



PUBLIC WORKS CONSTRUCTION CODE

CITY OF TUALATIN

ENGINEERING DIVISION

18880 S.W. MARTINAZZI AVENUE
TUALATIN, OR 97062-7092

NOVEMBER 2001

LATEST REVISION: June 13, 2024

The selection and use of the enclosed specifications and standards, while in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a registered professional engineer.

REVISIONS SUMMARY

October 4, 2021 Revisions (Adopted under Resolution No. 1435-20)

Revised Specification Sections:

- Section 204.1.00 "General" (Revised)
- Section 204.2.01 "Pipe Sizes" (Revised)
- Section 204.2.02 "Pipe Materials" (Revised)
- Section 204.2.03 "Location and Alignment" (Revised)
- Section 204.2.04 "Clearance from Other Utilities" (Revised)
- Section 204.2.05 "Valves" (Revised)
- Section 204.2.06 "Fire Hydrants" (Revised)
- Section 204.3.01 "Size" (Revised)
- Section 204.3.02 "Vaults" (Revised)
- Section 204.3.03 "Domestic Meters" (Revised)
- Section 204.3.05 "Meter Location" (Revised)
- Section 204.3.06A "Device Requirements" (Revised)
- Section 204.3.06B "Location" (Revised)
- Section 204.3.06C "Testing" (Revised)
- Section 204.3.06E "Non-Residential Building Installation of Backflow Prevention Devices" (Revised)
- Section 204.3.07 "Corrosion Protection" (Added)
- Section 326.1.02 "Pipe Bedding, Pipe Zone and Trench Backfill" (Revised)
- Section 326.2.01 "Pipe" (Revised)
- Section 326.2.02 "Casing Pipe, Spacers, and Seals" (Revised)
- Section 326.2.03 "Fittings" (Revised)
- Section 326.2.03A "Thrust Blocks" (Revised)
- Section 326.2.03B "Mechanical Joint Restraint" (Revised)
- Section 326.02.03C "Flange Joints" (Revised)
- Section 326.02.03D "Pipe Push-On Joint Restraint" (Revised)
- Section 326.02.03E "Welded-On Retainer Ring Restraint Type" (Added)
- Section 326.2.04 "Nuts, Bolts and Washers" (Revised)
- Section 326.3.01 "Distribution and Storage" (Revised)
- Section 326.3.02 "Grade" (Revised)
- Section 326.3.03 "Connection to Existing System" (Revised)
- Section 326.3.04 "Operations of Existing Valves" (Revised)
- Section 326.3.06 "Trench Excavation and Backfill" (Revised)
- Section 326.3.07 "Pipe Bedding" (Revised)
- Section 326.3.08 "Pipe Installation" (Revised)
- Section 326.3.10 "Backfill at the Pipe Zone" (Revised)
- Section 326.3.11B "Reaction Blocking" (Revised)
- Section 326.3.12 "Hydrostatic Test" (Revised)
- Section 326.3.12A "Correction of Excessive Leakage" (Revised)
- Section 326.3.13 "Sterilization" (Revised)
- Section 326.3.13A "Flushing" (Revised)
- Section 326.3.13D "Retention Period" (Revised)
- Section 327.2.01A "Gate Valves" (Revised)

- Section 327.2.01B “Butterfly Valves” (Revised)
- Section 327.2.06 “Air Valves” (Revised)
- Section 327.3.01 “Gate & Butterfly Valves” (Revised)
- Section 328.2.01 “Excavation and Backfill” (Revised)
- Section 328.2.03 “Hydrants” (Revised)
- Section 328.2.06 “Gate Valve and Valve Box” (Revised)
- Section 328.3.01 “General” (Revised)
- Section 328.3.02 “Location and Position” (Revised)
- Section 329.1.02 “Pipe Bedding, Pipe Zone and Trench Backfill” (Revised)
- Section 329.2.02 “Backfill” (Revised)
- Section 329.2.03 “Copper Tube” (Revised)
- Section 329.2.05 “Meters” (Revised)
- Section 330 “Water Backflow Preventer (Prevention) Assemblies” (Added)
- Section 331 “Public Utility Installation” (Renumbered)
- Section 332 “Pole Attachments, Small Cell Wireless, and Distributed Antenna Systems (DAS)” (Renumbered)

January 28, 2021 Revisions (Adopted under Resolution No. 1435-20)

Revised Specification Sections:

