Fire Hydrants

**General Fire Hydrant Requirements:**

- Utilize the 2015 IFC, Appendix B & C in order to determine the number and spacing of the fire hydrants for the structures within this site.
- Fire hydrants are required for abutting private and public streets adjacent to this property per Appendix C, Table C102.1 & items a. through e.
- Per 2015 IFC, Section 507.5.1, Exception #1. For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet.
- Where a water main supplies more than one fire appliance (fire hydrant or fire service line) a looped water supply (feed from two directions) must be provided. A single fire appliance can be supplied by a dead-end water line where the fire hydrant is supplied by a minimum residual pressure of 20 psi for firefighting purposes.
  - Any dead-end water line supplying a fire hydrant that exceeding 150 ft. is required to provide a calculation within the Utility Sheet of the Civil Plans to validate the 20-psi minimum residual water pressure needed.
- All fire hydrants will be located not less than three feet – six inches (3’ 6”) and not more than eight (8) feet from the back of curb to the center of the hydrant, unobstructed on the street side with a minimum clearance on all other sides will be fire (5) feet.
- Fire hydrants must be placed at least one (1) foot in front or behind a sidewalk while still meeting the minimum back of curb clearance requirements.
- Dead-end water lines supplying fire hydrants must maintain a minimum available residual pressure of 20 psi for firefighting purposes.
  - Any dead-end water line supplying a fire hydrant that exceeding 150 ft. is required to provide a calculation within the Utility Sheet of the Civil Plans to validate the 20-psi minimum residual water pressure needed.
- Fire Hydrants placed in landscape islands must maintain a 3’ minimum clearance to the face of all adjacent curbs.
- Fire Hydrants shall be placed on the opposite side of the fire lane easements from the structure served.

**The Site Plan must reflect the following:**

- Show the location of all existing and proposed water mains and fire hydrants within or abutting this site within 400’. Existing hydrants located outside the plan area can utilize a fire hydrant symbol with an arrow pointing in the direction of the existing hydrant and distance of the hydrant from the nearest property line of the site.
- Structures that are fire sprinkled must show the location of a fire hydrant within 100’ the Fire Department Connection (FDC). The FDC must be located on the front main entry side of the structure.
- Pocket utility easements shown on the site, plat and civil plans for fire hydrants must be separated by a dashed delineation from the fire lane easement.
- No more than one fire hydrant or fire service line can be provided on a dead-end water main.
- When fire hydrants are exposed to vehicular damage, fire hydrants shall be suitably protected by a vertical curb line or the use of bollards.

- Show all off-site infrastructures such as water mains and fire hydrants that are required to support this site. A looped water supply is typically required to be loop unless the Aurora Water Department and Life Safety Group grants a waiver to this standard requirement.
- The landscape plan must reflect the location of all fire hydrants and fire department connections to ensure that these devices are not physically or visually obstructed from responding fire crews.
  - The separation requirements from fire department connections and fire hydrants must meet both life safety (typically 5 feet and no material greater than 2 feet in height) and landscaping requirements.
  - Landscaping material cannot be omitted or reduced based on the installation of a fire hydrant within a parking lot island or plant bed. It is recommended that the island or plant bed be constructed large enough to adequately accommodate both landscaping material and fire hydrants in order to comply with all city standards.

The “Plat” must reflect the following:
- Where required by the Real Property Division of Public Works the plat must show all dedicated pocket utility easements in the area around each required fire hydrant. The pocket utility easement must be shown separated from the dedicated fire lane easement by a dashed delineation.

The “Civil Plan” must reflect the following:
- The Utility Sheet must show the location of all existing and proposed water mains and fire hydrants within and abutting this site. Show and label the sizes and type of piping material of both the existing or proposed water mains.
  - Structures that are fire sprinkled must show the location of a fire hydrant within 100’ the fire department connection (FDC). The FDC must be located on the front main entry side of the structure.
- Dead-end water lines supplying fire hydrants must maintain a minimum available residual pressure of 20 psi for firefighting purposes.
  - Any dead-end water line supplying a fire hydrant that exceeding 150 ft. is required to provide a calculation within the Utility Sheet of the Civil Plans to validate the 20-psi minimum residual water pressure needed.
- Show all off-site infrastructures such as water mains and fire hydrants that are required to support this site. A looped water supply is typically required to be loop unless the Aurora Water Department and Life Safety Group grants a waiver to this standard requirement.