Leading the Way

MEMORANDUM Public Works Department

January 12, 2023

To: Development Community

From: Kendrick Glover, PE, Construction Services Manager

Subject: 2023 Standard Specifications & Details

The City updated our Standard Specifications and Details this month. They can be found on the City's web site at https://www.go2kennewick.com/1219/Standard-Specifications-Details

The implementation of the Standards are applicable for all project plans signed after January 2nd, 2023. Any plans signed prior to January 2nd, 2023 may still following the previous Standards.

The City of Kennewick Standard Specifications & Details have been revised as follows:

Specifications Revisions

Section 1-8.04 Excavation and Boring Near Existing Utilities (Direction Drilling, Missile, or Tunneling)

This new sub-section was added

Section 1-9 Water Supply

Deposit and service fee amounts replaced with general language

Section 1-13.03 Compaction (Utility Trenches Greater than 6-Feet Deep)

Language added to conform testing requirements with the previous section 1-13.02.

Section 1-23.06 Changes in the Work (Force Account)

Language updated to require the contractor to provide equipment blue book rental rates for all force account paperwork and removing language in order to aligning rental rate calculations with SWSS 1-09.6.

Section 2-8 Hot Mix Asphalt

Section replaced with SWSS Local Agency General Special Provisions (GSPs) for Section 5-04 Hot Mix Asphalt

Section 2-10.02 Concrete Curb and Gutter (Materials and Construction)

Curb and gutter material updated to Class 4000.

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Section 2-11.01 Concrete Driveway (General)

Concrete driveway material updated to required Class 4000 concrete.

Section 2-18.02 Adjust New and Existing Utilities to Grade (Materials and Construction)

HMA updated from “Class G PG64-28” to “Class ½ PG 64S-24”

Section 2-30.06 Crack Sealant (Payment)

Crack sealant payment method updated to TON from MILE.

Section 3-1.01 Sanitary Sewer (Design and Acceptance)

Additional language added regarding design of sewer anchoring and installation of water, sewer, and storm mainlines outside of the right-of-way.

Section 3-1.02 Sanitary Sewer (Approved Pipe and Joint Materials)

Acrylonitrile Butadiene Styrene (ABS) pipe removed from approved pipe material list

Section 3-2 Pipe Zone Backfill

Section updated to require 5/8-inch minus rock for all pipe zone backfill

Section 3-4.01 Sewer Service Lines (General)

Paragraph added to clarify the minimum service size for commercial and multi-tenant buildings.

Section 3-4.02 Sewer Service Lines (Construction)

Sentence added to allow abandonment of sewer service lines at ROW or back of walk.

Section 3-5.01 Standard Manhole (General)

Note added to clarify that all penetrations shall be grouted

Section 3-5.02.01 Standard Manhole (Measurement and Payment)

Sentence added to specify that sewer and storm manholes shall be installed no closer than 4 feet to other utility pipes.

Section 4-1.01 Water Pipe (General)

Sentence added to require waterlines to be located in a tract or easement.

Section 4-1.03 Water Pipe (Installation)

Sentence added to clarify the separation requirements between potable and non-potable utilities

Section 4-1.06 Water Pipe (Tracer Wire)

Section modified to require City Locator to perform initial tracer wire continuity test.

Section 4-2 Rock Excavation

Sentence added to clarify that a blasting permit shall be obtained from the City of Kennewick Fire Department

Section 4-3.01 Water Services (General)

Sentence added to require each water meter to be connected to the City Main by its own individual service line.

Section 4-3.02 Water Services (Installation)

Section updated to require the contractor to furnish and install a new meter box at location where new services are being installed to existing homes.

Clarifying language added in multiple places within section.

Section 4-3.04 Water Services (Pipe)

2 inch PE tubing material updated to new material name

Section 4-3.05 Water Services (Saddles)

Part number for Ford saddle updated to Ford FCD202 from Ford FS202

Section 4-3.06 Water Services (Corporation Stops)

Part numbers corrected

Section 4-3.07 Water Services (Ball Angle Meter Valve)

Part numbers corrected

Section 4-3.11 Water Services (Meter Box)

New meter box size added for ¾ inch and 1 inch meters.

New meter box lid required for ¾ inch to 2 inch meters.

