

SUPPLEMENTARY STANDARD DETAIL DRAWINGS

This schedule contains supplementary standard detail drawings to be applied in conjunction with the Standard Detail Drawings of the Master Municipal Construction Documents, dated 2009, both of which shall apply to all Works and Services constructed within the City of Courtenay.

Supplementary Standard Detail Drawings contained within this Schedule supplement or supersede the Master Municipal Construction Document (MMCD). Where the City of Courtenay Supplementary Standard Detail Drawings are in conflict with the MMCD, the City of Courtenay Supplementary Standard Detail Drawings shall take precedence.

Drawing numbers in the City of Courtenay Supplementary Standard Detail Drawings coincide with the MMCD numbering protocol.

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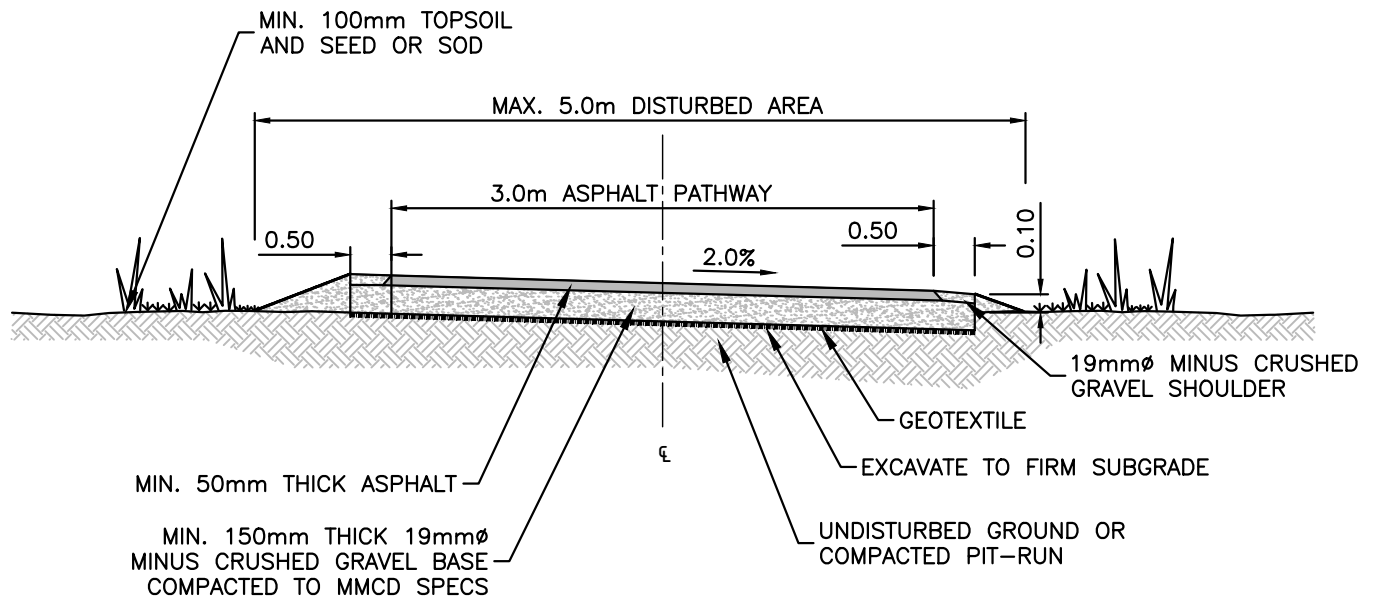
DETAIL DRAWING

<u>CSSD A1</u>	ALTERNATIVE DESIGN STANDARD 1: MULTI-USE PATH
<u>CSSD A2</u>	ALTERNATIVE DESIGN STANDARD 2: GRAVEL TRAIL
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<u>CSSD CRC</u>	COLLECTOR ROAD SECTION: RESIDENTIAL – C
<u>CSSD CUB</u>	COLLECTOR ROAD SECTION: URBAN – B
<u>CSSD CUP</u>	COLLECTOR ROAD SECTION: URBAN – P
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<u>CSSD I1</u>	IRRIGATION CONNECTION
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<u>CSSD P1</u>	TREE PLANTING AND STAKING

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<u>CSSD S11</u>	TOP INLET CATCH BASIN
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<u>CSSD W2a</u>	WATER SERVICE CONNECTION SERVICE BOX
<u>CSSD W2c</u>	WATER METER SETTER INSTALLATION FOR 25MM SERVICE CONNECTION
<u>CSSD W2d</u>	WATER METER SETTER INSTALLATION FOR 50MM SERVICE CONNECTION
<u>CSSD W2e</u>	WATER METER INSTALLATION FOR GREATER THAN 50MM SERVICE
<u>CSSD W2f</u>	FIRE / DOMESTIC WATER SERVICE PIPING LAYOUT
<u>CSSD W8</u>	TEMPORARY AND PERMANENT BLOW-OFF FOR WATERMAIN

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. GRAVEL DEPTH TO SUIT GROUND CONDITIONS.
2. 150Ø DR-28 PVC DRAIN TO BE INSTALLED WHERE REQUIRED.
3. MATERIALS AND CONSTRUCTION TO MEET CURRENT CITY OF COURTENAY SPECIFICATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS AS REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR IS TO SUPPLY A "SEDIMENT & EROSION CONTROL PLAN" FOR REVIEW BY THE CITY PRIOR TO CONSTRUCTION.
5. ALL MATERIALS TO BE SUPPLIED & CONSTRUCTED AS PER THE MOST RECENT VERSION OF THE MASTER MUNICIPAL CONTRACT DOCUMENTS (MMCD).
6. IF ACCESS REQUIRED BY CITY PUBLIC WORKS, PATHWAY MUST INCLUDE A MINIMUM UNOBSTRUCTED ACCESS OF 4.0m.
7. WHERE PATHWAY INTERSECTS WITH CITY ROAD OR SIDEWALK, THE FIRST 5.0m IS TO BE CONSTRUCTED OF CONCRETE COMPLETE WITH REMOVABLE BOLLARD PER DETAIL CSSD C12. SEE DETAIL CSSD C10 FOR DETAILS.

NOVEMBER, 2017



ALTERNATIVE DESIGN STANDARD 1

MULTI-USE PATH

DRAWING NUMBER

CSSD A1

REVISION NUMBER

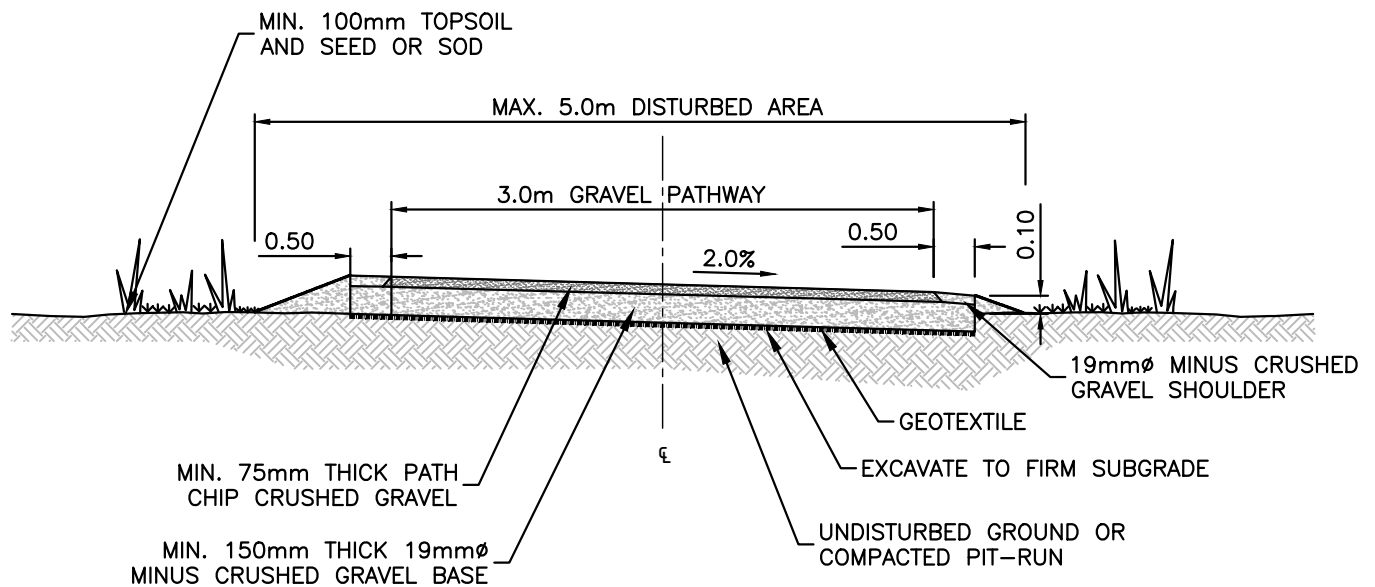
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SCALE

N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. GRAVEL DEPTH TO SUIT GROUND CONDITIONS.
2. 150Ø DR-28 PVC DRAIN TO BE INSTALLED WHERE REQUIRED.
3. MATERIALS AND CONSTRUCTION TO MEET CURRENT CITY OF COURTENAY SPECIFICATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS AS REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR IS TO SUPPLY A "SEDIMENT & EROSION CONTROL PLAN" FOR REVIEW BY THE CITY PRIOR TO CONSTRUCTION.
5. ALL MATERIALS TO BE SUPPLIED & CONSTRUCTED AS PER THE MOST RECENT VERSION OF THE MASTER MUNICIPAL CONTRACT DOCUMENTS (MMCD).
6. WHERE PATHWAY INTERSECTS WITH CITY ROAD OR SIDEWALK, THE FIRST 5.0m IS TO BE CONSTRUCTED OF CONCRETE COMPLETE WITH REMOVABLE BOLLARD PER DETAIL CSSD C12. SEE DETAIL CSSD C10 FOR DETAILS.
7. TRAIL WIDTH MAY BE REDUCED TO 1.5m IN RIPARIAN AREAS, BUT NOT WHERE REQUIRED FOR MAINTENANCE ACCESS.

NOVEMBER, 2017



ALTERNATIVE DESIGN STANDARD 2

GRAVEL TRAIL

DRAWING NUMBER

CSSD A2

REVISION NUMBER

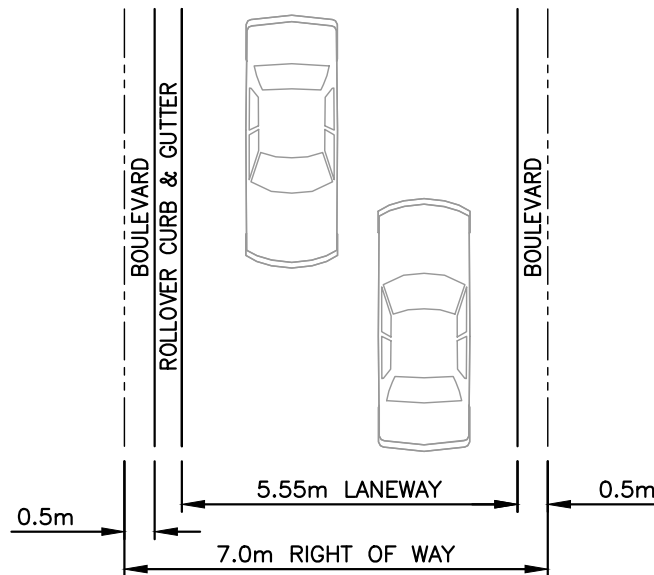
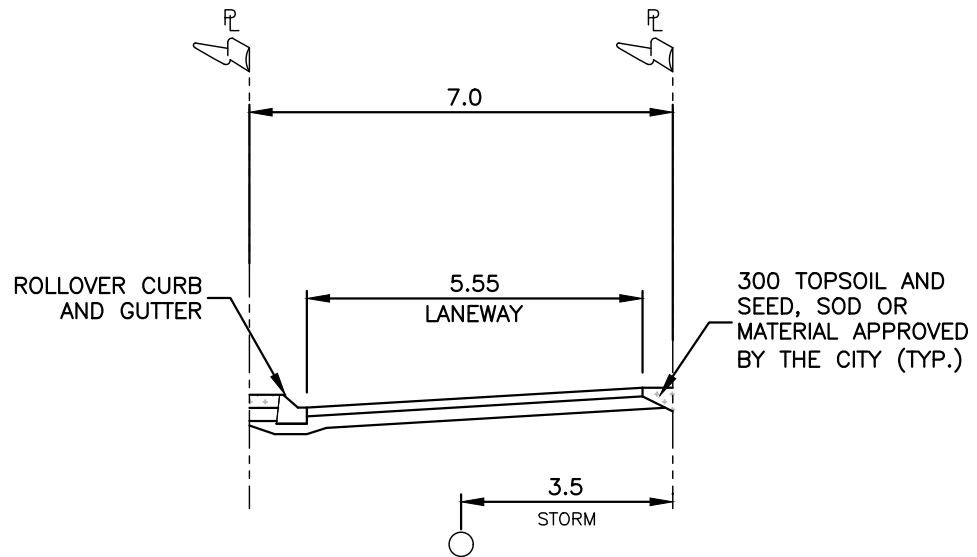
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CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



ALTERNATIVE DESIGN STANDARD 3
LANE

DRAWING NUMBER

CSSD A3

REVISION NUMBER

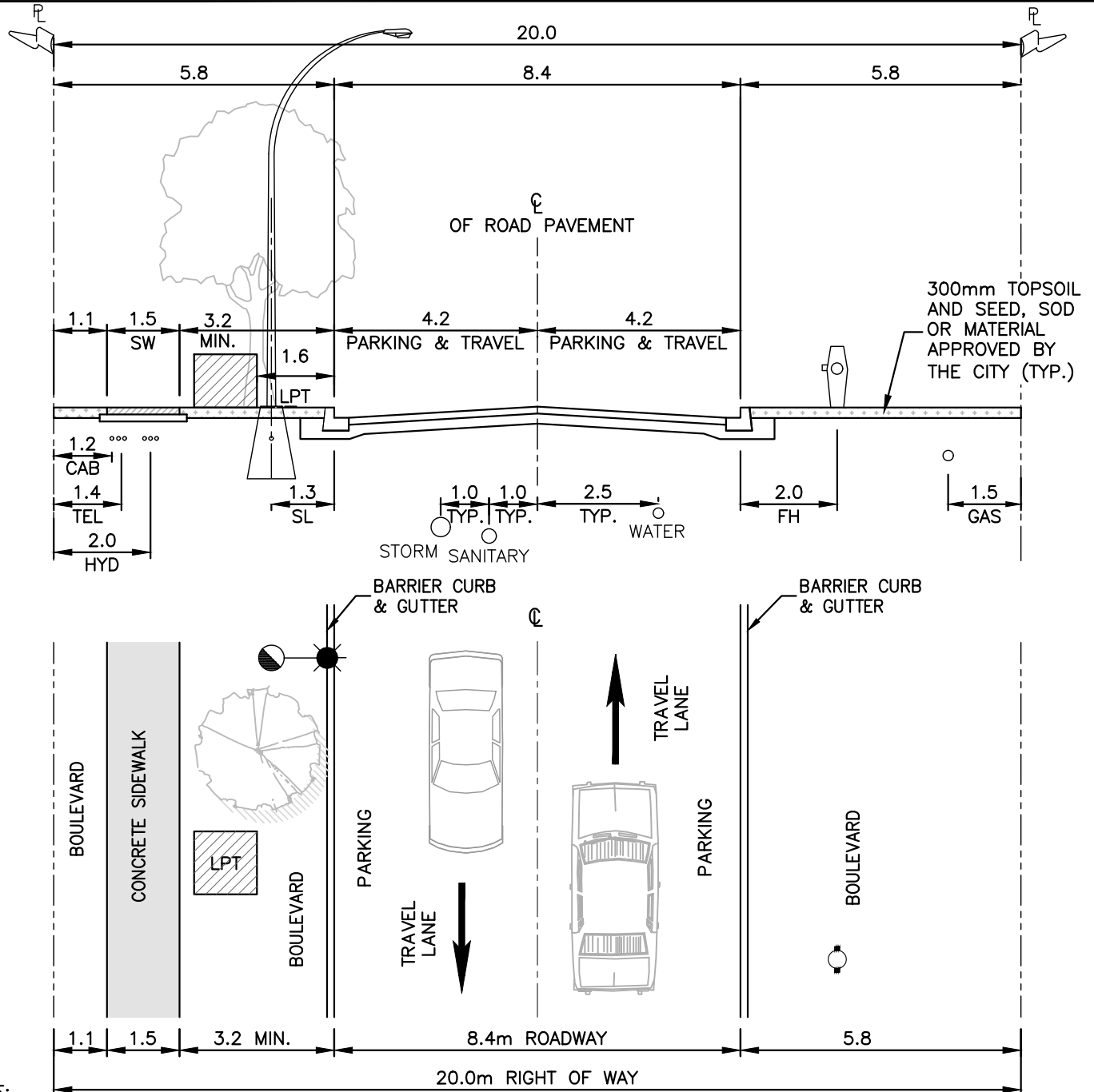
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N.T.S.



CITY OF COURTENAY SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. PAVEMENT MARKINGS NOT REQUIRED FOR THE CENTRE LINES, INTERSECTION APPROACHES AND FOG LINES.
2. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
3. THE STRUCTURAL ROAD ELEMENTS SHOWN ARE MINIMUM REQUIREMENTS. ROAD STRUCTURE TO BE DESIGNED BASED ON SITE CONDITIONS BY A QUALIFIED GEOTECHNICAL ENGINEER.
4. SIDEWALK TO BE LOCATED ON NORTH OR WEST SIDE OF ROAD.
5. HYDRO SERVICE BOX TO INCLUDE A STORM SEWER SERVICE CONNECTION AS PER CSSD S8. INSPECTION CHAMBER TO BE LOCATED 300mm FROM SERVICE BOX.
6. TREES TO BE CENTRED IN BOULEVARDS.

LOCAL ROAD SECTION

DRAWING NUMBER

CSSD L1

REVISION NUMBER

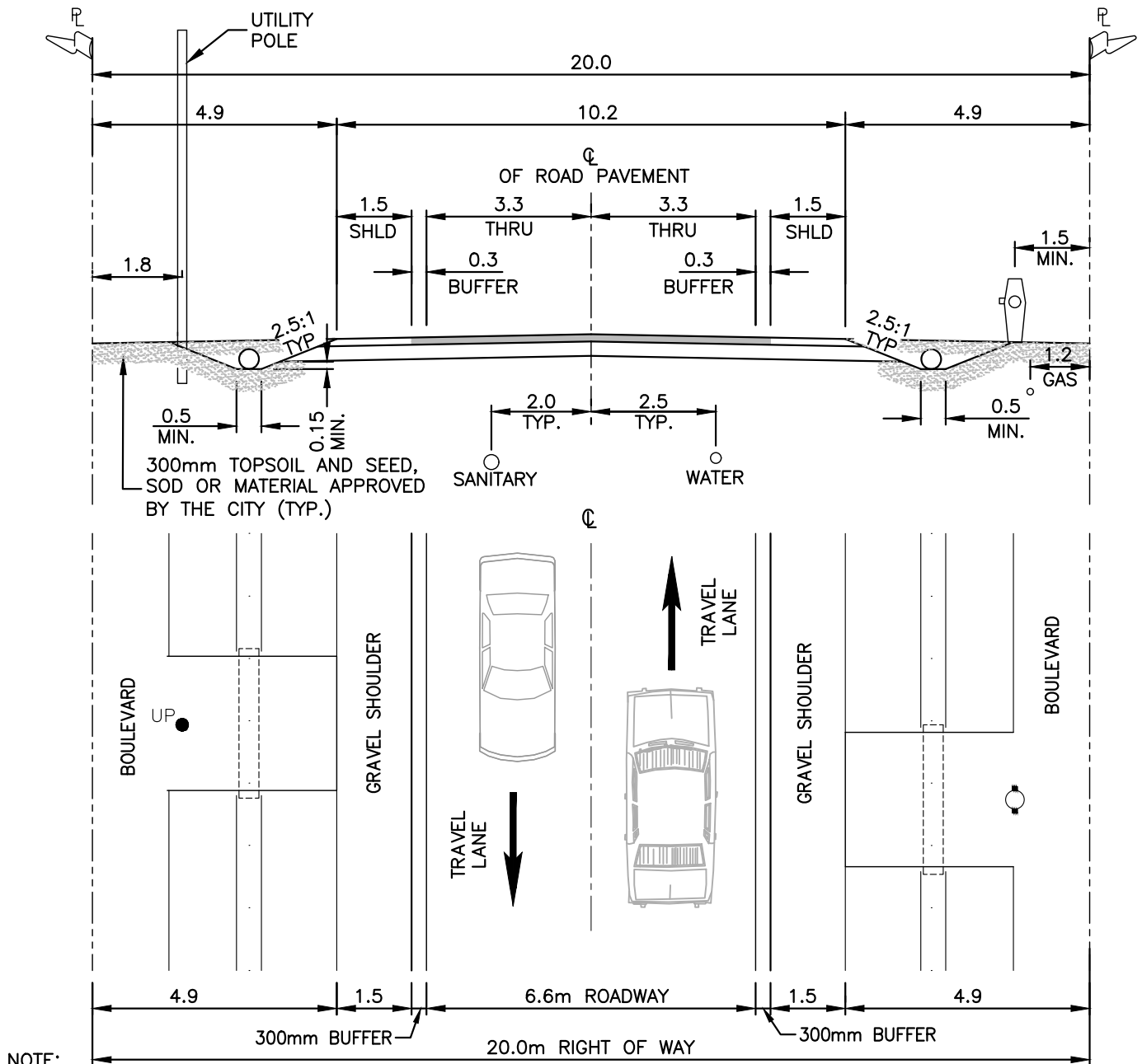
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CITY OF COURTENAY SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. DESIGNATED BIKE ROUTE TO HAVE 1.5m PAVED AND 0.5m GRAVEL SHOULDER ON BOTH SIDES.
2. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE AND FOG LINES TO TAC STANDARD.
3. 3.0m LONG CULVERT CROSSING TO BE INSTALLED IN FRONT OF HYDRANT (C/W HEADWALLS), SIZED APPROPRIATELY FOR DRAINAGE FLOWS (MIN. 300mm).
4. REQUIREMENT FOR ROADSIDE BARRIER TO BE DETERMINED AS PER TAC WARRANT.
5. ADDITIONAL 0.75m ASPHALT WIDTH TO BE ADDED TO SHOULDER WIDTH IF ROADSIDE BARRIER IS REQUIRED.
6. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
7. IF UTILITY POLE LOCATED WITHIN DITCH PROFILE, 3.0m LONG CULVERT TO BE INSTALLED IN FRONT OF UTILITY POLE.

