# APPROVED MATERIALS LIST JULY 2014 WATER DISTRIBUTION

If not shown, model numbers shall be approved by THE CITY OF PALM COAST Utility Department.

#### AIR RELEASE VALVES:

Valmatic #38, 45 (2")
APCO #200 (2")
A.R.I. 2" D-040-C w/one way valve (for use on pipe exposed to atmosphere)
A.R.I. 2" D-040 w/one way valve (for use on pipe in valve vaults)

#### **BACKFLOW PREVENTION DEVICES:**

All Devices shall have stainless steel hardware to include handles, bolts, nuts, washers, etc. All Devices shall be chloramine resistant. All Devices that require a detector meter shall incorporate a Sensus TRPL register meter. On dedicated fire flow assemblies, a Dole FP35 or FP45 anti-freeze valve and a single check valve must be installed on the farthest downstream point on the bypass line.

| Double Check Valve Assembly:<br>(for residential, domestic and<br>dedicated fire mains) | Watts Model 719 (3/4" - 2")<br>Flowmatic Model DCVE (3/4" - 2")<br>Flowmatic Model DCV (2-1/2" - 10")<br>Wilkens Model 950 XLT (Top Loading) (3/4" - 2")<br>Wilkens Model 950, 950DA (2-1/2" - 10")<br>Wilkens Model 350 (3/4" - 2")<br>Wilkens Model 350, 350DA (2-1/2" - 10")  |
|---|--|
| Reduced Pressure Assembly   | Watts Model 919 $(3/4"-2")$<br>Conbraco Model 40-200 T2 $(3/4"-2")$<br>Conbraco Model 40-200 $(2-1/2"-10")$<br>Flowmatic Model RPZE $(3/4"-2")$<br>Flowmatic Model RPZ $(2-1/2"-10")$<br>Wilkens Model 975 XL $(3/4"-2")$<br>Wilkens Model 975, 975DA $(2-1/2"-10")$<br>Wilkins Model 375 $(3/4"-2")$<br>Wilkens Model 375, 375DA $(2-1/2"-10")$ |
| BUTTERFLY VALVES:   | Mueller<br>Pratt<br>M&H<br>DeZurik   |
| CASING SPACERS:   | Cascade<br>PSI<br>CCI Pipeline Systems   |

# WATER DISTRIBUTION (Continued)

| CHECK VALVES:<br>(4" & Larger)                   | ITT Kennedy 106<br>M&H 159<br>Mueller A-2600-6<br>Clow F-5382   |
|--|---|
| CORPORATION STOPS:                               | Ford Model FB1100 Series  |
| CURB STOPS:                                      | Ford Model B41-444W<br>Ford Model BRW41-XXXW(Reuse)<br>Mueller Model P-25170-20 (Reuse)<br>Ford Model B41-777<br>Ford Model B11-444<br>Ford Model B11-777<br>Mueller Model B-20200<br>Mueller Model P-25170<br>Ford Model B13-332W<br>McDonald 6101MW |
| EXPANSION JOINTS:                                | Mercer<br>Metraflex<br>EBAA Iron<br>Red Valve   |
| FIRE HYDRANTS:                                   | Mueller Model Super Centurion<br>M&H Model 129<br>American B-84-B-5   |
| FITTINGS (Ductile Iron):                         | McWane/Tyler-Union<br>ACIPCO<br>Sigma<br>SIP  |
| GATE VALVES:<br>(Resilient Seat/Wedge)           | Mueller Models A-2360, A2361<br>M&H Model 4067, 7000<br>Kennedy KS-FW, KS-RW, R/W<br>American Flow Control Series 2500  |
| IN-GROUND FLUSHING UNITS:<br>(Blow-off Assembly) | Kupferle Model TF550 (or approved equivalent)   |
| LOCATE TAPE:                                     | Terra-Tape-Reef Industries<br>Seton<br>Pro-Line   |

