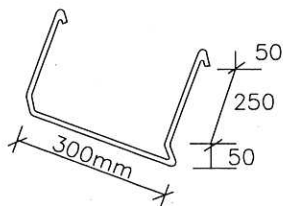


STANDARD FRAME & COVER

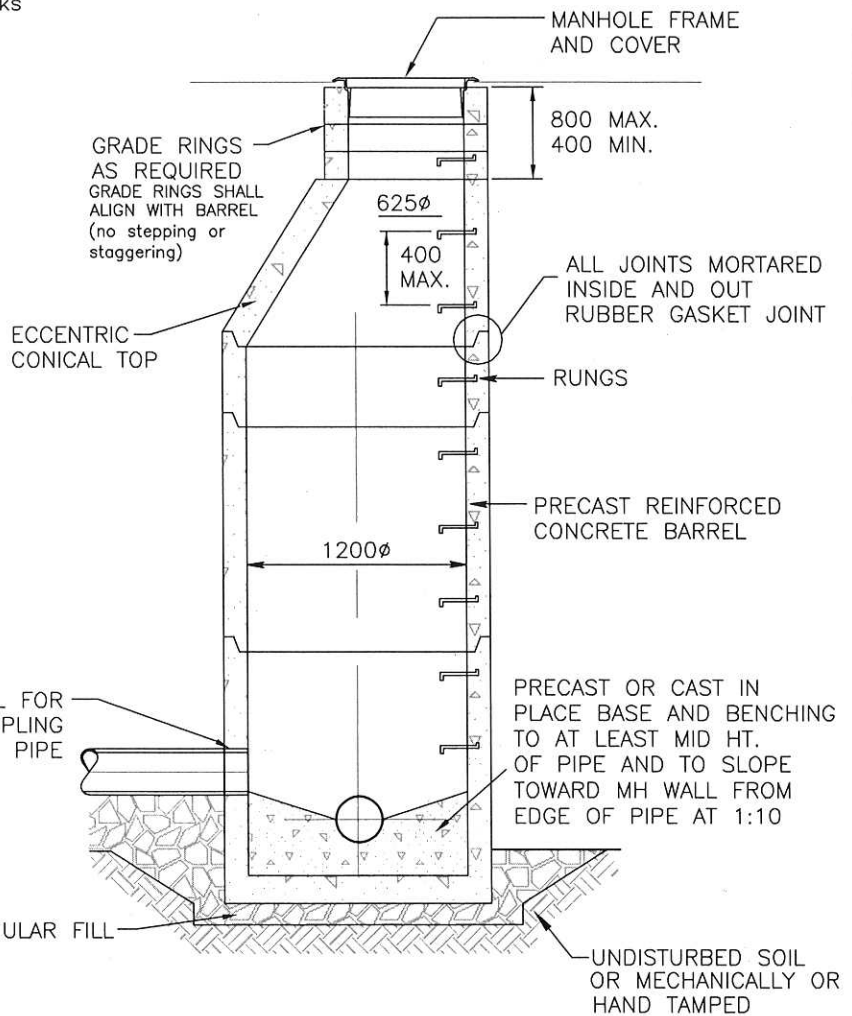
Use Norwood N.F.80 or Trojan T.F. 80
on all manholes in roadways or walks
(SEE DRAWING SM-06)



SAFETY TYPE M.H. RUNG

ALUMINUM SPACING TO BE
400mm CENTRE TO CENTRE

USE DURASEAL FOR
WATERTIGHT COUPLING
BETWEEN MH AND PVC PIPE



THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

STANDARD STORM MANHOLE

REVISIONS		
DATE	DETAILS	DRAWN

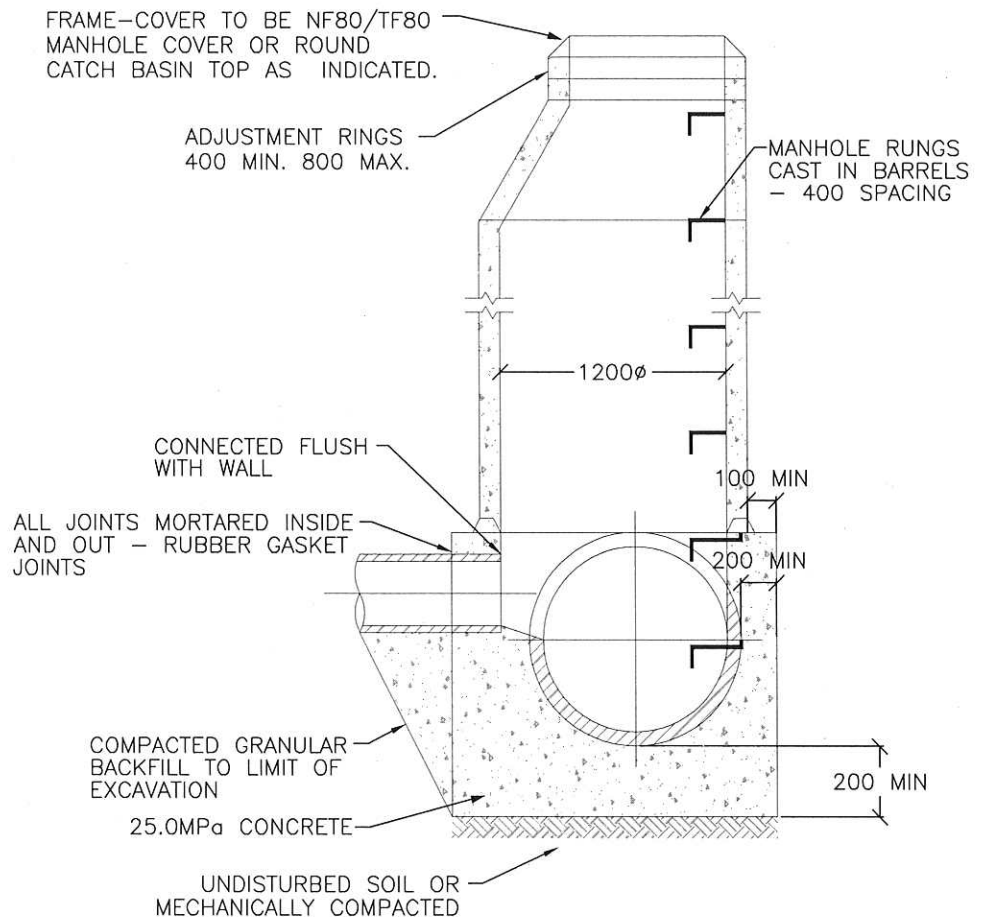
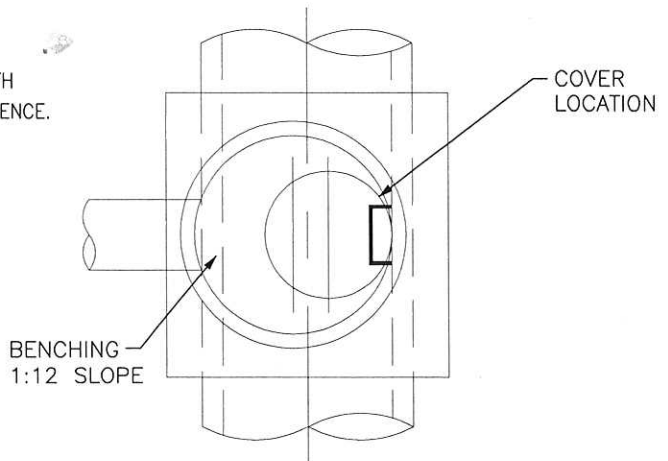


