDED WIRE MESH.
2. CRUSHED ROCK BASE TO EXTEND 150 BEYOND EDGE OF SIDEWALK STRUCTURE.
3. CONTROL JOINTS ARE TO BE SAW CUT.
4. SIDEWALKS ABUTTING COMMERCIAL AREAS ARE TO BE FULL WIDTH (3 m) AND 150 mm THICKNESS.
5. EXPANSION JOINT BARS ARE TO BE GREASED ON ONE SIDE OF THE JOINT.
6. DURING CONSECUTIVE POURS, THE END OF EACH POUR IS TO OCCUR AT AN EXPANSION JOINT. WHERE THIS IS NOT FEASIBLE, AN ADDITIONAL EXPANSION JOINT IS TO BE INSTALLED.
7. INSTALL A 9 m LONG CONCRETE LANDING PAD AT ALL BUS STOP LOCATIONS. INCREASE THIS TO 14.5 m FOR ARTICULATED BUS ROUTES.
8. WHEN BOULEVARD IS LESS THAN 1.5 m OR WHEN THE SIDEWALK ABUTS THE CURB & GUTTER, REFER TO HRM 133.



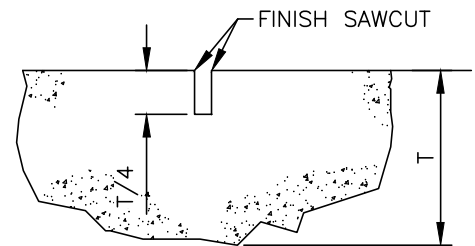
**PLAN**



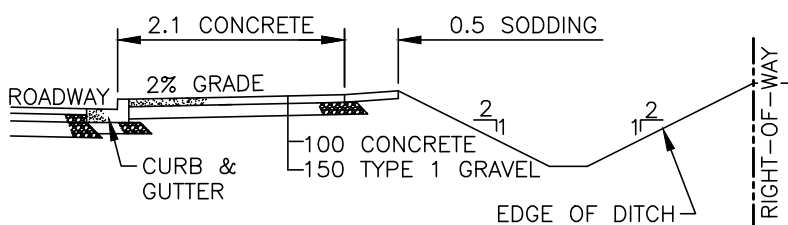
**SECTION C-C  
(EXPANSION JOINT)**



**SECTION A-A  
(DRIVEWAY CROSS-SECTION)**



**SECTION D-D  
(CONTROL JOINT)**



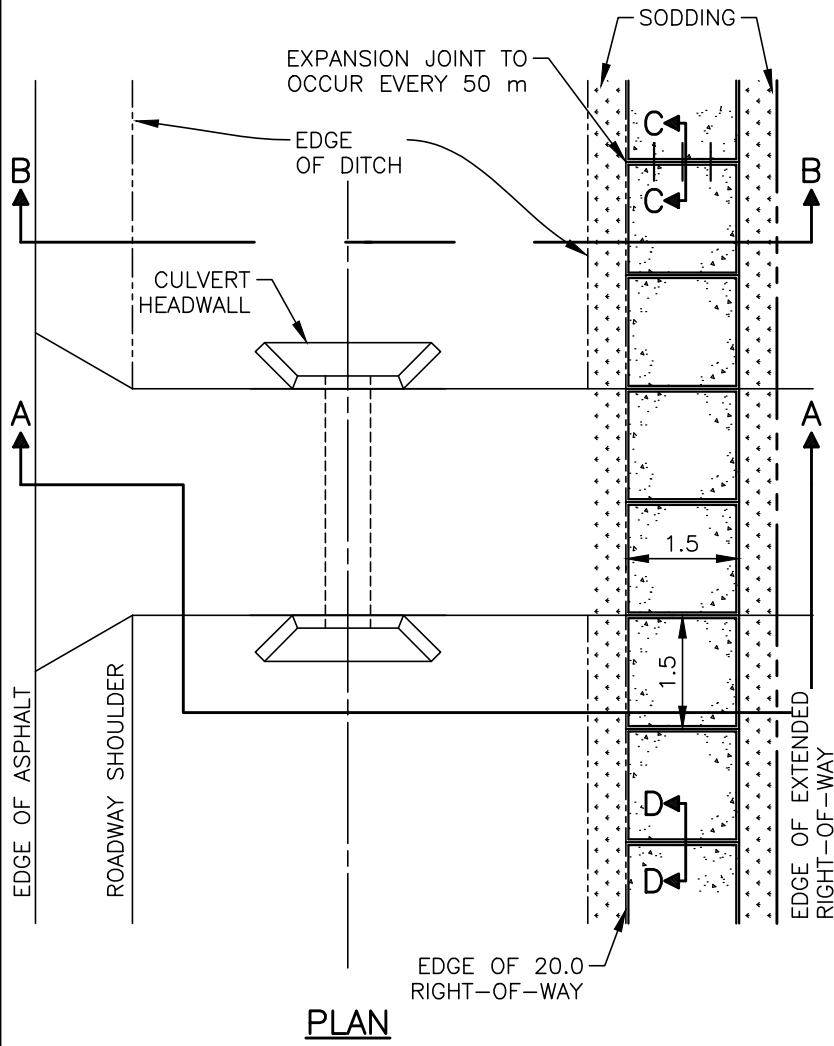
**SECTION B-B  
(DRIVEWAY CROSS-SECTION)**

**HALIFAX**

STANDARD DETAIL

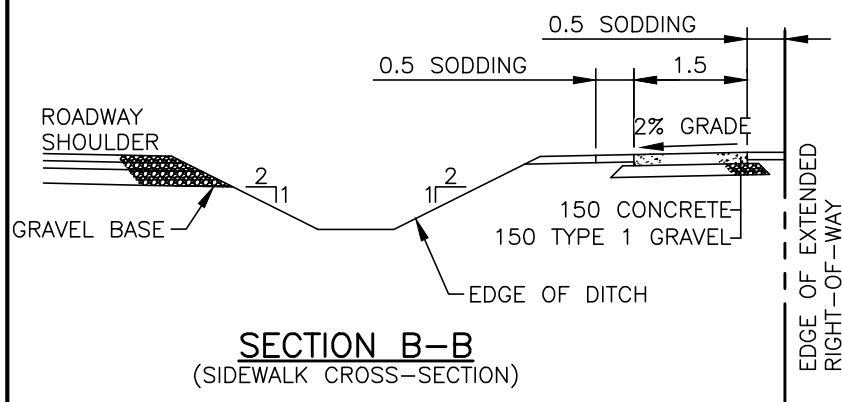
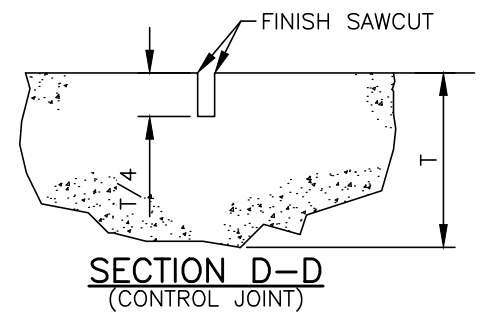
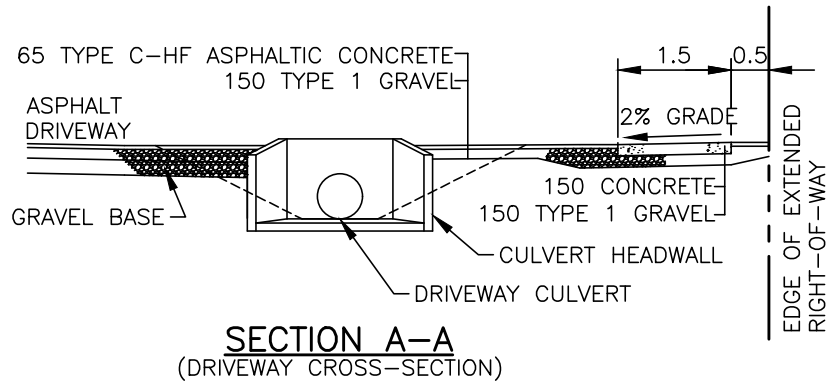
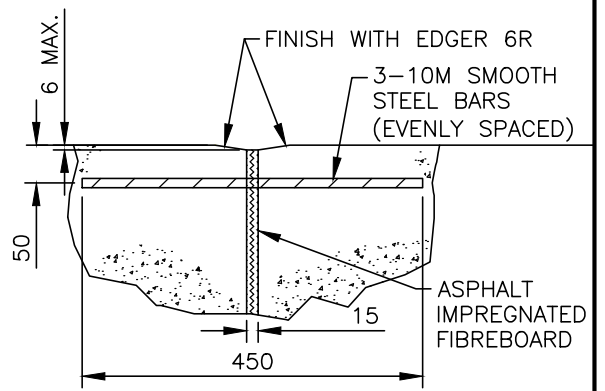
**RURAL TYPE II  
SIDEWALK**

DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS	FIG No.:	HRM 46



**NOTES:**

1. CONCRETE SIDEWALK AT COMMERCIAL DRIVEWAY TO BE 150 THICK WITH 150 x 150 WELDED WIRE MESH.
2. CRUSHED ROCK BASE TO EXTEND 150 BEYOND EDGE OF SIDEWALK STRUCTURE.
3. CONTROL JOINTS ARE TO BE SAW CUT.
4. SIDEWALKS ABUTTING COMMERCIAL AREAS ARE TO BE FULL WIDTH (3 m) AND 150 mm THICKNESS.
5. EXPANSION JOINT BARS ARE TO BE GREASED ON ONE SIDE OF THE JOINT.
6. DURING CONSECUTIVE POURS, THE END OF EACH POUR IS TO OCCUR AT AN EXPANSION JOINT. WHERE THIS IS NOT FEASIBLE, AND ADDITIONAL EXPANSION JOINT IS TO BE INSTALLED.
7. INSTALL A 9 m LONG CONCRETE LANDING PAD AT ALL BUS STOP LOCATIONS. INCREASE THIS TO 14.5 m FOR ARTICULATED BUS ROUTES.



# HALIFAX

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STANDARD DETAIL

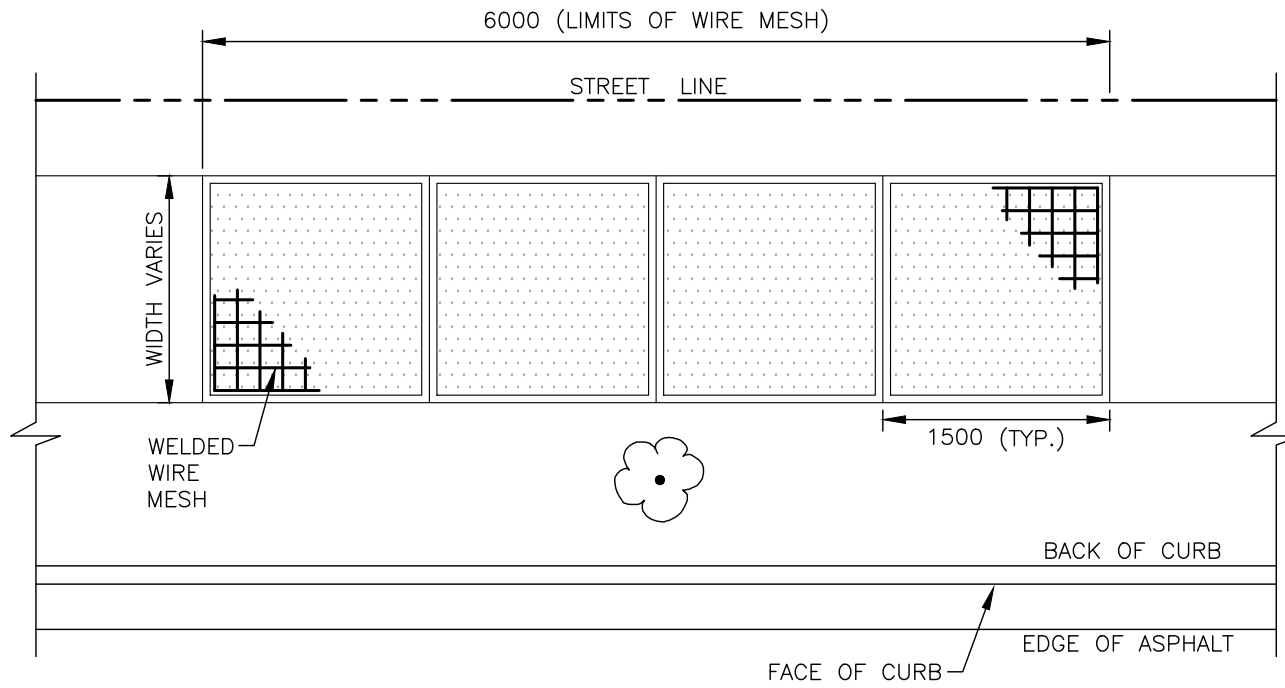
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**RURAL TYPE III SIDEWALK**

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DATE:	REFERENCE	APPROVED
2021		
SCALE:		FIG No.:
NTS		HRM 47





PLAN

NOTES:

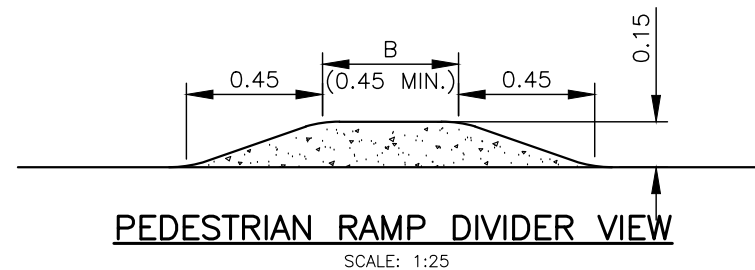
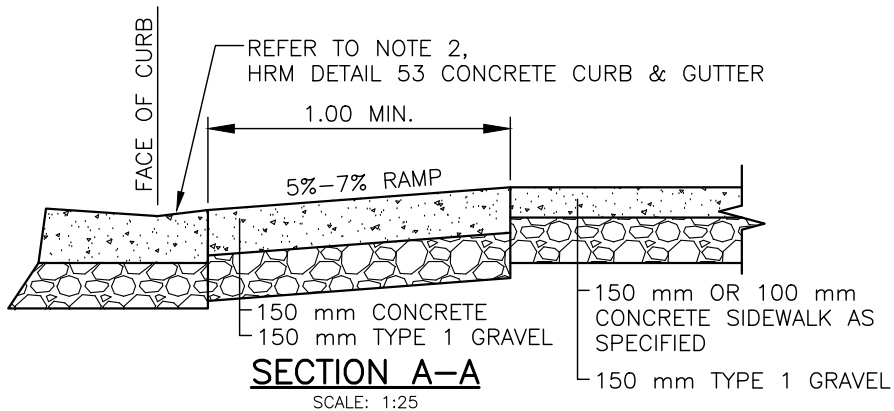
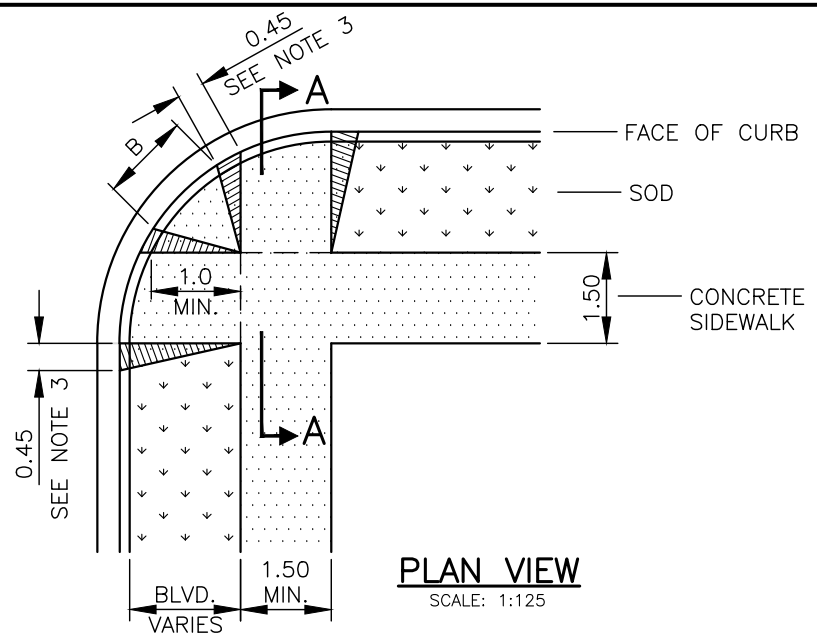
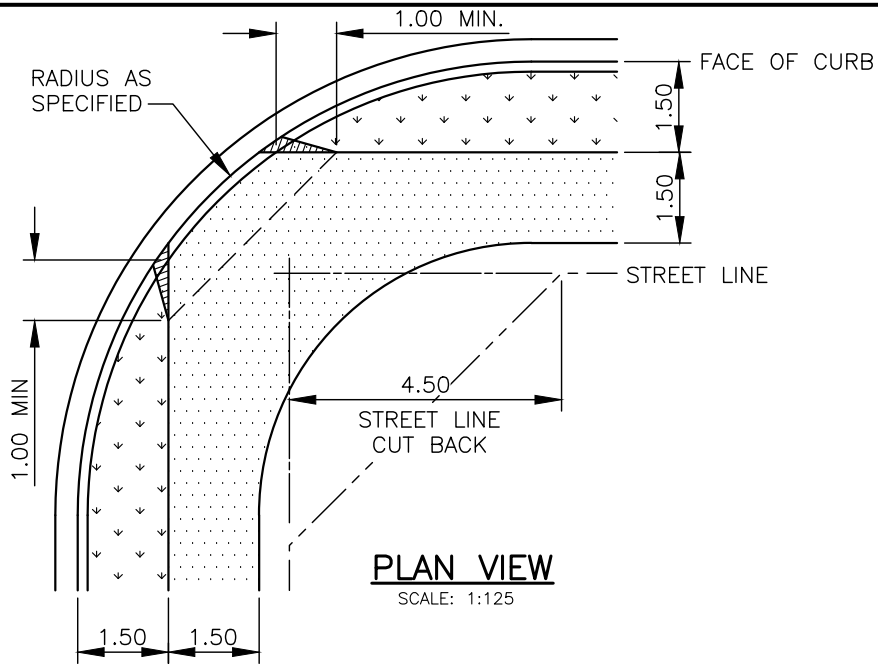
1. WELDED WIRE MESH TO BE 150 X 150 – M.W. 18.7 X M.W. 18.7 (WELDED WIRE FABRIC 4.88 MM DIA.)
2. PLACED 3000 EACH SIDE FROM CENTRE OF TREE AT 1/2 THE SLAB DEPTH, FULL SIDEWALK WIDTH, CHAIRS REQUIRED TO ACHIEVE 1/2 DEPTH PLACEMENT OF WWF.
3. NO TREE ROOTS TO BE REMOVED WITHOUT HRM APPROVAL.
4. ALL DIMENSIONS IN MILLIMETRES.

**HALIFAX**

STANDARD DETAIL

**CONCRETE SIDEWALK  
REINFORCING**

DATE:	2023	REFERENCE	APPROVED
SCALE:	1:50		FIG No.: <b>HRM 48</b>



**NOTES:**

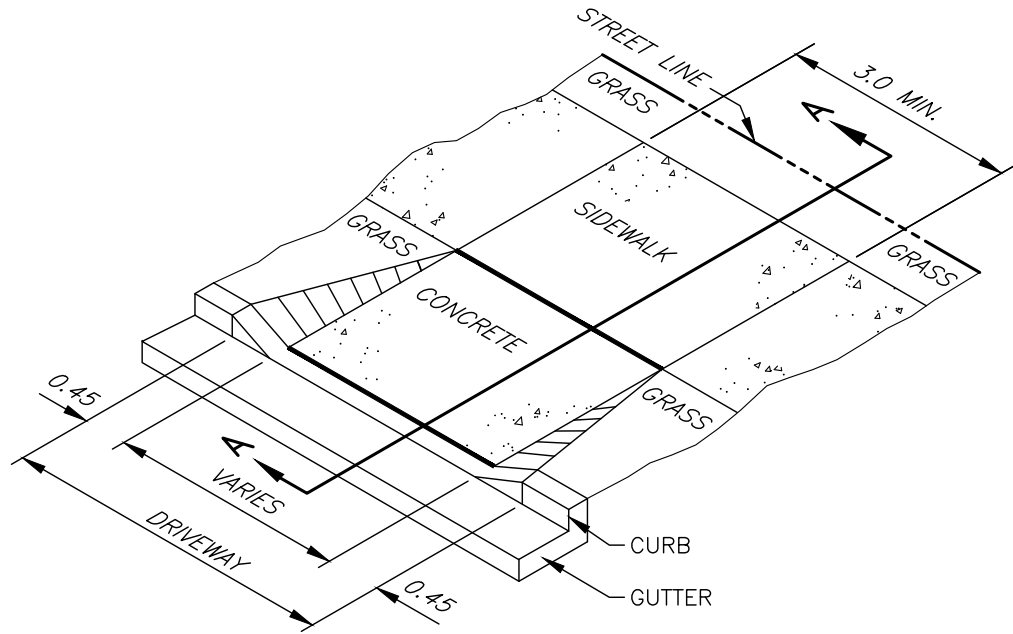
1. PEDESTRIAN RAMPS SHALL BE ALIGNED WITH THE SIDEWALK INSIDE EDGE.
2. INSTALL RAMP DIVIDER ONLY WHEN (B) WILL BE GREATER THAN 0.45 m.
3. WHERE THE BOULEVARD IS LESS THAN 1.5 m, A 1.3 m CURB TRANSITION TAPER IS REQUIRED.
4. IF THE DISTANCE FROM BACK OF CURB TO BACK OF SIDEWALK IS LESS THAN 2 m, SLOPE AT 5% FROM BACK OF CURB TO BACK OF SIDEWALK.
5. TACTILE ATTENTION INDICATOR PLATES (TWSI) REQUIRED AT ALL NEW RAMPS AS PER HRM DETAIL 131.
6. FOR STREETS OF LESS THAN 8%, TRANSITION CURB AND SIDEWALK TO MAXIMUM GRADE OF 8%, OR TIE IN AT 3 m. FOR SIDEWALK, 1.3 m FOR CURB.
7. PEDESTRIAN RAMP OPENING TO BE 1.7 m MINIMUM, MEASURED FROM 0.1 m BEYOND THE EXTENSION OF THE SIDEWALK TO THE CURB.
8. DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.

**HALIFAX**

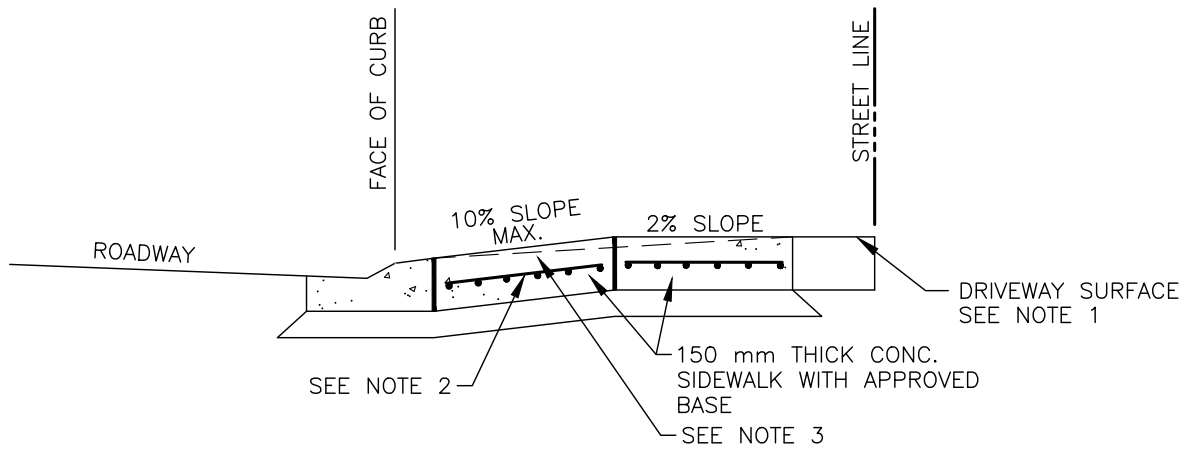
STANDARD DETAIL

PEDESTRIAN RAMP  
ALIGNMENT

DATE: 2025	REFERENCE	APPROVED
SCALE: AS NOTED		FIG No.: HRM 49



VIEW PLAN

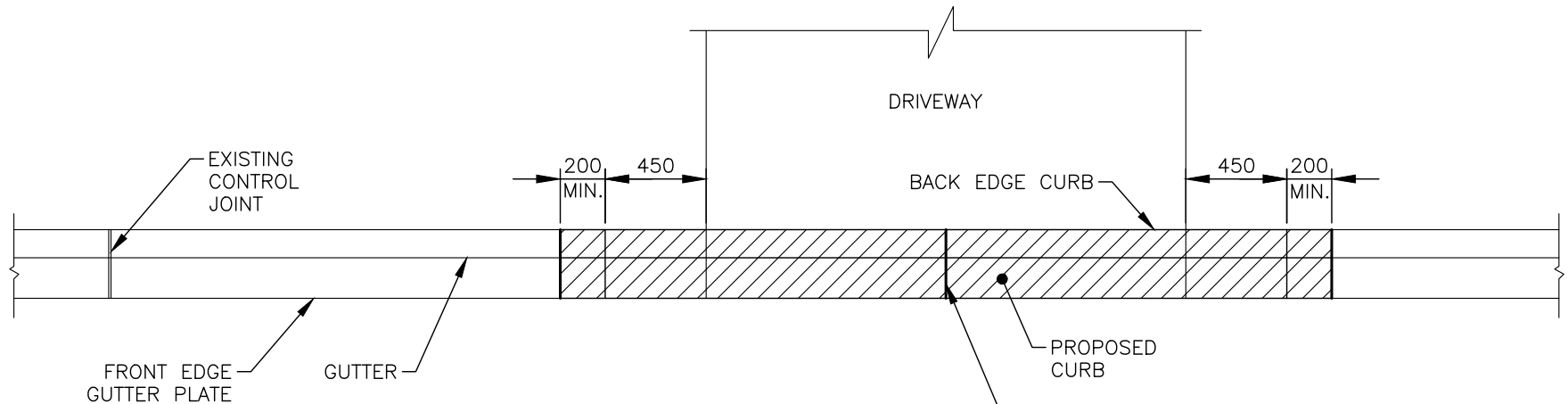


SECTION A-A

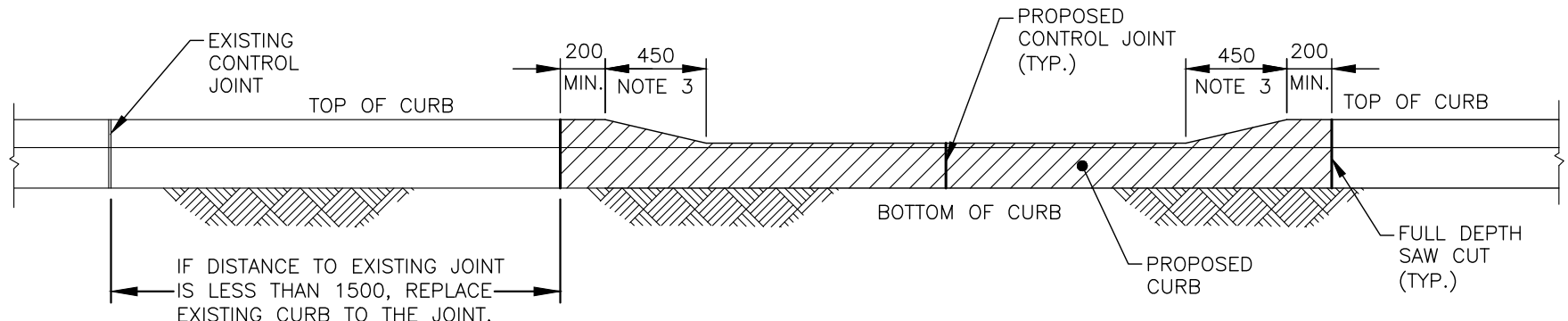
NOTES:

1. GRAVEL DRIVEWAYS ARE TO BE PAVED 1 m BEHIND THE SIDEWALK OR TO THE STREETLINE WHICHEVER IS LESS. IF NO SIDEWALK EXISTS, 1 m ASPHALT PAVING IS REQUIRED.
2. FOR COMMERCIAL AND INDUSTRIAL DRIVEWAYS PLACE 150 x 150 – M.W. 18.7 x M.W. 18.7 PLACED 50 mm FROM BOTTOM OF CONCRETE RAMP AND SIDEWALK.
3. WHEN BOULEVARD IS LESS THAN 1.5 m OR WHEN THE SIDEWALK ABUTS THE CURB & GUTTER, REFER TO HRM 133.
4. MINIMUM DISTANCE BETWEEN CONTROL JOINTS IS 1.2. PROVIDE CONTROL JOINTS WITHIN 150 mm OF CHANGE IN CROSS SECTION OF CURB.
5. DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.

HALIFAX		
STANDARD DETAIL		
DRIVEWAY RAMP		
DATE:	REFERENCE	APPROVED
2021		
SCALE:		FIG No.:
NTS		HRM 50



PLAN



ELEVATION

**NOTES:**

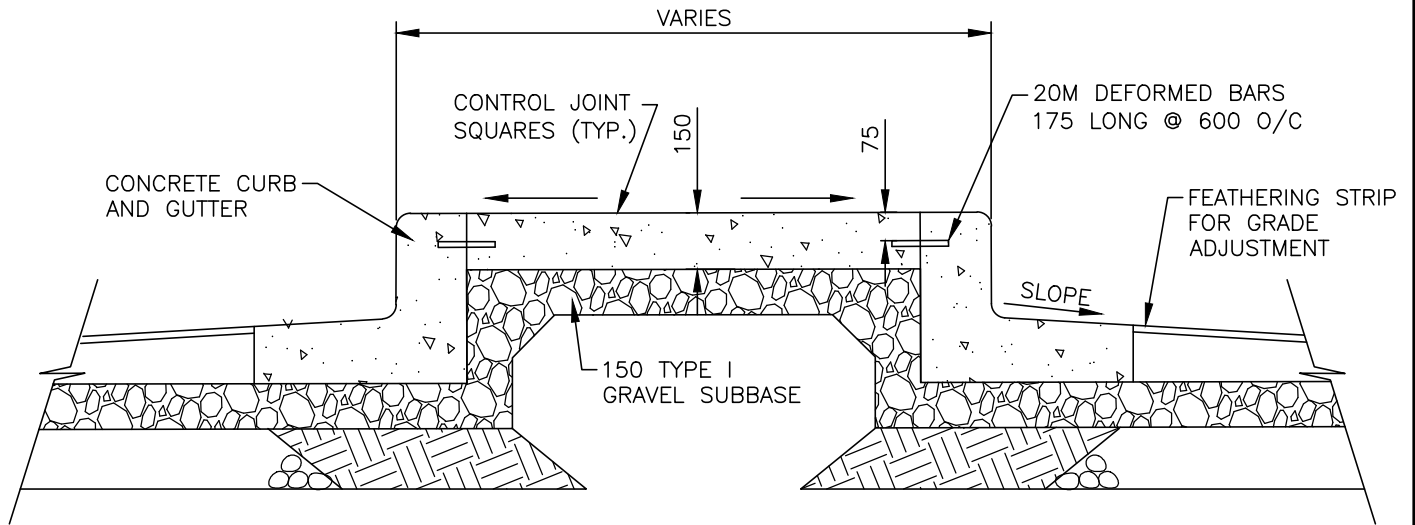
1. MINIMUM DISTANCE BETWEEN CONTROL JOINTS IS 1200 mm.
2. PROVIDE CONTROL JOINTS WITHIN 150 mm OF CHANGE IN CROSS SECTION OF CURB.
3. IF SIDEWALK ABUTS THE CURB, THE TAPER SHALL BE 1300 mm.
4. DIMENSIONS ARE IN MILLIMETRES.

# HALIFAX

STANDARD DETAIL

**DRIVEWAY ACCESS IN  
EXISTING FULL-DEPTH CURB**

DATE: 2021	REFERENCE	APPROVED
SCALE: 1:30		FIG No.: <b>HRM 51</b>



**TYPICAL CONCRETE ISLAND CROSS SECTION**

**NOTES:**

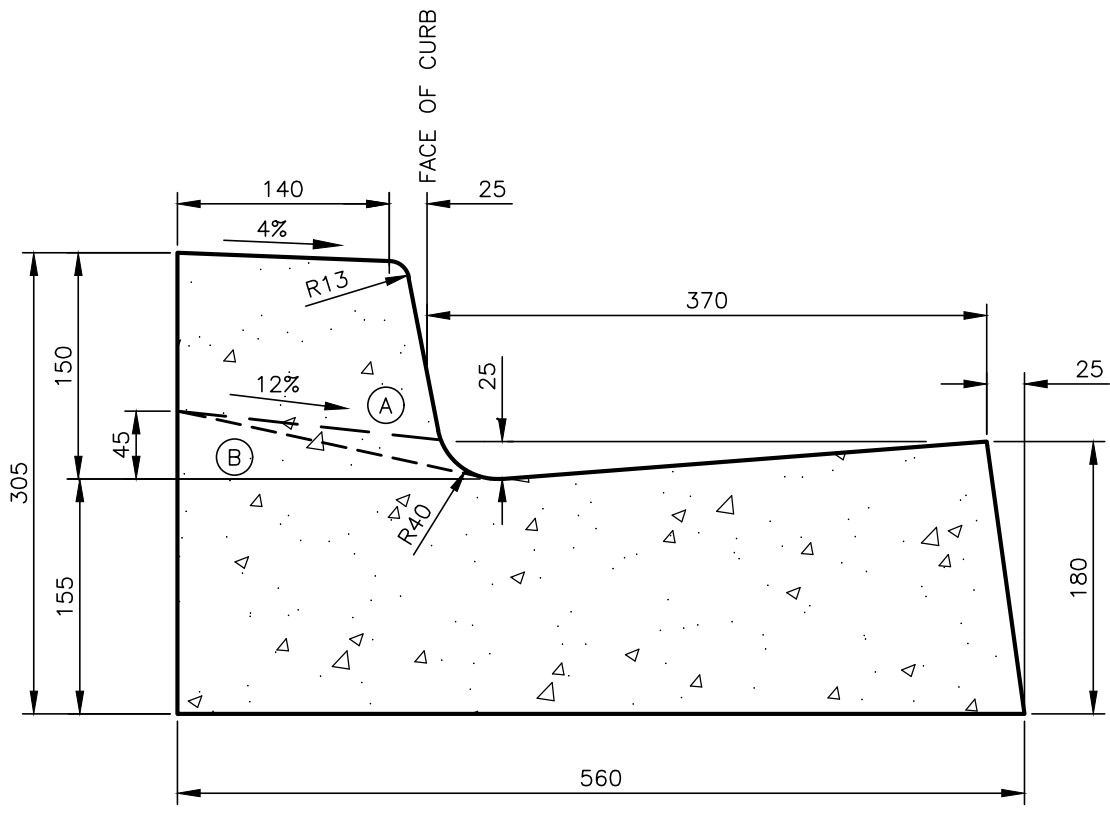
1. MAXIMUM SPACING FOR CONTROL JOINTS IS TO BE 2.5 m.
2. SLOPE SLAB TO FACILITATE DRAINAGE.
3. SLOPE GUTTER TO MATCH STREET CROSS SECTION.
4. ENDS AND CORNERS OF TRAFFIC ISLANDS TO HAVE HIGH BACK CONCRETE CURB AND GUTTER.
5. GEOMETRIC DESIGN OF CONCRETE ISLANDS TO BE AS PER PART A OF THE MUNICIPAL DESIGN GUIDELINES AND/OR THE TAC GEOMETRIC DESIGN GUIDE.
6. DIMENSIONS ARE IN MILLIMETRES.

**HALIFAX**

STANDARD DETAIL

**CONCRETE  
TRAFFIC ISLAND**

DATE:	2021	REFERENCE	APPROVED
SCALE:	1:20		FIG No.: <b>HRM 52</b>



**CURB & GUTTER SECTION**

**NOTES:**

1. DASHED LINE "A" INDICATES CURB AT DRIVEWAYS.
2. DASHED LINE "B" INDICATES CURB AT PEDESTRIAN RAMPS.
3. TRANSITION TAPERS SHALL BE PROVIDED AT DRIVEWAYS AND PEDESTRIAN RAMPS AS PER THE "PEDESTRIAN RAMP ALIGNMENT" DETAIL AND "DRIVEWAY RAMP" DETAIL.
4. DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

<b>HALIFAX</b>		
<b>STANDARD DETAIL</b>		
<b>CONCRETE CURB &amp; GUTTER</b>		
DATE: 2021	REFERENCE	APPROVED
SCALE: 1:5		FIG No.: <b>HRM 53</b>

2 mm x 50 mm REINSTATEMENT TAPE (m)  
(REQUIRED IF STREET IS  
NOT BEING RESURFACED)

CURB & GUTTER PAYMENT INCLUDES  
150 mm TYPE 1 GRANULAR BASE

TOP LIFT ASPHALTIC CONCRETE

600 mm

TYPICAL PAVEMENT WIDTH FOR  
ASPHALT AND GRAVELS FOR  
CURB RENEWAL SITUATIONS

SOD

BASE LIFT ASPHALTIC CONCRETE

TYPE 1 GRAVEL (m<sup>2</sup>)

150 mm

TYPE 2 GRAVEL (m<sup>2</sup>)

TYPE 2 GRAVEL (m<sup>2</sup>)

1  
2

1  
2

NOTES:

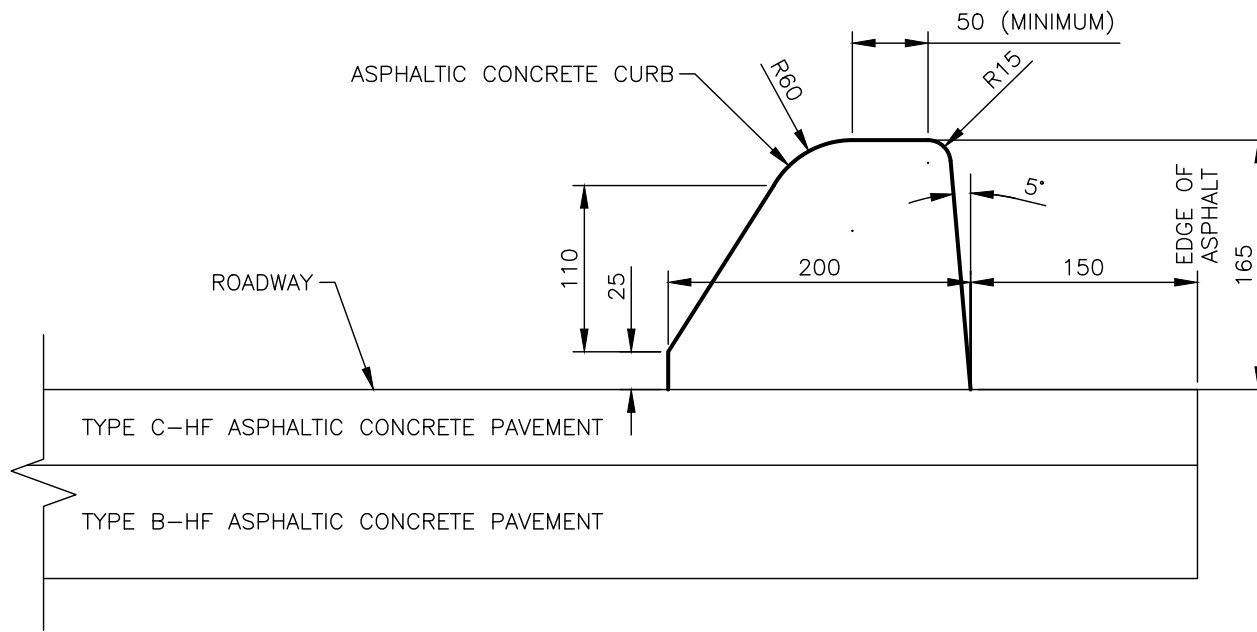
1. CURB AND GUTTER PAYMENT INCLUDES A GRANULAR BASE OF 150 mm OF TYPE 1 GRAVEL, OR AS INDICATED ON DRAWINGS.
2. PAVEMENT STRUCTURE THICKNESS AS INDICATED ON DRAWINGS.

