HALIFAX REGIONAL MUNICIPALITY

MUNICIPAL
DESIGN GUIDELINES
2013

PART B

STANDARD DETAILS

HALIFAX
REGIONAL MUNICIPALITY

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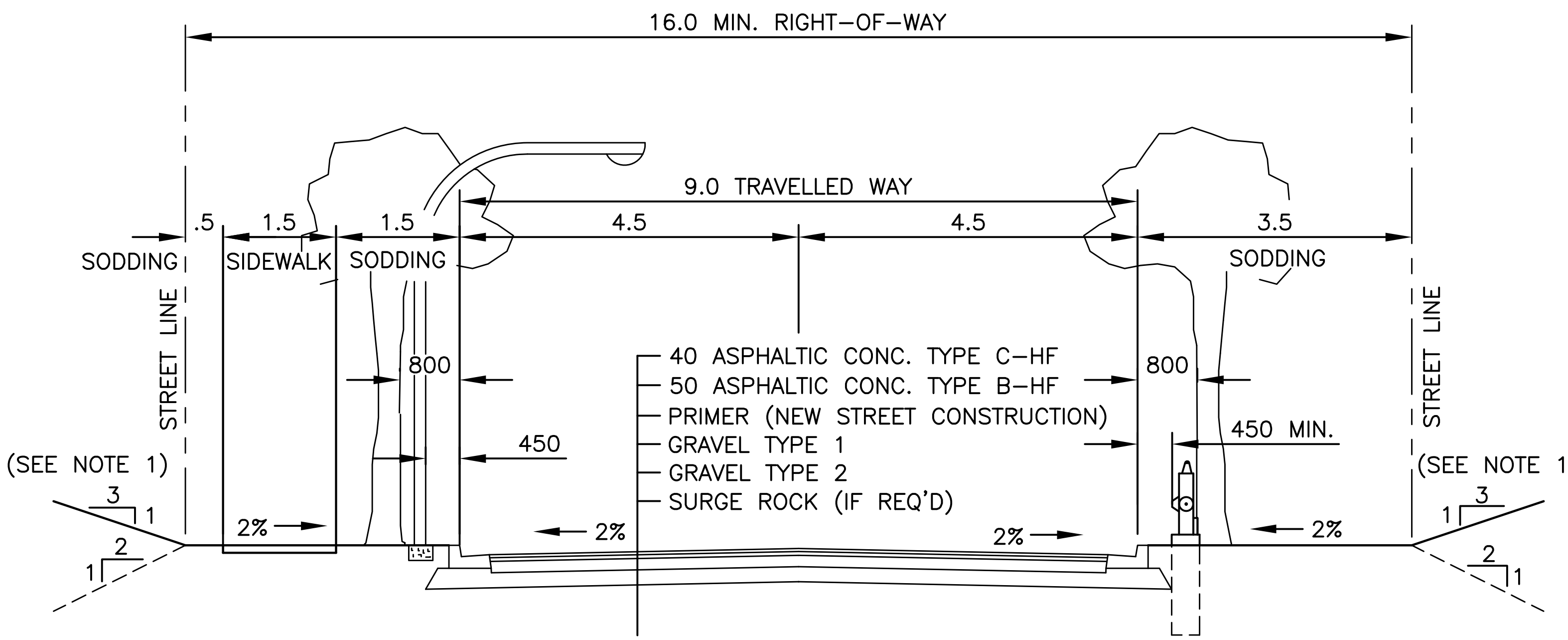


CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.
2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	150	500	0
SILT/CLAY, OPTION 2	150	250	400
GRANULAR TILL	150	300	0
ROCK FILL	150	150	0

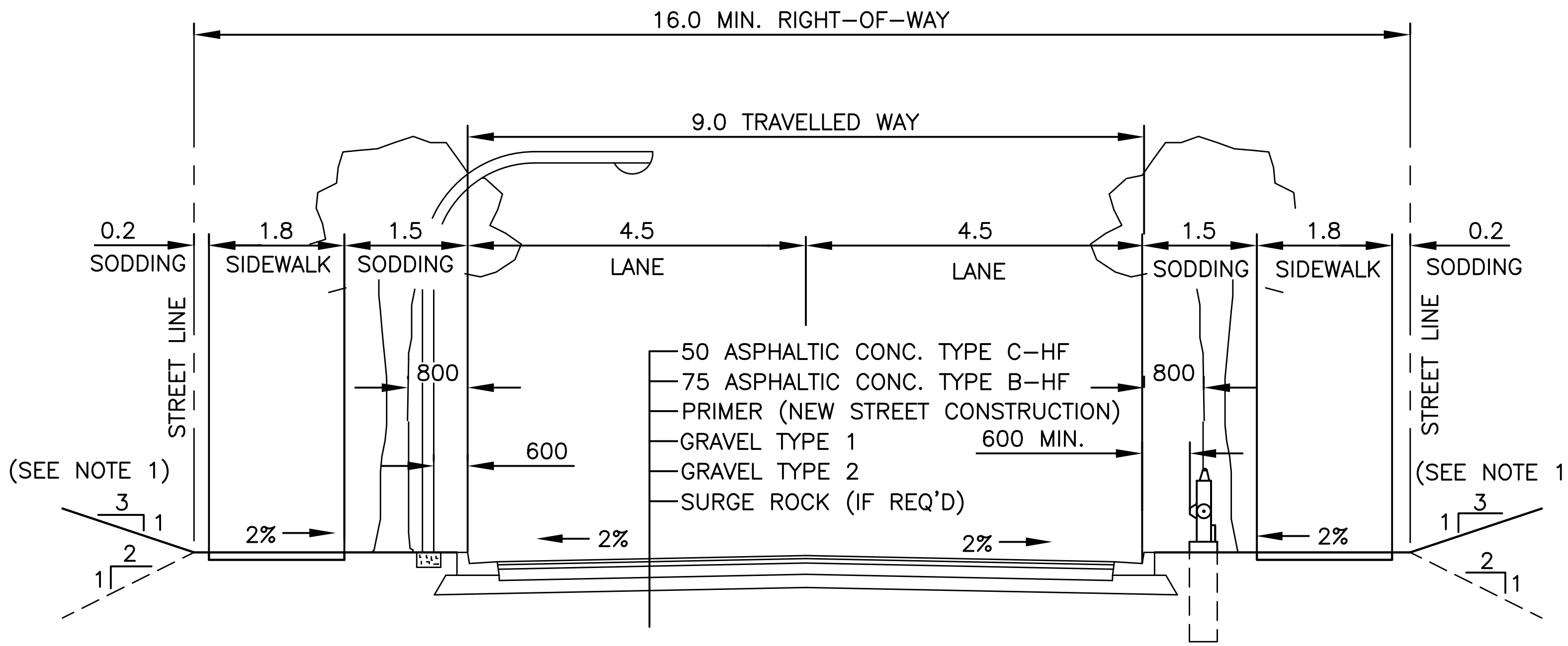
3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

16.0 m URBAN LOCAL

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 1



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	150	600	0
SILT/CLAY, OPTION 2	150	350	400
GRANULAR TILL	150	400	0
ROCK FILL	150	300	0

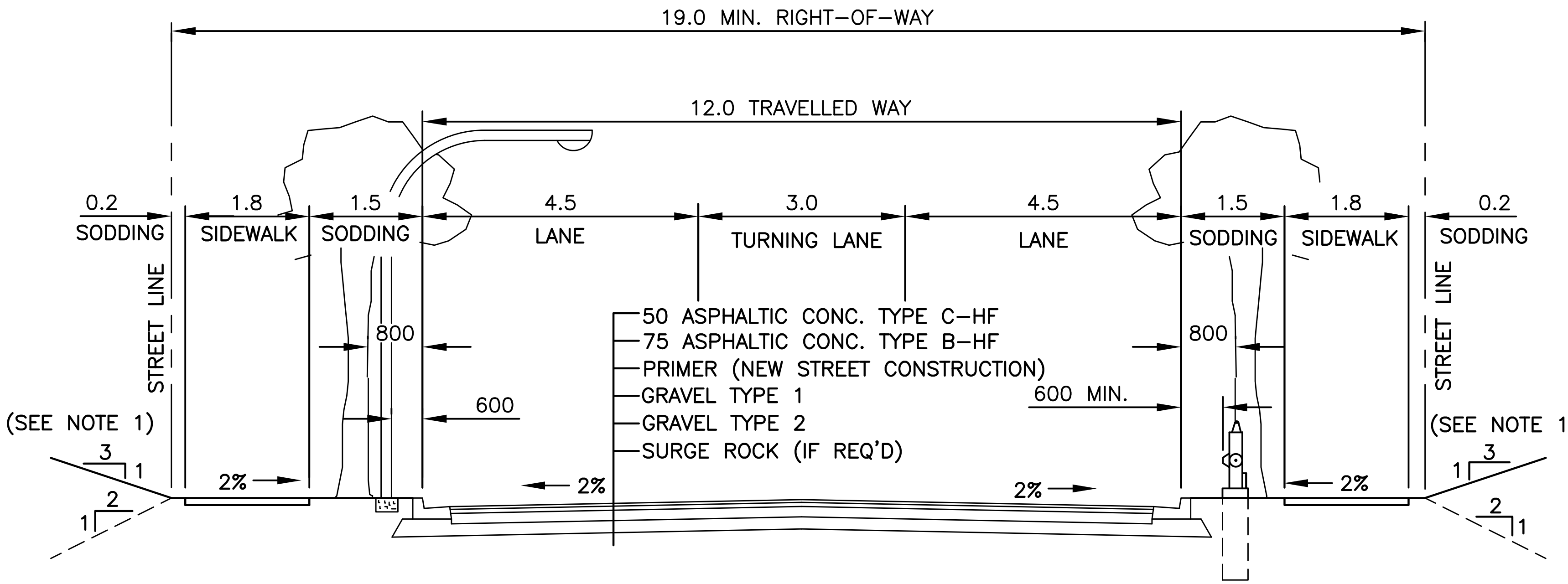
3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

16.0 m URBAN MINOR COLLECTOR

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 2



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.
2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	150	600	0
SILT/CLAY, OPTION 2	150	350	400
GRANULAR TILL	150	400	0
ROCK FILL	150	300	0

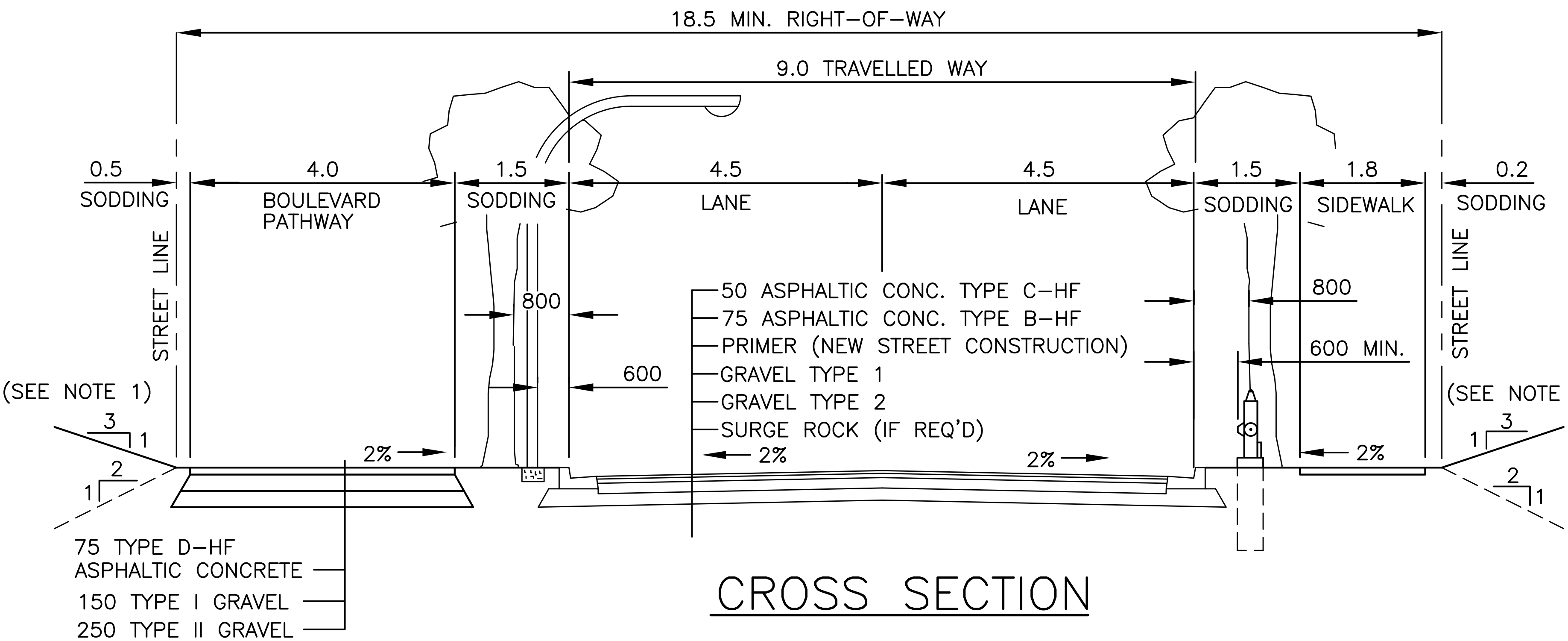
3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

19.0 m URBAN
MINOR COLLECTOR
WITH TURNING LANE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 3



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	150	600	0
SILT/CLAY, OPTION 2	150	350	400
GRANULAR TILL	150	400	0
ROCK FILL	150	300	0

3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

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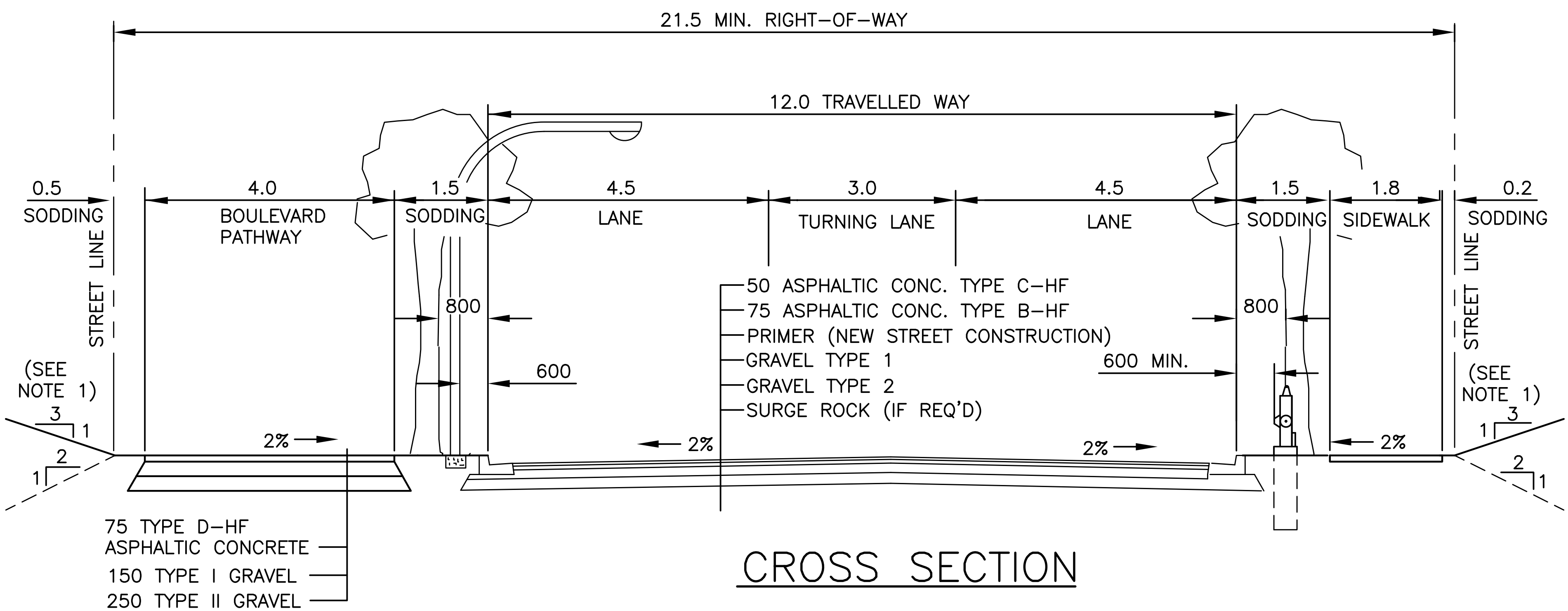
STANDARD DETAIL

ACTIVE TRANSPORTATION 18.5m URBAN MINOR COLLECTOR

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 4



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.
2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS

SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	150	600	0
SILT/CLAY, OPTION 2	150	350	400
GRANULAR TILL	150	400	0
ROCK FILL	150	300	0

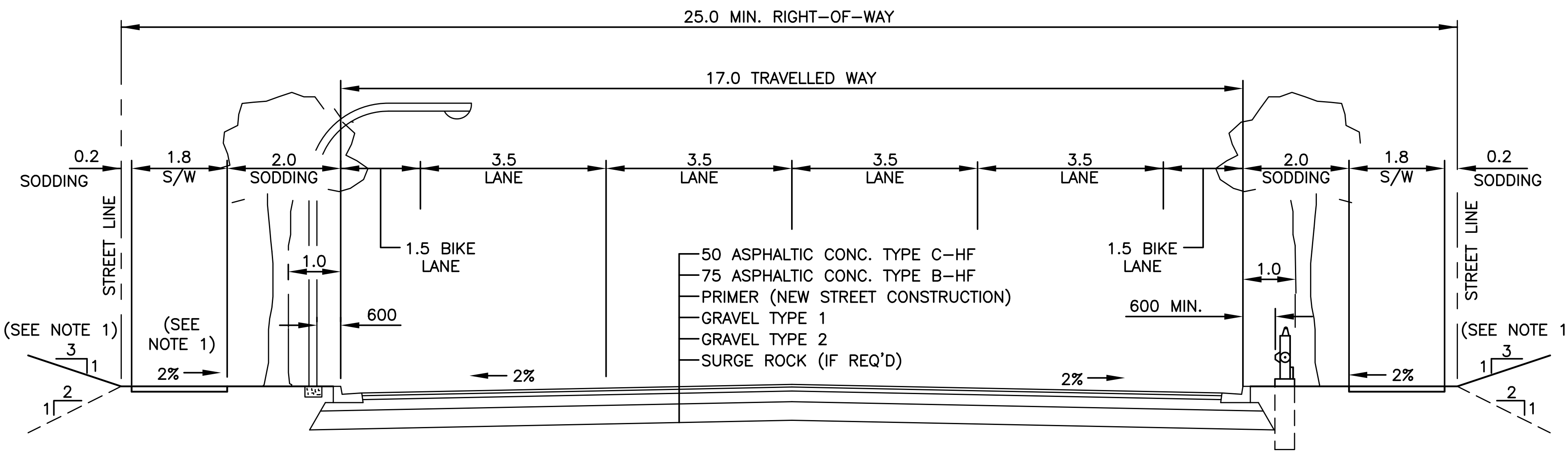
3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

ACTIVE TRANSPORTATION 21.5 m URBAN MINOR COLLECTOR WITH TURNING LANE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 5



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	650	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	500	0
ROCK FILL	200	300	0

3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

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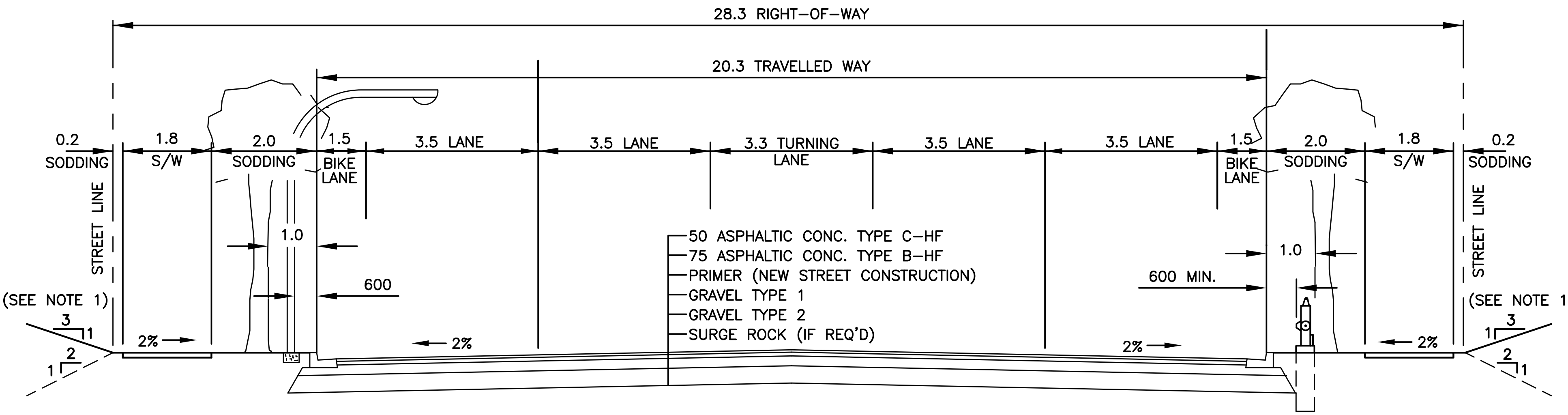
STANDARD DETAIL

25.0 m URBAN MAJOR COLLECTOR

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 6



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	650	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	500	0
ROCK FILL	200	300	0

3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

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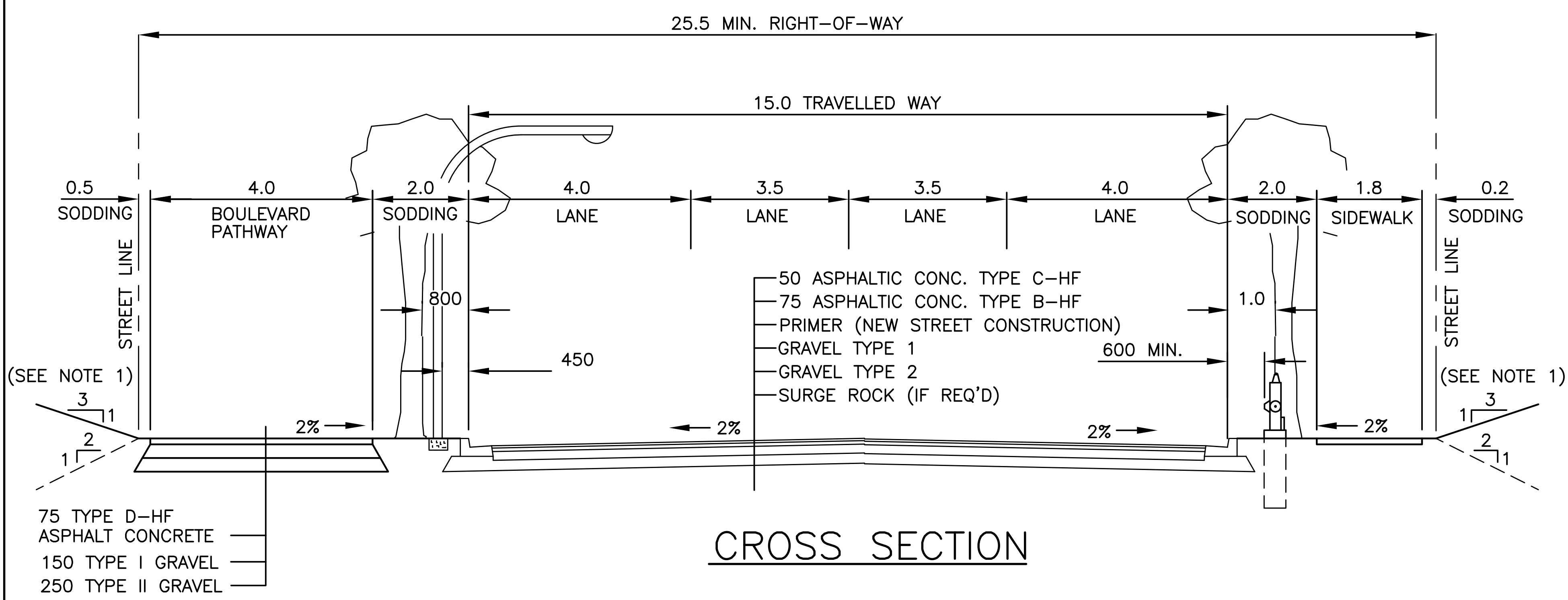
STANDARD DETAIL

28.3 m URBAN MAJOR COLLECTOR WITH TURNING LANE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 7



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.
2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	650	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	500	0
ROCK FILL	200	300	0

3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

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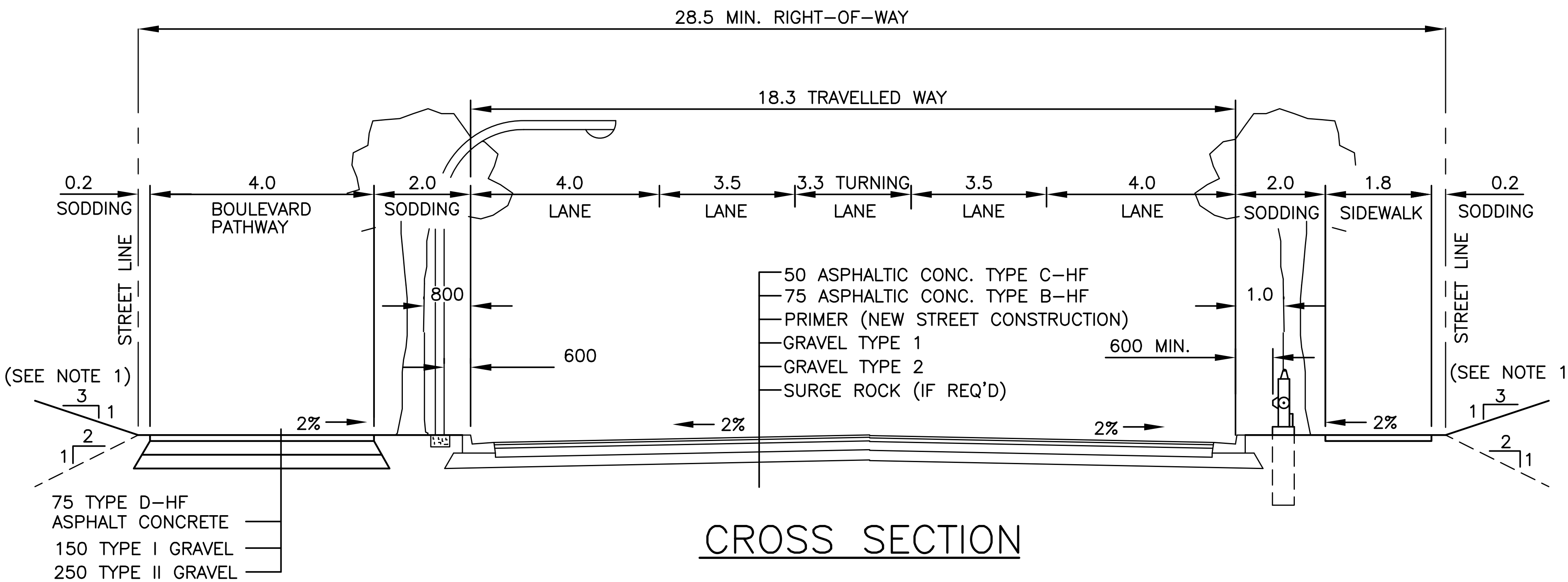
STANDARD DETAIL

ACTIVE TRANSPORTATION 25.5m URBAN MAJOR COLLECTOR

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 8



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	650	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	500	0
ROCK FILL	200	300	0

3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

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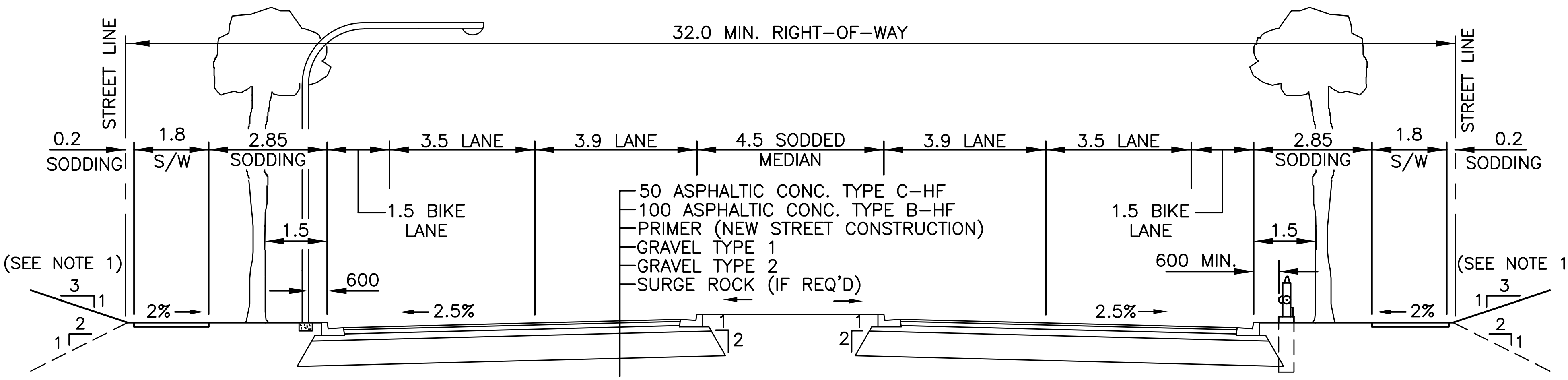
STANDARD DETAIL

ACTIVE TRANSPORTATION 28.5m URBAN MAJOR COLLECTOR WITH TURNING LANE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 9



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	725	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	550	0
ROCK FILL	200	350	0

3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

4) SLOPE GUTTER PLATE OF MEDIAN CURB AND GUTTER TO MATCH CROSS SLOPE OF PAVEMENT.

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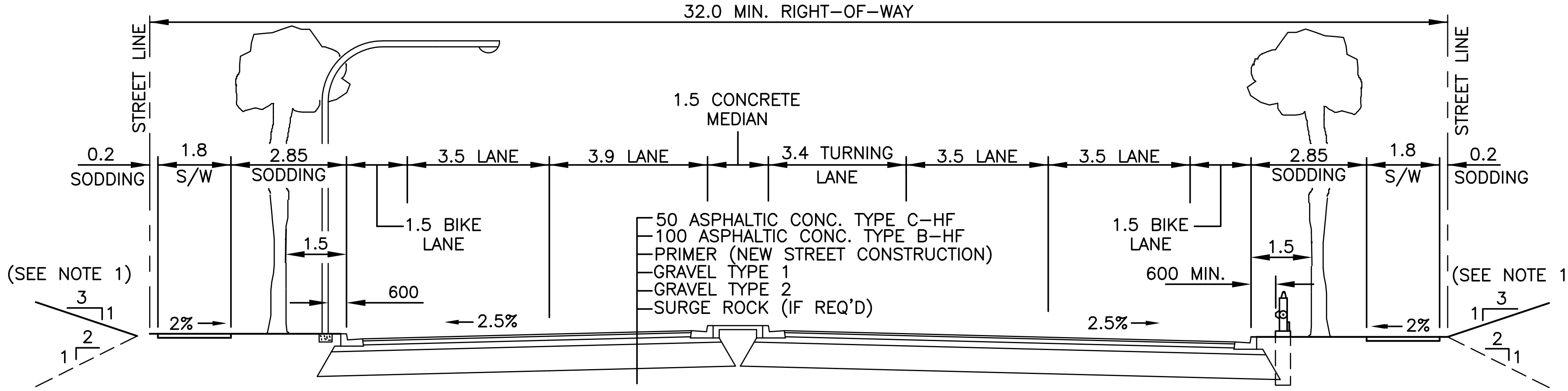
STANDARD DETAIL

32.0 m URBAN ARTERIAL

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 10



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	725	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	550	0
ROCK FILL	200	350	0

3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

4) SLOPE GUTTER PLATE OF MEDIAN CURB AND GUTTER TO MATCH CROSS SLOPE OF PAVEMENT.

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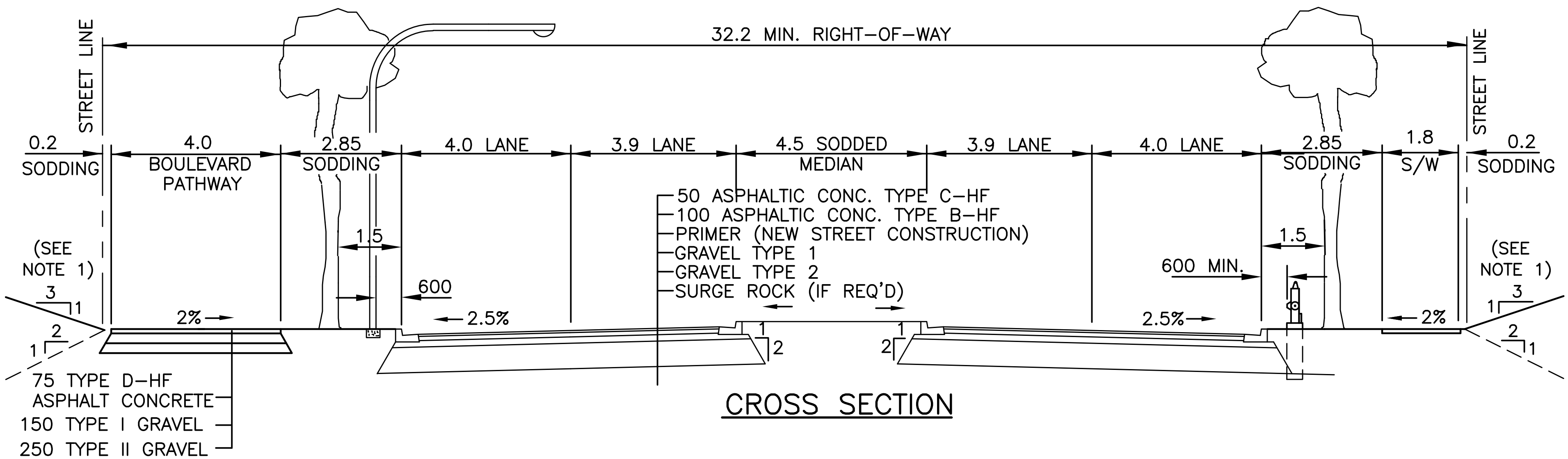
STANDARD DETAIL

32.0 m URBAN ARTERIAL WITH TURNING LANE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 11



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	725	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	550	0
ROCK FILL	200	350	0

3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

4) SLOPE GUTTER PLATE OF MEDIAN CURB AND GUTTER TO MATCH CROSS SLOPE OF PAVEMENT.

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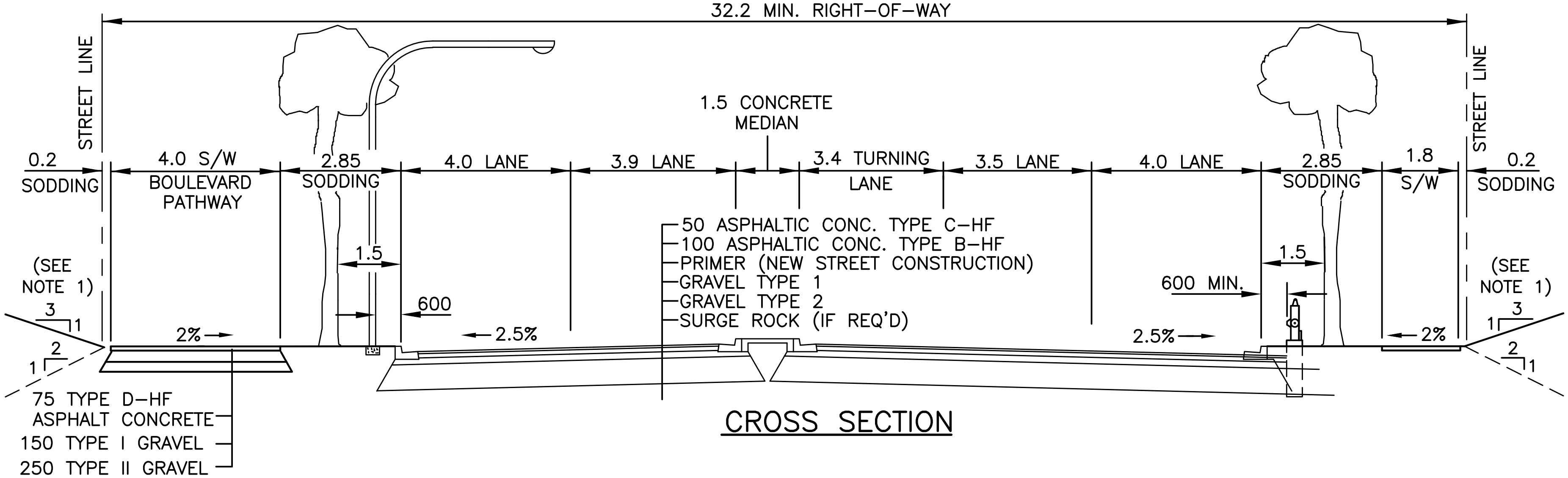
STANDARD DETAIL

ACTIVE TRANSPORTATION
32.2 m URBAN ARTERIAL

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 12



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	725	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	550	0
ROCK FILL	200	350	0

3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

4) SLOPE GUTTER PLATE OF MEDIAN CURB AND GUTTER TO MATCH CROSS SLOPE OF PAVEMENT.

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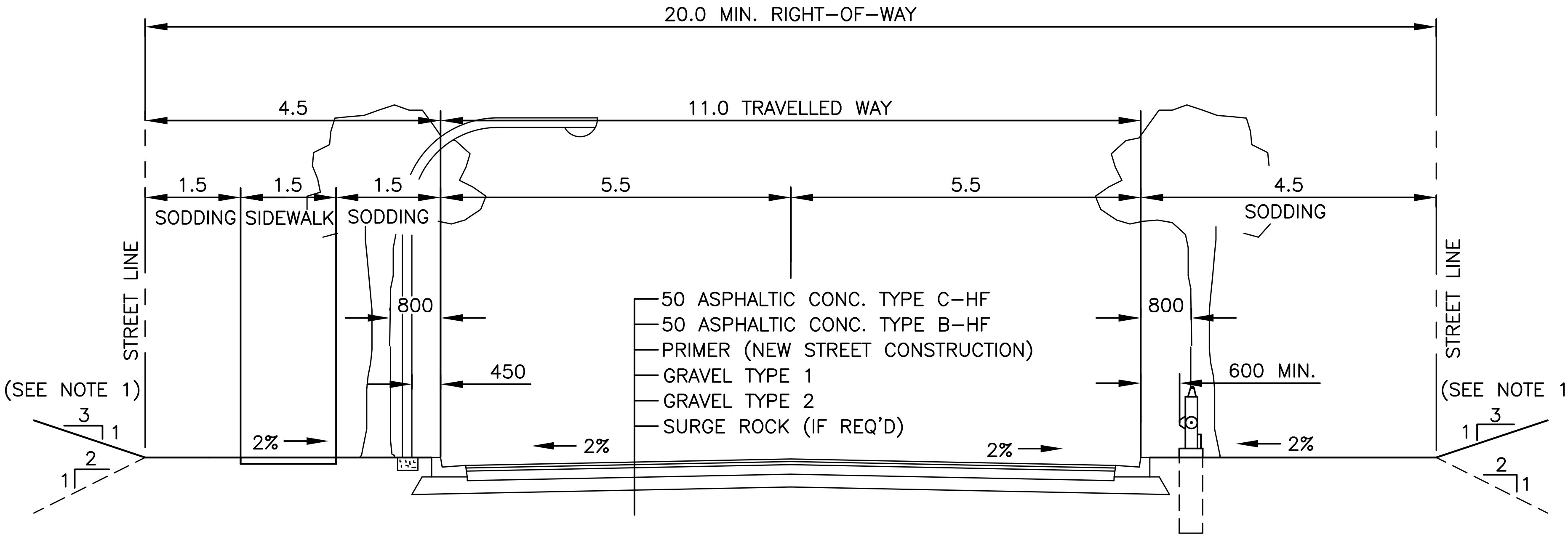
STANDARD DETAIL

ACTIVE TRANSPORTATION 32.2 m URBAN ARTERIAL WITH TURNING LANE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 13



CROSS SECTION

NOTE:

1) ADDITIONAL ROADBED AND SLOPE STABILIZATION AS REQUIRED BY GEOTECHNICAL REPORT.

2) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE. (SEE TABLE BELOW)

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	150	600	0
SILT/CLAY, OPTION 2	150	400	500
GRANULAR TILL	150	500	0
ROCK FILL	150	300	0

3) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

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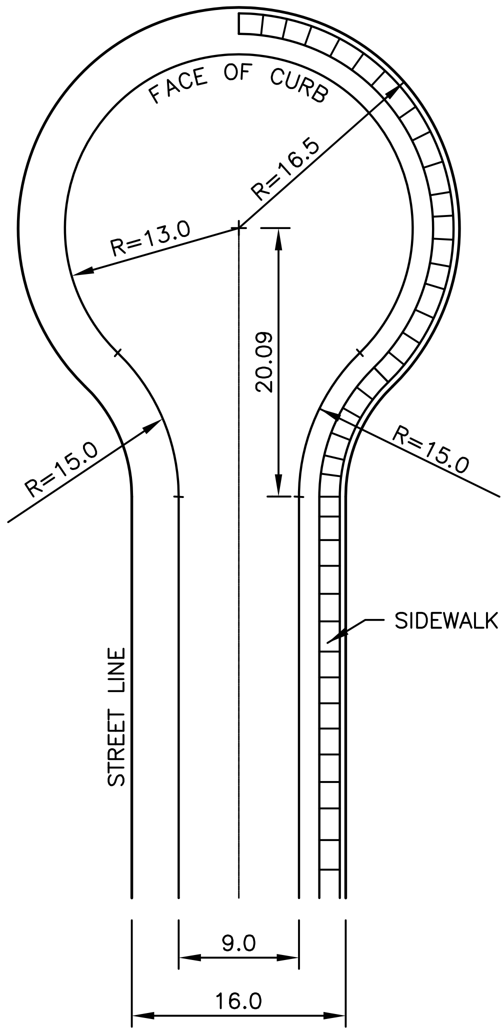
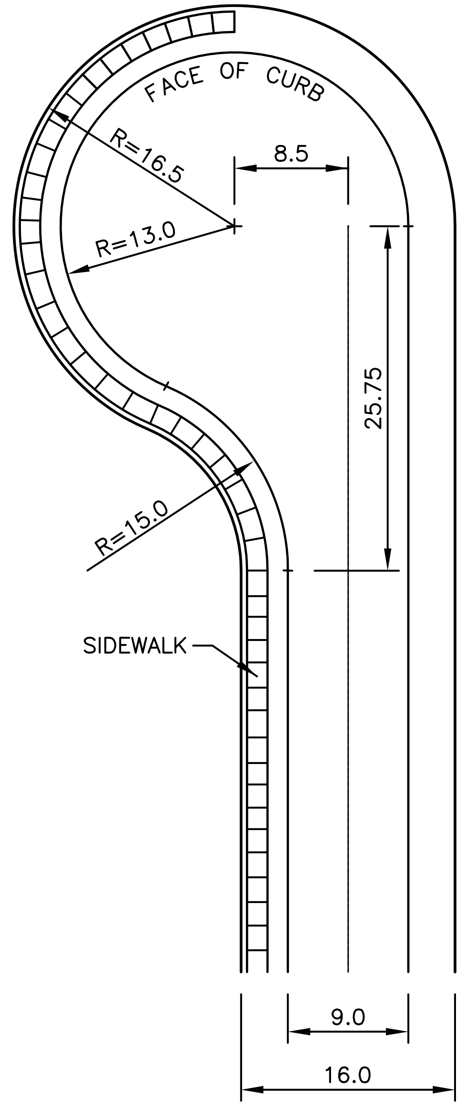
STANDARD DETAIL

20.0 m URBAN LOCAL INDUSTRIAL

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 14



TYPE 1
SYMMETRICAL CUL-DE-SAC



TYPE 2
LEFT OFFSET CUL-DE-SAC

NOTE:
RIGHT OFFSET CUL-DE-SAC ARE ALSO PERMITTED

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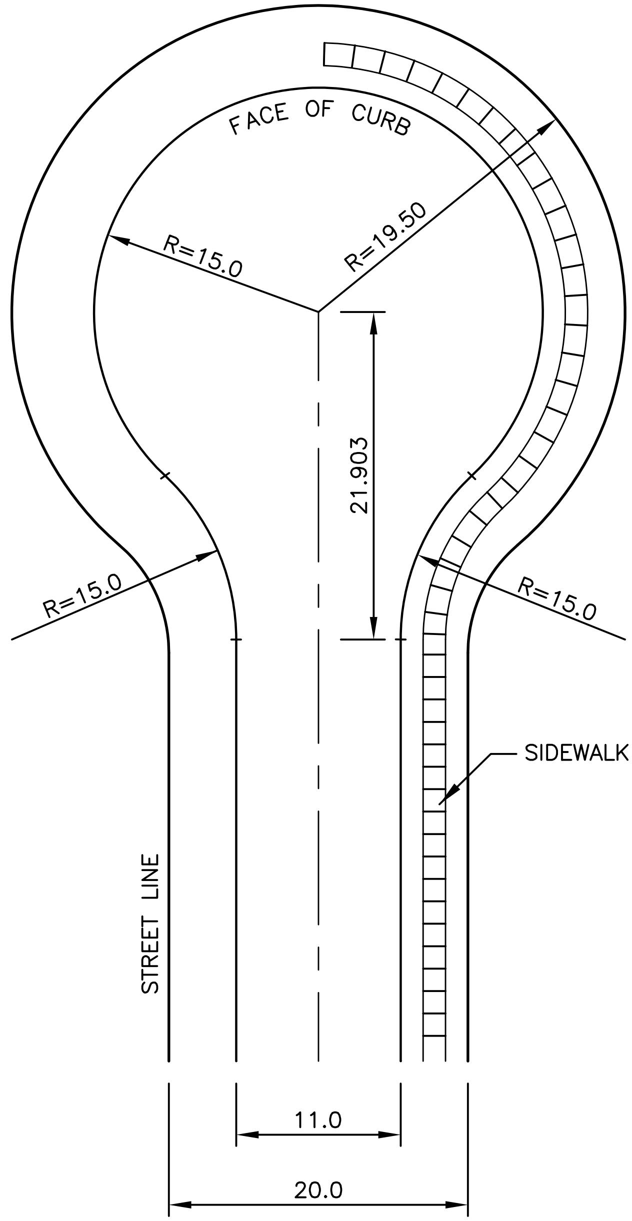
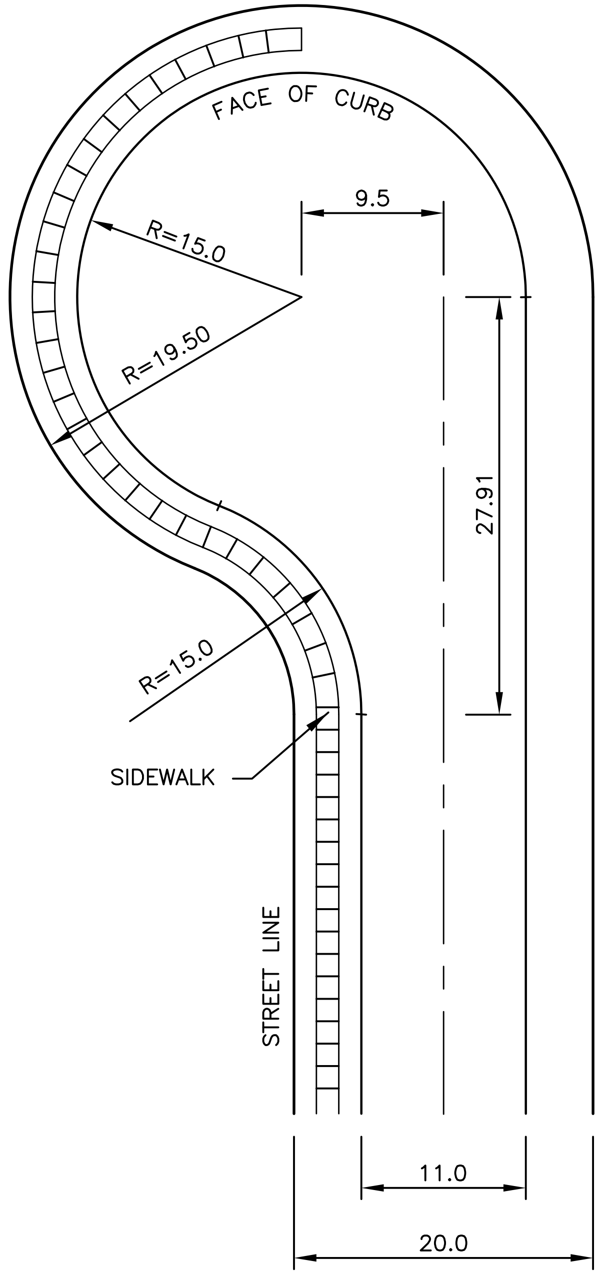
STANDARD DETAIL

URBAN LOCAL CUL-DE-SAC

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 15



SYMMETRICAL CUL-DE-SAC



LEFT OFFSET CUL-DE-SAC

NOTE:
RIGHT OFFSET CUL-DE-SAC ARE ALSO PERMITTED

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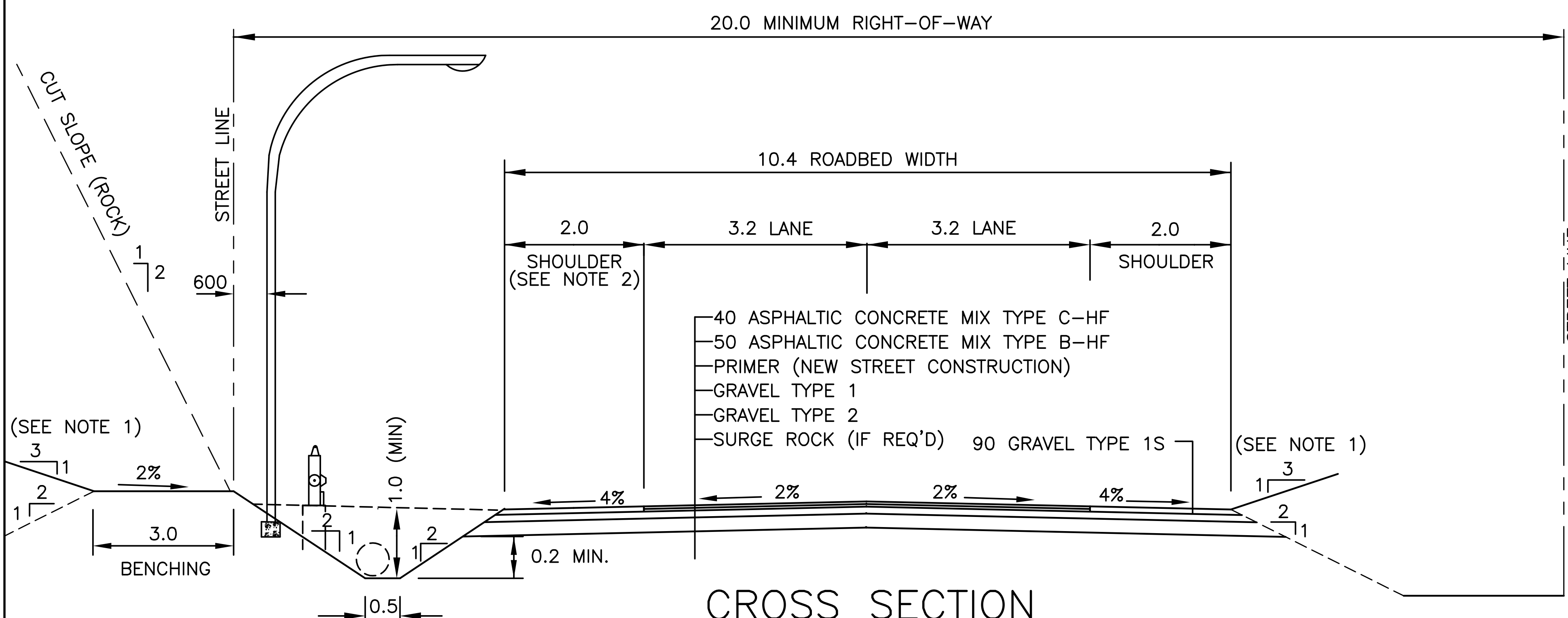
STANDARD DETAIL

URBAN INDUSTRIAL
CUL-DE-SAC

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 16



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) FOR ALL RURAL ROADS HAVING A GRADE EXCEEDING 7%, ASPHALT SWALES ARE REQUIRED ON EACH SIDE OF THE ROAD (ABUTTING THE ASPHALT TRAVELLED WAY) WITH AN ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m.

3) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE (SEE TABLE BELOW).

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	150	500	0
SILT/CLAY, OPTION 2	150	250	400
GRANULAR TILL	150	300	0
ROCK FILL	150	150	0

4) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

5) FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.

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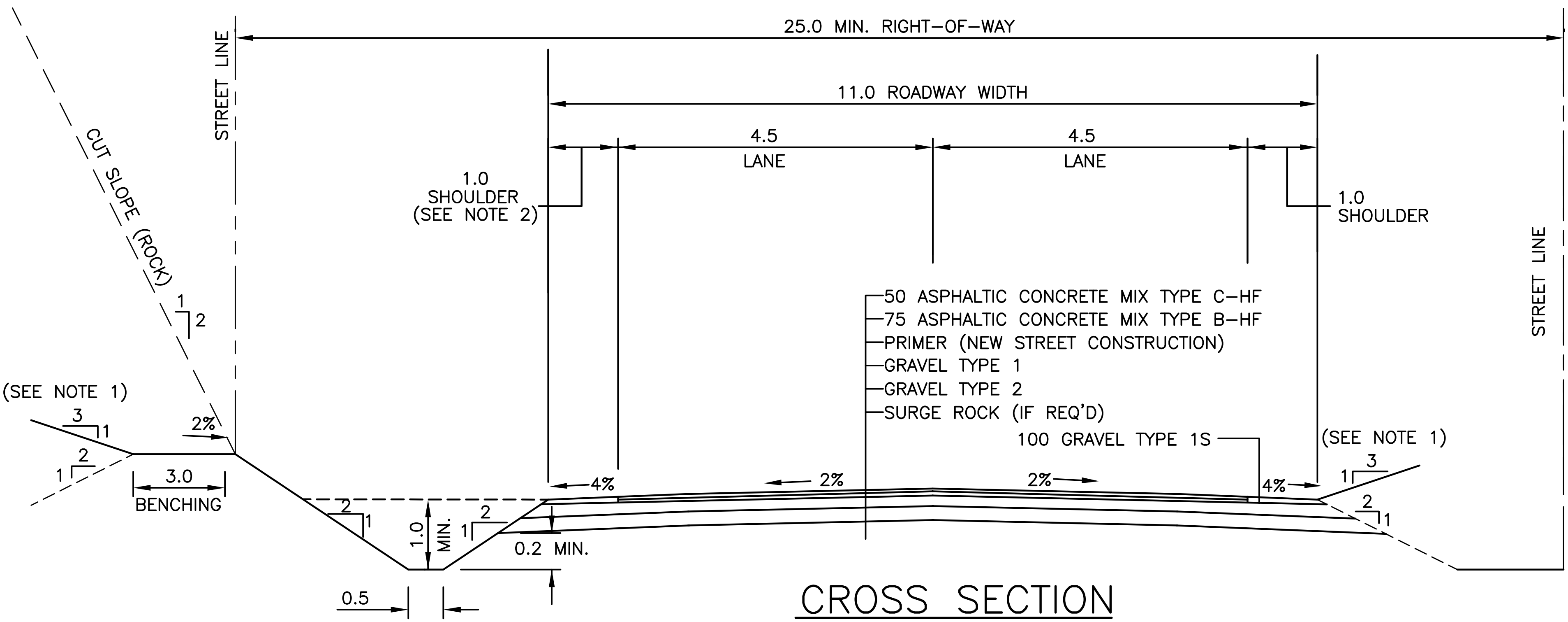
STANDARD DETAIL

20.0 m RURAL LOCAL

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 17



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) FOR ALL RURAL ROADS HAVING A GRADE EXCEEDING 7%, ASPHALT SWALES ARE REQUIRED ON EACH SIDE OF THE ROAD (ABUTTING THE ASPHALT TRAVELLED WAY) WITH AN ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m.

3) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE (SEE TABLE BELOW).

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	150	600	0
SILT/CLAY, OPTION 2	150	350	400
GRANULAR TILL	150	400	0
ROCK FILL	150	300	0

4) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

5) FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.

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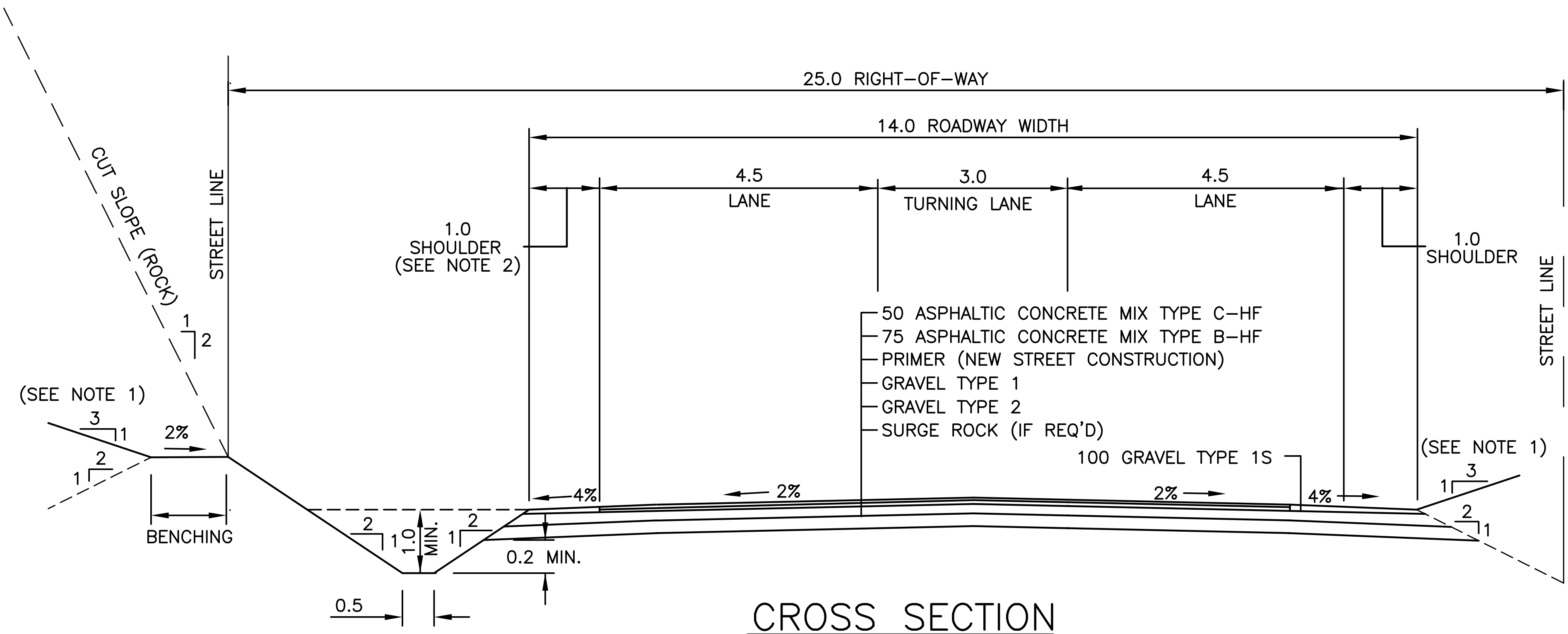
STANDARD DETAIL

25.0 m RURAL MINOR COLLECTOR

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 18



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) FOR ALL RURAL ROADS HAVING A GRADE EXCEEDING 7%, ASPHALT SWALES ARE REQUIRED ON EACH SIDE OF THE ROAD (ABUTTING THE ASPHALT TRAVELLED WAY) WITH AN ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m.

3) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE (SEE TABLE BELOW).

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	150	600	0
SILT/CLAY, OPTION 2	150	350	400
GRANULAR TILL	150	400	0
ROCK FILL	150	300	0

4) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

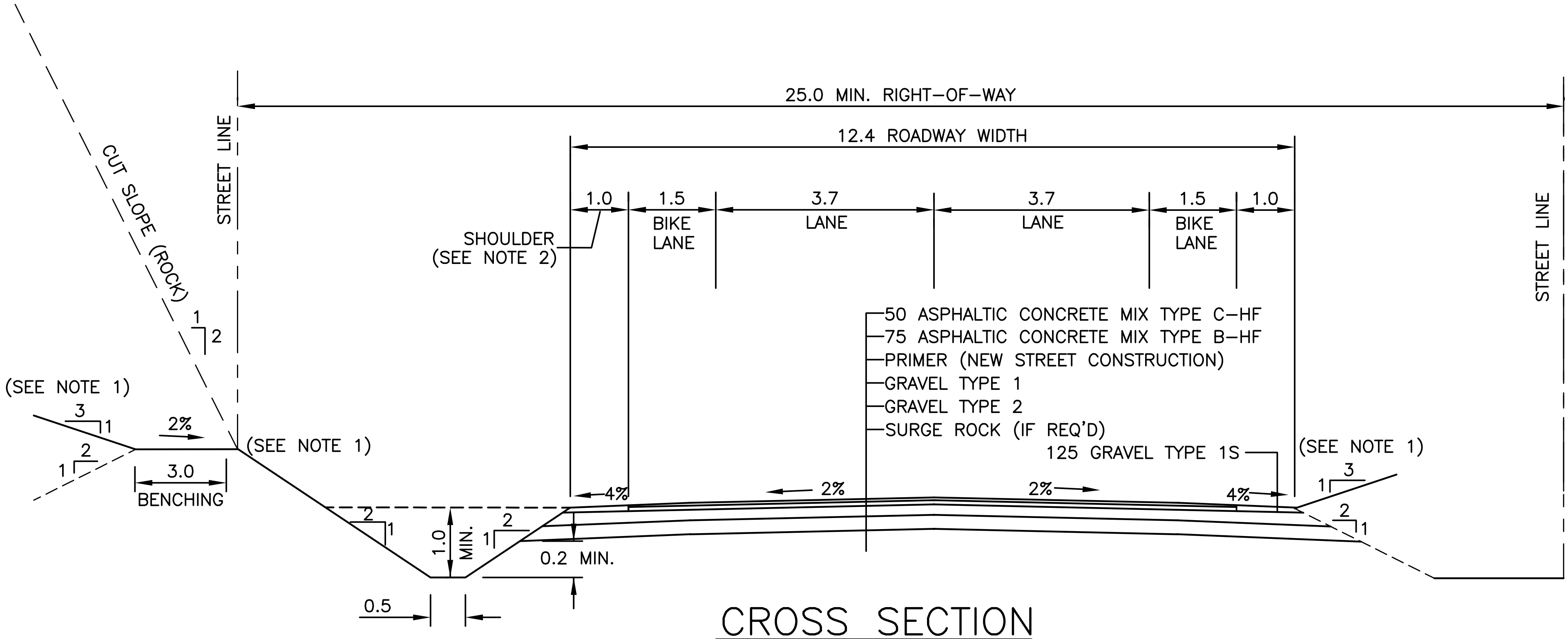
5) FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

25.0 m RURAL MINOR COLLECTOR WITH TURNING LANE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 19



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) FOR ALL RURAL ROADS HAVING A GRADE EXCEEDING 7%, ASPHALT SWALES ARE REQUIRED ON EACH SIDE OF THE ROAD (ABUTTING THE ASPHALT TRAVELLED WAY) WITH AN ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m.

3) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE (SEE TABLE BELOW).

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	650	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	500	0
ROCK FILL	200	300	0

4) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

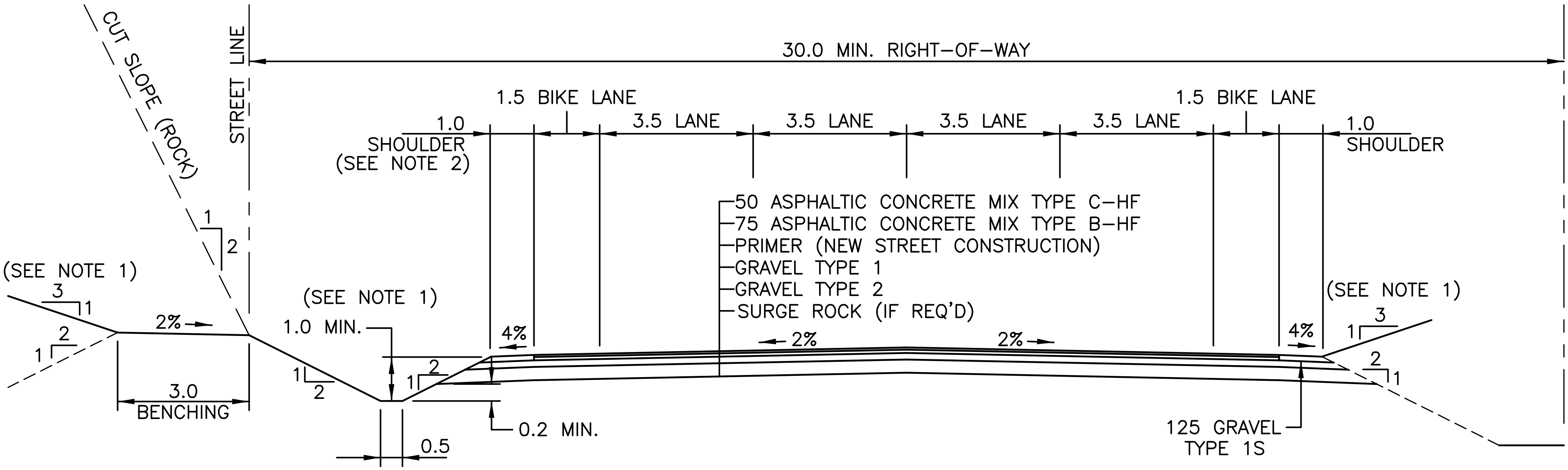
5) FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

25.0 m RURAL MAJOR COLLECTOR

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 20



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) FOR ALL RURAL ROADS HAVING A GRADE EXCEEDING 7%, ASPHALT SWALES ARE REQUIRED ON EACH SIDE OF THE ROAD (ABUTTING THE ASPHALT TRAVELLED WAY) WITH AN ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m.