### WATER DISTRIBUTION (Continued)

| METERS:<br>(All meters shall be TRPL register)<br>Potable: | Sensus   |
|--|--|
| Reuse:   | Sensus (PMM-EC) 1" multi-jet (residential)<br>Sensus (Series W Turbo) 1-1/2" & larger (commercial)   |
| METERS:<br>(Residential Fire Line)                         | Hersey Model RFM (Std.) with Translator<br>Register (3/4"-2") (or approved equivalent)   |
| METER BOXES:   |  |
| Meter Box Usage:   | Any meter boxes that are placed in concrete or asphalt<br>must be sized to fit the largest meter the service line can<br>feed. Example: a 2" service line can feed up to a 2"<br>meter. Also the height of the meter must be taken into<br>account for 2" compound meters. Meter boxes shall be<br>sized to accommodate the largest meter for the size of<br>the service line. |

#### **Potable Water:**

5/8" x 3/4" Meters and 1" Meters can accommodate Double Check (Green Areas Only) 1-1/2" Meters and 2" Meters (Positive Displacement) (Master Backflowed) (Green Area) 1-1/2" Meters and 2" Meters (Turbine w/Internal Strainer) (Master Backflowed) (Green Area)

|            | NDS Pro Series                    |                               |
|------------|-----------------------------------|-------------------------------|
|            | Model 125BCDWB (Solid Lid)        | 24-3/4"L x 15-1/4"W x 15"D    |
|            | NDS Pro Series                    |                               |
|            | Model 125BCDMCIFB (Reader Lid)    | 24-3/4"L x 15-1/4"W x 15"D    |
| Contractor |                                   |                               |
| Version    | Highline LUB #195123P2            | 2"x4" Mouse Hole Ends         |
|            |                                   | 26-5/8"L x 13-11/16"W x 15"D  |
|            | Highline LUB #195123 (Reader Lid) | Solid Ends                    |
|            |                                   | 23-5/16"L x 13-15/16"W x 15"D |
|            | Carson 1324-15 (Reader Lid)       | Solid Ends                    |

<u>2" Compound Meters (With Bypass Line for Testing) (External Strainer) (Master Backflowed)</u> (Green Area)

| Highline AUCHA 304824SW2 30"W x 48"L x 24"D |
|---|
|---|

# APPROVED MATERIALS LIST JULY 2014 WATER DISTRIBUTION (Continued)

#### **METER BOXES (Continued):**

#### 5/8" x 3/4" Meters Concrete or Asphalt 10,000 lb. Load Rating (Master Backflowed)

| Contractor |                            |                            |
|------------|----------------------------|----------------------------|
| Version    | Highline PHA111812SW1P2    | 2"x4" Mouse Hole Ends      |
|            |                            | 16-3/4"L x 9-7/8"W x 12"D  |
|            | Highline PHA111812S        | Straight Wall Solid Ends   |
|            |                            | 16-3/4"L x 9-7/8"W x 12"D  |
|            | Highline CHA111812S        | Flared Wall Solid Ends     |
| Contractor |                            |                            |
| Version    | Highline CHA111812SW1P2    | 2"x4" Mouse Hole Ends      |
|            |                            | 18-1/8"L x 11-1/4"W x 12"D |
|            | Carson MSBC1118-12 CIR/1TR | 3"x4" Mouse Hole Ends      |

#### 1" Meters Concrete or Asphalt 10,000 lb. Load Rating (Master Backflowed)

| Contractor |                            |                            |
|------------|----------------------------|----------------------------|
| Version    | Highline PHA132415SW1P2    | 3"x4" Mouse Hole Ends      |
|            |                            | 23"L x 13"W x 15"D         |
|            | Highline PHA132415S        | Straight Wall Solid Ends   |
|            |                            | 23"L x 13"W x 15"D         |
|            | Highline CHA132415S        | Flared Wall Solid Ends     |
| Contractor |                            |                            |
| Version    | Highline CHA132415SW2P2    | 3"x4" Mouse Hole Ends      |
|            |                            | 23-1/8"L x 13-3/4"W x 12"D |
|            | Carson MSBC1324-12 CIR/1TR | 3"x4" Mouse Hole Ends      |

<u>2" Meters Concrete or Asphalt 10,000 lb. Load Rating</u> Positive Displacement or Turbine (Master Backflowed)

| Contractor |                            |                            |
|------------|----------------------------|----------------------------|
| Version    | Highline PHA173018SW1P2    | 3"x4" Mouse Hole Ends      |
|            |                            | 28-1/2"L x 15-1/2"W x 18"D |
|            | Highline PHA173018S        | Straight Wall Solid Ends   |
|            |                            | 28-1/2"L x 15-1/2"W x 19"D |
|            | Highline CHA173018S        | Flared Wall Solid Ends     |
| Contractor |                            |                            |
| Version    | Highline CHA173018SW1P2    | 3"x4" Mouse Hole Ends      |
|            |                            | 30"L x 17"W x 18"D         |
|            | Carson MSBC1730-18 CIR/1TR | 3"x4" Mouse Hole Ends      |