COLLECTOR ROAD SECTION RURAL

DRAWING NUMBER

CSSD CRu

REVISION NUMBER

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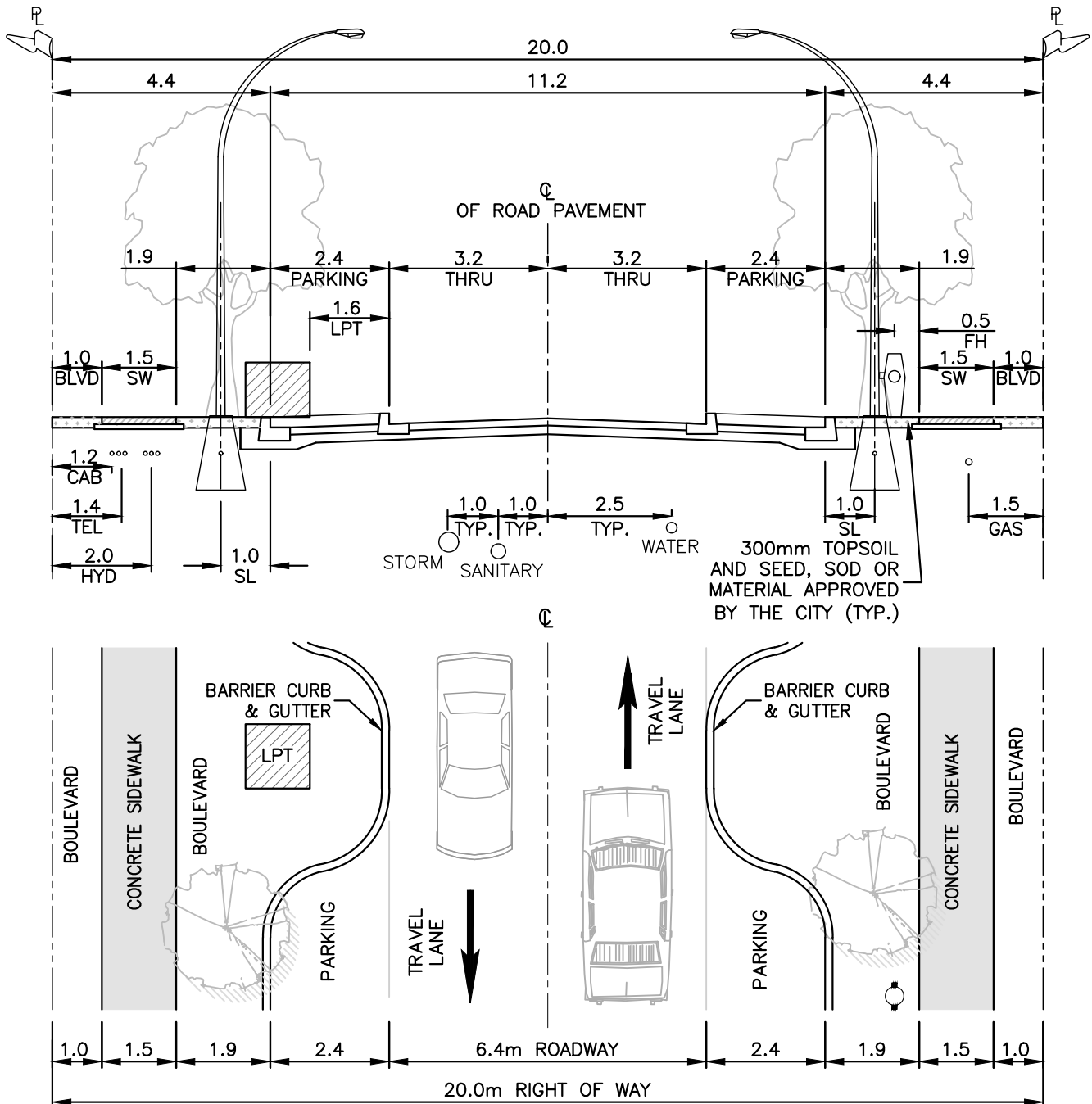
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N.T.S.

NOVEMBER, 2017



CITY OF COURTENAY SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, LANE LINE, AND TRANSVERSE ROAD MARKINGS TO TAC STANDARD.
2. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
3. BULB OUTS TO BE LOCATED AT LPTS, CROSSWALKS AND INTERSECTIONS TO DELINEATE PARKING POCKETS.
4. HYDRO SERVICE BOX TO INCLUDE A STORM SEWER SERVICE CONNECTION AS PER CSSD S8. INSPECTION CHAMBER TO BE LOCATED 300mm FROM SERVICE BOX.
5. TREES TO BE CENTRED IN BOULEVARDS.

NOVEMBER, 2017



COLLECTOR ROAD SECTION RESIDENTIAL

DRAWING NUMBER

CSSD CR_e

REVISION NUMBER

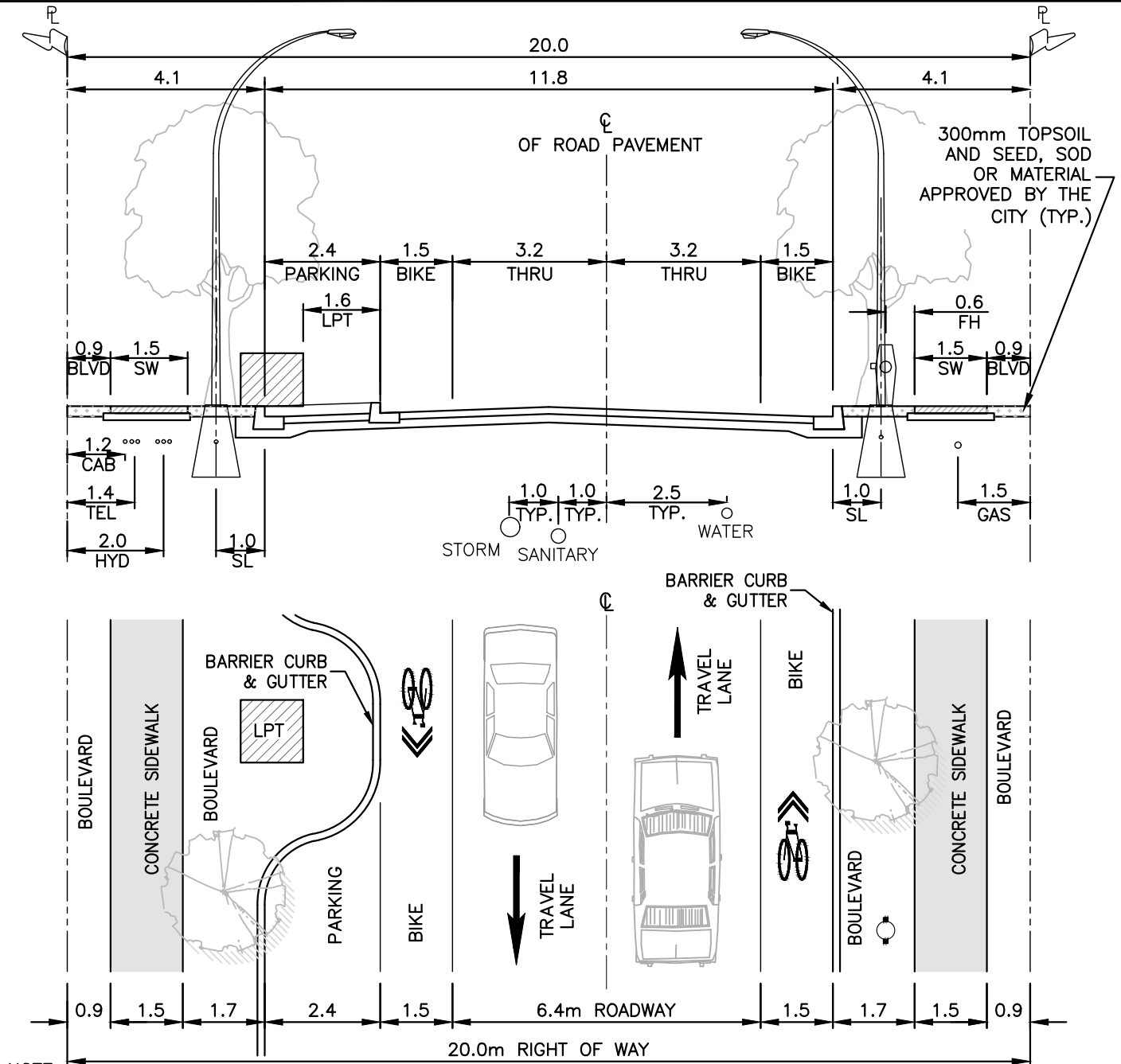
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SCALE

N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, LANE LINES, BIKE LANES AND ALL TRANSVERSE MARKINGS TO TAC STANDARD.
2. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
3. BULB OUTS TO BE LOCATED AT LPTS, CROSSWALKS AND INTERSECTIONS TO DELINEATE PARKING POCKETS.
4. PARKING PROVISION TO BE ON NORTH OR WEST SIDE OF ROAD.
5. HYDRO SERVICE BOX TO INCLUDE A STORM SEWER SERVICE CONNECTION AS PER CSSD S8. INSPECTION CHAMBER TO BE LOCATED 300mm FROM SERVICE BOX.
6. TREES TO BE CENTRED IN BOULEVARDS.

NOVEMBER, 2017



COLLECTOR ROAD SECTION RESIDENTIAL – B

DRAWING NUMBER

CSSD CRB

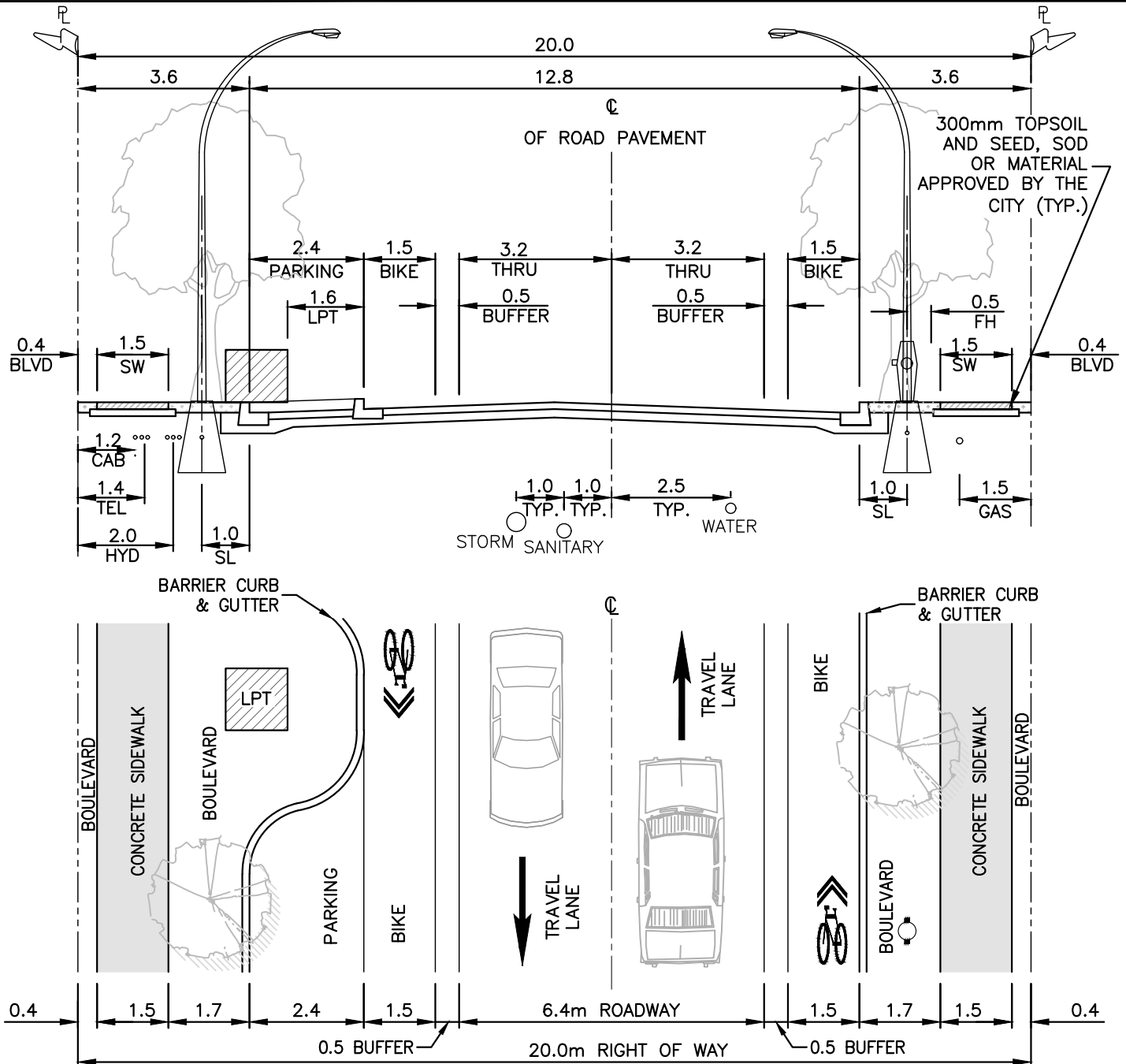
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N.T.S.

CITY OF COURTENAY SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, LANE LINES, BIKE LANES, AND TRANSVERSE ROAD MARKINGS TO TAC STANDARD.
2. BIKE LANE BUFFER TO BE HATCHED / GORE TO TAC STANDARD.
3. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
4. BULB OUTS TO BE LOCATED AT LPTS, CROSSWALKS AND INTERSECTIONS TO DELINEATE PARKING POCKET.
5. HYDRO SERVICE BOX TO INCLUDE A STORM SEWER SERVICE CONNECTION AS PER CSSD S8. INSPECTION CHAMBER TO BE LOCATED 300mm FROM SERVICE BOX.
6. TREES TO BE CENTRED IN BOULEVARDS.

COLLECTOR ROAD SECTION
RESIDENTIAL – C

DRAWING NUMBER

CSSD CRC

REVISION NUMBER

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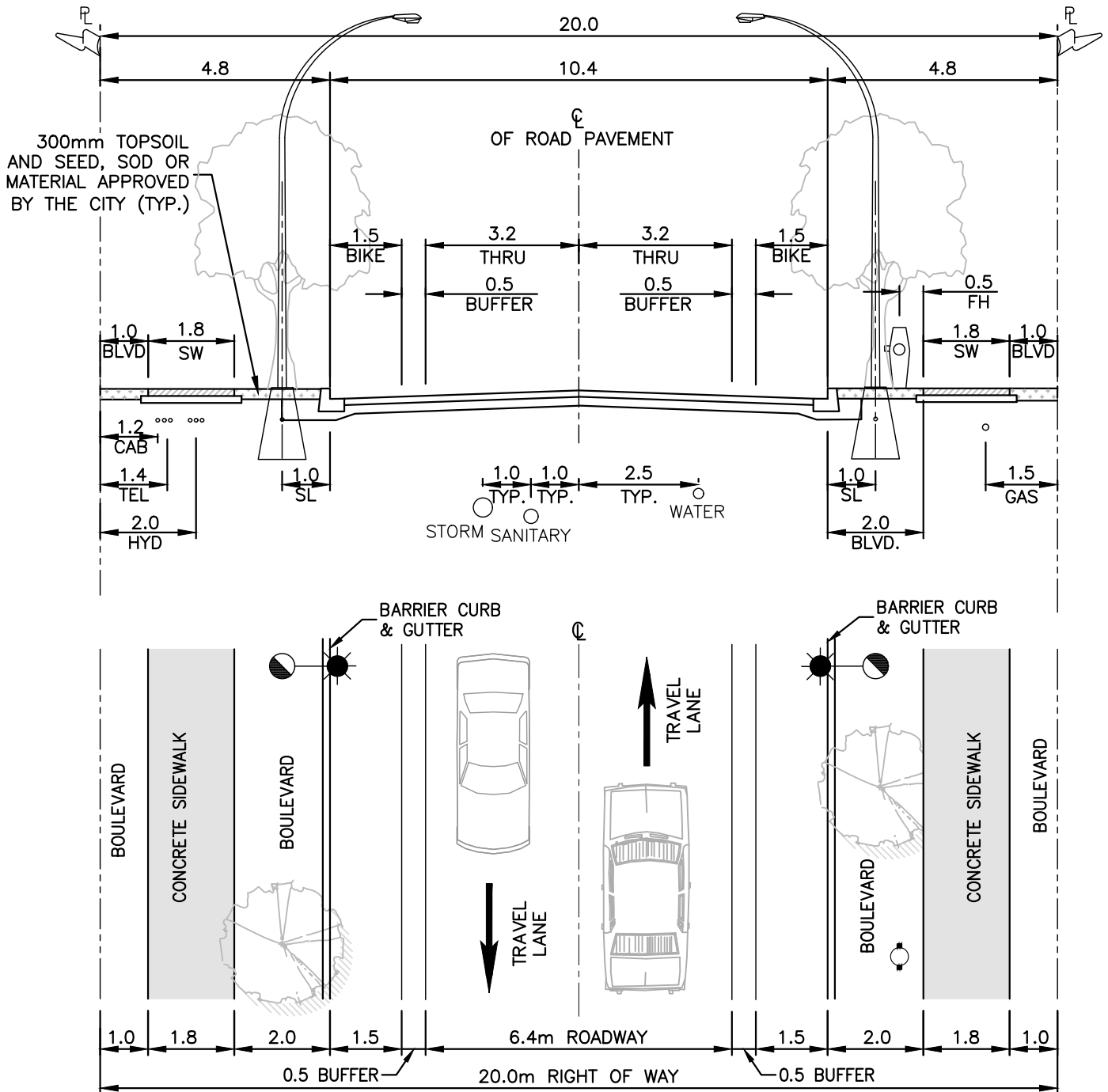
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N.T.S.

NOVEMBER, 2017



CITY OF COURTENAY SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, BIKE LANES AND TRANSVERSE ROAD MARKINGS TO TAC STANDARD.
2. BIKE LANE BUFFER TO BE HATCHED / GORE TO TAC STANDARD.
3. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
4. THIS ROAD SECTION ASSUMES NO HYDRO LOADS OR LPT.
5. TREES TO BE CENTRED IN BOULEVARDS.

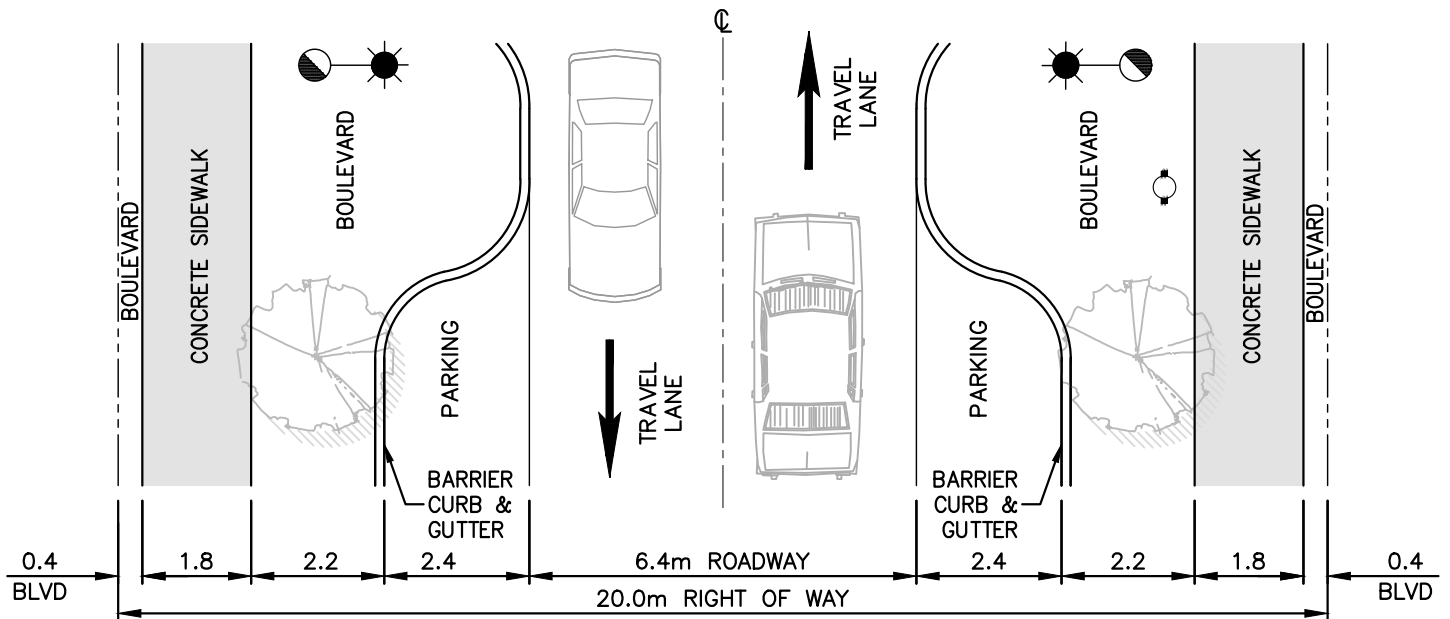
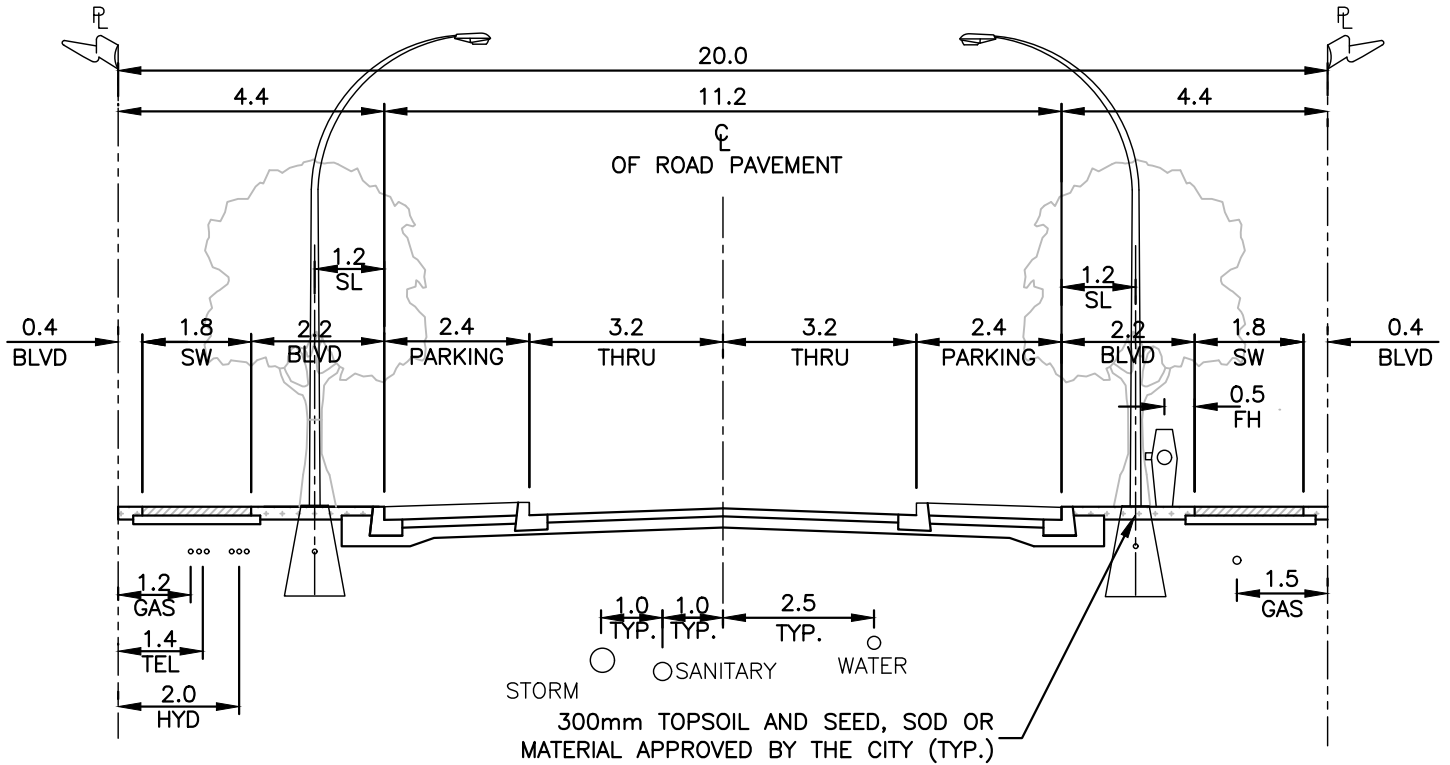


COLLECTOR ROAD SECTION URBAN – B

DRAWING NUMBER
CSSD CUB
REVISION NUMBER
0
SCALE
N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, BIKE LANES AND TRANSVERSE ROAD MARKINGS TO TAC STANDARD.
2. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
3. THIS ROAD SECTION ASSUMES NO HYDRO LOADS OR LPT.
4. BULB OUTS TO BE LOCATED AT INTERSECTIONS.
5. TREES TO BE CENTRED IN BOULEVARDS.