**HALIFAX**

STANDARD DETAIL

**CURB RENEWAL/PAYMENT**

DATE:	2021	REFERENCE	APPROVED
SCALE:	1:10		FIG No.: <b>HRM 54</b>



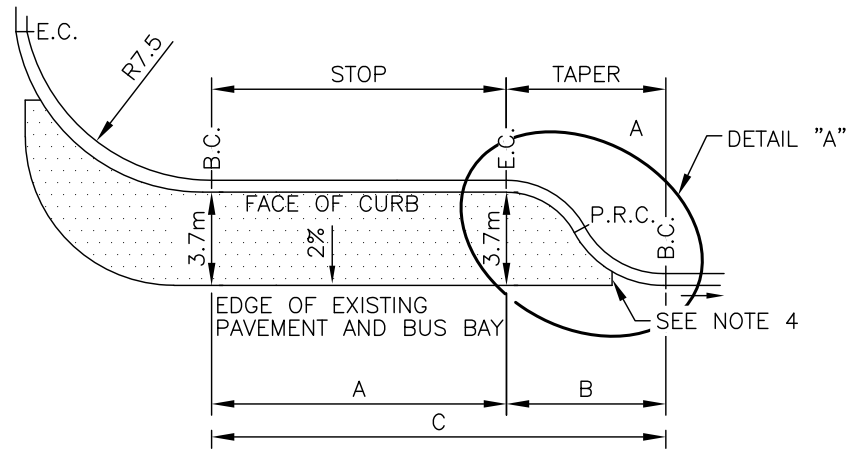
# HALIFAX

STANDARD DETAIL

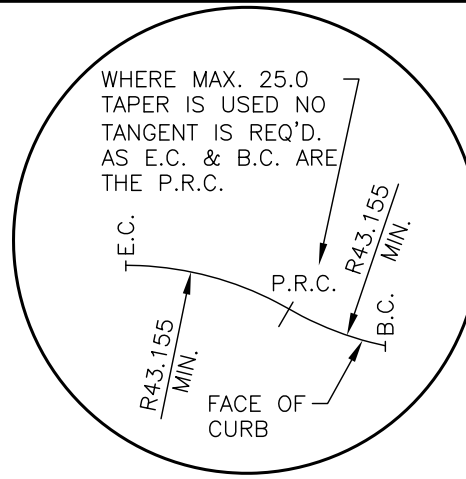
ASPHALT CURB

DATE:	2021	REFERENCE	APPROVED
SCALE:	1:5	FIG No.:	HRM 55

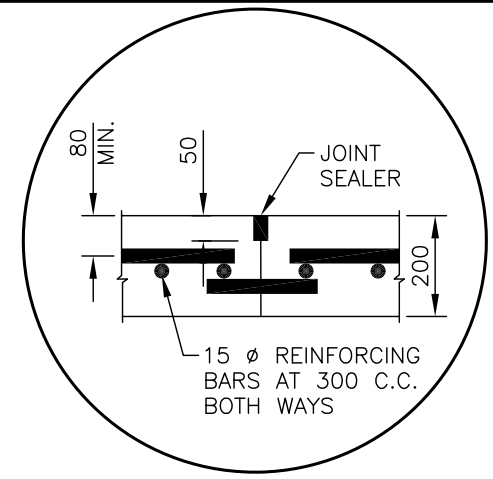




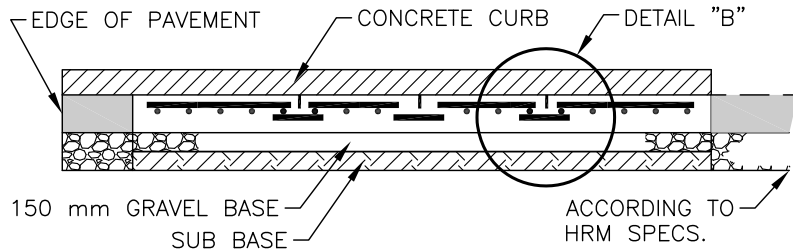
**PLAN**



**DETAIL "A"**

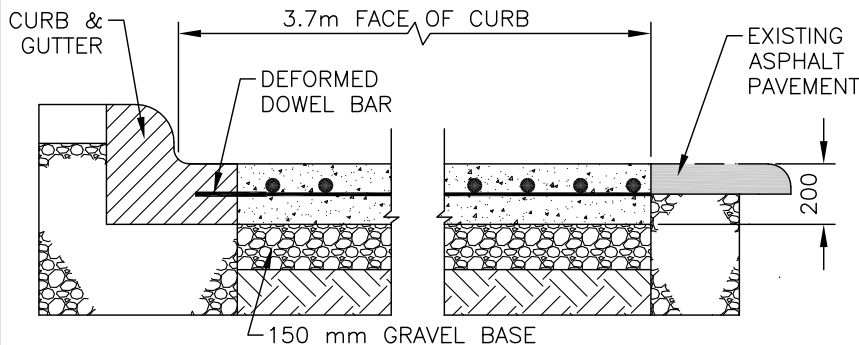


**DETAIL "B"**  
(CONTRACTION JOINT)



**LONGITUDINAL SECTION**

	SINGLE BUS BAY (MINIMUM DIMENSION)	DOUBLE BUS BAY (MINIMUM DIMENSION)
A	*16m	34m
B	25m	25m
C	41m	59m



**TRANSVERSE SECTION**

**NOTES:**

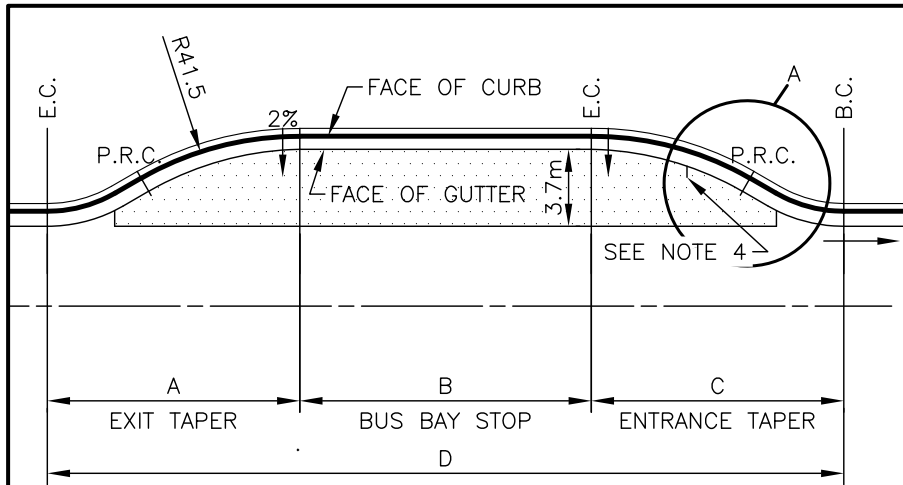
- 15M BARS AT 300 mm C.C. BOTH WAYS.
- CONTROL JOINTS TO BE AT A DEPTH OF 1/4 OF PAD THICKNESS & SEALED ACCORDING TO HRM SPECS.
- CONTROL JOINT EVERY 4.0 m MAXIMUM.
- MINIMUM WIDTH OF CONCRETE BASE IS 0.6 m.
- \*FOR ARTICULATED BUS ROUTES INCREASE TO 22m.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

**HALIFAX**

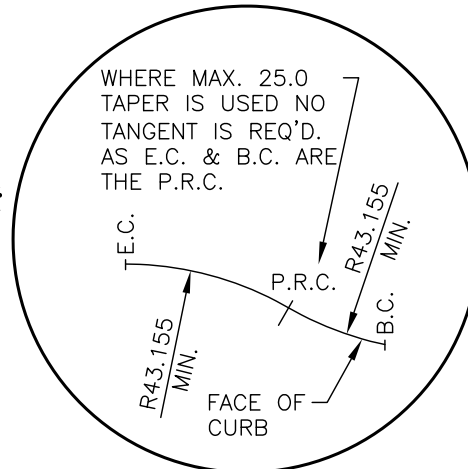
STANDARD DETAIL

CONCRETE BUS BAY  
PAD – END BLOCK

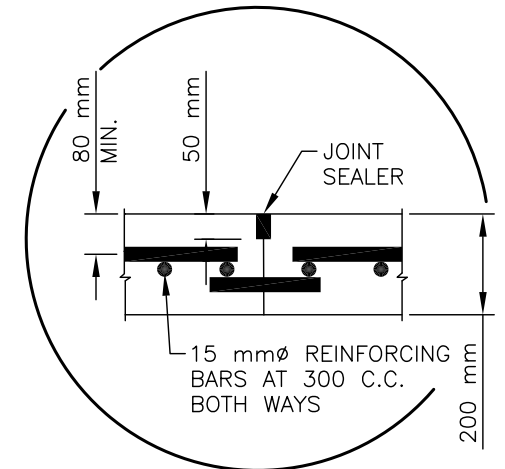
DATE:	2024	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: HRM 57



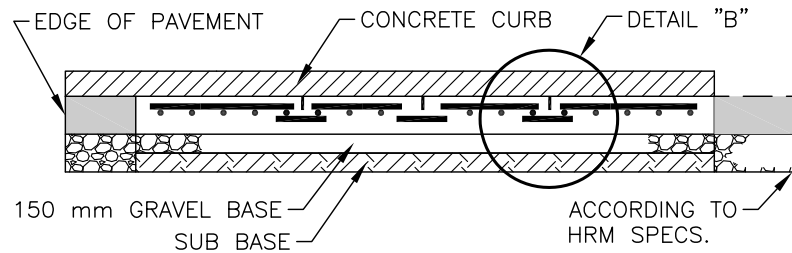
**PLAN**



**DETAIL "A"**

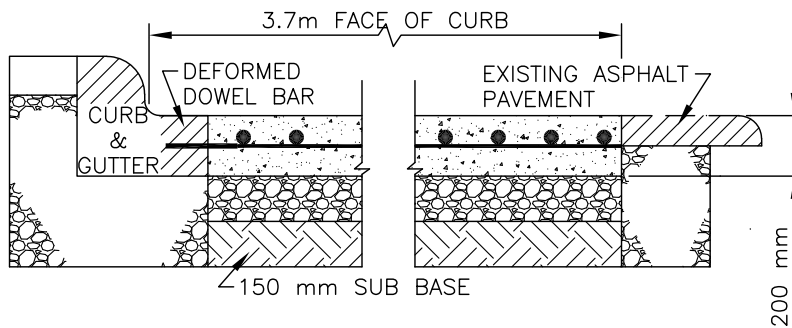


**DETAIL "B"**  
(CONTRACTION JOINT)



**LONGITUDINAL SECTION**

	SINGLE BUS BAY MINIMUM DIMENSION	DOUBLE BUS BAY MINIMUM DIMENSION
A	25m	25m
B	*16m	34m
C	25m	25m
D	66m	84m



**TRANSVERSE SECTION**

**NOTES:**

- 15M BARS AT 300 mm C.C. BOTH WAYS.
- CONTROL JOINTS TO BE AT A DEPTH OF 1/4 OF PAD THICKNESS & SEALED ACCORDING TO HRM SPECS. CONTROL JOINT EVERY 4.0 m MAXIMUM.
- MINIMUM WIDTH OF CONCRETE BASE IS 0.6 m.
- \*FOR ARTICULATED BUS ROUTES INCREASE TO 22m.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

**HALIFAX**

STANDARD DETAIL

CONCRETE BUS BAY  
PAD – MID BLOCK

DATE:	2024	REFERENCE	APPROVED
SCALE:	NTS	FIG No.:	HRM 58

## TRENCH BACKFILL AND REINSTATEMENT – TESTING REQUIREMENTS

TEST REQUIRED	COMPACTION REQUIRED	MINIMUM TEST FREQUENCY	
		TRENCH LESS THAN 1.5m WIDE	TRENCH GREATER THAN 1.5m WIDE
COMPACTION OF BEDDING, HAUNCH AND COVER MATERIALS (ASTM D698) *SEE NOTE 3	95% MINIMUM AT 3% ± OF OPTIMUM MOISTURE. (SEE NOTES)	1 PER 25 m AT THE CENTRELINE OF THE TRENCH (AND EACH BENCH OR SECTION OF TRENCH LESS THAN 25 m IN LENGTH) FOR EACH 600 VERTICAL DEPTH OF BACKFILL MATERIAL A MINIMUM OF 3 TESTS PER TRENCH SHALL BE PERFORMED.	3 PER 25 m (AND EACH BENCH OR SECTION OF TRENCH LESS THAN 25 m IN LENGTH) FOR EACH 600 VERTICAL DEPTH OF BACKFILL MATERIAL 1 TEST SHALL BE TAKEN AT THE CENTRELINE OF THE TRENCH (SET BACK AT LEAST 300 mm FROM THE EDGE OF THE TRENCH). A MINIMUM OF 3 TESTS PER TRENCH SHALL BE PERFORMED.
COMPACTION OF STRUCTURAL FILL TO SUBGRADE ELEVATION (ASTM D698) *SEE NOTE 3	TOP 300 98% COMPACTION MINIMUM AT 3% ± OF OPTIMUM MOISTURE. (SEE NOTES)		
	BELOW 300 95% COMPACTION MINIMUM AT 3% ± OF OPTIMUM MOISTURE. (SEE NOTES)		
COMPACTION OF TYPE 1 & TYPE 2 BASE & SUB-BASE MATERIALS (ASTM D698)	100% COMPACTION MINIMUM AT 3% ± OF OPTIMUM MOISTURE (SEE NOTES)	FOR EACH MATERIAL, 1 PER 25 m AT THE CENTRELINE OF THE TRENCH (AND EACH BRANCH OR SECTION OF THE TRENCH LESS THAN 25 m IN LENGTH) FOR EACH 300 VERTICAL DEPTH OF BACKFILL MATERIAL. A MINIMUM OF 3 TESTS PER TRENCH SHALL BE PERFORMED.	FOR EACH MATERIAL, 3 PER 25 m (AND EACH BRANCH OR SECTION OF TRENCH LESS THAN 25 m IN LENGTH) FOR EACH 300 VERTICAL IN DEPTH OF BACKFILL MATERIAL. 1 TESTS SHALL BE TAKEN AT THE CENTRELINE OF THE TRENCH AND 1 AT EACH EDGE OF THE TRENCH (SET BACK AT LEAST 300 mm FROM THE EDGE OF THE TRENCH). A MINIMUM OF 3 TESTS PER TRENCH SHALL BE PERFORMED.
COMPACTION OF HOT MIX ASPHALT PAVEMENT (ASTM D3549 & 2726)	95% OF MAXIMUM THEORETICAL DENSITY OF COMPARATIVE MARSHALL LABORATORY SAMPLE.	ONE TEST FOR EACH 75 m <sup>2</sup> OF PAVEMENT SURFACE. A MINIMUM OF 1 TEST PER TRENCH.	ONE TEST FOR EACH 75 m <sup>2</sup> OF PAVEMENT SURFACE. A MINIMUM OF 1 TEST PER TRENCH.

**NOTES:**

1. THE TRENCH WIDTH FOR DETERMINATION OF THE TEST SHALL BE THE WIDTH OF THE TRENCH AT THE LEVEL OF THE TEST BEING PERFORMED.
2. IF MINIMUM MOISTURE DENSITY REQUIREMENTS ARE NOT MET BY THESE TESTS, THE CONTRACTOR SHALL RECOMPACT THE TRENCH AS NEEDED TO ACHIEVE THE SPECIFIED COMPACTION. SUCH RECOMPACTION SHALL EXTEND ON BOTH SIDES OF THE FAILED TEST SECTION A DISTANCE EQUAL TO 1/2 THE DISTANCE FROM WHERE THE LAST TEST WAS TAKEN OR 50 m, WHICHEVER IS LEAST. AN ALTERNATIVE PROCEDURE WOULD BE TO MORE CLEARLY DEFINE THE LIMITS OF THE FAILED AREA TO ADDITIONAL TESTS.
3. TESTING FOR BEDDING, HAUNCH AND STRUCTURAL FILL ARE NOT ONLY REQUIRED WHEN THE TOTAL LENGTH OF TRENCH EXCEEDS 100 m, OR WHEN REQUESTED BY THE HRM INSPECTOR.

# HALIFAX

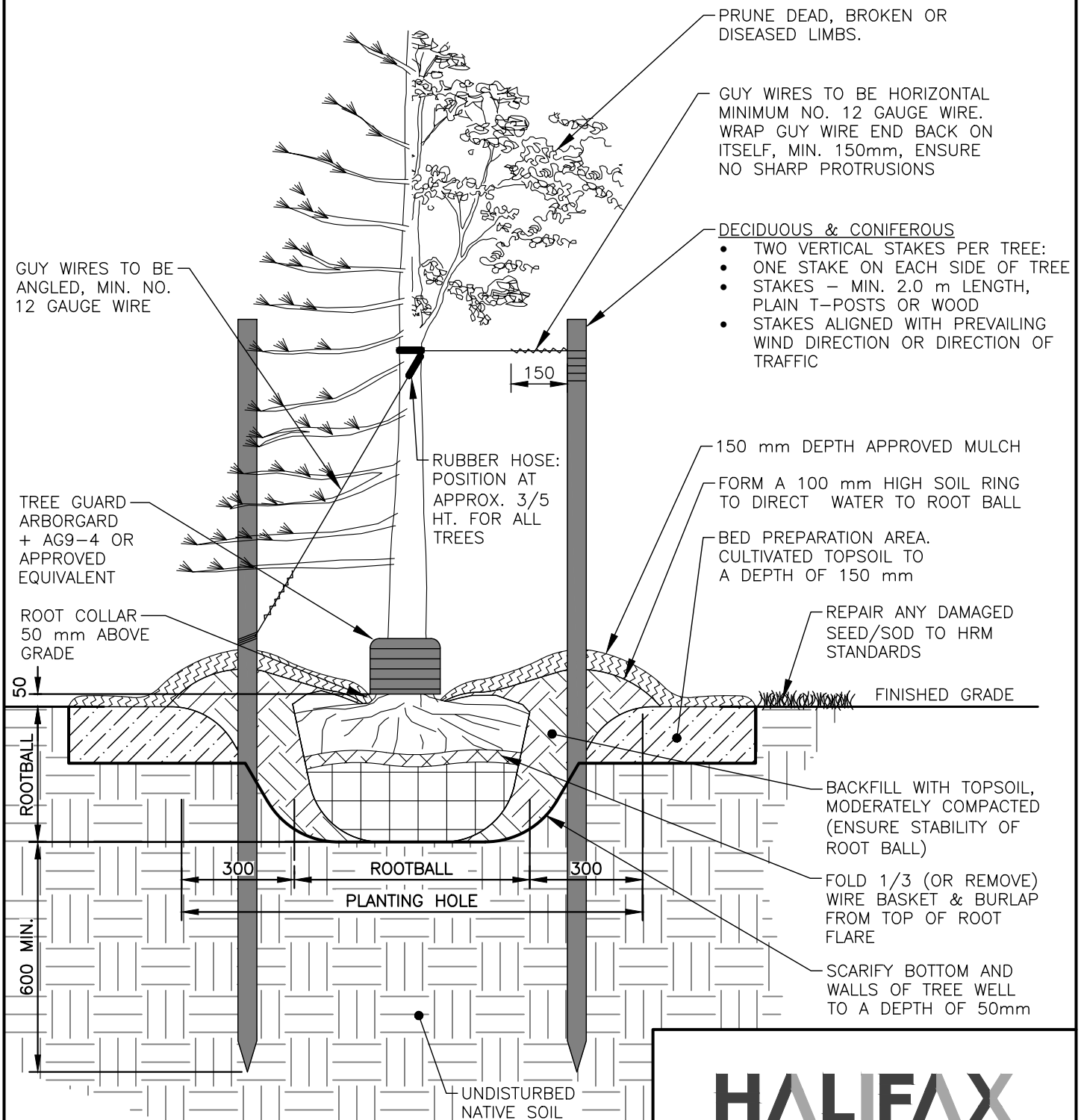
**STANDARD DETAIL**

**TRENCH BACKFILL &  
REINSTATEMENT-TESTING**

DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS	FIG No.:	<b>HRM 61</b>

**CONIFEROUS**  
1.8–2 m HEIGHT

**DECIDUOUS**  
60 mm CALIPER



- NOTES:
1. SOAK THE ROOTBALL AND BACKFILL AREA WITH 40 LITRES OF WATER AFTER PLANTING
  2. CUT AND REMOVE ALL WIRE, ROPE, BURLAP AND TWINE FROM THE TOP 1/3 OF THE ROOTBALL
  3. PRUNE AT PLANTING TO CAREFULLY REMOVE DEAD, BROKEN AND DAMAGED BRANCHES
  4. ROOT BALL MIN. SIZE AS PER CNLA STANDARDS FOR NURSERY STOCK.
  5. DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

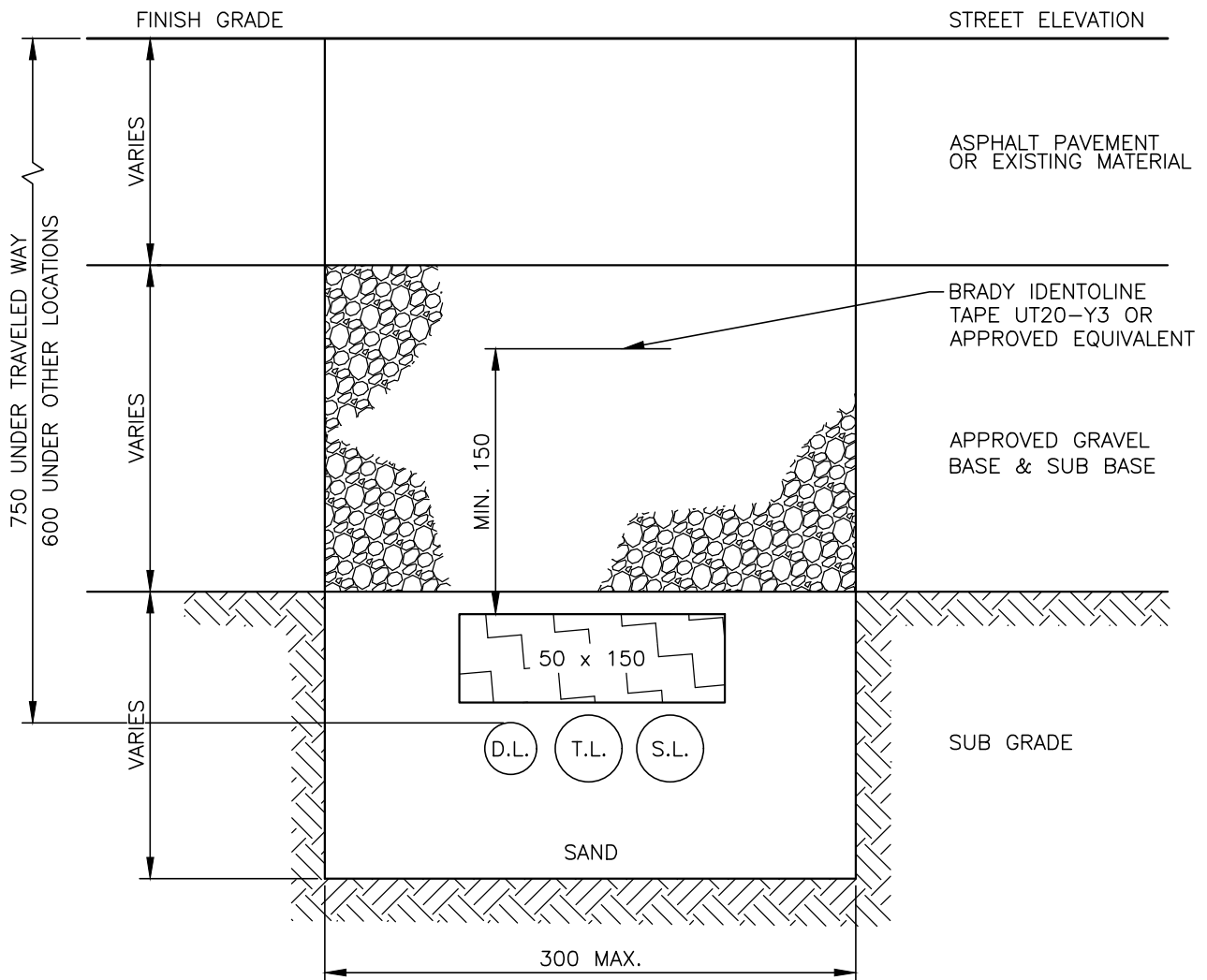
**HALIFAX**

**STANDARD DETAIL**

**TREE PLANTING**

**IN PARKS/OPEN SPACE**

DATE:	2021	REFERENCE	APPROVED
SCALE:	1:15		FIG No.: <b>HRM 66</b>

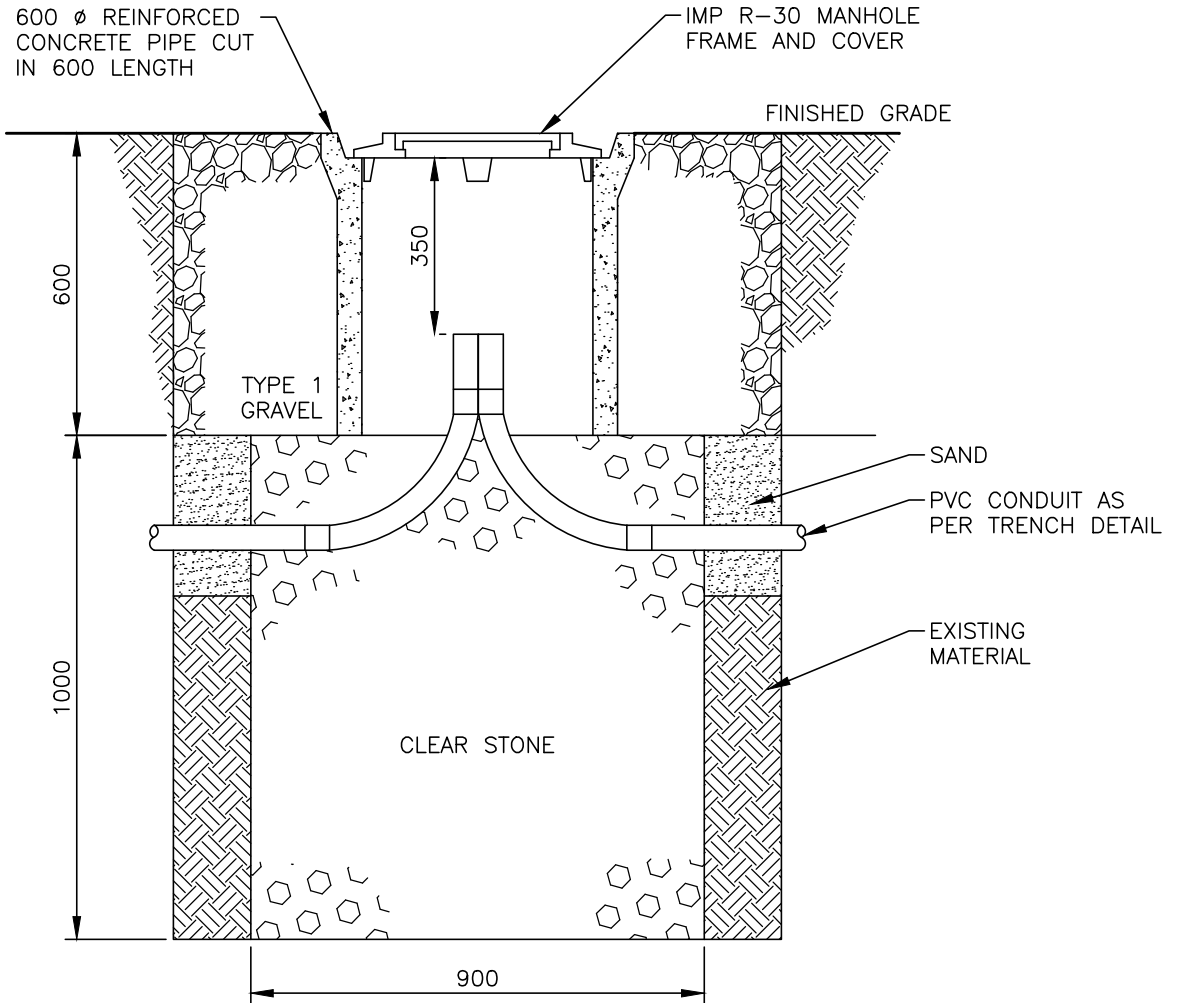


SIZE AND CONFIGURATION  
OF PVC CONDUIT INDICATED  
ON DRAWINGS

**NOTES:**

1. 50 mm x 150 mm WOOD PLANK TO BE PRESSURE TREATED WOOD.
2. "CAUTION BURIED ELECTRICAL LINE" TAPE TO BE PLACED OVER CONDUIT 150 mm TO 250 mm BELOW FINISHED GRADE.
3. SURROUND SAND WITH GEOTEXTILE SEPARATOR IN AREAS OF HIGH GROUNDWATER MOVEMENT (PERVIOUS SUB GRADE).

HALIFAX		
STANDARD DETAIL		
UNDERGROUND CONDUIT		
DATE:	REFERENCE	APPROVED
2021		
SCALE:		FIG No.:
NTS		HRM 78

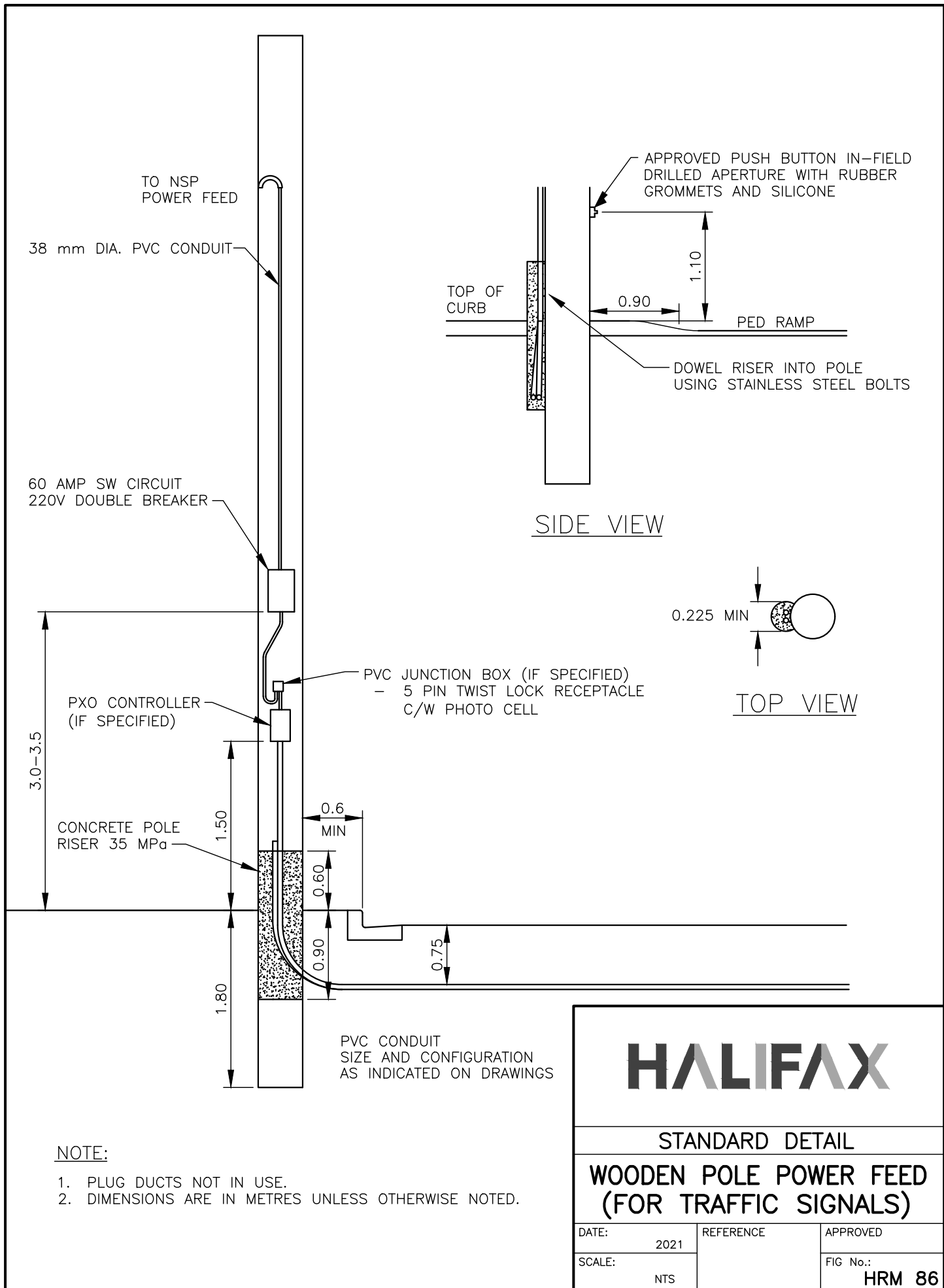


# HALIFAX

STANDARD DETAIL

PULL PIT

DATE:	2021	REFERENCE	APPROVED
SCALE:	1:15		FIG No.: HRM 79



TO NSP  
POWER FEED

38 mm DIA. PVC CONDUIT

60 AMP SW CIRCUIT  
220V DOUBLE BREAKER

PXO CONTROLLER  
(IF SPECIFIED)

CONCRETE POLE  
RISER 35 MPa

PVC JUNCTION BOX (IF SPECIFIED)  
- 5 PIN TWIST LOCK RECEPTACLE  
C/W PHOTO CELL

APPROVED PUSH BUTTON IN-FIELD  
DRILLED APERTURE WITH RUBBER  
GROMMETS AND SILICONE

TOP OF  
CURB

PED RAMP

DOWEL RISER INTO POLE  
USING STAINLESS STEEL BOLTS

SIDE VIEW

0.225 MIN

TOP VIEW

PVC CONDUIT  
SIZE AND CONFIGURATION  
AS INDICATED ON DRAWINGS

NOTE:

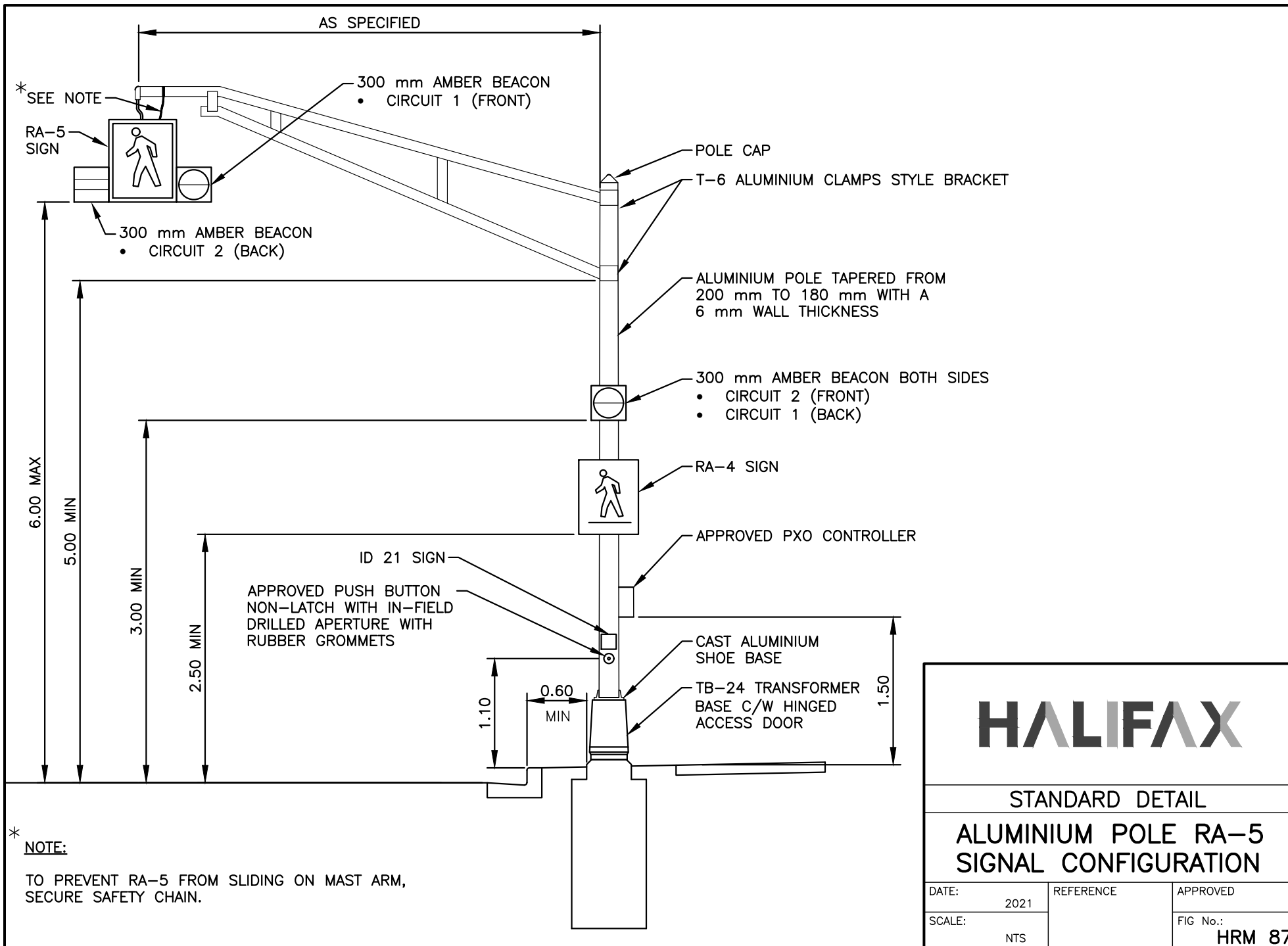
1. PLUG DUCTS NOT IN USE.
2. DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.

**HALIFAX**

STANDARD DETAIL

**WOODEN POLE POWER FEED  
(FOR TRAFFIC SIGNALS)**

DATE: 2021	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 86



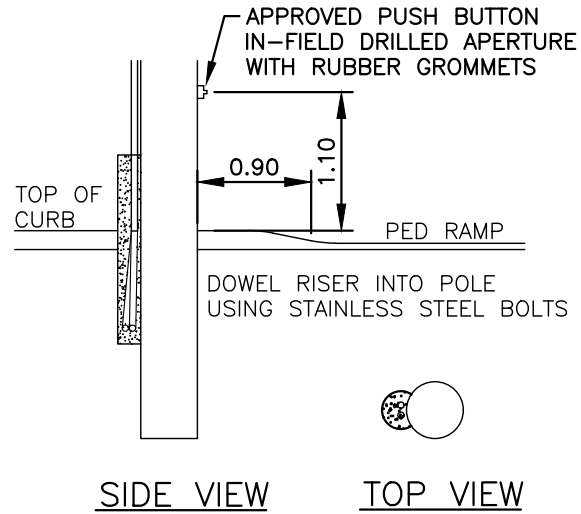
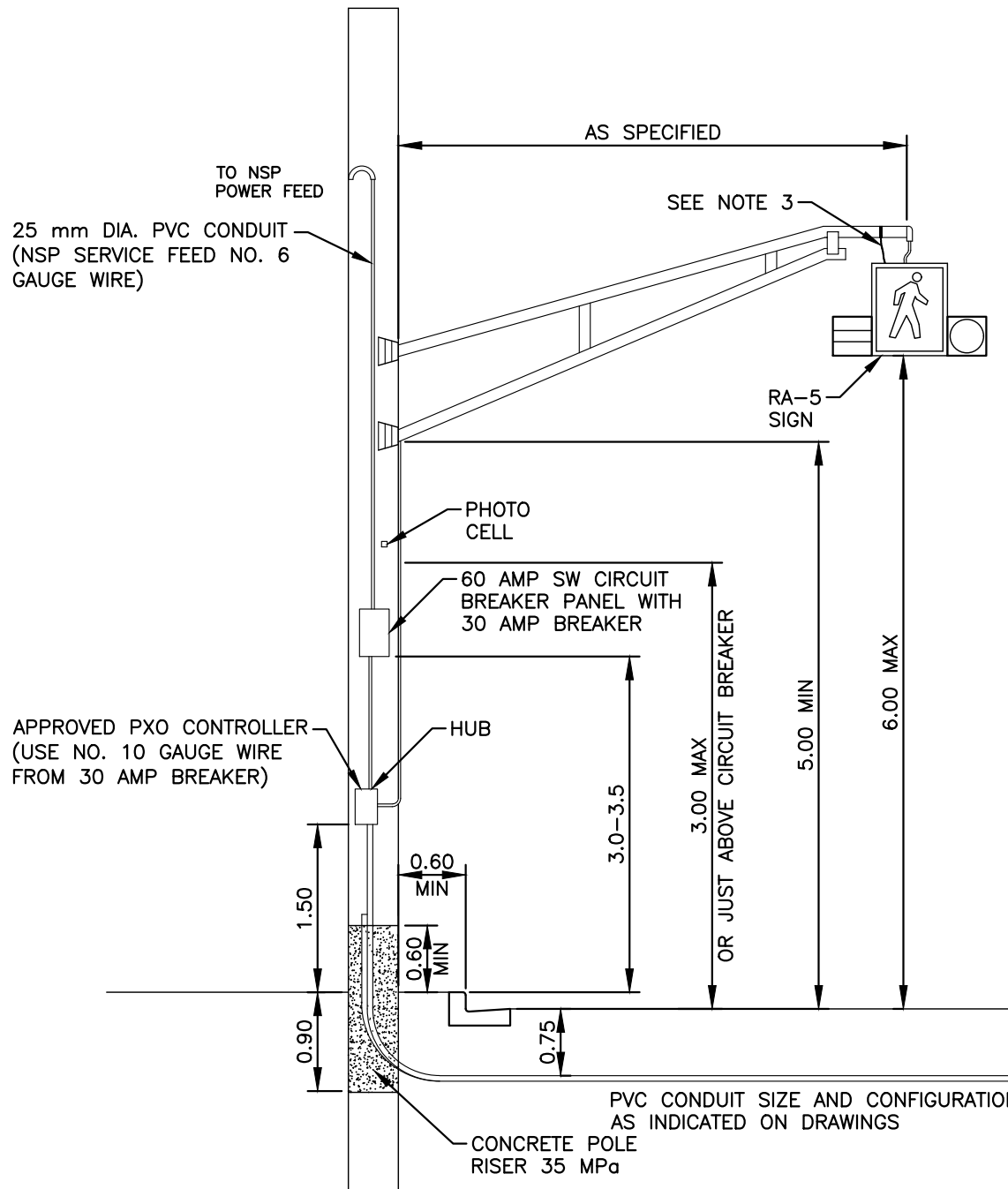
# HALIFAX

STANDARD DETAIL

## ALUMINIUM POLE RA-5 SIGNAL CONFIGURATION

DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS	FIG No.:	HRM 87





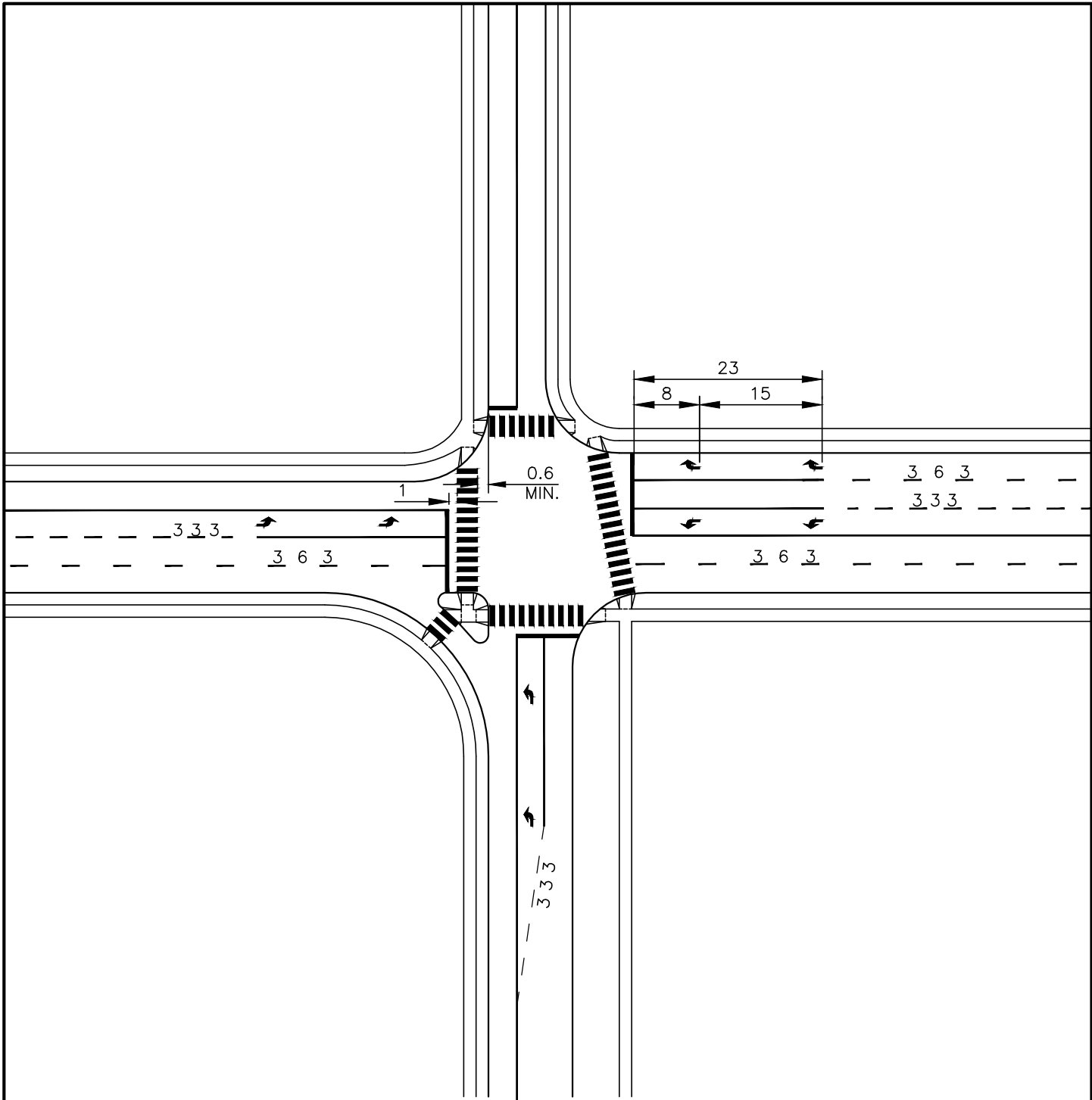
**NOTES:**

1. PLUG DUCTS NOT IN USE
2. INSTALL MUTCD ID21 SIGN JUST ABOVE PUSH BUTTON
3. TO PREVENT RA-5 FROM SLIDING ON MAST ARM, SECURE SAFETY CHAIN.
4. DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.

# HALIFAX

**STANDARD DETAIL**  
**WOODEN POLE RA-5**  
**TRAFFIC SIGNAL WITH POWER**  
**FEED CONFIGURATION**

DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS	FIG No.:	HRM 88



**NOTES:**

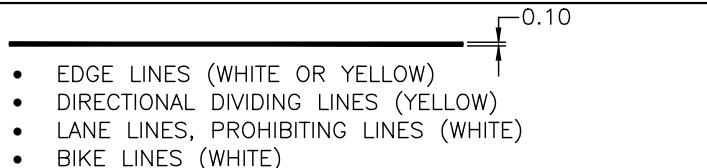
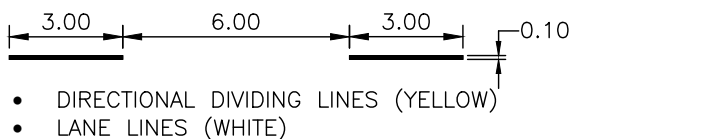
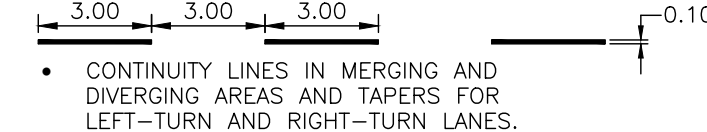
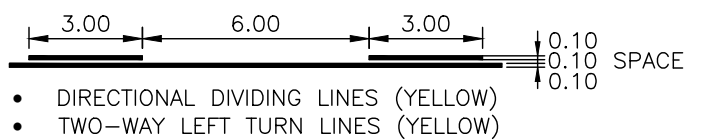

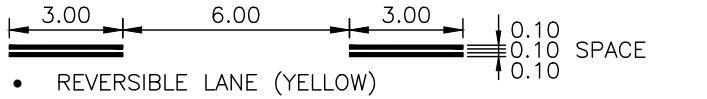

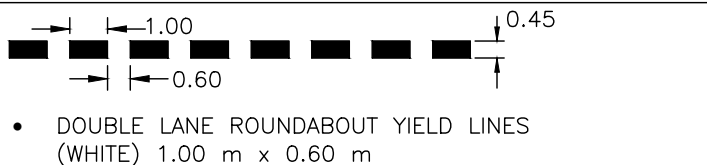
1. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH HRM STANDARD DETAILS.
2. WHEN REQUIRED, THIRD AND SUBSEQUENT ARROWS TO BE SPACED AT 15.0 m INTERVALS.
3. USE OF TWIN PARALLEL LINE OR ZEBRA CROSSWALK WILL BE SPECIFIED ON PLAN.