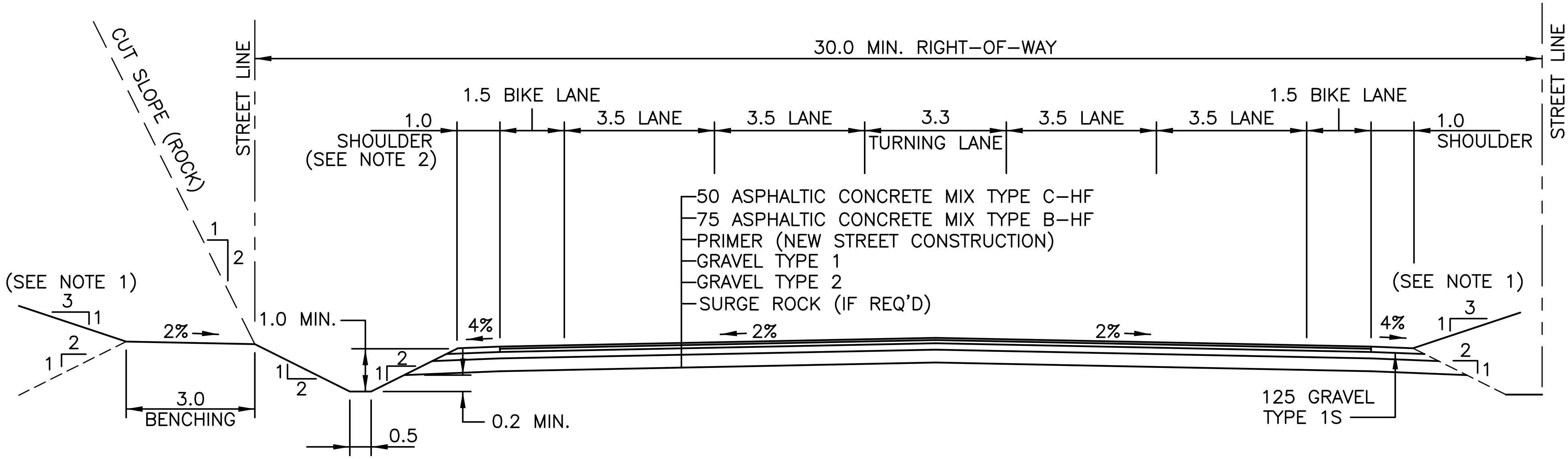
3) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE (SEE TABLE BELOW).

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	650	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	500	0
ROCK FILL	200	300	0

4) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

5) FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.

HALIFAX REGIONAL MUNICIPALITY		
STANDARD DETAIL		
30.0 m RURAL MAJOR COLLECTOR		
DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 21



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) FOR ALL RURAL ROADS HAVING A GRADE EXCEEDING 7%, ASPHALT SWALES ARE REQUIRED ON EACH SIDE OF THE ROAD (ABUTTING THE ASPHALT TRAVELLED WAY) WITH AN ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m.

3) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE (SEE TABLE BELOW).

ROADBED GRAVELS

SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	650	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	500	0
ROCK FILL	200	300	0

4) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

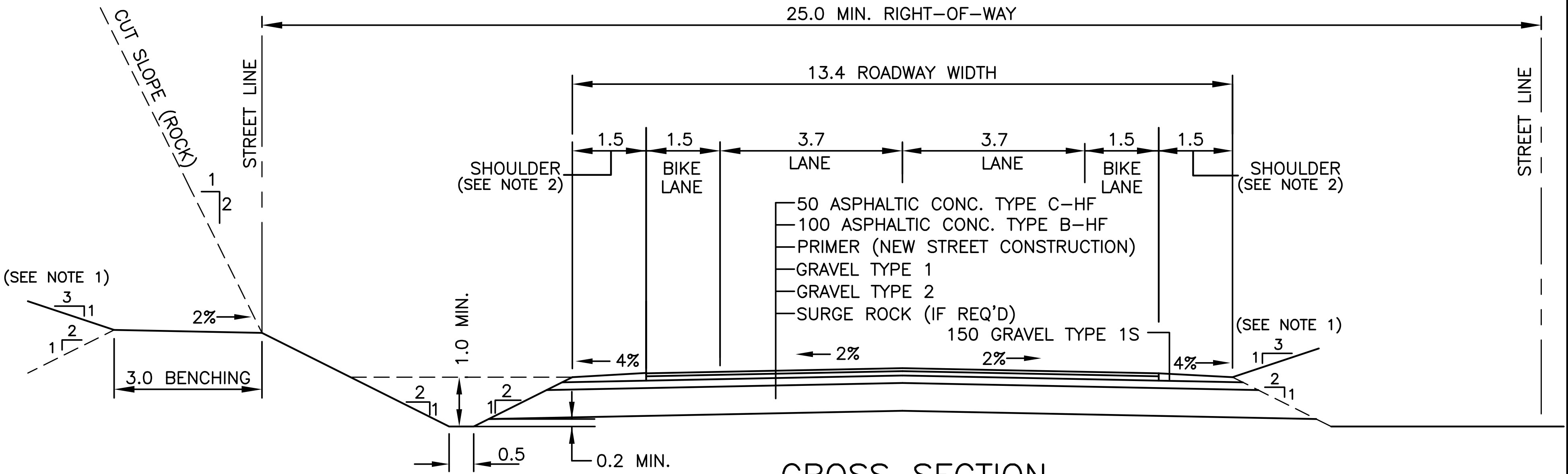
5) FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

30.0 m RURAL MAJOR COLLECTOR WITH TURNING LANE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 22



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) FOR ALL RURAL ROADS HAVING A GRADE EXCEEDING 7%, ASPHALT SWALES ARE REQUIRED ON EACH SIDE OF THE ROAD (ABUTTING THE ASPHALT TRAVELLED WAY) WITH AN ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m.

3) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE (SEE TABLE BELOW).

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	725	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	550	0
ROCK FILL	200	350	0

4) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

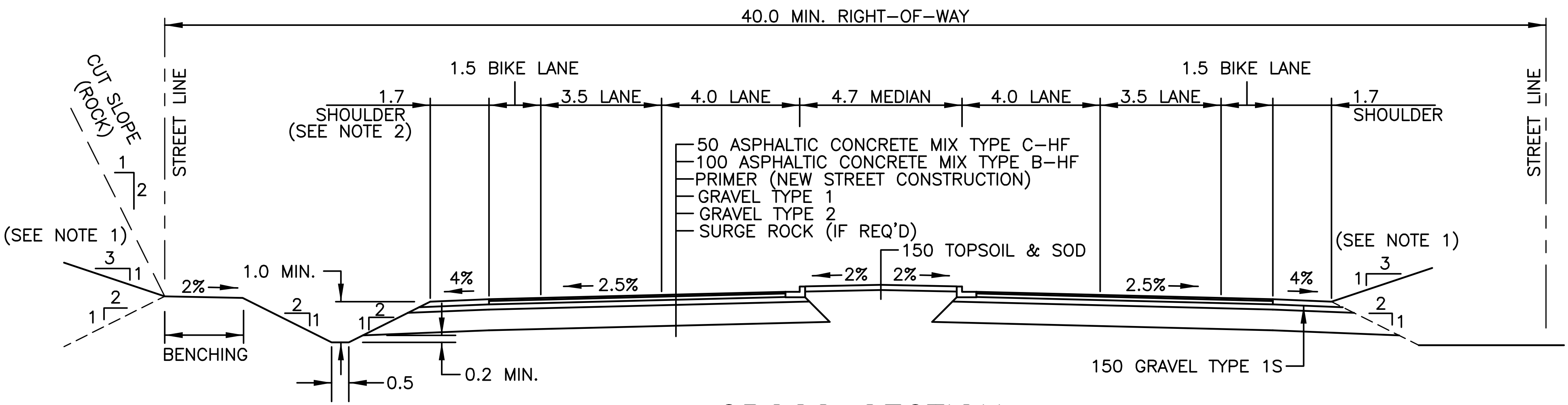
5) FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

25.0 m RURAL ARTERIAL

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 23



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) FOR ALL RURAL ROADS HAVING A GRADE EXCEEDING 7%, ASPHALT SWALES ARE REQUIRED ON EACH SIDE OF THE ROAD (ABUTTING THE ASPHALT TRAVELLED WAY) WITH AN ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m.

3) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE (SEE TABLE BELOW).

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	725	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	550	0
ROCK FILL	200	350	0

4) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

5) SLOPE GUTTER PLATE OF MEDIAN CURB AND GUTTER TO MATCH CROSS SLOPE OF PAVEMENT.

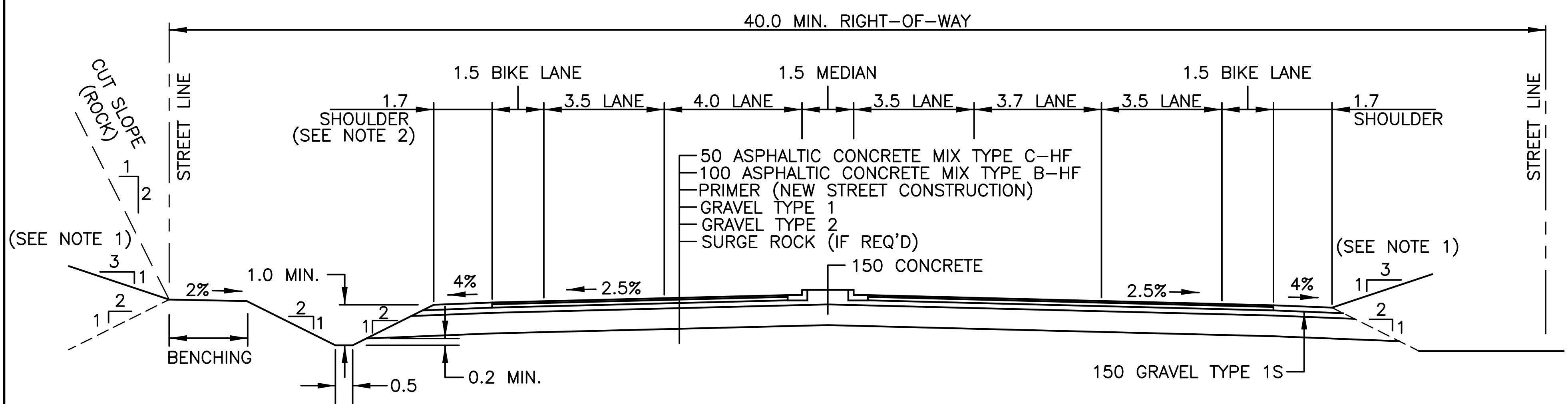
6) FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

40.0 m RURAL ARTERIAL

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 24



CROSS SECTION

NOTES:

1) ADDITIONAL SLOPE STABILIZATION AS PER GEOTECHNICAL REPORT.

2) FOR ALL RURAL ROADS HAVING A GRADE EXCEEDING 7%, ASPHALT SWALES ARE REQUIRED ON EACH SIDE OF THE ROAD (ABUTTING THE ASPHALT TRAVELLED WAY) WITH AN ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m.

3) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE (SEE TABLE BELOW).

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	200	725	0
SILT/CLAY, OPTION 2	200	450	500
GRANULAR TILL	200	550	0
ROCK FILL	200	350	0

4) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

5) SLOPE GUTTER PLATE OF MEDIAN CURB AND GUTTER TO MATCH CROSS SLOPE OF PAVEMENT.

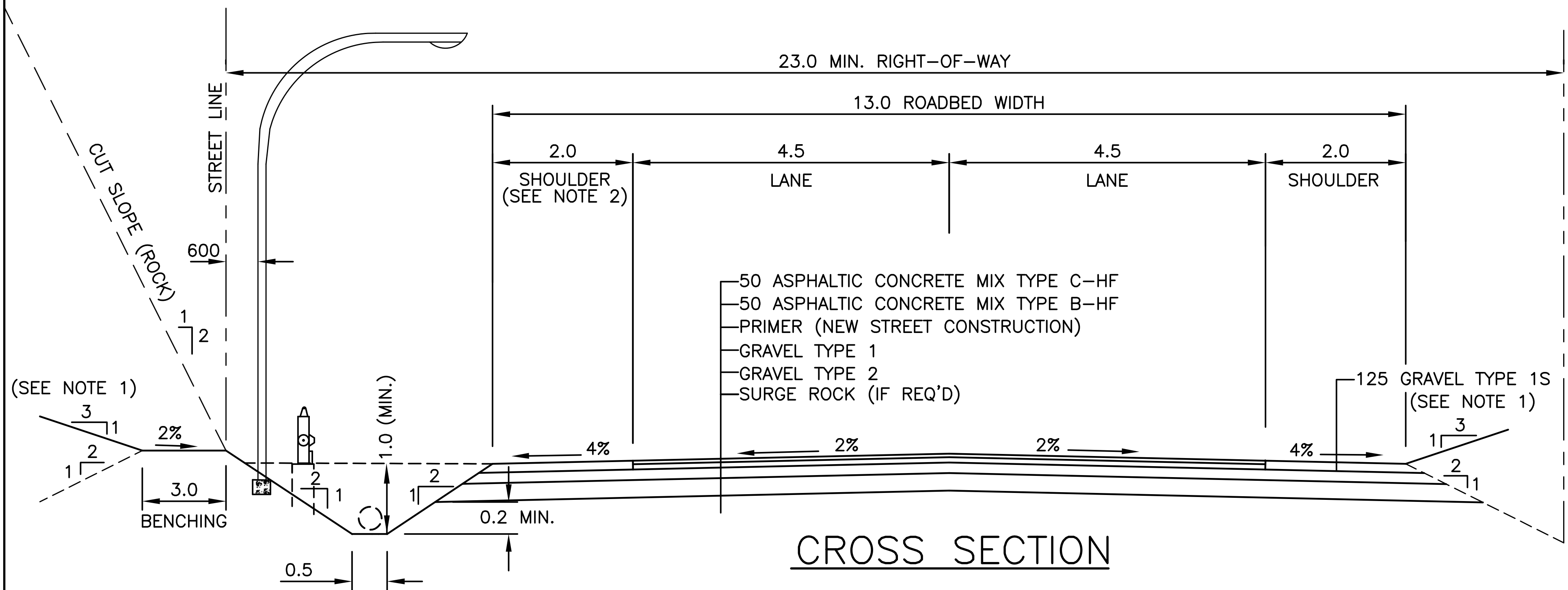
6) FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

40.0 m RURAL ARTERIAL WITH TURNING LANE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 25



CROSS SECTION

NOTES:

1) ADDITIONAL ROADBED AND SLOPE STABILIZATION AS REQUIRED BY GEOTECHNICAL REPORT.

2) FOR ALL RURAL ROADS HAVING A GRADE EXCEEDING 7%, ASPHALT SWALES ARE REQUIRED ON EACH SIDE OF THE ROAD (ABUTTING THE ASPHALT TRAVELLED WAY) WITH AN ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m.

3) MINIMUM TYPE 2 GRAVEL THICKNESS. A GEOTECHNICAL REPORT IS REQUIRED TO DETERMINE THE SUBGRADE TYPE FOR THE PAVEMENT STRUCTURE (SEE TABLE BELOW).

ROADBED GRAVELS			
SUBGRADE TYPE	TYPE 1	TYPE 2	SURGE ROCK
SILT/CLAY, OPTION 1	150	600	0
SILT/CLAY, OPTION 2	150	400	500
GRANULAR TILL	150	500	0
ROCK FILL	150	300	0

4) ASPHALT DESIGN, SPECIFYING TYPE AND THICKNESS OF ASPHALTIC CONCRETE REQUIRED, MAY BE CONSIDERED.

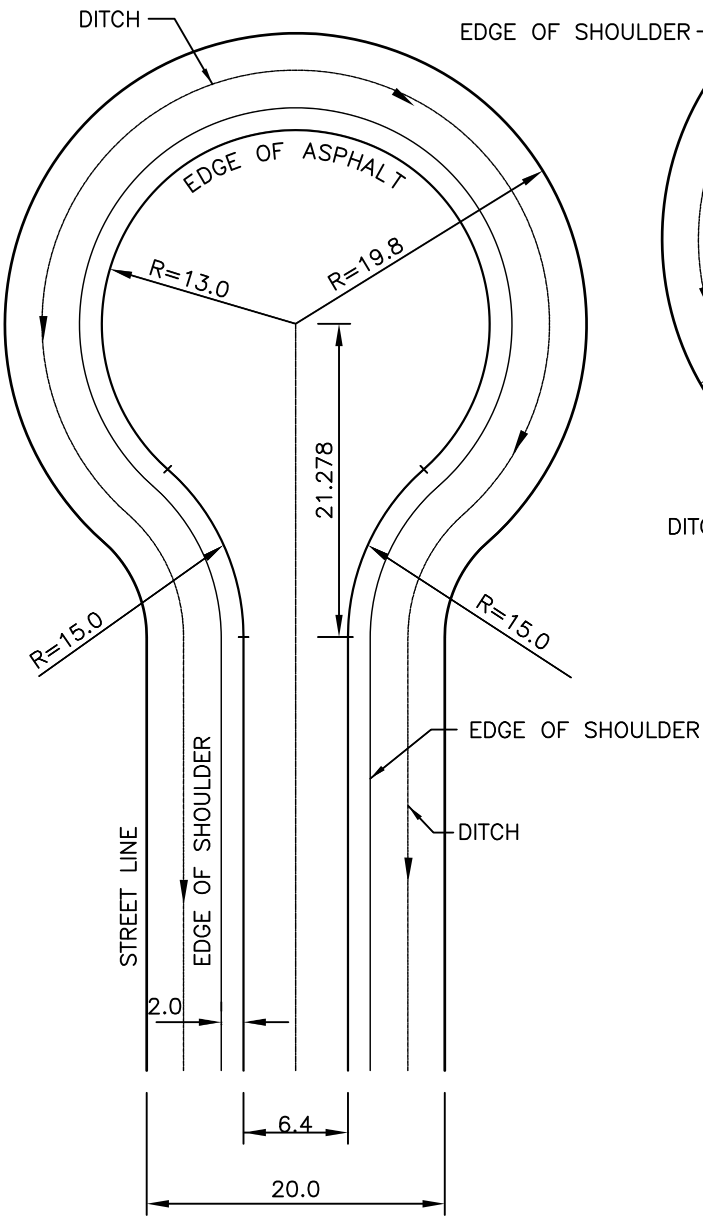
5) FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.

HALIFAX
REGIONAL MUNICIPALITY

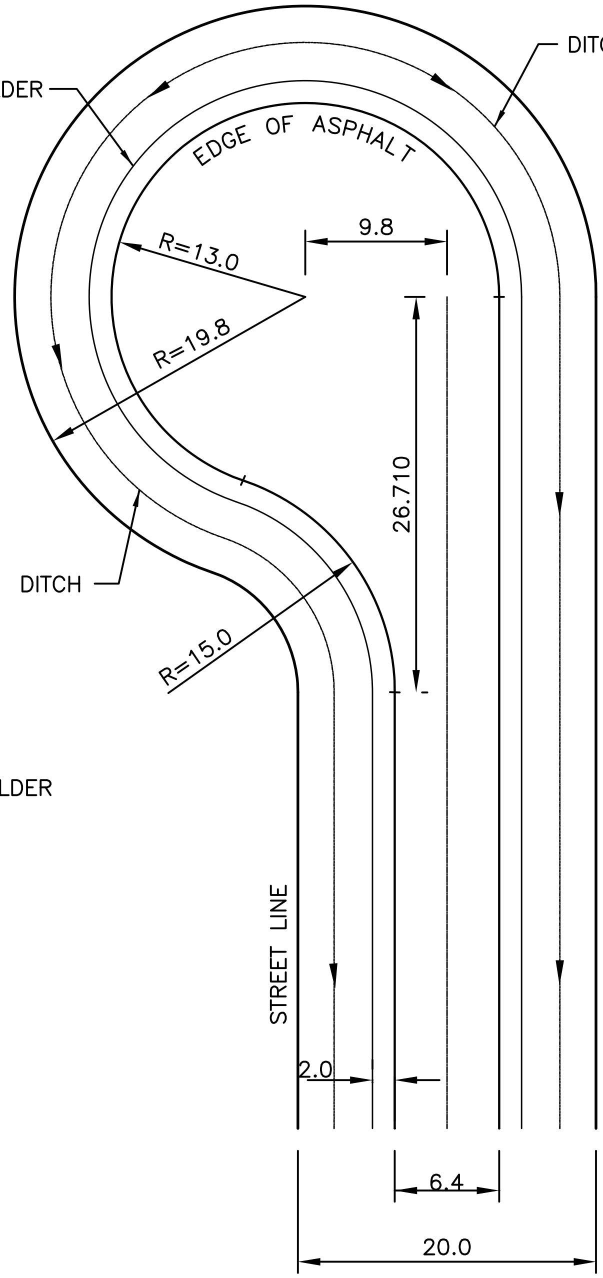
STANDARD DETAIL

23.0 m RURAL INDUSTRIAL

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 26



SYMMETRICAL CUL-DE-SAC



LEFT OFFSET CUL-DE-SAC

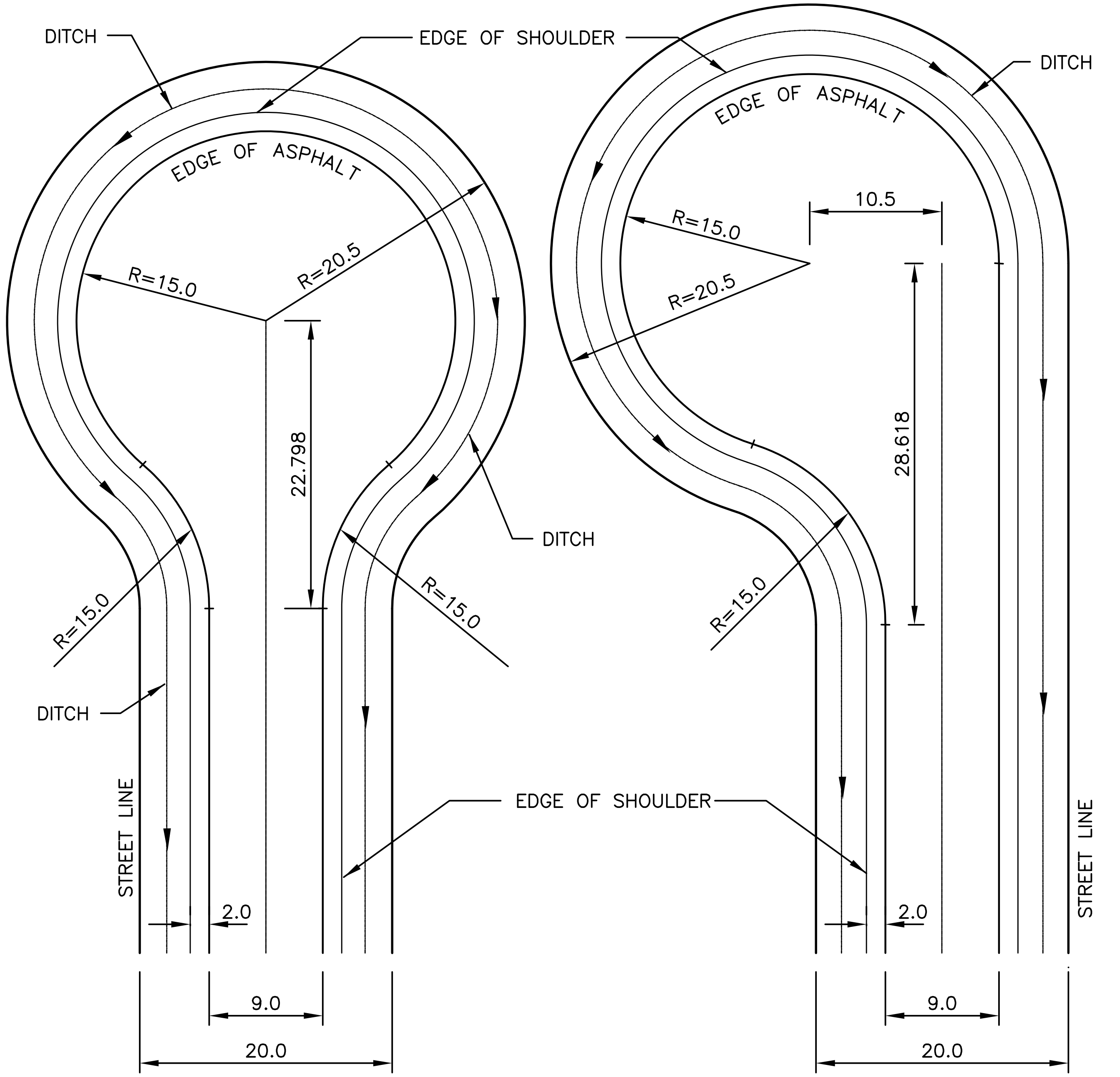
NOTE:
RIGHT OFFSET CUL-DE-SAC ARE ALSO PERMITTED

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

RURAL LOCAL CUL-DE-SAC

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 27



SYMMETRICAL CUL–DE–SAC   LEFT OFFSET CUL–DE–SAC

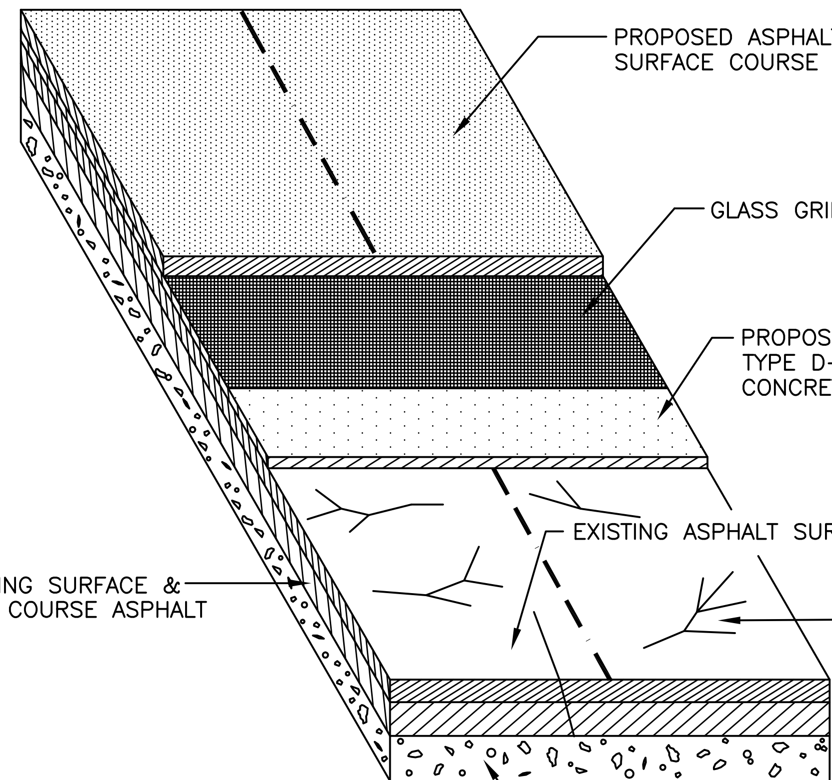
NOTE:
RIGHT OFFSET CUL–DE–SAC ARE ALSO PERMITTED

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

RURAL INDUSTRIAL
CUL–DE–SAC

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 28

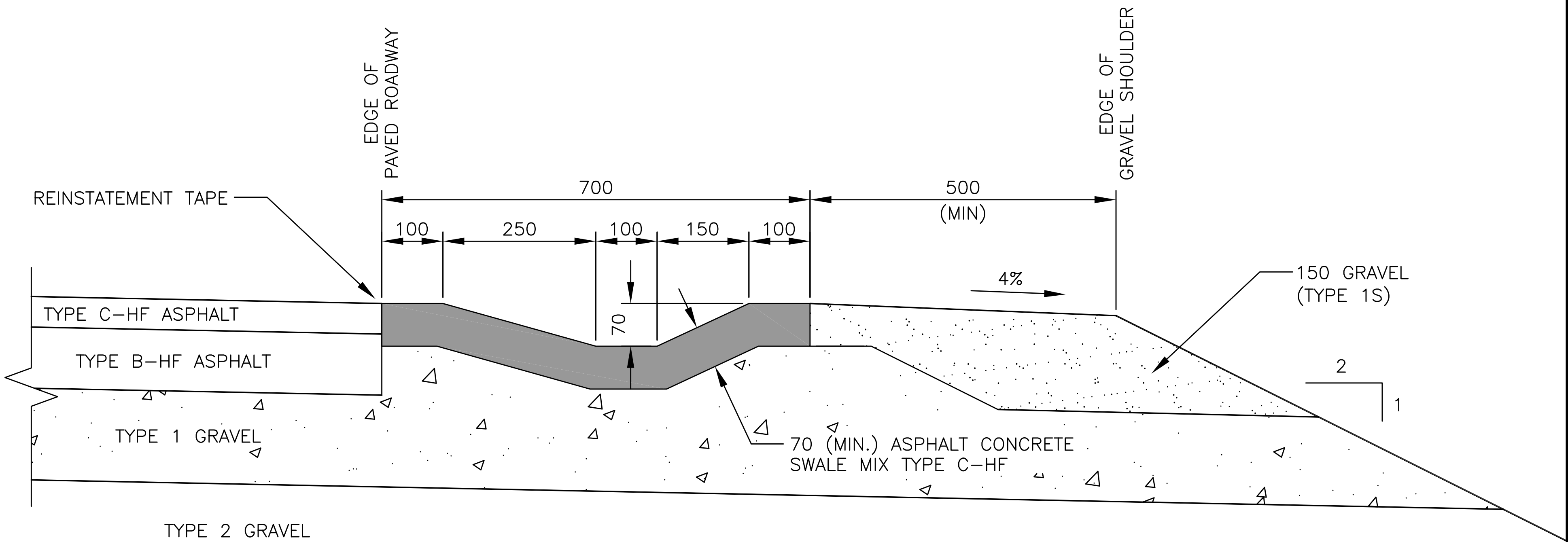


HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

GLASS GRID INSTALLATION

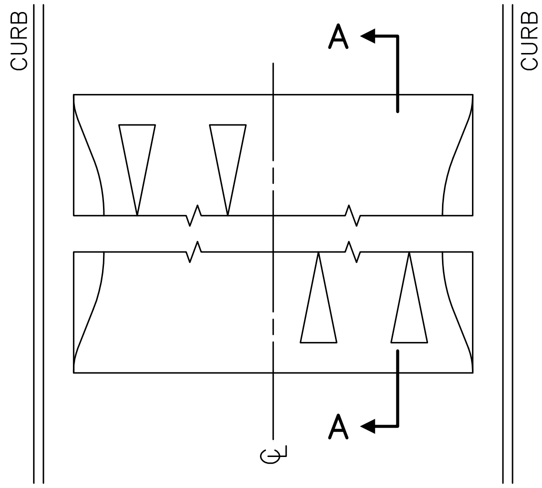
DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 29



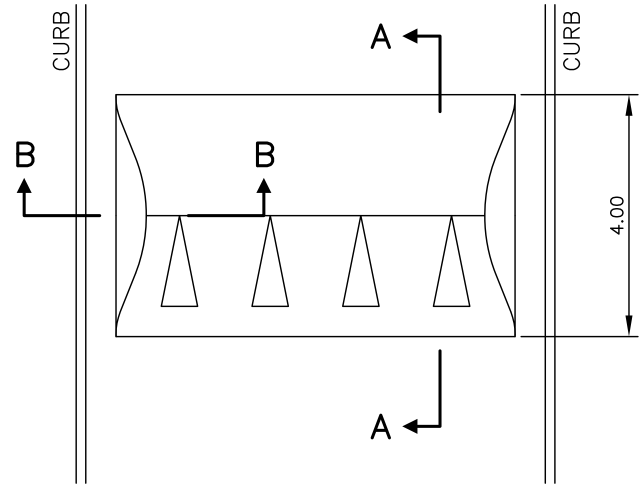
NOTE:

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) WITH AN ASPHALT SWALE RUNOFF TO THE DITCH EVERY 30m.
2. ASPHALT SWALE SHALL EXTEND TO THE EDGE OF SHOULDER AND DOWN THE SLOPE BY 1m MINIMUM.
3. MATCH CROSSFALL OF SWALE TO EXISTING CROSSFALL OF ROAD
4. ASPHALT SWALE TO BE MACHINE PLACED.

HALIFAX REGIONAL MUNICIPALITY		
STANDARD DETAIL		
ASPHALT SWALE		
DATE: 2013	REFERENCE	APPROVED
SCALE: 1:10		FIG No.: HRM 30

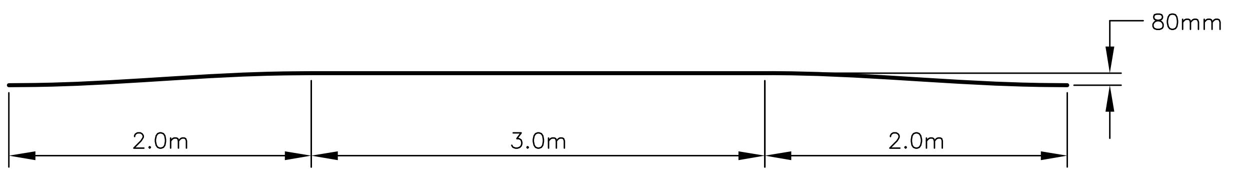


TWO–WAY STREET

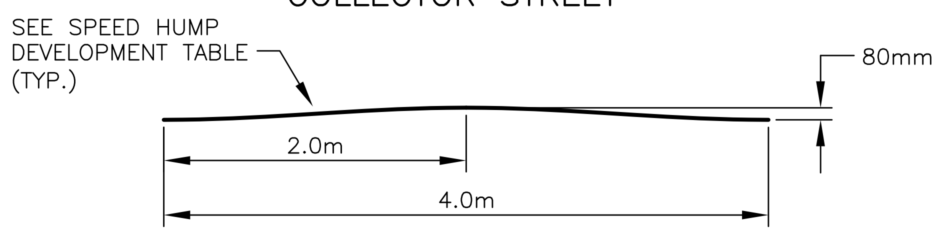


ONE–WAY STREET

NOTE:
FOR PAVEMENT MARKINGS SEE
"SPECIAL PAVEMENT MARKINGS"
STANDARD DETAIL DRAWING



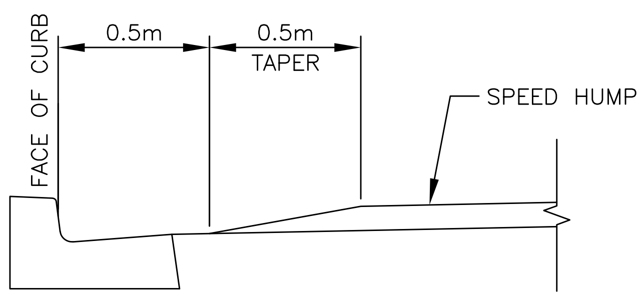
SECTION A–A
COLLECTOR STREET



SECTION A–A
LOCAL STREET

SPEED HUMP DEVELOPMENT

DISTANCE (m)	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000
HEIGHT (mm)	0	1	3	7	12	18	25	32	40	48	55	62	68	73	77	79	80



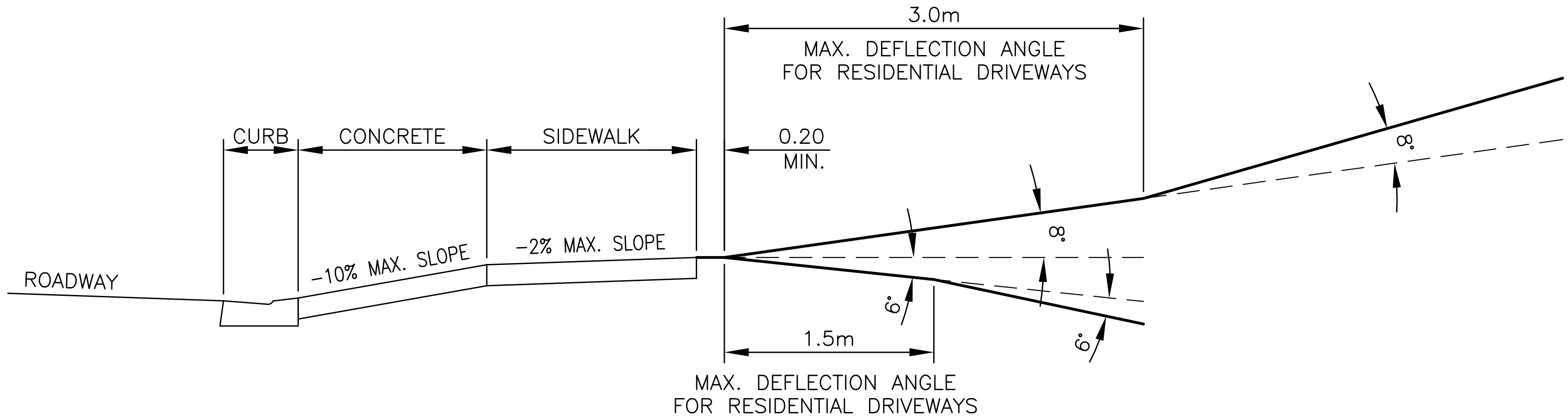
SECTION B–B

HALIFAX
REGIONAL MUNICIPALITY

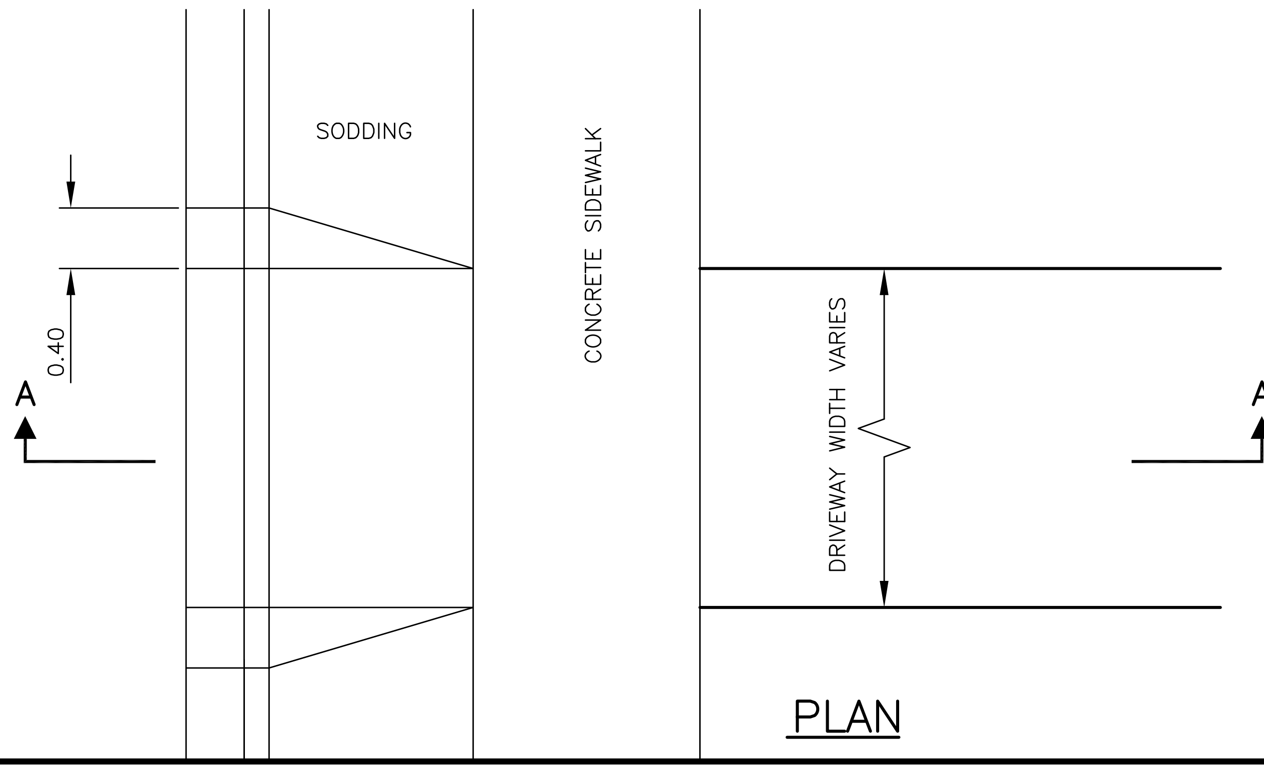
STANDARD DETAIL

SPEED HUMP

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 31



SECTION A–A



PLAN

NOTE:

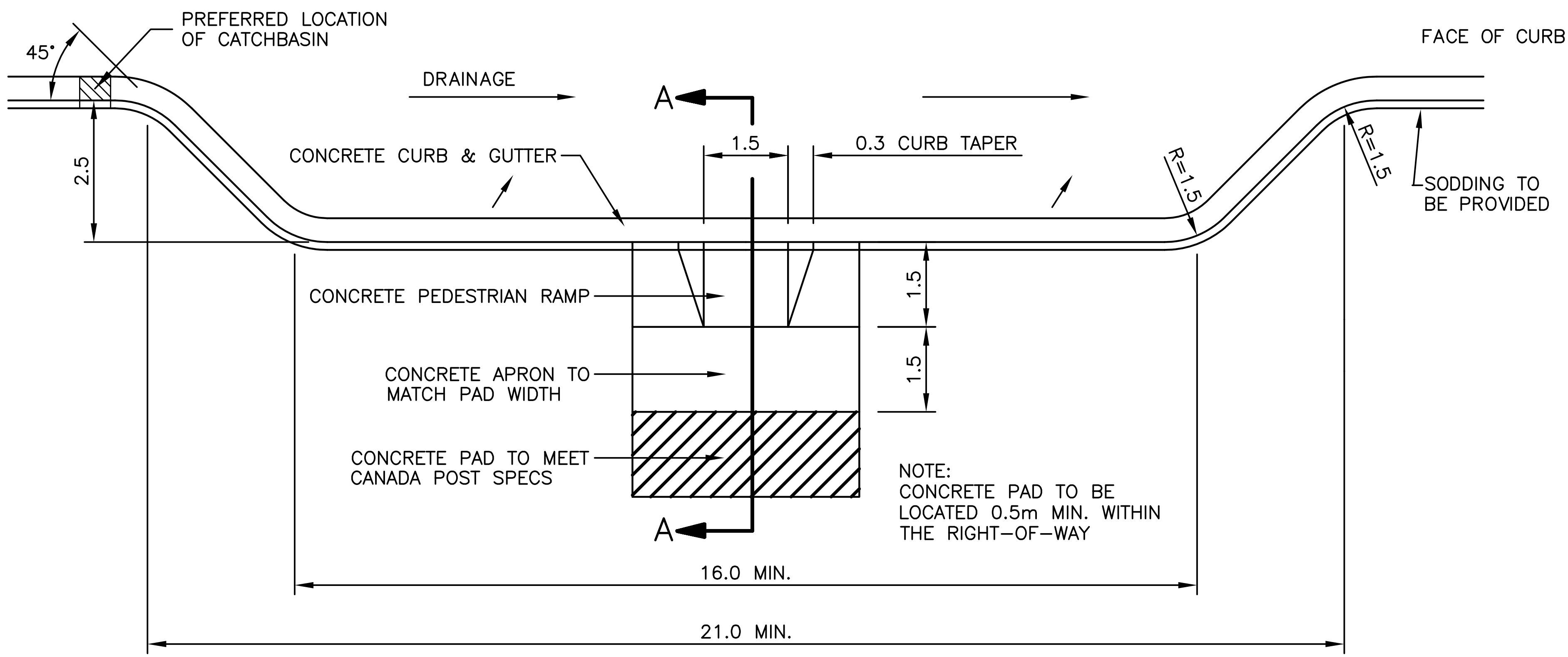
THIS DETAIL IS INTENDED FOR RETROFIT SITUATIONS, I.E. WHERE EXISTING DRIVEWAY GRADES MUST BE ADJUSTED TO MATCH NEW CONDITIONS IN THE STREET RIGHT–OF–WAY.

HALIFAX REGIONAL MUNICIPALITY

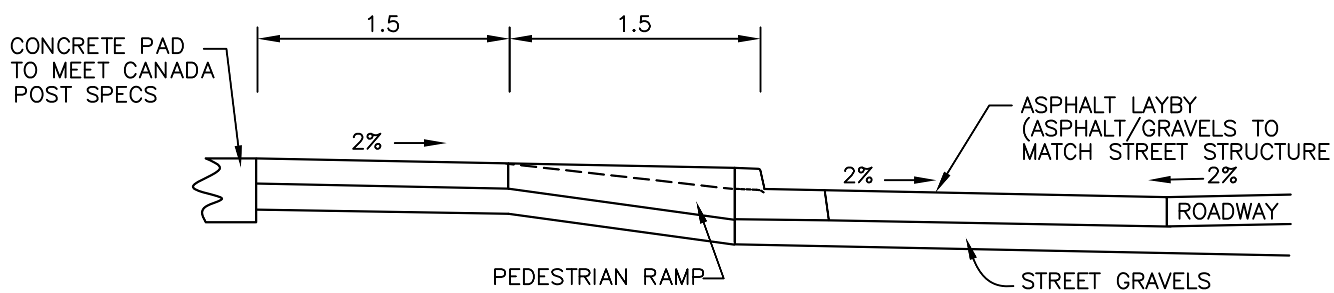
STANDARD DETAIL

DRIVEWAY DEFLECTION ANGLES & GRADES

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 32



NOTE: NOT TO BE USED ON LOCAL URBAN ROADS.



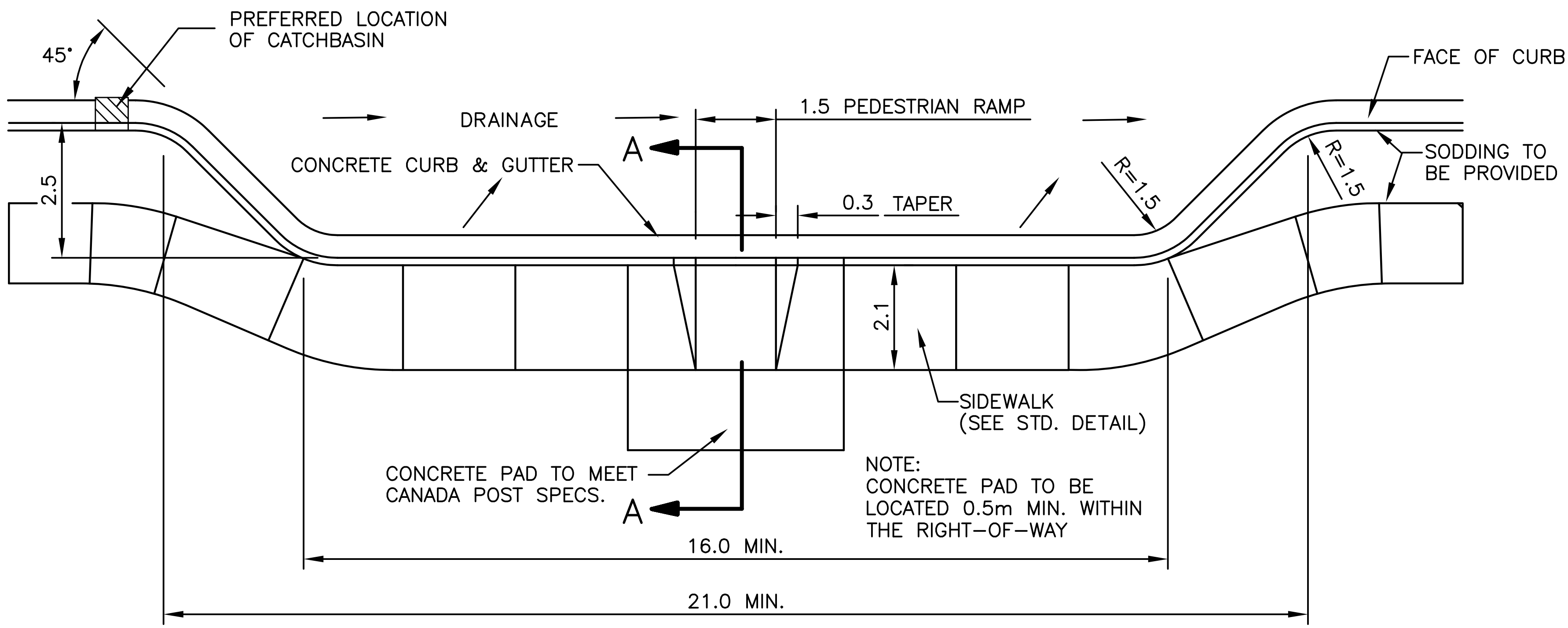
SECTION A–A

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

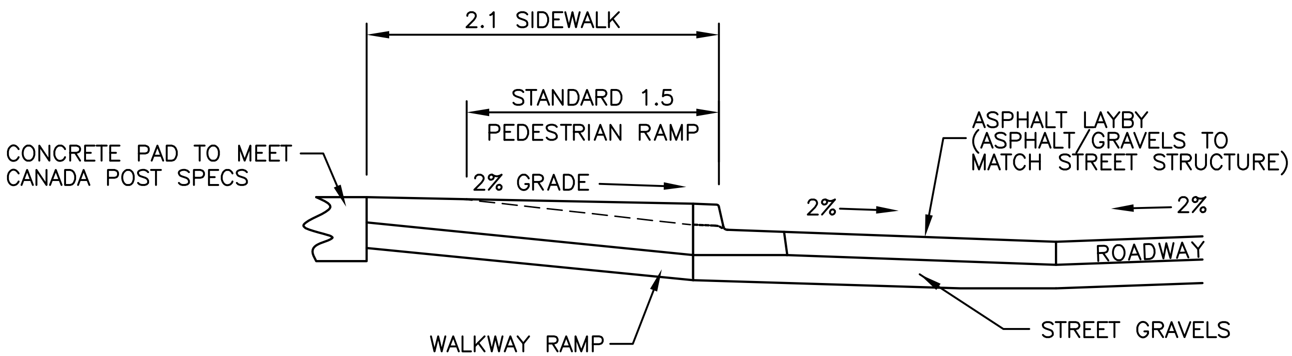
COMMUNITY MAILBOX –
URBAN ROAD WITHOUT SIDEWALK

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 33



NOTE: NOT TO BE USED ON LOCAL URBAN ROADS.

NOTE: CONTROL JOINTS OF SIDEWALK TO BE IN LINE WITH THOSE OF CURB WHEREVER POSSIBLE



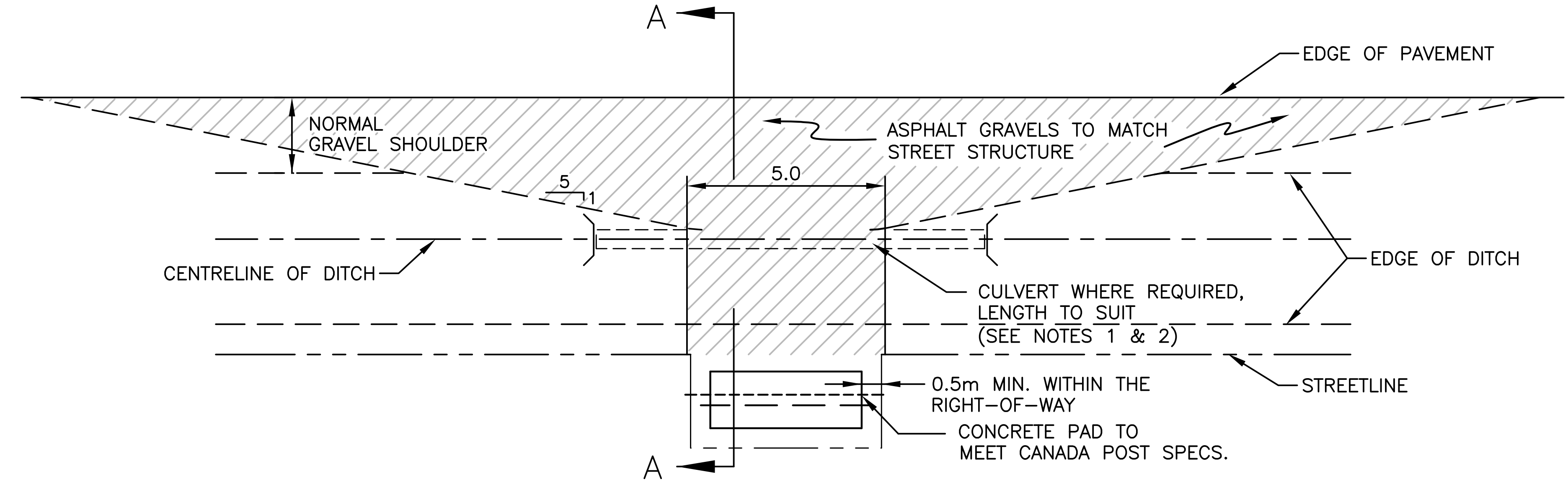
SECTION A–A

HALIFAX REGIONAL MUNICIPALITY

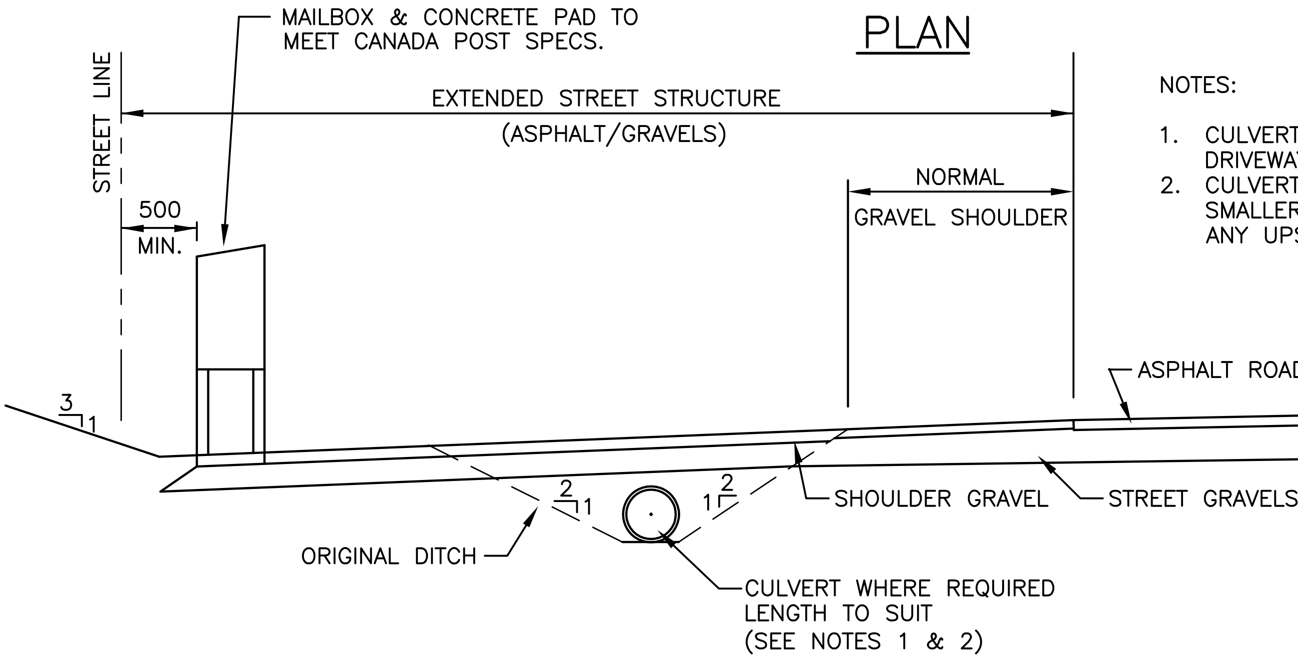
STANDARD DETAIL

COMMUNITY MAILBOX– URBAN ROAD WITH SIDEWALK

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 34



PLAN



SECTION A–A

NOTES:

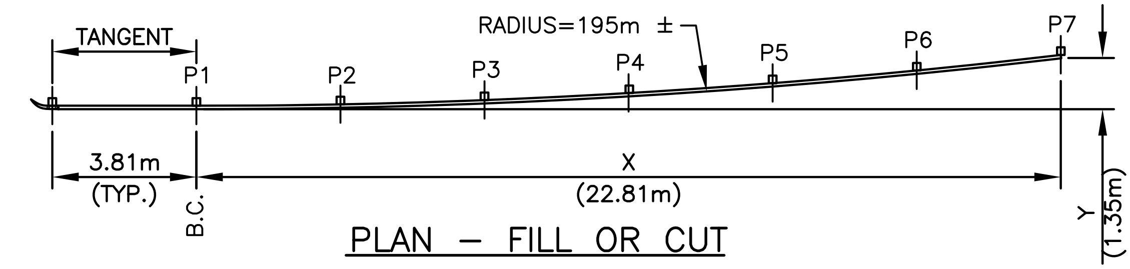
1. CULVERT SHALL BE INSTALLED WITH PRECAST CONCRETE DRIVEWAY HEADWALLS AS PER HALIFAX WATER GUIDELINES.
2. CULVERT DIAMETER AS PER DESIGN AND SHALL NOT BE SMALLER THAN 450mm IN DIAMETER NOR SMALLER THAN ANY UPSTREAM CULVERT.

HALIFAX REGIONAL MUNICIPALITY

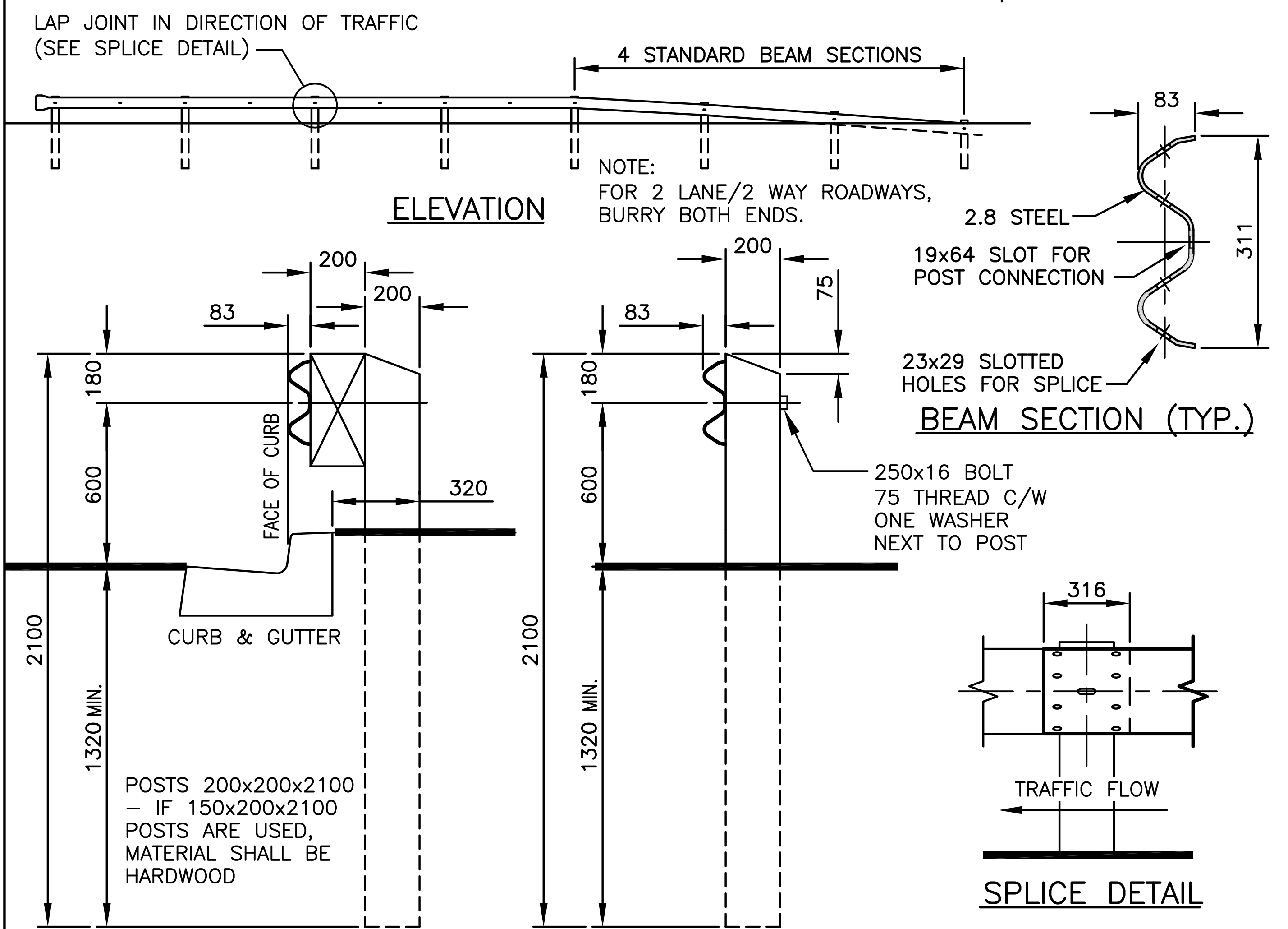
STANDARD DETAIL

COMMUNITY MAILBOX–
RURAL ROAD LAYBY

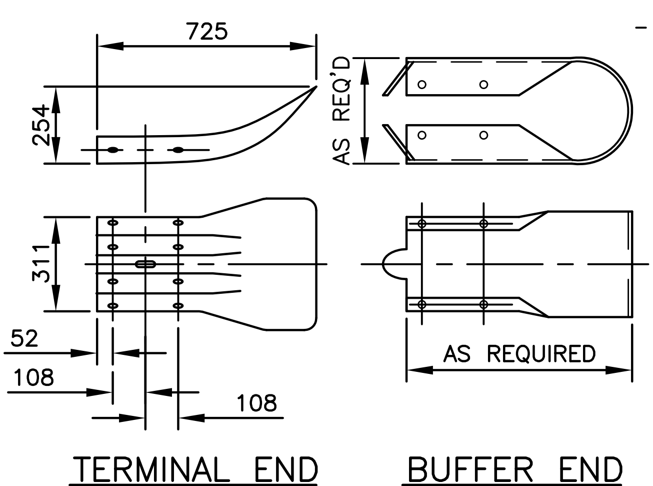
DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 35



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



NOTES:
- TWO 50x75 DELINEATORS ARE REQUIRED FOR EACH POST.
- A WHITE DELINEATOR SHALL BE PLACED ON THE SIDE OF THE POST FACING TRAFFIC.
- A YELLOW DELINEATOR SHALL BE PLACED ON THE OPPOSITE SIDE.
- 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 GUARDRAIL PANEL.
- THE DELINEATOR SHALL BE ATTACHED WITH GALVANIZED NAILS.