DRAWN: T. CRAWFORD
CHECKED: J. MUSTARD
APPROVED: J. MUSTARD

DATE: MARCH 6, 2006
SCALE: NOT TO SCALE
DRAWING No.: SM-01

NOTES

1. SAFETY STEPS TO BE SPACED AT 400 MAX. DISTANCE. FIRST STEP TO BE 150 MAX. BELOW FRAME, LAST STEP TO BE 300 MAX. ABOVE BENCHING.
2. ALL JOINTS TO BE SET WITH RUBBER GASKET AND FINISHED WITH NON-SHRINK GROUT INSIDE AND OUTSIDE FOR FULL CIRCUMFERENCE.
3. CHANNELLING AND BENCHING TO BE FINISHED TO TROWEL SMOOTHNESS.
4. COMPACT BACKFILL AROUND MANHOLES TO A MINIMUM OF 97% STANDARD PROCTOR DENSITY.
5. FOR MANHOLES EXCEEDING 7.0m IN DEPTH A SAFETY PLATFORM SHALL BE INSTALLED.
6. THE DEPTHS OF CONCRETE AND REINFORCEMENT FOR THE CONCRETE BASE MUST BE DESIGNED FOR THE SPECIFIC MANHOLE DEPTH AND SOIL CONDITIONS.
7. JOINTS BETWEEN GRADE RINGS, GRADE RINGS AND CONES, AND BETWEEN RINGS AND FRAMES MUST BE WATERTIGHT.
8. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED.



(625mm TO 1050mm PIPE)

THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

REVISIONS

DATE	DETAILS	DRAWN

PERCHED MANHOLE



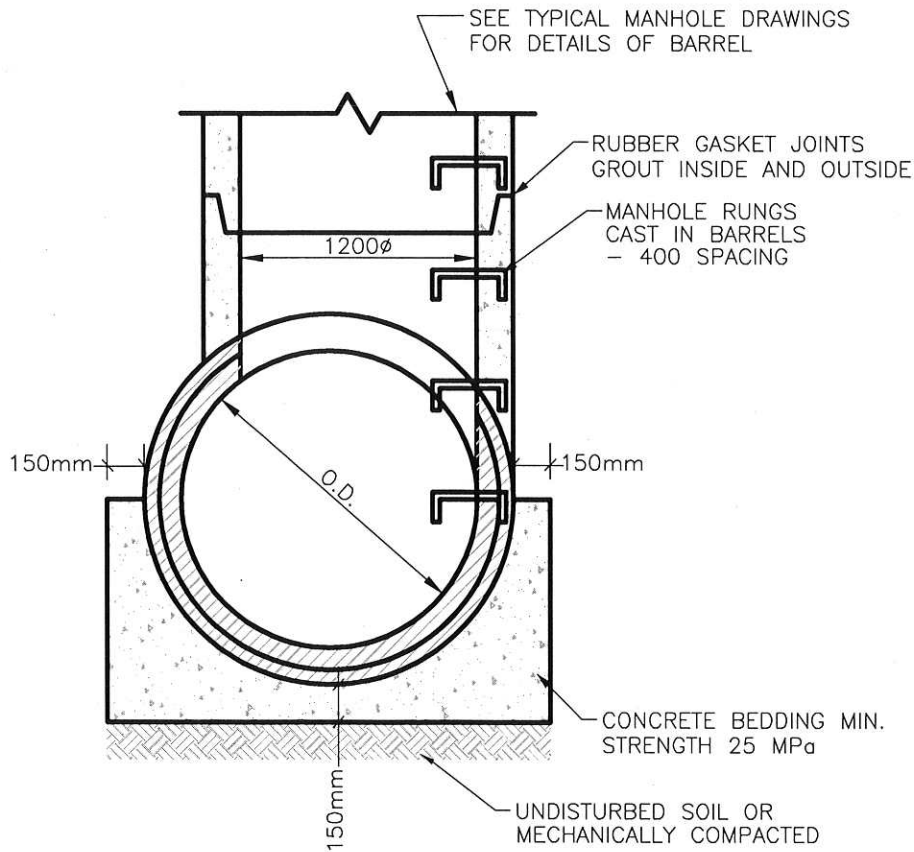
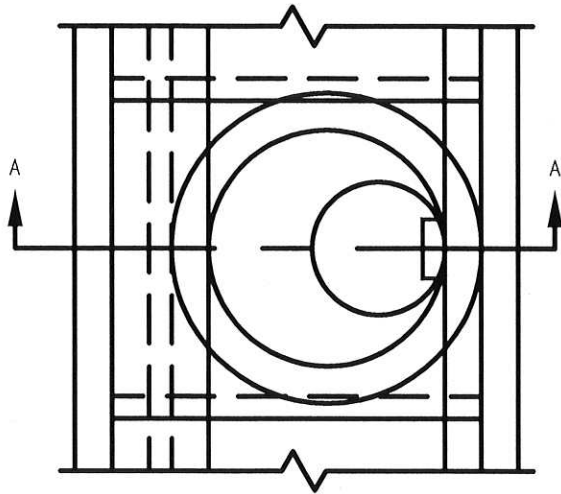
DRAWN: T. CRAWFORD	DATE: MARCH 6, 2006
CHECKED: J. MUSTARD	SCALE: NOT TO SCALE
APPROVED: J. MUSTARD	DRAWING No.: SM-02

XREFS

C:\DETAILS\SHEET2-TK

NOTES:

1. THIS TYPE OF MANHOLE IS TO BE BUILT ONLY ON MAINS OF 1200mm DIAMETER OR LARGER AND WHERE THERE IS NO CHANGE IN DIRECTION.
2. SAFETY STEPS TO BE SPACED AT 400 MAX. DISTANCE. FIRST STEP TO BE 150 MAX. BELOW FRAME, LAST STEP TO BE 300 MAX. ABOVE BENCHING.
3. FOR MANHOLES EXCEEDING 7.0m IN DEPTH A SAFETY PLATFORM SHALL BE INSTALLED.
4. WHERE REQUIRED, CATCH BASIN LEADS SHALL ENTER MANHOLE IN PIPEZONE.



