TABLE OF CONTENTS

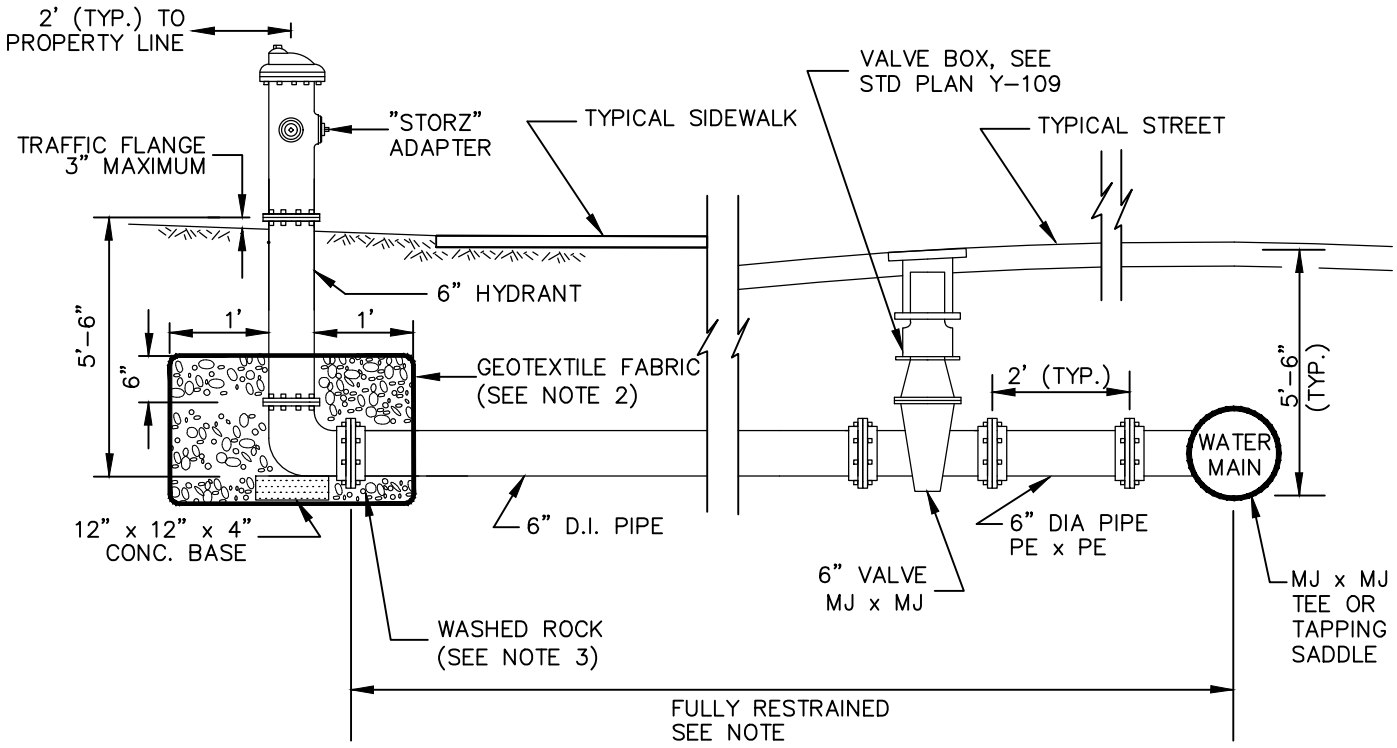
CITY OF SPOKANE STANDARD PLANS – SECTION Y

X-### = Revised Standard Plan
***X-### = New Standard Plan

Back to Main TOC

Back to Section Y - TOC

SEE SEC. 9-30.5 OF
STANDARD SPECIFICATIONS



PROFILE

NOTES:

1. WATER DISTRIBUTION MATERIALS AND APPURTENANCES SHALL CONFORM TO SEC 9-30.

2. SEE SECTION 9-33 FOR WOVEN GEOTEXTILE FABRIC (MODERATE SURVIVABILITY, CLASS A). OVERLAP ALL FABRIC JOINTS 1'-6" MIN. WRAP AND SECURE FABRIC AROUND PIPE TO PREVENT MIGRATION OF FINES INTO GRAVEL ENVELOPE.

3. SEE SECTION 9-03.12(5) FOR GRAVEL BACKFILL FOR DRYWELLS.

4. SEE COS GSP SPEC 7-14.3 FOR FIRE HYDRANT PLACEMENT DISTANCE FROM CURB RAMPS AND DRIVEWAYS.

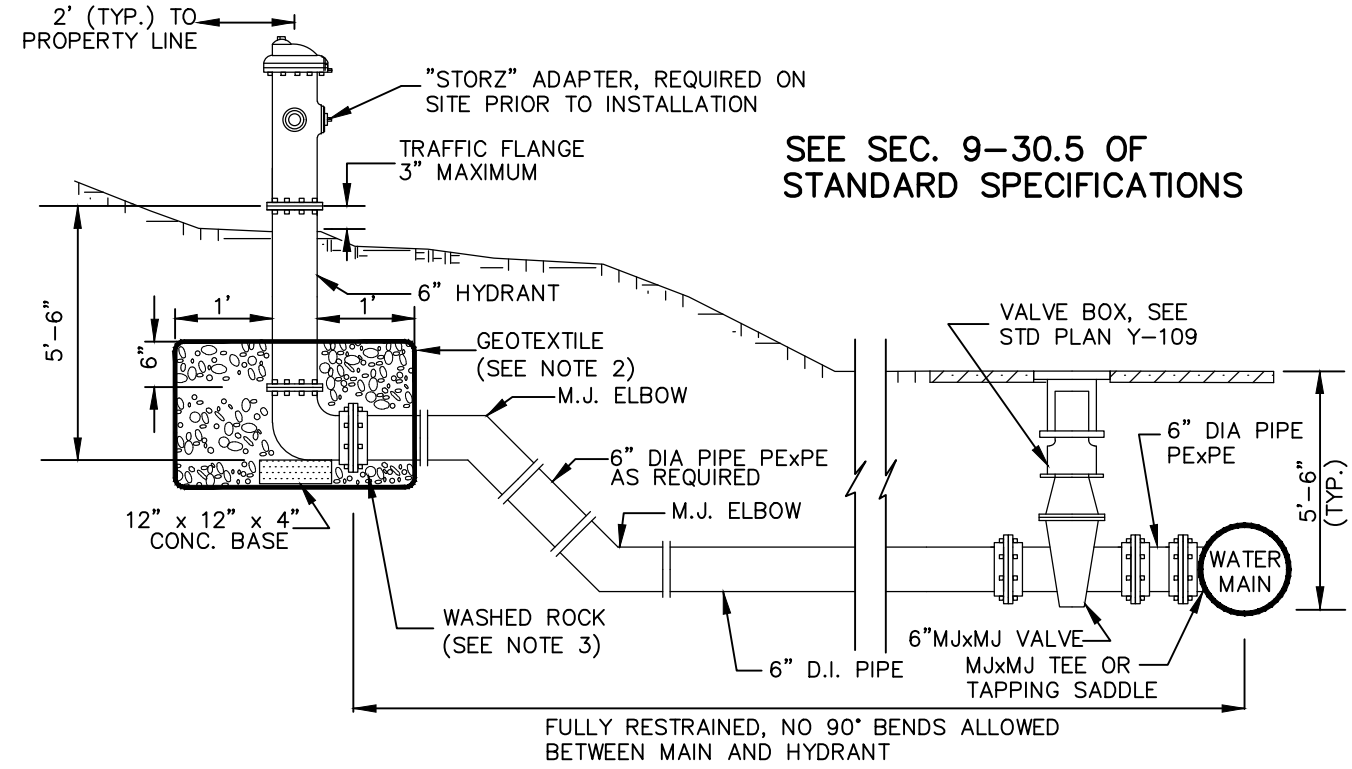
5. MAINTAIN MINIMUM 3' DISTANCE FROM HYDRANT TO TRAVELED ROADWAY OR CURB.

6. MINIMUM 3' CLEAR TO OBSTRUCTIONS REQUIRED FOR OPERATING NUT AND STORZ FITTING.

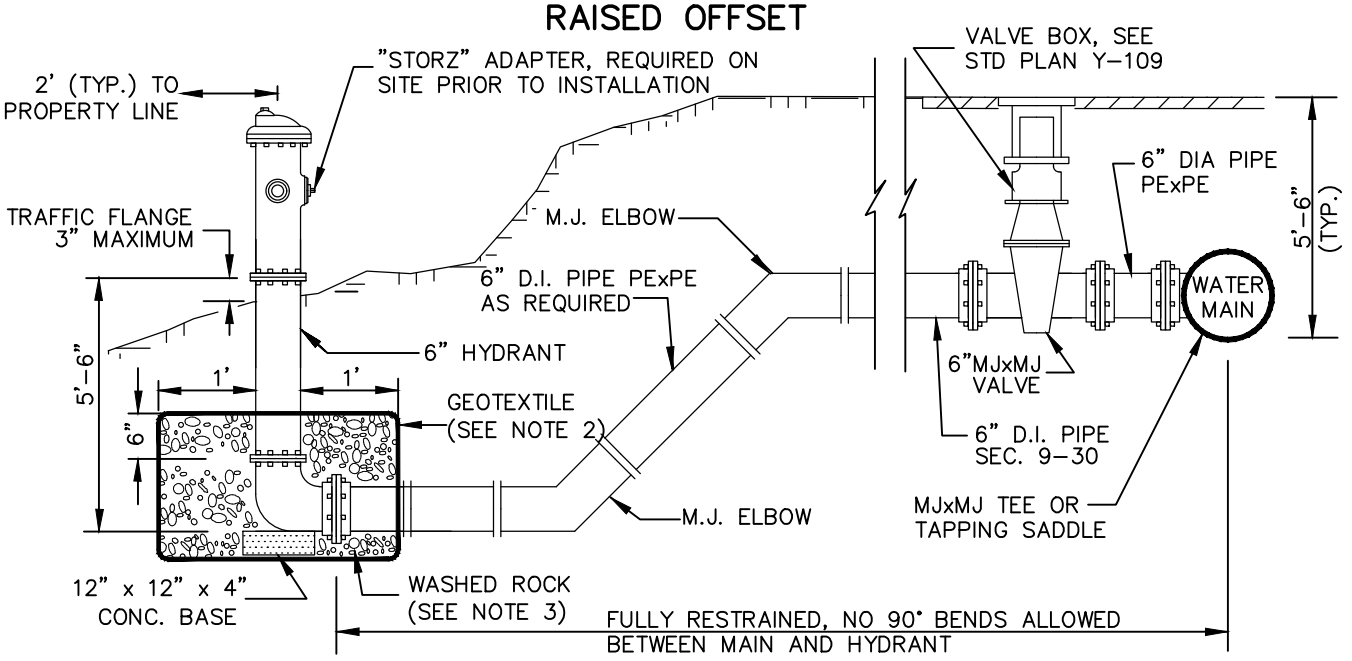
7. STORZ FITTING REQUIRED ON SITE PRIOR TO INSTALLATION.

APPROVED BY ENGINEERING SERVICES DIRECTOR — KYLE TWOHIG CITY ENGINEER — DAN BULLER, P.E.	ADOPTED: _____ REVISED: 07/2020 SUPERSEDES: 02/2017 SCALE: NTS DWG./REV BY: MB/MLD	HYDRANT SETTING STANDARD ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON STANDARD PLAN No. Y-101

Back to Section Y - TOC



RAISED OFFSET



DEPRESSED OFFSET

NOTES:

1. WATER DISTRIBUTION MATERIALS AND APPURTENANCES SHALL CONFORM TO SEC 9-30.

2. SEE SECTION 9-33 FOR WOVEN GEOTEXTILE FABRIC (MODERATE SURVIVABILITY, CLASS A). OVERLAP ALL FABRIC JOINTS 1'-6" MIN. WRAP AND SECURE FABRIC AROUND PIPE TO PREVENT MIGRATION OF FINES INTO GRAVEL ENVELOPE.

3. SEE SECTION 9-03.12(5) FOR GRAVEL BACKFILL FOR DRYWELLS.

4. SEE COS GSP SPEC 7-14.3 FOR HYDRANT PLACEMENT DISTANCE FROM CURB RAMPS & DRIVEWAYS. MAINTAIN MIN 3' HYDRANT PLACEMENT DISTANCE FROM TRAVELED ROADWAYS & CURBS. MIN 3' CLEAR TO OBSTRUCTIONS REQUIRED FOR OPERATING NUT AND STORZ FITTING

APPROVED BY

ENGINEERING SERVICES DIRECTOR — KYLE TWOHIG

CITY ENGINEER — DAN BULLER, P.E.

