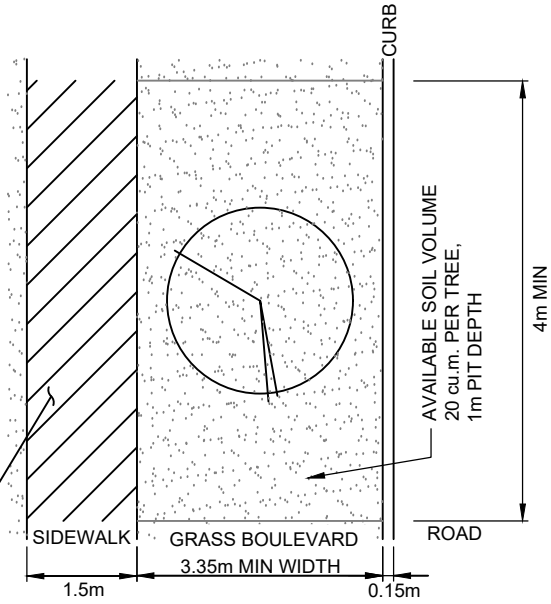
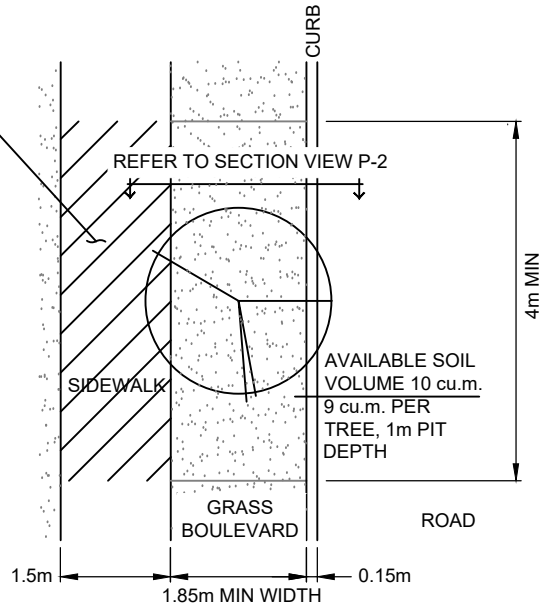


STRUCTURED SOIL / SOIL
CELL UNDER SIDEWALK
OR HARD SURFACE



**TREE PLANTING WITH 20 cu.m ROOT ZONE
PLAN VIEW**



**TREE PLANTING WITH 13.5± cu.m ROOT ZONE
PLAN VIEW**

NOTES:

1. REFER TO SPECIFICATIONS CLAUSE 14.06 FOR STREET TREE SPACING, LOCATION, AND SIZE.
2. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.

APPROVED TREE SPECIES
AS PER PLANTING PLAN
PRUNE FOR CLEARANCE AND FOR
TREE HEALTH AS PER SECTION 14.0

NOTE: PLANT TREE WITH NURSERY SOIL LINE
AT 50mm ABOVE FINISH GRADE. FORM 50mm
DEEP SAUCER AT BASE OF TREE.

75mm DEPTH BARK MULCH TO
600mm RADIUS AT TREE.

SOD ON 150mm DEPTH TOPSOIL
AS PER SPECIFICATION.

150mm MIN. DEPTH "A HORIZON"
AMENDED TOPSOIL PER SPECIFICATIONS.

PROVIDE 12mm FREEBOARD
BETWEEN FINISHED GRADE AND
ADJACENT PAVED SURFACES.

300mm DEPTH IRRIGATION WITH
MINIMUM TWO TREE BUBBLERS
AS PER SECTION 14.08.04 AND
STANDARD DRAWING I10

UNTIE AND REMOVE TOP 1/3 OF BURLAP
FROM ROOTBALL.
NOTE: BALLED AND BURLAP TREE IS
ILLUSTRATED. IF CONTAINER OR BAG
GROWN TREES ARE USED, COMPLETELY
REMOVE IMPERISHABLE CONTAINERS.

SUBSOIL (REFER TO CLAUSE 14.17
OF SPECIFICATIONS).

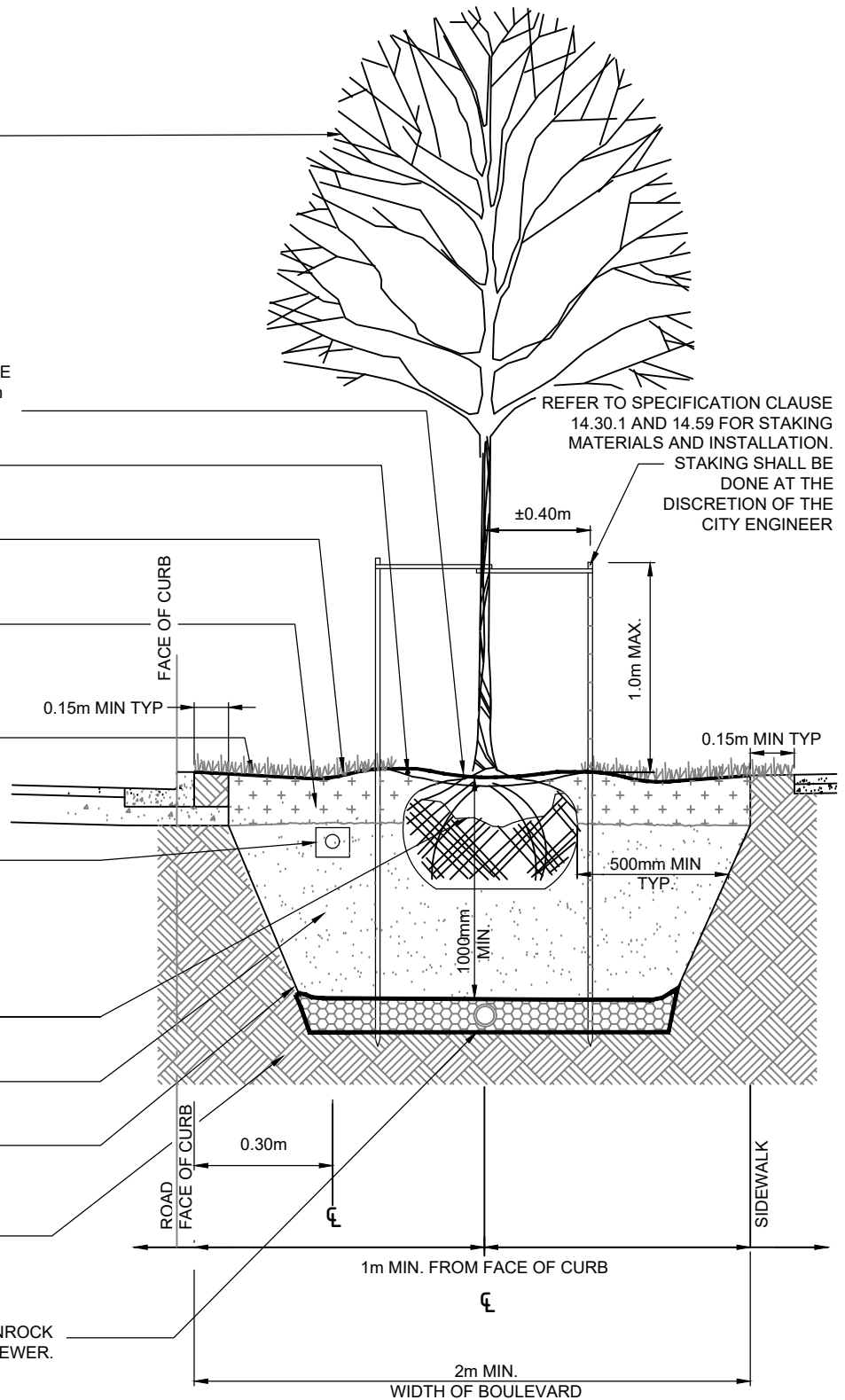
ROUGHEN PIT BOTTOM AND SIDES
TO REMOVE GLAZING.

UNDISTURBED NATIVE SOILS OR
COMPACTED SUBGRADE.

AS PER THE CITY ENGINEERS DIRECTION
INSTALL PVC DRAIN IN 150mm DEPTH DRAINROCK
C/W FILTERCLOTH AND DRAIN TO STORM SEWER.

NOTES:

1. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.



TREE PLANTING IN GRASS
BOULEVARD OR MEDIAN

Scale: NTS
Created: MAY 2013
Rev Date: JUNE 2026
Dwg No: P-2

REMOVE DEAD, DAMAGED
OR WEAK GROWTH

FORM WATERING BASIN AT SHRUB BASE.
NOTE: ENSURE THE SOIL LEVEL DOES
NOT EXCEED THE ORIGINAL NURSERY
SOIL LINE AND THAT ROOTS ARE
COMPLETELY COVERED IN SOIL.