Section 4-4.01 Pipe Zone Backfill (General)

Section updated to require crushed surfacing top course for all pipe zone backfill

Section 4-4.02 Pipe Zone Backfill (Pipe Zone Materials)

Section updated to require crushed surfacing top course for all pipe zone backfill

Section 4-4.06 Pipe Zone Backfill (Payment)

Section updated to require pipe zone backfill to be incidental to pipe bid item

Section 4-5.01 Fire Hydrant Assemblies (General)

Sentence added to require 3 feet of separation between fire hydrants and all dry utilities

Sentence added to require all hydrant within 100’ of a provide development project to be updated to current standards

Section 4-5.02 Fire Hydrant Assemblies (Materials)

Kennedy K-81 added to approved hydrants. M&H Model 129S removed from approved hydrants

Section 4-5.04 Fire Hydrant Assemblies (Measurement)

Shear pad and tracer wire valve can added to included work for fire hydrants.

Section 4-8.02 Valves, Valve Boxes and Fittings (Materials)

Subsection A: Note added to clarify that valve stem extensions are required when the depth to the valve nut exceeds 3 feet.

Subsection C: Sentence added to require the tapping saddle to be pressure tested per the manufacture’s testing requirements.

Subsection F: Sentence added to allow for the use of a set accelerating admixture to reduce cure time

Section 4-10.01 Salvage (General)

Sentence added to require AC pipe to remain in the trench and the ends to be sealed with concrete or CDF

Section 4-13.01 Tie-In to Existing Water Lines (General)

Paragraphs added to clarify the discharge requirements for hyperchlorinated water

Section 4-21.02 Hydrant Meter – Water Supply (Temporary Fire Hydrant Meter and Water Use Costs)

Specifics costs replaced with phone number to obtain current costs.

Section 5-1.01 Storm Drain Pipe (General)

Sentence added to require grade above storm pipes to be graded to allow for future excavation

Paragraph added to require stormwater mainlines to be located in an easement or tract.

Section 5-3.01 Pipe Zone Backfill (General)

Section updated to require 5/8 inch minus crushed rock for all backfill within the pipe zone

Section 5-3.05 Pipe Zone Backfill (Measurement and Payment)

Section updated to require pipe zone backfill to be incidental to storm pipe bid item

Section 5-4.01 Catch Basin (Design and Construction)

Sentence added to require catch basins to be installed up-grade of pedestrian ramps and driveway entrances

Section 5-4.03 Catch Basin (Spill and Debris Protection)

New section added to specify the type of spill and debris protection that will be required

Section 5-5.01 Standard Manhole (General)

Sentence added to require the installation of spill and debris protection

Paragraph added to require 4 feet of clear space around manholes

Section 5-6 Connection to Existing Manhole

New section added

Section 5-9 Storm Drainage Design

Section updated to clarify design storm, retention, infiltration, and discharge requirements

Section 6-2.01 Street Light Standards (General)

Paragraph added to clarify when direct bury and mounting base poles shall be used

Section 6-2.03 Streetlight Standards (Handhole)

Handhole location adjusted to be on the opposite side of the pole as the luminaire mast arm

Section 6-4.01 Underground Wiring and Conduit (Underground Conduit)
Multiple paragraphs added to section

Section 6-4.02 Underground Wiring and Conduits (Junction Boxes)
New section added for “Fiber Junction Box”

Section 6-4.03 Underground Wiring and Conduits (Wiring)
Conductor insulation update from USE to XHHW-2

Section 6-5 Traffic Signal Interconnect Network
New section added

Section 8-3.03 Materials (Installation)
Section updated to require self-restrained ductile iron fittings required on all pipe bends for 4 inch and larger pipe

Section 8-6.01 Low Voltage Control Wiring (General)
Section updated to eliminate the use of strand wire

Section 8-7.01 Electric Irrigation Valves (General)
Section updated to provide specific valve models based on flow

Section 8-7.02 Electric Irrigation Valves (Battery Operated Electric Irrigation Valves)
Section updated to require the use of Hunter Node controller.

