



City of Rohnert Park

Water Detail Drawings

WATER DETAIL DRAWINGS

<u>Standard Number</u>	<u>Title</u>	<u>Date Approved</u>
800 Series		
850	Reserved	
851	Typical Harness Installation for Flange Fittings	2011
852	Typical Harness Installation	2006
853	Concrete Anchor Blocks for Vertical Bends	2006
854	Concrete Thrust Blocking for Horizontal Bends	2011
855	Reserved	
856	Typical Water Main Installation Over Structure	2011
857	Fire Hydrant Installation, 2 Sheets	2011
858	Reserved	
859	Typical Temporary Blow-off and/Or Metered Connection Mains Under Construction	2006
860	Typical Temporary Metered Connection Fire Flow Required	2011
861	Blow-off With Harness	2011
862	Full-Size Blow-off	2011
863A	Water Service 5/8-inch x 3/4-inch and 1-inch x 1-1/2-inch Disc Meters	2011
863B	Water Service with Fire System Supply 1-inch and 1-1/2-inch Disc Meters	2011
864	Dual Water Service 5/8-inch x 3/4-inch and 1-inch Disc Meters	2011
865A	Water Service 2-inch Disc Meter	2011
865B	2-inch Commercial Water Service	2011
866	3-inch Commercial Water Service	2011
867	4-inch Commercial Water Service	2011
868	6-inch Commercial Water Service	2011
869	Typical Water Connection Detail	2011
870	Reserved	
871	Typical Locations of Water Mains and Mainline Valves	2006
872	Dirt Stop and Water Main Encasement.	2011
873	Reserved	
874	Double Check Valve Backflow Assembly	2006
875	Reserved	
876	Reduced-Pressure Backflow Assembly	2011
877	Gate Valve	2011
878	Butterfly Valve and Tapping Valve	2011
879	Underground Fire Line Single Detector Check Installation, 3 Sheets	2011
880	Double Check-Detector Check Fire Line Backflow Assembly	2011
881	Pressure Reducing Valves	2011
882	Surge Anticipator Valve Or Pressure Relief Valve	2011
883	Air and Vacuum and Air Release Valve	2011
884	Reserved	
885	Water Meter for Private Process and Evaporative Water Lines	2006

<u>Standard Number</u>	<u>Title</u>	<u>Date Approved</u>
886	Water Sampling Station	2011
887	4-inch Ductile Iron Multi-Service Manifold	2011
888	Water Service Obstructions	2006
891A	Drinking Fountain Cover Detail	2011
891B	Drinking Fountain Cover Detail	2011
891C	Drinking Fountain Cover Detail	2011

Water Main Construction Notes

1. All material, workmanship, and construction details shall conform to the City of Rohnert Park "Standard Details and Specifications" 2006, including all addenda, standard plan revisions and special provisions.
2. Start excavation by exposing end of existing main to determine its line and grade. Start new main 8-10 feet from and on same line and grade as existing main. Pipe laying shall then be adjusted so depth of new main conforms to Note #3.
3. Minimum depth of cover from finished grade shall be 36 inches for 6-inch & 8-inch mains, 44 inches for 12-inch mains and 48 inches for 16-inch and larger mains. Ten-inch mains must be specifically approved by the City Engineer. Mainline valves smaller than 12 inches and smaller shall be resilient seat gate. Mainline valves larger than 12 inches shall be butterfly valves. Blow-off valves shall be 2-inch or 3-inch ball valves with rotation stops.
4. No. 12 insulated copper wire shall be laid on top of and along entire length of all non-metallic mains and shall be extended to the surface at all valve locations, blow-offs, and meter boxes sufficiently for locator equipment to be attached. Fasten the wire to the top of the pipe so as not to be displaced by backfilling procedure (one method of accomplishing this is to affix the wire to the top of the pipe with duct tape at approximately 10 foot intervals.)
5. Mains to be constructed within 10 feet of sewer pipe require special installation and design must be specifically approved by the City Engineer and may require the approval of State Department of Health Services.
6. All trenching, backfill and resurfacing required for installation of water systems facilities shall be per City Std. 215. Show bedding type and trench backfill.
7. Only City Public Works Department Personnel shall operate valves on existing public system water mains or water services.
8. Service laterals other than those shown or noted on the plans shall not be installed prior to obtaining City Engineer approval.
9. Unless otherwise shown on the plans, 1-inch minimum per standard detail 863A or 863B water service laterals shall be installed in residential developments and 2-inch minimum per standard detail 865B water service laterals shall be installed in commercial developments.
10. Water and sewer service laterals shall be separated horizontally by a minimum of 5 feet.
11. At the location of each water service lateral, the letter "W" shall be inscribed into the face of the curb. The letter "W" shall be 4 inches high and completely legible.

