<table>
<thead>
<tr>
<th>ITEM</th>
<th>EXISTING</th>
<th>PROPOSED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone Cable (direct burial)</td>
<td></td>
<td>$^x$TCB</td>
</tr>
<tr>
<td>Telephone Conduit</td>
<td></td>
<td>$^x$3&quot;TCD</td>
</tr>
<tr>
<td>Telephone Duct</td>
<td></td>
<td>$^x$12&quot;X12&quot;TD</td>
</tr>
<tr>
<td>Telephone Enclosure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephone Maintenance Hole</td>
<td>[TEL VAULT]</td>
<td></td>
</tr>
<tr>
<td>Telephone Pole</td>
<td>$^x$TP</td>
<td></td>
</tr>
<tr>
<td>Telephone Handhole</td>
<td>$^x$THH</td>
<td></td>
</tr>
<tr>
<td>Television Cable (direct Burial)</td>
<td></td>
<td>$^x$TvCB</td>
</tr>
<tr>
<td>Television Handhole</td>
<td>$^x$TvHH</td>
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<tr>
<td>Telegraph Maintenance Hole</td>
<td>[TELEG MH]</td>
<td></td>
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<tr>
<td>Steam Log</td>
<td>$^x$6&quot;STM 14&quot;X14&quot;LOG</td>
<td></td>
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<tr>
<td>Steam Vault</td>
<td>$^x$STEMV</td>
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</tr>
<tr>
<td>Gas Main &lt;1'-0&quot;Dia</td>
<td>$^x$4&quot;G</td>
<td></td>
</tr>
<tr>
<td>Gas Main ≥1'-0&quot;Dia</td>
<td>$^x$12&quot;G</td>
<td></td>
</tr>
<tr>
<td>Gas Valve</td>
<td>$^x$</td>
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<tr>
<td>Gas Meter</td>
<td>$^x$GM</td>
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</tr>
<tr>
<td>Gas Regulator</td>
<td>$^x$GREG</td>
<td>$^x$REG</td>
</tr>
<tr>
<td>Petroleum or Oil</td>
<td>$^x$OIL</td>
<td></td>
</tr>
<tr>
<td>Abandon(ed)</td>
<td>$^x$2&quot;ECD(ABAN)</td>
<td>$^x$ECD-ABAN</td>
</tr>
</tbody>
</table>
ITEM

90° Bend w/ Conc Blocking
Plug w/ Conc Blocking
Tee w/ Conc Blocking
Watermain <1'-0" Dia
Watermain ≥1'-0" Dia
11 1/4° Bend
22 1/2° Bend
45° Bend
90° Bend
Cross
Tee
Pipe Sleeve
Plug
Hydrant
Water Meter
Valve Box
Gate Valve
Gate Valve w/ Chamber

EXISTING

PROPOSED
MINIMUM TREE CLEARANCES

CENTERLINE OF TREE TO CENTERLINE OF:
30'-0" TO EXTENSION OF CROSS STREET CURB (AT INTERSECTION)
20'-0" TO UTILITY POLE (WITH OR WITHOUT LIGHT)
10'-0" TO PAVEMENT EDGE (NO EXISTING CURB)
5'-0" TO UNDERGROUND FACILITY (EXCEPT AS NOTED OTHERWISE)

CENTERLINE OF TREE TO EDGE OF:
7'-6" TO DRIVEWAY OR ALLEY
3'-6" TO FACE OF CURB
2'-0" TO EDGE OF SIDEWALK

EDGE OF TREE TO EDGE OF:
5'-0" TO FIRE HYDRANT, HYDRANT BRANCH, WATER METER, WATER SERVICE, WATER MAIN AND WATER BLOW OFF
3'-6" TO OIL, INLETS, OTHER DRAINAGE STRUCTURES, MANHOLE, SEWER, STORM DRAIN OR SERVICE CONNECTIONS.

FOR CLEARANCES, SEE STD PLAN NO 349

TYPICAL TRAFFIC CONDUIT COVER
1'-6" (IF UNDER DRIVEWAY OR PAVING, 3'-0" SEE SOL CONSTRUCTION STANDARD 1716.07 FOR LIGHTING CONDUIT)

<table>
<thead>
<tr>
<th>WATERMAIN SIZE</th>
<th>DEPTH OF COVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2'-0&quot; Diameter</td>
<td>2'-0&quot;-2'-11&quot;</td>
</tr>
<tr>
<td>4'-0&quot; Diameter</td>
<td>3'-2&quot;</td>
</tr>
<tr>
<td>6'-0&quot; Diameter</td>
<td>3'-2&quot;</td>
</tr>
<tr>
<td>6'-0&quot; Diameter</td>
<td>4'-0&quot;-5'-6&quot;</td>
</tr>
<tr>
<td>8'-0&quot; Diameter</td>
<td>8'-0&quot;-10'-0&quot;</td>
</tr>
</tbody>
</table>

NOTES:

1. SERVICE LATERALS OR APPURTEANCES:
   • 1'-0" TO 2'-6" DEPTH FROM CURB TO PROPERTY LINE RESERVED FOR SERVICE LATERALS AND APPURTEANCES.
   • SANITARY SIDE SEWER MINIMUM COVER IS 2'-6" AT PROPERTY LINE AND 5'-0" AT THE CURB.
   • SERVICE DRAIN MAY RUN UNDER THE SIDEWALK, THROUGH THE CURB OR THROUGH RESERVED SPACES IDENTIFIED IN NOTE 1.

2. ELECTRIC POWER, GAS, TELEPHONE, TELEVISION AND TREES MUST BE INSTALLED IN THE SAME RELATION TO THE CURB ON STREETS WITH PAVEMENT WIDTHS FROM 25'-0" TO 36'-0".

3. LAYOUT IS APPlicable TO 60'-0"R/W AND 25'-0" RESIDENTIAL PAVING.

4. REDUCING CLEARANCE BETWEEN A NEW UTILITY AND EXISTING TREE/PLANTING STRIP, REDUCING CLEARANCE BETWEEN A NEW/REPLACEMENT TREE AND EXISTING UTILITY, INCORPORATING GSI (BIORETENTION) INTO PLANTER STRIP OR CURB EXTENSION OR CHANGING THE 10'-6" WIDTH OF PLANTING STRIP REQUIRES REVIEW AND APPROVAL OF THE ENGINEER AND MAY REQUIRE ADDITIONAL MITIGATING MEASURES.