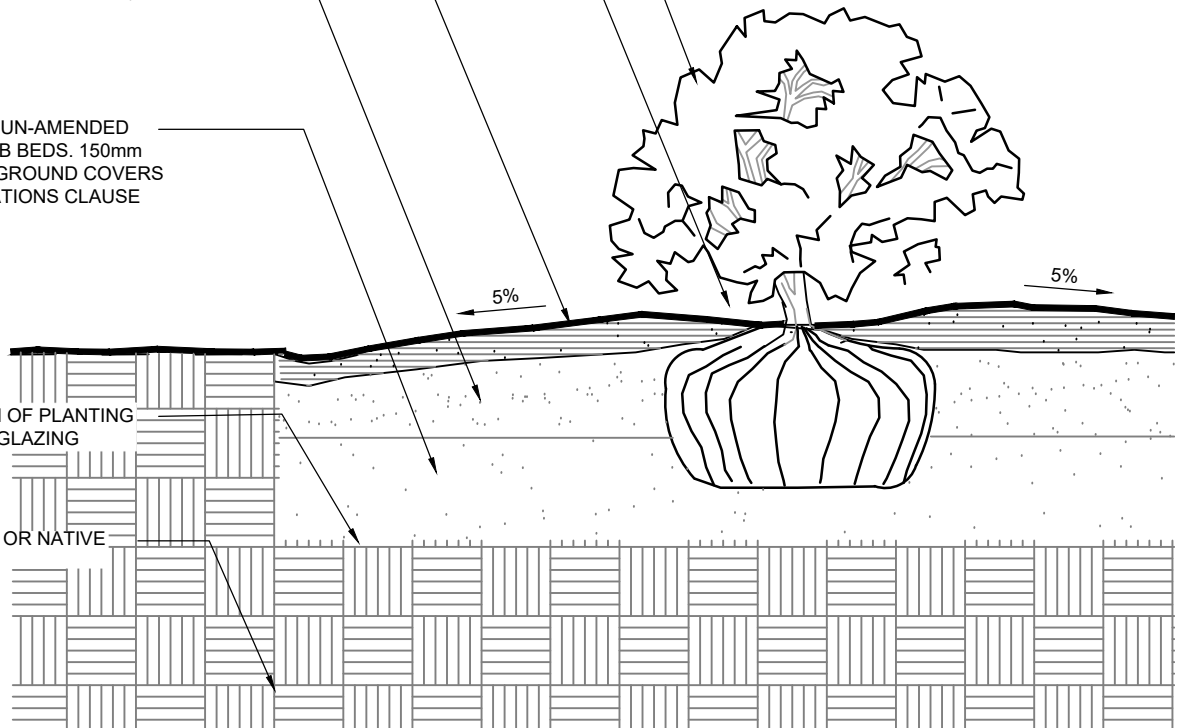
50mm DEPTH BARK MULCH.

150mm LAYER OF 'A HORIZON' SOIL MIX.
(SPECIFICATIONS CLAUSE 14.18)

300mm LAYER OF UN-AMENDED
TOPSOIL IN SHRUB BEDS. 150mm
LAYER DEPTH IN GROUND COVERS
BEDS. (SPECIFICATIONS CLAUSE
14.16)