- Section 202.1.00 “Design Plan Format” (Revised)
- Section 309.2.07 “Tolerances” (Revised)
- Section 309.3.10A “Normal Lift Density Requirements” (Revised)
- Section 309.3.10B “Control Strip Density Requirements” (Revised)
- Section 309.3.19 “Joint Seal Coat” (Revised)
- Section 326.3.09 “Backfill at the Pipe Zone” (Revised)

Revised Standard Drawings:

- Standard Drawing No. 10 – “Manhole – 48-Inch Eccentric Cone Top” (Revised)
- Standard Drawing No. 11 – “Manhole – 48-Inch Flat Top” (Revised)
- Standard Drawing No. 12 – “Manhole – 60-Inch Eccentric Cone Top” (Revised)
- Standard Drawing No. 13 – “Manhole – 60-Inch Flat Top” (Revised)
- Standard Drawing No. 14 – “Manhole – 72-Inch Eccentric Cone Top” (Revised)
- Standard Drawing No. 15 – “Manhole – 72-Inch Flat Top” (Revised)
- Standard Drawing No. 16 – “Manhole – 84-Inch Eccentric Cone Top” (Revised)
- Standard Drawing No. 17 – “Manhole – 84-Inch Flat Top” (Revised)
- Standard Drawing No. 18 – “Manhole – 96-Inch Eccentric Cone Top” (Revised)
- Standard Drawing No. 19 – “Manhole – 96-Inch Flat Top” (Revised)
- Standard Drawing No. 40 – “Catch Basin – 36-Inch Gutter Grate Inlet” (Revised)
- Standard Drawing No. 41 – “Catch Basin – 30-Inch Curb Inlet” (Revised)
- Standard Drawing No. 42 – “Catch Basin – 48-Inch Curb Inlet” (Revised)
- Standard Drawing No. 43 – “Ditch Inlet – 24-Inch Pipe” (Revised)
- Standard Drawing No. 60 – “Manhole – Water Quality” (Revised)
- Standard Drawing No. 440 – “Commercial Driveway Approach – Curbside Planter Strip” (Revised)
- Standard Drawing No. 441 – “Commercial Driveway Approach – Curbside Sidewalk” (Revised)

- Standard Drawing No. 442 – “Residential Driveway Approach – Curbside Planter Strip” *(Revised)*
- Standard Drawing No. 443 – “Residential Driveway Approach – Curbside Sidewalk” *(Revised)*
- Standard Drawing No. 450 – “Parabolic Speed Hump - Construction” *(Revised)*
- Standard Drawing No. 452 – “Speed Table Hump - Construction” *(Revised)*
- Standard Drawing No. 470 – “Curb And Gutter” *(Revised)*
- Standard Drawing No. 471 – “Curb” *(Revised)*
- Standard Drawing No. 620 – “Pipe Joint Restraint - Bearing Thrust Blocks” *(Revised)*

October 14, 2020 Revisions (Adopted under Resolution No. 1435-20)

Revised Standard Drawings:

- Standard Drawing No. 005 – “Erosion & Sediment Control Example Single Family Site Plan” *(Revised)*
- Standard Drawing No. 630 – “Water Service 5/8” x 3/4” Meter” *(Revised)*
- Standard Drawing No. 631 – “Water Service 1” Meter” *(Revised)*
- Standard Drawing No. 632 – “Water Service 1.5” Meter” *(Revised)*
- Standard Drawing No. 633 – “Water Service 2” Meter” *(Revised)*

New Standard Drawings:

- Standard Drawing No. 001 – “Standard General Notes” *(Added)*
- Standard Drawing No. 430 – “Striping Details” *(Added)*
- Standard Drawing No. 431 – “Bike Lane Tubular Marker” *(Added)*
- Standard Drawing No. 432 – “Right Turn Add Lane With Bike Lane” *(Added)*
- Standard Drawing No. 454 – “Safety Island” *(Added)*
- Standard Drawing No. 455 – “Shared Use Path Intersection With Roadway” *(Added)*
- Standard Drawing No. 456 – “Intersection Safety Island” *(Added)*
- Standard Drawing No. 490 – “Single Sided (Solar) Rectangular Rapid Flashing Beacon Assembly” *(Added)*
- Standard Drawing No. 491 – “Dual Sided (Solar) Rectangular Rapid Flashing Beacon Assembly” *(Added)*
- Standard Drawing No. 492 – “Solar Vehicle Speed Sign Pedestal” *(Added)*
- Standard Drawing No. 900 – “Channelized Right Turn Lane” *(Added)*
- Standard Drawing No. 901 – “Curb Extensions And Corner Radii” *(Added)*