SECTION A-A

(1200mm AND LARGER PIPES)

THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

REVISIONS

DATE	DETAILS	DRAWN

T-RISER MANHOLE



DRAWN: T. CRAWFORD	DATE: MARCH 6, 2006
CHECKED: J. MUSTARD	SCALE: NOT TO SCALE
APPROVED: J. MUSTARD	DRAWING No.: SM-03

XREFS

C:\DETAILS\SHEET2-TK

SECTION A-A

100 OR 150 NECK RING TO
SUIT SUBGRADE.

FOR HIGH ROLL FACE CURB
USE 150 OR 100 TAPERED
NECK RING

RINGS MUST HAVE THE SAME
ALIGNMENT AS THE BARREL.
NO STEPPING ALLOWED.

BOTTOM OF
DESIGN SUBGRADE

C.B. SHOULDER RING

25mmø LIFTING HOLE

WATER TIGHT –
MORTAR JOINT

250mmØ MIN. 2.00%

65mm (MIN.)

500mm MIN.
SUMP
85mm (MIN.)

450mm (MIN.)

— WASHED ROCK

UNDISTURBED SOIL OR
TAMPED BACKFILL /

THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

REVISIONS

DATE	DETAILS	DRAWN
02/13	Change to depth	RP
02/13	Washed rock note	RP
02/14	Change to notes	RP

PRECAST CATCH BASIN



DRAWN: T. CRAWFORD

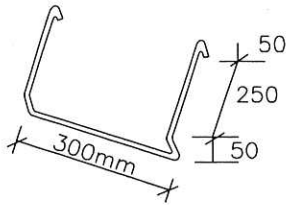
DATE: MARCH 6, 2006

CHECKED: J. MUSTARD

SCALE: NOT TO SCALE

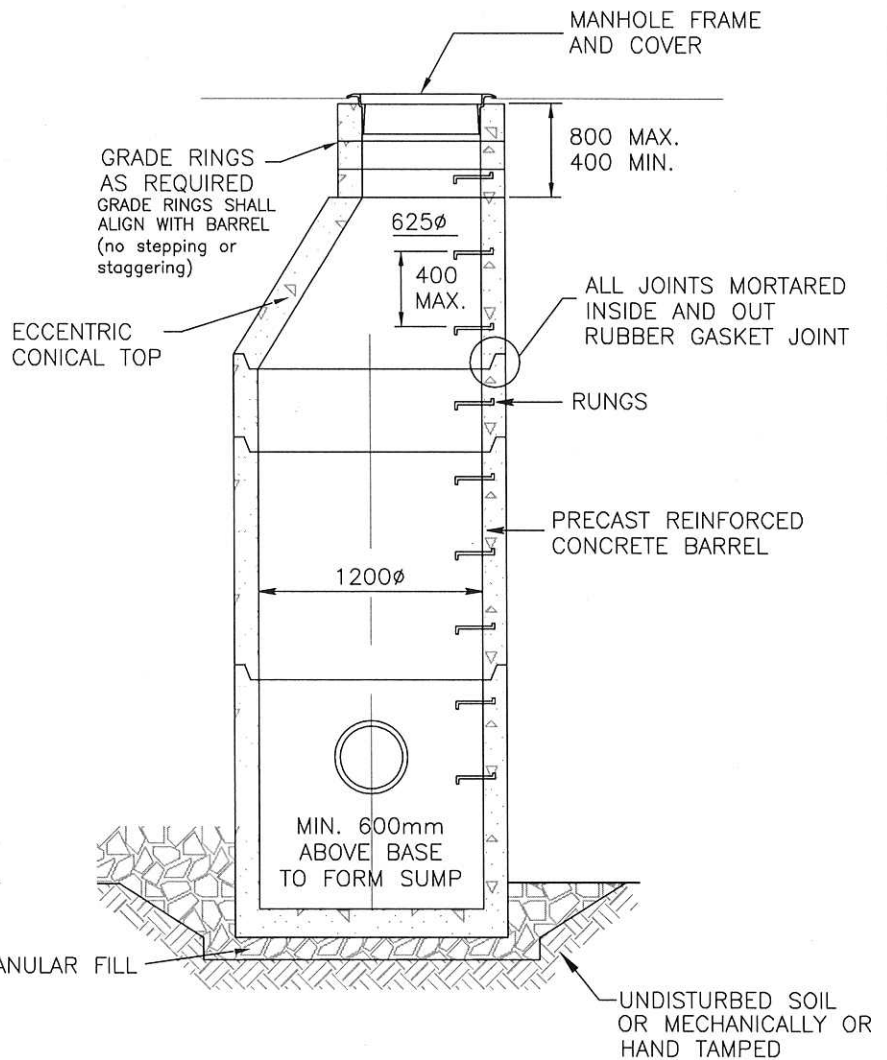
APPROVED: J. MUSTARD

DRAWING No.: SM-04



SAFETY TYPE M.H. RUNG

ALUMINUM SPACING TO BE
400mm CENTRE TO CENTRE



THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

REVISIONS

DATE	DETAILS	DRAWN

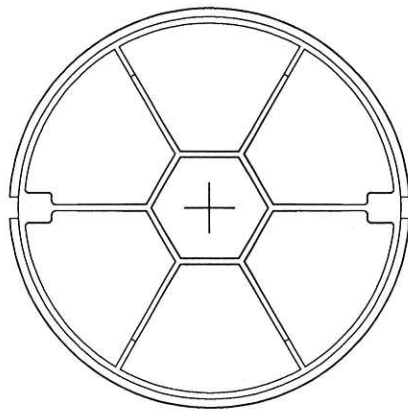


STANDARD CB MANHOLE

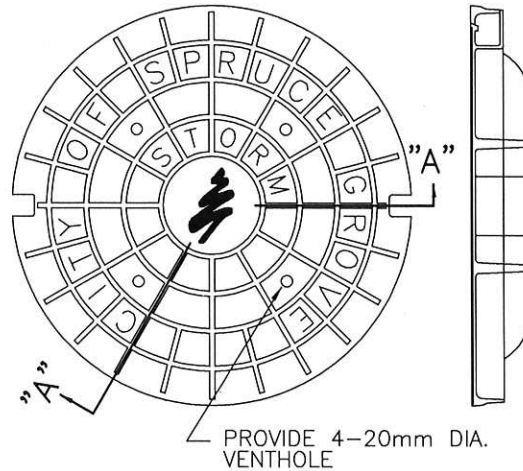
DRAWN: T. CRAWFORD	DATE: MARCH 6, 2006
CHECKED: J. MUSTARD	SCALE: NOT TO SCALE
APPROVED: J. MUSTARD	DRAWING No.: SM-05