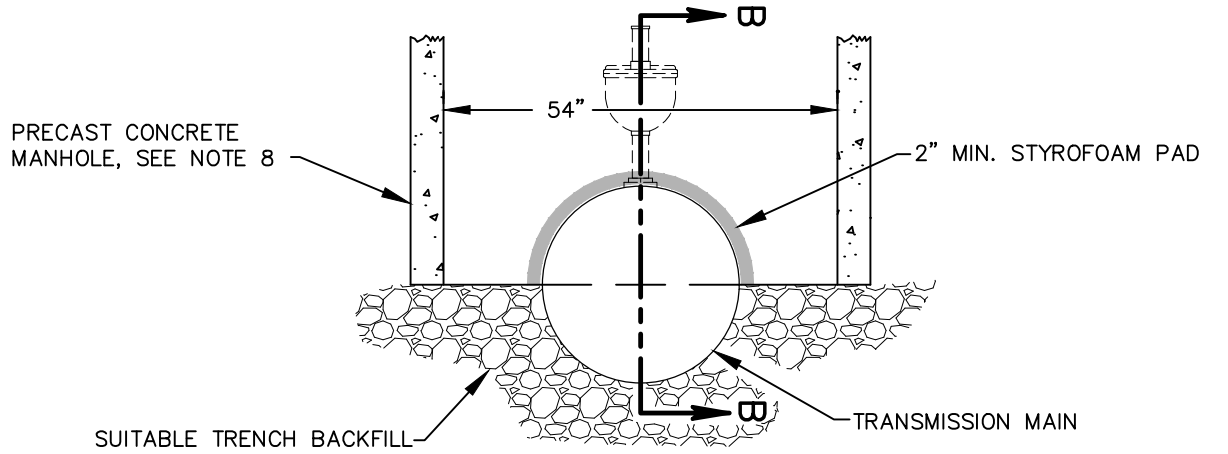
ADOPTED: _____
REVISED: 07/2020
SUPERSEDES: 02/2017
SCALE: NTS
DWG./REV BY: MB/MLD

HYDRANT SETTING OFFSETS

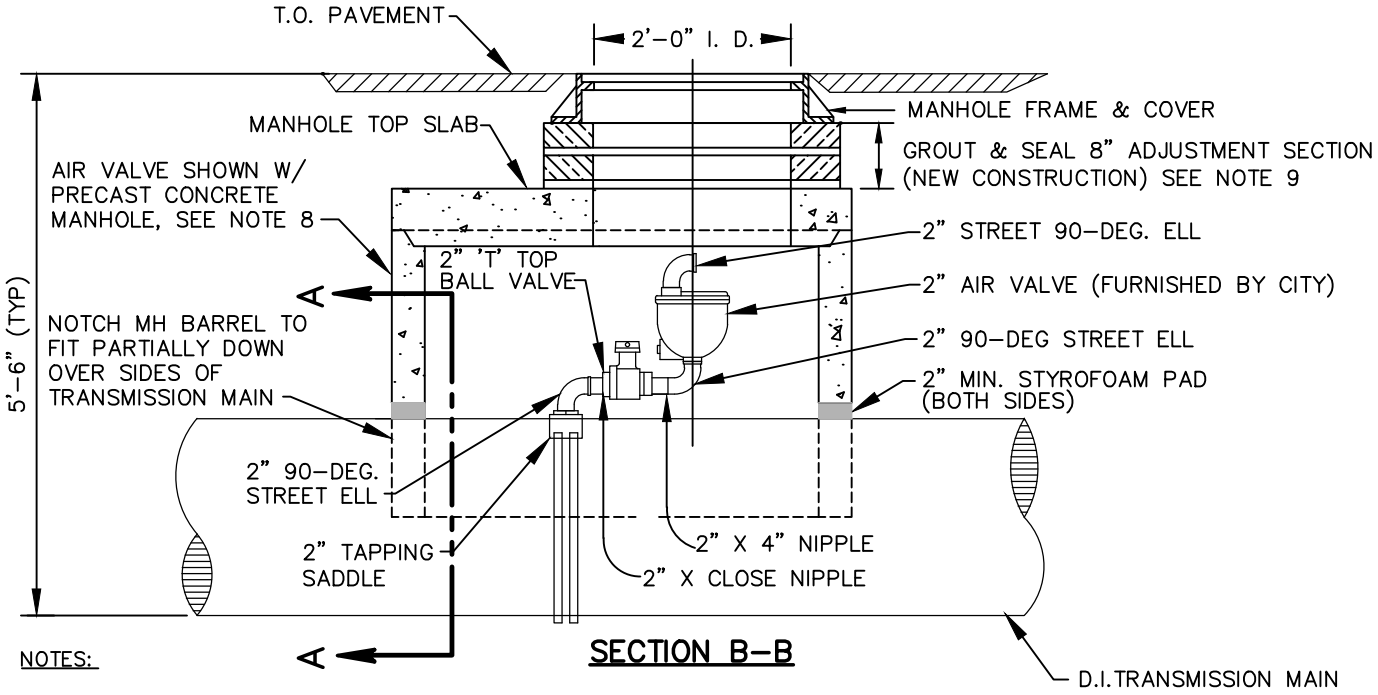
ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y-101A

Back to Section Y - TOC



SECTION A–A



SECTION B–B

NOTES:

1. SEE SEC. 7–90 FOR VALVE CHAMBERS, & SEC. 9–05.50(2) FOR PRECAST CONCRETE MANHOLES.
2. SEE SECS. 7–12 & 9–30 FOR WATER FITTINGS.
3. SEE STD PLANS A–12 (BY DEFAULT) & A–13 (IF LOCATED IN ARTERIAL STREET) FOR MANHOLE FRAME & COVER.
4. SEE STD PLAN Z–101 FOR MANHOLE – 48" & Z–102 FOR MANHOLE – 54".
5. SEE STD PLAN Z–108 FOR MANHOLE TOP SLAB REINFORCEMENT DETAILS.
6. TOP SLAB & BARREL JOINT(S) MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.
7. ADJUSTMENT SECTION, TOP SLAB, & BARREL JOINT(S) TO BE SEALED PER SECS. 7–05 & 9–04.
8. USE MANHOLE – 48" W/ CONCENTRIC CONE TOP WHEN VERTICAL CLEARANCE IS ADEQUATE. USE MANHOLE – 54" W/ TOP SLAB AS SHOWN ABOVE, WHEN VERTICAL CLEARANCE IS MINIMAL.
9. ADJUSTMENT SECTION HEIGHT FOR EXISTING STRUCTURES TO MATCH FIELD CONDITIONS AS REQ'D (3" MIN–16" MAX)

APPROVED BY

DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

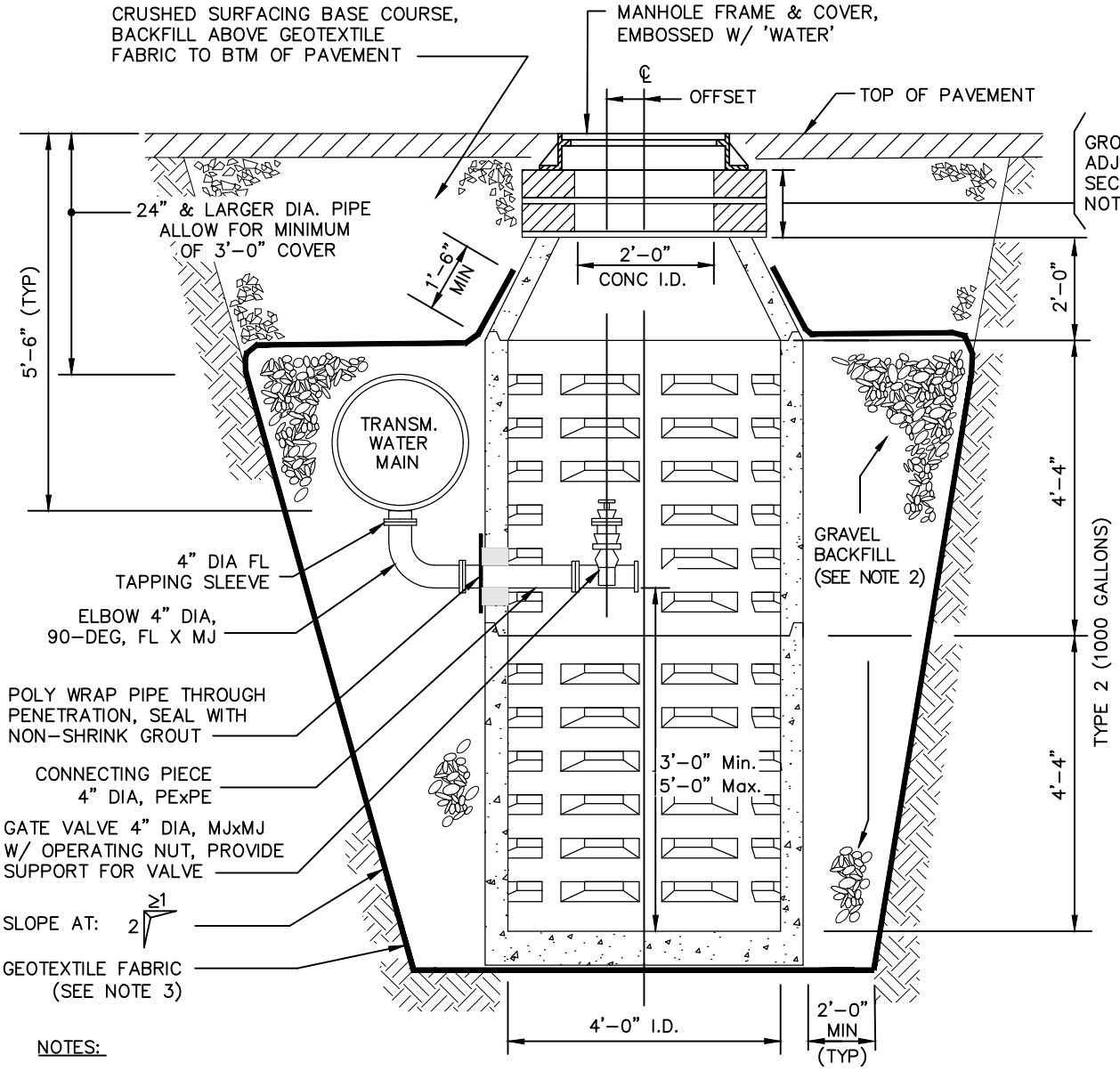
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 04/2022
CHECKED BY: JAG
SCALE: NTS
REVISED BY: SRM/MLD

2" AIR VALVE
FOR DUCTILE IRON PIPE

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y–102

Back to Section Y - TOC



SECTION

NOTES:

1. SEE SEC 9-05.50(2) FOR PRECAST CONCRETE DRYWELLS.
2. SEE SEC 9-03.12(5) FOR GRAVEL BACKFILL FOR DRYWELLS.
3. SEE SEC 9-33 FOR WOVEN GEOTEXTILE FABRIC (MODERATE SURVIVABILITY, CLASS A). OVERLAP ALL FABRIC JOINTS 1'-6" MIN. WRAP & SECURE FABRIC AROUND PIPE TO PREVENT MIGRATION OF FINES INTO GRAVEL ENVELOPE.
4. SEE STD PLANS A-12 (BY DEFAULT) & A-13 (IF LOCATED IN ARTERIAL STREET) FOR MANHOLE FRAME & COVER.
5. SEE STD PLANS B-102C & Z-118 FOR BASE & FOUNDATION DETAILS.
6. CONE & BARREL JOINTS MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.
7. ADJUSTMENT SECTION, CONE & BARREL JOINTS TO BE SEALED PER SEC 7-05.
8. ONE DRYWELL MAY SERVE MORE THAN ONE INTERIOR BLOW-OFF VALVE.
9. ADJUSTMENT SECTION HEIGHT FOR EXISTING STRUCTURES TO MATCH FIELD CONDITIONS AS REQUIRED SEE STANDARD PLAN A-8.
10. WATER DISTRIBUTION MATERIALS AND APPURTENANCES SHALL CONFORM TO SEC 9-30.
11. ALL JOINTS SHALL BE RESTRAINED JOINTS PER SEC 9-30.
12. CONTRACTOR TO MAINTAIN A MINIMUM OF 3' TO A MAXIMUM 5' DISTANCE FROM THE BOTTOM OF THE 4" PIPE TO THE INSIDE BOTTOM OF DRYWELL BARREL. ADDITIONAL BARREL(S) AND/OR RISER SECTIONS MAY BE REQUIRED TO ACHIEVE SPECIFIED DISTANCE.

APPROVED BY

DIRECTOR OF ENGINEERING SERVICES — DAN BULLER, P.E.

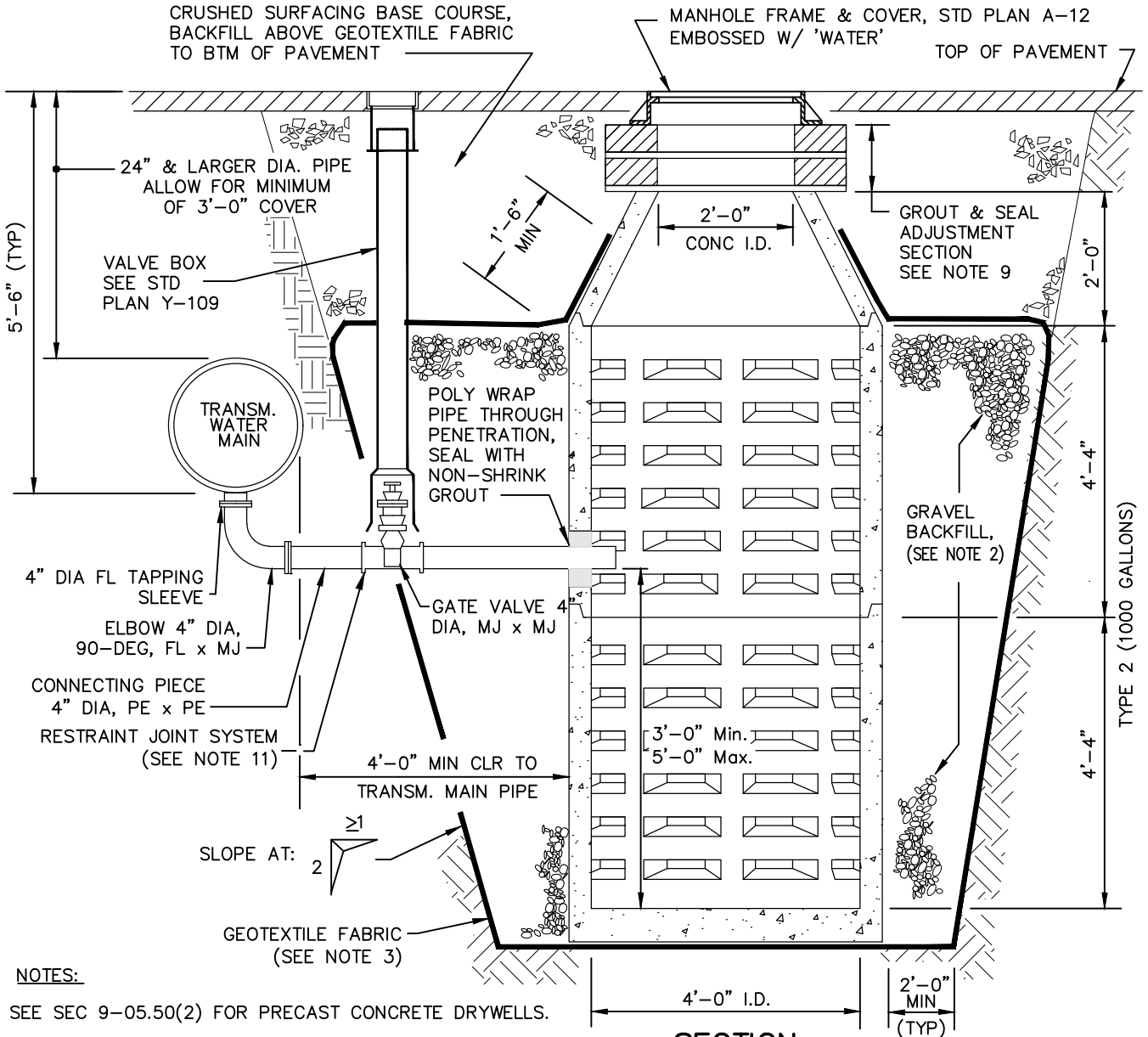
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 04/2021
SCALE: NTS
DWG/REV. BY: SRM/MLD