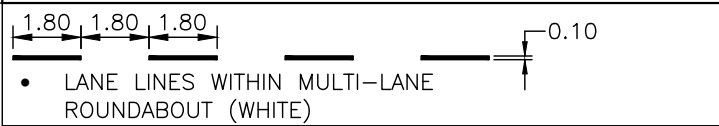
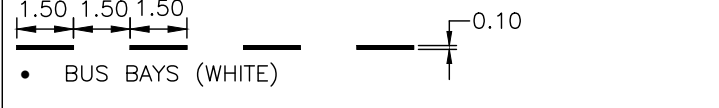
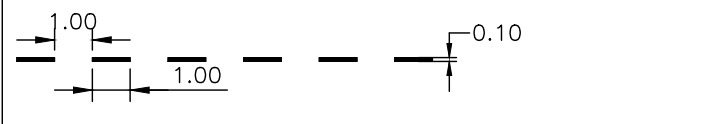
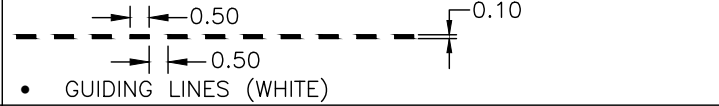
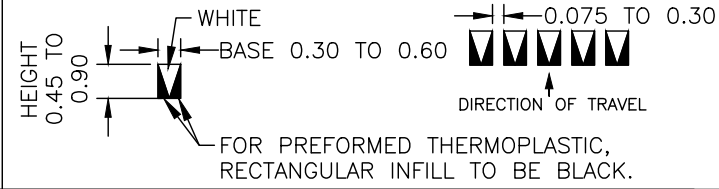

**HALIFAX**

STANDARD DETAIL

**STANDARD INTERSECTION  
PAVEMENT MARKING LAYOUT**

DATE:	2025	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: HRM 89

NAME OF LINE	
SOLID	 <ul style="list-style-type: none"> <li>EDGE LINES (WHITE OR YELLOW)</li> <li>DIRECTIONAL DIVIDING LINES (YELLOW)</li> <li>LANE LINES, PROHIBITING LINES (WHITE)</li> <li>BIKE LINES (WHITE)</li> </ul>
3 m x 6 m BROKEN	 <ul style="list-style-type: none"> <li>DIRECTIONAL DIVIDING LINES (YELLOW)</li> <li>LANE LINES (WHITE)</li> </ul>
3 m x 3 m	 <ul style="list-style-type: none"> <li>CONTINUITY LINES IN MERGING AND DIVERGING AREAS AND TAPERS FOR LEFT-TURN AND RIGHT-TURN LANES.</li> </ul>
SIMULTANEOUS SOLID & BROKEN	 <ul style="list-style-type: none"> <li>DIRECTIONAL DIVIDING LINES (YELLOW)</li> <li>TWO-WAY LEFT TURN LINES (YELLOW)</li> </ul>
DOUBLE SOLID	 <ul style="list-style-type: none"> <li>DIRECTIONAL DIVIDING LINES (YELLOW)</li> </ul>
DOUBLE BROKEN 3 m x 6 m	 <ul style="list-style-type: none"> <li>REVERSIBLE LANE (YELLOW)</li> </ul>
YIELD	 <ul style="list-style-type: none"> <li>SINGLE LANE ROUNDABOUT YIELD LINES (WHITE) 0.60 m x 0.60 m</li> </ul>
	 <ul style="list-style-type: none"> <li>DOUBLE LANE ROUNDABOUT YIELD LINES (WHITE) 1.00 m x 0.60 m</li> </ul>

NAME OF LINE	
1.8 m x 1.8 m	 <ul style="list-style-type: none"> <li>LANE LINES WITHIN MULTI-LANE ROUNDABOUT (WHITE)</li> </ul>
1.5 m x 1.5 m	 <ul style="list-style-type: none"> <li>BUS BAYS (WHITE)</li> </ul>
DASHED 1.0 m x 1.0 m	
0.5 m x 0.5 m	 <ul style="list-style-type: none"> <li>GUIDING LINES (WHITE)</li> </ul>
ADVANCED YIELD TO PEDESTRIANS LINE	 <p>HEIGHT 0.45 TO 0.90</p> <p>WHITE</p> <p>BASE 0.30 TO 0.60</p> <p>0.075 TO 0.30</p> <p>DIRECTION OF TRAVEL</p> <p>FOR PREFORMED THERMOPLASTIC, RECTANGULAR INFILL TO BE BLACK.</p>
STOP BAR	 <ul style="list-style-type: none"> <li>INTERSECTION STOP BAR (WHITE)</li> </ul>

**NOTE:**

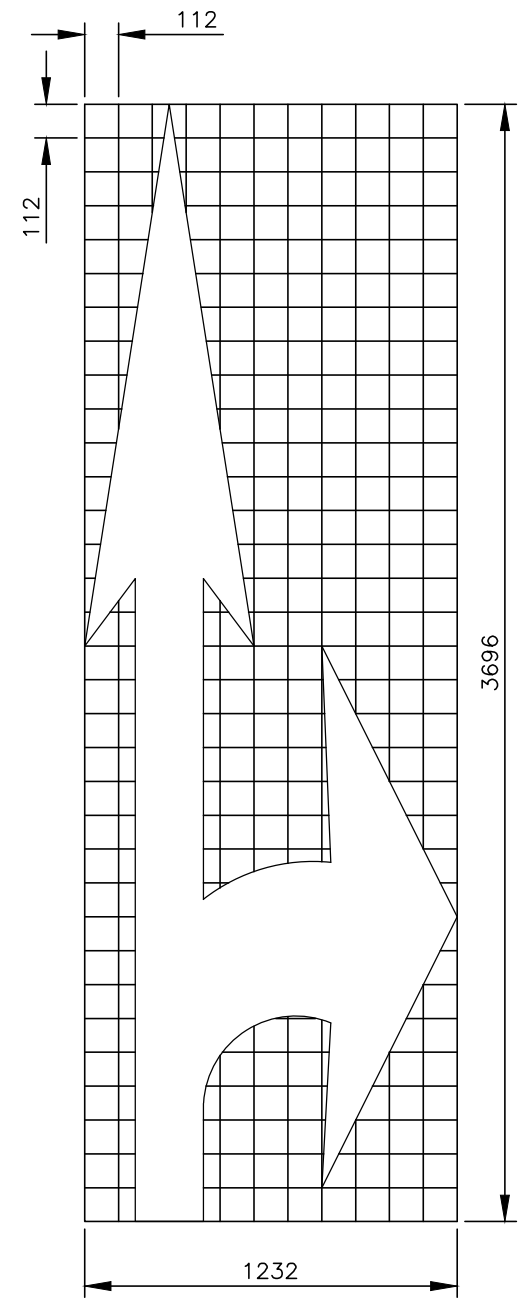
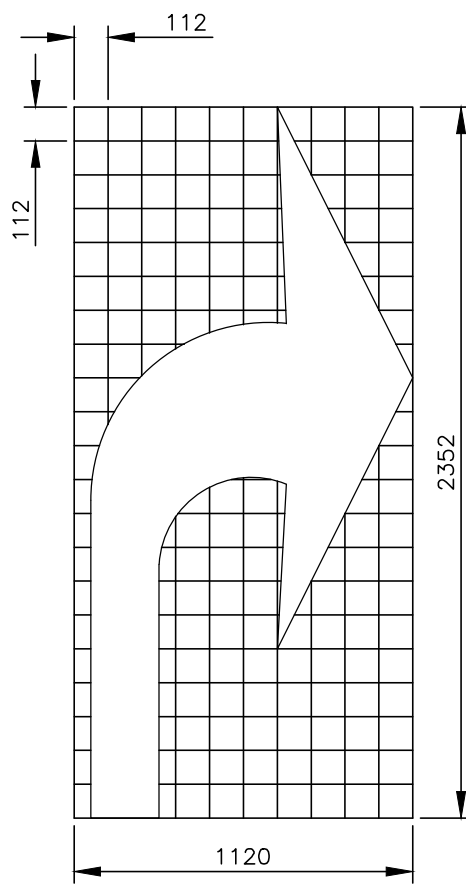
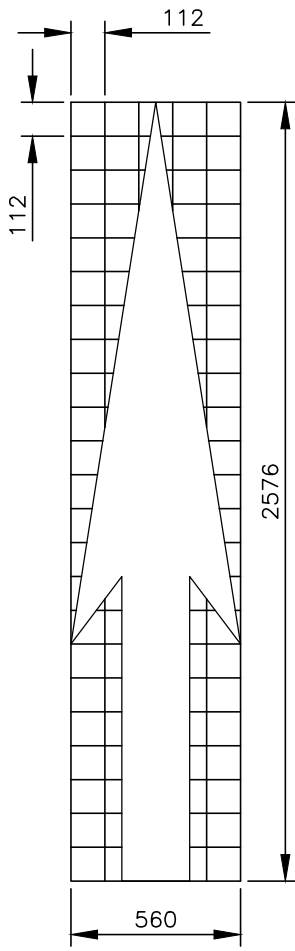
1. DIMENSIONS ARE IN METRES.

# HALIFAX

STANDARD DETAIL

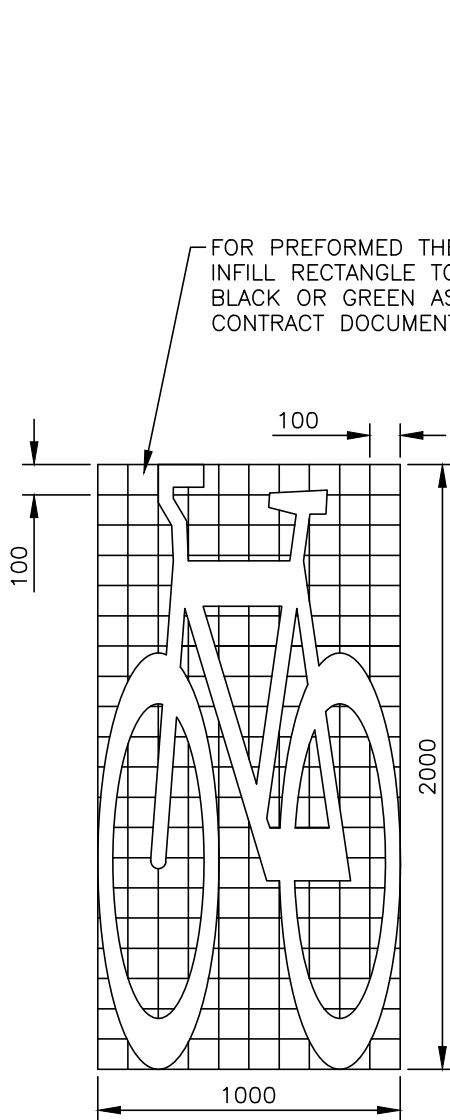
LONGITUDINAL & TRANSVERSE  
PAVEMENT MARKINGS

DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS		FIG No.:
			HRM 90

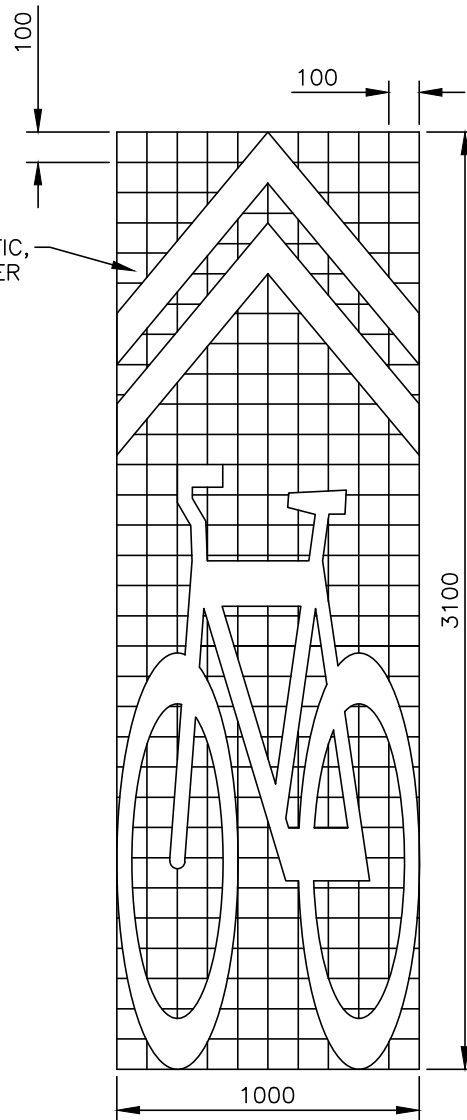


**NOTE:**  
1. DIMENSIONS ARE IN MILLIMETRES.

<b>HALIFAX</b>		
STANDARD DETAIL		
PAVEMENT ARROWS		
DATE:	2021	REFERENCE
SCALE:	1:25	APPROVED
		FIG No.:
		<b>HRM 91</b>



**BICYCLE SYMBOL**



**SHARED USE LANE SYMBOL**

**NOTE:**

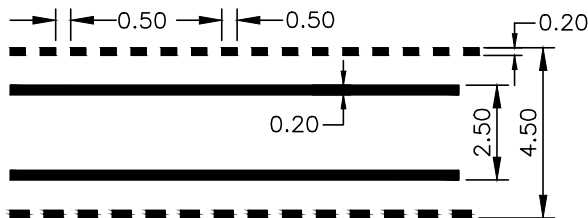
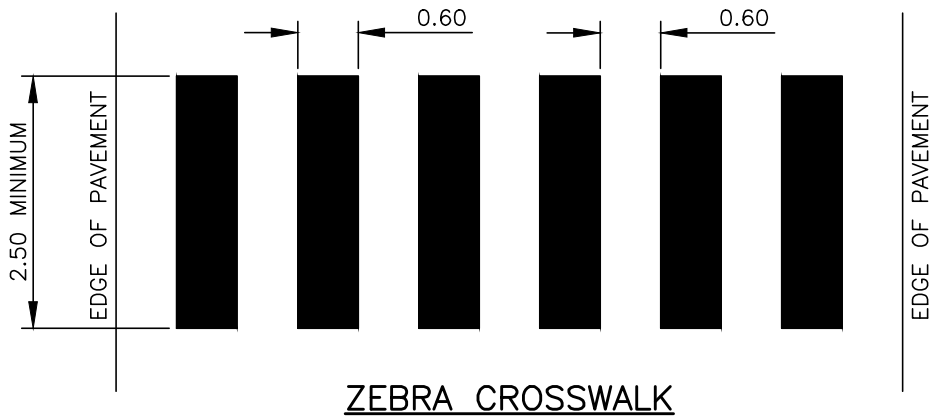
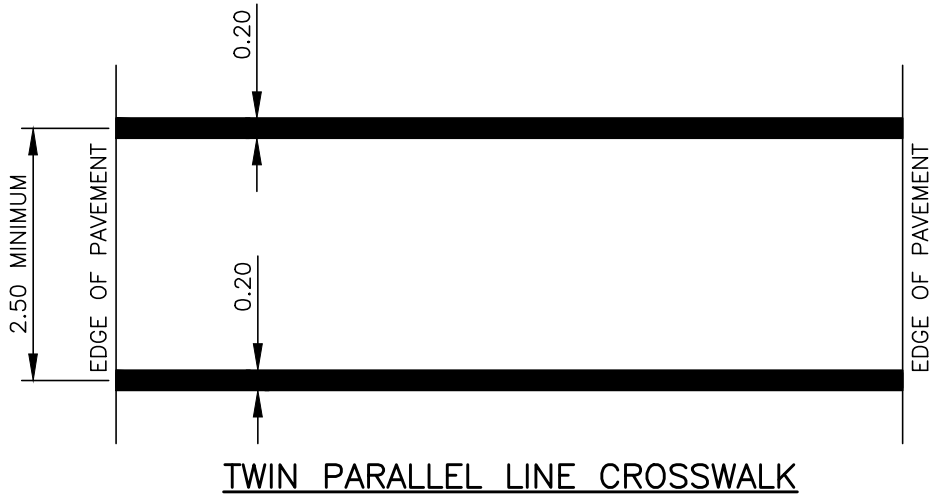
1. DIMENSIONS MAY BE SLIGHTLY ALTERED FOR THERMOPLASTIC IF APPROVED BY THE ENG.
2. DIMENSIONS ARE IN MILLIMETRES.

**HALIFAX**

STANDARD DETAIL

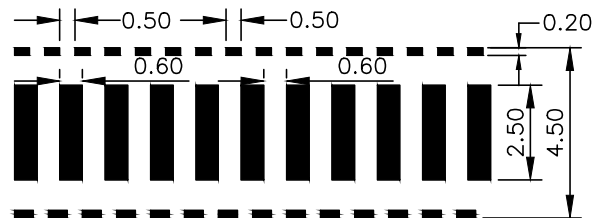
**BICYCLE SYMBOL &  
SHARED USE LANE SYMBOL**

DATE:	2023	REFERENCE	APPROVED
SCALE:	1:25		FIG No.: HRM 92



- 2.50 m WIDE CROSSWALK WITH 4.50 m WIDE TRAIL CROSSWALK

UNSIGNALIZED TRAIL CROSSING



- 2.50 m WIDE ZEBRA CROSSWALK WITH 4.50 m WIDE TRAIL CROSSWALK

SIGNALIZED TRAIL CROSSING

NOTE:

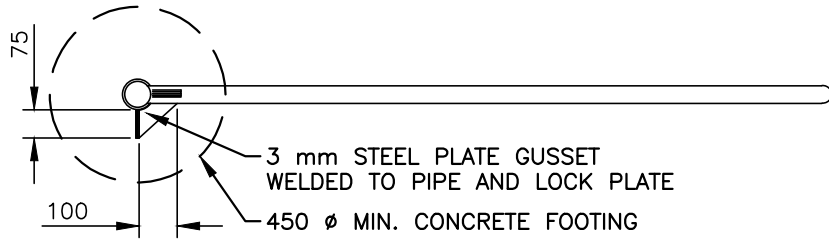
1. DIMENSIONS ARE IN METRES.

**HALIFAX**

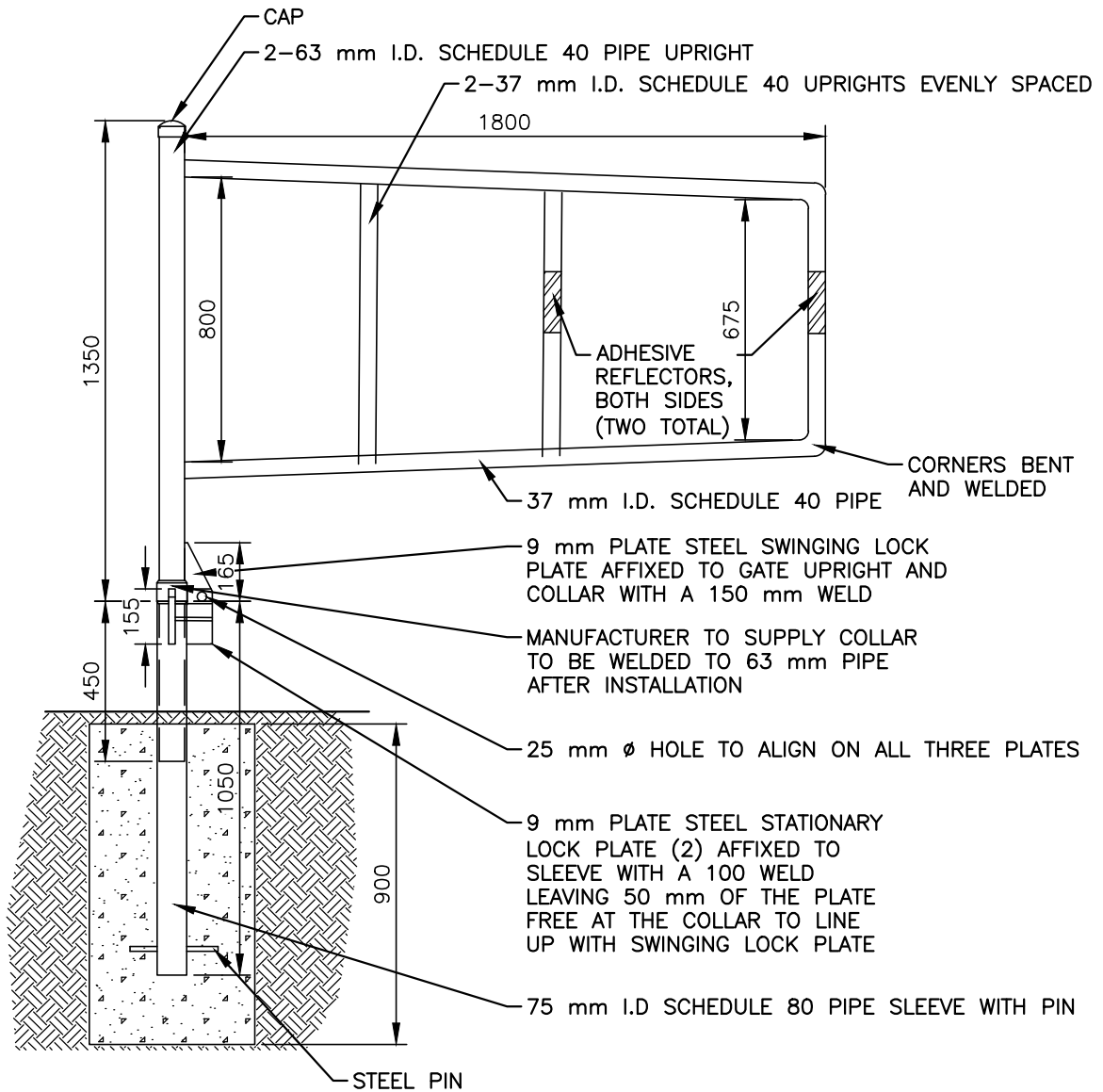
STANDARD DETAIL

**PEDESTRIAN & TRAIL CROSSING PAVEMENT MARKINGS**

DATE:	2025	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: HRM 93



PLAN



SECTION

NOTES:

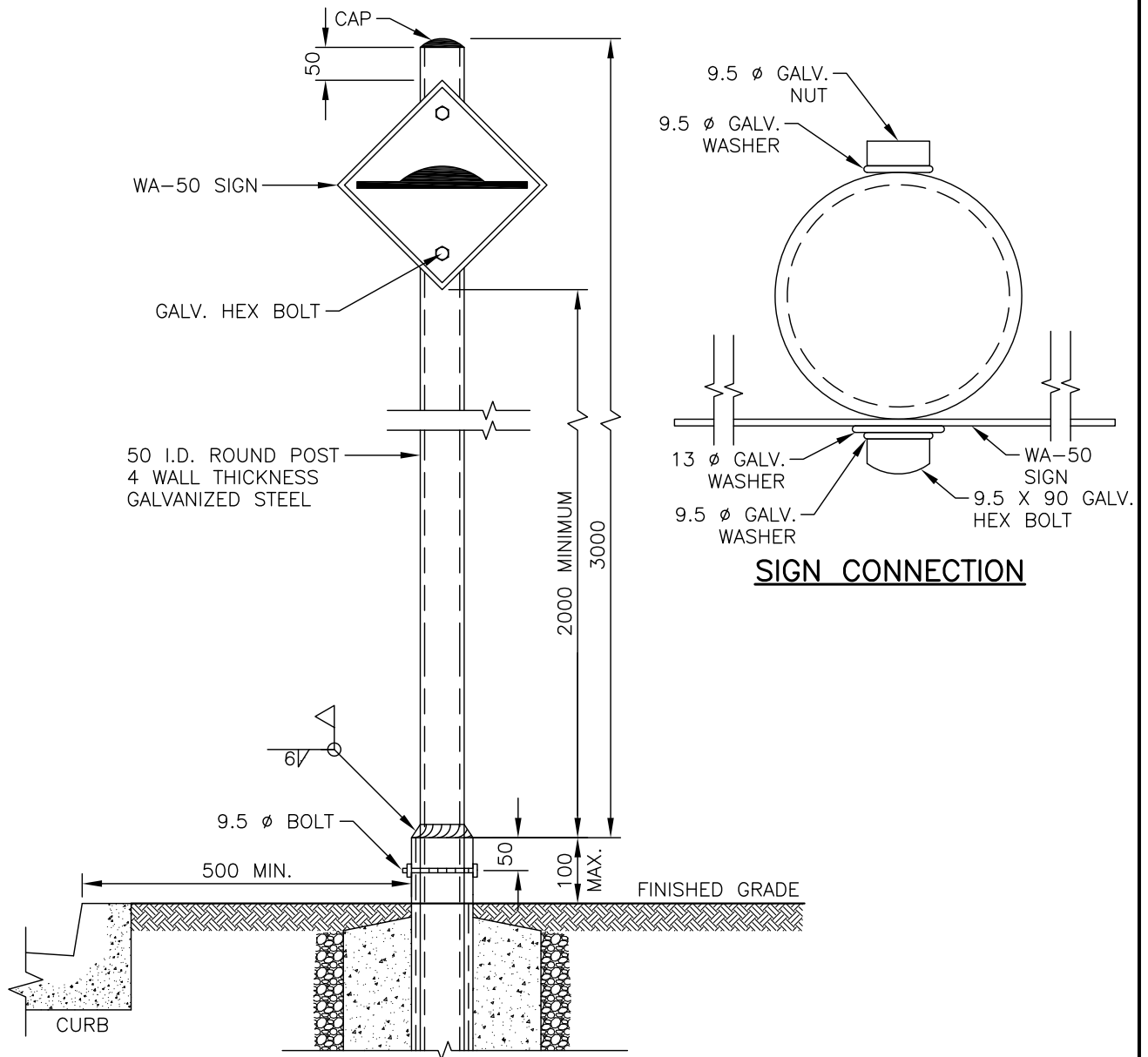
1. ALL PIPE TO BE GALVANIZED EXCEPT 75 mm GROUND SLEEVE (BLACK IRON)
2. ALL WORK TO BE DONE ACCORDING TO HRM SPECIFICATIONS
3. ALL METAL TO RECEIVE ONE COAT OF RUST INHIBITING PRIMER AND TWO COATS OF R&M PAINT E1245 CODE L (HOLLY GREEN) ENAMEL AUTOMOTIVE PAINT OR EQUIVALENT.

**HALIFAX**

STANDARD DETAIL

PEDESTRIAN GATE

DATE:	2023	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: HRM 119



**NOTES:**

1. SIGN POST AND BASE AS PER STANDARD DETAIL HRM 38
2. HRM TO SUPPLY APPROPRIATE SIGNS.
3. WELD SHALL BE COMPLETED AROUND BASE AND POST.
4. CONTRACTOR TO USE 9.5 DIA. X 75MM LAG SCREW, COMPLETE WITH 13 DIA. GALV. AND 9.5 DIA. GALV. WASHERS WHEN INSTALLING SIGN TO UTILITY POLE.
5. ALL DIMENSIONS ARE IN MILLIMETRES.

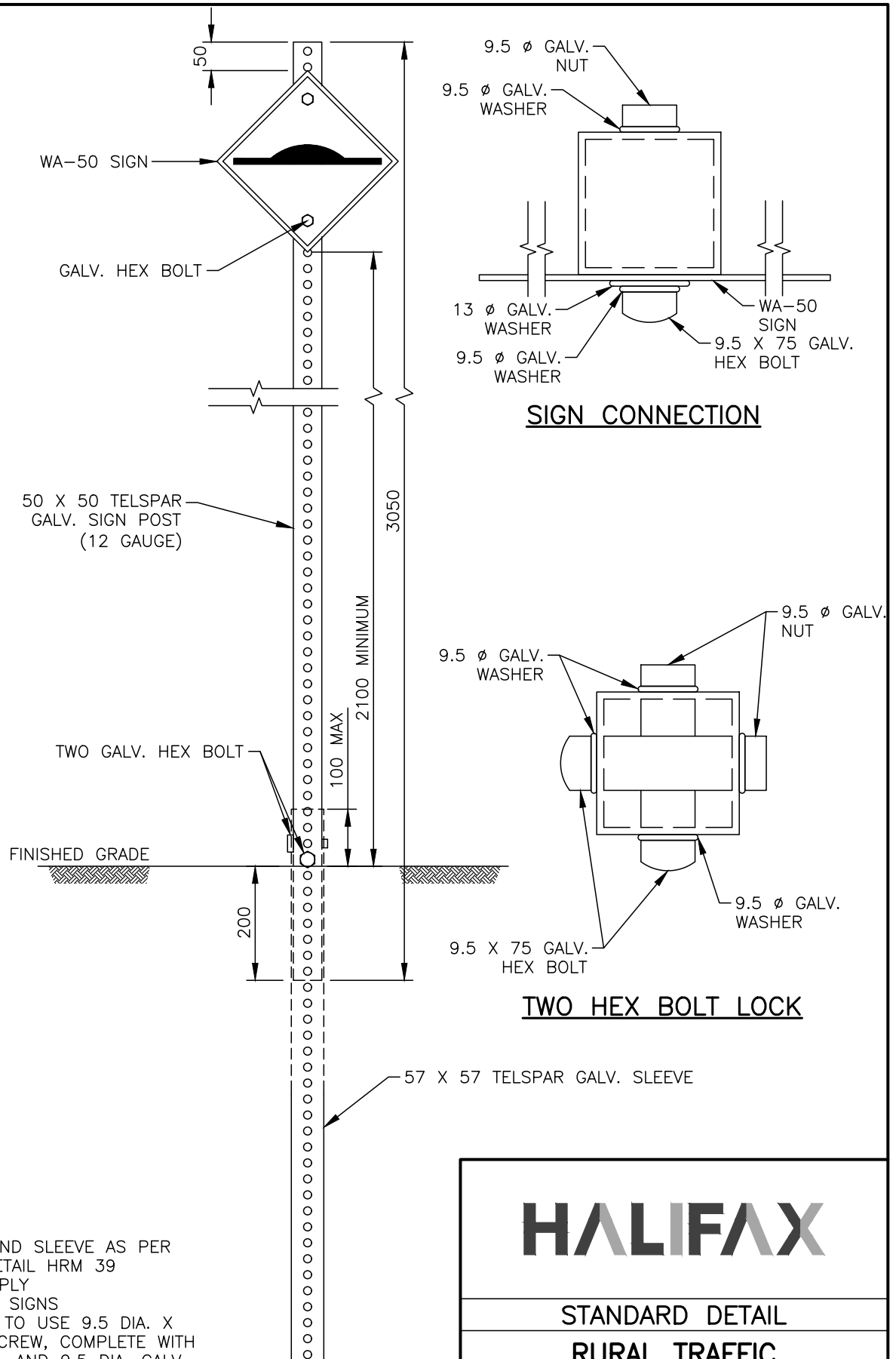
**HALIFAX**

STANDARD DETAIL

URBAN TRAFFIC SIGN  
INSTALLATION

DATE:	2024	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: <b>HRM 129</b>





**NOTES:**

1. SIGN POST AND SLEEVE AS PER STANDARD DETAIL HRM 39
2. HRM TO SUPPLY APPROPRIATE SIGNS
3. CONTRACTOR TO USE 9.5 DIA. X 75MM LAG SCREW, COMPLETE WITH 13 DIA. GALV. AND 9.5 DIA. GALV. WASHERS WHEN INSTALLING SIGN TO UTILITY POLE.
4. ALL DIMENSIONS ARE IN MILLIMETRES

**HALIFAX**

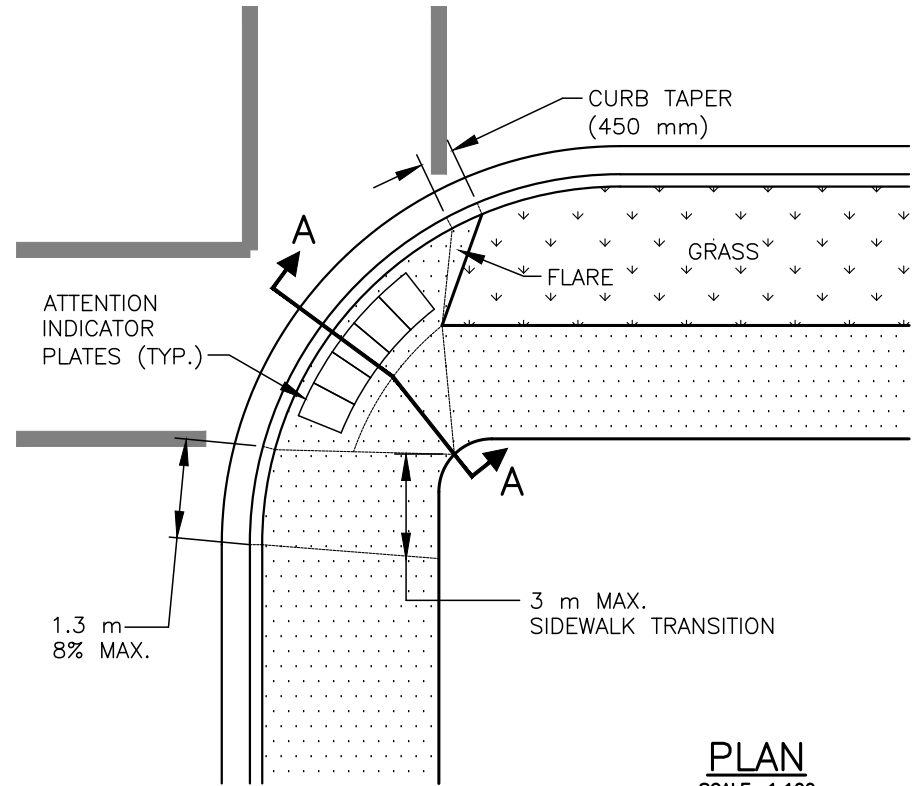
STANDARD DETAIL

RURAL TRAFFIC  
SIGN INSTALLATION

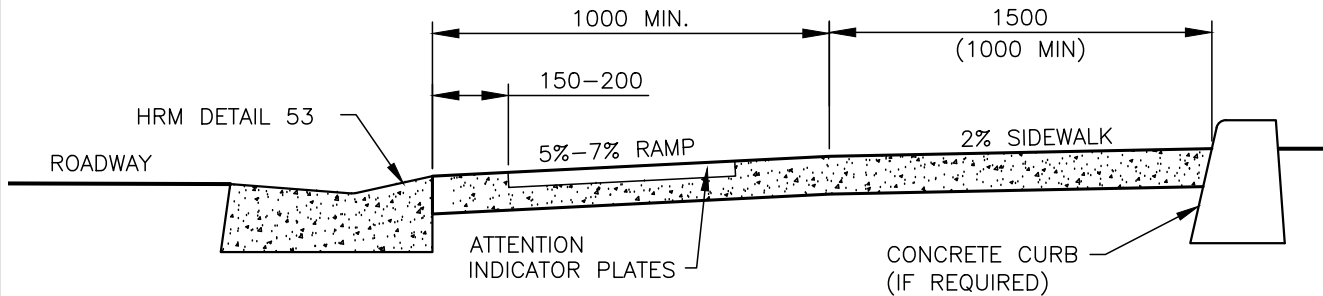
DATE:	2025	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: HRM 130

NOTES:

1. NATURAL CAST IRON ATTENTION TWSI (TACTILE WALKING SURFACE INDICATOR) PLATES, TO CSA B651, AND AS INDICATED IN THE PROJECT DOCUMENTS.
2. NO GAP BETWEEN ADJACENT PLATES.
3. MAXIMUM DISTANCE FROM CURB TAPER TO BE 100mm.
4. PLATES SHALL BE PLACED WITH THE TOP OF THE BASE PLATE (BOTTOM OF DOMES) LEVEL WITH CONCRETE SURFACE.
5. ALL PLATES TO BE 610mm LONG.
6. TO BE READ IN CONJUNCTION WITH HRM DETAIL 49 PEDESTRIAN RAMP ALIGNMENT.
7. SIZE AND SHAPE OF PLATES TO MANUFACTURER'S SPECIFICATION.
8. CONCRETE THICKNESS AT PEDESTRIAN RAMPS TO BE 150 mm.
9. DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.



**PLAN**  
SCALE: 1:100



**CROSS SECTION A-A**

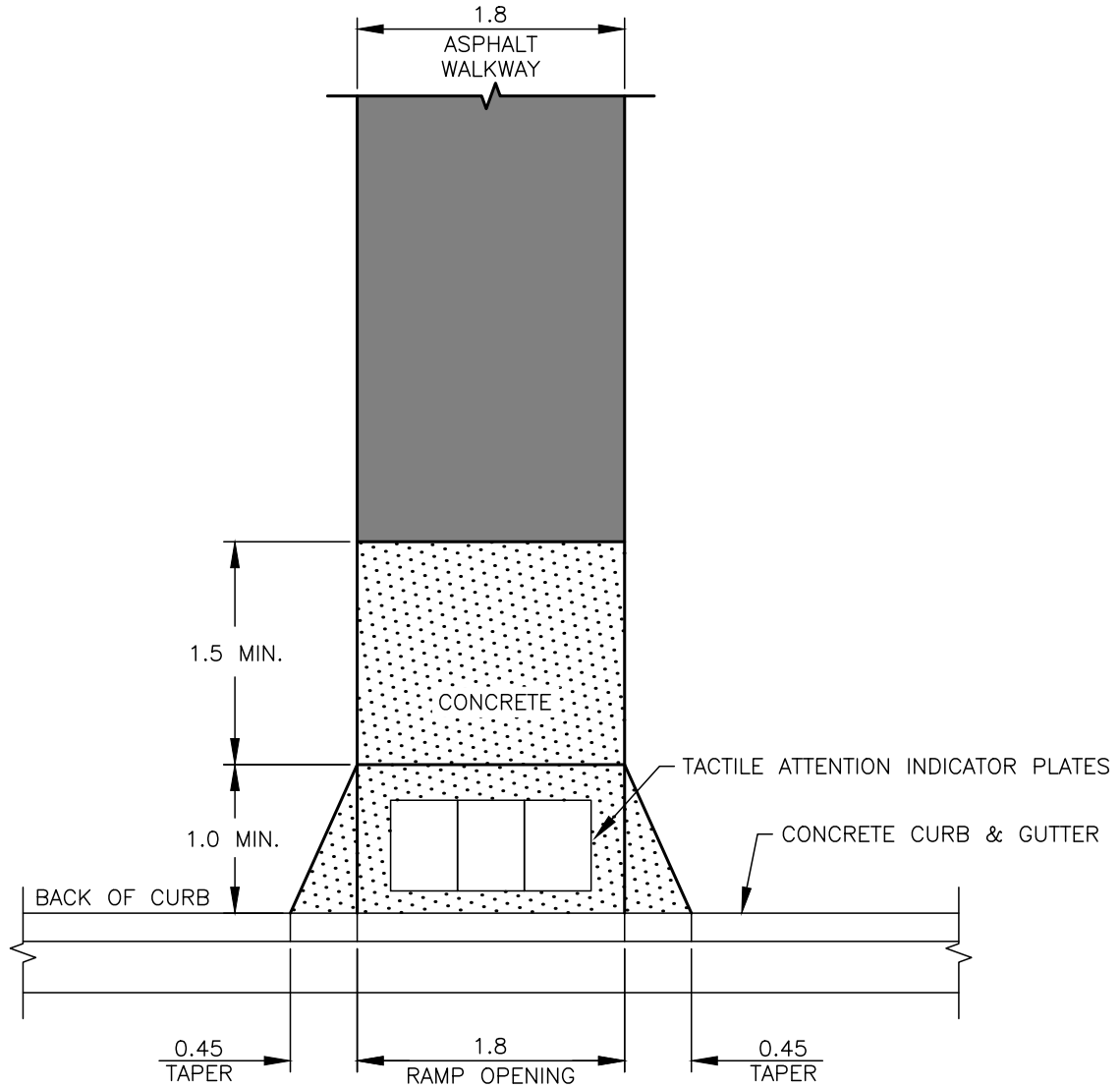
SCALE 1:20

**HALIFAX**

STANDARD DETAIL

TACTILE ATTENTION INDICATOR  
PLATE PLACEMENT

DATE: 2025	REFERENCE	APPROVED
SCALE: AS NOTED		FIG No.: HRM 131



**NOTES:**

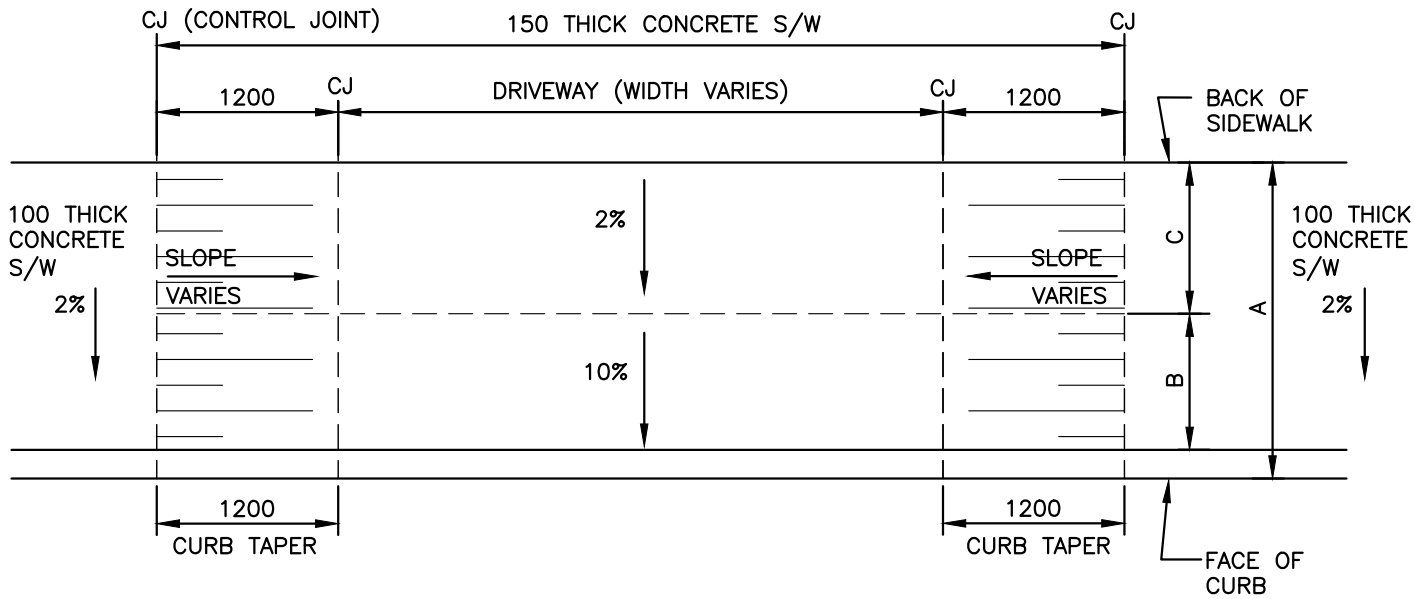
1. CONCRETE PEDESTRIAN RAMP TO HRM DETAIL 49.
2. CONCRETE CURB & GUTTER TO HRM DETAIL 53.
3. TACTILE ATTENTION INDICATOR PLATES (TWSI) TO HRM DETAIL 131.
4. ASPHALT WALKWAY TO HRM DETAIL 40.

**HALIFAX**

STANDARD DETAIL

WALKWAY WITH  
PEDESTRIAN RAMP

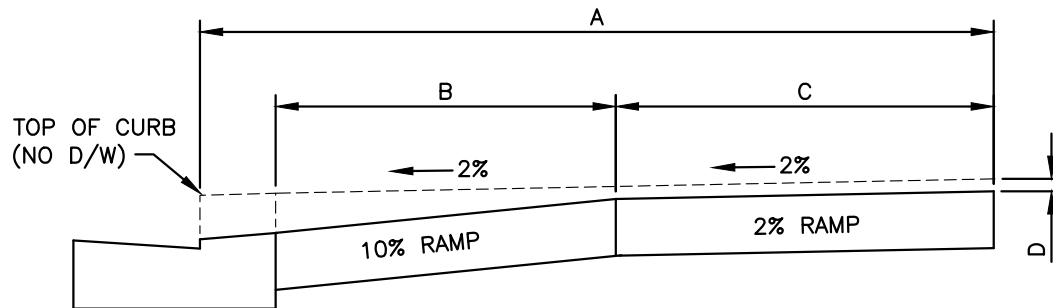
DATE:	2025	REFERENCE	APPROVED
SCALE:	1:50		FIG No.: HRM 132



A	B	C	D
1800	600	1000	57
1900	700	1000	49
2000	800	1000	41
2100	900	1000	33
2200	900	1100	33
2300	900	1200	33
2400	900	1300	33
2500	900	1400	33
2600	900	1500	33
2700	1000	1500	24
2800	1100	1500	16
2900	1200	1500	8
3000	1300	1500	0

NOTES:

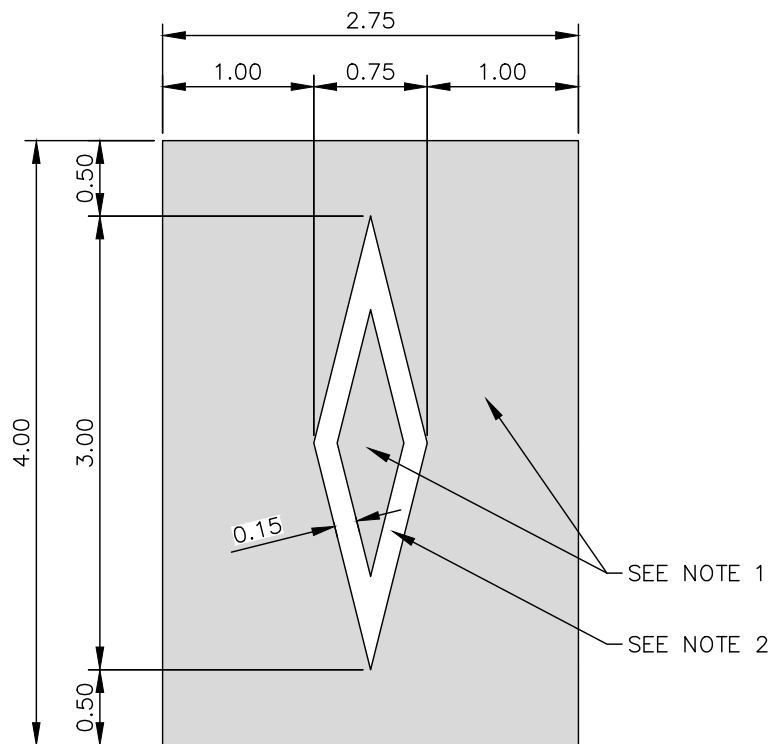
1. WHEN ADJACENT DRIVEWAYS ARE LESS THAN 2.4 METERS APART, DO NOT TAPER CURB AND SIDEWALK BETWEEN DRIVEWAYS.
2. AREA BEHIND DROPPED S/W MAY REQUIRE BUILD UP WITH PAVEMENT OR CURB TO PREVENT ENTRY OF STORM WATER DURING MAJOR STORM.



**HALIFAX**

STANDARD DETAIL  
CONCRETE SIDEWALK  
ADJACENT CURB

DATE:	2021	REFERENCE	APPROVED
SCALE:	AS NOTED		FIG No.: <b>HRM 133</b>



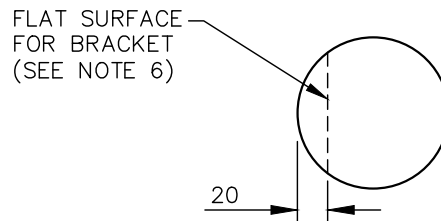
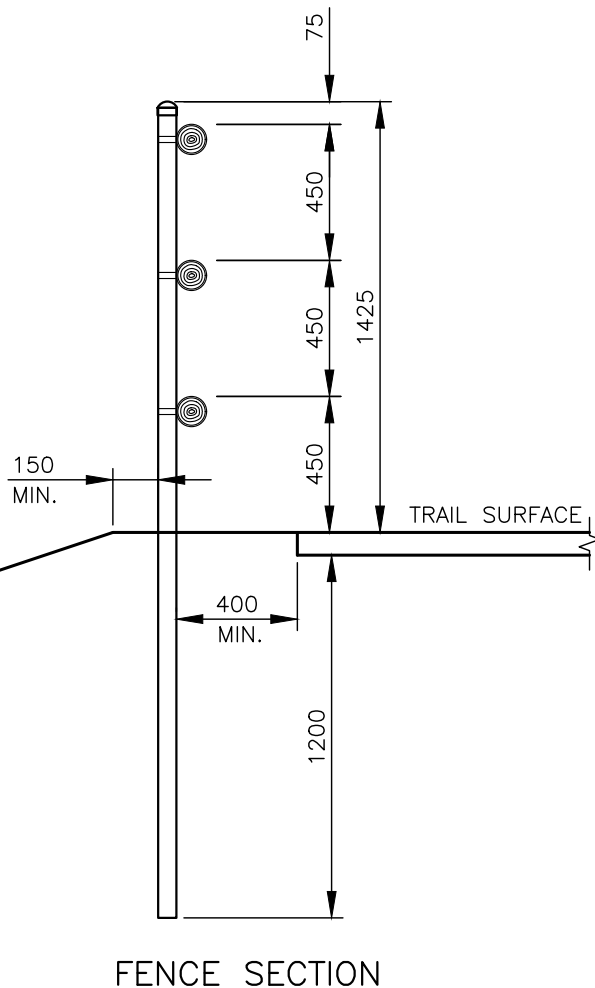
**NOTE:**

1. PERMANENT PAVEMENT MARKING FOR IN-LAY SHALL BE RED.
2. PERMANENT PAVEMENT MARKING FOR RESERVED LANE SYMBOL SHALL BE WHITE.
3. DIMENSIONS ARE IN METRES.