12. All polyethylene water service tubing shall be in conformance with the latest AWWA Standards as described in ANSI/AWWA, and shall be polyethylene for 1-inch tubing. Note: No copper allowed, use PE service tubing.
13. All meter boxes, vaults and pits shall be bedded on 3-inch minimum thick, 3/4-inch drain rock, AB-2, or other clean material with typical sand equivalent of 20 minimum, uncontaminated by native soil, against compacted or undisturbed base. The gravel bed shall extend to a 4-inch minimum beyond all sides of the meter box. Box shall be set flush with top of curb, sidewalk or ground, whichever is applicable. Lot numbers must be noted on the topside of the meter box with a permanent marking pen.
14. Meter boxes shall be located out of traffic loading areas.
15. Meter boxes and vaults shall be set so that the reading lids are aligned over the meter registers as closely as possible.
16. Unless otherwise approved by the City, the on-site water line shall be minimum of the same size as the water meter.
17. For services larger than 1 inch, if either the water service lateral or the on-site building line is already existing within the tolerances specified on the Standard Detail, the last one installed shall be on the same line and grade as the existing one.
18. Items specified on the Standard Details, or the Engineers Approved List, are approved for use by the Public Works Department. All others shall be submitted to the Engineering Department for approval.
19. Meter manifolds must be detailed by the designer and approved by the City Engineer. In general, manifolds where all fittings are 2 inches or less shall be constructed from threaded brass pipe and fittings from the end of the service lateral to the meter connection. No plastic pipe shall be used in constructing manifolds of any size. No more than six meters may be manifolded off of a single water service lateral, with no more than 4 on either side of the service.
20. Gaskets for flange fittings shall conform to AWWA STD. C115.
21. To abandon a water service, expose, remove service saddle or tee and install stainless steel full circle clamp or spool with appropriate couplings per section XVII Abandonment of Water Mains and Services of the Manual of Standards, Design Standards. Note: Subject to City Engineer's inspection.
22. There shall be no unmetered connections to the City of Rohnert Park water system, including connections bypassing meter for testing on-site plumbing or for obtaining construction water. Pressure testing against valves will not be allowed. When a subdivision water main has been accepted and tied in, the individual curb stops will be

locked off with a City padlock. Cutting off or tampering with the City padlock will constitute a straight tie-in connection. Such connections will be severed by the City and will result in penalties including payment of fines and estimated water usage fees.

23. Upon application, Public Works' inspection personnel will observe installation of 2-inch temporary check valve on the end of the existing main for construction water (See Standard 859).
24. Before combustible materials may be stored or constructed on site, the Fire Department must approve fire flow and access. Before a fire hydrant may be placed in service, a high velocity flushing of the hydrant lateral shall be witnessed and approved by Public Works inspector personnel. High-velocity flushing shall consist of removing the hydrant and replacing it with a suitable elbow and diffuser. Under Public Works observation, the hydrant lateral is flushed until Public Works' inspection personnel or fire division inspector are satisfied that the lines are clear of debris. Prior to operation of the on-site water main for construction related fire protection, meter and double-check valve assembly shall be certified by the appropriate personnel pursuant to Standard 860.
25. Upon completion of construction, final connection will be made by the contractor at the developer's expense under inspection by a City Public Works Inspector, unless otherwise specified on the plans.
26. For connections to an existing water main, the contractor shall provide all excavation, shoring, backfill and trench resurfacing per City of Rohnert Park standards. Where the connection is to be a "hot tap", the contractor shall provide and install the tapping valve and sleeve, and any other hardware required and will make the tap at the developer's expense. No hot tap shall be made within four feet of a joint (measured from joint to centerline of intersecting pipe). The joint shall be removed, and the proposed hot tap shall be replaced with a "cut-in" tee. When a "cut-in" tee and valve(s) assembly is required on the plans, the contractor shall provide and install the entire assembly (including valves), and any other hardware necessary under City Public Works' inspection, and shall provide all other work and materials necessary to complete the installation to City Standards.
27. The contractor shall coordinate all water main connection work with the City Public Works Inspector at (707) 588-2237, and shall give 48 hours notice, in accordance with Construction Specifications, prior to commencing work. Note: Contractor will notify affected property via door hanger or notice approved by City Engineer.
28. After a street has been overlaid, all water valve boxes will be marked in white paint before the close of that workday.
29. Within 48 hours of paving, all water valve boxes will be brought to grade and inspected.

ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved *Donna Johnson*

Boxes and Covers

Size	Location	Box Number	Cover Number
2" and 3"	Traffic	Christy B1324	Christy B1324-61JH
2" and 3"	Non-traffic	Christy B30 Quazite PG1324BA12	Christy FL30D Quazite PG1324WA50

Standard 862 – 8" Blow-Off

2" Brass Ball Valve (FIP X FIP)

Ford	B11-777W
Jones	J-1900W
McDonald	6101W
Mueller	B-20200

3" Brass Ball Valve

Watts	Series B-6000
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Boxes and Covers

Size	Location	Box Number	Cover Number
8"	Traffic	Christy B2436 Quazite PG2436BA18	Christy B2436-62JH Quazite PG2436WAP250
8"	Non-traffic	Christy B40 Quazite PG2436BA18	Christy B40M Quazite PG2436WAP250

STANDARD 863A: Water Service W/ Fire System Supply 1" & 1-1/2" Disc Meters

Angle Meter Ball Valve - Street Side (Comp. x MSN) or (Comp. x MSN)

Ford	5/8" x 3/4"	BA43-342W-Q
	1"	BA43-444W-Q
	1-1/2"	BFA43-666W-Q
Jones	5/8" x 3/4"	J-1963WSG – 1" x 3/4"
	1"	J-1963WSG – 1"
	1-1/2"	J-1975WSG – 1-1/2"
McDonald	5/8" x 3/4"	4602BQ – 1" x 3/4" x 3/4"
	1"	4602BQ – 1"
	1-1/2"	4602BQ – 1-1/2"
Mueller	5/8" x 3/4"	B-24258 – 5/8" x 3/4" x 1"
	1"	B-24258 – 1"
	1-1/2"	B-24276 – 1-1/2"

Angle Meter Ball Valve - Property Side (MSN x FIP) or (MF x FIP)

Ford	1"	BA11-444W *
	1-1/2"	BA11-666W * (No Ell Required)

ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved *Dan Jensen*

Jones	1"	J-1970W - 1" *
	1-1/2"	J-1900W - 1-1/2" *
McDonald	1"	4604BF - 1" *
	1-1/2"	6101W - 1-1/2" *
Mueller	1"	B-24287 - 1"
	1-1/2"	B-24286 - 1-1/2" *

1-1/2" Valves require a brass street ell.

* Requires a brass close nipple.

Straight Meter Coupling - (MSN x MIP)

Ford C38-44-1.5

Meter Flange - (MF x MIP)

Ford CF 38-66-2
Jones J-129-M
McDonald 610M

Check Valve

Watts CVY
Red-White 236T
Nibco T-413

Saddle - (AWWA CC Threaded Outlet)

PVC C-900 Pipe

Ford 202B
Jones J-979
Mueller BR2B Series

Ductile Iron Pipe

Ford 202B
Jones J-979
McDonald 3825
Mueller BR2B Series

Asbestos Cement Pipe

Ford 202B
McDonald 3825
Mueller BR2B Series
Jones J-979

ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved Conn/penkin

Corp Stop - (AWWA CC Thread x Comp.)

Ford	FB1000-4-Q
	FB1000-6-Q
Jones	J-3401SG - 1"
	J-1959SG - 1-1/2"
McDonald	4701BQ
Mueller	B-25008

Meter - (Read in gallons)

1" Badger Recordall Model 70
w/ RTR and 5-foot Register cable for use with in-line connector
and Model 60WP ITRON ERT w/6-inch Endpoint cable length with in-line connector,
pit lid shelf-mount using snap on shelf mounting adapter, preprogrammed by National
Meter & Automation, Inc. 707-575-0700, www.nmaai.com

