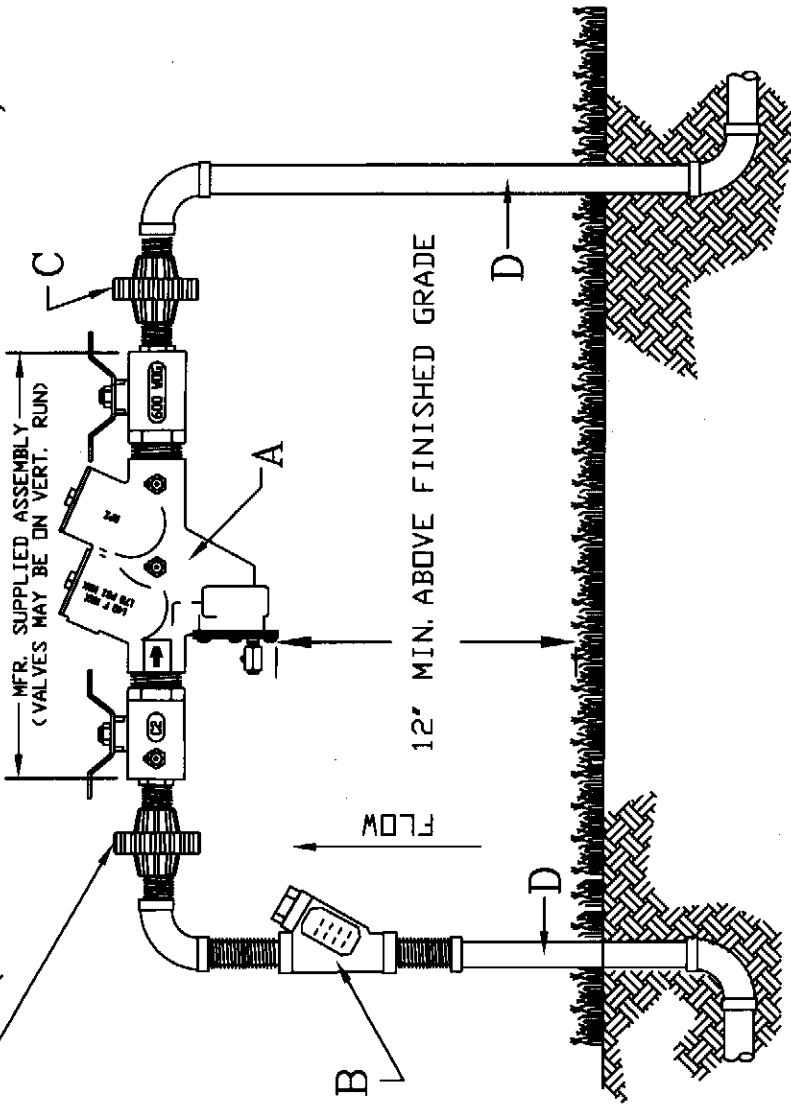


C (UNIONS MAY BE PLACED ON VERTICAL RUNS OF PIPE)



THIS DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEERS SHALL PROVIDE STANDARDS EQUAL TO OR GREATER THAN THESE.

NOTE * - TO BE INSTALLED A MINIMUM OF 12" (INCHES) TO A MAXIMUM OF 30" (INCHES) OVER FINAL FINISHED GRADE AS MEASURED TO THE LOWEST POINT OF THE RP ASSEMBLY; FOR USE WITHIN CITY OF NAPLES WATER AND NO CLOSER THAN 12" (INCHES) TO ANY FIXED STRUCTURE.

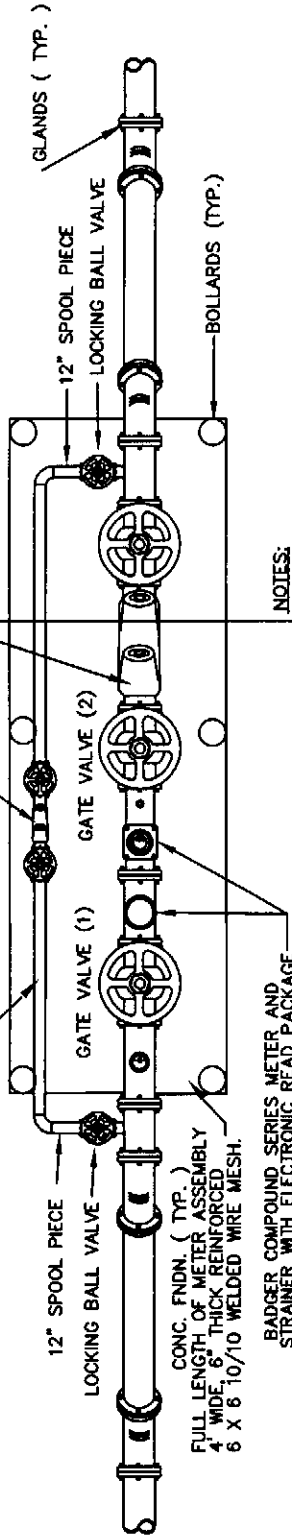
- A - REDUCED PRESSURE BACKFLOW PREVENTER
 - B - STRAINER
 - C - UNIONS (MAY BE PLACED ON VERTICAL RUNS)
 - D - SIZES 3/4" TO 2"
- ALL PIPING FOR ASSEMBLY SHALL BE TYPE 'K' COPPER OR BRASS
- UNPROTECTED CONNECTIONS ARE PROHIBITED BETWEEN BACKFLOW PREVENTER AND METER.
- ADJUSTABLE PIPE STANDS WHERE REQUIRED.
- BACKFLOW UNIT REQUIRES INITIAL CERTIFICATION BY CITY OF NAPLES WATER DEPARTMENT (Backflow Division).
- ALL ABOVE GROUND PIPING INCLUDING ASSEMBLY WILL BE PAINTED RUSTOLEUM FEDERAL SAFETY BLUE, OR PER CITY ORDINANCE 66-66H.

** ASSEMBLY TO BE INSTALLED AS CLOSE AS POSSIBLE TO METER ON CUSTOMER'S PROPERTY.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: Jan 2009	3/4" TO 2"	SHEET: # 2
DRAWN: PK	Reduced Pressure Backflow Assembly	DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. RPBA2IN-

REDUCED PRESSURE BACKFLOW ASSEMBLY,
 SUPPLIED WITH AMMONIA & CHLORINE RESISTANT
 SEATS AND SILICONE RUBBER SEALS, UL LISTED AS
 REQUIRED BY CITY ORDINANCE AND AWWA M-14,
 AWWA AND USCFCCHR APPROVED.

BYPASS TO BE SIZED BY DESIGN ENGINEER TO
 PROVIDE A MINIMUM OF DOMESTIC FLOWS,
 HOWEVER THE MINIMUM SIZE SHALL BE 2"

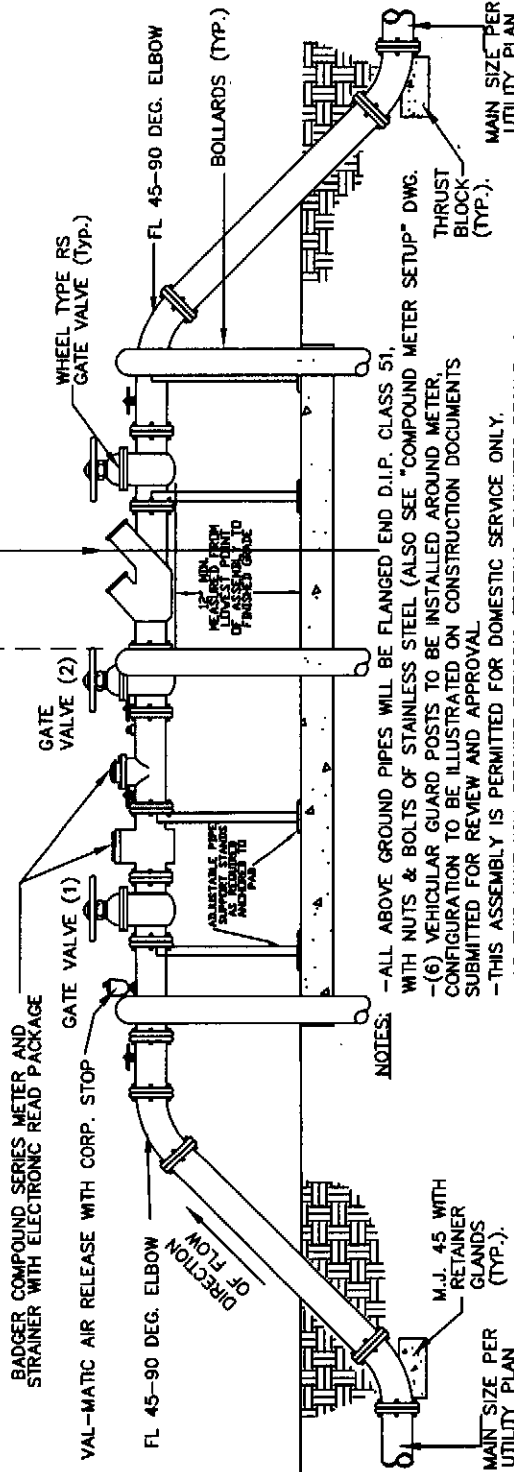


NOTES:

- 1) GATE VALVES (1) AND (2) ARE THE SAME VALVES IN ALL VIEWS.
- 2) THE BACKFLOW ASSEMBLY SHALL BE ASSEMBLED AFTER GATE VALVE (2).

OWNERS RESPONSIBILITY

CITY'S RESPONSIBILITY



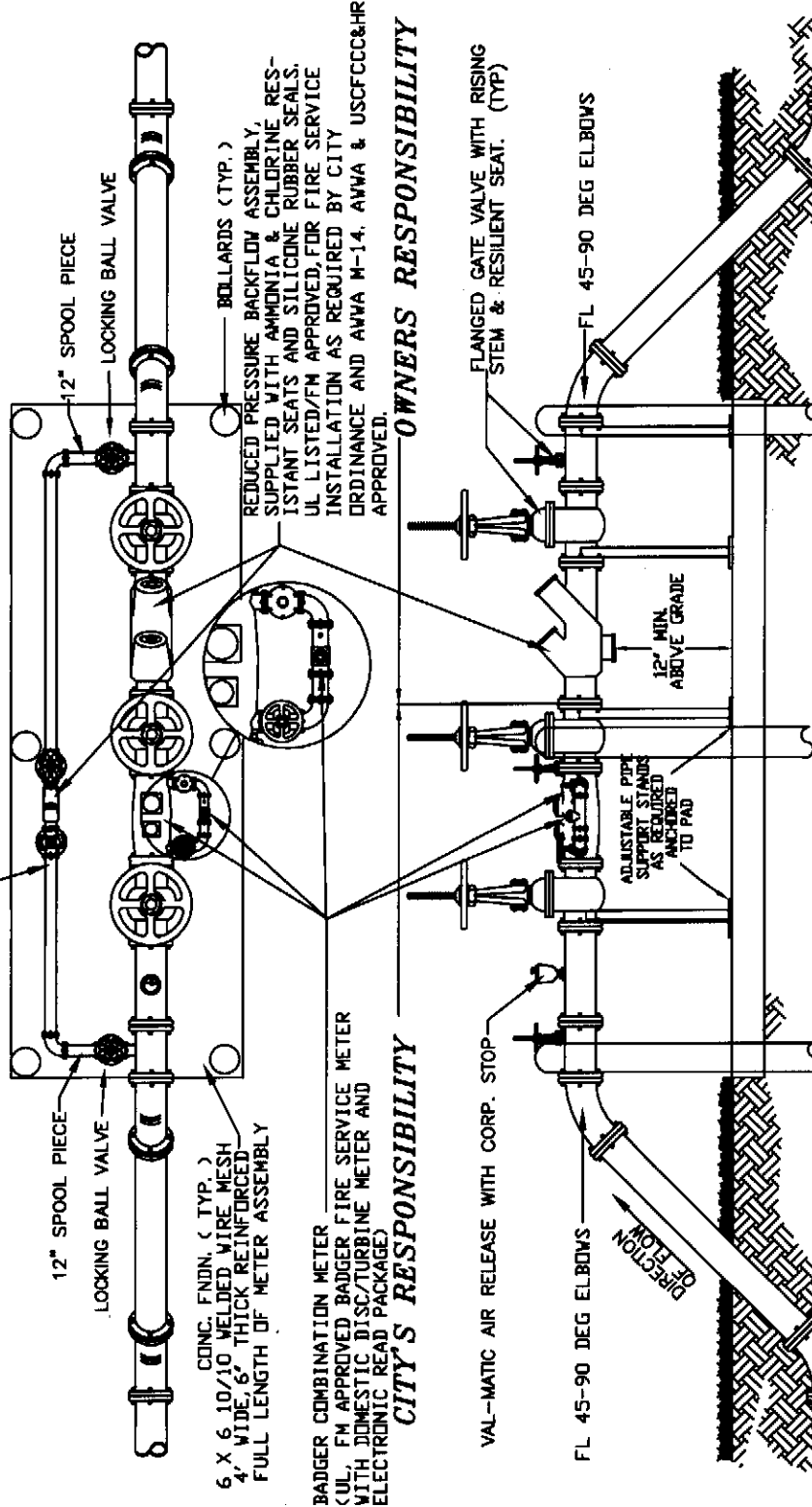
NOTES:

- ALL ABOVE GROUND PIPES WILL BE FLANGED END D.I.P. CLASS 51, WITH NUTS & BOLTS OF STAINLESS STEEL (ALSO SEE "COMPOUND METER SETUP" DWG.
- (6) VEHICULAR GUARD POSTS TO BE INSTALLED AROUND METER, CONFIGURATION TO BE ILLUSTRATED ON CONSTRUCTION DOCUMENTS SUBMITTED FOR REVIEW AND APPROVAL
- THIS ASSEMBLY IS PERMITTED FOR DOMESTIC SERVICE ONLY.
- AS THIS UNIT WILL REQUIRE PERIODIC TESTING, FACILITIES REQUIRING CONTINUOUS WATER SERVICE MAY WISH TO INSTALL PARALLEL UNITS OR FULL SIZE BYPASSES TO PREVENT SERVICE INTERRUPTIONS.
- BACKFLOW UNITS REQUIRE INITIAL CERTIFICATION BY CITY OF NAPLES WATER DEPARTMENT (Backflow Division)
- BYPASS LINE SHALL BE USED ONLY DURING REPAIR, TESTING, MAINTENANCE, REPLACEMENT, OR EMERGENCY OF THE DOMESTIC METER/BACKFLOW ASSEMBLY
- CITY WILL REQUIRE DEDICATION OF ALL ABOVE GROUND MATERIAL AND EQUIPMENT BACK TO THE CITY WATER MAIN. PROVIDE A 3' ACCESS OPENING.
- ALL PLANTINGS SHALL BE A MINIMUM OF 3" FROM EDGE OF SLAB, AND
- ALL ABOVE GROUND PIPING INCLUDING ASSEMBLY WILL BE PAINTED RUSTOLEUM FEDERAL SAFETY BLUE OR AS PER CITY ORDINANCE 66-66H
- PROVIDE LINE SIZE GATE VALVE AT HOT TAP TO CITY WATER MAIN