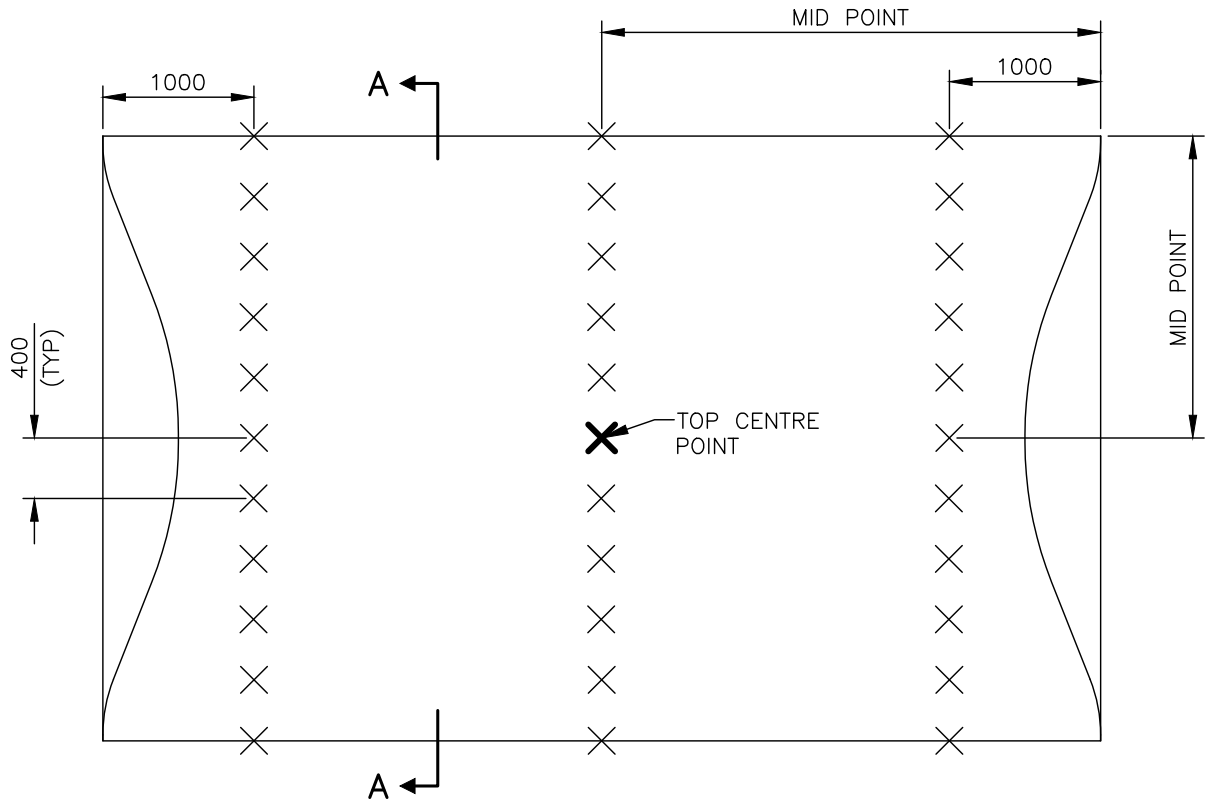
<b>HALIFAX</b>		
<b>STANDARD DETAIL</b>		
<b>RED IN-LAY RESERVED LANE</b>		
DATE:	2021	REFERENCE
SCALE:	1:50	APPROVED
		FIG. NO.
		<b>HRM 134</b>

NOTES:

1. POSTS 60 mm O.D. HOT DIPPED GALVANIZED COLD ROLLED STEEL (ASTM A53 GRADE A, SCHEDULE 40), ZINC-COATED AT MINIMUM 550 G/SM.
2. UNLESS OTHERWISE APPROVED BY ENGINEER, DRILL POST HOLES WITH 125 mm MAXIMUM DIAMETER BIT. STABILIZE GROUND AROUND POSTS WITH CEMENT GROUT AND MECHANICAL COMPACTOR.
3. THERE SHALL BE NO EXPOSED (NON-GALVANIZED) STEEL, EXCEPT THE TOP OF THE POSTS (PRIOR TO PLACEMENT OF CAPS).
4. POST SPACING OF 2.4 m EXCEPT LESS ON TIGHT TURNS TO MAINTAIN TRAIL WIDTH.
5. GALVANIZED STEEL CAPS TO BE SET SECURELY OVER TOP OF POSTS (WELDING NOT PERMITTED).
6. RAILS 95-115 mm DIAMETER SMOOTH UNTREATED HEMLOCK WOOD (NO CHECKS, SPLITS OR WIND SHAKES). OUTSIDE EDGES OF ABUTTING ENDS OF RAILS SHALL BE FLUSH (WITHIN 5 mm). PROVIDE FLAT SURFACE FOR FASTENERS 20 mm FROM BACK OF RAILS WHICH CAN BE THE FULL LENGTH OF THE RAILS.
7. ENDS OF RAILS SHALL LINE UP WITH CENTRE OF POSTS EXCEPT AT END POSTS WHERE THE RAILS SHALL EXTEND 100 mm PAST THE CENTRE OF POSTS.
8. FENCE BRACKETS TO BE GALVANIZED STEEL AND DESIGNED TO ATTACH WOODEN FENCE RAILS WITH A FLAT FASTENING SURFACE TO 60 mm O.D. FENCE POSTS. BRACKETS TO HAVE A BASE AND STRAP. BRACKETS TO HAVE 8 mm LAG SCREWS (38 mm LONG) FOR FASTENING BRACKET BASE TO WOOD RAIL, AND 8 mm CARRIAGE BOLTS WITH NUTS FOR FASTENING BRACKET BASE AND STRAP AROUND POST. BASE TO BE BENDABLE TO ALLOW FOR VARIED HORIZONTAL ANGLES BETWEEN SUCCESSIVE RAILS.
9. PRE-DRILL WOODEN RAILS FOR INSTALLATION OF BRACKETS.
10. BEND FLANGES OF BRACKETS TO ANGLE REQUIRED WHEN FENCE IS ON A HORIZONTAL CURVE.
11. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE NOVA SCOTIA BUILDING CODE REGULATIONS AND THE NATIONAL BUILDING CODE OF CANADA.
12. DIMENSIONS ARE IN MILLIMETRES.

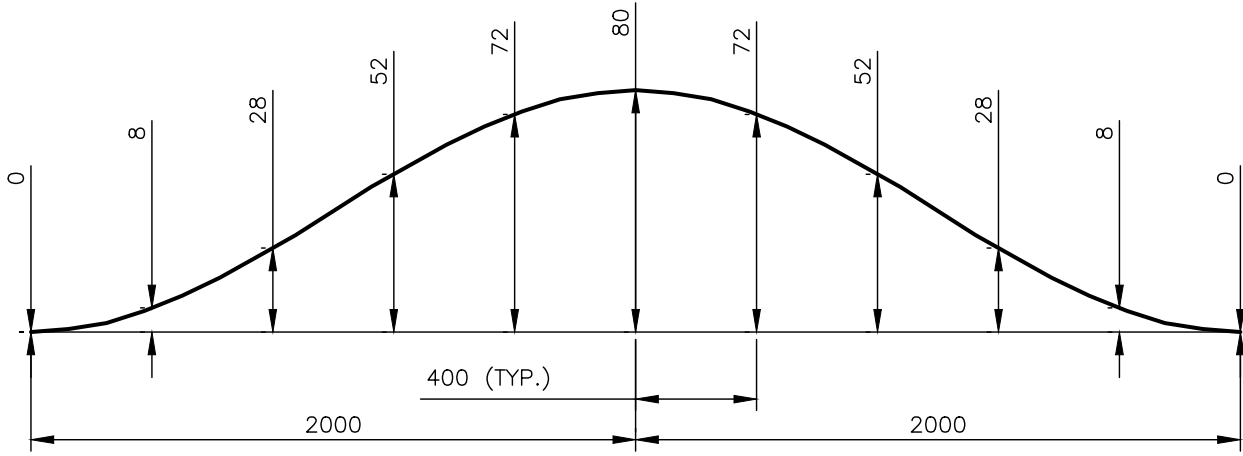


HALIFAX		
STANDARD DETAIL		
FENCE DETAIL (ROUND WOODEN RAILS & STEEL POSTS)		
DATE:	2021	REFERENCE
SCALE:	NTS	APPROVED
		FIG. NO. <b>HRM 135</b>



**SPEED HUMP**

SCALE: 1:50



**SECTION A-A**

SCALE: Horz. 1:25  
Vert. 1:2.5

**NOTES:**

1. 33 SURVEY SHOTS ELEVATION REQUIRED.
2. COORDINATES REQUIRED AT THE TOP CENTRE OF THE SPEED HUMP.
3. DIMENSIONS ARE IN MILLIMETRES.

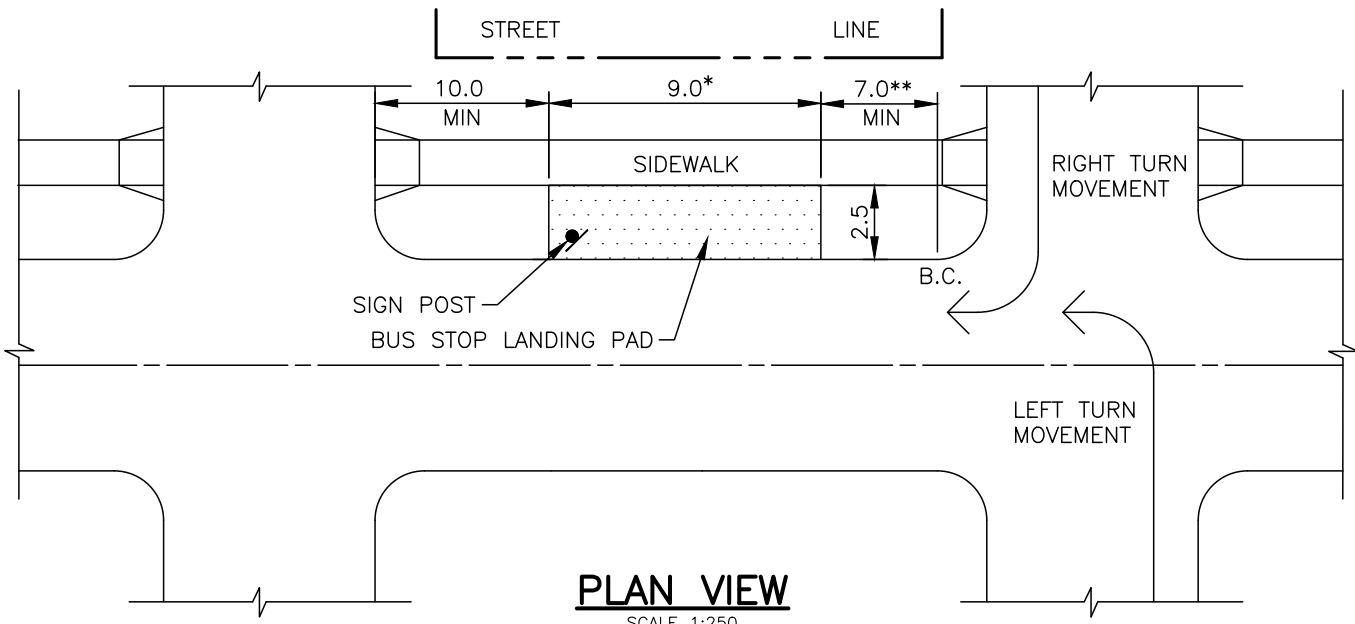
TOP CENTRE POINT COORDINATES:
NORTHING: .....
EASTING: .....

**HALIFAX**

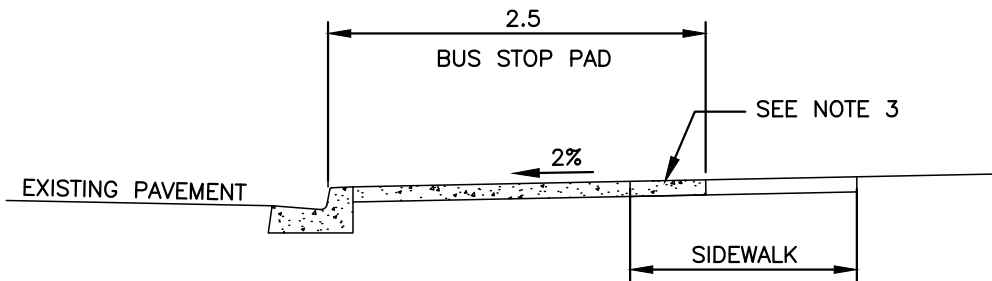
STANDARD DETAIL

**SPEED HUMP  
SURVEY VERIFICATION**

DATE: 2021	REFERENCE	APPROVED
SCALE: AS NOTED		FIG No.: <b>HRM 136</b>



**PLAN VIEW**  
SCALE 1:250



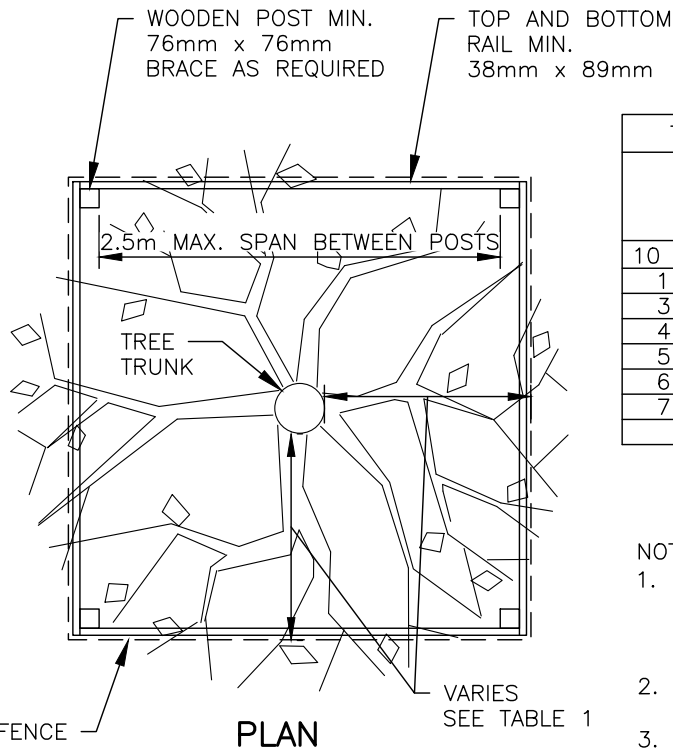
**CROSS SECTION**  
SCALE 1:50

**NOTES:**

- \* 1. FOR LOW VOLUME BUS ROUTES ON LOCAL STREETS  
-DECREASE PAD LENGTH TO 4.0 m.
- \* 2. FOR ARTICULATED BUS ROUTES  
-INCREASE PAD LENGTH TO 14.5 m.
- 3. THE 2.5 m WIDE BUS STOP LANDING PAD MAY INCLUDE A PORTION OF THE SIDEWALK AS REQUIRED.
- 4. BUS STOP LANDING PAD WIDTH SHALL NOT OVERLAP THE THROUGH WIDTH OF ADJUTTING FACILITIES SUCH AS MULTI-USE PATHWAY OR BIKE LANES.
- \*\* 5. THE CLEARANCE DISTANCE BETWEEN THE CURB RADIUS AND THE START OF BUS PAD IS TO BE A MINIMUM 7.0 m FOR A BUS MAKING THE THROUGH MOVEMENT AND 14.0 m FOR A BUS MAKING THE LEFT-TURN OR RIGHT-TURN MOVEMENT

HALIFAX		
STANDARD DETAIL		
CONCRETE BUS STOP LANDING PAD (WITH SIDEWALK)		
DATE: 2025	REFERENCE	APPROVED
SCALE: AS NOTED		FIG No.: <b>HRM 138</b>





**PLAN**

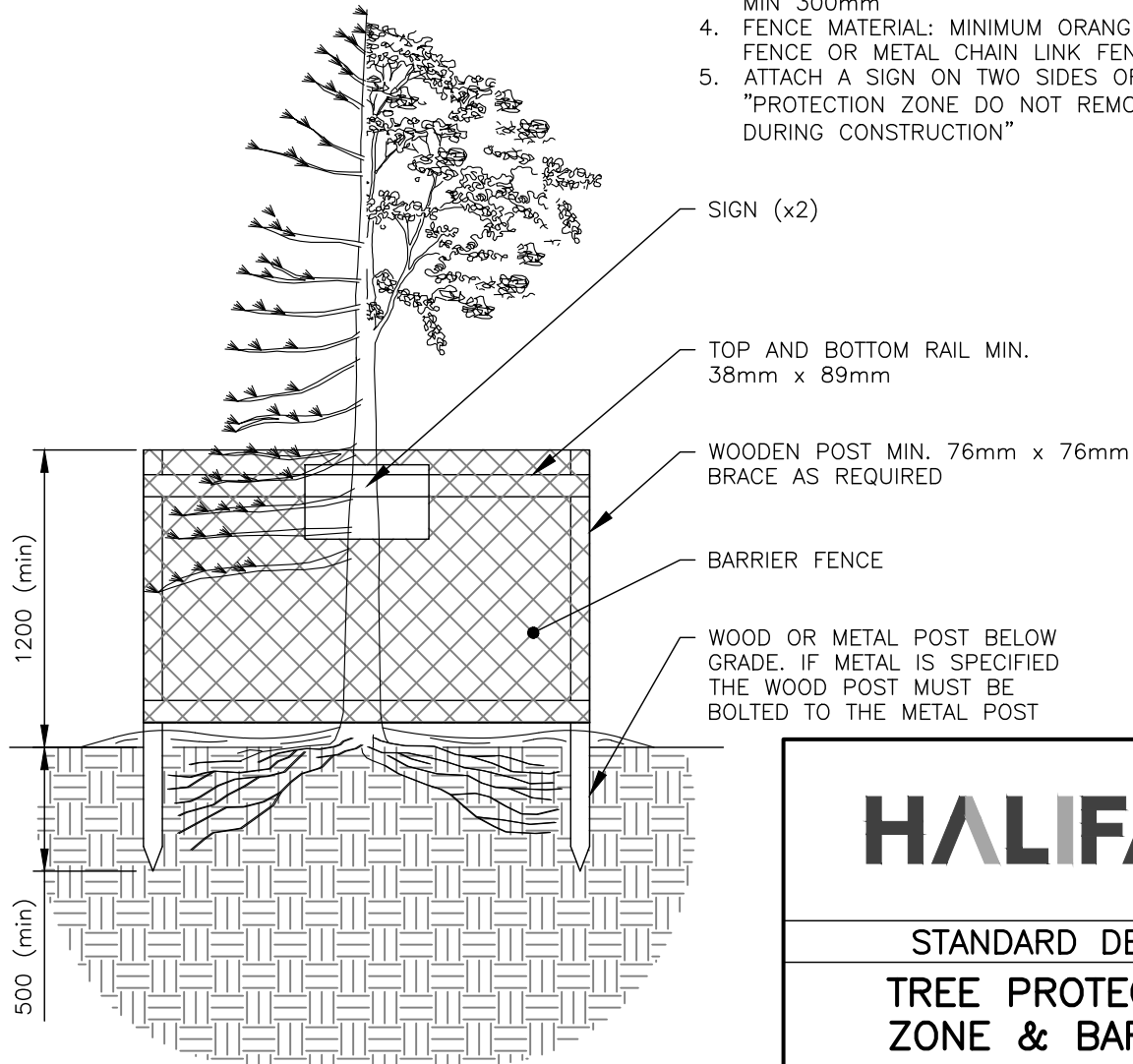
**TABLE 1**

TREE PROTECTION ZONE CALCULATION TABLE

TRUNK DIAMETER (DBH)	MINIMUM PROTECTION DISTANCE REQUIRED (MEASURE FROM THE OUTSIDE EDGE OF TREE TRUNK)
10 CM & UNDER	1.2 METERS
11 – 30 CM	2.0 METERS
31 – 40 CM	3.4 METERS
41 – 50 CM	4.6 METERS
51 – 60 CM	6.0 METERS
61 – 70 CM	7.0 METERS
71 – 80 CM	8.0 METERS
>80 CM	9.0 METERS

**NOTES:**

1. WOOD POST: (MIN. 76mm WIDTH) INSTALLED TO A DEPTH OF 500mm. TOP AND BOTTOM RAIL: (MIN. 38 x 89mm CONSTRUCTION, MAX. SPAN 2.5m), CROSS BRACING AS REQUIRED.
2. NO GROUND DISTURBANCE WITHIN 1.2 METER OF THE TREE TRUNK (I.E. POST INSTALLATION)
3. POSTS SET BACK FROM SIDEWALK AND CURB: MIN 300mm
4. FENCE MATERIAL: MINIMUM ORANGE BARRIER FENCE OR METAL CHAIN LINK FENCE
5. ATTACH A SIGN ON TWO SIDES OF THE TREE "PROTECTION ZONE DO NOT REMOVE FENCE DURING CONSTRUCTION"



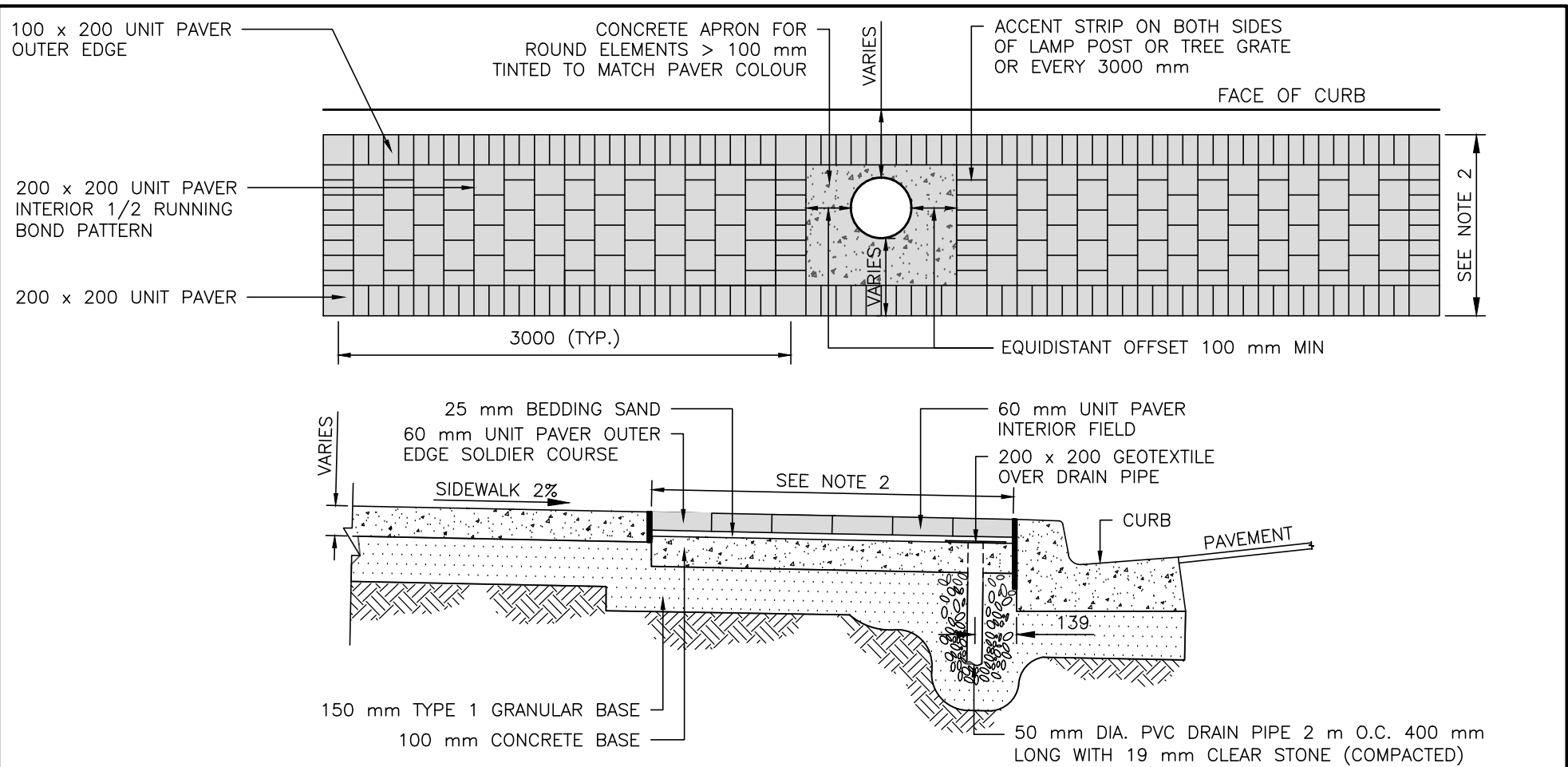
**PROFILE**

# HALIFAX

STANDARD DETAIL

## TREE PROTECTION ZONE & BARRIER

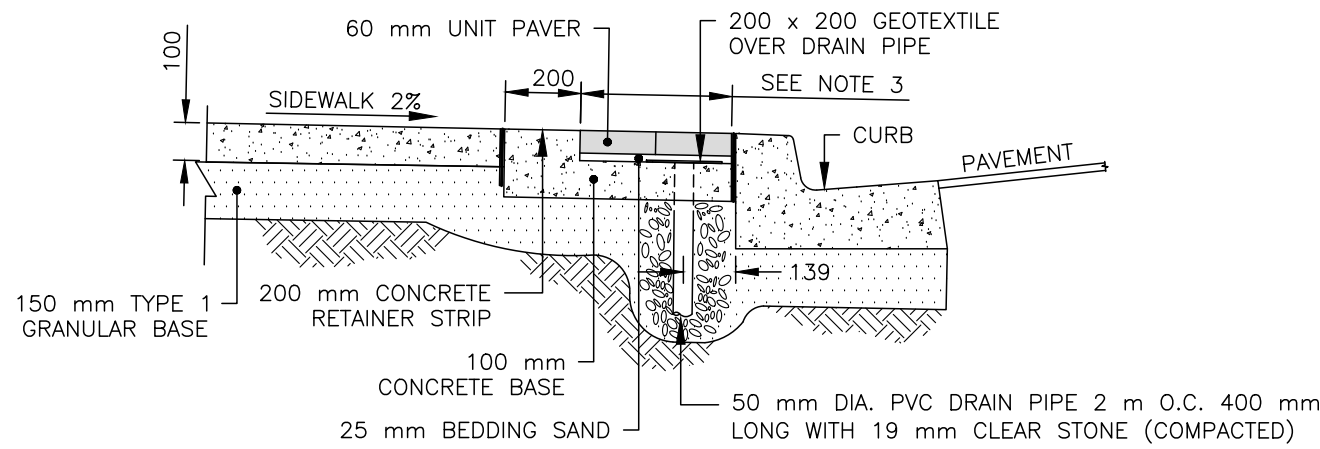
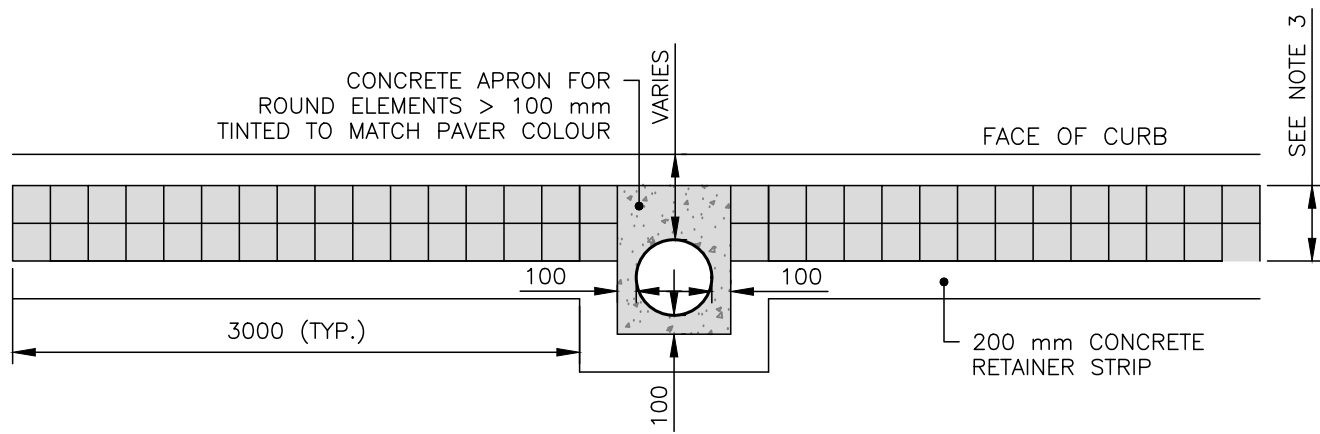
DATE:	REFERENCE	APPROVED
2021		
SCALE:		FIG No.:
NTS		HRM 140



**NOTES:**

1. INSTALL PAVER EDGE IN LIEU OF GRASS BOULEVARD WHERE SHOWN ON FIGURE B-5 (MUNICIPAL DESIGN GUIDELINES PART 1), OR AS DIRECTED BY ENGINEER
2. PAVER EDGE SHALL NOT REDUCE THE CLEAR SIDEWALK WIDTH TO LESS THAN 2.1m AND SHALL CONSIST OF AN EVEN MULTIPLE OF UNIT PAVERS TO A MAXIMUM OF 1.2 m WIDE.
3. PAVER COLOUR DEFINED ON FIGURE B-5 (MUNICIPAL DESIGN GUIDELINES PART 1), OR AS DIRECTED BY ENGINEER.
4. TERMINATE PAVER EDGE TREATMENT AT START OF CORNER RADIUS AND BEFORE DRIVEWAY RAMP
5. ALL PAVERS TO BE PRECAST CONCRETE 60mm THICK.
6. SET PAVERS 3-6 mm ABOVE SURROUNDING CONCRETE SURFACES TO ACCOMMODATE FUTURE SETTLEMENT
7. STREET FURNITURE LOCATIONS MUST BE APPROVED BY ENGINEER (E.G. BICYCLE RACKS, BENCHES, WASTE RECEPTACLES, ETC.), AND BOLTED TO CONCRETE BELOW PAVERS.
8. FILL VOID BETWEEN PAVERS WITH POLYMERIC SAND.
9. CONCRETE APRON REQUIRED FOR ROUND ELEMENTS >100mm DIAMETER (E.G. UTILITY POLES, LIGHT POLES, MANHOLE COVERS, VALVE COVERS, ETC) TINTED TO MATCH INTERIOR FIELD PAVER COLOUR
10. FOR ROUND ELEMENTS < 100MM DIAMETER OMIT CONCRETE APRON.
11. VOIDS BETWEEN PAVERS (JOINT SPACE) SHALL BE 2 mm (MIN) TO 5 mm (MAX).

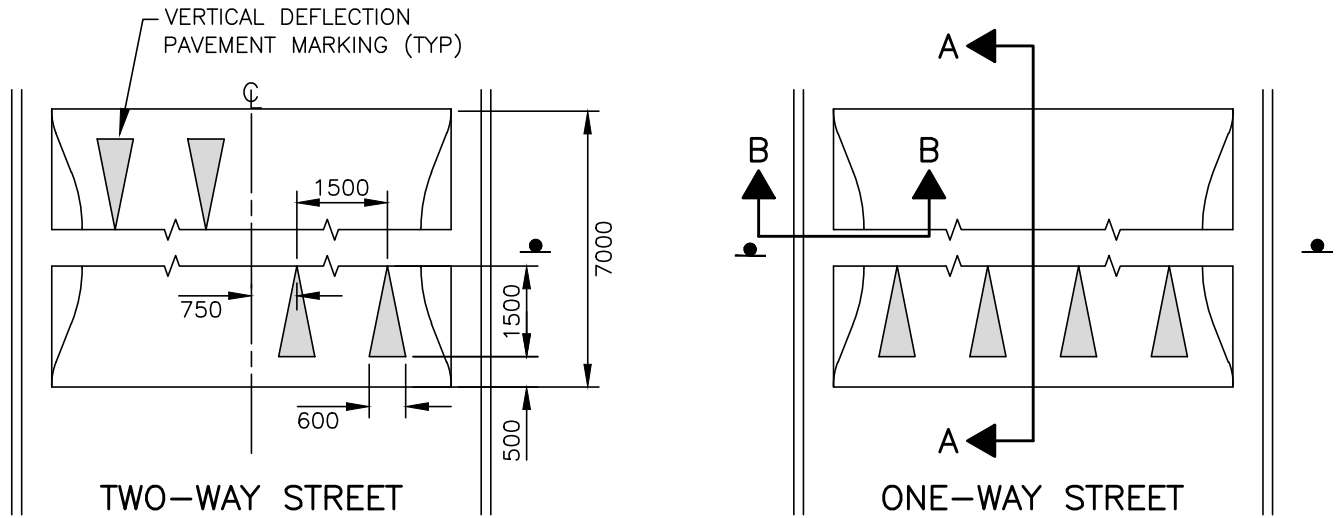
HALIFAX		
STANDARD DETAIL		
DECORATIVE PAVER EDGE		
DATE:	REFERENCE	APPROVED
2025		
SCALE:		FIG No.:
NTS		HRM 141



**NOTES:**

1. INSTALL PAVER EDGE IN LIEU OF GRASS BOULEVARD WHERE SHOWN ON FIGURE B-5 (MUNICIPAL DESIGN GUIDELINES PART 1), OR WHEN DIRECTED BY ENGINEER
2. OMIT PAVER EDGE IF CLEAR WIDTH OF REMAINING SIDEWALK IS LESS THAN 2.1m, UNLESS OTHERWISE DIRECTED BY ENGINEER
3. PAVER EDGE SHALL CONSIST OF 2 COMPLETE ROWS OF BRICKS IN A STACK BOND PATTERN. NO CUT PAVERS.
4. PAVER COLOUR DEFINED ON FIGURE B-5 (MUNICIPAL DESIGN GUIDELINES PART 1) OR AS DIRECTED BY ENGINEER
5. TERMINATE PAVER EDGE TREATMENT AT START OF CORNER RADIUS AND BEFORE DRIVEWAY RAMP
6. ALL PAVERS TO BE PRECAST CONCRETE 60mm THICK
7. SET PAVERS 3-6 mm ABOVE SURROUNDING CONCRETE SURFACES TO ACCOMMODATE FUTURE SETTLEMENT
8. STREET FURNITURE LOCATIONS MUST BE APPROVED BY ENGINEER (E.G. BICYCLE RACKS, BENCHES, WASTE RECEPTACLES, ETC.), AND BOLTED TO CONCRETE RETAINER STRIP OR TO CONCRETE BELOW PAVERS
9. FILL VOID BETWEEN PAVERS WITH POLYMERIC SAND
10. CONCRETE APRON REQUIRED FOR ROUND ELEMENTS >100mm DIAMETER (E.G. UTILITY POLES, LIGHT POLES, MANHOLE COVERS, VALVE COVERS, ETC) TINTED TO MATCH INTERIOR FIELD PAVER COLOUR
11. OFFSET CONCRETE APRON MINIMUM 100mm
12. FOR ROUND ELEMENTS < 100 mm DIAMETER OMIT CONCRETE APRON
13. VOIDS BETWEEN PAVERS (JOINT SPACE) SHALL BE 2 mm (MIN) TO 5 mm (MAX)

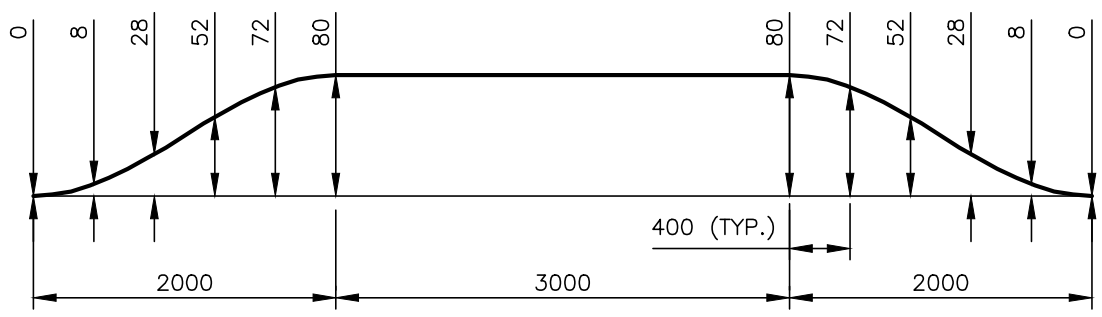
HALIFAX		
STANDARD DETAIL		
NARROW DECORATIVE PAVER EDGE		
DATE:	REFERENCE	APPROVED
2025		
SCALE:		FIG No.:
NTS		HRM 142



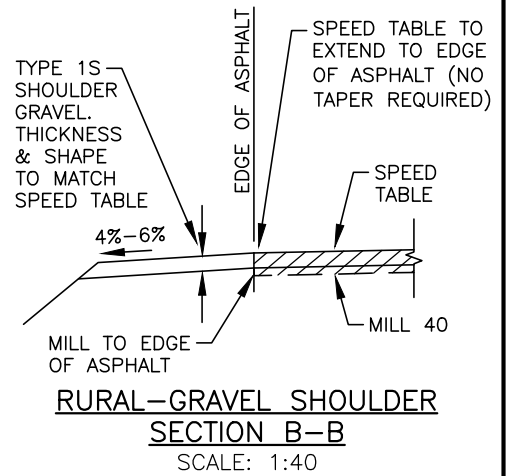
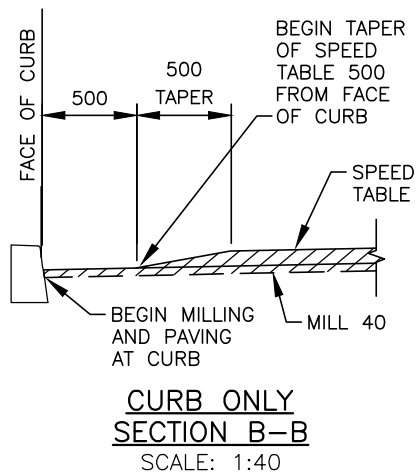
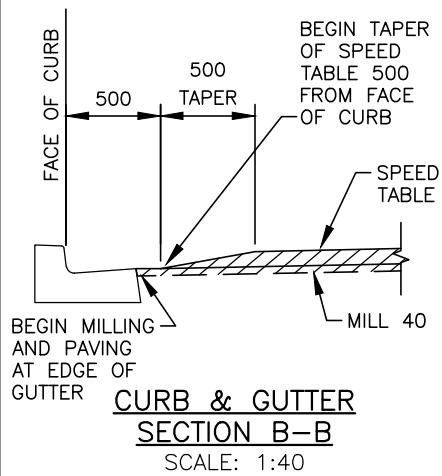
TWO-WAY STREET

ONE-WAY STREET

**SPEED TABLE**  
SCALE: 1:125



**SECTION A-A**  
SCALE: Horz. 1:50 , Vert. 1:5



**NOTES:**

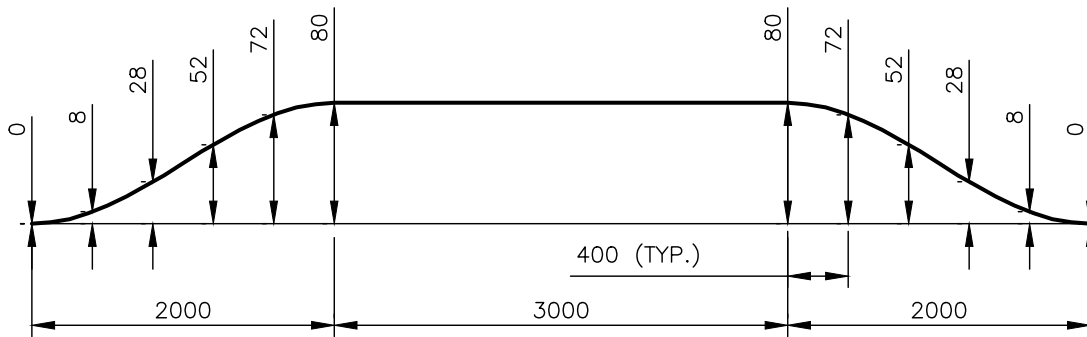
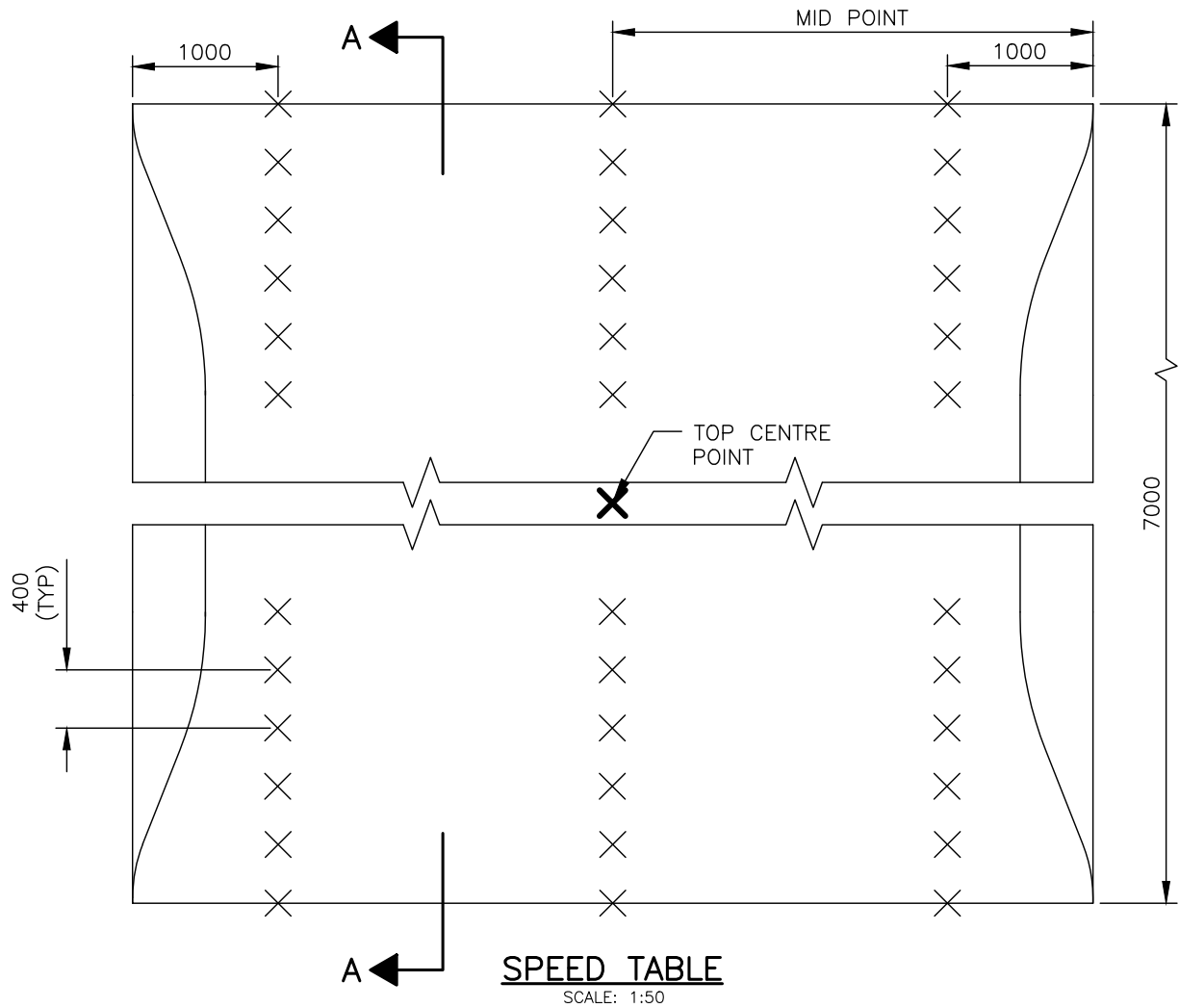
1. TOLERANCE FOR CONSTRUCTION IS +/- 10mm RELATIVE TO THE CURVE.
2. THE EXISTING ASPHALT SURFACE TO BE MILLED TO A DEPTH OF 40mm WHEN RETROFITTING.
3. SPEED TABLES TO BE CONSTRUCTED USING TYPE D-HF ASPHALT (UNLESS OTHERWISE APPROVED BY HRM).
4. WHERE SPECIFIED, EXISTING UTILITY POLE OR EXISTING SIGN POSTS MAY BE USED FOR SIGNAGE.
5. DIMENSIONS ARE IN MILLIMETRES.

**HALIFAX**

STANDARD DETAIL

**SPEED TABLE**

DATE: 2023	REFERENCE	APPROVED
SCALE: AS NOTED		FIG No.: HRM 143



**SECTION A-A**

SCALE: Horz. 1:50  
Vert. 1:5

**NOTES:**

1. 36 SURVEY SHOTS ELEVATION REQUIRED.
2. COORDINATES REQUIRED AT THE TOP CENTRE OF THE SPEED TABLE.
3. DIMENSIONS ARE IN MILLIMETRES.