# WATER DISTRIBUTION (Continued)

#### **METER BOXES (Continued):**

#### <u>2" Compound Meters (with Bypass Line) Concrete or Asphalt 10,000 lb. Load Rating</u> (Master Backflowed)

| Version |  | Highline AUCVA306024SW2 | 30"W x 60"L x 24"D |  |
|---------|--|-------------------------|--------------------|--|
|---------|--|-------------------------|--------------------|--|

#### <u>2" Compound Meters (with Bypass Line) Concrete or Asphalt 20,000 lb. Load Rating</u> (Master Backflowed)

| Contractor<br>and Utility<br>Version | Highline AUCVA306024HW2 | 30"W x 60"L x 24"D |
|--------------------------------------|-------------------------|--------------------|
|--------------------------------------|-------------------------|--------------------|

#### 5/8" x 3/4" Meters Concrete or Asphalt 20,000 lb. Load Rating (Master Backflowed)

| Contractor |                               |                            |
|------------|-------------------------------|----------------------------|
| Version    | Highline PHA111812HW1P2       | 2"x4" Mouse Hole Ends      |
|            |                               | 16-3/4"L x 9-7/8"W x 12"D  |
|            | Highline PHA111812H           | Straight Wall Solid Ends   |
|            |                               | 16-3/4"L x 9-7/8"W x 12"D  |
|            | Highline CHA111812H           | Flared Wall Solid Ends     |
| Contractor |                               |                            |
| Version    | Highline CHA111812HW1P2       | 2"x4" Mouse Hole Ends      |
|            |                               | 18-1/8"L x 11-1/4"W x 12"D |
|            | Carson MSBCF1118-12XL CIR/1TR | 3"x4" Mouse Hole Ends      |

#### 1" Meters Concrete or Asphalt 20,000 lb. Load Rating (Master Backflowed)

| Contractor |                               |                            |
|------------|-------------------------------|----------------------------|
| Version    | Highline PHA132415HW1P2       | 3"x4" Mouse Hole Ends      |
|            |                               | 23"L x 13"W x 15"D         |
|            | Highline PHA132415H           | Straight Wall Solid Ends   |
|            |                               | 23"L x 13"W x 15"D         |
|            | Highline CHA132415H           | Flared Wall Solid Ends     |
| Contractor |                               |                            |
| Version    | Highline CHA132415HW1P2       | 3"x4" Mouse Hole Ends      |
|            |                               | 23-1/8"L x 13-3/4"W x 12"D |
|            | Carson MSBCF1324-12XL CIR/1TR | 3"x4" Mouse Hole Ends      |

# WATER DISTRIBUTION (Continued)

#### **METER BOXES (Continued):**

#### 2" Meters Concrete or Asphalt 20,000 lb. Load Rating Positive Displacement or Turbine (Master Backflowed)

| Contractor |                               |                            |
|------------|-------------------------------|----------------------------|
| Version    | Highline PHA173018HW1P2       | 3"x4" Mouse Hole Ends      |
|            |                               | 28-1/2"L x 15-1/2"W x 18"D |
|            | Highline PHA173018H           | Straight Wall Solid Ends   |
|            |                               | 28-1/2"L x 15-1/2"W x 19"D |
|            | Highline CHA173018H           | Flared Wall Solid Ends     |
| Contractor |                               |                            |
| Version    | Highline CHA173018HW1P2       | 3"x4" Mouse Hole Ends      |
|            |                               | 30"L x 17"W x 18"D         |
|            | Carson MSBCF1730-18XL CIR/1TR | 3"x4" Mouse Hole Ends      |

| PAINTING:<br>Surface Preparation | Power tool cleaning (SSPC-SP3) or brush-off blast cleaning (SSPC-SP7)  |
|----------------------------------|--|
| Primer                           | Acrylic Enamel, minimum 3.0 mils DFT<br>(If shop coat is damaged, reprime bare areas in field.<br>If shop coat is bituminous coating, prime with 2 coats<br>of stain barrier, 1 mil of dry film) |
| Finish                           | Two coats, applied by spray, of Acrylic Enamel BLP<br>Mobile Paints, minimum 4.0 mils DFT. "Precaution<br>Blue" #310-37, "Maintenance White" #310-16, or<br>approved equivalent.                 |
| PIPE (Ductile Iron):             | American<br>US Pipe<br>McWane<br>Griffin   |
| PIPE (HDPE):<br>(3" and Larger)  | Driscopipe<br>J-M  |
| PIPE (PVC):                      | Sanderson<br>National Pipe<br>North American<br>J-M Plastic<br>Diamond   |

