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NOTES:
1. CONCRETE SHALL BE 3000 PSI MIN. (CL 3000), 3-1/2" SLUMP (MAX.).

2. CURBS ADJACENT TO PAVEMENT OR SIDEWALK SHALL HAVE CONSTRUCTION JOINTS TO MATCH EXISTING PATTERNS. 3/8" EXPANSION JOINTS SHALL BE PLACED ON BOTH SIDES OF CATCH BASINS, AT TOPS OF DRIVEWAYS, ALL CHANGES IN DIRECTION, AND AS DIRECTED BY THE INSPECTOR. CONTRACTION JOINTS TO BE PLACED AT 15' MAXIMUM SPACING.

3. FOR CURB DROPS AT ADA RAMPS, SEE RAMP LIP DETAIL T-21.

4. COMPACT SUBGRADE AND AGGREGATE TO 95% MAXIMUM DRY DENSITY (3" MIN. DEPTH).

5. SEE PAVEMENT RESTORATION/WIDENING AT CURBS DETAIL T-30.

6. CURB TO BE MEDIUM BROOM FINISHED, PARALLEL TO GUTTER LINE.

7. WHERE MATCHING EXISTING CURBS, ALL EXISTING EDGES SHALL BE SAWCUT.

8. WHEN ATTACHED SIDEWALKS ARE USED WITH ROLLED CURB AND GUTTER, THICKENED SIDEWALKS (6" MIN.) SHALL BE CONSTRUCTED UNDER THE SAME CONSTRUCTION CONTRACT.
NOTE:

1. WHEN CURB DRAINS ARE USED, DRAINAGE FACILITIES MUST BE SIZED FOR BOTH QUANTITY AND QUALITY STORM WATER TREATMENT.

2. DETACHED SIDEWALK SHOWN. ATTACHED SIDEWALK SIMILAR.

3. FINISH PIPE END FLUSH WITH FACE OF CURB.

4. GROUT ANY VOIDS IN CONCRETE SURROUNDING PIPE.

5. SHOW LOCATION ON PLAN TO AVOID CONFLICTS WITH STREET LIGHTS, WATER METERS AND OTHER UTILITIES.

6. CURB DRAINS NOT ALLOWED IN ROLLED CURBS.
NOTES:

SECTION A-A

1. CONCRETE SHALL BE 3000 PSI MIN. (CL 3000), 3-1/2" SLUMP (MAX.), MEDIUM BROOM FINISH PARALLEL TO DRIVEWAY CENTERLINE.

2. TO BE USED WHERE CURB AND SIDEWALK ARE SEPARATED BY A PLANTER STRIP.

3. COMMERCIAL DRIVEWAYS REQUIRE 8" CONCRETE WITH REINFORCING STEEL (6x6 - W2.9xW2.9 WWF, MIN.), 1-1/2" COVER FROM BOTTOM OF SLAB. RESIDENTIAL DRIVEWAYS REQUIRE 6" CONCRETE.

4. COMPACT SUBGRADE AND AGGREGATE TO 95% OF MAXIMUM DRY DENSITY (3" MIN. DEPTH).

5. DRIVEWAYS EXCEEDING 15' IN TOTAL WIDTH SHALL HAVE ADDITIONAL LONGITUDINAL JOINTS AS DIRECTED. JOINT SPACING SHALL NOT EXCEED 15'. SEE CONCRETE JOINTS DETAIL T-31.

6. EXISTING CURB SHALL BE REMOVED TO EXISTING JOINT OR SAWCUT SUCH THAT 3" MIN. OF NEW CURB IS CONSTRUCTED ADJACENT TO NEW DRIVEWAY. HORIZONTAL CUTTING OF EXISTING CONCRETE ALLOWED SUBJECT TO PUBLIC WORKS DIRECTOR APPROVAL.

7. SEE PAVEMENT RESTORATION/WIDENING AT CURB DETAIL T-30 WHEN CUTTING EXISTING CURB.

8. ALL EXISTING EDGES SHALL BE SAWCUT.

9. STRUCTURAL SECTION OF DRIVEWAY TO BE EXTENDED THROUGH SIDEWALK AREA.

10. 3' WING MIN. FOR RESIDENTIAL STREET.