SCARIFY BOTTOM OF PLANTING
BED TO REMOVE GLAZING

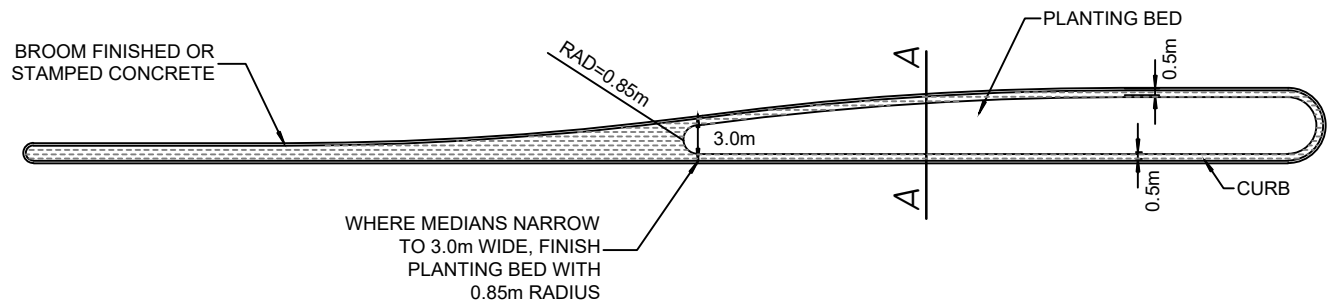
COMPACTED FILL OR NATIVE
MATERIAL



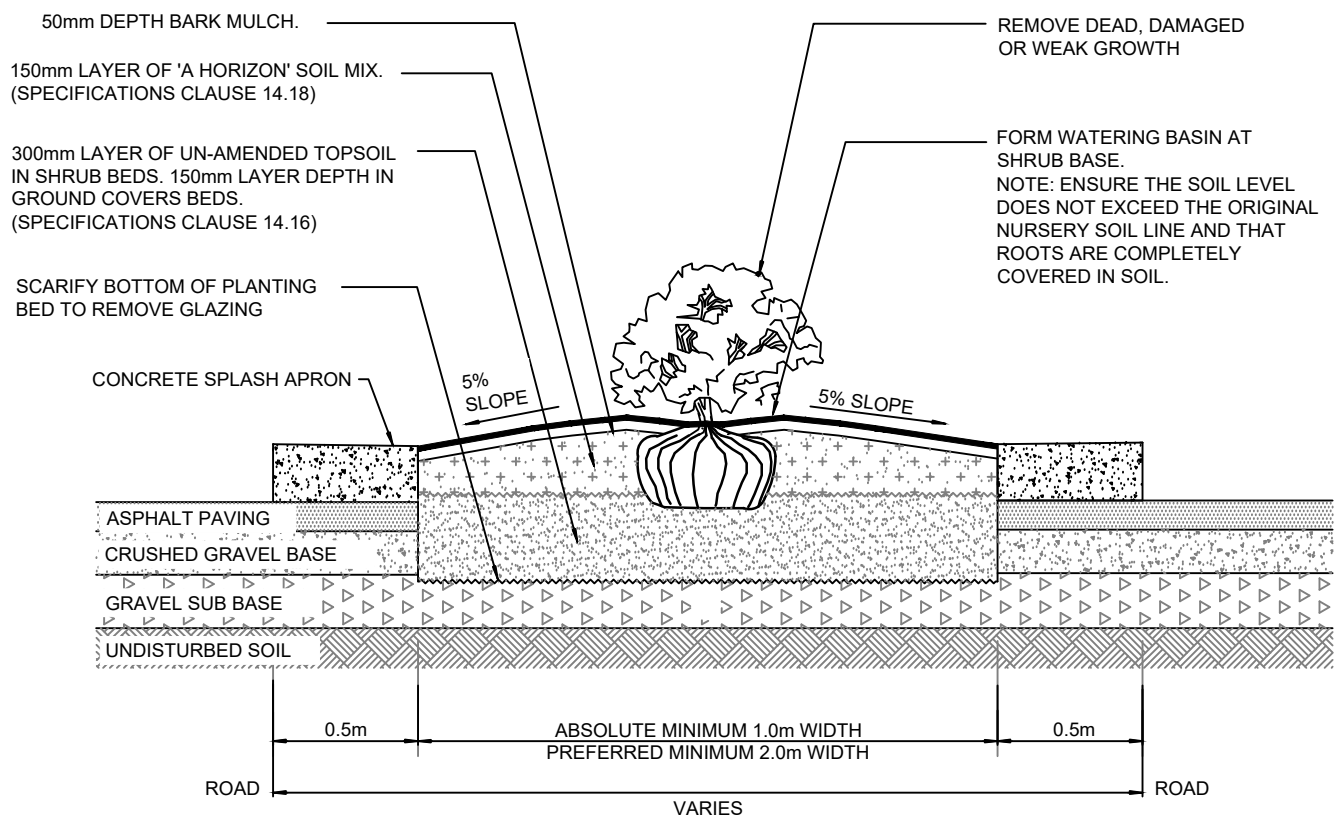
CITY OF NANAIMO
THE HARBOUR CITY

SHRUB PLANTING IN BED

Scale: NTS
Created: JAN 1998
Rev Date: JUNE 2026
Dwg No: P-3



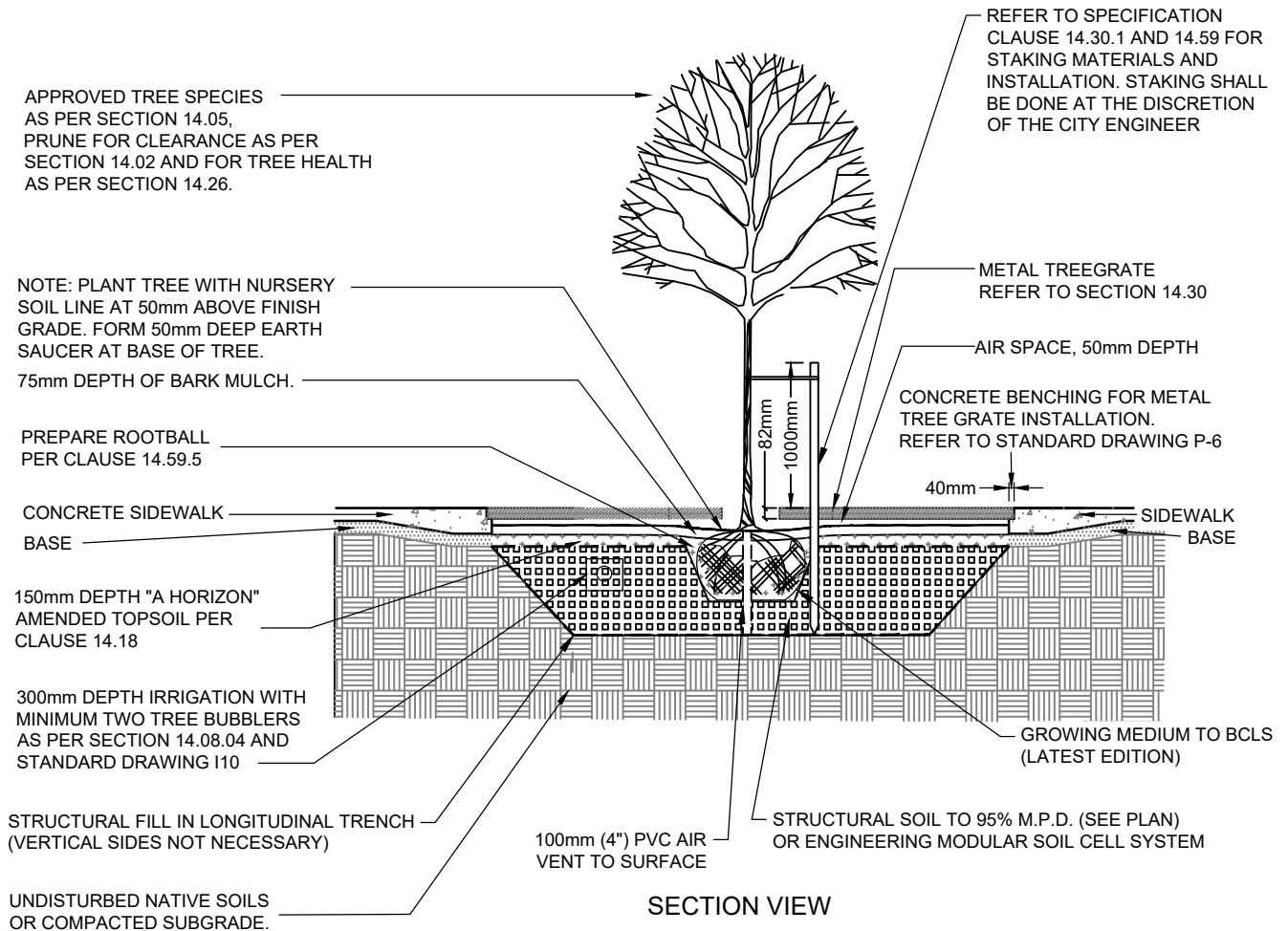
PLAN VIEW



SECTION VIEW A

NOTES:

1. FOR CENTER MEDIAN DETAILS SEE SECTION 8, STD DWG CS-7.
2. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.
3. BASE AND SUB-BASE REQUIREMENTS AS PER SECTION 9.0.
4. CONCRETE REQUIREMENTS AS PER SECTION 11.0.



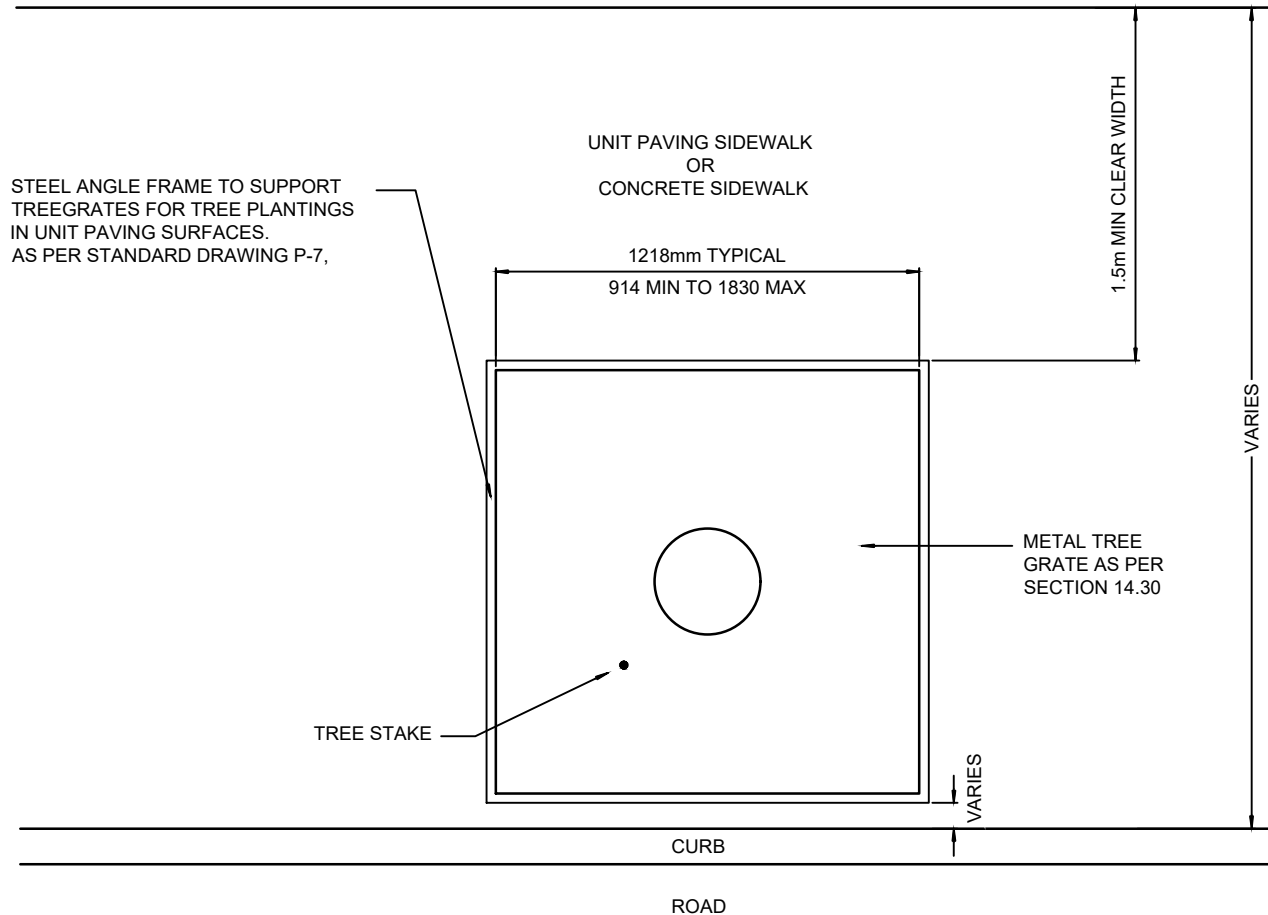
NOTES:

1. ALL WORK AND MATERIALS ARE TO BE AS DESCRIBED IN THE CITY OF NANAIMO MANUAL OF ENGINEERING STANDARDS & SPECIFICATIONS LATEST EDITION OR AS OTHERWISE APPROVED BY THE CITY ENGINEER.
2. REQUIRED VOLUME OF GROWING MEDIUM IS 10m³, TO A DEPTH OF 800mm FOR EACH TREE. REFER TO TABLE IN CLAUSE 14.58.8.
3. FINAL TREE LOCATIONS MAY BE VARIED IF CERTIFIED BY A LANDSCAPE ARCHITECT AND THE CITY OF NANAIMO.
4. IF POOR DRAINAGE CONDITIONS EXIST, PROVIDE POSITIVE SUB-SURFACE DRAINAGE AWAY FROM PLANTING EXCAVATION.
5. IRRIGATION REQUIRED TO CITY OF NANAIMO STANDARDS WHERE REQUIRED BY CITY ENGINEER.
6. SEE DRAWING P-2 FOR REQUIRED DETAILS AND WORKS.
7. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.
8. CURB AND SIDEWALK AS PER SECTION 8.0.
9. BASE AND SUB-BASE REQUIREMENTS AS PER SECTION 9.0.
10. CAST-IN PLACE CONCRETE REQUIREMENTS AS PER SECTION 11.0.

