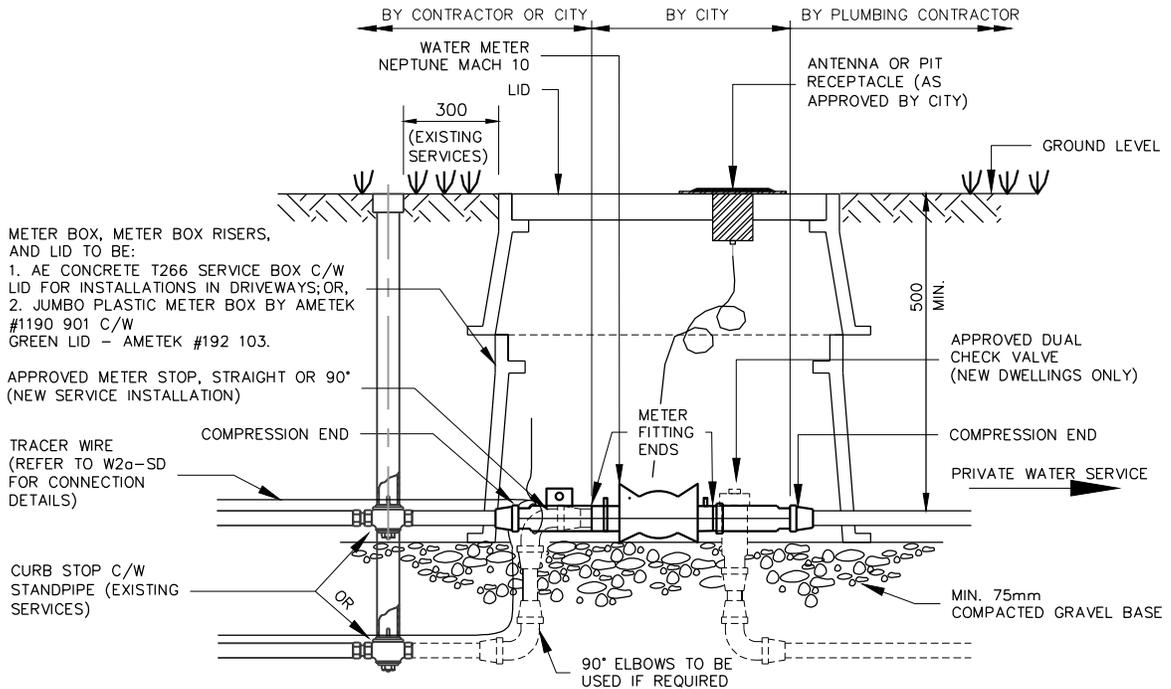


SUPPLEMENTARY DETAIL DRAWING

ALL DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE SPECIFIED



GENERAL NOTES:

1. ALL METER CHAMBERS TO BE LOCATED CLEAR OF DRIVEWAY, UNLESS OTHERWISE APPROVED BY THE CITY.
2. MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE B.C. PLUMBING CODE.
3. CONNECTION SIZE RANGE 19mm - 50mm.
4. RETROFITTING METERS ON EXISTING WATER CONNECTIONS, THAT CAN NOT BE RELOCATED OUT OF DRIVEWAYS, SHALL USE A.E. CONCRETE T266 SERVICE BOX C/W STEEL LID.
5. METER ASSEMBLIES SHALL BE INSTALLED CENTERED AND ALIGNED WITHIN METER BOXES.
6. FOR EXISTING SERVICES, METER TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF EXISTING CURB-STOP. STANDPIPE TO REMAIN INTACT.
7. WHERE DEPTH OF EXISTING WATER SERVICE CANNOT ACCOMMODATE 90° FITTINGS (i.e. SHALLOW SERVICE < 500mm DEPTH), STRAIGHT METER FITTINGS ARE TO BE USED. METER TO BE PLUMBED AT DEPTH OF EXISTING SERVICE. INSTALLATION WHERE METER BASE IS < 400mm TO BE DOCUMENTED AND EXISTING WATER SERVICE DEPTH NOTED.
8. TOP OF WATER METER CHAMBER SHALL BE LOCATED AT FINISHED GROUND LEVEL, AT LEAST 1.0m CLEAR OF ANY STRUCTURE, DRIVEWAY, CURB, OR SIDEWALK.



SINGLE FAMILY DWELLING WATER METER AND METER BOX INSTALLATION 50mmØ & UNDER FOR DOMESTIC USE ONLY

TECH. : BJ

SCALE : N.T.S.