11. 45' ANGLE FOR WINGS ON ARTERIAL STREETS.

12. NO WATER METERS IN DRIVEWAY APPROACH OR WING.
NOTES:

SECTION A-A

1. IF W IS LESS THAN 8' IN WIDTH, THEN Y = 2' (IF W < 6', THEN PUSHER OUT SIDEWALK BEHIND
   DRIVEWAY TO MAINTAIN 4' MIN. PATH*).
   IF W IS MORE THAN 8' AND LESS THAN 12' IN WIDTH, THEN Y = W/2
   IF W IS GREATER THAN OR EQUAL TO 12' IN WIDTH, THEN Y = 4'.

2. CONCRETE SHALL BE 3000 PSI MIN. (CL 3000), 3½" SLUMP (MAX.), MEDIUM BROOM FINISH
   PARALLEL TO DRIVEWAY CENTERLINE.

3. REINFORCING STEEL REQUIRED (6x6 = W2.9xW2.9 WWF, MIN.), MIN. 1½" COVER FROM BOTTOM OF
   SLAB.

4. COMPACT SUBGRADE AND AGGREGATE TO 95% OF MAXIMUM DRY DENSITY (3" MIN. DEPTH).

5. DRIVEWAYS EXCEEDING 15' IN TOTAL WIDTH SHALL HAVE ADDITIONAL LONGITUDINAL JOINTS AS
   DIRECTED BY THE PUBLIC WORKS DEPARTMENT. JOINT SPACING SHALL NOT EXCEED 15'. SEE
   CONCRETE JOINTS DETAIL T-31.

6. PARALLEL JOINTS SHALL BE SEPARATED BY A MINIMUM OF 2'.

7. SEE PAVEMENT RESTORATION/WIDENING AT CURB DETAIL T-30 WHEN CUTTING EXISTING CURB.

8. ALL EXISTING EDGES SHALL BE SAWCUT.

9. EXISTING CURB SHALL BE REMOVED TO EXISTING JOINT OR SAWCUT SUCH THAT 3' MIN. OF NEW
   CURB IS CONSTRUCTED ADJACENT TO NEW DRIVEWAY.

10. NO WATER METERS IN DRIVEWAY APPROACH OR WINGS.
NOTES:
1. CONCRETE SHALL BE 3000 PSI MIN. (CL 3000), 3-1/2" SLUMP (MAX.), MEDIUM BROOM FINISH PARALLEL TO DRIVEWAY CENTERLINE.
2. COMMERCIAL DRIVEWAYS REQUIRE REINFORCING STEEL (6x6 - W2.9xW2.9 WWF, MIN.), MIN. 1 1/2" COVER FROM BOTTOM OF SLAB.
3. COMPACT SUBGRADE AND AGGREGATE TO 95% OF MAXIMUM DRY DENSITY (3" MIN. DEPTH).
4. DRIVEWAYS EXCEEDING 15' IN TOTAL WIDTH SHALL HAVE ADDITIONAL LONGITUDINAL JOINTS AS DIRECTED. JOINT SPACING SHALL NOT EXCEED 15'. SEE CONCRETE JOINTS DETAIL T-31.
5. EXISTING CURB SHALL BE REMOVED TO EXISTING JOINT OR SAWCUT SUCH THAT 3" MIN. OF NEW CURB IS CONSTRUCTED ADJACENT TO NEW DRIVEWAY.
6. SEE PAVEMENT RESTORATION/WIDENING AT CURBS DETAIL T-30 WHEN CUTTING EXISTING CURB.
7. ALL EXISTING EDGES SHALL BE SAWCUT.
8. SET ALL POLES AND SIGNS BEHIND SIDEWALK.
9. NO WATER METERS IN DRIVEWAY APPROACH OR WINGS.