5. BACKFILL OVER ALL UTILITY INSTALLATIONS BETWEEN BACK OF CURB AND R/W AND WITHIN 5' OF CENTERLINE OF TREES SHALL BE PLANTING SOIL FOR A MINIMUM DEPTH EQUAL TO THE DEPTH OF THE ROOTBALL (NO CSB ALLOWED IN THIS ZONE).
NOTES:
1. STABILIZED ACCESS SHALL BE USED IN ALL AREAS OF THE SITE WITH VEHICLE TRAFFIC AND PARKING, INCLUDING PLANTING STRIPS.
2. SEE SECTION 5-37.2 (TABLE 3) FOR GEOFABRIC REQUIREMENTS. GEOFABRIC MODIFICATIONS BASED ON SPECIFIC PROJECT SITE CONDITIONS MAY BE APPROVED BY THE ENGINEER.
3. STABILIZED CONSTRUCTION ENTRANCES ON SEATTLE PARKS & RECREATION PROPERTY ARE LIMITED TO A MAXIMUM WIDTH OF 10 FEET UNLESS DIRECTED OTHERWISE.

REF STD SPEC SEC 8-01

City of Seattle

STABILIZED CONSTRUCTION ENTRANCE

NOTES:
1. SEE STANDARD PLANS NO 204a THROUGH 212b FOR MAINTENANCE HOLE REQUIREMENTS.

REF STD SPEC SEC 7-05

City of Seattle
NOT TO SCALE
FLEXIBLE JOINT FOR VCP CONNECTION TO MAINTENANCE HOLES

NEW TYPE 230 FRAME & COVER

NEW PAVEMENT GRADE

REMOVE EXISTING 1'-6" DIAMETER FRAME & COVER

REBUILD MH WITH NEW RADIAL BRICKS IN A RUNNING BOND PATTERN WITH 1/4" MIN. TO 1/2" MAX. GROUT SO THAT NEW FRAME AND COVER IS AT THE NEW PAVEMENT GRADE.

NEW MH HANDHOLD
SEE STD PLANS NO 232a & 232b

NEW MH STEP
SEE STD PLANS NO 232a & 232b

REMOVE EXISTING MH BRICKS SO THAT ID OF MH IS 2'-6"

REPLACE EXISTING STEPS OR LADDER TO SHELF

EXISTING BRICK MAINTENANCE HOLE

2'-6"DIA

1'-9" MIN CLR OPENING

GALLO-1

3" HANDHOLD

RUNNING BOND PATTERN
GROUT BETWEEN ALL BRICKS

REF STD SPEC SEC 7-05

City of Seattle NOT TO SCALE REBUILD EXISTING BRICK MAINTENANCE HOLE

1/8" SS CABLE, TIE TO MH STEP

1" PVC SCHEDULE 40 MIN, ASTM 1785 SCH 40 LENGTH AS REQUIRED, INSTALL AS SHOWN ON STD PLAN NO 270. ALL FITTINGS MUST BE SOLVENT WELDED.

1/2" HOLE FOR 3/8" SS BOLT

TOP VIEW

<table>
<thead>
<tr>
<th>DIA</th>
<th>A</th>
<th>B*</th>
<th>C*</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot;</td>
<td>4&quot;</td>
<td>8&quot;</td>
<td>2&quot;</td>
</tr>
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<td>10&quot;</td>
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<td>8&quot;</td>
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<td>12&quot;</td>
<td>3&quot;</td>
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<tr>
<td>10&quot;</td>
<td>10&quot;</td>
<td>14&quot;</td>
<td>3&quot;</td>
</tr>
<tr>
<td>12&quot;</td>
<td>12&quot;</td>
<td>16&quot;</td>
<td>3&quot;</td>
</tr>
</tbody>
</table>

MINIMUM

DIA = OUTLET PIPE DIAMETER

FRONT VIEW

SIDE VIEW

200 SEWER-DRAINAGE APPURTEYNICES

STANDARD PLAN NO 272b

REVISION: JAN 2018

REF STD SPEC SEC 7-16

City of Seattle

NOT TO SCALE

PVC SHEAR GATE

FOR USE IN ROW ONLY

NOTES:
1. CONCRETE: CLASS 4000
2. 4" MIN THICKNESS FOR CURVED BOTTOM STRUCTURE

REF STD SPEC SEC 7-05
SECTION A-A

NOTES:
1. CORRUGATED FLANGE PLATE AND NON-CORRUGATED PIPE MUST BE ALUMINUM.
2. SELF-TAPPING SCREWS TO BE STAINLESS STEEL MEETING ASTM A 307.

REF STD SPEC SEC 7-17 & 7-16.2
SAND BEDDING AT TRENCH CROSSING OF METAL PIPE
AT METALLIC PIPE CROSSING OF FLUIDIZED THERMAL BACKFILL OR CDF CONDUIT CROSSINGS

1. FOR TRENCH WIDTH SEE STD PLAN NO. 284
2. A=4 WHEN ID IS LESS THAN 2'-6", A=6 WHEN ID IS 2'-6" OR MORE.
3. UNIFORMLY SUPPORT PIPE BARREL, EXCAVATE HOLES FOR BELLS AND COUPLING.
NOTES:
1. ALL 3/8" STEEL & L3" x 2" x 1/2" TO BE A-36.
2. 6" PIPE TO BE STANDARD WEIGHT STEEL.
3. AFTER FABRICATION, DRAIN ASSEMBLY TO BE HOT DIP GALVANIZED.
4. VANED GRATE TO BE PER STD PLAN NO 285.

REF STD SPEC SEC 6-01, 7-05
NOTES:
1. ALL FITTINGS MUST BE DUCTILE IRON
2. ALL EXCAVATION MUST PROVIDE A MINIMUM OF 1'-0" CLEAR AROUND PIPE AND FITTINGS.
3. THESE PLANS ARE FOR DIP AND DIP WATERMANS 12" OR SMALLER DIA OTHER SIZES AND TYPES SEE PROJECT DRAWINGS
4. REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) MUST BE INSTALLED AS A UNIT (TWO SHUT-OFF VALVES, RELIEF PORT, TWO CHECK VALVES AND FOUR TEST COCKS). WHEN RPBA IS CONNECTED TO HYDRANT AND THE HOSE BIB FAUCET SAMPLE THEY MUST BE CAPPED WHEN NOT IN USE. ASSEMBLY MUST BE TESTED WHEN INSTALLED BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER (BAT) AND A CURRENT TEST REPORT MUST BE ON SITE. FOR INSTALLATION PROCEDURES CALL 684–3536.
5. ALL FITTINGS AND MATERIALS FURNISHED BY CONTRACTOR AND TO BE INSTALLED BY SPU MUST BE VERIFIED, INSPECTED AND ON THE JOB SITE PRIOR TO SHUTDOWN OF EXISTING MAIN. FAILURE TO MEET THIS REQUIREMENT COULD RESULT IN DELAYS.

