City Of Seattle
STANDARD
PLANS
for
Municipal Public Works
Construction

1970
Ninth Edition
Standard Plan No 102

102 A - Cement Concrete Pavement

102 B - Asphalt Concrete on Cement Concrete Base

102 C - Asphalt Concrete on Crushed Rock Base

* Construction Joint when roadway is paved in two or more lanes.
* Construction Joint when entire roadway width is paved in single operation.
* Construction Joint when base is placed in two or more lanes.

For spacing of Construction or Contraction Joints see Std. Spec. Sec. 39-3.1B.

DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
Arterial Pavement Sections

Standard Plan No 1021

1021 A - Cement Concrete Pavement

1021 B - Asphalt Concrete on Cement Concrete Base

1021 C - Asphalt Concrete on Crushed Rock Base

* Construction Joint when roadway is paved in two or more lanes.
* Construction Joint when entire roadway width is paved in single operation.
* Construction Joint when base is placed in two or more lanes.

For spacing of Construction or Contraction Joints see Std. Spec. Sec. 39-3.1B.

DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
Industrial Pavement Sections
103A - Cement Concrete Pavement with Integral Curb

103B - Cement Concrete Pavement, Curb and Gutter Existing

103C - Asphalt Concrete on Cement Concrete Base

103D - Asphalt Concrete on Crushed Rock Base

For spacing of Construction or Contraction Joints See SD Spec. Sec. 32-31B.

* When Construction Joint thickened edge required.

104A - Cement Concrete Alley Pavement

104B - Cement Concrete Alley Pavement For Shallow Embankment Area

Note: When alley pavement is 18' or wider place contraction joint along centerline of alley.
Base of Support Wall to be bearing on firm undisturbed earth.

Back form for Support Wall may be omitted and concrete placed against native earth when ground conditions permit.

Curb joint, when construction is not integral with alley slab, shall be at level with base of alley pavement slab with Shear Key indentations spaced 18" on centers.

Concrete, Concrete Alley Pavement with Support Wall

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Standard Plan No. 1041

106A - Alternate - 1

Cement Concrete Alley Pavement with Support Wall

(Contd. on next page)

DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 106 Driveway

DO NOT SCALE
Standard Plan No. 110

110A Curb
(For Monolithic Curb and Sidewalk See Std. Plan No. 114.1)

110B-Curb and Gutter

110C Curb

For Type 110A Curb placed along edge of existing pavement, Expansion Joints shall be placed for full depth of curb to match location of joints in existing pavement.

* Gutter shall be sloped the same as adjacent pavers.

For spacing of contraction joints see Std. Spec. Sec. 40-3.0F

For Curb Dowels see Std. Spec. Sec. 39-3.35

DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 110 Curbs

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 3, 1916

ATTACHMENT

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Joints and Curb Dowels

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 3, 1916

ATTACHMENT
CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Sidewalk Drain

DO NOT SCALE

Frame and Cover shall be tested for accuracy of fit and shall be marked in sets for delivery. See Std. Specs. Sec. 113.
All Castings to have a bituminous coating according to Std. Specs. Sec. 03.208.

APPROVED BY THE BOARD OF PUBLIC WORKS

ATT: Geo. N. Paternostro

SECRETARY

MONUMENT CASE

APPROVED BY THE BOARD OF PUBLIC WORKS

ATT: Geo. N. Paternostro

SECRETARY
Standard Plan No. 123

123 A-1 Connecting Divider

123 A Nosei

123 C Nosing

Section A C Nosing

123 A Straight Section

123 C Curb

123 A Radial Curb

Section A Connecting Dividers

Section A Straight Curb

Section C Curb

Section A Radial Curb

123 A Radial Curb

UNIT Radius Curb Return Angle (in Multiple)

1 1.2 45000

2 1.5 37500

3 2.0 32500

4 5.0 12793

For Ribs greater than 12 use segments of straight curb.