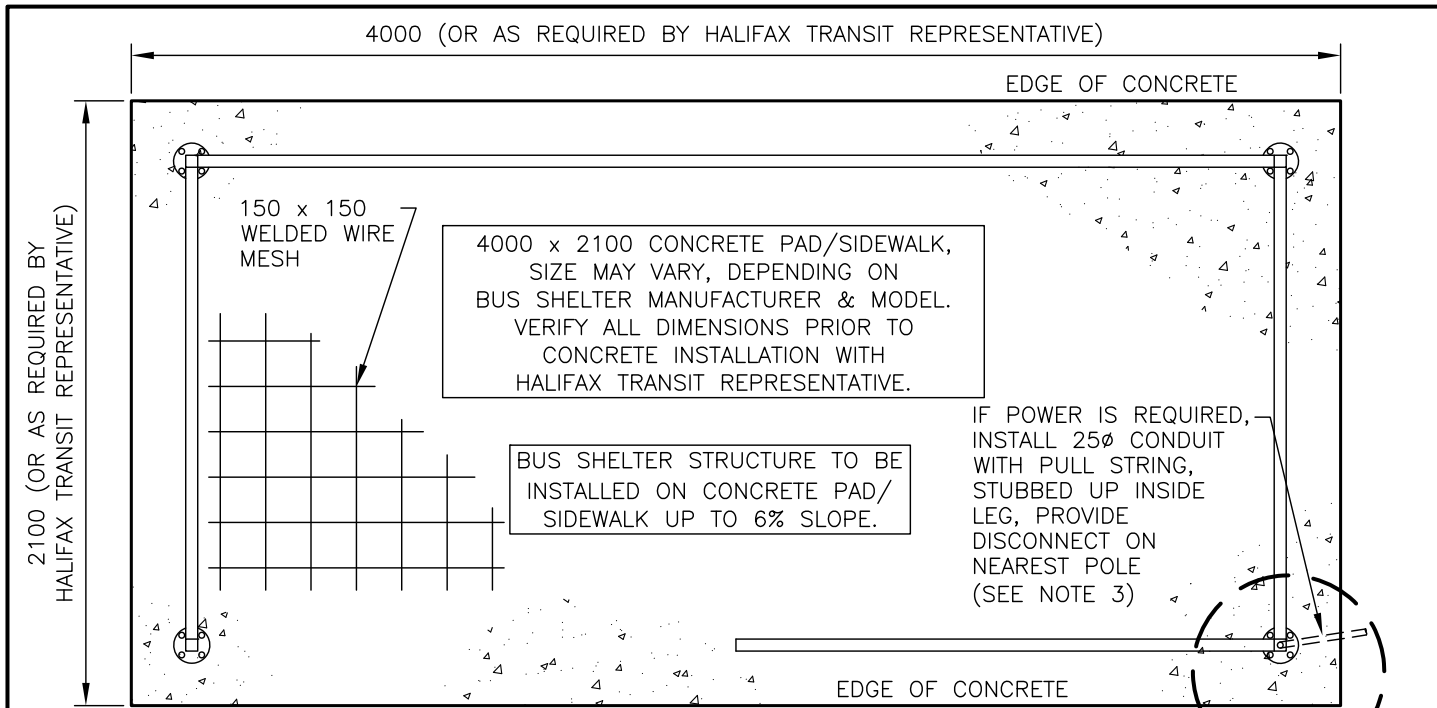
<u>TOP CENTRE POINT COORDINATES:</u>	
NORTHING: .....	EASTING: .....

# HALIFAX

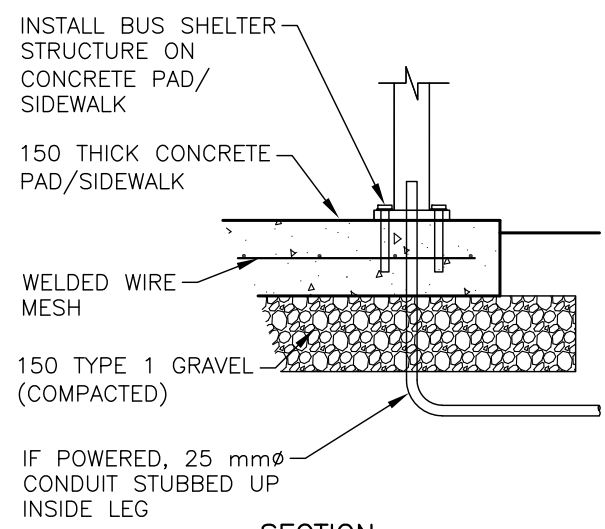
STANDARD DETAIL

SPEED TABLE  
SURVEY VERIFICATION

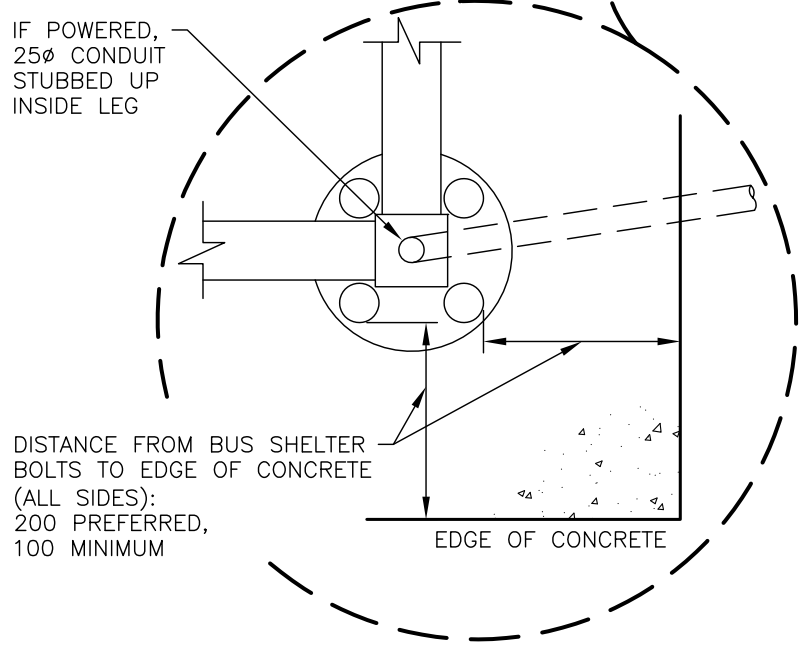
DATE: 2021	REFERENCE	APPROVED
SCALE: AS NOTED		FIG No.: HRM 144



**PLAN VIEW**



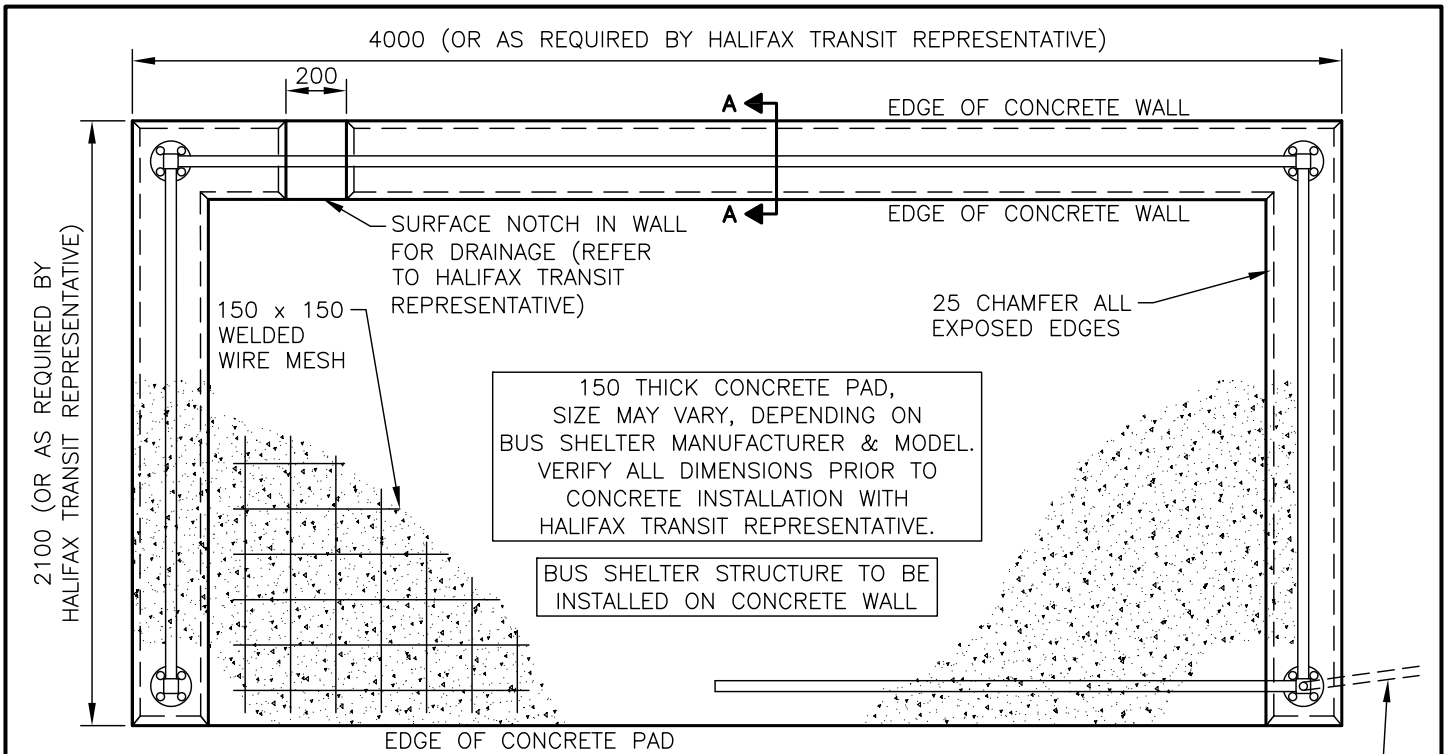
**SECTION**



**NOTES:**

1. BEFORE ORDERING MATERIALS AND PRIOR TO CONSTRUCTION, VERIFY ALL EQUIPMENT AND SHELTER PLACEMENT/REQUIREMENTS WITH HALIFAX TRANSIT REPRESENTATIVE.
2. FOR INSTALLATION OF BUS SHELTER STRUCTURE FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. POWER CAN BE RUN INTO ANY OF THE SHELTER LEGS – CONTACT TRANSIT TO CONFIRM.
4. DIMENSIONS ARE IN MILLIMETRES.

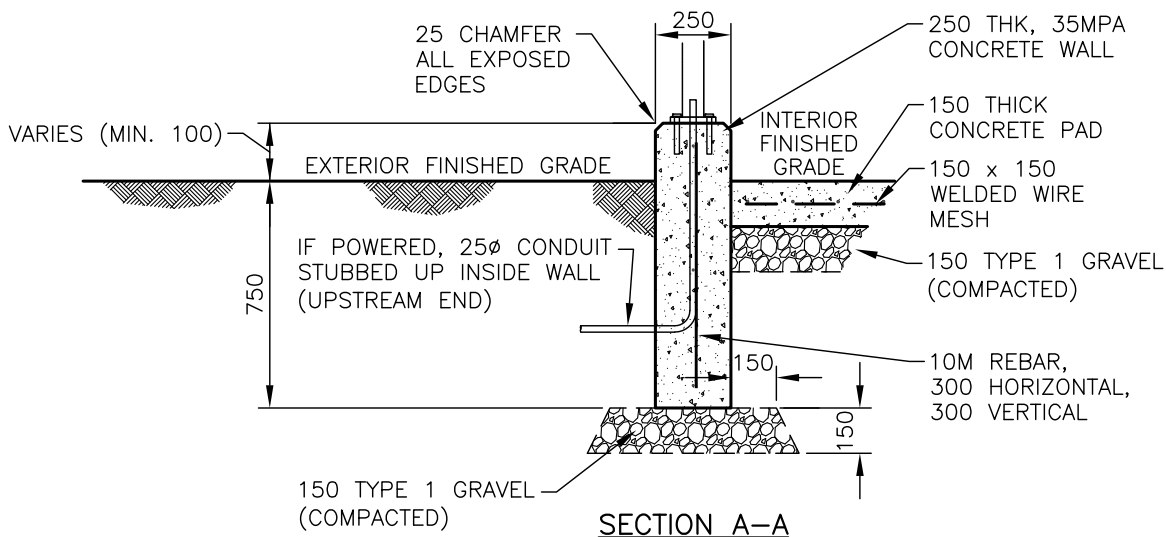
<h1>HALIFAX</h1>		
<b>STANDARD DETAIL</b>		
<b>BUS STOP SHELTER ON CONCRETE SIDEWALK</b>		
DATE:	REFERENCE	APPROVED
2024		
SCALE:		FIG No.:
NTS		<b>HRM 153</b>



NOTE: ENSURE WALL IS CENTERED ON SHELTER BRACKETS

PLAN VIEW

IF POWER IS REQUIRED, INSTALL 25 $\phi$  CONDUIT WITH PULL STRING, STUBBED UP INSIDE WALL THRU LEG, PROVIDE DISCONNECT ON NEAREST POLE (SEE NOTE 3)



SECTION A-A

NOTES:

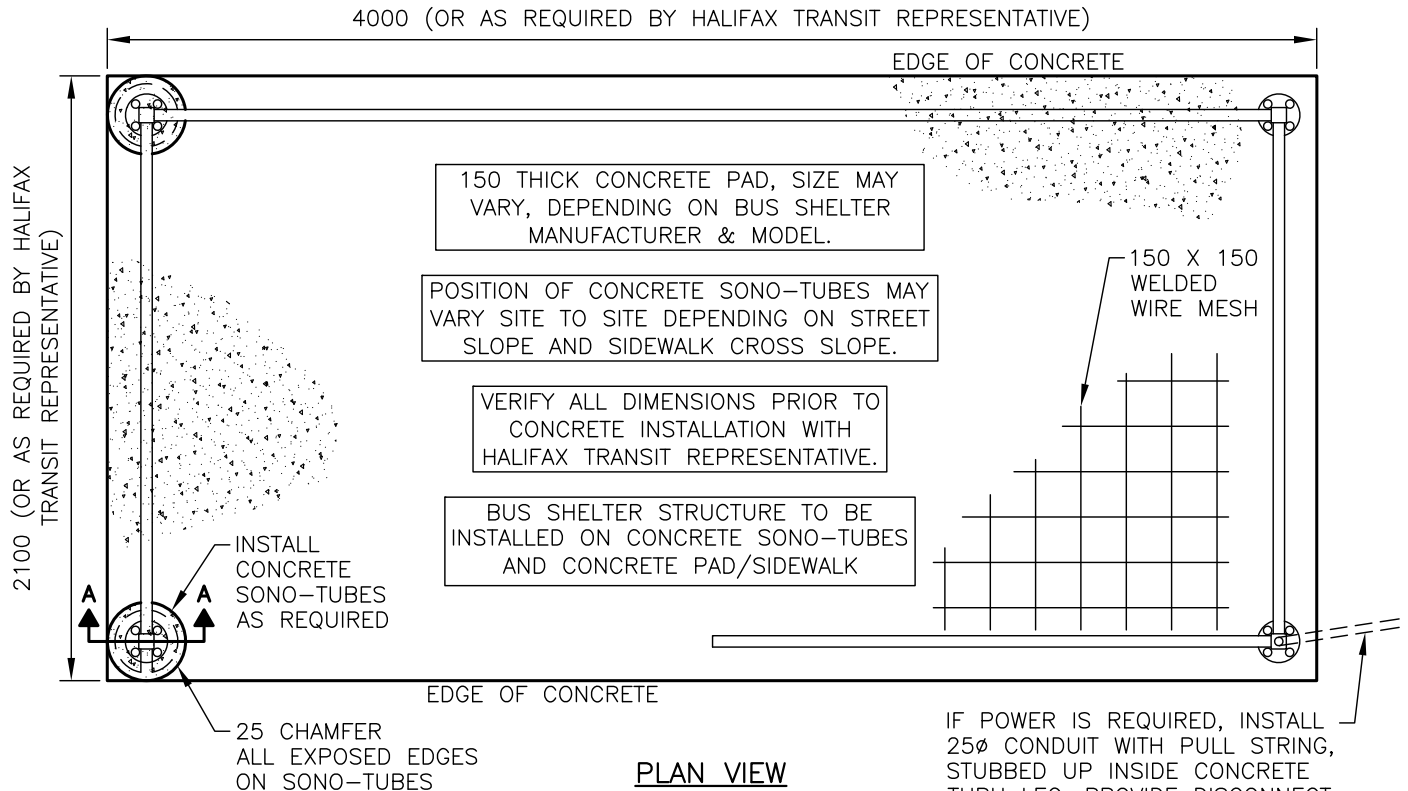
1. BEFORE ORDERING MATERIALS AND PRIOR TO CONSTRUCTION, VERIFY ALL EQUIPMENT AND SHELTER PLACEMENT/REQUIREMENTS WITH HALIFAX TRANSIT REPRESENTATIVE.
2. FOR INSTALLATION OF BUS SHELTER STRUCTURE FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. POWER CAN BE RUN INTO ANY OF THE SHELTER LEGS – CONTACT TRANSIT TO CONFIRM.
4. DIMENSIONS ARE IN MILLIMETRES.

**HALIFAX**

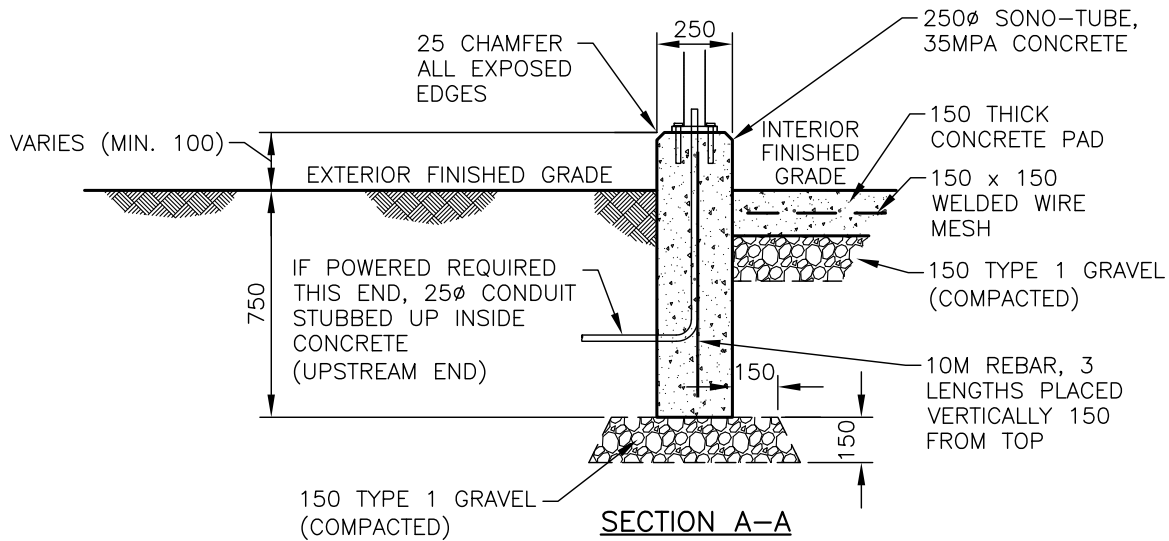
STANDARD DETAIL

**BUS STOP SHELTER ON CONCRETE WALL**

DATE:	2024	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: <b>HRM 155</b>



NOTE: ENSURE SONO-TUBE IS CENTERED ON SHELTER BRACKETS



NOTES:

1. BEFORE ORDERING MATERIALS AND PRIOR TO CONSTRUCTION, VERIFY ALL EQUIPMENT AND SHELTER PLACEMENT/REQUIREMENTS WITH HALIFAX TRANSIT REPRESENTATIVE.
2. FOR INSTALLATION OF BUS SHELTER STRUCTURE FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. POWER CAN BE RUN INTO ANY OF THE SHELTER LEGS – CONTACT TRANSIT TO CONFIRM.
4. DIMENSIONS ARE IN MILLIMETRES.

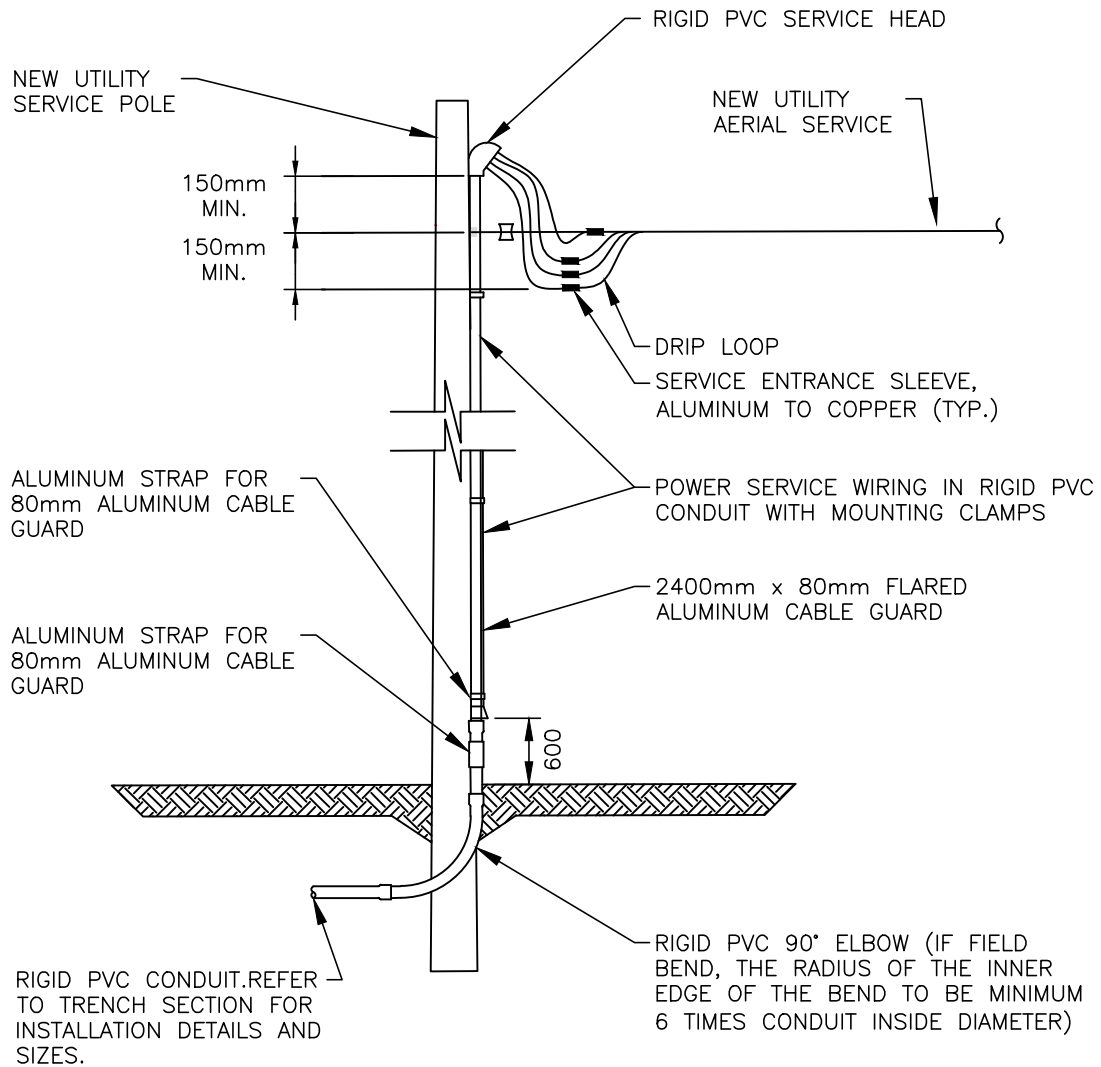
**HALIFAX**

STANDARD DETAIL

**BUS STOP SHELTER ON  
CONCRETE SONO-TUBES**

DATE: 2024	REFERENCE	APPROVED
SCALE: NTS		FIG No.: <b>HRM 156</b>





NOTES:

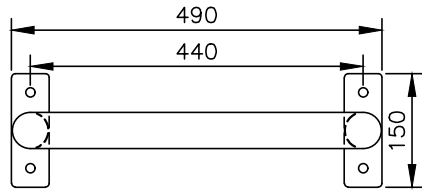
1. BREAKER MUST BE A DOUBLE POLE, NO SPARE SERVICE WIRES ARE ALLOWED.
2. CIRCUITS RATED AT MORE THAN 15Amps REQUIRE A CONTACTOR.
3. ALL WORK MUST BE IN COMPLIANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE AND INSPECTED BY NSPI
4. UNDERGROUND SERVICE CONDUIT AND GROUND MUST BE PROTECTED BY A U-GUARD AND BONDED AS PER CEC.
5. ALL SCREWS IN THE SERVICE SWITCH ARE TO BE NEVER SEIZED, AND MOUNTING SCREWS ARE TO BE STAINLESS STEEL ONLY.

**HALIFAX**

STANDARD DETAIL

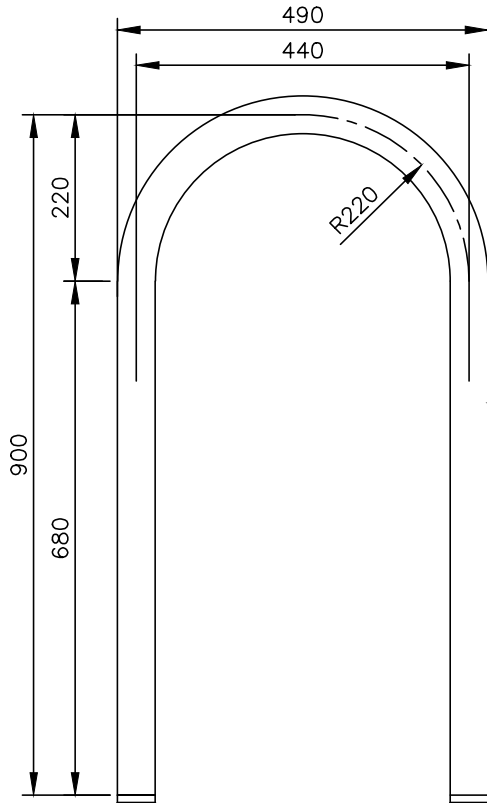
UTILITY POLE  
SERVICE DETAIL

DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: <b>HRM 160</b>

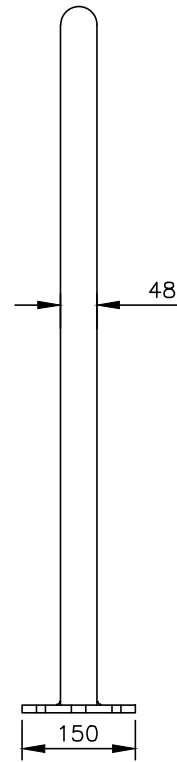


PLAN VIEW

HOT-DIPPED GALVANIZED STEEL OR  
HOT-DIPPED GALVANIZED STEEL  
WITH BLACK POWDER COAT



PROFILE VIEW



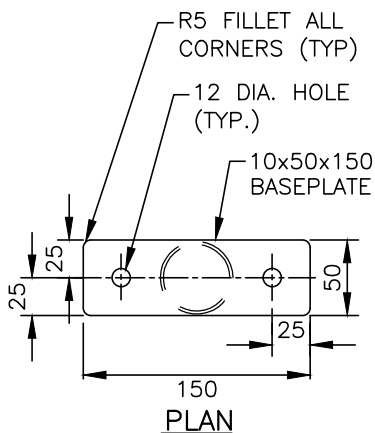
SECTION

48 O.D., 3.8 WT,  
PIPE (38 DIA.,  
SCHEDULE  
40 PIPE)

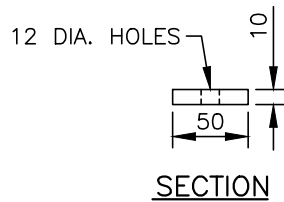
10 X 50 X 150  
BASEPLATE,  
2 REQ'D (SEE  
DETAIL)

NOTES:

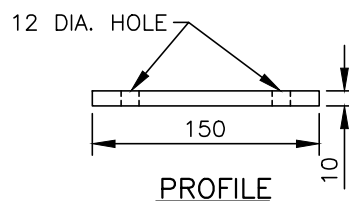
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. VARIATION OF THE DIMENSIONS PROVIDED ARE PERMITTED, BUT MUST BE SHOWN ON SUBMITTED DRAWINGS.
3. BIKE RACKS TO BE ANCHORED TO POURED IN PLACE CONCRETE SURFACE WITH 10 mmØ X 125 mm EPOXY EXPANSION BOLTS (100 mm EMBEDMENT) OR APPROVED EQUIVALENT.



BASEPLATE DETAIL



SECTION



PROFILE

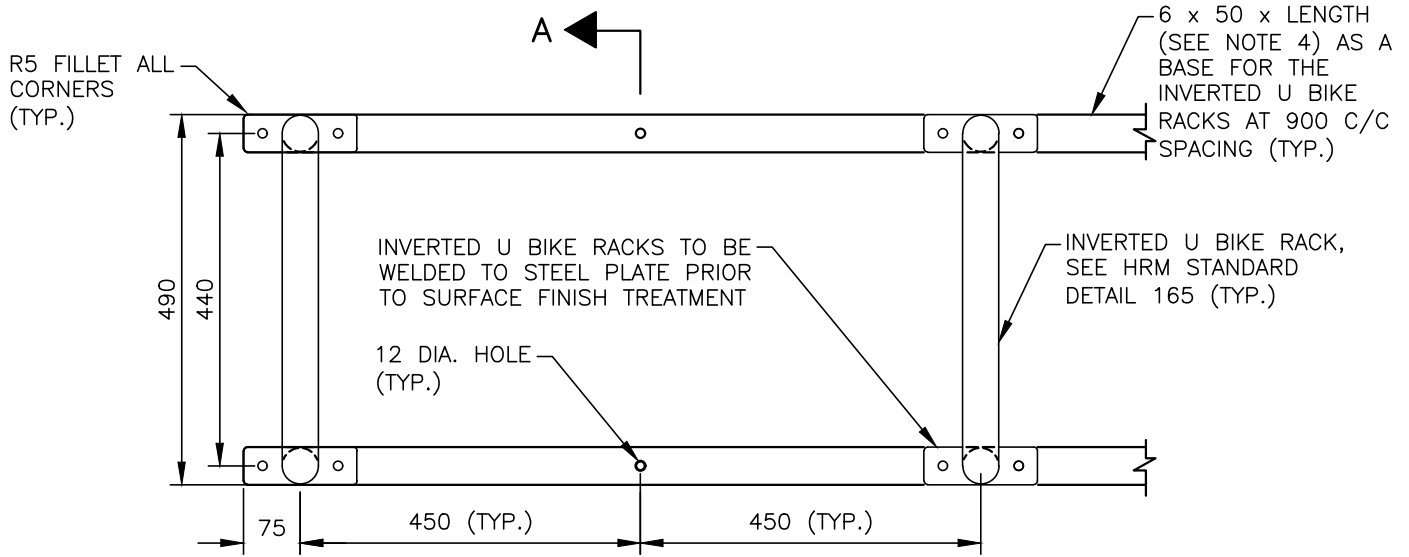
**HALIFAX**

STANDARD DETAIL

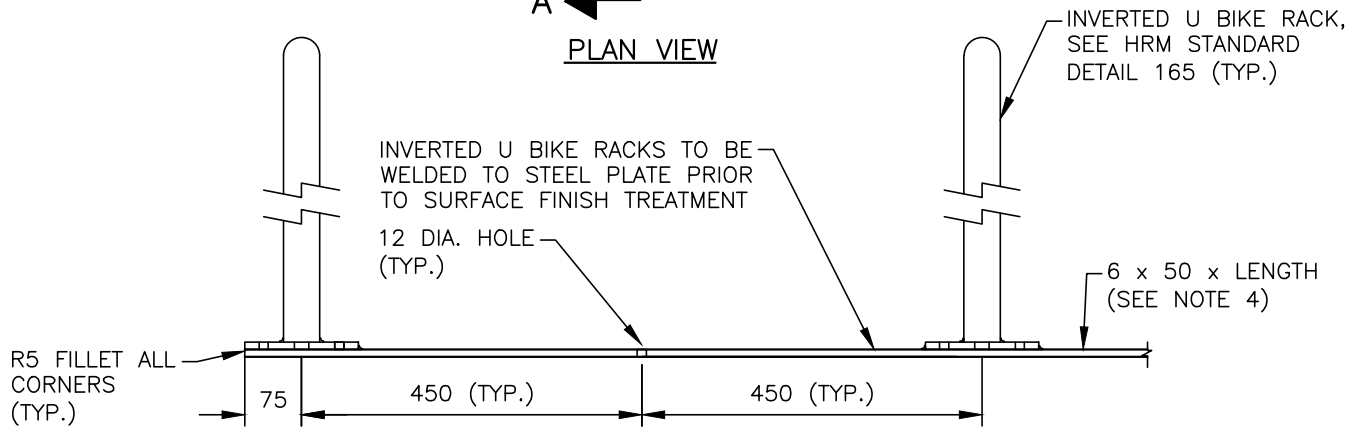
INVERTED U BIKE RACK

DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: HRM 165

HOT-DIPPED GALVANIZED STEEL OR  
HOT-DIPPED GALVANIZED STEEL WITH BLACK POWDER COAT



PLAN VIEW

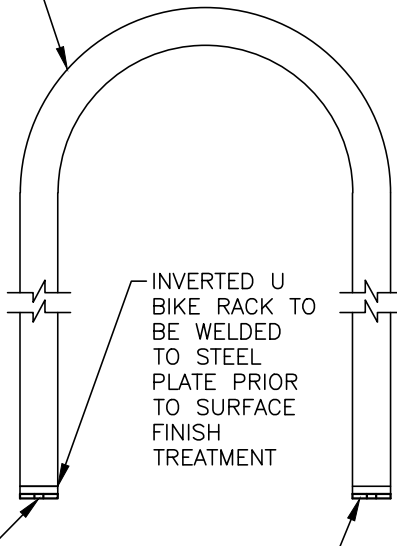


PROFILE VIEW

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. VARIATION OF THE DIMENSIONS PROVIDED ARE PERMITTED, BUT MUST BE SHOWN ON SUBMITTED DRAWINGS.
3. BIKE RACKS TO BE ANCHORED TO POURED IN PLACE CONCRETE SURFACE WITH 10 mm $\phi$  X 125 mm EPOXY EXPANSION BOLTS (100 mm EMBEDMENT) OR APPROVED EQUIVILANT.
4. MULTI BIKE RACK LENGTH WILL VARY FOR SERIES OF 2 TO 5 INVERTED U BIKE RACKS (AS REQUIRED).

INVERTED U BIKE RACK, SEE HRM STANDARD DETAIL 165



SECTION A-A

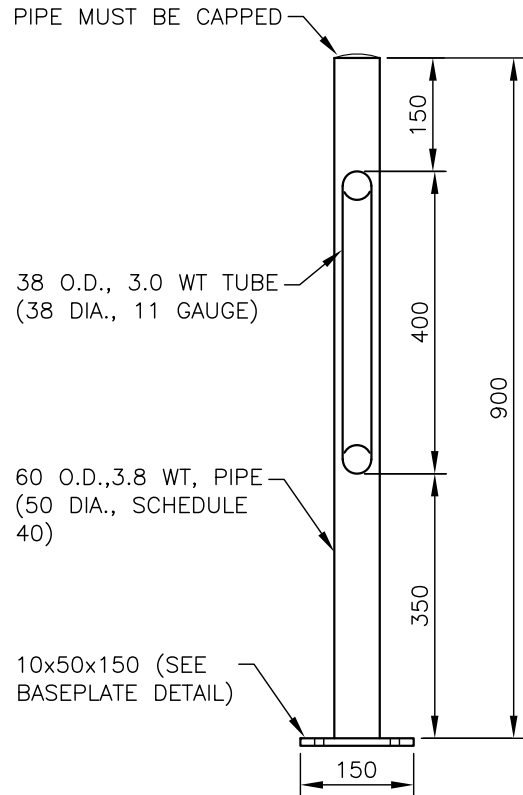
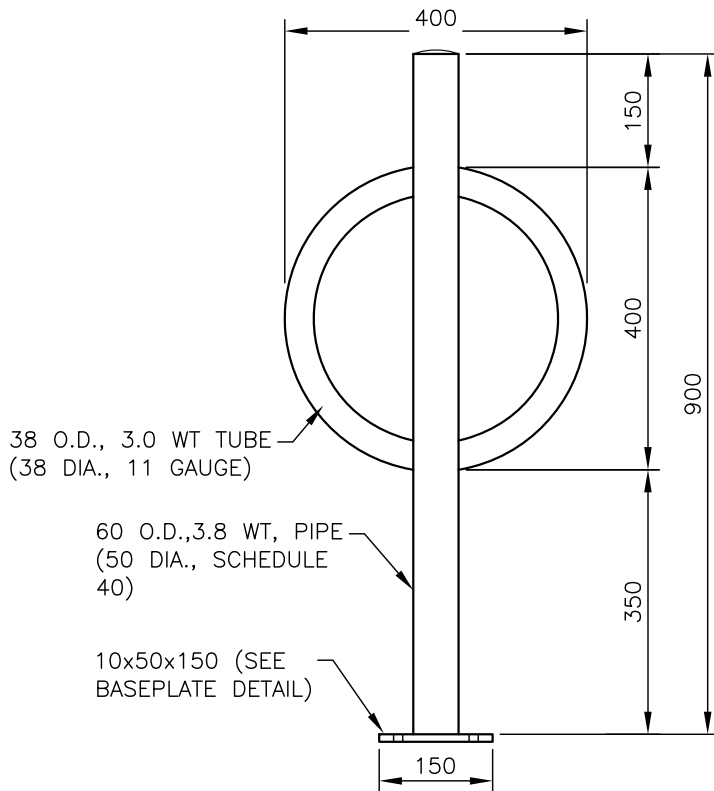
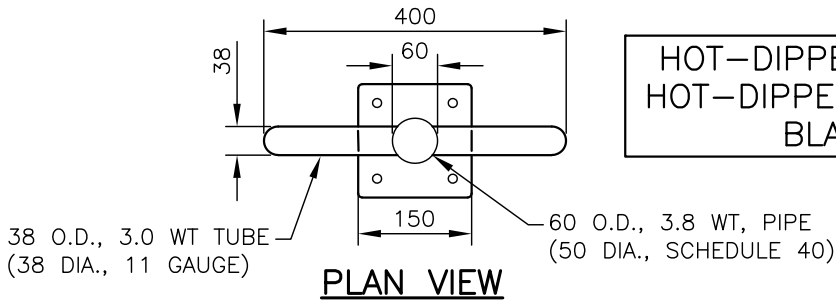
**HALIFAX**

STANDARD DETAIL

**MULTI INVERTED U BIKE RACK**

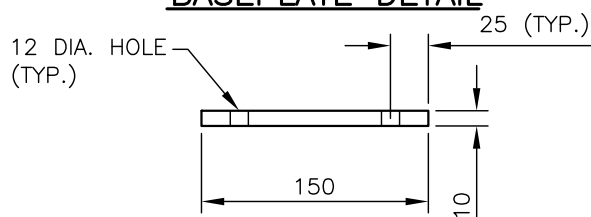
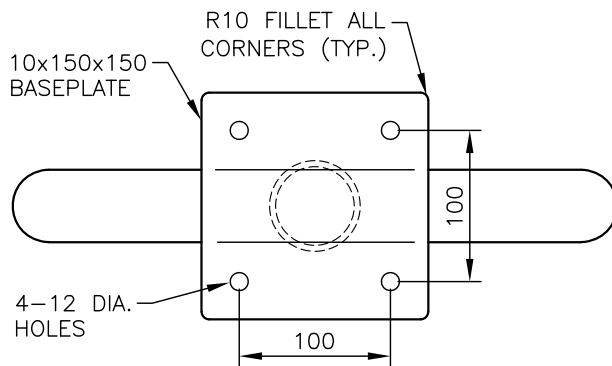
DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: HRM 166

HOT-DIPPED GALVANIZED STEEL OR  
HOT-DIPPED GALVANIZED STEEL WITH  
BLACK POWDER COAT



**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. VARIATION OF THE DIMENSIONS PROVIDED ARE PERMITTED, BUT MUST BE SHOWN ON SUBMITTED DRAWINGS.
3. BIKE RACKS TO BE ANCHORED TO POURED IN PLACE CONCRETE SURFACE WITH 10 mm $\phi$  X 125 mm EPOXY EXPANSION BOLTS (100 mm EMBEDMENT).
4. IF INSTALLED ON A SLOPE, THE SLOPE SHALL BE SHIMMED TO PROVIDE A LEVEL SURFACE PRIOR TO INSTALLATION.

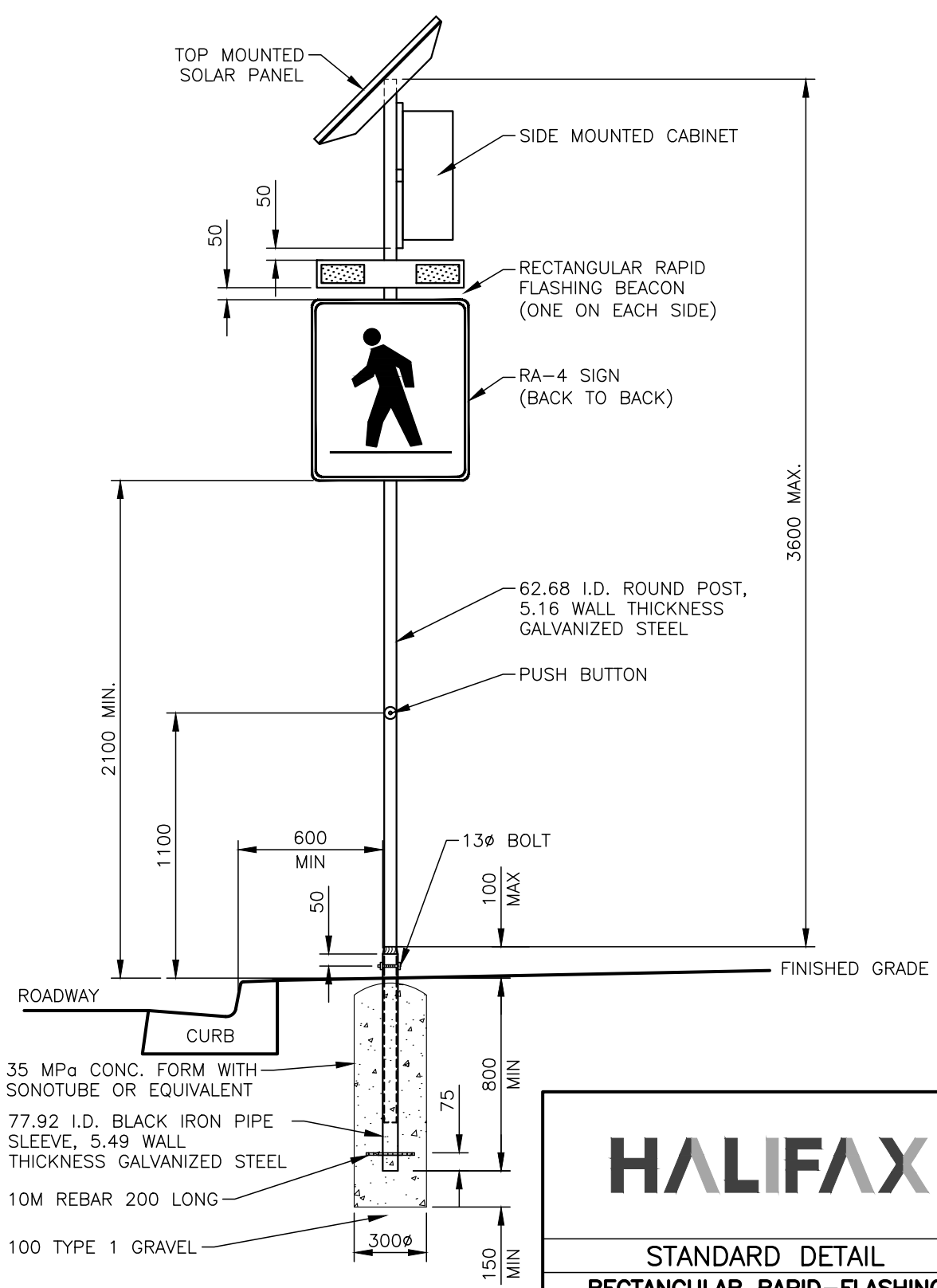


**HALIFAX**

STANDARD DETAIL

POST & RING BIKE RACK

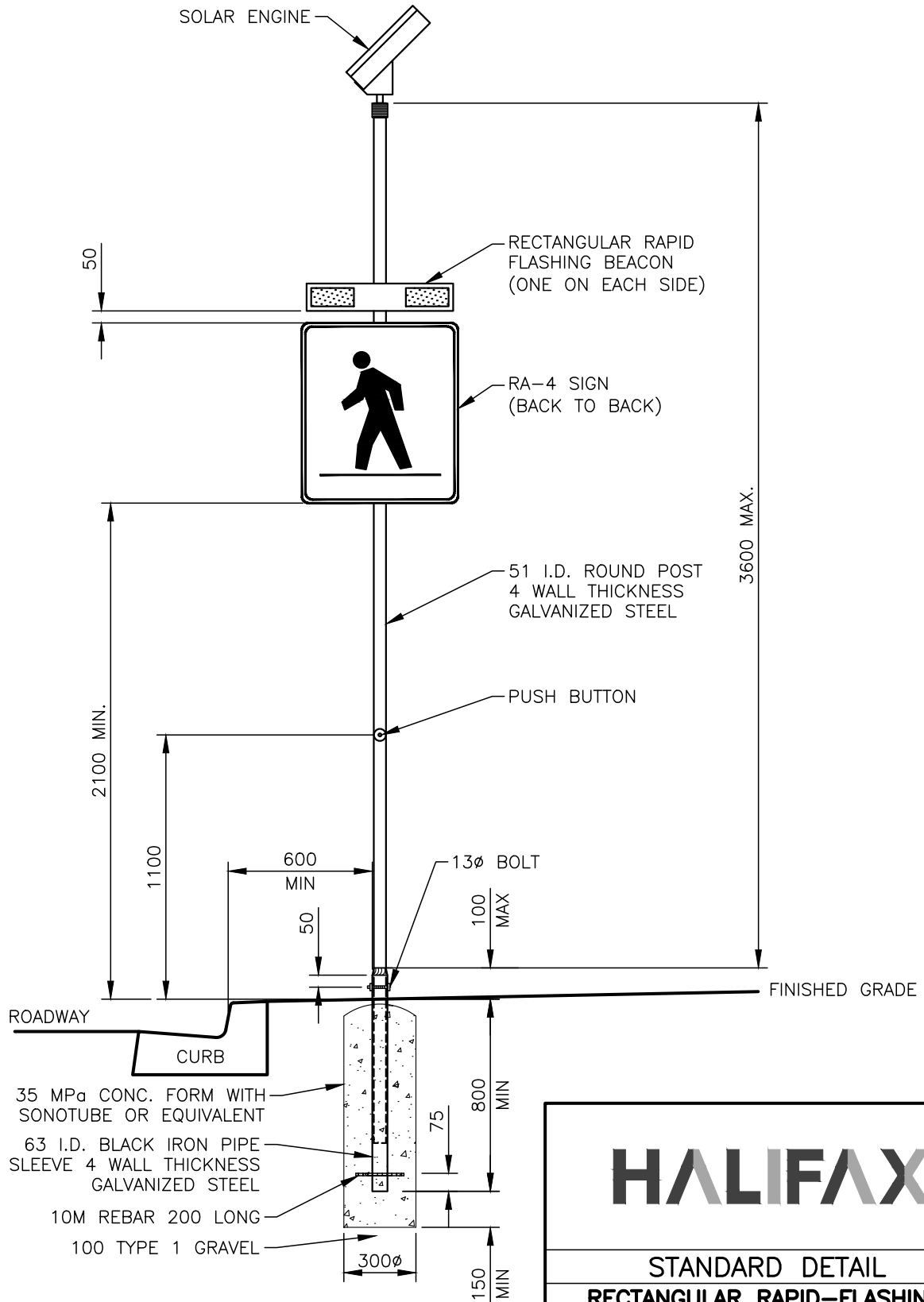
DATE: 2021	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 167



**NOTE:**

1. DIMENSIONS ARE IN MILLIMETRES.

<h1>HALIFAX</h1>		
<b>STANDARD DETAIL</b>		
<b>RECTANGULAR RAPID-FLASHING BEACON SIGNAL CONFIGURATION (SOLAR CABINET-BASED)</b>		
DATE:	2025	REFERENCE
SCALE:	1:25	APPROVED
		FIG No.: HRM 172

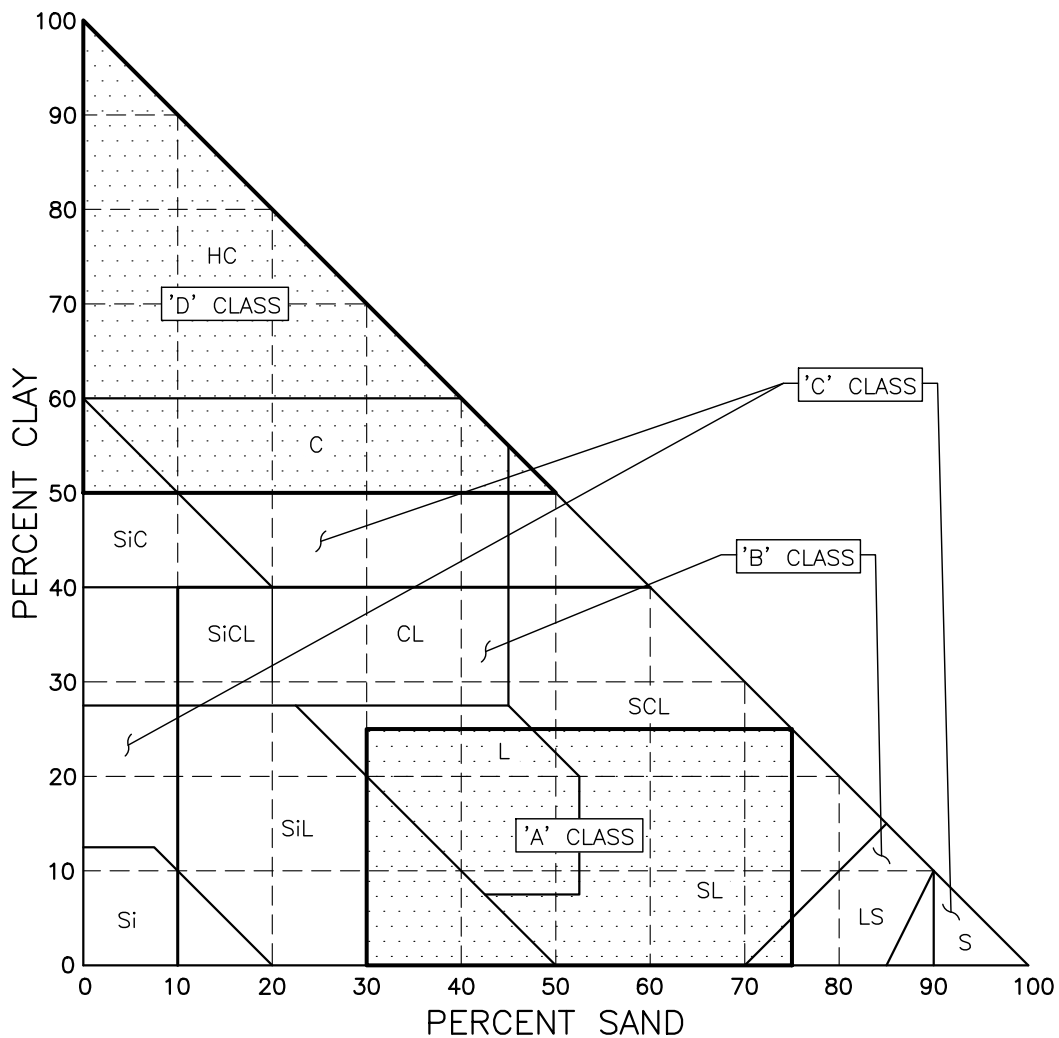


**NOTE:**

1. DIMENSIONS ARE IN MILLIMETRES.

<h1>HALIFAX</h1>		
<b>STANDARD DETAIL</b>		
<b>RECTANGULAR RAPID-FLASHING BEACON SIGNAL CONFIGURATION (SOLAR SELF-CONTAINED)</b>		
DATE:	2023	REFERENCE
SCALE:	1:25	APPROVED
		FIG No.:
		<b>HRM 180</b>

## PROPOSED SOIL GROUPINGS



**NOTES:**

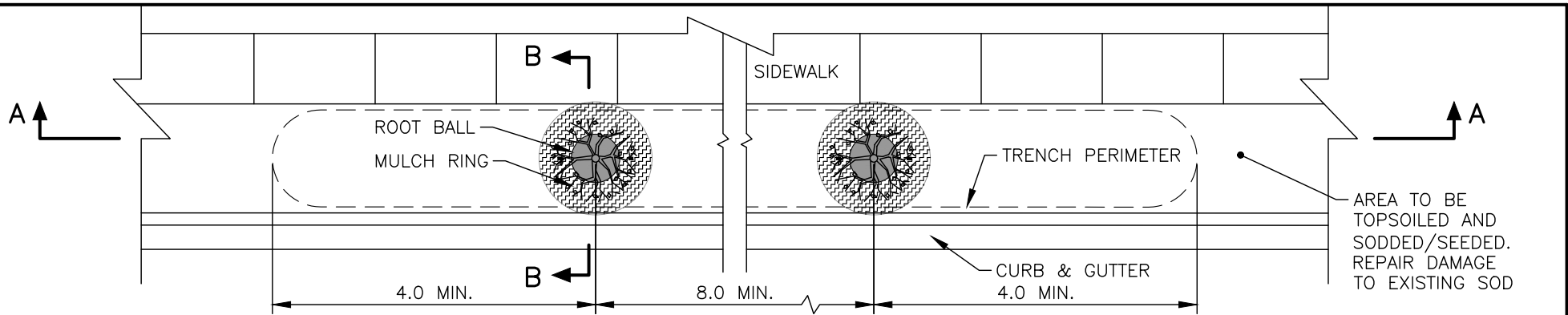
1. SOIL TEXTURE CLASSES. PERCENTAGES OF CLAY AND SAND IN THE MAIN TEXTURAL CLASSES OF SOIL; THE REMAINDER OF EACH CLASS IS SILT.