XREFS

C:\DETAILS\SHEET2-TK

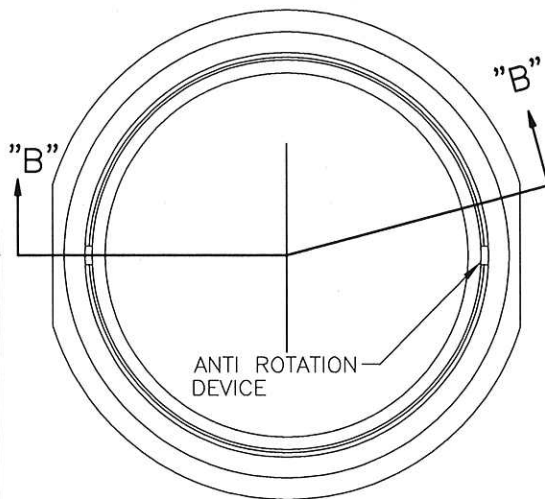


BOTTOM VIEW

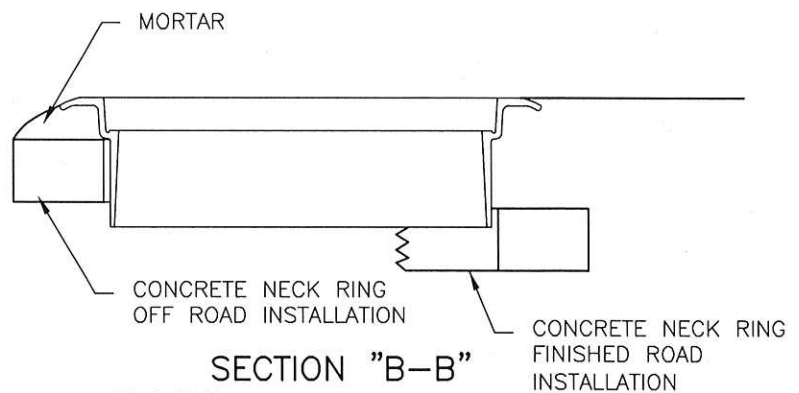


TOP VIEW

SECTION "A-A"



PLAN




SECTION "B-B"

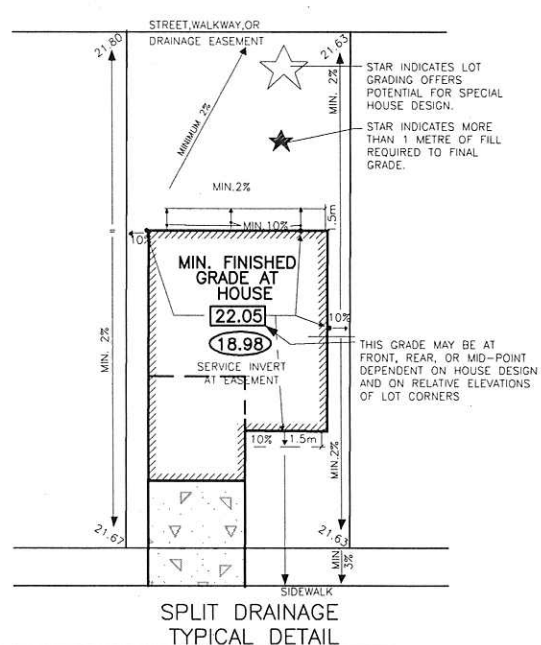
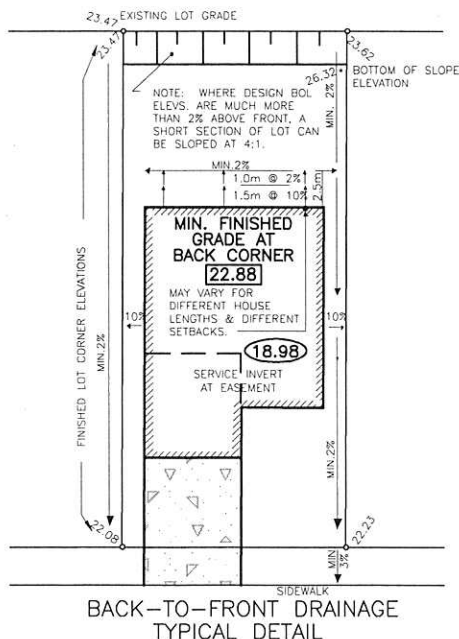
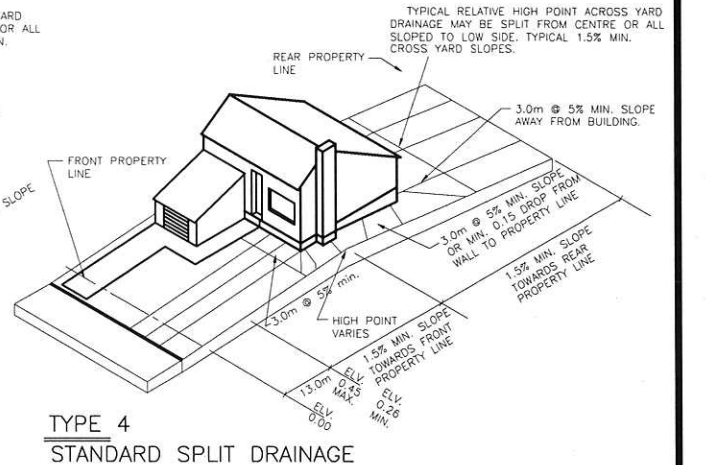
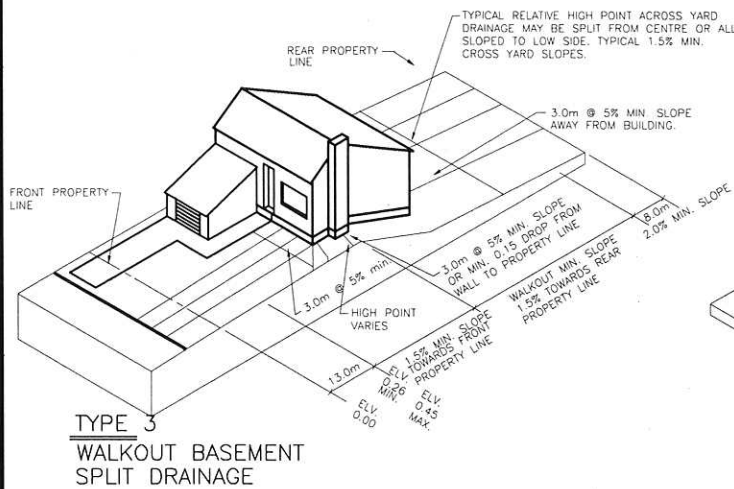
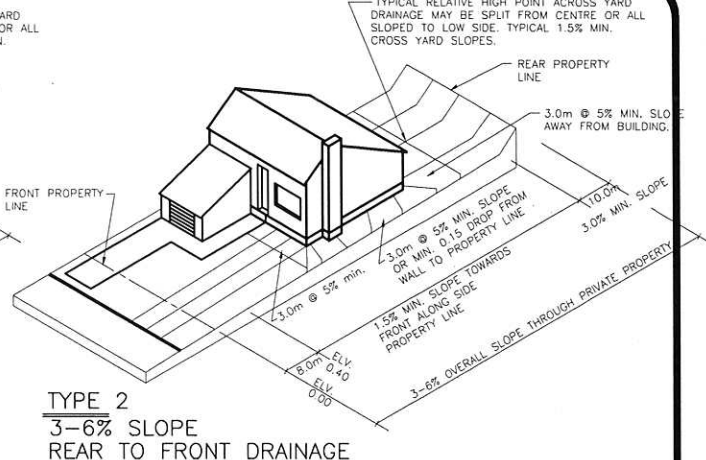
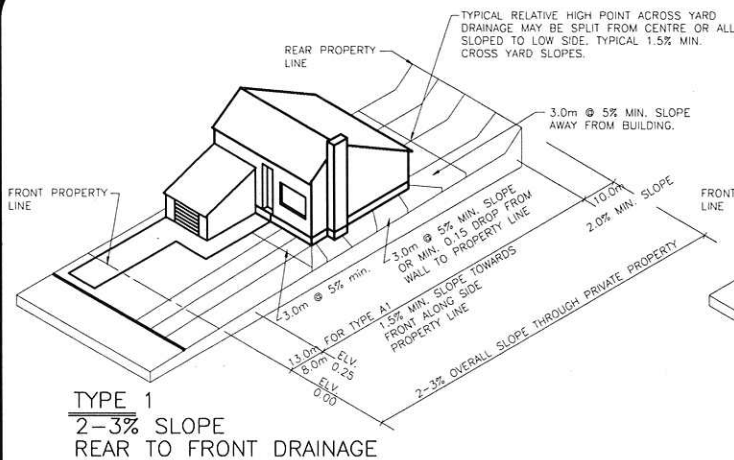
N O T E