LEGEND
△ CLEAN & DISINFECTED POTABLE WATER HOSE ONLY. SIZE FLUSHING RISER PER TABLE IN STD SPEC SEC 7–11.3(12)
△ HYDRANT PERMIT REQUIRED
△ CHECK WITH SEWER UTILITY BEFORE DISCHARGE TO SEWERS
1) CONTRACTOR TO DETERMINE ALIGNMENT, GRADE AND OUTSIDE DIAMETER OF EXISTING PIPE PRIOR TO INSTALLING NEW WATERMAIN.
ENGINEER TO DETERMINE OUTSIDE DIAMETER OF EXISTING PIPE WHEN CONTRACTOR EXCAVATES TO DETERMINE ALIGNMENT & GRADE.
2) ALL EXCAVATION, PIPE, FITTINGS (EXCEPT AS NOTED BELOW), OTHER MATERIAL, BEDDING, BACKFILL, COMPACTION & STREET RESTORATION BY CONTRACTOR. ALL MATERIALS MUST BE ON JOB SITE PRIOR TO SHUTDOWN OF EXISTING MAIN.
3) INSTALLED BY CONTRACTOR
4) CONNECTION PIPE: CONTRACTOR FURNISHED, INSTALLED BY SPU
5) WATERMAIN WITH PLAIN ENDS
6) MECHANICAL JOINT SLEEVE WITH SPACER CUT TO FIT GAP, FURNISHED AND INSERTED AT TIME OF CONNECTION BY SPU
7) TAPPING SLEEVE & TAPPING VALVE FURNISHED AND INSTALLED BY SPU
8) APPLIES TO PIPES 4" THROUGH 12", ALL LARGER SIZES TO BE ADDRESSED ON DRAWINGS
9) MECHANICAL JOINT SLEEVE, FURNISHED BY CONTRACTOR AND INSTALLED BY SPU, SPACERS BY SPU WHERE REQUIRED.

REF STD SPEC SEC 7–11
TABLE

<table>
<thead>
<tr>
<th>SIZE WATERMAIN</th>
<th>L1</th>
<th>L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; thru 10&quot;</td>
<td>10'-0&quot;</td>
<td>14'-0&quot;</td>
</tr>
<tr>
<td>12&quot;</td>
<td>12'-0&quot;</td>
<td>16'-0&quot;</td>
</tr>
<tr>
<td>Larger than 12&quot;</td>
<td>N/A</td>
<td>PER DRAWINGS</td>
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NOTE:
(1) SEE STD PLAN NO 300a FOR LEGEND

CONNECTIONS TO EXISTING MAIN, WITH A NEW TEE OR CROSS (CUT IN NEW TEE)

CONNECTIONS TO EXISTING MAIN, STUB OR END OUTLET OF TEE OR CROSS

REF STD SPEC SEC 7-11
NOT TO SCALE

300 WATERMAIN APPURTENNCES

STANDARD PLAN NO 310a

REV DATE: AUG 2017

REF STD SPEC SEC 7-14

City of Seattle

TYPE 310 HYDRANT SETTING DETAIL

NOTES:
1. WHERE WATERMAINS ARE INSTALLED WITH POLYETHYLENE ENCASMENT OR TAPE COATINGS, THE HYDRANT BARREL AND VALVE MUST BE SIMILARLY ENCASED, COATED AND/OR JOINTS BONDED. WHERE WATERMAIN IS THERMOPLASTIC COATED, THE HYDRANT BARREL MUST BE TAPE COATED.
2. WHERE 6" GATE VALVE IS TO BE LOCATED WITHIN A PARKING-PERMITTED AREA, A SECOND 6" GATE VALVE MUST BE INSTALLED AT THE HYDRANT ASSEMBLY PER STD PLAN NO 310a.

REF STD SPEC SEC 7-14

City of Seattle
NOT TO SCALE
TYPE 310 HYDRANT SETTING DETAIL

NOTES:
1. 6" HYDRANT CONNECTION PIPE MUST BE DIP CLS2.
2. HYDRANT TEE'S MUST BE SET HORIZONTALLY.
3. THE THREADED NIPPLE ON THE 4" PUMPER NOZZLE MUST BE EQUIPPED WITH THE BLUNT START OR HIGGEE CUT.
4. THE 21/2" NIPPLES MUST BE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION BULLETIN NO 194 DATED 1974.
5. AFTER INSTALLATION, ALL SHACKLE BOLTS, NUTS, AND SHACKLE RODS MUST BE CLEANED AND COATED WITH TWO COATS OF ASPHALT, ROYSTON ROSKOTE R28.
6. AFTER BACKFILLING, THE OUTSIDE OF THE HYDRANT (ABOVE THE GROUND LINE) MUST BE THOROUGHLY CLEANED AND PAINTED WITH TWO COATS OF KELLY-MOORE 6130-516 CAT YELLOW.
7. PUMPER PORT MUST FACE CURB.
8. RESTRAINT MUST BE BY WEDGE RESTRAINT SYSTEM USCH AS MEGALUG OR UNIFLANGE. SEE STD SPEC SEC 9-30.4(5).
GENERAL NOTES:
1. WHERE WATERMAINS ARE INSTALLED WITH POLYETHYLENE ENCASMENT OR TAPE COATINGS, THE HYDRANT BARREL AND VALVE MUST BE SIMILARLY ENCASED, COATED AND/OR JOINTS BONDED. WHERE WATERMAIN IS THERMOPLASTIC COATED, THE HYDRANT BARREL MUST BE TAPE COATED.
2. WHERE A GATE VALVE IS TO BE LOCATED WITHIN A PARKING-PERMITTED AREA, A SECOND 6" GATE VALVE MUST BE INSTALLED AT THE HYDRANT ASSEMBLY PER STD PLAN NO 310a.

REF STD SPEC SEC 7-14

THRUST BLOCK AREA IN SQUARE FEET (SEE STD PLAN NO 331B)

<table>
<thead>
<tr>
<th>SOIL</th>
<th>FIRM SILT OR FIRM SILTY SAND</th>
<th>COMPACT SAND</th>
<th>COMPACT SAND &amp; GRAVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FITTING</td>
<td>90° BEND</td>
<td>TEE</td>
<td>45° BEND CAP OR PLUG</td>
</tr>
<tr>
<td>PIPE SIZE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4&quot;</td>
<td>7.0</td>
<td>4.2</td>
<td>4.2</td>
</tr>
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<td>9.4</td>
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<td>8&quot;</td>
<td>23.3</td>
<td>16.7</td>
<td>16.7</td>
</tr>
<tr>
<td>12&quot;</td>
<td>53.0</td>
<td>37.5</td>
<td>37.5</td>
</tr>
</tbody>
</table>

Areas calculated on 300 PSI test pressure and 3'-0" min. cover over watermain.