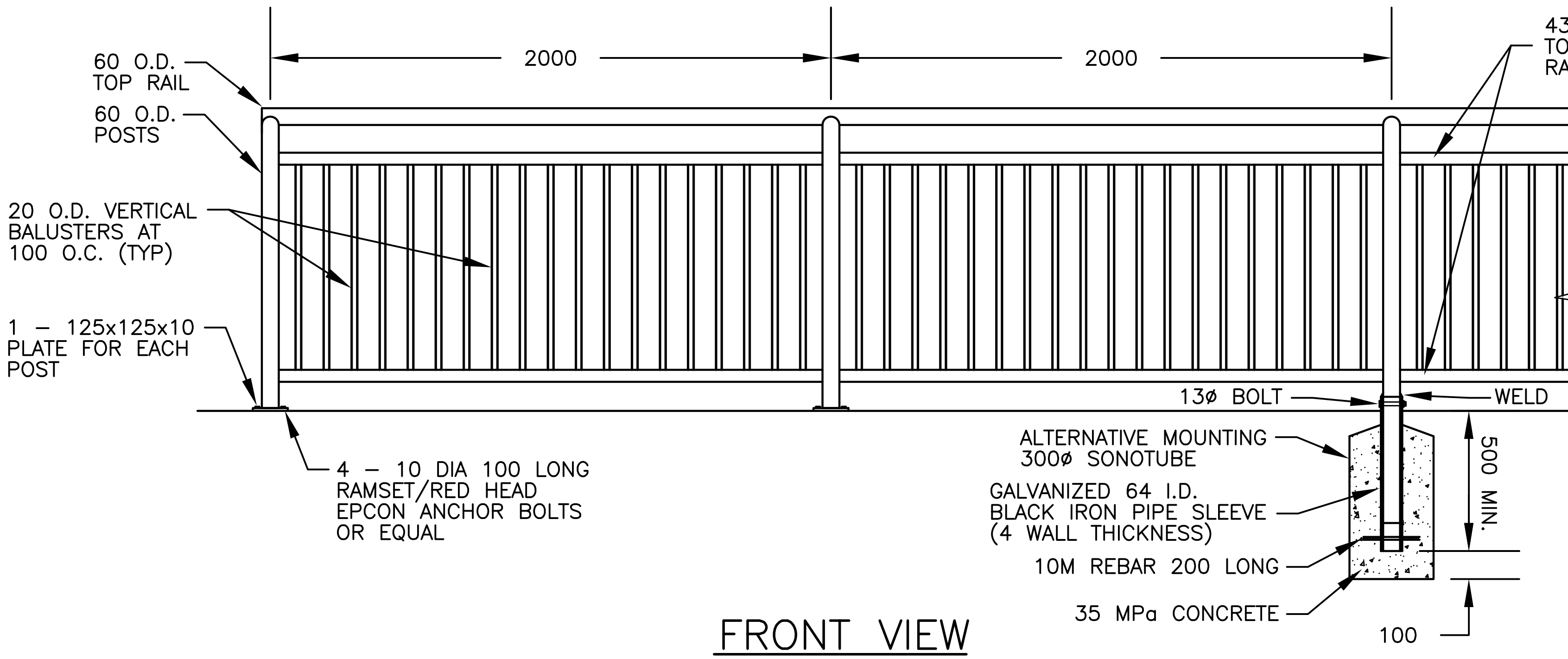


HALIFAX REGIONAL MUNICIPALITY

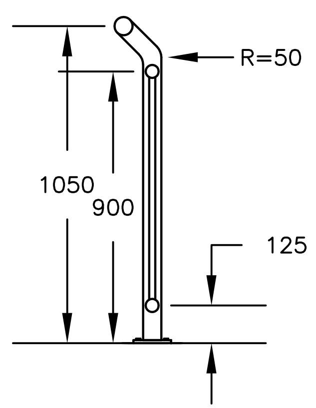
STANDARD DETAIL

GUIDE RAIL INSTALLATION

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 36



FRONT VIEW



SIDE VIEW

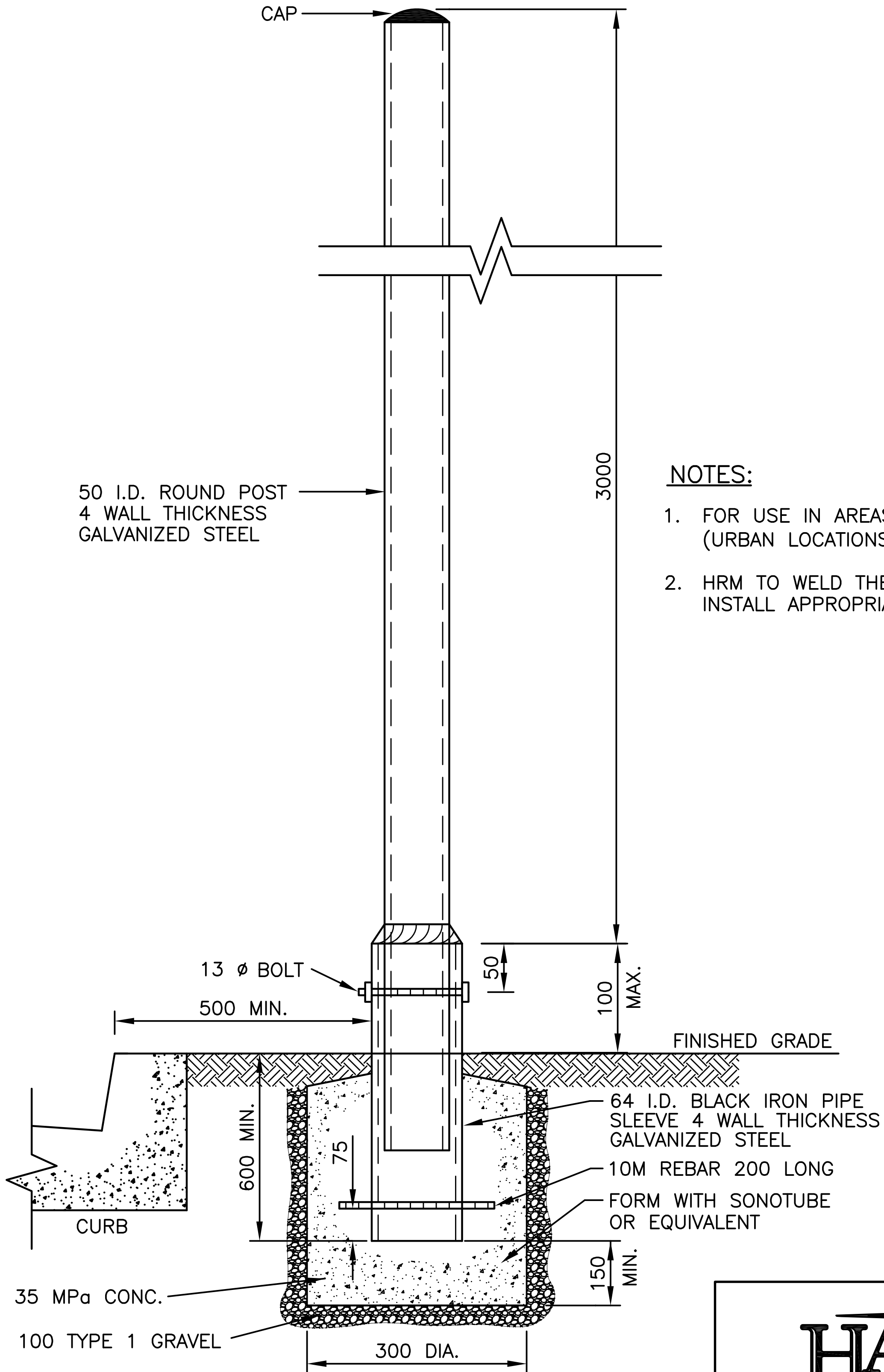
NOTE:
RAILING SYSTEM TO BE HOT DIPPED GALVANIZED AFTER FABRICATION. FIELD WELDS, IF NECESSARY SHALL BE PROTECTED WITH COLD GALVANIZING.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

RAILING

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 37



NOTES:

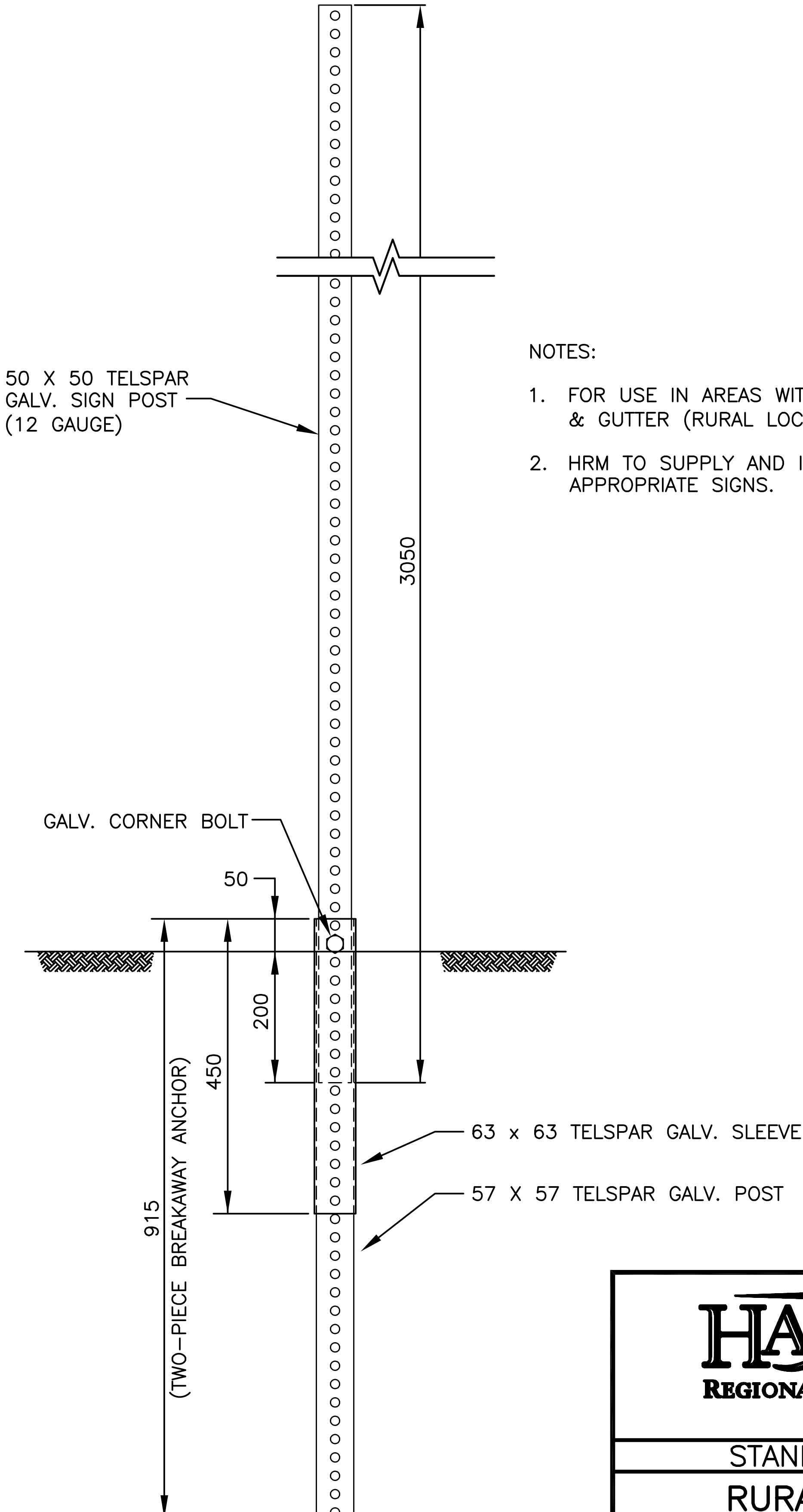
1. FOR USE IN AREAS WITH CURB AND GUTTER (URBAN LOCATIONS)
2. HRM TO WELD THE POST AND SUPPLY AND INSTALL APPROPRIATE SIGNS.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

URBAN TRAFFIC SIGN POST

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 38



NOTES:

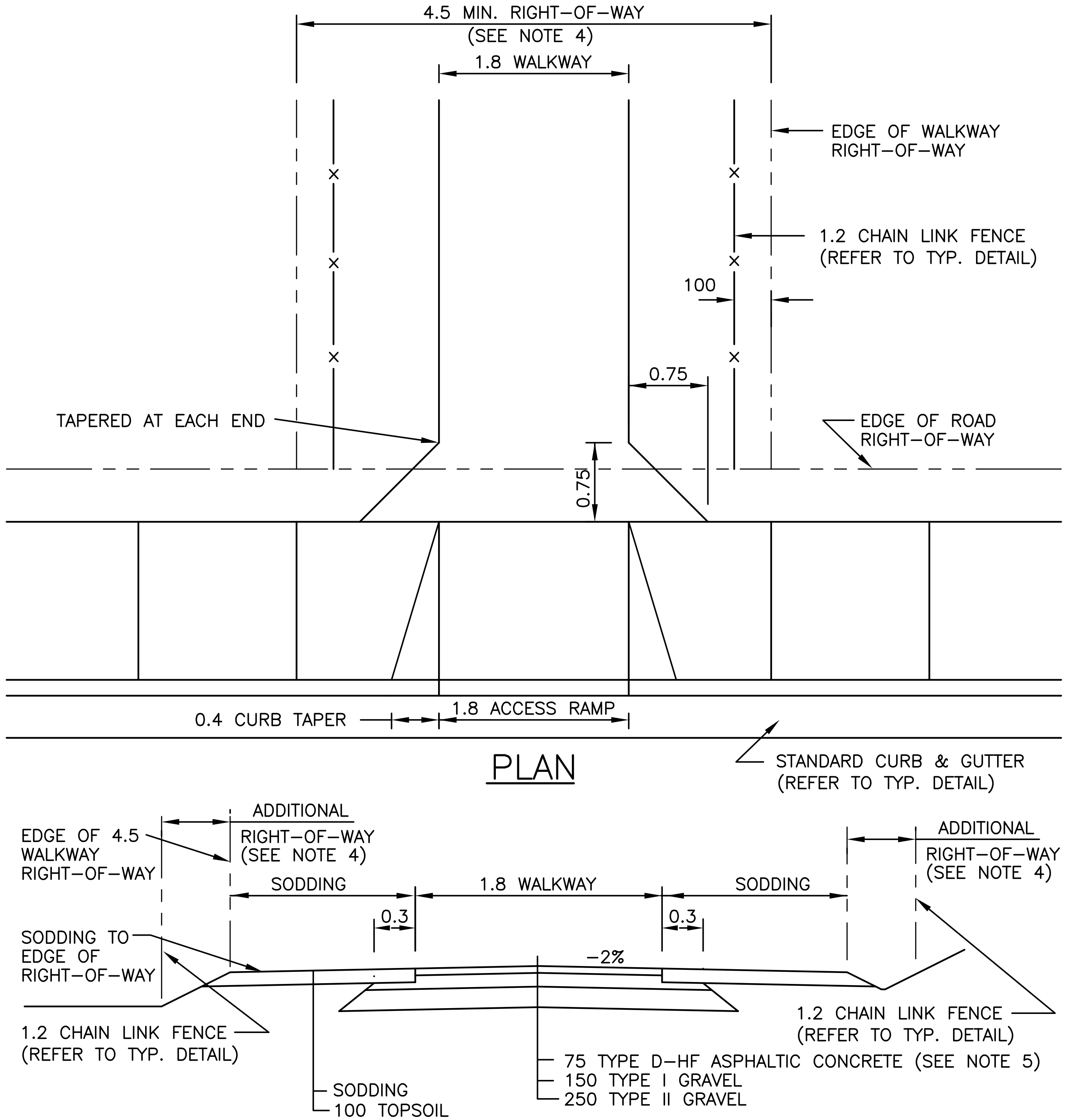
1. FOR USE IN AREAS WITHOUT CURB & GUTTER (RURAL LOCATIONS)
2. HRM TO SUPPLY AND INSTALL APPROPRIATE SIGNS.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

RURAL TRAFFIC
SIGN POST

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 39



PROFILE

NOTES:

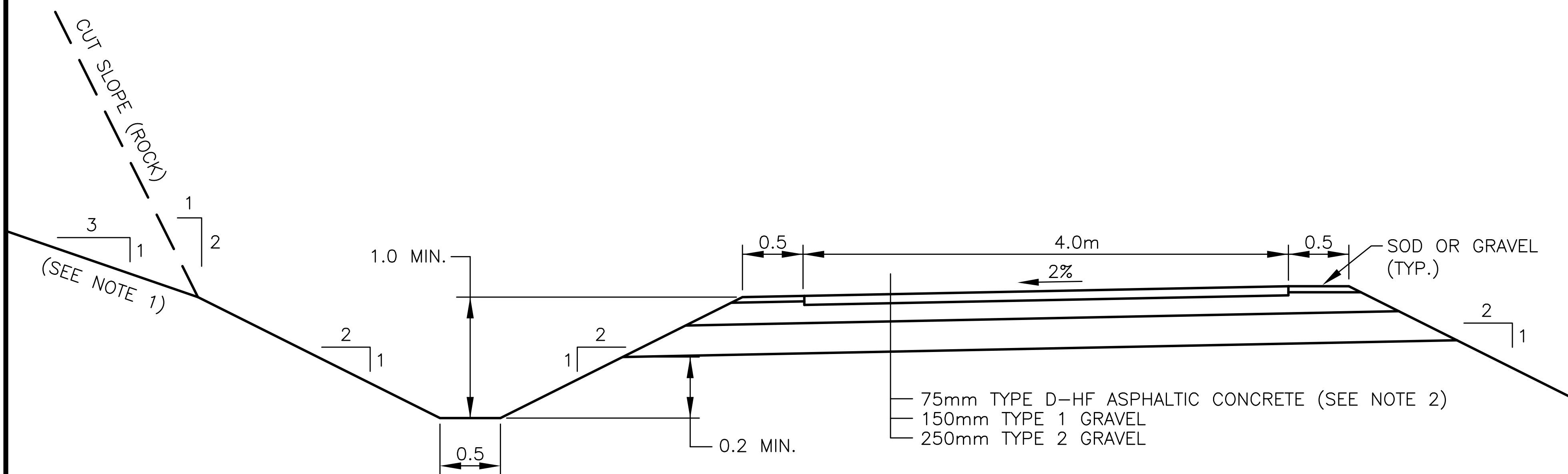
1. WALKWAY SHOULD HAVE MIN. LONGITUDINAL SLOPE OF 2.0% WHERE POSSIBLE.
2. THE ENGINEER MAY REQUIRE OR PERMIT USE OF LOW MAINTENANCE MATERIALS IN PLACE OF SODDING.
3. WHERE MUNICIPAL SERVICE SYSTEMS ARE REQUIRED THE MIN. R.O.W. IS TO BE INCREASED TO 6.0 m. THE CHAIN LINK FENCE SHALL BE LOCATED 100 FROM 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.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

TYPICAL WALKWAY

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		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 1.5m, OR ADJACENT TO WATER.
4. FALSE DITCH REQUIREMENTS SHALL MEET HALIFAX WATER SPECIFICATIONS.

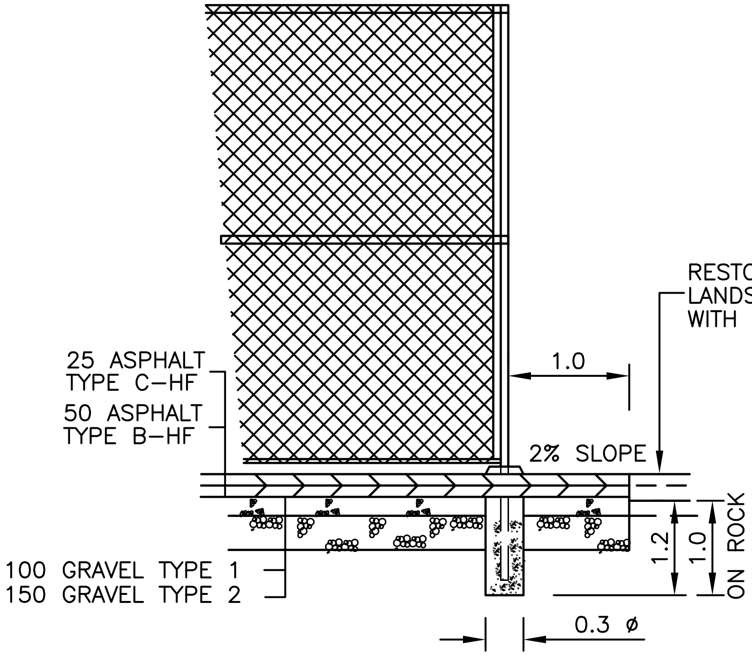
HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

ACTIVE TRANSPORTATION OFF ROAD TRAIL

DATE: 2013	REFERENCE	APPROVED
SCALE: 1:50		FIG No.: HRM 41

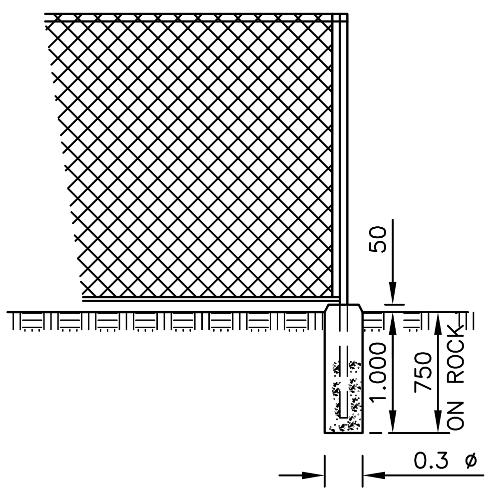
TYPE I COURT FENCE



NOTES:

1. 3.0 HIGH CHAIN LINK FENCE FABRIC 37 X 9 GAUGE STEEL GALVANIZED WIRE FENCE KNUCKLED TOP AND BOTTOM.
2. CORNER POSTS 87 O.D. GALVANIZED STEEL PIPE.
3. LINE POST 60 O.D. GALVANIZED STEEL PIPE.
4. RAILING TOP, BOTTOM AND CENTRE RAILS TO BE 42 O.D. GALVANIZED STEEL PIPE.
5. MAXIMUM SPACING OF POST TO BE 3.0.

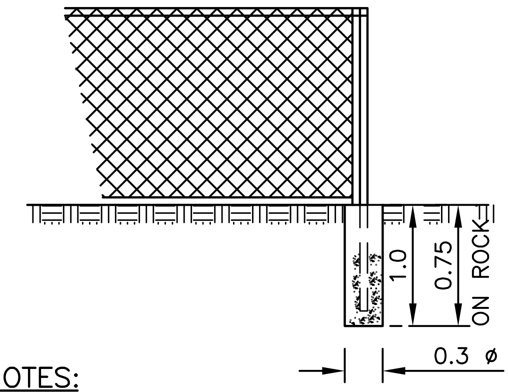
TYPE II BOUNDARY FENCE



NOTES:

1. 1.8 m HIGH CHAIN LINK FENCE FABRIC 50 mm X 9 mm GAUGE STEEL GALVANIZED WIRE FENCE KNUCKLED ON TOP.
2. CORNER POSTS 87 mm O.D. GALVANIZED STEEL PIPE.
3. LINE POST 60 mm O.D. GALVANIZED STEEL PIPE.
4. RAILING 42 mm O.D. GALVANIZED STEEL PIPE.
5. GROUND WIRE 2 STRANDS 6 GAUGE GALVANIZED STEEL WIRE.
6. MAXIMUM SPACING OF POSTS TO BE 2.4.
7. PLACE FABRIC ON SIDE OF FENCE WITH MOST PEDESTRIAN TRAFFIC, UNLESS OTHERWISE NOTED.

TYPE III SAFETY FENCE



NOTES:

1. 1.0 AND 1.2 HIGH CHAIN LINK FENCE FABRIC 50 X 9 GAUGE STEEL GALVANIZED WIRE FENCE KNUCKLED ON TOP.
2. CORNER POSTS 87 O.D. GALVANIZED STEEL PIPE.
3. LINE POSTS 60 O.D. GALVANIZED STEEL PIPE.
4. RAILING 42 O.D. GALVANIZED STEEL PIPE.
5. GROUND WIRE 2 STRANDS 6 GAUGE GALVANIZED STEEL WIRE.
6. MAXIMUM SPACING OF POSTS TO BE 2.4.

TYPE IV COURT FENCE

NOTES:

FOR 3.7 HIGH CHAIN LINK FENCE TYPE IV
1. CORNER & GATE POSTS 100 O.D. GALVANIZED STEEL PIPE.
2. LINE POSTS 60 O.D. GALVANIZED STEEL PIPE.
3. ALL OTHER FEATURES AS PER 3.0 HIGH CHAIN LINK FENCE.

GENERAL NOTES:

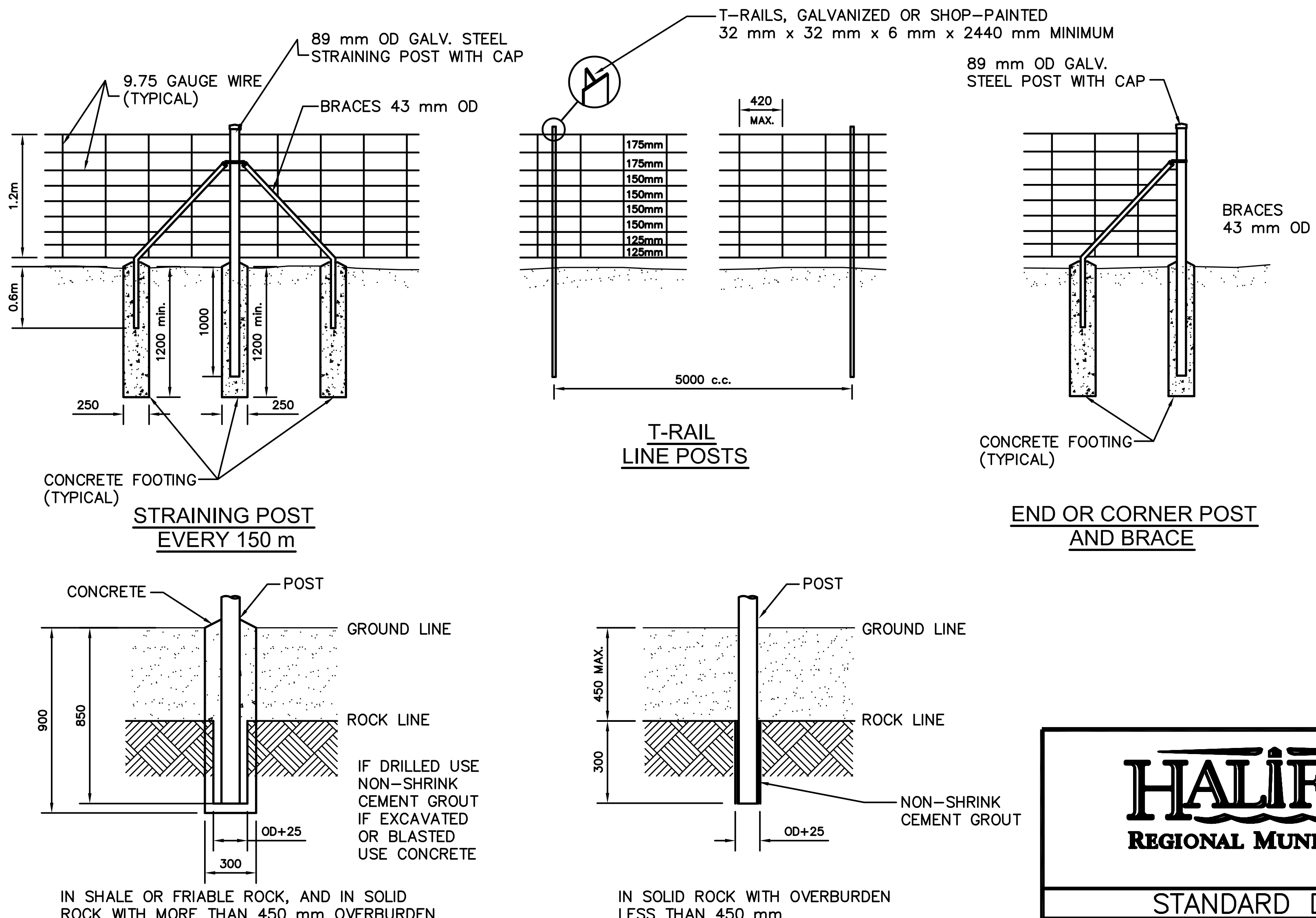
1. FOR ALL FENCE TYPES STEEL PIPE TO BE "STANDARD WEIGHT" (SCHEDULE 40) UNLESS OTHERWISE NOTED.
2. ALL CONCRETE TO BE 30 MPa COMPRESSIVE STRENGTH, MAXIMUM AGGREGATE SIZE OF 20 AND 5% TO 8% AIR CONTENT.
3. CONCRETE BASE TO BE FORMED WITH SONOTUBE OR EQUIVALENT.
4. NO TOP RAIL BESIDE OR ON ROAD.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

CHAIN LINK FENCE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 42

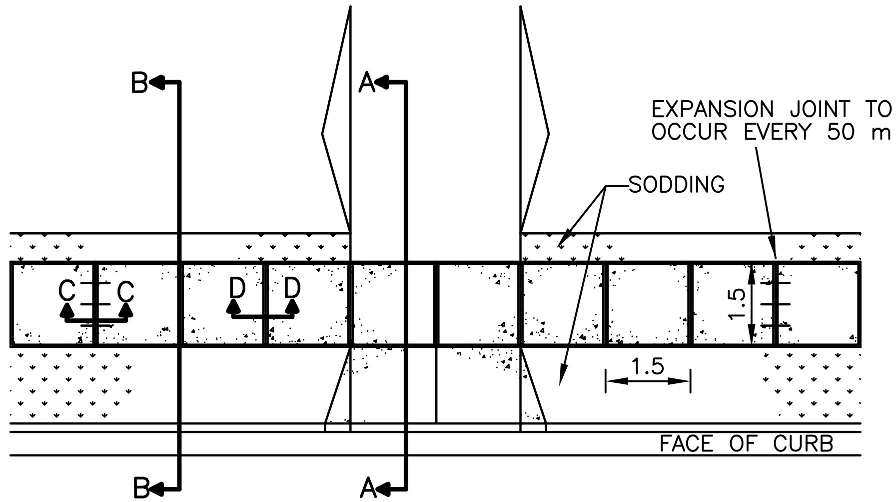


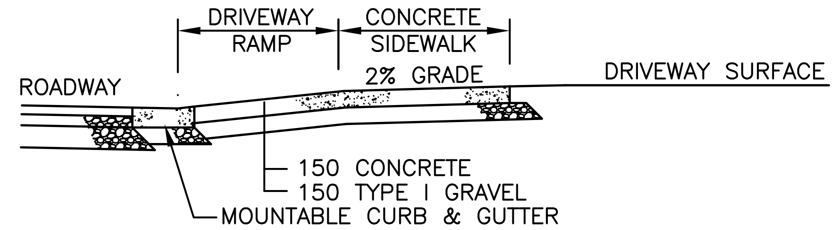
HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

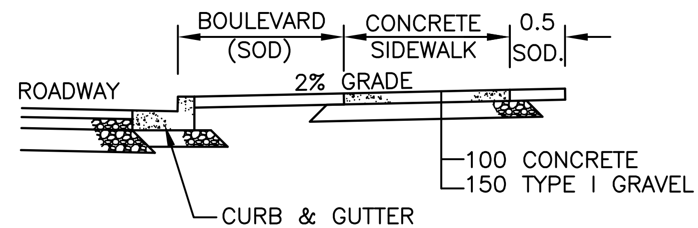
PAGE WIRE FENCE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 43

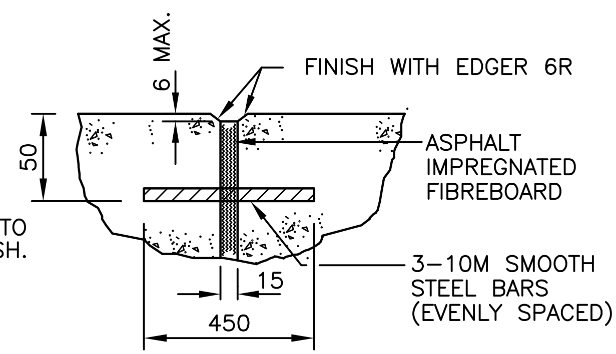




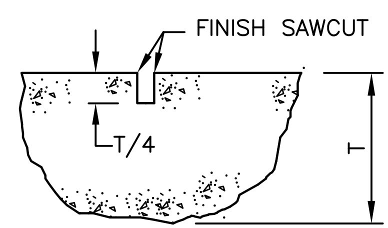
SECTION A–A
(DRIVEWAY CROSS–SECTION)



SECTION B–B
(SIDEWALK CROSS–SECTION)



SECTION C–C
(EXPANSION JOINT)



SECTION D–D
(CONTROL JOINT)

NOTES:

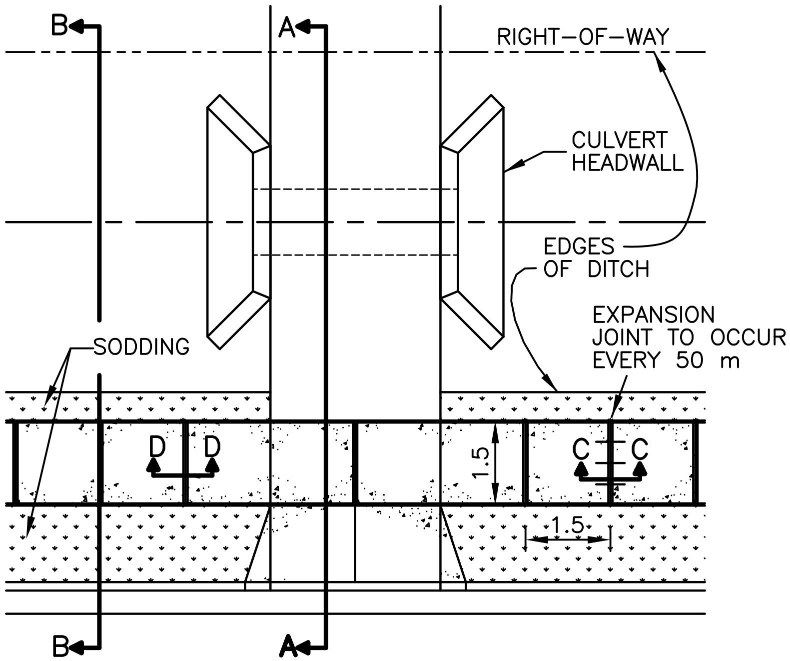
1. CONCRETE SIDEWALK AT COMMERCIAL DRIVEWAY TO BE 150 THICK WITH 150x150 WELDED WIRE MESH.
2. CRUSHED ROCK BASE TO EXTEND 150 BEYOND EDGE OF SIDEWALK STRUCTURE.
3. CONTROL JOINTS ARE TO BE SAW CUT.
4. SIDEWALK ABUTTING HIGH DENSITY AREAS SHALL SHALL HAVE FULL WIDTH (3 m) SIDEWALKS.
5. SIDEWALKS ABUTTING 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, SLOPE SIDEWALK AND DRIVEWAY RAMP IN A STRAIGHT LINE GRADE FROM BACK OF SIDEWALK TO LIP ON CURB OPENING.

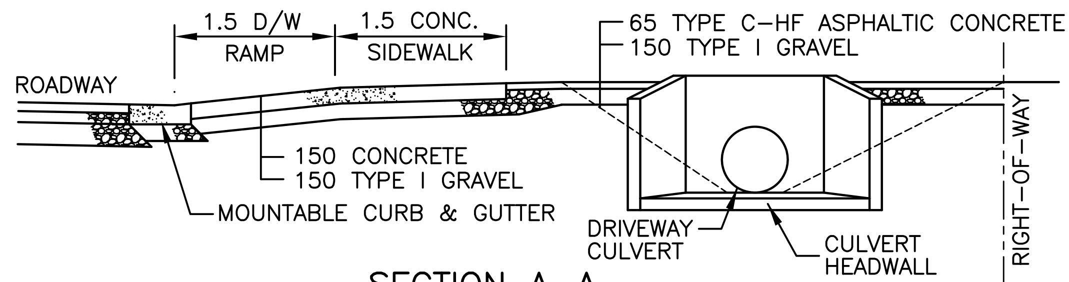
HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

URBAN SIDEWALK

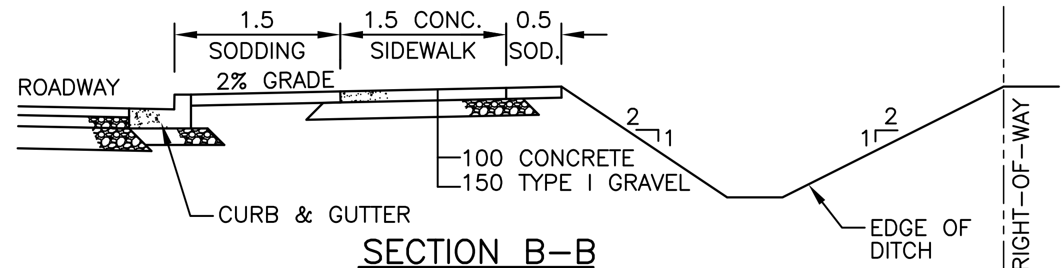
DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 44





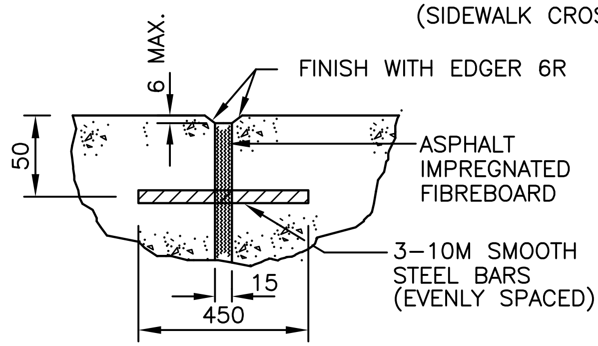
SECTION A–A

(DRIVEWAY CROSS-SECTION)



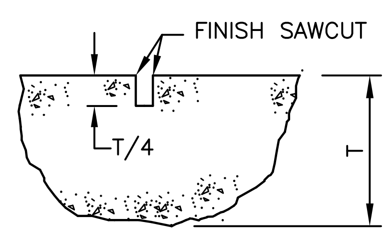
SECTION B–B

(SIDEWALK CROSS-SECTION)



SECTION C–C

(EXPANSION JOINT)



SECTION D–D

(CONTROL JOINT)

NOTES:

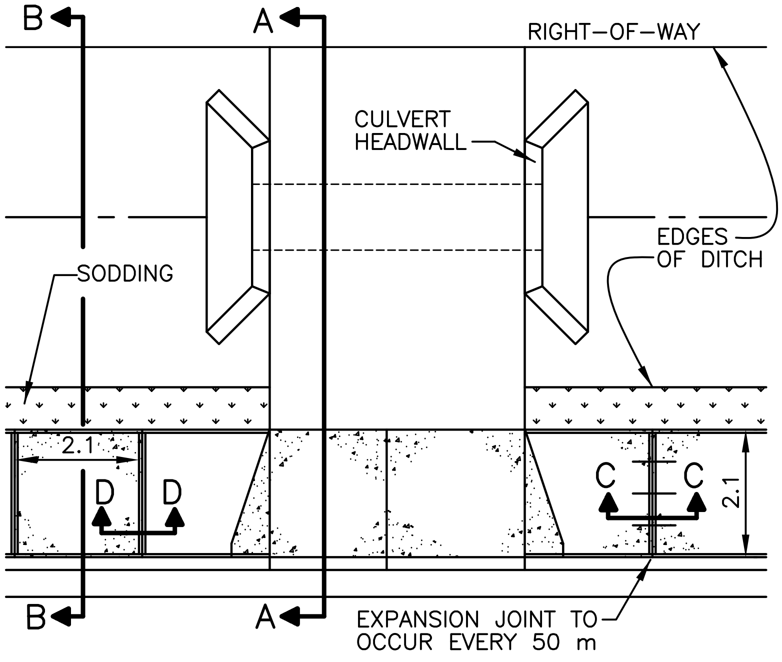
1. CONCRETE SIDEWALK AT COMMERCIAL DRIVEWAY TO BE 150 THICK WITH 150x150 WELDED WIRE MESH.
2. CRUSHED ROCK BASE TO EXTEND 150 BEYOND EDGE OF SIDEWALK STRUCTURE.
3. CONTROL JOINTS ARE TO BE SAW CUT.
4. SIDEWALKS ABUTTING COMMERCIAL AREAS ARE TO BE FULL WIDTH (3 m) AND 150 mm THICKNESS.
5. EXPANSION JOINT 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, SLOPE SIDEWALK AND DRIVEWAY RAMP IN A STRAIGHT LINE GRADE FROM BACK OF SIDEWALK TO LIP ON CURB OPENING.

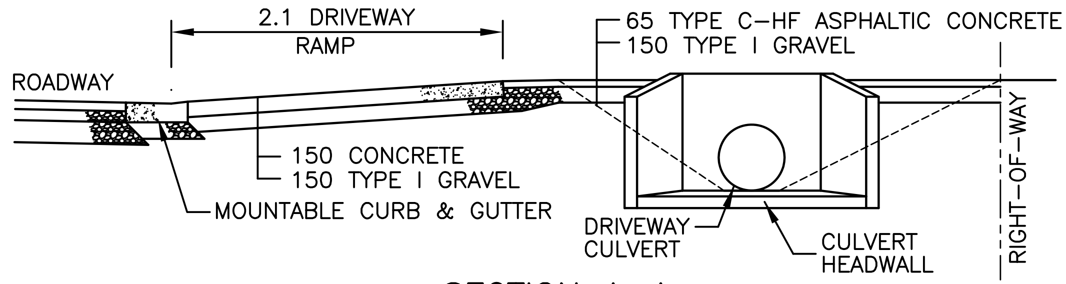
HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

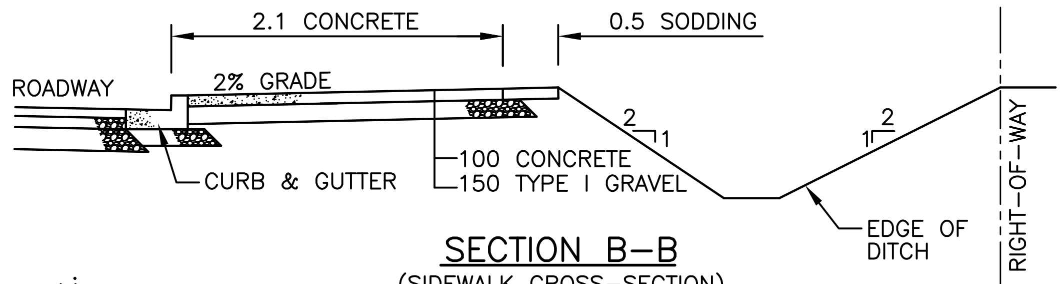
RURAL TYPE I SIDEWALK

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 45

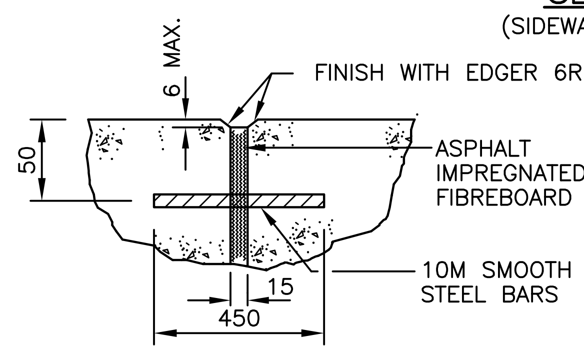




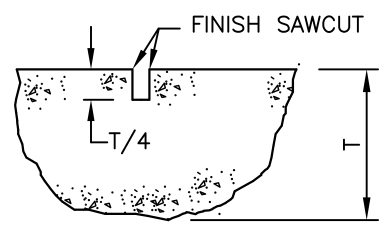
SECTION A–A
(DRIVEWAY CROSS-SECTION)



SECTION B–B
(SIDEWALK CROSS-SECTION)



SECTION C–C
(EXPANSION JOINT)



SECTION D–D
(CONTROL JOINT)

NOTES:

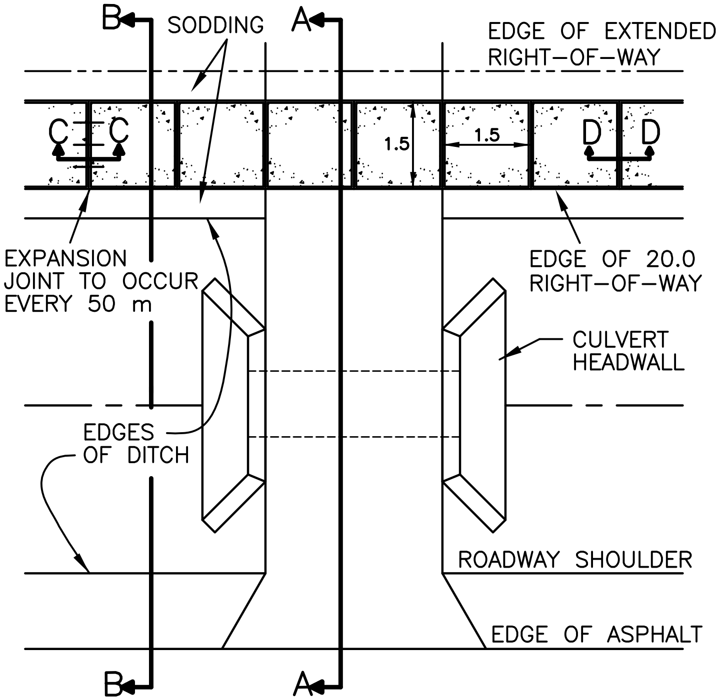
1. CONCRETE SIDEWALK AT COMMERCIAL DRIVEWAY TO BE 150 THICK WITH 150x150 WELDED WIRE MESH.
2. CRUSHED ROCK BASE TO EXTEND 150 BEYOND EDGE OF SIDEWALK STRUCTURE.
3. CONTROL JOINTS ARE TO BE SAW CUT.
4. SIDEWALKS ABUTTING COMMERCIAL AREAS ARE TO BE FULL WIDTH (3 m) AND 150 mm THICKNESS.
5. EXPANSION JOINT 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, SLOPE SIDEWALK AND DRIVEWAY RAMP IN A STRAIGHT LINE GRADE FROM BACK OF SIDEWALK TO LIP ON CURB OPENING.

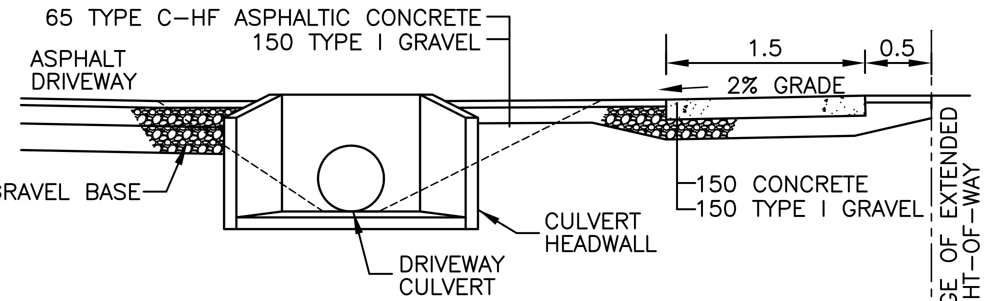
HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

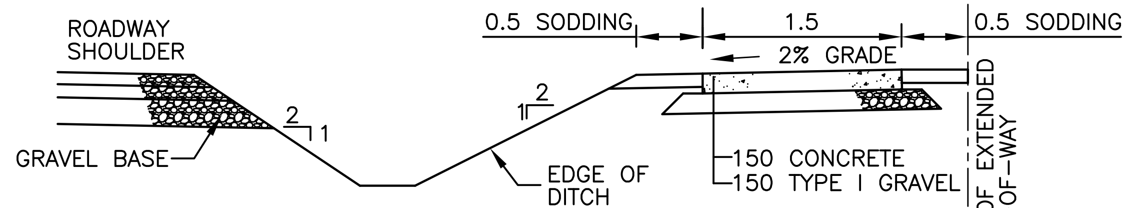
RURAL TYPE II SIDEWALK

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 46

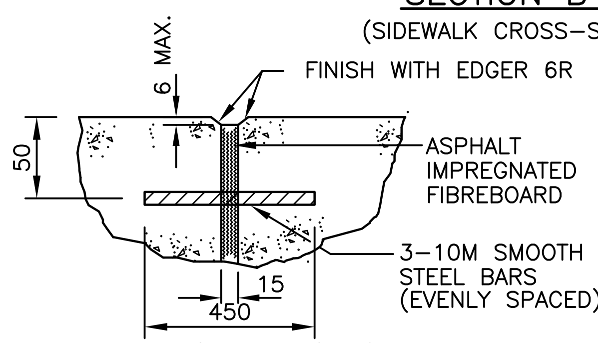




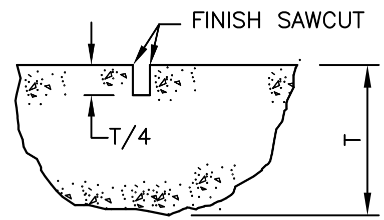
SECTION A–A
(DRIVEWAY CROSS–SECTION)



SECTION B–B
(SIDEWALK CROSS–SECTION)



SECTION C–C
(EXPANSION JOINT)



SECTION D–D
(CONTROL JOINT)

NOTES:

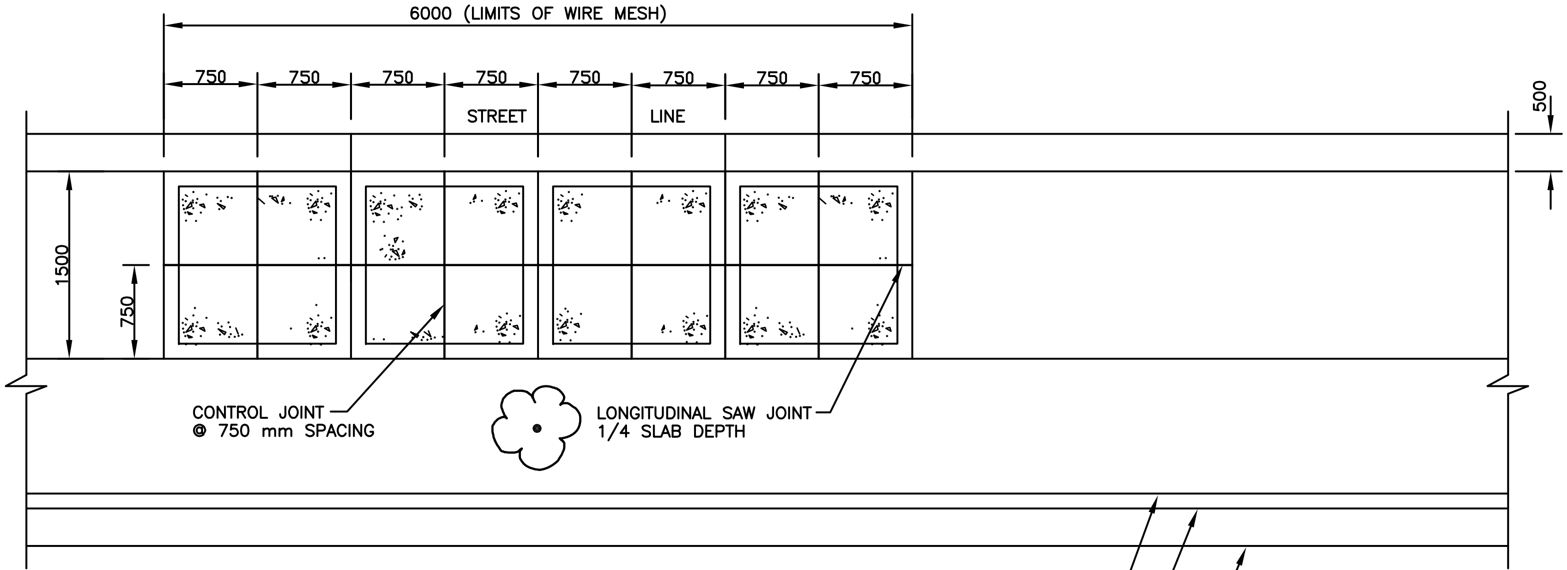
1. CONCRETE SIDEWALK AT COMMERCIAL DRIVEWAY TO BE 150 THICK WITH 150x150 WELDED WIRE MESH.
2. CRUSHED ROCK BASE TO EXTEND 150 BEYOND EDGE OF SIDEWALK STRUCTURE.
3. CONTROL JOINTS ARE TO BE SAW CUT.
4. SIDEWALKS ABUTTING COMMERCIAL AREAS ARE TO BE FULL WIDTH (3 m) AND 150 mm THICKNESS.
5. EXPANSION JOINT 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.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

RURAL TYPE III SIDEWALK

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 47



PLAN

NOTES:

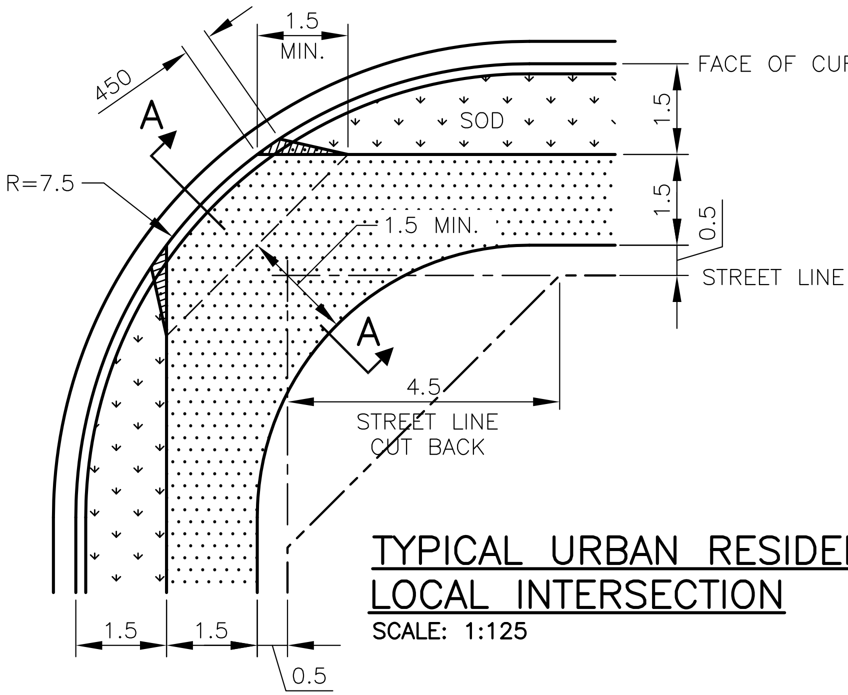
1. 150 X 150 – M.W. 18.7 X M.W. 18.7 (WELDED WIRE FABRIC) PLACED AT 1/2 THE SLAB DEPTH.
2. NO TREE ROOTS TO BE REMOVED WITHOUT HRM APPROVAL

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DRAWING

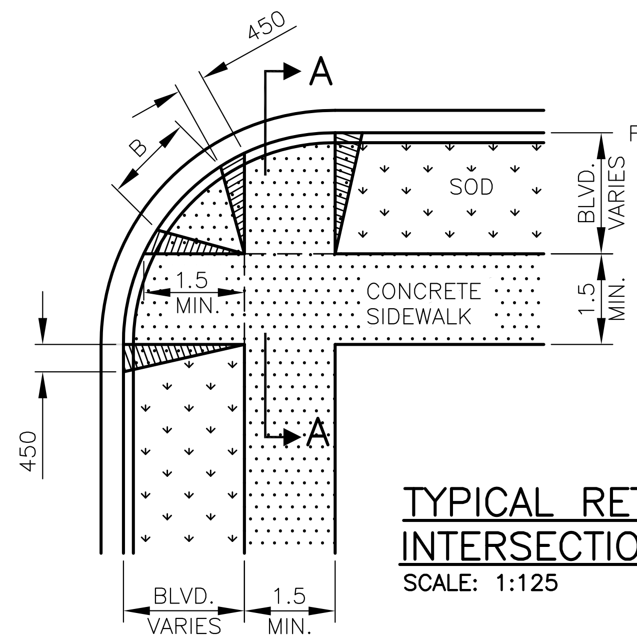
CONCRETE SIDEWALK
REINFORCING

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 48



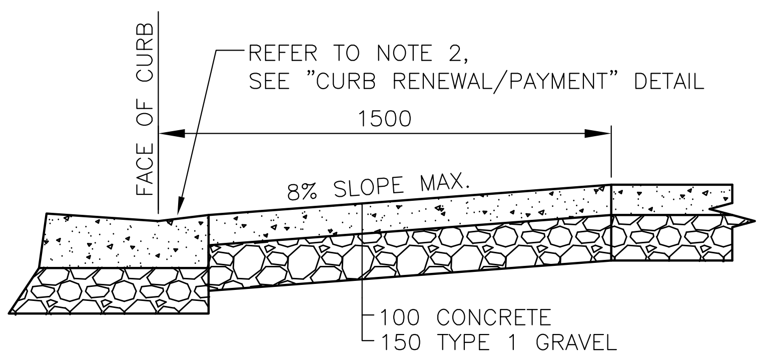
TYPICAL URBAN RESIDENTIAL LOCAL INTERSECTION

SCALE: 1:125



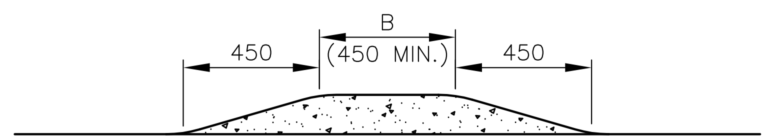
TYPICAL RETROFIT INTERSECTION

SCALE: 1:125



SECTION A–A

SCALE: 1:25



PEDESTRIAN RAMP DIVIDER VIEW

SCALE: 1:25

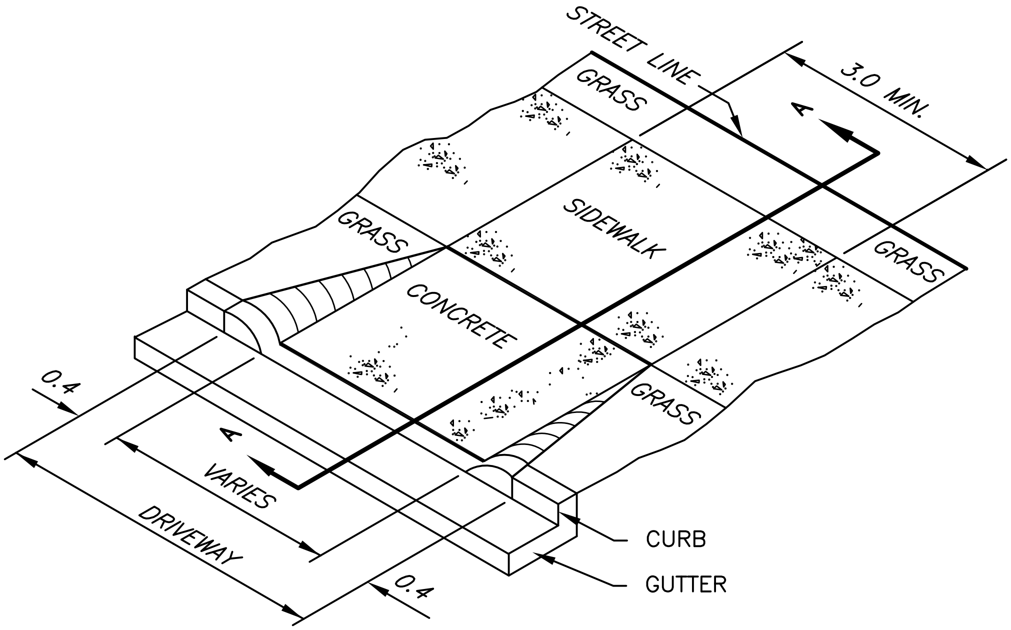
NOTES:
1. PEDESTRIAN RAMPS SHALL BE ALIGNED WITH THE SIDEWALK INSIDE EDGE.
2. INSTALL RAMP DIVIDER ONLY WHEN (B) WILL BE GREATER THAN 450mm.
3. WHERE RAMP DIVIDER IS NOT POSSIBLE, THE MINIMUM WIDTH OF RAMP IS TO BE THE RESULTING WIDTH IF RAMP EDGES ARE ALIGNED WITH INSIDE EDGES OF SIDEWALK. MINIMUM RAMP WIDTH IS 1.5m.
4. WHERE THE SIDEWALK ABUTS THE CURB A 1.0m TRANSITION TAPER IS REQUIRED IN THE CURB AND SIDEWALK ALONG ITS LENGTH.

HALIFAX REGIONAL MUNICIPALITY

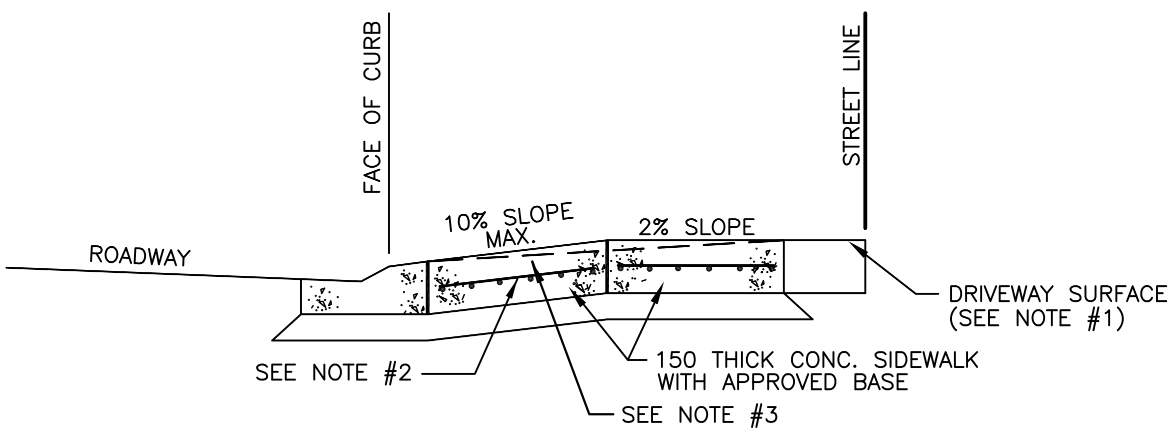
STANDARD DETAIL

PEDESTRIAN RAMP ALIGNMENT

DATE: 2013	REFERENCE	APPROVED
SCALE: AS NOTED		FIG No.: HRM 49



VIEW PLAN



SECTION A–A

NOTES:

1. IF DRIVEWAY SURFACE IS GRAVEL, THIS SHALL BE ASPHALT CONCRETE.
2. FOR COMMERCIAL AND INDUSTRIAL DRIVEWAYS PLACE 150 x 150 – M.W. 18.7 x M.W. 18.7 PLACED 50mm FROM BOTTOM OF CONCRETE RAMP AND SIDEWALK.
3. WHEN BOULEVARD IS LESS THAN 1.5m OR WHEN THE SIDEWALK ABUTS THE CURB & GUTTER, SLOPE SIDEWALK IN A STRAIGHT LINE GRADE FROM BACK OF SIDEWALK TO LIP ON CURB OPENING.
4. MINIMUM DISTANCE BETWEEN CONTROL JOINTS IS 1200. PROVIDE CONTROL JOINTS WITHIN 150 OF CHANGE IN CROSS SECTION OF CURB.