NORWOOD FOUNDRY TYPE NF80 OR
TROJAN FOUNDRY TYPE TF80
GROUT TO BE INSTALLED BETWEEN FLANGE
AND MANHOLE BARREL ON RAISED MANHOLES.

THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

REVISIONS			NF/TF-80 FRAME AND COVER — STORM		
DATE	DETAILS	DRAWN		DRAWN:	DATE:
4/12	Drawing Number	RP		T. CRAWFORD	MARCH 6, 2006
				CHECKED: J. MUSTARD	SCALE: NOT TO SCALE
				APPROVED: J. MUSTARD	DRAWING No.: SM-06



THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

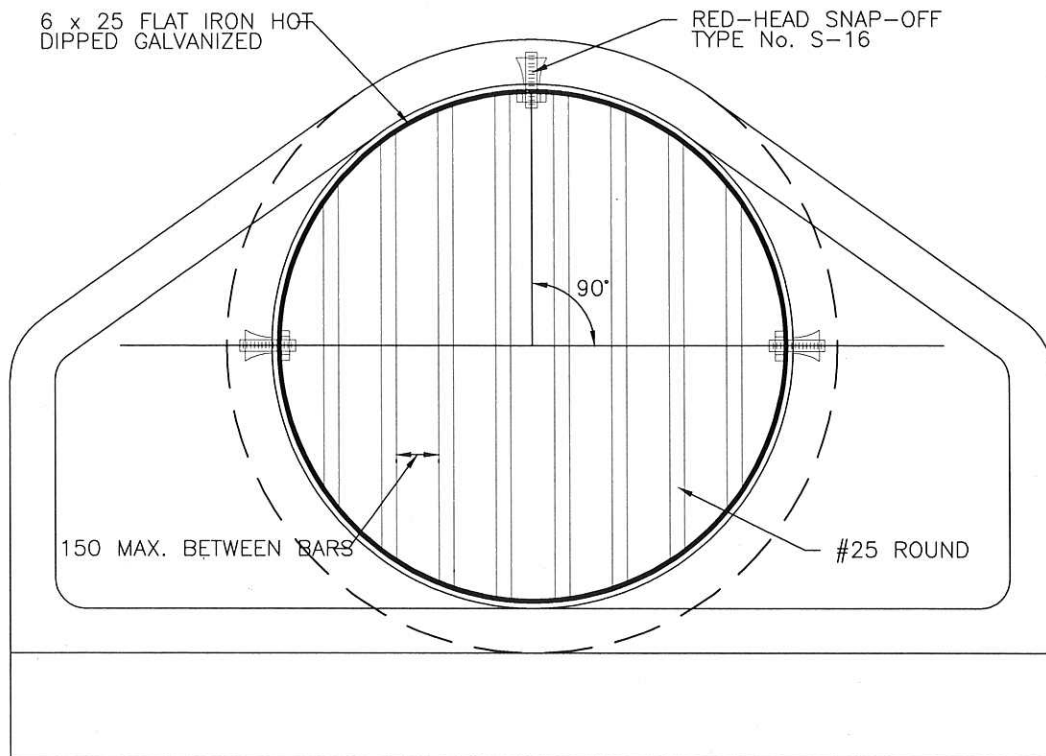
REVISIONS

DATE	DETAILS	DRAWN
4/12	Drawing Number	RP
4/12	Changes to notes	RP

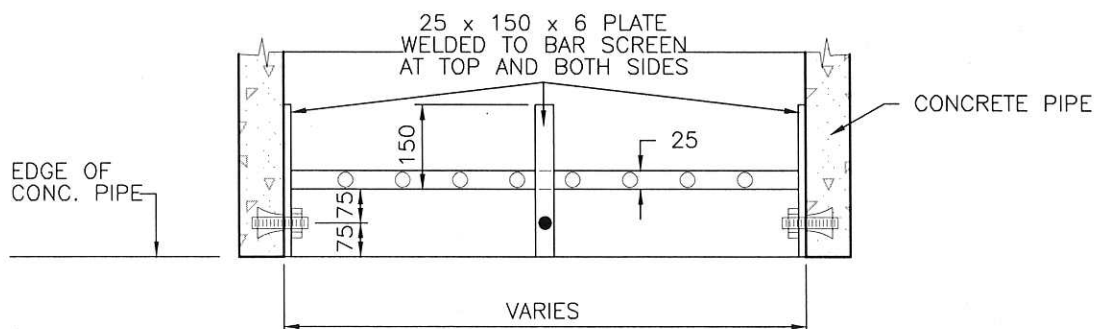
LOT GRADING



DRAWN: T. CRAWFORD	DATE: MARCH 6, 2006
CHECKED: J. MUSTARD	SCALE: NOT TO SCALE
APPROVED: J. MUSTARD	DRAWING No.: SM-07



FRONT VIEW



TOP VIEW

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.

THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

REVISIONS

DATE	DETAILS	DRAWN
02/14	Drawing Number	RP

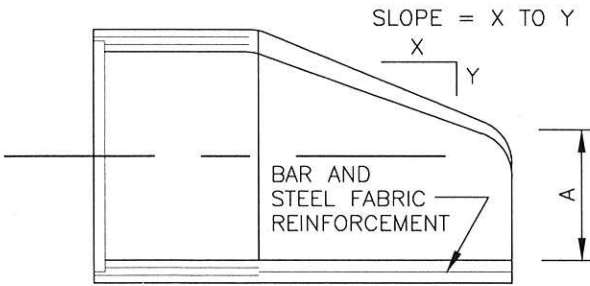
VERTICAL BAR SCREEN



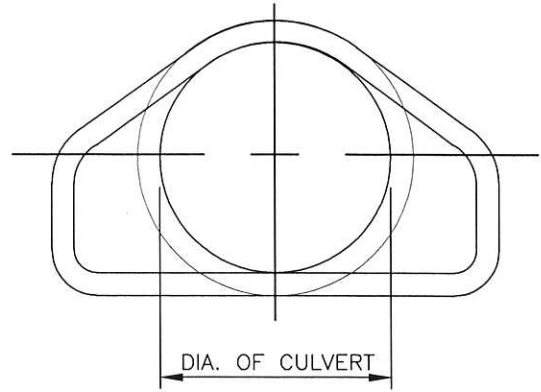
DRAWN: T. CRAWFORD	DATE: MARCH 6, 2006
CHECKED: J. MUSTARD	SCALE: NOT TO SCALE
APPROVED: J. MUSTARD	DRAWING No.: SM-08

XREFS

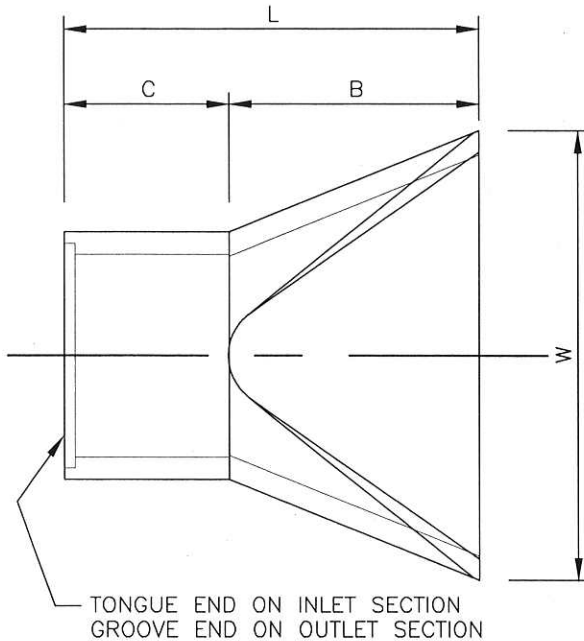
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LONGITUDINAL SECTION

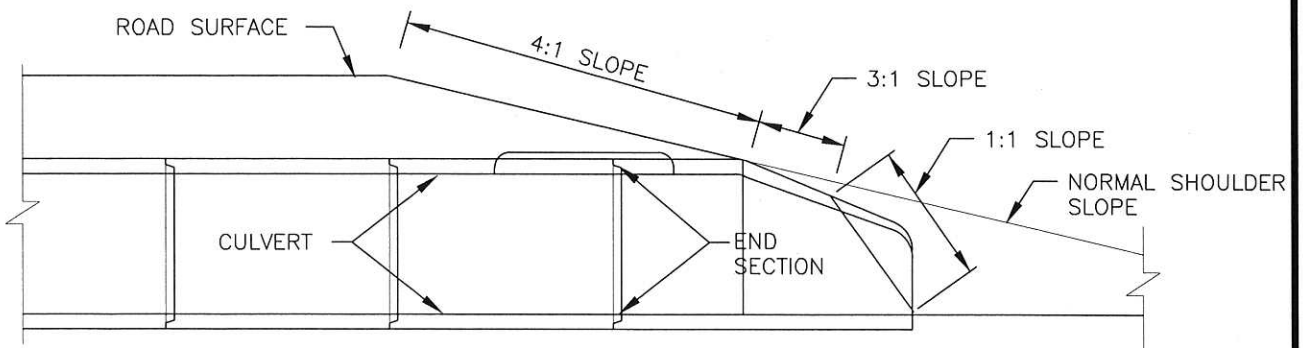


END VIEW



PLAN VIEW

DIA. (mm)	WT SEC (kg)	SLOPE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
450	450	3T01	225	680	1150	1825	900
600	690	3T01	240	940	750	1850	1200
750	990	3T01	300	1090	750	1830	1500
900	1860	3T01	375	1350	475	2440	1800
1200	2900	3T01	600	1800	650	2450	2100