NOVEMBER, 2017



COLLECTOR ROAD SECTION

URBAN – P

DRAWING NUMBER

CSSD CUP

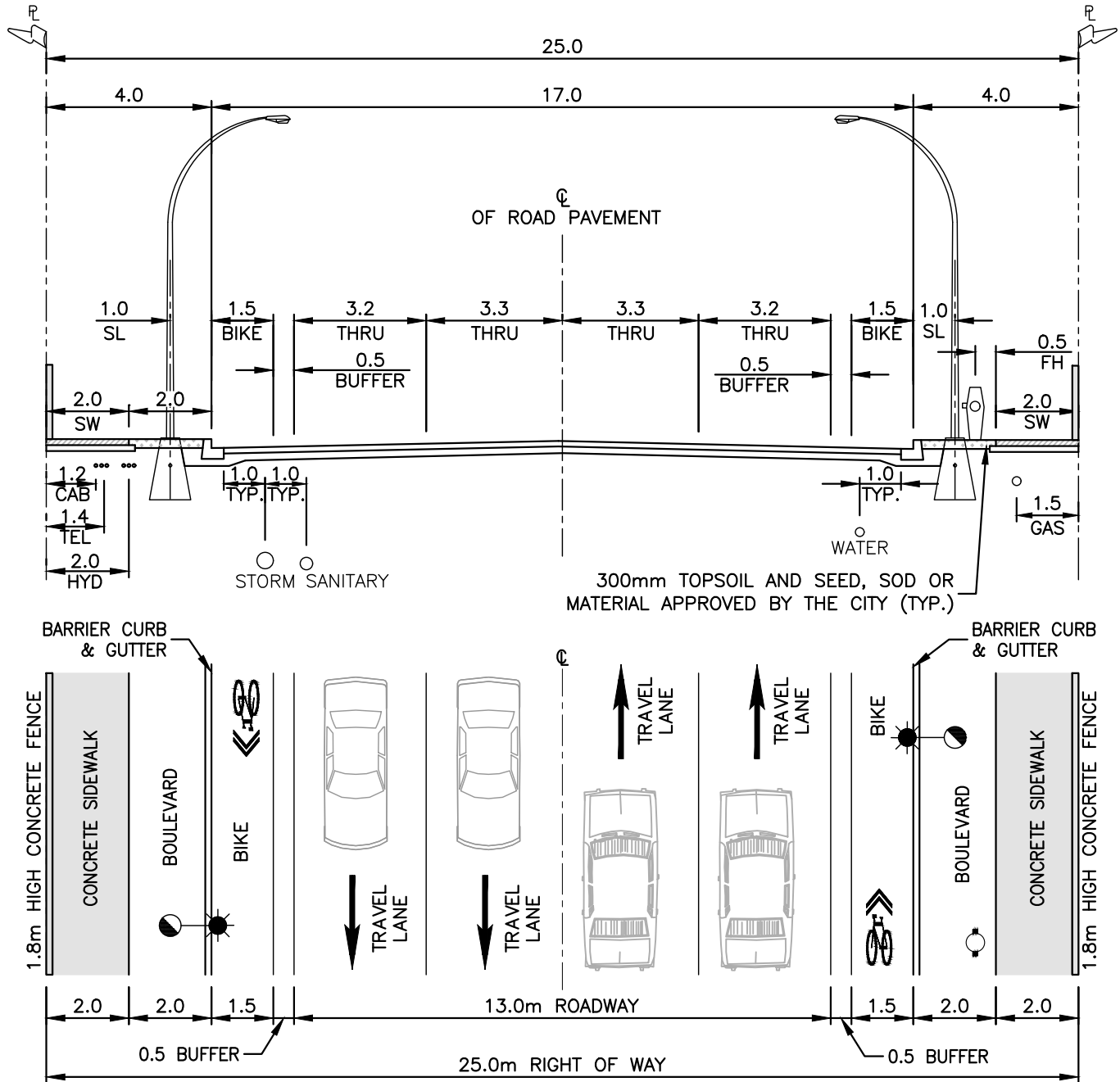
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SCALE

N.T.S.

CITY OF COURTENAY SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, THRU LANES, BIKE LANES AND TRANSVERSE ROAD MARKINGS TO TAC STANDARD.
2. BIKE LANE BUFFER TO BE HATCHED / GORE TO TAC STANDARD.
3. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
4. HYDRO SERVICE BOX TO INCLUDE A STORM SEWER SERVICE CONNECTION AS PER CSSD S8. INSPECTION CHAMBER TO BE LOCATED 300mm FROM SERVICE BOX.

NOVEMBER, 2017



ARTERIAL ROAD SECTION B

DRAWING NUMBER

CSSD AB

REVISION NUMBER

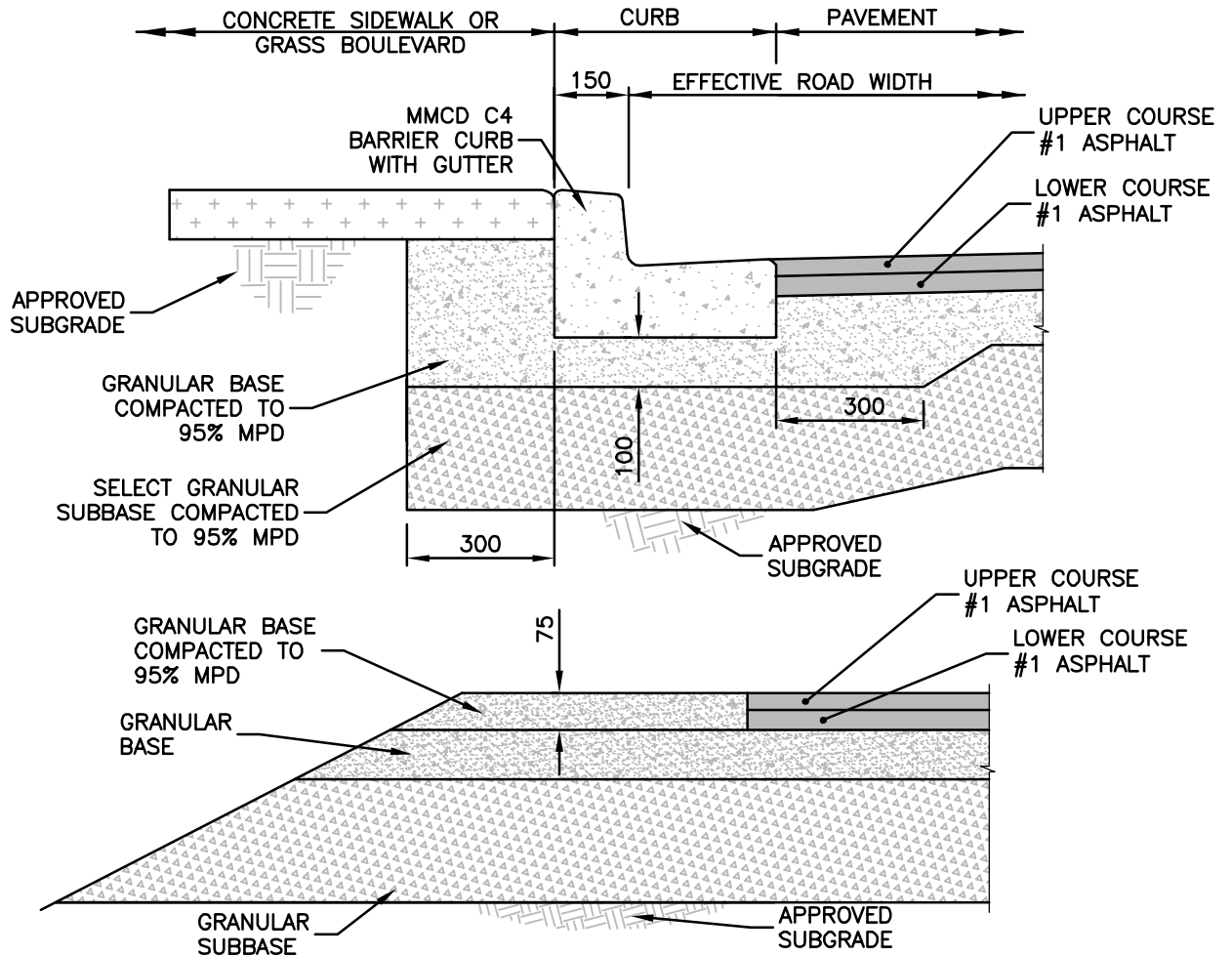
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SCALE

N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



STANDARD DETAIL	ROAD CLASSIFICATION	UPPER COURSE #1 ASPHALT	LOWER COURSE #1 ASPHALT
CSSD L1	LOCAL ROAD SECTION	50	
CSSD CRu	COLLECTOR ROAD SECTION: RURAL	35	40
CSSD CRe	COLLECTOR ROAD SECTION: RESIDENTIAL	35	40
CSSD CRB	COLLECTOR ROAD SECTION: RESIDENTIAL - B	35	40
CSSD CRC	COLLECTOR ROAD SECTION: RESIDENTIAL - C	50	50
CSSD CUB	COLLECTOR ROAD SECTION: URBAN - B	35	40
CSSD CUC	COLLECTOR ROAD SECTION: URBAN - C	50	50
CSSD CUP	COLLECTOR ROAD SECTION: URBAN - P	50	50
CSSD AB	ARTERIAL ROAD SECTION: B	50	50
CSSD A3	ALTERNATIVE DESIGN STANDARD 3: LANE	50	N/A

NOTE:

1. THE STRUCTURAL ROAD ELEMENTS SHOWN ARE MINIMUM REQUIREMENTS. ROAD STRUCTURE TO BE DESIGNED BASED ON SITE CONDITIONS BY A QUALIFIED GEOTECHNICAL ENGINEER.

MARCH, 2017



MINIMUM PAVEMENT STRUCTURE REQUIREMENTS

DRAWING NUMBER

CSSD R2

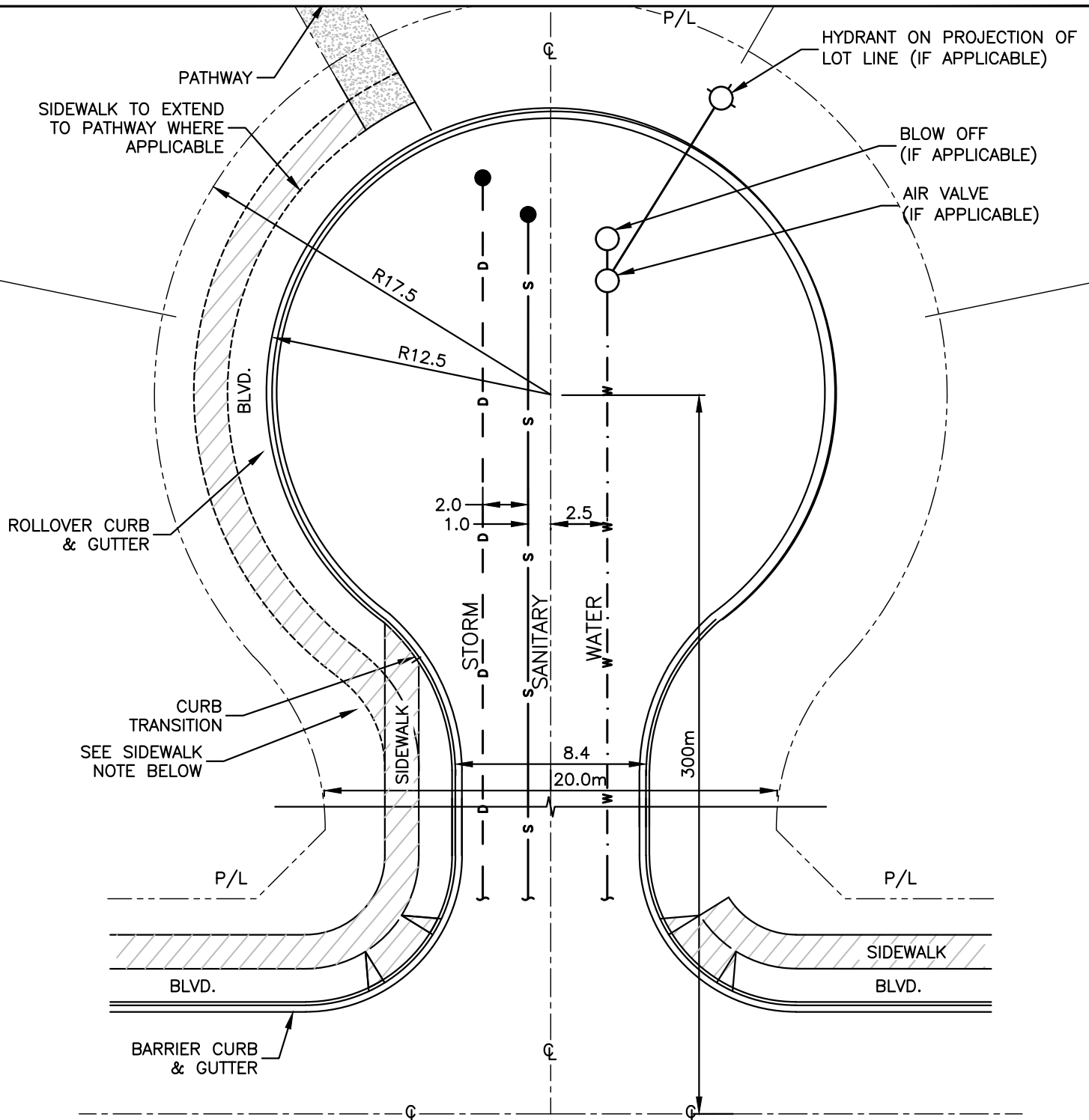
REVISION NUMBER

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SCALE

N.T.S.

CITY OF COURTENAY SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. CUL-DE-SAC HAVING MORE THAN 10 LOTS INCLUDING THE CORNER LOTS TO BE PROVIDED WITH A SIDEWALK.
2. THE MAXIMUM PERMITTED PROFILE GRADE ON THE TURNAROUND OF A CUL-DE-SAC IS 6%.

CUL-DE-SAC

DRAWING NUMBER

CSSD R3

REVISION NUMBER

0

SCALE

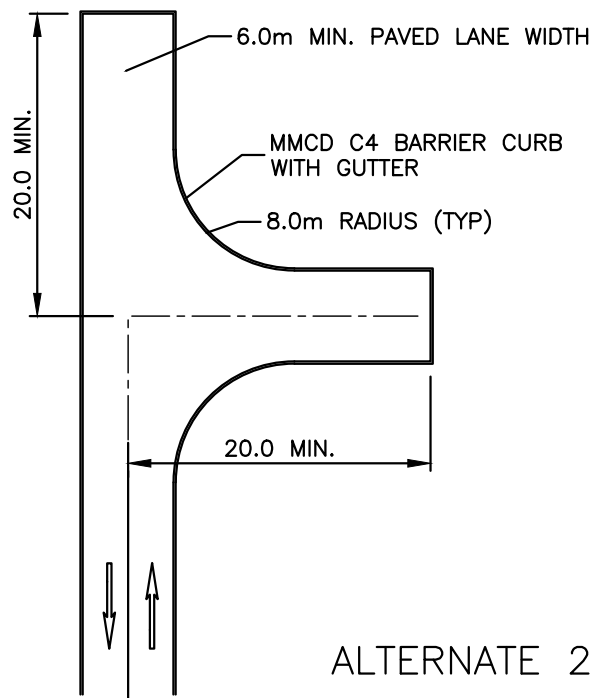
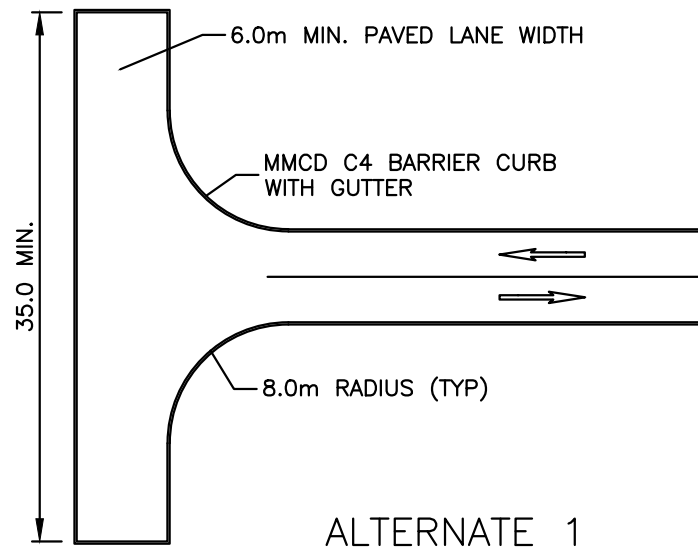
N.T.S.