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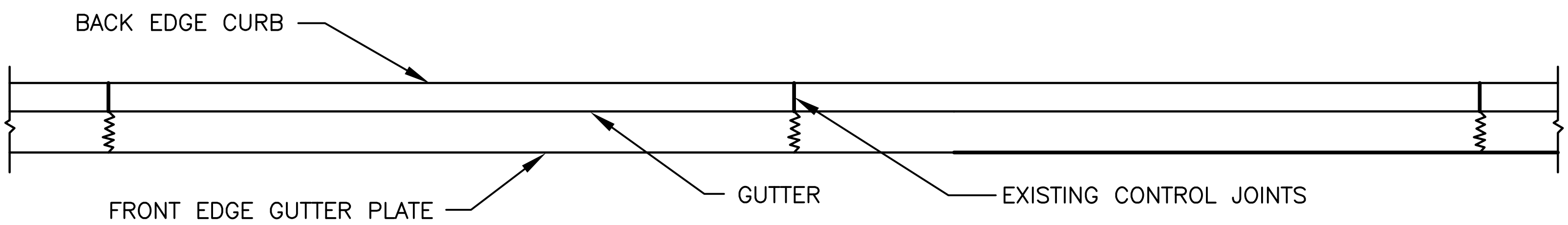
REGIONAL MUNICIPALITY

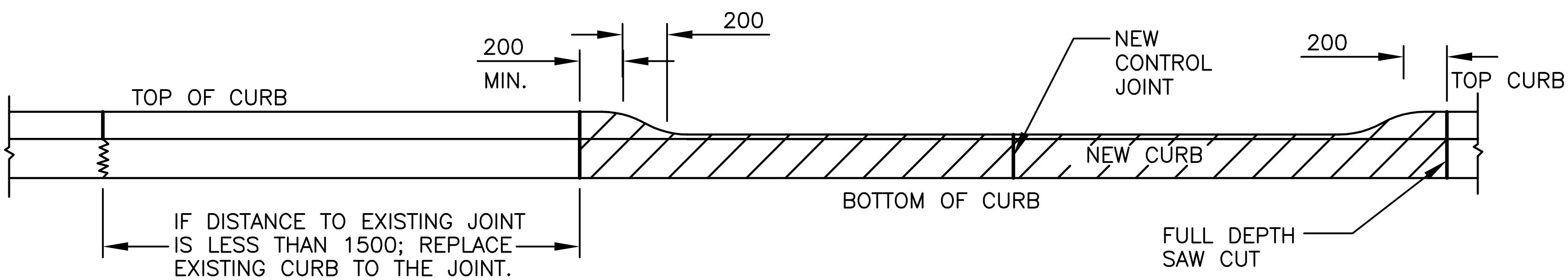
STANDARD DETAIL

DRIVEWAY RAMP

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 50



EXISTING CURB (PLAN VIEW)



PROPOSED CURB WITH OPENING (ELEVATION VIEW)

NOTE:

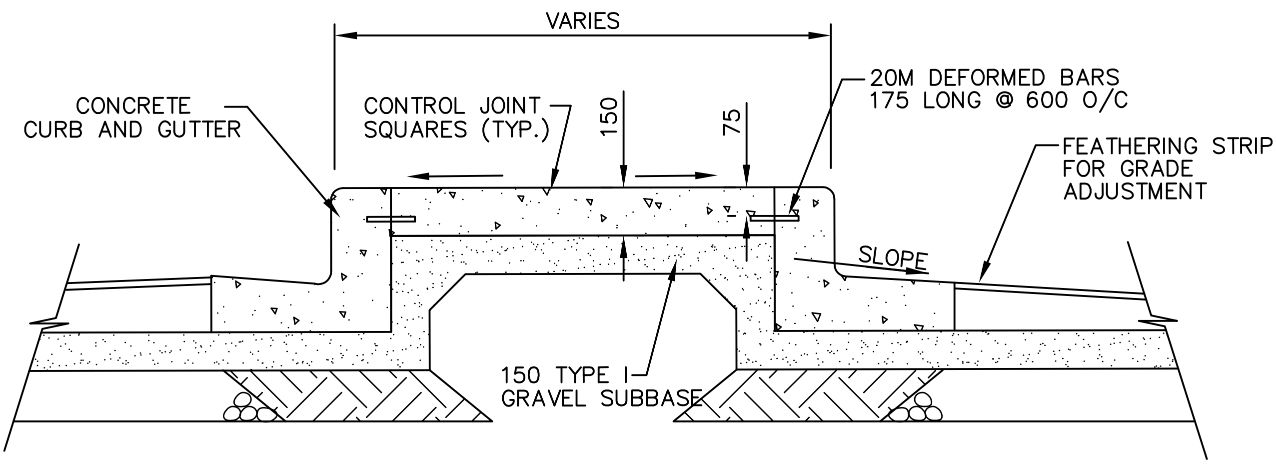
MINIMUM DISTANCE BETWEEN CONTROL JOINTS IS 1200.
PROVIDE CONTROL JOINTS WITHIN 150 OF CHANGE IN CROSS SECTION OF CURB.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

NEW DRIVEWAY ACCESS
IN EXISTING
FULL-DEPTH CURB

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 51



TYPICAL CONCRETE ISLAND CROSS SECTION

NOTES:

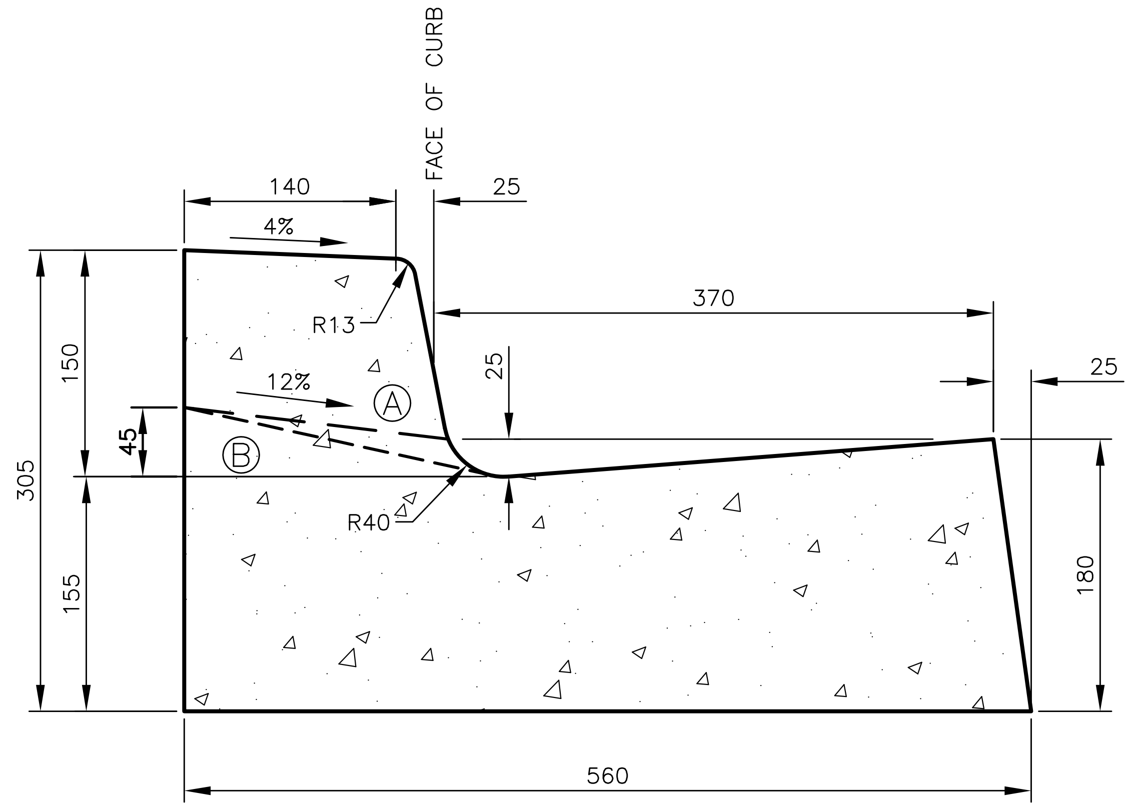
1. MAXIMUM SPACING FOR CONTROL JOINTS IS TO BE 2.5 m.
2. SLOPE SLAB TO FACILITATE DRAINAGE.
3. SLOPE GUTTER TO MATCH STREET CROSS SECTION.
4. ENDS AND CORNERS OF TRAFFIC ISLANDS TO HAVE HIGH BACK CONCRETE CURB AND GUTTER.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

CONCRETE TRAFFIC ISLAND

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 52



CURB & GUTTER SECTION

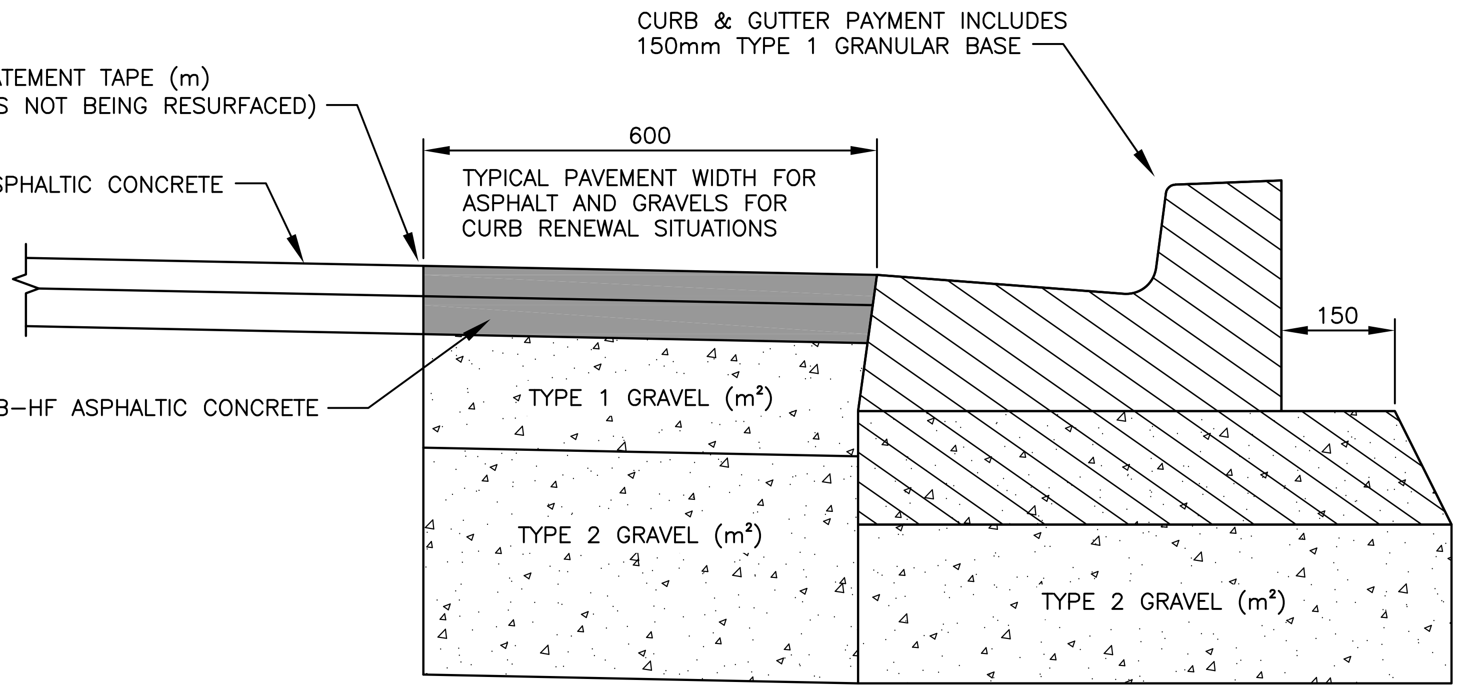
NOTES:
1. DASHED LINE "A" INDICATES CURB AT DRIVEWAYS.
2. DASHED LINE "B" INDICATES CURB AT PEDESTRIAN RAMPS.
3. TRANSITION TAPERS SHALL BE PROVIDED AT DRIVEWAYS AND PEDESTRIAN RAMPS AS PER THE "PEDESTRIAN RAMP ALIGNMENT" DETAIL AND "DRIVEWAY RAMP" DETAIL.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

CONCRETE CURB
& GUTTER

DATE: 2013	REFERENCE	APPROVED
SCALE: 1:5		FIG No.: HRM 53



NOTES:

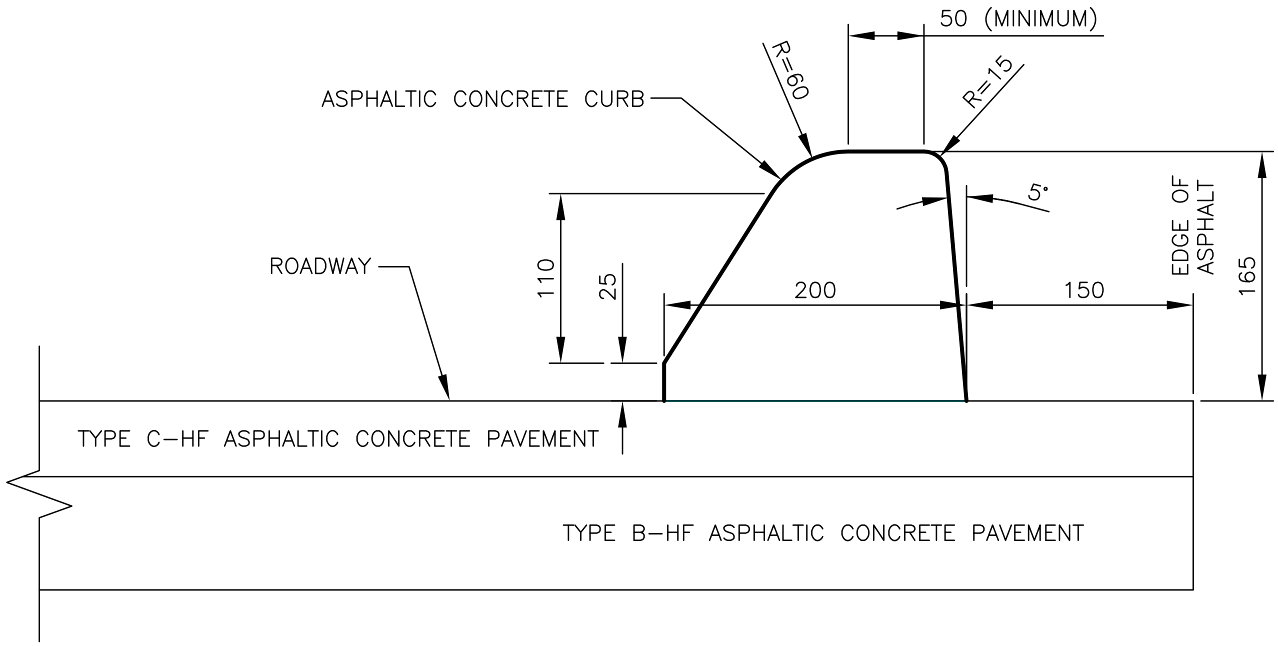
1. CURB AND GUTTER PAYMENT INCLUDES A GRANULAR BASE OF 150mm OF TYPE 1 GRAVEL, OR AS INDICATED ON DRAWINGS.
2. ASPHALT AND GRAVEL THICKNESS AS INDICATED ON DRAWING.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

CURB RENEWAL/PAYMENT

DATE: 2013	REFERENCE	APPROVED
SCALE: 1:10		FIG No.: HRM 54

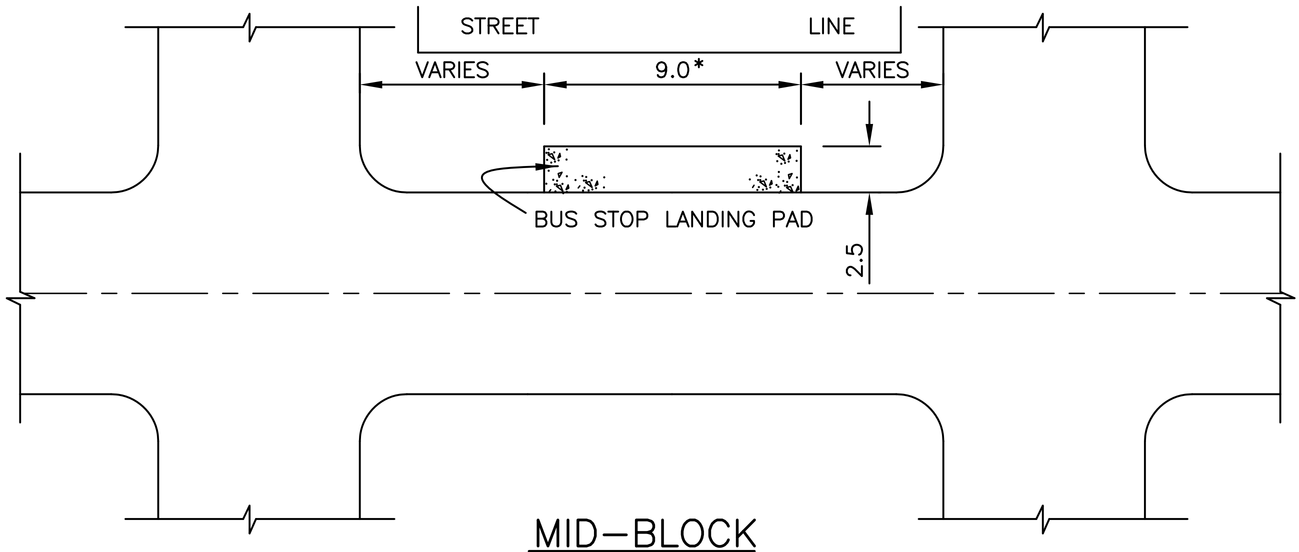


HALIFAX REGIONAL MUNICIPALITY

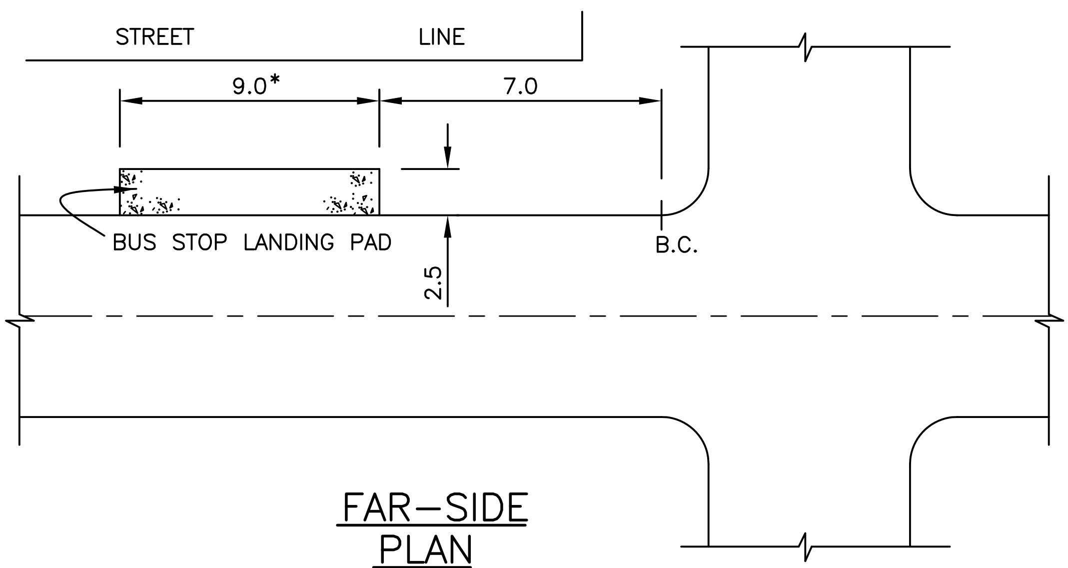
STANDARD DETAIL

ASPHALT CURB

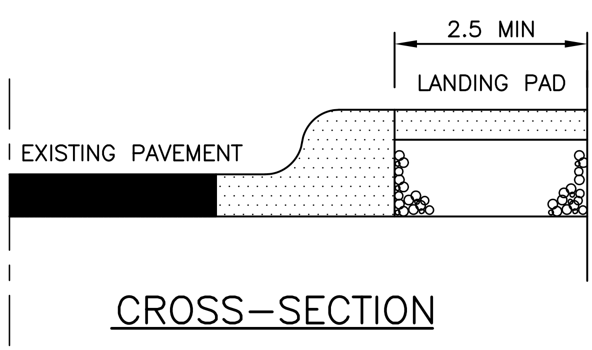
DATE: 2013	REFERENCE	APPROVED
SCALE: 1:20		FIG No.: HRM 55



MID–BLOCK
PLAN



FAR–SIDE
PLAN



CROSS–SECTION

* FOR ARTICULATED BUS ROUTES INCREASE TO 14.5m.

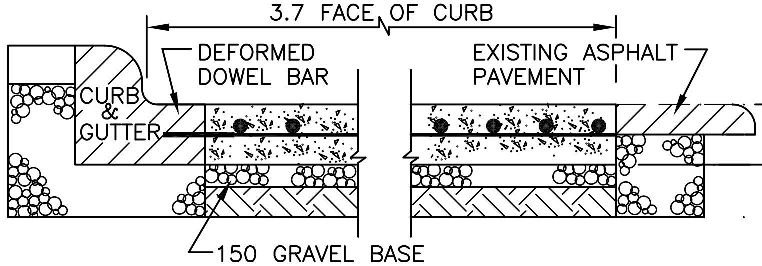
THE 2.5m LANDING PAD MAY INCLUDE PORTION OF SIDEWALK.

HALIFAX
REGIONAL MUNICIPALITY

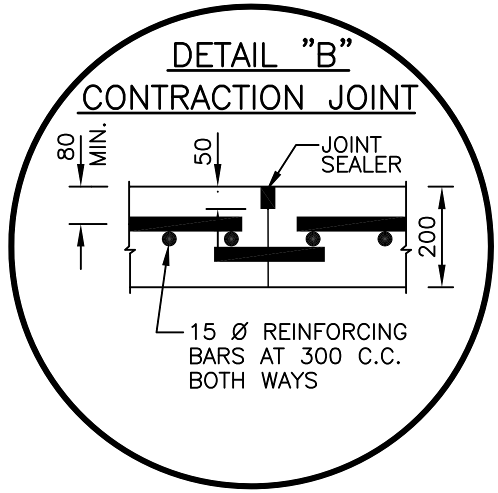
STANDARD DETAIL

CONCRETE BUS STOP
LANDING PAD

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 56

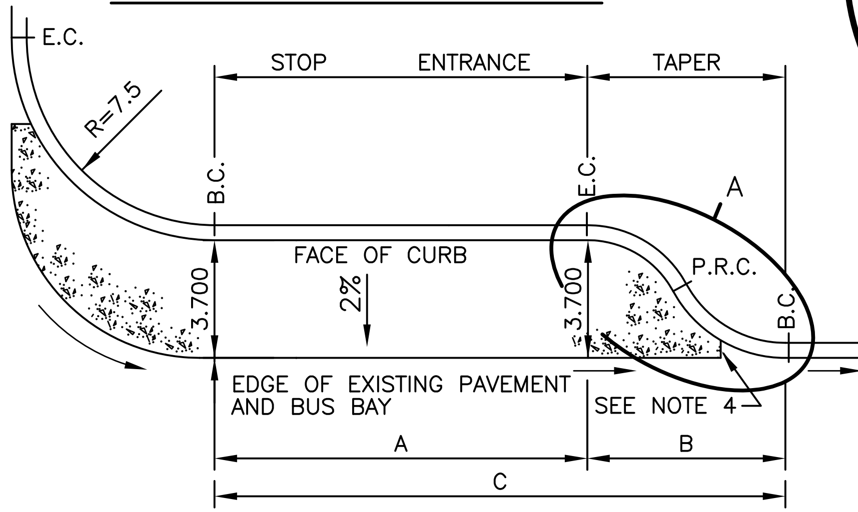


TRANSVERSE SECTION

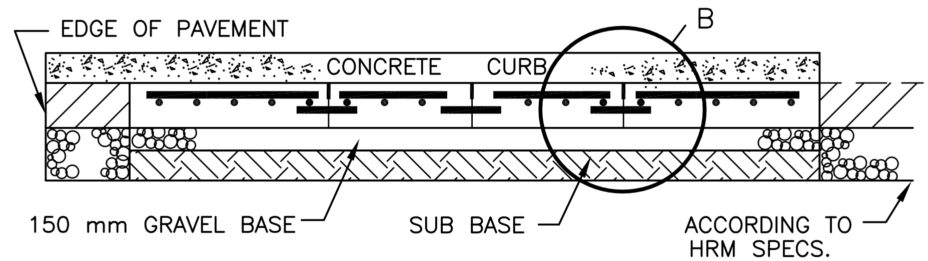


NOTES:

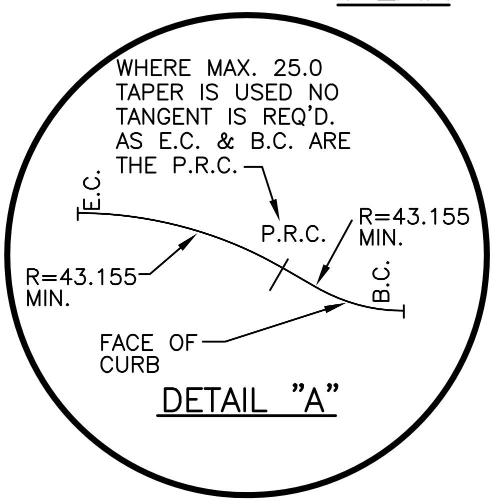
1. 15M BARS AT 300 mm C.C. BOTH WAYS.
2. CONTROL JOINTS TO BE AT A DEPTH OF 1/4 OF PAD THICKNESS & SEALED ACCORDING TO HRM SPECS.
3. CONTROL JOINT EVERY 4.0 m MAXIMUM.
4. MINIMUM WIDTH OF CONCRETE BASE IS 0.6 m.



PLAN



LONGITUDINAL SECTION



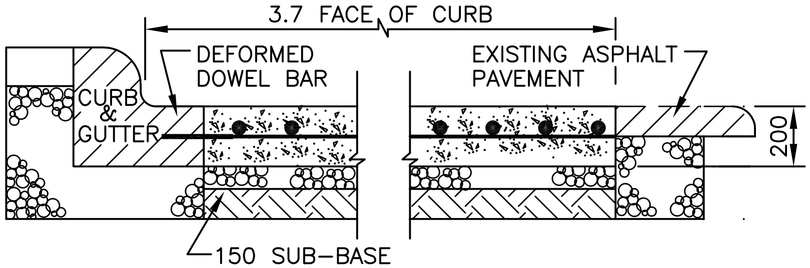
	SINGLE BUS BAY (MINIMUM DIMENSION)	DOUBLE BUS BAY (MINIMUM DIMENSION)
A	16	34
B	25	25
C	41	59

HALIFAX
REGIONAL MUNICIPALITY

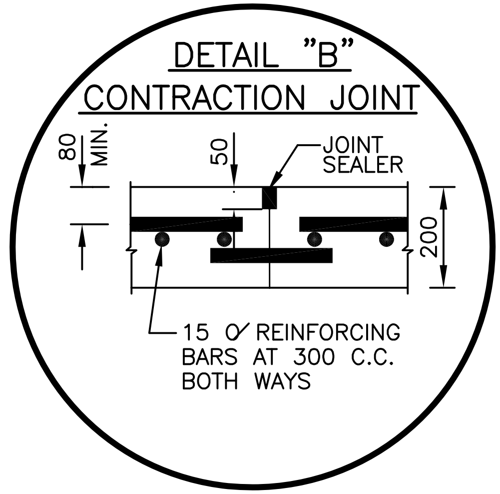
STANDARD DETAIL

CONCRETE BUS BAY
PAD – END BLOCK

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 57



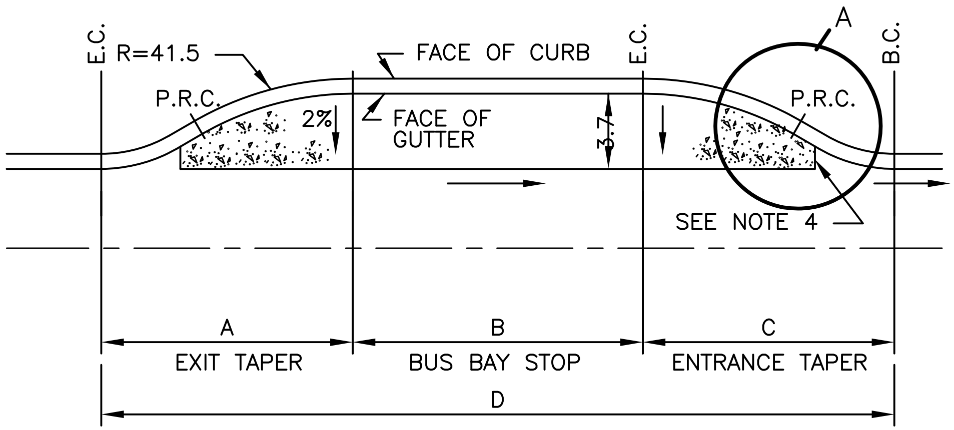
TRANSVERSE SECTION



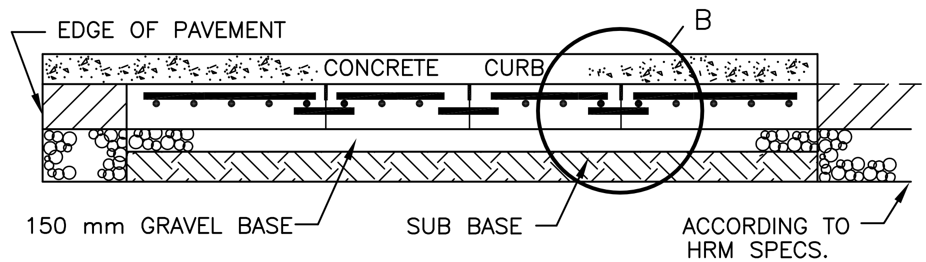
DETAIL "B" CONTRACTION JOINT

NOTES:

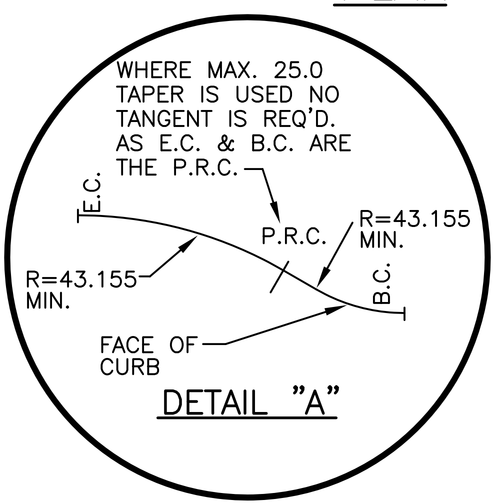
1. 15M BARS AT 300 mm C.C. BOTH WAYS.
2. CONTROL JOINTS TO BE AT A DEPTH OF 1/4 OF PAD THICKNESS & SEALED ACCORDING TO HRM SPECS.
3. CONTROL JOINT EVERY 4.0 m MAXIMUM.
4. MINIMUM WIDTH OF CONCRETE BASE IS 0.6 m.



PLAN



LONGITUDINAL SECTION



DETAIL "A"

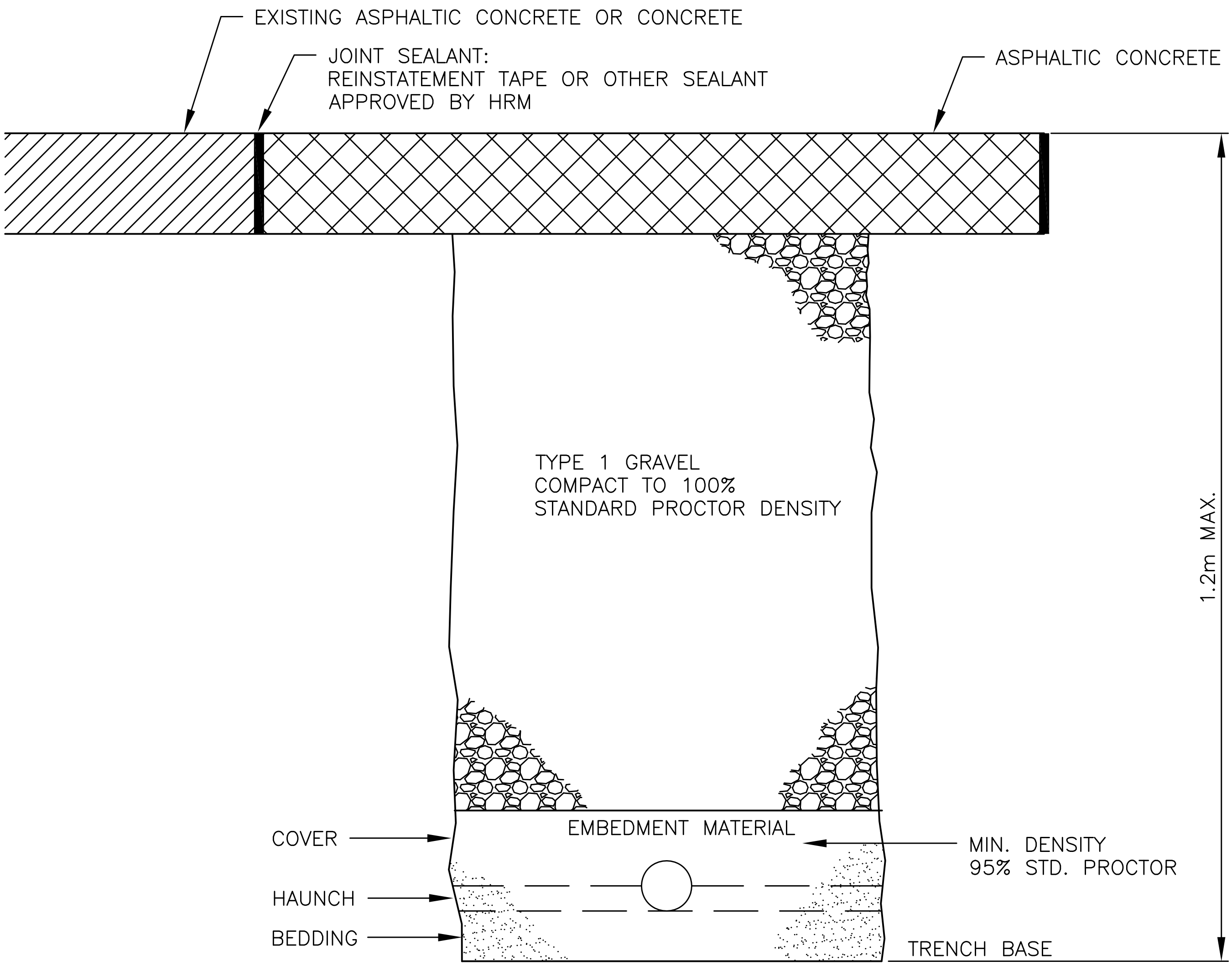
	SINGLE BUS BAY (MINIMUM DIMENSION)	DOUBLE BUS BAY (MINIMUM DIMENSION)
A	25	25
B	16	32
C	25	25
D	66	82

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

CONCRETE BUS BAY PAD – MID BLOCK

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 58



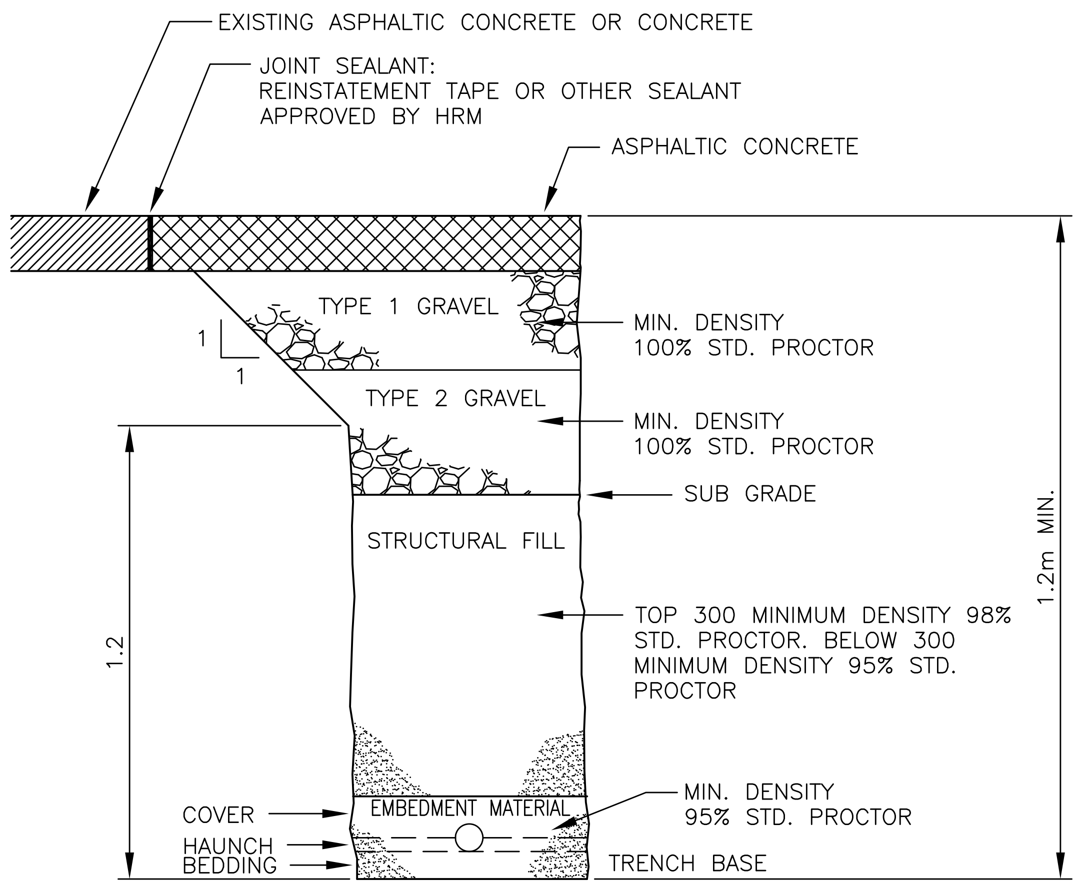
NOTE:
1. REFER TO THE TRENCH REINSTATEMENT SPECIFICATIONS FOR SPECIFIC REQUIREMENTS.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

SHALLOW TRENCH REINSTATEMENT

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 59



NOTE:
1. REFER TO THE TRENCH REINSTATEMENT SPECIFICATIONS FOR SPECIFIC REQUIREMENTS.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

DEEP TRENCH REINSTATEMENT

DATE: 2013	REFERENCE	APPROVED
SCALE: 1:20		FIG No.: HRM 60

TRENCH BACKFILL AND REINSTATEMENT – TESTING REQUIREMENTS

<table>
<tr><th rowspan="2">TEST REQUIRED</th><th rowspan="2">COMPACTION REQUIRED</th><th colspan="2">MINIMUM TEST FREQUENCY</th></tr>
<tr><th>TRENCH LESS THAN 1.5m WIDE</th><th>TRENCH GREATER THAN 1.5m WIDE</th></tr>
<tr><td>COMPACTION OF BEDDING, HAUNCH & COVER MATERIALS (ASTM D698) *SEE NOTE 3</td><td>95% MINIMUM AT 3% ± OF OPTIMUM MOISTURE. (SEE NOTES)</td><td rowspan="3">1 PER 25m AT THE CENTRELINE OF THE TRENCH (AND EACH BENCH OR SECTION OF TRENCH LESS THAN 25m IN LENGTH) FOR EACH 600 VERTICAL DEPTH OF BACKFILL MATERIAL A MINIMUM OF 3 TESTS PER TRENCH SHALL BE PERFORMED.</td><td rowspan="3">3 PER 25m (AND EACH BENCH OR SECTION OF TRENCH LESS THAN 25m 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 300mm FROM THE EDGE OF THE TRENCH). A MINIMUM OF 3 TESTS PER TRENCH SHALL BE PERFORMED.</td></tr>
<tr><td rowspan="2">COMPACTION OF STRUCTURAL FILL TO SUBGRADE ELEVATION (ASTM D698) *SEE NOTE 3</td><td>TOP 300 98% COMPACTION MINIMUM AT 3% ± OF OPTIMUM MOISTURE. (SEE NOTES)</td></tr>
<tr><td>BELOW 300 95% COMPACTION MINIMUM AT 3% ± OF OPTIMUM MOISTURE. (SEE NOTES)</td></tr>
<tr><td>COMPACTION OF TYPE 1 & TYPE 2 BASE & SUB–BASE MATERIALS (ASTM D698)</td><td>100% COMPACTION MINIMUM AT 3% ± OF OPTIMUM MOISTURE (SE NOTES)</td><td>FOR EACH MATERIAL, 1 PER 25m AT THE CENTRELINE OF THE TRENCH (AND EACH BRANCH OR SECTION OF THE TRENCH LESS THAN 25m IN LENGTH) FOR EACH 300VERTICAL DEPTH OF BACKFILL MATERIAL. A MINIMUM OF 3 TESTS PER TRENCH SHALL BE PERFORMED.</td><td>FOR EACH MATERIAL, 3 PER 25m (AND EACH BRANCH OR SECTION OF TRENCH LESS THAN 25m 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 300mm FROM THE EDGE OF THE TRENCH). A MINIMUM OF 3 TESTS PER TRENCH SHALL BE PERFORMED.</td></tr>
<tr><td>COMPACTION OF HOT MIX ASPHALT PAVEMENT (ASTM D3549 & 2726)</td><td>95% OF MAXIMUM THEORETICAL DENSITY OF COMPARATIVE MARSHALL LABORATORY SAMPLE.</td><td>ONE TEST FOR EACH 75m² OF PAVEMENT SURFACE. A MINIMUM OF 1 TEST PER TRENCH.</td><td>ONE TEST FOR EACH 75m² OF PAVEMENT SURFACE. A MINIMUM OF 1 TEST PER TRENCH.</td></tr>
</table>

NOTES:

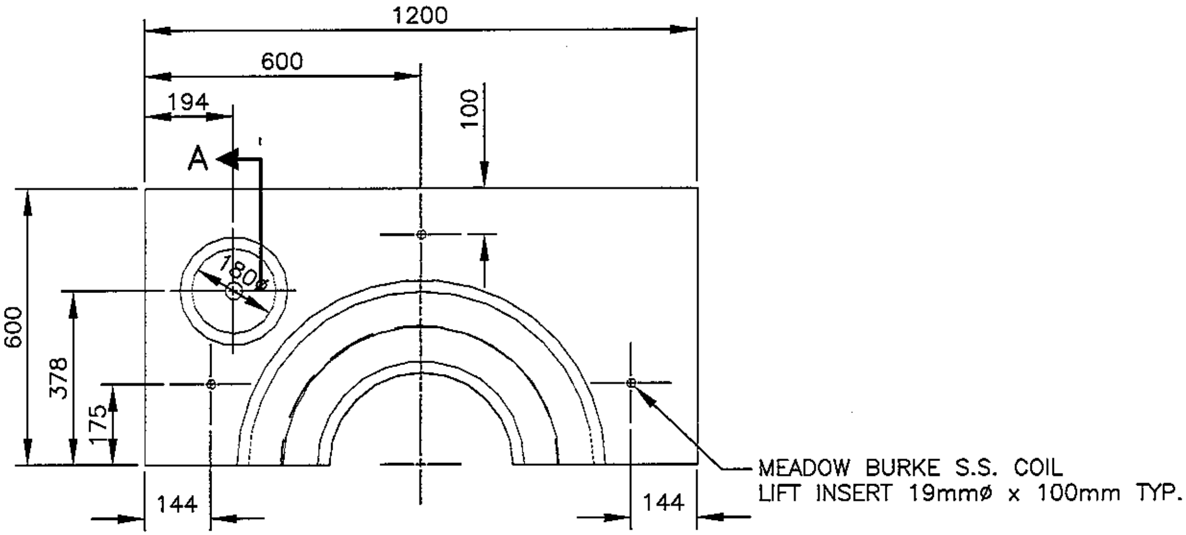
1. THE TRENCH WIDTH FOR DETERMINATION OF THE TEST SHALL BE THE WIDTH OF THE TRENCH AT THE LEVEL OF THE TEST BEING PERFORMED.
2. IF MINIMUM MOISTURE DENSITY REQUIREMENTS ARE NOT MET BY THESE TESTS, THE CONTRACTOR SHALL RECOMPACT THE TRENCH AS NEEDED TO ACHIEVE THE SPECIFIED COMPACTION. SUCH RECOMPACTION 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 50m, 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 ONLY REQUIRED WHEN THE TOTAL LENGTH OF TRENCH EXCEEDS 100 m, OR WHEN REQUESTED BY THE HRM INSPECTOR.

HALIFAX
REGIONAL MUNICIPALITY

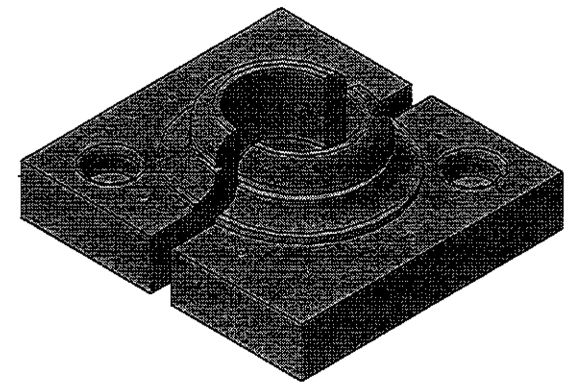
STANDARD DETAIL

TRENCH BACKFILL & REINSTATEMENT–TESTING

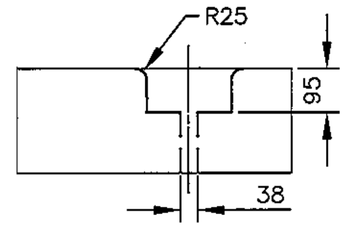
DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 61



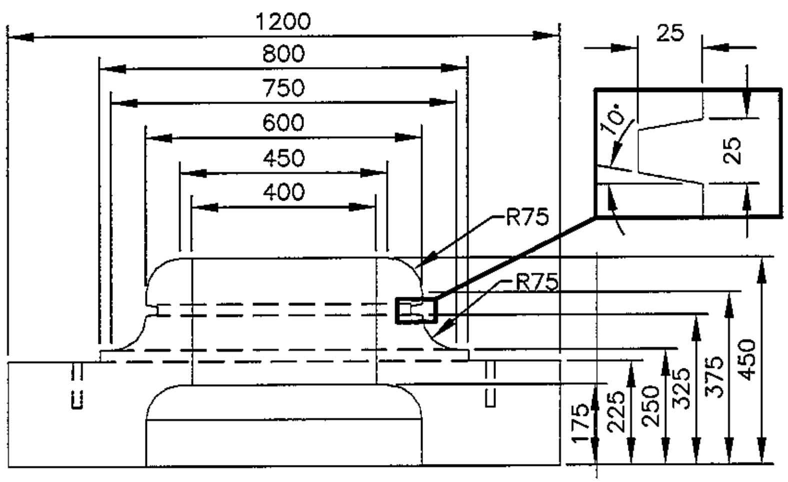
TOP VIEW



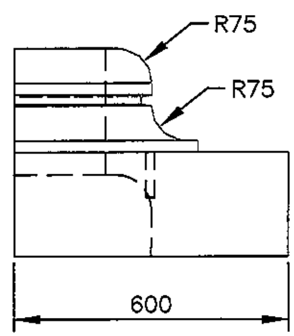
ISOMETRIC VIEW



SECTION A



FRONT VIEW



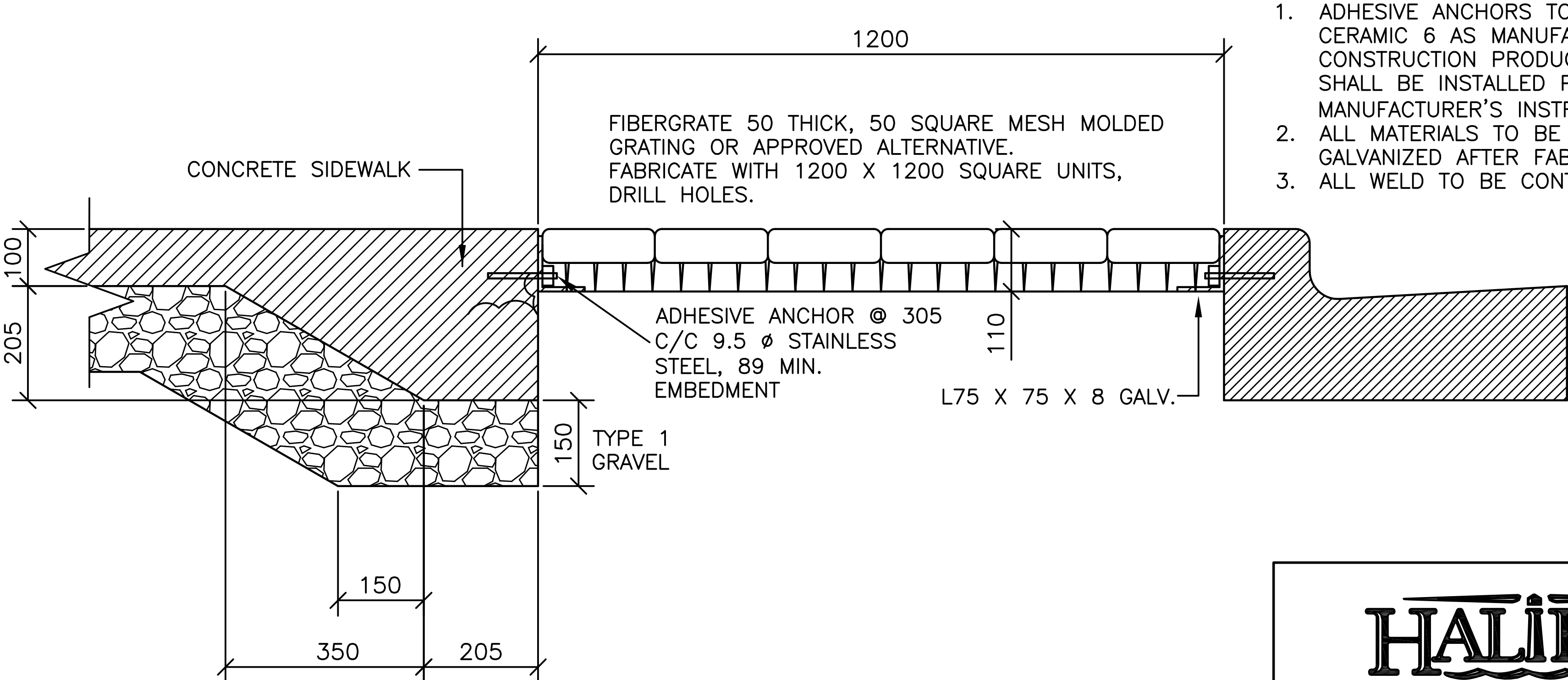
SIDE VIEW

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

PRE-FABRICATED TREE COLLAR

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 62



NOTES:

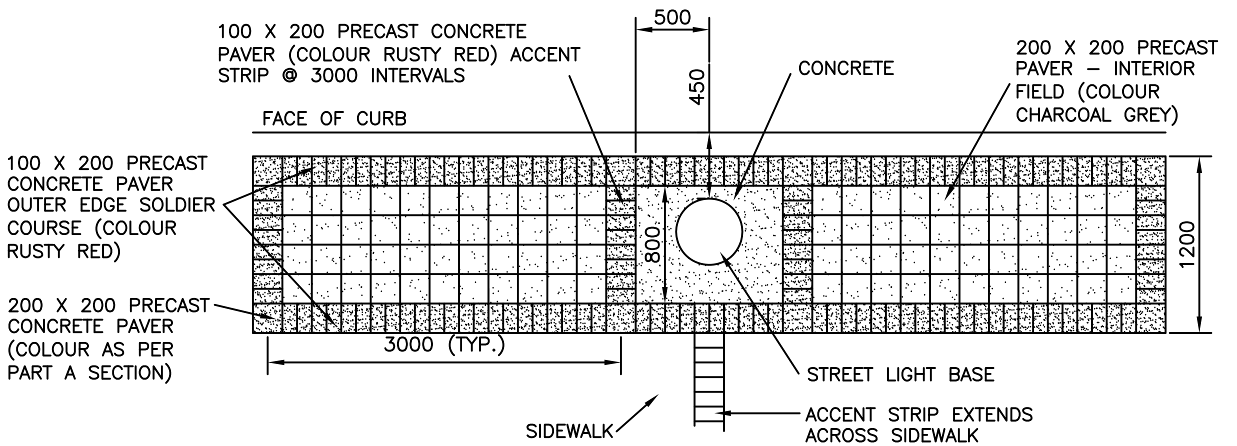
1. ADHESIVE ANCHORS TO BE EPCON CERAMIC 6 AS MANUFACTURED BY ITS CONSTRUCTION PRODUCTS. ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
2. ALL MATERIALS TO BE HOT DIPPED GALVANIZED AFTER FABRICATION.
3. ALL WELD TO BE CONTINUOUS.

HALIFAX REGIONAL MUNICIPALITY

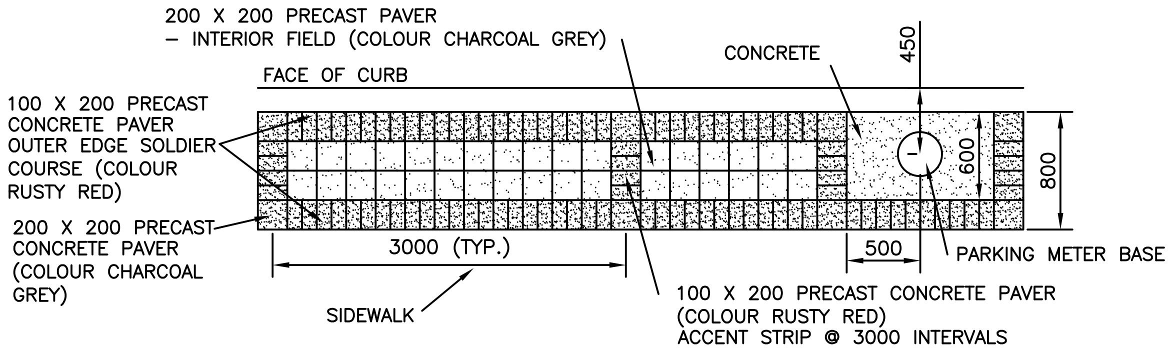
STANDARD DETAIL

FLOATING SIDEWALK

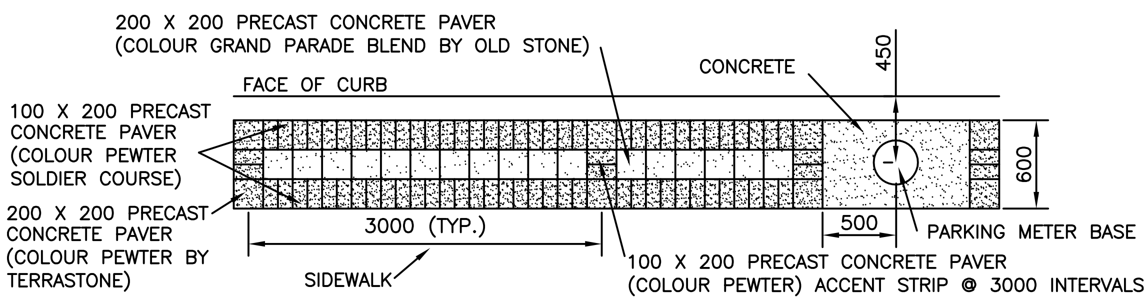
DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 63



TYPICAL CONCRETE PAVER PATTERN – 1200mm WIDTH



TYPICAL CONCRETE PAVER PATTERN – 800mm WIDTH



TYPICAL CONCRETE PAVER PATTERN – 600mm WIDTH

NOTES:

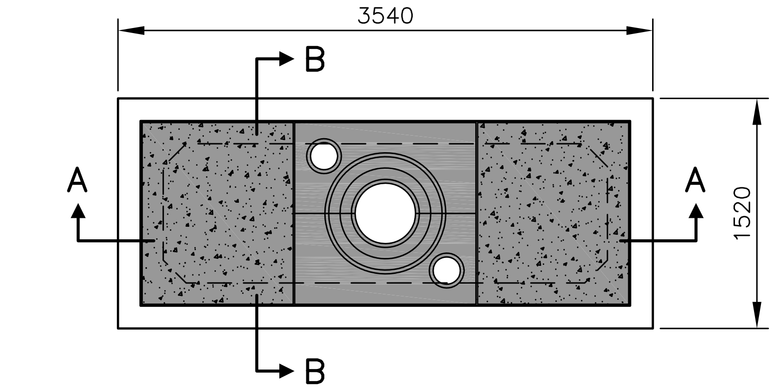
1. FILL VOID BETWEEN PAVERS WITH POLYMERIC SAND.
2. CONCRETE PAVERS SHALL BE PLACED ON A 40 SAND BEDDING AND COMPACTED 150 TYPE 1 GRAVEL BASE.

HALIFAX REGIONAL MUNICIPALITY

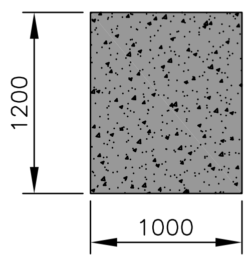
STANDARD DETAIL

PAVER PATTERN

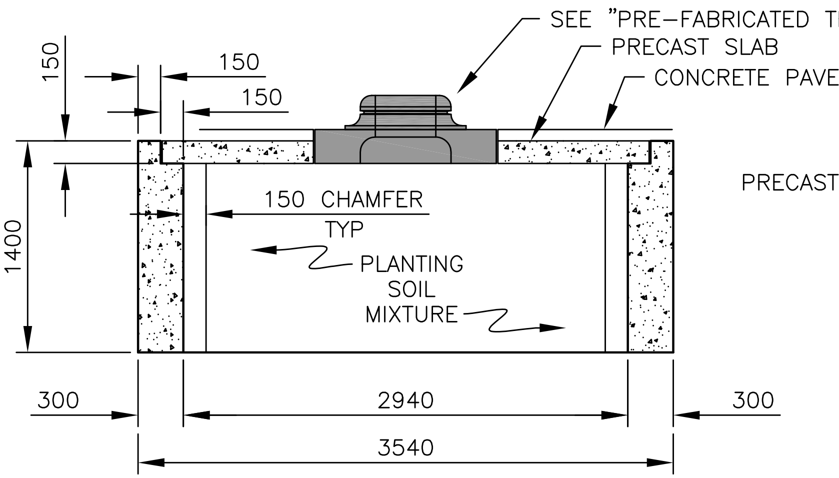
DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 64



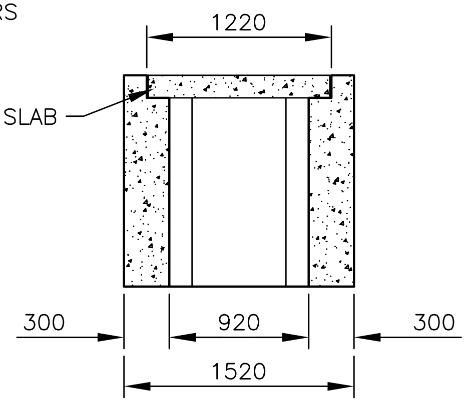
PLAN



PRECAST SLAB



SECTION A-A



SECTION B-B

NOTES:

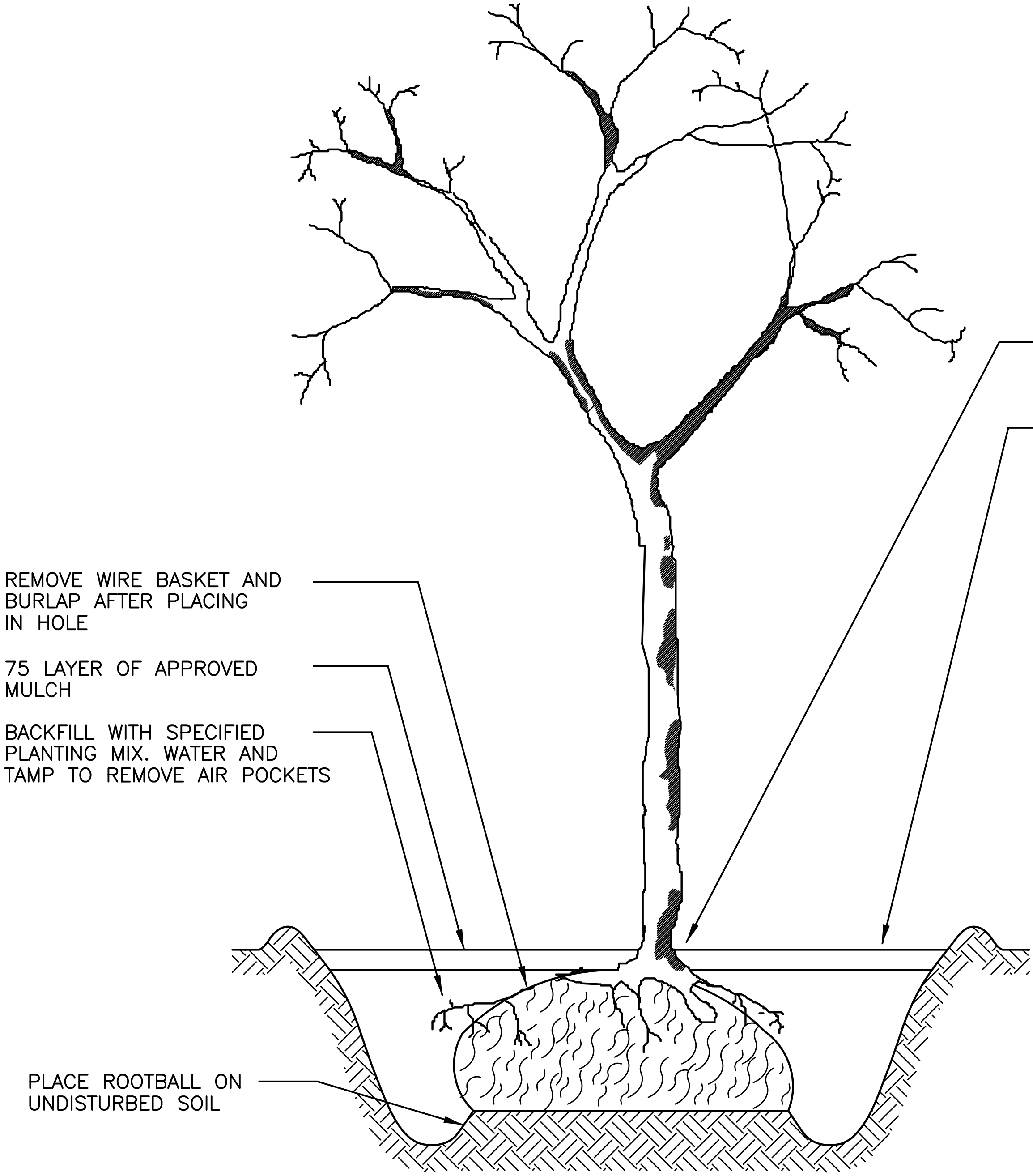
1. VAULT MAY HAVE TO BE CAST IN PLACE TO AVOID CONFLICTS WITH EXISTING INFRASTRUCTURE AS WARRANTED BY FIELD CONDITIONS.
2. VAULT SHALL BE PLACED ON 150 TYPE 1 GRAVEL BASE. EXTEND GRAVEL BASE 150 MIN. BEYOND EDGE OF VAULT.
3. SHOP DRAWINGS REQUIRED FOR CONCRETE VAULT.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

TREE VAULT

DATE: 2013	REFERENCE	APPROVED
SCALE: 1:50		FIG No.: HRM 65



NOTE:

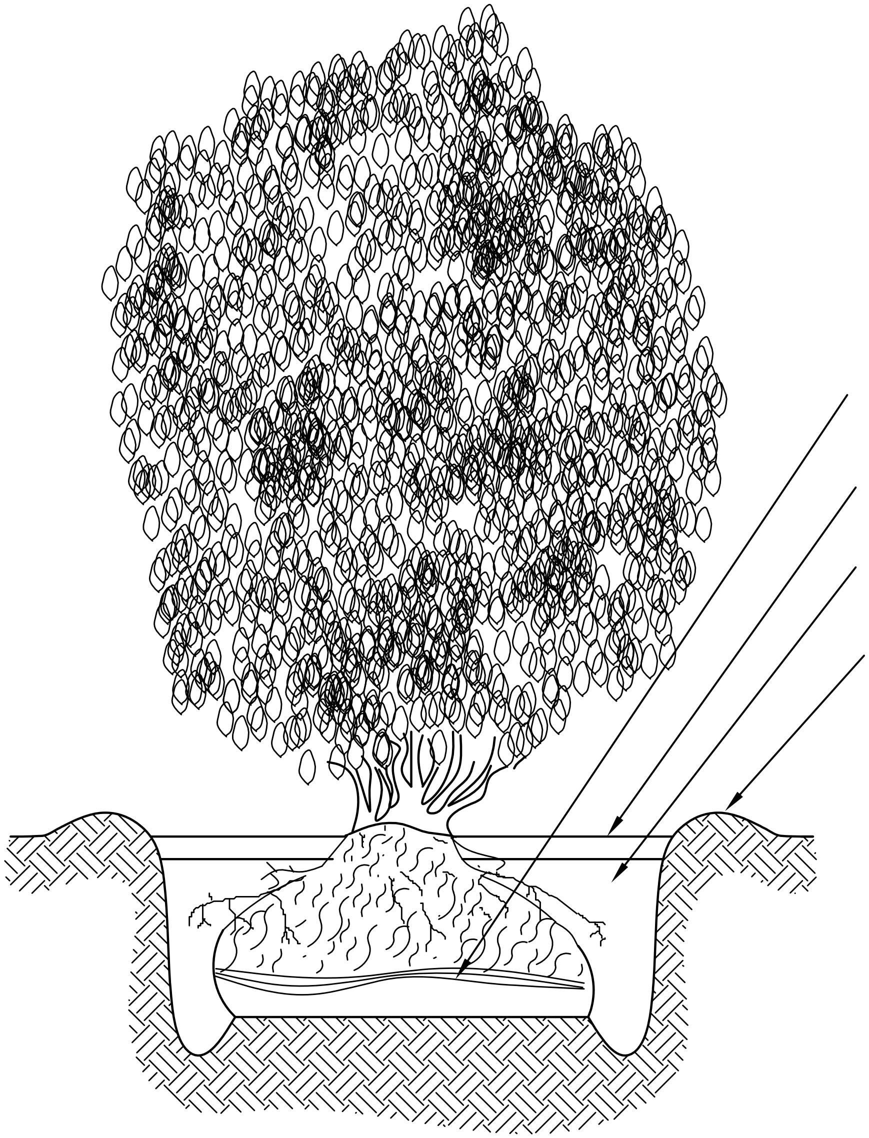
1. THE SOIL USED FOR TREE PLANTING SHALL BE OF GOOD FERTILE TOPSOIL AUGMENTED WITH EITHER BONE OR FISH MEAL.
2. WIDTH OF HOLE TO BE 1.5 m.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

TREE PLANTING

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 66



NOTE:

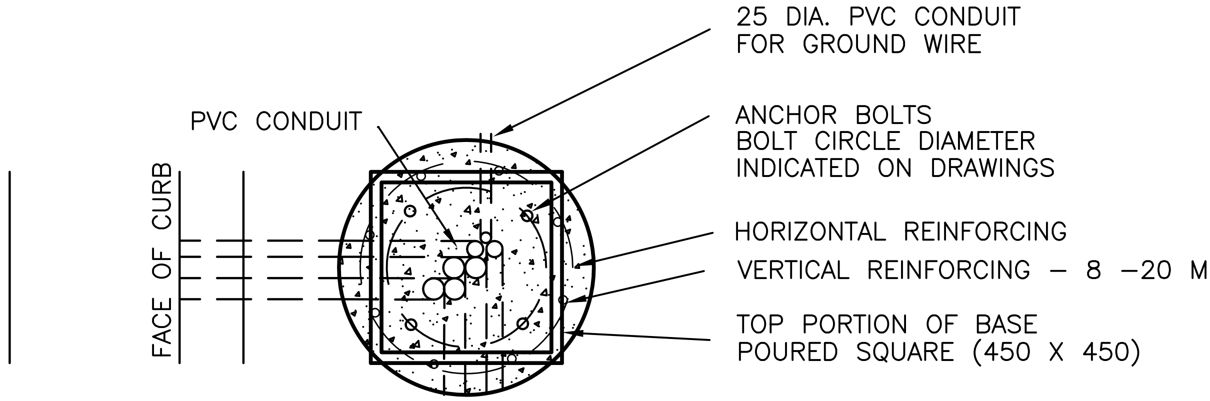
1. PLANTING MIX SHALL BE 3 PARTS FERTILE TOPSOIL TO 1 PART PEAT MOSS

HALIFAX REGIONAL MUNICIPALITY

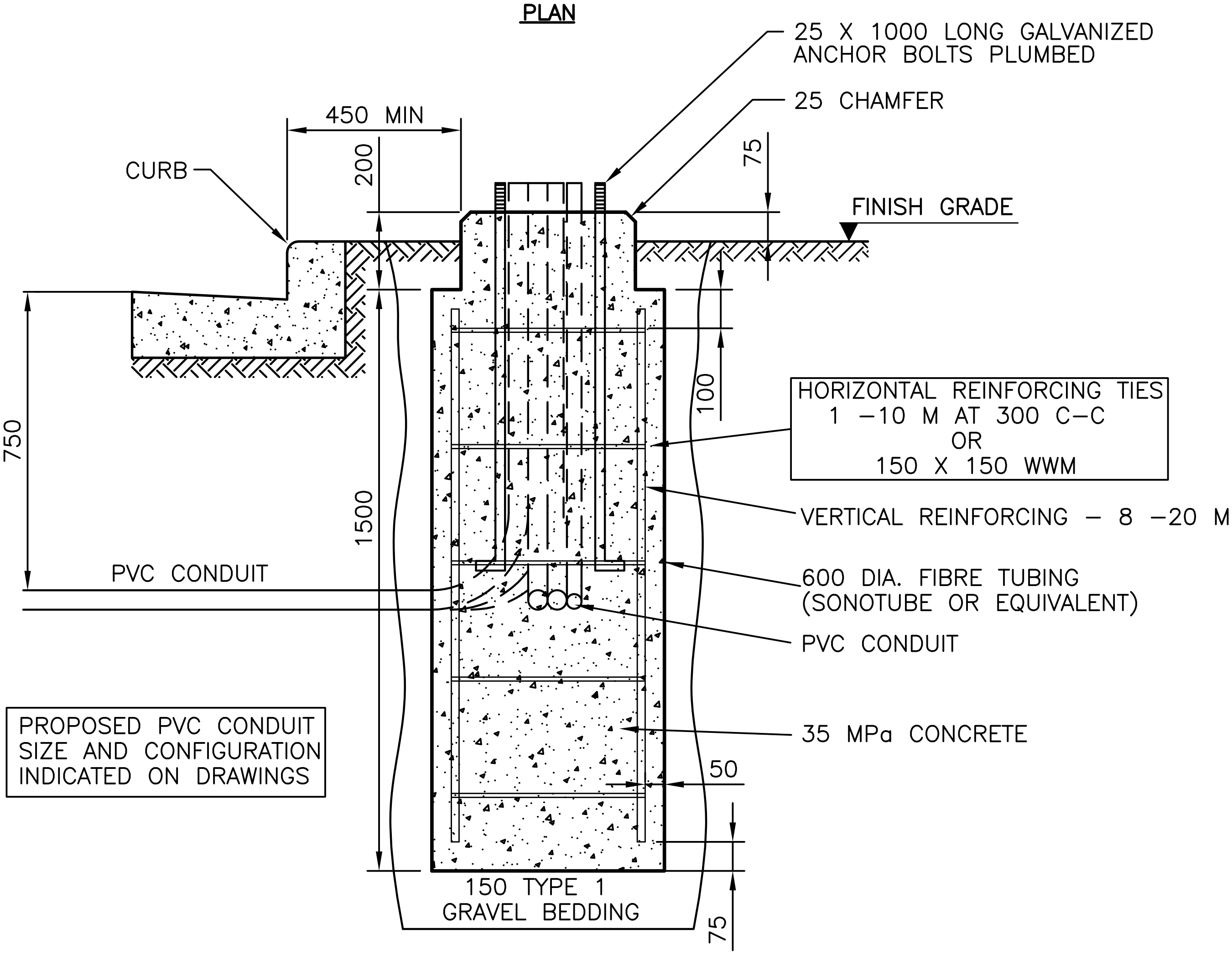
STANDARD DETAIL

SHRUB PLANTING

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 67



PLAN



SECTION

NOTES:

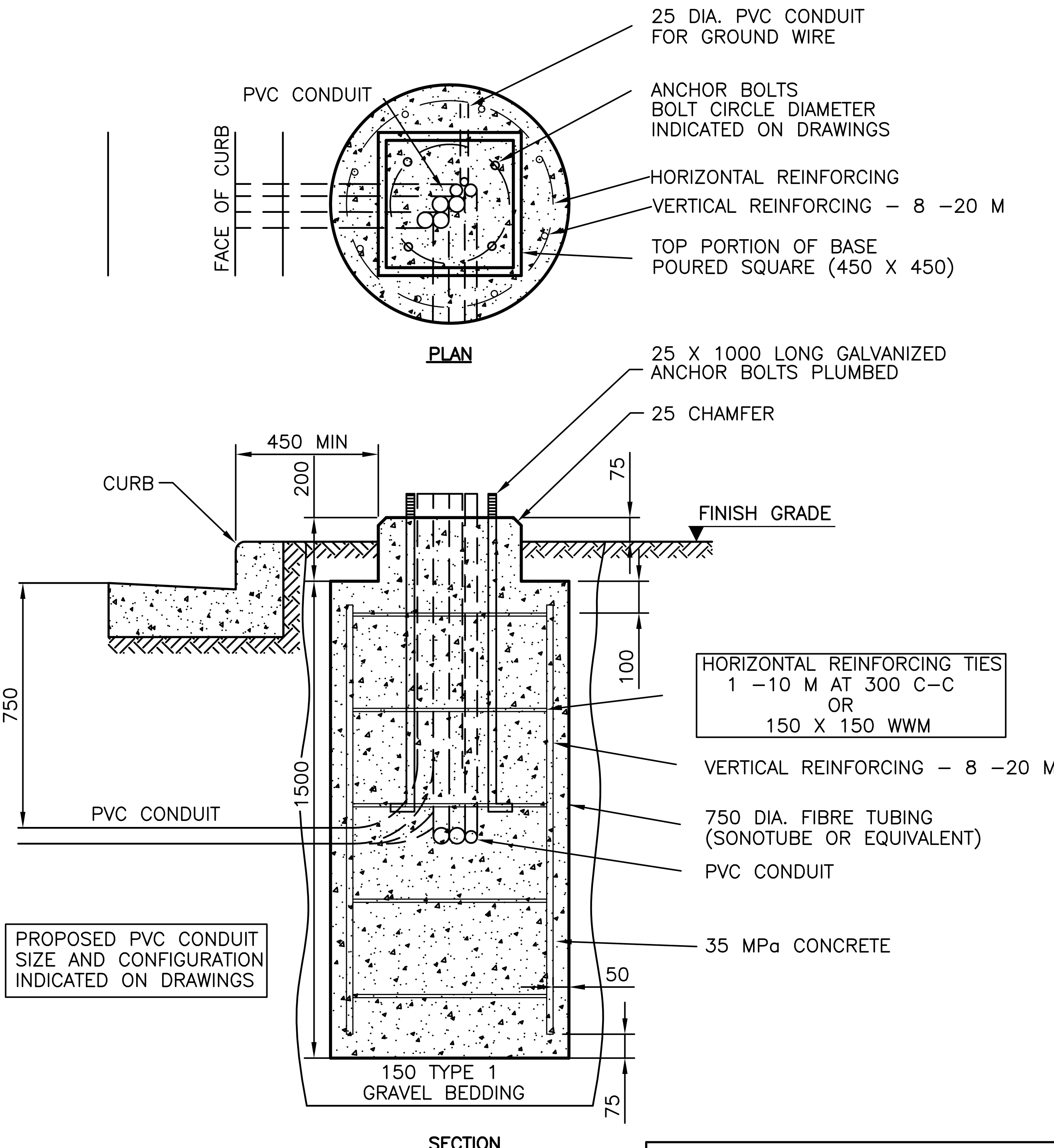
1. CONCRETE MUST BE PLACED IN A SINGLE POUR
2. ALL DIMENSIONS IN MILLIMETRES

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

TRAFFIC SIGNAL BASE
TYPE 1

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 68



HALIFAX
REGIONAL MUNICIPALITY

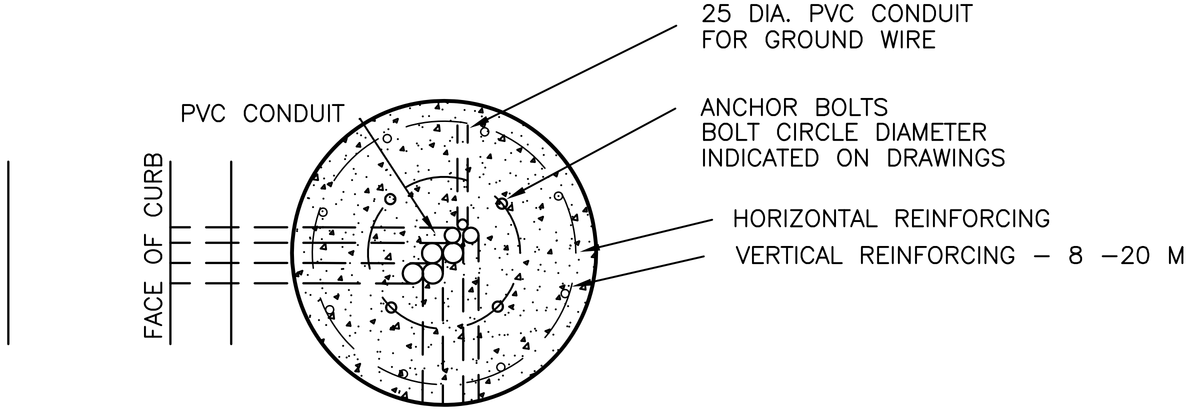
STANDARD DETAIL

TRAFFIC SIGNAL BASE
TYPE 2

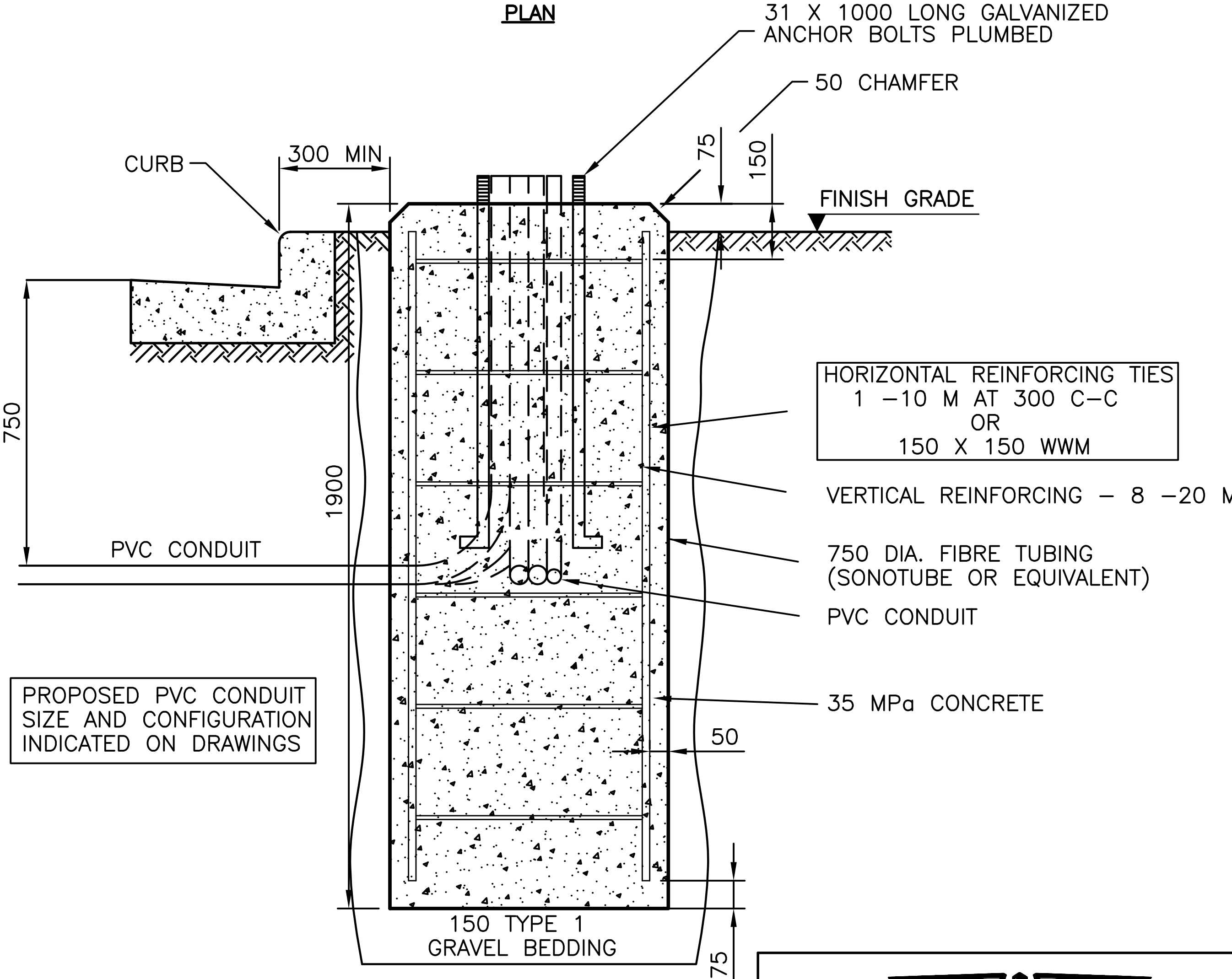
DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 69

NOTES:

1. CONCRETE MUST BE PLACED IN A SINGLE POUR
2. ALL DIMENSIONS IN MILLIMETRES



PLAN



SECTION

NOTES

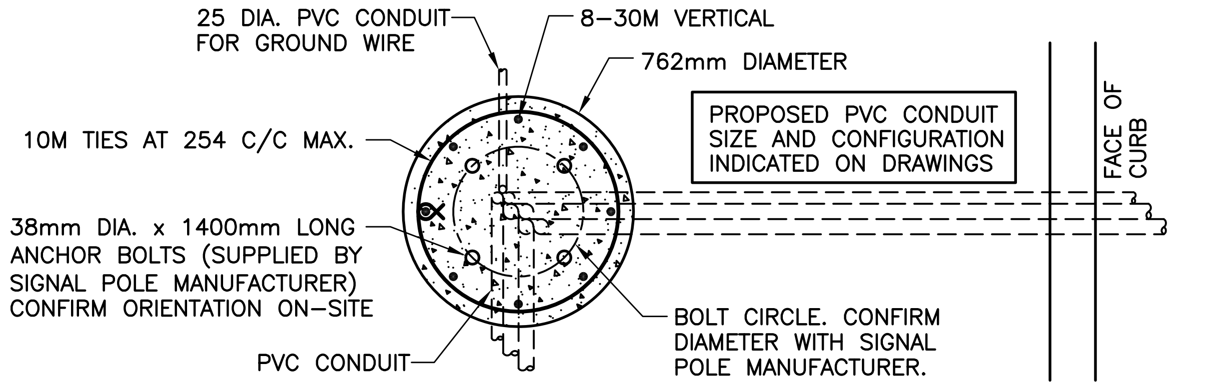
1. CONCRETE MUST BE PLACED IN A SINGLE POUR
2. ALL DIMENSIONS IN MILLIMETRES

HALIFAX
REGIONAL MUNICIPALITY

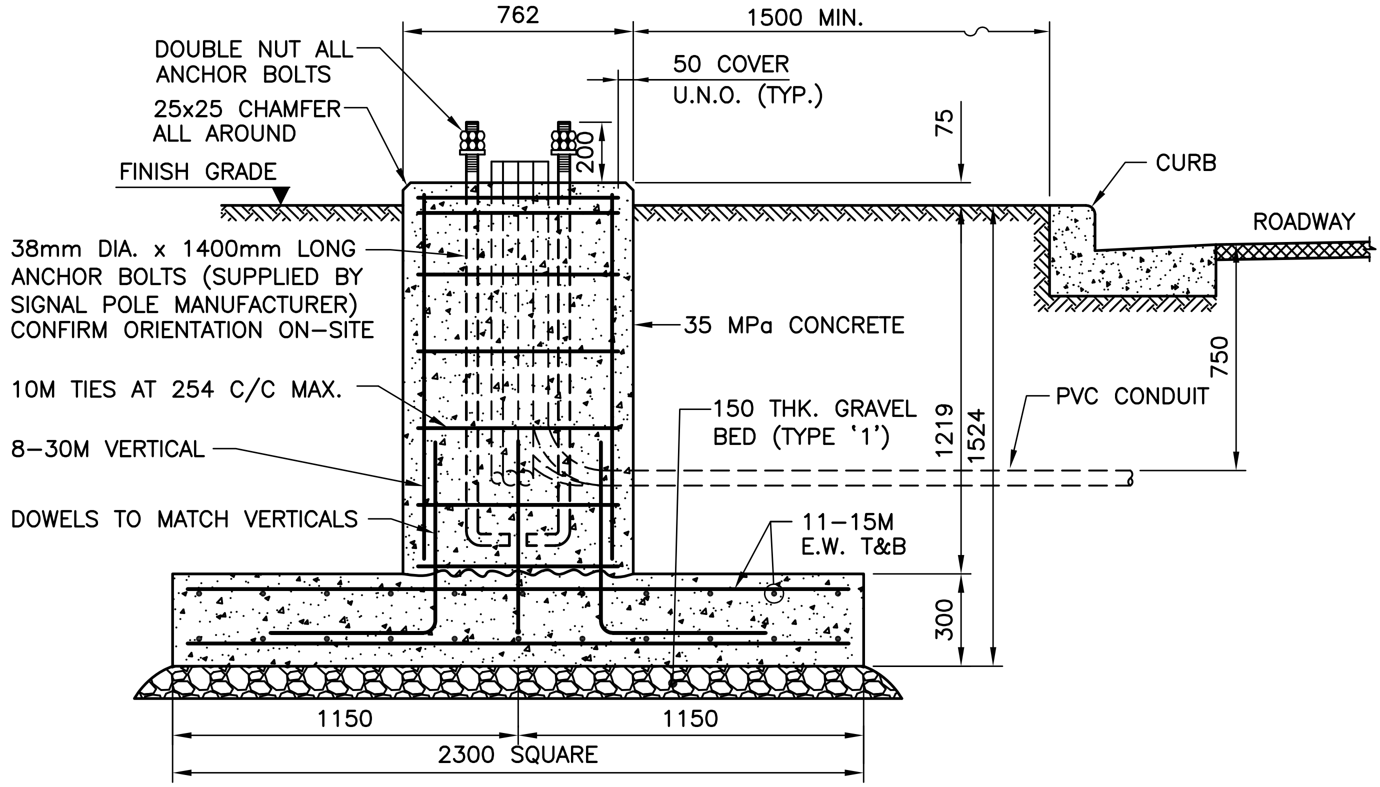
STANDARD DETAIL

TRAFFIC SIGNAL BASE
TYPE 3

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 70



PLAN



SECTION

NOTES:

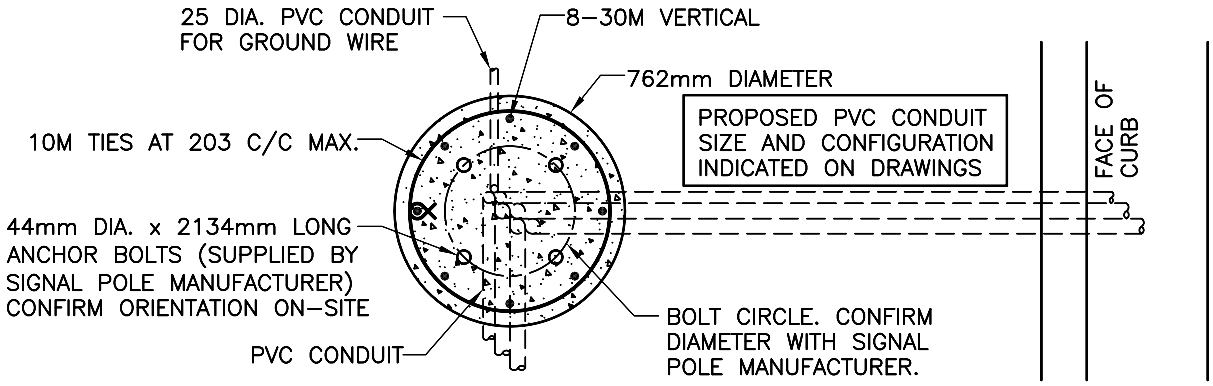
1. MAX. 12.2 m SIGNAL ARM LENGTH
2. ALL DIMENSIONS IN MILLIMETRES.
3. CONCRETE AIR CONTENT TO BE 6.5% ±1.5%.
4. CONCRETE 28 DAY COMPRESSIVE STRENGTH TO BE 35 MPa.
5. CONTRACTOR TO CONFIRM ANCHOR BOLT DIAMETER, LENGTH AND BOLT CIRCLE DIAMETER BEFORE PROCEEDING WITH WORK.
6. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL, STRUCTURAL FILL OR BEDROCK WITH A MINIMUM BEARING CAPACITY OF 2500 psf.
7. THIS TRAFFIC SIGNAL BASE APPLIES TO STEEL POLES ONLY.

HALIFAX
REGIONAL MUNICIPALITY

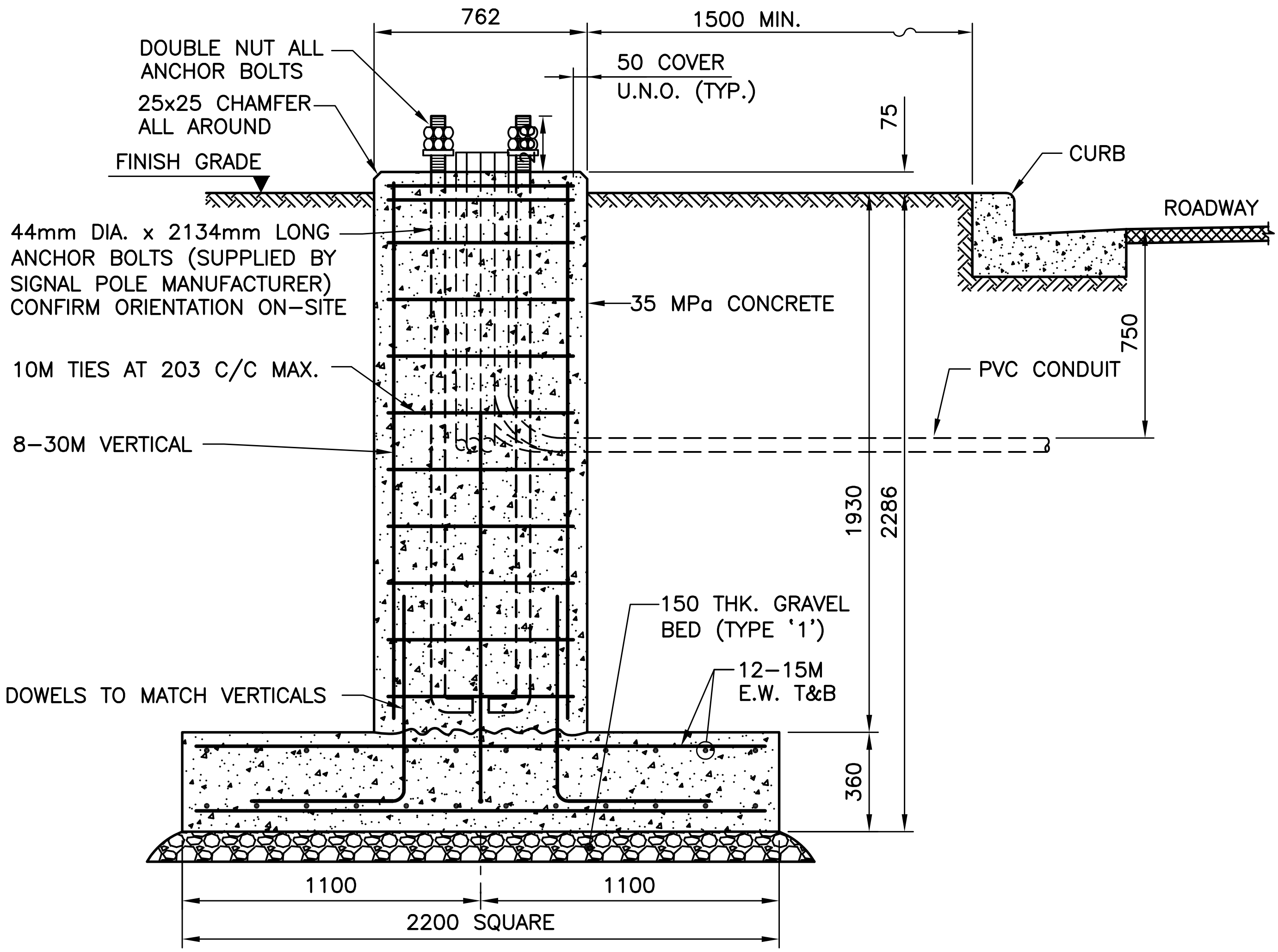
STANDARD DETAIL

TRAFFIC SIGNAL BASE
TYPE 4

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 71



PLAN



SECTION

NOTES:

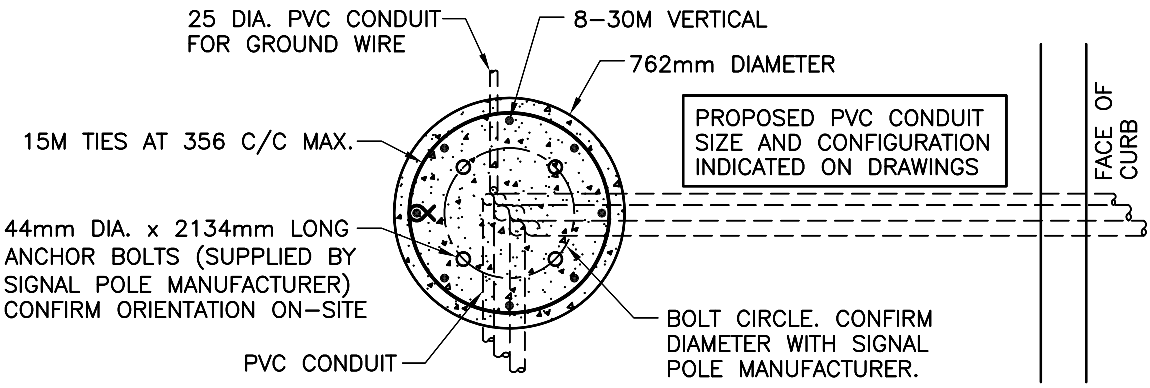
1. MAX. 15.2 m SIGNAL ARM LENGTH.
2. ALL DIMENSIONS IN MILLIMETRES.
3. CONCRETE AIR CONTENT TO BE 6.5% ±1.5%.
4. CONCRETE 28 DAY COMPRESSIVE STRENGTH TO BE 35 MPa.
5. CONTRACTOR TO CONFIRM ANCHOR BOLT DIAMETER, LENGTH AND BOLT CIRCLE DIAMETER BEFORE PROCEEDING WITH WORK.
6. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL, STRUCTURAL FILL OR BEDROCK WITH A MINIMUM BEARING CAPACITY OF 2500 psf.
7. THIS TRAFFIC SIGNAL BASE APPLIES TO STEEL POLES ONLY.

HALIFAX
REGIONAL MUNICIPALITY

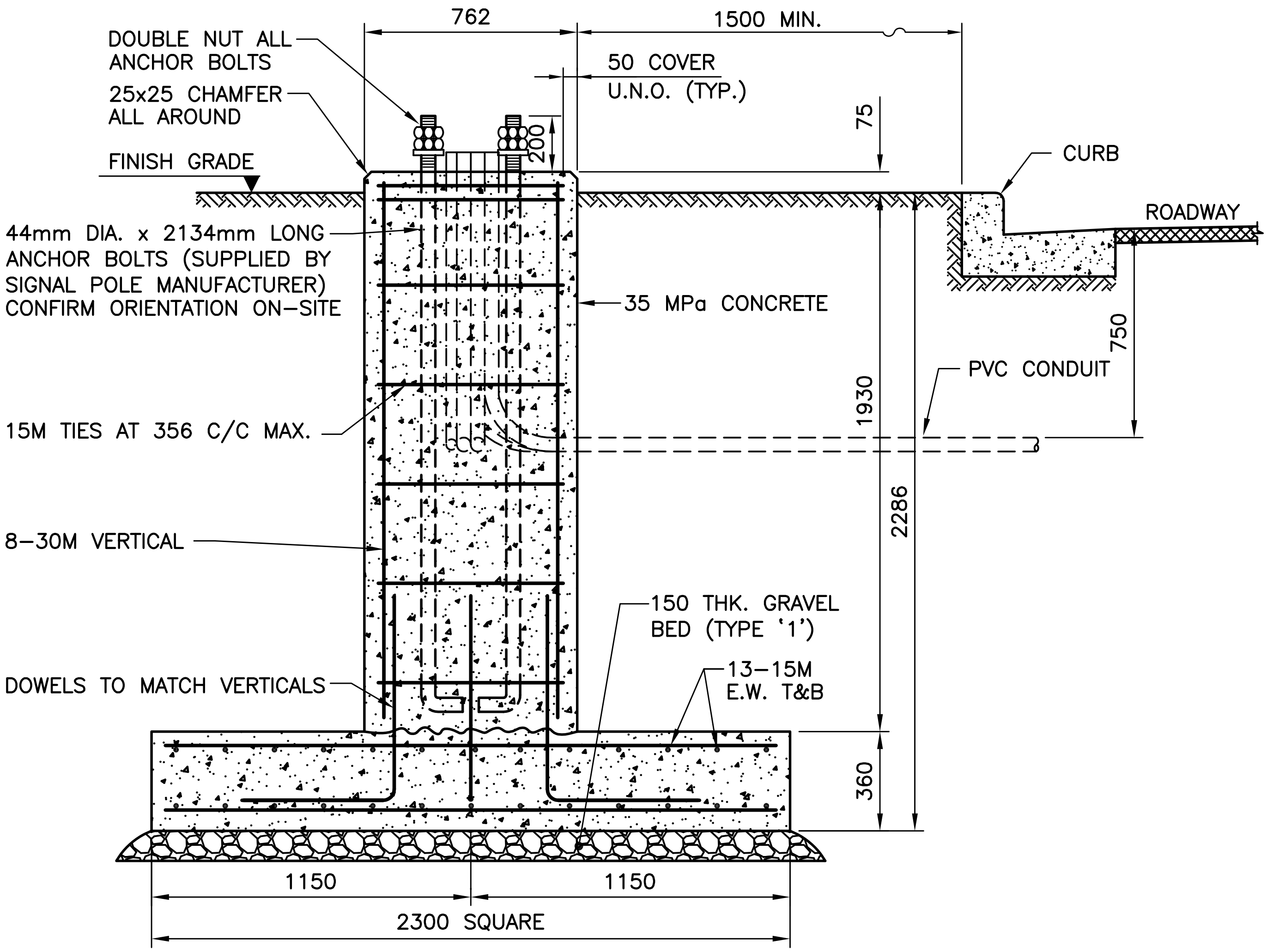
STANDARD DETAIL

TRAFFIC SIGNAL BASE TYPE 5

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 72



PLAN



SECTION

NOTES:

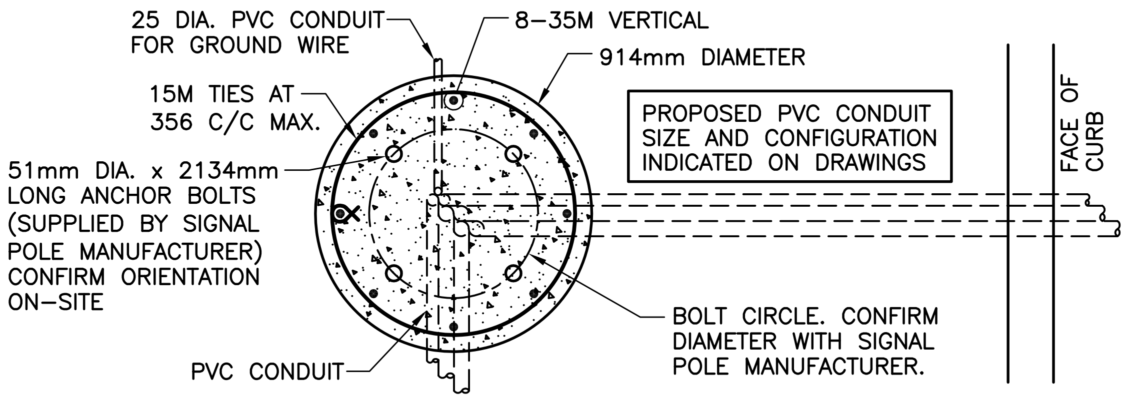
1. MAX. 18.3 m SIGNAL ARM LENGTH.
2. ALL DIMENSIONS IN MILLIMETRES.
3. CONCRETE AIR CONTENT TO BE 6.5% ±1.5%.
4. CONCRETE 28 DAY COMPRESSIVE STRENGTH TO BE 35 MPa.
5. CONTRACTOR TO CONFIRM ANCHOR BOLT DIAMETER, LENGTH AND BOLT CIRCLE DIAMETER BEFORE PROCEEDING WITH WORK.
6. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL, STRUCTURAL FILL OR BEDROCK WITH A MINIMUM BEARING CAPACITY OF 2500 psf.
7. THIS TRAFFIC SIGNAL BASE APPLIES TO STEEL POLES ONLY.

HALIFAX
REGIONAL MUNICIPALITY

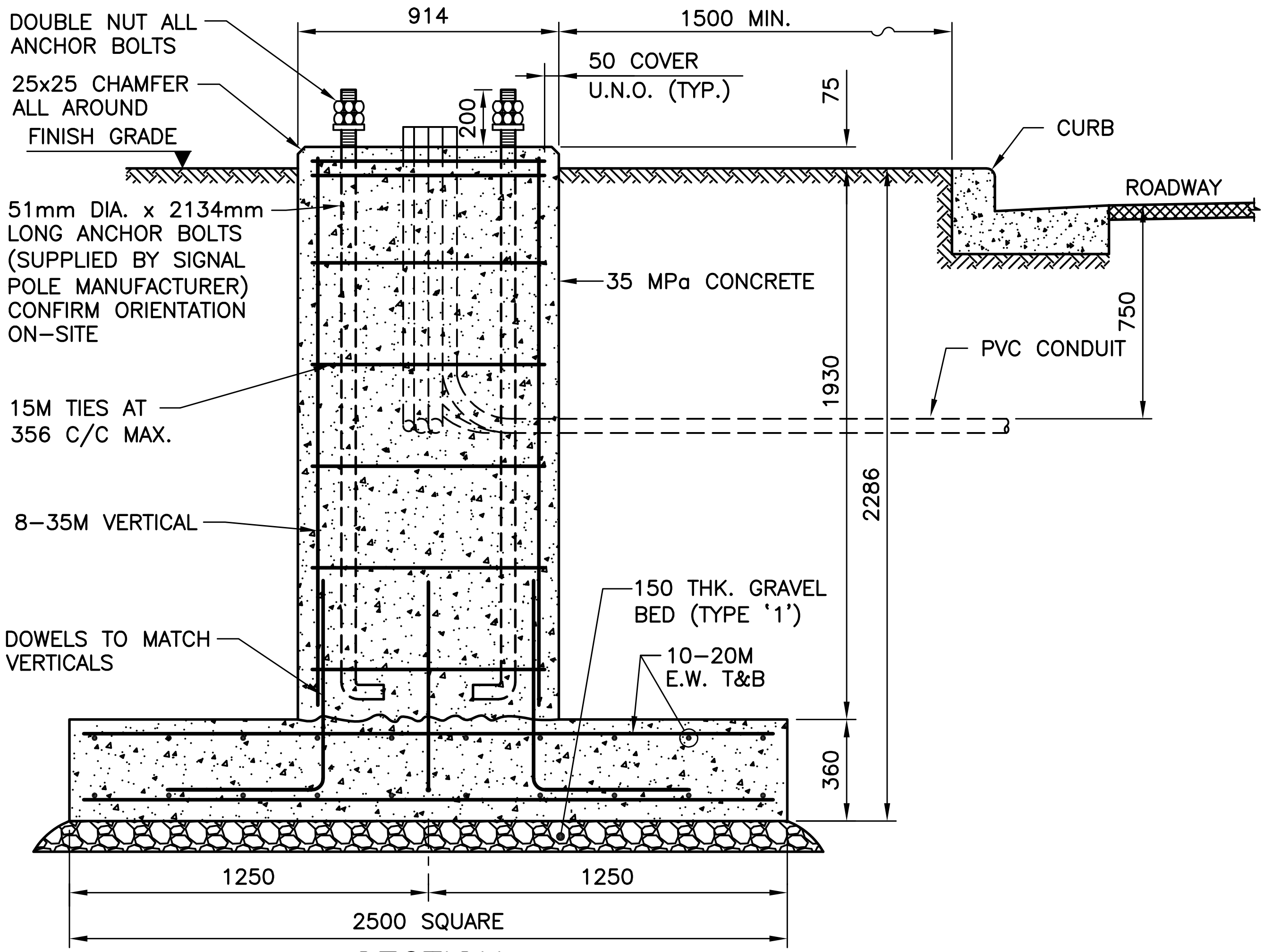
STANDARD DETAIL

TRAFFIC SIGNAL BASE TYPE 6

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 73



PLAN



SECTION

NOTES:

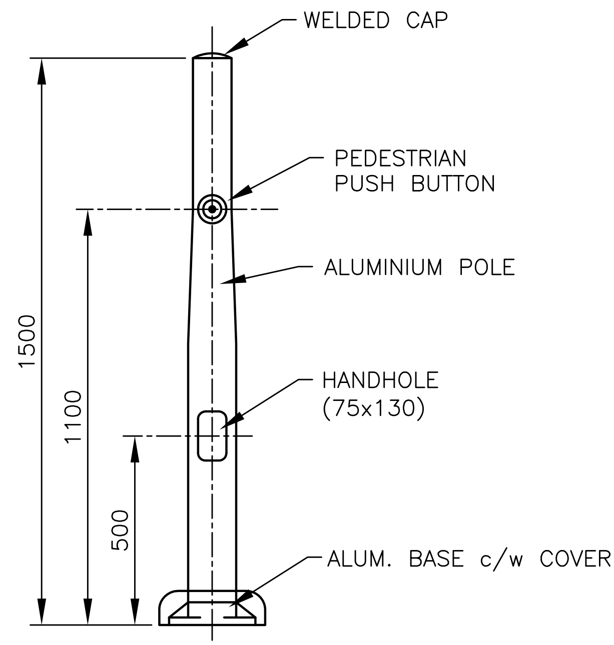
1. MAX. 21.3 m SIGNAL ARM LENGTH
2. ALL DIMENSIONS IN MILLIMETRES.
3. CONCRETE AIR CONTENT TO BE 6.5% ±1.5%.
4. CONCRETE 28 DAY COMPRESSIVE STRENGTH TO BE 35 MPa.
5. CONTRACTOR TO CONFIRM ANCHOR BOLT DIAMETER, LENGTH AND BOLT CIRCLE DIAMETER BEFORE PROCEEDING WITH WORK.
6. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL, STRUCTURAL FILL OR BEDROCK WITH A MINIMUM BEARING CAPACITY OF 2500 psf.
7. THIS TRAFFIC SIGNAL BASE APPLIES TO STEEL POLES ONLY.

HALIFAX
REGIONAL MUNICIPALITY

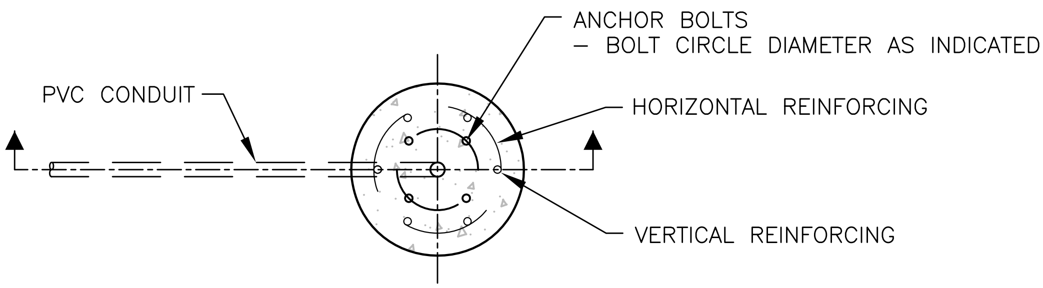
STANDARD DETAIL

TRAFFIC SIGNAL BASE
TYPE 7

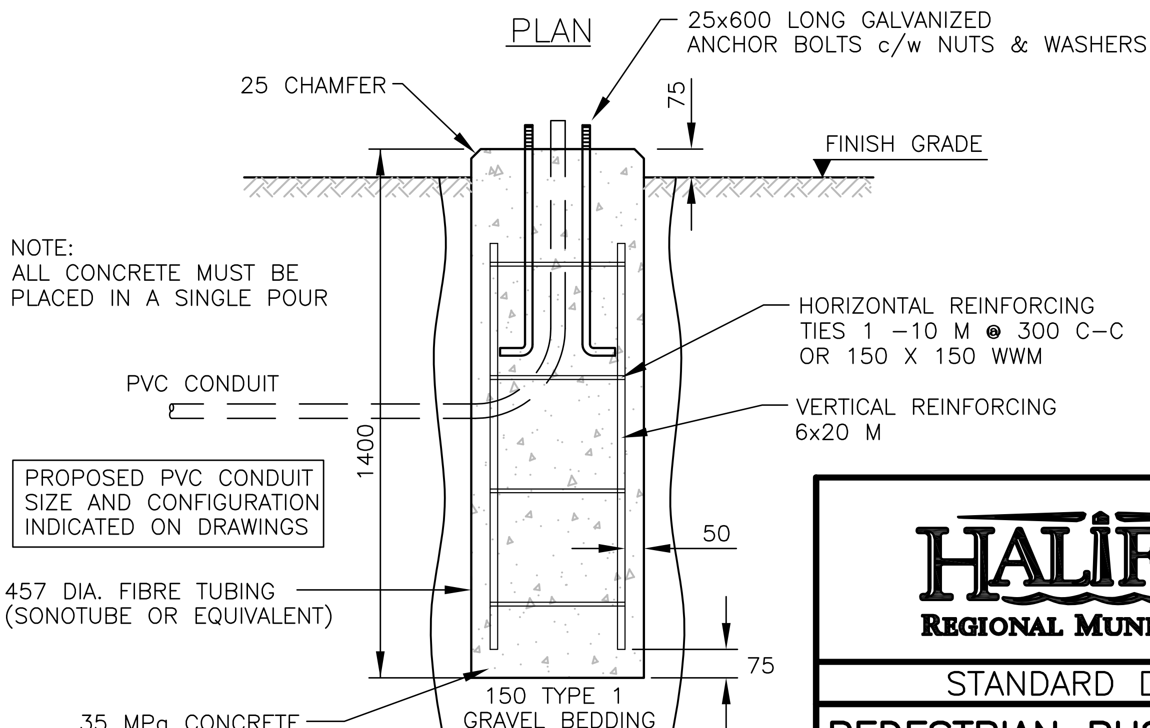
DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 74



ELEVATION



PLAN



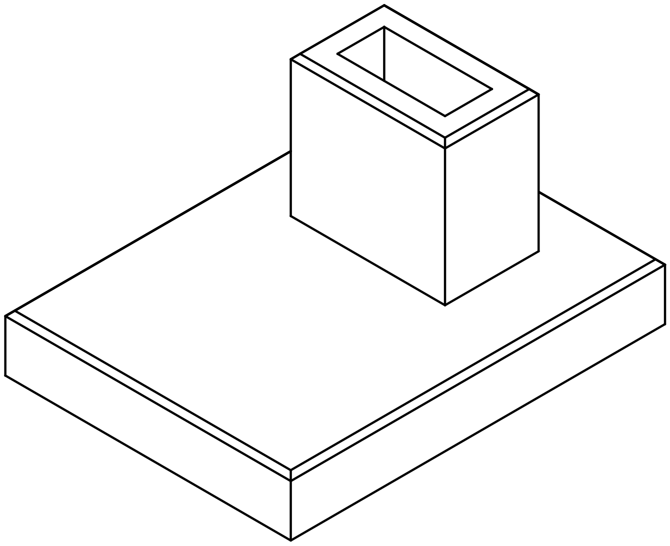
SECTION

HALIFAX
REGIONAL MUNICIPALITY

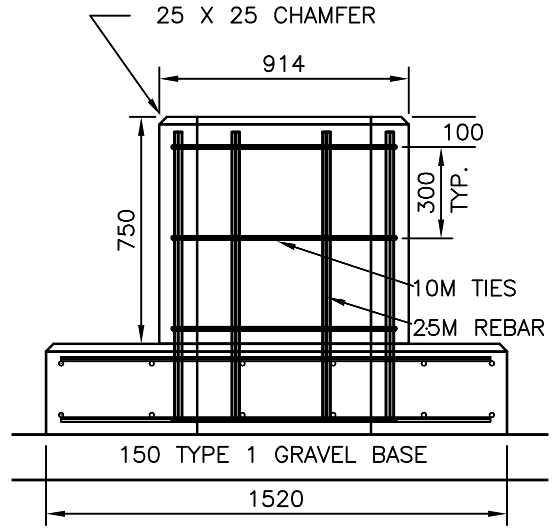
STANDARD DETAIL

PEDESTRIAN PUSH BUTTON POLE & BASE

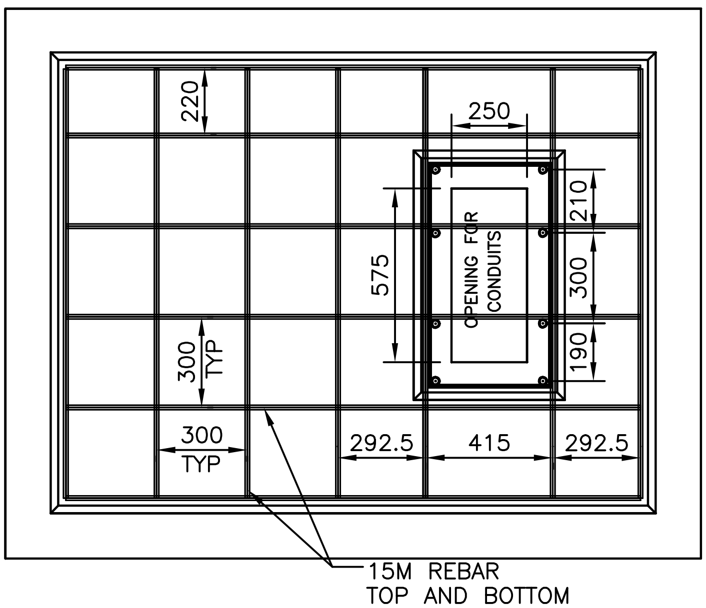
DATE: 2013	REFERENCE	APPROVED
SCALE: 1:20		FIG No.: HRM 75



ISOMETRIC VIEW



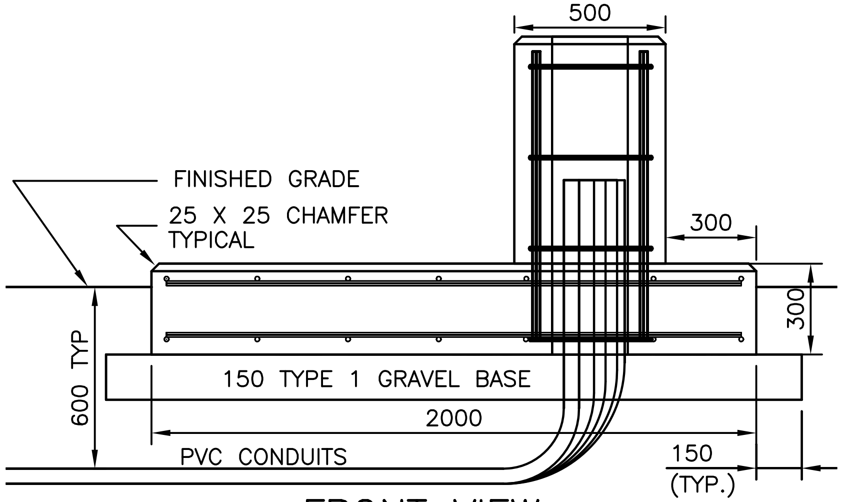
SIDE VIEW



TOP VIEW

NOTES:

1. ALL CONCRETE SHALL BE 35 MPa.
2. PROVIDE MIN. 50 COVER FOR ALL REBAR
3. PROVIDE GROUNDING FOR CABINET.
4. IN ADDITION TO CONDUIT SPECIFIED ON DRAWINGS, PROVIDE 2–50 mm DIA. PVC CONDUIT AND STUB OUTSIDE OF BASE.
5. ALL CONDUIT AND FITTINGS SHALL BE TO CANADIAN ELECTRICAL CODE
6. PROVIDE 20 mm X 100 mm STAINLESS STEEL THREADED RODS TO CONNECT CONTROLLER CABINET
7. ALL DIMENSIONS IN MILLIMETRES
8. TYPE 1 GRAVEL BASE SHALL EXTEND MIN 150 mm BEYOND EDGE OF BASE PAD.



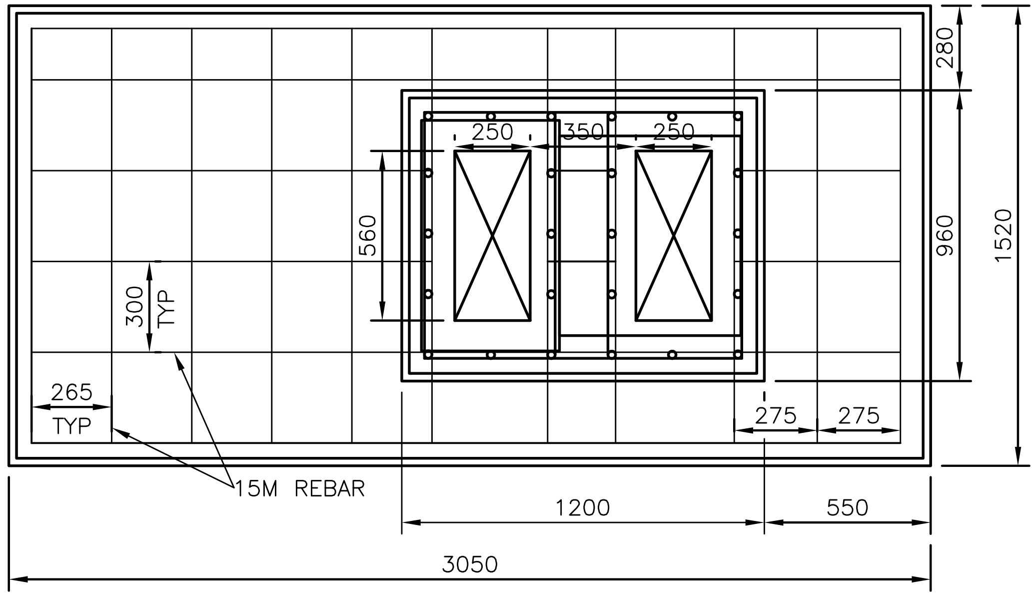
FRONT VIEW

HALIFAX
REGIONAL MUNICIPALITY

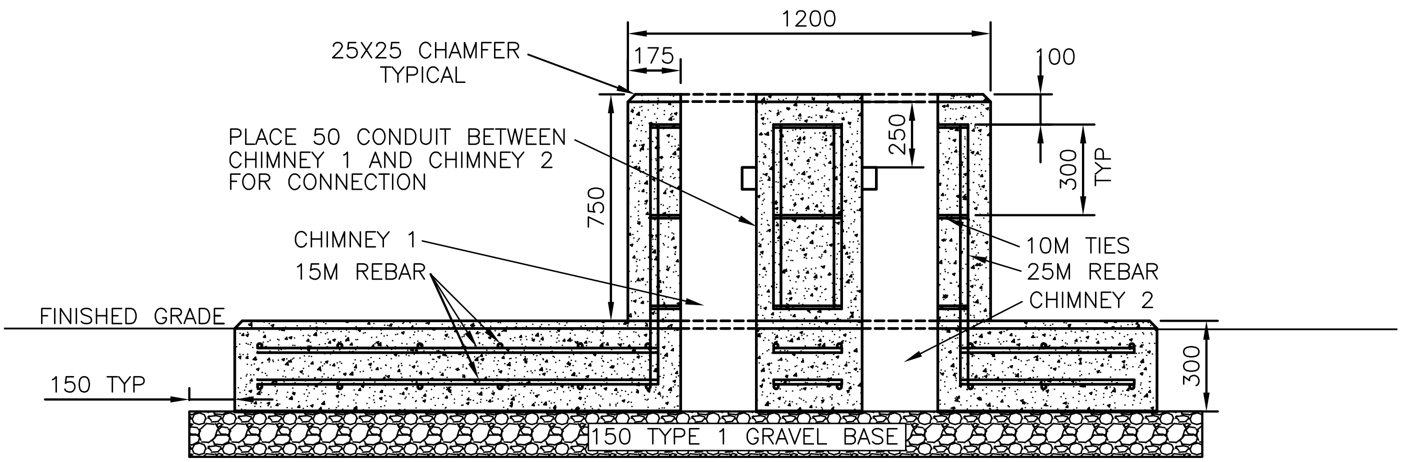
STANDARD DETAIL

BASE MOUNTED TRAFFIC SIGNAL CONTROLLER CABINET

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 76



PLAN VIEW



SIDE VIEW

NOTES

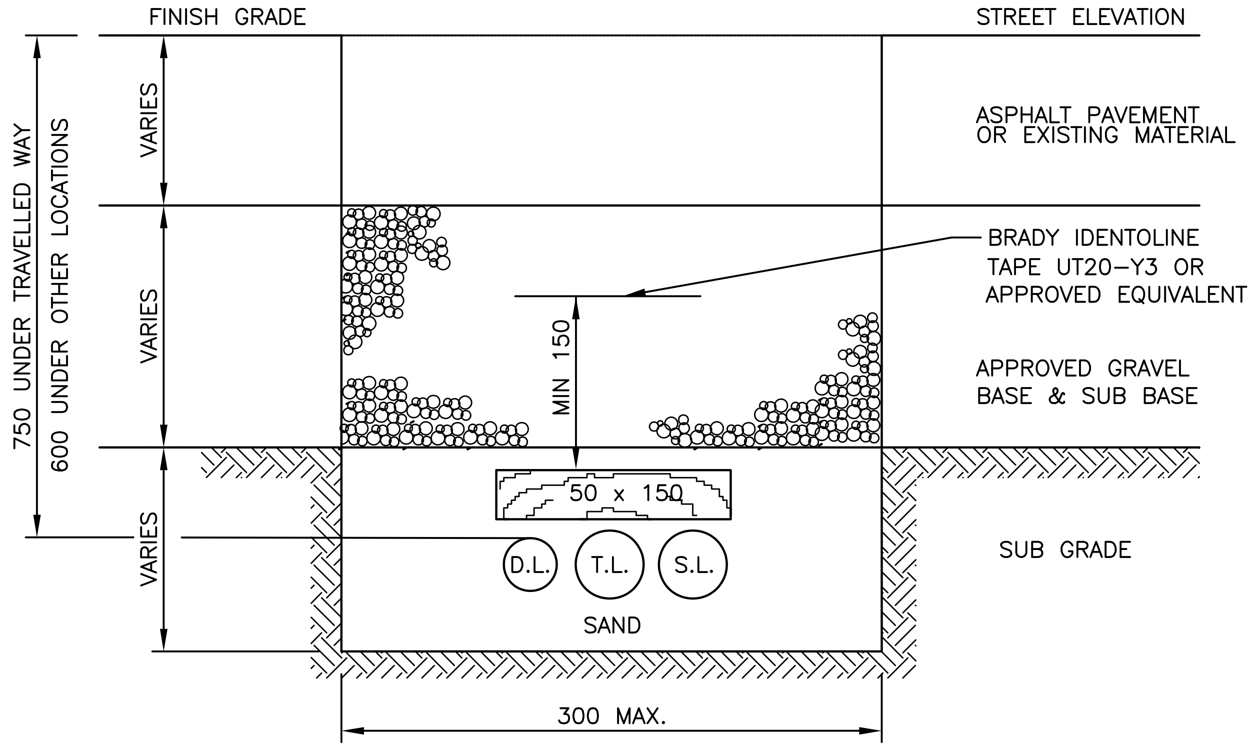
1. ALL CONCRETE SHALL BE 35 MPa.
2. PROVIDE MIN. 75 mm COVER FOR ALL REBAR
3. PROVIDE GROUNDING FOR CABINET.
4. IN ADDITION TO CONDUIT SPECIFIED ON DRAWINGS, PROVIDE 2–50 DIA. PVC CONDUIT AND STUB OUTSIDE OF BASE.
5. ALL CONDUIT AND FITTINGS SHALL BE TO CANADIAN ELECTRICAL CODE
6. PROVIDE 20 mm X 100 mm STAINLESS STEEL THREADED RODS TO CONNECT CONTROLLER CABINET
7. ALL DIMENSIONS IN MILLIMETRES
8. TYPE 1 GRAVEL BASE SHALL EXTEND MIN 150 mm BEYOND EDGE OF BASE PAD.
9. MIN. 50 mm PVC CONDUIT THROUGH CENTRE DIVIDER 250 mm FROM TOP OF BASE.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

BASE MOUNTED TRAFFIC SIGNAL CONTROLLER CABINET WITH BATTERY BACKUP UNIT

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 77



SIZE AND CONFIGURATION
OF PVC CONDUIT INDICATED
ON DRAWINGS

NOTES:

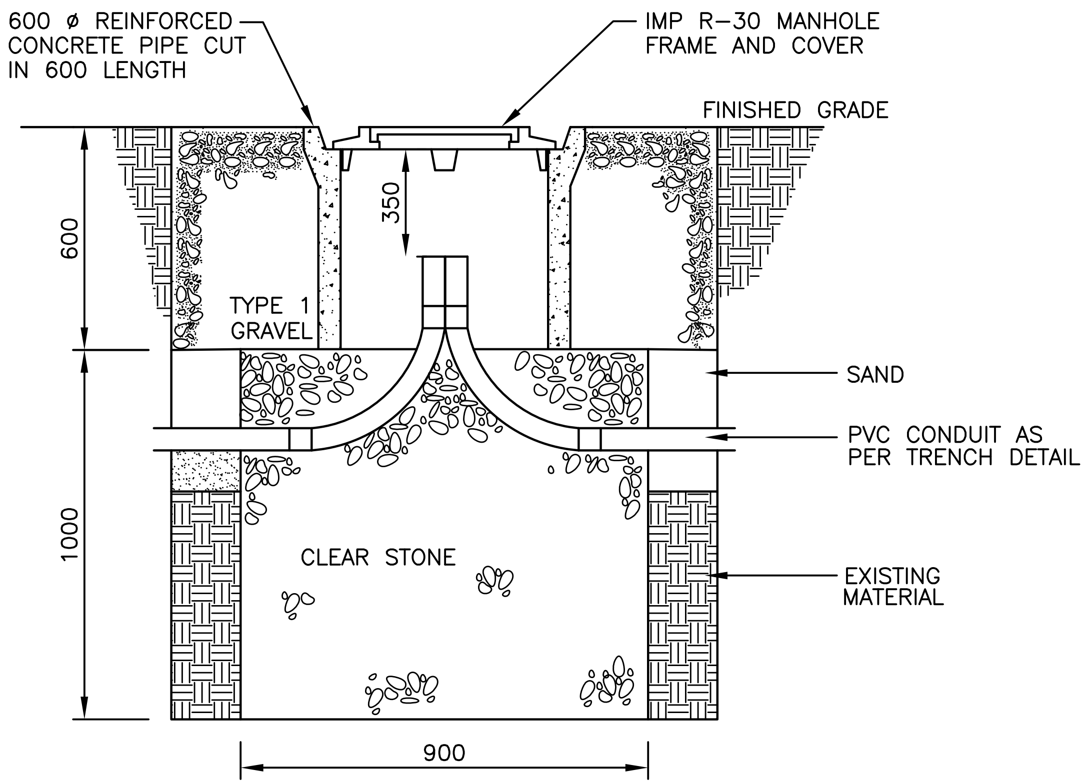
1. 50 mm X 150 mm WOOD PLANK TO BE PRESSURE TREATED WOOD.
2. "CAUTION BURIED ELECTRICAL LINE" TAPE TO BE PLACED OVER CONDUIT 150 mm TO 250 mm BELOW FINISHED GRADE.
3. SURROUND SAND WITH GEOTEXTILE SEPARATOR IN AREAS OF HIGH GROUNDWATER MOVEMENT (PERVIOUS SUB GRADE)

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

UNDERGROUND CONDUIT

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 78

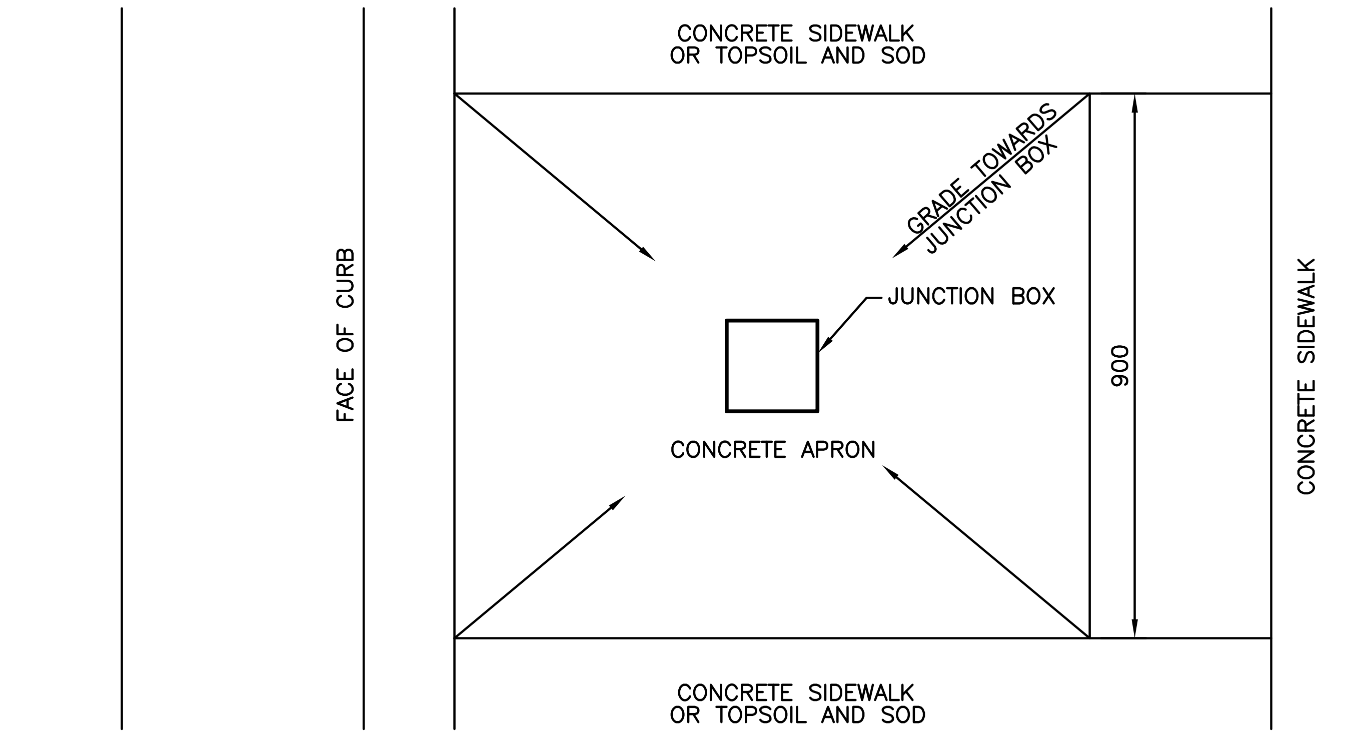


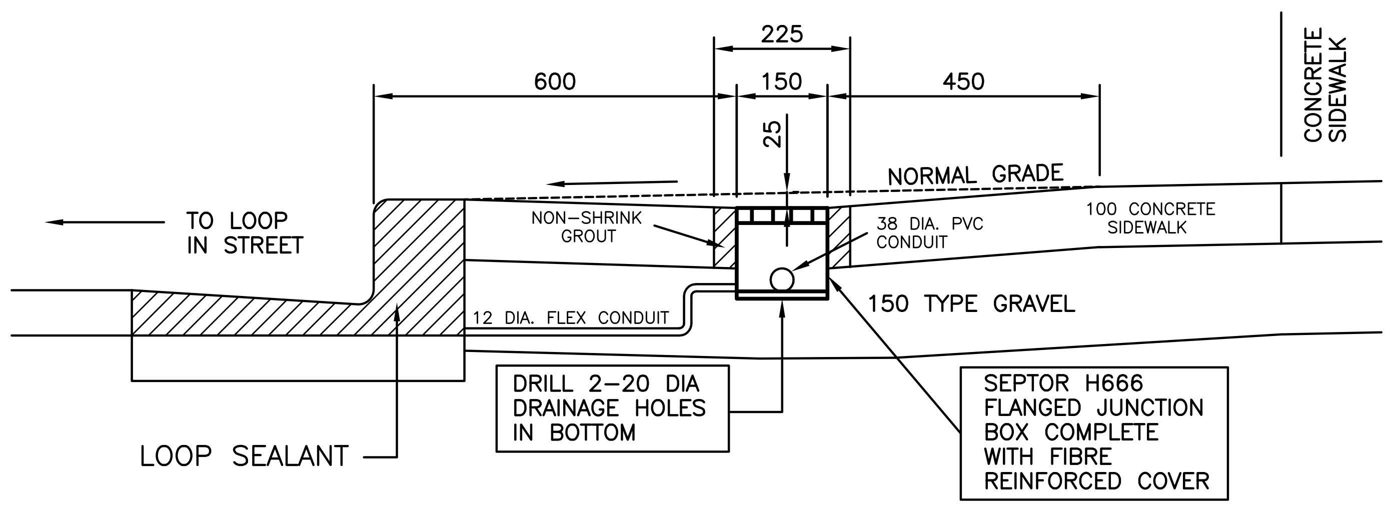
HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

PULL PIT

DATE: 2013		APPROVED:	
SCALE: NTS		FIG NO.: HRM 79	





NOTES:

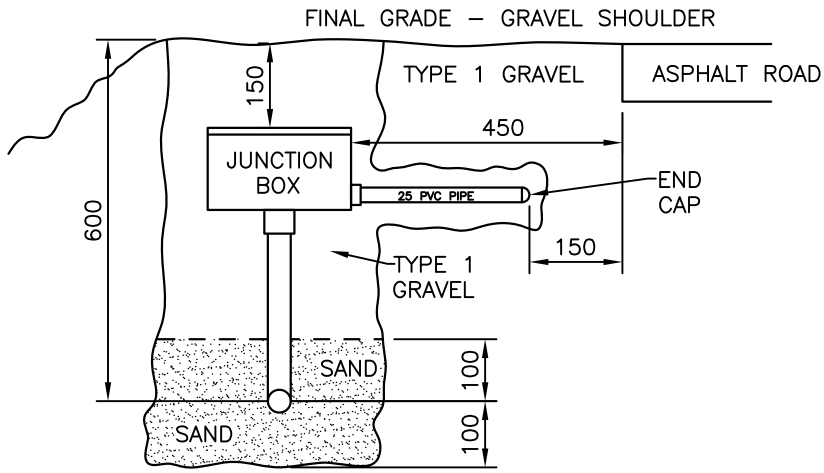
1. WHERE A TYPE A JUNCTION BOX– CONCRETE SIDEWALK IS TO BE INSTALLED NEXT TO A CURB WHERE THERE IS NO ADJACENT, A CONCRETE APRON IS NOT REQUIRED. THE JUNCTION BOX IS TO BE BURIED BENEATH THE TOPSOIL AND SOD
2. ALL CONCRETE IS TO HAVE A MIN 35MPa STRENGTH.