CITY OF NANAIMO
THE HARBOUR CITY

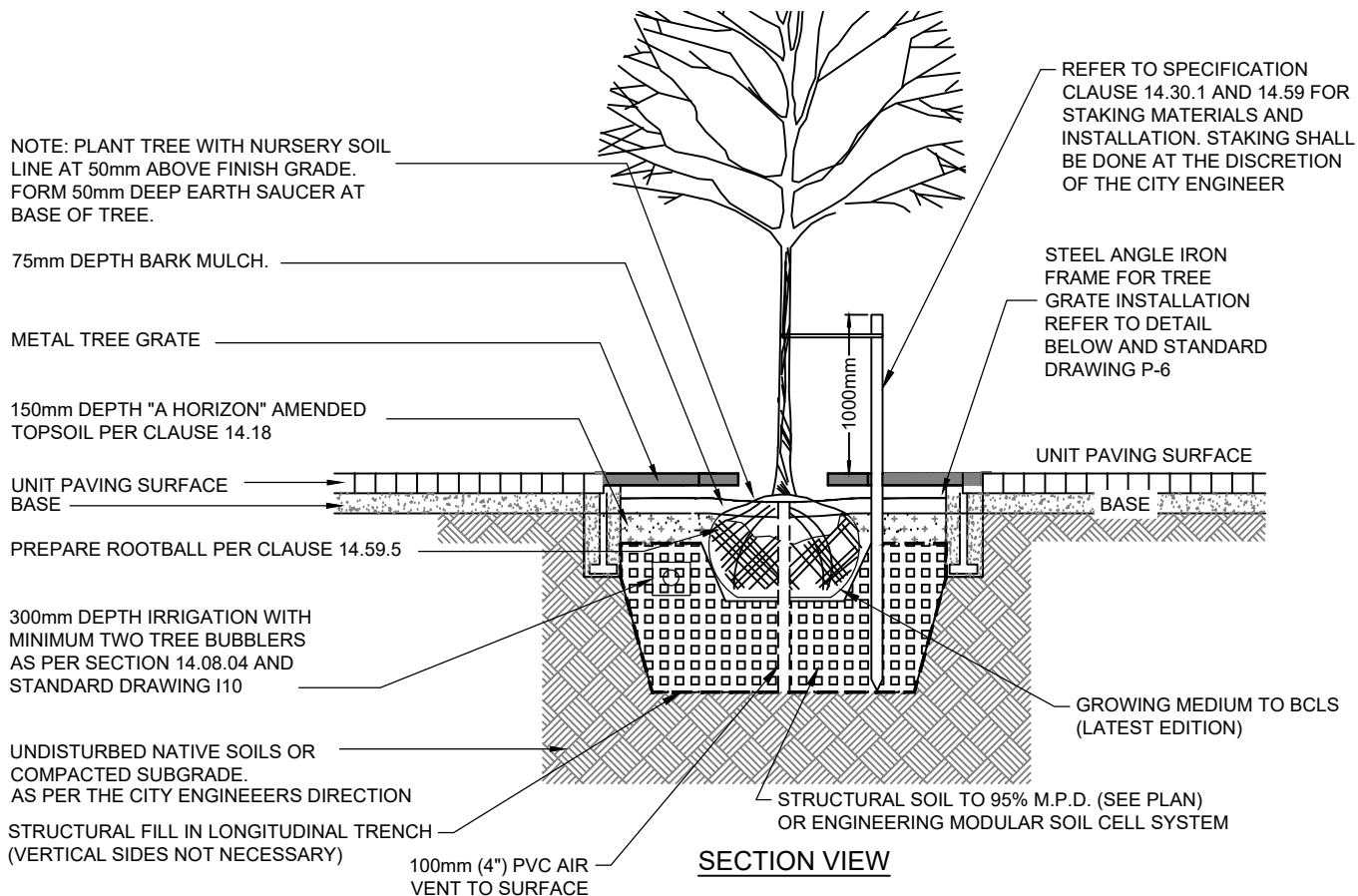
TREE PLANTING IN CONCRETE SIDEWALK

Scale: NTS
Created: MAY 2013
Rev Date: JUNE 2026
Dwg No: P-5

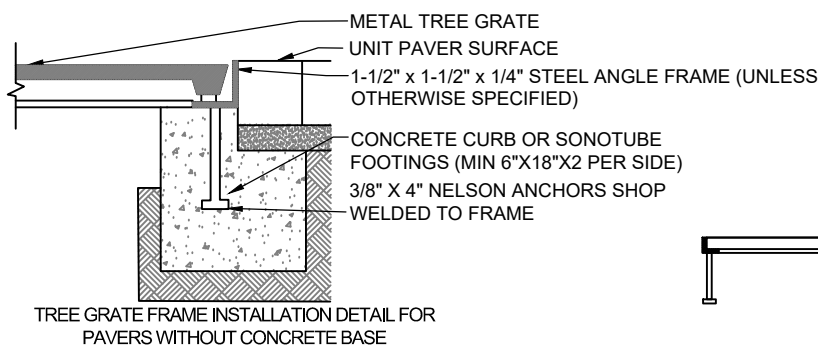


NOTE:

1. REFER TO SECTION 14.30 FOR SPECIFICATIONS AND 14.59 FOR INSTALLATIONS.
2. ALLOWABLE TREE GRATE SIZE SHALL BE 1219mm x 1219mm WITH A MINIMUM SIZE OF 914mm AND A MAXIMUM SIZE OF 1830mm.
3. INSTALL TREES TO MINIMIZE CONFLICTS WITH UTILITIES, BUILDING, STRUCTURES, PEDESTRIAN, AND VEHICULAR TRAFFIC.
4. INSTALL TREE STAKES AS PER CITY ENGINEERS DIRECTION. REFER TO SECTIONS 14.30 AND 14.59 FOR MATERIALS AND INSTALLATION SPECIFICATIONS.
5. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.
6. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.
7. CURB AND SIDEWALK AS PER SECTION 8.0.



SECTION VIEW



PLAN



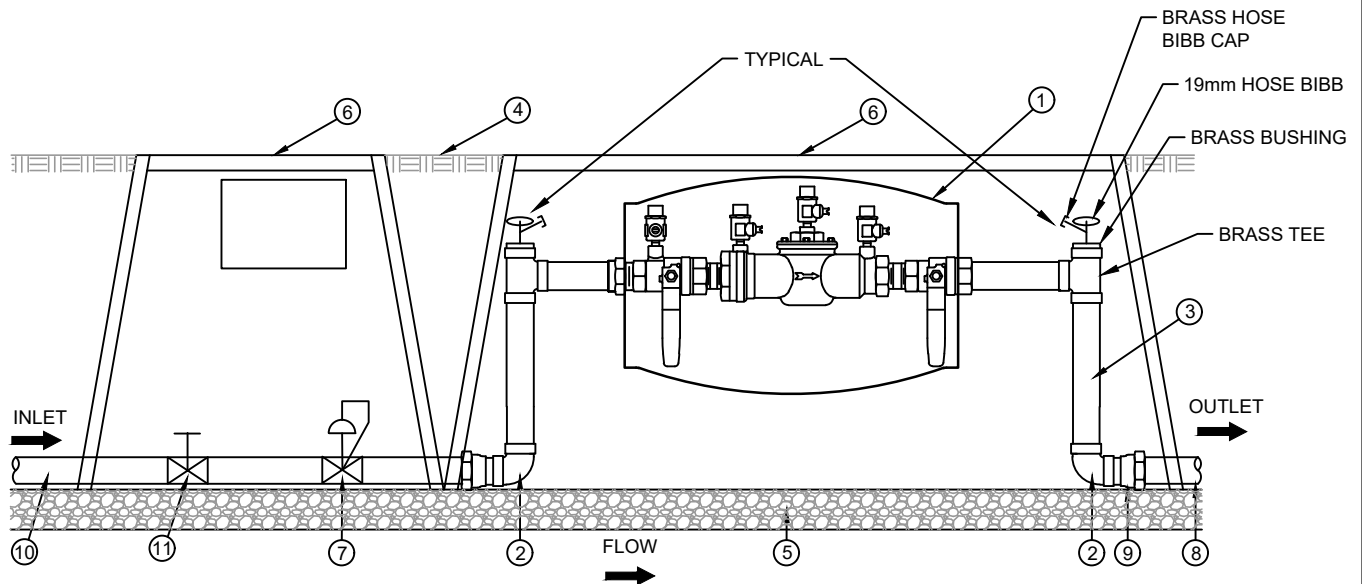
SECTION

TREE GRATE STEEL ANGLE IRON FRAME DETAIL

NOTES:

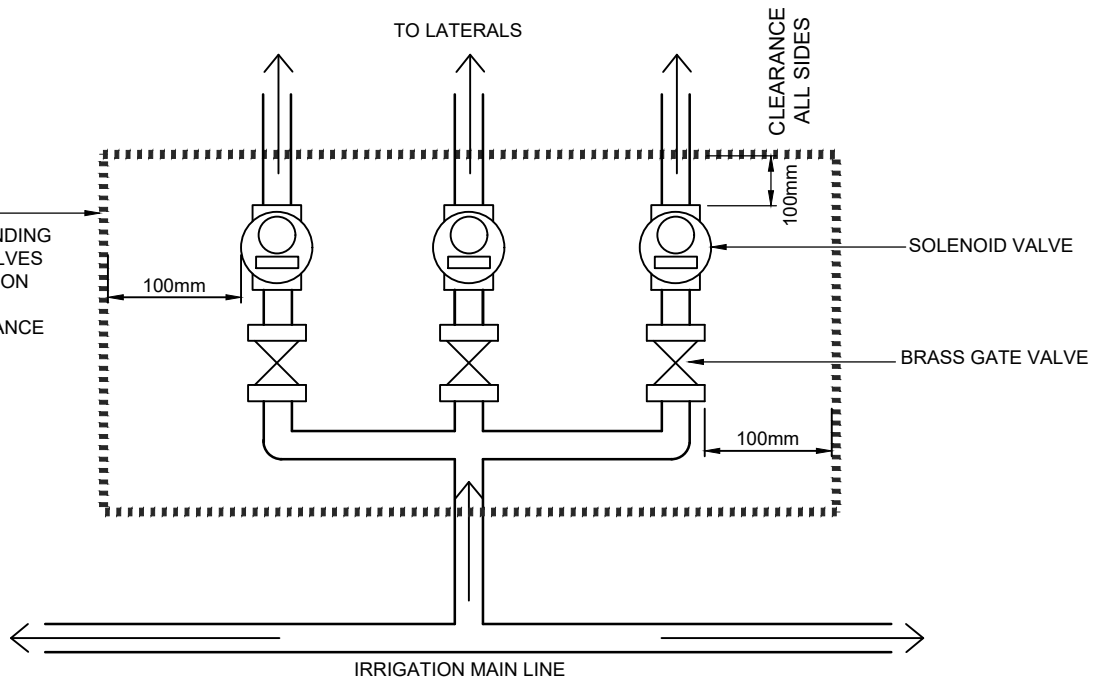
1. PRUNE APPROVED TREE SPECIES FOR CLEARANCE AND FOR TREE HEALTH AS PER SECTION 14.0.
2. TREE GRATE INSTALLATION SHALL BE AS PER THE MANUFACTURERS SPECIFICATION.
3. ALL WORK AND MATERIALS ARE TO BE AS DESCRIBED IN THE CITY OF NANAIMO MANUAL OF ENGINEERING STANDARDS & SPECIFICATIONS LATEST EDITION OR AS OTHERWISE APPROVED BY THE CITY ENGINEER.
4. REQUIRED VOLUME OF GROWING MEDIUM IS 10m³, TO A DEPTH OF 800mm FOR EACH TREE. REFER TO TABLE IN SECTION 14.58.8.
5. FINAL TREE LOCATIONS MAY BE VARIED IF CERTIFIED BY A LANDSCAPE ARCHITECT AND THE CITY OF NANAIMO.
6. IF POOR DRAINAGE CONDITIONS EXIST, PROVIDE POSITIVE SUB-SURFACE DRAINAGE AWAY FROM PLANTING EXCAVATION.
7. IRRIGATION REQUIRED TO CITY OF NANAIMO STANDARDS WHERE REQUIRED BY CITY ENGINEER.
8. SEE STANDARD DRAWING P-2 FOR REQUIRED DETAILS AND WORKS.
9. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.
10. BASE AND SUB-BASE REQUIREMENTS AS PER SECTION 9.0.
11. CAST-IN PLACE CONCRETE REQUIREMENTS AS PER SECTION 11.0.
12. CONCRETE SURFACE TREATMENT AS PER SECTION 13.0.

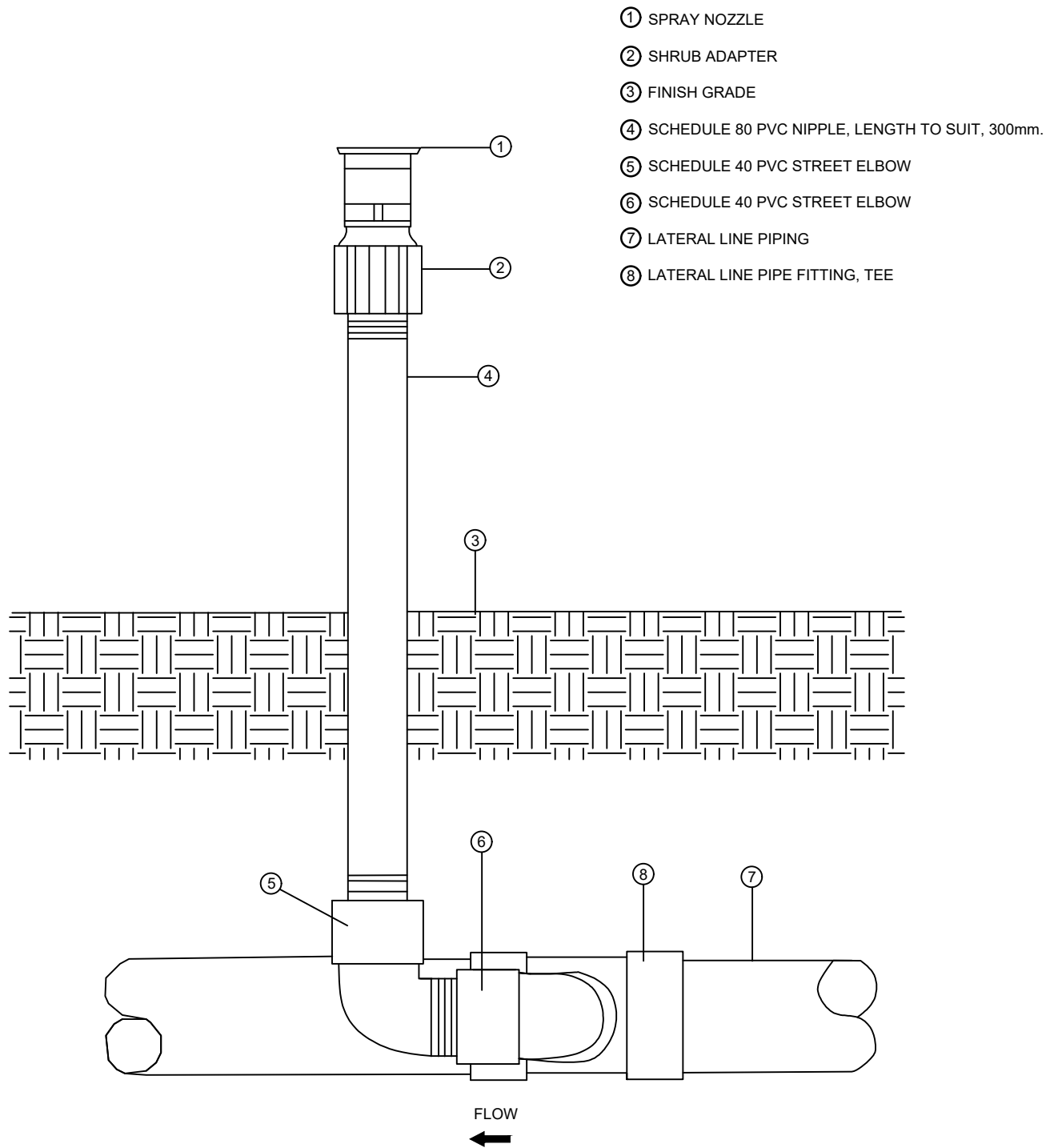
- | | |
|--|--|
| ① DOUBLE CHECK VALVE ASSEMBLY (DCVA) BACK FLOW PREVENTER | ⑧ 19mm - 50mmØ SCHEDULE 40 PVC IRRIGATION MAIN (¾"-2"Ø) |
| ② BRASS 90° ELL (1 OF 2) | ⑨ SCHEDULE 40 PVC MALE ADAPTER |
| ③ BRASS NIPPLE | ⑩ CLASS 200 POLYETHYLENE TUBING FROM CITY OF NANAIMO WATER METER AS PER SECTION 5.30 |
| ④ FINISH GRADE | ⑪ BRASS GATE VALVE |
| ⑤ 50mm DEPTH 19mm MINUS GRAVEL | |
| ⑥ VALVE BOX C/W BOLTED LID | |
| ⑦ PRESSURE REDUCING VALVE (PRV) (SEE NOTE 7) | |



NOTES:

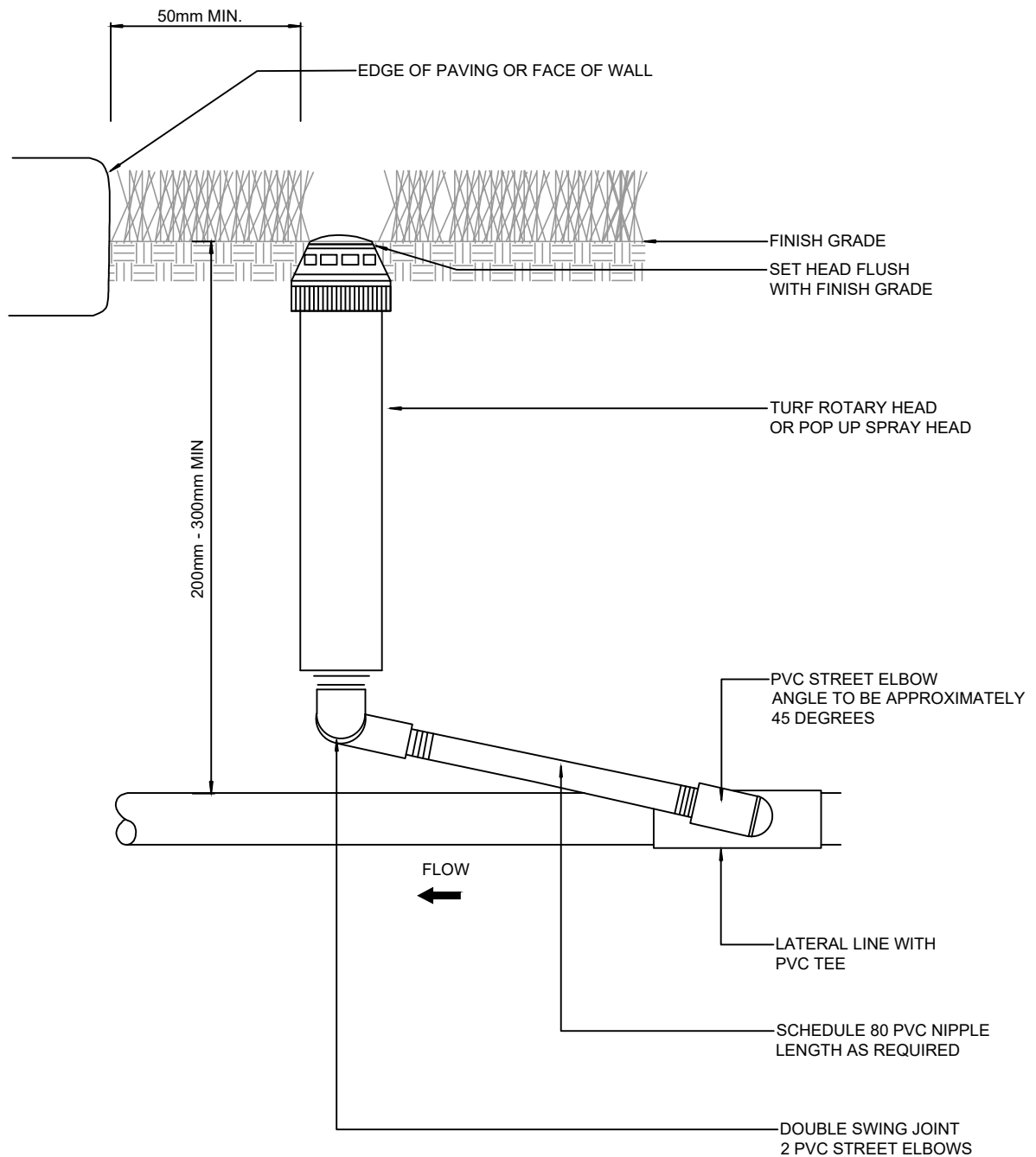
1. SUPPLY CONNECTION FROM MAIN TO WATER METER TO CITY OF NANAIMO ENGINEERING STANDARDS AND SPECIFICATIONS BY CITY FORCES AT OWNERS EXPENSE.
2. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.
3. AS PER SECTION 5 WATER SYSTEM CROSS CONNECTION CONTROL.
4. DOUBLE CHECK VALVE ASSEMBLY (DCVA) FOR SYSTEMS WITHOUT INJECTION OF CHEMICALS. IF CHEMICALS ARE USED A REDUCED PRESSURE (RP) ASSEMBLY SHALL BE REQUIRED.
5. SUBJECT TO APPROVAL BY THE CITY ENGINEER, AN ASSE 1060 CLASS 2 FROST PROTECTION ENCLOSURE MAY BE USED.
6. WHERE STATIC WATER PRESSURE MAY EXCEED 550 KPA (80 PSI), INSTALL A PRESSURE REDUCING VALVE (PRV).





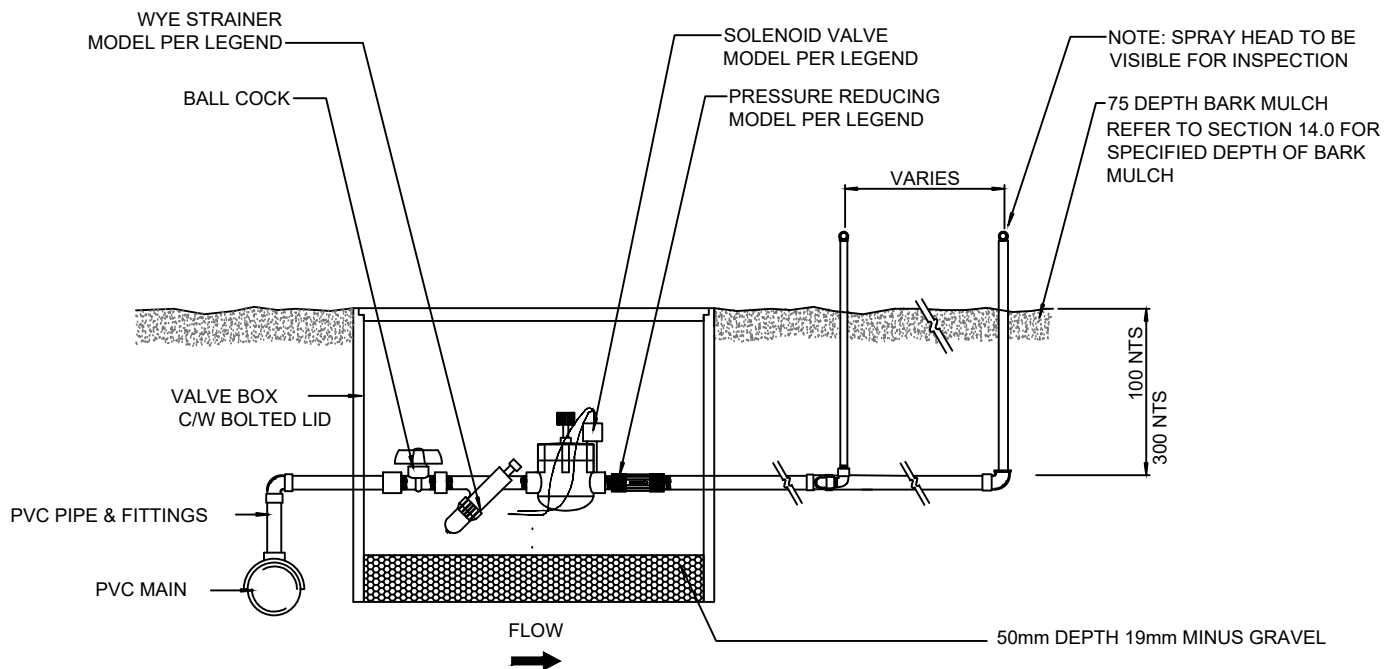
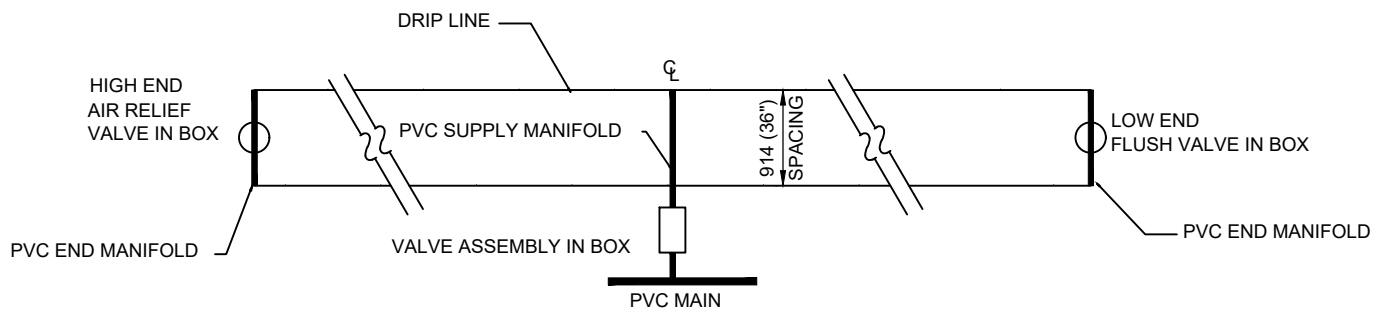
NOTES:

1. THREAD SEAL TAPE (PTFE TAPE) ALL THREADED JOINTS.
2. FOR DESIGN CRITERIA, SPECIFICATION AND INSTALLATION REFER TO SECTION 14.0 WRITTEN SPECIFICATIONS.
3. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.