August 10, 2020 Revisions (Adopted under Resolution No. 1435-20)

Revised Specification Sections:

- Section 102.6.3A “Automobile” *(Revised)*
- Section 102.6.3B.1 “For bodily injury including death” *(Revised)*
- Section 102.6.3B.2 “For property damage” *(Revised)*

February 11, 2019 Revisions (Adopted under Resolution No. 5420-19)

Revised Specification Sections:

- Section 204.3.06B “Location” *(Revised)*
- Section 328.2.03 “Hydrants” *(Revised)*

Revised Standard Drawings:

- Standard Drawing No. 607 – “Reduced Pressure Backflow Assembly, ¾ -inch thru 2-inch” *(Revised)*
- Standard Drawing No. 608 – “Reduced Pressure Backflow Assembly, ¾ -inch thru 2-inch, inside building with approval” *(Revised)*
- Standard Drawing No. 609 – “Double Check Backflow Assembly, ¾ -inch thru 1-inch” *(Revised)*
- Standard Drawing No. 610 – “Fire Hydrant Assembly” *(Revised)*
- Standard Drawing No. 611 – “Double Check Backflow Assembly, 1 ½ -inch thru 2 ½ -inch” *(Revised)*
- Standard Drawing No. 612 – “Reduced Pressure Backflow Assembly, 2 ½ -inch thru 10-inches, inside building, with approval” *(Revised)*
- Standard Drawing No. 613 – “Double Check Backflow Assembly, 3-inch thru 10-inch” *(Revised)*
- Standard Drawing No. 614 – “Double Check Detector Fire Protection without FDC” *(Revised)*
- Standard Drawing No. 615 – “Double Check Detector Fire Protection with FDC” *(Revised)*
- Standard Drawing No. 616 – “Double Check Valve Assembly Inside Building, ¾ -inch thru 2-inch, with approval” *(Revised)*
- Standard Drawing No. 617 – “Reduced Pressure Backflow Assembly, 2 ½ -inch thru 10-inch” *(Revised)*
- Standard Drawing No. 634 – “Water Service 3-inch and Larger Meter Compound Type” *(Revised)*

Deleted Standard Drawings:

- Standard Drawing No. 635 “Water Service 4-inch and Larger Meter Fire Service Type” *(Deleted)*

December 10, 2018 Revisions (Adopted under Resolution No. 5401-18)

Revised Specification Sections:

- Section 102.6.3 “Insurance Coverage Requirements” *(Revised)*
- Section 102.6.5 “Certificates of Insurance” *(Deleted)*
- Section 331 “Pole Attachments, Small Cell Wireless, and Distributed Antenna Systems (DAS)” *(Added)*
- Section 331.1.00 “General” *(Added)*
- Section 331.1.01 “Scope” *(Added)*
- Section 331.1.02 “Definitions” *(Added)*
- Section 331.1.03 “Tualatin Municipal Code (TMC)” *(Added)*
- Section 331.1.04 “Submittal Requirements” *(Added)*
- Section 331.1.05 “Construction and Restoration Activities” *(Added)*
- Section 331.1.06 “Tree Protection” *(Added)*
- Section 331.1.07 “Signage” *(Added)*

- Section 331.1.08 "Locations" (*Added*)
- Section 331.2.00 "Materials and Equipment" (*Added*)
- Section 331.2.01 "Antennas" (*Added*)
- Section 331.2.02 "Antennas Equipment" (*Added*)
- Section 331.2.03 "Replacement and New Poles" (*Added*)
- Section 331.2.03 "Replacement and New Poles" (*Added*)
- Section 331.3.00 "Workmanship" (*Added*)
- Section 331.3.01 "General" (*Added*)
- Section 331.3.02 "Repairing Damaged Equipment" (*Added*)

Deleted Standard Drawings:

- Standard Drawing No. 240 "Pipe Trench Backfill" (*Deleted*)

July 23, 2018 Revisions (Adopted under Resolution No. 5383-18)

Revised Specification Sections:

- Section 205.2.07 "Pipe Design" (*Revised*)
- Section 205.2.07C "Grade" (*Revised*)
- Section 205.2.09 "Cleanouts" (*Revised*)
- Section 206.4.00 "Pipe Design" (*Revised*)
- Section 206.10.00 "Cleanouts at the Right-of-Way" (*Added*)
- Section 312.3.07 "Finish" (*Revised*)

Revised Standard Drawings:

- Standard Drawing No. 100 – "Sewer Cleanout" (*Revised*)
- Standard Drawing No. 300 – "Sewer Building Lateral" (*Revised*)
- Standard Drawing No. 460 – "ADA Ramp General Note" (*Revised*)
- Standard Drawing No. 475 – "Concrete Sidewalk" (*Revised*)
- Standard Drawing No. 630 – "Water Service 5/8" x 3/4" Meter" (*Revised*)
- Standard Drawing No. 631 – "Water Service 1" Meter" (*Revised*)
- Standard Drawing No. 632 – "Water Service 1.5" Meter" (*Revised*)

New Standard Drawings:

- Standard Drawing No. 530 "Fold-Down Bollard" (*Added*)

June 25, 2018 Revisions (Adopted under Resolution No. 5381-18)

Revised Specification Sections:

- Section 101.1.00 "Definitions" (*Revised*)
- Section 102.1.5 "Sidewalk/Driveway Approach Permit" (*Added*)
- Section 102.3.1 "Permit Fees and Deposits" (*Revised*)

- Section 102.3.5 “Sidewalk/Driveway Approach Permit Fees” *(Added)*
- Section 102.14.00 “Performance of the Work” *(Revised)*

February 12, 2018 Revisions (Adopted under Resolution No. 5353-18)

Revised Specification Sections:

- Section 100.1.00 “Application of Provisions” *(Revised)*
- Section 101.1.00 “Definitions” *(Revised)*
- Section 101.2.00 “Abbreviations” *(Revised)*
- Section 102.1.00 “Permits Required” *(Revised)*
- Section 102.2.1 “Application Procedure” *(Deleted)*
- Section 102.3.1 “Permit Fees and Deposits” *(Revised)*
- Section 102.4.1 “Plans and Specifications” *(Revised)*
- Section 102.5.00 “Prequalification of Contractor” *(Revised)*
- Section 102.6.6 “Exemption for Public Utilities” *(Added)*
- Section 102.7.2 “Easements and Tracts Granted to the City” *(Revised)*
- Section 102.7.3 “Temporary Construction Easements” *(Revised)*
- Section 102.8.00 “Erosion Control Permit” *(Deleted)*
- Section 102.9.00 “Erosion Control Joint Permit” *(Deleted)*
- Section 102.10.00 “Contributed Equity Information” *(Revised)*
- Section 102.11.00 “Confined Space Entry Information” *(Revised)*
- Section 102.12.00 “Other Agency Permits” *(Revised)*
- Section 102.13.00 “Issuance, Expiration, Reinstatement and Amendments” *(Revised)*
- Section 102.14.00 “Performance of the Work” *(Revised)*
- Section 104.7.00 “Notifications Relative to Contractor’s Activities” *(Revised)*
- Section 104.8.00 “Utilities and Existing Improvements” *(Revised)*
- Section 104.13.00 “Traffic Maintenance” *(Revised)*
- Section 201.1.01 “Scope” *(Revised)*
- Section 203.2.23 “Franchise Utilities” *(Deleted)*
- Section 205.2.07F “Spacing Requirements” *(Revised)*
- Section 205.2.07G “Water Line – Sewer Line Horizontal Separation” *(Revised)*
- Section 205.2.07H “Water Line – Sewer Line Vertical Separation” *(Revised)*
- Section 207 “Public Utility Design” *(Added)*
- Section 302.1.00 “General” *(Revised)*
- Section 304.3.03C “Embankment Compacting and Density Requirements” *(Revised)*
- Section 305.3.02 “Untreated Subgrade” *(Revised)*
- Section 305.3.03D “Compaction” *(Revised)*
- Section 308.3.01 “Base Course” *(Revised)*
- Section 310.1.01 “Scope” *(Revised)*
- Section 310.2.00 “Materials” *(Revised)*
- Section 310.2.04 “Fly Ash” *(Revised)*
- Section 310.2.05 “Steel Reinforcement” *(Revised)*
- Section 310.3.02 “Mixers” *(Revised)*