HALIFAX
REGIONAL MUNICIPALITY

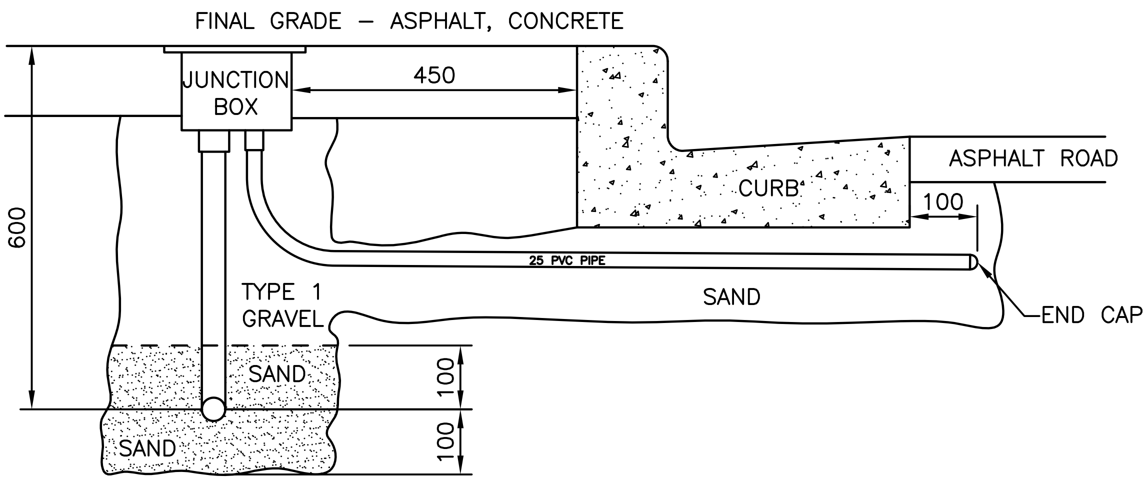
STANDARD DETAIL

JUNCTION BOX
TYPE "A"

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 80



TYPE B
JUNCTION BOX CROSS SECTION – NO CURB
IPEX BRAND JB884 OR JB887 AS SPECIFIED



TYPE C
JUNCTION BOX CROSS SECTION – SURFACE MOUNT
IPEX BRAND H884 OR H887 AS SPECIFIED

NOTES:

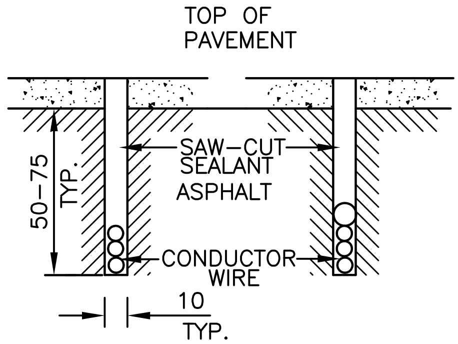
1. WHERE A JUNCTION BOX IS TO BE INSTALLED NEXT TO A CURB WHERE THERE IS NO ADJACENT SIDEWALK, A CONCRETE APRON IS NOT REQUIRED. THE JUNCTION BOX IS TO BE BURIED BENEATH THE TOPSOIL AND SOD
2. ALL CONCRETE IS TO HAVE A MIN 35MPa STRENGTH.

HALIFAX
REGIONAL MUNICIPALITY

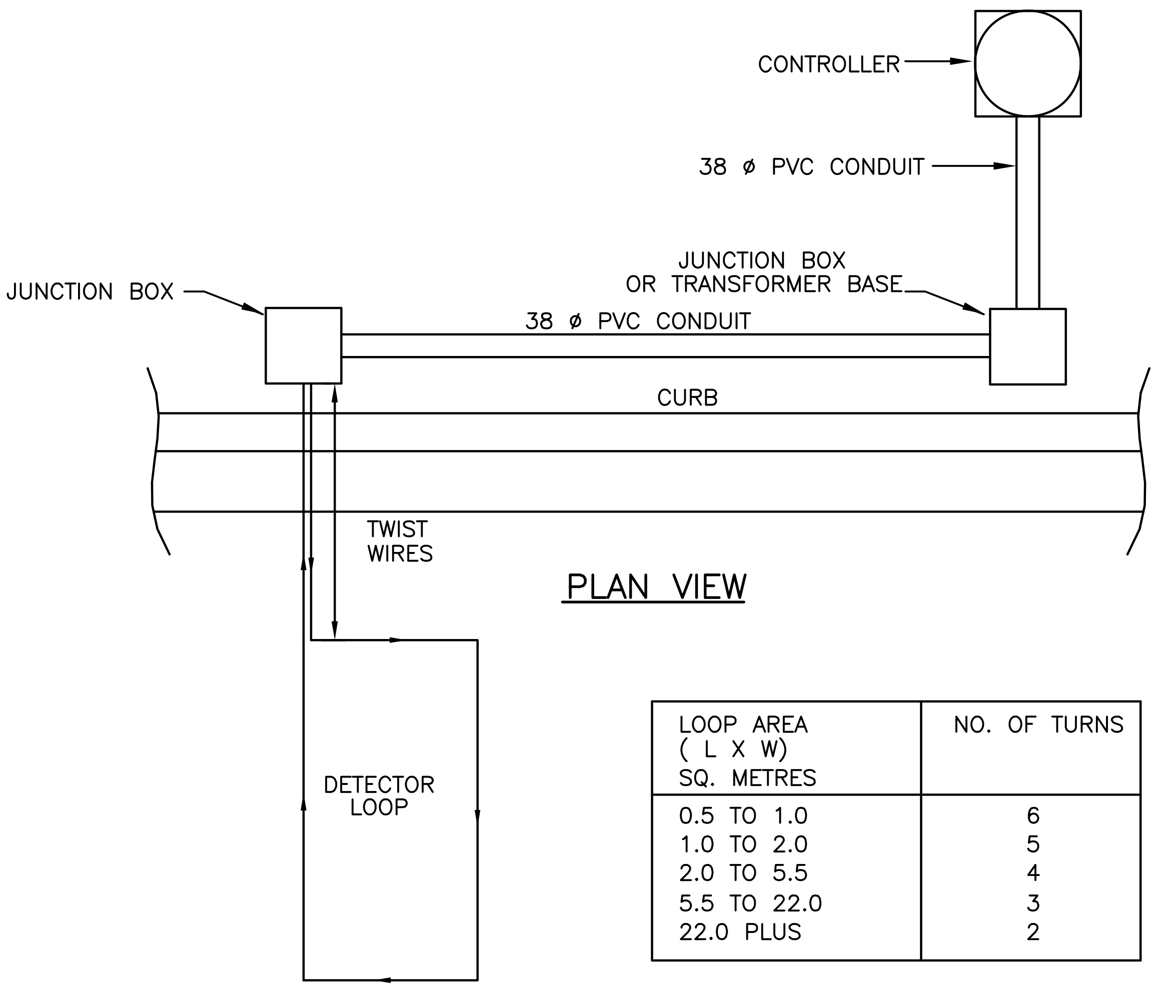
STANDARD DETAIL

JUNCTION BOX
TYPE "B" & "C"

DATE: 2013			APPROVED:
SCALE: NTS			FIG NO.: HRM 81



TYPICAL SAW-CUT CROSS SECTION



PLAN VIEW

LOOP AREA (L X W) SQ. METRES	NO. OF TURNS
0.5 TO 1.0	6
1.0 TO 2.0	5
2.0 TO 5.5	4
5.5 TO 22.0	3
22.0 PLUS	2

NOTES:

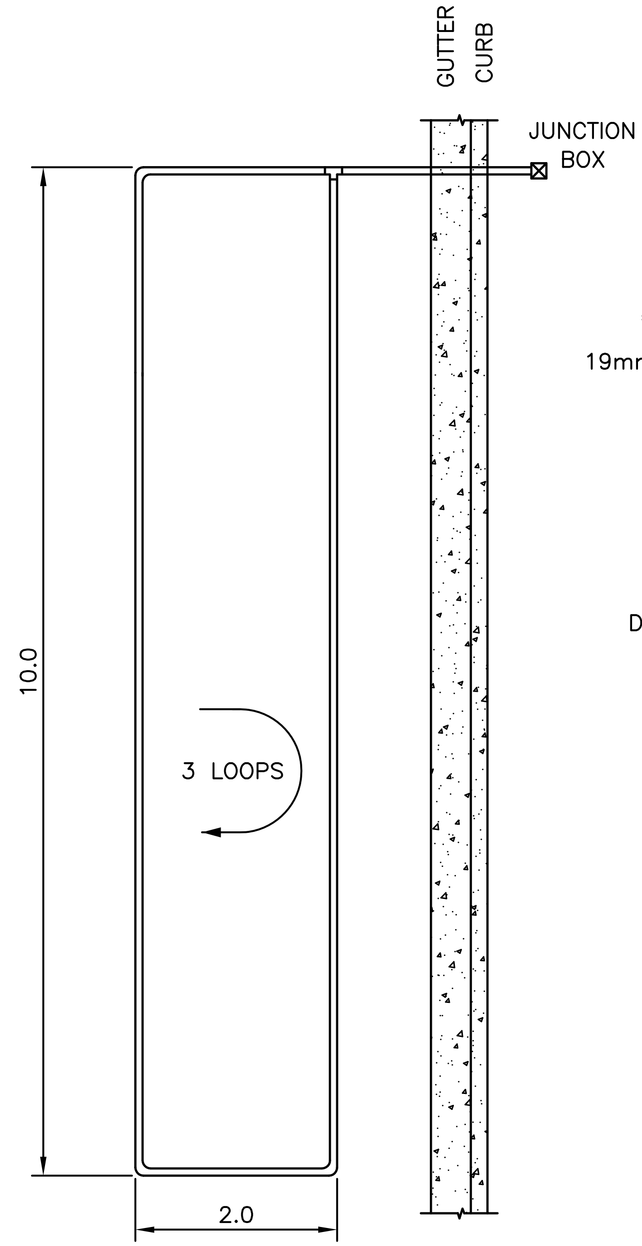
1. UNLESS OTHERWISE DIRECTED BY ENGINEER, LAY LOOPS IN A CLOCKWISE DIRECTION
2. DEPTH OF SAW CUT TO BE CONSTANT AND PROVIDE A MINIMUM OF 50 mm COVER OVER TOP OF WIRE.

HALIFAX
REGIONAL MUNICIPALITY

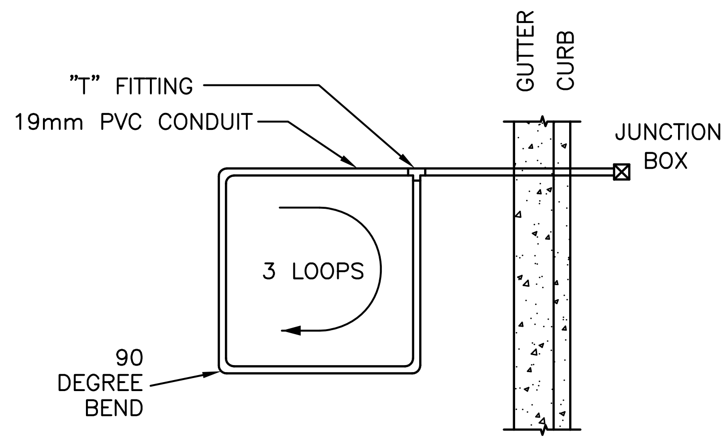
STANDARD DETAIL

DETECTOR LOOP
SAW CUT

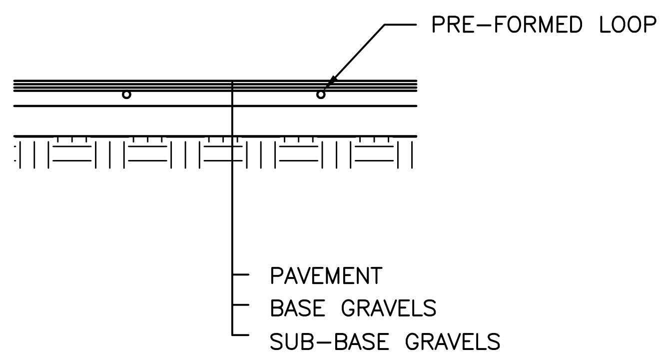
DATE: 2013			APPROVED:
SCALE: NTS			FIG NO.: HRM 82



TYPICAL 2 X 10 PRE-FORMED LOOP



TYPICAL PRE-FORMED LOOP



TYPICAL CROSS SECTION

NOTE:

ALL PVC CONNECTIONS BETWEEN PREFORMED LOOP AND JUNCTION BOX ARE TO BE MADE PRIOR TO PAVING. ANY DAMAGE TO THE PVC OR LOOP WIRES PRIOR TO PAVING WILL BE CAUSE TO REJECT THE LOOP.

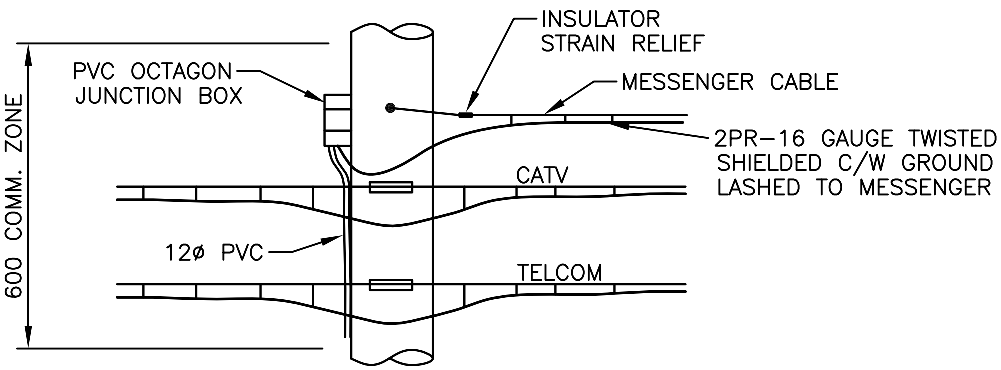
HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

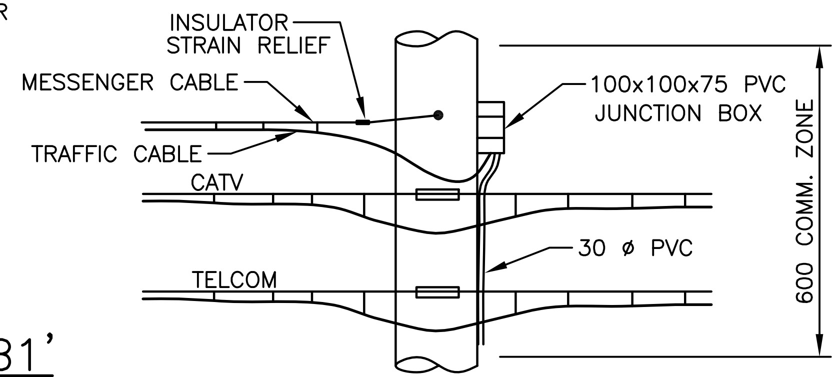
PRE-FORMED
DETECTOR LOOP

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 83

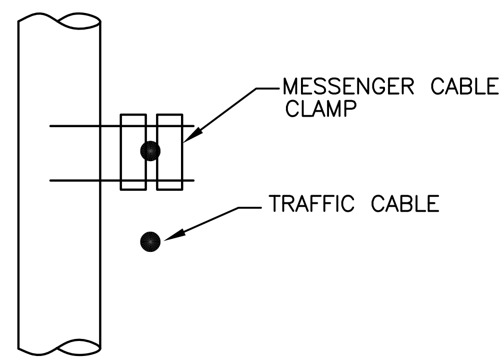
DETAIL 'A'
LOOP POLE



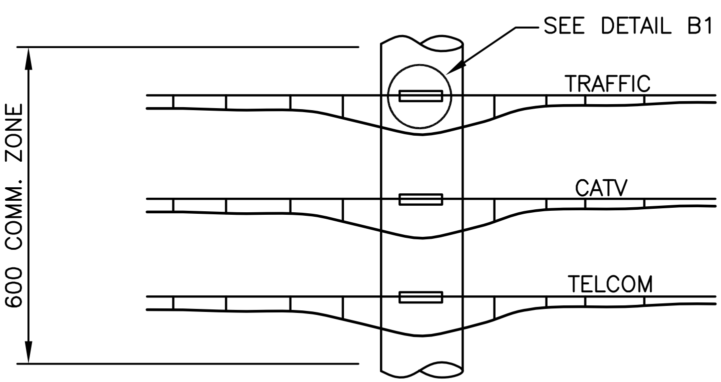
DETAIL 'C'
CONTROLLER POLE



DETAIL 'B1'
SUPPORT BRACKET



DETAIL 'B'
MID RUN SUPPORT

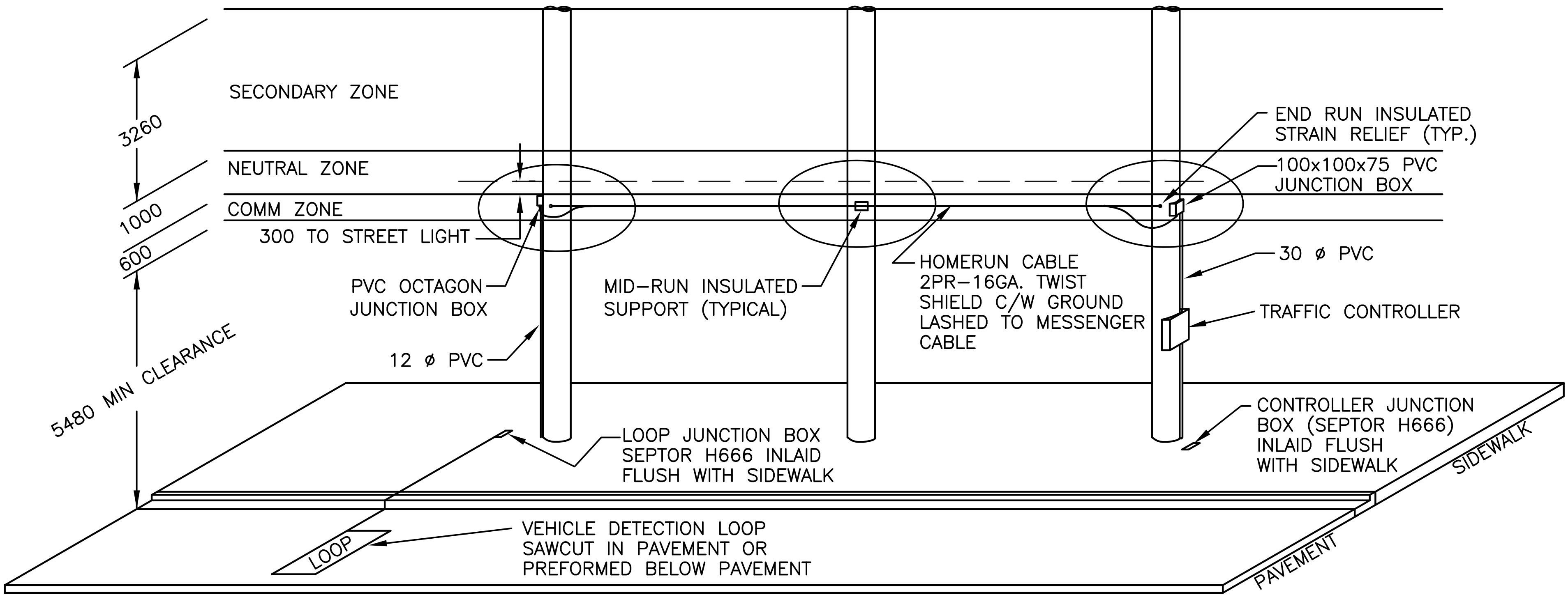


HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

POLE MOUNT DETAILS FOR DETECTOR LOOP INSTALLATION

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 84

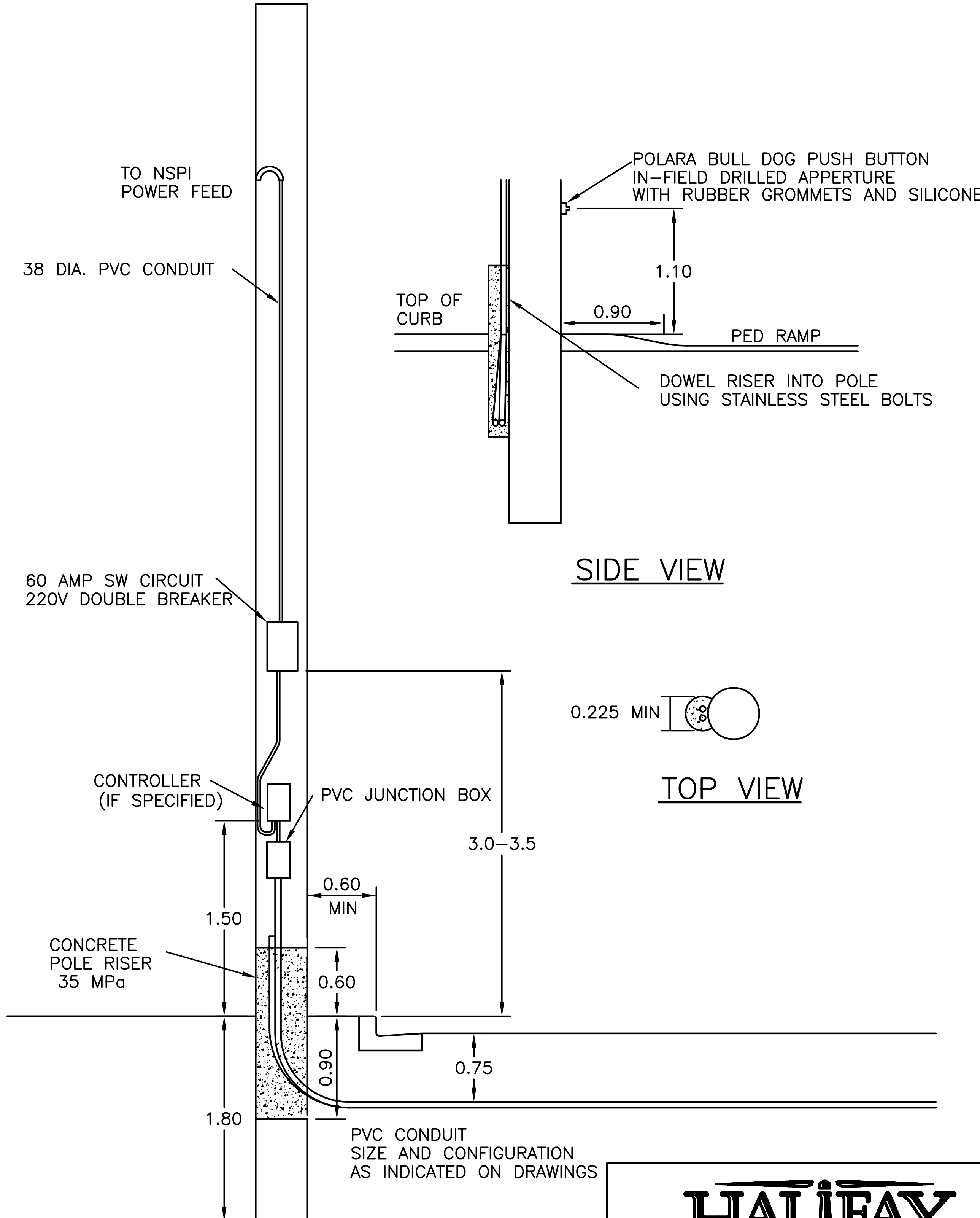


HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

POLE MOUNT
HOME RUN

DATE: 2013		APPROVED:	
SCALE: NTS		FIG NO.: HRM 85	



NOTE:

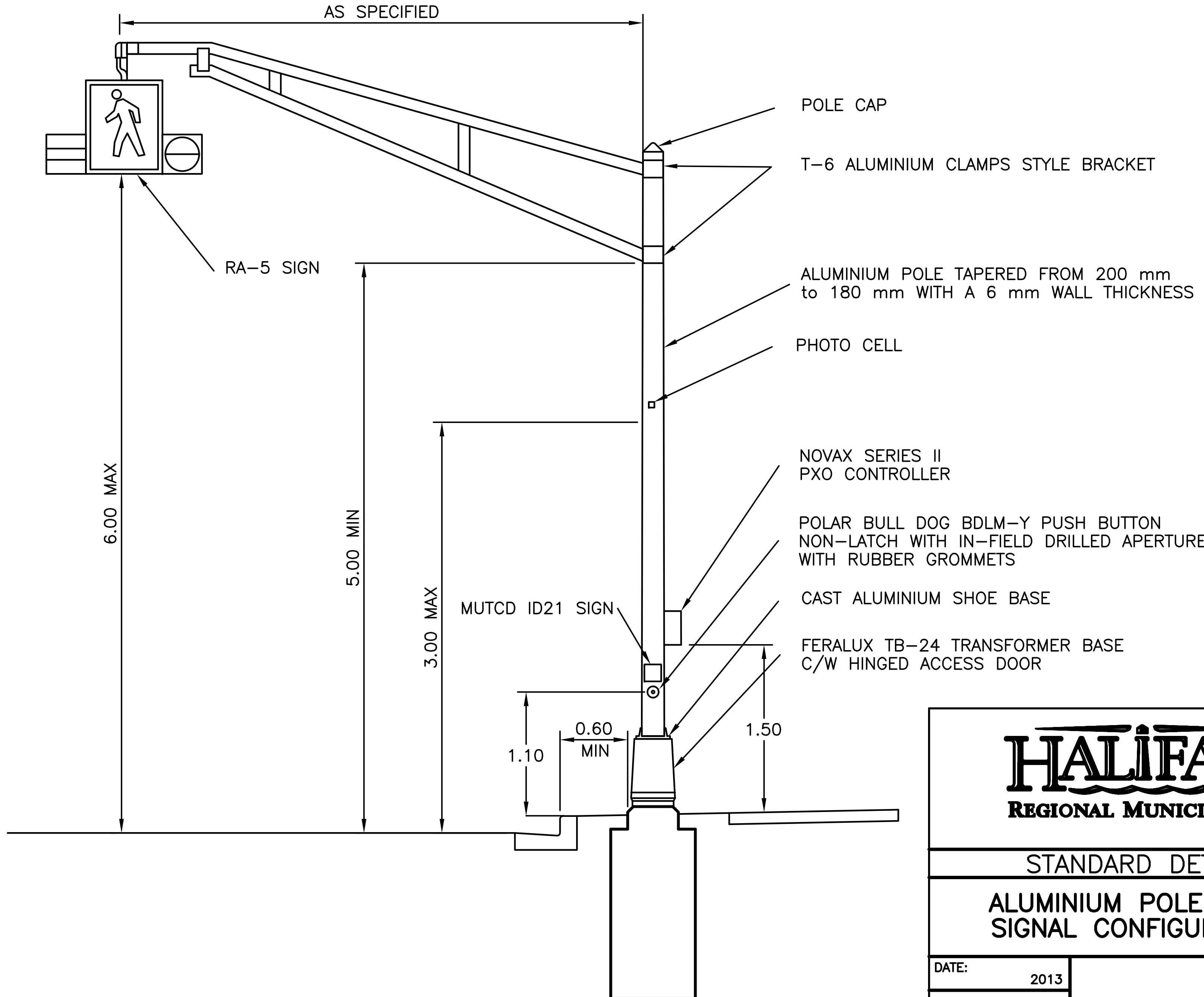
1. PLUG DUCTS NOT IN USE

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

WOODEN POLE POWER FEED

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 86

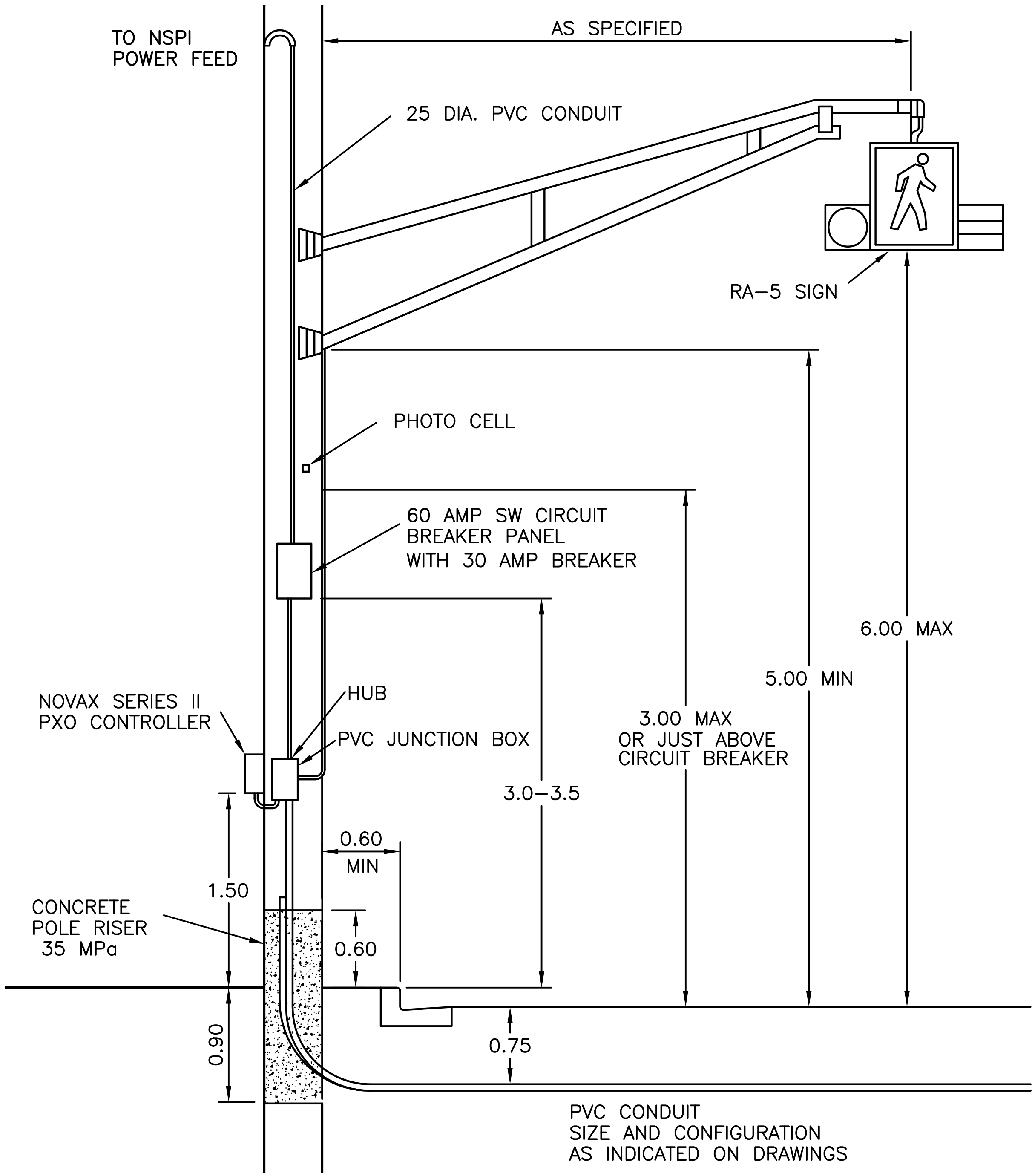


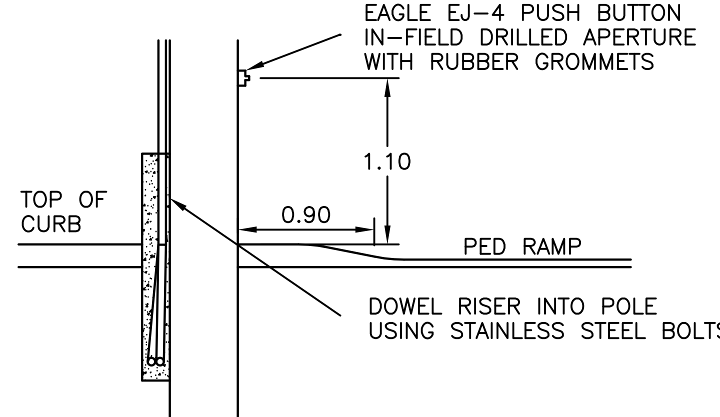
HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

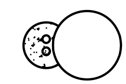
ALUMINIUM POLE RA–5 SIGNAL CONFIGURATION

DATE: 2013		APPROVED:
SCALE: NTS		FIG NO.: HRM 87





SIDE VIEW



TOP VIEW

NOTES:

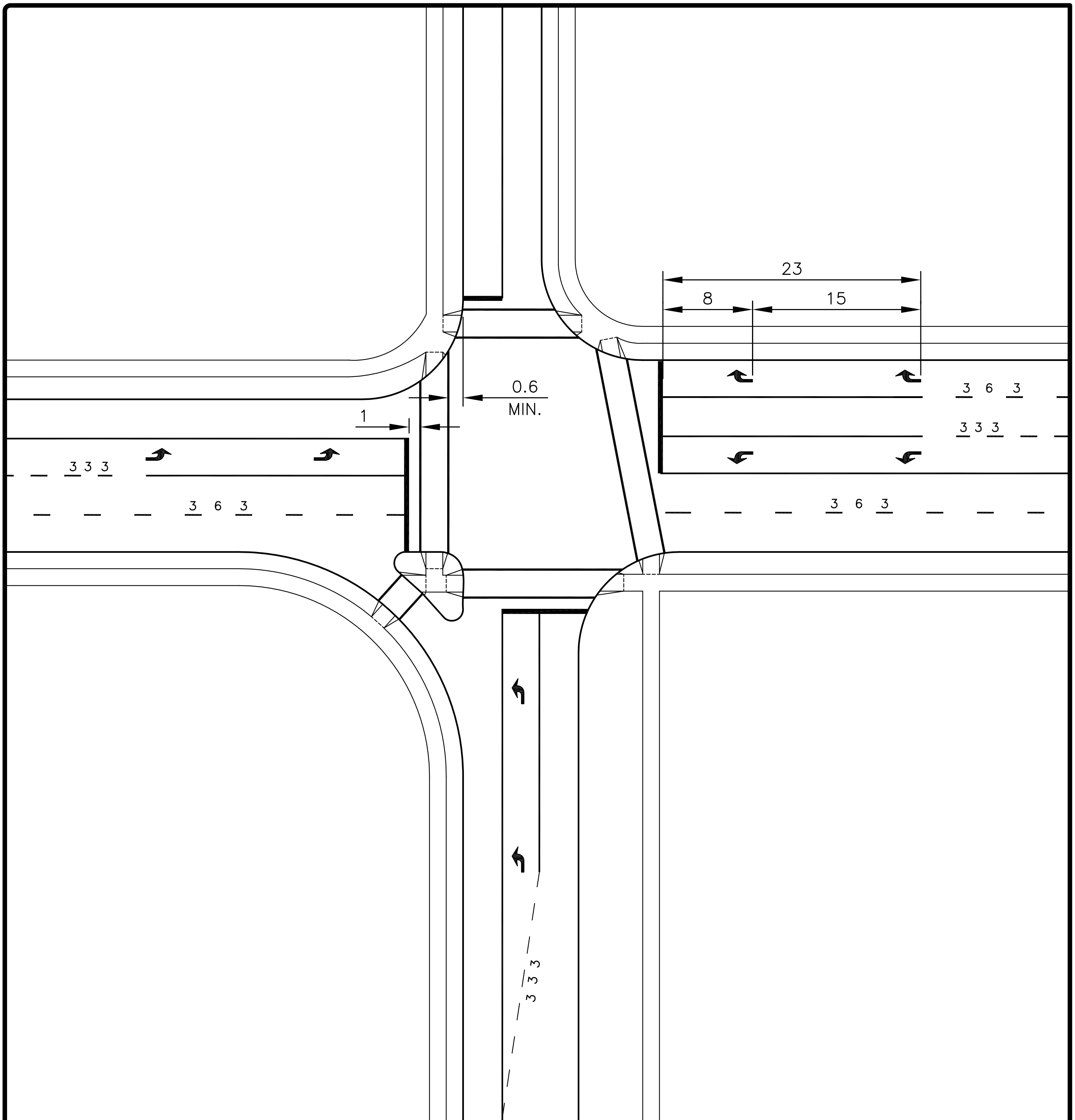
1. PLUG DUCTS NOT IN USE
2. PUSH BUTTON TO BE POLARA BULLDOG TYPE WITH NON–LATCH PART# BDLM–Y
3. INSTALL MUTCD ID21 SIGN JUST ABOVE PUSH BUTTON

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

WOODEN POLE RA–5
TRAFFIC SIGNAL WITH POWER
FEED CONFIGURATION

DATE: 2013		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 15.0m INTERVALS.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

STANDARD INTERSECTION PAVEMENT MARKING LAYOUT

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 89

NAME OF LINE	–LENGTH DIMENSION (m) –WIDTH DIMENSIONS (mm)	USE
SOLID	100	• EDGE LINES (WHITE OR YELLOW) • DIRECTIONAL DIVIDING LINES (YELLOW) • LANE LINES, PROHIBITING LINES (WHITE) • BIKE LINES (WHITE)
BROKEN	3.0 6.0 3.0 100	• DIRECTIONAL DIVIDING LINES (YELLOW) • LANE LINES (WHITE)
SIMULTANEOUS SOLID & BROKEN	3.0 6.0 3.0 100 100 100	• DIRECTIONAL DIVIDING LINES (YELLOW) • TWO–WAY LEFT TURN LINES (YELLOW)
DOUBLE SOLID	100 100 100	• DIRECTIONAL DIVIDING LINES (YELLOW)
DOUBLE BROKEN	3.0 6.0 3.0 100 100 100	• REVERSIBLE LANE (YELLOW)
DASHED	3.0 3.0 3.0 100	• CONTINUITY LINES IN MERGING AND DIVERGING AREAS AND TAPERS FOR LEFT–TURN AND RIGHT–TURN LANES.
	1.8 1.8 1.8 100	• LANE LINES WITHIN MULTI–LANE ROUNDABOUT (WHITE)
	1.5 1.5 1.5 100	• BUS BAYS (WHITE) • BIKE LANES (WHITE)
	0.5 0.5 100	• GUIDING LINES (WHITE)
STOP	450	• INTERSECTION STOP LINES (WHITE)
CROSSWALK	200	• CROSSWALKS (WHITE)
YIELD	0.6 0.6 450	• SINGLE LANE ROUNDABOUT YIELD LINES (WHITE)
	1.0 0.6 450	• DOUBLE LANE ROUNDABOUT YIELD LINES (WHITE)

HALIFAX
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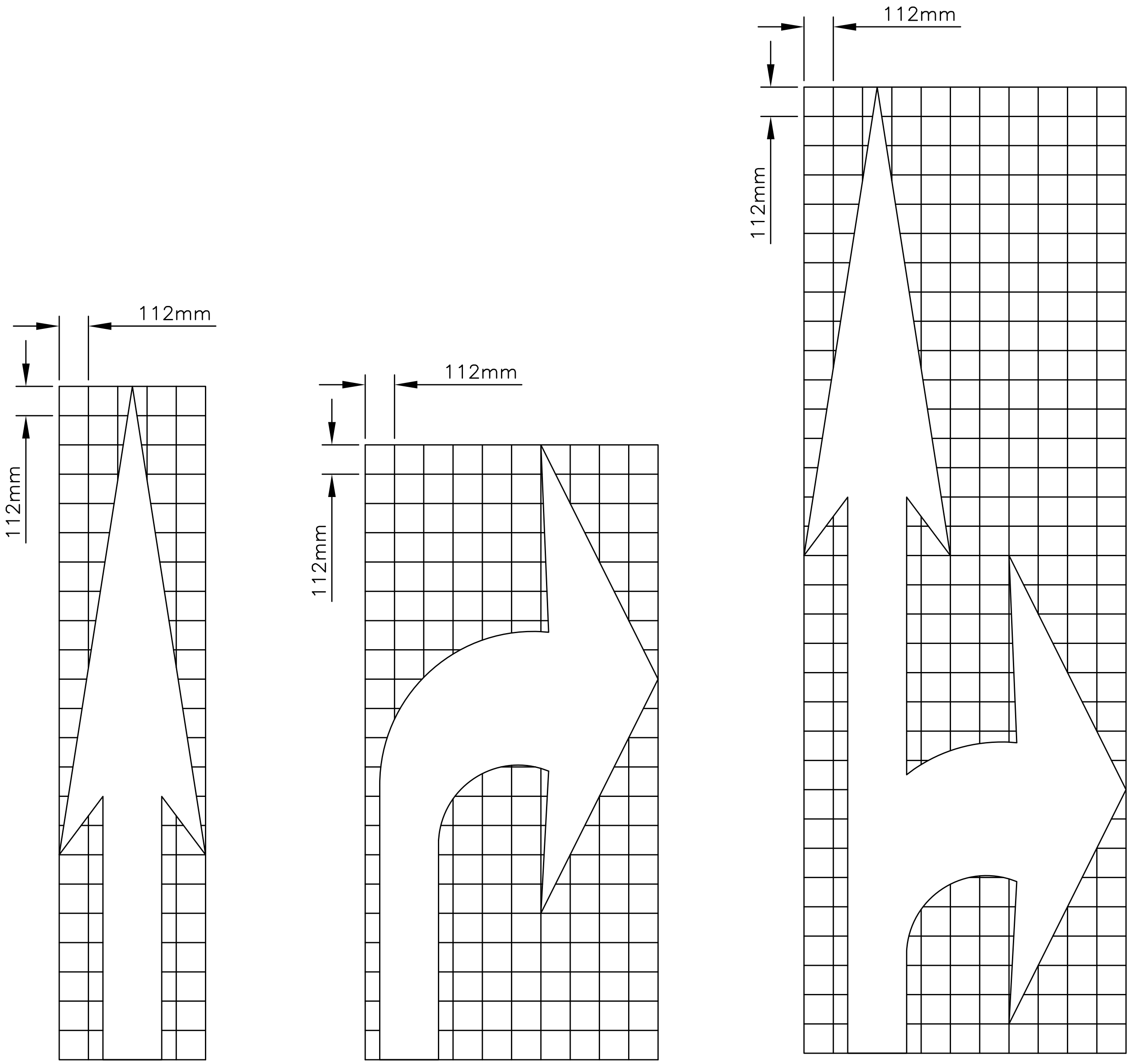
STANDARD DETAIL

LONGITUDINAL AND TRANSVERSE MARKINGS

DATE: 2013	REFERENCE	APPROVED
SCALE: 1:200		FIG No.: HRM 90

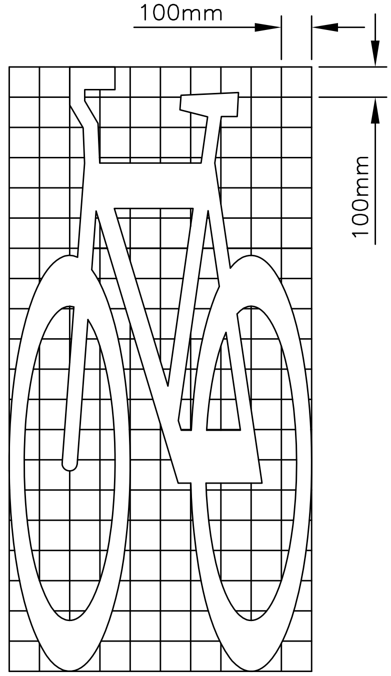


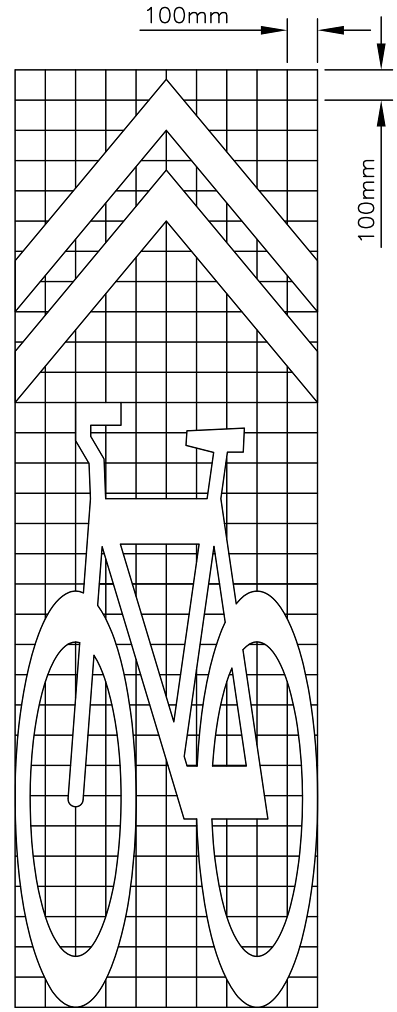
HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

PAVEMENT ARROWS

DATE: 2013	REFERENCE	APPROVED
SCALE: 1:25		FIG No.: HRM 91



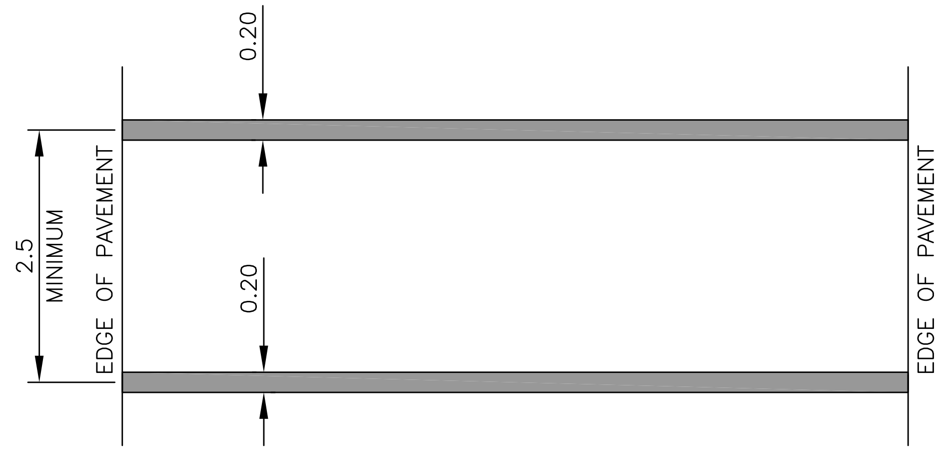


HALIFAX
REGIONAL MUNICIPALITY

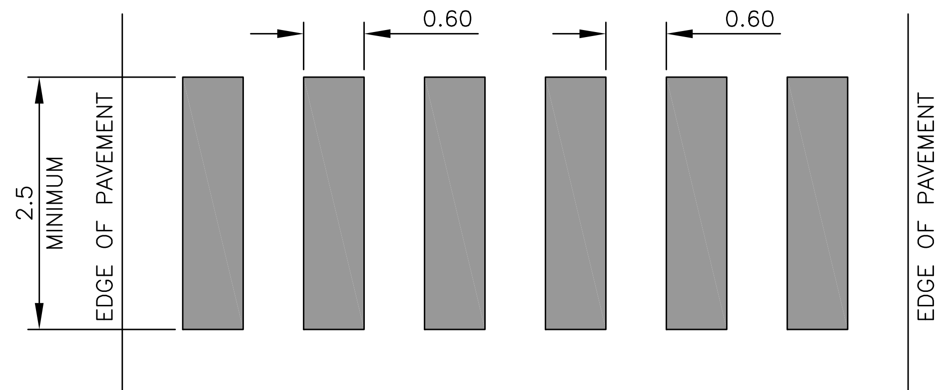
STANDARD DETAIL

BICYCLE SYMBOL &
SHARED USE LANE SYMBOL

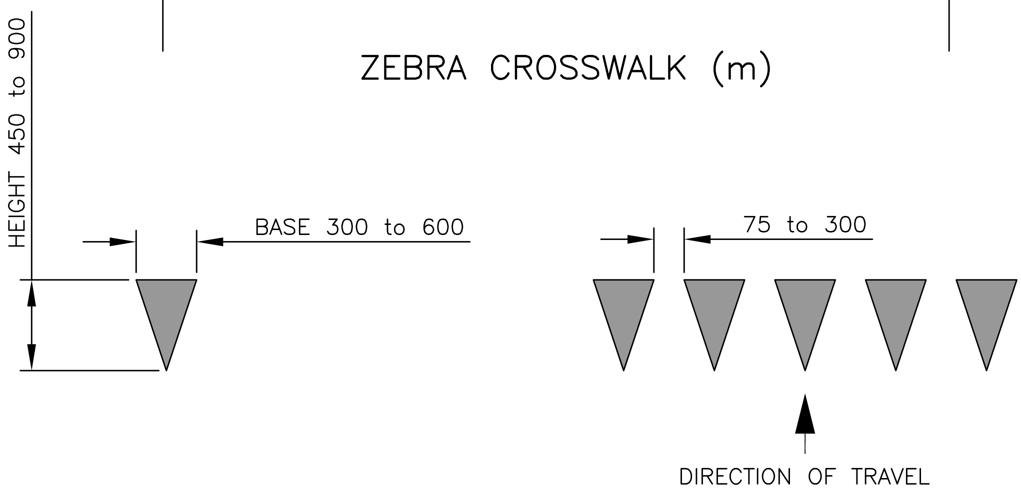
DATE: 2013	REFERENCE	APPROVED
SCALE: 1:25		FIG No.: HRM 92



TWIN PARALLEL LINE CROSSWALK (m)



ZEBRA CROSSWALK (m)



ADVANCED YIELD TO PEDESTRIANS LINE (mm)

NOTES ON ADVANCED YIELD TO PEDESTRIAN LINE:

TRIANGLE HEIGHT IS EQUAL TO 1.5 TIMES THE BASE DIMENSION. YIELD LINES MAY BE SMALLER THAN SUGGESTED WHEN INSTALLED ON MUCH NARROWER, LOW SPEED FACILITIES SUCH AS SHARED—USE PATHS.

HALIFAX
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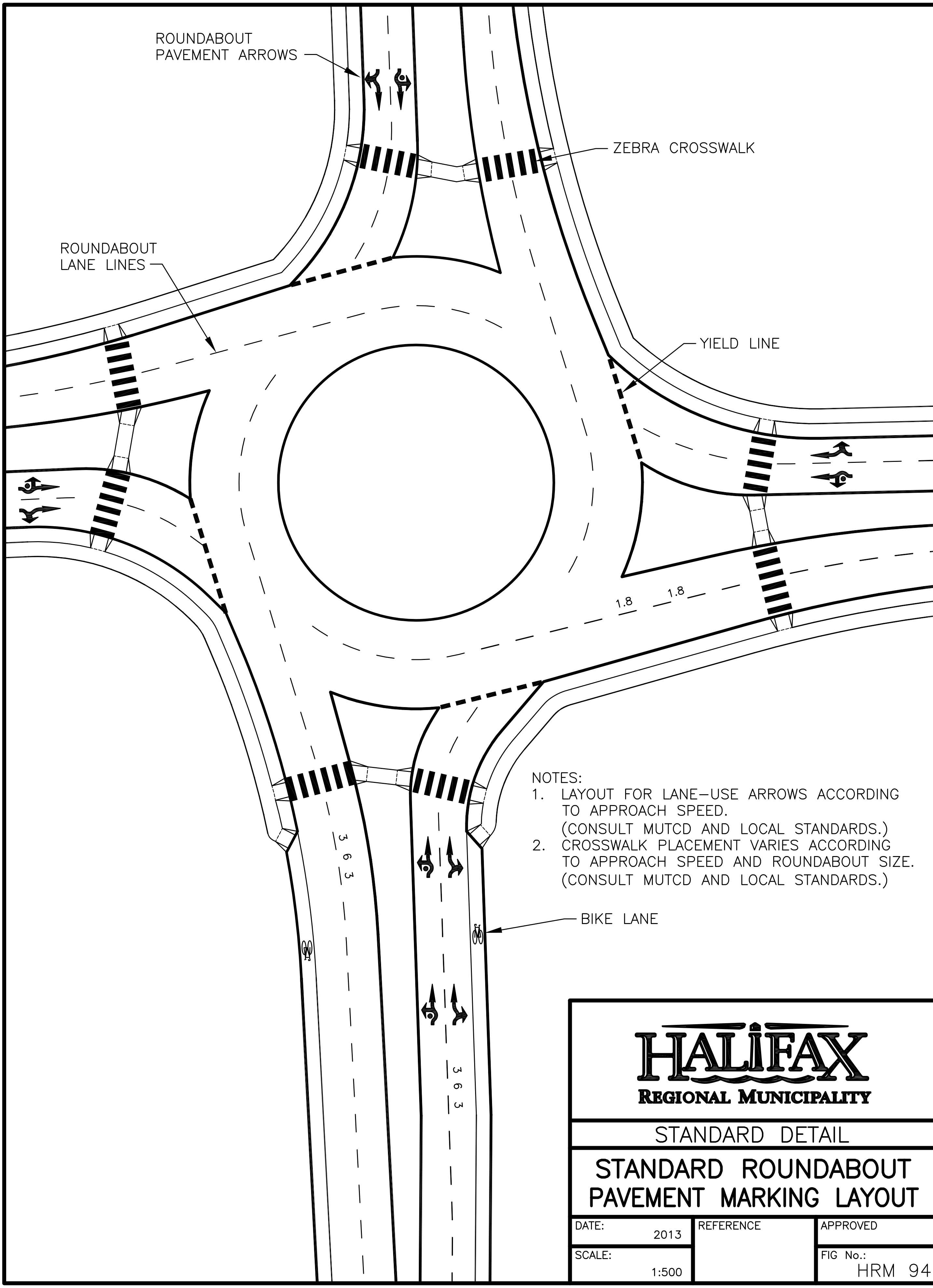
STANDARD DETAIL

PEDESTRIAN PAVEMENT MARKINGS

DATE: 2013	REFERENCE	APPROVED
SCALE: 1:75		FIG No.: HRM 93



NOTES:

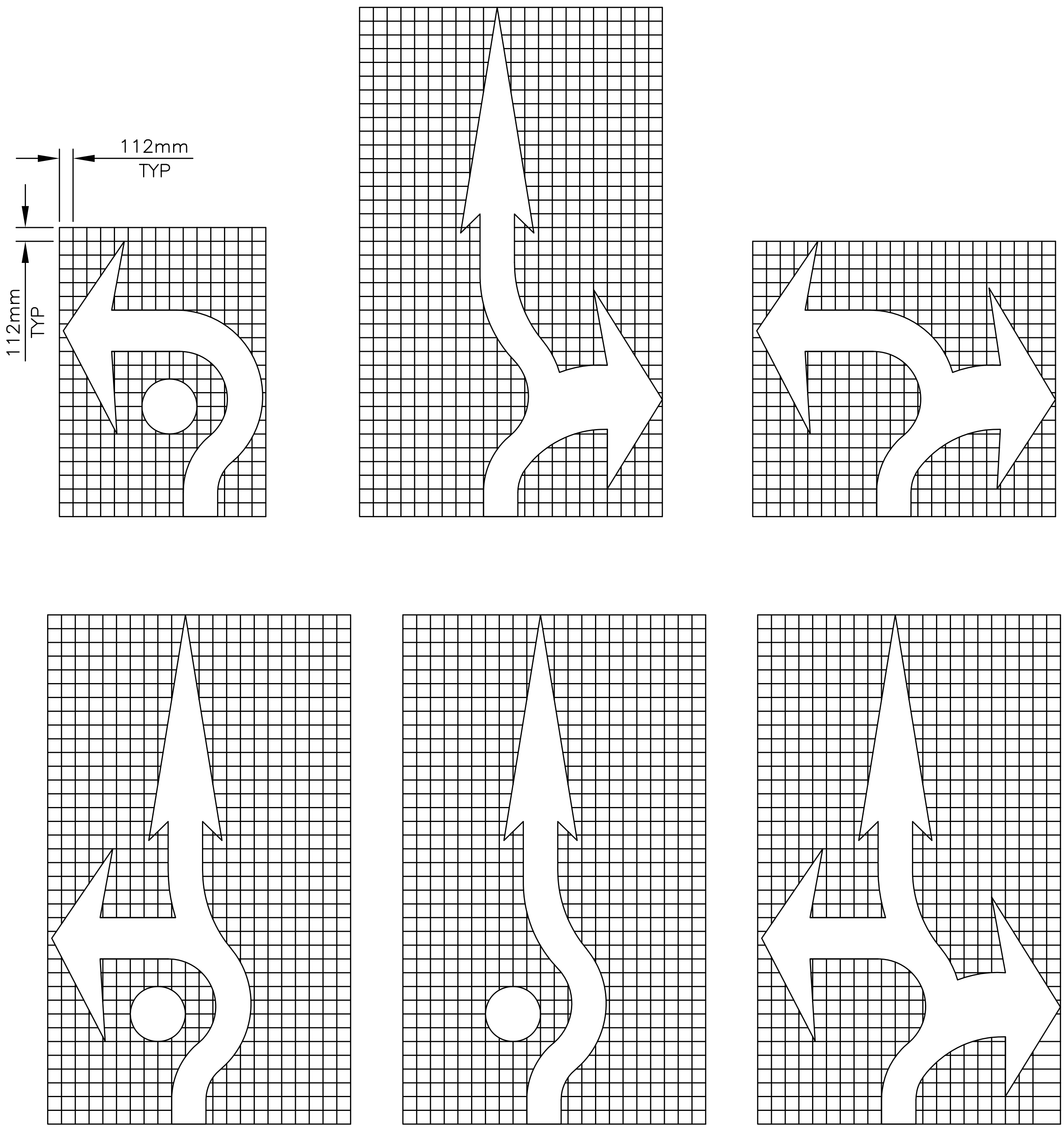
1. LAYOUT FOR LANE–USE ARROWS ACCORDING TO APPROACH SPEED. (CONSULT MUTCD AND LOCAL STANDARDS.)
2. CROSSWALK PLACEMENT VARIES ACCORDING TO APPROACH SPEED AND ROUNDABOUT SIZE. (CONSULT MUTCD AND LOCAL STANDARDS.)