# WATER DISTRIBUTION (Continued)

| <b>RESTRAINED JOINTS:</b><br>1. MJ Fitting and MJ Pipe Restraint:   | EBAA Iron Megalug<br>Tyler Union Tuf Grip<br>Sigma One-LOK<br>SIP                            |   |   |
|---|--|---|---|
| 2. Bell & Spigot Restraint:   | Ford Wedge Action Restrainer<br>Tyler Union Series 3000<br>Sigma PV-LOK                      |   |   |
| SERVICE PIPE (Poly Tubing):<br>(2" & Smaller Service Pipe)          | Endot Endopure<br>Orangeburg<br>CTS for Copper Tubing Size<br>Charter Plastics               |   |   |
| SERVICE SADDLE:<br>(2" & Smaller)                                   | Ford S-71, S-91, 202B, 202BS<br>Mueller H1300, S1300, DR2S<br>Smith-Blair 317<br>Romac 202NS |   |   |
| TAPPING SADDLES:<br>(Stainless Steel Body,<br>Outlet and Fasteners) | Cascade Waterworks Style CS22<br>Ford Style FS323, FS333, FS343<br>Smith Blair 372           |   |   |
| TAPPING SLEEVES:<br>(Stainless Steel Body, Throat & Flange)         | Mueller H-304SS<br>Romac SST<br>Smith Blair 663  |   |   |
| TAPPING VALVES:   | Mueller T-2360, T-2361<br>M&H 4751<br>American Flow Control Series 2500<br>Clow F-5093       |   |   |
| TRACING WIRE:   | Copperhead Industries<br>Pro-Line Safety Products  |   |   |
| U-BRANCHES:   | A. Y. McDonald #09B2FWF  |   |   |
| *All three pieces required for complete<br>U-Branch                 | *Ford  | Ball Valve (2)<br>U-Branch Piece<br>Angle Ell | #B111-333<br>#U18-43<br>#LA84-44              |
|   | *Mueller   | Ball Valve (2)<br>U-Branch Piece<br>Angle Ell | #B-20200<br>#H-153645 (7½"spread)<br>#P-15534 |

# WATER DISTRIBUTION (Continued)

#### VALVE BOXES:

Tyler Sigma

VALVE BOX ALIGNMENT ADAPTERS/DEVICES:

Emma Sales Boxlok Carson V-Guard Valve Box Adapter American Flow Control Alignment Ring

**JULY 2014** 

# WASTEWATER FORCE MAIN

| AIR RELEASE VALVES:   | ARI D-025P w/One Way Valve (Force Main)<br>ARI S-021 w/One Way Valve (PEP & Reuse Mains) |
|---|--|
| CASING SPACERS:   | Cascade<br>PSI<br>CCI Pipeline Systems   |
| CHECK VALVES:<br>(4" & Larger)  | ITT Kennedy 106<br>M&H 159<br>Mueller A-2600-6-01<br>Clow F-5382                         |
| EXPANSION JOINTS:   | Mercer<br>Metraflex<br>EBBA Iron<br>Red Valve  |
| <b>FITTINGS (Ductile Iron):</b><br>(Ceramic Epoxy Lined)              | McWane/Tyler-Union<br>ACIPCO<br>Sigma<br>SIP   |
| GREASE INTERCEPTOR TANKS:   | Florida Septic<br>Hanson<br>Southern Precast<br>Old Castle Precast<br>Standard Precast   |
| LOCATE TAPE:  | Terra-Tape-Reef Industries<br>Seton<br>Pro-Line  |
| MANHOLE FRAME & COVER:  | US Foundry USF #227-AS-ORS (built-up)<br>US Foundry USF #1295-AS-ORS (slab-type)         |
| MANHOLE JOINTING MATERIAL:  | K. T. Snyder Co., Inc. Ram-Nek   |
| MANHOLE LID RISERS:<br>(Steel Expandable)<br>MANHOLE SURFACE COATINGS | American Highway Products, Ltd. (or approved equivalent)                                 |
| FOR NEW MANHOLES THAT DO NOT<br>RECEIVE FORCE MAIN FLOW:              | Conseal CS-55 (Gray)   |