THIS DETAIL CONSTITUTES
 MINIMUM STANDARDS. DESIGN
 ENGINEERS SHALL PROVIDE
 STANDARDS EQUAL TO OR
 GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE:	JAN 2009	SHEET: # 3
DRAWN:	PK	DIR: WATER
SCALE:	N.T.S.	DWG. MCTBFLG
3" AND LARGER DOMESTIC METER ASSEMBLY		
735 EIGHTH STREET SOUTH, NAPLES, FL. 34102		

BYPASS TO BE SIZED BY DESIGN ENGINEER TO PROVIDE A MINIMUM OF DOMESTIC FLOWS. HOWEVER THE MINIMUM SIZE SHALL BE 2" FOR ALL METERS UP TO 4" & 3" FOR ALL METERS LARGER THAN 4"



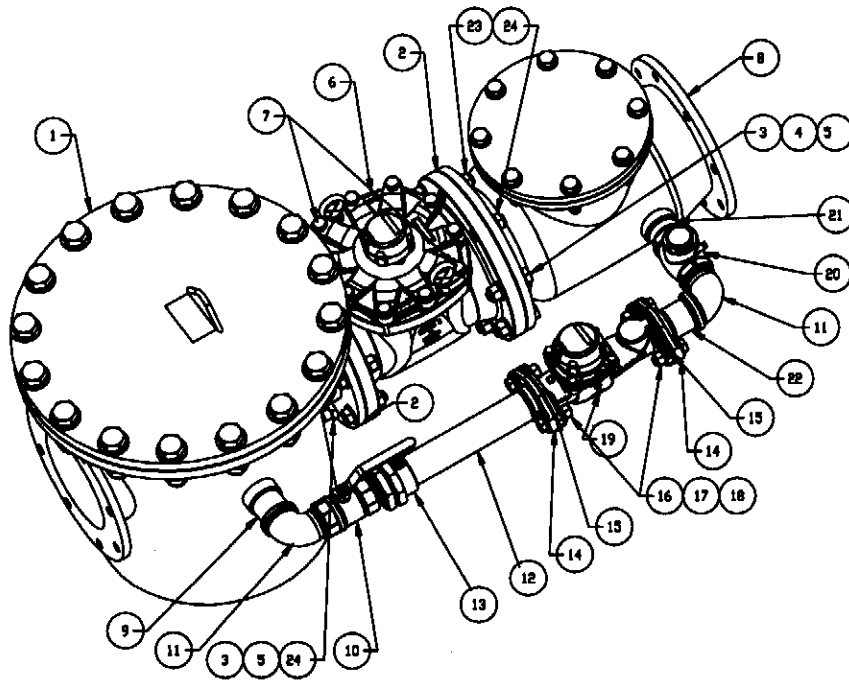
- NOTES:
- ALL ABOVE GROUND PIPES WILL HAVE FLANGED END, CLASS 51, D.I.P. WITH NUTS & BOLTS OF STAINLESS STEEL.
 - VEHICULAR GUARD POSTS TO BE INSTALLED AROUND METER & CONFIGURATION TO BE ILLUSTRATED ON CONSTRUCTION DOCUMENTS SUBMITTED FOR REVIEW AND APPROVAL.
 - THIS ASSEMBLY IS PERMITTED FOR COMBINATION FIRE AND DOMESTIC SERVICE.
 - AS THIS UNIT WILL REQUIRE PERIODIC TESTING, FACILITIES REQUIRING CONTINUOUS WATER SERVICE MAY WISH TO INSTALL PARALLEL UNITS OR FULL SIZE BYPASSES TO PREVENT SERVICE INTERRUPTIONS.
 - BACKFLOW UNIT REQUIRES INITIAL CERTIFICATION BY CITY OF NAPLES WATER DEPARTMENT (Backflow Division).
 - CITY REQUIRES DEDICATION OF ALL ABOVE GROUND MATERIAL AND EQUIPMENT BACK TO THE CITY WATER MAIN.
 - ALL PLANTS SHALL BE A MINIMUM OF 3' TALL & 3' FROM EDGE OF SLAB AND PROVIDE A 3' ACCESS OPENING.
 - ALL ABOVE GROUND PIPING INCLUDING ASSEMBLY WILL BE PAINTED RUSTOLEUM FEDERAL SAFETY BLUE, OR AS PER CITY ORDINANCE 66-66H
 - BYPASS LINE SHALL BE USED ONLY DURING REPAIR, TESTING, MAINTENANCE, REPLACEMENT, OR EMERGENCY OF THE DOMESTIC METER/BACKFLOW ASSEMBLY

THIS DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEERS SHALL PROVIDE STANDARDS EQUAL TO OR GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: Jan 2009	3" and Larger	SHEET: # 4
DRAWN: PK	Combination Fire & Domestic Meter Assembly	DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. MFMMVRBF

STANDARD BADGER RECORDALL METERS AND REGISTERS WITH ITRON RADIO READ PACKAGE AND NSF61 APPROVED

FSAA with Disc Bypass

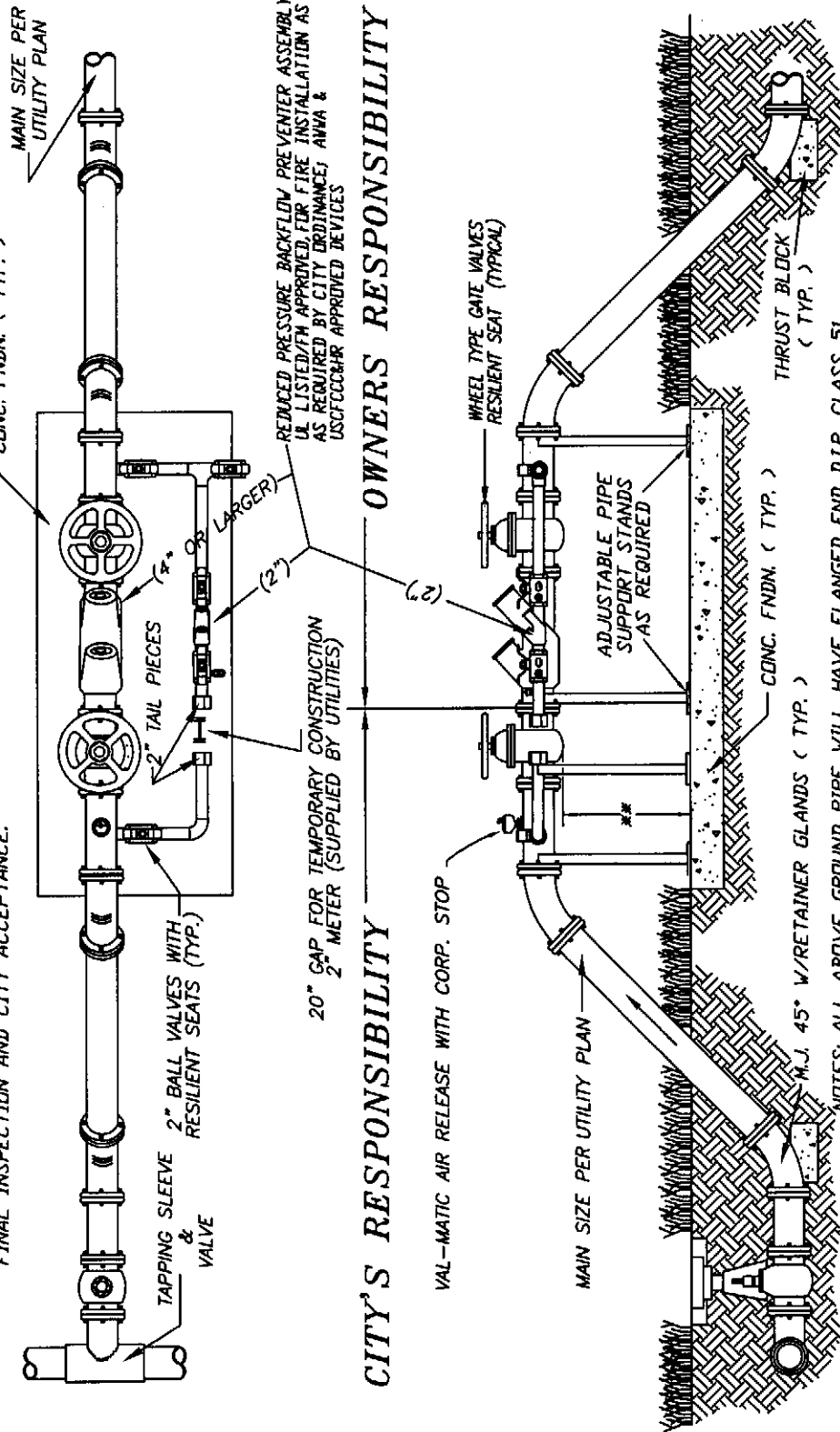


ITEM NO.	PART
1	STRAINER
2	GASKET
3	BOLTS
4	NUTS
5	WASHERS
6	CI TURBO SERIES METER
7	REGISTER-MAIN LINE TURBO
8	CHECK VALVE, MAIN LINE
9	NIPPLES
10	BALL VALVE
11	ELBOW
12	HALF NIPPLE
13	COUPLER
14	FLANGES
15	O-RING
16	BOLTS
17	NUTS
18	WASHERS
19	DISC SERIES METER
20	CHECK VALVE-BYPASS
21	NIPPLES
22	NIPPLES
23	STUDS(6"&8"ONLY)
24	JAM NUTS (6"&8"ONLY)
25	WASHER
31	TEE
32	PIPE PLUG
33	NIPPLE
34	NIPPLE

THIS DETAIL CONSTITUTES
MINIMUM STANDARDS. DESIGN
ENGINEERS SHALL PROVIDE
STANDARDS EQUAL TO OR
GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: FEB. 2003	<i>4" and Larger</i> <i>Combination Fire & Domestic Meter Assembly</i>	SHEET:
DRAWN:		DIR: WATER
SCALE: N.T.S.	295 RIVERSIDE CIRCLE, NAPLES, FL. 34102	DWG. MFMMVRBF-2

NOTE: ASSEMBLY NOT TO BE REMOVED AND SPOOL PIECE INSTALLED FOR FINAL CONNECTION UNTIL AFTER TESTING, BACTERIAL CLEARANCE, FINAL INSPECTION AND CITY ACCEPTANCE.



OWNERS RESPONSIBILITY

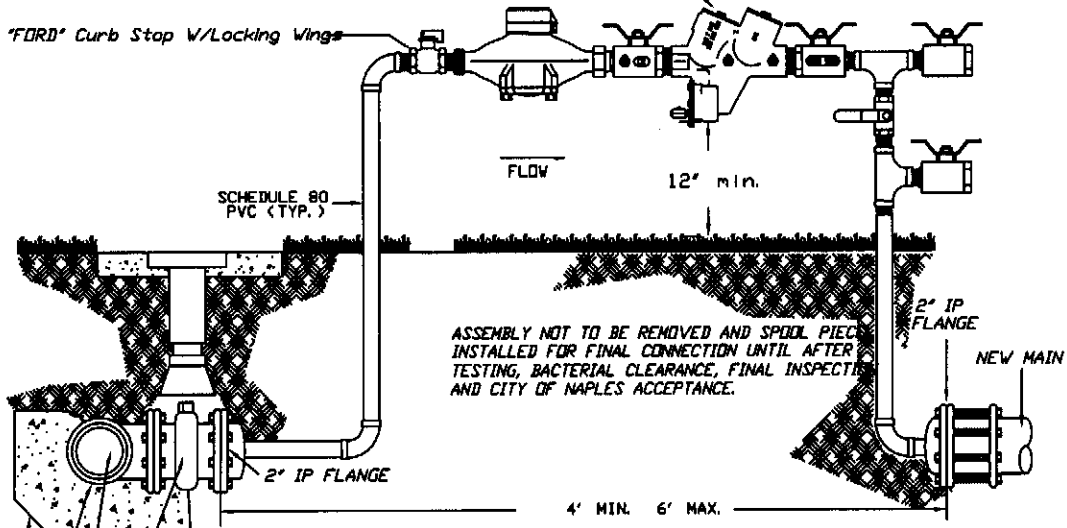
CITY'S RESPONSIBILITY

NOTES: ALL ABOVE GROUND PIPE WILL HAVE FLANGED END D.I.P. CLASS 51
 ALL NUTS & BOLTS SHALL BE STAINLESS STEEL
 ASSEMBLY IS REQUIRED TO BE FLUSHED, CHLORINATED AND
 BACTERIAL CLEARED BEFORE PLACEMENT IN SERVICE.
 BACKFLOW UNIT REQUIRES INITIAL CERTIFICATION BY CITY OF NAPLES
 WATER DEPARTMENT (Backflow Division).
 CONTRACTOR IS REQUIRED TO PROVIDE 8' OF 3/8 CHAIN AT TIME OF
 INSTALLATION.
 INSPECTIONS ARE REQUIRED FOR SYSTEM TIE-IN AND ASSEMBLY CONNECTION.
 ** 12' MINIMUM ABOVE MAXIMUM FLOOD PLANE LEVEL.
 (Dimension Taken From Lowest Point on Assembly)

THIS DETAIL CONSTITUTES
 MINIMUM STANDARDS. DESIGN
 ENGINEERS SHALL PROVIDE
 STANDARDS EQUAL TO OR
 GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: Jan 2009	Temporary Backflow Preventors & Construction Tie-In Assembly	SHEET: # 5
DRAWN: TWS	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DIR: WATER
SCALE: N.T.S.		DWG. CONSTMTR