DRYWELL BLOW-OFF
INTERIOR 4" GATE VALVE

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y-103

Back to Section Y - TOC



SECTION

NOTES:

1. SEE SEC 9-05.50(2) FOR PRECAST CONCRETE DRYWELLS.
2. SEE SEC 9-03.12(5) FOR GRAVEL BACKFILL FOR DRYWELLS.
3. SEE SEC 9-33 FOR WOVEN GEOTEXTILE FABRIC (MODERATE SURVIVABILITY, CLASS A). OVERLAP ALL FABRIC JOINTS 1'-6" MIN. WRAP & SECURE FABRIC AROUND PIPE TO PREVENT MIGRATION OF FINES INTO GRAVEL ENVELOPE.
4. SEE STD PLANS A-12 (BY DEFAULT) & A-13 (IF LOCATED IN ARTERIAL STREET) FOR MANHOLE FRAME & COVER.
5. SEE STD PLANS B-102C & Z-118 FOR BASE & FOUNDATION DETAILS.
6. CONE & BARREL JOINTS MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.
7. ADJUSTMENT SECTION, CONE & BARREL JOINTS TO BE SEALED PER SEC 7-05.
8. ONE DRYWELL MAY SERVE MORE THAN ONE INTERIOR BLOW-OFF VALVE.
9. ADJUSTMENT SECTION HEIGHT FOR EXISTING STRUCTURES TO MATCH FIELD CONDITIONS AS REQUIRED SEE STANDARD PLAN A-8.
10. WATER DISTRIBUTION MATERIALS AND APPURTENANCES SHALL CONFORM TO SEC 9-30.
11. ALL JOINTS SHALL BE RESTRAINED JOINTS PER SEC 9-30.
12. CONTRACTOR TO MAINTAIN A MINIMUM OF 3' TO A MAXIMUM 5' DISTANCE FROM THE BOTTOM OF THE 4" PIPE TO THE INSIDE BOTTOM OF DRYWELL BARREL. ADDITIONAL BARREL(S) AND/OR RISER SECTIONS MAY BE REQUIRED TO ACHIEVE SPECIFIED DISTANCE.

APPROVED BY

DIRECTOR OF ENGINEERING SERVICES — DAN BULLER, P.E.

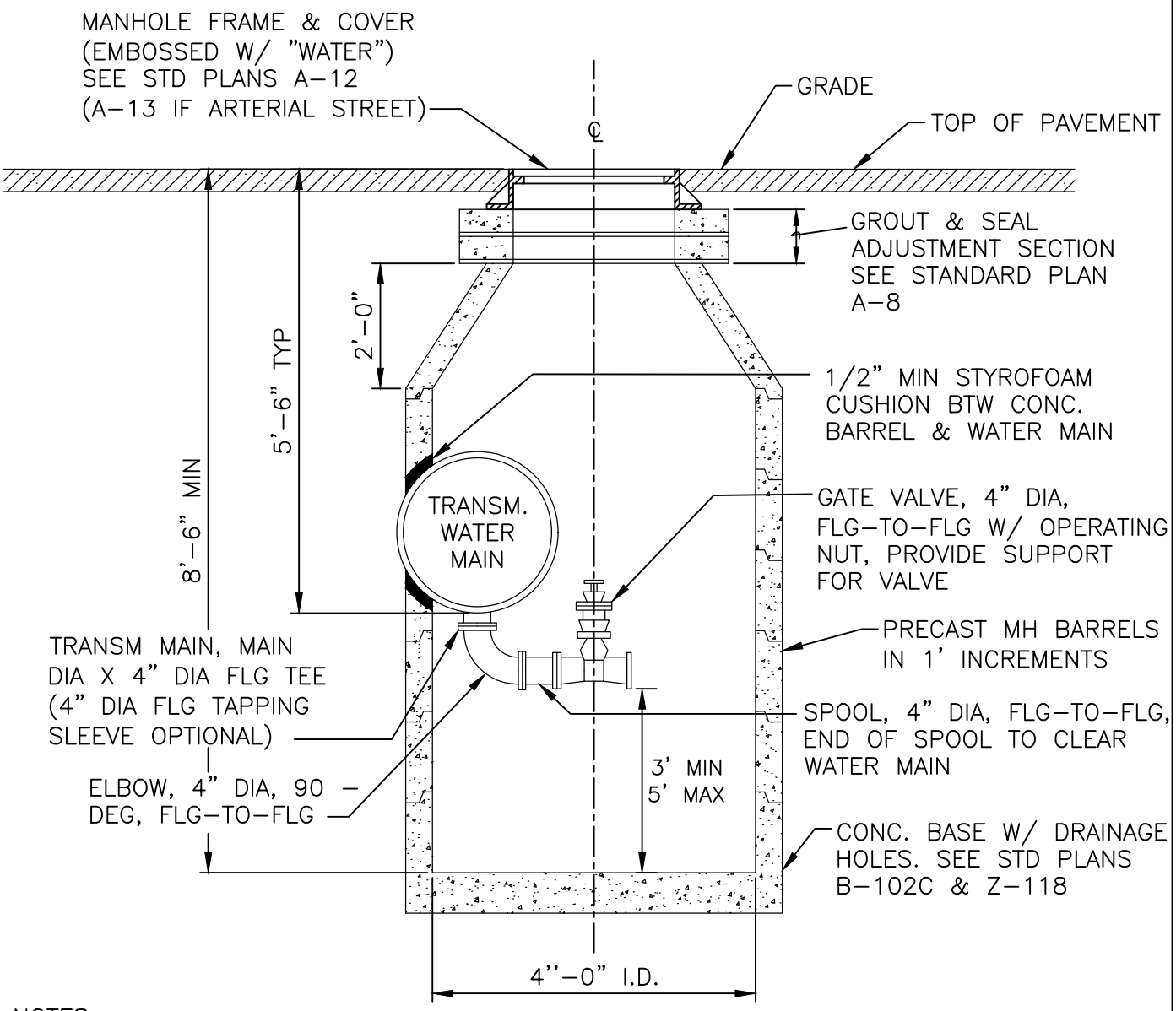
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 04/2021
SCALE: NTS
DWG/REV. BY: SRM/MLD

DRYWELL BLOW-OFF
EXTERIOR 4" GATE VALVE

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. **Y-103A**

Back to Section Y - TOC



NOTES:

1. SEE SECTIONS 7–05 & 9–05.50(2) FOR PRECAST CONCRETE MANHOLES
2. SEE SECTIONS 7–12 & 9–30 FOR WATER FITTINGS.
3. SEE STD PLAN Z–109 FOR MANHOLE STEP DETAILS.
4. CONE & BARREL JOINTS MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.
5. CONTRACTOR TO MAINTAIN A MINIMUM OF 3' TO A MAXIMUM 5' DISTANCE FROM THE BOTTOM OF THE 4" PIPE TO THE INSIDE BOTTOM OF DRYWELL BARREL. ADDITIONAL BARREL(S) AND/OR RISER SECTIONS MAY BE REQUIRED TO ACHIEVE SPECIFIED DISTANCE.

APPROVED BY
DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

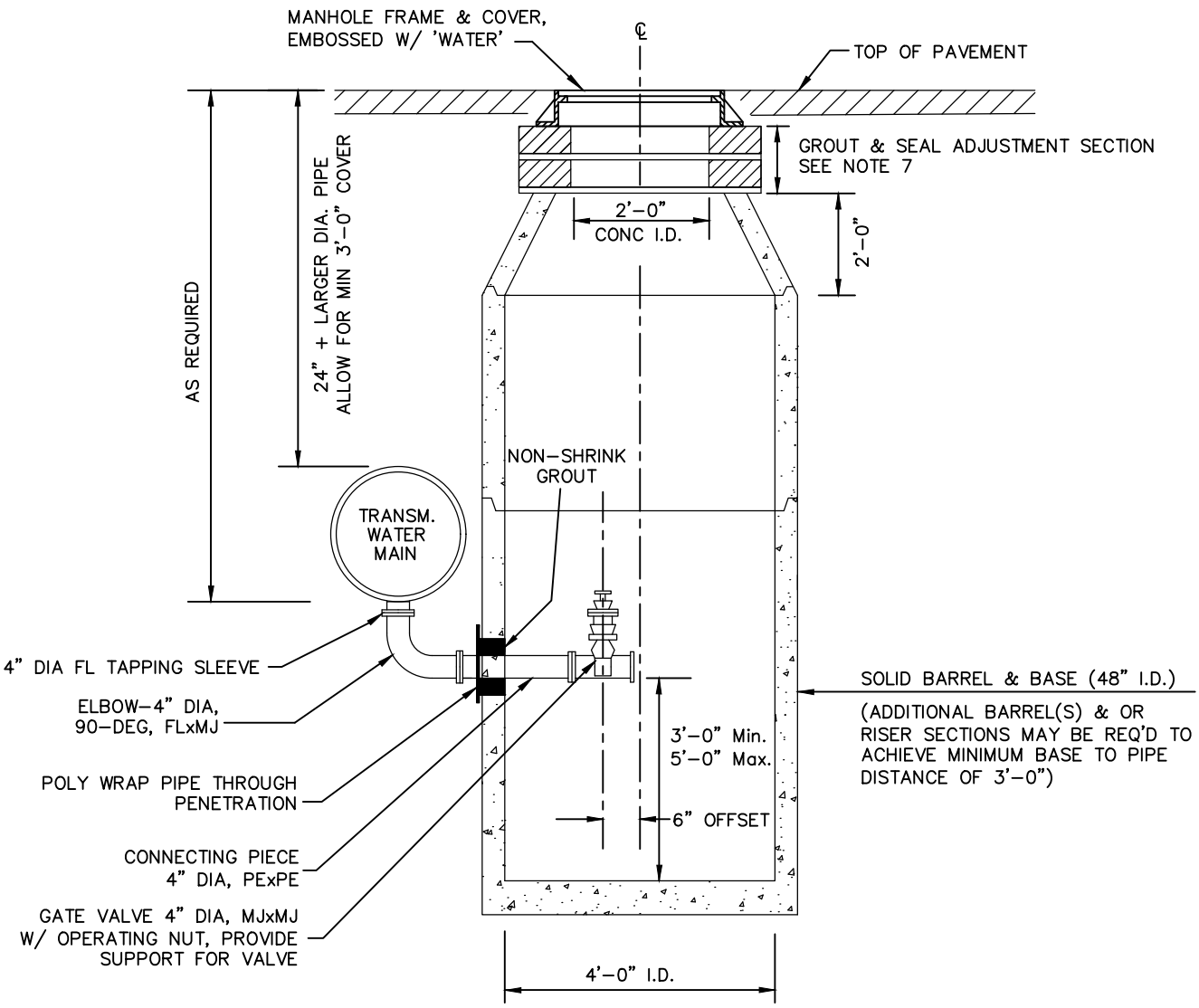
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 04/2021
CHECKED BY: JAG
SCALE: NTS
DWG/REV. BY: RLB/MLD

MANHOLE BLOW–OFF
INTERIOR 4" GATE VALVE

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y–104

Back to Section Y - TOC



SECTION

NOTES:

1. SEE SEC 9-05.50(2) FOR PRECAST CONCRETE MANHOLES.
2. SEE STD PLANS A-12 (BY DEFAULT) & A-13 (IF LOCATED IN ARTERIAL STREET) FOR MANHOLE FRAME & COVER.
3. SEE STD PLANS B-102C & Z-118 FOR BASE & FOUNDATION DETAILS.
4. CONE & BARREL JOINTS MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.
5. ADJUSTMENT SECTION, CONE & BARREL JOINTS TO BE SEALED PER SEC 7-05.
6. ONE MANHOLE MAY SERVE MORE THAN ONE INTERIOR BLOW-OFF VALVE.
7. ADJUSTMENT SECTION HEIGHT FOR EXISTING STRUCTURES TO MATCH FIELD CONDITIONS AS REQUIRED SEE STANDARD PLAN A-8.
8. WATER DISTRIBUTION MATERIAL AND APPURTENANCES SHALL CONFORM TO SEC 9-30.
9. ALL JOINTS SHALL BE RESTRAINED JOINTS PER SEC 9-30.

APPROVED BY

DIRECTOR OF ENGINEERING SERVICES — DAN BULLER, P.E.