ECOLLOGY BLOCKS, PER STD PLAN NO 460, MAY BE USED, AT THE DISCRETION OF THE ENGINEER ONLY, IN LIEU OF POURED-IN-PLACE BLOCKING FOR FITTINGS IN HEAVY OUTLINED PORTION OF TABLE.
ECOLLOGY BLOCKS USED FOR THRUST BLOCKING AT TEE MUST TRANSFER LOAD TO THE PIPE BODY PER SPEC SECTION 7-11.3(13).

City of Seattle

NOT TO SCALE

WATERMAIN THRUST BLOCKING HORIZONTAL FITTINGS

NOTES:
1. RAMP CENTERLINE MUST BE RADIAL/PERPENDICULAR TO THE ALIGNMENT OF THE FACE OF CURB.
2. UPPER LANDING AT THE TOP OF THE CURB RAMP MUST MATCH THE FULL WIDTH OF THE RAMP AND MUST HAVE A MINIMUM DEPTH OF 4'-0". IF THE LANDING IS LIMITED AT THE BACK-OFF-SIDEWALK BY A PERMANENT VERTICAL BARRIER, THE DEPTH OF THE TURNING SPACE MUST BE 5'-0" MINIMUM, MEASURED PARALLEL TO THE RUN OF THE CURB. RAMP SLOPE ON THE LANDING MUST BE BETWEEN 0.5% AND 2% IN ANY DIRECTION.
3. WINGS MUST HAVE A MAXIMUM SLOPE OF 10%. WINGS MUST HAVE A BRUSHED FINISH PARALLEL TO THE CURB. THE CONCRETE WALK THICKENED EDGE ALONG THE CURB MUST CONTINUE THROUGH EACH WING.
4. RAMP SURFACE MUST HAVE A HEAVY BROOM BRUSHED SURFACE PARALLEL TO THE CURB.
5. REFER TO DETAILS 422K AND 422L FOR GENERAL NOTES AND TYPICAL SECTIONS.

PERPENDICULAR CURB RAMPS
(TYPE 422A)

PAY LIMITS

REF STD SPEC SEC 8-14
NOTES:
1. RAMP CENTERLINE(S) MUST BE PARALLEL TO THE ALIGNMENT OF THE FACE OF CURB. THE WIDTH OF THE RAMP MUST BE 5'-0" MINIMUM BUT 6'-0" IS PREFERRED.
2. SHARED LOWER CURB RAMP LANDING MUST HAVE A MINIMUM WIDTH OF 5'-0" SLOSE OF THE LANDING MUST BE BETWEEN 0.5% AND 2% IN ANY DIRECTION.
3. RAMP SURFACE MUST HAVE A HEAVY BROOM BRUSHED SURFACE RADIAL/PERPENDICULAR TO THE CURB.
4. REFER TO DETAILS 422K AND 422E FOR GENERAL NOTES AND TYPICAL SECTIONS.

PAY LIMITS

PARALLEL CURB RAMPS
(TYPE 422B)

MAX SLOPE IN EITHER DIRECTION

422B CURB RAMP LOCATIONS

CW LSCAPE CW

REF STD SPEC SEC 8-14
NOTES:
1. RAMP CENTERLINE(S) MUST BE PARALLEL TO THE ALIGNMENT OF THE FACE OF CURB. THE WIDTH OF THE RAMP MUST BE 5'-0" MINIMUM BUT 6'-0" IS PREFERRED.
2. SHARED CURB RAMP LANDING MUST HAVE A MINIMUM WIDTH OF 5'-0". SLOPE OF THE LANDING MUST BE BETWEEN 0.5% AND 2% IN ANY DIRECTION.
3. RAMP SURFACE MUST HAVE A HEAVY BROOM BRUSHED SURFACE RADIAL/PERPENDICULAR TO THE CURB.
4. REFER TO DETAILS 422K AND 422L FOR GENERAL NOTES AND TYPICAL SECTIONS.

PAY LIMITS

PARALLEL CURB RAMPS (CORNER) (TYPE 422C)

2% MAX SLOPE IN EITHER DIRECTION

422C CURB RAMP LOCATIONS

REF STD SPEC SEC 8-14

City of Seattle NOT TO SCALE CURB RAMP DETAILS

NOTES:
1. RAMP CENTERLINE MUST BE PARALLEL TO CROSSWALK AND/OR THE SIDEWALK.
2. UPPER LANDING AT THE TOP OF THE CURB RAMP MUST MATCH THE FULL WIDTH OF THE RAMP AND MUST HAVE A MINIMUM DEPTH OF 4'-0". IF THE LANDING IS LIMITED AT THE BACK-OFF-SIDEWALK BY A PERMANENT VERTICAL BARRIER, THE DEPTH OF THE TURNING SPACE MUST BE 5'-0" MINIMUM, MEASURED PARALLEL TO THE RUN OF THE CURB RAMP SLOPE ON THE LANDING MUST BE BETWEEN 0.5% AND 2% IN ANY DIRECTION.
3. WINGS MUST HAVE A MAXIMUM SLOPE OF 10%. WINGS MUST HAVE A BRUSHED FINISH PARALLEL TO THE CURB. THE CONCRETE WALK THICKENED EDGE ALONG THE CURB MUST CONTINUE THROUGH EACH WING.
4. WING ON THE OPEN SIDE OF THE CURB RAMP MUST HAVE A MINIMUM SLOPE OF 5% TO ASSIST PEDESTRIANS WITH VISUAL IMPAIRMENTS WHERE THE DETECTABLE WARNING SURFACE IS OFFSET FROM THE CURB LINE.
5. RAMP SURFACE MUST HAVE A HEAVY BROOM BRUSHED FINISH PERPENDICULAR TO THE PATH OF TRAVEL.
6. REFER TO DETAILS 422K AND 422L FOR GENERAL NOTES AND TYPICAL SECTIONS.