- Section 310.3.14 “Placing Portland Cement Concrete” *(Revised)*
- Section 310.3.15 “Joints” *(Revised)*
- Section 312.3.01 “Excavation, Fill, and Sidewalk Base” *(Revised)*
- Section 312.3.07 “Finish” *(Revised)*
- Section 313.1.01 “Scope” *(Revised)*
- Section 313.1.02 “Surfacing Depths for Surface Restoration” *(Revised)*
- Section 313.2.03 “Concrete Pavement” *(Revised)*
- Section 313.3.01 “Driveways and Sidewalks” *(Revised)*
- Section 313.3.03A “Trench Preparation and Backfill” *(Revised)*
- Section 313.3.03D “Asphalt Concrete” *(Revised)*
- Section 313.3.03F “Contractor’s Responsibility” *(Revised)*
- Section 313.3.03G “Temporary Surfacing” *(Added)*
- Section 313.3.03H “Portland Cement Concrete” *(Added)*
- Section 313.3.05 “Pavement Coring Repair” *(Added)*
- Section 315.3.01 “Pavement Removal” *(Revised)*
- Section 320.2.04 “Controlled Low Strength Material (CLSM)” *(Added)*
- Section 320.3.09 “Trench Backfill Above Pipe Zone” *(Revised)*
- Section 320.3.09B “Class “D”” *(Revised)*
- Section 320.3.09C “Class “E”” *(Added)*
- Section 326.3.09 “Backfill at the Pipe Zone” *(Revised)*
- Section 330 “Public Utility Installation” *(Added)*

Revised Standard Drawings:

- Standard Drawing No. 475 “Concrete Sidewalk” *(Modified)*

New Standard Drawings:

- Standard Drawing No. 241 “Trench & Surface Restoration” *(Added)*
- Standard Drawing No. 480 “Asphalt Repair for Newly Paved Roads” *(Added)*
- Standard Drawing No. 481 “Concrete Roadway” *(Added)*
- Standard Drawing No. 482 “Temporary Steel Plates” *(Added)*
- Standard Drawing No. 483 “Temporary Surfacing” *(Added)*
- Standard Drawing No. 484 “Pavement Coring Repair” *(Added)*

Spring 2023 Revisions

Revised Standard Drawings:

- Standard Drawing No. 605 “Mainline Valve Assembly – Permanent Blow-Off” *(Modified)*
- Standard Drawing No. 606 “Mainline Valve Assembly – Temporary Blow-Off” *(Removed)*

Spring 2024 Revisions

Revised Standard Drawings:

- Standard Drawing No. 605 “Mainline Valve Assembly – Permanent Blow-Off” *(Revised)*
- Standard Drawing No. 010 “Manhole 48-inch Eccentric Cone Top” *(Revised)*
- Standard Drawing No. 011 “Manhole 48-inch Flat Top” *(Revised)*
- Standard Drawing No. 012 “Manhole 60-inch Eccentric Cone Top” *(Revised)*
- Standard Drawing No. 013 “Manhole 60-inch Flat Top” *(Revised)*
- Standard Drawing No. 014 “Manhole 72-inch Eccentric Cone Top” *(Revised)*
- Standard Drawing No. 015 “Manhole 72-inch Flat Top” *(Revised)*
- Standard Drawing No. 016 “Manhole 84-inch Eccentric Cone Top” *(Revised)*
- Standard Drawing No. 017 “Manhole 84-inch Flat Top” *(Revised)*
- Standard Drawing No. 018 “Manhole 96-inch Eccentric Cone Top” *(Revised)*
- Standard Drawing No. 019 “Manhole 96-inch Flat Top” *(Revised)*

Revised Specification Sections:

- Section 203.2.19 “Structural Section” *(Revised)*
- Section 203.2.20 “Asphalt Pavement Design” *(Revised)*
- Section 324.1.01 “Scope” *(Revised)*
- Section 324.2.09 “Non-Shrink Grout” *(Revised)*
- Section 324.3.05 “Manhole Extensions and Rings” *(Revised)*
- Section 324.3.07 “Manhole Over Existing Pipe Line” *(Revised)*
- Section 324.3.10 “Pipe Connections” *(Added)*
- Section 324.3.11 “Manhole Taps” *(Added)*
- Section 324.3.12 “Manhole Marker” *(Revised)*
- Section 324.3.13 “Testing of Sanitary Manholes” *(Revised)*