SECTION A-A

DRIVEWAY WITH ATTACHED SIDEWALK – OPTION B

APPROVED

REVISIONS | DATE | DRAWN | DESIGNED
--- | --- | --- | ---

Burt Hopp 5/8/13
PUBLIC WORKS DIRECTOR  DATE

T-05
NOTES:
1. CONCRETE SHALL BE 3000 PSI MIN., (CL 3000) 3-1/2" SLUMP (MAX.), MEDIUM BROOM FINISH PARALLEL TO DRIVEWAY CENTERLINE.
2. DRIVEWAY SHALL BE CONSTRUCTED WITH REINFORCING STEEL (6x6 - W2.9xW2.9 WWF, MIN.). MIN. 1½" COVER FROM BOTTOM OF SLAB.
3. COMPACT SUBGRADE TO 95% OF MAXIMUM DRY DENSITY.
4. DRIVEWAYS EXCEEDING 15' IN TOTAL WIDTH SHALL HAVE ADDITIONAL LONGITUDINAL JOINTS AS DIRECTED. CONTROL JOINT SPACING SHALL NOT EXCEED 15'. SEE CONCRETE JOINTS DETAIL T-31.
5. SEE PAVEMENT RESTORATION/WIDENING AT CURB DETAIL T-30 WHEN CUTTING EXISTING CURB.
6. ALL EXISTING EDGES SHALL BE SAWCUT.
7. EXISTING CURB SHALL BE REMOVED TO EXISTING JOINT OR SAWCUT SUCH THAT 3' MIN. OF NEW CURB IS CONSTRUCTED ADJACENT TO NEW DRIVEWAY.
8. MAXIMUM 2% CROSS SLOPE ACROSS PEDESTRIAN CROSSING.
9. TRANSITION CURB FROM FULL 6" EXPOSURE TO 0" OVER THE FIRST 6' FROM CORNER.
10. NO WATER METERS IN DRIVEWAY APPROACH OR ADA RAMP AREA.
NOTES:
1. CONCRETE SHALL BE 3000 PSI MIN. (CL 3000), 3 1/2” SLUMP (MAX.).
2. COMPACT SUBGRAD AND AGGREGATE TO 95% OF MAXIMUM DRY DENSITY (3” MIN.).
3. FINISH SHALL BE MEDIUM BROOM PERPENDICULAR TO PEDESTRIAN TRAFFIC UNLESS OTHERWISE DIRECTED.
4. MATCH EXISTING BORDER.
5. SEE CONCRETE JOINTS DETAIL T-31 FOR SURFACE, CONTRACTION, AND EXPANSION JOINTS.
6. ALL EXISTING EDGES SHALL BE SAWCUT.
7. CROSS SLOPE OF PLANTER STRIP SHALL BE 2% (TYP.) AND 4:1 (MAX.).
NOTES:

1. RAMPS TO BE CENTERED IN CROSSWALKS.

2. RAMPS TO BE CONSTRUCTED SEPARATELY FROM SIDEWALK AND ISOLATED BY EXPANSION JOINT MATERIAL.

3. RAMP WING MAY BE REPLACED WITH TYPE E-1 CURB SIMILAR TO CURB RAMP DETAIL T-01 IF OBSTRUCTION OR PLANTER PREVENTS PEDESTRIAN TRAFFIC IN WING AREA.

4. SURROUNDING SIDEWALK CROSS SLOPE TO BE 2% MAX. RADIAILY AROUND CORNER SECTION.

5. IF A SINGLE DIAGONAL CURB RAMP IS PERMITTED, 48" MIN. CLEAR SPACE SHALL BE PROVIDED FOR MANEUVERING ROOM IN CROSSWALK.
NOTES:

1. EXISTING CURB AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF NEW RAMP.
2. RAMP MAY BE USED MID-BLOCK OR ON INTERSECTION RADII.
3. RAMP TO BE CONSTRUCTED SEPARATELY FROM SIDEWALK.
4. RAMP WINGS MAY BE REPLACED WITH TYPE E-1 CURB SIMILAR TO CURB RAMP DETAIL T-01 IF OBSTRUCTION OR PLANTER PREVENTS PEDESTRIAN TRAFFIC IN WING AREA.
6. WING DIMENSIONS MAY VARY TO MEET REQUIRED SLOPE.
7. IF THE MAXIMUM SLOPE OF 1:12 CANNOT BE ACHIEVED DUE TO THE SLOPE OF THE EXISTING SIDEWALK, A DIAGONAL RAMP IS NOT ALLOWED. A DIFFERENT TYPE OF RAMP MUST BE USED.
NOTES:

1. RAMPS TO BE CENTERED IN CROSSWALKS.

2. RAMPS TO BE CONSTRUCTED SEPARATELY AND ISOLATED BY CONTRACTION JOINTS.

3. RAMP WING MAY BE REPLACED WITH TYPE E-1 CURB SIMILAR TO CURB RAMP DETAIL T-17 IF OBSTRUCTION OR PLANTER PREVENTS PEDESTRIAN TRAFFIC IN WING AREA.

4. SURROUNDING SIDEWALK CROSS SLOPE TO BE 2% MAX. RADIANLY AROUND CORNER SECTION.
NOTES:
1. DIMENSIONS X & Y VARY DEPENDING UPON RADIUS AND PLACEMENT OF RAMP TO MAINTAIN 1:10 MAXIMUM SLOPE.
2. EXISTING CURB AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF NEW RAMP.
3. RAMP TO BE CENTERED IN CROSSWALK.
4. RAMP TO BE CONSTRUCTED SEPARATELY FROM SIDEWALK.
5. RAMP WING MAY BE REPLACED WITH TYPE E-1 CURB T-01 SIMILAR TO CURB RAMP DETAIL T-29 IF OBSTRUCTION OR PLANTER PREVENTS PEDESTRIAN TRAFFIC IN WING AREA.
7. SEE PAVEMENT RESTORATION/WIDENING AT CURB DETAIL T-29 WHEN CUTTING EXISTING CURB.
NOTES:

1. EXISTING CURB AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF NEW RAMPs.

2. RAMPS TO BE Poured SEPARATELY AND ISOLATED BY EXPANSION JOINT MATERIAL.

3. CURB AND RAMP DIMENSIONS MAY VARY TO MEET REQUIRED SLOPE.

4. DOUBLE RAMPS ALLOWED ONLY IF CURB RETURN RADIUS IS GREATER THAN OR EQUAL TO 25'.

TYPE E-1 CURB DETAIL T-01 OUTSIDE OF SIDEWALK (MAY BE INSTALLED INSIDE IF R.O.W. LINE IS BACK OF SIDEWALK)

GUTTER

CURB EXPOSURE MAY BE REDUCED TO NO LESS THAN 3" TO MAINTAIN 3' MIN WIDTH OF SIDEWALK AREA

5' (MIN.) OUTSIDE RADIUS

5' MIN

5' MIN

3' MIN

WING

EXISTING PLANTING AREA

CURB

COMBINATION RAMP DETAIL T-14 (TYP.)

THIS TYPE OF RAMP IS ONLY TO BE USED IN EXISTING RESTRICTED RIGHT OF WAY AREAS. DOUBLE RAMP SHOWN. SINGLE RAMP MAY BE USED AT SOME INSTALLATIONS.

REDUCED HEIGHT CURB FACE EXPOSURE IF NECESSARY
NOTES:
1. RAMPS TO BE CENTERED IN CROSSWALKS.
2. RAMPS TO BE CONSTRUCTED SEPARATELY.

THIS TYPE OF RAMP IS ONLY TO BE USED IN EXISTING RESTRICTED RIGHT OF WAY AREAS. DOUBLE RAMP SHOWN.
NOTES:

1. EXISTING CURB AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF NEW RAMP.
2. RAMP MAY BE USED MID BLOCK OR ON INTERSECTION RADIUS.
3. RAMP TO BE CENTERED IN CROSSWALK.
4. RAMPS TO BE CONSTRUCTED SEPARATELY FROM SIDEWALK.
5. WING DIMENSIONS MAY VARY TO MEET REQUIRED SLOPE.
6. DIMENSION 'C' VARIES.
7. DIMENSION 'A' VARIES DEPENDING UPON RAMP WIDTH, 5' MIN.
8. DIMENSION 'D' VARIES DEPENDING UPON THE SLOPE OF THE SIDEWALK, 2' MIN TO 15' MAX.
9. SEE STANDARD LANDING CROSS SECTIONS DETAIL T-20 FOR SECTIONS C-C AND D-D.
NOTES:
1. EXISTING CURB AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF NEW RAMPS.
2. RAMPS TO BE Poured SEPARATELY FROM SIDEWALK.
3. WING DIMENSIONS MAY VARY TO MEET REQUIRED SLOPE.
4. DOUBLE RAMPS ALLOWED ONLY IF RADIUS IS GREATER THAN OR EQUAL TO 25'.