NOVEMBER, 2017



CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. ALL DIMENSIONS ARE REQUIRED MINIMUMS

NOVEMBER, 2017



HAMMERHEAD TURNAROUND (PRIVATE ROADS)

DRAWING NUMBER

CSSD R4

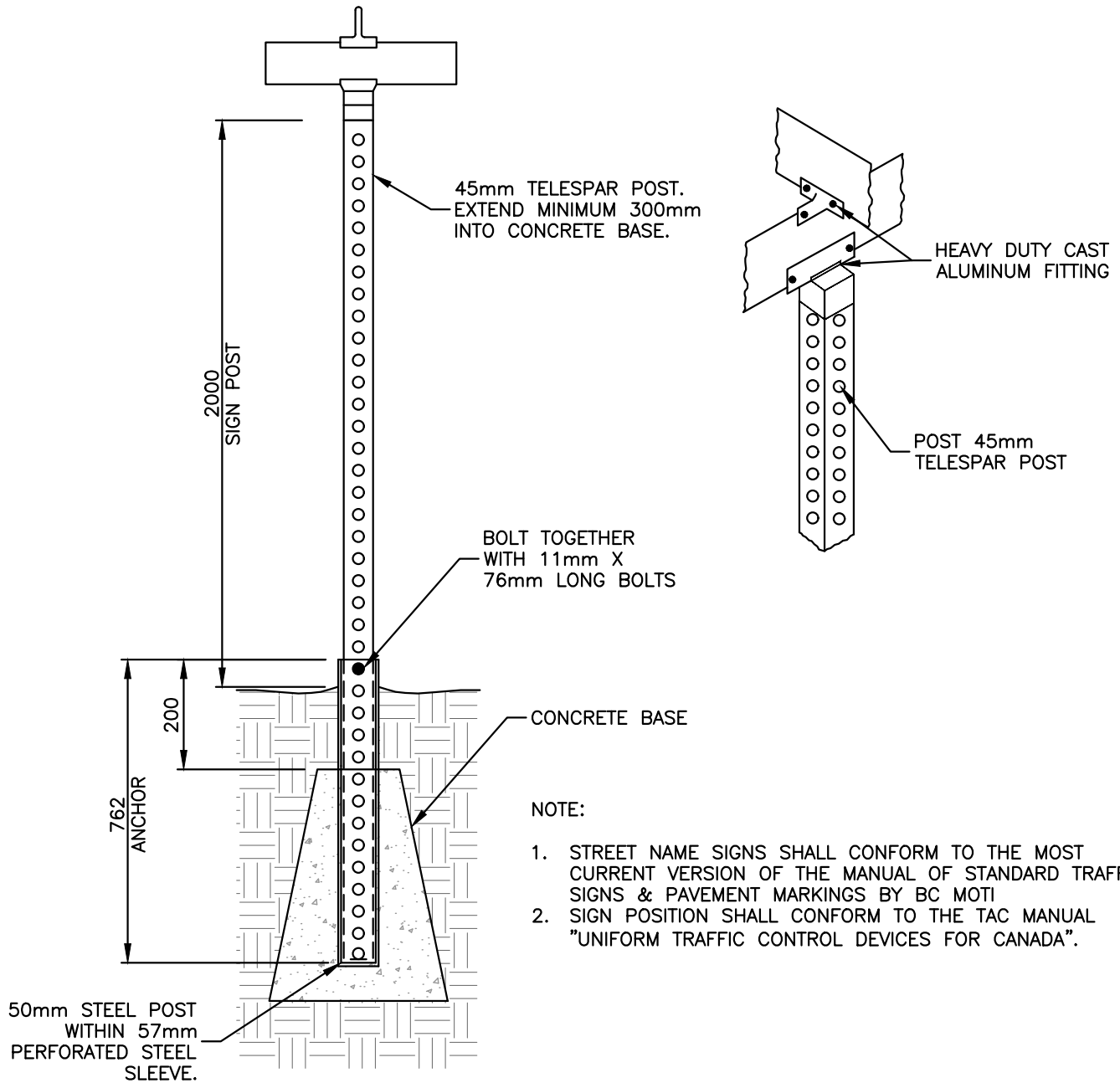
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SCALE
N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOVEMBER, 2017



STREET NAME SIGN AND BASE DETAIL

DRAWING NUMBER

CSSD R5

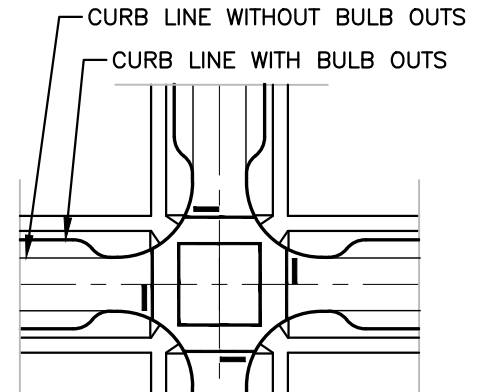
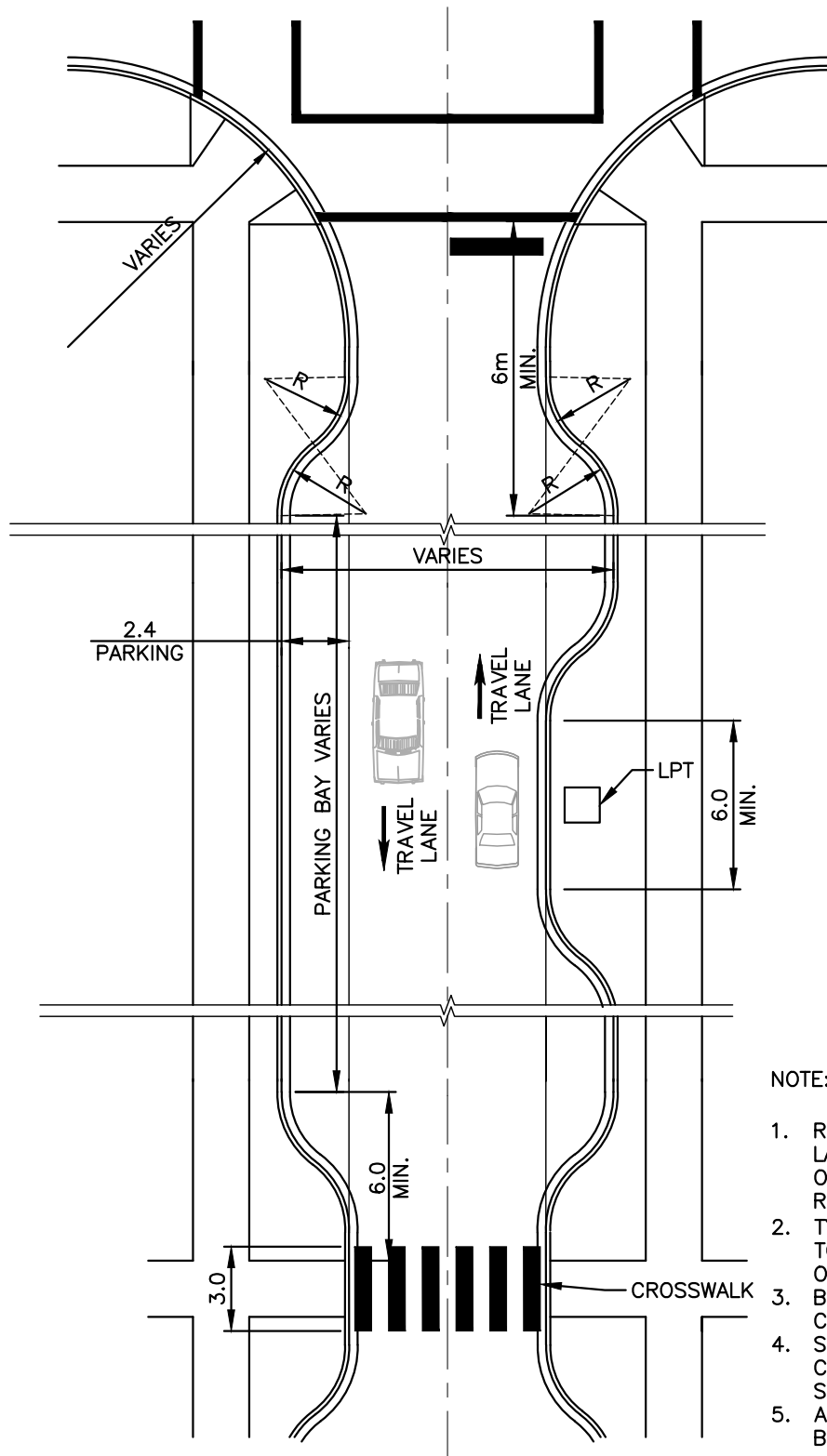
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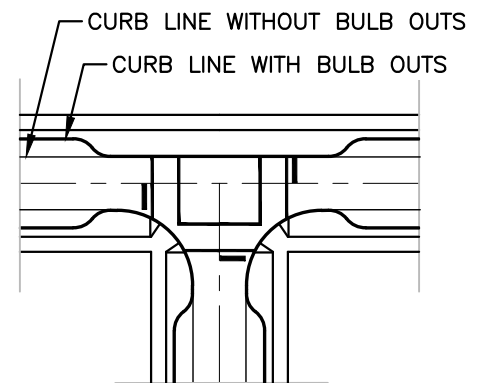
SCALE

N.T.S.

CITY OF COURTENAY SUPPLEMENTARY STANDARD DETAIL DRAWING



CROSS INTERSECTION
CONFIGURATION



TEE INTERSECTION
CONFIGURATION

NOTE:

1. RIGHT OF WAY WIDTHS, NUMBER OF LANES AND INCLUSION OF BIKE LANES OR BUFFERS VARIES AS PER SPECIFIED ROAD CLASSIFICATION.
2. TYPICAL PARKING BAY FLARE RADII "R" TO BE 3.0m UNLESS SPECIFIED OTHERWISE.
3. BULB-OUT LENGTHS AT MID-BLOCK CROSSWALKS VARIES AS REQUIRED.
4. SIDEWALK & BOULEVARD WIDTHS AND CONFIGURATION VARIES AS PER SPECIFIED ROAD CLASSIFICATION.
5. ARTERIAL ROADWAYS SHALL NOT HAVE BULB OUTS.

TYPICAL BULB OUT LOCATION AND DETAILS

DRAWING NUMBER

CSSD R6

REVISION NUMBER

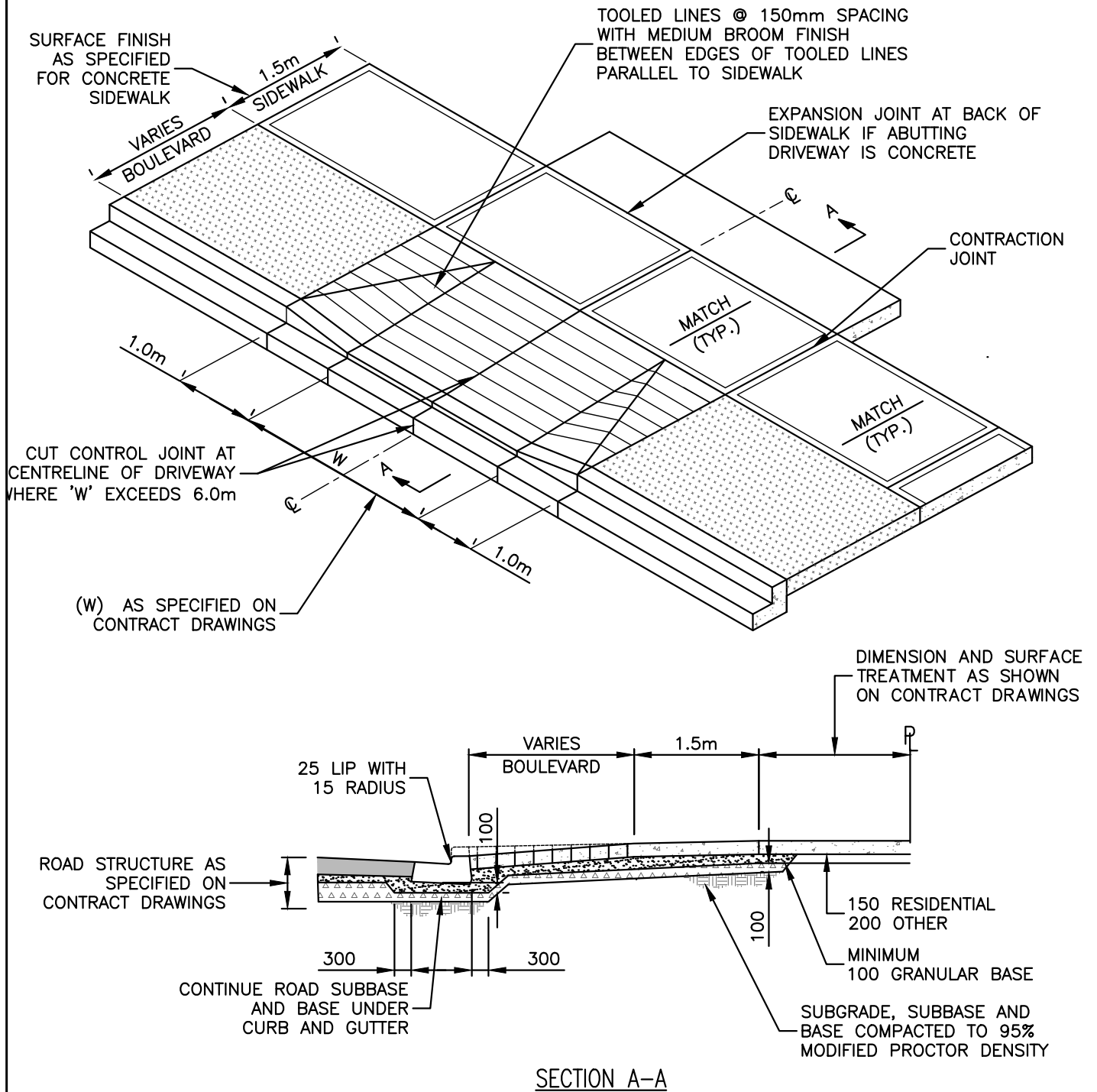
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SCALE

N.T.S.



CITY OF COURTENAY SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. DRIVEWAYS ORIENTATED AT 90° TO CURB, UNLESS SPECIFIED OTHERWISE ON CONTRACT DRAWINGS.

NOVEMBER, 2017



DRIVEWAY CROSSING FOR BARRIER CURBS TYPE 2

DRAWING NUMBER

CSSD C7b

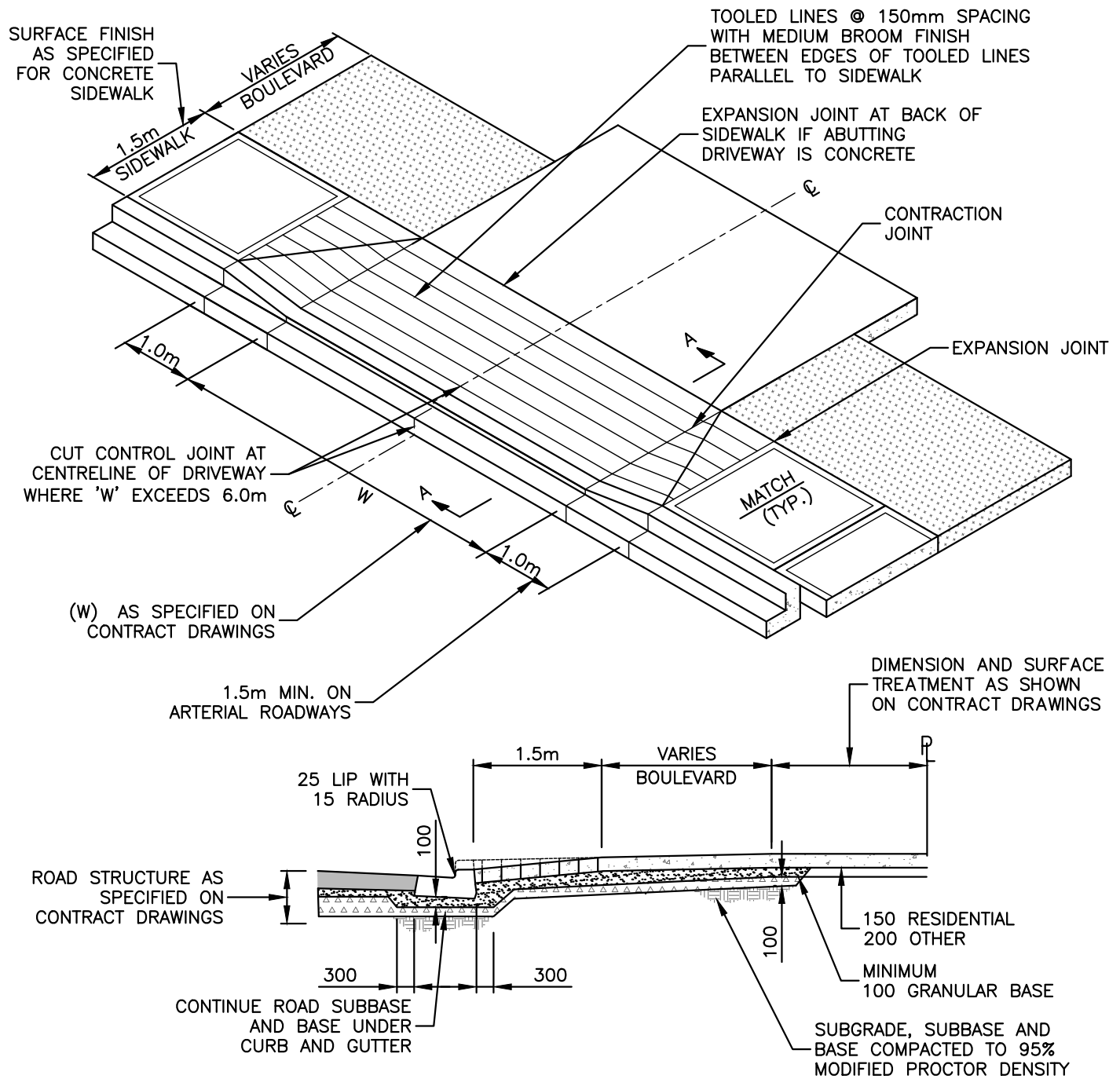
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SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

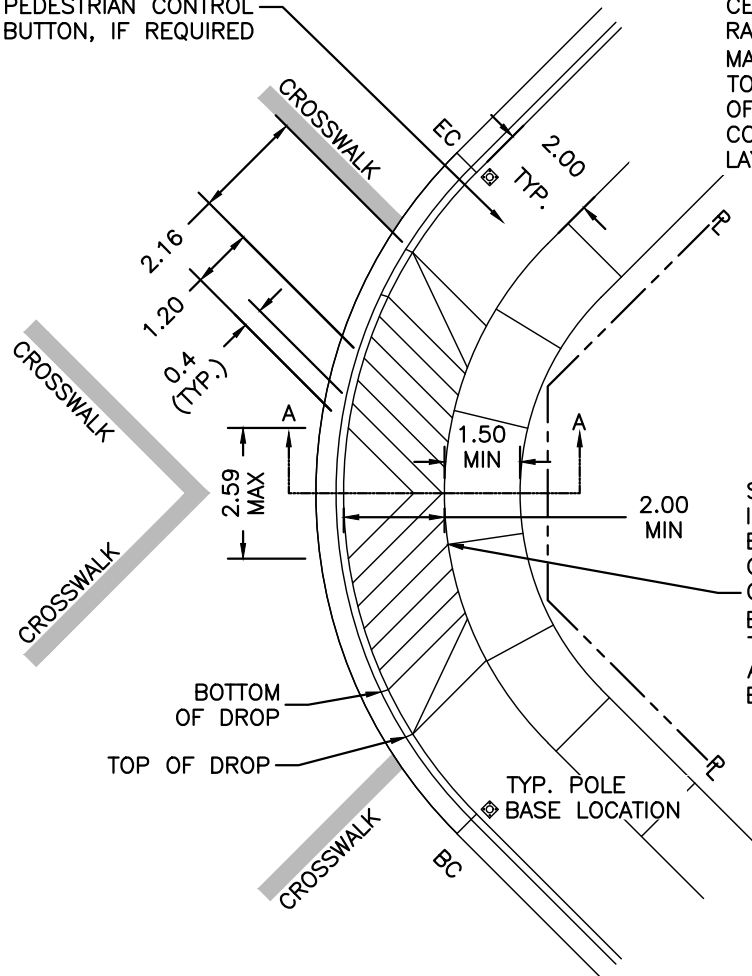
1. DRIVEWAYS ORIENTATED AT 90° TO CURB, UNLESS SPECIFIED OTHERWISE ON CONTRACT DRAWINGS.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING

CONCRETE AREA FOR
PEDESTRIAN CONTROL
BUTTON, IF REQUIRED

NOTE: STANDARD RAMP LENGTH: 2.0m AT
CENTRE OF RAMP. RECOMMENDED
RAMP SLOPE: $7.1\% \pm 1.2\%$.
MAX. SLOPE 8.3% (12H:1V) WHERE
TOPOGRAPHY PERMITS. ADJUST LENGTH
OF RAMP AS REQUIRED WHEN SITE
CONDITIONS DO NOT PERMIT TYPICAL
LAYOUT.



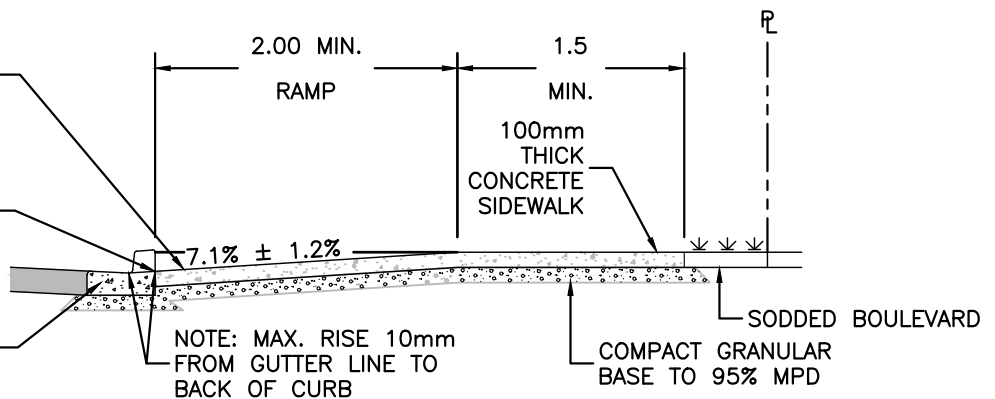
SCORE LINES MUST LINE UP
IN DIRECTION OF TRAVEL AND
BE PARALLEL WITH THE
CROSSING OR MARKED
CROSSWALK. SCORE LINES TO
BE 40cm APART. USE 3/8"
TROWEL. TROWEL EDGE TO BE
AS FLUSH AS POSSIBLE WITH
BROOM FINISH.