PAY LIMIT

PAY LIMIT

DIRECTIONAL CURB RAMPS
(TYPE 422D)

MAX SLOPE IN EITHER DIRECTION

422D CURB RAMP LOCATIONS

CW

Landscape

NOTES:
1. RAMP CENTERLINE MUST BE PARALLEL TO CROSSTRAK AND/OR THE SIDEWALK.
2. UPPER LANDING AT THE TOP OF THE CURB RAMP MUST MATCH THE FULL WIDTH OF THE RAMP AND MUST HAVE A MINIMUM DEPTH OF 4'-0". IF THE LANDING IS LIMITED AT THE BACK-OF-SIDEWALK BY A PERMANENT VERTICAL BARRIER, THE DEPTH OF THE TURNING SPACE MUST BE 5'-0" MINIMUM, MEASURED PARALLEL TO THE RUN OF THE CURB RAMP SLOPE ON THE LANDING MUST BE BETWEEN 0.5% AND 2% IN ANY DIRECTION.
3. WINGS MUST HAVE A MAXIMUM SLOPE OF 10%. WINGS MUST HAVE A BRUSHED FINISH PARALLEL TO THE CURB. THE CONCRETE WALK THICKENED EDGE ALONG THE CURB MUST CONTINUE THROUGH EACH WING.
5. DIRECTIONAL CURB RAMPS WITH LARGE SETBACK FROM BACK OF CURB TO BOTTOM OF THE CURB RAMP ARE NOT PREFERRED DESIGNS BUT MAY BE USED IF NECESSARY DUE TO EXISTING SITE CONSTRAINTS. THIS DESIGN WILL LIKELY REQUIRE THE CUTTING OR ALTERING A DETECTABLE WARNING SURFACE TO FIT.
6. STRAIGHT SECTIONS OF DETECTABLE WARNING SURFACE IS PERMITTED AS AN ALTERNATE IF USED, THERE MUST BE 2" MAXIMUM FROM THE DETECTABLE WARNING SURFACE TO THE BACK OF CURB AT ANY POINT.
7. RAMP SURFACE MUST HAVE A HEAVY BROOM BRUSHED FINISH PERPENDICULAR TO THE PATH OF TRAVEL.
8. REFER TO DETAILS 422K, 422L FOR GENERAL NOTES AND TYPICAL SECTIONS.

PAY LIMIT

422E CURB RAMP LOCATIONS

REF STD SPEC SEC 8-14

City of Seattle
NOT TO SCALE
CURB RAMP DETAILS

NOTES:
1. RAMP CENTERLINE(S) MUST BE PARALLEL TO CROSSWALK AND/OR THE SIDEWALK.
2. UPPER LANDING AT THE TOP OF THE CURB RAMP MUST MATCH THE FULL WIDTH OF THE RAMP AND MUST HAVE A MINIMUM DEPTH OF 4'-0". IF THE LANDING IS LIMITED AT THE BACK-OFF-SIDEWALK BY A PERMANENT VERTICAL BARRIER, THE DEPTH OF THE TURNING SPACE MUST BE 6'-0" MINIMUM. MEASURED PARALLEL TO THE RUN OF THE CURB RAMP. SLOPE ON THE LANDING MUST BE BETWEEN 0.5% AND 2% IN ANY DIRECTION.
3. WINGS MUST HAVE A MAXIMUM SLOPE OF 10%. WINGS MUST HAVE A BRUSHED FINISH PARALLEL TO THE CURB. THE CONCRETE WALK THICKENED EDGE ALONG THE CURB MUST CONTINUE THROUGH EACH WING.
4. WING ON THE OPEN SIDE OF THE CURB RAMP MUST HAVE A MINIMUM SLOPE OF 5% TO ASSIST PEDESTRIANS WITH VISUAL IMPAIRMENTS WHERE THE DETECTABLE WARNING SURFACE IS OFFSET FROM THE CURB LINE.
5. RAMP SURFACE MUST HAVE A HEAVY BROOM BRUSHED FINISH PERPENDICULAR TO THE PATH OF TRAVEL.
6. REFER TO DETAILS 422K AND 422L FOR GENERAL NOTES AND TYPICAL SECTIONS.
NOTES:
1. Ramp Centerline(s) must be parallel to crosswalk and/or the sidewalk.
2. Upper landing at the top of the curb ramp must match the full width of the ramp and must have a minimum depth of 4'-0". If the landing is limited at the back-of-sidewalk by a permanent vertical barrier, the depth of the turning space must be 6'-0" minimum, measured parallel to the run of the curb ramp. Slope on the landing must be between 0.5% and 2% in any direction.
3. Wings must have a maximum slope of 10%. Wings must have a brushed finish parallel to the curb. The concrete may be thickened edge along the curb.
4. Curb ramp must continue through each wing.
5. Refer to details 422K and 422L for general notes and typical sections.

PARALLEL AND PERPENDICULAR COMBINATION CURB RAMPS W/ SHARED LANDING (TYPE 422G)

REF STD SPEC SEC 8-14

City of Seattle  NOT TO SCALE  CURB RAMP DETAILS
NOTES:
1. SHARED DIAGONAL PERPENDICULAR RAMP MUST NOT BE INSTALLED UNLESS ALL OTHER DESIGN OPTIONS ARE UNABLE TO BE CONSTRUCTED DUE TO EXISTING SITE CONSTRAINTS.
2. RAMP CENTERLINE MUST BE RADIAL/PERPENDICULAR TO THE ALIGNMENT OF THE FACE OF CURB.
3. UPPER LANDING AT THE TOP OF THE CURB RAMP MUST MATCH THE FULL WIDTH OF THE RAMP AND MUST HAVE A MINIMUM DEPTH OF 4'-0". IF THE LANDING IS LIMITED AT THE BACK-OF-SIDEWALK BY A PERMANENT VERTICAL BARRIER, THE DEPTH OF THE TURNING SPACE MUST BE 9'-0" MINIMUM, MEASURED PARALLEL TO THE RUN OF THE CURB RAMP. SLOPE ON THE LANDING MUST BE BETWEEN 0.5% AND 2% IN ANY DIRECTION.
4. CLEAR SPACE AT THE BOTTOM OF THE RAMP MUST BE 4'-0" MINIMUM IN WIDTH AND MUST EXTEND A MINIMUM OF 4'-0" BEYOND THE RAMP LOWER GRADE BREAK. THE CLEAR SPACE MUST FALL WHOLLY WITHIN THE LEGAL CROSSWALK, MARKED OR UNMARKED. THE CLEAR SPACE MUST FIT BEHIND LINES EXTENDING FROM THE FACE OF CURB RUNNING PARALLEL TO EACH ROADWAY. THERE IS NO ALLOWABLE EXCEPTION FOR MINIMUM CLEAR SPACE REQUIREMENTS AT SHARED DIAGONAL PERPENDICULAR CURB RAMPS.
5. WINGS MUST HAVE A MAXIMUM SLOPE OF 10%. WINGS MUST HAVE A BRUSHED FINISH PARALLEL TO THE CURB. THE CONCRETE WALK THICKENED EDGE ALONG THE CURB MUST CONTINUE THROUGH EACH WING.
6. RAMP SURFACE MUST HAVE A HEAVY BROOM-BRUSHED SURFACE PARALLEL TO THE CURB.
7. REFER TO DETAILS 422K AND 422L FOR GENERAL NOTES AND TYPICAL SECTIONS.
NOTES:
1. The sidewalk must transition down to the roadway with a maximum running slope of 5%. The cross slope on the transition must not exceed 2% at any point.
2. A minimum bypass route must be provided at the top of the blended transition with a minimum width of 4'-0". The cross slope of the bypass route must not exceed 2% in any direction.
3. Wings must have a maximum slope of 10%. Wings must have a brushed finish parallel to the curb. The concrete walk thickened edge along the curb must continue through each wing.
4. Blended transition surface must have a heavy broom brushed surface radial/perpendicular to the curb.
5. Refer to details 422K and 422L for general notes and typical section D.
CURB RAMP GENERAL NOTES:

1. TWO CURB RAMPS MUST BE INSTALLED AT EACH CORNER UNLESS OTHERWISE DIRECTED BY ENGINEER. SHARED DIAGONAL PERPENDICULAR RAMPS MUST NOT BE INSTALLED UNLESS ALL OTHER DESIGN OPTIONS ARE UNABLE TO BE CONSTRUCTED DUE TO EXISTING SITE CONSTRAINTS.

2. CURB RAMPS MUST BE AS CLOSELY ALIGNED WITH THE SIDEWALK AND THE PEDESTRIAN STREET CROSSING SERVED AS POSSIBLE.

3. CURB RAMP MUST BE CONSTRUCTED ON COMPARISON RAMP ON OPPOSITE SIDE OF THE ROADWAY WHERE NO RAMP IS PROVIDED UNLESS OTHERWISE DIRECTED BY ENGINEER.

4. RAMPS MUST TYPICALLY HAVE A MAXIMUM RUNNING SLOPE OF 8.3% AND A MINIMUM WIDTH OF 4'-0" UNLESS OTHERWISE DIRECTED BY ENGINEER. THE CROSS SLOPE OF RAMPS MUST BE A MAXIMUM OF 2%. CURB RAMPS ARE NOT REQUIRED TO EXCEED A LENGTH OF 15 FEET UNLESS OTHERWISE DIRECTED BY ENGINEER.

5. GRADE BREAKS AT THE TOP AND THE BOTTOM OF CURB RAMP RUNS MUST BE PERPENDICULAR TO THE PATH OF TRAVEL. CURB RAMP RUNS ARE DEFINED BY RUNNING SLOPES THAT EXCEED 5% BUT ARE NO MORE THAN 8.3%. SURFACES ADJACENT TO THE CURB RAMP GRADE BREAKS MUST BE FLUSH.

6. AREAS ADJACENT TO CURB RAMPS OR CURB RAMP LANDINGS USED BY PEDESTRIANS MUST COMPLY WITH STANDARD SLOPE LIMITS OR A CURB RAMP WING MUST BE PROVIDED AS SHOWN IN THE APPLICABLE CURB RAMP DETAILS. THE INSTALLATION OF CURVED EDGES IS NOT REQUIRED BUT MAY BE USED AT THE SIDES OR BACKS OF CURB RAMPS OR CURB RAMP LANDINGS WHERE THE ADJACENT SURFACE IS LANDSCAPED OR OTHERWISE NOT USED BY PEDESTRIANS.

7. THE COUNTER SLOPE OF THE GUTTER OR THE STREET AT THE BOTTOM OF CURB RAMP RUNS MUST BE 5% MAXIMUM. IF TURNING OR CHANGE OF ORIENTATION IS REQUIRED WITHIN THE PEDESTRIAN CROSSING AT THE BOTTOM OF CURB RAMP RUNS, THE SLOPE MUST BE 2% MAXIMUM IN ANY DIRECTION FOR A MINIMUM 4'-0" WIDTH X 4'-0" DEPTH MEASURED FROM THE RAMP BOTTOM GRADE BREAK.

8. CURB RAMPS WITH RUNS THAT TERMINATE AT THE ENTRANCE TO THE PEDESTRIAN STREET CROSSING MUST HAVE A CLEAR SPACE AT THE BOTTOM OF THE RAMP. "CLEAR SPACE" IS DEFINED AS A NAVIGABLE 4'-0" X 4'-0" SPACE, EXTENDING FROM THE RAMP LOWER GRADE BREAK, THAT FALLS WHOLLY WITHIN THE LEGAL CROSSWALK MARKED OR UNMARKED, AND OUTSIDE THE PARALLEL VEHICULAR TRAFFIC LANE.

9. DETECTABLE WARNING MUST BE PROVIDED AT CURB RAMPS AND AT LOCATIONS WHERE THE SIDEWALK AND ROADWAY ARE FLUSH. THE DETECTABLE WARNING SURFACE MUST HAVE A TRUNCATED DOME PATTERN AS SHOWN WITH A MINIMUM DEPTH OF 2'-0", AND MUST BE PLACED AT THE BACK OF CURB BUT NO MORE THAN 8" FROM THE FACE OF CURB FOR MONOLITHIC CURBS OR ATYPICAL CURB WIDTHS. DETECTABLE WARNING MUST MATCH THE WIDTH OF THE RAMP RUN OR THE OPENING WHERE THE SIDEWALK AND ROADWAY ARE FLUSH. THE TRUNCATED DOMES ON THE DETECTABLE WARNING SURFACE SHOULD ALIGN WITH THE CURB RAMP RUN OR THE DIRECTION OF TRAVEL. DOMES MAY BE ON A RADIAL GRID PATTERN WHERE THE DETECTABLE WARNING SURFACE IS PLACED AT CURB RAMP.

10. DETECTABLE WARNING COLOR MUST BE "FEDERAL SAFETY YELLOW" UNLESS OTHERWISE DIRECTED BY ENGINEER.

11. DETECTABLE WARNING SURFACES SHOULD GENERALLY NOT BE CUT OR ALTERED TO FIT UNLESS THERE IS NO ALTERNATIVE AVAILABLE. IF REQUIRED, CUT OR ALTER THE DETECTABLE WARNING SURFACE PER THE MANUFACTURER'S DIRECTIONS. DETECTABLE WARNING SURFACES PLACED AT CURB RAMP MUST MATCH THE CURB RAMP WITHOUT GAPS OR INCONSISTENCIES IN PLACEMENT.