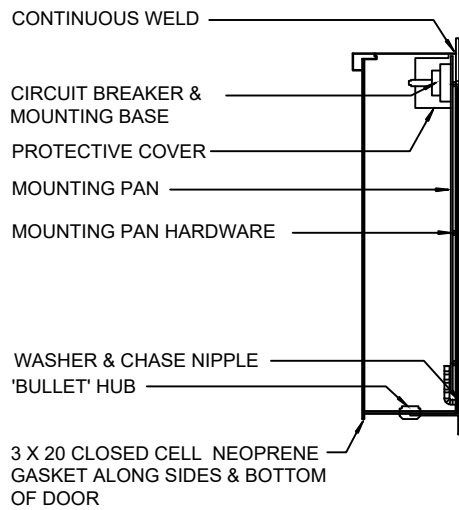
NOTES:

1. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.
2. FOR DESIGN CRITERIA SPECIFICATIONS AND INSTALLATIONS REFER TO SECTION 14.0 WRITTEN SPECIFICATIONS.

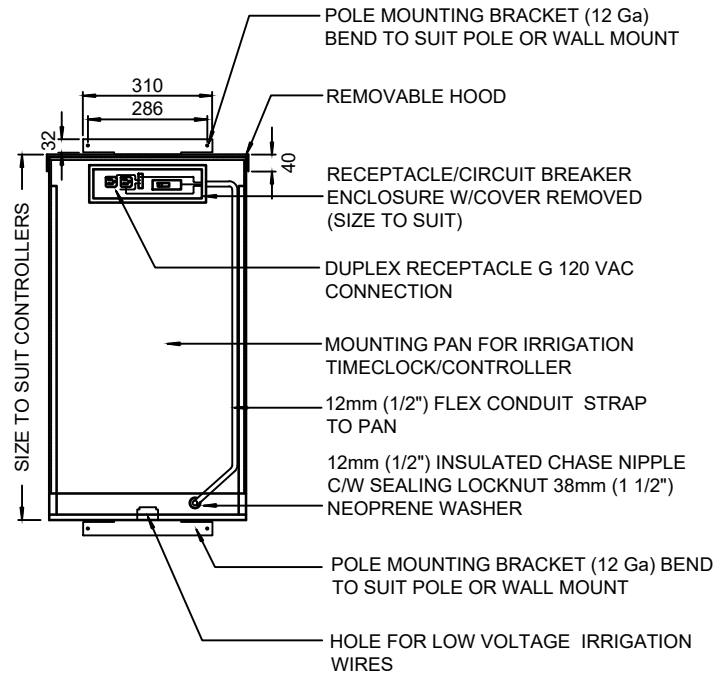


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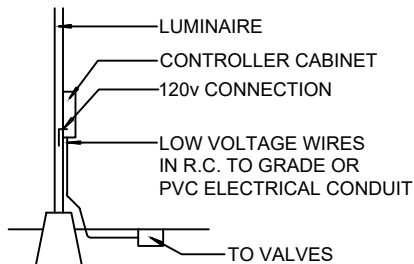
1. FOR DESIGN CRITERIA, SPECIFICATIONS AND INSTALLATIONS REFER TO SECTION 14.0 WRITTEN SPECIFICATIONS.
2. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.



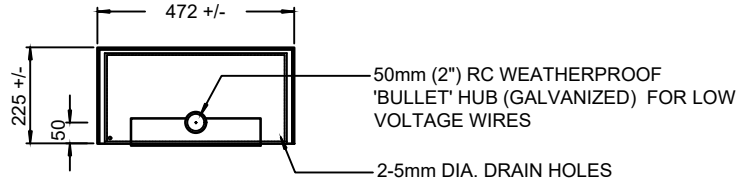
CROSS SECTION



FRONT VIEW WITH DOOR REMOVED



MOUNTING DETAIL



BOTTOM VIEW

NOTES:

1. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.
2. ENTIRE ENCLOSURE TO BE 16 GAUGE MILD STEEL OR ALUMINUM WITH THE EXCEPTION OF THE RECEPTACLE ENCLOSURE & MOUNTING PAN WHICH SHALL BE 14 GAUGE. STEEL FINISHED WITH GREY ENAMEL, ALUMINUM CLEAR ANODIZED. ALL SEAMS SHALL BE CONTINUOUSLY WELDED.
3. THE ENCLOSURE SHALL BE MANUFACTURED TO CONFORM TO C.S.A. ENCLOSURE 3 SPECIFICATIONS & SHALL BEAR APPROVAL FROM THE PROVINCIAL SAFETY BRANCH INSPECTOR.
4. ALL HARDWARE (SCREWS, NUTS, ETC.) SHALL BE STAINLESS STEEL.
5. DOOR TO BE FULLY GASKETTED & WITH PADLOCKING FACILITY.
6. THE PANEL SHALL BEAR THE MANUFACTURER & THE PROVINCIAL APPROVAL LABELS INSIDE THE PANEL.
7. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