SINGLE RAMP

RAMP SHALL BE UNIFORM
THICKNESS OF 100mm
FROM TOP OF LIP TO TOP
OF SIDEWALK

TRANSITION FROM
CURB TO RAMP
SHALL BE FLUSH

BARRIER
CURB & GUTTER



SECTION A-A CURB RAMP

WHEELCHAIR RAMP FOR SIDEWALK,
INFILL AND BARRIER CURBS

DRAWING NUMBER

CSSD C8a

REVISION NUMBER

0

SCALE

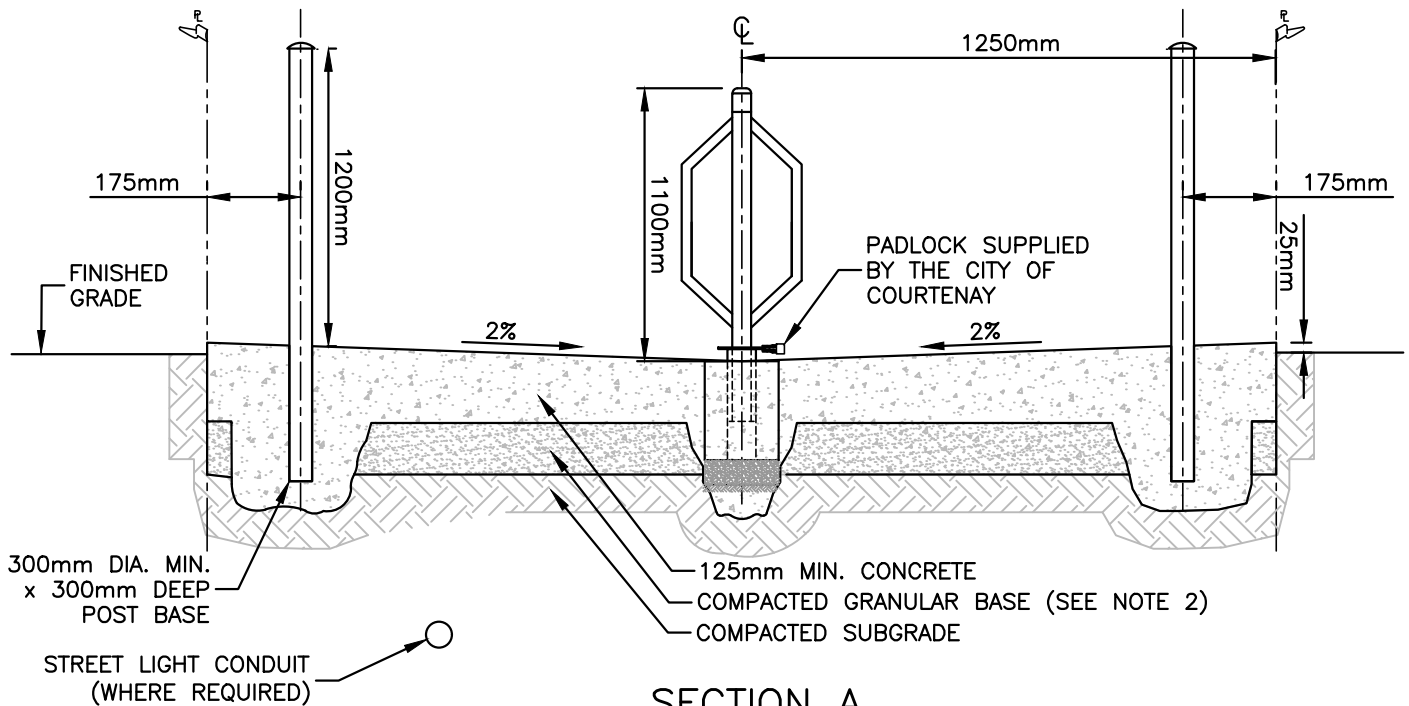
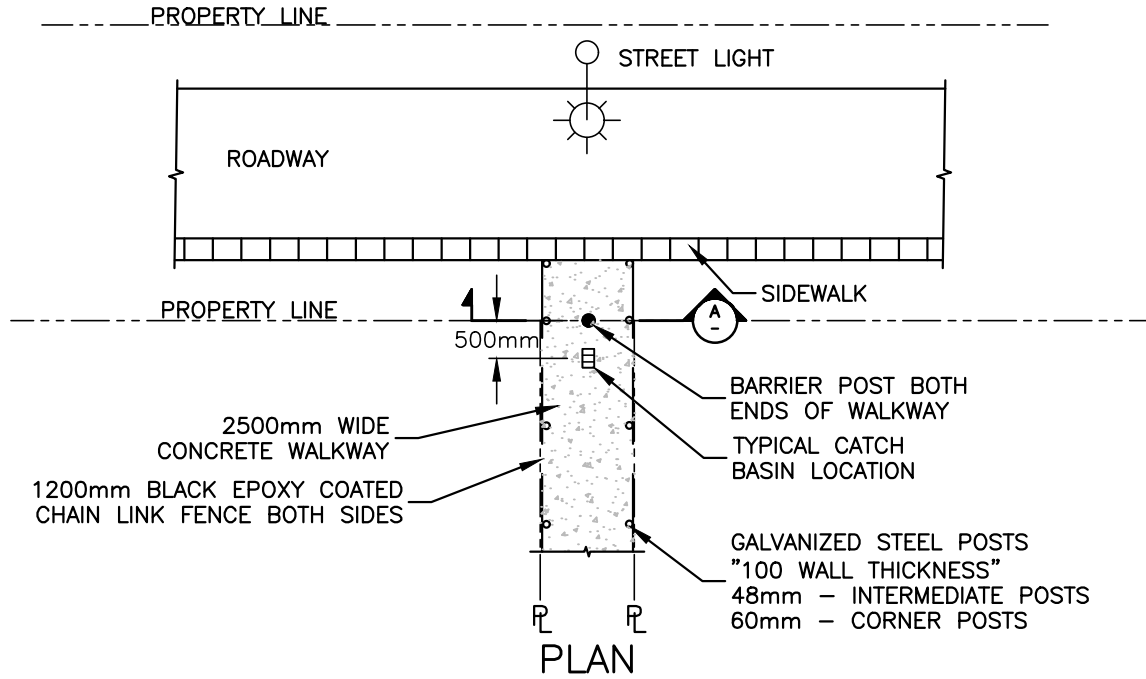
N.T.S.

NOVEMBER, 2017



CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. THE STRUCTURAL WALKWAY ELEMENTS SHOWN ARE MINIMUM REQUIREMENTS. WALKWAY STRUCTURE TO BE DESIGNED BASED ON SITE CONDITIONS BY A QUALIFIED GEOTECHNICAL ENGINEER.
2. CONCRETE THICKNESS TO BE 150mm MINIMUM WHEN WALKWAY USED TO ACCESS UTILITIES. GRANULAR BASE THICKNESS TO BE DETERMINED BY QUALIFIED GEOTECHNICAL ENGINEER.

CONCRETE WALKWAY

DRAWING NUMBER

CSSD C10

REVISION NUMBER

0

SCALE

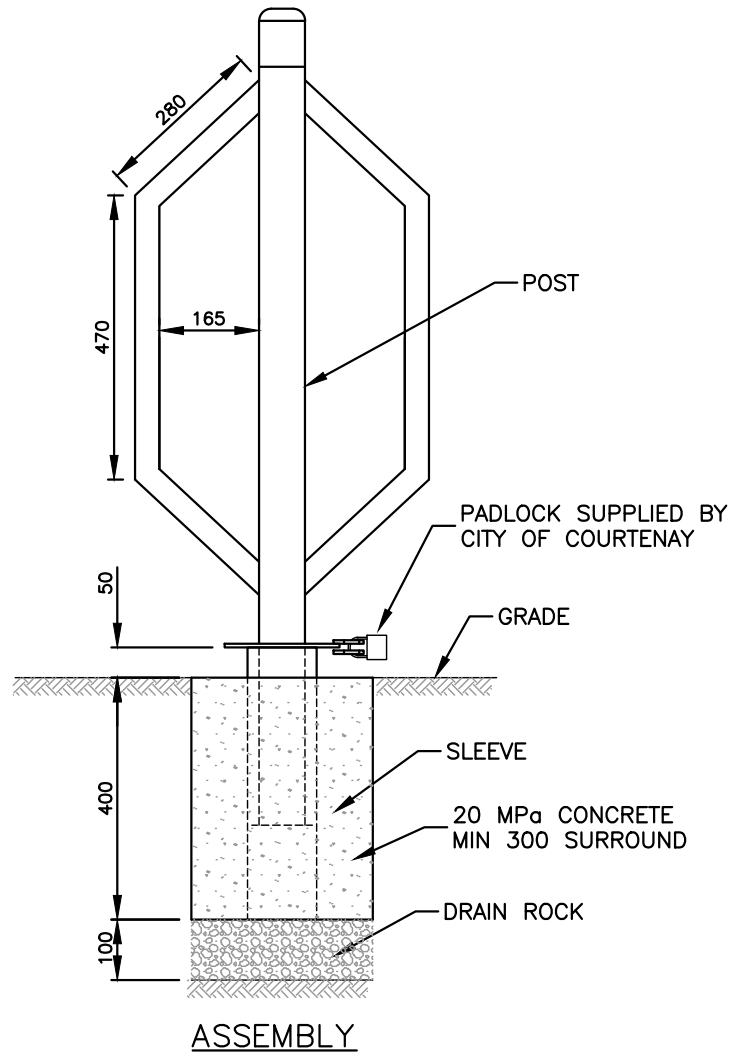
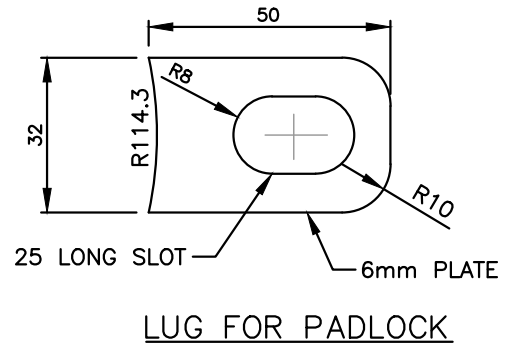
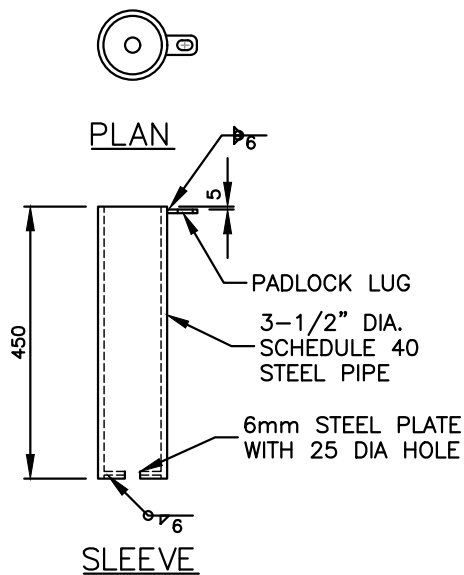
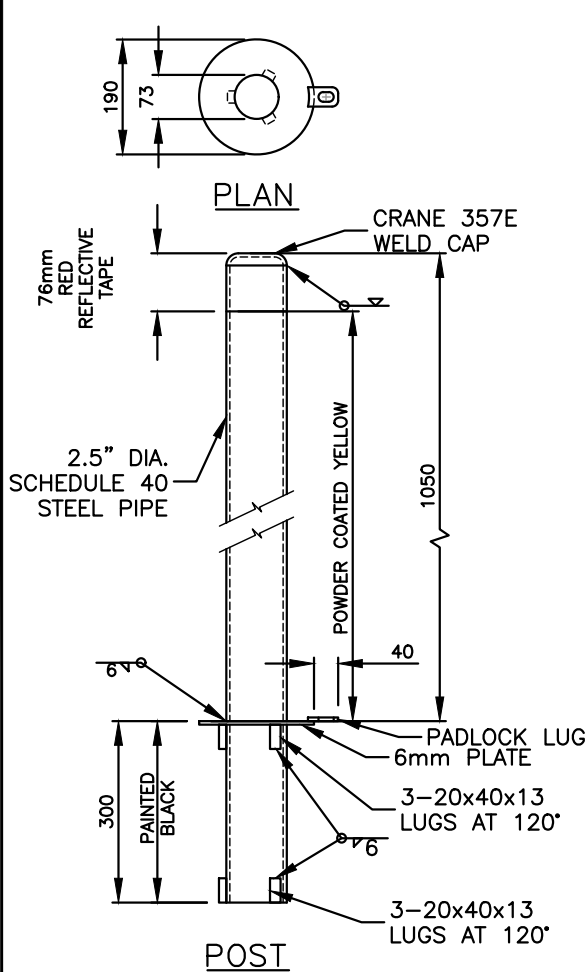
N.T.S.

FEBRUARY, 2016



CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. FOR USE ON MULTI-USE PATHWAYS AND TRAILS WHEN NECESSARY TO PREVENT VEHICLE ACCESS.
2. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.

NOVEMBER, 2017



REMOVABLE BOLLARD

DRAWING NUMBER

CSSD C12

REVISION NUMBER

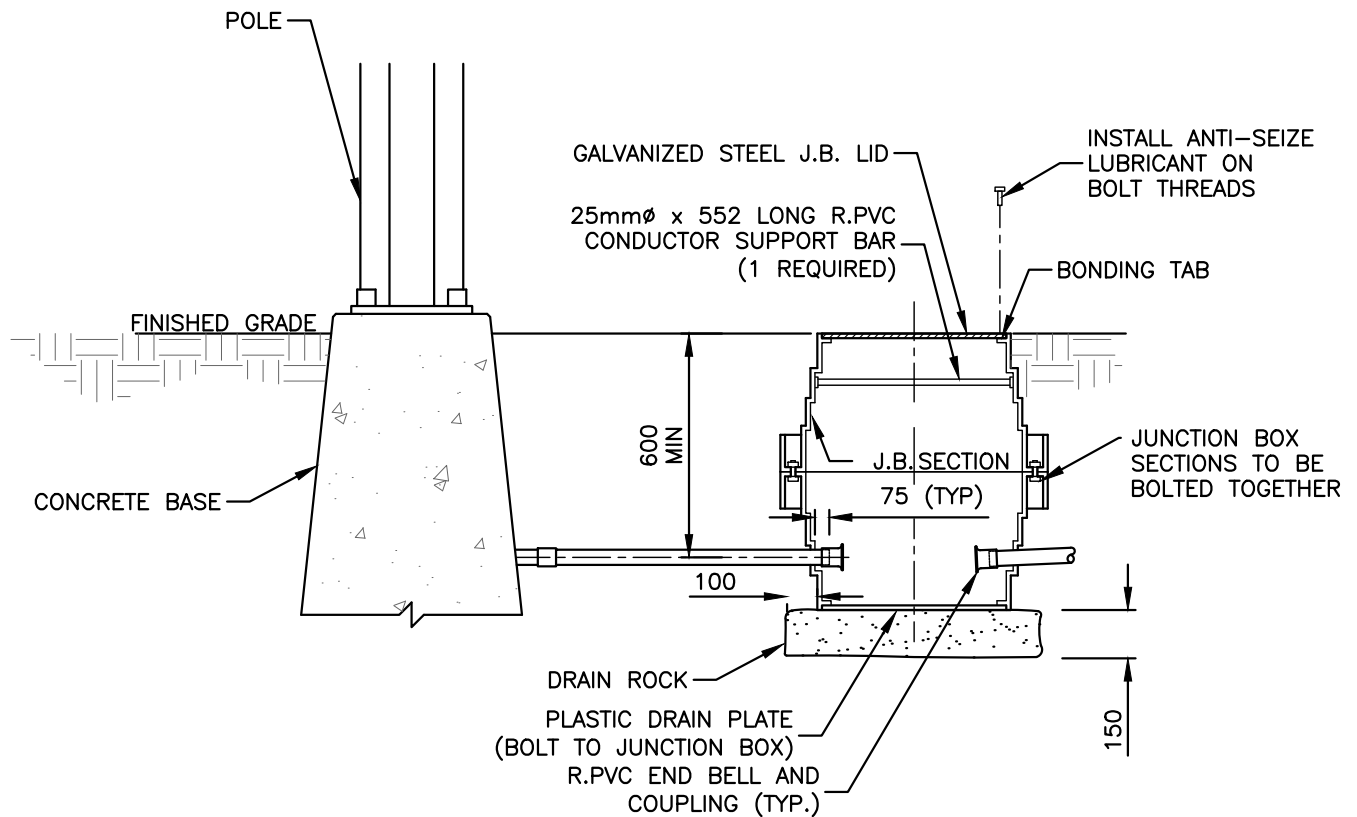
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SCALE

N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



JUNCTION BOX
TWO J.B. SECTIONS
ONE STEEL LID
ONE DRAIN PLATE

NOTE:

1. REFER TO CONTRACT DRAWINGS, SECTION 34 41 13 FOR DETAILED SPECIFICATIONS.
2. BOLT DOWN LID ON BOX BEFORE BACKFILLING, TAMPING & PAVING OPERATIONS.
3. INSTALL TOP OF JUNCTION BOX FLUSH WITH FINISHED GRADE.
4. ALL CONDUITS SHALL DRAIN TO J.B.'S
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

NOVEMBER, 2017



ROUND PLASTIC JUNCTION BOXES

DRAWING NUMBER

CSSD E2.1

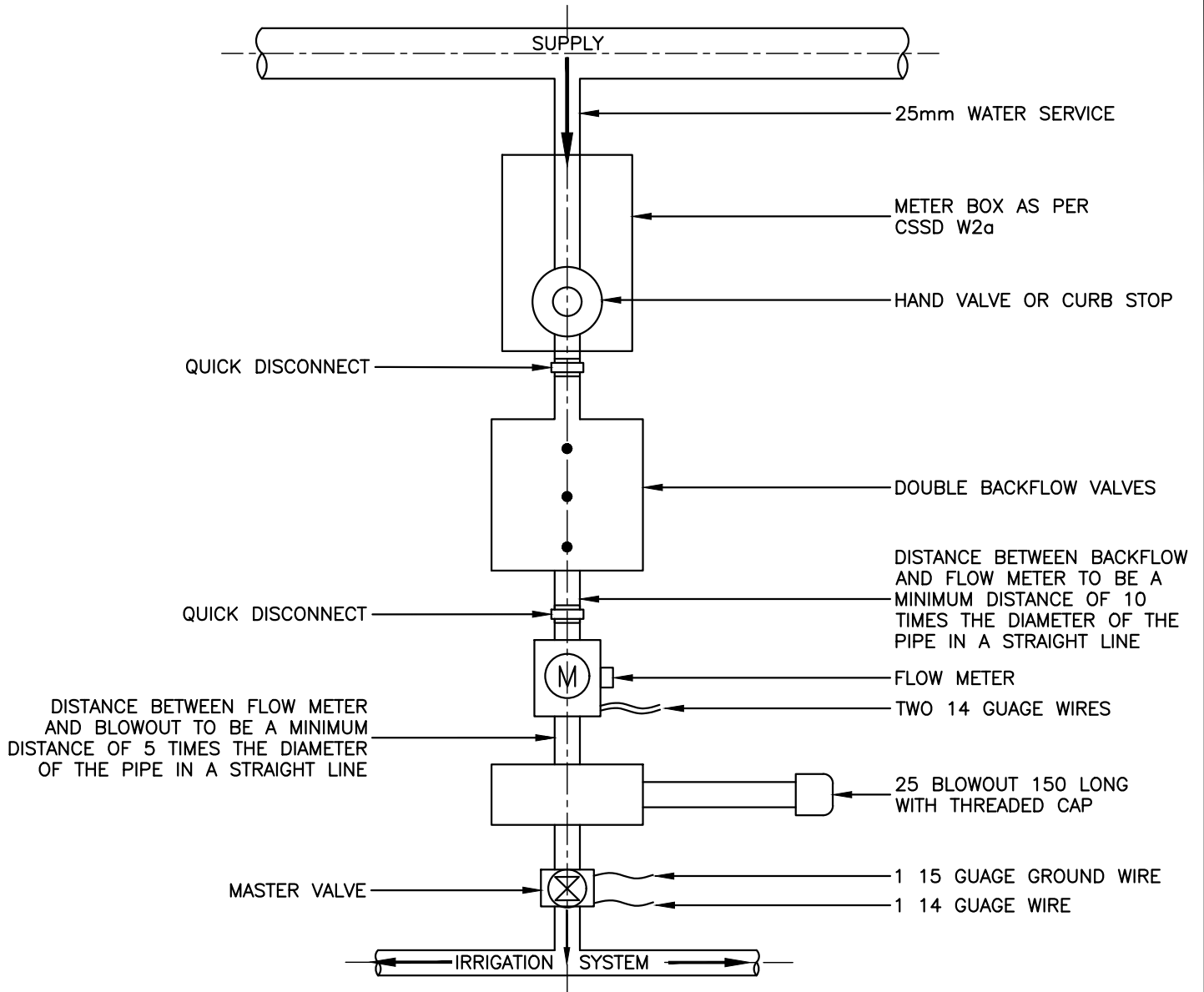
REVISION NUMBER

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SCALE

N.T.S.

CITY OF COURTENAY SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. 25X150 RISER WITH THREADED CAP FOR BLOWOUT.
2. BACKFLOW VALVE DOUBLE CHECK.
3. (760X450X450) RECTANGULAR BOX.
4. TWO QUICK DISCONNECT COUPLERS FOR BACKFLOW REMOVAL.
5. 14 GAUGE T.W.U. WIRE FOR CONNECTION TO CONTROLLER.
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.

IRRIGATION CONNECTION

DRAWING NUMBER

CSSD I1

REVISION NUMBER

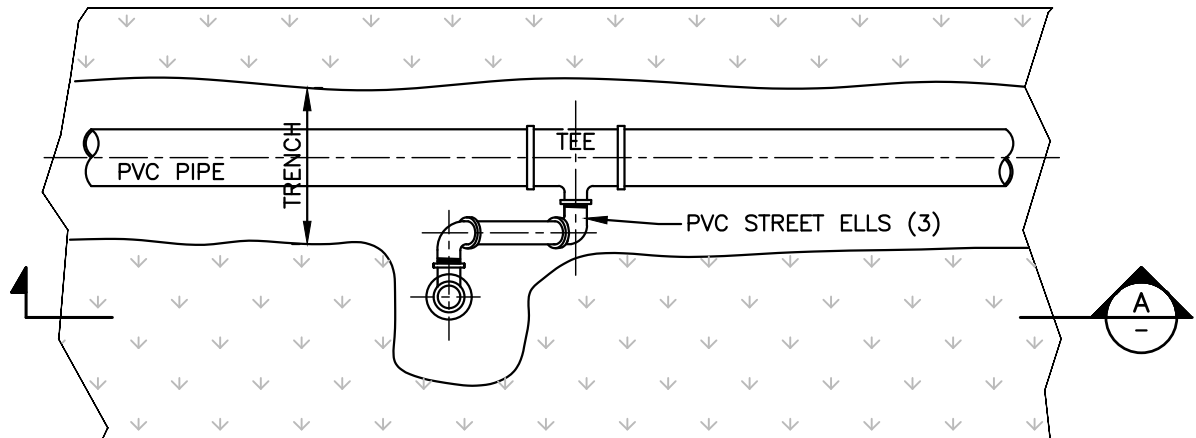
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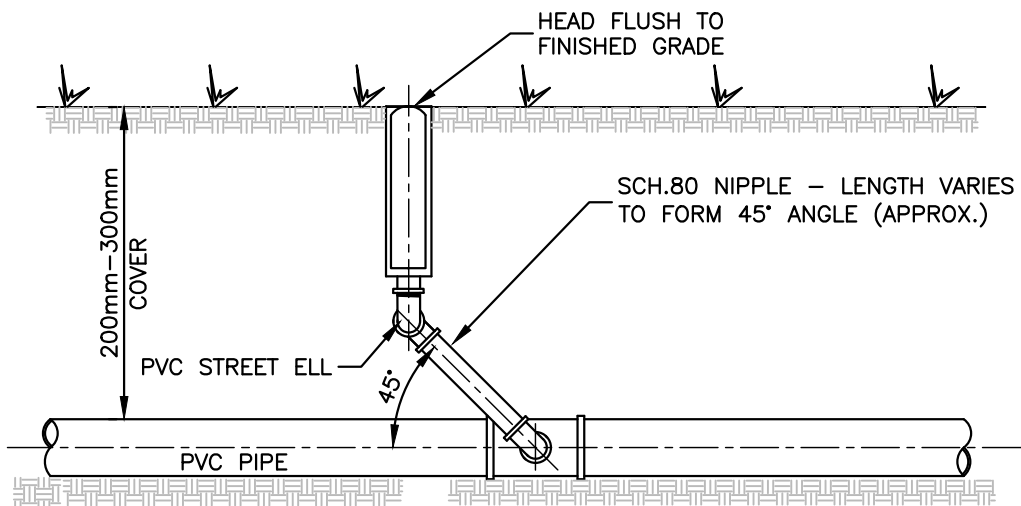
N.T.S.