12. AVOID LOCATING HANDHOLDS, UTILITY CASTINGS, OR ANY OTHER SURFACE OBSTRUCTIONS IN THE CURB RAMP RUN(S) OR LANDING(S). IF NECESSARY DUE TO EXISTING CONSTRAINTS, HANDHOLDS, UTILITY CASTINGS, OR OTHER SURFACE OBSTRUCTIONS MAY BE LOCATED WITHIN A RAMP RUN, LANDING, OR TURNING SPACE BUT MUST ADHERE TO SURFACE REQUIREMENTS. LEVEL CHANGES BETWEEN SURFACES MUST NOT EXCEED 1/4" OR 1/8" WITH A 1:2 SLOPE BETWEEN SURFACES OR GRATINGS MAY NOT EXCEED 1". SURFACES MUST BE FIRM, STABLE, AND SLIP RESISTANT.

13. HANDHOLDS, UTILITY CASTINGS, OR OTHER SURFACE OBSTRUCTIONS MUST NOT REDUCE THE REQUIRED DEPTH OF DETECTABLE WARNING.

14. POLES, HYDRANTS AND OTHER ABOVE GROUND OBSTRUCTIONS MUST HAVE A MINIMUM LATERAL CLEARANCE OF 1'-0" FROM CURB RAMP RUN(S) OR LANDING(S).

15. ALL CHANGES IN LEVEL ACROSS JOINTS MUST BE FLUSH. ANY DIFFERENCE IN ELEVATION OF 3/16 INCH OR GREATER MUST BE REPAIRED OR REPLACED.

16. CURB RAMPS ARE DESIGNED TO ENSURE THAT WATER DOES NOT ACCUMULATE ON RAMPS SURFACE. THE CONTRACTOR MUST CHECK GRADE LINES AND GUTTER FLOW LINE PRIOR TO CONSTRUCTION. IF THE CHECK REVEALS THAT SITE CONDITIONS WOULD RESULT IN PONDING, OR WOULD CONFLICT WITH OBTAINING THE GRADES AT THE BOTTOM OF CURB RAMPS OR AT CURB RAMP LOWER LANDINGS AS SHOWN ON THE DRAWINGS OR PLANS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND STOP WORK ON THE CURB RAMP UNTIL DIRECTED TO CONTINUE BY THE ENGINEER.

* IT IS GENERALLY PREFERRED THAT CURB RAMPS, CURB RAMP LANDINGS, AND ASSOCIATED FEATURES NOT BE DESIGNED TO THE MINIMUM OR MAXIMUM ALLOWABLE DIMENSION AND/OR SLOPE TO ALLOW FOR A LIMITED MARGIN OF ERROR DURING CONSTRUCTION.
TYPICAL SIGNAL Faces
W/ TUNNEL VISORS & 5" BACKPLATE (LOUVERED)
1" YELLOW, DIAMOND GRADE RETRO REFLECTIVE TAPE

MAST Arm MOUNTING
SEE NOTE 1

BRACKET MOUNTING
FOR SIGNAL HEAD BRACKET ASSEMBLY
SEE STD PLAN NO 511

SIGNAL HANGER DETAIL

NOTES:
1. VERTICAL CLEARANCE: 17" MIN TO ROADWAY 19'-0" MAX (ON TRUCK ROUTES USE 18' TO 19')
2. BACKPLATES HAVE BEEN OMITTED FROM VARIOUS VIEWS FOR CLARITY

 referencia

PEDESTAL TOP MOUNTING
FOR PEDESTAL SEE STD PLAN NO 524

SPAN MOUNTING

ATTACH SIGNAL CABLE TO SPAN WIRE WITH FRICTION TAPE OR UV RATED CABLE TIE WRAPS AND TRIM ENDS

BRONZE BALANCE ADJUSTER W/ 5/8" EYEBOLT (REQ'D WHEN THE APPROACH GRADE EXCEEDS 10%) W/ STAINLESS STEEL PINS, COTTER KEY & WASHERS

SPAN WIRE

SIGNAL CABLE DRIP LOOP (COIL 3'-0"

REFERENCE

REF STD SPEC SEC 8-31
NOTES:
1. THE COVER MUST HAVE 3/8" TO 3/4" CLEARANCE ON EACH EDGE WITHIN THE FRAME AF TER GALVANIZING.
2. THE GROUND ROD MUST EXTEND 4" ABOVE THE BOTTOM OF THE HANDHOLE OR MINERAL AGGREGATE.
3. TYPE 1, 2, 3, 5 & 6 HANDHOLE COVERS MUST HAVE "SDOT" OR "SL" ON THEM, AS APPROPRIATE.
4. TYPE 4 HANDHOLE MUST BE INSTALLED IN ROADWAYS, PARKING LOTS, ETC.
5. FOR PAVEMENT DEPTH GREATER THAN 7" USE FRAME EXTENSIONS (SEE STD PLAN NO 231) TO BRING THE COVER UP THE THE LEVEL OF THE FINISHED PAVEMENT WITHOUT EMBEDDING THE BOTTOM FLANGE OF THE CASTING IN THE PAVEMENT.
6. A 4' LENGTH OF #6 THICK OR THIN COPPER WIRE MUST BE SECURED FROM THE HANDHOLE COVER TO THE FRAME, BOND FROM FRAME TO, AND TO GROUND ROD.
7. ALL HANDHOLE COVERS AND FRAMES MUST HAVE A NON-SKID SURFACE (SEE STD SPEC SEC 9-34.8).
8. ALL HANDHOLES MUST HAVE A LOAD RATING OF H20.
9. GROUND ROD REQUIRED IN ALL STREETLIGHT HANDHOLES PER SCL CONSTR STD 1710.50.
10. SEE SCL CONSTRUCTION STANDARD 1716.07 FOR STREETLIGHT HANDHOLE AND CONDUIT REQUIREMENTS.

HANDHOLE INSTALLATION DETAIL

HANDHOLE SCHEDULE

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<thead>
<tr>
<th>HANDHOLE TYPE</th>
<th>TOP UNIT INSIDE DIMENSION</th>
<th>EXTENSION UNIT(S)</th>
<th>COVER DIMENSIONS</th>
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ASPH OR CONC FINISH TO GRADE WITH 3/4" X 2" JOINT IN CONC AREA

3'
MAX

SLOPE

6" WIDE X 3/4" DEEP CONCRETE COLLAR WHEN INSTALLED IN EARTH

CONDUIT (PER DRAWINGS)
ALL COUPLINGS MUST BE WATERPROOF

GROUND ROD

#3 BAR (TY)

FULL 180° OPEN

STEEL PLATE COVER (GALV) W/LOCKING LATCH

(4) 3/4" LIFT INSERTS

RECESSED LIFT HANDLE

COVER

GALV "C" CHANNELS 18" LONG ON ALL SIDES

12" X 12" KNOCKOUT 2 EACH SIDE

RISER

OPTIONAL GALV PULLING IRON 1 EACH END

6" DRAIN HOLE (OPENED)