1-1/2" Badger Recordall Model 120 ELL, TP
w/ RTR and 5-foot Register cable for use with in-line connector
and Model 60WP ITRON ERT w/6-inch Endpoint cable length with in-line connector,
pit lid shelf-mount using snap on shelf mounting adapter, preprogrammed by National
Meter & Automation, Inc. 707-575-0700, www.nmaai.com

ERT Bracket

1"	Bracket to hang on cover support shoulder
1-1/2"	Bracket to mount on side of meter box with SS anchors

(Meter and Brackets can be obtained from National Meter & Automation, Inc., Pace
Supply Corp. or Groeniger and Company)

Meter Box and Cover

1" - Non-traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B30	FL30D
BES	C30	

1" - Traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B1324	B1324-61GH
BES	C1324	C1324GH

1-1/2" - Non-traffic Loading

	<u>Box</u>	<u>Cover</u>
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ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved *Donna J. Perkin*

Christy	B36	FL36D
BES	C36	
1-1/2" - Traffic Loading		
	<u>Box</u>	<u>Cover</u>
Christy	B2436	B2436-61GH
BES	C2436	C2436GH

STANDARD 863B: Water Service 5/8" x 3/4", 1" & 1-1/2" Disc Meters

Angle Meter Ball Valve - Street Side (Comp. x MSN)

(For 1" and 1-1/2" meters see list for Standard 863A)

Ford	5/8" x 3/4"	BA43-342W-Q
Jones	5/8" x 3/4"	J-1963WSG - 1" x 3/4"
McDonald	5/8" x 3/4"	4602BQ - 1" x 3/4" x 3/4"
Mueller	5/8" x 3/4"	B-24258 - 5/8" x 3/4" x 1"

Angle Meter Ball Valve - Property Side (MSN x FIP)

Ford	5/8" x 3/4"	BA13-332W
	1"	BA13-444W
	1-1/2"	BFA13-666W
Jones	5/8" x 3/4"	J-1966W - 3/4"
	1"	J-1966W - 1"
	1-1/2"	J-1974W - 1-1/2"
McDonald	5/8" x 3/4"	4604B - 3/4"
	1"	4604B - 1"
	1-1/2"	4604B - 1-1/2"
Mueller	5/8" x 3/4"	B-24265 - 5/8" x 3/4" x 3/4"
	1"	B-24265 - 1"
	1-1/2"	B-24286 - 1-1/2"

Saddle

See list for Standard 863A

Corp Stop

See list for Standard 863A

Meter - (Read in gallons)

5/8" x 3/4" Badger Recordall Model 25

ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved *Dan Johnson*

w/ RTR and 5-foot Register cable for use with in-line connector and Model 60WP ITRON ERT w/6-inch Endpoint cable length with in-line connector, pit lid shelf-mount using snap on shelf mounting adapter, preprogrammed by National Meter & Automation, Inc. 707-575-0700, www.nmaai.com

For 1" and 1-1/2" meters see Standard 863A

ERT Bracket

5/8" x 3/4" Bracket to hang on cover support shoulder

For 1" and 1-1/2" meters see Standard 863A

(Meter and Brackets can be obtained from National Meter & Automation, Inc., Pace Supply Corp. or Groeniger and Company)

Meter Box and Cover

5/8" x 3/4" - Non-traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B12	FL12D
BES	C12W	

5/8" x 3/4" - Traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B1324	B1324-61GH
BES	C1324	C1324GH

1" and 1-1/2" - Non-traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B30	FL30D
BES	C30	

1" and 1-1/2" - Traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B1324	B1324-61GH
BES	C1324	C1324GH

STANDARD 864: Dual Water Service for 5/8" x 3/4" & 1" Disc Meters

For any part not listed here, see Standard 863B

U-Branch Assembly

Ford 5/8" x 3/4" U48-43-7.5Q

ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved *Darr Johnson*

	1"	U48-64-9
Jones	5/8" x 3/4"	J-2613SG
	1"	N/A
McDonald	5/8" x 3/4"	08UQM - 1" x 3/4" x 7.5"
	1"	08UTM - 1 1/2" x 1" x 9"
Mueller	5/8" x 3/4"	H-15363 - 1" x 3/4" x 7-1/2"
	1"	N/A

Angle Meter Ball Valve – (FIP x MSN) Street side

Ford	5/8" x 3/4"	BA13-332W
	1"	BA13-444W
Jones	5/8" x 3/4"	J-1966W - 3/4"
	1"	J1966W - 1"
McDonald	5/8" x 3/4"	4604B - 3/4"
	1"	4604B - 1"
Mueller	5/8" x 3/4"	B-24265 - 5/8" x 3/4" x 3/4"
	1"	B-24265 - 1"

Meter Box and Cover

Non-traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B24	B24E
BES	C24	C24E

Traffic Loading

(Requires two separate boxes. Refer to Standard 863B for box and cover.)