TYPICAL SLOPE DETAIL

THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

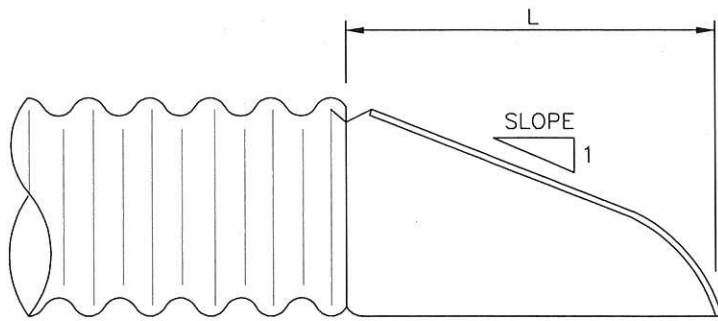
REVISIONS

DATE	DETAILS	DRAWN
4/12	Drawing Number	RP

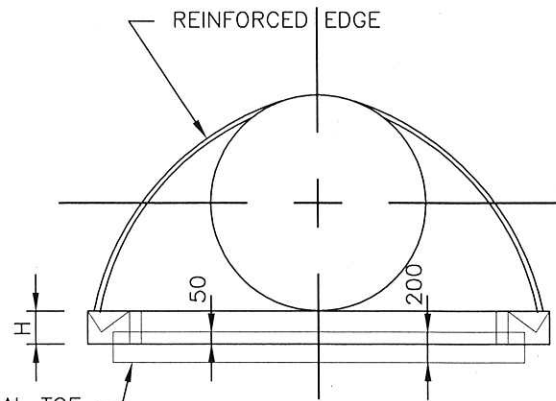
CONCRETE CULVERT



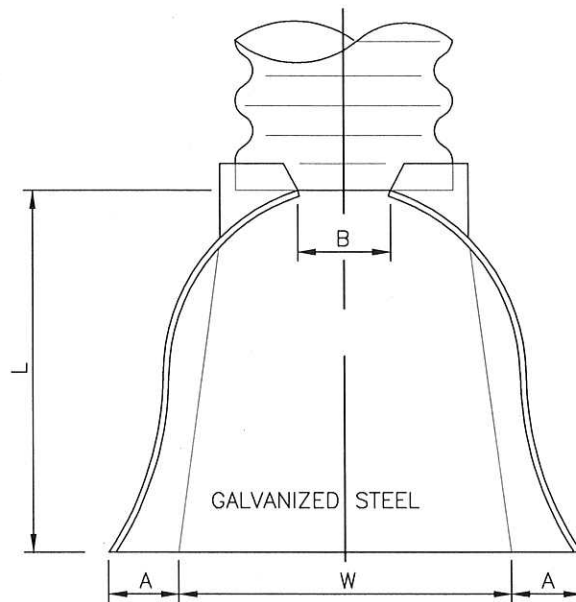
DRAWN: T. CRAWFORD	DATE: MARCH 6, 2006
CHECKED: J. MUSTARD	SCALE: NOT TO SCALE
APPROVED: J. MUSTARD	DRAWING No.: SM-09



TYPICAL CROSS SECTION



ELEVATION



PLAN

PIPE DIAMETER "D" mm	GALVANIZED METAL THICKNESS mm	DIMENSIONS, mm					APPROXIMATE SLOPE	BODY
		A 25 mm ±	B MAX mm	H 25 mm ±	L 38 mm ±	W 50 mm ±		
300	1.6	150	140	150	535	610	2.5	1 Pc
600	1.6	250	300	150	1040	1220	2.5	1 Pc
1200	1.6	460	625	305	1980	2285	2.25	2 Pc

THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

REVISIONS

DATE	DETAILS	DRAWN
02/14	Drawing Number	RP

STEEL CULVERT

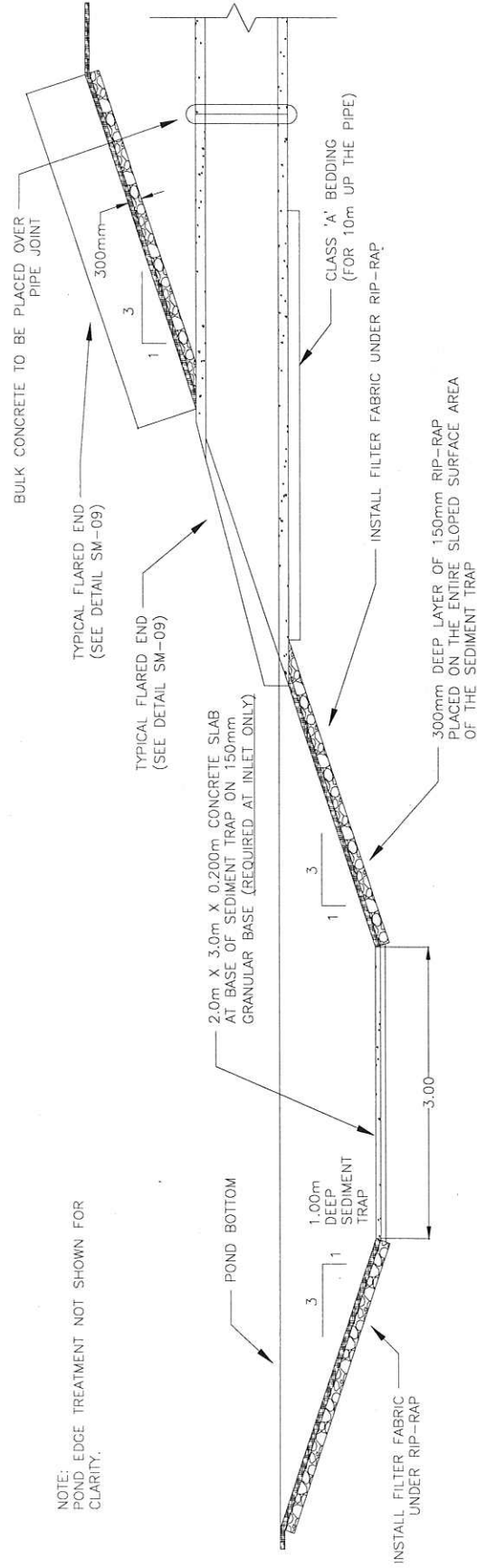


DRAWN: T. CRAWFORD	DATE: MARCH 6, 2006
CHECKED: J. MUSTARD	SCALE: NOT TO SCALE
APPROVED: J. MUSTARD	DRAWING No.: SM-10

XREFS

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NOTE:
POND EDGE TREATMENT NOT SHOWN FOR
CLARITY.



