**Tap-In Plan - Requirements Checklist**

|  |  |
| --- | --- |
| Project Name: |  |
| PWSA Project No.: |  |
| PWSA Reviewer: |  |

*This checklist shall be completed by the PWSA Reviewer during review of the Tap-in Plan.*

**General Information**

Existing PWSA infrastructure is labeled, as follows:

* Sewer Mains: Nominal Diameter, Material, Combined/Sanitary/Storm
  + Example: 15” RCP Combined Sewer (PWSA); 8” PVC Sanitary Sewer (PWSA)
* Manholes: Manhole I.D.
  + Example: MH053E011 (PWSA)
* Drainage Structures: Drainage Structure I.D.
  + Example: CB052P001 (PWSA); IN052N002 (PWSA)
* Water Main: Nominal Diameter, Material, Type
  + Example: 8” DIP Water (PWSA)
* Fire Hydrant: Fire Hydrant I.D.
  + Example: FH C188 (PWSA)

Existing non-PWSA utilities are labeled with the nominal diameter and material

Existing and proposed facilities not owned by a utility company shall be marked as “Private”

Construction details with PWSA title block

Private services constructed within improved surfaces shall be located within the public frontage of the property, and shall not cross over adjoining property lines

Parcel ID, owner, address

PWSA Approval Block on every sheet in accordance with the Template Detail

PWSA Approval Block should be marked the same way on each sheet and represent the entire plan set

Peak Daily Flow Demands Table in accordance with the Template Detail

Graphic Scale

Pennsylvania One Call Serial Number

General Location Map

North Arrow

Plan Preparer’s Contact Information

Non-City Street Owners are clearly defined (e.g. County, PennDOT, Private, etc.)

If applicable, the Applicant shall provide the date which the DEP approved the SFPM

For revisions to previously approved Tap-in Plans, the Applicant shall provide:

* Revision cloud around every revision
* Revision Triangle
* Date
* Brief Description on the purpose of the revision

**Sewer Connection(s)**

*N/A - This Section does not apply to this Project*

Connections are at the sewer main, not a manhole

Sewer laterals are designed for the use of a single user

For single connections, the storm and sanitary laterals shall be combined within 5-feet of sewer main per ST-5

Storm lateral shall be straight through, with sanitary wyed in

Sewer taps within 6-feet of manhole are prohibited

Cored sewer connections shall be limited to PVC, Reinforced Concrete and CIPP sewer mains

Confirm the Applicant CCTV’d the sewers discussed at the predevelopment meeting

Applicant submitted CCTV and Summary Reports

Confirm the CCTV and Summary Report includes the PWSA Manhole ID Numbers

The stationing on the Tap-in Plan shall correspond to the CCTV

Require the Applicant connect to existing wyes, when available

Confirm existing wye is in adequate condition for use

Wye locations shall be provided for both sides of sewer main, not just the wyes which face the development

Wyes shall be stationed per CCTV and marked as active or capped

If required, submit work order in Sprymobile for O&M issues

If required, coordinate with the respective PWSA Project Manager for repair work

Connections to sewer main which has been lined with a cured-in place pipe (CIPP), the connection shall per the following order of preference:

* Re-use an existing connection point that was re-instated after lining
* Open-cut excavation to identify and re-use existing wye which was not previously re-instated
* Cored connection per ST-3 or ST-4
* Cut-in wye followed by installation of a point liner

**Water Connection(s)**

*N/A – This Section does not apply to this Project*

Size-on-size tapping is prohibited, and will require cut-in tee

For cut-in tees, notify the Applicant that a Waterline Shut Permit shall be separately required

Domestic meter crocks shall be located in non-load bearing location

Location of existing/proposed meter(s) are indicated

Tapping at location of existing service shall be prohibited

Service lines shall adhere to the following:

|  |  |  |
| --- | --- | --- |
| Service Line Diameter | Connection Fee | Shut-off Assembly |
| < 1" | 1" | Curb Stop + Curb Box |
| 1.5" | 4" | Gate Valve + MEG Box |
| 2" | 4" | Gate Valve + MEG Box |
| 4" | 4" | Gate Valve + MEG Box |
| 6" | 6" | Gate Valve + MEG Box |
| 8" | 8" | Gate Valve + MEG Box |
| 10" | 10" | Gate Valve + MEG Box |

Re-use of existing services up to and including 1-inch diameter shall require the following note: “The PWSA conditionally approves the re-use of existing services, as indicated on the Tap-in Plan, provided the service is either copper or PEX, and the volume-time flow test confirms flows in excess of 5 gallons per minute. Failure to comply with the aforementioned conditions shall require a formal revision to the Tap-in Plan.”