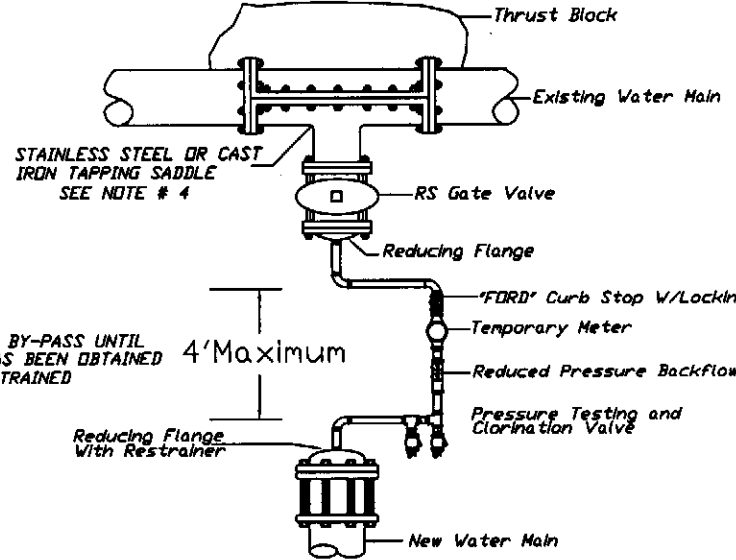
REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY SUPPLIED WITH AMMONIA & CHLORINE RESISTANT SEATS AND SILICONE RUBBER SEALS. AWWA & USCFCC&HR APPROVED



NOTES:

1. FINAL CONNECTION TO BE WITNESSED BY CITY OF NAPLES UTILITIES DIVISION.
2. BLIND FLANGES TO BE PROPERLY RESTRAINED.
3. INSTALL JUMPER TAP SYSTEM FOR TEMPORARY METER DOWNSTREAM OF BLIND FLANGE FOR PRESSURE AND BACTEE TESTING
4. 4" TO 12" TAPPING SADDLE MAY BE EITHER STAINLESS STEEL OR C.I. AT CITY'S OPTION. ALL TAPPING SADDLES OVER 12" AND LINE SIZE BORES A CAST IRON SPLIT TAPPING SADDLE WILL BE USED.
5. JUMPER ASSEMBLY MUST BE A MINIMUM OF 18" ABOVE FINISHED GRADE.
6. BACKFLOW ASSEMBLY REQUIRES INITIAL CERTIFICATION BY CITY OF NAPLES WATER DEPARTMENT (Backflow Division)

GATE VALVE (MAIN LINE HOT TAP)
EXISTING MAIN
STAINLESS STEEL OR CAST IRON TAPPING SADDLE
THRUST BLOCK



NOTES:

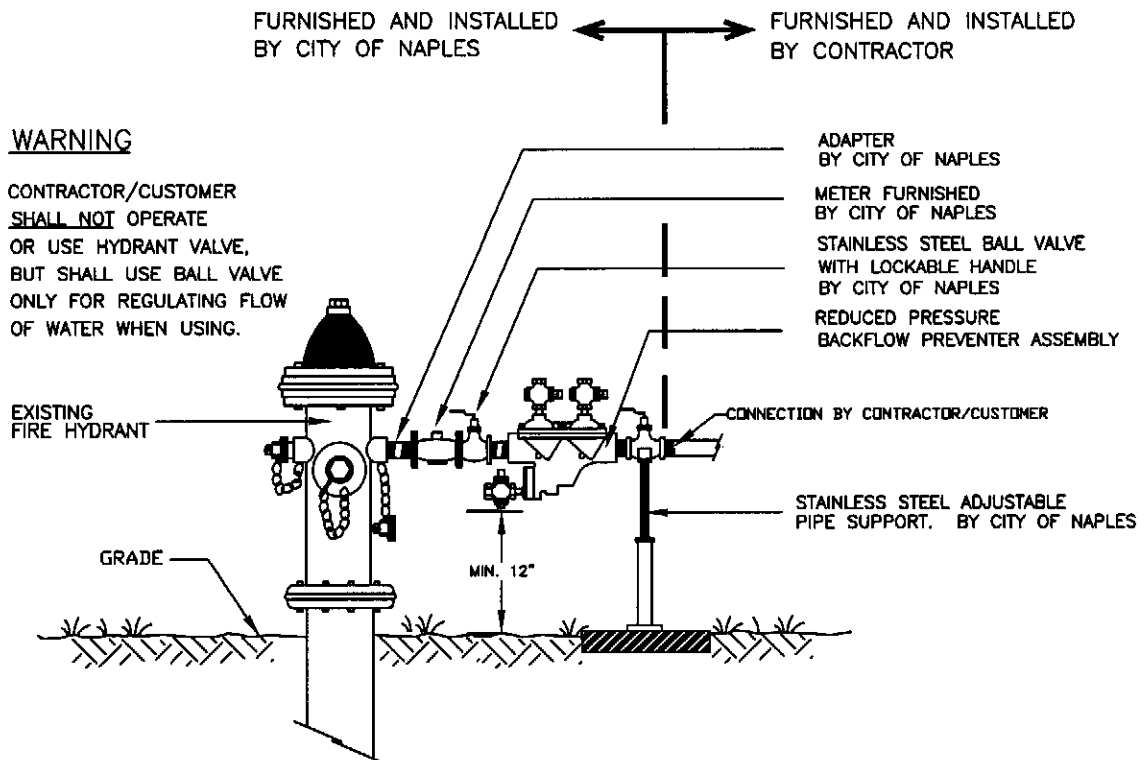
1. DO NOT INSTALL JUMPER PIPE & REMOVE BY-PASS UNTIL ALL TESTING & BACTERIAL CLEARANCE HAS BEEN OBTAINED
2. ALL NEW PIPING SHALL BE PROPERLY RESTRAINED

THIS DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEERS SHALL PROVIDE STANDARDS EQUAL TO OR GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: Jan 2009	Hottap and Jumper Meter Connection-Temporary Water Service	SHEET: # 6
DRAWN: PK		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. HOTTAP

CITY OF NAPLES
TYPICAL INSTALLATION DETAIL FOR FIRE HYDRANT
 WITH NO LARGER THAN 2 INCH TEMPORARY WATER SERVICE

1. CONTRACTOR/CUSTOMER SHALL APPLY AT CITY OF NAPLES WATER COMPANY FOR TEMPORARY WATER SERVICE THREE DAYS PRIOR TO REQUIRED SERVICE DATE.
2. METER, LOCKABLE STAINLESS STEEL BALL VALVE AND PIPE SUPPORT WILL BE FURNISHED AND INSTALLED BY CITY OF NAPLES WATER COMPANY.
3. ALL FITTINGS, PIPING, VALVES AND MATERIALS INCLUDING THE APPROVED REDUCED PRESSURE BACKFLOW PREVENTION DEVICE SHALL BE FURNISHED, INSTALLED AND TESTED BY CITY OF NAPLES WATER COMPANY.
4. CONTRACTOR/CUSTOMER SHALL PROVIDE PROTECTION FOR ASSEMBLY FROM DAMAGE.
6. THE CONTRACTOR/CUSTOMER SHALL PROVIDE A LOCK FOR USE WITH BALL VALVE AND SHALL USE ONLY THE BALL VALVE, NOT THE HYDRANT VALVE, FOR CONTROLLING WATER USED FROM THE FIRE HYDRANT.
7. BY APPLYING FOR SERVICE, CONTRACTOR/CUSTOMER AGREES TO TAKE WATER SERVICE FROM CITY OF NAPLES WATER COMPANY IN ACCORDANCE WITH THE APPROPRIATE RATE SCHEDULE AND IN ACCORDANCE WITH COMPANY RULES AND REGULATIONS, OR ANY SUPERSEDING RATE SCHEDULE AND/OR RULES AND REGULATIONS.



WARNING

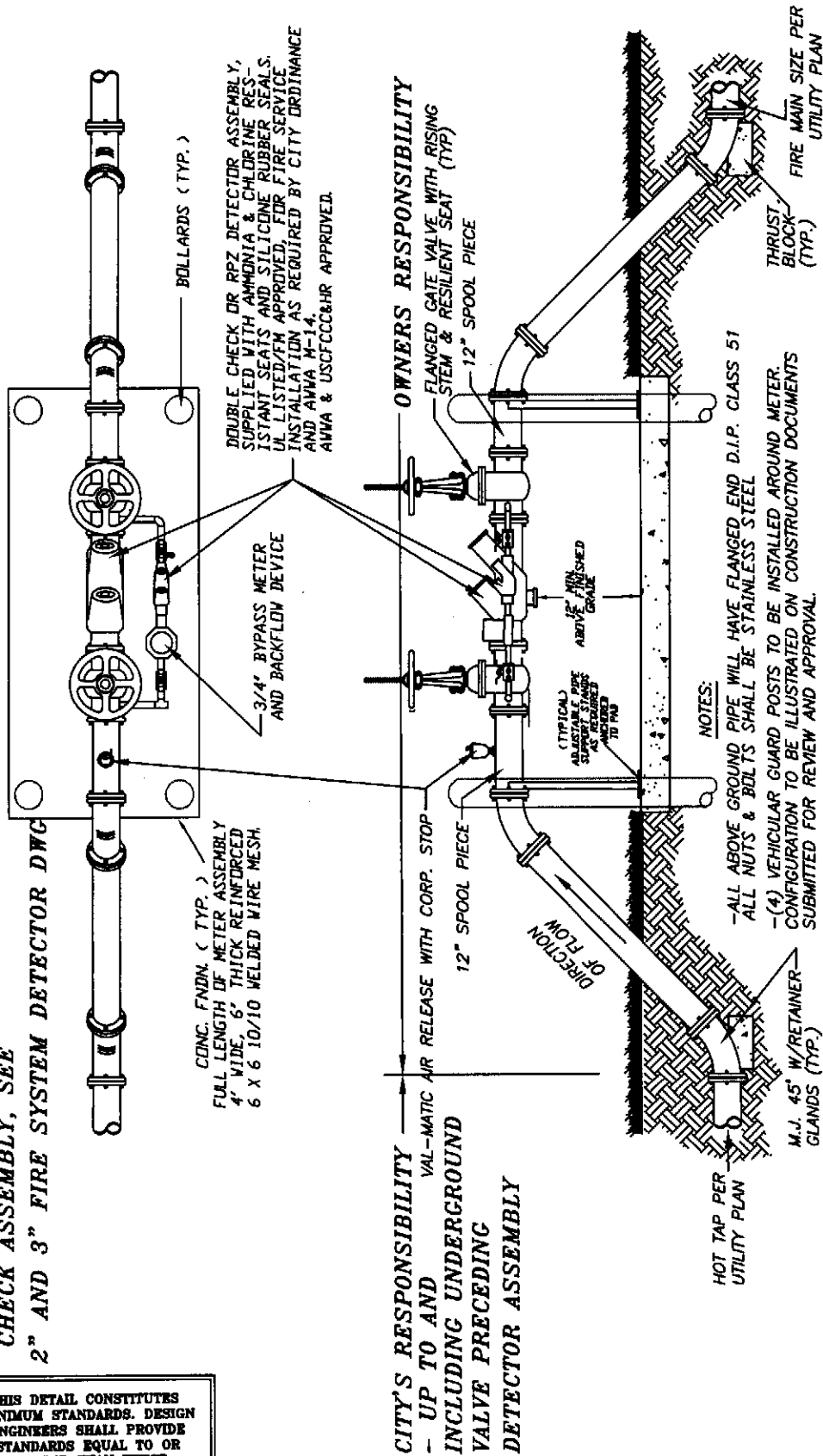
CONTRACTOR/CUSTOMER SHALL NOT OPERATE OR USE HYDRANT VALVE, BUT SHALL USE BALL VALVE ONLY FOR REGULATING FLOW OF WATER WHEN USING.

THIS DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEERS SHALL PROVIDE STANDARDS EQUAL TO OR GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: Jan 2009	<i>Temporary Water Service by Fire Hydrant Connection</i>	SHEET: # 7
DRAWN: PK		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. HYDMTR

**FOR 2" AND 3" FIRE SYSTEM DETECTOR
CHECK ASSEMBLY, SEE
2" AND 3" FIRE SYSTEM DETECTOR DWG**

THIS DETAIL CONSTITUTES
MINIMUM STANDARDS. DESIGN
ENGINEERS SHALL PROVIDE
STANDARDS EQUAL TO OR
GREATER THAN THESE.