### WASTEWATER FORCE MAIN (CONTINUED)

#### METER BOXES (Continued): Meter Box Usage:

Any meter boxes that are placed in concrete or asphalt must be sized to fit the largest meter the service line can feed. Example: a 2" service line can feed up to a 2" meter. Also the height of the meter must be taken into account for 2" compound meters. Meter boxes shall be sized to accommodate the largest meter for the size of the service line.

### METER BOXES

**Reclaimed Water:** <u>1</u>" Reclaimed PMM Meters (Green Areas Only)

| Contractor |                            |                           |
|------------|----------------------------|---------------------------|
| Version    | Highline #174538P Standard | 2"x4" Mouse Hole Ends     |
| Contractor |                            |                           |
| Version    | Highline #190122P Jumbo    | 2"x4" Mouse Hole Ends     |
|            |                            | 15"L x 10"W x 12"D        |
|            | Highline #170200 Standard  | Lavender Color Solid Ends |
|            |                            | 20"L x 13"W x 12"D        |
|            | Highline #194559 Jumbo     | Lavender Color Solid Ends |
|            |                            | 24"L x 13"W x 15"D        |
|            | Highline #195124 LUB       | Lavender Color Solid Ends |
| Contractor |                            |                           |
| Version    | Highline #195124P LUB      | 3"x4" Mouse Hole Ends     |

#### 2" Reclaimed Turbine Meters (Green Areas Only)

|            |                       | 30"L x 17"W x 18"D        |
|------------|-----------------------|---------------------------|
|            | Highline #195125 XLUB | Lavender Color Solid Ends |
| Contractor |                       |                           |
| Version    | Highline #195140      | 3"x4" Mouse Hole Ends     |

#### 1" Reclaimed Meters Concrete or Asphalt 10,000 lb. Load Rating (Master Backflowed)

| Contractor |                           |                            |
|------------|---------------------------|----------------------------|
| Version    | Highline PHA11181SW2P     | 2"x4" Mouse Hole Ends      |
|            |                           | 16-3/4"L x 9-7/8"W x 12"D  |
|            | Highline PHA111812S       | Straight Wall Solid Ends   |
|            |                           | 16-3/4"L x 9-7/8"W x 12"D  |
|            | Highline CHA111812S       | Flared Wall Solid Ends     |
| Contractor |                           |                            |
| Version    | Highline CHA111812SW2P    | 2"x4" Mouse Hole Ends      |
|            |                           | 18-1/8"L x 11-1/4"W x 12"D |
|            | Carson MSBC1118-12 CIR/1T | 3"x4" Mouse Hole Ends      |

# WASTEWATER FORCE MAIN (Continued)

#### **METER BOXES (Continued):**

| Contractor |                            |                            |
|------------|----------------------------|----------------------------|
| Version    | Highline PHA132415SW2P     | 3"x4" Mouse Hole Ends      |
|            |                            | 23"L x 13"W x 15"D         |
|            | Highline PHA132415S        | Straight Wall Solid Ends   |
|            |                            | 23"L x 13"W x 15"D         |
|            | Highline CHA132415S        | Flared Wall Solid Ends     |
| Contractor |                            |                            |
| Version    | Highline CHA132415SW2P     | 3"x4" Mouse Hole Ends      |
|            |                            | 23-1/8"L x 13-3/4"W x 12"D |
|            | Carson MSBC1324-12 CIR/1TR | 3"x4" Mouse Hole Ends      |