CITY OF COURTENAY SUPPLEMENTARY STANDARD DETAIL DRAWING



PLAN



SECTION A

NOTE:

1. USE TEFLON TAPE ON ALL MALE THREADED ENDS

NOVEMBER, 2017



IRRIGATION SWING JOINT

DRAWING NUMBER

CSSD 12

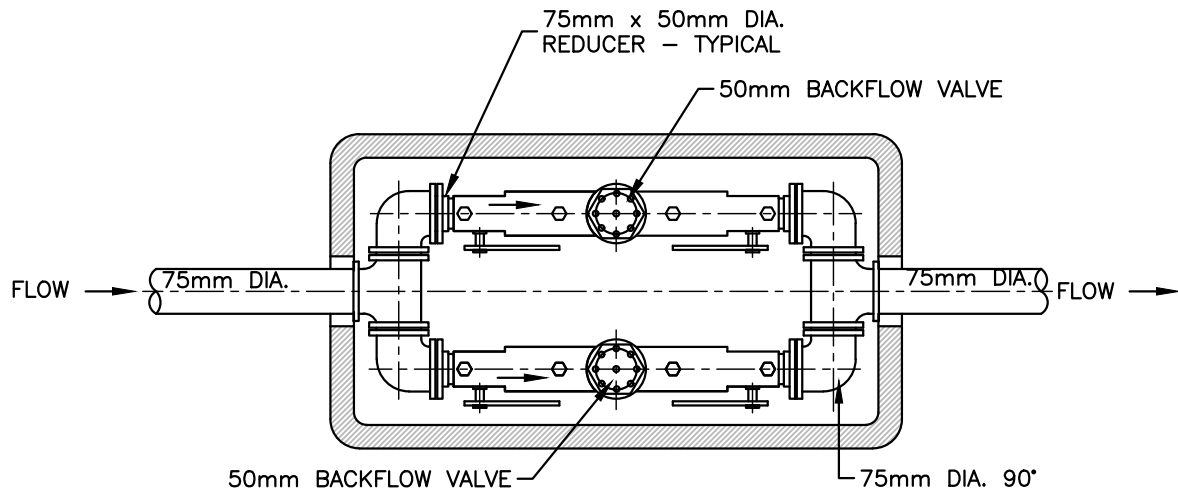
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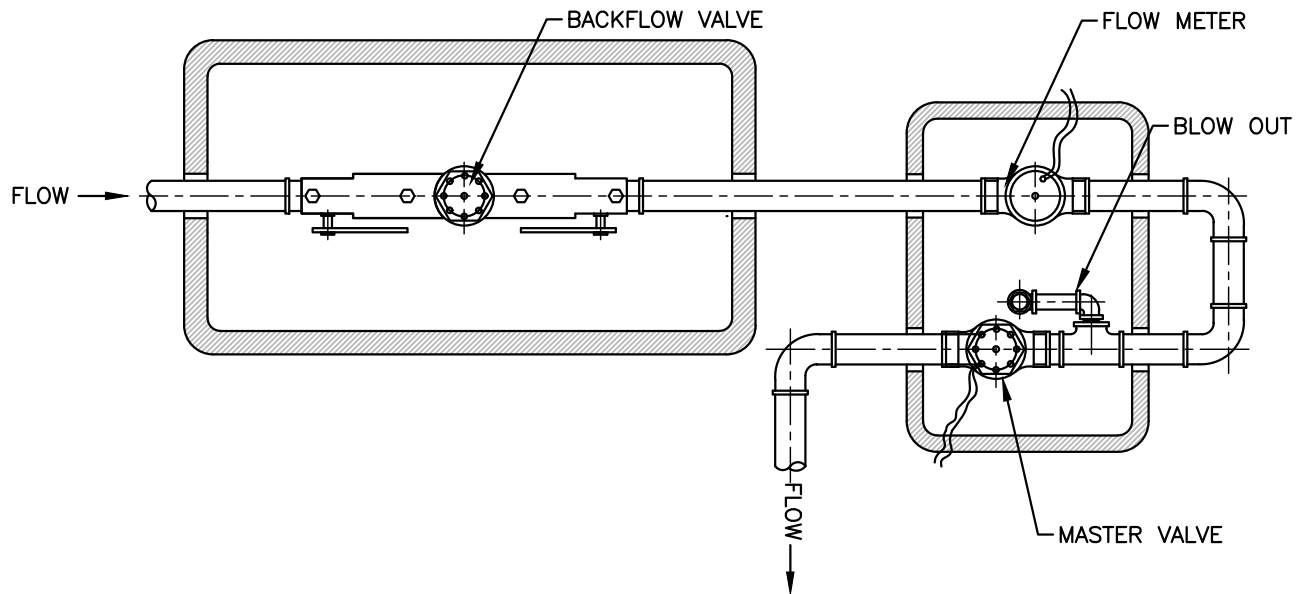
SCALE

N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



TYPICAL LARGE LINE/TWIN BACKFLOW VALVES



TYPICAL MASTER VALVE/FLOW METER

NOTE:

1. FLOW METER TO HAVE 10x PIPE DIA. BEFORE AND 5x PIPE DIA. AFTER, OF UNRESTRICTED STRAIGHT PIPE (OF THE SAME DIAMETER, NO FITTINGS) EACH SIDE OF METER.
2. FLOW METER TO BE DISASSEMBLED PRIOR TO GLUING OF PIPE.

NOVEMBER, 2017



TYPICAL INSTALLATIONS
 LARGE LINE / TWIN BACKFLOW VALVES
 MASTER VALVE / FLOW METER

DRAWING NUMBER

CSSD 13

REVISION NUMBER

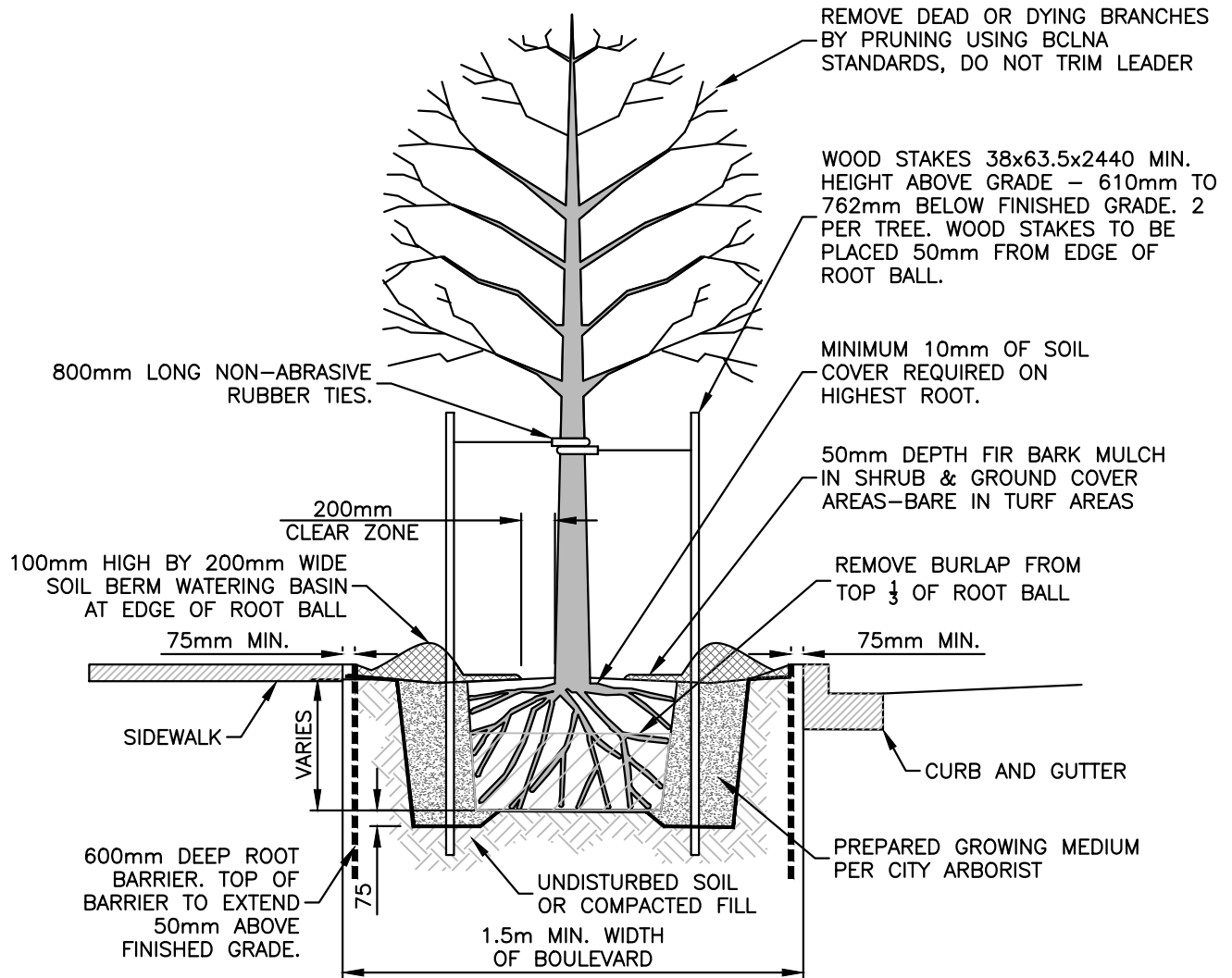
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SCALE

N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. PLACE TREE & BACKFILL 50mm ABOVE GRADE TO ALLOW FOR SETTLEMENT.
2. ROOT BARRIERS SHALL BE INSTALLED WHEN ROOT BALL IS LOCATED WITHIN 2.44m OF PAVEMENT.
3. ROOT BARRIERS TO EXTEND 2.44m IN BOTH DIRECTIONS FROM TREE CENTRE LINE.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.

TREE PLANTING AND STAKING

DRAWING NUMBER

CSSD P1

REVISION NUMBER

0

SCALE

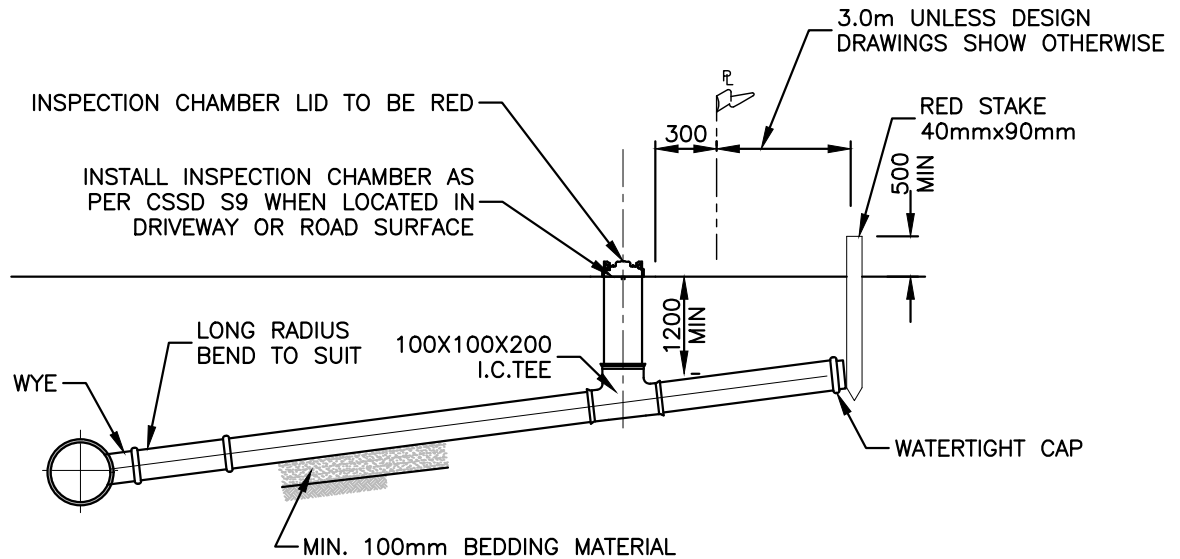
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NOVEMBER, 2017

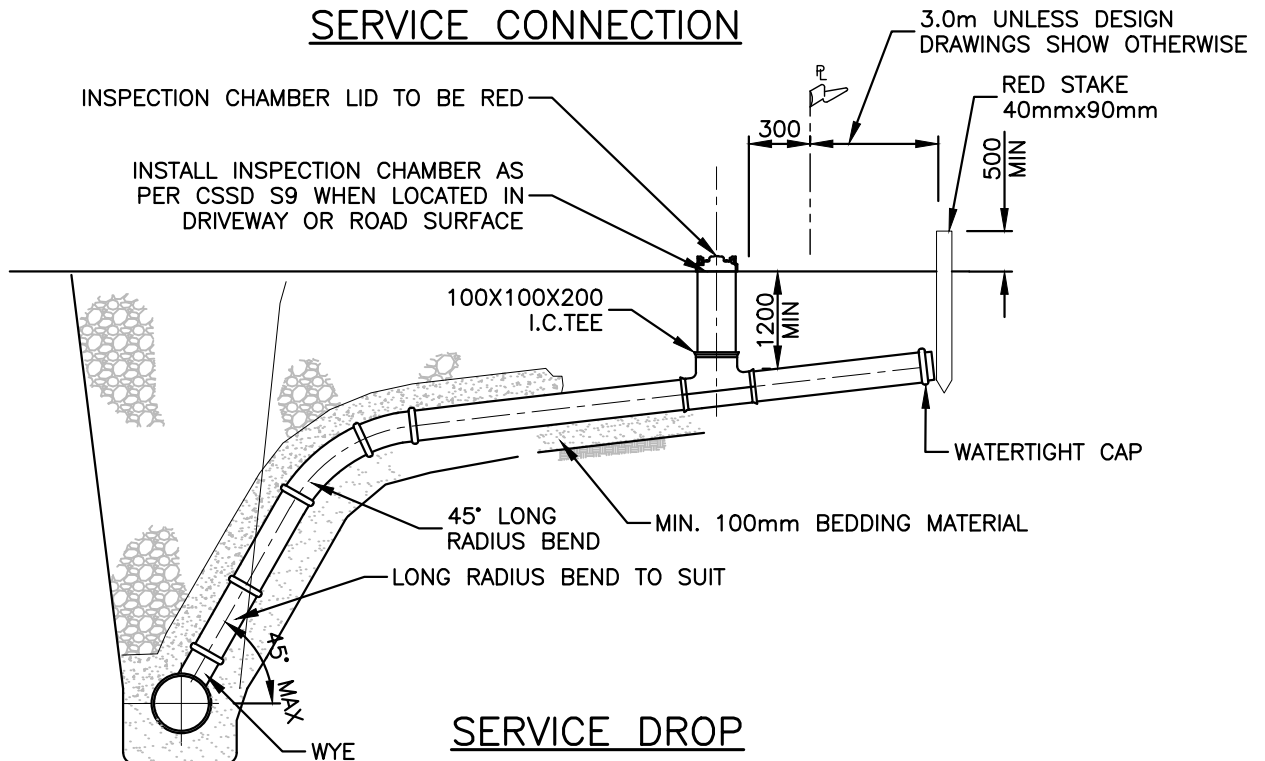


CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



SERVICE CONNECTION



SERVICE DROP

NOTE:

1. SERVICE CONNECTIONS TO BE LONG LENGTHS OF PVC WITH AS FEW JOINTS AS POSSIBLE.
2. FOR LARGER SERVICE CONNECTIONS, REFER TO CONTRACT DRAWINGS
3. SANITARY SERVICE TO HAVE A MINIMUM GRADE OF 2%.
4. THE CONTRACTOR IS TO VIDEO INSPECT ALL SANITARY SERVICE CONNECTIONS. THE VIDEO MUST BE REVIEWED AND ACCEPTED BY THE ENGINEER OF RECORD PRIOR TO COMMENCEMENT OF ASPHALT PAVING.
5. BEDDING AND BACKFILL AS PER MMCD DRAWING G4.

NOVEMBER, 2017



SANITARY SEWER SERVICE CONNECTION
100mm RESIDENTIAL SANITARY

DRAWING NUMBER

CSSD S7

REVISION NUMBER

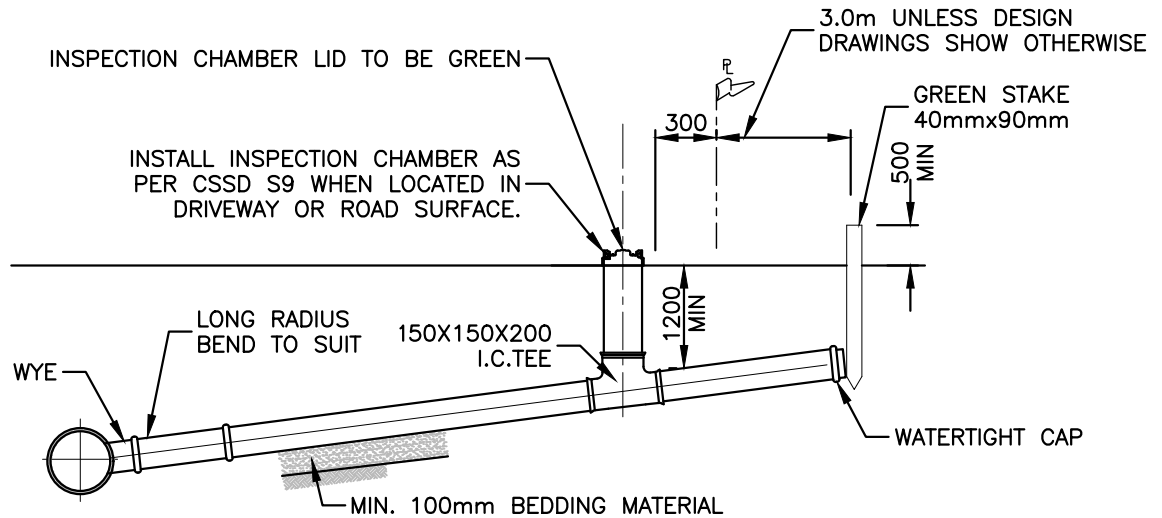
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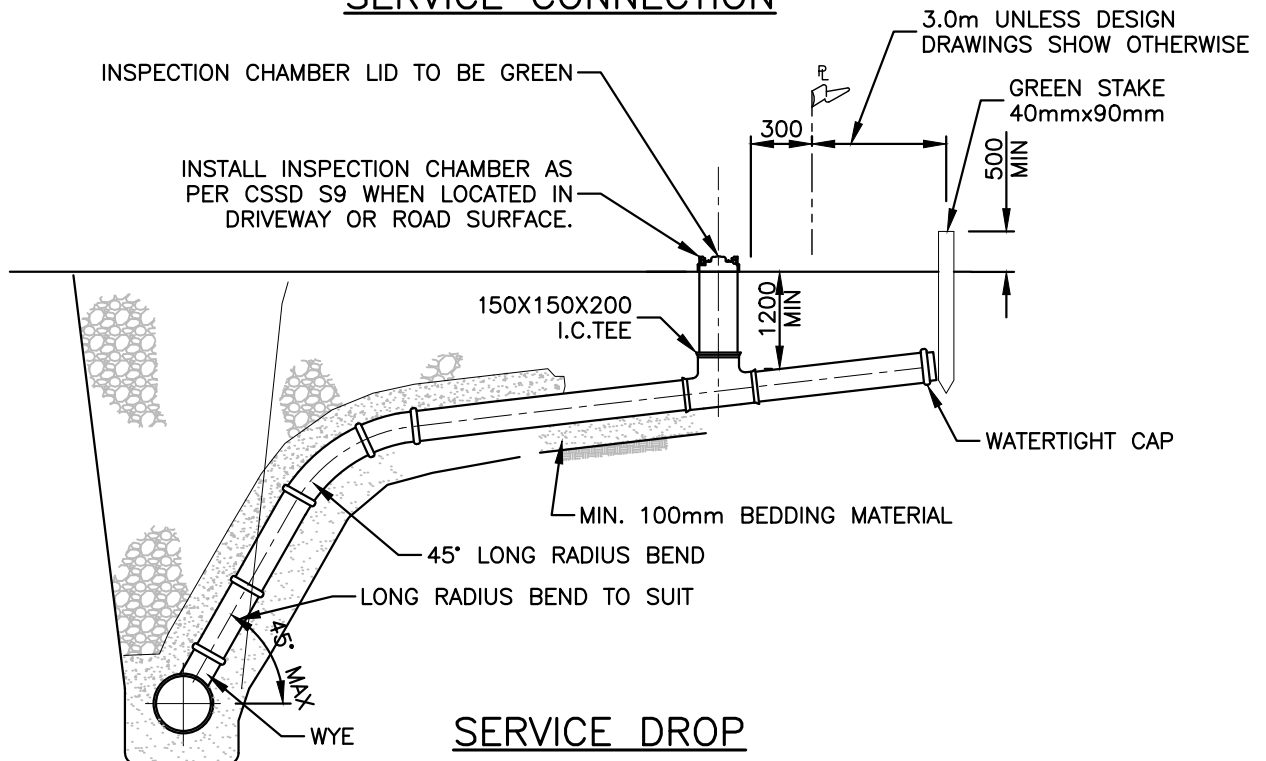
N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



SERVICE CONNECTION



SERVICE DROP

NOTE:

1. CONCRETE STORM SEWER PIPES TO BE PROVIDED WITH SUPPLIER INSTALLED PVC STUB.
2. SERVICE CONNECTIONS TO BE LONG LENGTHS OF PVC WITH AS FEW JOINTS AS POSSIBLE.
3. STORM SERVICE TO HAVE MINIMUM GRADE OF 2%.
4. MINIMUM SIZE OF SERVICE CONNECTION: 150mm.
5. THE CONTRACTOR IS TO VIDEO INSPECT ALL STORM SERVICE CONNECTIONS. THE VIDEO MUST BE REVIEWED AND ACCEPTED BY THE ENGINEER OF RECORD PRIOR TO COMMENCEMENT OF ASPHALT PAVING.
6. BEDDING AND BACKFILL AS PER MMCD DRAWING G4.