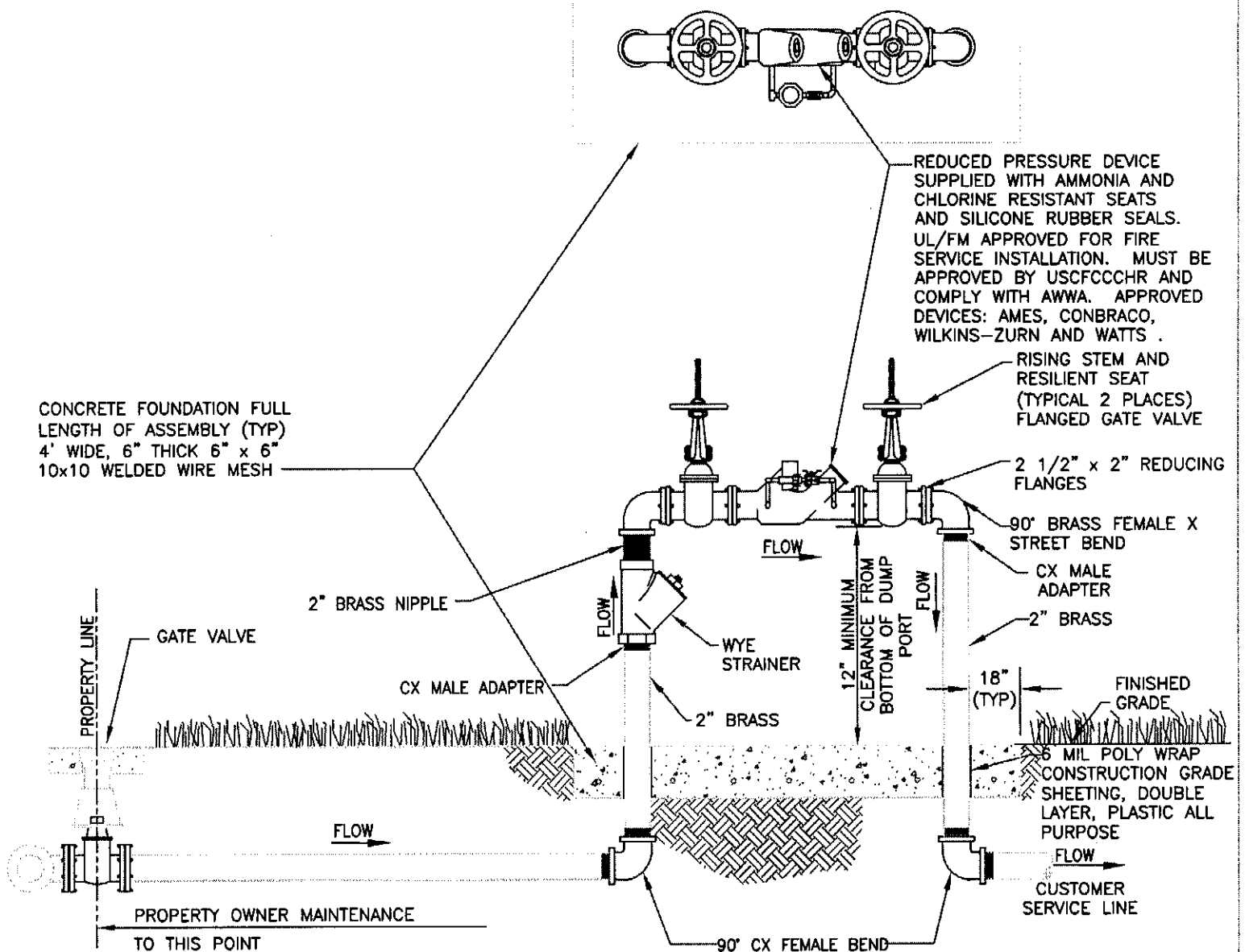
DOUBLE CHECK DR RPZ DETECTOR ASSEMBLY,
SUPPLIED WITH AMMONIA & CHLORINE RES-
ISTANT SEATS AND SILICONE RUBBER SEALS,
IS LISTED/FM APPROVED FOR FIRE SERVICE.
INSTALLATION AS REQUIRED BY CITY ORDINANCE
AND AWWA M-14,
AWWA & USCFC&HR APPROVED.

CITY'S RESPONSIBILITY
- UP TO AND
INCLUDING UNDERGROUND
VALVE PRECEDING
DETECTOR ASSEMBLY

OWNERS RESPONSIBILITY
- FLANGED GATE VALVE WITH RISING
STEM & RESILIENT SEAT (TYP)
- 12" SPOOL PIECE

- NOTES:**
- ALL ABOVE GROUND PIPE WILL HAVE FLANGED END D.I.P. CLASS 51
ALL NUTS & BOLTS SHALL BE STAINLESS STEEL
 - (4) VEHICULAR GUARD POSTS TO BE INSTALLED AROUND METER.
CONFIGURATION TO BE ILLUSTRATED ON CONSTRUCTION DOCUMENTS
SUBMITTED FOR REVIEW AND APPROVAL.
 - AS THIS UNIT WILL REQUIRE PERIODIC TESTING, FACILITIES REQUIRING
CONTINUOUS WATER SERVICE MAY WISH TO INSTALL PARALLEL UNITS TO
PREVENT SERVICE INTERRUPTIONS.
 - BACKFLOW ASSY. WILL BE OWNED & MAINTAINED BY PROPERTY OWNER
 - CITY WILL REQUIRE DEDICATION OF MATERIAL UP TO AND INCLUDING
THE UNDERGROUND ISOLATION VALVE PRECEDING THE DETECTOR ASSEMBLY
 - BACKFLOW UNIT REQUIRES INITIAL CERTIFICATION BY CITY OF NAPLES
WATER DEPARTMENT (Backflow Division).
 - ALL PLANTINGS SHALL BE A MINIMUM OF 3' FROM EDGE OF SLAB,
AND PROVIDE A 3' ACCESS OPENING.
 - ALL ABOVE GROUND PIPING INCLUDING ASSEMBLY WILL BE PAINTED
RUSTOLEUM FEDERAL SAFETY RED OR PER CITY ORDINANCE 66-66H
 - FOR 2" AND 3" FIRE SYSTEM DETECTOR CHECK ASSEMBLY DETAIL DWG., SEE 2" AND 3" FIRE SYSTEM DETECTOR DWG

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: Jan 2009	Fire System Detector Check Assembly	SHEET: # 8
DRAWN: TWS		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. FIREDECK



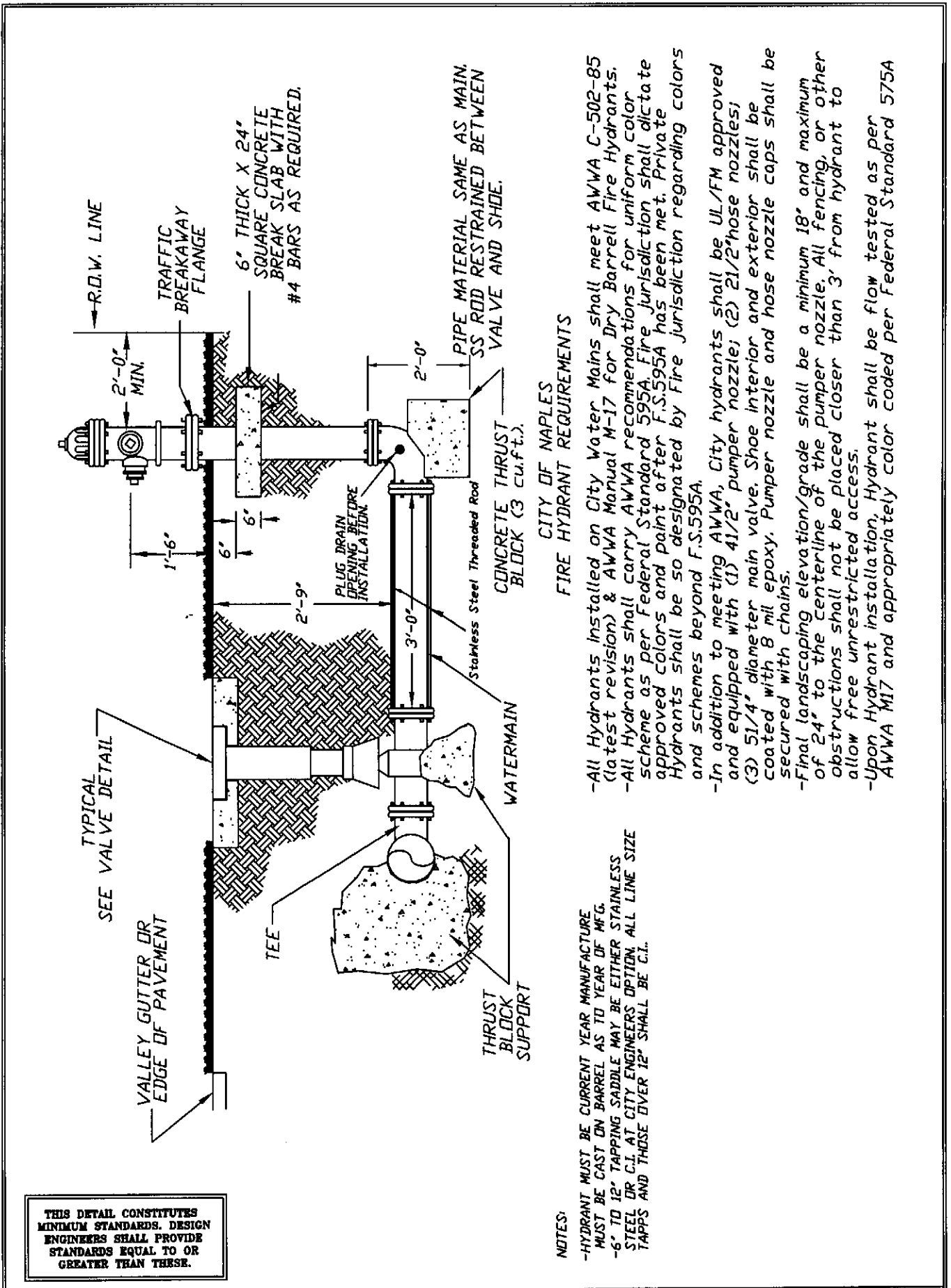
NOTES:

1. NO FIRE HYDRANT CONNECTIONS OR DOMESTIC SERVICE CONNECTIONS PERMITTED DOWNSTREAM OF ASSEMBLY.
2. ASSEMBLY WILL BE OWNED AND MAINTAINED BY PROPERTY OWNER, STARTING FROM THE GATE VALVE AT PROPERTY LINE. PLACE BOLLARDS AROUND ASSEMBLY IF NECESSARY.
3. BACKFLOW DEVICE REQUIRES INITIAL CERTIFICATION BY AN APPROVED CERTIFIED TESTER, WITH RESULTS AND ANNUAL TEST RESULTS SUBMITTED TO THE CITY WATER DEPARTMENT.
4. ALL PLANTING SHALL BE A MINIMUM OF 3' FROM EDGE OF SLAB, AND SHALL PROVIDE A 3' ACCESS OPENING.
5. THIS ASSEMBLY SHALL BE PAINTED WITH RED EPOXY PAINT.
6. ALL COMPONENTS THAT COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF STANDARD 61.
7. PROVIDE 3/4" BYPASS WITH FLOW METER.

THIS DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEERS SHALL PROVIDE STANDARDS EQUAL TO OR GREATER THAN THESE.

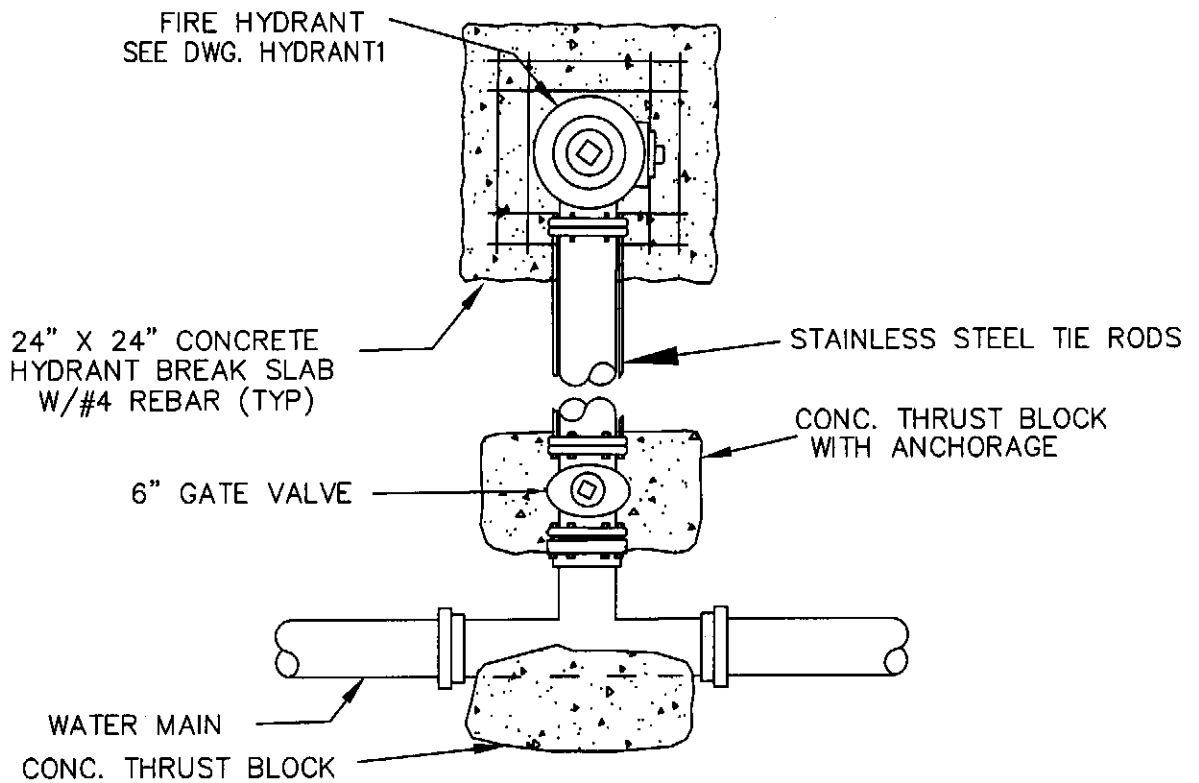
**2" AND 3" FIRE SYSTEM DETECTOR CHECK ASSEMBLY DETAIL
WITH NO FIRE HYDRANT
CONNECTIONS PERMITTED DOWNSTREAM**

CITY OF NAPLES WATER
NTS
REVISED: JAN 2009

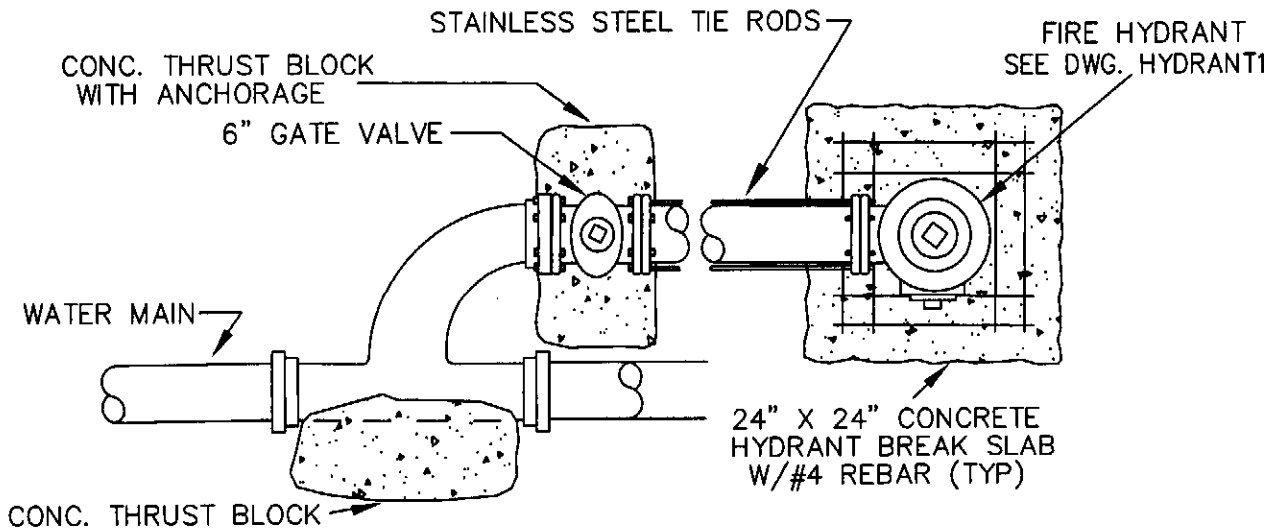


THIS DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEERS SHALL PROVIDE STANDARDS EQUAL TO OR GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: April 1998	<i>Hydrant Detail</i>	SHEET: # 9
DRAWN: TWS		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. HYDRANT2