124 C-Block

124 A-Block

124 C-Reflector Block

124 A-Reflector Block

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 123 Traffic Curbs
Precast Concrete

APPROVED BY THE BOARD OF PUBLIC WORKS

ATTACHMENT 106

SIGNATURES: [Signatures]

[Signature]

[Signature]
Standard Plan No.127

Section A-A
- Two 7"-Amber Lenses in 2½" Dia. Holes
- Mount Twin Horizontal Lamp Sockets

Section B-B

Typical Installation
- Illuminated Terminal Nosing
- Standard C-Rect. Curb
- Conduit Pipe
- Roadway Area
- Outside Edge of Pavement
- Paving Unit Continuity
- Source of Power

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
Type 127 Terminal Nosing
Illuminated

DO NOT SCALE

Based on Fog-Tite Motor Seal Co. Design

Standard Plan No.128

Diamond Pattern
- Galv. Steel Cover
- Plate
Based on Fog-Tite Meter Seal Co. Design
Standard Plan No. 133

Prewall, Top Slab 'B'
Section A-A

Manhole Ring and Cover
See Std. Plan No. 141

% Mortar Lining
Leveled Brick—See Std.
Specs Sec. 63-300

Ladder Rungs—See Std. Plan No. 1369
8" Min. at

8" Min. at

% Mortar Lining
Leveled Brick—See Std. Plan No. 136A

Prefabricated
Manhole Sections

Standard Precast
Manhole Sections

Base Wall and Foundation Slab
Poured in Place—Class C Conc [133]

DO NOT SCALE

Reinforcing steel shall be deformed bars conforming to
ASTM A-68 and shall have a minimum cover of 2".

Unit, as shown, is a cast-in-place base section; above which
optional construction may be brick, conc. block or cast-in-
place construction of Contractor's option, unless otherwise
provided in the proposal.

Constr. manholes in accordance with Section 63-5 of the Std.
Specifications.

Base walls of cast-in-place for 12" and larger pipe.

Allow flexible joints of unreinforced pipe to deflect. No concrete
on, around or under joint.

All HR. holes and joints to be filled with mortar.

Max. Pipe Dia. 42"
Standard Plan No. 135

Section B-B

Transverse Bar length varies in accordance with Pipe size.
4½ Bars 2'-3" Long

Ladder Inlet
See Std. Plan No. 138B

Shallow or Standard 24" Manhole Ring and Cover
See Std. Plan No. 141

Leveling Brick
See Std. Spec., Sec. 03-310

Base Wall and Foundation Slab Poured in Pipe Class 5 Conc. (15)

Undefeated Earth or Class B6 Bounding Material

Pipe Dia 24" Min. - 42" Max.

Reinforcing Steel shall be deformed bars conforming to ASTM A-78 and shall have a min. cover of 2".
Construct manholes in accordance with Section 03 of the Std. Specifications.

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
Type 136 Manhole

APPROVED BY THE BOARD OF PUBLIC WORKS
STATIONARY & TRANSIT
ATTACH: STANDARD NO. 136

Standard Plan No. 136

Section B-B

Manhole Ring and Cover
See Std. Plan No. 141

Leveled Brick
See Std. Spec., Sec. 03-310

Standard Precast Manhole Sections
Ladder Inlet
See Std. Plan No. 138B

Bars for 90° to
Std. Dia Pipe

Base Wall and Foundation Slab
Poured in Pipe Class 5 Conc. (15)

6" Min. Class B6 Bounding Material

Undefeated Earth or Class B6 Bounding Material

U.H. as shown, is a cast-in-place base section above which optional construction may be brick, conc. block or cast-in-place combination at Contractor's option, unless otherwise provided in the proposal.
Construct manholes in accordance with Section 03 of the Std. Specifications.
Reinforcing steel shall have a min. cover of 2".
Eccentric Cones shall be used only where specified.
All lift holes and joints to be filled with mortar.