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

STANDARD ROUNDABOUT PAVEMENT MARKING LAYOUT

DATE: 2013	REFERENCE	APPROVED
SCALE: 1:500		FIG No.: HRM 94

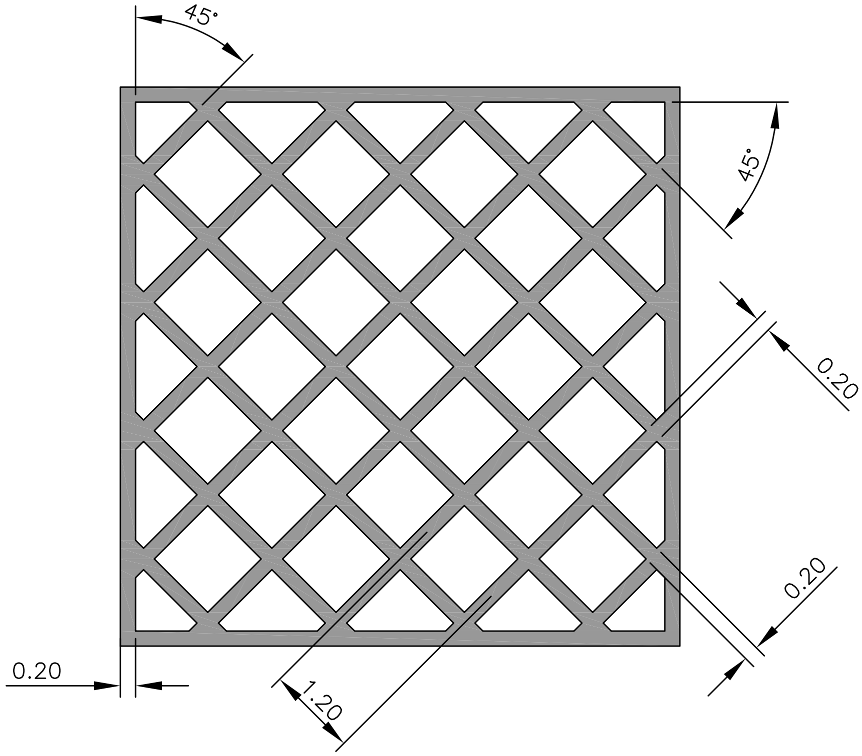


HALIFAX
REGIONAL MUNICIPALITY

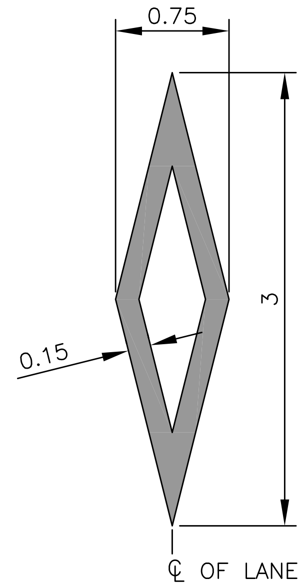
STANDARD DETAIL

ROUNDABOUT
PAVEMENT ARROWS

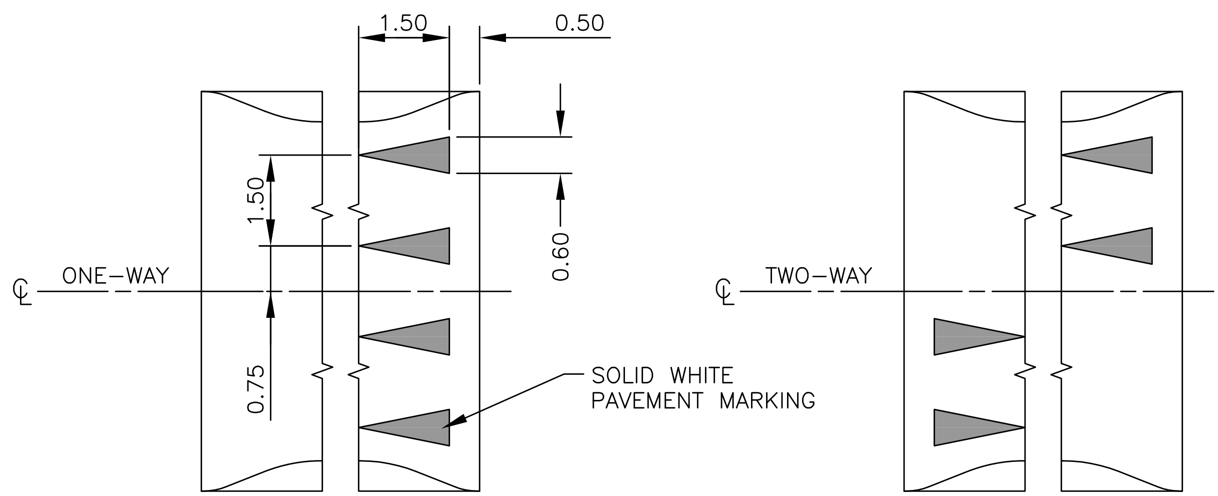
DATE: 2013	REFERENCE	APPROVED
SCALE: 150		FIG No.: HRM 95



INTERSECTION BOX
SCALE: 1:100



RESERVED LANE
SCALE: 1:50



SPEED HUMPS
SCALE: 1:125

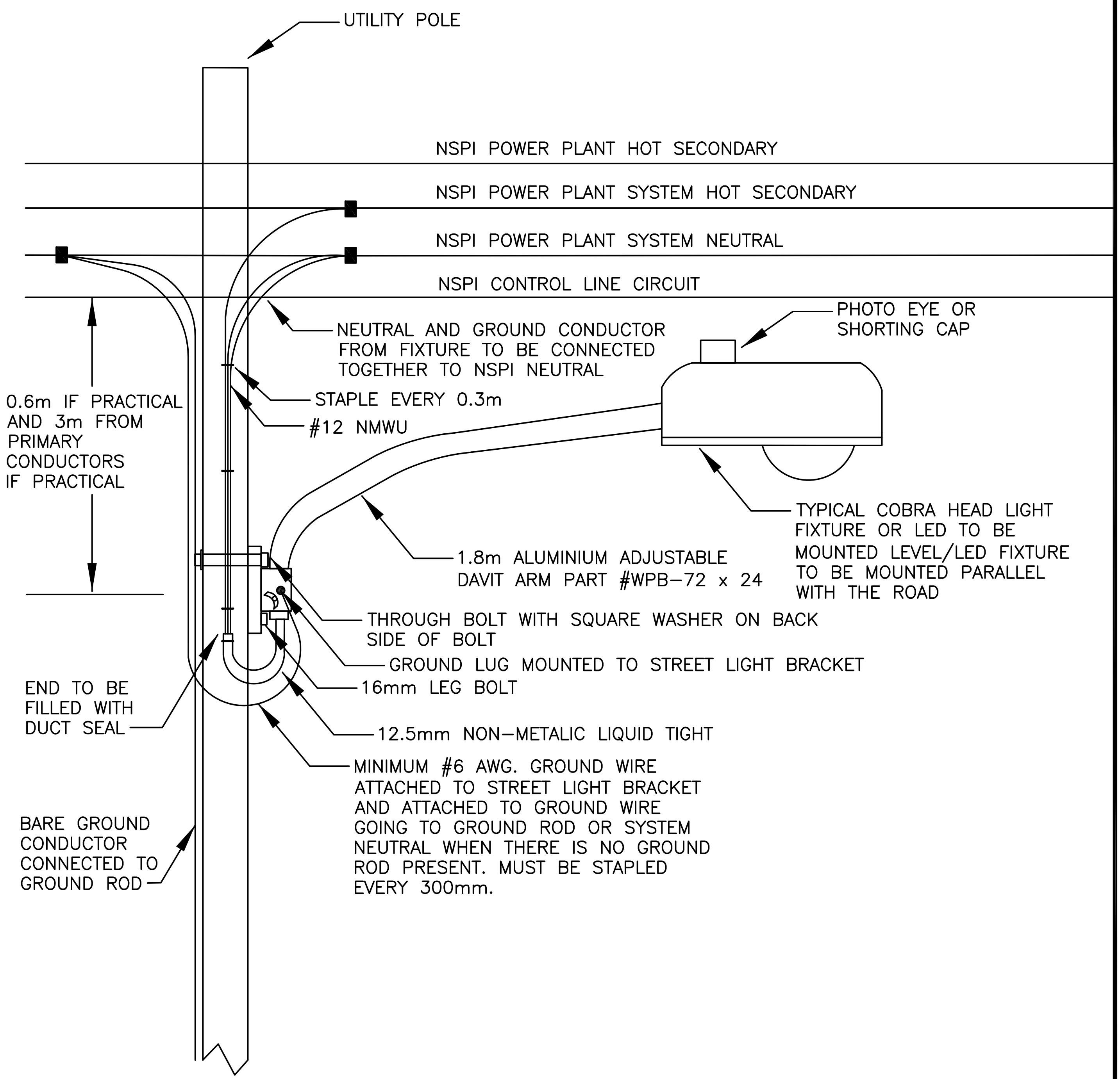
NOTE:
SEE "SPEED HUMP"
STANDARD DETAIL DRAWING

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

SPECIAL PAVEMENT MARKINGS

DATE: 2013	REFERENCE	APPROVED
SCALE: AS NOTED		FIG No.: HRM 96



NOTES:

1. ALL WORK MUST BE IN COMPLIANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE.
2. ANY WORK DONE IN OR AROUND PRIMARY CONDUCTORS MUST BE PERFORMED BY A QUALIFIED PERSON.
3. ANY FIXTURE BEING REPAIRED OR REPLACED MUST BE CONNECTED TO THE LINE IT IS TAKEN FROM.
4. ALL CONNECTIONS TO POWER NSPI POWER PLANT ARE TO BE MADE WITH TYCO KZ EP 4/0 PIERCING CONNECTORS.

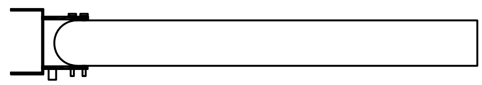
HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

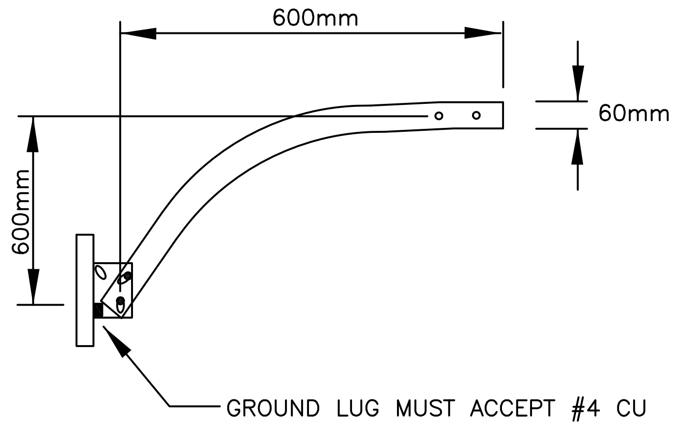
COBRA HEAD
ON A DAVIT ARM

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 97

TOP VIEW

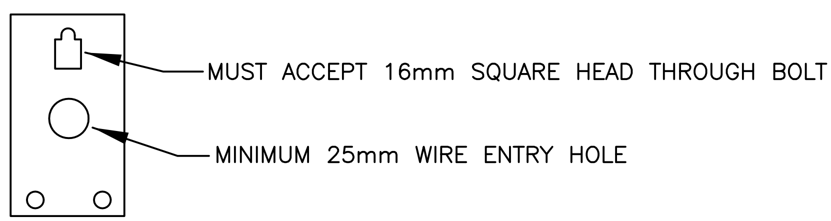


SIDE VIEW



MANUFACTURER: LUMINEX
CAT #: P–197

BRACKET



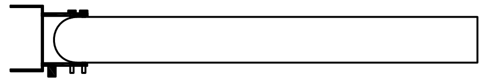
HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

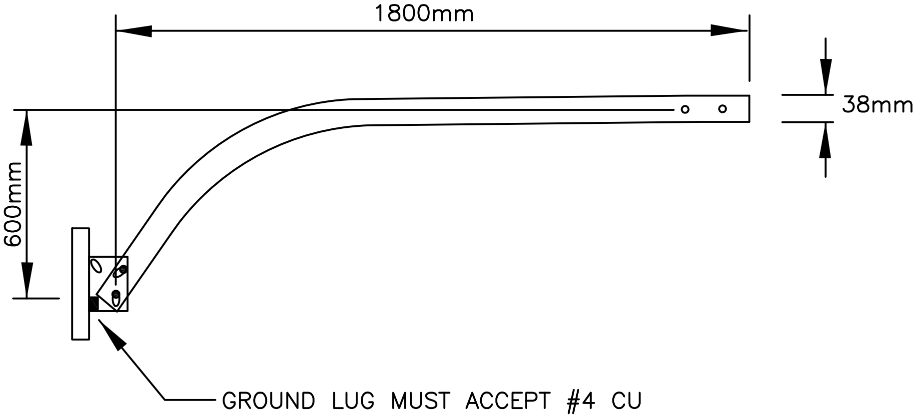
DAVIT ARM – 600mm

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 98

TOP VIEW

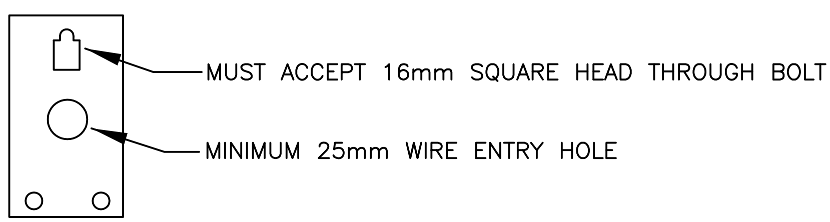


SIDE VIEW



MANUFACTURER: ALL–STRUCT
CAT # WPB 72X24

BRACKET



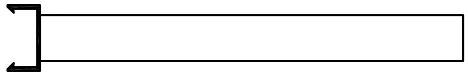
HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

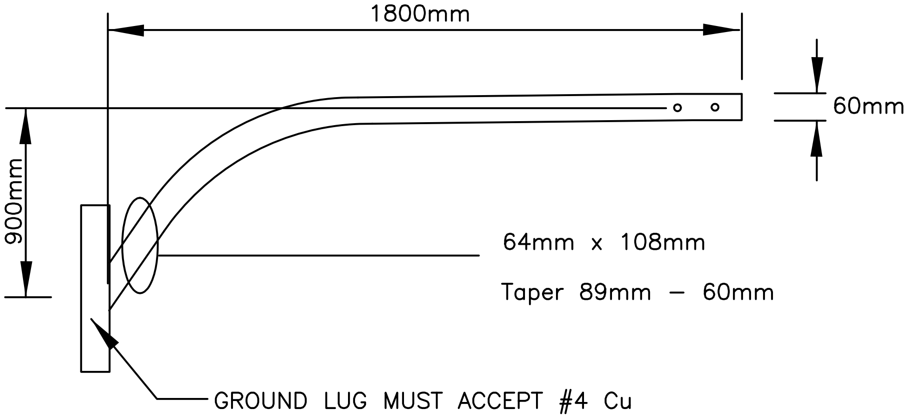
DAVIT ARM – 1800mm

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 99

TOP VIEW

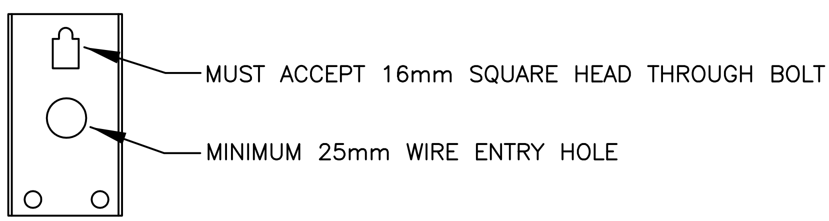


SIDE VIEW



BRACKET

MANUFACTURER: ALL–STRUCT
CAT #REGMA

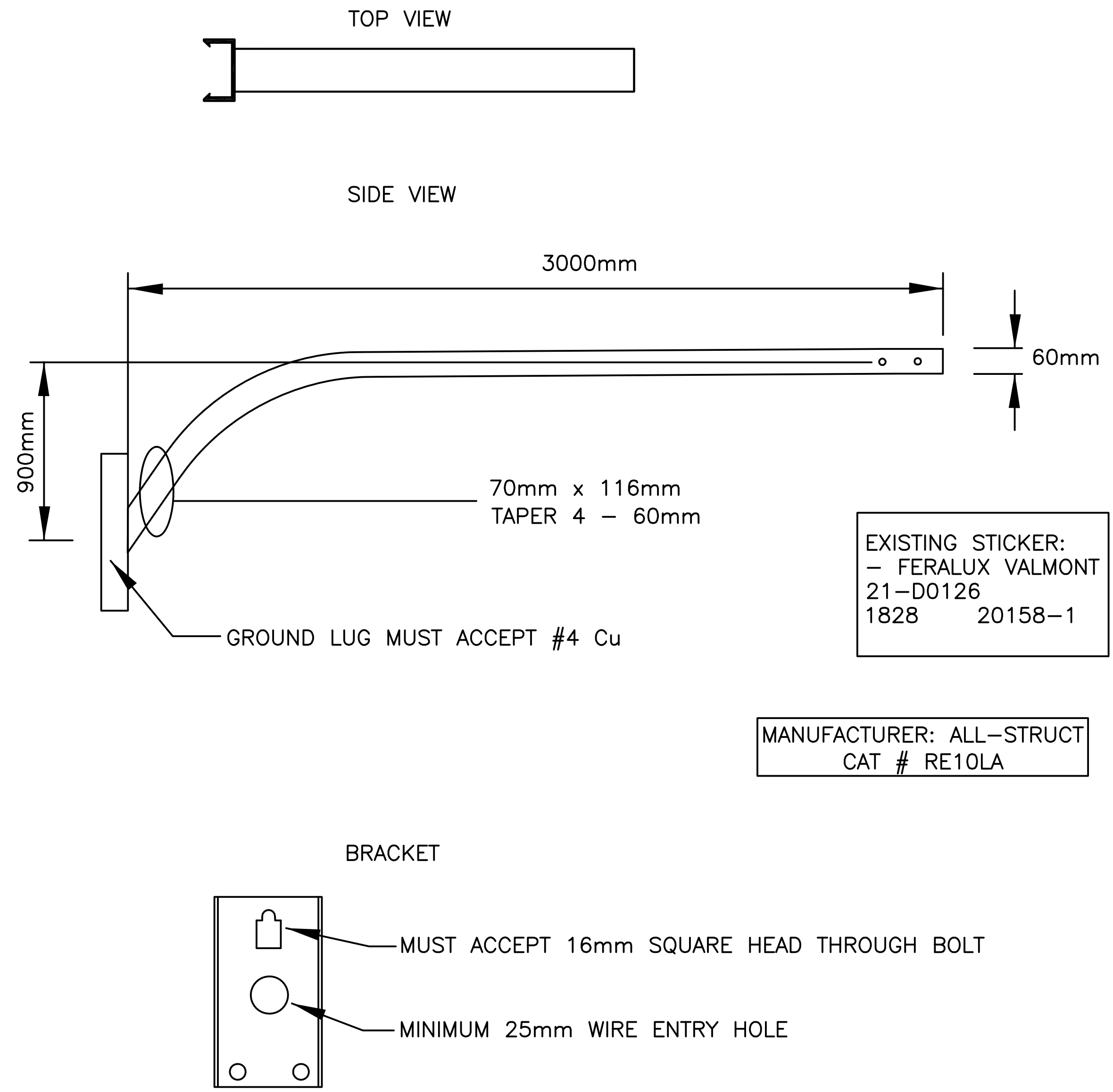


HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

ELLIPTICAL
DAVIT ARM – 1800mm

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 100



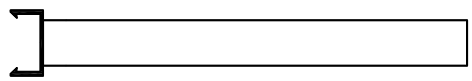
HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

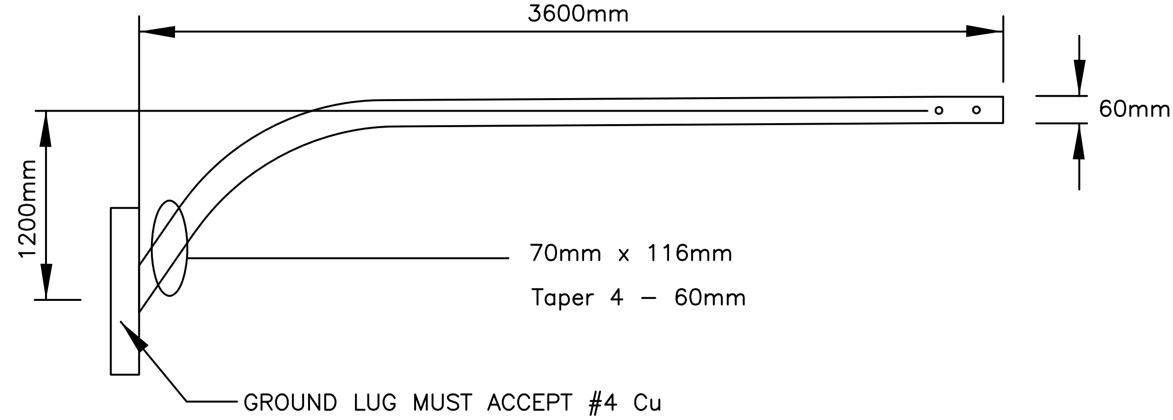
ELLIPTICAL DAVIT ARM – 3000mm

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 101

TOP VIEW

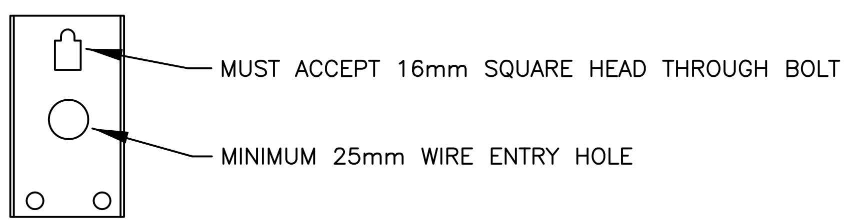


SIDE VIEW



MANUFACTURER: ALL—STRUCT
CAT # RE12LA

BRACKET

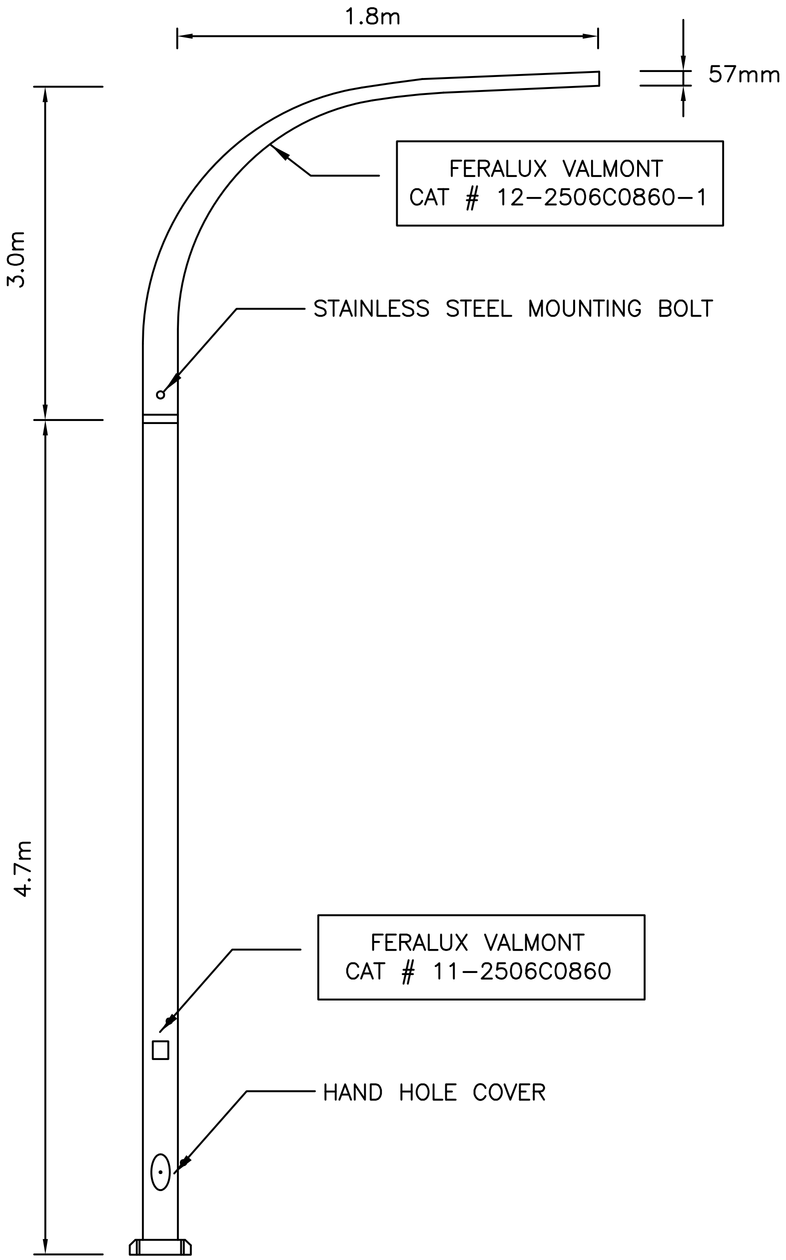


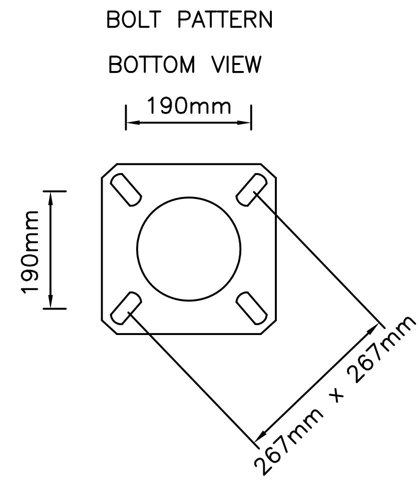
HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

ELLIPTICAL
DAVIT ARM — 3600mm

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 102





NOTES:

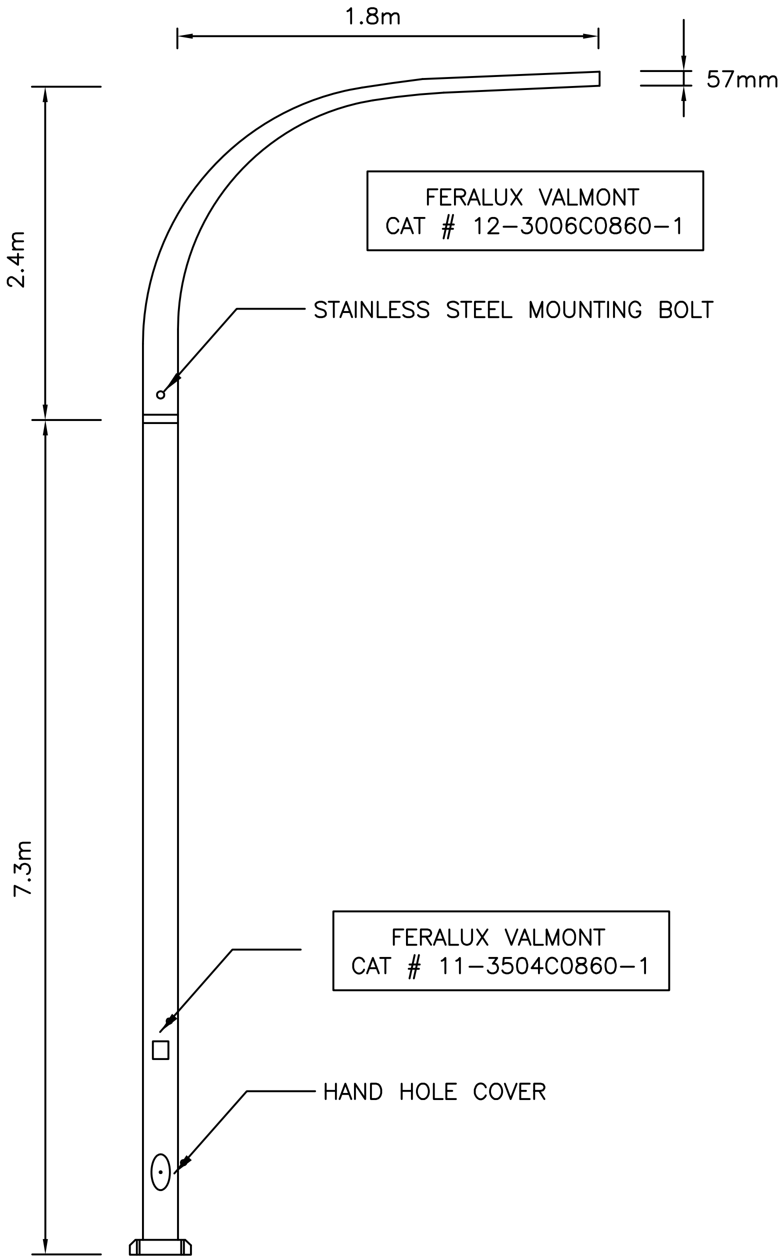
1. WALL THICKNESS 0.188mm
2. MUST HAVE A HAND HOLE COVER
3. MUST HAVE TWO STAINLESS STEEL MOUNTING BOLTS FOR DAVIT TO POLE CONNECTION.

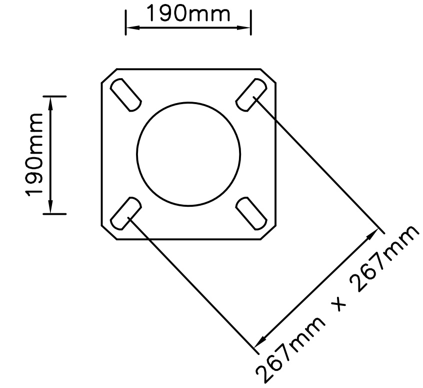
HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

ALUMINIUM
LIGHTING STANDARD– 7.7m

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 103





NOTES:

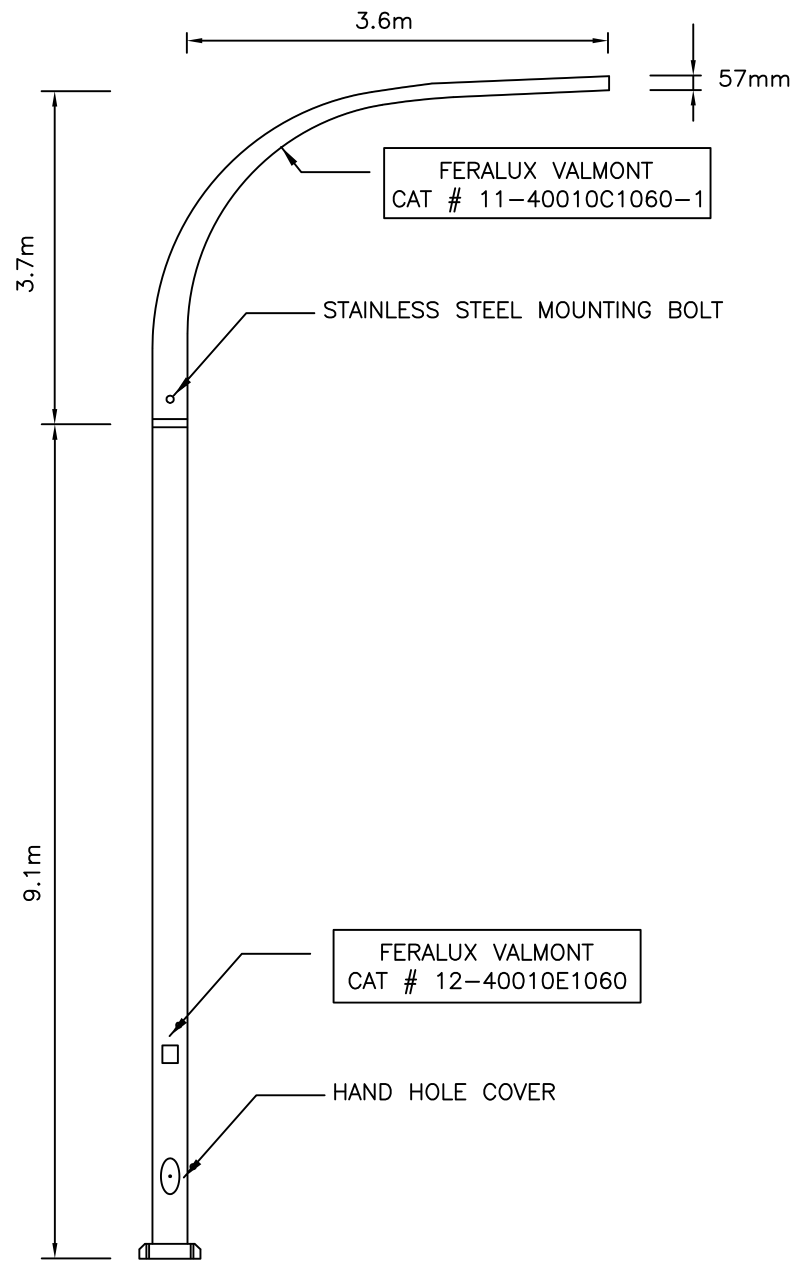
1. WALL THICKNESS 0.188mm
2. MUST HAVE A HAND HOLE COVER
3. MUST HAVE TWO STAINLESS STEEL MOUNTING BOLTS FOR DAVIT TO POLE CONNECTION.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

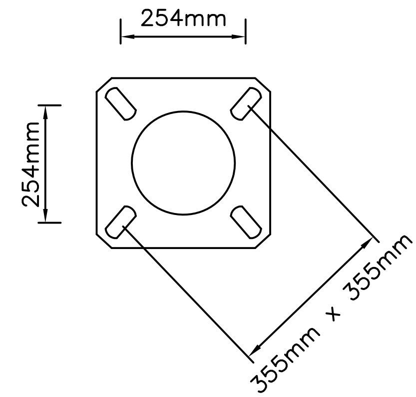
ALUMINIUM LIGHTING STANDARD– 9.7m

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 104



BOLT PATTERN

BOTTOM VIEW



NOTES:

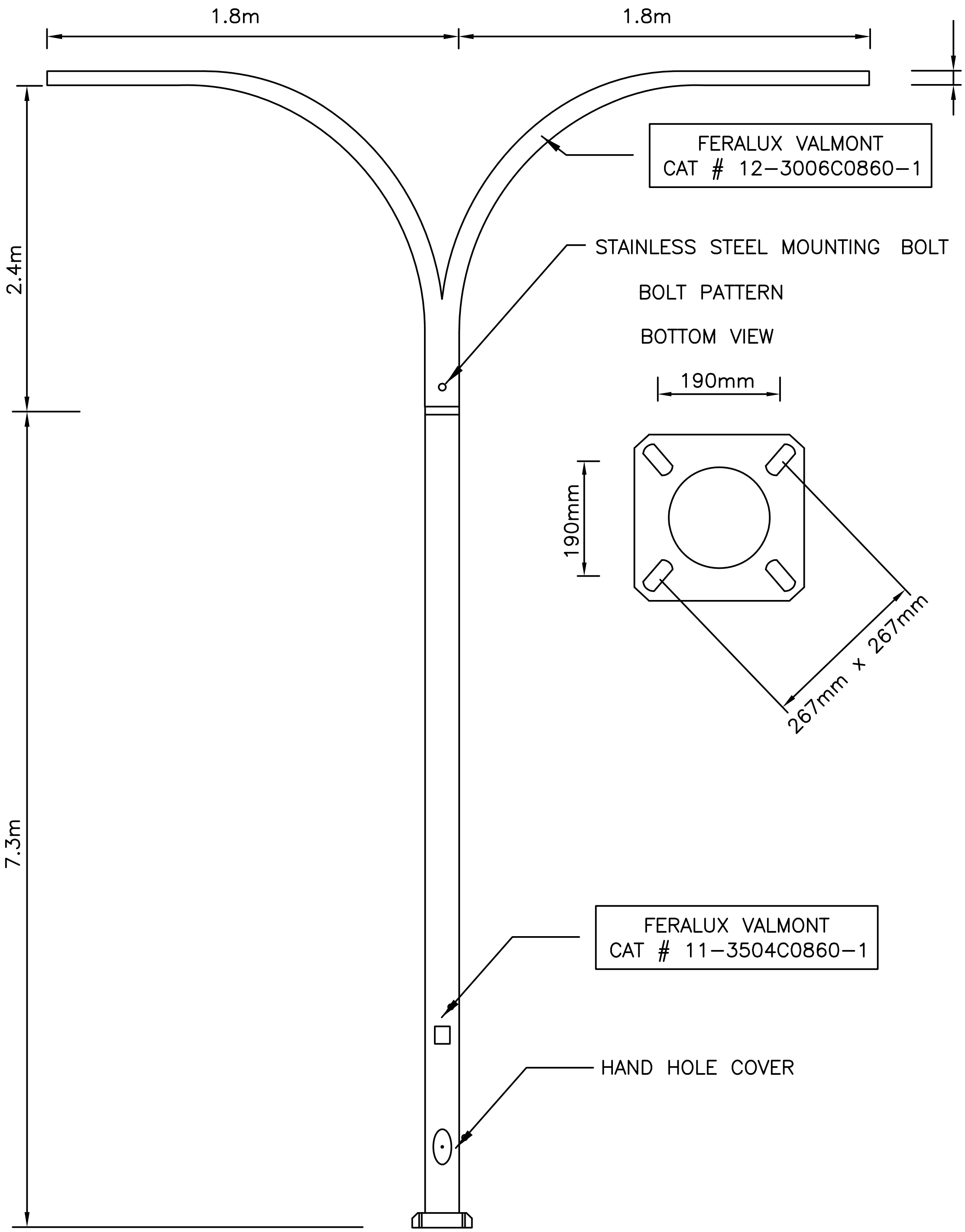
1. WALL THICKNESS 0.188mm
2. MUST HAVE A HAND HOLE COVER
3. MUST HAVE TWO STAINLESS STEEL MOUNTING BOLTS FOR DAVIT TO POLE CONNECTION.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

ALUMINIUM LIGHTING STANDARD–12.2m

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 105



TYPICAL DOUBLE DAVIT ALUMINIUM LIGHTING STANDARD

NOTES:

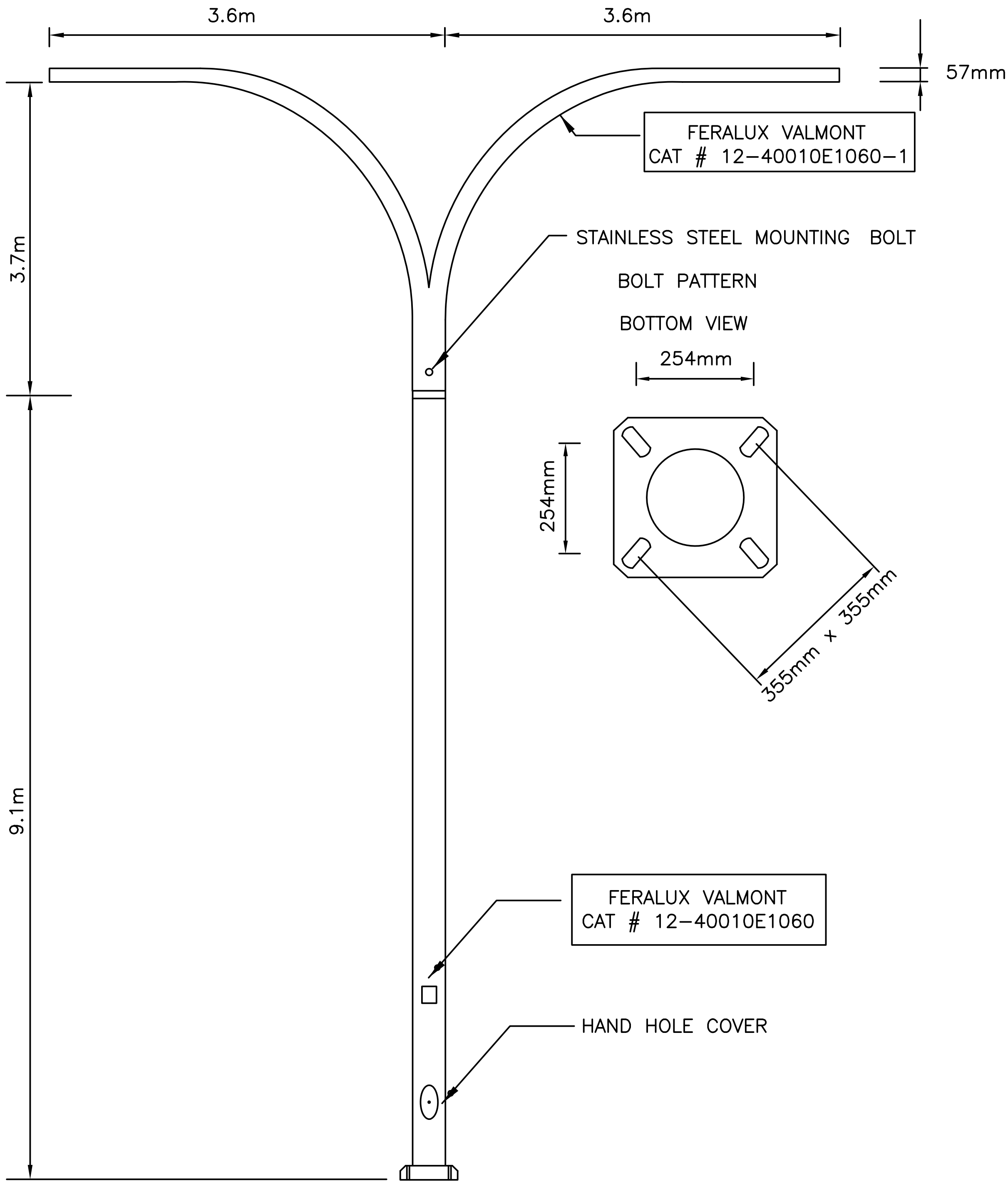
1. WALL THICKNESS 0.188mm
2. MUST HAVE A HAND HOLE COVER
3. MUST HAVE TWO STAINLESS STEEL MOUNTING BOLTS FOR DAVIT TO POLE CONNECTION.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

ALUMINIUM DOUBLE DAVIT LIGHTING STANDARD– 9.7m

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 106



TYPICAL DOUBLE DAVIT ALUMINIUM LIGHTING STANDARD

NOTES:

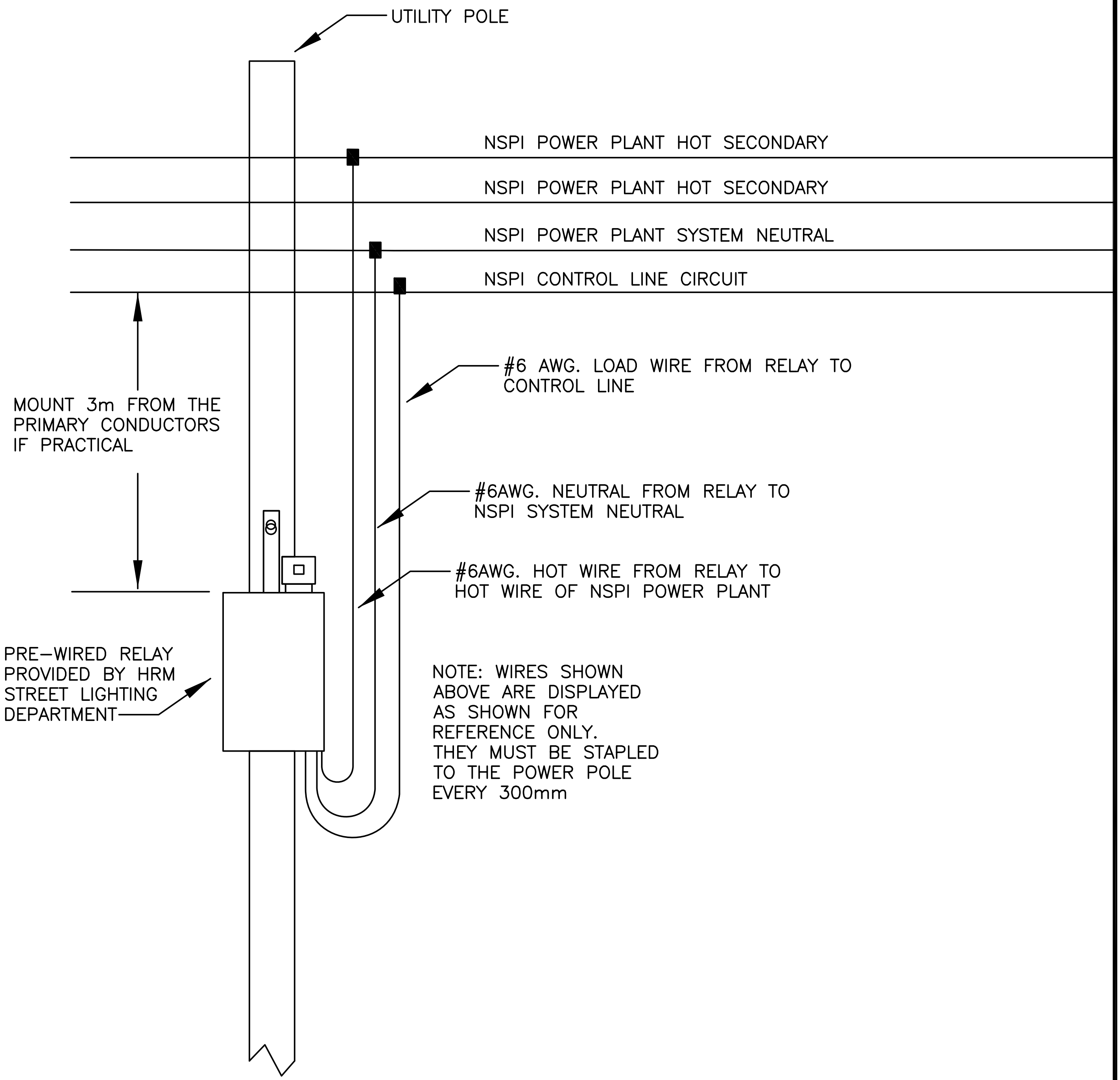
1. WALL THICKNESS 0.188mm
2. MUST HAVE A HAND HOLE COVER
3. MUST HAVE TWO STAINLESS STEEL MOUNTING BOLTS FOR DAVIT TO POLE CONNECTION.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

ALUMINIUM DOUBLE DAVIT LIGHTING STANDARD—12.2m

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 107



NOTES:

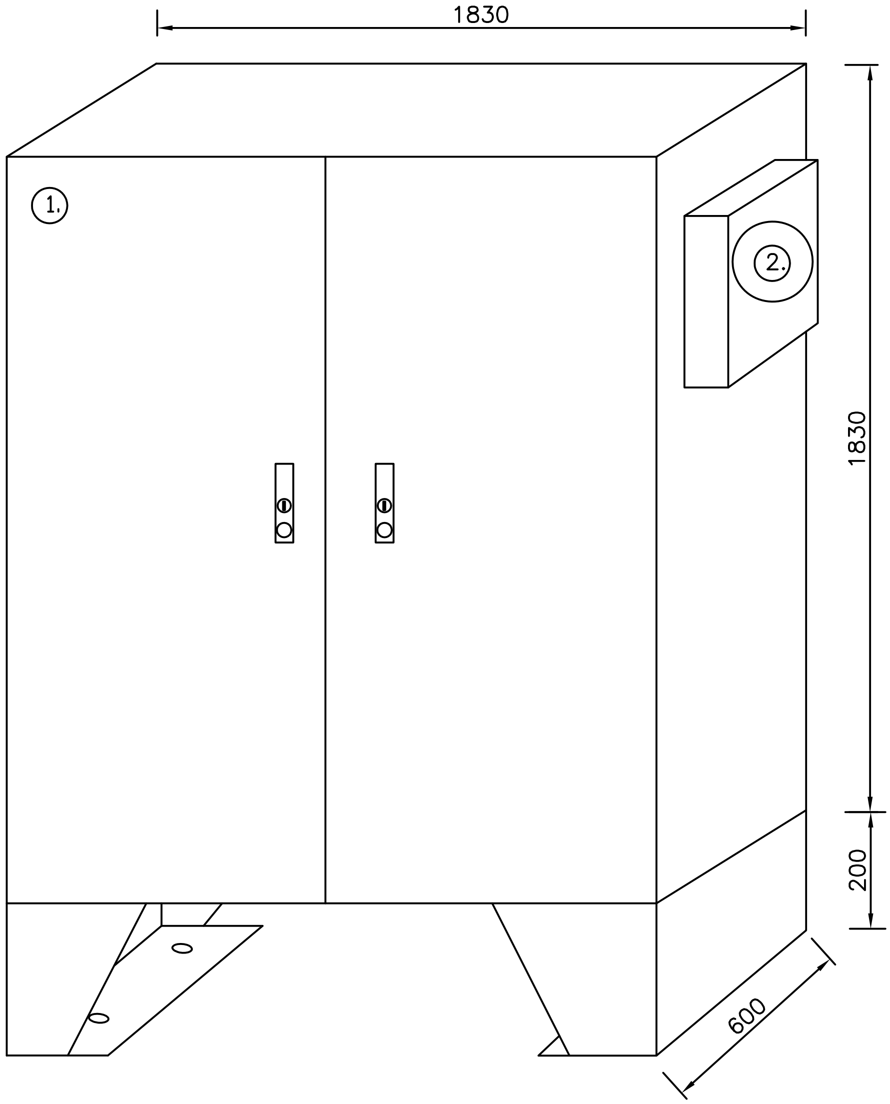
1. ALL WORK MUST BE IN COMPLIANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE.
2. ANY WORK DONE IN OR AROUND PRIMARY CONDUCTORS MUST BE PERFORMED BY A QUALIFIED PERSON.
3. WHEN MOUNTING THE RELAY POSITION THE PHOTOEYE AWAY FROM THE NEAREST LIGHT FIXTURE.
4. ALL CONNECTIONS TO POWER NSPI POWER PLANT ARE TO BE MADE WITH TYCO KZ EP 4/0 PIERCING CONNECTORS.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

RELAY INSTALLATION

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 108



PART NUMBERING AND DESCRIPTIONS:
1. BEL PART NUMBER #HDM727224FSS-M 1830x1830 C/W 200mm AND BACKPLATE
2. STREET LIGHTING POWER METER BASE PART#PL17-TCV-IN

NOTES:

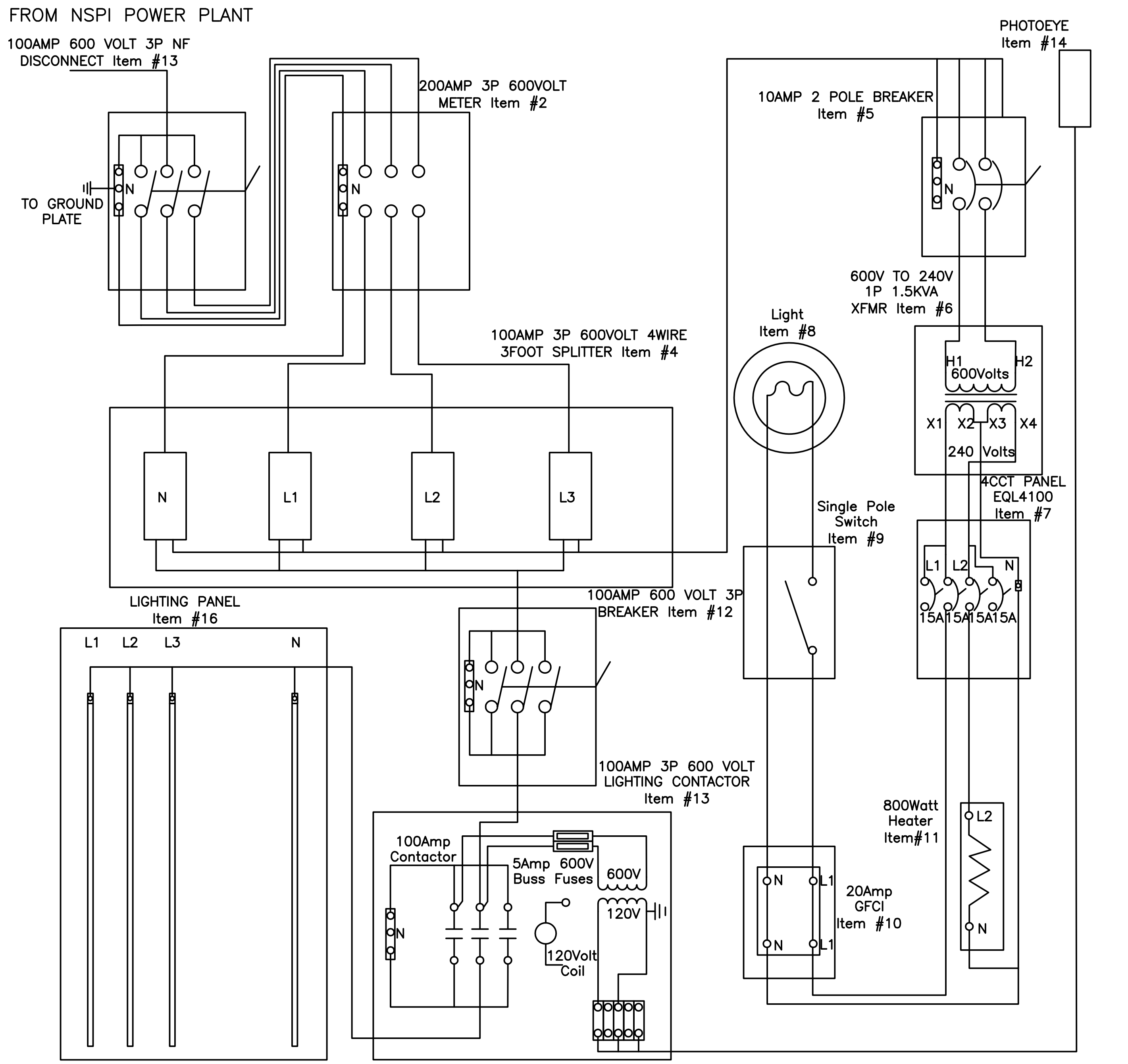
1. ALL WIRING MUST BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE.
2. CABINET MUST BE CSA APPROVED.
3. CABINET DOORS MUST HAVE BARS TO HOLD DOORS OPEN.
4. CABINET DOORS MUST BE LOCKABLE AND BE ABLE TO ACCEPT A PADLOCK.
5. CABINET MUST HAVE A REMOVABLE CENTRE POST FOR THE DOORS.
6. ALL MOUNTING SCREWS MUST BE STAINLESS.
7. CABINET MUST HAVE A DRAWING HOLDER AND ALL WIRING SCHEMATICS.
8. MANUFACTURER MUST PROVIDE REPLACEMENT FUSES, LIGHTBULB, AND A SPARE COIL. TO BE MOUNTED IN A PVC JUNCTION BOX IN A CONVENIENT LOCATION.
9. ALL COMPONENTS MUST BE LABELLED WITH LAMACOIDS IE; VOLTAGE, CURRENT, AND CIRCUIT.
10. ITEM #7 MUST BE LABELLED WITH LAMACOIDS TO INDICATE WHAT THE CIRCUIT IS FEEDING.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

STREET LIGHT
POWER ENCLOSURE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 109

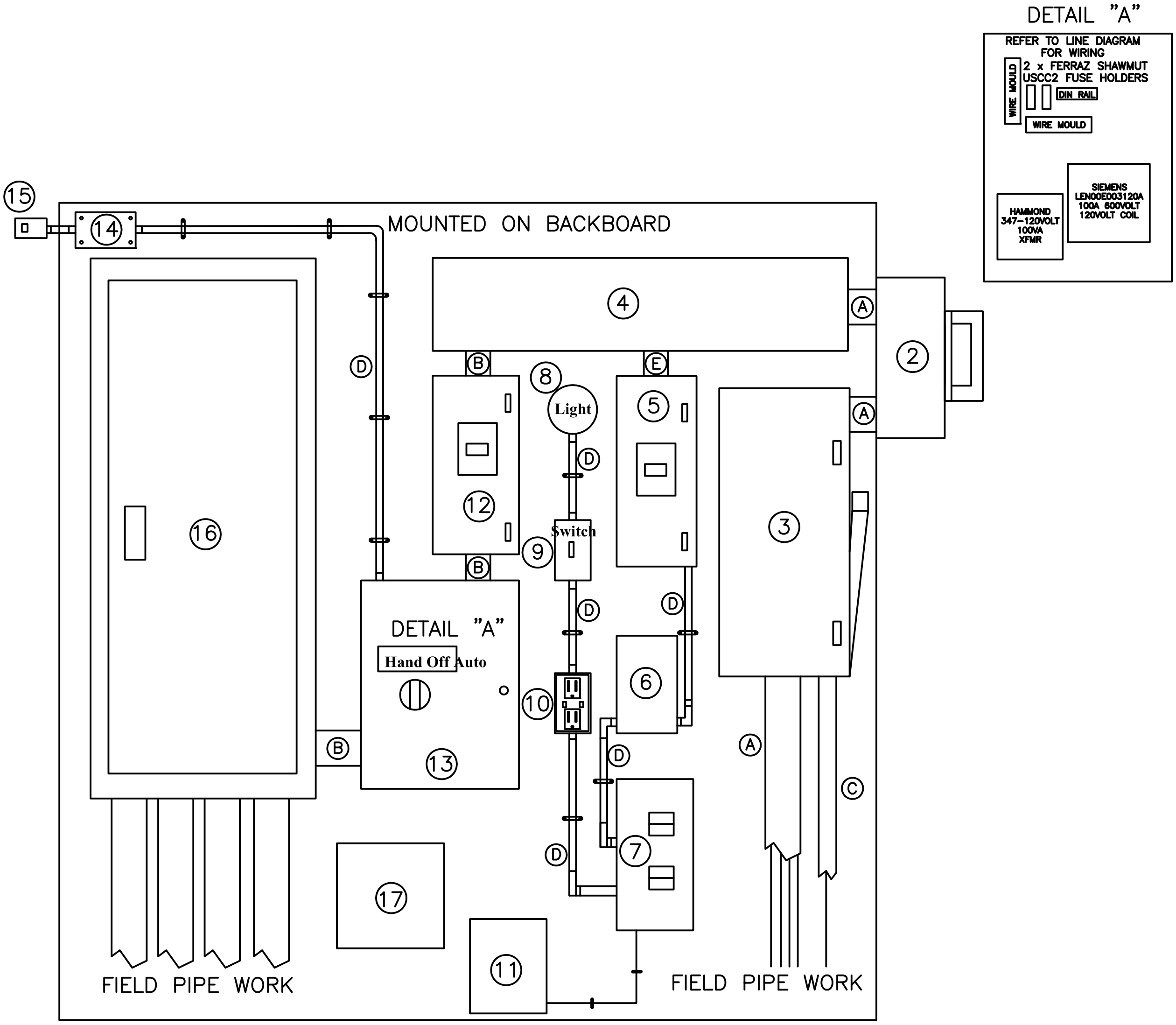


HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

STREET LIGHT POWER ENCLOSURE DIAGRAM

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 110



PART NUMBERING AND DESCRIPTIONS:

1. BEL PART NUMBER #HDM727224FSS-M 1830x1830 C/W 200mm AND BACKPLATE
2. STREET LIGHTING POWER METER BASE PART#PL17-TCV-IN
3. 100AMP 3P 600VOLT NON-FUSEABLE SIEMENS ID363NF
4. BEL 200AMP 3P 600VOLT SPLITTER PART#T3204
5. 20AMP 2P 600VOLT BREAKER SIEMENS PART#ED63B020L C/W E2NIS ENCLOSURE
6. 1.5KVA XFMR HAMMOND PART#Q1C5PEKF
7. 4 X 15AMP 1P BREAKER SIEMENS PART#Q115 C/W EQL4100 ENCLOSURE
8. RAB DEMVCS100CG LIGHT C/W DEMGD100CGS CAGE C/W CFL LIGHTBULB
9. RAB DEVICE BOX IBCS100CN C/W WEATHERPROOF PVC COVER AND COMMERCIAL GRADE SINGLE POLE SWITCH LEVCS1152W
10. RAB DEVICE BOX IBCS100CN C/W WEATHERPROOF PVC COVER AND 20AMP T SLOT GFCI LEV7899W
11. 800WATT HEATER CALORITECH PART#PH80011
12. 100AMP 3P 600VOLT BREAKER SIEMENS PART#ED63B100L C/W E2NIS ENCLOSURE
13. 100AMP LEN CONTACTOR C/W HOA IN 406mm x 406mm x 203mm ENCLOSURE(REFER TO DETAIL A)
14. RAB DEVICE BOX IBCS100CN C/W BLANK PVC WEATHERPROOF COVER SCEBRC1510
15. INTERMATIC PHOTOCELL PART#K4221C
16. SIEMENS DISTRIBUTION PANEL PART#P1L42ML125CBS 3P 4 WIRE 600VOLT 42 CRT
17. PVC JUNCTION BOX CAPABLE OF HOLDING EXTRA FUSES AND AN EXTRA COIL.