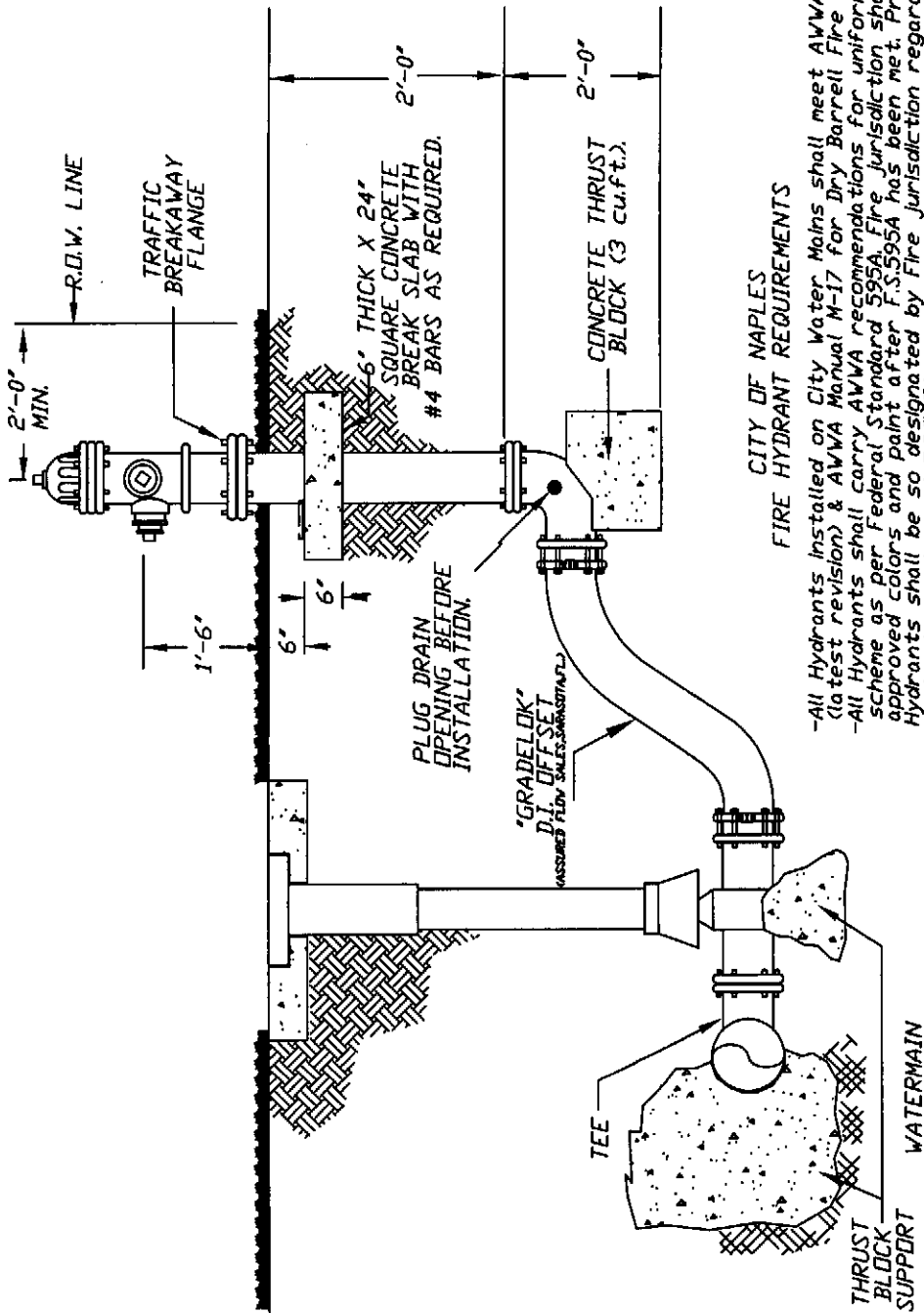
ANCHOR TEES



ANCHOR HYDRANT TEES

THIS DETAIL CONSTITUTES
MINIMUM STANDARDS. DESIGN
ENGINEERS SHALL PROVIDE
STANDARDS EQUAL TO OR
GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: April 1998	<i>Hydrant Tees</i>	SHEET: # 10
DRAWN: TWS		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. HYDRTEES

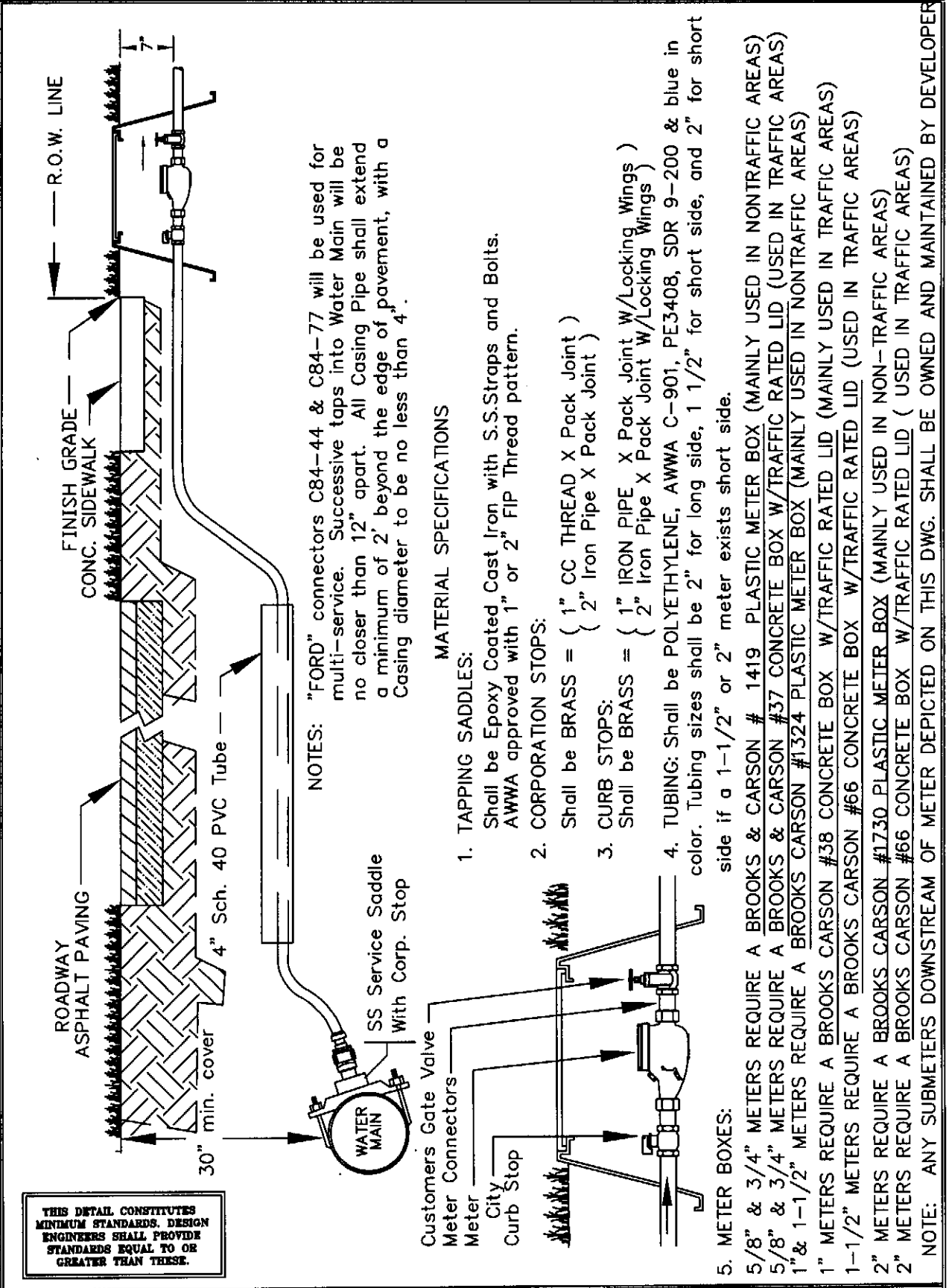


**CITY OF NAPLES
FIRE HYDRANT REQUIREMENTS**

- All Hydrants installed on City Water Mains shall meet AWWA C-502-85 (a test revision) & AWWA Manual M-17 for Dry Barrel Fire Hydrants.
- All Hydrants shall carry AWWA recommendations for uniform color scheme as per Federal Standard 595A. Fire Jurisdiction shall dictate approved colors and paint after F.S. 595A has been met. Private Hydrants shall be so designated by Fire Jurisdiction regarding colors and schemes beyond F.S. 595A.
- In addition to meeting AWWA, City hydrants shall be UL/FM approved and equipped with (1) 4 1/2" pumper nozzle (2) 2 1/2" hose nozzle (3) 5 1/4" diameter main valve. Shoe interior and exterior shall be coated with 8 mil epoxy. Pumper nozzle and hose nozzle caps shall be secured with chains.
- Final landscaping elevation/grade shall be a minimum 18" and maximum of 24" to the centerline of the pumper nozzle. All fencing, or other obstructions shall not be placed closer than 3' from hydrant to allow free unrestricted access.
- Upon Hydrant installation, Hydrant shall be flow tested as per AWWA M17 and appropriately color coded per Federal Standard 575A

THIS DETAIL CONSTITUTES
MINIMUM STANDARDS. DESIGN
ENGINEERS SHALL PROVIDE
STANDARDS EQUAL TO OR
GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: April 1998	Fire Hydrant Detail	SHEET: # 11
DRAWN: TWS		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. HYDRANT1



NOTES: "FORD" connectors C84-44 & C84-77 will be used for multi-service. Successive taps into Water Main will be no closer than 12" apart. All Casing Pipe shall extend a minimum of 2' beyond the edge of pavement, with a Casing diameter to be no less than 4".

MATERIAL SPECIFICATIONS

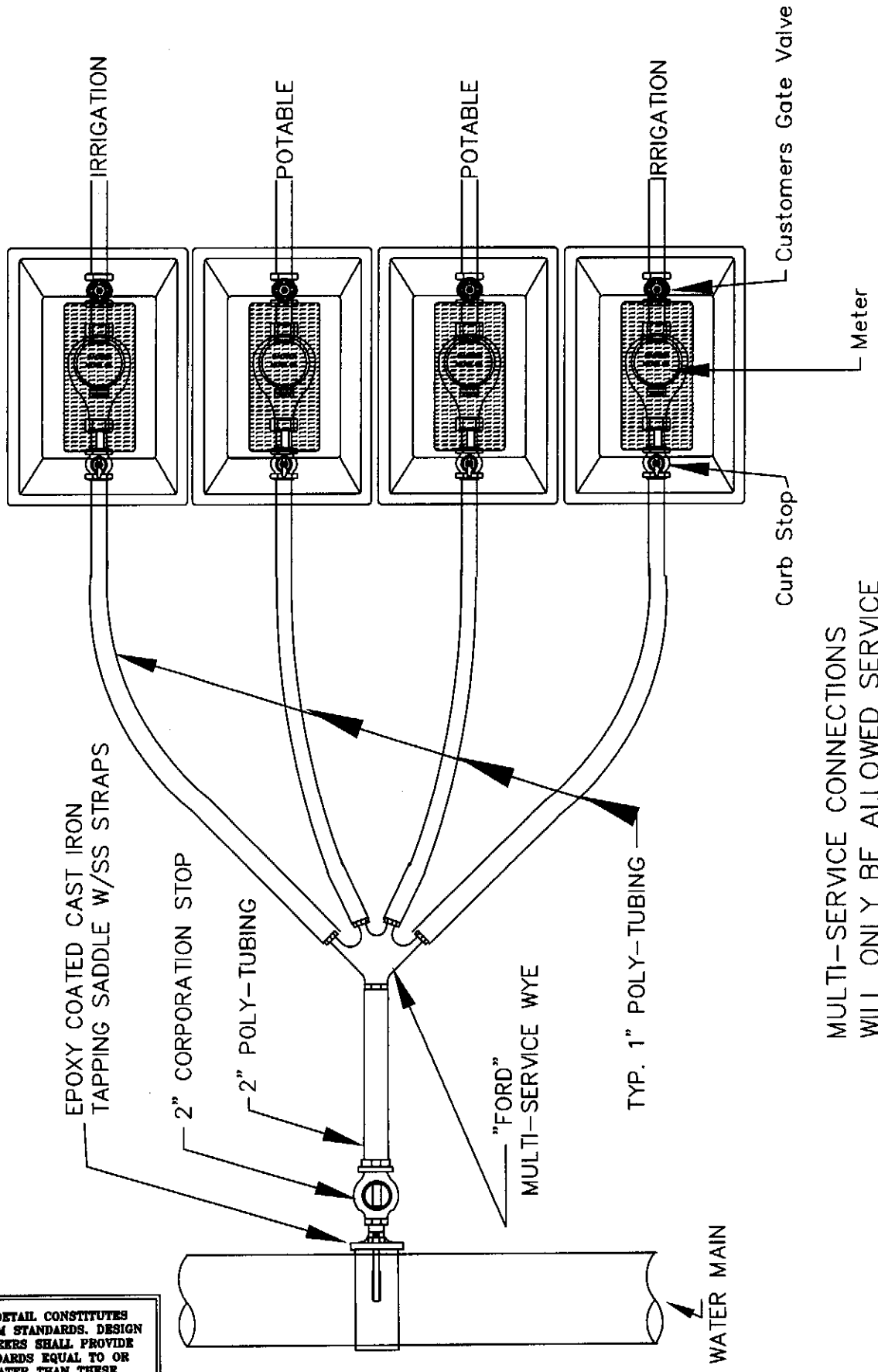
- TAPPING SADDLES:**
Shall be Epoxy Coated Cast Iron with S.S.Straps and Bolts. AWWA approved with 1" or 2" FIP Thread pattern.
- CORPORATION STOPS:**
Shall be BRASS = (1" CC THREAD X Pack Joint)
(2" Iron Pipe X Pack Joint)
- CURB STOPS:**
Shall be BRASS = (1" IRON PIPE X Pack Joint W/Locking Wings)
(2" Iron Pipe X Pack Joint W/Locking Wings)
- TUBING:** Shall be POLYETHYLENE, AWWA C-901, PE3408, SDR 9-200 & blue in color. Tubing sizes shall be 2" for long side, 1 1/2" for short side, and 2" for short side if a 1-1/2" or 2" meter exists short side.