# HALIFAX

STANDARD DETAIL

**SOIL TEXTURE TRIANGLE**

DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS		FIG No.:
			<b>HRM 181</b>

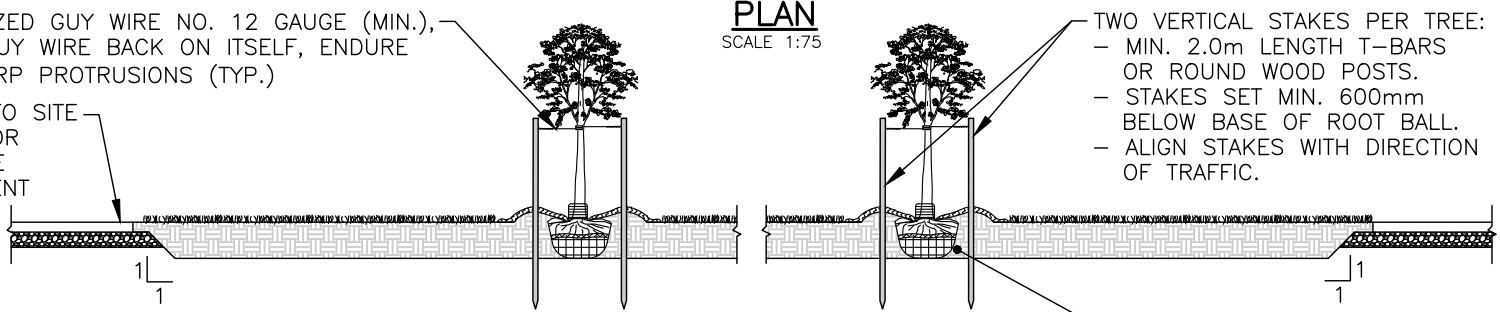


**PLAN**  
SCALE 1:75

GALVANIZED GUY WIRE NO. 12 GAUGE (MIN.), WRAP GUY WIRE BACK ON ITSELF, ENDURE NO SHARP PROTRUSIONS (TYP.)

REFER TO SITE PLAN FOR SURFACE TREATMENT (TYP.)

TWO VERTICAL STAKES PER TREE:  
 - MIN. 2.0m LENGTH T-BARS OR ROUND WOOD POSTS.  
 - STAKES SET MIN. 600mm BELOW BASE OF ROOT BALL.  
 - ALIGN STAKES WITH DIRECTION OF TRAFFIC.



**SECTION A-A**  
SCALE 1:75

TREE GUARD. ARBOGARD + AG9-4 OR APPROVED EQUAL  
 ROOT COLLAR 50mm ABOVE GRADE

FOLD OR REMOVE TOP 1/3 WIRE BASKET AND/OR BURLAP FROM ROOT BALL

FORM A 100mm HIGH SOIL RING TO DIRECT WATER TO ROOT BALL

150mm TOPSOIL

DECIDUOUS TREE  
 50-60mm CALIPER

PRUNE DEAD, BROKEN AND DISEASED TREE LIMBS  
 RUBBER HOSE, POSITION APPROX. AT 3/5 HEIGHT FOR ALL TREES

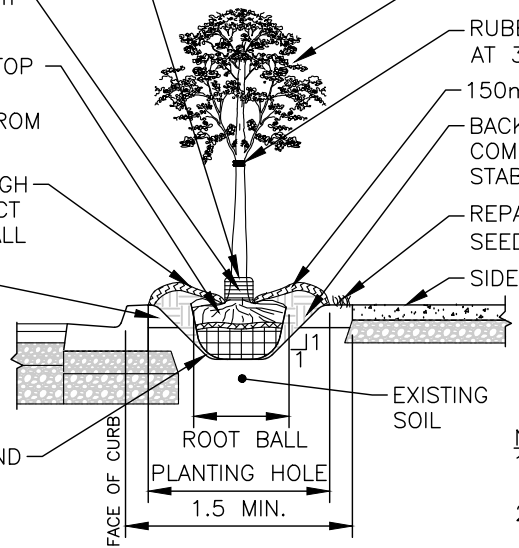
150mm DEPTH APPROVED MULCH  
 BACKFILL TRENCH WITH TOPSOIL, COMPACT JUST TO ENSURE STABILITY OF ROOT BALL

REPAIR ANY DAMAGED SEED/SOD TO HRM STANDARDS

SIDEWALK

EXISTING SOIL

SCARIFY BOTTOM AND WALLS OF TRENCH BEFORE PLACING ROOT BALL



**SECTION B-B**  
SCALE 1:50

BACKFILL TRENCH WITH TOPSOIL, COMPACT TO MAXIMUM 85% SPD, ENSURE STABILITY OF ROOTBALL.

**NOTES:**

1. SOAK THE ROOTBALL AND BACKFILL AREA WITH 40 LITRES OF WATER AFTER PLANTING
2. ROOT BALL MIN. SIZE AS PER CNLA STANDARDS FOR NURSERY STOCK
3. MINIMUM TRENCH LENGTH: 8m PER TREE UNLESS APPROVED BY URBAN FORESTER

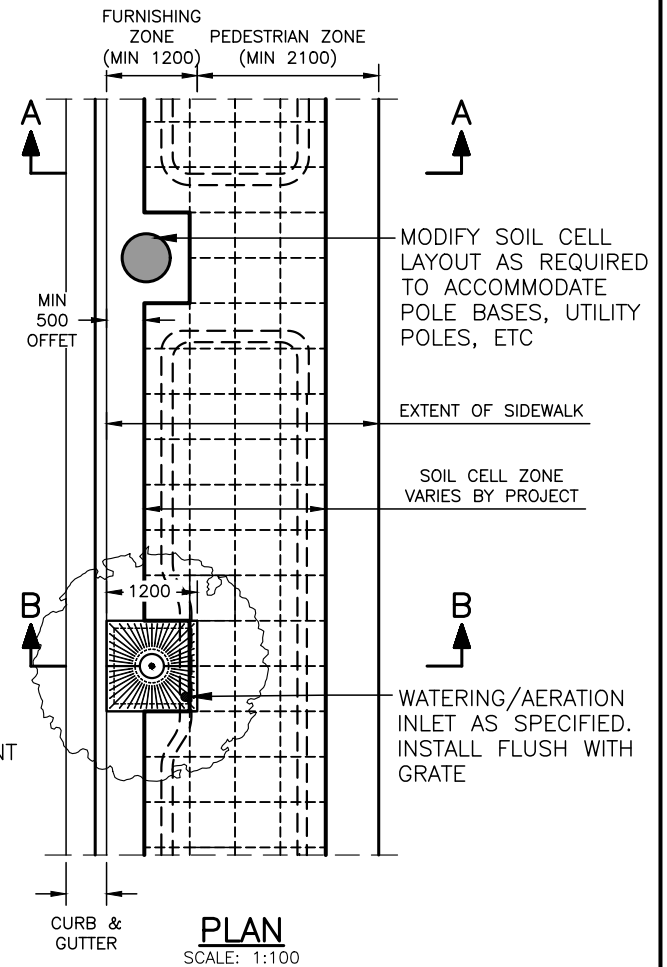
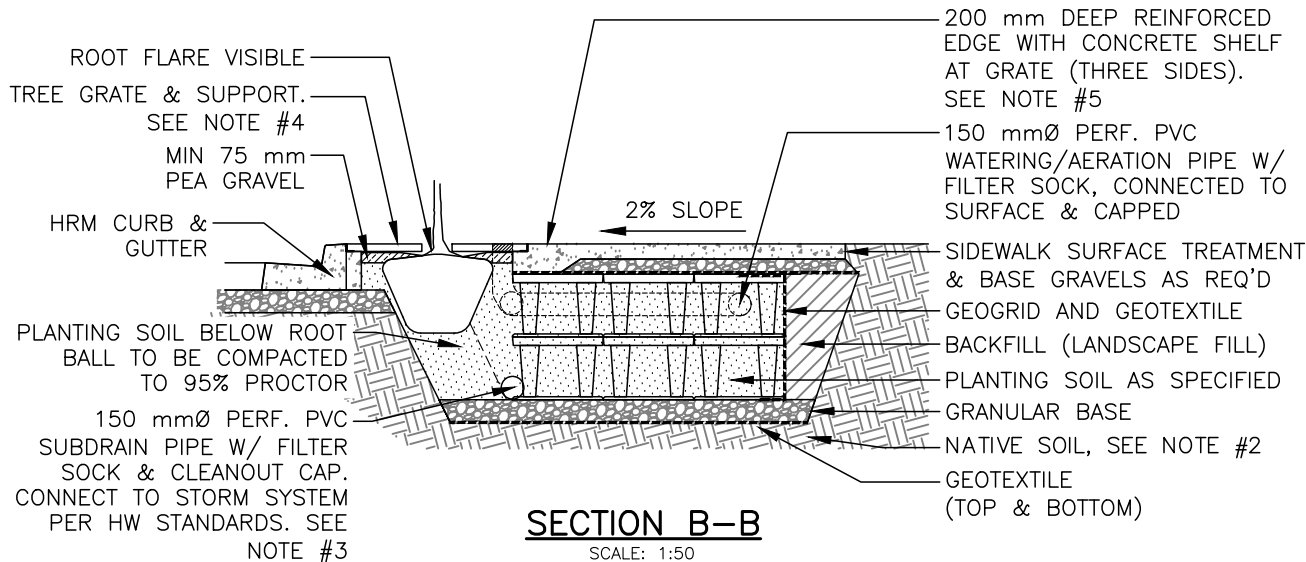
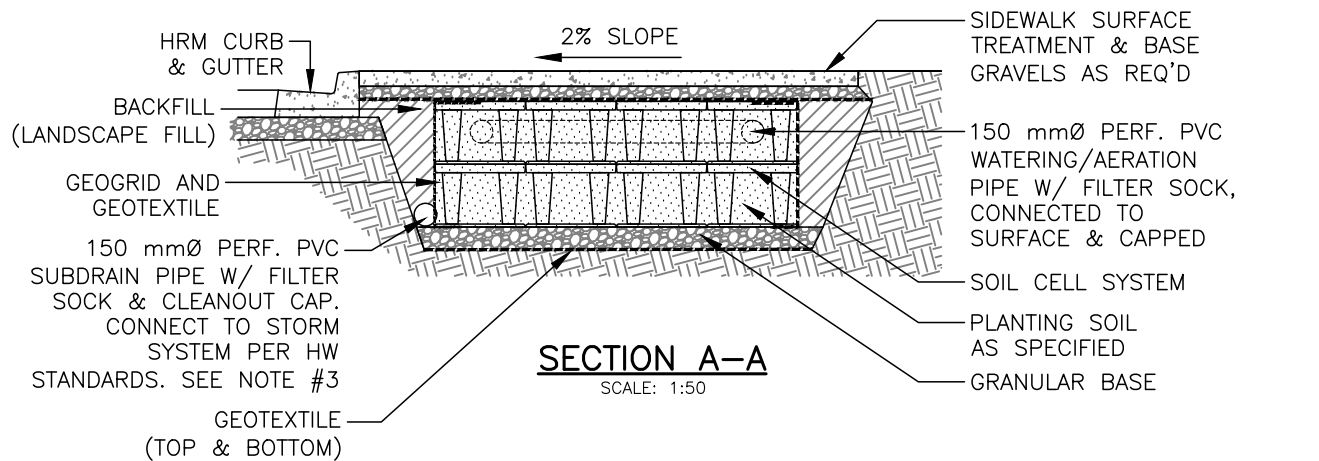
# HALIFAX

STANDARD DETAIL

TREE PLANTING  
 IN SOD BOULEVARD

DATE:	2021	REFERENCE	APPROVED
SCALE:	AS NOTED	FIG No.:	HRM 182





**NOTES:**

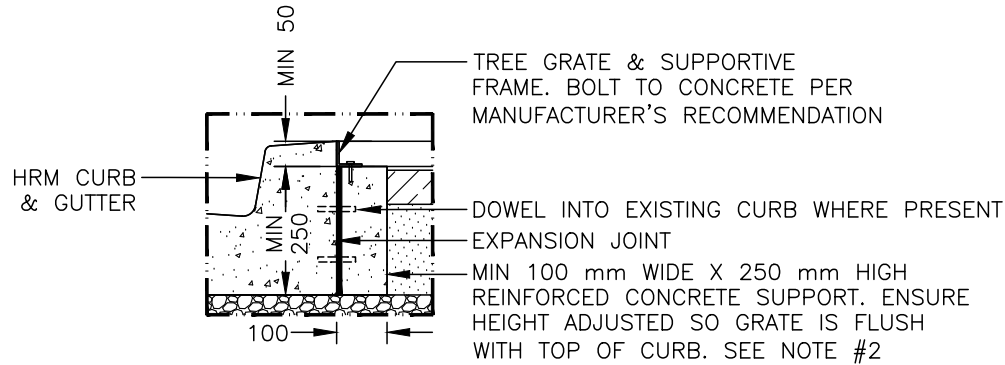
1. SOIL CELL SYSTEM, GEOTEXTILE, GEOGRID, AND GRANULAR BASE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATION. SUBMIT SHOP DRAWINGS FOR EACH PROJECT PER REQUIREMENTS OF SPECIFICATION
2. NATIVE SOIL SHALL BE INSPECTED AND APPROVED PER REQUIREMENTS OF THE SPECIFICATION BY A QUALIFIED GEOTECHNICAL ENGINEER, PRIOR TO PLACING AND COMPACTING GRANULAR BASE
3. SUBDRAIN REQUIRED WHERE THE NATIVE INFILTRATION RATE IS LESS THAN 15MM/HR (STANDARD ASSUMPTION) UNLESS SHOWN OTHERWISE THROUGH AN APPROVED TESTING METHOD – TYPICALLY GUELPH PERMEAMETER
4. TREE GRATE PER HRM DETAIL & SPECIFICATION
5. SOIL CELL SYSTEM AND SURROUNDING PAVEMENT DESIGN MUST BE SIGNED AND SEALED BY THE ENGINEER OF RECORD, LICENSED IN THE PROVINCE OF NOVA SCOTIA AS A PROFESSIONAL ENGINEER IN GOOD STANDING
6. WORK WITHIN 2 m OF UTILITY POLES REQUIRES ENGINEER STAMPED NON-DESTRUCTIVE HOLDING PLANS
7. REFER TO SECTION A: MUNICIPAL DESIGN GUIDELINES FOR SOIL VOLUME REQUIREMENTS
8. DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED

**HALIFAX**

STANDARD DETAIL

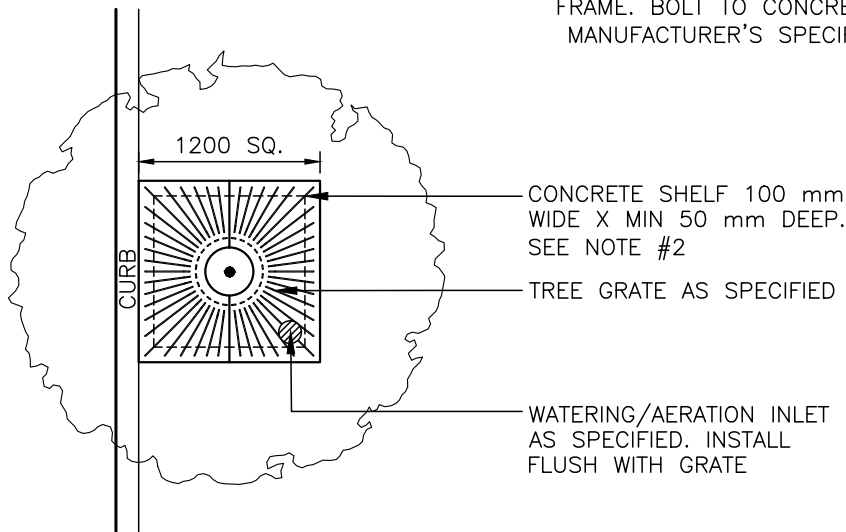
TREE IN HARDSCAPE  
WITH SOIL CELLS

DATE:	2025	REFERENCE	APPROVED
SCALE:	AS NOTED	FIG No.:	HRM 186



**SECTION - TREE GRATE AT CURB**

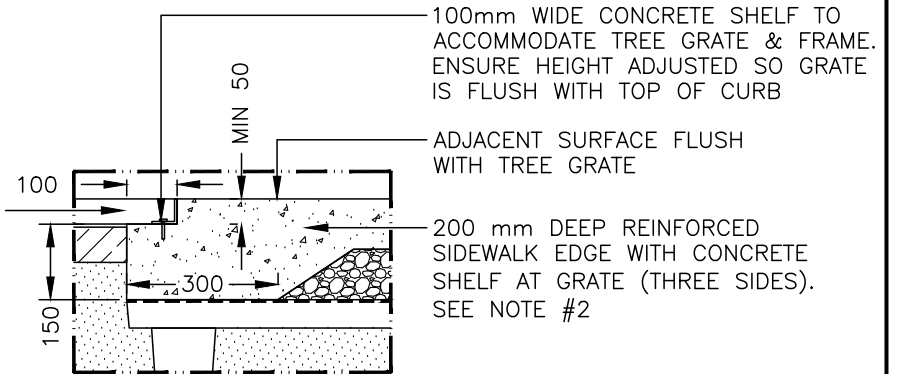
SCALE: 1:15



**PLAN - ACCESSIBLE TREE GRATE**

SCALE: 1:50

TREE GRATE & SUPPORTIVE FRAME. BOLT TO CONCRETE PER MANUFACTURER'S SPECIFICATION



**SECTION - TREE GRATE AT PROP. CAST-IN-PLACE CONCRETE**

SCALE: 1:15

**NOTES:**

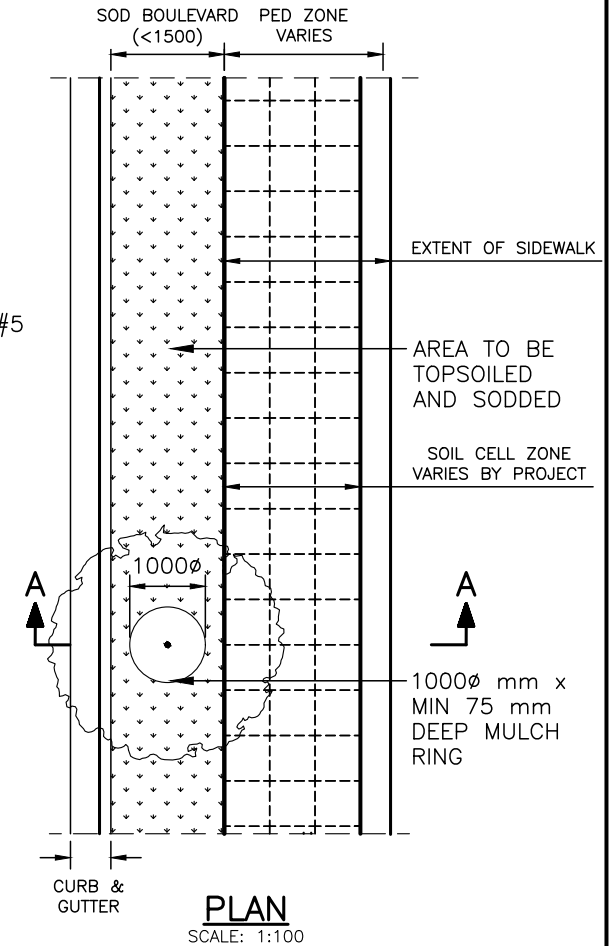
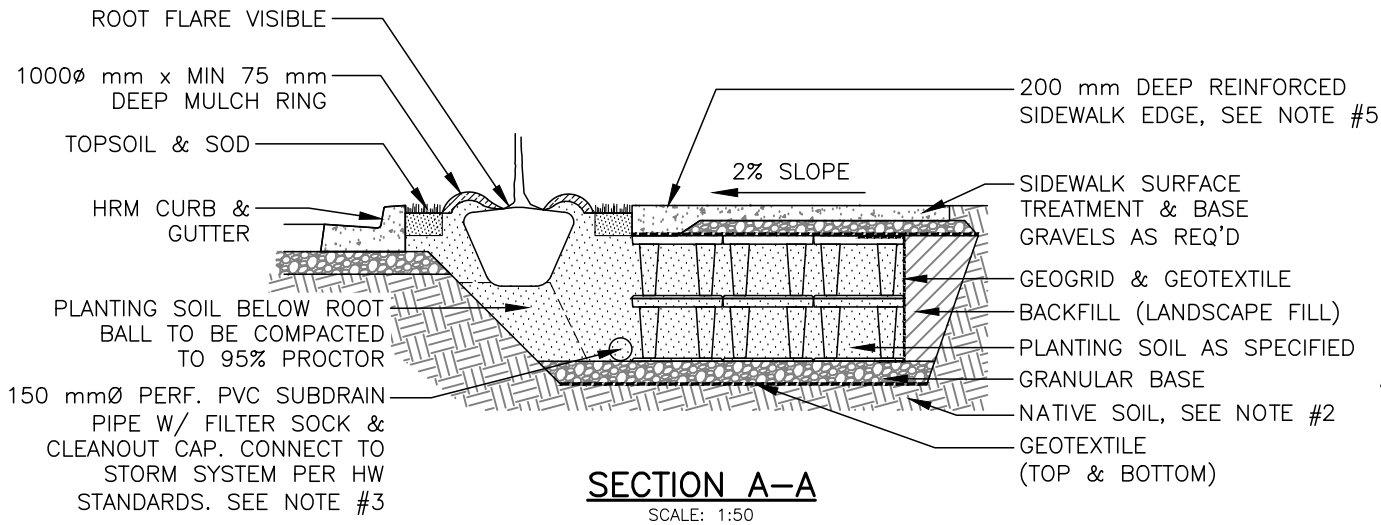
1. TREE GRATE & FRAME SYSTEM TO BE INSTALLED PER MFR SPEC. SUBMIT MANUFACTURER'S SHOP DRAWINGS FOR EACH PROJECT
2. SOIL CELL SYSTEM AND SURROUNDING PAVEMENT DESIGN MUST BE SIGNED AND SEALED BY THE ENGINEER OF RECORD, LICENSED IN THE PROVINCE OF NOVA SCOTIA AS A PROFESSIONAL ENGINEER IN GOOD STANDING
3. DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED

**HALIFAX**

STANDARD DETAIL

TREE GRATE DETAILS

DATE:	2025	REFERENCE	APPROVED
SCALE:	AS NOTED	FIG No.:	HRM 187



**NOTES:**

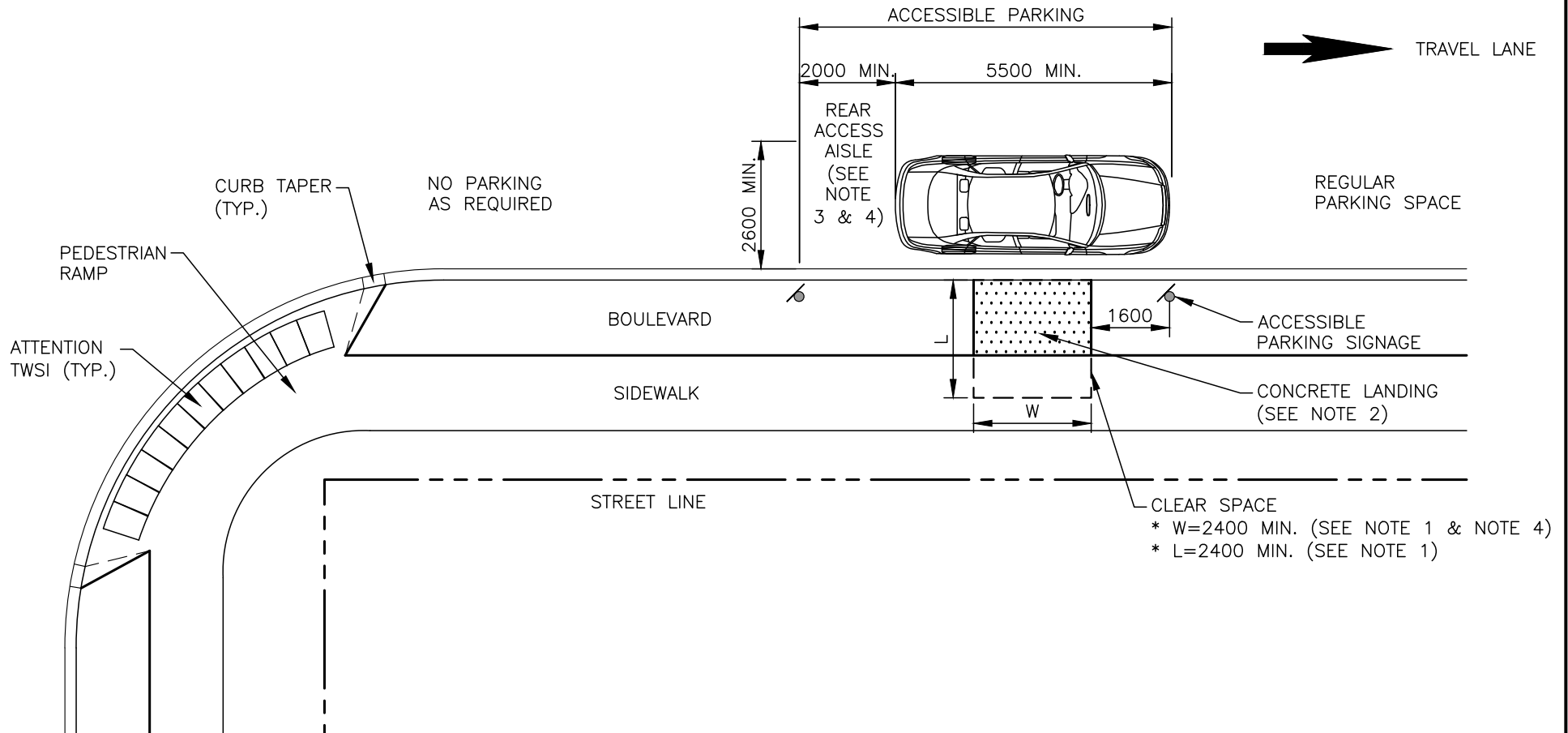
1. SOIL CELL SYSTEM, GEOTEXTILE, GEOGRID, AND GRANULAR BASE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATION. SUBMIT SHOP DRAWINGS FOR EACH PROJECT PER REQUIREMENTS OF SPECIFICATION
2. NATIVE SOIL SHALL BE INSPECTED AND APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO PLACING AND COMPACTING GRANULAR BASE
3. SUBDRAIN REQUIRED WHERE THE NATIVE INFILTRATION RATE IS LESS THAN 15MM/HR (STANDARD ASSUMPTION) UNLESS SHOWN OTHERWISE THROUGH AN APPROVED TESTING METHOD – TYPICALLY GUELPH PERMEAMETER
4. WORK WITHIN 2 m OF UTILITY POLES REQUIRES ENGINEER STAMPED NON-DESTRUCTIVE HOLDING PLANS
5. SOIL CELL SYSTEM AND SURROUNDING PAVEMENT DESIGN MUST BE SIGNED AND SEALED BY THE ENGINEER OF RECORD, LICENSED IN THE PROVINCE OF NOVA SCOTIA AS A PROFESSIONAL ENGINEER IN GOOD STANDING
6. REFER TO SECTION A: MUNICIPAL DESIGN GUIDELINES FOR SOIL VOLUME REQUIREMENTS
7. DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED

**HALIFAX**

**STANDARD DETAIL**

**TREE IN SOD BOULEVARD  
WITH SOIL CELLS**

DATE:	2025	REFERENCE	APPROVED
SCALE:	AS NOTED	FIG No.:	HRM 188



**NOTES:**

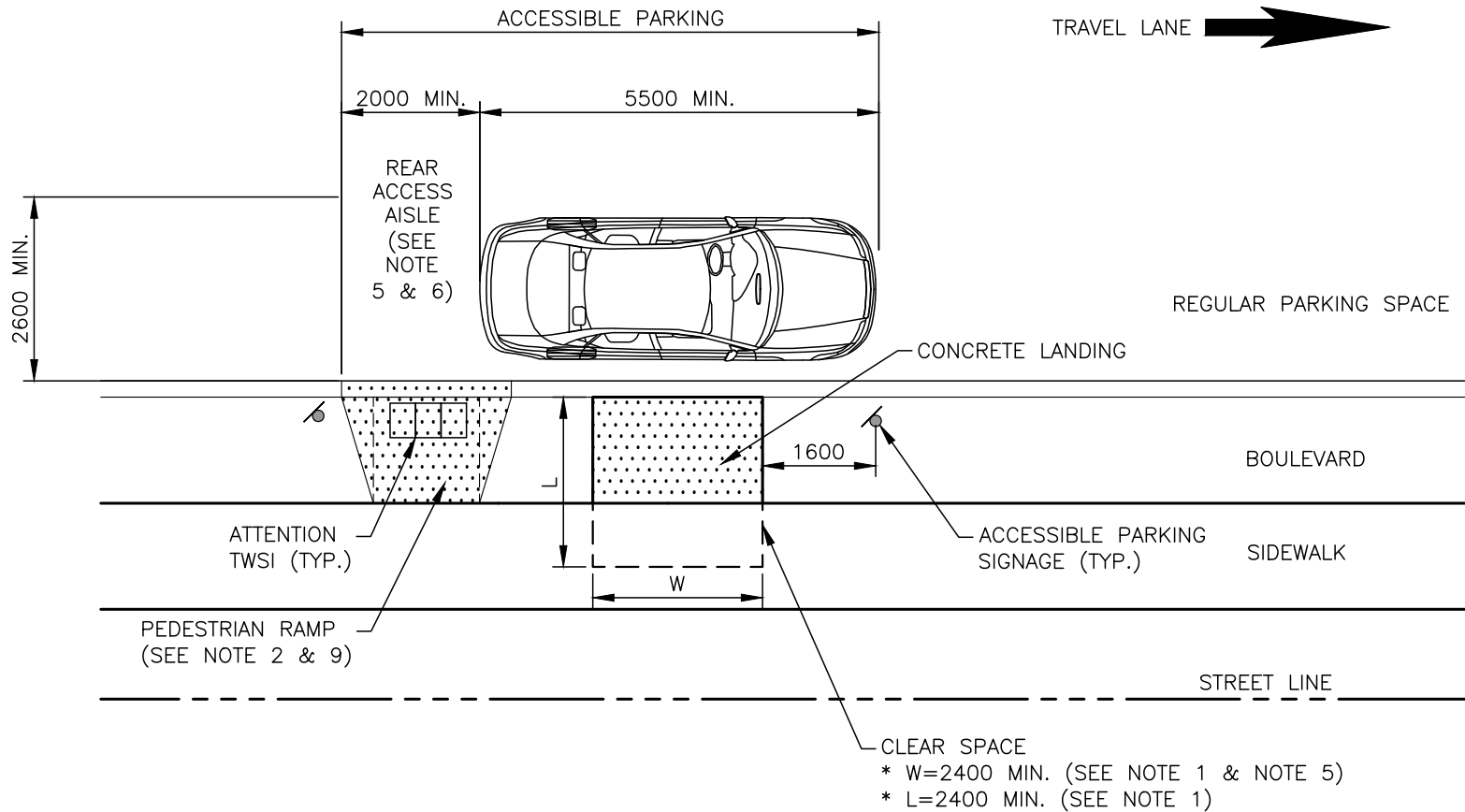
1. CLEAR SPACE SHALL BE PROVIDED WITH NO OBSTRUCTIONS AT PASSENGER SIDE DOOR LOCATIONS.
2. CONCRETE LANDING SHALL BE INSTALLED WITH NEW CONSTRUCTION, STREET/SIDEWALK REHABILITATION WHEN GRASS BOULEVARD SEPARATES PARKING AND ADJACENT SIDEWALK.
3. IN ABSENCE OF SIGN POST INSTALLATION, UNMARKED REAR ACCESS AISLE CAN BE REDUCED TO 1500 MIN WHERE 2000 MIN. IS NOT FEASIBLE.
4. IN RETROFIT SITUATIONS WHERE IT IS NOT TECHNICALLY FEASIBLE TO PROVIDE THE REQUIRED WIDTH FOR THE REAR ACCESS AISLE OR CLEAR SPACE LENGTH DUE TO TREE OR UTILITY POLE LOCATIONS, WIDTH MAY BE REDUCED TO 1500 MIN.
5. WHERE SIDEWALK ABUTS THE CURB THE ADJACENT SIDEWALK SHALL BE 2400 MINIMUM WIDTH.
6. FOR USE ONLY WITHIN 20 METRES OF AN ACCESSIBLE PEDESTRIAN RAMP, AT THE DIRECTION OF THE ENGINEER.
7. ALL DIMENSION ARE IN MILLIMETRES.

**HALIFAX**

**STANDARD DETAIL**

**ACCESSIBLE PARALLEL PARKING  
BEGINNING OF BLOCK**

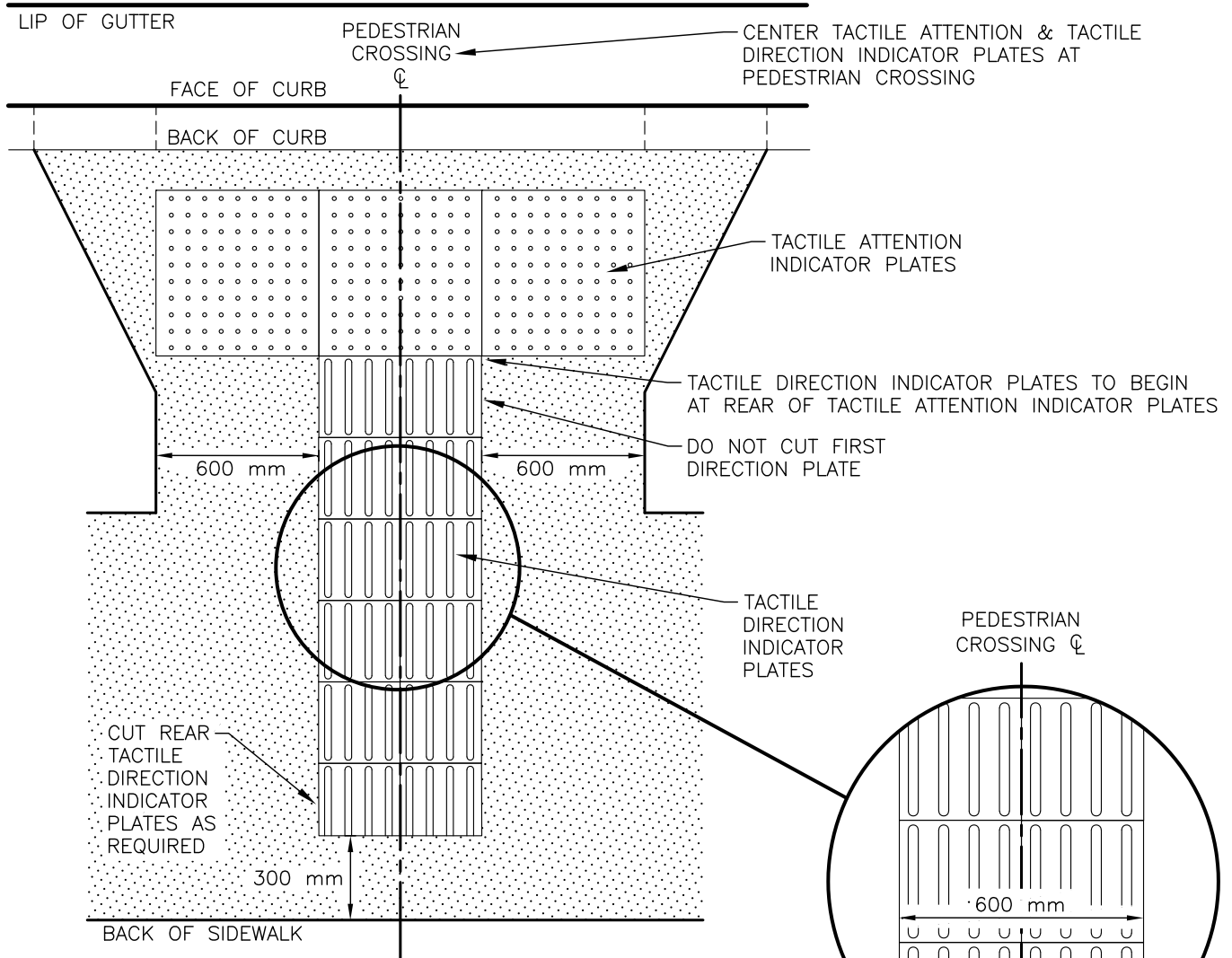
DATE:	2025	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: <b>HRM 193</b>



**NOTES:**

1. CLEAR SPACE SHALL BE PROVIDED WITH NO OBSTRUCTIONS AT PASSENGER SIDE DOOR LOCATIONS.
2. REFER TO HRM DETAIL 49 FOR CURB RAMP DETAILS.
3. TACTILE ATTENTION INDICATOR PLATES (TWSI) REQUIRED AT ALL NEW RAMP AS PER HRM DETAIL 131.
4. CONCRETE LANDING SHALL BE INSTALLED WITH NEW CONSTRUCTION, STREET/SIDEWALK REHABILITATION WHEN GRASS BOULEVARD SEPARATES PARKING AND ADJACENT SIDEWALK.
5. IN RETROFIT SITUATIONS WHERE IT IS NOT TECHNICALLY FEASIBLE TO PROVIDE THE REQUIRED WIDTH FOR THE REAR ACCESS AISLE OR CLEAR SPACE LENGTH DUE TO TREE OR UTILITY POLE LOCATIONS, WIDTH MAY BE REDUCED TO 1500 MIN.
6. IN ABSENCE OF SIGN POST INSTALLATION, UNMARKED REAR ACCESS AISLE CAN BE REDUCED TO 1500 MIN WHERE 2000 MIN IS NOT FEASIBLE.
7. WHEN DRIVEWAY USED AS SIDEWALK ACCESS INSTEAD OF CURB RAMP, NO TWSI PLATES SHALL BE REQUIRED.
8. WHERE SIDEWALK ABUTS THE CURB THE ADJACENT SIDEWALK SHALL BE 2400 MINIMUM WIDTH.
9. SINGLE PEDESTRIAN RAMP CAN SERVE NO MORE THAN THREE ACCESSIBLE PARKING SPOTS.
10. ALL DIMENSION ARE IN MILLIMETRES.