CONDUIT AND WIRE SIZING:

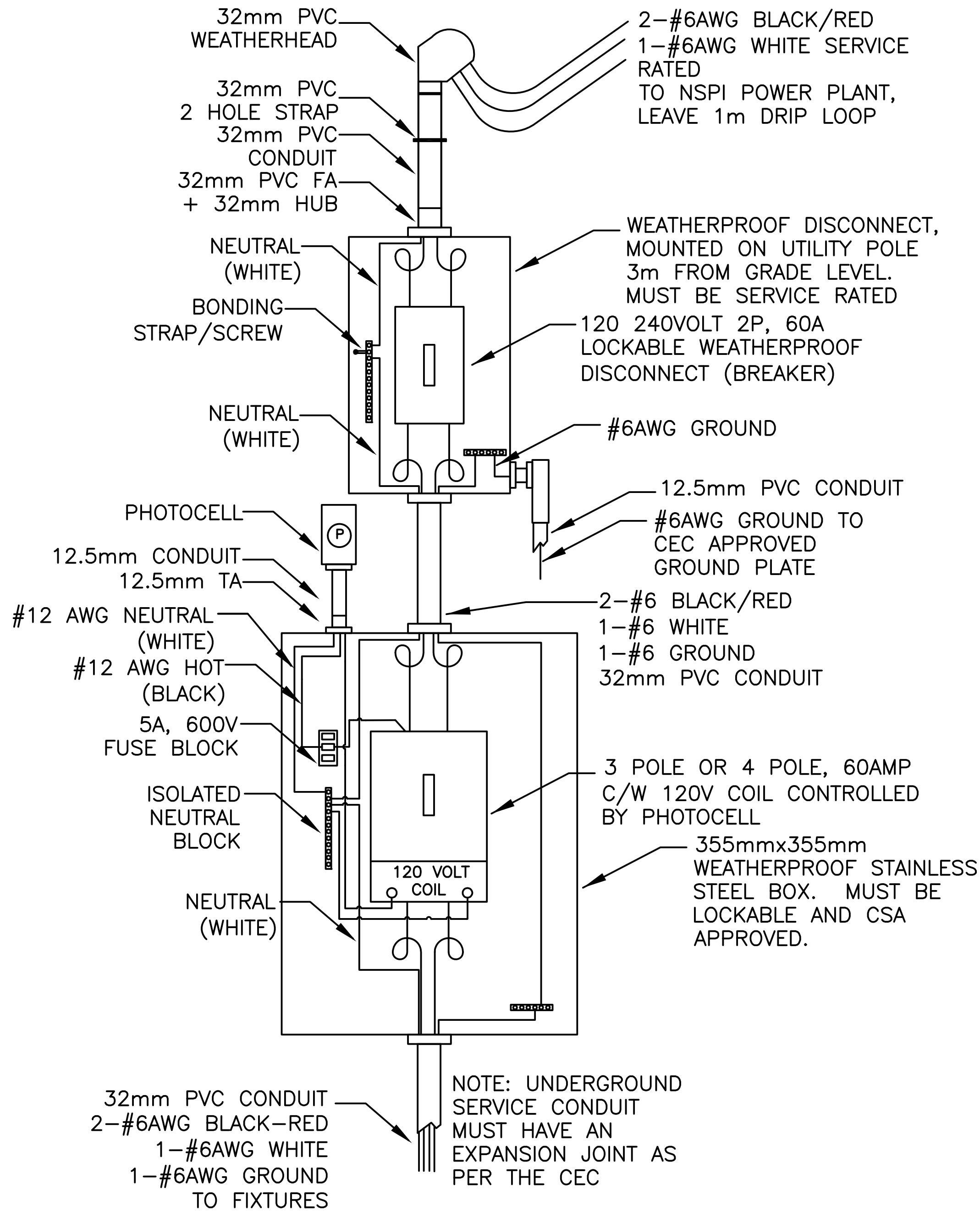
A. 53mm CONDUIT C/W 4 x #3 RWU90 & 1 x #8 GRN CONDUCTORS
B. 41mm CONDUIT C/W 4 x #3 RWU90 & 1 x #8 GRN CONDUCTORS
C. 25mm CONDUIT C/W 1 x #6 GRN
D. 12.5mm NMFC OR 12.5mm PVC C/W 2 x #12 RWU90 & #12 GRN
E. 25mm CONDUIT C/W 2 x #10 RWU90 & #8 GRN

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

STREET LIGHT
POWER ENCLOSURE LAYOUT

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 111



120/240 VOLT SINGLE PHASE CURRENT RATED OVER 15 AMPS

NOTES:

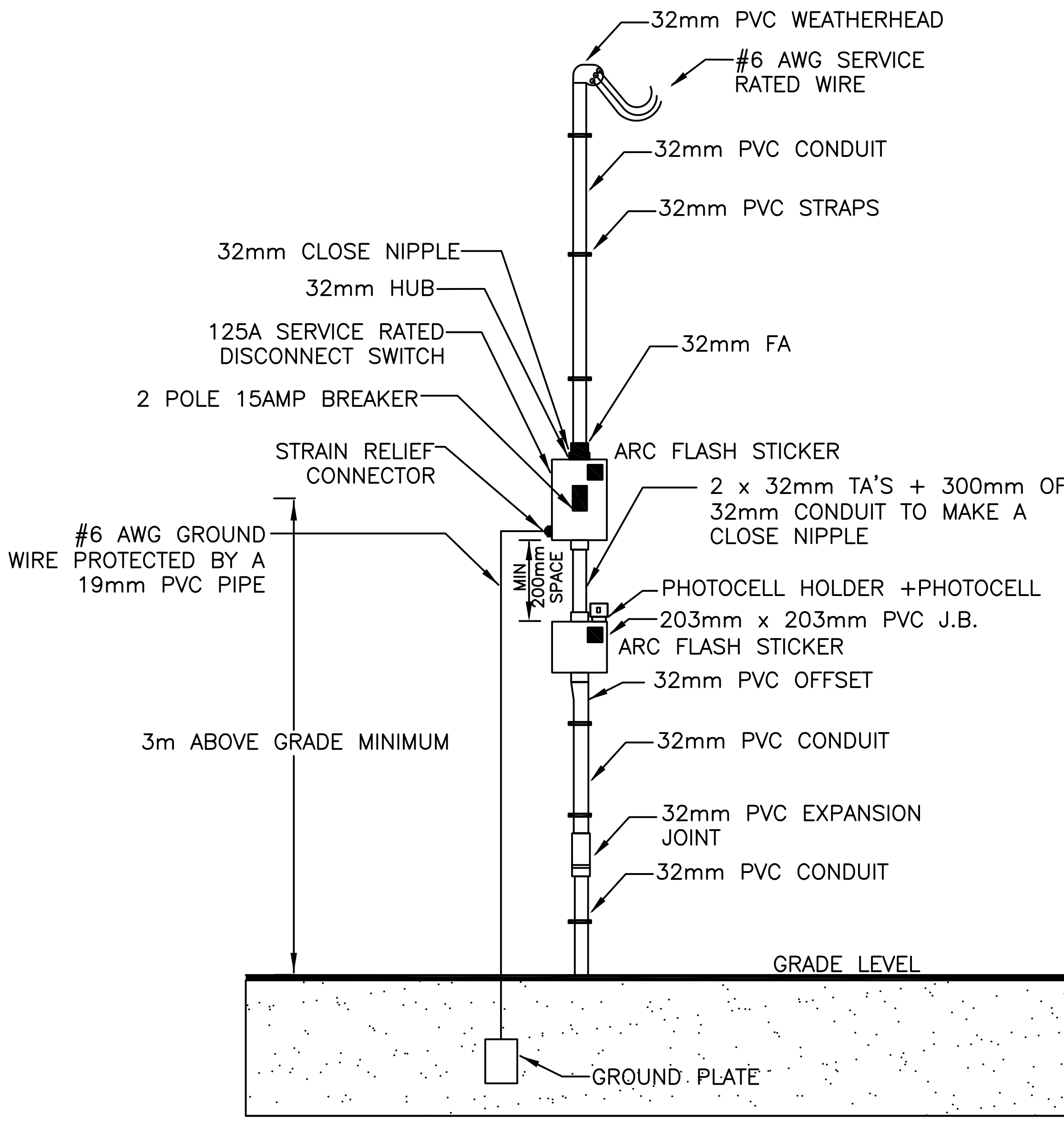
1. BREAKER MUST BE A DOUBLE POLE, NO SPARE SERVICE WIRES ARE ALLOWED.
2. CIRCUITS RATED AT MORE THAN 15 AMPS REQUIRE A CONTACTOR.
3. ALL WORK MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE AND INSPECTED BY NSPI.
4. UNDERGROUND SERVICE CONDUIT AND GROUND MUST BE PROTECTED 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.
6. ALL POLES FED OFF OF THIS CAP INSTALLED OR MUST BE CONNECTED DIRECTLY.
7. SERVICE MUST BE MOUNTED AT A MINIMUM OF THREE METERS.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

STREET LIGHTING U/G ELECTRICAL SERVICE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 112



120 VOLT SINGLE PHASE CURRENT RATED UNDER 15 AMPS

NOTES:

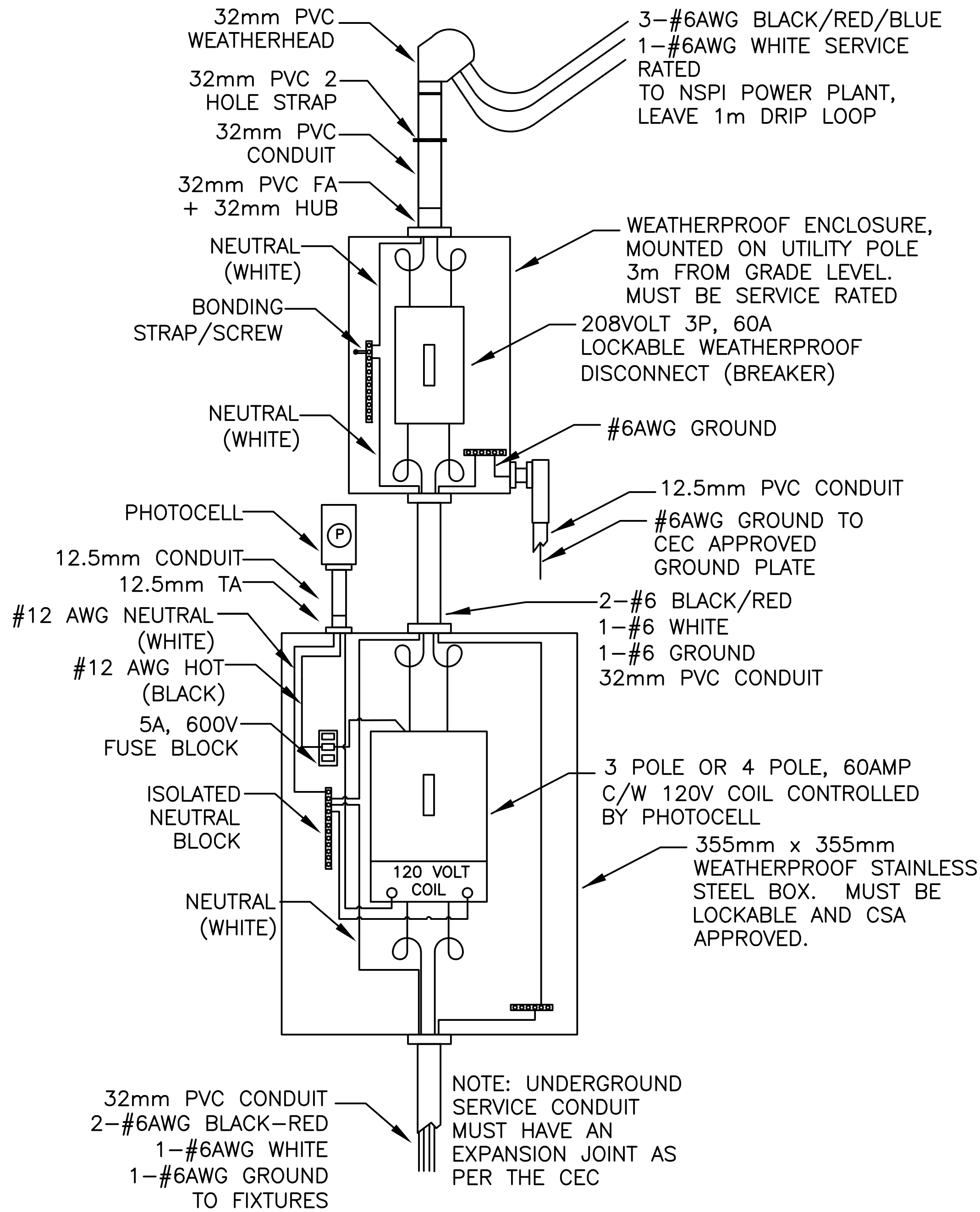
1. BREAKER MUST BE A DOUBLE POLE, NO SPARE SERVICE WIRES ARE ALLOWED.
2. DO NOT INSTALL PHOTOEYES IN POLES FED OFF OF THIS SERVICE.
3. ALL WORK MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE AND INSPECTED BY NSPI.
4. UNDERGROUND SERVICE CONDUIT AND GROUND MUST BE PROTECTED 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.
6. IF THERE IS MORE THAN ONE CIRCUIT OR IF THE CIRCUIT DRAWS MORE THAN 15 AMPS A CONTACTOR IS REQUIRED. REFER TO UNDERGROUND STANDARDS.
7. SERVICES MUST ALWAYS BE CONNECTED TO THE CONTROL LINE.
8. MINIMUM WIRE SIZE IS #6AWG.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

STREET LIGHTING
U/G ELECTRICAL SERVICE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 113



208 VOLT THREE PHASE CURRENT RATED OVER 15 AMPS

NOTES:

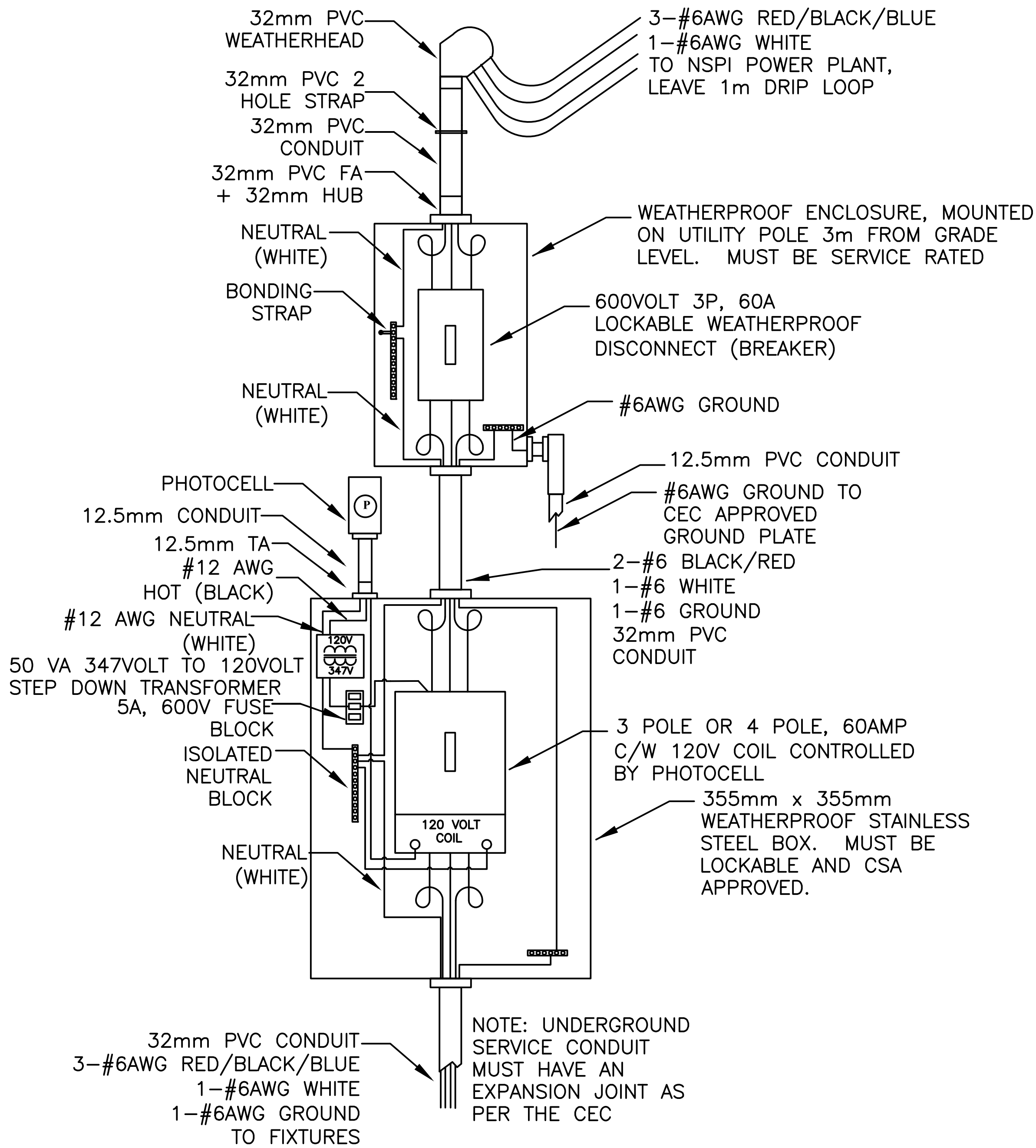
1. BREAKER MUST BE A DOUBLE POLE, NO SPARE SERVICE WIRES ARE ALLOWED.
2. CIRCUITS RATED AT MORE THAN 15 AMPS REQUIRE A CONTACTOR.
3. ALL WORK MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE AND INSPECTED BY NSPI.
4. UNDERGROUND SERVICE CONDUIT AND GROUND MUST BE PROTECTED 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.
6. ALL POLES FED OFF OF THIS SERVICE MUST HAVE A SHORTING CAP INSTALLED OR MUST BE CONNECTED DIRECTLY.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

STREET LIGHTING
U/G ELECTRICAL SERVICE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 114



347 VOLT THREE PHASE CURRENT RATED OVER 15 AMPS

NOTES:

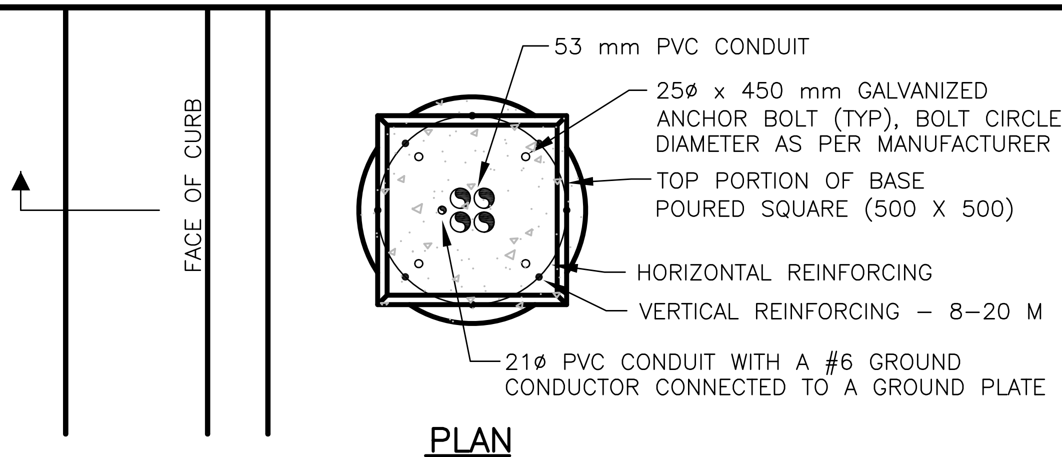
1. BREAKER MUST BE A DOUBLE POLE, NO SPARE SERVICE WIRES ARE ALLOWED.
2. CIRCUITS RATED AT MORE THAN 15 AMPS REQUIRE A CONTACTOR.
3. ALL WORK MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE AND INSPECTED BY NSPI.
4. UNDERGROUND SERVICE CONDUIT AND GROUND MUST BE PROTECTED 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.
6. ALL POLES FED OFF OF THIS SERVICE MUST HAVE A SHORTING CAP INSTALLED OR MUST BE CONNECTED DIRECTLY.

HALIFAX
REGIONAL MUNICIPALITY

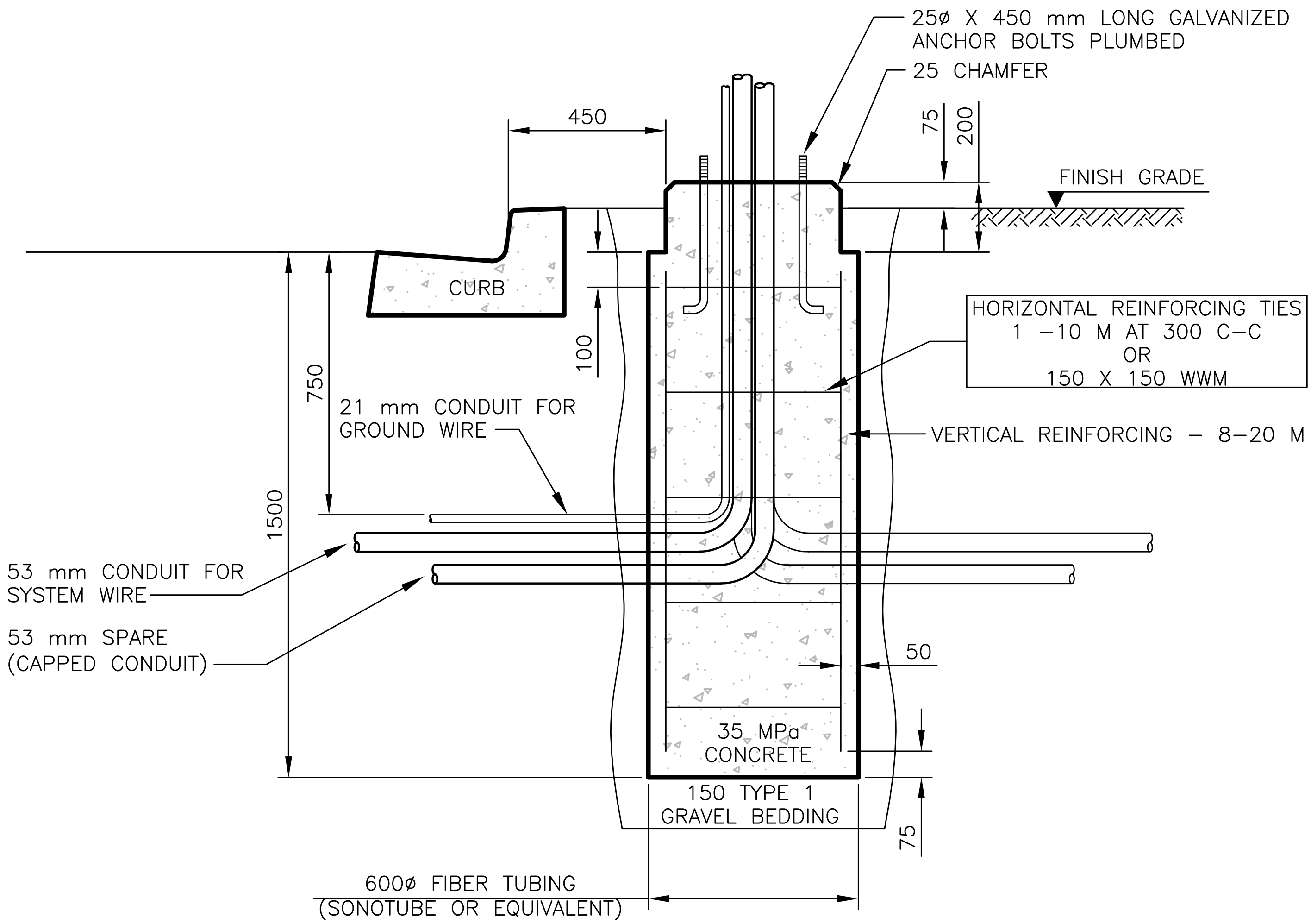
STANDARD DETAIL

STREET LIGHTING
U/G ELECTRICAL SERVICE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 115



PLAN



SECTION

NOTES:

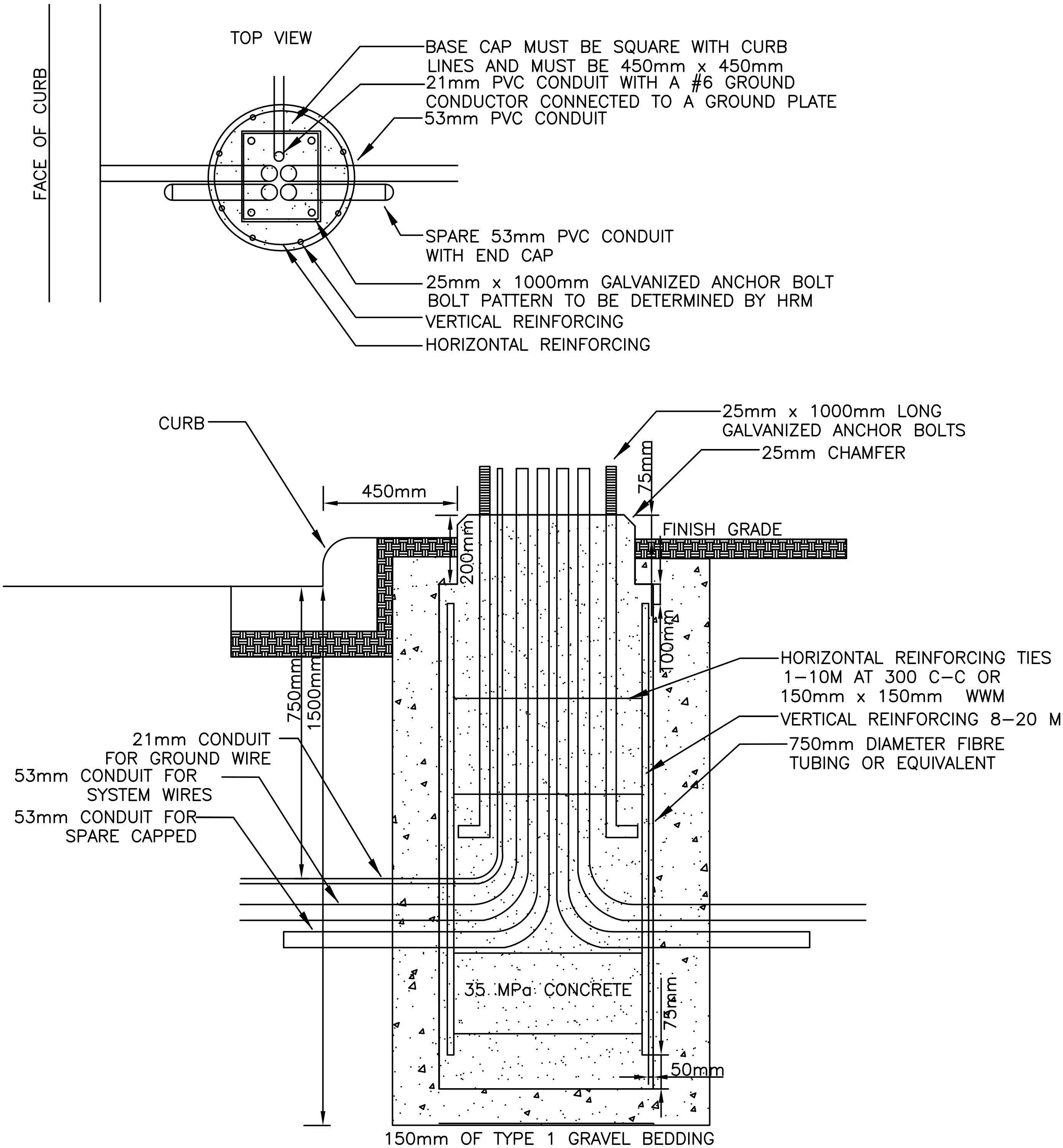
1. CONCRETE MUST BE PLACED IN A SINGLE POUR.
2. ALL DIMENSIONS IN MILLIMETRES.
3. ALL WORK MUST BE IN COMPLIANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE.
4. THE THREADS OF THE LEG BOLTS MUST BE LEVEL WITH THE TOP OF THE CONCRETE BASE.
5. EACH CONCRETE BASE MUST HAVE ITS OWN GROUND PLATE
6. CONTRACTOR TO PLACE CONDUIT TO ALLOW FOR A DIVIDER PLATE IN THE TRANSFORMED BASE/POLE.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

ORNAMENTAL
STREET LIGHT BASE

DATE: 2013	REFERENCE	APPROVED
SCALE: 1:20		FIG No.: HRM 116



NOTES:

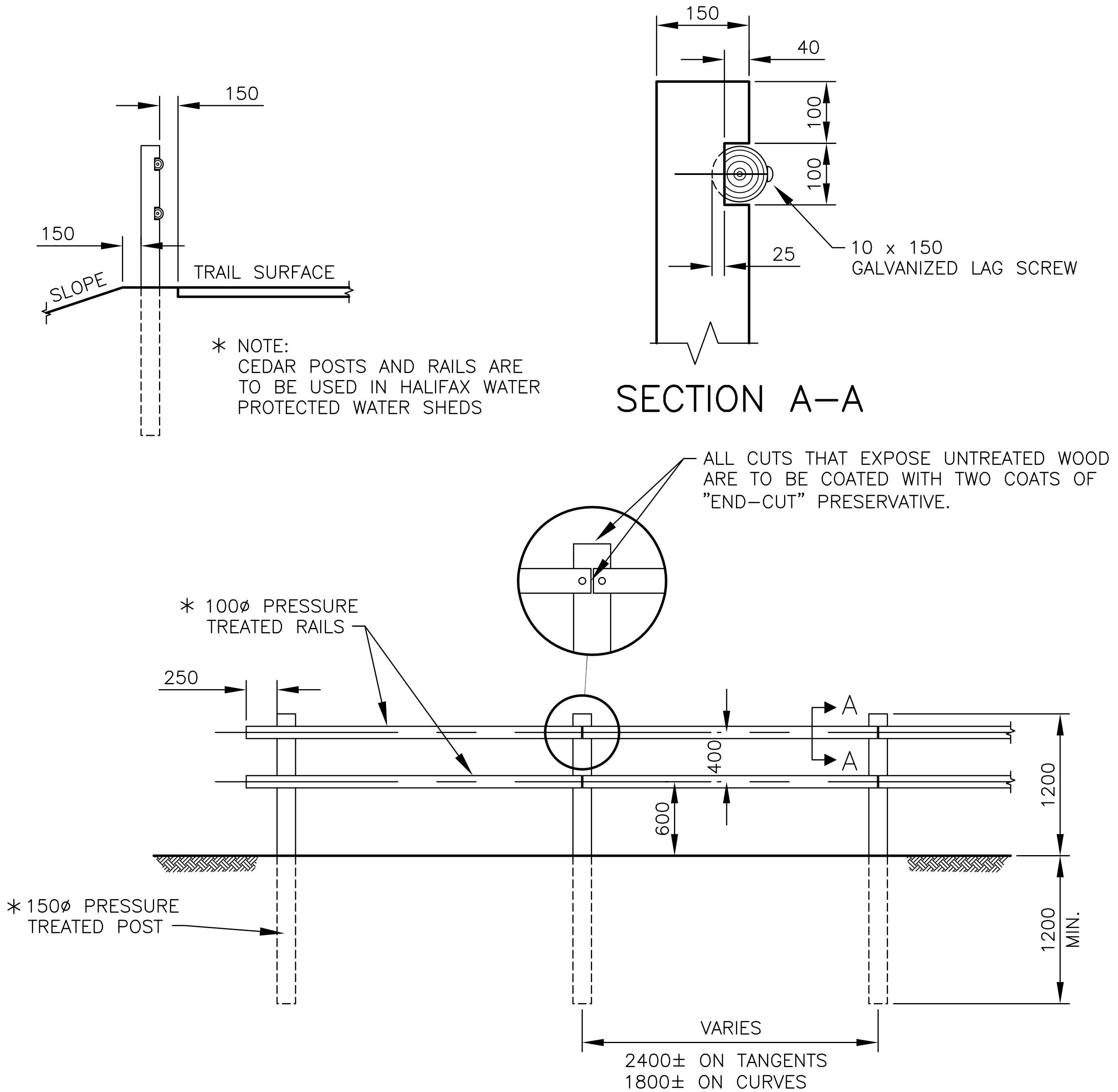
1. ALL WORK MUST BE IN COMPLIANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE.
2. ALL CONCRETE MUST BE POURED IN ONE POUR.
3. THE THREADS OF THE LEG BOLTS MUST BE LEVEL WITH THE TOP ON THE CONCRETE BASE.
4. EACH CONCRETE BASE MUST HAVE ITS OWN GROUND PLATE.

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

ALUMINIUM STANDARD – TYPE 2 BASE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 117

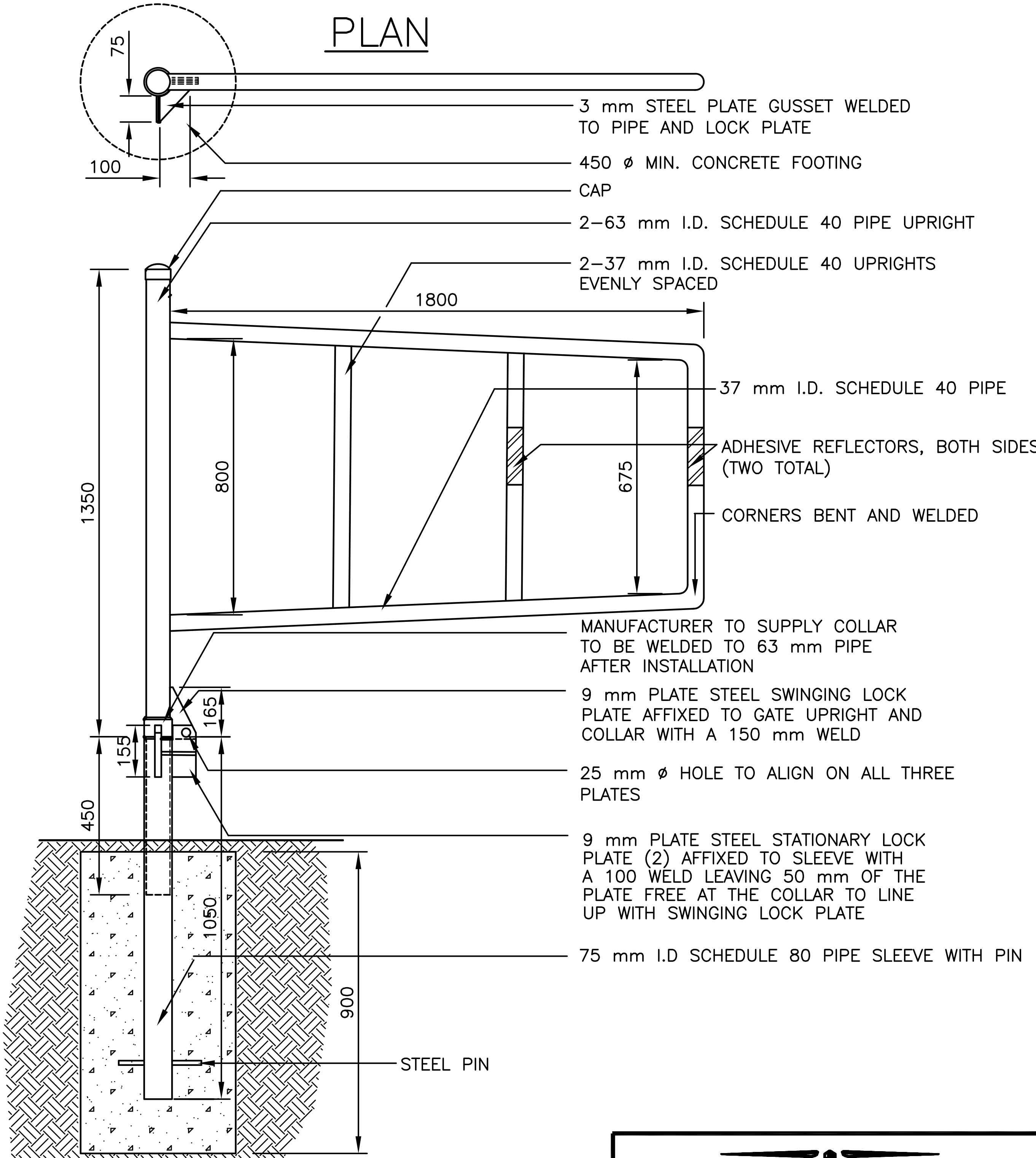


HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

WOODEN FENCE

DATE: 2013		APPROVED:
SCALE: 1:50		FIG NO.: HRM 118



SECTION

NOTES:

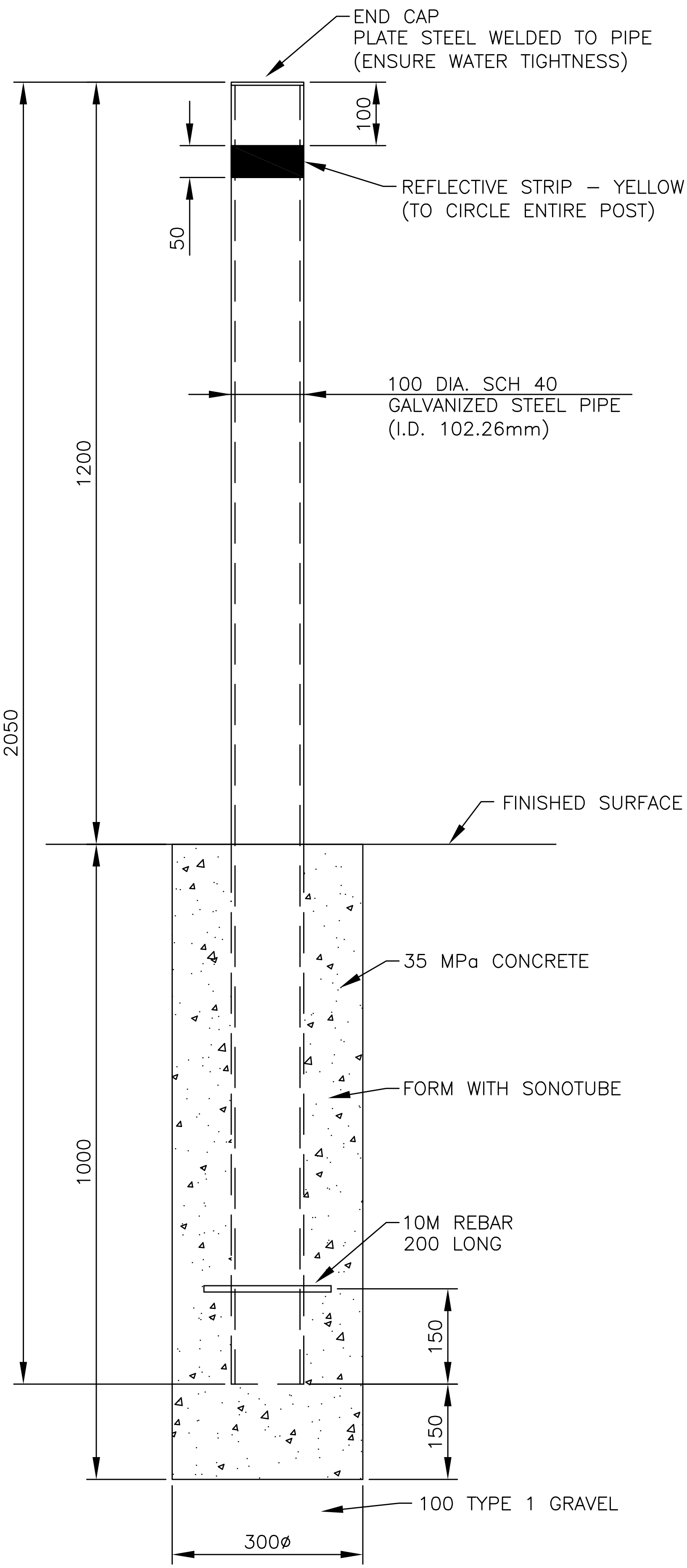
1) ALL PIPE TO BE GALVANIZED EXCEPT 75 mm GROUND SLEEVE (BLACK IRON)
2) ALL WORK TO BE DONE ACCORDING TO HRM SPECIFICATIONS
3) ALL METAL TO RECEIVE ONE COAT OF RUST INHIBITING PRIMER AND TWO COATS OF R&M PAINT E1245 CODE L (HOLLY GREEN) ENAMEL AUTOMOTIVE PAINT.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

PEDESTRIAN GATE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 119



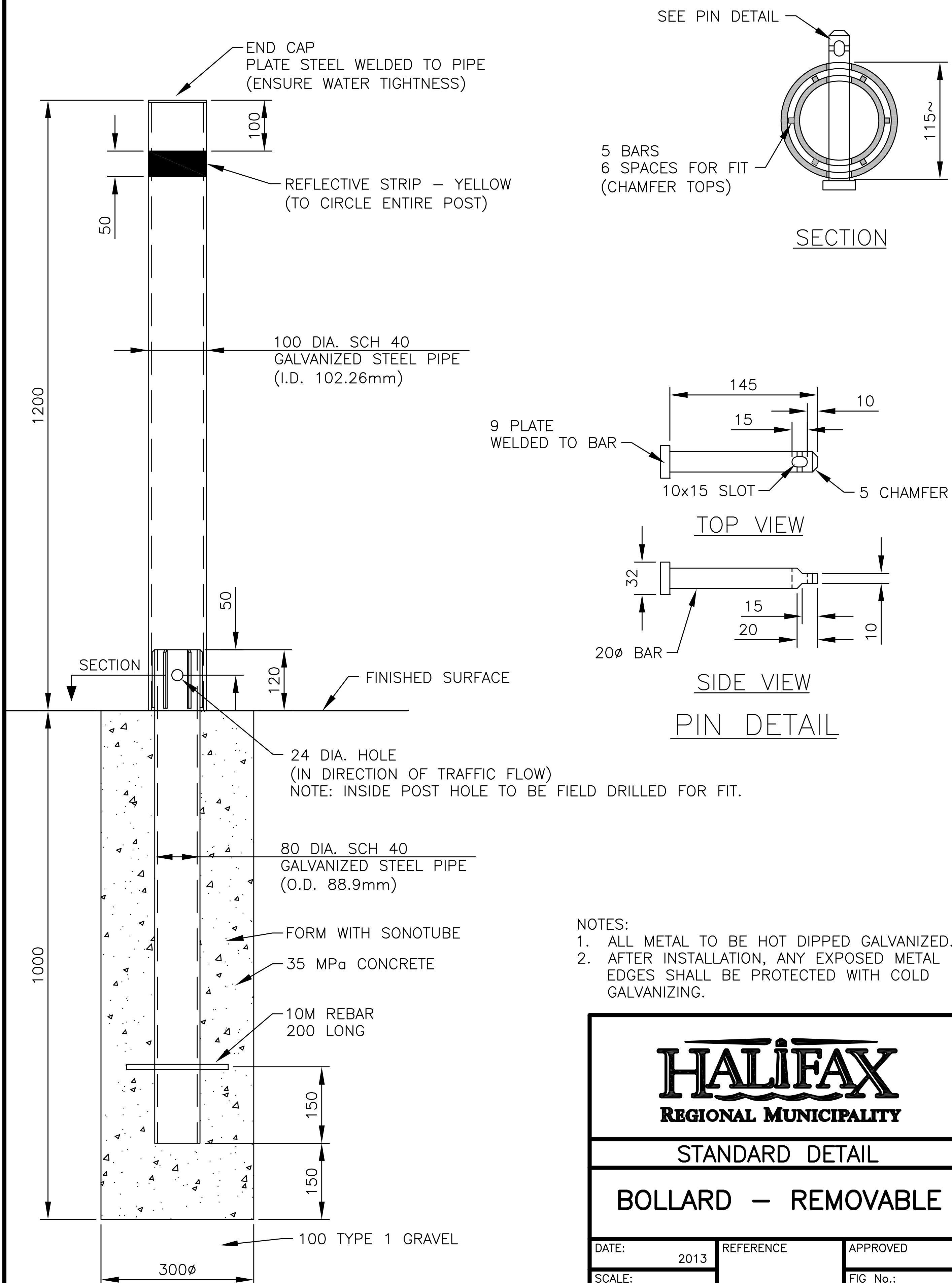
NOTES:
1. ALL METAL TO BE HOT DIPPED GALVANIZED.
2. AFTER INSTALLATION, ANY EXPOSED METAL EDGES SHALL BE PROTECTED WITH COLD GALVANIZING.

HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

BOLLARD

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 120



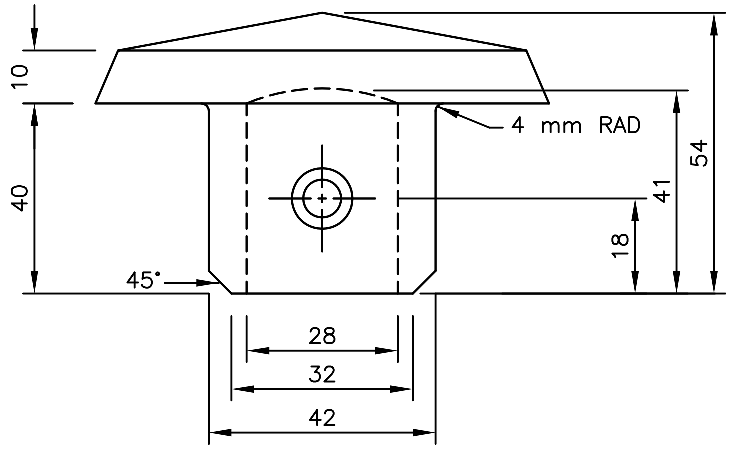
NOTES:
1. ALL METAL TO BE HOT DIPPED GALVANIZED.
2. AFTER INSTALLATION, ANY EXPOSED METAL EDGES SHALL BE PROTECTED WITH COLD GALVANIZING.

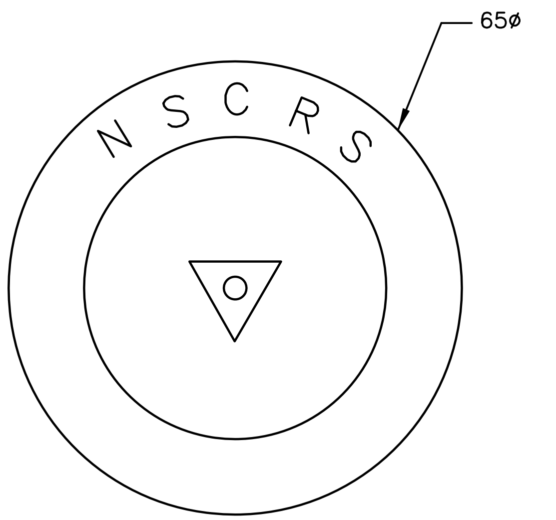
HALIFAX
REGIONAL MUNICIPALITY

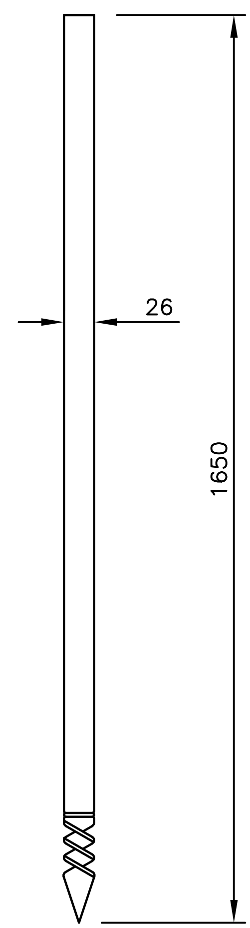
STANDARD DETAIL

BOLLARD – REMOVABLE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG No.: HRM 121





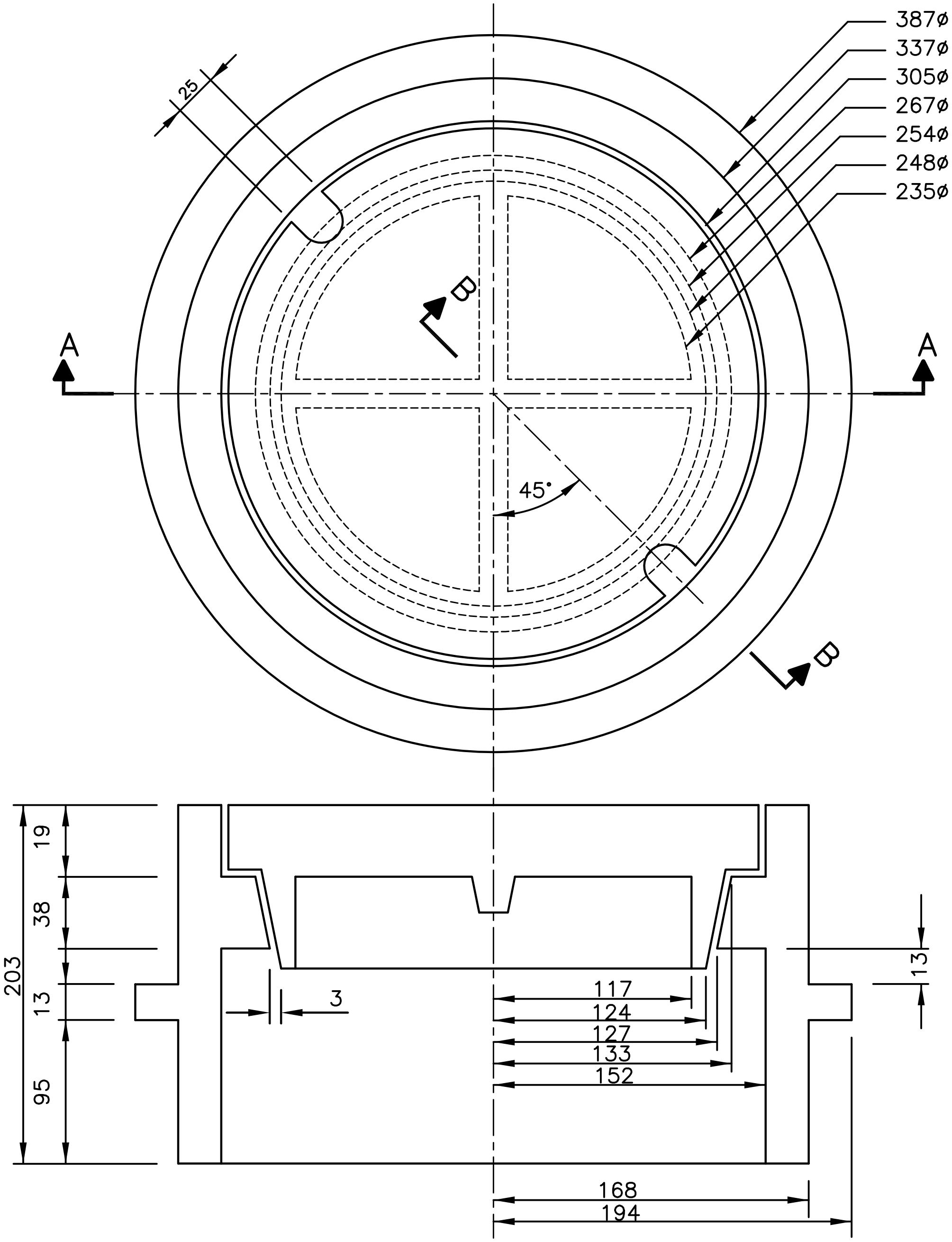


HALIFAX
REGIONAL MUNICIPALITY

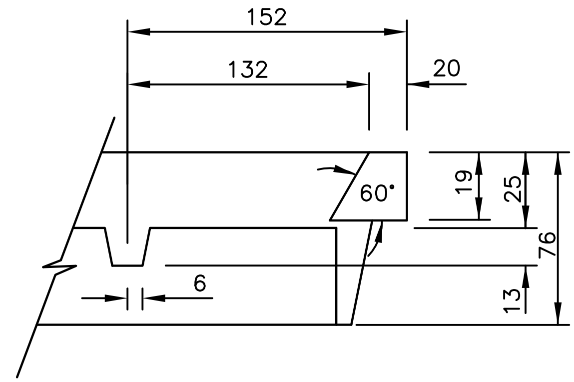
STANDARD DETAIL

SURVEY MONUMENT

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 122

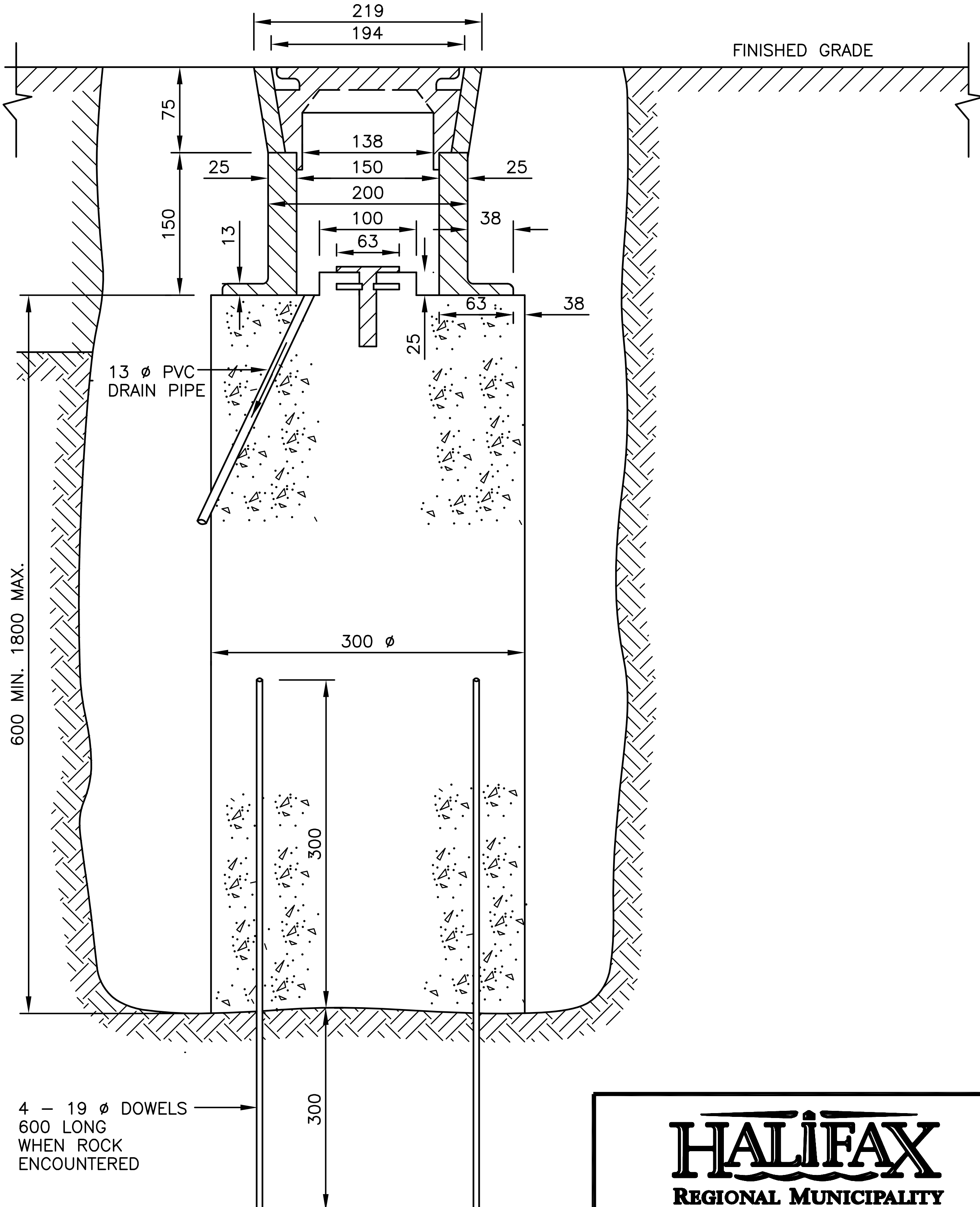


SECTION A



SECTION B

HALIFAX REGIONAL MUNICIPALITY		
STANDARD DETAIL		
SURVEY MONUMENT COVER AND FRAME		
DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 123



NOTES:

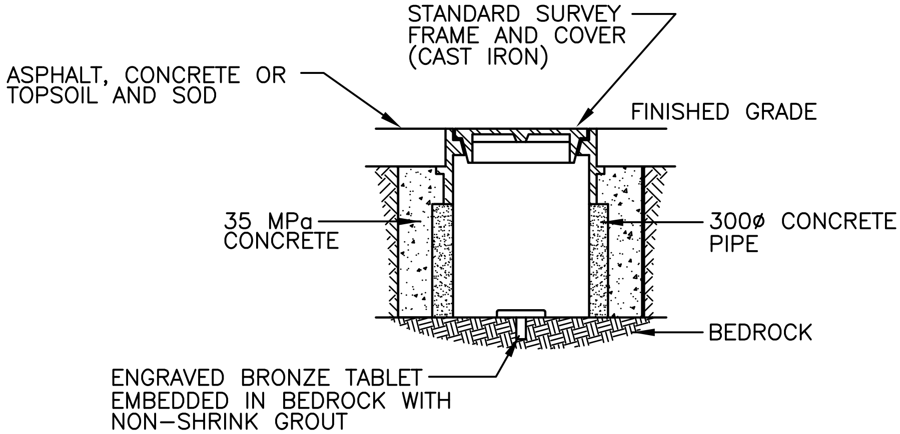
1. WHEN ROCK BASE IS ENCOUNTERED. ANCHORS OR DOWELING TO BE USED.
2. CAST IRON FRAME AND COVER TO BE SUPPLIED BY HRM.

HALIFAX
REGIONAL MUNICIPALITY

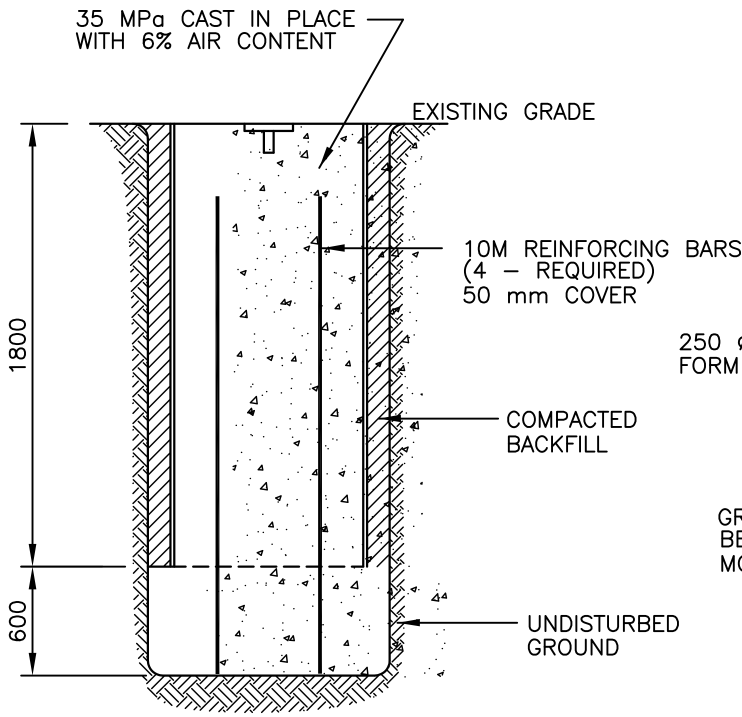
STANDARD DETAIL

SURVEY MONUMENT
TYPE I

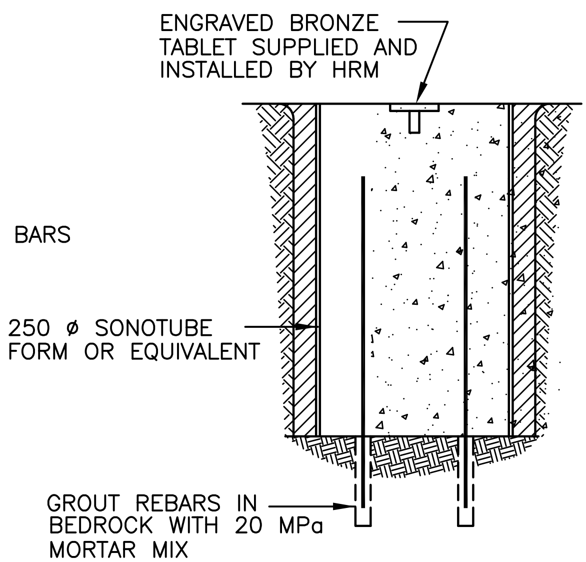
DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 124



WHEN BEDROCK ENCOUNTERED BETWEEN 150 AND 450 BELOW SURFACE



WHEN BEDROCK IS NOT ENCOUNTERED 2400 + BELOW SURFACE



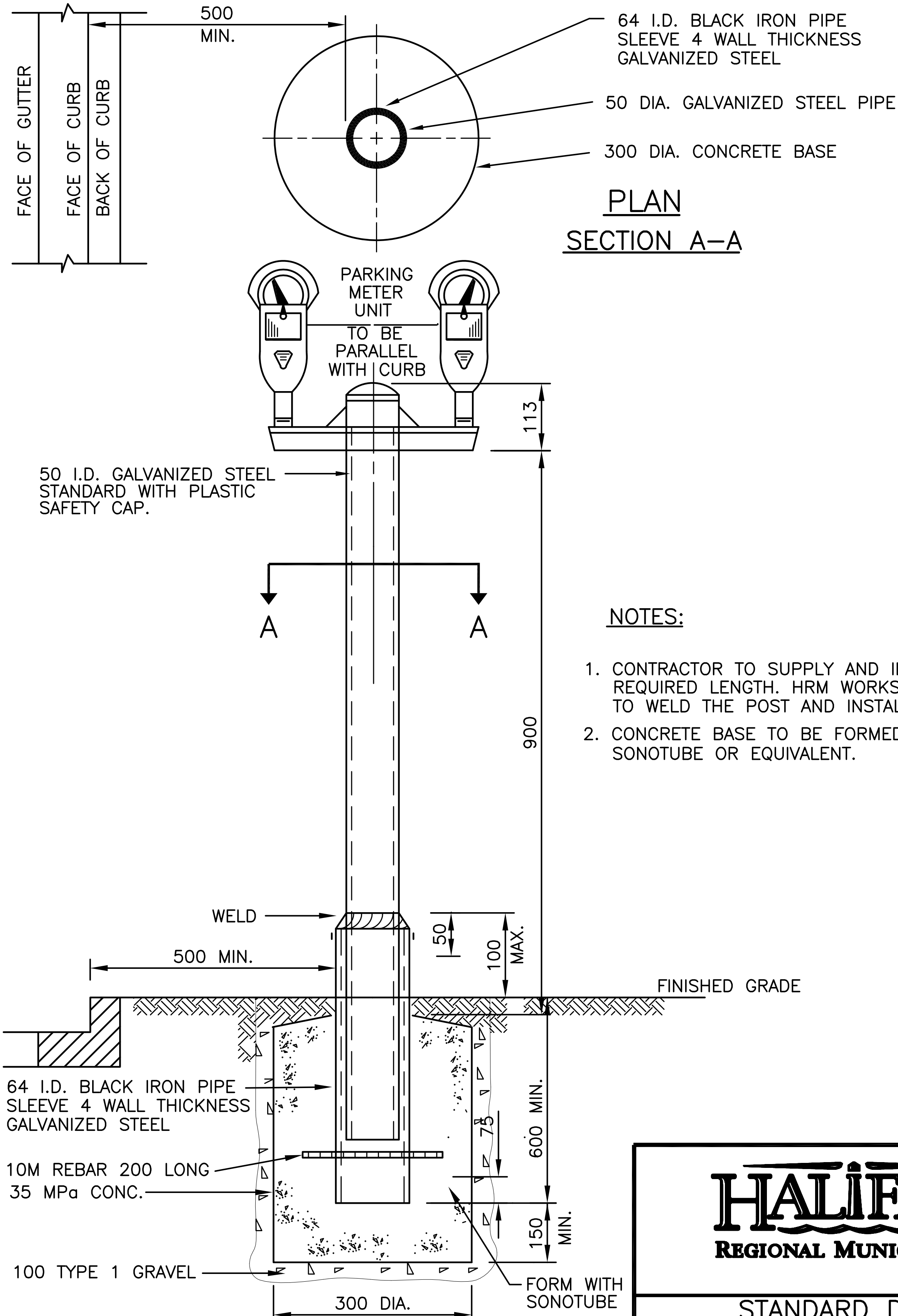
WHEN BEDROCK ENCOUNTERED BETWEEN 450 AND 1800 BELOW SURFACE

HALIFAX
REGIONAL MUNICIPALITY

STANDARD DETAIL

SURVEY MONUMENT
TYPE II

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 125



NOTES:

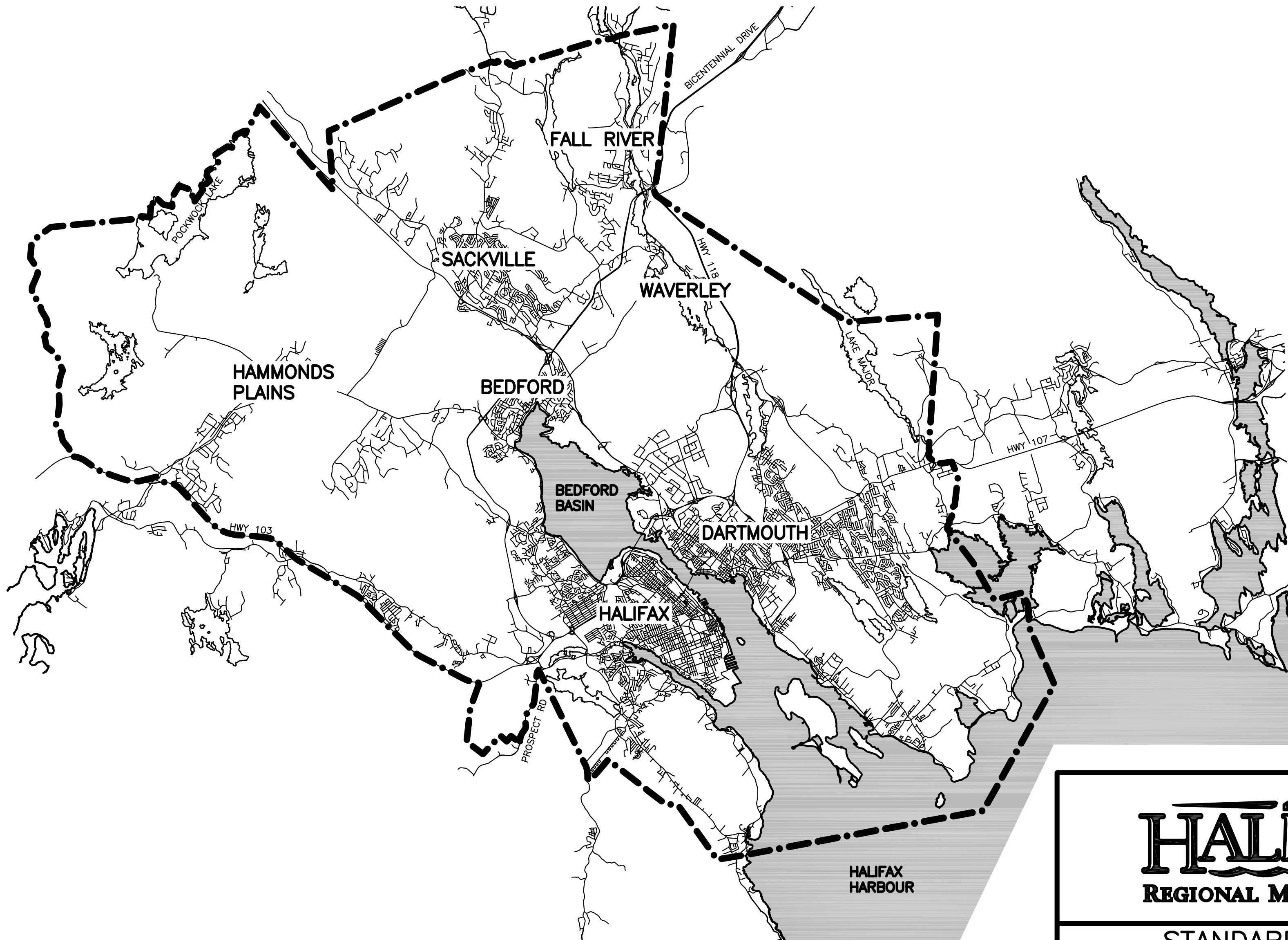
1. CONTRACTOR TO SUPPLY AND INSTALL POST OF REQUIRED LENGTH. HRM WORKS DEPARTMENT TO WELD THE POST AND INSTALL METER HEAD.
2. CONCRETE BASE TO BE FORMED WITH SONOTUBE OR EQUIVALENT.

HALIFAX
REGIONAL MUNICIPALITY

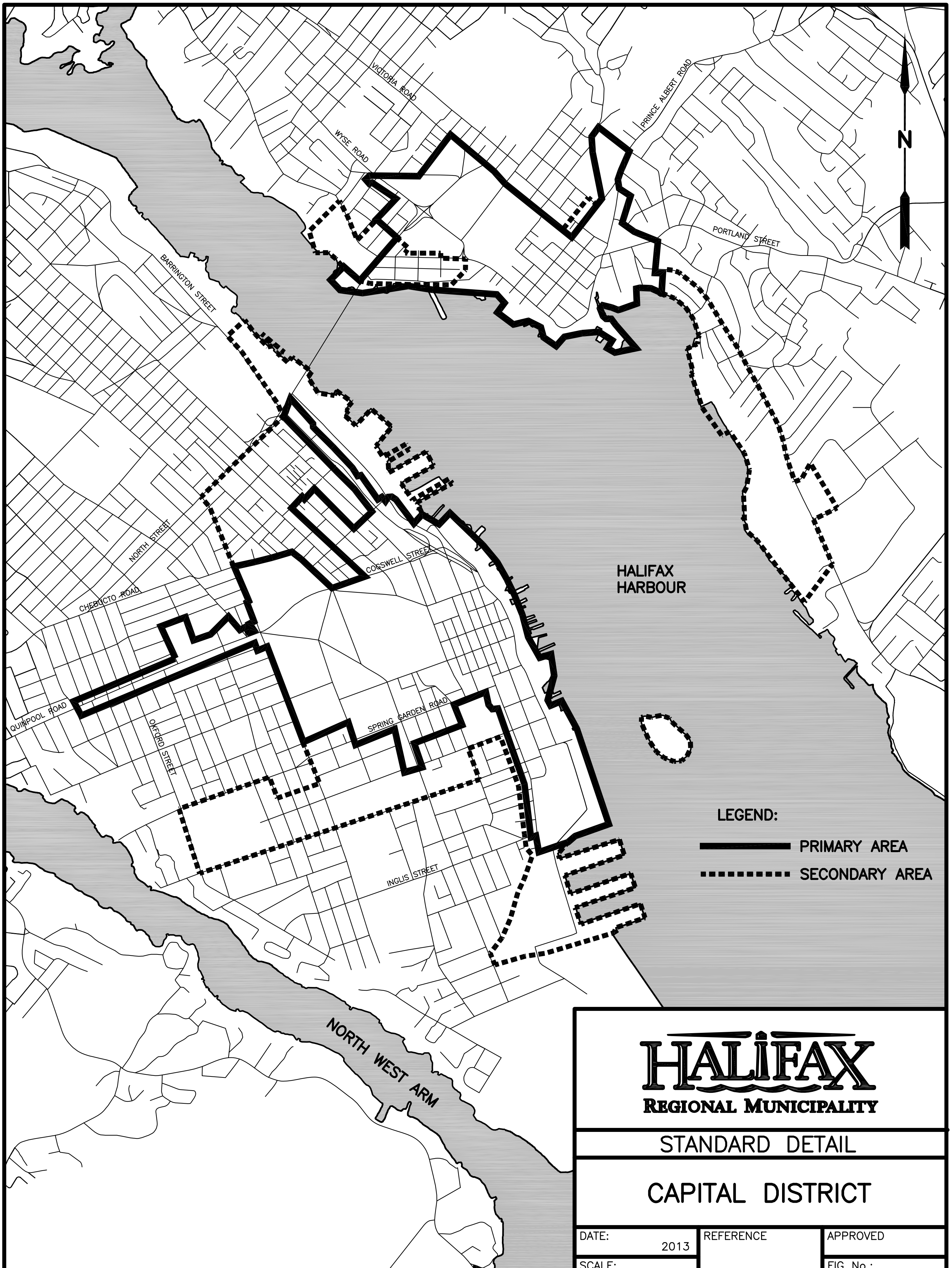
STANDARD DETAIL

PARKING METER
STANDARD UNIT AND BASE

DATE: 2013	REFERENCE	APPROVED
SCALE: NTS		FIG. NO. HRM 126



HALIFAX REGIONAL MUNICIPALITY		
STANDARD DETAIL		
CORE BOUNDARY		
DATE: 2013	REFERENCE	APPROVED
SCALE: 1:250,000		FIG No.: HRM 127



HALIFAX REGIONAL MUNICIPALITY

STANDARD DETAIL

CAPITAL DISTRICT

DATE: 2013	REFERENCE	APPROVED
SCALE: 1:30,000		FIG No.: HRM 128