DRAWING NUMBER :

DR. : BJ

DATE : NOV. 2009

W2g - SD

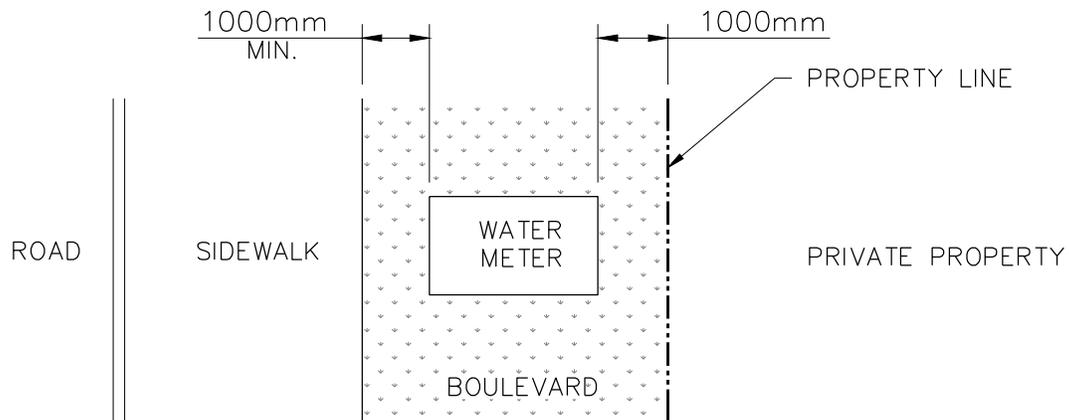
ENG. : BD

REV. DATE : JULY/22

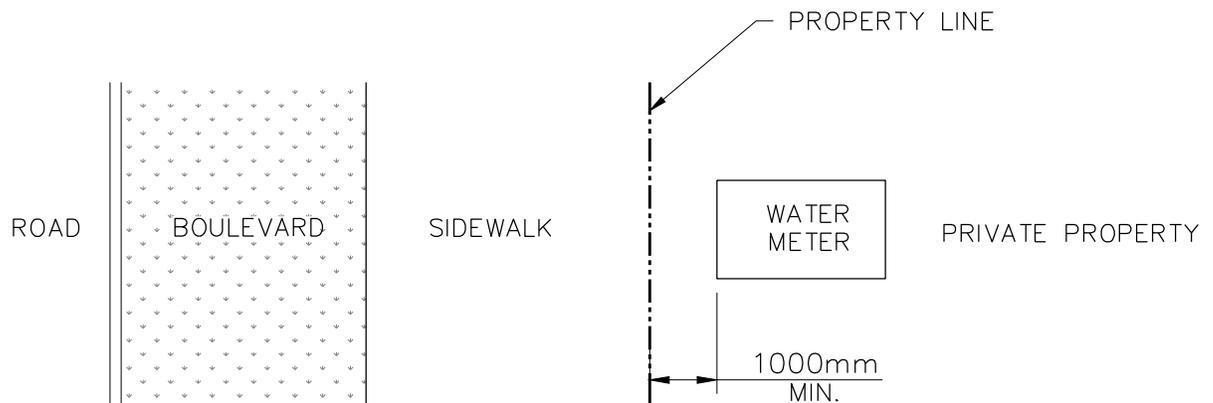
SHEET No. : 1 OF 2

SUPPLEMENTARY DETAIL DRAWING

ALL DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE SPECIFIED



LOCATION OF METER INSTALLATION-OPTION 1



LOCATION OF METER INSTALLATION-OPTION 2

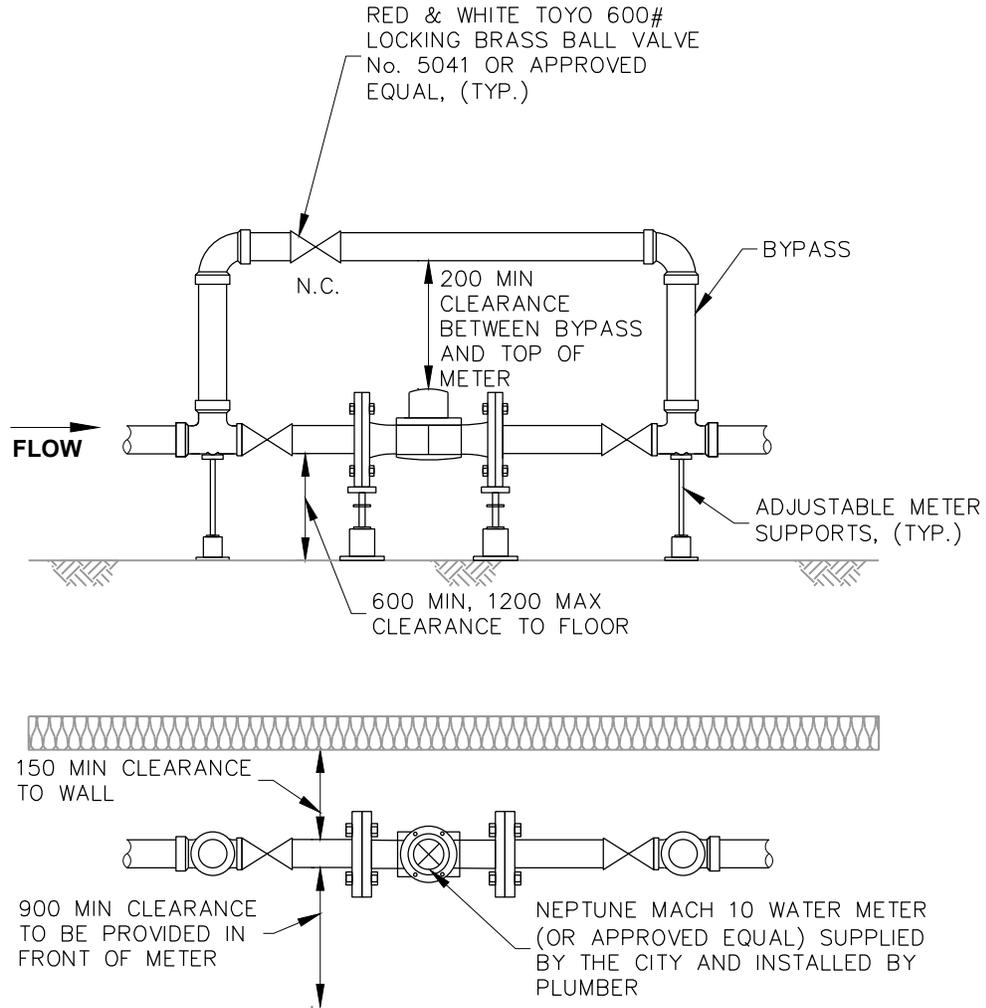


SINGLE FAMILY DWELLING
WATER METER AND METER BOX INSTALLATION
50mm ϕ & UNDER FOR DOMESTIC USE ONLY

TECH. : BJ	SCALE : N.T.S.	DRAWING NUMBER : W2g - SD
DR. : BJ	DATE : NOV. 2009	
ENG. : BD	REV. DATE : JULY/22	SHEET No. : 2 OF 2

SUPPLEMENTARY DETAIL DRAWING

ALL DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE SPECIFIED



GENERAL NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CURRENT BC PLUMBING CODE AND THE CURRENT CITY OF RICHMOND SUPPLEMENTARY SPECIFICATIONS AND DETAIL DRAWINGS.
2. ALL MATERIALS SHALL BE CERTIFIED TO NSF/ANSI 61.
3. BY-PASS VALVE TO BE LOCKABLE.
4. BY-PASS LINE TO BE THE SAME PIPE DIAMETER AS SERVICE CONNECTION FOR FIRE SERVICE AND MINIMUM 1/2 SERVICE CONNECTION FOR NON-FIRE SERVICE.
5. METER TO BE SIZED IN ACCORDANCE WITH APPROVED DRAWINGS.
6. METER TO BE INSTALLED AS PER MANUFACTURERS INSTALLATION AND MAINTENANCE GUIDE.
7. ALTERNATE ARRANGEMENTS SHALL BE SUBMITTED TO THE CITY OF RICHMOND'S ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL.