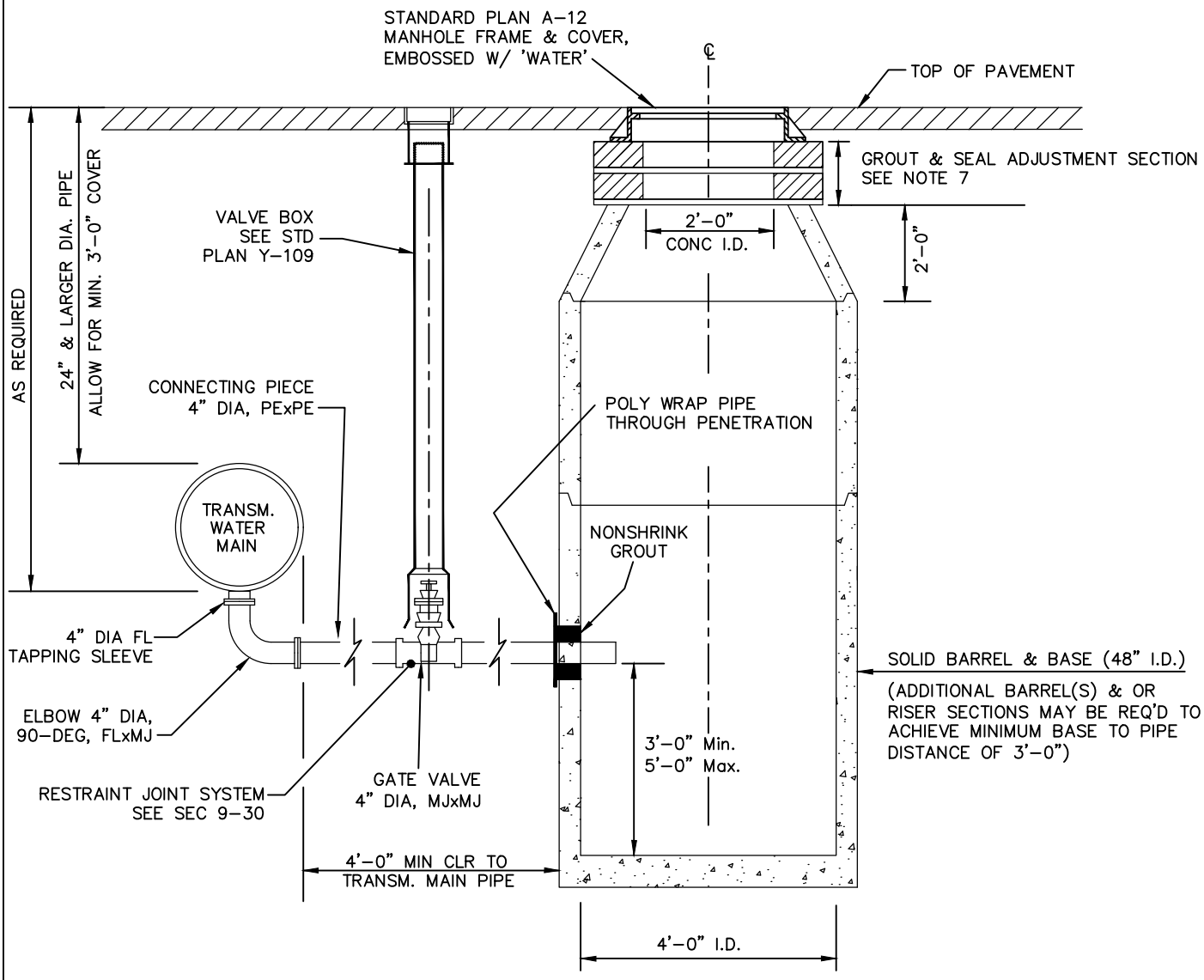
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 04/2021
CHECKED BY: JTG
SCALE: NTS
DWG/REV. BY: LWK/MLD

PUMPER STYLE BLOW-OFF
INTERIOR 4" GATE VALVE

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y-105

Back to Section Y - TOC



SECTION

NOTES:

1. SEE SEC 9-05.50(2) FOR PRECAST CONCRETE MANHOLES.
2. SEE STD PLANS A-12 (BY DEFAULT) & A-13 (IF LOCATED IN ARTERIAL STREET) FOR MANHOLE FRAME & COVER.
3. SEE STD PLANS B-102C & Z-118 FOR BASE & FOUNDATION DETAILS.
4. CONE & BARREL JOINTS MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.
5. ADJUSTMENT SECTION, CONE & BARREL JOINTS TO BE SEALED PER SEC 7-05.
6. ONE MANHOLE MAY SERVE MORE THAN ONE INTERIOR BLOW-OFF VALVE.
7. ADJUSTMENT SECTION HEIGHT FOR EXISTING STRUCTURES TO MATCH FIELD CONDITIONS AS REQUIRED SEE STANDARD PLAN A-8
8. WATER DISTRIBUTION MATERIAL AND APPURTENANCES SHALL CONFORM TO SEC 9-30.
9. ALL JOINTS SHALL BE RESTRAINED JOINTS PER SEC 9-30.

APPROVED BY

DIRECTOR OF ENGINEERING SERVICES — DAN BULLER, P.E.

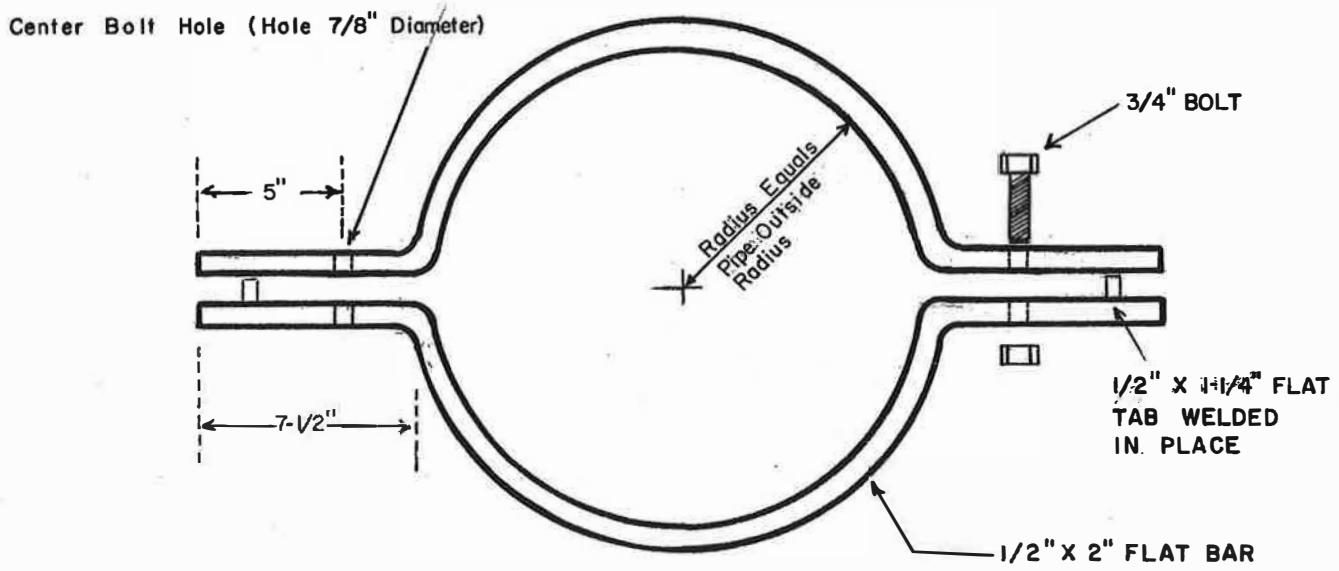
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 04/2021
CHECKED BY: JTG
SCALE: NTS
DWG/REV. BY: LWK/MLD

PUMPER STYLE BLOW-OFF
EXTERIOR 4" GATE VALVE

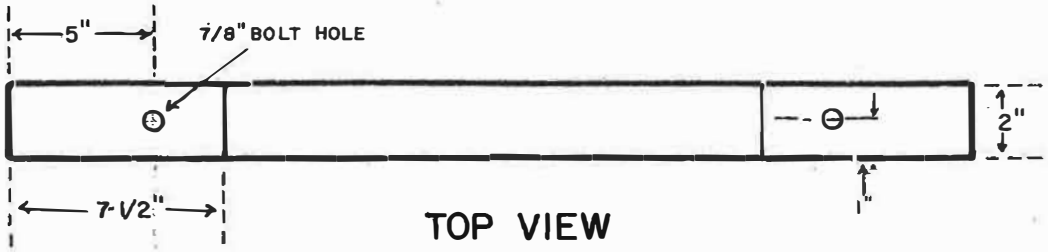
ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y-105A

Back to Section Y - TOC



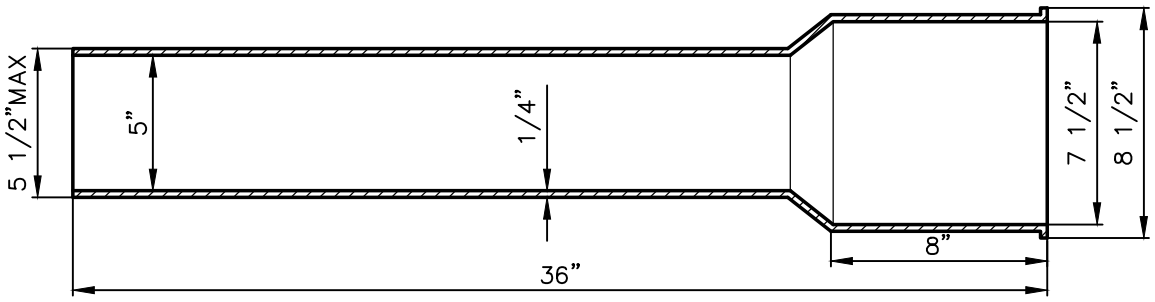
SIDE VIEW



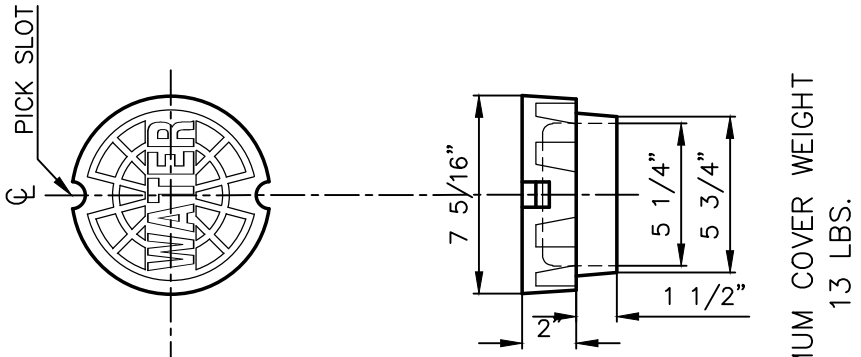
TOP VIEW

APPROVED BY CITY ENGR. Brad A Blegen CH. DES. ENGR. [illegible]	SCALE NONE ADOPTED 2-86	TYPICAL DUCTILE IRON PIPE CLAMP FOR PIPE UP TO 12" DIA.
	REVISED	DEPT. OF PUBLIC WORKS ENGR. DIVISION SPOKANE, WN.
		STANDARD PLAN No. Y-108

Back to Section Y - TOC

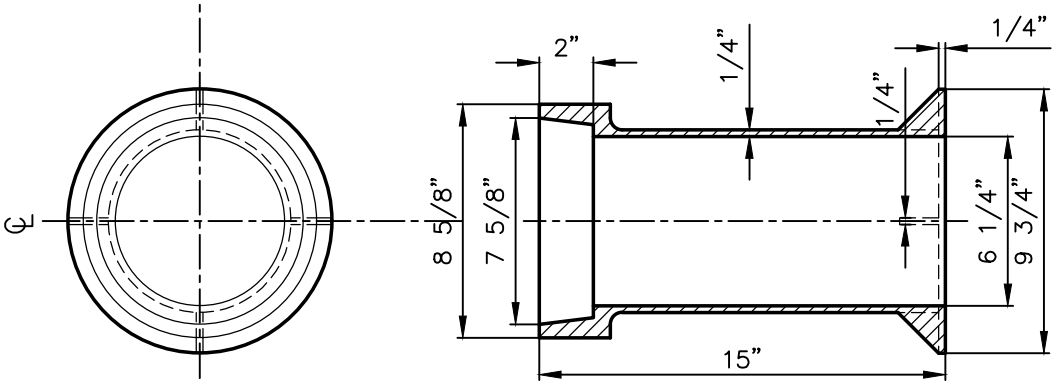


BOTTOM SECTION



MINIMUM COVER WEIGHT
13 LBS.

COVER



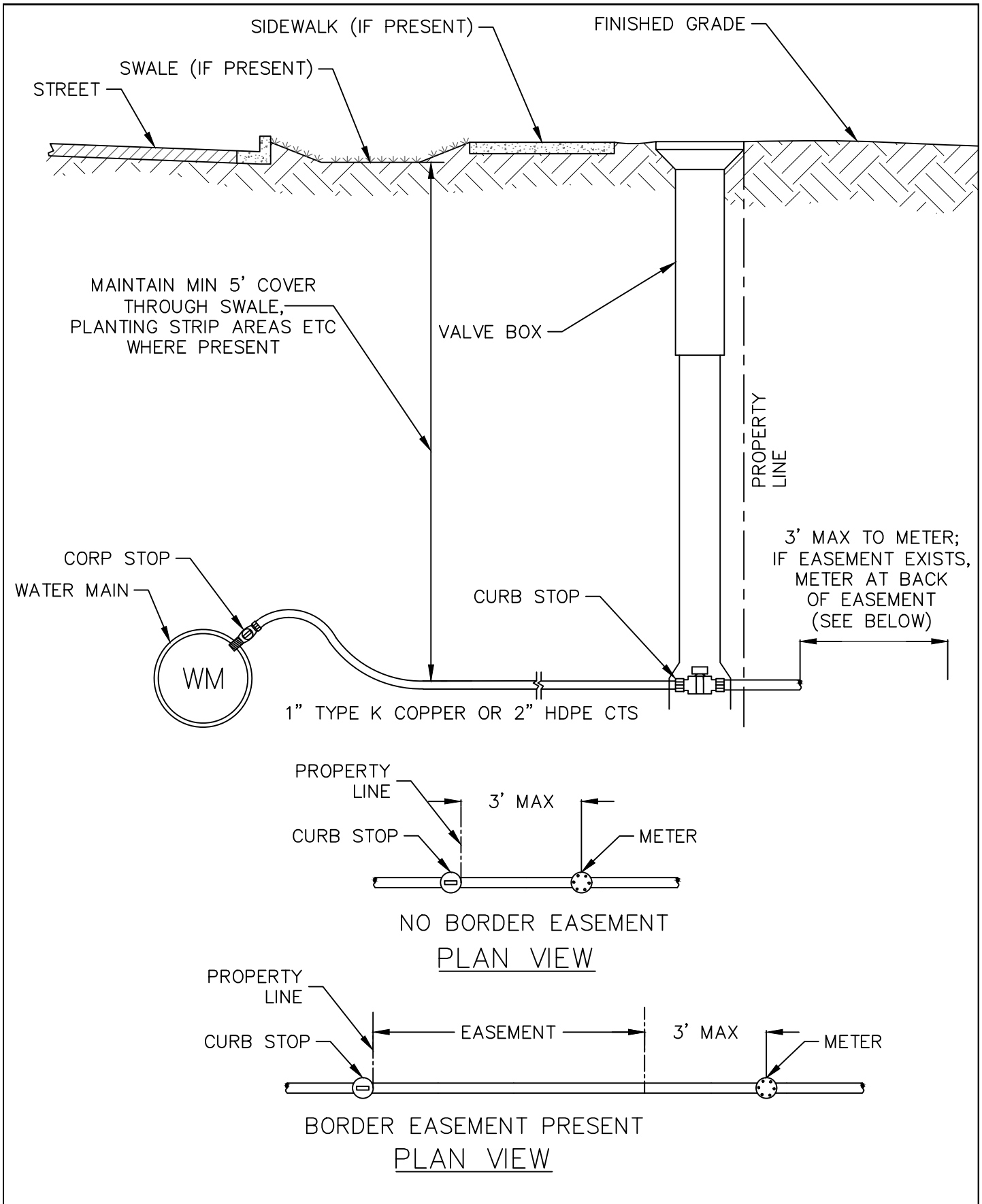
TOP SECTION**

*OLYMPIC FOUNDRY MODEL 930 – 15" TOP, 5 1/4" HEAVY LID (OR APPROVED EQUAL)

