

4.8 Considerations for Additional Lines

Utility corridors arrangements presented in Chapters 4 and 5 of this Manual primarily cover the utility corridors location and width requirements for distribution and collection of services to plots within clearly defined urban Land Use Contexts.

The relationship between transmission and distribution networks, which often occurs at a development boundary or along larger street families, is briefly considered here, as, except for the power transmission corridor requirements, which are described in Section 4.3.7, other transmission corridor requirements are not specially covered in this Manual.

Allocation of corridors for additional lines, including TRANSCO water lines, shall be based on the following hierarchy:

- within spare space in the provided RoW;
- increase the RoW of the street to provide additional space;
- introduce a dedicated standalone corridor within the development. (e.g. a sikka)

Transmission mains typically connect to distribution mains via headworks such as a pumping station, primary substation, elevated reservoir etc.

Figure 4.51 illustrates an example relationship between power, water distribution and transmission lines and how the respective utility corridors may fit within a RoW section. Dedicated corridors are typically allocated within Avenues or Boulevards due to the larger RoW width.

A typical relationship between power transmission HV cables, connecting a grid station to a primary substation,

and distribution power MV/LV cables, which connect the primary substation to secondary substations. Power transmission cables shall only be installed in the Median within Avenues or Boulevards.

The potable water transmission line feeds a water storage reservoir and pumping station site, from where the distribution lines will feed the various demand zones. TRANSCO water lines shall be in accordance with TRANSCO requirements.

A similar approach may be adopted for irrigation transmission lines.

Additional lines for wastewater and stormwater include pressurised rising mains. Where these are required, they shall be installed in Avenues or Boulevards under the Pedestrian Realm, or parking if interlocking pavers are used.

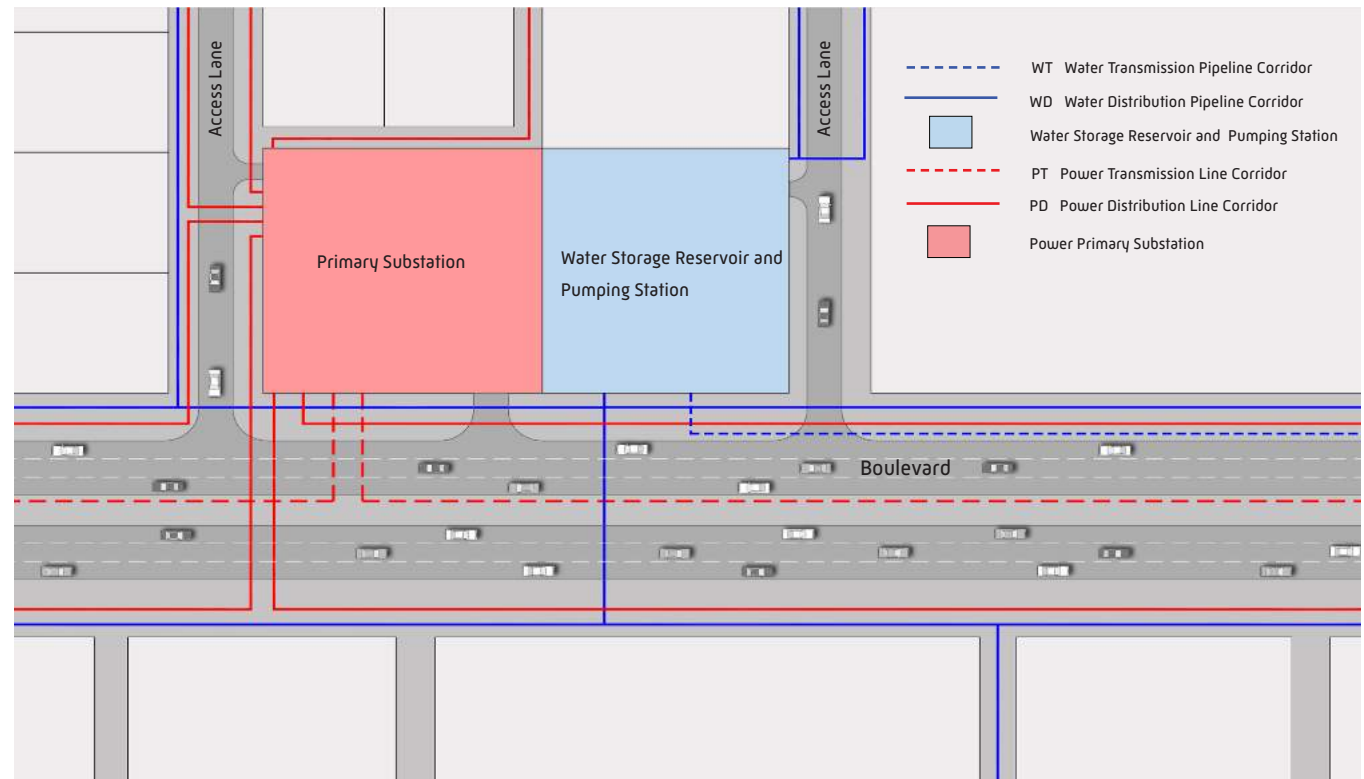


Figure 4.51: Illustration of transmission lines in a Boulevard for Power and Water