STORM SEWER SERVICE CONNECTION
150mm RESIDENTIAL STORM

DRAWING NUMBER

CSSD S8

REVISION NUMBER

0

SCALE

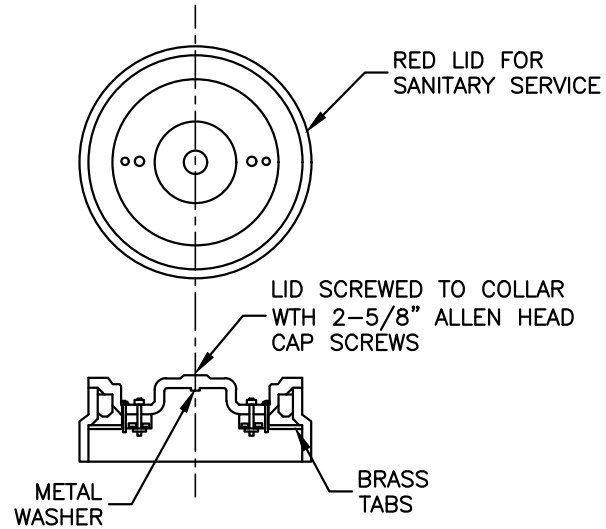
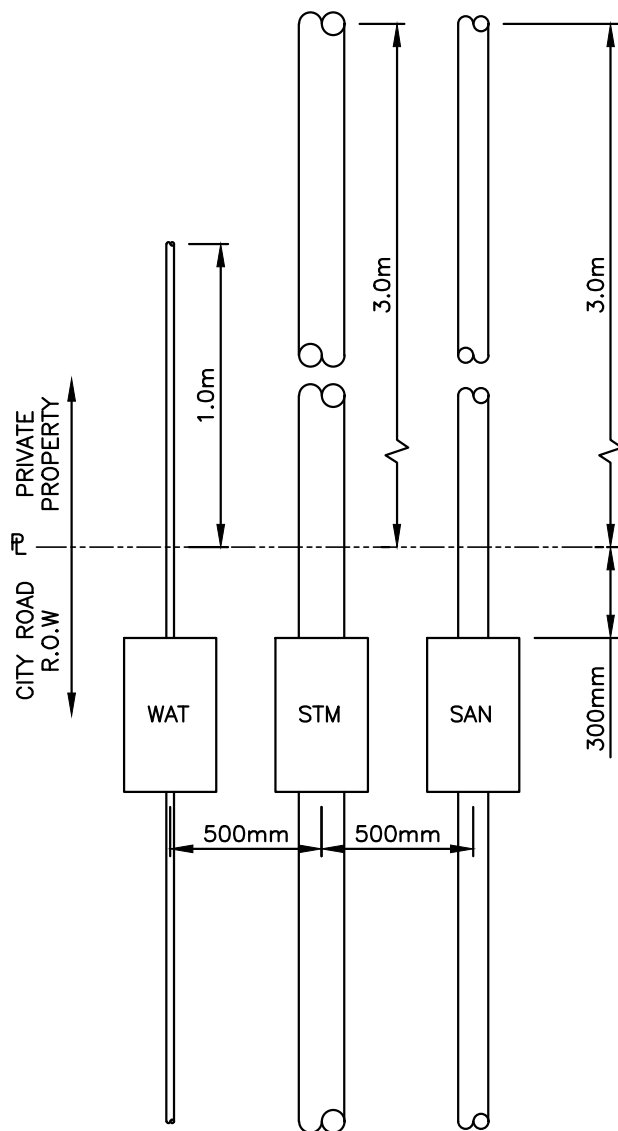
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NOVEMBER, 2017

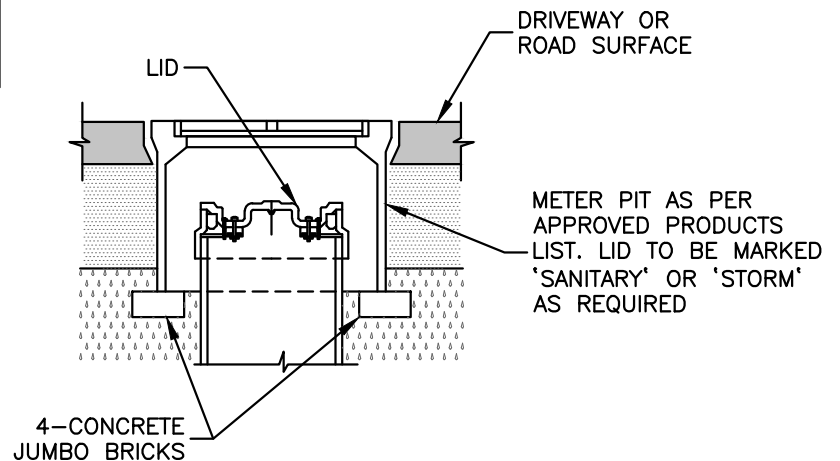


CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



LID DETAIL



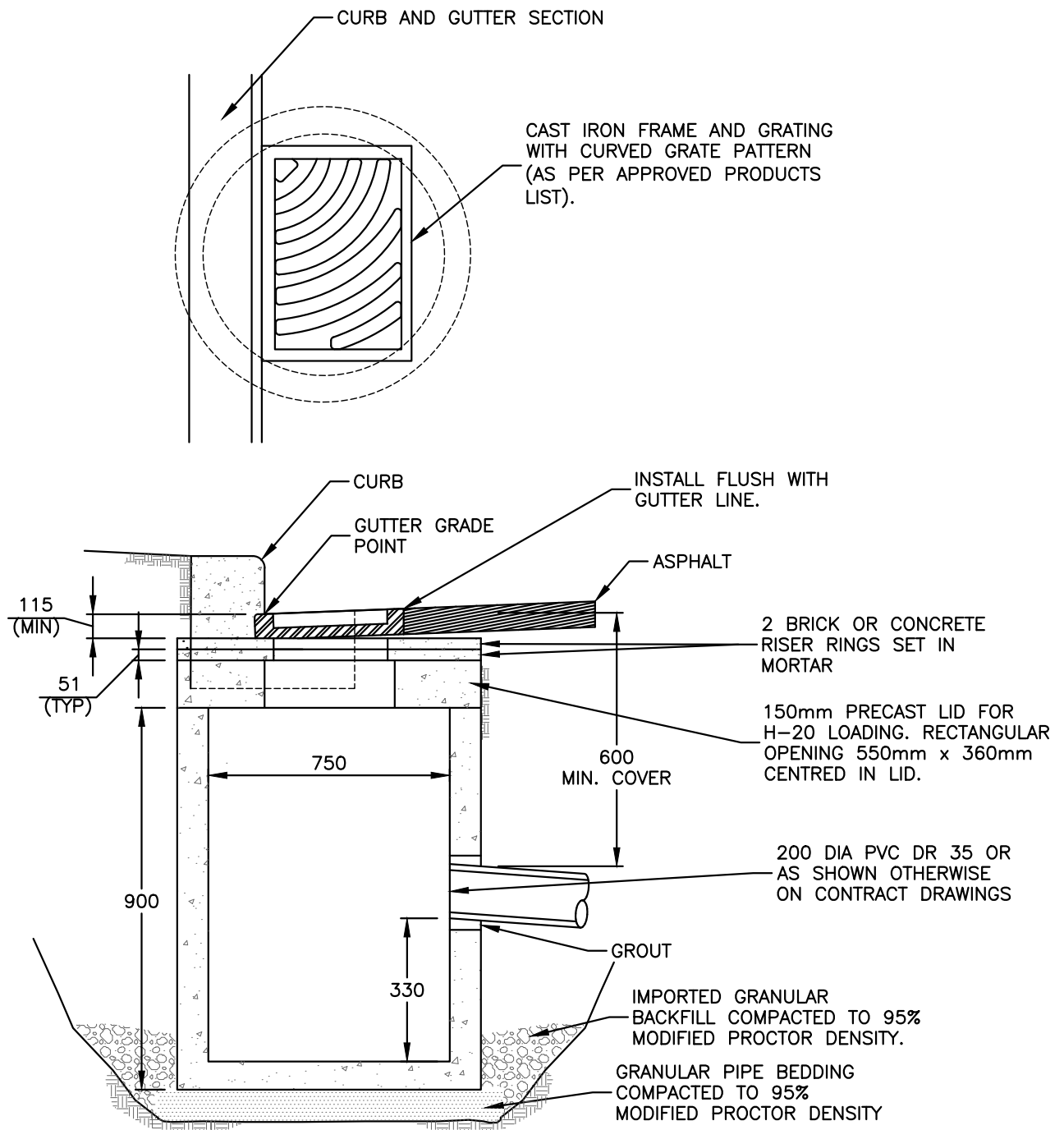
INSPECTION CHAMBER
DETAIL

NOTE:

1. REFER TO DRAWING CSSD S7 AND CSSD S8 FOR INSTALLATION REQUIREMENTS.
2. INSPECTION CHAMBER TO BE APPROVED MANUFACTURED FITTING.
3. REFER TO CONTRACT DRAWINGS FOR SITE SPECIFIC DIMENSIONS. REFER TO SECTION 33 30 01 FOR DETAILED SPECIFICATIONS.
4. SANITARY AND STORM SERVICES TO BE EXTENDED 3.0m INTO PROPERTY UNLESS DRAWINGS SHOW OTHERWISE.
5. SERVICES TO BE LOCATED A DISTANCE OF $\frac{1}{3}$ THE LOT WIDTH FROM THE PROPERTY LINE ON THE OPPOSITE SIDE AS THE DRIVEWAY.



SUPPLEMENTARY STANDARD DETAIL DRAWING

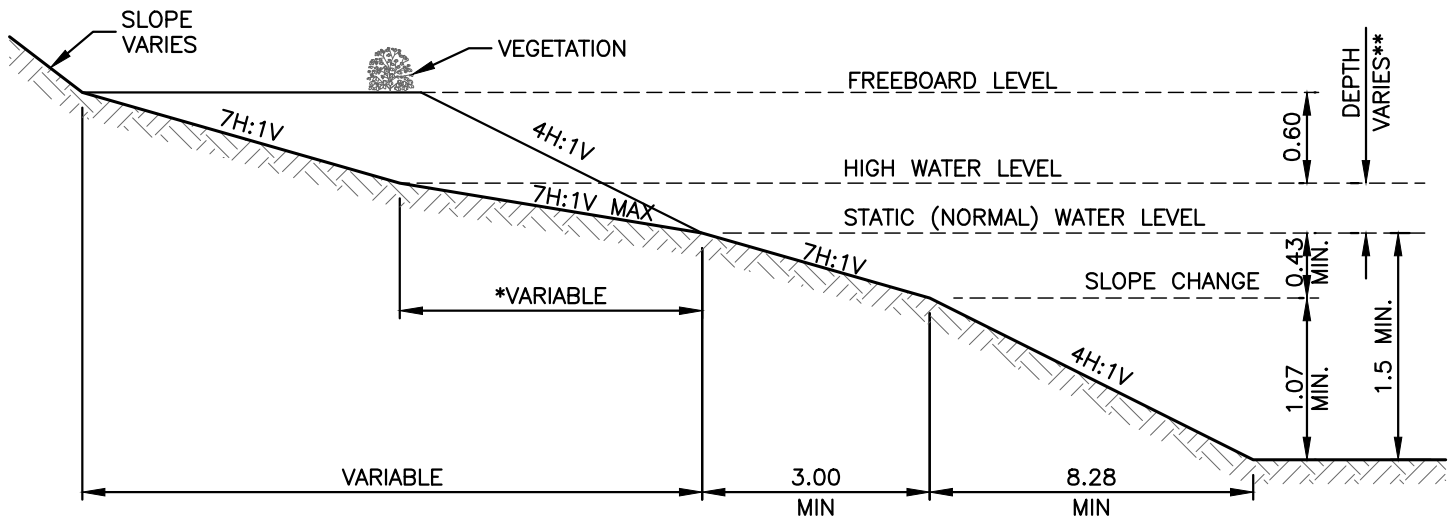
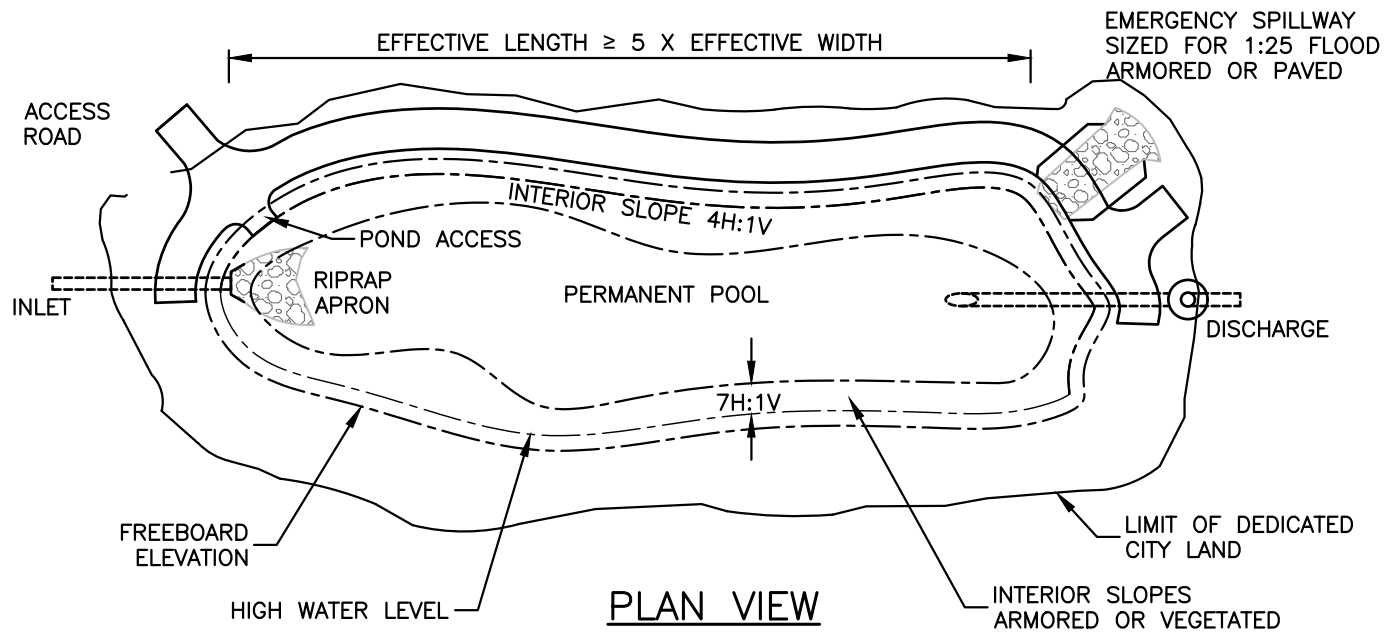


NOTE:

1. PRECAST UNITS c/w BASE AND H-20 RATING, APPROVED BY CONTRACT ADMINISTRATOR, ARE ACCEPTABLE.
2. REFER TO CONTRACT DRAWINGS, SECTION 33 44 01 FOR DETAILED SPECIFICATIONS.
3. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. *MAXIMUM SIDE SLOPES OF 4:1 (H:V) MAY BE USED PROVIDED ADEQUATE VEGETATION IS USED TO PREVENT ACCESS, OR FOR DRY POND SIDE SLOPES.
2. **MAXIMUM 1.5m FOR ≤ 10 YEAR LEVEL AND 3.0m FOR THE 25 YEAR LEVEL.
3. PERMANENT POOL BOTTOM SHALL INCLUDE FULL WIDTH BAFFLES TO DEVELOP SEDIMENTATION BASINS IF APPLICABLE.
4. DEPTHS ABOVE WET POND STATIC (NORMAL) WATER LEVEL SHALL ALSO APPLY TO DRY PONDS.
5. ALL DIMENSIONS ARE IN METRES.

NOVEMBER, 2017



WET DETENTION POND PLAN AND SECTION

DRAWING NUMBER

CSSD S16

REVISION NUMBER

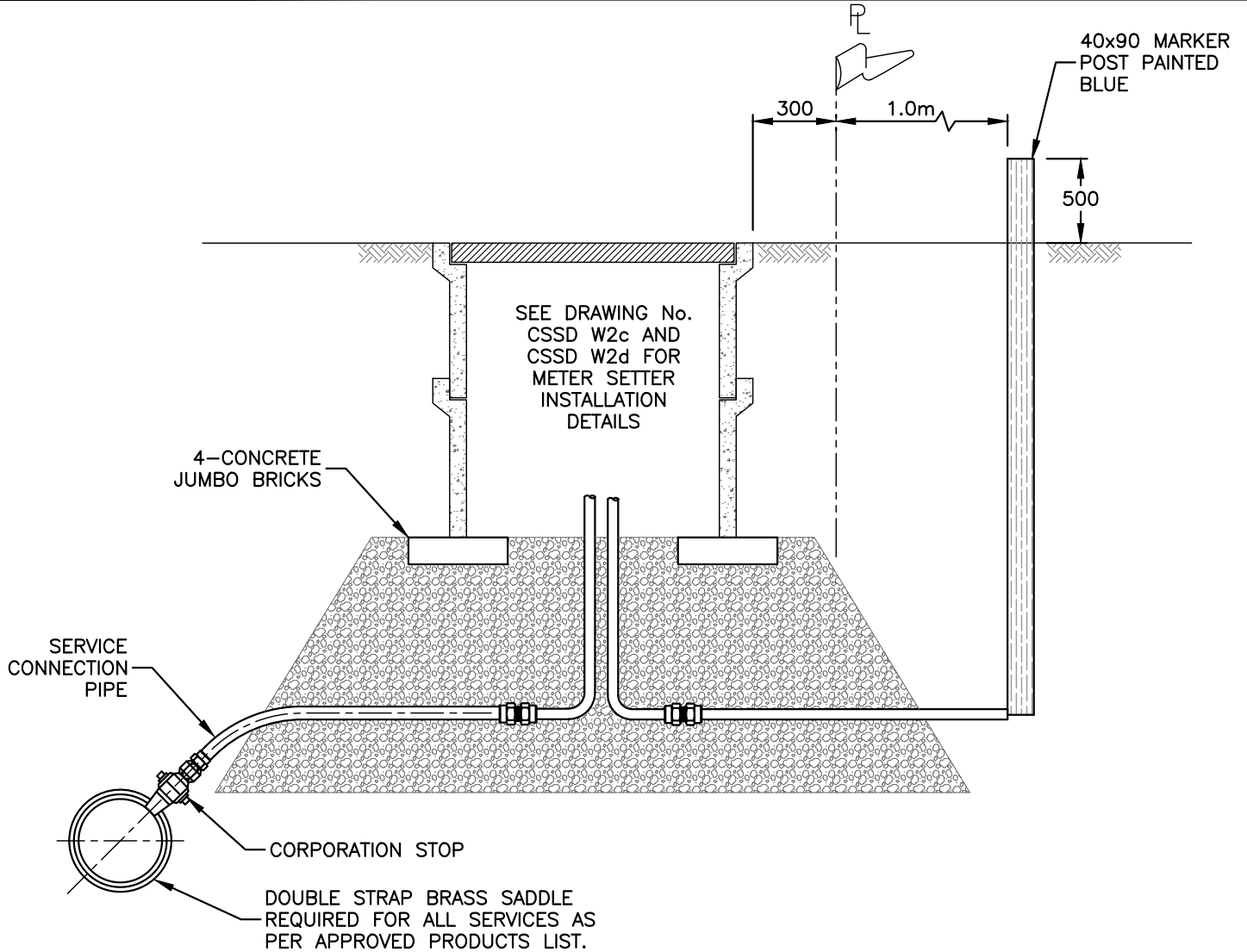
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SCALE

N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. THIS DETAIL FOR SERVICES 25 TO 50mm ONLY.
2. PVC SADDLES TO SECTION 33 11 01.
3. INSTALL SERVICE PIPE WITH "GOOSE NECK" IN HORIZONTAL POSITION.
4. REFER TO CONTRACT DRAWINGS, SECTION 33 11 01 FOR DETAILED SPECIFICATIONS.
5. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

NOVEMBER, 2017



WATER SERVICE CONNECTION SERVICE BOX

DRAWING NUMBER

CSSD W2a

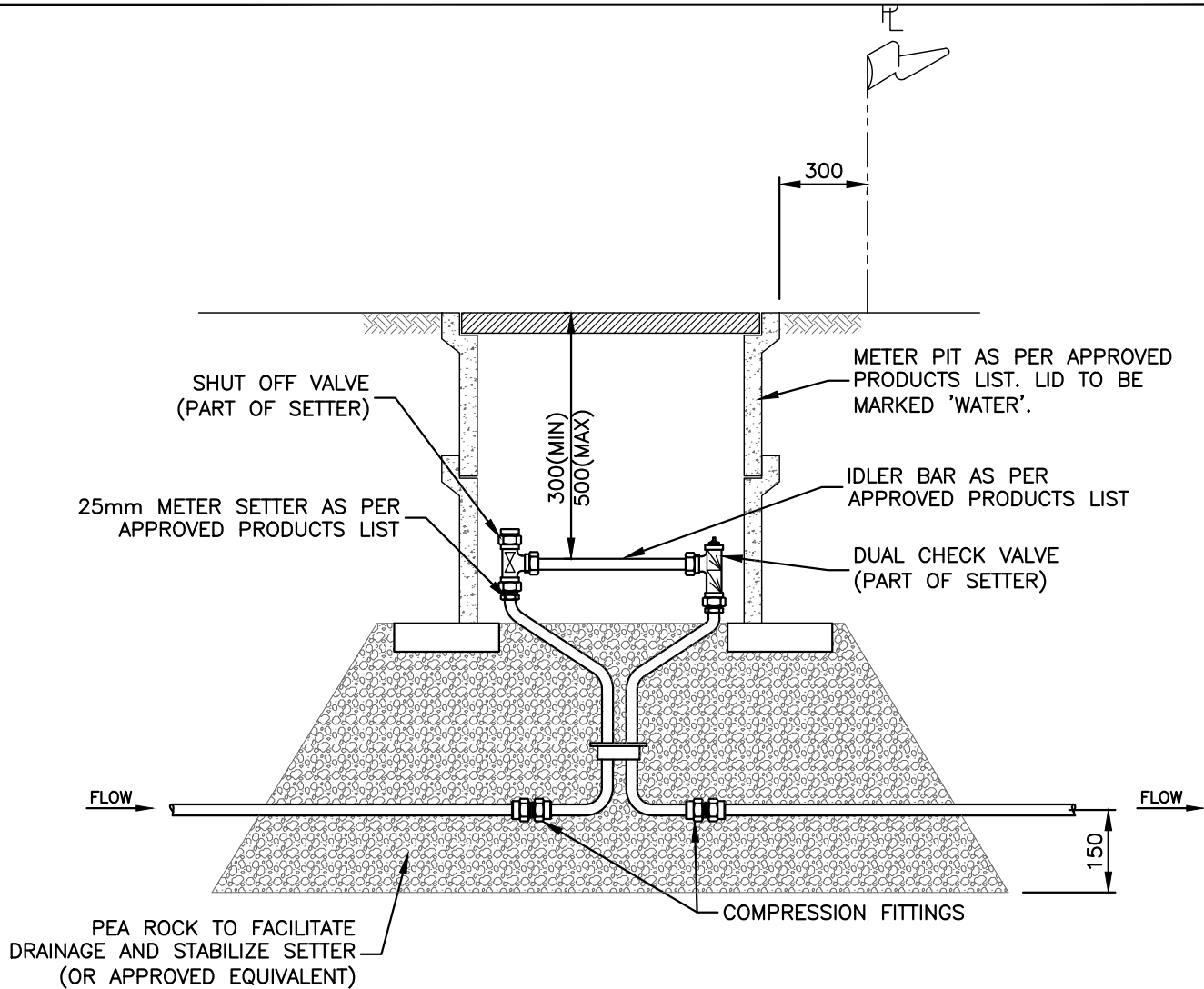
REVISION NUMBER

0

SCALE

N.T.S.