**TOP SECTION & COVER TO ALSO BE USED TO PROTECT CURB STOPS LOCATED IN PAVED OR CONCRETE AREAS

APPROVED BY ENGINEERING SERVICES DIRECTOR — KYLE TWOHIG CITY ENGINEER — DAN BULLER, P.E.	ADOPTED: _____ REVISED: 04/2021 SUPERSEDES: 02/2017 SCALE: NOT TO SCALE DWG./REV BY: DGB/MLD	CAST IRON VALVE BOX* ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON STANDARD PLAN No. Y–109

Back to Section Y - TOC



APPROVED BY

DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

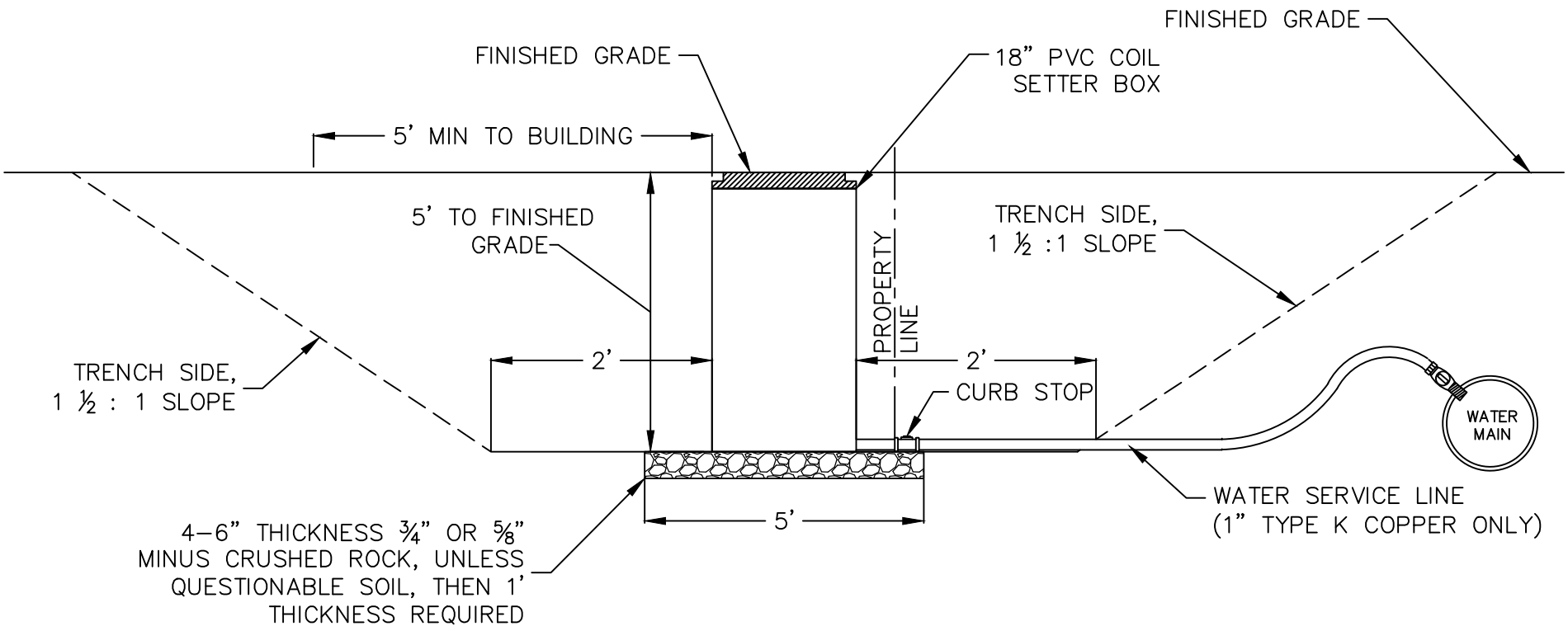
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 04/2021
CHECKED BY: JTG
SCALE: NTS
DWG/REV. BY: ABM/MLD

TYPICAL 1–2" WATER SERVICE

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y–111

Back to Section Y - TOC



NOTES:
1) IF CURB STOP IS NOT AT 5' DEPTH FROM FINISHED GRADE, SERVICE WILL NEED TO BE EXCAVATED 3–4' TOWARD THE STREET TO FACILITATE RAISING OR LOWERING CURB STOP, BY CITY FORCES, TO 5' DEPTH
2) EXCAVATION TO BE DONE BY CONTRACTOR PER L&I REGULATIONS
3) BEDDING MUST BE ON SITE, FILL IN 1' LIFTS TO AVOID OVALING
4) 5/8", ¾", 1" T–10 METERS ONLY
5) BOX IS NOT TRAFFIC RATED, NOT TO BE INSTALLED IN SIDEWALKS, DRIVEWAYS OR STREETS
6) MUST BE AT FINISH GRADE FOR FINAL INSPECTION OR IT WILL NEED TO BE RESET

APPROVED BY
ENGINEERING SERVICES DIRECTOR — KYLE TWOHIG
CITY ENGINEER — DAN BULLER, P.E.

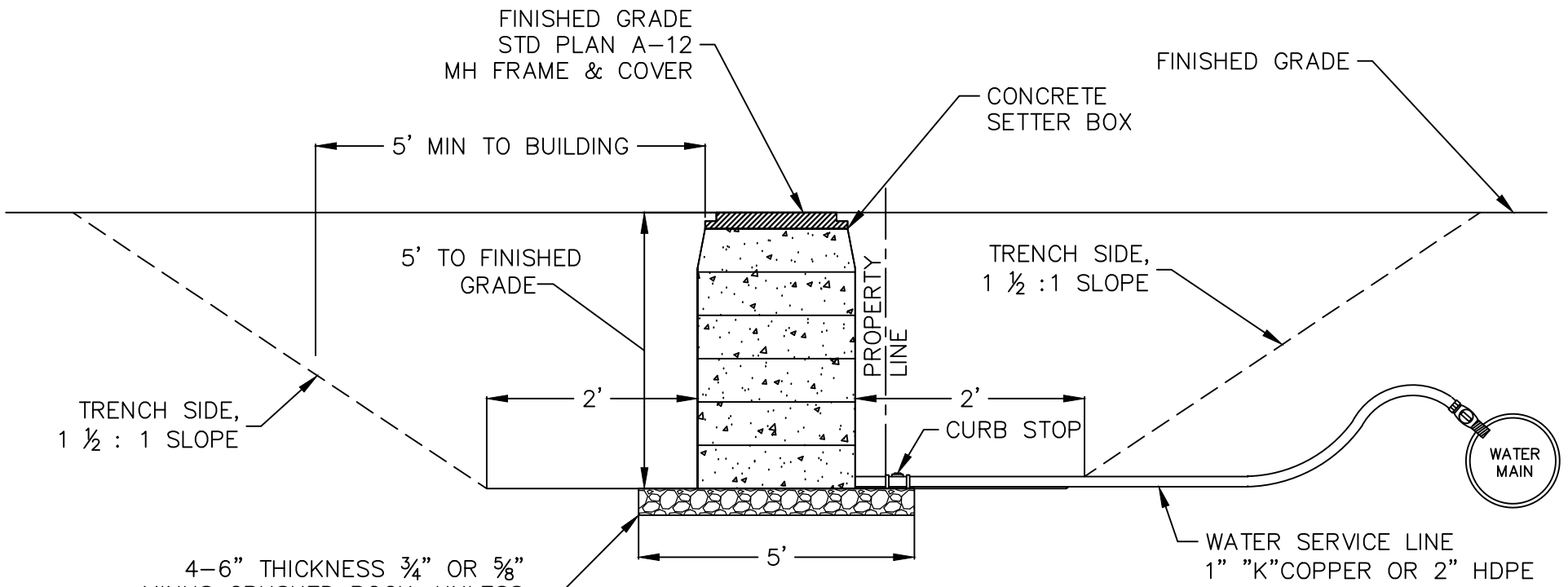
ADOPTED: _____
REVISED: 04/2021
SUPERSEDES: 01/2017
CHECKED BY: JTG
SCALE: NTS
DWG/REV. BY: ABM/MLD

PVC WATER METER BOX TYPICAL INSTALLATION

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y–112

Back to Section Y - TOC



NOTES:
1) ONE SERVICE & METER PER BOX
2) IF CURB STOP IS NOT AT 5' DEPTH FROM FINISHED GRADE, SERVICE WILL NEED TO BE EXCAVATED 3–4' TOWARD THE STREET TO FACILITATE RAISING OR LOWERING CURB STOP, BY CITY FORCES, TO 5' DEPTH
2) EXCAVATION TO BE DONE BY CONTRACTOR PER L&I REGULATIONS
3) BEDDING MUST BE ON SITE
4) DOMESTIC METERS: 3/4", 1", 1 1/2", OR 2" T–10 METER OR
5) IRRIGATION METERS 1 1/2" OR 2" HPT METER (NO IRR. SYSTEM OR DVCA IN BOX)
6) 1/2" CONDUIT MUST BE INSTALLED FROM BOX TO HOUSE OR BUILDING

APPROVED BY

ENGINEERING SERVICES DIRECTOR KYLE TWOHIG

CITY ENGINEER DAN BULLER, P.E.

ADOPTED: _____
REVISED: 04/2021
SUPERSEDES: 01/2017
CHECKED BY: JTG
SCALE: NTS
DWG/REV. BY: ABM/MLD

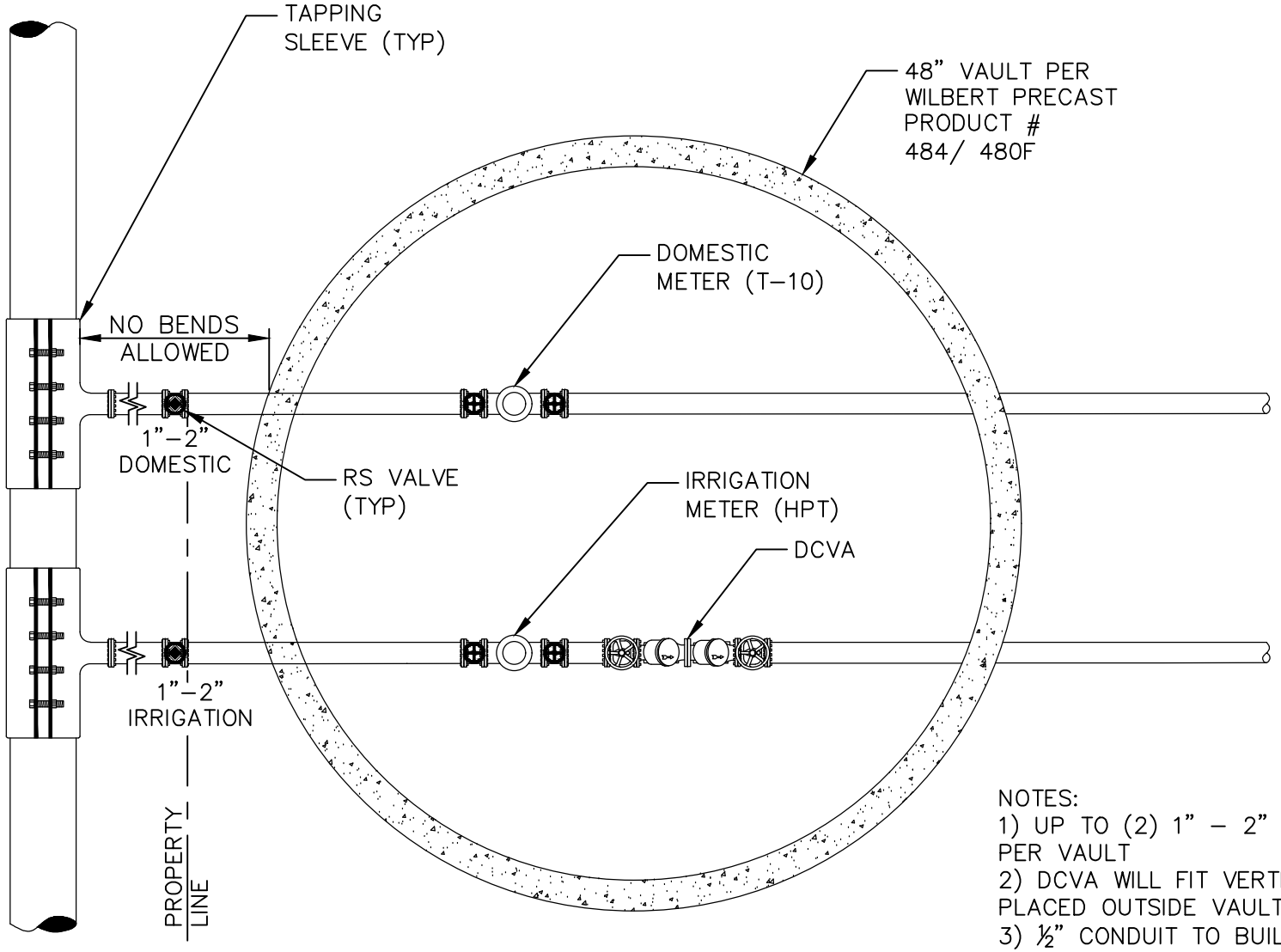
CONCRETE WATER METER BOX TYPICAL INSTALLATION

SPOKANE

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No.
Y–112A

Back to Section Y - TOC



NOTES:
1) UP TO (2) 1" – 2" SERVICES & METERS PER VAULT
2) DCVA WILL FIT VERTICALLY OR MAY BE PLACED OUTSIDE VAULT IN IRRIGATION BOX
3) ½" CONDUIT TO BUILDING FOR WIRE IS REQUIRED

APPROVED BY

ENGINEERING SERVICES DIRECTOR KYLE TWOHIG

CITY ENGINEER DAN BULLER, P.E.