STANDARD 865A: Water Service - 2" Disc Meter

Saddle

See list for Standard 863A

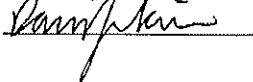
Corp Stop – (AWWA CC Thread x Comp.)

Ford	FB1000-7-Q
Jones	J-1959SG
McDonald	4701BQ
Mueller	B-25008

2" Brass Adapter – (MIP x comp.)

ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved 

Ford	C84-77-Q
Jones	J-2605-SG
McDonald	4779Q
Mueller	H-15428

Brass Elbow – (Comp. x FIP)

Ford	L14-77-Q
Jones	J-2621-SG
McDonald	4753Q
Mueller	H-15533

Ball Angle Meter Valve – (FIP x MF)

Ford	BA11-777W
Jones	J-1900W
McDonald	4604B
Mueller	B-24286

Meter - (Read in gallons)

2" Badger Recordall Model 170 ELL, TP w/ RTR and 5-foot Register cable for use with in-line connector and Model 60WP ITRON ERT w/6-inch Endpoint cable length with in-line connector, pit lid shelf-mount using snap on shelf mounting adapter, preprogrammed by National Meter & Automation, Inc. 707-575-0700, www.nmaai.com

ERT Bracket

Bracket to mount on side of meter box with SS anchors.

(Meter and Brackets can be obtained from National Meter & Automation, Inc., Pace Supply Corp. or Groeniger and Company)

Meter Box and Cover

Non-traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B36	FL36D
BES	C36	

Traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B1730	B1730-61GH
BES	C1730	C1730GH

STANDARD 865B: 2" Commercial Water Service

ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved: *Romy W. Kwan*

Saddle

See list for Standard 863A

Gate Valve

See City Standard 877

2" Brass Adapter – (MIP x comp.)

See list for Standard 865A

Brass Elbow – (Comp. x FIP)

See list for Standard 865A

Strainer

2" Badger, Bronze, Dual Elliptical Flange Plate Strainer

Meter - (Read in gallons)

2"EL Badger Recordall Compound Series Meter w/ 2 RTRs and 5-foot Register cable for use with in-line connector and 2-Model 60WP ITRON ERTs w/6-inch Endpoint cable length with in-line connector, pit lid shelf-mount using snap on shelf mounting adapter, preprogrammed by National Meter & Automation, Inc. 707-575-0700, www.nmaai.com

ERT Bracket

Bracket to mount on side of meter box with SS anchors.

(Meter and Brackets can be obtained from National Meter & Automation, Inc., Pace Supply Corp. or Groeniger and Company)

Meter Box and Cover

Non-traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B40	B40-61G B40M (Sidewalks)
BES	C40	C40-61G C40M (Sidewalks)

Traffic Loading

<u>Box</u>	<u>Cover</u>
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ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved *Dann Jenkins*

Christy	B2436	B2436-62JH
BES	C2436	C2436GH

Ball Valve with Lockwing and Stops – (FIP)

Ford	B11-444W
Jones	J-1900W
McDonald	6101W
Mueller	B-20200

Flexible Meter Coupling with SS Bolts and Nuts

Smith Blair 926

Two Bolt Dresser with SS Bolts and Nuts

Smith Blair	411
Romac	511
Power Seal	3501

STANDARD 866: 3" Commercial Water Service

Tapping Sleeve with SS Flange

Romac	STS420
Ford	FTSS
Mueller	H-304SS
Smith Blair	665

Gate Valve

See City Standard 877

Strainer

3" Badger, Bronze, Dual Round Flange Plate Strainer

Meter - (Read in gallons)

3"Badger Recordall Compound Series Meter w/ 2 RTRs and 5-foot Register cable for use with in-line connector and 2-Model 60WP ITRON ERTs w/6-inch Endpoint cable length with in-line connector, pit lid shelf-mount using snap on shelf mounting adapter, preprogrammed by National Meter & Automation, Inc. 707-575-0700, www.nmaai.com

ERT Bracket

ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved *Ramifications*

Bracket to mount on side of meter box with SS anchors.