#### 2" Reclaimed Turbine Meters Concrete or Asphalt 10,000 lb. Load Rating

| Contractor |                             |                            |
|------------|-----------------------------|----------------------------|
| Version    | Highline PHA173018SW2P2     | 3"x4" Mouse Hole Ends      |
|            |                             | 28-1/2"L x 15-1/2"W x 18"D |
|            | Highline PHA173018S         | Straight Wall Solid Ends   |
|            |                             | 28-1/2"L x 15-1/2"W x 19"D |
|            | Highline CHA173018S         | Flared Wall Solid Ends     |
| Contractor |                             |                            |
| Version    | Highline CHA173018SW2PE     | 3"x4" Mouse Hole Ends      |
|            |                             | 30"L x 17"W x 18"D         |
|            | Carson MSBCF1730-18 CIR/1TR | 3"x4" Mouse Hole Ends      |

#### 1" Reclaimed PMM Meters Concrete or Asphalt 20,000 lb. Load Rating

| Contractor |                               |                            |
|------------|-------------------------------|----------------------------|
| Version    | Highline PHA111812HW2P        | 2"x4" Mouse Hole Ends      |
|            |                               | 16-3/4"L x 9-7/8"W x 12"D  |
|            | Highline PHA111812H           | Straight Wall Solid Ends   |
|            |                               | 16-3/4"L x 9-7/8"W x 12"D  |
|            | Highline CHA111812H           | Flared Wall Solid Ends     |
| Contractor |                               |                            |
| Version    | Highline CHA111812HW2P        | 2"x4" Mouse Hole Ends      |
|            |                               | 18-1/8"L x 11-1/4"W x 12"D |
|            | Carson MSBCF1118-12XL CIR/1TR | 3"x4" Mouse Hole Ends      |
| Contractor |                               |                            |
| Version    | Highline PHA132415HW2P2       | 3"x4" Mouse Hole Ends      |
|            |                               | 23"L x 13"W x 15"D         |
|            | Highline PHA132415H           | Straight Wall Solid Ends   |
|            |                               | 23"L x 13"W x 15"D         |
|            | Highline CHA132415H           | Flared Wall Solid Ends     |

# WASTEWATER FORCE MAIN (Continued)

### **METER BOXES (Continued):**

| Contractor |                               |                            |
|------------|-------------------------------|----------------------------|
| Version    | Highline CHA132415HW2PE       | 3"x4" Mouse Hole Ends      |
|            |                               | 23-1/8"L x 13-3/4"W x 12"D |
|            | Carson MSBCF1324-12XL CIR/1TR | 3"x4" Mouse Hole Ends      |

#### 2" Reclaimed Turbine Meters Concrete or Asphalt 20,000 lb. Load Rating

| Contractor |                               |                            |
|------------|-------------------------------|----------------------------|
| Version    | Highline PHA173018HW2P2       | 3"x4" Mouse Hole Ends      |
|            |                               | 28-1/2"L x 15-1/2"W x 18"D |
|            | Highline PHA173018H           | Straight Wall Solid Ends   |
|            |                               | 28-1/2"L x 15-1/2"W x 19"D |
|            | Highline CHA173018H           | Flared Wall Solid Ends     |
| Contractor |                               |                            |
| Version    | Highline CHA173018HW2P2       | 3"x4" Mouse Hole Ends      |
|            |                               | 30"L x 17"W x 18"D         |
|            | Carson MSBCF1730-18XL CIR/1TR | 3"x4" Mouse Hole Ends      |

| PAINTING:<br>Surface Preparation:                    | Power tool cleaning (SSPC-SP3) or brush-off blast<br>Cleaning (SSPC-SP7)  |
|--|---|
| Primer:  | Polyamide Epoxy, minimum 3.0 mils DFT<br>(If shop coat is damaged, reprime bare areas in field.<br>If shop coat is bituminous coating, prime with 2 coats<br>of stain barrier, 1 mil of dry film) |
| Finish:  | Two coats, applied by spray, of Polyamide Epoxy, BLP<br>Mobile Paints, minimum 4.0 mils DFT. "John Deere<br>Green" #513-45A; OSHA Safety Lavender #0031010, or<br>approved equivalent             |
| <b>PIPE (Ductile Iron):</b><br>(Ceramic Epoxy Lined) | American<br>McWane<br>US Pipe   |
| PIPE (PVC) FORCE MAIN<br>& GRAVITY MAIN:             | Sanderson<br>National Pipe<br>North American<br>J-M Plastic<br>Diamond<br>Freedom Plastic   |