<h1>HALIFAX</h1>		
<b>STANDARD DETAIL</b>		
<b>ACCESSIBLE PARALLEL PARKING MID-BLOCK AND END OF BLOCK</b>		
DATE:	REFERENCE	APPROVED
2025		
SCALE:		FIG No.:
NTS		<b>HRM 194</b>



**PLAN VIEW**

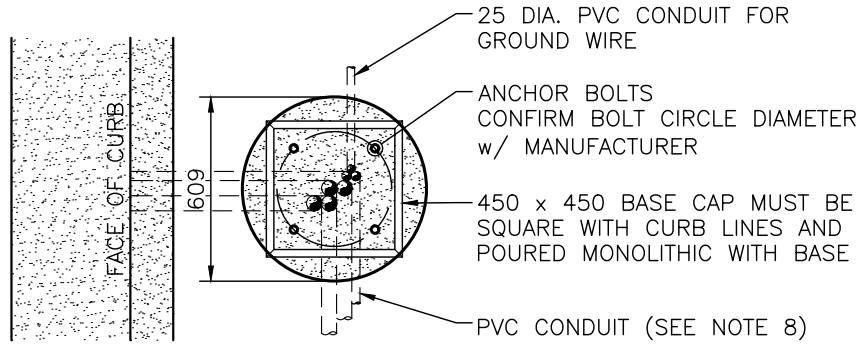
FLAT-TOPPED ELONGATED BARS ORIENTED IN THE DIRECTION OF ROUTE OF TRAVEL

**INSET**

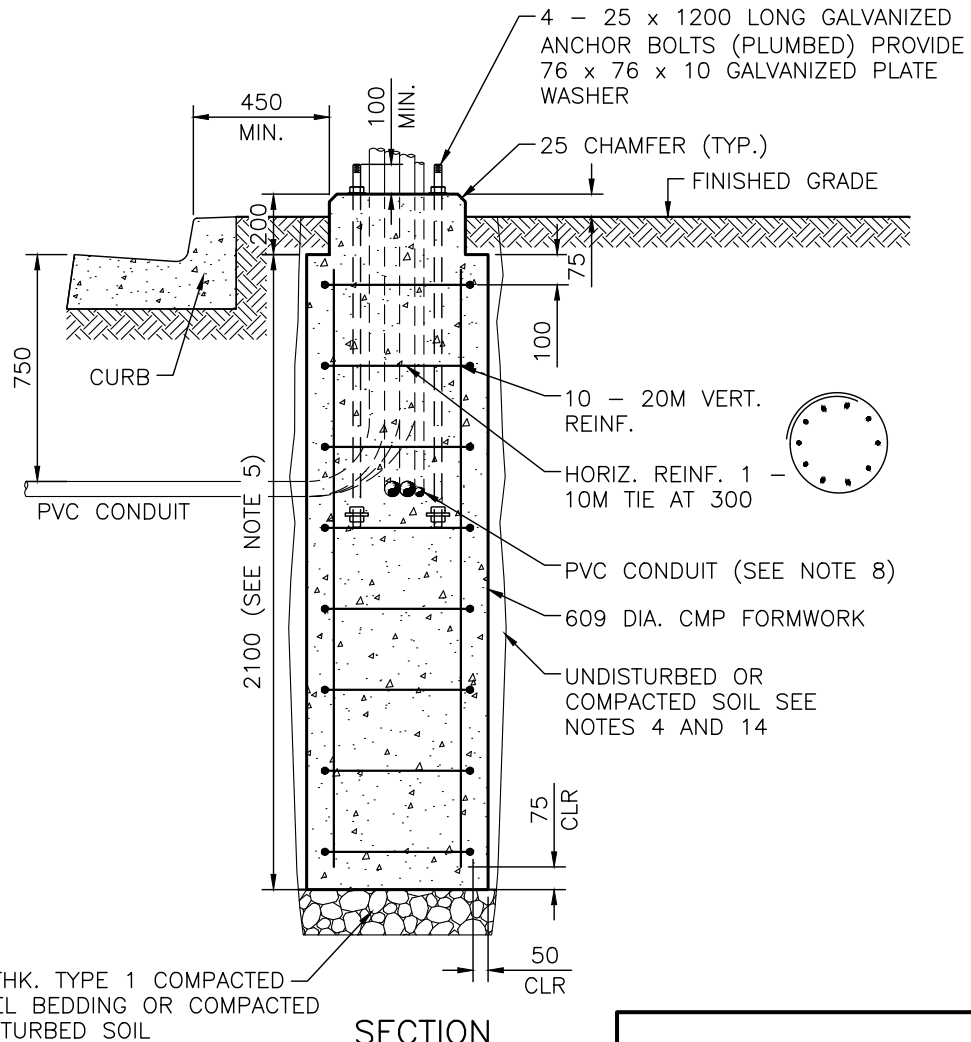
**NOTE:**

1. NATURAL CAST IRON DIRECTION TWSI (TACTILE WALKING SURFACE INDICATOR) PLATES TO CSA B651 (LATEST EDITION) AND AS INDICATED IN THE PROJECT DOCUMENTS.
2. APPLICATION OF TACTILE DIRECTION INDICATOR PLATES SHALL BE APPROVED BY THE ENGINEER.
3. NO GAP BETWEEN ADJACENT PLATES.
4. PLATES SHALL BE INSTALLED LEVEL TO MATCH THE SLOPE OF THE SURROUNDING CONCRETE SIDEWALK AND WITH THE TOP OF THE BASE PLATE (BOTTOM OF ELONGATED FLAT-TOP BAR SURFACE) AT THE SAME HEIGHT.
5. WHERE PLACED ACROSS FROM AN ACCESSIBLE PATH OF TRAVEL TACTILE DIRECTION INDICATOR PLATES TO BE TOTAL WIDTH OF 600 mm.
6. WHERE PLACED, CONCRETE THICKNESS FOR TACTILE DIRECTION INDICATOR PLATES TO BE 150 mm THICK.
7. TACTILE ATTENTION INDICATOR PLATES AS PER HRM STANDARD DETAIL 131.
8. TACTILE DIRECTION INDICATOR PLATES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
9. DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

HALIFAX		
STANDARD DETAIL		
TACTILE DIRECTION INDICATOR PLATE PLACEMENT		
DATE:	REFERENCE	APPROVED
2025		
SCALE:		FIG No.:
N.T.S.		HRM 199



**PLAN**



**SECTION**

**NOTES:**

1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N1.
3. DIMENSIONS ARE IN MILLIMETRES.

HALIFAX		
STANDARD DETAIL		
TRAFFIC SIGNAL BASE FOR CONFIGURATION A		
DATE:	REFERENCE	APPROVED
2021		
SCALE:		FIG No.:
1:25		HRM 68

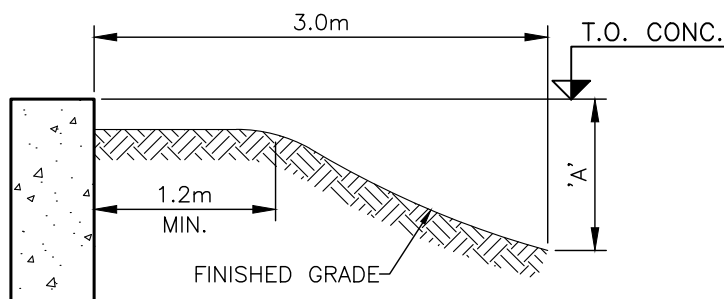
NOTES FOR SHAFT FOUNDATIONS ONLY:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. CONCRETE 28 DAY STRENGTH TO BE 35 MPa, CLASS OF EXPOSURE 'C1', AIR CONTENT 5 – 8%.
3. ENGINEER TO CONFIRM SOIL PARAMETERS BEFORE PROCEEDING WITH WORK.
4. DESIGN IS FOR DRY SOIL CONDITIONS (NO GROUND WATER TABLE) WITH A MINIMUM  $\gamma_{\text{SOIL}} = 18 \text{ kN/m}^3$ ,  $K_p = 3.5$ ,  $\phi = 34^\circ$ .
5. WHERE SOUND BEDROCK IS ENCOUNTERED, FOUNDATION CONSTRUCTION MAY BE MODIFIED TO USE ROCK ANCHORS DOWELED INTO ROCK. REFER TO DRAWING No. 74B.1 AND 74B.2.
6. ANCHORS TO BE MINIMUM GRADE A307, PLATE WASHERS MINIMUM GRADE 300W.
7. CONTRACTOR TO CONFIRM ANCHOR BOLT DIAMETER, LENGTH AND BOLT CIRCLE PRIOR TO PROCEEDING WITH WORK.
8. PROPOSED PVC CONDUIT SIZE AND CONFIGURATION INDICATED ON DRAWINGS. CONDUITS ARE ASSUMED TO BE "BUNCHED" AND IN CENTRE OF PEDESTAL. FOR PEDESTAL WITH NOMINAL DIAMETER OF D-NOM, DIAMETER OF "BUNCHED" CONDUIT AT TOP OF CONCRETE SHALL BE D-B MAXIMUM. IF "BUNCHED" DIAMETER AT TOP OF CONCRETE IS GREATER THAN D-B, USE D-ADJ DIA. PEDESTAL.

D-NOM	D-B	D-ADJ
609	150	762
762	250	914
914	300	1067

9. CONCRETE MUST BE PLACED IN A SINGLE POUR.
10. EMBEDMENT DEPTH OF THE FOUNDATION WAS DERIVED FROM THE ONTARIO MINISTRY OF TRANSPORTATION ENGINEERING STANDARDS BRANCH – GUIDELINES FOR THE DESIGN OF HIGH MAST POLE FOUNDATIONS, 4TH Ed. 2004.
11. TORSIONAL RESISTANCE OF THE FOUNDATION WAS COMPLETED BASED ON BROM'S TORSION LOADING ANALYSIS OF SHORT SINGLE SHAFT FOUNDATIONS.
12. RESIDUAL FRICTIONAL COEFFICIENT ( $\mu$ ) BETWEEN THE CIRCUMFERENCE OF THE FOUNDATION AND SOIL IS TO BE 0.3.
13. WHERE FINISHED GRADE IS LOWER NEAR POLE BASE, HEIGHT OF FOUNDATION TO BE INCREASED AS FOLLOWS:

- 'A' UP TO 0.3m, NO INCREASE.
- 'A' UP TO 0.6m, INCREASE HEIGHT BY 0.2m.
- 'A' UP TO 1.0m, INCREASE HEIGHT BY 0.4m.



14. ENSURE FULLY COMPACTED SOIL AROUND FOUNDATION.

<b>HALIFAX</b>		
<b>STANDARD DETAIL</b>		
<b>STANDARD NOTES</b>		
<b>SHAFT FOUNDATIONS</b>		
DATE:	2021	REFERENCE
SCALE:	NTS	APPROVED
		FIG No.: <b>HRM 68N1</b>



NOTES FOR SPREAD FOUNDATIONS ONLY:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. CONCRETE 28 DAY STRENGTH TO BE 35 MPa, CLASS OF EXPOSURE 'C1', AIR CONTENT 5 – 8%.
3. ENGINEER TO CONFIRM SOIL PARAMETERS BEFORE PROCEEDING WITH WORK.
4. DESIGN IS FOR DRY SOIL CONDITIONS (NO GROUND WATER TABLE) WITH A MINIMUM  $\gamma_{\text{SOIL}} = 18 \text{ kN/m}^3$ ,  $K_p = 3.5$ ,  $\phi = 34^\circ$ .
5. WHERE SOUND BEDROCK IS ENCOUNTERED, FOUNDATION CONSTRUCTION MAY BE MODIFIED TO USE ROCK ANCHORS DOWELED INTO ROCK. REFER TO DRAWING No. 74B.1 AND 74B.2.
6. ANCHORS TO BE MINIMUM GRADE A307, PLATE WASHERS MINIMUM GRADE 300W.
7. CONTRACTOR TO CONFIRM ANCHOR BOLT DIAMETER, LENGTH AND BOLT CIRCLE PRIOR TO PROCEEDING WITH WORK.
8. PROPOSED PVC CONDUIT SIZE AND CONFIGURATION INDICATED ON DRAWINGS. CONDUITS ARE ASSUMED TO BE "BUNCHED" AND IN CENTRE OF PEDESTAL. FOR PEDESTAL WITH NOMINAL DIAMETER OF D-NOM, DIAMETER OF "BUNCHED" CONDUIT AT TOP OF CONCRETE SHALL BE D-B MAXIMUM. IF "BUNCHED" DIAMETER AT TOP OF CONCRETE IS GREATER THAN D-B, USE D-ADJ DIA. PEDESTAL.

D-NOM	D-B	D-ADJ
609	150	762
762	250	914
914	300	1067

9. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL, STRUCTURAL FILL OR BEDROCK WITH A MINIMUM SERVICEABILITY LIMIT STATES (SLS) BEARING CAPACITY OF 150kPa AND A MINIMUM ULTIMATE LIMIT STATES (ULS) BEARING CAPACITY OF 250kPa.
10. TORSIONAL RESISTANCE ANALYSIS WAS COMPLETED CONSIDERING PASSIVE SOIL PRESSURE AT THE VERTICAL FACE OF THE FOOTINGS AND A FRICTION ( $\mu$ ) BETWEEN THE UNDERSIDE OF THE FOOTING AND SOIL OF 0.4.
11. FINISHED GRADE ELEVATIONS SHALL NOT VARY MORE THAN 150mm OVER A DISTANCE EQUAL TO TWICE THE EMBEDMENT DEPTH.
12. AFTER CONSTRUCTION, CUT OFF TOP OF CMP FORMWORK TO 150mm BELOW FINISHED GRADE.

**HALIFAX**

STANDARD DETAIL

STANDARD NOTES  
SPREAD FOOTINGS

DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: <b>HRM 68N2</b>

**TRAFFIC SIGNAL POLE BASE DESIGN SELECTION GUIDE FOR TYPE OF POLE BASE  
MAXIMUM DESIGN CRITERIA USED FOR DIFFERENT TYPES OF POLE BASES**

CONFIGURATION	POLE TYPE			TRAFFIC SIGNAL EQUIPMENT				PEDESTRIAN HEADS	STREET LIGHTING	SIGNAGE AREA (m <sup>2</sup> )	POLE BASE DESIGN TYPE	HRM STANDARD DETAIL NO.
	MATERIAL	BASE DIA. (mm)	TOTAL HEIGHT (m) (SEE NOTE 4)	MAST ARMS			SIGNAL HEADS (PER POLE)					
				NO.	LENGTH (m)	ORIENTATION						
A	ALUM.	203	5.2	0	N.A.	N.A.	2	2	1@0.4	0	1	68
B	ALUM.	203	5.8	1	4.6	N.A.	2	2	NONE	0.7	2	69
C	ALUM.	203	5.8	2	4.6, TOTAL	180°	2	2	NONE	0.7	2	69
D	ALUM.	203	5.8	2	3.1 EACH	90°	2	2	NONE	0.7	2	69
E	ALUM.	254	8.2	0	N.A.	N.A.	0	0	2@1.85	0	2	69
F	ALUM.	254	6.7	1	6.1	N.A.	2	2	NONE	0.7	3	70
G	ALUM.	254	6.7	2	6.1, TOTAL	180°	2	2	NONE	0.7	3	70
H	ALUM.	254	6.7	2	3.6 EACH	90°	2	2	NONE	0.7	3	70
I	ALUM.	254	6.7	1	7.6	N.A.	2	2	NONE	0.7	4	71
J	ALUM.	254	6.7	2	7.6, TOTAL	180°	2	2	NONE	0.7	4	71
K	ALUM.	254	6.7	2	4.6 EACH	90°	2	2	NONE	0.7	4	71
L	ALUM.	254	11.3	0	N.A.	N.A.	3	2	2@1.85	0	4	71
M	ALUM.	254	9.7	1	7.6	N.A.	2	2	1@1.8	0.7	4A	71A
N	STEEL	254	6.1	1	12.2	N.A.	4	2	NONE	0.7	5	72
O	STEEL	254	6.1	2	12.2, TOTAL	180°	5	2	NONE	0.7	5	72
P	STEEL	254	6.1	2	7.6 EACH	90°	5	2	NONE	0.7	5	72
Q	STEEL	343	10.7	1	12.2	N.A.	4	2	2@3.6m	0.7	5A	72A
R	STEEL	343	10.7	2	12.2, TOTAL	180°	5	2	2@3.6m	0.7	5A	72A
S	STEEL	343	10.7	2	7.6 EACH	90°	5	2	2@3.6m	0.7	5A	72A
T	STEEL	343	6.1	1	18.3	N.A.	4	2	NONE	0.7	6	73
U	STEEL	343	6.1	2	18.3, TOTAL	180°	5	2	NONE	0.7	6	73
V	STEEL	343	6.1	2	10.7 EACH	90°	5	2	NONE	0.7	6	73
W	STEEL	343	10.7	1	18.3	N.A.	4	2	2@3.6m	0.7	6A	73A
X	STEEL	343	10.7	2	18.3, TOTAL	180°	5	2	2@3.6m	0.7	6A	73A
Y	STEEL	343	10.7	2	10.7 EACH	90°	5	2	2@3.6m	0.7	6A	73A
Z	STEEL	343	6.1	1	21.3	N.A.	4	2	NONE	0.7	7	74
AA	STEEL	343	6.1	2	21.3, TOTAL	180°	5	2	NONE	0.7	7	74
AB	STEEL	343	6.1	2	12.2 EACH	90°	5	2	NONE	0.7	7	74
AC	STEEL	343	10.7	1	21.3	N.A.	4	2	2@3.6m	0.7	7A	74A
AD	STEEL	343	10.7	2	21.3, TOTAL	180°	5	2	2@3.6m	0.7	7A	74A
AE	STEEL	343	10.7	2	12.2 EACH	90°	5	2	2@3.6m	0.7	7A	74A
AF	ALUM.	254	13.4	0	N.A.	N.A.	0	0	2@3.6m	0.7	8	74X

**NOTES**

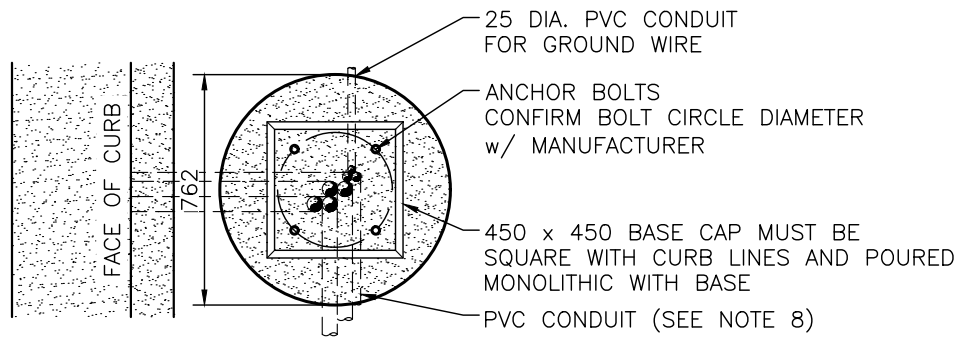
- REFER TO HALIFAX STANDARD DRAWINGS 68 TO 74X FOR ADDITIONAL NOTES AND DESIGN CRITERIA.
- SEE STANDARD DRAWING NO. HRM 74B FOR REVISED POLE BASE FOUNDATION DESIGN WHICH MAY BE PERMITTED IN ROCK CONDITIONS.
- TRAFFIC SIGNAL POLE DESIGN CRITERIA MAY DIFFER FROM THAT AS SHOWN ON THIS TABLE. SHOULD THIS OCCUR, DESIGN ENGINEER SHALL BE CONSULTED FOR INTERPRETATION OF TABLE AND SELECTION OF POLE BASE TYPE, OR ADDITIONAL DESIGN IF REQUIRED.
- TOTAL POLE HEIGHT INDICATED INCLUDES A 0.61 m HIGH TRANSFORMER BASE.

# HALIFAX

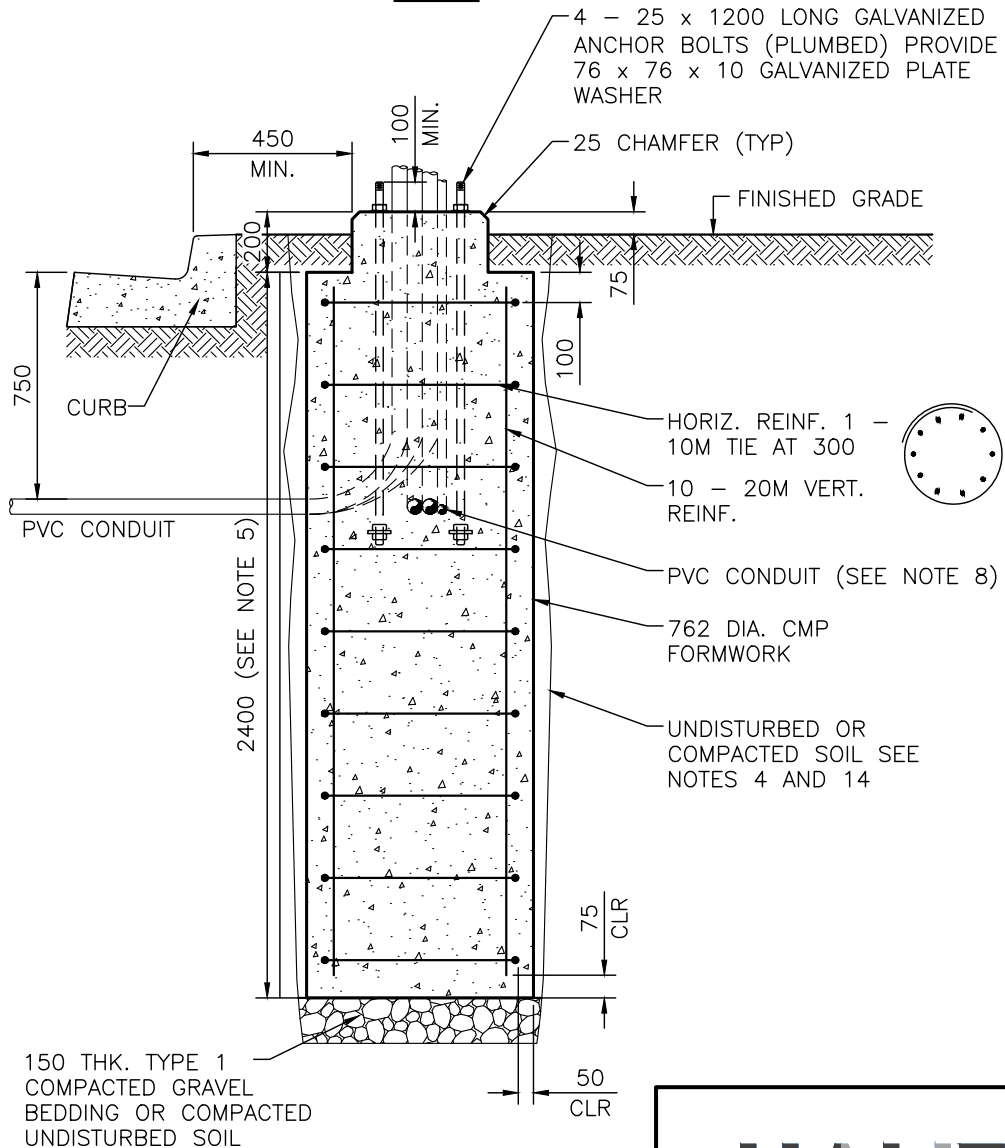
**STANDARD DETAIL**

**POLE BASE  
SELECTION GUIDE**

DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: <b>HRM 68N3</b>



**PLAN**

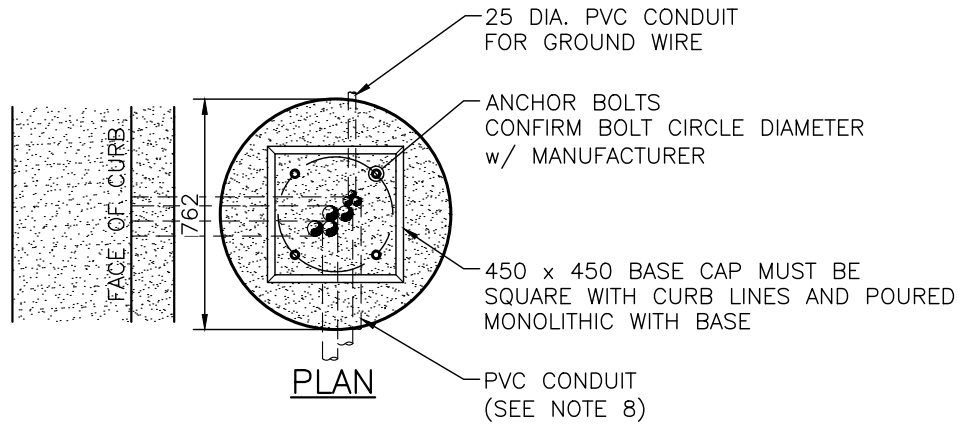


**SECTION**

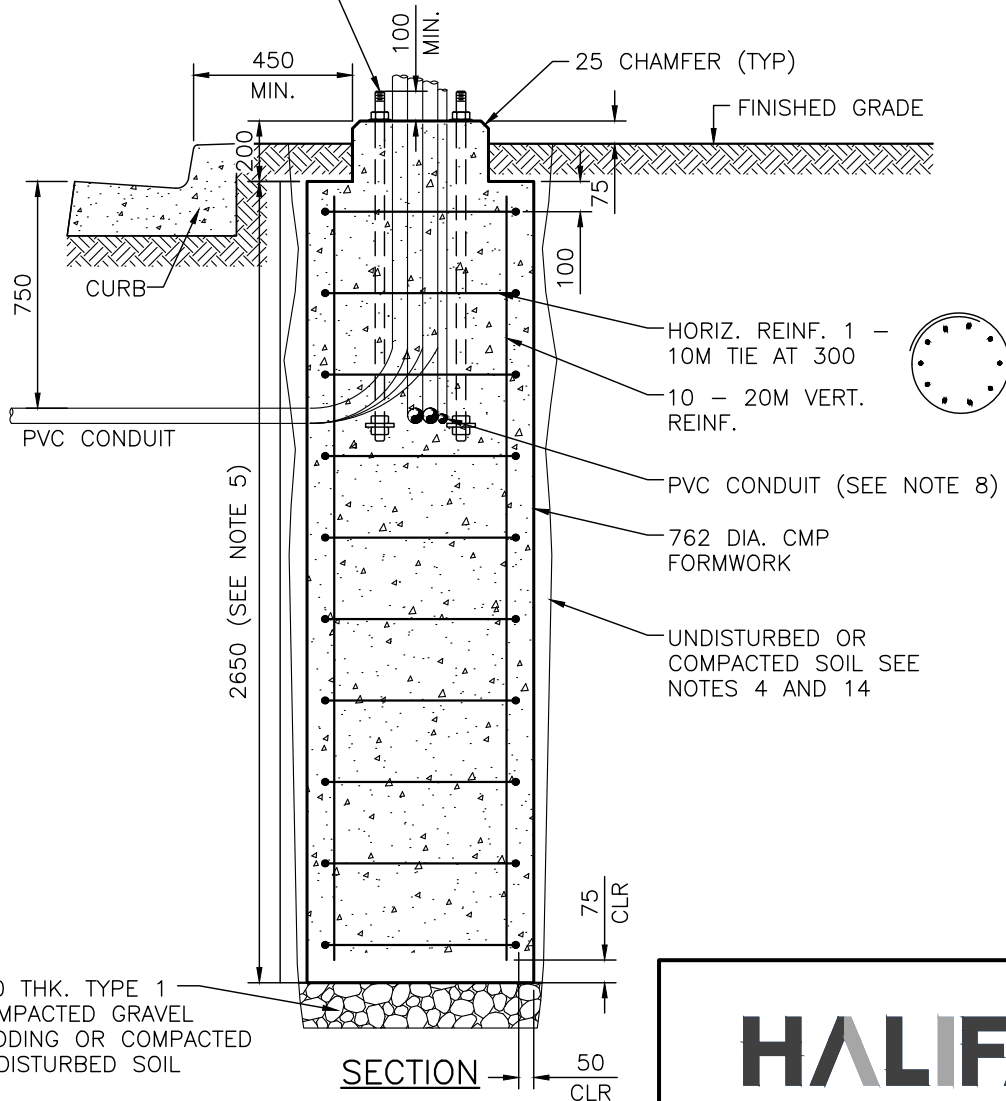
**NOTES:**

1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N1.
3. DIMENSIONS ARE IN MILLIMETRES.

HALIFAX		
STANDARD DETAIL		
TRAFFIC SIGNAL BASE FOR CONFIGURATIONS B, C, D AND E		
DATE:	REFERENCE	APPROVED
2021		
SCALE:		FIG No.:
1:25		HRM 69



4 - 31 x 1000 LONG GALVANIZED ANCHOR BOLTS (PLUMBED) PROVIDE 76 x 76 x 10 GALVANIZED PLATE WASHER



**NOTES:**

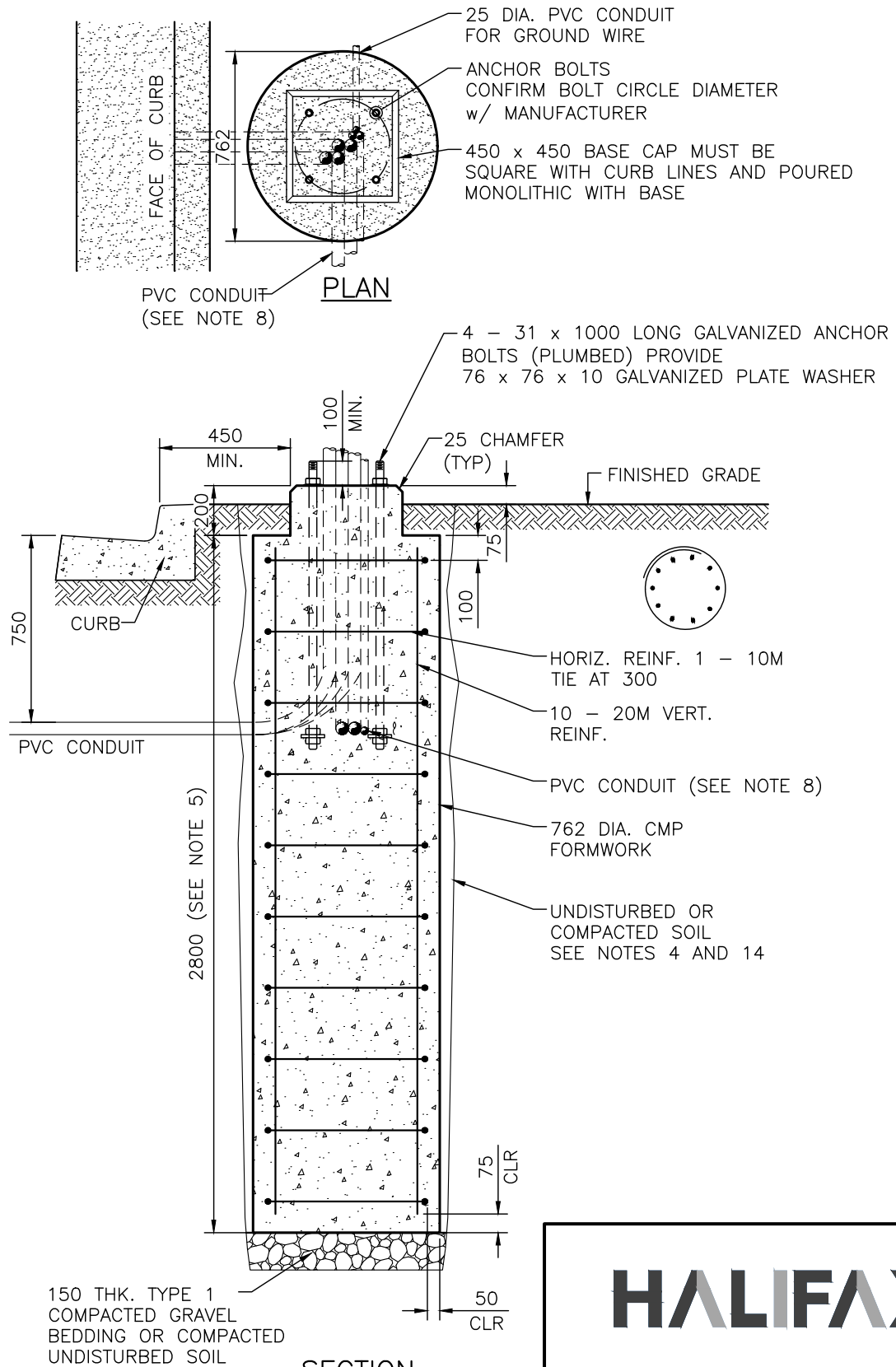
1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N1.
3. DIMENSIONS ARE IN MILLIMETRES.

# HALIFAX

**STANDARD DETAIL**

**TRAFFIC SIGNAL BASE FOR CONFIGURATIONS F, G AND H**

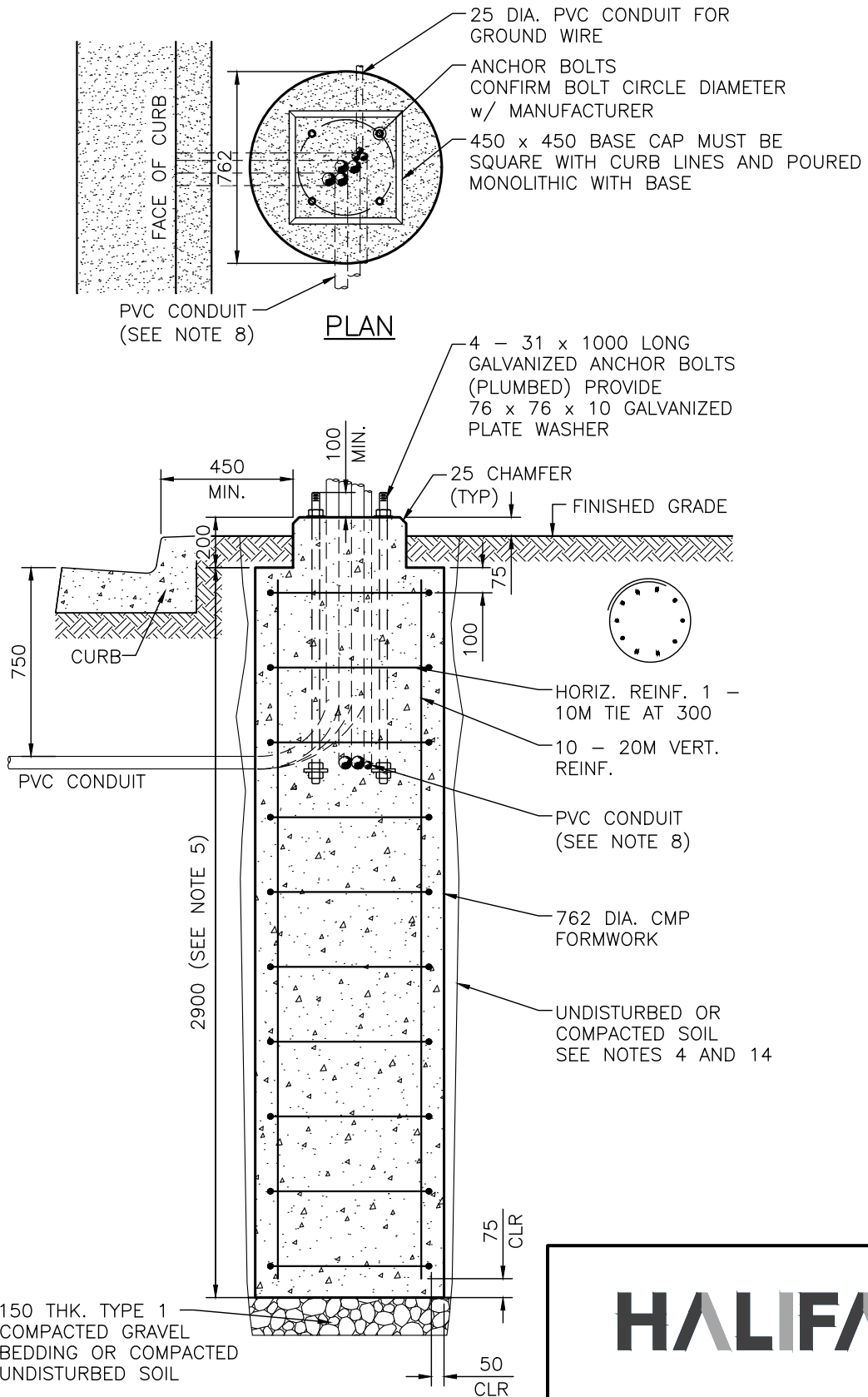
DATE:	2021	REFERENCE	APPROVED
SCALE:	1:25		FIG No.: <b>HRM 70</b>



**NOTES:**

1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N1.
3. DIMENSIONS ARE IN MILLIMETRES.

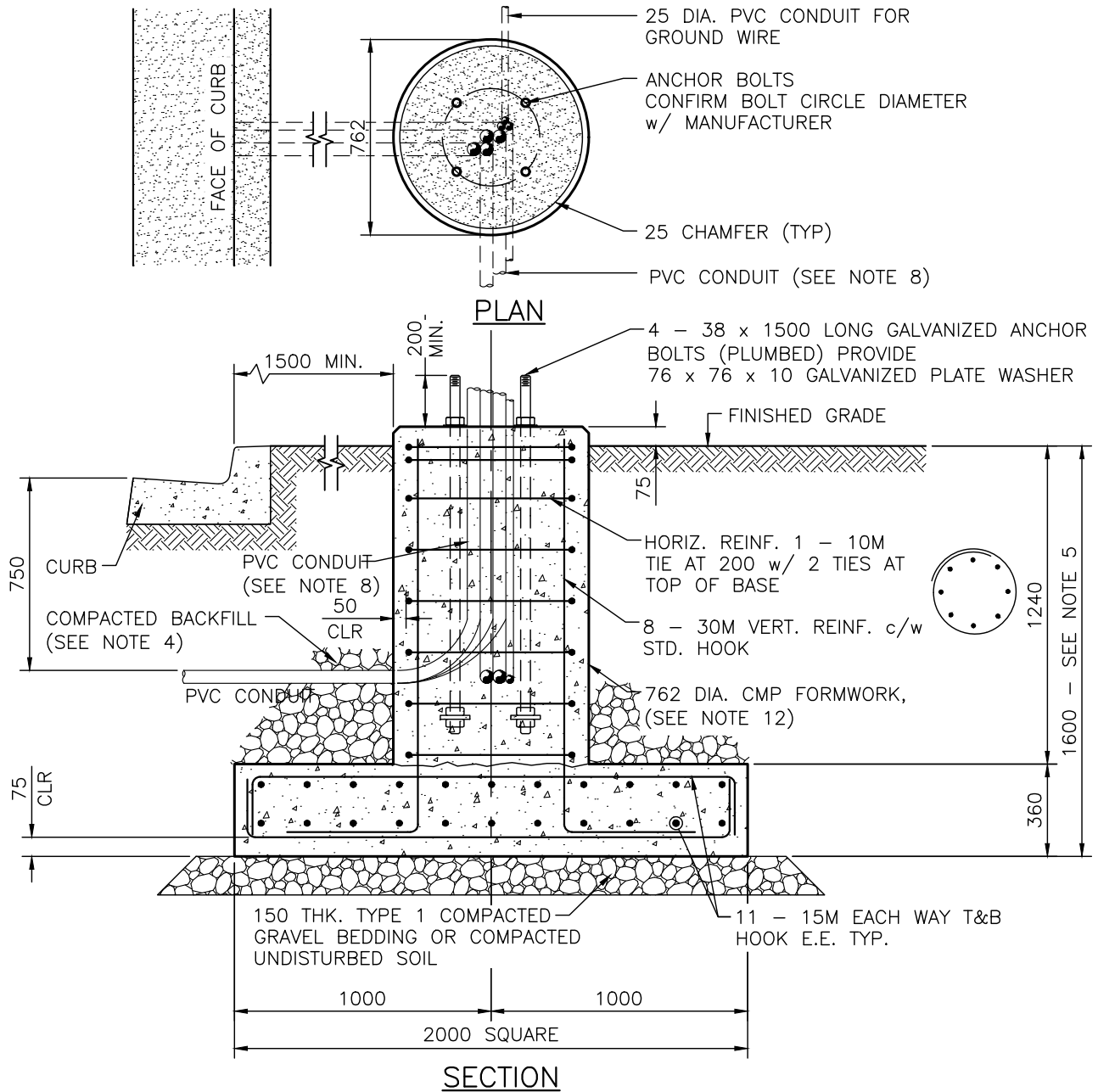
HALIFAX		
STANDARD DETAIL		
TRAFFIC SIGNAL BASE FOR CONFIGURATION I, J, K AND L		
DATE:	REFERENCE	APPROVED
2021		
SCALE:		FIG No.:
1:25		HRM 71



**NOTES:**

1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N1.
3. DIMENSIONS ARE IN MILLIMETRES.

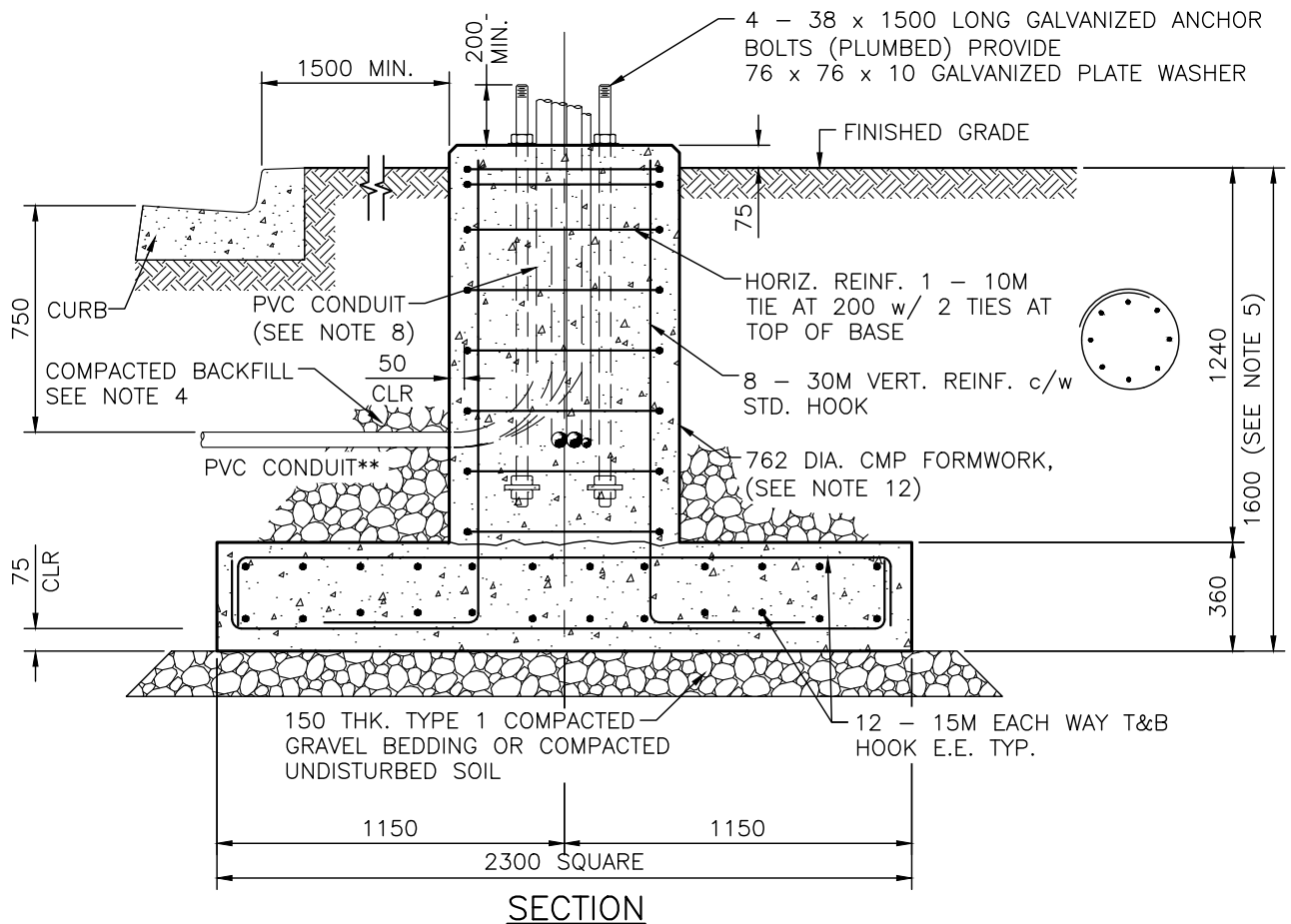
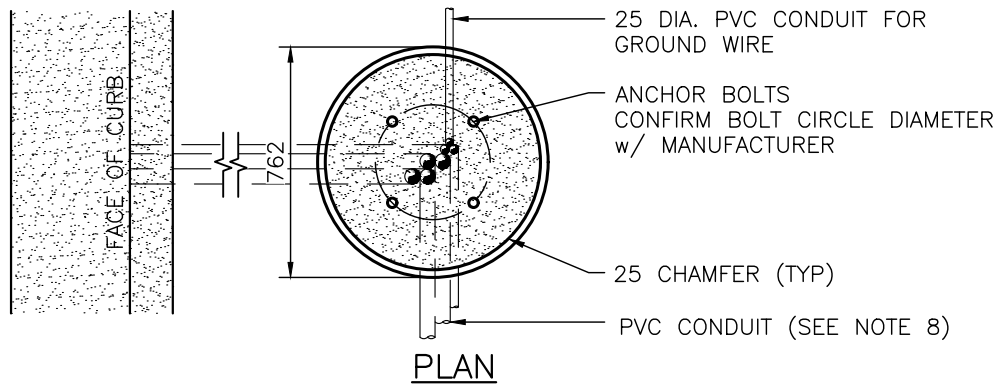
<h1 style="margin: 0;">HALIFAX</h1>		
<b>STANDARD DETAIL</b>		
<b>TRAFFIC SIGNAL BASE FOR CONFIGURATION M</b>		
DATE: 2021	REFERENCE	APPROVED
SCALE: 1:25		FIG No.: <b>HRM 71A</b>



**NOTES:**

1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N2.
3. DIMENSIONS ARE IN MILLIMETRES.

<h1>HALIFAX</h1>		
<b>STANDARD DETAIL</b>		
<b>TRAFFIC SIGNAL BASE FOR CONFIGURATION N, O AND P</b>		
DATE:	2021	REFERENCE
SCALE:	1:25	APPROVED
		FIG No.: <b>HRM 72</b>



**NOTES:**

1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N2.
3. DIMENSIONS ARE IN MILLIMETRES.