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
Type 136 Manhole

APPROVED BY THE BOARD OF PUBLIC WORKS
STATIONARY & TRANSIT
ATTACH: STANDARD NO. 136
Standard Plan No. 141

Designate Nodular Iron as Type 141N
(Nodular Iron To Be Used For Cover Only)

Designate Locking Cover as Type 141L
(For Locking Device See U.S. Patent No. 5699276)

Designate Shallow Ring as Type 141S
(For Shallow Ring 3-8" Dimension to be 4")

Combinations of Type Designations May Be Used
(1 Type 141 LKG = Type 141 Locking Cover, Nodular Iron, Shallow Ring)

Section A-A

Location of Dogs on Locking Type Covers

Ring and Cover shall be tested for accuracy of fit and shall be marked in sets for delivery. See Std. Specs. Sec. 113.

All Castings to have a bituminous coating according to Std. Specs. Sec. 63.208.

Standard Plan No. 145

Manhole ring extension shall be tested for accuracy of fit. See Std. Specs. Sec. 113.

All Castings to have a bituminous coating according to Std. Specs. Sec. 63.208.
Notes:
1. Invert of inlet pipes must be above invert of outlet pipe.
2. Values of "t":
   - Cement Concrete: 1-6"
   - Concrete Blocks: 1-8"
   - Brick: 1-8"
   - Precast Concrete: 1-4 Min.
3. See Std Spec, Sec 60 for further requirements.

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 151 Catch Basin

APPROVED BY THE BOARD OF PUBLIC WORKS

INSTR. J. B. McCLELLAN (Engineer)

INSTR. J. B. McCLELLAN (Engineer)

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 152 Catch Basin

APPROVED BY THE BOARD OF PUBLIC WORKS

INSTR. J. B. McCLELLAN (Engineer)

INSTR. J. B. McCLELLAN (Engineer)
All lift holes and joints to be filled with mortar.
For installation see Std. Plan No 153.1
Compacted backfill shall be placed around
Catch Basin before pipe connection is made.

**City of Seattle**
Department of Engineering

Type 153 Catch Basin

Approved by the Board of Public Works
August 1, 1985

Attent:
Manager of Engineering

Approved by the Board of Public Works
August 1, 1985

Attent:
Manager of Engineering
Bar List

<table>
<thead>
<tr>
<th>Note</th>
<th>Location</th>
<th>Size</th>
<th>Material</th>
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<tr>
<td>4</td>
<td>Cover Top 156 N</td>
<td>6 x 6</td>
<td>L362 x 92 x 9/32</td>
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<tr>
<td>5</td>
<td>Cover Top 156 N</td>
<td>6 x 6</td>
<td>L362 x 92 x 9/32</td>
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<tr>
<td>6</td>
<td>Cover Top 156 R</td>
<td>6 x 6</td>
<td>L362 x 92 x 9/32</td>
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<tr>
<td>7</td>
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<td>8</td>
<td>Cover Top 156 P</td>
<td>6 x 6</td>
<td>L362 x 92 x 9/32</td>
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</table>

All bars shall be deformed bars conforming to ASTM A15 and shall have a minimum cover of 2".

Note:
- Sections through Grate. (Corner pads to be machined or ground for solid, non-rocking bearing in any of four possible positions in frame.)
Type 162A Trap to be used with 8"-ID Outlet Pipe.
Type 162B Trap to be used with 4" or 6"-ID Outlet Pipe.
Trap may be Cast Iron ASTM Designation A48, Class 25 or
cold steel ASTM Designation A37, Grade 70-35.
All Castings to have a bituminous coating according to Std
Specs. Sec. 63 3/2.

![Diagram of Trap Types]

**TYPE 163A**
Adjustable With Gate

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Gauge</th>
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<td>3&quot;</td>
<td>3°</td>
<td>3°</td>
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<td>8&quot;</td>
<td>4&quot;</td>
<td>6.5°</td>
<td>6.5°</td>
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**TYPE 163B**
Dimensions With Or Without Gate

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<th>Size</th>
<th>A</th>
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<td>5°</td>
<td>4°</td>
<td>14</td>
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<tr>
<td>8&quot;</td>
<td>4&quot;</td>
<td>6.5°</td>
<td>4°</td>
<td>14</td>
</tr>
<tr>
<td>10&quot;</td>
<td>4&quot;</td>
<td>8°</td>
<td>4°</td>
<td>14</td>
</tr>
<tr>
<td>12&quot;</td>
<td>5°</td>
<td>10°</td>
<td>4°</td>
<td>Body 14 Color 12</td>
</tr>
</tbody>
</table>

Type 163A is to be used only where the catch basin outlet pipe makes an angle of more than 10° with the horizontal. Type 163B or Type 163C is to be used only where the catch basin outlet pipe makes an angle of less than 10° with the horizontal.