Location and account number for existing meter(s)

Stationing of waterline per existing landmark (e.g. building line, property line, manhole)

Location of existing and proposed valves

Minimum 60-inch separation between taps

Concrete blocking required for 4-inch taps and larger

MEG Box required for all gate valves

The curb stop and curb box shall be located per Detail WS-5NT, as follows:

* Street main: Located within 12” from curb face
* Sidewalk main: Located within 12” of sidewalk edge or property line, as directed
* If “sidewalk” is staircase, the curb stop and curb box shall be located in street

Confirm that every connection to our water main is metered

If applicable, the meter crock shall be located within 36” of property line

Fire Hydrant ID (shall be provided by Reviewer in markup)

Confirm there is not more than 50-feet of service line between the meter and water main

Plan indicates that gate valves are “right-turn to open”

Hydrant Flow Test required for connections larger than one-inch AND all fire suppression systems

Hydrant Flow Test Results Table per the Template Detail

The minimum diameter for a shared fire/domestic service shall be 1.5-inches

The proposed meters are tabulated within the Peak Operating Water Demands Table, per the Template Detail

Require usage of Meter I.D. symbology for complicated water connections

Confirm meter size is adequately sized for the Peak Operating Water Demands, as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Positive Displacement Meters** | | | |
| *Neptune - T10* | | *Badger - Recordall* | |
| Meter Size, inch | Normal Operating Range, gpm | Meter Size, inch | Normal Operating Range, gpm |
| 5/8 | 1/2 to 20 | 1.5 | 2.5 to 120 |
| 5/8 x 3/4 | 1/2 to 20 | 2 | 2.5 to 170 |
| 3/4 | 3/4 to 30 |  |  |
| 1 | 1 to 50 |  |  |
| 1.5 | 2 to 100 |  |  |
| 2 | 2.5 to 160 |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Compound Meters** | | **Magnetic Meters** | |
| *Sensus - OMNI* | | *Sensus - iPERL* | |
| Meter Size, inch | Normal Operating Range, gpm | Meter Size, inch | Normal Operating Range, gpm |
| 3 | 1 to 500 | 5/8 | 0.18 to 25\* |
| 4 | 1.5 to 1,000 | 3/4 | 0.18 to 35\* |
| 6 | 3 to 2,000 | 1 | 0.4 to 55\* |
| 8 | 4 to 2,700 |  |  |
| 10 | 5 to 4,000 |  |  |

\* Capable of accommodating larger flow rates with decreased accuracy and increased headloss. Refer Applicant to the technical memo from Sensus.

**Fire Connection(s)**

*N/A – This Section does not apply to this Project*

Sprinkler System Design Information Table per the Template Detail

Hydrant Flow Test is required if there is a fire suppression system

Hydrant Flow Test Results Table per the Template Detail

Information on Hydrant Flow Test Results Table shall match HYD permit form on file

Hydrant Flow Test Results shall be less than two (2) years old

Sprinkler System Peak Pressure Demand ≤ Static Pressure at Pressure Hydrant

Peak Flow Demand ≤ Flow Observed at Flow Hydrant

* For Multi-Purpose Sprinkler Systems: Peak Flow Demand = Sprinkler System Peak Flow Demand + Domestic System Peak Flow Demand
* For Separate Sprinkler Systems: Peak Flow Demand = Sprinkler System Peak Flow Demand

Additional requirements for 13d sprinkler systems:

* Sprinkler System Peak Flow Demand ≤ 36 gpm
* Backflow prevention device shall be located in the structure
* Multi-purpose systems shall require magnetic meter (Refer to Technical Memo)

**Construction Details**

Notify the Applicant that the Construction Details are available in AutoCAD file format, if required.

*Typical Construction Details (Check all that apply):*

WS-CTT - Cut-In Tee and Tapping Tee

WS-RDF1 – Residential Domestic and Fire Service Connection for Multi-Purpose System

WS-RDF2 – Residential Domestic and Fire Service Connection for Stand Alone System

WS-STL – Typical Water Tap Service Termination for 4” and Larger Connection

WS-STS – Typical Water Tap Service Termination for 2” and Smaller Connection

WVB – Valve Box (Medium Extension Gate Box)

LTPC – Pipe Sewer and Lateral Terminations

SLT1 – Termination Sewer Lateral

SSC-1 – Manhole/Pipe Sewer Cored Wye Connection

ST-2 – Sewer Tap to Existing Sewer Wye

ST-3 – Sewer Tap Tee Connection to Existing Sewer Main (Inserta Tee)

ST-5 – Separated House Lateral One Connection to Main

ST-6 – Separated House Lateral Wye Connection to Main

ST-7 – Cut-In Wye Pipe Transition

WCB-1 – 3” Curb Service Box

WMV – Meter Vault for 3” and Larger

WMBV – Meter Vault for 3” and Larger with Bypass

WS-3 – Concrete Blocking For Pressure Pipe

WS-5 – Water Service Line Reconnection to Existing Service

WS-5CDI – Domestic Service Internal Meter Setting for Commercial and Multi-Family

WS-5FPLH – Typical Plumbing Schematic for Low Hazard Fire Protection Services

WS-5MPC – Commercial Service for External Setting 1 ½” to 2” Meter

WS-5MPR – Residential Domestic Service for External Setting (5/8” to 1” Meter)

WS-5MPRPZ – Domestic Service External Meter Setting for Commercial and Multi-Family

WS-5MS – Domestic Meter Setting Specification for Indoor Residential 5/8” to 1” Meter

WS-5NT – Water Service Line for 1” and 1 ½” New Installation

WS-5NT2 – Water Service Line for 2” New Installation

WS-5NT3 – Water Service Line Installation of Tracer Wire on PEX Service Line

WS-RDI – Domestic Service Internal Meter Setting for Residential and Low Hazard

WS-A – Service Connection 4” Through 8”

WS-B – Trench Requirements for 4” Through 8” Live Water Tap

WS-C – Trench Requirements for 1” Through 2” Water Service Tap

WS-C1 – Single Service Connection (4” and Larger)

WS-C1V – Commercial and Multi-Family Water Service Connection for Fire and Domestic with Vault

WS-C2 – Separate Domestic and Fire Service Connection (4” and Larger)