(Meter and Brackets can be obtained from National Meter & Automation, Inc., Pace Supply Corp. or Groeniger and Company)

Meter Box and Cover

Non-traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B40	B40-61G B40M (Sidewalks)
BES	C40	C40-61G C40M (Sidewalks)

Traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B2436	B2436-61JH
BES	C2436	C2436GH

Ball Valve with Stops and 2" Operating Nut -- (FIP)

Ford	B11-777W
Jones	J-1900W
McDonald	6101W
Mueller	B-20200

FCA with SS Nuts and Bolts

Smith Blair	912
Romac	501

Two Bolt Dresser

See list for Standard 865B

STANDARD 867: 4" Commercial Water Service

Tapping Sleeve with SS Flange

See list for Standard 866

Gate Valve

See City Standard 877

ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved *Dennis J. ...*

Strainer

4" Badger, Bronze, Dual Round Flange Plate Strainer

Meter - (Read in gallons)

4" Badger Recordall Compound Series Meter w/ 2 RTRs and 5-foot Register cable for use with in-line connector and 2-Model 60WP ITRON ERTs w/6-inch Endpoint cable length with in-line connector, pit lid shelf-mount using snap on shelf mounting adapter, preprogrammed by National Meter & Automation, Inc. 707-575-0700, www.nmaai.com

ERT Bracket

Bracket to mount on side of meter box with SS anchors.
(Meter and Brackets can be obtained from National Meter & Automation, Inc., Pace Supply Corp. or Groeniger and Company)

Meter Box and Cover

Non-traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B48	B48-62G B48M2 (Sidewalks)
BES	C48	C48-62G C48M2 (Sidewalks)

Traffic Loading

	<u>Box</u>	<u>Cover</u>
Christy	B3048	B3048-63JH
BES	C1324	C1324GH

FCA with SS Nuts and Bolts

See list for Standard 866

STANDARD 868: 6" Commercial Water Service

Tapping Sleeve with SS Flange

See list for Standard 866

Gate Valve

See City Standard 877

ENGINEER'S LIST OF APPROVED ITEMS
for use with Water Design Standards
 Approved *Dominic Jackson*

Strainer

6" Badger, Bronze, Dual Round Flange Plate Strainer

Meter

6"Badger Recordall Compound Series Meter w/ 2 RTRs and 5-foot Register cable for use with in-line connector and 2-Model 60WP ITRON ERTs w/6-inch Endpoint cable length with in-line connector, pit lid shelf-mount using snap on shelf mounting adapter, preprogrammed by National Meter & Automation, Inc. 707-575-0700, www.nmaai.com

ERT Bracket

Bracket to mount on side of meter box with SS anchors.
 (Meter and Brackets can be obtained from National Meter & Automation, Inc., Pace Supply Corp. or Groeniger and Company)

Meter Box/ Cover/ Extensions

Non-traffic Loading

	<u>Box</u>	<u>Cover</u>	<u>Extensions</u>
Christy	B52	B52-62G B52M3 (Sidewalks)	B52x10
BES	C52	C52-62G C48M2 w/ C52L (Sidewalks)	C52x10

FCA with SS Nuts and Bolts

See list for Standard 866

Standard 872 – Dirt Stop and Water Main Encasement Casing Spacers

Calpico Inc.	The Model M Series
Cascade	Model CCS

Standard 874 –Double Check Valve Backflow Device

Refer to current Approved Backflow Prevention Assembly list from University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC Foundation).

Standard 876 – Reduced Pressure Backflow Assembly

Refer to current Approved Backflow Prevention Assembly list from University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC Foundation).

ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved *Sam Johnson*

Standard 877 – Gate Valve

Valve Box

Bes	M2
Brooks	4TT
Christy	G5
D & L	M-9009
South Bay	B21

Gate Valves

Valves shall conform to the latest revision of AWWA Standard C-509 covering resilient seated gate valves. (For example: Clow, US Pipe, American Flow Control).