METER BOXES:

- 5/8" & 3/4" METERS REQUIRE A BROOKS & CARSON # 1419 PLASTIC METER BOX (MAINLY USED IN NONTRAFFIC AREAS)
- 5/8" & 3/4" METERS REQUIRE A BROOKS & CARSON #37 CONCRETE BOX W/TRAFFIC RATED LID (USED IN TRAFFIC AREAS)
- 1" & 1-1/2" METERS REQUIRE A BROOKS CARSON #1324 PLASTIC METER BOX (MAINLY USED IN NONTRAFFIC AREAS)
- 1" METERS REQUIRE A BROOKS CARSON #38 CONCRETE BOX W/TRAFFIC RATED LID (MAINLY USED IN TRAFFIC AREAS)
- 1-1/2" METERS REQUIRE A BROOKS CARSON #66 CONCRETE BOX W/TRAFFIC RATED LID (USED IN TRAFFIC AREAS)
- 2" METERS REQUIRE A BROOKS CARSON #1730 PLASTIC METER BOX (MAINLY USED IN NON-TRAFFIC AREAS)
- 2" METERS REQUIRE A BROOKS CARSON #66 CONCRETE BOX W/TRAFFIC RATED LID (USED IN TRAFFIC AREAS)

NOTE: ANY SUBMETERS DOWNSTREAM OF METER DEPICTED ON THIS DWG. SHALL BE OWNED AND MAINTAINED BY DEVELOPER

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: Jan 2009	<i>Typical Meter Setting Detail</i>	SHEET: # 12
DRAWN: TWS		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. METERSER

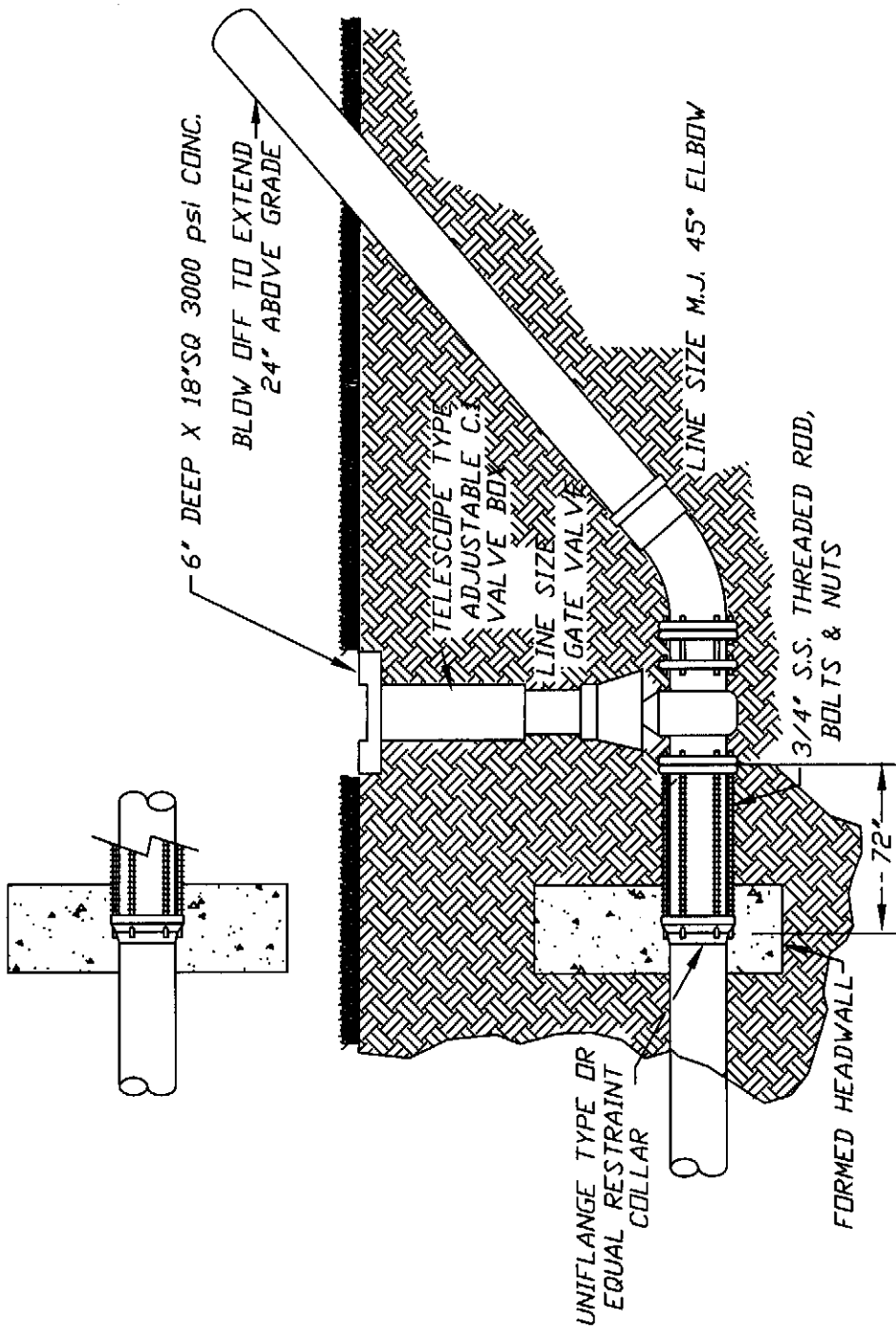


MULTI-SERVICE CONNECTIONS
 WILL ONLY BE ALLOWED SERVICE
 FOR TWO SINGLE FAMILY LOTS

THIS DETAIL CONSTITUTES
 MINIMUM STANDARDS. DESIGN
 ENGINEERS SHALL PROVIDE
 STANDARDS EQUAL TO OR
 GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: April 1998	Multiple Meter Service Connections	SHEET: # 13
DRAWN: TWS		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. MULTMETR

HEADWALL TOP VIEW
(SEE DRAWING TETHBLOC-PG.11 FOR DETAILS)



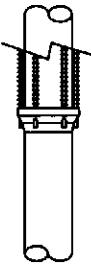
NOTE: VALVE BOX RISER SHALL NOT BEAR ON VALVE OR PIPE.

NOTE: TEMPORARY BLOW-OFF TO REMAIN IN PLACE UNTIL DISTRIBUTION SYSTEM HAS BEEN FLUSHED. AFTER CLEARANCE IS OBTAINED REFER TO FIRE HYDRANT DETAIL FOR FINAL CONFIGURATION.

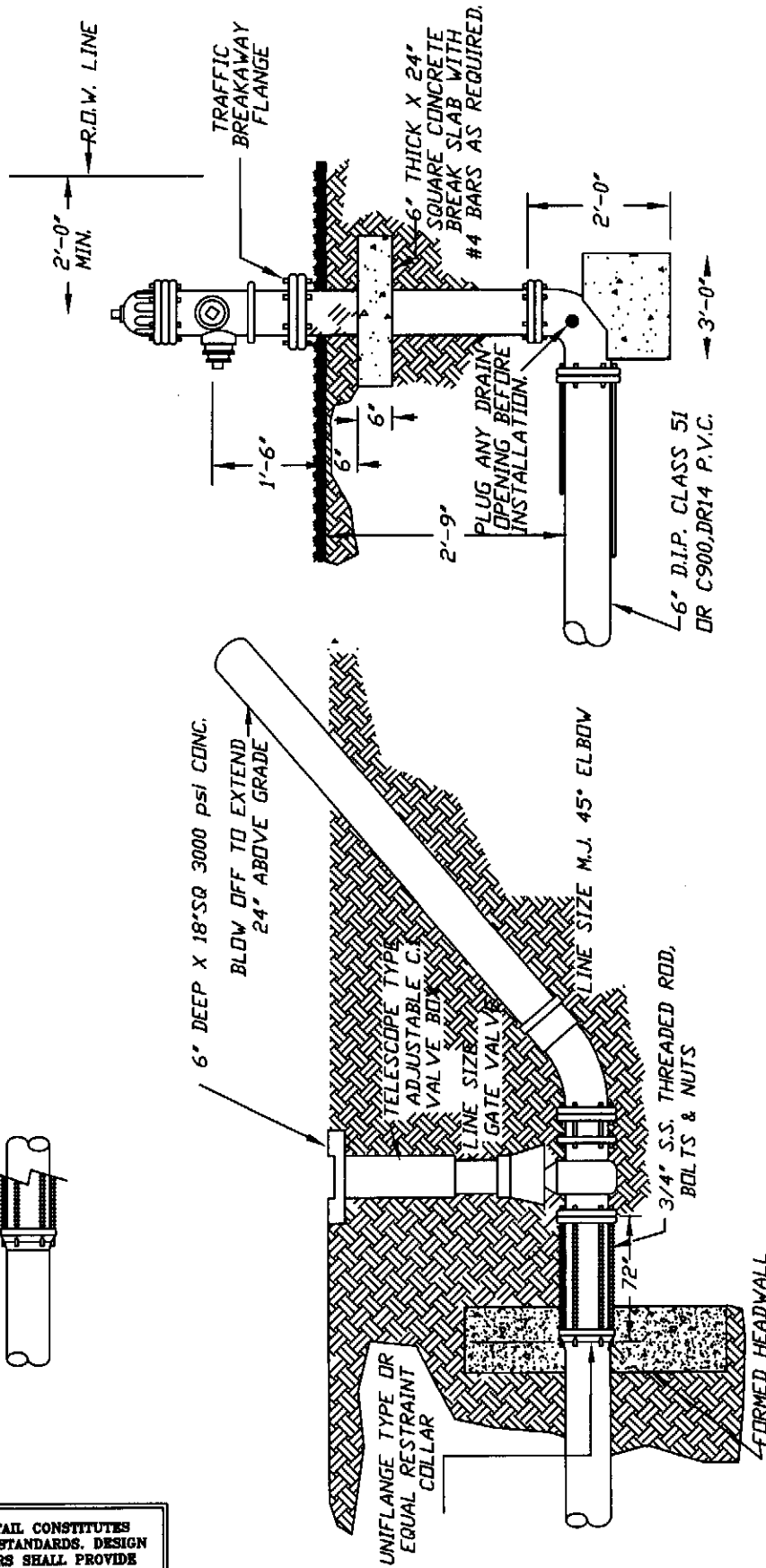
THIS DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEERS SHALL PROVIDE STANDARDS EQUAL TO OR GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: April 1998	Temporary Blow Off	SHEET: # 14
DRAWN: TWS		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. TMPBLOFF

HEADWALL TOP VIEW
(SEE DRAWING TETHBLOC-PG.11 FOR DETAILS)



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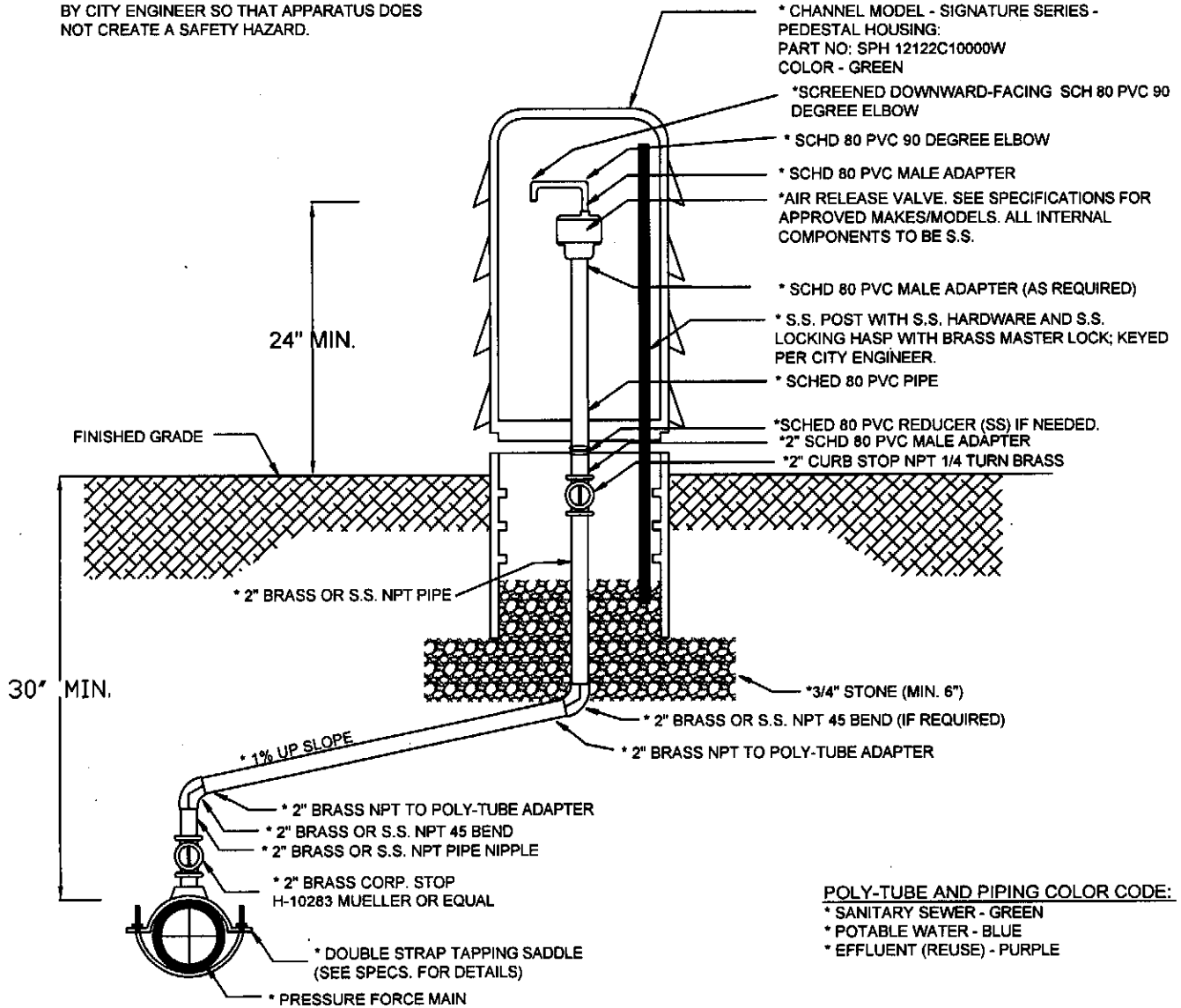
NOTE: -VALVE BOX RISER SHALL NOT BEAR ON VALVE OR PIPE.
-TEMPORARY BLOW-OFF TO REMAIN IN PLACE UNTIL DISTRIBUTION SYSTEM HAS BEEN FLUSHED. AFTER CLEARANCE IS OBTAINED REFER TO FIRE HYDRANT DETAIL FOR FINAL CONFIGURATION.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: April 1998	<i>Temporary Blow Off Hydrant</i>	SHEET: # 15
DRAWN: TWS		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. BLOFFHYD