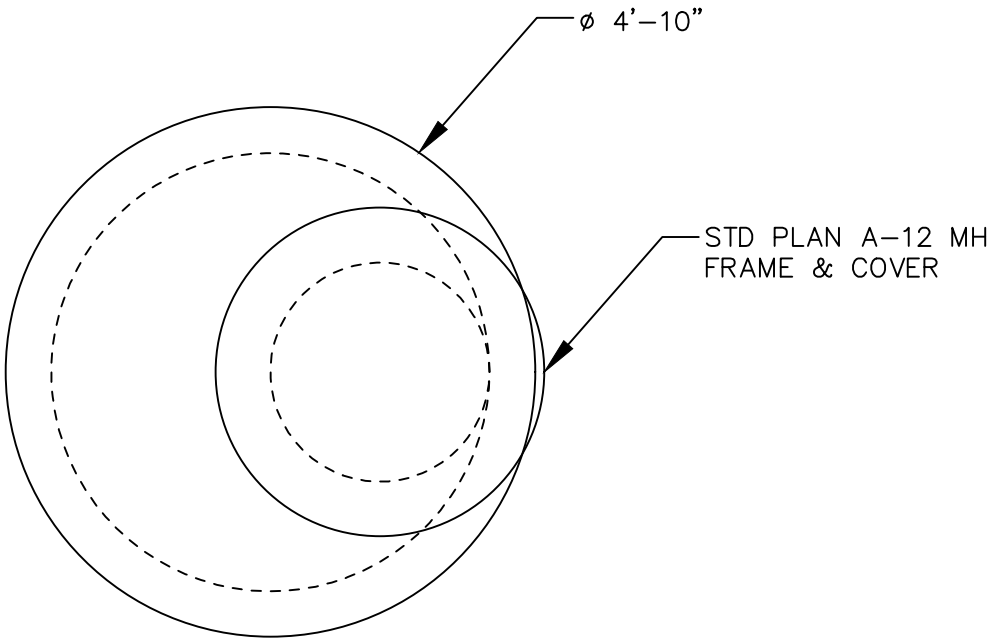
ADOPTED: _____
REVISED: 04/2021
SUPERSEDES: 01/2017
CHECKED BY: JTG
SCALE: NTS
DWG/REV. BY: ABM/MLD

48" METER VAULT

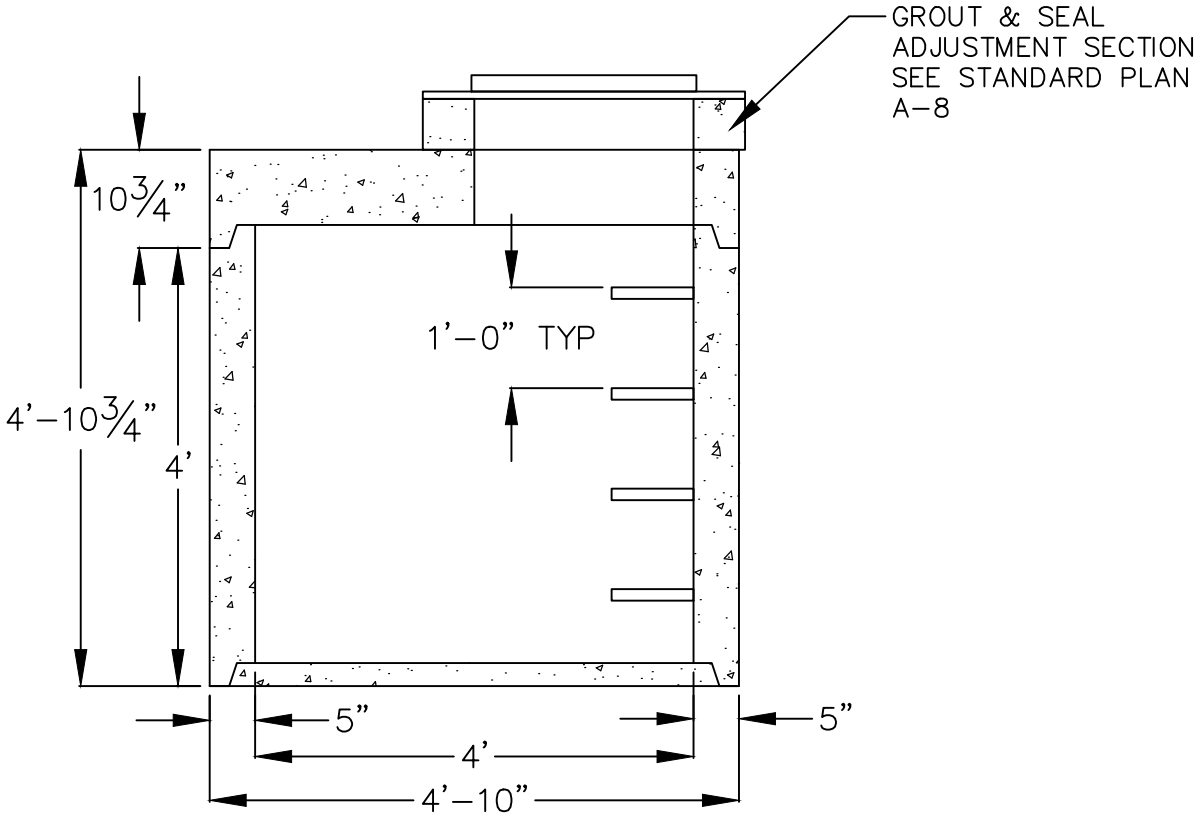
ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y-113

Back to Section Y - TOC



PLAN VIEW



SECTION VIEW

APPROVED BY

ENGINEERING SERVICES DIRECTOR — KYLE TWOHIG

CITY ENGINEER — DAN BULLER, P.E.

ADOPTED: _____
REVISED: 04/2021
SUPERSEDES: 10/2019
CHECKED BY: JTG
SCALE: NTS
DWG/REV. BY: ABM/MLD

48" PRECAST CONCRETE VAULT

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. **Y–114**

Back to Section Y - TOC

MINIMUM WATER VAULT DIMENSIONS
MACH METER INSTALLATIONS 3" AND LARGER

	W X L X H (INSIDE)
3"–4" METER ONLY	6' X 6' X 6'6"
3"–4" DOMESTIC, IRRIGATION, FIRE & DOM/FIRE W/DCVA	6' X 10' X 6'6"
6" METER ONLY	6' X 8' X 6'6"
6" DOMESTIC, IRRIGATION, FIRE & DOM/FIRE W/DCVA	6' X 12' X 6'6"
8"–10" METER ONLY	6' X 10' X 6'6"
8"–10" FIRE W/DCVA	6' X 12' X 6'6"
8"–10" FIRE & DOMESTIC W/DCVA	6' X 12' X 6'6"

1. IF THERE ARE 2 SERVICES, (EG TWO LINES 4" AND LARGER OR THREE LINES 2" AND LARGER RUNNING PARALLEL IN VAULT) ALL VAULTS SHALL BE A MINIMUM OF 8' WIDE.

2. IF THERE ARE 2 OR MORE 4" OR LARGER SERVICES, PLANS MUST BE REVIEWED AND APPROVED PRIOR TO INSTALLATION.

3. ALL VAULTS WILL BE HEAVY DUTY TRAFFIC RATED

4. VAULT MEASUREMENTS ARE MINIMUM INSIDE DIMENSIONS

5. VAULT MEASUREMENTS PROVIDED DO NOT INCLUDE PVC AND/OR FDC CONNECTIONS IN THE VAULT. ADDITION OF APPURTENANCES IN THE VAULT WILL INCREASE THE VAULT DIMENSIONS AND SHALL BE CALCULATED BY THE DESIGNER.

APPROVED BY

DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

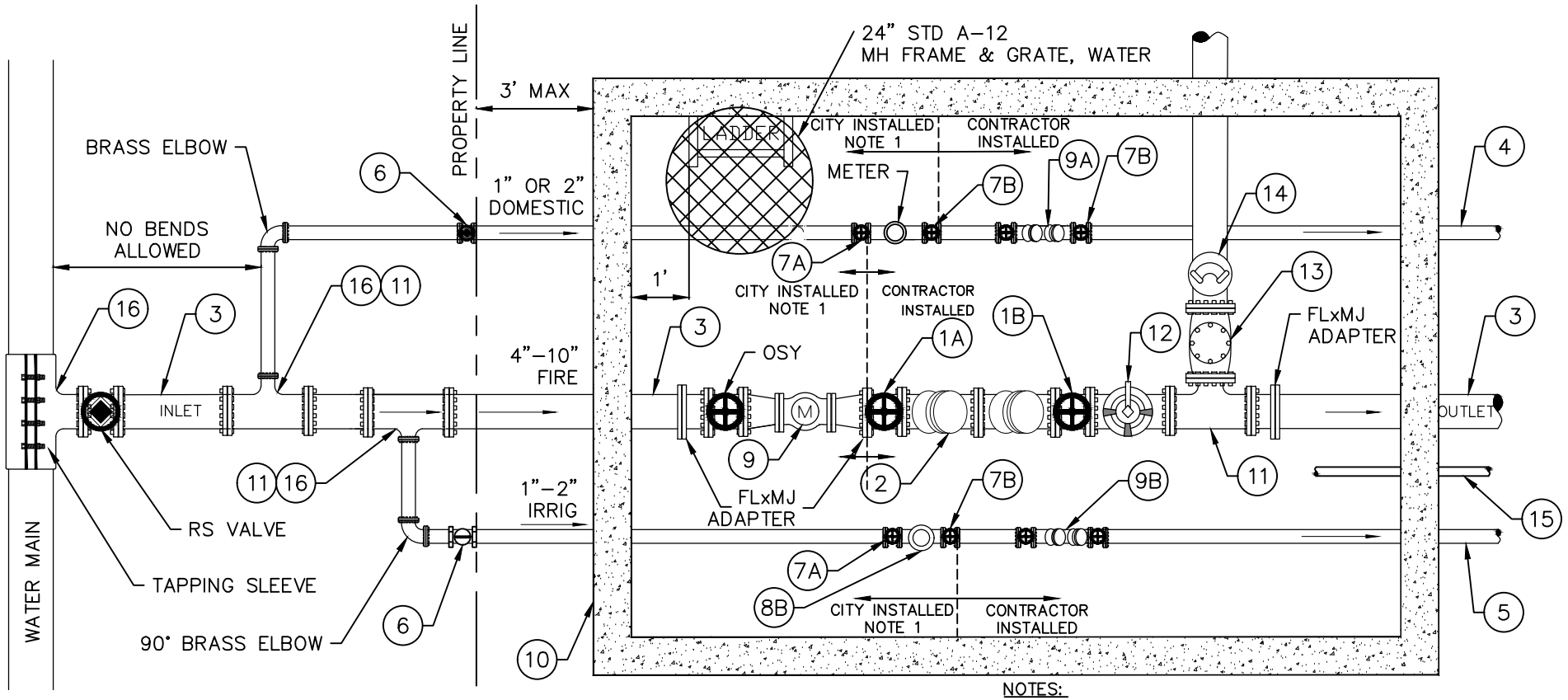
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 11/2024
SCALE: NTS
DWG./REV BY: MB/MLD

WATER SERVICE VAULT MINIMUM DIMENSIONS

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. **Y–115**

Back to Section Y - TOC



1A FIRE LINE OSY, INLET
1B FIRE LINE OSY, OUTLET
2 DCVA
3 DUCTILE IRON PIPE
4 DOMESTIC SERVICE
5 IRRIGATION SERVICE
6 CURB STOP
7A INLET VALVE, DOMESTIC/IRRIGATION
7B OUTLET VALVE, DOMESTIC/IRRIGATION
8A NEPTUNE TRUFLOW METER
8B IRRIGATION METER
9 MACH METER
9A DCVA ON ALL COMMERCIAL APPLICATIONS AND RESIDENTIAL WHERE REQUIRED
9B BACKFLOW ASSEMBLY, IRRIGATION
10 VAULT (PER Y-115) PROVIDED AND INSTALLED BY CONTRACTOR
11 TEE OR TAPPING SADDLE
12 POST INDICATOR (THROUGH VAULT TOP)
13 CHECK WITH BALL DRIP
14 PUMPER CONNECTION (FDC) (THROUGH VAULT)
15 3/4" ELECTRICAL CONDUIT FOR REMOTE READER, VAULT TO BUILDING OR BOLLARD (36" ABOVE GROUND), ETC
16 TAP PERMIT REQUIRED

NOTES:
1. ALL EXCAVATION, BEDDING, BACKFILL, & RESTORATION, INCLUDING FOR CITY INSTALLED PIPING, IS TO BE DONE BY CONTRACTOR.

2. IN SHALLOW GROUNDWATER AREAS WHERE SEASONAL HIGH LEVEL WILL REACH BOTTOM OF VAULT OR IS <7' DEEP, METER VAULT SHALL BE ONE OF THE FOLLOWING:

a) BUOYANT RESISTANT VAULT WITH WATERTIGHT JOINTS AND PIPE PENETRATIONS, AND EXTERIOR WATER PROOF COATING (XYPEX OR EQUIVALENT). MIN 12" WIDE BY 6" DEEP SUMP TO BE PROVIDED FOR PUMP OUT. BOLTS FOR FLANGES AND MJ FITTINGS SHALL BE ASTM 316.

b) BE LOCATED ABOVE GROUND IN THE HEATED AND INSULATED ENCLOSURE SUCH AS HOTBOX MOUNTED ON MIN 6" THICK REINFORCED CONCRETE BASE.

APPROVED BY
DIRECTOR OF ENGINEERING SERVICES — DAN BULLER, P.E.