THE CITY OF SPRUCE GROVE PLANNING AND INFRASTRUCTURE

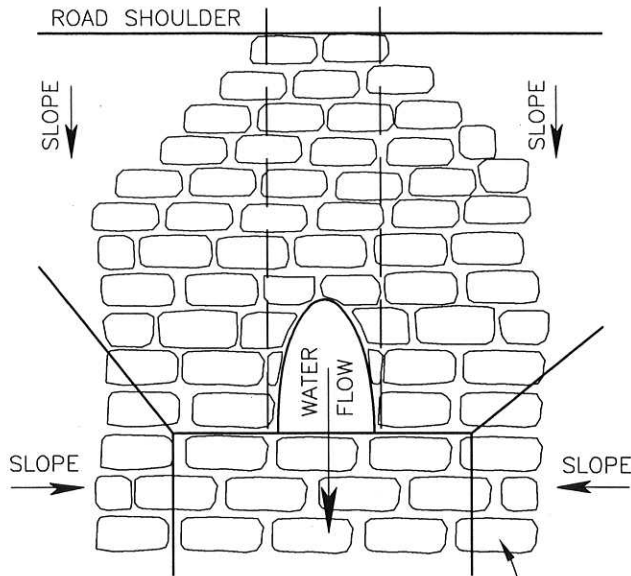
INLET/OUTLET DETAIL

DRAWN: S. WILLIAMS	DATE: MARCH 4, 2014
CHECKED: J. MUSTARD	SCALE: NOT TO SCALE
APPROVED: J. MUSTARD	DRAWING No.: SM-11



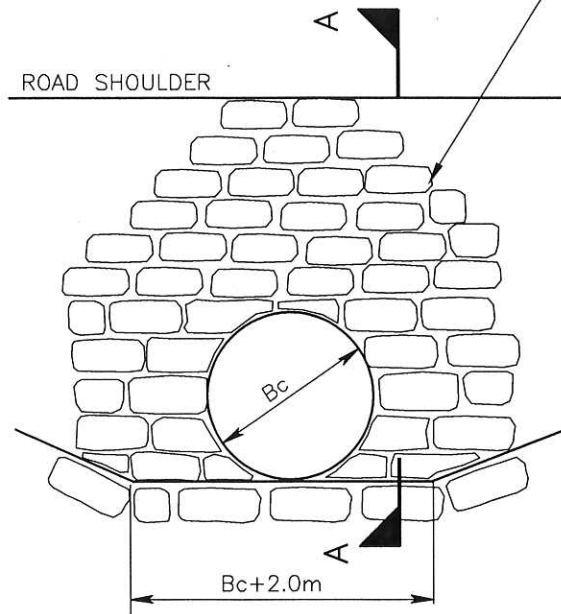
REVISIONS

DATE	DETAILS	DRAWN
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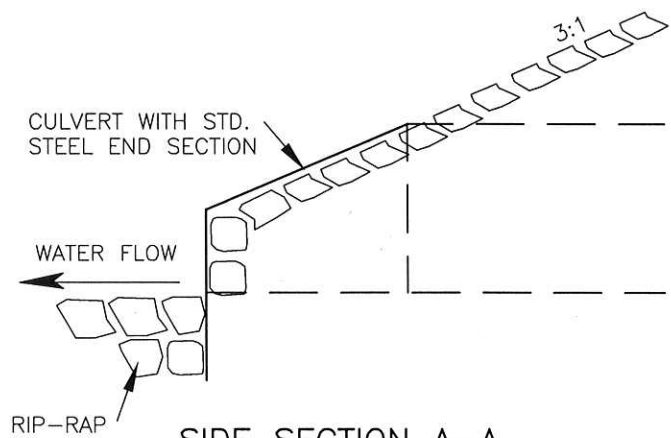


PLAN VIEW

RIP-RAP SLOPE AND
END PROTECTION



FRONT VIEW



SIDE SECTION A-A

THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

REVISIONS

DATE	DETAILS	DRAWN
4/12	Drawing Number	RP

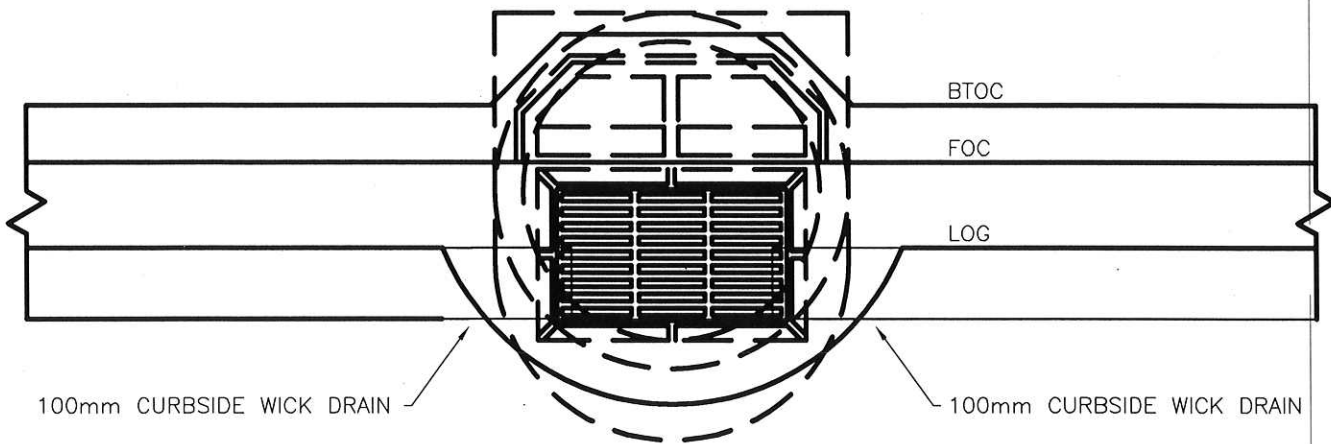
RIP-RAP



DRAWN: T. CRAWFORD	DATE: MARCH 6, 2006
CHECKED: J. MUSTARD	SCALE: NOT TO SCALE
APPROVED: J. MUSTARD	DRAWING No.: SM-12

XREFS

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NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. WICK DRAINS TO BE CUT 300mm INSIDE CB AND MUST BE VISIBLE.

THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

REVISIONS

DATE	DETAILS	DRAWN
04/12	Removed Transv Wick Drain	RP
04/12	Drawing Number	RP
02/14	Additional Note	RP

WICK DRAIN CONNECTION TO CB



DRAWN: T. CRAWFORD

DATE: MARCH 6, 2006

CHECKED: J. MUSTARD

SCALE: NOT TO SCALE

APPROVED: J. MUSTARD

DRAWING No.: SM-13

XREFS

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