MECHANICAL ROOM WATER METER INSTALLATION REQUIREMENTS

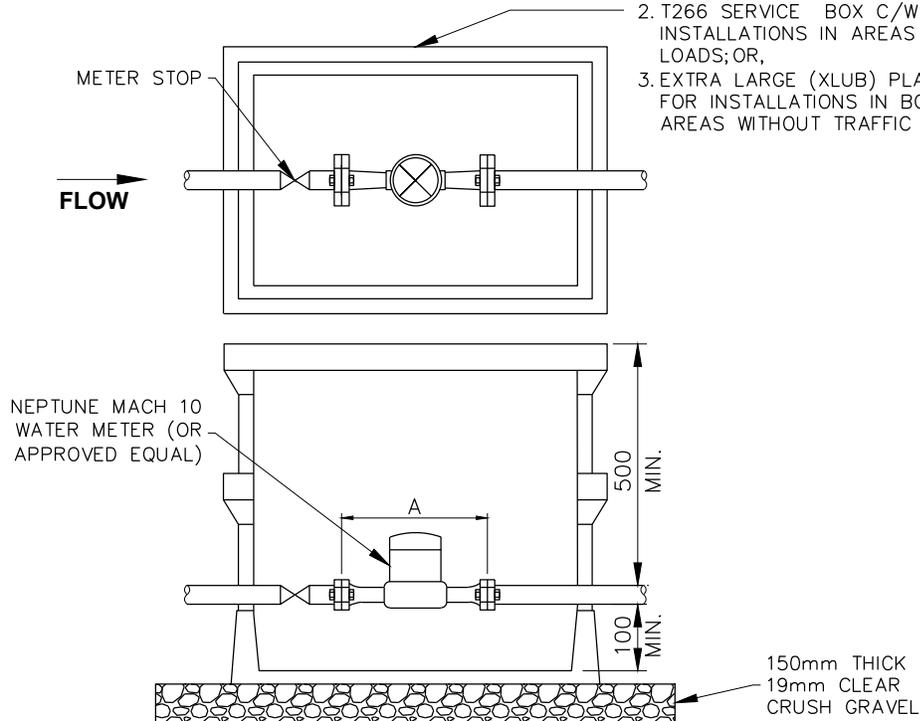
TECH. : BJ	SCALE : N.T.S.	DRAWING NUMBER : W2j - SD
DR. : BJ	DATE : 2013-02-19	
ENG. : BD	REV. DATE : JULY/22	SHEET No. : 1 OF 1

SUPPLEMENTARY DETAIL DRAWING

ALL DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE SPECIFIED

METER BOX, METER BOX RISERS, AND LID TO BE:

1. AE CONCRETE 5686 SERVICE BOX C/W MIN 560mm x 860mm LID DESIGNED FOR APPROPRIATE H-20 LOADING FOR INSTALLATIONS WITH TRAFFIC LOADS; OR,
2. T266 SERVICE BOX C/W LID FOR INSTALLATIONS IN AREAS WITHOUT TRAFFIC LOADS; OR,
3. EXTRA LARGE (XLUB) PLASTIC BOX C/W LID FOR INSTALLATIONS IN BOULEVARDS OR AREAS WITHOUT TRAFFIC LOADS.



PIPE SIZE	A (mm)
38	330
50	432

GENERAL NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD), THE CURRENT BC PLUMBING CODE, AND THE CURRENT CITY OF RICHMOND SUPPLEMENTARY SPECIFICATIONS AND DETAIL DRAWINGS.
2. ALL MATERIALS SHALL BE CERTIFIED TO NSF/ANSI 61
3. ALL SURFACES TO BE RESTORED TO ORIGINAL OR BETTER CONDITION SUBSEQUENT TO CONSTRUCTION.
4. ALL HARDWARE, SUCH AS NUTS, BOLTS, TIE RODS, ETC. ARE TO BE BRASS UNLESS OTHERWISE APPROVED BY THE CITY.
5. METER TO BE SIZED IN ACCORDANCE WITH APPROVED DRAWINGS.
6. METER TO BE INSTALLED AS PER MANUFACTURERS INSTALLATION AND MAINTENANCE GUIDE.
7. CONTRACTOR TO CHARGE METER AND BLOW OFF AIR FOLLOWING INSTALLATION.
8. CITY TO SUPPLY METER, OWNER/S TO CONSTRUCT CHAMBER AND INSTALL METER.
9. LIDS INSTALLED IN TRAFFIC TO BE REINFORCED TO MAINTAIN REQUIRED LOAD RATING.



