



City of Waukesha
 Department of Public Works
 130 Delafield Street
 Waukesha, WI 53188
 Waukesha-wi.gov

Sewer Plan Review Checklist

Attachment H
 (Rev 12/18)

Project Name: Booster Pumping Station and Water Tower

Engineering & Design Firm: Greeley and Hansen LLC

Sanitary System

| YES | NO | N/A | |
|-------------------------------------|--------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Minimum 4" sanitary sewer lateral from the main to the property line, PVC SDR 26 or 35 conforming to ASTM standards D 3034 with rubber gasket joints |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Sanitary sewer laterals shall have a green #12 locator wire installed along the entire length. Locator wire shall be brought to the surface at the edge of the building and enclosed in a curb box with "sewer" on the cover. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sampling manhole required for all food service developments (or developments with the potential to become food service) and industrial/manufacturing facilities. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Industrial facilities must complete an industrial discharge form. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Outside drop manhole connection required where drop is greater than 24 inches. |
| Sanitary Plan View | | | |
| YES | NO | N/A | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Ghost existing utilities and lateral locations in screened format. Label the pipe size of existing utilities. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Label the proposed sewer and laterals with length, size, and material type |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Material and size of the existing sanitary sewer being connected to. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Label the stub-outs with length, size, slope, and invert elevations (if not profiled). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Dimensions showing offset from right-of-way to the sewer and separation distance between other utilities. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Show type and size of encasement where needed |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Show flow directions of all proposed mains. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Length of each sewer lateral and height of any lateral risers. Label proposed invert elevations at right-of-way lines. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Distance from downstream manhole to each upstream sewer lateral. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proposed manholes and cleanouts labeled with a design plan number. Existing manholes labeled with numbers obtained from City records. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Rim and invert elevations at each manhole, based on City of Waukesha datum (for private sewer if not profiled) See Note 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Show and label all easements |
| Sanitary Profile View | | | |
| YES | NO | N/A | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Stationing. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Existing and proposed surface profiles and elevations over the sewer. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All utility crossings. Label elevations if known. |

Note 1: Elevation and locations provided in Wisconsin State Plane Coordinate System South Zone, NAD27 (horizontal) and National Geodetic Vertical Datum of 1929 (NGVD29) (vertical) in order to use the same coordinate as the rest of the Great Water Alliance, which includes infrastructure in Milwaukee and Waukesha Counties.

| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Pipe material / class, size, length, and percent grade to two (2) decimal places. |
|--|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Material and size of the existing sanitary sewer being connected to. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Length, type, and size of encasement as needed. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proposed manholes. Indicate type and diameter. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Label station, rim, and invert elevations, based on City of Waukesha datum, and design plan number for each manhole and cleanout. Existing manholes to be labeled with numbers obtained from City records. <i>See Note 1 previous page.</i> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Limits of gravel and/or slurry backfill. |
| Sanitary for Subdivisions/Large Developments | | | |
| <i>(Complete copies of City specifications for sanitary sewer are available upon request.)</i> | | | |
| YES | NO | N/A | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Each parcel should have a separate sanitary sewer lateral. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Sanitary sewer – 8 ft. horizontal separation from water main per DNR requirements. 8" diameter minimum size, PVC SDR 26 for depths up to 25 ft. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Sanitary sewer manhole at every change of direction and a maximum distance of 400 ft. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A chimney seal shall be required on all manholes. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Provide copies of all approved WDNR/WDOC submittals, including sewer sizing calculation worksheet and the area served. |

Storm System

| Storm Plan View | | | |
|-------------------------------------|--------------------------|-------------------------------------|---|
| YES | NO | N/A | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Ghost existing utilities and lateral locations in screened format. Pipe size of existing utilities labeled. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proposed sewer and laterals with length, size, and material type clearly labeled. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Material and size of the existing storm sewer being connected to. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Stub-outs labeled with length, size, slope, and invert elevations (if not profiled). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Dimensions showing offset from right-of-way to the sewer and separation distance between other utilities. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Type and size of encasement where needed |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Length of any sewer lateral. Label proposed invert elevations at right-of-way lines. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proposed inlets, manholes, and other drainage structures. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proposed drainage structures labeled with a design plan number. Existing drainage structures labeled with numbers obtained from City records. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Details of outfall or ditch inlet protection requirements such as rip-rap, end sections or headwalls as needed. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Details of detention facilities, outfall, overflow and control structures as needed. |
| Storm Profile View | | | |
| YES | NO | N/A | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Stationing. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Existing and proposed surface profiles and elevations over the sewer. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All utility crossings. Label elevations if known. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Pipe material / class, size, length, and percent grade to two (2) decimal places. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Material and size of the existing storm sewer being connected to |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Length, type, and size of encasement as needed. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proposed inlets, manholes, and other drainage structures. Label type and size. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Label station, rim, and invert elevations, based on City of Waukesha datum, at each manhole, catch basin, inlet, and detention control structure. <i>See Note 1 on previous page.</i> |

| | | | |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proposed drainage structures labeled with a design plan number. Existing drainage structures to be labeled with numbers obtained from City records. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Cross-section of open channels and detention facilities, including outfall, overflow, and control structures. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Limits of gravel and/or slurry backfill. |

General System

| YES | NO | N/A | |
|-------------------------------------|--------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Show all easements, public or private. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No structures allowed within a public easement. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Plantings or signs within public easements, if permitted by City, shall be at least 5 feet from the utilities. |

General for Subdivisions/Large Developments

| YES | NO | N/A | |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Provide plans sealed by Registered Professional Engineer |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Show benchmark, north arrow and scale. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Show existing/proposed sewer and water utilities. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All sewer to be installed by the developer under the terms of a Development Agreement. |

Utility Plans

| YES | NO | N/A | |
|-------------------------------------|--------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Location of all utilities: storm and sanitary sewers, water mains, fire hydrants, electrical, natural gas, and communication (cable television, telephone, etc.) lines |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Exterior lighting for parking and other outdoor areas, outdoor signs, and building exteriors. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Location of waste and trash collection, and indicate plans for snow removal. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Location and footprint of any and all buildings |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Location and names of existing and proposed streets |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Location and size of existing and proposed storm sewer, sanitary sewer, and water utility systems shown |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Electric, gas, telephone, and cable lines shown |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All new utilities are underground |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Exterior lighting detail provided |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Location of all utility and private fire hydrants |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sampling manhole shown (if applicable) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Grease interceptor shown (if applicable) |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Location and size of existing and proposed water meters |

Include the following notes on the Utility Plan:

| YES | NO | N/A | |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All sanitary sewer to be installed in accordance with City of Waukesha standards. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All applications and fees for sanitary sewer must be completed and paid prior to connection to sewer systems. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Any utility work in the right-of-way and all sanitary sewer connections to be inspected by City. Notify City 72 hours in advance of connecting to sewer. |

The above list contains items that are commonly missed on Utility Plans. For subdivisions or other large or complex projects, a complete plan review includes many more checks too numerous to list here. Please call (262) 524-3600 for additional information. City typical sewer details can be provided upon request.

Note: For water main, contact Waukesha Water Utility at (262) 521-5272

Page Intentionally Left Blank