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. METER BOX TO BE INSTALLED AS PART OF THE INITIAL SERVICE INSTALLATION.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.
3. REFER TO CONTRACT DRAWINGS, SECTION 33 11 01 FOR DETAILED SPECIFICATIONS.



WATER METER SETTER INSTALLATION FOR 25mm SERVICE CONNECTION

DRAWING NUMBER

CSSD W2c

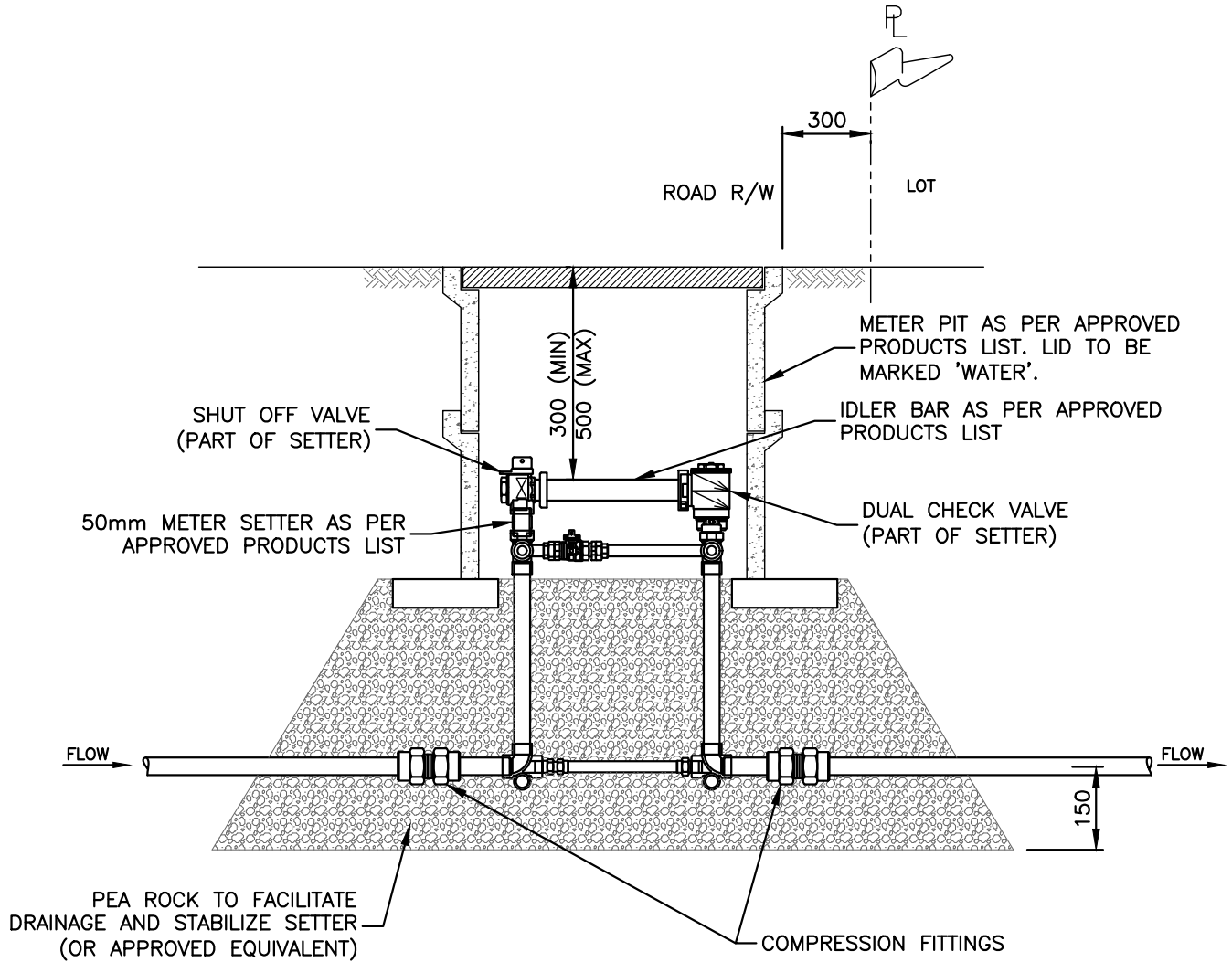
REVISION NUMBER

0

SCALE
N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

1. METER BOX TO BE INSTALLED AS PART OF THE INITIAL SERVICE INSTALLATION.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.
3. REFER TO CONTRACT DRAWINGS, SECTION 33 11 01 FOR DETAILED SPECIFICATIONS.

NOVEMBER, 2017

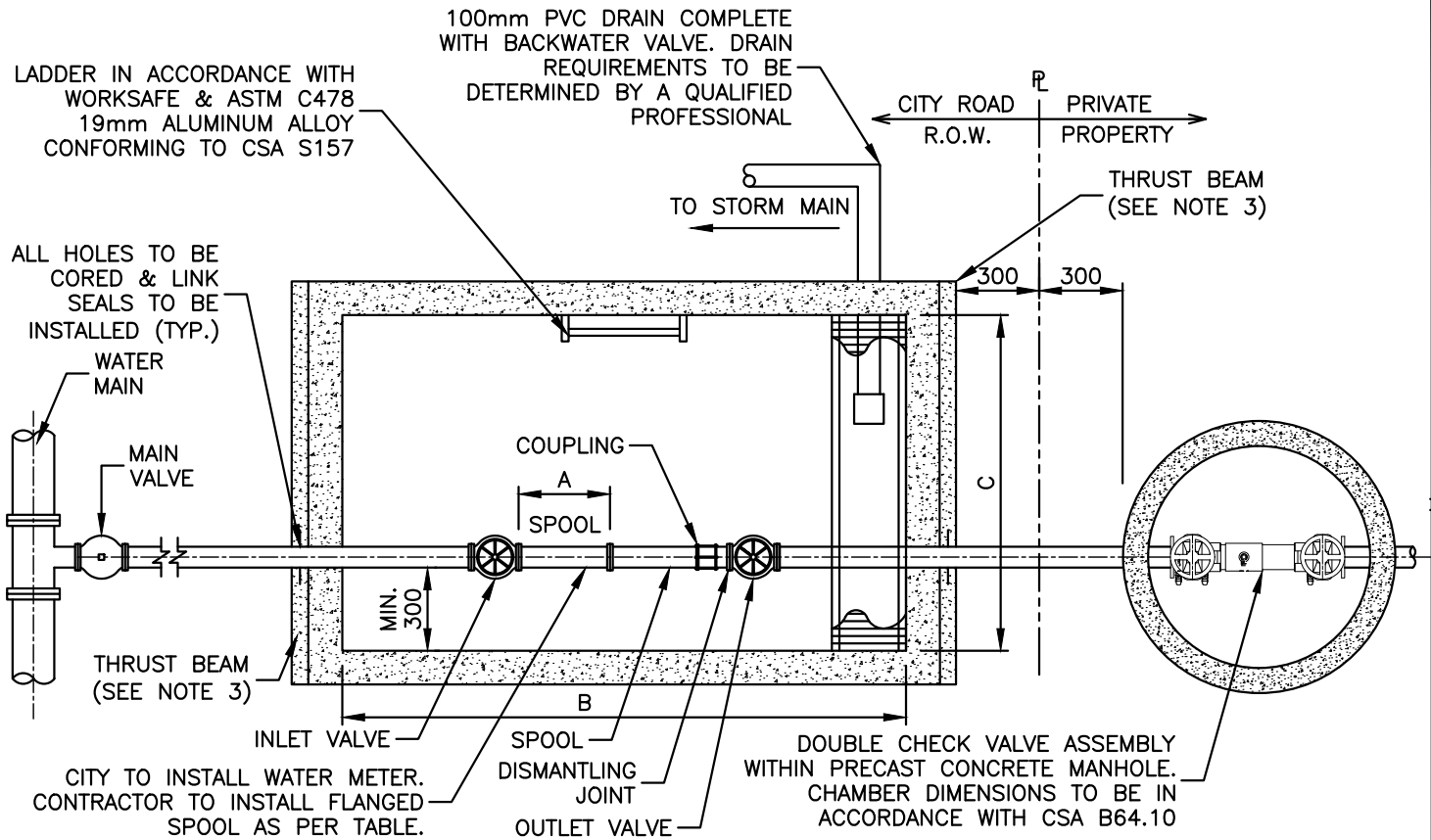


WATER METER SETTER INSTALLATION FOR 50mm SERVICE CONNECTION

DRAWING NUMBER
CSSD W2d
REVISION NUMBER
0
SCALE
N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



WATER METER DIMENSIONS SPOOL LENGTH			
METER SIZE	A (mm)	B (mm)	C (mm)
75mm (3")	304.8	2060	1254
100mm (4")	355.6	2060	1254
150mm (6")	457.2	2060	1254
200mm (8")	508.0	TO BE DESIGNED BY A QUALIFIED PROFESSIONAL	
250mm (10")	450.0		

NOTES:

1. THIS DRAWING TO BE REVIEWED IN CONJUNCTION WITH THE CITY OF SUPPLEMENTARY DESIGN GUIDELINES AND SUPPLEMENTARY SPECIFICATIONS.
2. HATCH COVER TO BE DUAL DOOR. H20 OCCASIONAL (STATIC LOADING – NOT FOR DYNAMIC TRAFFIC) LOAD RATED LOCKABLE ALUMINUM LID C/W SPRING ASSISTED HATCH AND LOCK OPEN ARMS. HATCHES TO BE TROUGH FRAME WITH DRAIN DIRECTED TO SUMP.
3. PIPE ANCHORING/RETRAITMENT TO BE DESIGNED BY APPLICANT'S ENGINEER.
4. ALL DIMENSIONS ARE IN MILLIMETRES.
5. METER CHAMBER FLOOR TO SLOPE TOWARD DRAIN.
6. 2121.5 PRE-CAST CONCRETE VAULT TO BE USED UP TO AND INCLUDING 150mm METER SIZE.



DOMESTIC WATER METER INSTALLATION FOR GREATER THAN 50mm SERVICE

DRAWING NUMBER

CSSD W2e

REVISION NUMBER

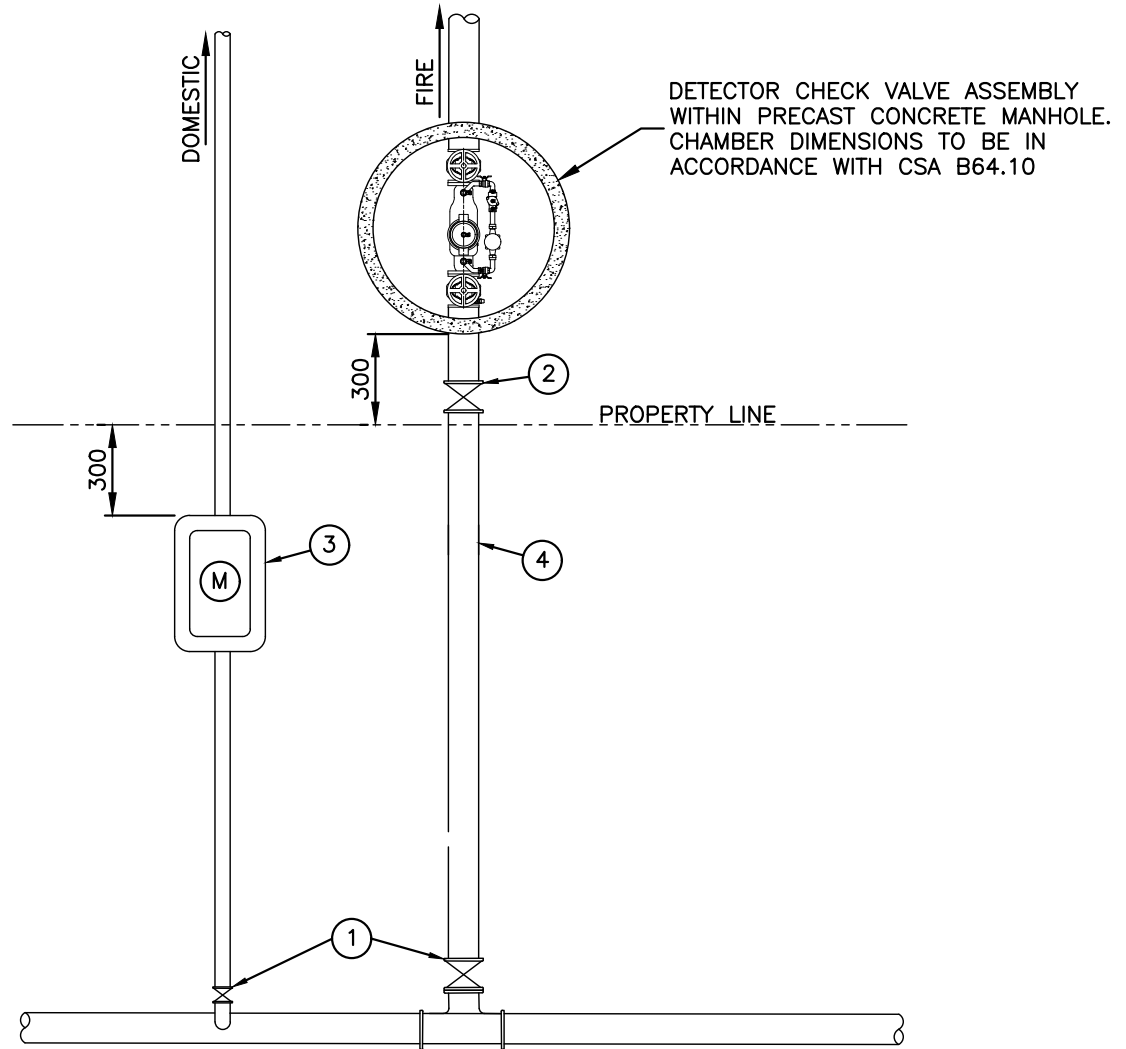
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SCALE

N.T.S.

CITY OF COURTENAY

SUPPLEMENTARY STANDARD DETAIL DRAWING



NO	NAME
1	CORPORATION STOP, 25 ϕ –50 ϕ GATE VALVE, OVER 50 ϕ
2	CURB STOP, 25 ϕ –50 ϕ (IN METER BOX) GATE VALVE, OVER 50 ϕ
3	DOMESTIC SERVICE, 25 ϕ –50 ϕ FOR MORE DETAIL SEE DRAWINGS – CSSD W2a – CSSD W2c – CSSD W2d SERVICES GREATER THAN 50 ϕ FOR MORE DETAIL SEE DRAWING – CSSD W2e
4	FIRE LINE SERVICE (SIZE VARIES)

NOTE:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN
2. REFER TO CONTRACT DRAWINGS AND SECTION 33 11 01 FOR DETAILED SPECIFICATIONS.
3. INSTALL THRUST BLOCKING AS REQUIRED.
4. SEPARATE DOMESTIC AND FIRE CONNECTION MAY BE PERMITTED IF APPROVED BY THE CITY.

NOVEMBER, 2017



FIRE / DOMESTIC WATER SERVICE PIPING LAYOUT

DRAWING NUMBER

CSSD W2f

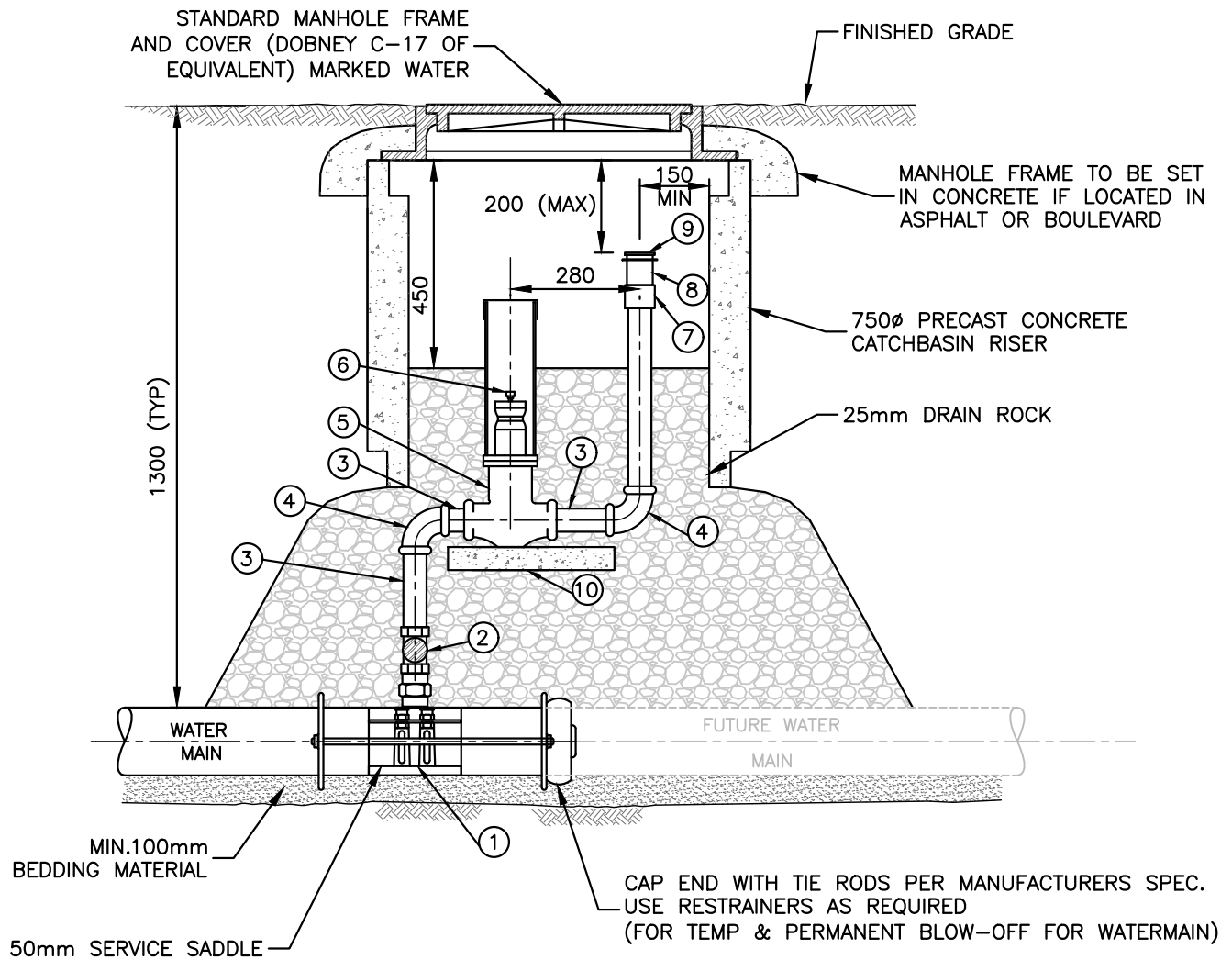
REVISION NUMBER

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SCALE

N.T.S.

SUPPLEMENTARY STANDARD DETAIL DRAWING



MATERIALS LIST	
ITEM	DESCRIPTION
1	50mm SERVICE SADDLE TAPPED AT PIPE CROWN
2	50mm GATE VALVE
3	50mm SS SPOOL PIECE
4	50mm SS 90° BEND

5	50mm CURB STOP WITH DRAIN
6	50mm SQUARE NUT
7	65mmx50mm BUSHING
8	65mmx65mm ADAPTOR
9	65mm QUICK CONNECT BRASS CAP
10	450x450x50 PRECAST CONCRETE PAD

NOTE:

1. FOR INSTALLATIONS SHOWN ON CONTRACT DRAWINGS WHERE WATER TABLE (AT SEASONAL HIGH) IS ABOVE BASE OF DRAIN ROCK, REMOVE 4mm DRAIN HOLE AND AND SUBSTITUTE GRANULAR PIPE BEDDING FOR DRAIN ROCK. (COMPACT PIPE BEDDING TO 95% MODIFIED PROCTOR DENSITY).
2. REFER TO MMCD DRAWING W1 FOR THRUST BLOCK DETAILS.
3. REFER TO CONTRACT DRAWINGS, SECTION 33 11 01 FOR DETAILED SPECIFICATIONS.



TEMPORARY AND PERMANENT BLOW-OFF FOR WATERMAIN

DRAWING NUMBER

CSSD W8

REVISION NUMBER

0

SCALE
N.T.S.