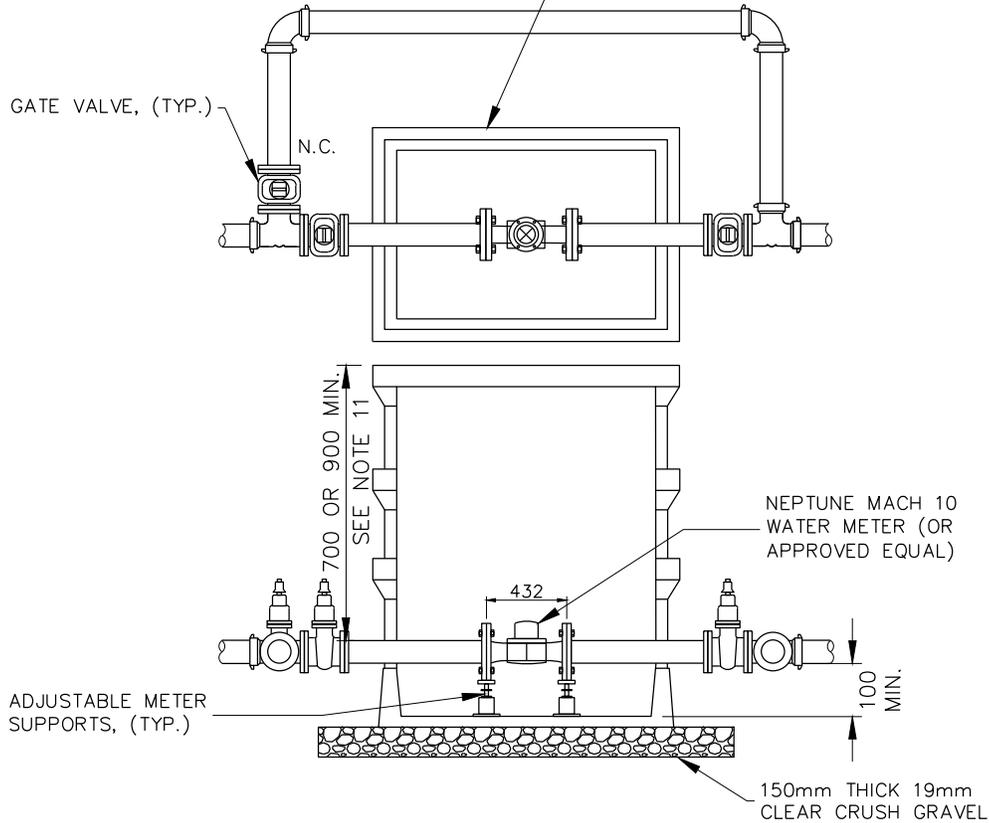
38 & 50 mm WATER METER AND CHAMBER FOR NON-FIRE SERVICE

TECH. : BJ	SCALE : N.T.S.	DRAWING NUMBER : W2k - SD
DR. : BJ	DATE : 2013-05-06	
ENG. : BD	REV. DATE : JULY/22	SHEET No. : 1 OF 1

SUPPLEMENTARY DETAIL DRAWING

ALL DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE SPECIFIED

METER BOX, METER BOX RISERS, AND LID TO BE:
1. AE CONCRETE 5686 SERVICE BOX C/W MIN 560mm x 860mm LID DESIGNED FOR APPROPRIATE H-20 LOADING FOR INSTALLATIONS WITH TRAFFIC LOADS; OR,
2. EXTRA LARGE (XLUB) PLASTIC BOX C/W LID FOR INSTALLATIONS IN BOULEVARDS OR AREAS WITHOUT TRAFFIC LOADS.



GENERAL NOTES:

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD), THE CURRENT BC PLUMBING CODE, AND THE CURRENT CITY OF RICHMOND SUPPLEMENTARY SPECIFICATIONS AND DETAIL DRAWINGS.
- ALL MATERIALS SHALL BE CERTIFIED TO NSF/ANSI 61.
- ALL SURFACES TO BE RESTORED TO ORIGINAL OR BETTER CONDITION SUBSEQUENT TO CONSTRUCTION.
- ALL HARDWARE, SUCH AS NUTS, BOLTS, TIE RODS, ETC. ARE TO BE STAINLESS STEEL.
- BYPASS FOR FIRE SERVICE TO BE SAME SIZE AS SERVICE CONNECTION. BYPASS FOR NON-FIRE SERVICE TO BE AT MINIMUM 1/2 SERVICE CONNECTION SIZE.
- PROVISION MUST BE MADE IN PIPING FOR REMOVAL OF METER.
- METER TO BE SIZED IN ACCORDANCE WITH APPROVED DRAWINGS.
- METER TO BE INSTALLED AS PER MANUFACTURERS INSTALLATION AND MAINTENANCE GUIDE.
- CONTRACTOR TO CHARGE METER AND BLOW OFF AIR FOLLOWING INSTALLATION.
- CHAMBER, COLLAR AND LID TO BE DESIGNED FOR H-20 TRAFFIC LOADING WHEN INSTALLED IN TRAFFIC AND FOR H-20 STATIC LOADING WHEN INSTALLED IN NON-TRAFFIC AREA THAT MIGHT BE SUBJECT TO STATIC VEHICLE LOADING.
- MINIMUM COVER IS 900mm FOR FIRE SERVICES AND 700 mm FOR NON-FIRE SERVICES.
- CITY TO SUPPLY METER, OWNER/S TO CONSTRUCT CHAMBER AND INSTALL METER.
- ALL JOINTS TO BE RESTRAINED.
- ALTERNATE ARRANGEMENTS SHALL BE SUBMITTED TO THE CITY OF RICHMOND'S ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL.