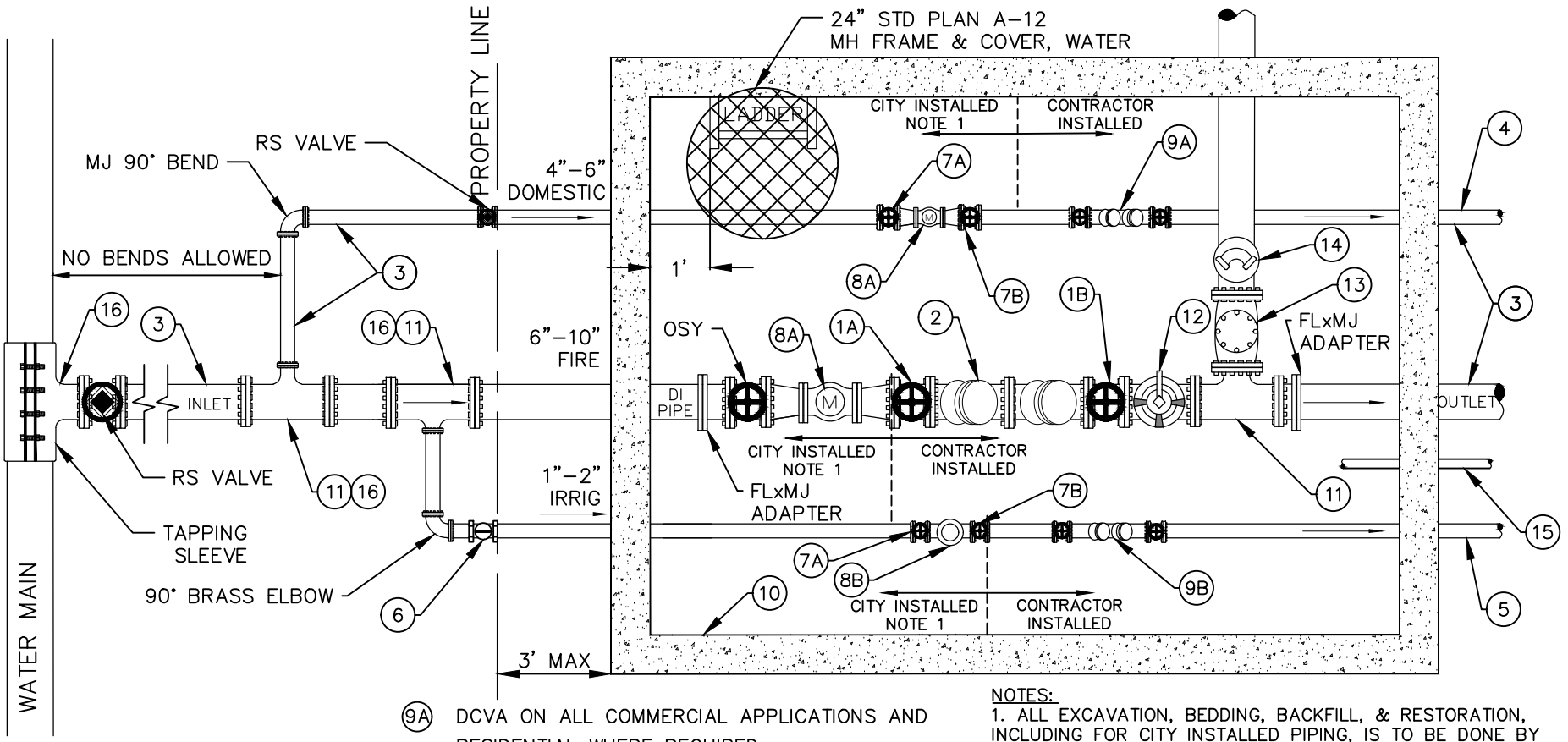
ADOPTED:
REVISED: 04/2025
SUPERSEDES: 11/2024
CHECKED BY: DCS
SCALE: NTS
DWG/REV. BY: ABM/MLD

WATER METER VAULT SMALL

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y-116

Back to Section Y - TOC



(1A) FIRE LINE OSY, INLET
(1B) FIRE LINE OSY, OUTLET
(2) DCVA
(3) DUCTILE IRON PIPE
(4) DOMESTIC SERVICE
(5) IRRIGATION SERVICE
(6) CURB STOP
(7A) INLET VALVE, DOMESTIC/IRRIGATION
(7B) OUTLET VALVE, DOMESTIC/IRRIGATION
(8A) MACH METER
(8B) IRRIGATION METER

(9A) DCVA ON ALL COMMERCIAL APPLICATIONS AND RESIDENTIAL WHERE REQUIRED
(9B) BACKFLOW ASSEMBLY, IRRIGATION
(10) VAULT (PER Y-115) PROVIDED AND INSTALLED BY CONTRACTOR
(11) TEE OR TAPPING SADDLE
(12) POST INDICATOR (THROUGH VAULT TOP)
(13) CHECK WITH BALL DRIP
(14) PUMPER CONNECTION (FDC) (THROUGH VAULT)
(15) 3/4" ELECTRICAL CONDUIT FOR REMOTE READER, VAULT TO BUILDING OR BOLLARD (36" ABOVE GROUND), ETC
(16) TAP PERMIT REQUIRED

NOTES:
1. ALL EXCAVATION, BEDDING, BACKFILL, & RESTORATION, INCLUDING FOR CITY INSTALLED PIPING, IS TO BE DONE BY CONTRACTOR.

2. IN SHALLOW GROUNDWATER AREAS WHERE SEASONAL HIGH LEVEL WILL REACH BOTTOM OF VAULT OR IS <7' DEEP, METER VAULT SHALL BE ONE OF THE FOLLOWING:

a) BUOYANT RESISTANT VAULT WITH WATERTIGHT JOINTS AND PIPE PENETRATIONS, AND EXTERIOR WATER PROOF COATING (XYPEX OR EQUIVALENT). MIN 12" WIDE BY 6" DEEP SUMP TO BE PROVIDED FOR PUMP OUT. BOLTS FOR FLANGES AND MJ FITTINGS SHALL BE ASTM 316.

b) BE LOCATED ABOVE GROUND IN THE HEATED AND INSULATED ENCLOSURE SUCH AS HOTBOX MOUNTED ON MIN 6" THICK REINFORCED CONCRETE BASE.

APPROVED BY
DIRECTOR OF ENGINEERING SERVICES — DAN BULLER, P.E.

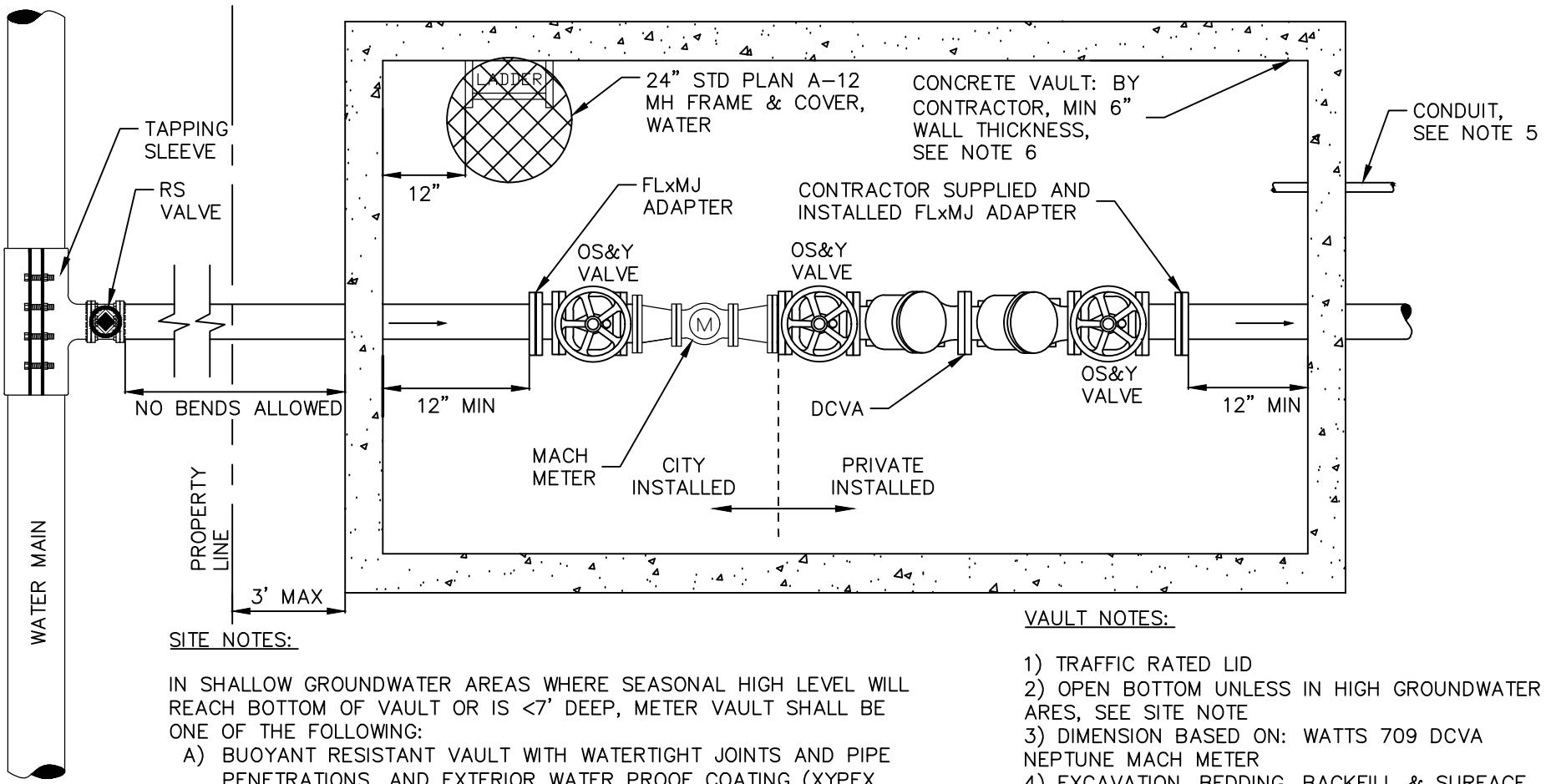
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 11/2024
CHECKED BY: JTG
SCALE: NTS
DWG/REV. BY: ABM/MLD

WATER METER VAULT LARGE

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y-117

Back to Section Y - TOC



SITE NOTES:

IN SHALLOW GROUNDWATER AREAS WHERE SEASONAL HIGH LEVEL WILL REACH BOTTOM OF VAULT OR IS <7' DEEP, METER VAULT SHALL BE ONE OF THE FOLLOWING:

A) BUOYANT RESISTANT VAULT WITH WATERTIGHT JOINTS AND PIPE PENETRATIONS, AND EXTERIOR WATER PROOF COATING (XYPEX OR EQUIVALENT). MIN 12" WIDE BY 6" DEEP SUMP TO BE PROVIDED FOR PUMP OUT. BOLTS FOR FLANGES AND MJ FITTINGS SHALL BE ASTM 316.

B) BE LOCATED ABOVE GROUND IN THE HEATED AND INSULATED ENCLOSURE SUCH AS HOTBOX MOUNTED ON MIN 6" THICK REINFORCED CONCRETE BASE.

VAULT NOTES:

1) TRAFFIC RATED LID
2) OPEN BOTTOM UNLESS IN HIGH GROUNDWATER ARES, SEE SITE NOTE
3) DIMENSION BASED ON: WATTS 709 DCVA NEPTUNE MACH METER
4) EXCAVATION, BEDDING, BACKFILL & SURFACE RESTORATION TO BE DONE BY CONTRACTOR PER L&I REGULATIONS
5) 3/4" MIN CONDUIT REQUIRED FOR REMOTE READER, VAULT TO BUILDING OR BOLLARD (36" ABOVE GROUND), ETC
6) VAULT SIZE PER Y-115

APPROVED BY

DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

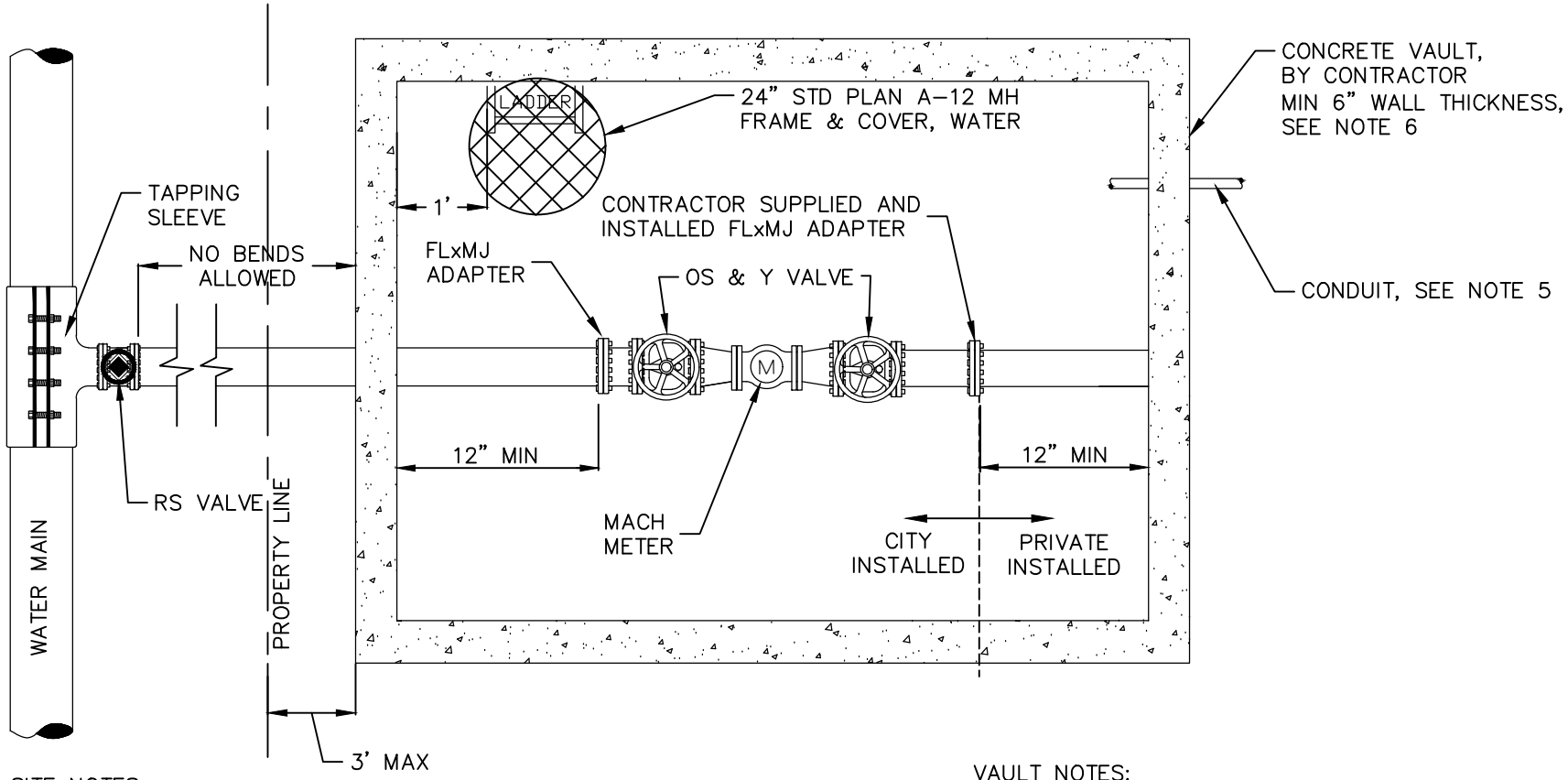
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 11/2024
CHECKED BY: JTG
SCALE: NTS
DWG/REV. BY: ABM/MLD

DOMESTIC-FIRE/FIRE/IRRIGATION 3"-10" SERVICE DOUBLE CHECK VALVE ASSEMBLY

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y-118

Back to Section Y - TOC



SITE NOTES:

IN SHALLOW GROUNDWATER AREAS WHERE SEASONAL HIGH LEVEL WILL REACH BOTTOM OF VAULT OR IS <7' DEEP, METER VAULT SHALL BE ONE OF THE FOLLOWING:

A) BUOYANT RESISTANT VAULT WITH WATERTIGHT JOINTS AND PIPE PENETRATIONS, AND EXTERIOR WATER PROOF COATING (XYPEX OR EQUIVALENT). MIN 12" WIDE BY 6" DEEP SUMP TO BE PROVIDED FOR PUMP OUT. BOLTS FOR FLANGES AND MJ FITTINGS SHALL BE ASTM 316.