Section 8-8.01 Irrigation Controllers (General)
Section updated to remove Rainbird Basic controller and add Rainbird ESP-ME controller

Section 9-5.02 Tree and Shrub Planting (Materials)
Sentence added to specify that all trees in the ROW be on the “Recommended Trees for the Mid-Columbia Region” document

Root barrier material requirements added

Section 9-5.03 Tree and Shrub Planting (Construction)
Note added to require the installation of root barrier

Section 9-5.06 Tree and Shrub Planting (Measurement and Payment)
Paragraph for measurement and payment for root barrier added

Detail Revisions

Detail 1-3 Typical City Utility Location
Note 8 updated to include vertical clearance requirement

Detail 2-1-1 Residential/Local Streets – Alt 1
Note 6 regarding reduced roadway width in cul-de-sacs removed

Detail 2-1-2 Residential/Local Streets – Alt 2
Information regarding reduced roadway width in cul-de-sacs removed

Detail 2-1-3 Cul-De-Sac
Roadway widths in cul-de-sac increased to be the same as all residential streets

Detail 2-1-4 Alternate Turn-Around
Roadway widths in turn-around increased to be the same as all residential streets

Detail 2-6-1 Typical Pavement Restoration
Minimum pavement width changed to 6' to conform with KMC 5.56.215
HMA for patch changed to Class 1/2
1 inch minus native backfill required for all trenched deeper than 5 feet
Perimeter joints of all patches shall be crack sealed
Patch depth to be at least as thick as the adjacent roadway or 2" / 3 ½" as required

Detail 2-6-2 Pavement Cut Examples
New detail

Detail 2-9-1 Sidewalks & Curbs
Rolled curb and gutter detail added
3/8" premolded joint filler required at 30' O.C. for all sidewalks

Detail 2-9-2 Curb Details
Dual-faced concrete curb detail added

Detail 2-9-3 Sidewalk Details
New detail

Detail 2-9-4 Driveway Sections
Concrete Class changed to conform to SWSS 8-06

Detail 2-9-5 Standard Driveway-Separated Sidewalk
Pay limits added to detail

Detail 2-9-6 Dropback Driveway – Separated Sidewalk
Pay limits added to detail

Detail 2-9-7 Standard Driveway – Curb Tight Sidewalk
Pay limits added to detail

Detail 2-9-8 Dropback Driveway – Curb Tight Sidewalk
Pay limits added to detail

Detail 2-10-1 Parallel Curb Ramp
Ramp thickness increased to 6”

Detail 2-10-2 Combination Curb Ramp
Ramp thickness increased to 6”

Detail 2-10-3 Perpendicular Curb Ramp
Ramp thickness increased to 6”

Detail 2-10-4 Single Direction Curb Ramp
Ramp thickness increased to 6”

Detail 2-11 Sidewalk HMA Ramp
Curb bullnose length added
Required landing added to detail
Note added to extend landing to edge of pavement
Required cross slope added to ramp

Detail 2-12 Dropped Back Sidewalk
Concrete specified as Class 3000
2” CSTC added under sidewalk

Detail 2-13 Modified Retaining Wall
2” CSTC added under sidewalk

Detail 2-14 Standard Retaining Wall
Concrete specified as Class 4000

Detail 3-1 Clean Out
“CO” added to lid of cleanout

Detail 3-3 Manhole Frame & Cover
Hinged Frame and Cover product updated to “EJIW Ergo 24 Cat. No. 00371701L01”

Detail 3-4 Utility Adjustments
Concrete collar specified as Class 4000

Detail 4-1-2 Blow-Off Assembly Dead-End Main Lines
Required cover changed to standard valve can
Tracer wire added to detail to clarify its necessity

Detail 4-3-1 Transmission Main Blow-Off Assembly
Piping for blow-off changed to ductile iron

Detail 4-4-1 Fire Hydrant Assembly
Note added to require sidewalk adjacent to shear pad to be installed with the shear pad
Note added to specify that a valve nut extension is required

Detail 4-5 Tapping Water Mains
Modified note 4 to allow PVC mainline to be tapped up to 75% of the main diameter

Detail 4-6-2 Mechanical Restraint

Restrained length for 16 inch DIP 11.25° bend 200 PSI static pressure updated to 7 feet
Restraint calculations website updated to DIPRA website

Detail 4-7 Pipe Bedding

Backfill notes removed from detail
Notes updated to require 5/8 minus backfill in pipe zone for all utilities

Detail 4-8 Air Vacuum Release Valve

Note 3 updated to allow the use of Styrofoam packing peanuts
Tracer wire shown to extend into meter box

Detail 4-9 Tracer Wire Installation

Detail updated to require tracer wire on all main types

Detail 4-14-1 DCVA Install 1 ¼" – 2 ½" – Irrigation

Winterization blowout moved after DCVA
Stop and waste valve added before DCVA
Note added to require the use of thread tape only (typical all DCVA details up to 2 ½")
Note added to require a minimum of 1 CF of 2" minus drain rock (typical all DCVA details up to 2 ½")