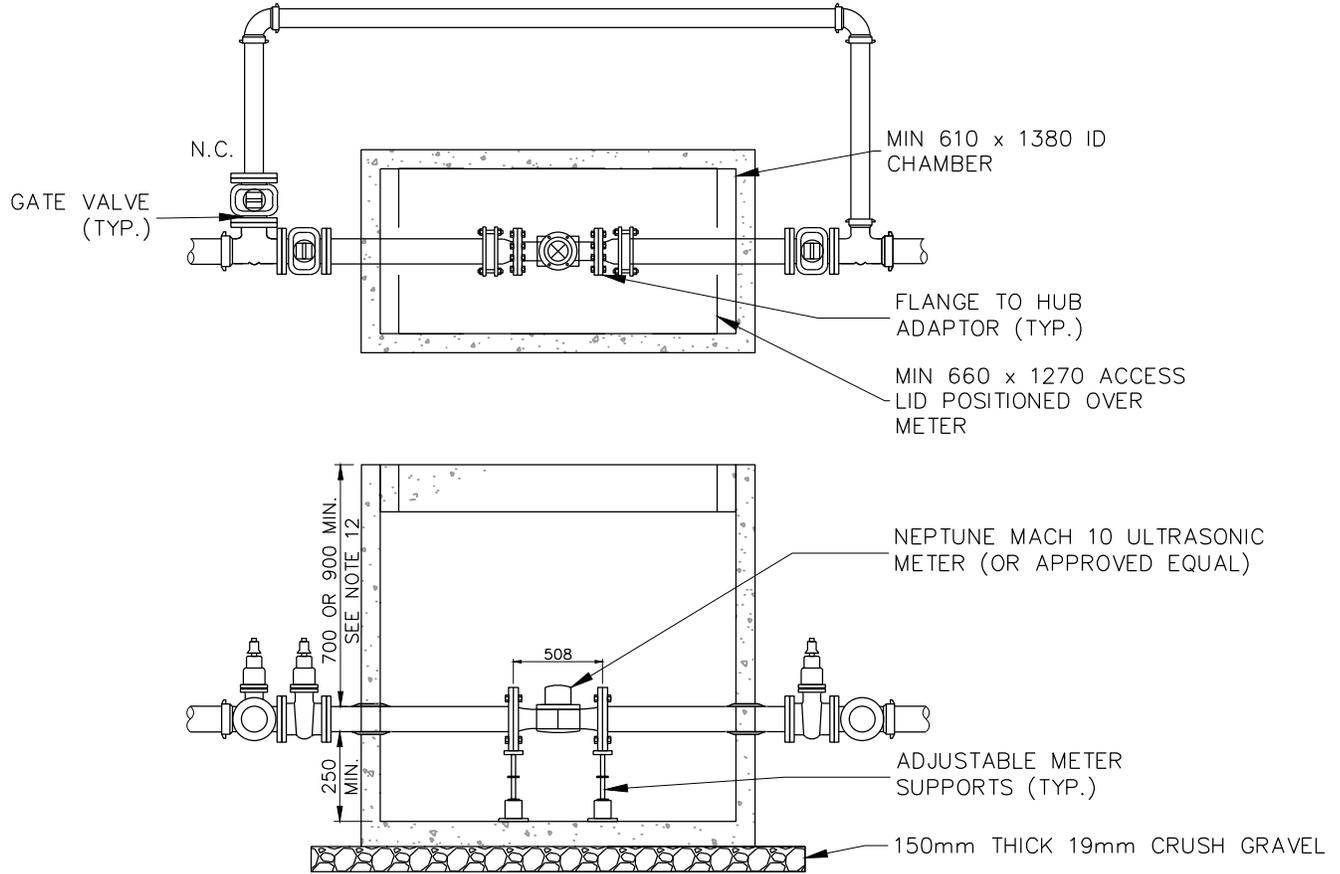


75 mm WATER METER AND CHAMBER FOR FIRE AND NON-FIRE SERVICE

TECH. : BJ	SCALE : N.T.S.	DRAWING NUMBER :
DR. : BJ	DATE : 2013-05-06	W21 - SD
ENG. : BD	REV. DATE : JULY/22	SHEET No. : 1 OF 1

SUPPLEMENTARY DETAIL DRAWING

ALL DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE SPECIFIED



GENERAL NOTES:

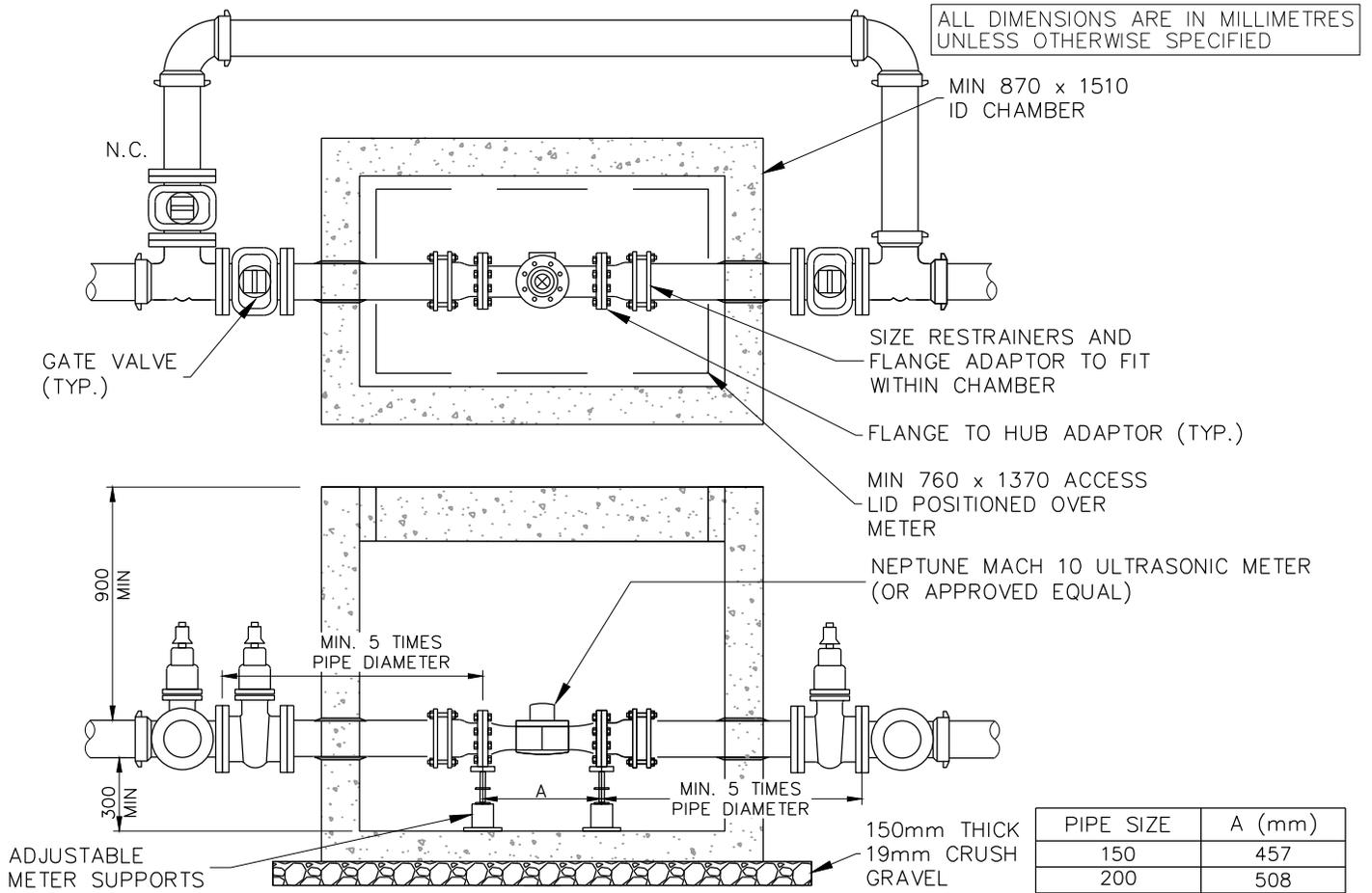
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD), THE CURRENT BC PLUMBING CODE, AND THE CURRENT CITY OF RICHMOND SUPPLEMENTARY SPECIFICATIONS AND DETAIL DRAWINGS.
2. ALL MATERIALS SHALL BE CERTIFIED TO NSF/ANSI 61
3. ALL SURFACES TO BE RESTORED TO ORIGINAL OR BETTER CONDITION SUBSEQUENT TO CONSTRUCTION.
4. ALL HARDWARE, SUCH AS NUTS, BOLTS, TIE RODS, ETC. ARE TO BE STAINLESS STEEL.
5. BYPASS FOR FIRE SERVICE TO BE SAME SIZE AS SERVICE CONNECTION. BYPASS FOR NON-FIRE SERVICE TO BE AT MINIMUM 1/2 SERVICE CONNECTION SIZE
6. PROVISION MUST BE MADE IN PIPING FOR REMOVAL OF METER.
7. METER TO BE SIZED IN ACCORDANCE WITH APPROVED DRAWINGS.
8. METER TO BE INSTALLED AS PER MANUFACTURERS INSTALLATION AND MAINTENANCE GUIDE.
9. CONTRACTOR TO CHARGE METER AND BLOW OFF AIR FOLLOWING INSTALLATION.
10. WALLS AND FLOOR TO BE MONOLITHIC POUR OR FLEXIBLE SEALING MEMBER MUST BE INSTALLED BETWEEN FLOOR AND WALLS. PRECAST CHAMBERS MAY BE USED, BUT JOINTS MUST BE SEALED.
11. CHAMBER, COLLAR AND LID TO BE DESIGNED FOR H-20 TRAFFIC LOADING AND BOLTED DOWN WHEN INSTALLED IN TRAFFIC AND FOR H-20 STATIC LOADING WHEN INSTALLED IN NON-TRAFFIC AREA.
12. MINIMUM COVER IS 900MM FOR FIRE SERVICES AND 700 MM FOR NON-FIRE SERVICES
13. CITY TO SUPPLY METER, OWNER/S TO CONSTRUCT CHAMBER AND INSTALL METER.
14. PIPE PENETRATION THROUGH CHAMBER WALL TO BE SEALED WITH AN APPROVED MECHANICAL SEAL OR GROUTED.
15. ALL JOINTS TO BE RESTRAINED.
16. ALTERNATE ARRANGEMENTS SHALL BE SUBMITTED TO THE CITY OF RICHMOND'S ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL.