TYPE 3 HANDHOLE
(COVER SAME AS TYPE 5)

TOP OF PAVEMENT

CONC MAINTENANCE HOLE ADJUSTMENT RINGS

MINERAL AGGREGATE TYPE 9

CONDUIT (PER DRAWINGS)

GROUND ROD

4" MAX

6" MIN
THICKNESS MNRL AGG TYPE 9

TYPE 2 HANDHOLE

TYPE 3 HANDHOLE

TYPE 4 HANDHOLE
TRAFFIC BEARING

TYPE 5 HANDHOLE

REF STD SPEC SEC 8-33

City of Seattle

HANDBOLES

NOTES:
2. ALL NON-DELEGATE TRAFFIC PULL BOXES MUST COMPLY WITH ALL TEST PROVISIONS OF ANSI/SCITE 77 2012 “SPECIFICATION FOR ENCLOSED ENCLOSURE INTEGRITY”, AND MUST MEET THE TIER 22 APPLICATION, MARKINGS SHOWING THE TIER 22 RATING MUST BE LABELED OR STENCILLED ON THE INSIDE & OUTSIDE OF THE BOX.
3. ALL NON-DELEGATE TRAFFIC PULL BOXES & COVERS MUST BE MADE OF POLYMER CONCRETE WITH FIBERGLASS REINFORCEMENT. THE BOX MUST HAVE CONTINUOUS FIBERGLASS CLOTH REINFORCEMENT ON THE INSIDE & OUTSIDE PERIMETERS. THE COVER MUST HAVE A MINIMUM OF TWO LAYERS OF FIBERGLASS CLOTH REINFORCEMENT.
4. ALL NON-DELEGATE TRAFFIC PULL BOXES & COVERS MUST BE TESTED & CERTIFIED, MEETING ALL TEST PROVISIONS OF THE LATEST REVISION OF ANSI/SCITE 77.
5. PULL SLOTS MUST BE RATED FOR MINIMUM PULL OUT OF 5,000 POUNDS.
6. TYPE 4 HANDHOLE MUST BE INSTALLED IN ROADWAYS, PARKING LOTS, ETC. ALL COVERS MUST BE COMPLETE WITH A MOLDED LOGO, MANUFACTURER’S NAME & TIER RATING LOGO (NO GLUE IN LOGO). LOGO MUST READ “DD” OR “SL” UNLESS STATED OTHERWISE BY THE CITY OF SEATTLE.
7. THE GROUND ROD MUST EXTEND 4” ABOVE THE BOTTOM OF THE HANDHOLE OR MINERAL aggregate.
8. FOR PAVEMENT DEPTH GREATER THAN 7” USE FRAME EXTENSIONS (SEE STD PLAN NO. 231) TO ENSURE THE COVER UP TO THE LEVEL OF THE FINISHED PAVEMENT WITHOUT EMERGING THE BOTTOM FLANGE OF THE CASTING IN THE PAVEMENT.
9. A 4” LENGTH OF #6 THIN OR THICK COPPER WIRE MUST BE SECURED FROM THE HANDHOLE COVER TO THE FRAME, WITH A 4”-0” LENGTH FROM FRAME THAT CAN BE MOOLED OR CONNECTED TO A GROUND ROD.
10. ALL HANDHOLE COVERS AND FRAMES MUST HAVE A NON-SKID SURFACE (SCL MATERIAL STANDARD 7203.10)
11. SEE SCL CONSTRUCTION STANDARD 1716.07 FOR STREET HANDHOLE AND CONDUIT REQUIREMENTS.

HANDHOLE SCHEDULE

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TYPE 3 HANDHOLE

(COVER SAME AS TYPE 5)

HANDHOLE INSTALLATION DETAIL

POLYMER CONCRETE HANDHOLES

CONDUIT RISER (WITH STAND-OFF BRACKET*)

*WHEN THERE WILL BE ONLY ONE CONDUIT ( 1/2" OR SMALLER) ON THE POLE.
TWO HOLE MALLEABLE IRON CLAMPS WITH DOUBLE HEADED NAILS MUST BE USED TO SECURE THE CONDUIT TO THE POLE IN LIEU OF THE STAND-OFF BRACKETS

NOTES:

1. ON POLES WITH EXISTING CONDUITS, NEW CONDUITS MUST BE INSTALLED IN ACCORDANCE WITH THIS STANDARD PLAN.
2. RIGID STEEL CONDUIT MUST BE GROUNDED JUST BELOW COUPLING, APPROXIMATELY 8'-0" TO 10'-0" ABOVE GROUND, AS SHOWN.
3. ALL RISERS BONDED IN HH.
4. THE GROUND WIRE MUST BE ONE CONTINUOUS LENGTH. INSERT THE GROUND WIRE UNDER THE BOTTOM OF THE GROUND CLAMP & BEND OVER THE CLAMP BEFORE TIGHTENING.
5. ALL STEEL HARDWARE MUST BE HOT DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123.
6. CONDUIT CLAMP SPACING MUST BE PER THE NEC WITH A MINIMUM OF TWO HOLE CLAMP PER 10'-0" LENGTH OF CONDUIT.
7. SERVICE AND SIGNAL CONDUCTORS MUST NOT BE PLACED IN THE SAME CONDUIT.
8. WHEN POSSIBLE, RISER MUST BE INSTALLED ON DOWNSTREAM SIDE OF TRAFFIC.
9. SEE SCL CONSTRUCTION STANDARD 1714.50 FOR STREETLIGHT HANDHOLE AND CONDUIT REQUIREMENTS & 0224.34 FOR STREETLIGHT CONDUIT RISERS.

REF STD SPEC SEC 8-33

City of Seattle
NOT TO SCALE
TRAFFIC CONDUIT RISER

NOTES:
1. WAYFINDING BLADE SHALL BE INSTALLED POINTING IN THE DIRECTION OF THE LOCATION ON BLADE.
2. CITY OF SEATTLE SHALL FABRICATE WAYFINDING BLADES AND SUPPLY MOUNTING HARDWARE AT PROJECT OR CONTRACTOR EXPENSE.
3. MAINTAIN 8 FEET MINIMUM OF VERTICAL CLEARANCE FROM CONCRETE WALK TO THE BOTTOM OF PEDESTRIAN WAYFINDING BLADES.

SURFACE MOUNT DETAIL

(1) 3⁄8" GALV ANGLE BOLT IN (2) ADJACENT HOLES
STUD TYPE EXPANSION ANCHOR BOLT, STAINLESS STEEL 3⁄8"X3 3⁄4" IN 3⁄4" HOLE (1 EACH CORNER)

SURFACE MOUNT