The Aluminum Self-Locking Trap may be used, at the option of the contractor, as an alternate to Type 162A and Type 162B Traps as shown on Standard Plan No. 162.
For Inlet Installation see Std. Plan No.154.
All Castings to have a bituminous coating according to Std. Specs. Sec. 03208.
Cost Outlet Pipe of Inlet included in payment for Inlet.
Pipe Connection payment separate from payment for Inlet.
See Std. Spec. Sec. 65-3.04
For Inlet Installation See Std. Plan No.1551

DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 155 Inlet

APPROVED BY THE BOARD OF PUBLIC WORKS
APPROVED TO THE BOARD OF PUBLIC WORKS

ATTACH

DEPARTMENT OF ENGINEERING

Type 155 Inlet Installation

DO NOT SCALE

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DEPARTMENT OF ENGINEERING

Type 155 Inlet Installation

APPROVED BY THE BOARD OF PUBLIC WORKS
APPROVED TO THE BOARD OF PUBLIC WORKS

ATTACH
Type 166 Inlet

CITY OF SEATTLE
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Type 166 Inlet

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 166 Inlet Installation
CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Inlet Extension
for Type 164 Inlet

Frame and Grate shall be tested for accuracy of fit and shall be marked in sets for delivery. See Std. Specs. Sec. 113.

All Castings to have a bituminous coating according to Std. Specs. Sec. 63-208.

Use Type 170 Inlet Grate
For use with Type 158 and 159 Inlet Frames.

Frame and Grate shall be tested for accuracy of fit and shall be marked in sets for delivery. See Std. Specs Sec. 113.

All Castings to have a bituminous coating according to Std. Specs Sec. 6.3.208.
Standard Plan No. 171

Type I-89 Inlet Frame with Type I-79 Inlet Grate

Notes:
1. See Sec. 64 for further requirements.
2. Values of "t" Cement Concrete 1-8" Brick 1-8" Precoat Concrete 6" Min.
3. Type I-89 Inlet Frame shall be set as shown on Std. Plan No. 190.
4. Type I-79 Inlet Frame shall be set as shown on Std. Plan No. 1651.

Concrete Enclosure may be cylindrical using fiber forms (Soundtube) left in place or formed as a square section.

Reinforcing steel shall be deformed bars conforming to ASTM A-475 and shall have a minimum cover of 2".

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 171 Inlet Top Catch Basin

APPROVED BY THE BOARD OF PUBLIC WORKS

ATTEND:

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Vertical Connection

APPROVED BY THE BOARD OF PUBLIC WORKS

REVIEWER:

CHECKER:

NOTE: NOT SCALE
All construction to be in accordance with current Side Sewer Ordinance.

All construction requires a permit and payment of fee.
Rubber gasket pipe only.

Complete legal description of property and dimensions A, B, C, and D that show the size and location of the house are mandatory for issuance of permit.

1. All house plumbing outlets must be connected to the sewer. No downspouts or storm drainage may be connected, except to separate storm sewer.
2. 30" min. distance from house.
3. 18" min. coverage of pipe.
4. 30" min. coverage at property line.
5. 5" min. coverage at curb line.
6. Lay pipe in straight line between bends. Make all changes in grade or line with 90° bend or valve. 90° change with valve and 90° bend.