# WASTEWATER FORCE MAIN (CONTINUED)

| PLUG VALVES:  | Pratt Ballcentric (up to 12")<br>Milliken Milcentric (up to 12")<br>DeZurik PEF 100% Port<br>Golden Anderson (GA) (up to 24") |
|---|---|
| <b>RESTRAINED JOINTS:</b><br>1. MJ Fitting and MJ Pipe Restraint:   | EBAA Iron Megalug<br>Tyler Union Tuf Grip<br>Sigma One-LOK<br>SIP   |
| 2. Bell & Spigot Restraint:   | Ford Wedge Action Restrainer<br>Tyler Union Series 3000<br>Sigma PV-LOK   |
| TAPPING SADDLES:<br>(Stainless Steel Body, Outlet<br>And Fasteners) | Cascade Waterworks Style CS22<br>Ford Style FS323, FS333, FS343<br>Smith Blair 372  |
| TAPPING SLEEVES:<br>(Stainless Steel Body, Throat and<br>Flange)    | Mueller H-304SS<br>Romac SST<br>Smith Blair 663   |
| TAPPING VALVES:   | Mueller T-2360, T-2361<br>M&H 4751<br>American Flow Control Series 2500<br>Clow F-5093  |
| TRACING WIRE:   | Copperhead Industries<br>Pro-Line Safety Products   |
| VALVE BOXES:  | Tyler<br>Sigma  |
| WET WELL SUMP:  | Flygt TOP 100/150   |

# WASTEWATER PUMP STATION

| ALARM HORN (AH):   | Edwards<br>Wheelock                                   |   |
|--|---|---|
| ALARM LIGHT (AL):  | American Electric<br>Red Dot<br>Ingram Products       |   |
| CONTROL CIRCUIT BREAKER (CCB):   | Square D  |   |
| CONTROL CIRCUIT TRANSFORMER (CCT):   | Square D  |   |
| CONTROL PANEL (CP): 1*   |   |   |
| DUPLEX RECEPTACLE/GFI (DR):  | Square D<br>Hubbel<br>Leviton                         | <b>1*</b> Control panel manufacturer shall provide proof that it has a minimum                                  |
| ELAPSE TIME METER (ETM):   | Engler<br>Hecon                                       | of 3-years experience in construction<br>of pump control panels.<br><b>2*</b> The control panel enclosure shall |
| EMERGENCY CIRCUIT BREAKER<br>(ECB):  | Square D  | be Underwriters Laboratories (U.L.)<br>50 type 4X listed. Size shall be as<br>shown on Drawings.                |
| ENCLOSURE: 2*  | Hoffman<br>Universal                                  |   |
| FLASHER (FL):  | Sta-Con, Inc.<br>SSAC<br>Ingram Products              |   |
| FLOAT REGULATOR (FR):  | Roto-Float<br>Flygt                                   |   |
| FUSES:   | Bussmann<br>Gould-Shawmut                             |   |
| GENERATOR RECEPTACLE (GR):<br>230V, 100A, 3P, 4W<br>230/460V, 200A, 3P, 4W | Russell Stoll   |   |
| GENERATOR SYSTEM:  | Caterpillar<br>Onan (Cummins)<br>Tradewinds<br>Baldor |   |

**JULY 2014** 

# WASTEWATER PUMP STATION (CONTINUED)

| HAND-AUTO-OFF-SELECTOR (HOA):   | GE<br>Square D   |
|---------------------------------|--|
| HORN SILENCE BUTTON (HSS):      | Square D<br>GE   |
| MAIN CIRCUIT BREAKER (MCB):     | Square D   |
| MAIN CIRCUIT TRANSFORMER (MCT): | Square D   |
| MOTOR STARTER (MS):             | Square D   |
| <b>OVERLOAD HEATER (OL):</b>    | Square D   |
| PHASE MONITOR:                  | MPC<br>Diversified   |
| PRESSURE GAUGE:                 | Ashcroft   |
| RELAY (R):                      | Potter Brumfield<br>Eagle Signal                                       |
| SUBMERSIBLE PUMP:               | Flygt  |
| SURGE PROTECTOR (LA):           | EDCO   |
| TELEMETRY SYSTEM:               | Flygt APP 521 (duplex stations) or<br>Flygt APP 721 (triplex stations) |
| TERMINAL STRIP (TS):            | Marathan<br>Square D   |
| WETWELL ACCESS FRAME & COVER:   | Halliday Products, Inc.<br>Bilco Co.<br>U.S. Foundry                   |