100mm WATER METER AND CHAMBER FOR FIRE AND NON-FIRE SERVICE

TECH. : BJ	SCALE : N.T.S.	DRAWING NUMBER : Wm - SD
DR. : BJ	DATE : 2013-05-06	
ENG. : BD	REV. DATE : JULY/22	SHEET No. : 1 OF 1

SUPPLEMENTARY DETAIL DRAWING



GENERAL NOTES:

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD), THE CURRENT BC PLUMBING CODE, AND THE CURRENT CITY OF RICHMOND SUPPLEMENTARY SPECIFICATIONS AND DETAIL DRAWINGS.
- ALL MATERIALS SHALL BE CERTIFIED TO NSF/ANSI 61
- ALL SURFACES TO BE RESTORED TO ORIGINAL OR BETTER CONDITION SUBSEQUENT TO CONSTRUCTION.
- ALL HARDWARE, SUCH AS NUTS, BOLTS, TIE RODS, ETC. ARE TO BE STAINLESS STEEL.
- BYPASS FOR FIRE SERVICE TO BE SAME SIZE AS SERVICE CONNECTION. BYPASS FOR NON-FIRE SERVICE TO BE AT MINIMUM 1/2 SERVICE CONNECTION SIZE
- PROVISION MUST BE MADE IN PIPING FOR REMOVAL OF METER.
- METER TO BE SIZED IN ACCORDANCE WITH APPROVED DRAWINGS.
- METER TO BE INSTALLED AS PER MANUFACTURERS INSTALLATION AND MAINTENANCE GUIDE
- CONTRACTOR TO CHARGE METER AND BLOW OFF AIR FOLLOWING INSTALLATION.
- WALLS AND FLOOR TO BE MONOLITHIC POUR OR FLEXIBLE SEALING MEMBER MUST BE INSTALLED BETWEEN FLOOR AND WALLS. PRECAST CHAMBERS MAY BE USED, BUT JOINTS MUST BE SEALED.
- CHAMBER, COLLAR AND LID TO BE DESIGNED FOR H-20 TRAFFIC LOADING AND BOLTED DOWN WHEN INSTALLED IN TRAFFIC AND FOR H-20 STATIC LOADING WHEN INSTALLED IN NON-TRAFFIC AREA.
- CITY TO SUPPLY METER, OWNER/S TO CONSTRUCT CHAMBER AND INSTALL METER.
- PIPE PENETRATION THROUGH CHAMBER WALL TO BE SEALED WITH AN APPROVED MECHANICAL SEAL OR GROUTED.
- ALL JOINTS TO BE RESTRAINED.
- ALTERNATE ARRANGEMENTS SHALL BE SUBMITTED TO THE CITY OF RICHMOND'S ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL.



150 & 200 mm WATER METER AND CHAMBER FOR FIRE AND NON FIRE SERVICE

TECH. : BJ

SCALE : N.T.S.

DRAWING NUMBER :

DR. : BJ

DATE : 2013-05-06

W2n - SD

ENG. : BD

REV. DATE : JULY/22

SHEET No. : 1 OF 1