Detail 4-20-1 RPBA Install ¾" – 1" – Irrigation

Note added to require the use of thread tape only (typical all DCVA details)

Detail 4-21 RPBA Install 1 ¼" – 2" – Building Supply

Note updated to clarify that 12" clearance is to bottom of relief

Detail 4-22 RPBA Install 2 ½"+

Note updated to clarify that 12"+pipe diameter clearance is to bottom of relief

Detail 4-23 RPBA Dual Install 2"+

Note updated to clarify that 12"+pipe diameter clearance is to bottom of relief

Detail 4-24 RPBA Dual Install Continuous

Note updated to clarify that 12" clearance is to bottom of relief

Detail 4-25-2 Fire Line – FDC

NFPA standard updated to 10.1.1.1

Detail 4-25-3 FDC Sprinkler System Sign

New Detail

Detail 4-26 1" Single Water Service – PVC Main

Sheets 1 and 2 combined into single detail
Note added to clarify that tail piece should extend 2' beyond utilities
Note added to specify that the contractor will install City supplies meter boxes

Detail 4-27 1" Double Water Service – PVC Main

Note added to specify that the contractor will install City supplies meter boxes

Detail 4-28 1" Single Water Service – DI & AC Mains

Note added to specify that the contractor will install City supplies meter boxes

Detail 4-29 1" Double Water Service – DI & AC Mains

Note added to specify that the contractor will install City supplies meter boxes

Detail 4-30 2" Water Service

Note updated to specify that the contractor will install City supplies meter boxes

Detail 4-31 Water Meter Installation

Note updated to specify that the contractor will install City supplies meter boxes

Detail 4-32-1 3" & 4" Meter Vault Installation

Notes updated to require water service line coming into vault to be ductile iron and flanged

Detail 4-3-2 6" and Larger Meter Vault Installation

Notes updated to require water service line coming into vault to be ductile iron and flanged

Detail 5-1-2 48" Catch Basin

Note added to require spill and debris protection per COKSS 5-4.03

Detail 5-2-2 Catch Basin Gutter Widening

Required concrete update to Class 4000

Detail 5-5-1 Standard Storm Drain Manhole

Note 5 modified to require connection to an existing manhole to be core drilled and utilize a conical type flexible seal

Note added to require spill and debris protection per COKSS 5-4.03

Detail 5-5-2 Shallow Storm Drain Manhole

Note 5 modified to require connection to an existing manhole to be core drilled and utilize a conical type flexible seal

Note added to require spill and debris protection per COKSS 5-4.03

Detail 5-6-1 Infiltration Structure

Perforation requirements updated to align with industry standards

Spill and debris protected removed from catch basin

Note added to require spill and debris protection per COKSS 5-4.03

Detail 6-1-1 Type II Streetlight Standard

Updated to Type I standard only

Luminaire mounting height standardized at 40'

Luminaire mast arm length standardized at 8'

Base Plate Detail Added

Handhole moved to opposite side of mast arm

Detail 6-1-2 Type I Streetlight Base Details

11” bolt circle specified
Footing depth for 30’ pole length removed
Requirement added for use of CDF around precast bases

Detail 6-1-3 Type I Streetlight Anchor Details

Use of breakaway pole anchors clarified and corrected

Detail 9-1-4 Type II Streetlight Standard

Information pertaining to Type I streetlights removed
Handhole moved to opposite side of mast arm

Detail 6-2 Typical LED Luminaire

Note 1 updated to reflect required luminaires
Note 2 updated to require 7 pin photocontrol receptacles

Detail 6-5-2 Metered Load Center Service Cabinet

New detail

Detail 6-8 Streetlight Junction Box Installation

Note 3 added to require collars around junction boxes installed in landscape areas
Note 4 added to specify the placements of conduit within the junction box

Detail 6-10 Rapid Flash Beacon

New detail

Detail 7-1 Sign Post

Concrete installation detail updated to increase blockout size
Note 7 updated to reflect concrete installation detail change

Detail 7-3-1 Sign Installation

Offset sidewalk installation detail updated to place sign 24” from back of curb

Detail 7-6 Tubular Marker Installation

RPM moved on top of dual-face curb