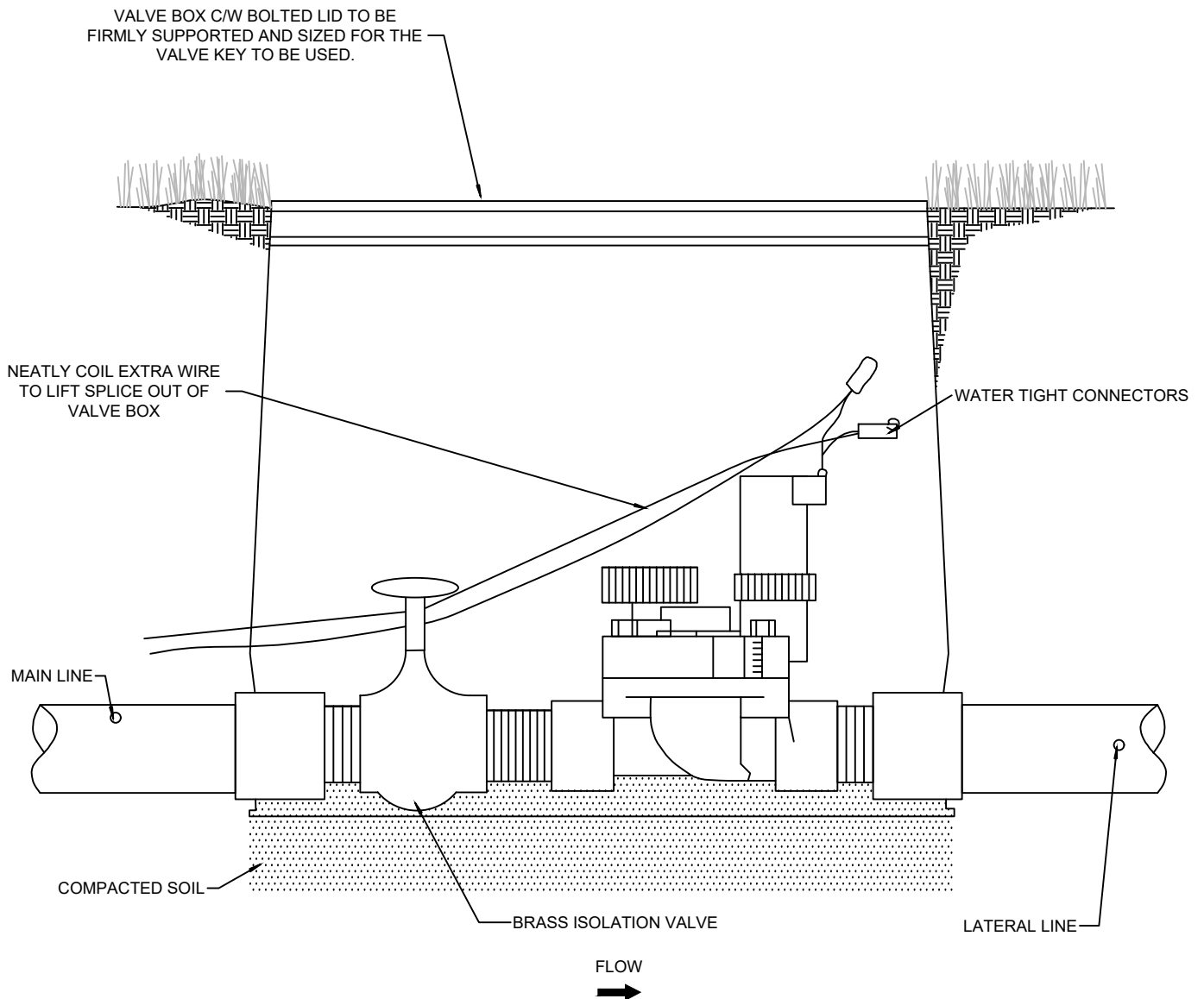
Scale: NTS

Created: MAY 2013

Rev Date: JUNE 2026

Dwg No: I-7

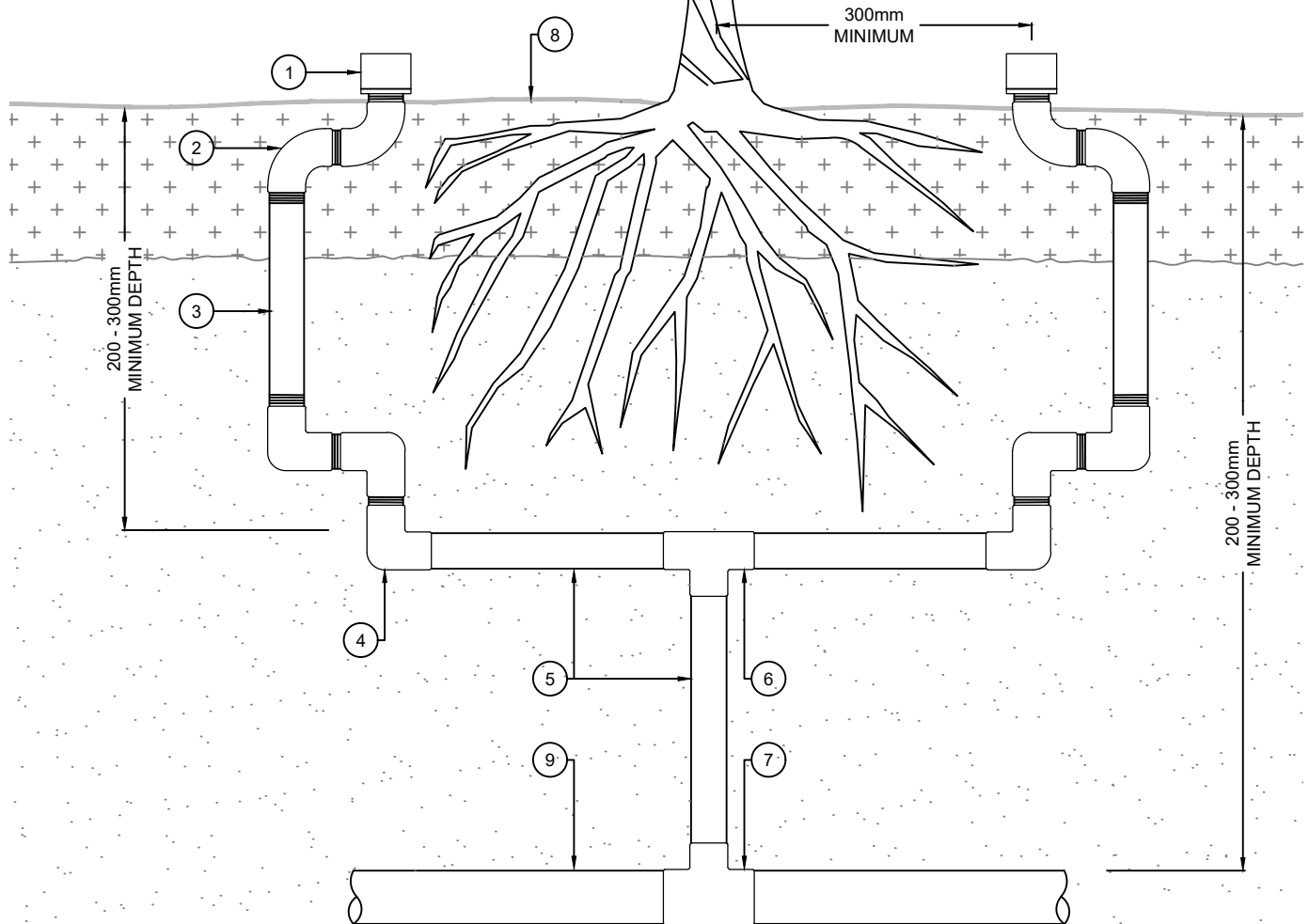
IRRIGATION CONTROLLER CABINET DETAILS



NOTES:

1. VALVE BOX TO BE INSTALLED FLUSH WITH FINISHED GRADE, AND IN A SHRUB AREA WHERE POSSIBLE.
2. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.

- ① 1.89 LPM (.5 GPM) BUBBLER
- ② 50mm ($\frac{1}{2}$ ") PVC STREET 90° ELBOW
- ③ 50mm ($\frac{1}{2}$ ") PVC SCH 80 NIPPLE
- ④ 50mm ($\frac{1}{2}$ ") SLIP X FEMALE PVC 90° BEND
- ⑤ 50mm ($\frac{1}{2}$ ") PVC SCH 40 PIPE
- ⑥ 50mm ($\frac{1}{2}$ ") SLIP X SLIP PVC TEE
- ⑦ PVC TEE, REDUCED TO 50mm ($\frac{1}{2}$ ")
- ⑧ FINISHED GRADE
- ⑨ PVC LATERAL PIPE

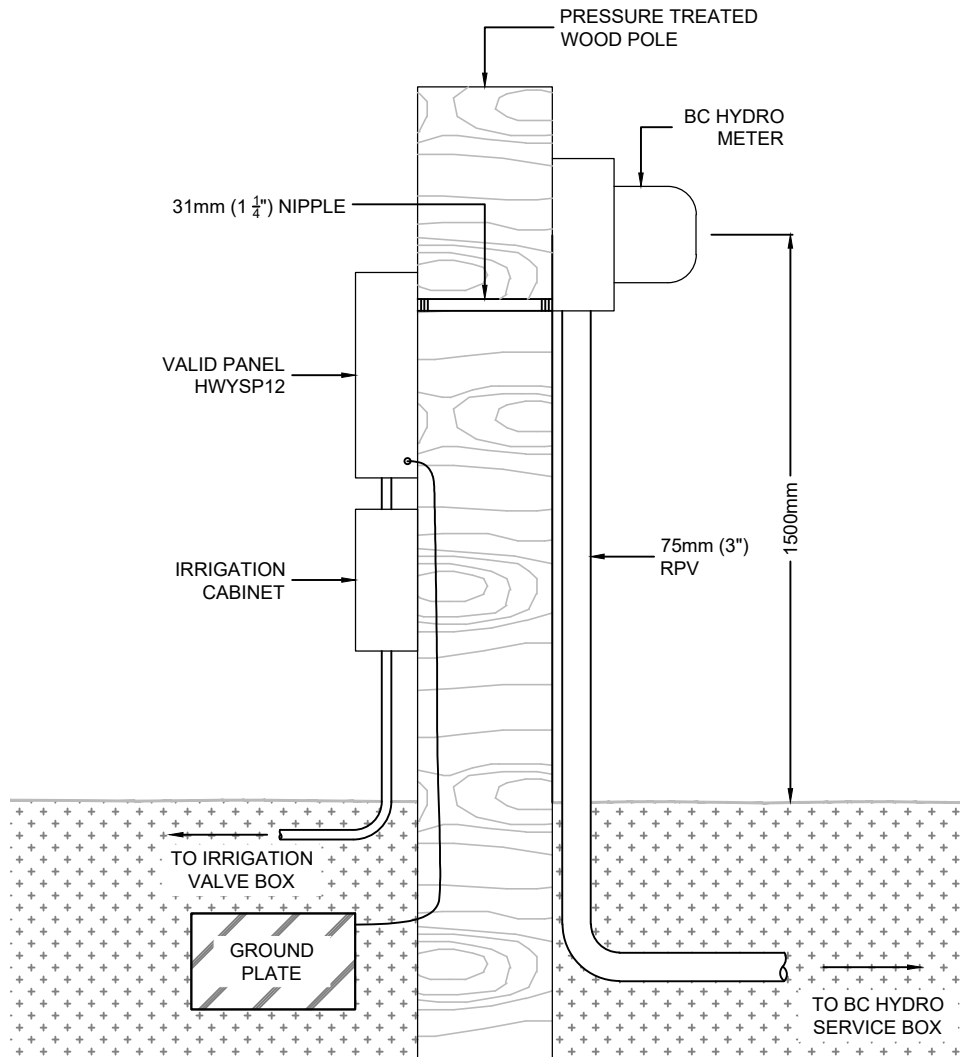


IRRIGATION BUBBLER SECTION

SCALE: 1:10

NOTES:

1. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.



SECTION

SCALE: 1:20

NOTES:

1. ONLY PRODUCTS LISTED IN THE CITY'S APPROVED PRODUCTS LIST OR APPROVED BY THE CITY ENGINEER ARE ACCEPTED FOR INSTALLATION.
2. INSTALLATION SHALL BE DONE FOR DESIGNATED PARK LAND.