6. General excavation (E) permit:
Allows excavations in the public right of way for the installation, removal or abandonment of various utilities and other facilities but excludes side sewers.

7. Side sewer (S) permit:
Allows excavation in the public right of way for the installation, repair, replacement or abandonment of side sewers extending from the sewer main in the street to the trap/cleanout in the sidewalk at the curb.

1. Tree permit:
Allows tree(s) to be planted within the public right of way, may be mandated as a condition of a Building Permit Application (BPA).

2. Tree removal:
Allows the removal and relocation of a tree within the public right of way or any “significant tree” within 10 feet of the public right of way. A “significant tree” is any tree with a 12-inch diameter trunk, has a 15-foot wide canopy or is 20 feet tall.

3. Sidewalk landscaping permit:
Allows the installation or modification of in-ground landscaping plots within the public right of way.

4. Tree protection permit:
Required for any construction activities that have the potential to impact a tree’s health.

1. Street improvement (SI) permit:
The primary permit allowing the construction or repair of infrastructure within the public right of way (concrete sidewalk, asphalt streets, etc). Typically, all other permits must be approved prior to obtaining the street improvement permit.

2. Minor sidewalk encroachment (MSE) permit:
Allows permanent encroachments fronting the property in the public right of way, which may include shoring tie-backs, rain gardens, planter boxes/diverters, warped driveways, level landings, etc.

3. Special sidewalk surface (SW) permit:
Allows non-standard sidewalk surfaces within the public right of way, such as concrete pavers, colored concrete, special scoring pattern, etc.

4. Transformer vault (V) permit:
Typically not permitted by Public Works, allows dedicated power transformers in underground vaults fronting the property in the public right of way. This permit is applied for as a request to the director of Public Works.

5. Major encroachment (ME) permit:
Allows for encroachments beyond the limits of the fronting property within the public right of way and that will be maintained by the applicant or sponsoring organization. This permit is typically for: private communication facilities, parks, plazas, special streetscape improvements, etc.
Street improvement plans must be designed to clearly illustrate to the contractor and City inspector the complete scope of work within the public right of way.

**Key elements to include in the street improvement plans:**

- Scaled and dimensioned plan view of the fronting sidewalk and roadway and 10 feet beyond the extended property line(s)
- Cross sections of complex site conditions
- Limits of work, preferably identified with hatch patterns and callouts
- Spot elevations identified as new (N) or existing (E), in-line and perpendicular to the curb:
  - show spot elevations at:
    - top of curb (TC)
    - flow line (FL)
    - back of walk (BW)
    - finished floor (FF)
  - show spot elevations at key locations:
    - property lines
    - each side of doors/walkways/garages
    - at grade breaks
    - at corners of encroachments
- Utility mains and services, identified as new (N) or existing (E), including the sizes
- Detail for curb ramps, including spot elevation and slopes

**Typical design guidelines*:**

**GRADING**
- Sidewalk cross-slope: 1% and 2%
- Sidewalk running slope: ±2% of the flowline/gutter slope
- Flowline/gutter slope: 0.5% minimum; 1% preferred
- Street cross-slope: 2% to 5%

**UTILITIES**
- Water and sewer laterals:
  - shall run from the main into the property at 90° horizontal distance between services: 5 feet minimum; 10 feet preferred
  - vertical clearance at utility crossings: 1-foot minimum
  - horizontal distance to trees: 5 feet minimum
- Sewer/storm pipe slope: 2% minimum
- Sewer manhole required for 10-inch or larger laterals
- Utilities must be designed and installed per all applicable City, state and federal requirements

**STREET AND SIDEWALK RESTORATION**
- Sidewalk and concrete street restoration shall be neatly cut and replaced to the nearest score lines and/or joints
- Street restoration shall be per the Excavation Code with contiguous rectangular asphalt section perpendicular to the curb line

**LANDSCAPING/PARKING**
- Pedestrian clear path: 4 feet minimum; 6 feet minimum where possible
- Parallel parking
  - trees shall be planted between parking spaces
  - pass-through shall be centered on the parking spaces and either concrete or pavers with a concrete base
  - courtesy strip: 2 feet from face of curb
- 90° Parking
  - pass-through shall be between parking spaces
  - courtesy strip: 4 feet from face of curb

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* Information is typical and general, verify with appropriate City Agency