

CIVIL ENGINEERING SITE PLAN REQUIREMENTS

Initial Review: Submit one bound full-size hard copy sets of the Civil Engineering Site Plan (must include water, sanitary sewer, storm drainage and grading), a Review Application, IWQ and WCDS.

The following is the minimum level of detail required on water & sewer improvement plans submitted to the District for review or approval. Additional information may be required if deemed necessary by the District.

- ___ Show and label all existing water, sewer, and storm lines and appurtenances; dry utilities; surface features; easements (provide bk & pg/reception number for existing easements) on or immediately adjacent to the site; label adjacent property ownerships, and indicate where the existing info derived from (As-Built/field survey)
- ___ Proposed Water/Sewer Plans should identify all proposed water and sewer mains and appurtenances (mains, services, fire hydrants, valves, tees, bends, vaults, manholes, cleanouts, etc.) with size, length, slopes & material labels. All non-utility related information should be turned off for clarity.
- ___ Indicate the type of connections to all existing water and sewer mains; illustrate the nearest water main valve in either direction from the connection (for isolation), provide distance/direction if nearest valve is off-site.
- ___ Provide a sanitary sewer sampling manhole (not a metering manhole) on the owner's property, prior to connection to the public sewer main.
- ___ Identify the point-of-connection (POC) between the Civil and MEP plans (typically 5 feet from the building). The POC must be dimensioned and include invert or T.O.P. elevations. The POC must be consistent between Civil and MEP drawings prior to plan approval.
- ___ Label building and basement FF elevations and provide the total number of units per building for MF projects.
- ___ Identify the location and size of the irrigation tap, meter pit, and shut-off valve.
- ___ Identify the location and capacity of grease and or sand/oil separators (if applicable).
- ___ Provide horizontal control information, in the form of coordinates or bearings and distances, for all proposed water/sewer mains, services, and appurtenances; and provide plan view stationing annotation on all profiled water/sewer lines. Label a BM on all sheets with horizontal/vertical datum (indicate NGVD 29 vs NAVD 88)
- ___ Profile all public water & sewer mains and services 6 inches or larger; provide plan view annotation on profiled lines. Services with interceptors must be profiled. Sewer services not profiled require LF & slope labels, and MH's, and cleanouts not profiled require rim and invert(s) elevations.
- ___ Profile labels: pipe type, size and slope, minimum depth of cover; stationing and clearances at all crossings (outside-to-outside); identify any specialized bedding, encasement, or pipe material requirements.
- ___ All proposed water/sewer crossings (public or private) not profiled must be clearly noted on the plan view with invert or T.O.P. elevations and clearances (outside-to-outside) provided.
- ___ Provide top-of-flange elevations for all proposed fire hydrants.
- ___ Include all pertinent water and sewer details from the *Highlands Ranch Water and Sewer Standard Specifications* manual, including irrigation meter, setting and backflow details.
- ___ Include all applicable District Water/Sewer Notes on the utility sheet(s), the notes can be found in the Standard Details section of the Spec manual.
- ___ Prior to final plan approval, provide a legal description and exhibit for all proposed District utility easements or proof of private easements.

Final plan approval: submit four (4) bound full-size hard copy sets of plans (original or electronic signature) and a CD containing the complete set of Site Plan drawings bound as a single .PDF. The Applicant may submit additional copies of the plans for approval by the District, up to twelve (12) total sets.

The District will notify the County and the Applicant of the approval via email. Following approval, the contractor is responsible for scheduling a pre-construction meeting with the District inspector. The inspector will issue two of the District's four sets of approved plans to the contractor at the pre-con meeting.