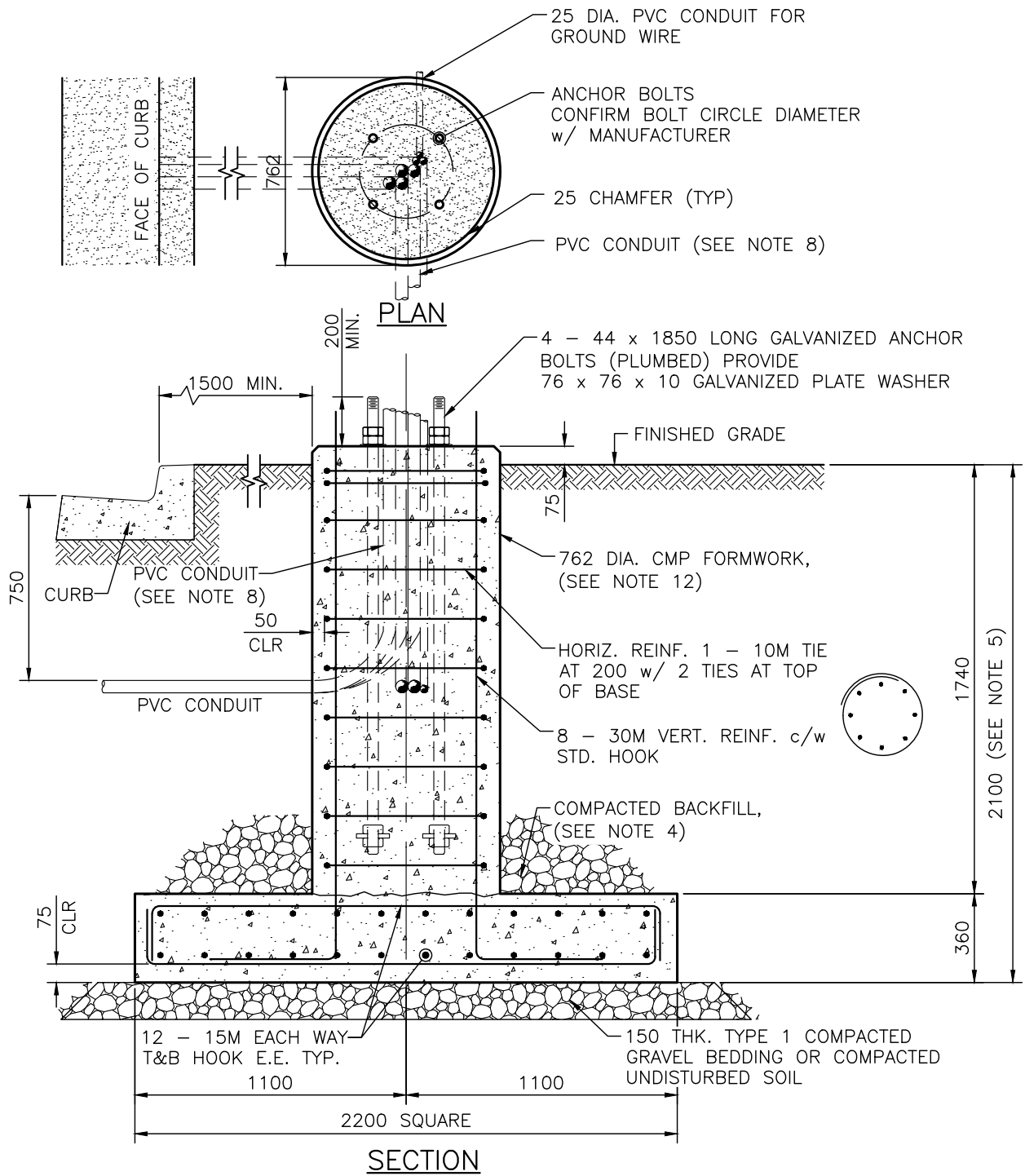
**HALIFAX**

**STANDARD DETAIL**

**TRAFFIC SIGNAL BASE FOR CONFIGURATION Q, R AND S**

DATE:	2021	REFERENCE	APPROVED
SCALE:	1:25		FIG No.: <b>HRM 72A</b>

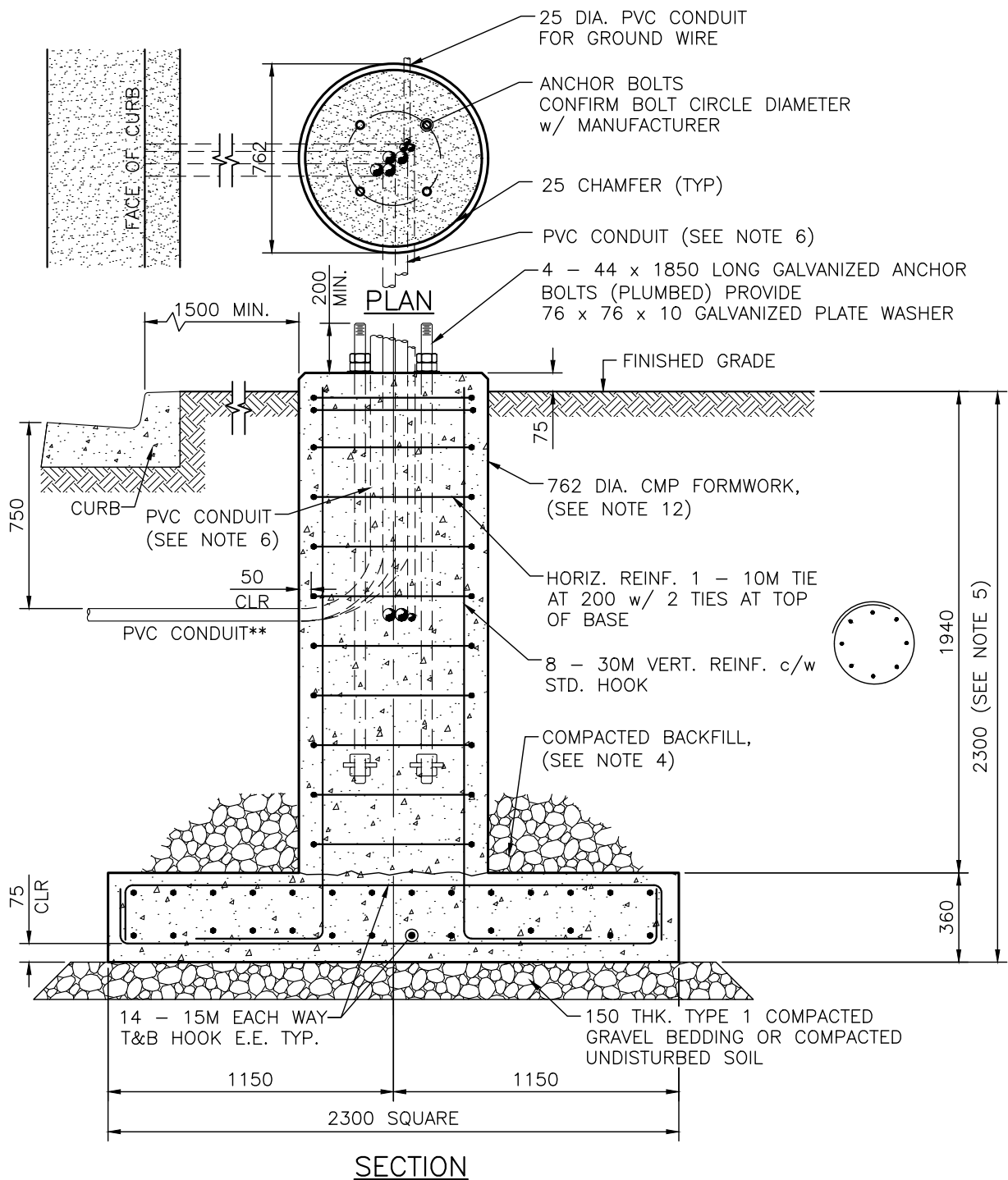




**NOTES:**

1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N2.
3. DIMENSIONS ARE IN MILLIMETRES.

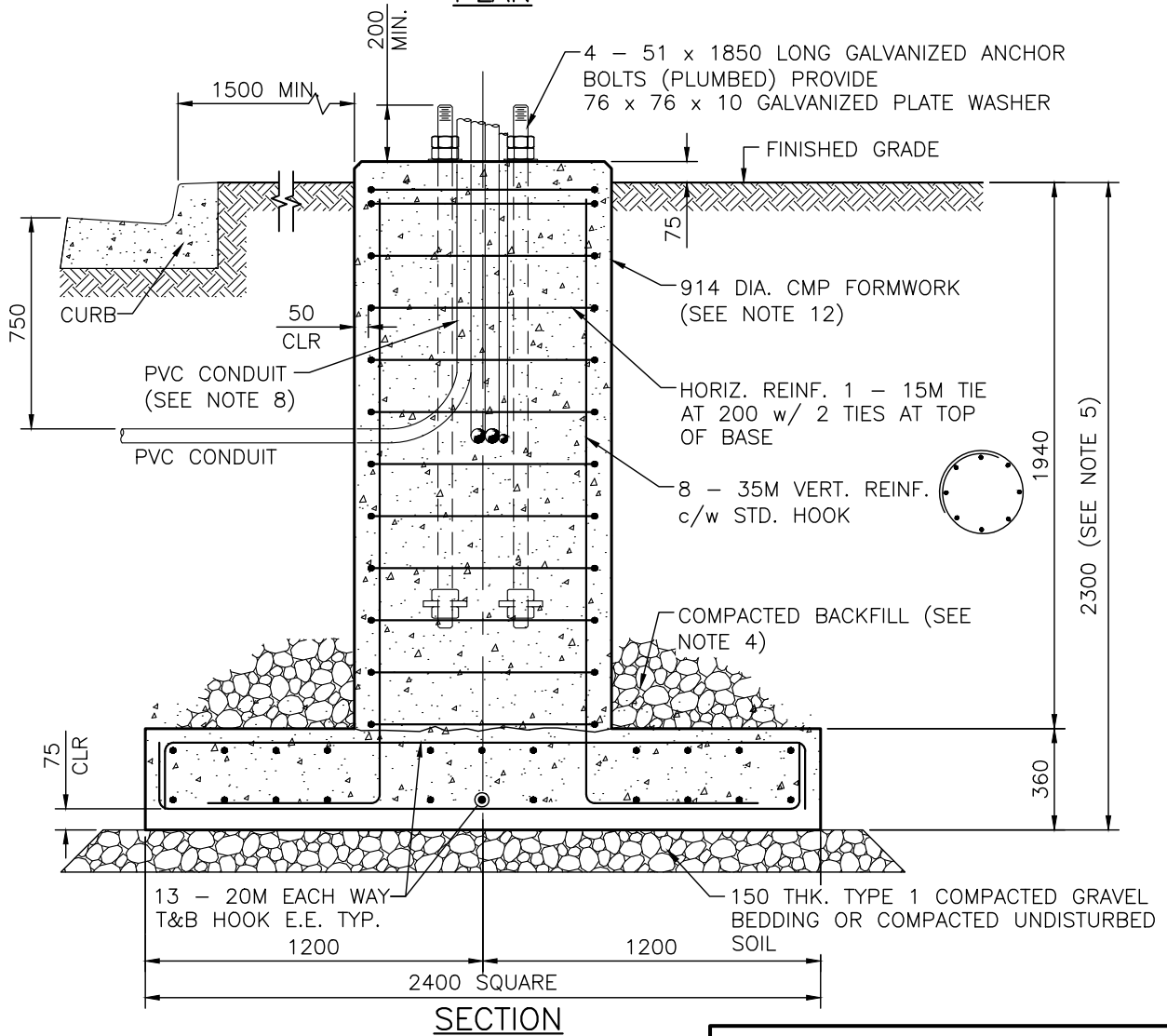
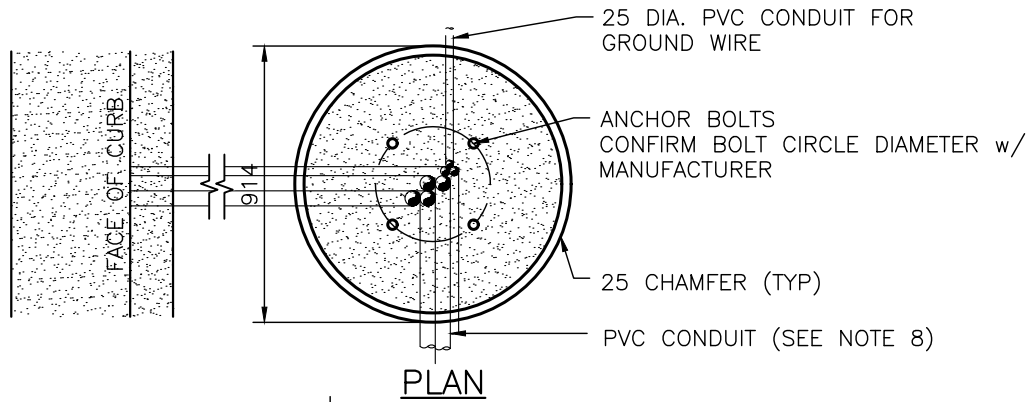
HALIFAX		
STANDARD DETAIL		
TRAFFIC SIGNAL BASE FOR CONFIGURATION T, U AND V		
DATE:	REFERENCE	APPROVED
2021		
SCALE:		FIG No.:
1:25		HRM 73



**NOTES:**

1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N2.
3. DIMENSIONS ARE IN MILLIMETRES.

<h1>HALIFAX</h1>		
<b>STANDARD DETAIL</b>		
<b>TRAFFIC SIGNAL BASE FOR CONFIGURATION W, X AND Y</b>		
DATE:	2021	REFERENCE
SCALE:	1:25	APPROVED
		FIG No.: <b>HRM 73A</b>



**NOTES:**

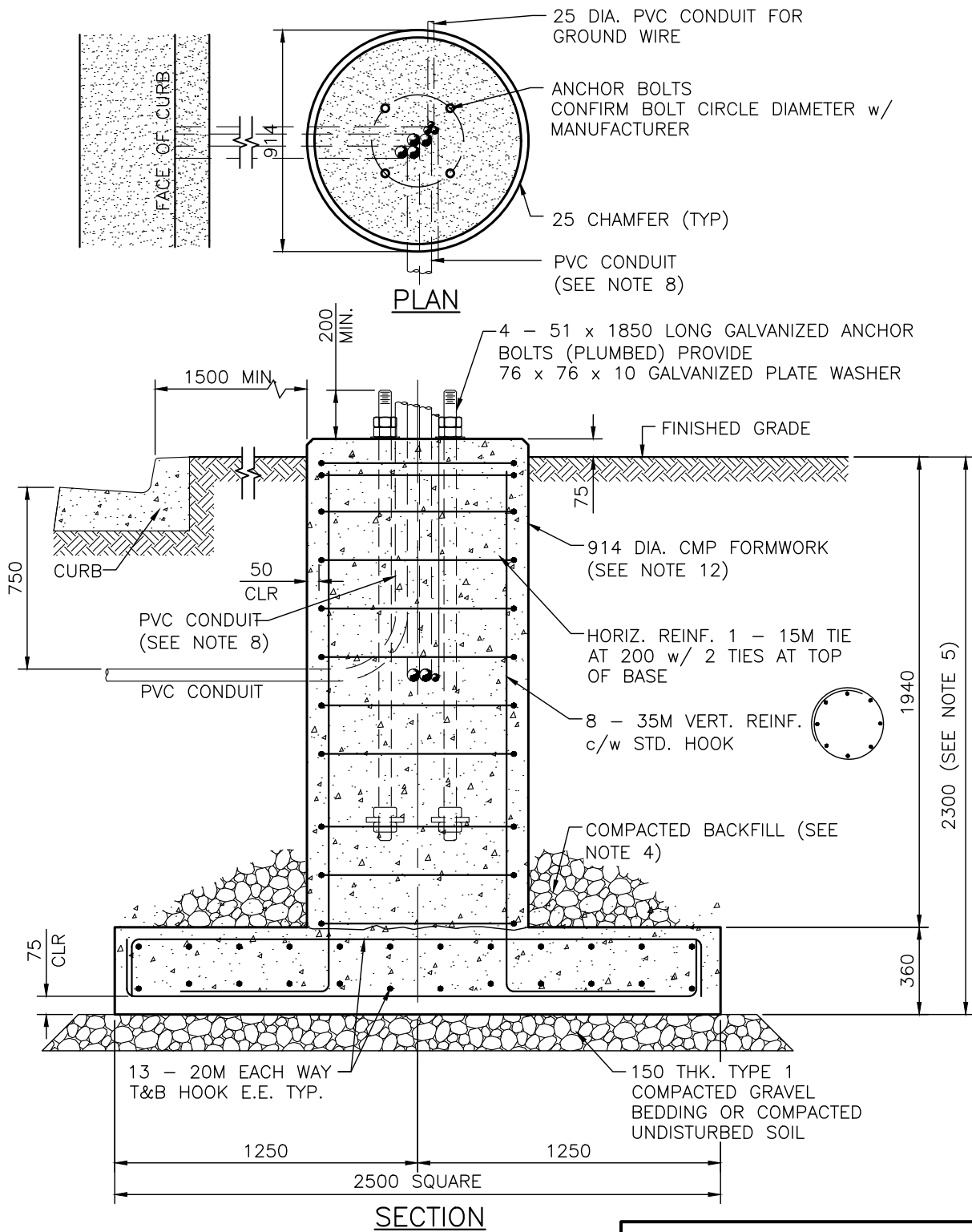
1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N2.
3. DIMENSIONS ARE IN MILLIMETRES.

**HALIFAX**

**STANDARD DETAIL**

**TRAFFIC SIGNAL BASE FOR CONFIGURATION Z, AA AND AB**

DATE:	2021	REFERENCE	APPROVED
SCALE:	1:25		FIG No.: <b>HRM 74</b>



**NOTES:**

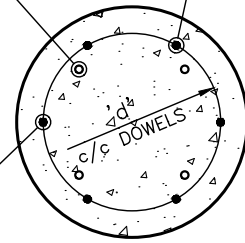
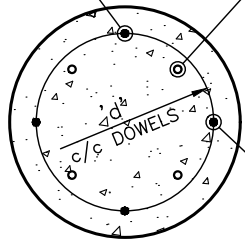
1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N2.
3. DIMENSIONS ARE IN MILLIMETRES.

HALIFAX		
STANDARD DETAIL		
TRAFFIC SIGNAL BASE FOR CONFIGURATION AC, AD AND AE		
DATE:	REFERENCE	APPROVED
2021		
SCALE:		FIG No.:
1:25		HRM 74A

DOWELS PLACED AT 90 DEG.

ANCHOR BOLTS (TYP.)

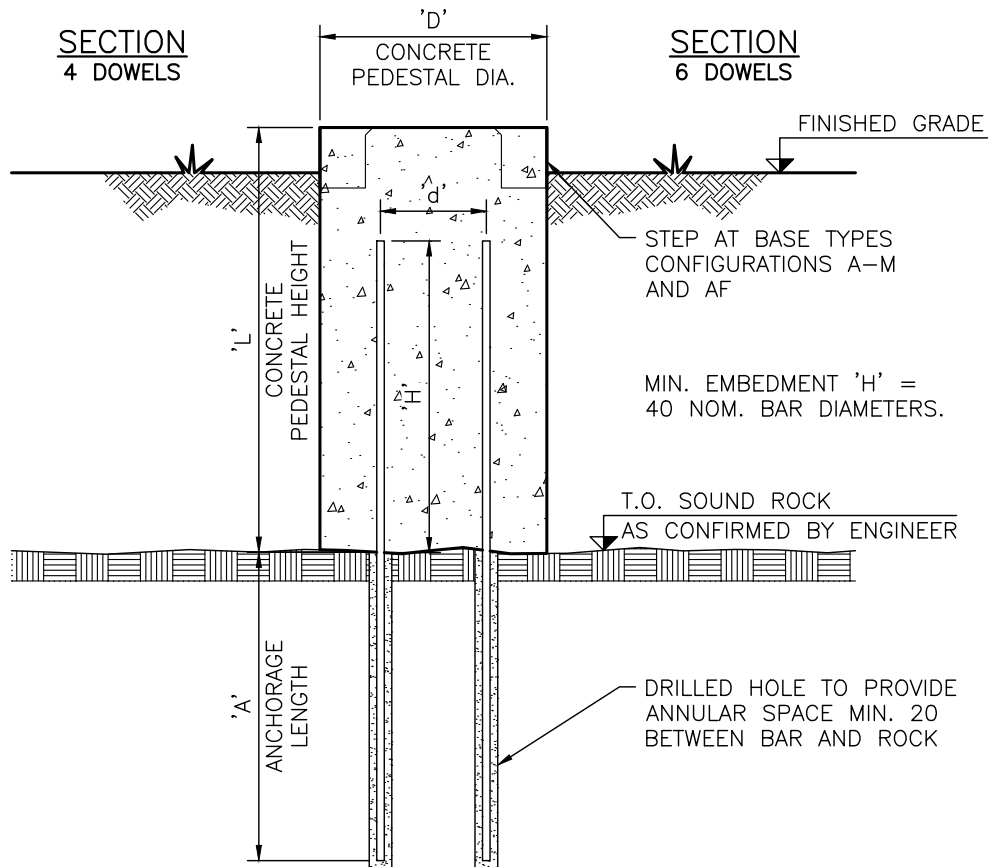
DOWELS PLACED AT 60 DEG.



DOWELS (TYP.) DESIGN BASED ON COVER TO DOWELS = 80

**SECTION 4 DOWELS**

**SECTION 6 DOWELS**



**NOTE:**

1. SEE HRM 74B.2 FOR ANCHORAGE DETAILS.
2. PEDESTAL REINFORCING NOT SHOWN FOR CLARITY.
3. ANCHOR BOLTS TO BE DESIGNED BY AND STAMPED BY AN ENGINEER LICENSED TO PRACTICE IN NS.

**HALIFAX**

**STANDARD DETAIL**

**FOUNDATION REVISIONS FOR DOWELING INTO ROCK**

DATE:	2021	REFERENCE	APPROVED
SCALE:	1:25		FIG No.: <b>HRM 74B.1</b>

## ANCHORAGE SCHEDULE

REF. DWG.	'L' MIN.	'D'	'd'	'A' MIN	DOWELS
68	1200	610	425	2500	4 – 25M
69	1200	760	575	2500	4 – 25M
70, 71, 71A	1300	760	570	3000	4 – 30M
72, 72A	1500	760	565	3500	4 – 35M
73, 73A	1800	760	565	3500	6 – 35M
74, 74A	1800	910	715	4000	6 – 35M
74X	1300	760	570	3000	4 – 30M

NOTES:

1. SOUND ROCK TO BE CONFIRMED BY ENGINEER.
2. MIN. LENGTH 'L' IS REQUIRED TO SUIT LENGTH OF ANCHOR BOLTS.
3. DRILLED HOLE IN ROCK TO BE CLEAN AND DRY BEFORE GROUTING. GROUT TO BE MASTERFLOW 816 CABLE GROUT OR APPROVED EQUAL, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
4. THIS DRAWING TO BE USED IN CONJUNCTION WITH HRM 74B.1.
5. ANCHOR BOLTS TO BE DESIGNED BY AND STAMPED BY AN ENGINEER LICENSED TO PRACTICE IN NS.

# HALIFAX

STANDARD DETAIL

**FOUNDATION REVISIONS  
FOR DOWELING INTO ROCK**

DATE:	2021	REFERENCE	APPROVED
SCALE:	NTS		FIG No.: <b>HRM 74B.2</b>

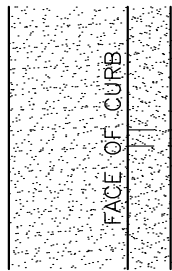
25 DIA. PVC CONDUIT\*\*  
FOR GROUND WIRE

ANCHOR BOLTS  
CONFIRM BOLT CIRCLE DIAMETER w/  
MANUFACTURER

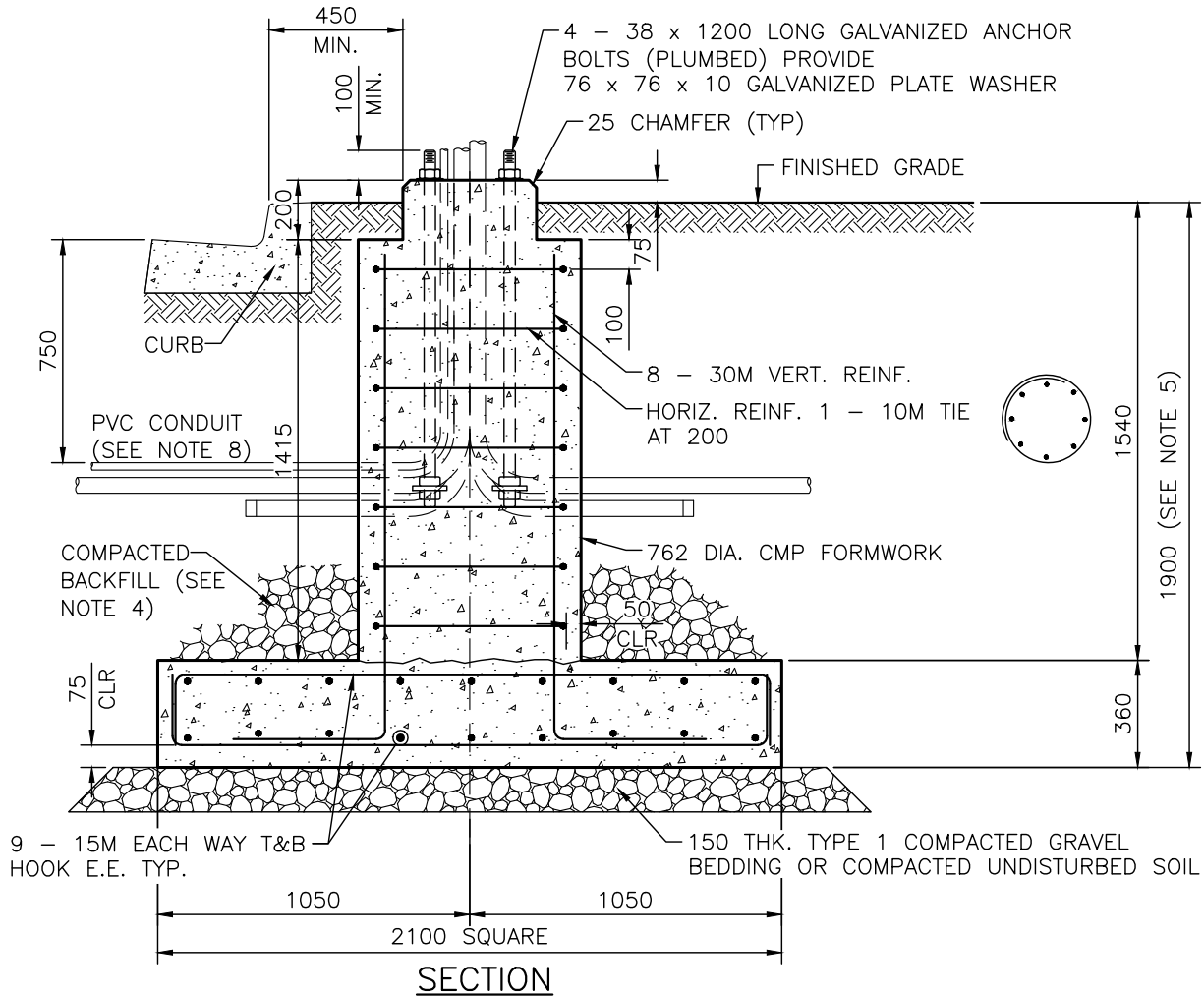
450 x 450 (OR 500 x 500) BASE  
CAP MUST BE SQUARE WITH CURB  
LINES AND POURED MONOLITHIC WITH  
BASE

53 DIA. PVC CONDUIT (SEE NOTE 8)

SPARE 53 DIA. PVC  
CONDUIT\*\* (CAPPED)



PLAN



SECTION

**NOTES:**

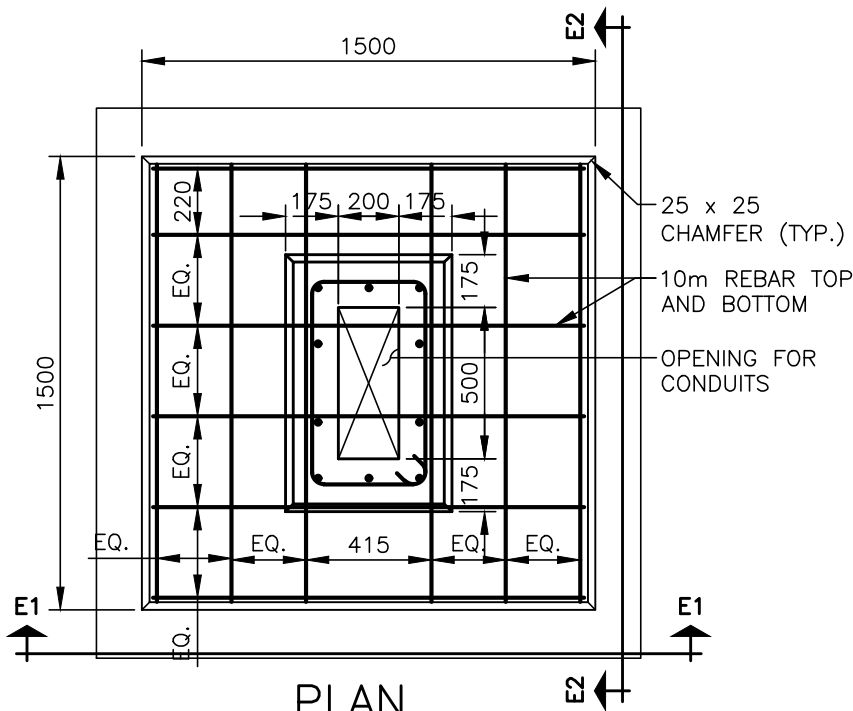
1. SEE HRM 68N3, SELECTION GUIDE, FOR PERMITTED POLES AND TRAFFIC SIGNAL EQUIPMENT.
2. FOR NOTES REFER TO HRM 68N2.
3. DIMENSIONS ARE IN MILLIMETRES.

**HALIFAX**

STANDARD DETAIL

TRAFFIC SIGNAL BASE  
FOR CONFIGURATION AF

DATE:	2021	REFERENCE	APPROVED
SCALE:	1:25		FIG No.: <b>HRM 74X</b>

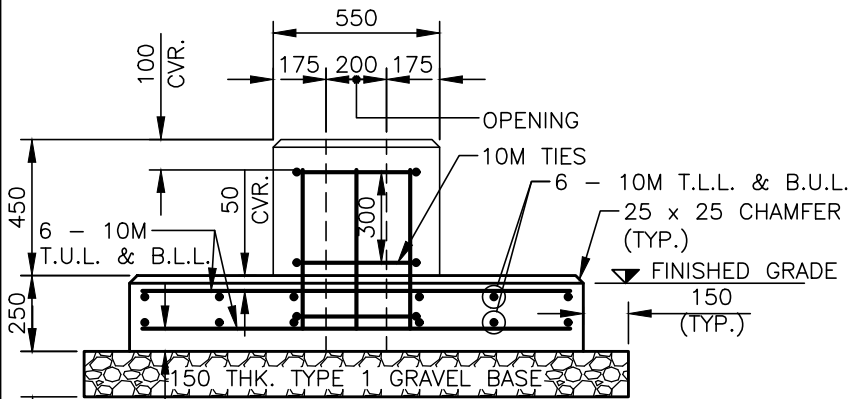


PLAN

1:25

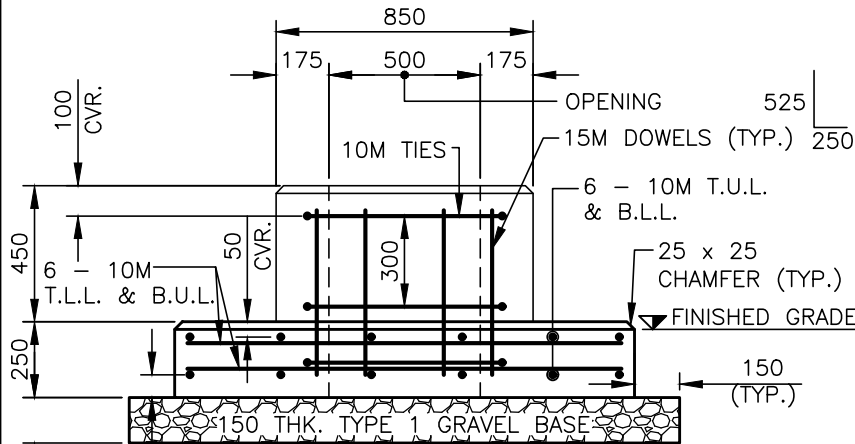
NOTES:

1. CONCRETE 28 DAY COMPRESSIVE STRENGTH TO BE 35 MPa.
2. PROVIDE MIN. 50 COVER FOR ALL REBAR (UNLESS NOTED OTHERWISE).
3. PROVIDE GROUNDING FOR CONTROLLER CABINET.
4. IN ADDITION TO CONDUITS SPECIFIED ON EQUIPMENT DRAWINGS/SPECIFICATIONS, PROVIDE 2-50mm DIA. PVC CONDUIT AND STUB OUTSIDE OF BASE.
5. ALL CONDUIT FITTINGS SHALL BE TO CANADIAN ELECTRICAL CODE.
6. CONTROLLER CABINET ANCHORS ARE ASSUMED TO BE 20mm DIA. x 150mm LONG A304 STAINLESS STEEL THREADED ROD, WITH APPROVED CHEMICAL ADHESIVE, INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURERS GUIDELINES.
7. SUITABILITY OF ANCHORS IS TO BE CONFIRMED BY EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION.
8. MAXIMIZE ANCHOR EDGE DISTANCES.
9. ALL DIMENSIONS IN MILLIMETERS.
10. REBAR TO CONFORM TO CAN/CSA G30.18-09 GRADE 400W DEFORMED BARS.



E1 ELEVATION

1:25



E2 ELEVATION

1:25

**HALIFAX**

STANDARD DETAIL

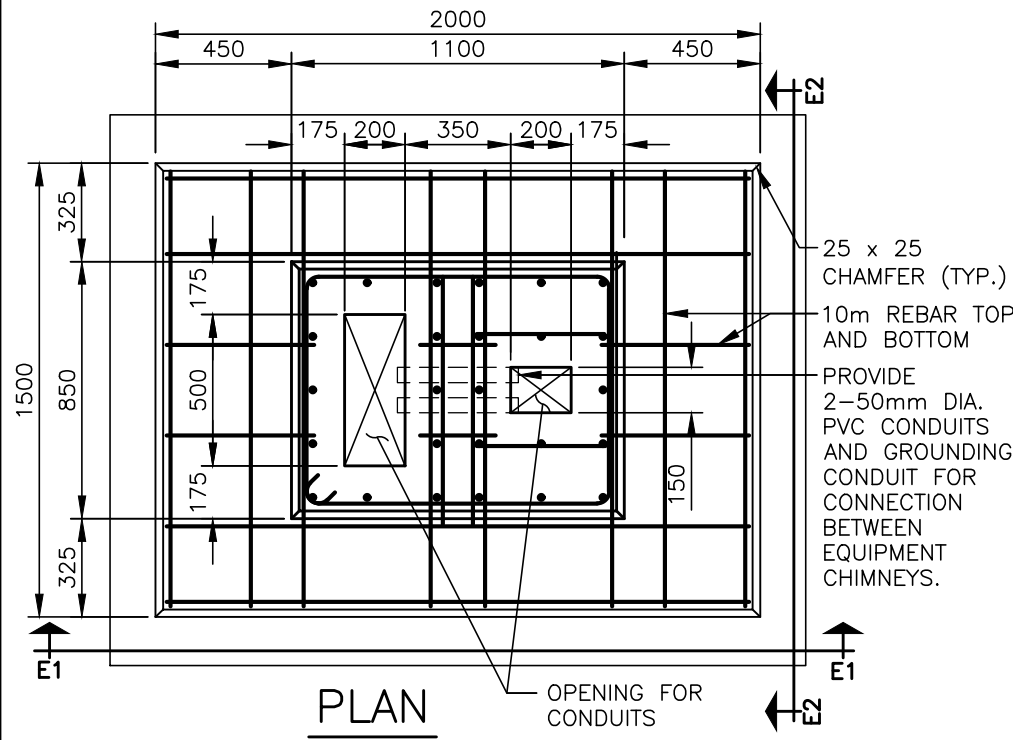
**BASE MOUNTED TRAFFIC  
SIGNAL CONTROLLER CABINET**

DATE: 2021	REFERENCE	APPROVED
SCALE: AS NOTED		FIG No.: HRM 175

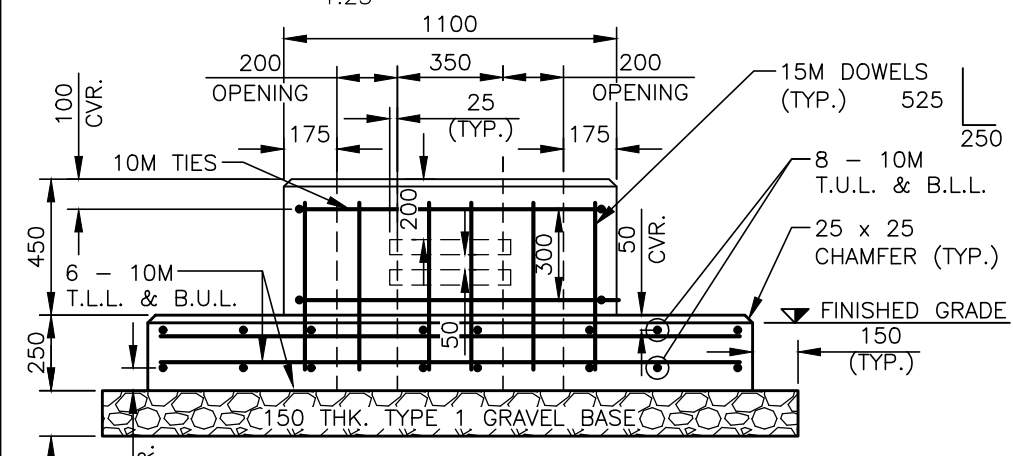


**NOTES:**

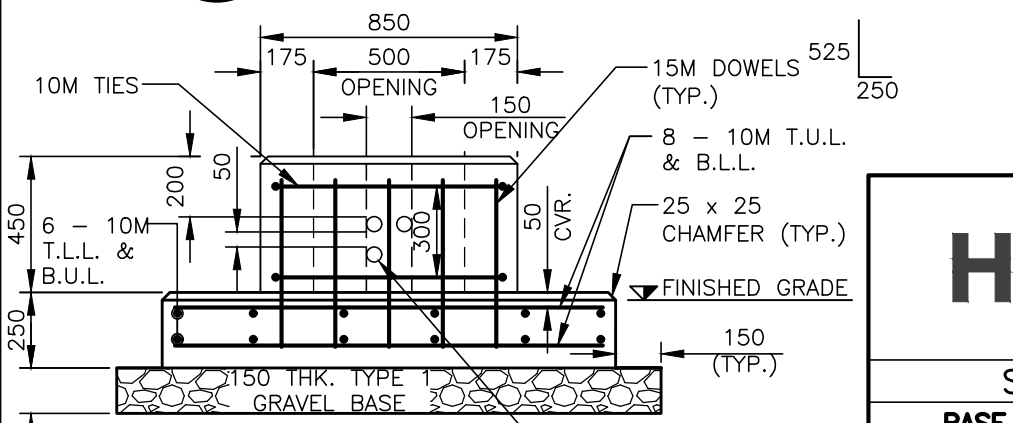
1. CONCRETE 28 DAY COMPRESSIVE STRENGTH TO BE 35 MPa.
2. PROVIDE MIN. 50 COVER FOR ALL REBAR (UNLESS NOTED OTHERWISE).
3. PROVIDE GROUNDING FOR CONTROLLER CABINET.
4. IN ADDITION TO CONDUITS SPECIFIED ON EQUIPMENT DRAWINGS/SPECIFICATIONS, PROVIDE 2-50mm DIA. PVC CONDUIT AND GROUNDING CONDUIT FOR CONNECTION BETWEEN EQUIPMENT CHIMNEYS.
5. ALL CONDUIT FITTINGS SHALL BE TO CANADIAN ELECTRICAL CODE.
6. CONTROLLER CABINET ANCHORS ARE ASSUMED TO BE 20mm DIA. x 150mm LONG A304 STAINLESS STEEL THREADED ROD, WITH APPROVED CHEMICAL ADHESIVE, INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURERS GUIDELINES.
7. BATTERY BACK-UP UNIT ANCHORS ARE ASSUMED TO BE 22mm DIA. x 150mm LONG A304 STAINLESS STEEL THREADED ROD, WITH APPROVED CHEMICAL ADHESIVE, INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURERS GUIDELINES.
8. SUITABILITY OF ANCHORS IS TO BE CONFIRMED BY EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION.
9. MAXIMIZE ANCHOR EDGE DISTANCES.
10. ALL DIMENSIONS IN MILLIMETERS.
11. REBAR TO CONFORM TO CAN/CSA G30.18-09 GRADE 400W DEFORMED BARS.



**PLAN**  
1:25



**E1 ELEVATION**  
1:25



**E2 ELEVATION**  
1:25

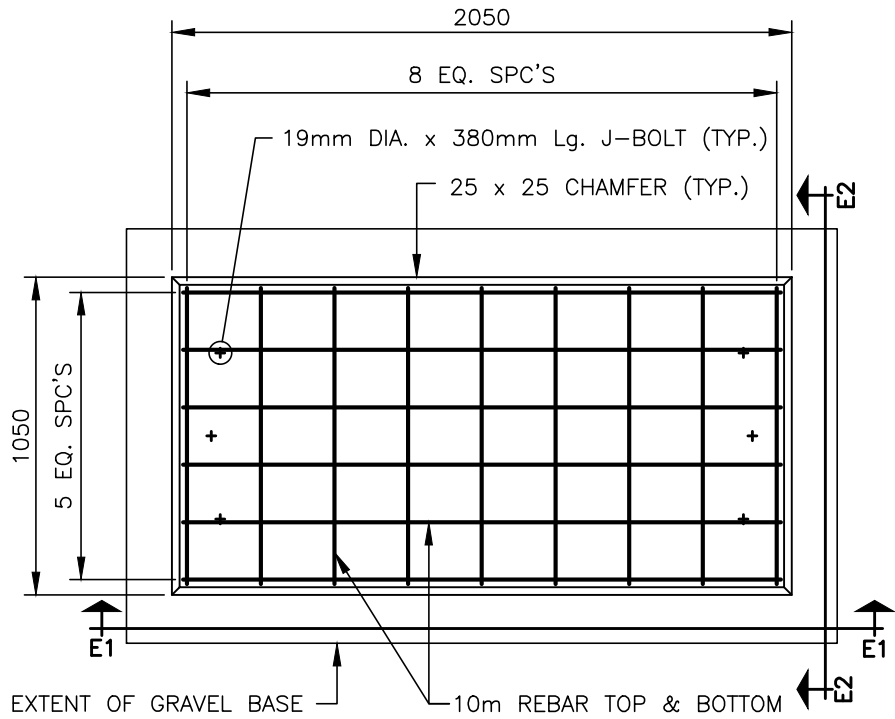
PROVIDE 2-50mm DIA. PVC CONDUITS AND GROUNDING CONDUIT FOR CONNECTION BETWEEN EQUIPMENT CHIMNEYS.

**HALIFAX**

**STANDARD DETAIL**

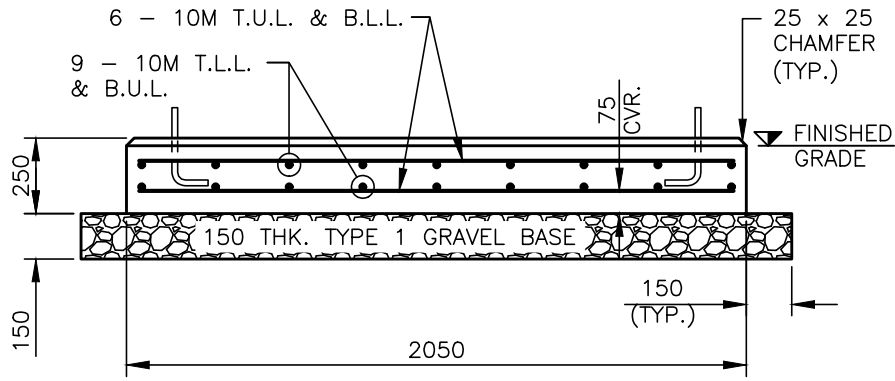
**BASE MOUNTED TRAFFIC SIGNAL CONTROLLER CABINET WITH BATTERY BACK-UP UNIT**

DATE:	2021	REFERENCE	APPROVED
SCALE:	AS NOTED		FIG No.: <b>HRM 176</b>



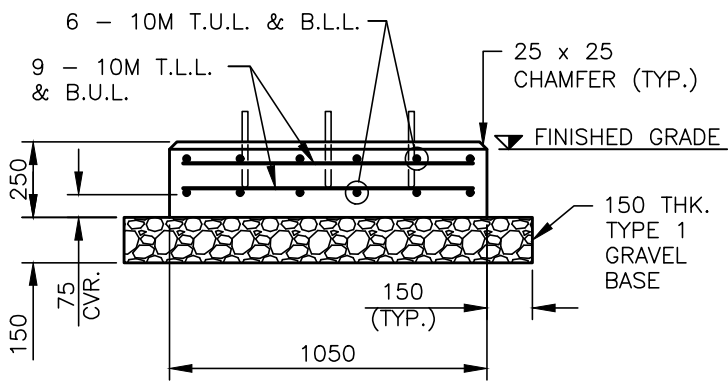
**PLAN**

1:25



**E1 ELEVATION**

1:25



**E2 ELEVATION**

1:25

**NOTES:**

1. CONCRETE 28 DAY COMPRESSIVE STRENGTH TO BE 35 MPa.
2. PROVIDE MIN. 50mm COVER FOR ALL REBAR (UNLESS NOTED OTHERWISE).
3. PROVIDE GROUNDING PLATE FOR CABINET.
4. TYPICAL STREET LIGHT POWER ENCLOSURES ARE 610mm WIDE BY 1830mm LONG BY 1830mm HIGH. THE ENCLOSURE MUST BE CENTERED ON THE CONCRETE PAD AND THE CONDUIT LAYOUT MUST ALIGN WITH THE MOUNTING BACKBOARD INSIDE THE ENCLOSURE AS PER THE TYPICAL STREET LIGHT POWER ENCLOSURE "RED BOOK" DETAILS HRM 109-HRM 111.
5. ALL CONDUIT FITTINGS AND GROUNDING SHALL BE TO CANADIAN ELECTRICAL CODE.
6. CONTROLLER CABINET ANCHORS ARE ASSUMED TO BE 6-19mm DIA. x 380mm LONG A307 GALVANIZED STEEL J-BOLTS.
7. SUITABILITY OF ANCHORS IS TO BE CONFIRMED BY EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION.
8. ALL DIMENSIONS IN MILLIMETERS.
9. REBAR TO CONFORM TO CAN/CSA G30.18-09 GRADE 400W DEFORMED BARS.
10. MAXIMUM CONDUIT DIAMETER = 150mm. PROVIDE AT LEAST 25mm CLEAR SPACE BETWEEN CONDUITS.
11. MAXIMUM NUMBER OF CONDUITS PER BASE = 10 x 150mm DIA. CONDUITS OR EQUIVALENT AREA OF SMALLER CONDUITS. (LOCALLY ADJUST REBAR SPACINGS IF NECESSARY).

<h1>HALIFAX</h1>		
<b>STANDARD DETAIL</b>		
<b>STREET LIGHTING POWER ENCLOSURE BASE</b>		
DATE:	REFERENCE	APPROVED
2021		
SCALE:		FIG No.:
AS NOTED		HRM 177