Standard 878 – Butterfly Valve & Tapping Valve

Tapping Sleeves (Stainless Steel) – 4” and larger

Size on size up to an including 8” on 8” (examples: 4” on 4”, 6” on 6”) and any combinations (examples: 4” on 8”, 6” on 8”) DIP, CIP, PVC and existing ACP:

(Sleeve must be compatible with pipe type)

Dresser	Style 630
Ford	FTSS
JMC	415
JCM	432
Mueller	H-304
Powerseal	3490
Romac	SST111
Smith-Blair	664-665

For taps smaller than 4”, see appropriate standard.

Standard 879 – Single Check Detector in Vault

Detector Check Valve

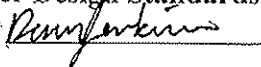
Ames	1000DCV
Hersey	EDC III
Hersey	EDC IV

	Precast Vault	Cover
Utility Vault Co.	44-SRW (4' x 4')	4848SRW
Utility Vault Co.	555-SRW (5' x 5')	4848SRW

(Pedestrian walkways must have Algrip surface)

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Approved: 

Standard 880 – Double Check Detector Fire Line Backflow Assembly

Refer to current Approved Backflow Prevention Assembly list from University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC Foundation).

Standard 881 – Pressure Reducing Valves

Pressure Reducing Valves

CLA-VAL	90-01
Singer	206-PRC
Watts	PV-10-01

Precast Vault and Cover

Refer to Approved List for Standard 879.

Standard 882 – Surge Anticipator Valve or Pressure Relief Valve

Tapping Sleeves

Refer to Approved List for Standard 878.

Utility Box and Cover (Non-Traffic Loading)

Boxes and Covers

Box Number	Cover Number
Christy B48	Christy B48M2
Quazite PG3048BA18	Quazite LG3048WAQ150

Standard 883 – Air & Vacuum & Air Release Valve

Tapping Service Saddle

Refer to Approved List for Standard 863.

1" Ball Valve Curb Stop (FIP x FIP)

Ford	B11-444W
Jones	J-1900
McDonald	6101W
Mueller	B-20200

1" Corporation Stop (AWWA/CC Taper Thread Inlet x MIP or FIP)

Ford	FB 400-4
Ford	FB1600-4
Jones	J-45
Jones	J-51
McDonald	3128B
McDonald	3148B

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Approved *Dan Johnson*

Mueller B-20045
 Mueller B-2996

1" 90° Elbow (MIP x Compression)
 Ford L84-44-Q
 Jones J-2619SG
 McDonald 4779MQ
 Mueller H-15531

1" 90° Brass Elbow (FIP x Compression)
 Ford L14-44-Q
 Jones J-2621SG
 McDonald 4779Q
 Mueller H-15533

Combination Valves
 APCO 143C
 Crispin UL10
 Valmatic VM-201C

Closure

Boxes and Covers

Location	Box Number	Cover Number
Traffic	Christy B36	Christy B36-61D
Non-Traffic	Christy B36	Christy FL36D

Standard 884 – Water Meter for Private Non-Residential Systems

5/8" Resetter
 Ford VV32-12W

1" Resetter
 Ford VV34-15W

Meter Boxes and Covers

Size	Location	Box Number	Cover Number
5/8" x 3/4"	Traffic	Christy B12	Christy B12C
	Non-Traffic	Christy B12	Christy B12C
1"	Traffic	Christy B1324	Christy B1324-61GH
	Non-Traffic	Christy B30	Christy FL30D

Standard 885 – Water Meter for Private Process and Evaporative Water Lines

5/8" x 3/4" Resetter

ENGINEER'S LIST OF APPROVED ITEMS

for use with Water Design Standards

Approved Darrin Jenkins

Ford	Resetter-52
McDonald	40-2
Mueller	H-1412

1" Resetter

Ford	Resetter-52
McDonald	40-2
Mueller	H-1412

Standard 886 – Water Sampling Station

Aluminum Cast Cabinet
Kupferle Model 88WC Eclipse

Standard 887 – 4" Ductile Iron Multi-Service Manifold

MIP x Compression Coupler 3/4", 1", and 2"

Ford	C84-33-Q
Ford	C84-44-Q
Ford	C84-77-Q
Jones	J-2605SG
McDonald	4753A
Mueller	H-15428

Tapping Service Saddles for Individual Services
Refer to approved list for appropriate service lateral standard.

Tapping Sleeves
Refer to approved list for Standard 878.

APPROVED:

Darrin Jenkins

Darrin Jenkins
City Engineer