7. Standard 4" to 6" increases.
8. 4" sewer pipe—min. size on property. 2½ min. grade, 100% 45° max. grade.
9. 6" sewer pipe—min. size in street, and elsewhere as directed.
10. Seal with plug.
11. Concrete or Vit. plug.
12. Construction in street must be done by a licensed sewer contractor.

Method of obtaining 2½% min. grade.

**DO NOT SCALE**

**CITY OF SEATTLE**
**DEPARTMENT OF ENGINEERING**

Sanitary Side Sewer Installation

Approved by the Board of Public Works

**Concrete**

Class A Bedding
(Concrete Bedding)

Class B Bedding

Class C Bedding

Type 9 aggregate
See Std. Specs. Sec. 20.

Concrete Class 41(1)

a=4" When D= less than 30" 
a=6" When D= 30" or more.

Reinforcement shall be specified on the Construction Drawing for Class A Bedding.

Concrete shall have a minimum water-cement ratio of 0.5 and a minimum cement factor of 4.
Payment shall be made for:

1. Pipe diameter A", B" or C" - Per Linear Foot.

2. Tees or Wyes of proper size, type and with plug - Unit price each in addition to unit price per foot for A", B" or C".

All pipe shall be measured on the slope along the C of pipe.
All fire hydrant threaded nipples such as the 2½ in. discharge ports and the 4 in. pumper nozzle shall be equipped with the blunt short or Higher Cut. The 2½ in. nipples shall be in accordance with the National Fire Protection Association Bulletin No 194, dated 1963. Hydrant tees shall be set horizontally—connection shall be level.
All fire hydrant threaded nipples such as the 2½ in. discharge ports and the 4 in. pumper nozzle shall be equipped with the blunt start or Higbee Cut.

The 2½ in. nipples shall be in accordance with the National Fire Protection Association Bulletin No. 194, dated 1963.

Hydrant tees shall be set horizontally — connection shall be level.
Concrete - Compressive strength 3000 psi at 28 days.

When X-Pipe Dia is 4", 6", or 8":
- 4.5" Min.
- 5.5" Max.
- 6" Min.
- 6.5" Max.

When X-Pipe Dia is 12":
- 10.5" Min.
- 11.5" Max.
- 12" Min.
- 12.5" Max.

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
Type 184 Valve Chamber
Precast

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
Type 185 Valve Chamber

APPROVED BY THE BOARD OF PUBLIC WORKS
JAMES M. ELLIS
Superintendent

APPROVED BY THE BOARD OF PUBLIC WORKS
JAMES M. ELLIS
Superintendent
Ring and Cover shall be tested for accuracy of fit and shall be marked in sets for delivery. See Std Spec. Sec. 113.

All Castings to have a blast-moist coating according to Std. Spec. Sec. 63-3-03B.

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
Type 1861-24 Inch Valve
Chamber Ring and Cover

APPROVED BY THE BOARD OF PUBLIC WORKS

ATTACH. 321-3

SECRETARY
These Spots to be file finish.

Approximate Weight 70 lbs.
Standard Plan No. 191

Frame and Cover shall be listed for accuracy of fit and shall be marked in sets for delivery. See Std. Spec. Sec. 112.

All Castings to have a bituminous coating according to Std. Spec. Sec. 03.2019.

Extension Piece

DON'T SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Cast Iron Valve Box

APPROVED BY THE BOARD OF PUBLIC WORKS

Concrete Blocking-General

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Concrete Blocking-General

APPROVED BY THE BOARD OF PUBLIC WORKS

DON'T SCALE
Watermains Constructed in Fill
WARNING
RESTRICTED OVERHEAD CLEARANCE

NOTES:
The Contractor shall erect restricted overhead clearance signs for the benefit of railway traffic when they are called for in the special provisions. These signs shall be fully reflectorized.

In general, the signs shall be erected as a protection when the vertical clearance will be restricted to less than 22'-6" measured from the top of the highest rail.

The signs shall be mounted on the outside face of the framework at the center of the span over the tracks and above the restricted overhead clearance line.

All cost for the furnishing, erection and dismantling of the signs shall be considered as incidental to the improvement and no separate payment will be made.