VAULT NOTES:

1) TRAFFIC RATED LID
2) OPEN BOTTOM UNLESS IN HIGH GROUNDWATER AREA, SEE SITE NOTE
3) DIMENSIONS BASED ON: NEPTUNE MACH METER
4) EXCAVATION, BEDDING, BACKFILL & RESTORATION TO BE DONE BY CONTRACTOR PER L&I REGULATIONS.
5) 3/4" MIN CONDUIT REQUIRED, STUB 36" ABOVE GROUND
6) VAULT SIZE PER Y-115

APPROVED BY

DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

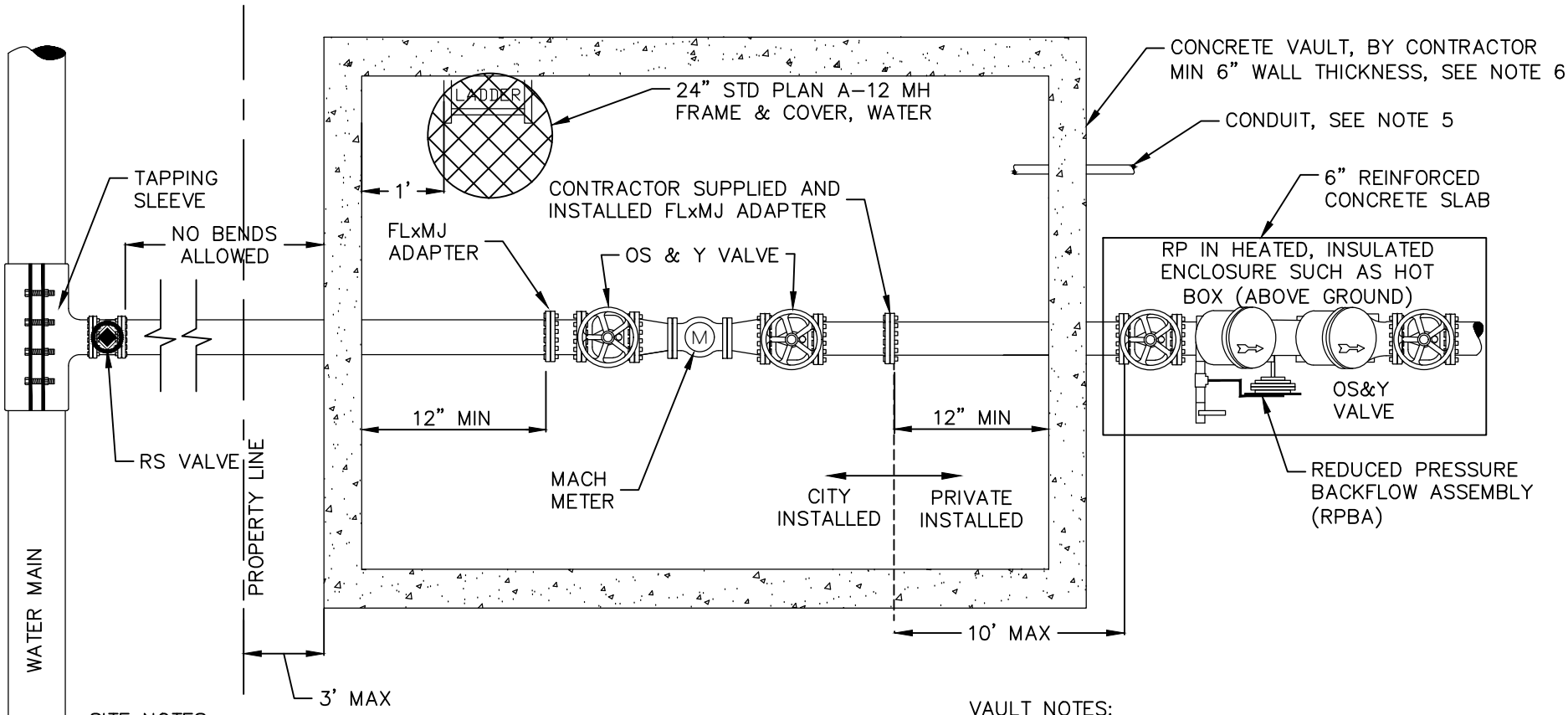
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 04/2021
CHECKED BY: DCS
SCALE: NTS
DWG/REV. BY: ABM/MLD

WATER METER VAULT METER ONLY 3"-10"

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y-119

Back to Section Y - TOC



SITE NOTES:

IN SHALLOW GROUNDWATER AREAS WHERE SEASONAL HIGH LEVEL WILL REACH BOTTOM OF VAULT OR IS <7' DEEP, METER VAULT SHALL BE ONE OF THE FOLLOWING:

A) BUOYANT RESISTANT VAULT WITH WATERTIGHT JOINTS AND PIPE PENETRATIONS, AND EXTERIOR WATER PROOF COATING (XYPEX OR EQUIVALENT). MIN 12" WIDE BY 6" DEEP SUMP TO BE PROVIDED FOR PUMP OUT. BOLTS FOR FLANGES AND MJ FITTINGS SHALL BE ASTM 316.

B) BE LOCATED ABOVE GROUND IN THE HEATED AND INSULATED ENCLOSURE SUCH AS HOTBOX MOUNTED ON MIN 6" THICK REINFORCED CONCRETE BASE.

VAULT NOTES:

1) TRAFFIC RATED LID
2) OPEN BOTTOM UNLESS IN HIGH GROUNDWATER AREA, SEE SITE NOTE
3) DIMENSIONS BASED ON: NEPTUNE MACH METER
4) EXCAVATION, BEDDING, BACKFILL & RESTORATION TO BE DONE BY CONTRACTOR PER L&I REGULATIONS.
5) 3/4" MIN CONDUIT REQUIRED, STUB 36" ABOVE GROUND
6) VAULT SIZE PER Y-115

APPROVED BY

DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

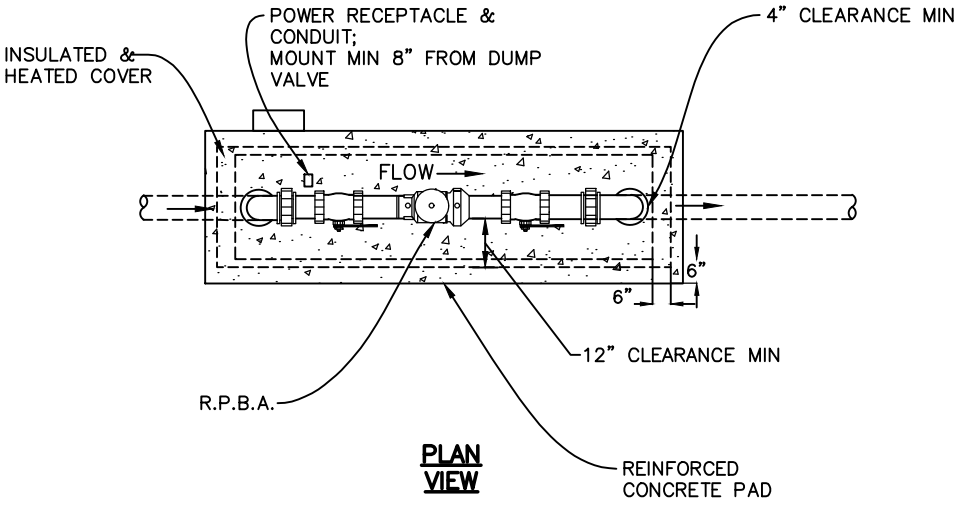
ADOPTED: _____
REVISED: 04/2025
SUPERSEDES: 11/2024
CHECKED BY: DCS
SCALE: NTS
DWG/REV. BY: ABM/MLD

DOMESTIC/FIRE LINE 3"-10" SERVICE REDUCED PRESSURE ASSEMBLY
(PER WAC 246.290.490)

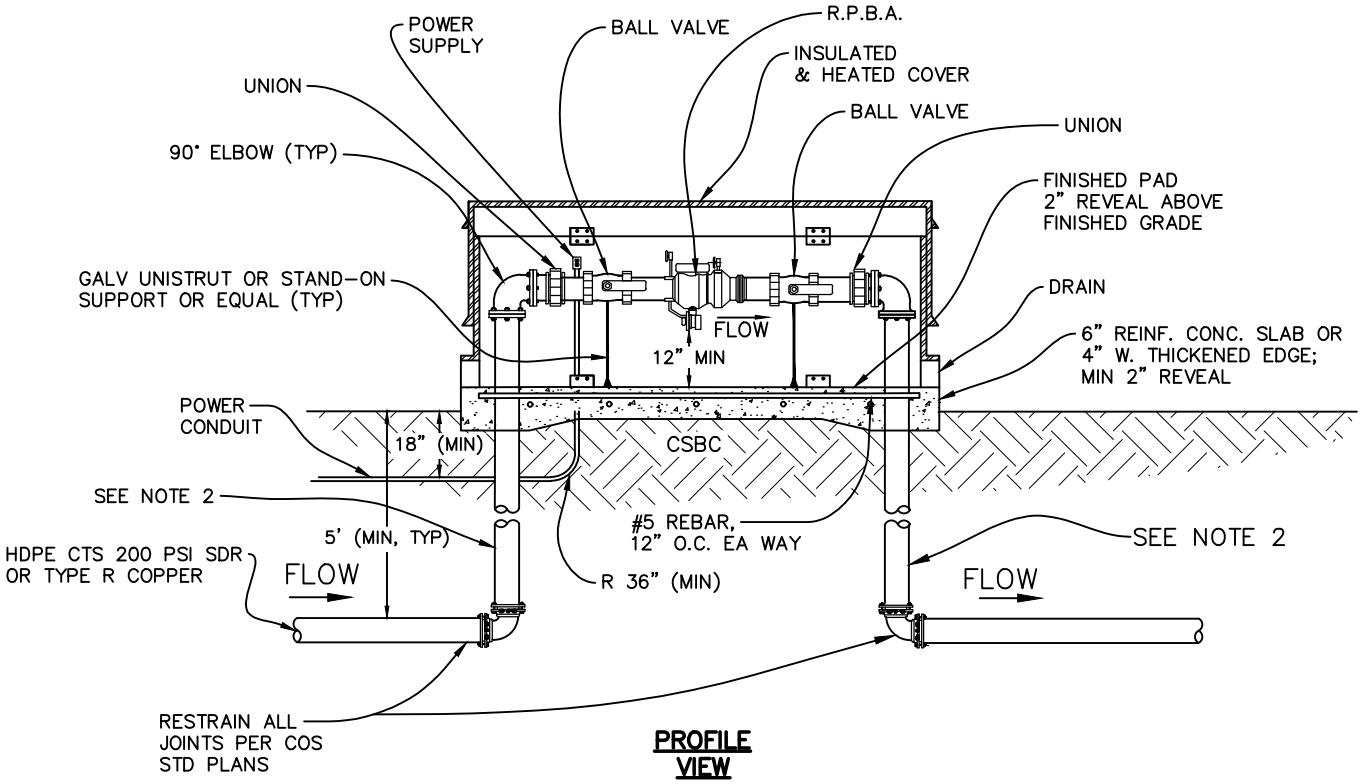
ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y-120

Back to Section Y - TOC



PLAN VIEW



PROFILE VIEW

NOTES:
(1) BASE FOUNDATIONS FOR ALL UTILITY VAULTS AND PADS TO BE PLACED ON 6" MINIMUM OF COMPACTED CSBC OR MATERIAL ALLOWED BY ENGINEER. MATERIAL TO BE COMPACTED TO DIV. 4 REQUIREMENTS
(2) STAINLESS STEEL PIPE (SCH 40, ASTM 304), TYPE K COPPER OR RIGID HDPE 200 PSI CTS SDR9 WITH GALV STEEL (OR SCH. 40 PVC WITH ½" ANNULAR CLEARANCE) SLEEVES THROUGH SLAB

APPROVED BY

DIRECTOR OF ENGINEERING SERVICES — KYLE TWOHIG

CITY ENGINEER — DAN BULLER, P.E.

ADOPTED: _____
REVISED: 04/2022
SUPERSEDES: 04/2021
CHECKED BY: ABM
SCALE: NTS
REVISED BY: ABM

ABOVE GROUND REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA)

PIPE SIZE 2" & UNDER

SPOKANE

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. **Y–121**