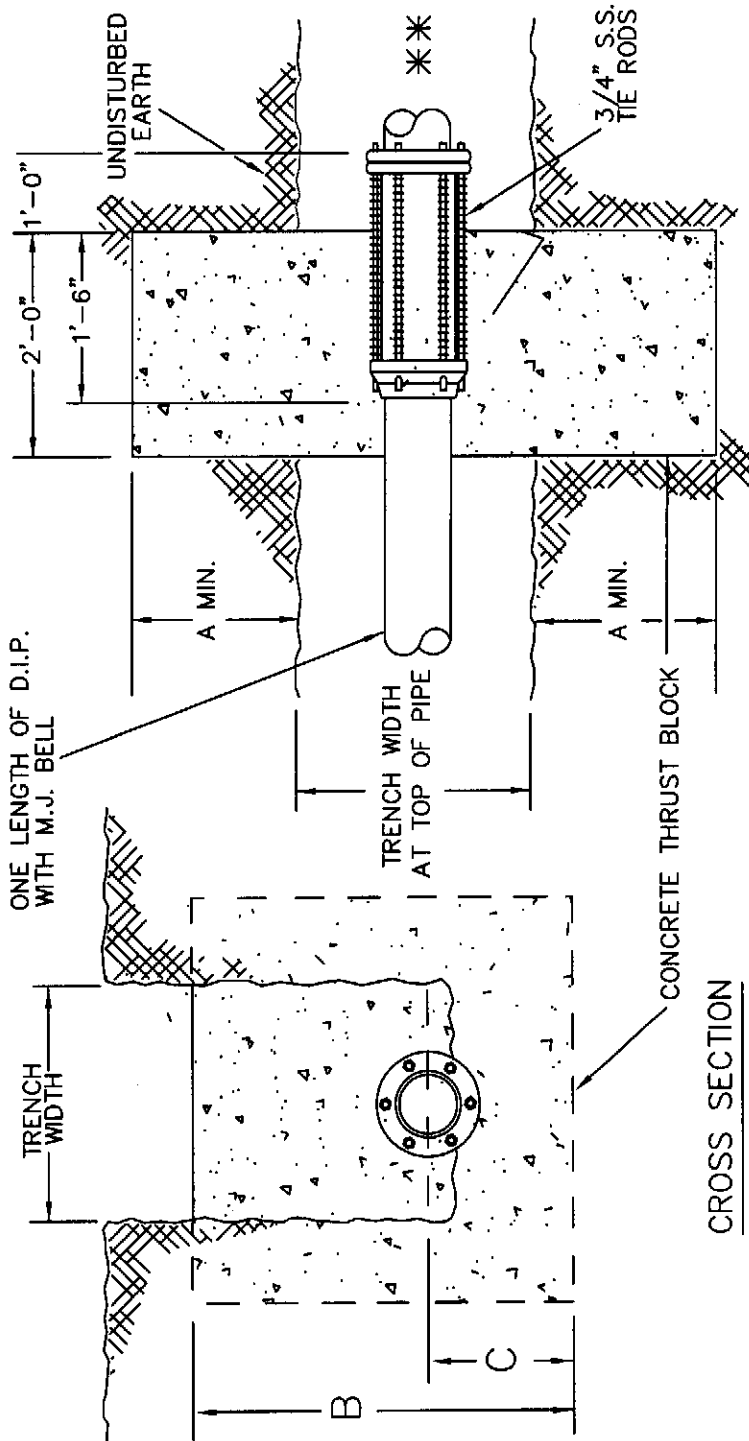
Air Release Valve Detail (Potable Water)

**THIS DETAIL CONSTITUTES
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GREATER THAN THESE.**

* AIR RELEASE VALVE TO BE LOCATED WITHIN RIGHT-OF-WAY/EASEMENT. PREFERABLY OVER PRESSURE MAIN: LOCATION TO BE DETERMINED BY CITY ENGINEER SO THAT APPARATUS DOES NOT CREATE A SAFETY HAZARD.



FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: Feb. 2009	<i>Air Release Valve Detail</i>	SHEET: # 16
DRAWN: DAG	<i>(Potable Water)</i>	DIR: WATER
SCALE: N.T.S.	380 Riverside Cr., Naples, Florida 34102	DWG. ARVWTR2



PLAN VIEW

CROSS SECTION

PIPE DIAMETER	A	B	C	NO. OF TIE RODS REQUIRED
4"	9"	36"	18"	2
6"	12"	36"	18"	2
8"	12"	36"	18"	2
10"	12"	36"	18"	2
12"	18"	36"	18"	2
16"	18"	48"	24"	4

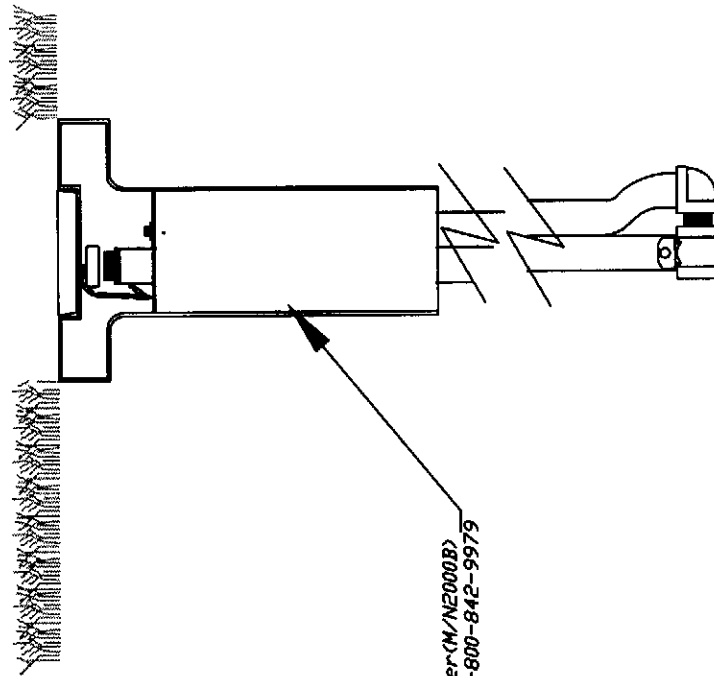
DESIGN ENGINEER SHALL VERIFY ABOVE DIMENSIONS AND THE NUMBER OF TIE RODS.

** FOR TERMINATION SEE DRAWING TEMBLOFF OR BLOFFHYD

THRUST BLOCK DETAIL FOR LINE TERMINUS

THIS DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEERS SHALL PROVIDE STANDARDS EQUAL TO OR GREATER THAN THESE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: April 1998	<i>Line Terminus Thrust Blocking</i>	SHEET: # 17
DRAWN: TWS		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. LINETERM



4" DEEP X 18" SQ 2500 psi CONC.

TELESCOPE TYPE
ADJUSTABLE C.I.
VALVE BOX.

Hydrant Plus Sampler (M/N2000B)
Water Plus Corp. 1-800-842-9979

UNIFLANGE TYPE OR
EQUAL RESTRAINT
COLLAR

FORMED HEADWALL
UNDISTURBED EARTH

LINE SIZE
GATE VALVE

3/4" S.S. THREADED ROD,
BOLTS & NUTS

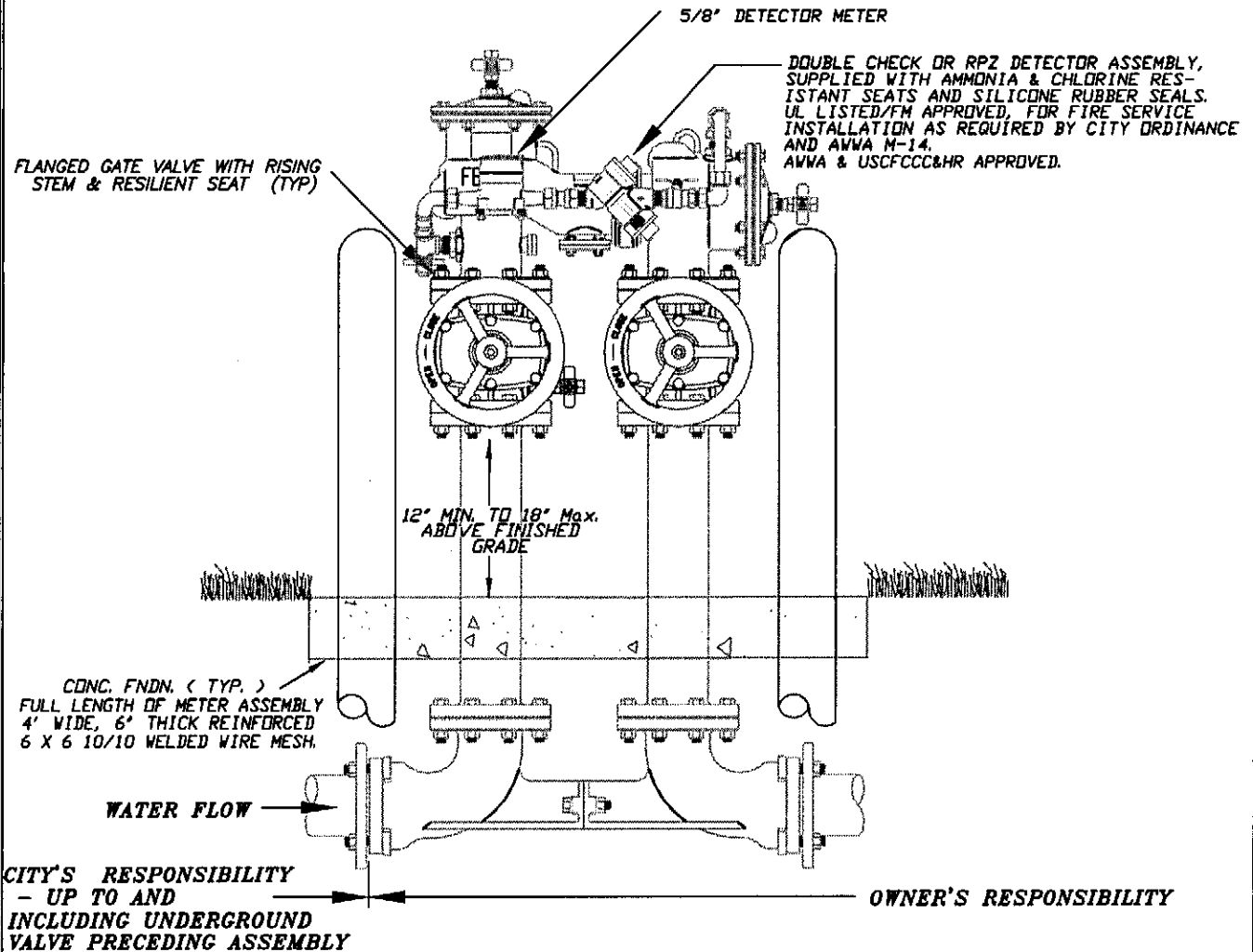
72"

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NOTE: VALVE BOX RISER SHALL NOT BEAR ON VALVE OR
PIPE.

FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: April 1998	Main Ending & Sample Station	SHEET: # 18
DRAWN: TWS		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. SAMPLSTN

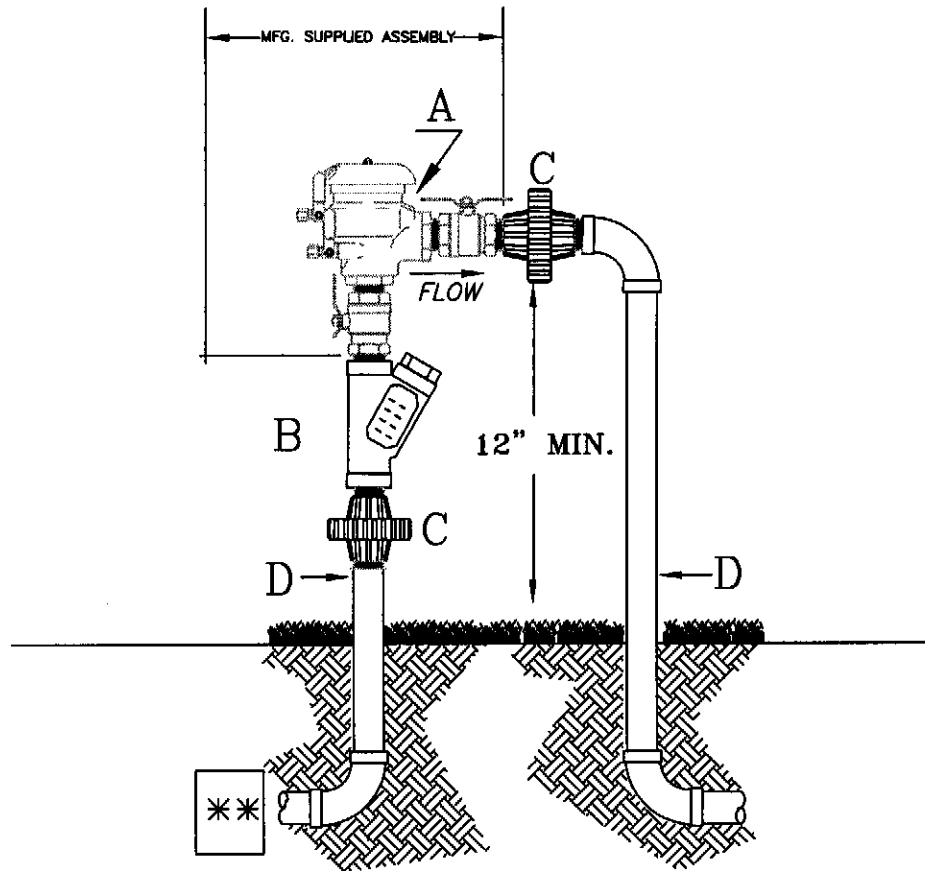
WILKINS 450DA OR FEBCO 876V



- NOTES:**
- ALL ABOVE GROUND PIPE WILL HAVE FLANGED END D.I.P. CLASS 51 ALL NUTS & BOLTS SHALL BE STAINLESS STEEL
 - (4) VEHICULAR GUARD POSTS TO BE INSTALLED AROUND METER. CONFIGURATION TO BE ILLUSTRATED ON CONSTRUCTION DOCUMENTS SUBMITTED FOR REVIEW AND APPROVAL.
 - AS THIS UNIT WILL REQUIRE PERIODIC TESTING, FACILITIES REQUIRING CONTINUOUS WATER SERVICE MAY WISH TO INSTALL PARALLEL UNITS TO PREVENT SERVICE INTERRUPTIONS.
 - BACKFLOW ASSY. WILL BE OWNED & MAINTAINED BY PROPERTY OWNER
 - CITY WILL REQUIRE DEDICATION OF MATERIAL UP TO AND INCLUDING THE UNDERGROUND VALVE PRECEDING THE ENTIRE DETECTOR ASSEMBLY
 - BACKFLOW UNIT REQUIRES INITIAL CERTIFICATION BY CITY OF NAPLES WATER DEPARTMENT(Backflow Division)
 - ALL PLANTINGS SHALL BE A MINIMUM OF 3' FROM EDGE OF SLAB, AND PROVIDE A 3' ACCESS OPENING.
 - ALL ABOVE GROUND PIPING INCLUDING ASSEMBLY WILL BE PAINTED RUSTOLEUM FEDERAL SAFETY RED.
 - ALL BACKFLOWS SHALL BE A MINIMUM DISTANCE OF 3 FEET FROM FIRE HYDRANTS OR FDC.
 - PROVIDE LINE SIZE GATE VALVE WHERE FIRE LINE LEAVES THE WATER MAIN.

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FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: Jan 2009	Master Series	SHEET: # 19
DRAWN: PMc	(Alt.) Fire System Detector Check	DIR: WATER
SCALE: N.T.S.	295 RIVERSIDE CIRCLE, NAPLES, FL 34102	DWG. FIREDK2

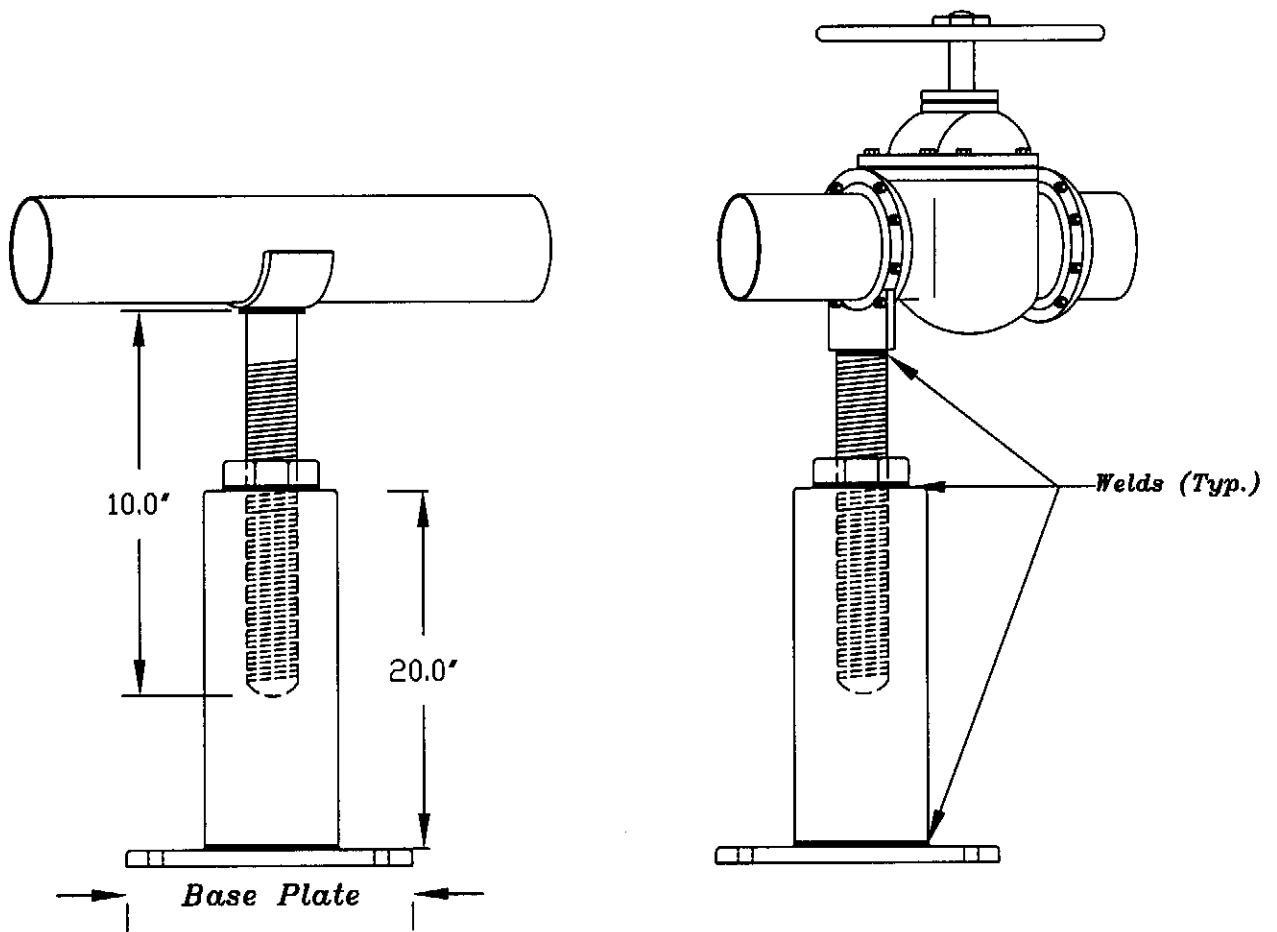


- NOTE * -TO BE INSTALLED A MINIMUM OF 12" (INCHES) TO A MAXIMUM OF 30" (INCHES) OVER FINAL FINISHED GRADE AS MEASURED TO THE LOWEST POINT OF THE PVB ASSEMBLY; AND NO CLOSER THAN 12" (INCHES) TO ANY FIXED STRUCTURE
- ALL PIPING FOR ASSEMBLY SHALL BE TYPE "K" COPPER OR BRASS
 - UNPROTECTED CONNECTIONS ARE PROHIBITED BETWEEN BACKFLOW PREVENTER AND METER.
 - BACKFLOW UNIT REQUIRES INITIAL CERTIFICATION BY CERTIFIED TESTER IN THE CITY WATER DEPARTMENT (Backflow Division)
 - ALL ABOVE GROUND PIPING INCLUDING ASSEMBLY WILL BE PAINTED RUSTOLEUM FEDERAL SAFETY BLUE.
 - NOT APPROVED FOR BACKSIPHONAGE CONDITIONS
(Must be installed 12" above the highest outlet)
 - A- PRESSURE VACCUM BREAKER- AWWA & USCFCCC&HR
APPROVED FOR USE WITHIN CITY OF NAPLES WATER JURISDICTION.
 - B - STRAINER
 - C - UNIONS
 - D - SIZES 3/4" TO 2"

** ASSEMBLY TO BE INSTALLED AS CLOSE AS POSSIBLE TO METER ON CUSTOMERS PROPERTY.

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FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: April 1998	3/4" to 2"	SHEET: # 20
DRAWN: TWS	Pressure Vaccum Breaker	DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. PVBASSY

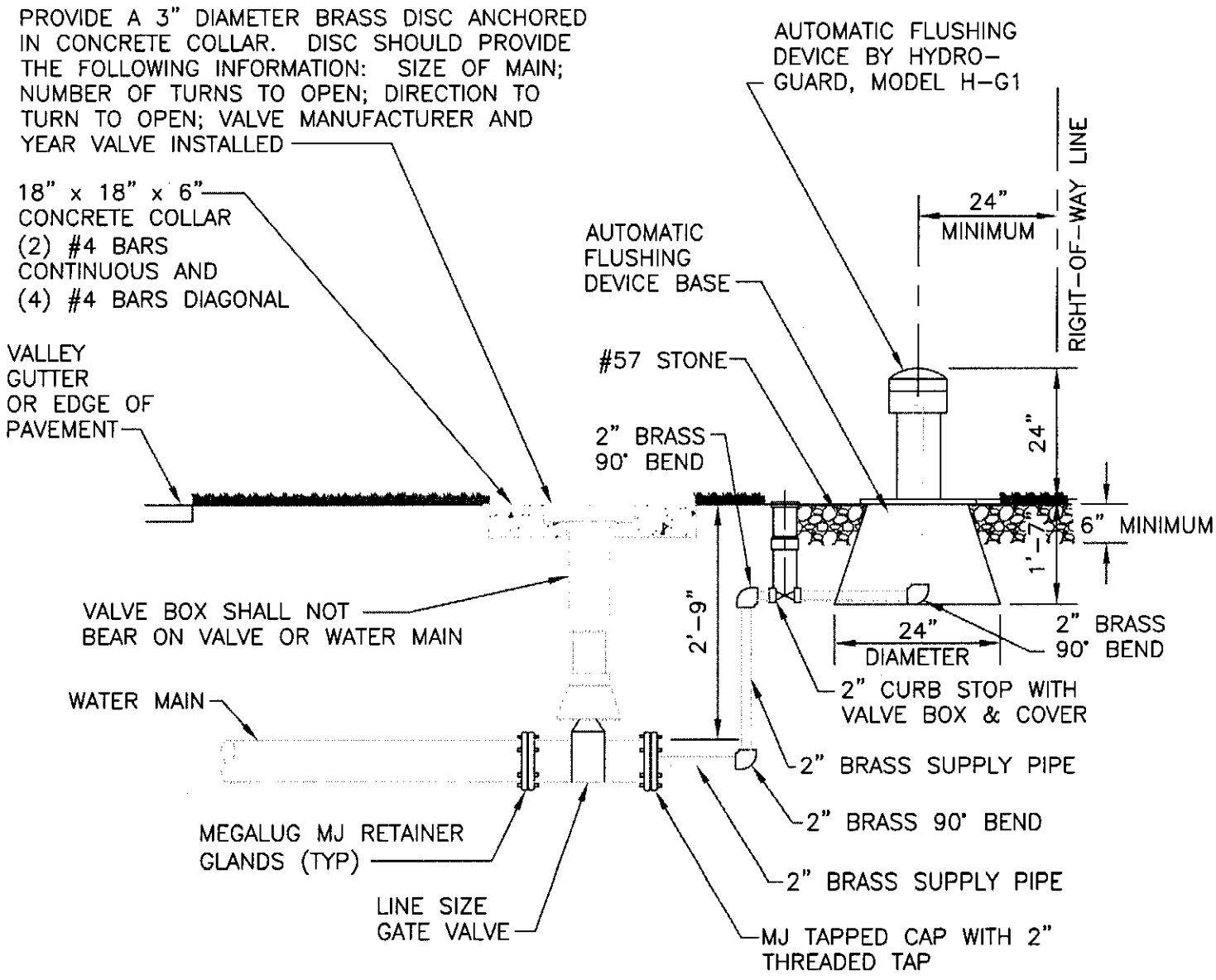


NOTES:

PIPE SIZE (INCHES)	ALUMINUM STRAP SIZE (INCHES)	STAINLESS THREADED ROD	ALUMINUM PIPE STANDARD	ALUMINUM BASE PLATE
2	1/4"X3"	3/4"	2 1/2"	1/2"X4"X4"
3	5/16"X4"	3/4"	2 1/2"	1/2"X6"X6"
4	1/2"X 5"	3/4"	2 1/2"	1/2"X8"X8"
6	1/2"X9"	1"	2 1/2"	1/2"X8"X8"
8	1/2"X10"	1"	3"	1/2"X8"X8"
10	1/2"X12"	1"	3"	1/2"X8"X8"
12	1/2"X14"	1"	4"	1/2"X8"X8"

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FOR:	UTILITIES ENGINEERING DIVISION	CITY OF NAPLES
DATE: April 1998	3" and Larger Pipe Support Detail	SHEET: # 21
DRAWN: TWS		DIR: WATER
SCALE: N.T.S.	735-EIGHTH STREET SOUTH, NAPLES, FL. 34102	DWG. PIPESUPP



NOTES:

1. PIPING SHALL BE INSTALLED UP TO 2" CURB STOP WITH VALVE BOX AND COVER AT TIME OF MAIN INSTALLATION.
2. AUTOMATIC FLUSHING DEVICE SHALL BE INSTALLED AFTER MAIN LINE HAS BEEN BACTERIOLOGICALLY TESTED, BUT PRIOR TO TIE-IN.
3. ALL THREAD HARD PIPING SHALL BE BRASS.
4. SEE TECHNICAL SPECIFICATIONS SECTION 15100 FOR GATE VALVE AND VALVE BOX REQUIREMENTS.
5. AT TIME OF ACCEPTANCE, WATER DEPARTMENT WILL INSTALL 2" METER.

**AUTOMATIC WATER MAIN
FLUSHING DEVICE DETAIL**
NTS

CITY OF NAPLES WATER
REVISED: JAN 2009