<table>
<thead>
<tr>
<th>Abbreviations</th>
</tr>
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<tbody>
<tr>
<td>Abn — Abandon</td>
</tr>
<tr>
<td>Adj — Adjust</td>
</tr>
<tr>
<td>Al — Air Valve</td>
</tr>
<tr>
<td>ASP — Asphalt</td>
</tr>
<tr>
<td>AW — Asphalt Walk</td>
</tr>
<tr>
<td>Avg — Average</td>
</tr>
<tr>
<td>CPR — Cast Iron Pipe</td>
</tr>
<tr>
<td>CB — Catch Basin</td>
</tr>
<tr>
<td>Cl — Concrete</td>
</tr>
<tr>
<td>Cc — Concrete Culvert</td>
</tr>
<tr>
<td>Cw — Concrete Walk</td>
</tr>
<tr>
<td>Cnd — Conduit</td>
</tr>
<tr>
<td>Cnv — Connect</td>
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<tr>
<td>Cmp — Corrugated Metal Pipe</td>
</tr>
<tr>
<td>Cr — Cross</td>
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<tr>
<td>Cgb — Curb and Gutter</td>
</tr>
<tr>
<td>Cr — Curb Radius</td>
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<tr>
<td>Dr — Driveway</td>
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<tr>
<td>Dp — Ductile Iron Pipe</td>
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<td>Fm — Force Main</td>
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<td>Gp — Galvanized Iron Pipe</td>
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<tr>
<td>Gsp — Galvanized Steel Pipe</td>
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<td>G — Gas</td>
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<tr>
<td>Gm — Gas Meter</td>
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<tr>
<td>Gv — Gate Valve</td>
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<tr>
<td>Gp — Guy Pole</td>
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<tr>
<td>Hh — Handhole</td>
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<tr>
<td>Hp — High Pressure Gas</td>
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<td>Hv — Hydrant</td>
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<tr>
<td>In — Inlet</td>
</tr>
<tr>
<td>Ip — Iron Pipe</td>
</tr>
<tr>
<td>Lt — Large Inlet Top</td>
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<tr>
<td>Lp — Light Pole</td>
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<td>Lx — Location; Locate</td>
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<tr>
<td>Mh — Manhole</td>
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<tr>
<td>Mvl — Mercury Vapor Luminaire</td>
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<td>M — Monument Line</td>
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Abbreviations:
- Abn — Abandon
- Adj — Adjust
- Al — Air Valve
- ASP — Asphalt
- AW — Asphalt Walk
- Avg — Average
- CPR — Cast Iron Pipe
- CB — Catch Basin
- Cl — Concrete
- Cc — Concrete Culvert
- Cw — Concrete Walk
- Cnd — Conduit
- Cnv — Connect
- Cmp — Corrugated Metal Pipe
- Cr — Cross
- Cgb — Curb and Gutter
- Cr — Curb Radius
- Dr — Driveway
- Dp — Ductile Iron Pipe
- Ec — Electrical Cable
- Eq — Electrical Conduit
- Ed — Electrical Duct
- Eh — Electrical Manhole
- Ev — Electrical Vault
- En — Elevation
- Ex — Existing
- Fm — Force Main
- Gp — Galvanized Iron Pipe
- Gsp — Galvanized Steel Pipe
- G — Gas
- Gm — Gas Meter
- Gv — Gate Valve
- Gp — Guy Pole
- Hh — Handhole
- Hp — High Pressure Gas
- Hv — Hydrant
- In — Inlet
- Ip — Iron Pipe
- Lt — Large Inlet Top
- Lp — Light Pole
- Lx — Location; Locate
- Mh — Manhole
- Mvl — Mercury Vapor Luminaire
- M — Monument Line
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DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Standard Symbols

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ATTACHMENTS:

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DEPARTMENT OF ENGINEERING

Standard Symbols

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<td>54 Lowest Observed at Ballard Locks 10-10-56</td>
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* These elevations vary according to tidal observation. For the latest figures call the U.S.C.G.S. Office.