Curb Exposure may be reduced to no less than 3" to maintain 3' width of sidewalk area.

THIS TYPE OF RAMP IS ONLY TO BE USED IN EXISTING RESTRICTED RIGHT OF WAY AREAS. DOUBLE RAMP SHOWN. SINGLE RAMP MAY BE USED AT SOME INSTALLATIONS.

NOTES:

1. RAMPS SHALL HAVE A MAXIMUM 1:12 SLOPE.

2. EXISTING CURB AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF NEW RAMP.

3. RAMP MAY BE USED MID-BLOCK OR ON INTERSECTION RADIUS.

4. RAMP TO BE CENTERED IN CROSSWALK.

5. RAMPS TO BE CONSTRUCTED SEPARATELY FROM SIDEWALK.

6. SEE STANDARD LANDING CROSS SECTIONS - C-C AND D-D DETAIL T-2D FOR SECTION C-C.


NOTES:

1. EXISTING CURB AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF NEW RAMP.

2. RAMP MAY BE USED MID BLOCK OR ON INTERSECTION RADIUS.

3. RAMP TO BE CENTERED IN CROSSWALK.

4. RAMPS TO BE CONSTRUCTED SEPARATELY FROM SIDEWALK.


NOTE A-A

1. This detail is to be used only for retrofit projects when right-of-way is limited to back of sidewalk. Specific Public Works Director approval is required for the use of this detail.

2. Ramp to be centered in crosswalk.

3. An unobstructed path of travel with a minimum width of 4' shall be maintained.

4. If the maximum slope of 1:12 cannot be achieved due to the slope of the existing sidewalk, the length of the curb ramp shall not be required to be longer than 15 feet regardless of the resulting ramp slope.

5. See pavement restoration/widening at curb detail T-30 when cutting existing curb.
SECTION A-A

SEE DIAGONAL RAMP CONSTRUCTION DETAIL T-09
NOTES:


2. A WALL MAY BE USED IN LIEU OF CURB TO MAINTAIN 2% MAX. SLOPE.

3. CURB OR WALL MAY BE INSTALLED INSIDE OF SIDEWALK IF R.O.W. LINE IS AT BACK OF SIDEWALK.

4. SEE PAVEMENT RESTORATION/WIDENING AT CURBS DETAIL T-30.

SECTION C-C SINGLE-SLOPE LANDING
FOR DETAIL T-16

NOTES:

1. A WALL MAY BE USED IN LIEU OF CURB TO MAINTAIN 2% MAX. SLOPE.

2. CURB OR WALL MAY BE INSTALLED INSIDE OF SIDEWALK IF R.O.W. LINE IS AT BACK OF SIDEWALK.

3. SEE PAVEMENT RESTORATION/WIDENING AT CURBS DETAIL T-30.

SECTION D-D MULTI-SLOPED LANDING
FOR DETAILS T-12, T-13, AND T-14
NOTES:
1. DETECTABLE WARNINGS SHALL BE MANUFACTURED USING THE MATERIALS SPECIFIED ON THE PLAN SHEETS WITH THE DOME DIMENSIONS AND SPACING SHOWN AND INSTALLED PER THE MANUFACTURER'S RECOMMENDED PROCEDURES.
2. DETECTABLE WARNINGS SHALL BE INSET INTO NEW CONCRETE WITH NO AIR TRAPPED UNDERNEATH. GLUED ON OR NAILED DOWN PRODUCTS ARE NOT ACCEPTABLE FOR NEW CONSTRUCTION.
3. SAFETY YELLOW TRUNCATED DOMES ARE REQUIRED UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DIRECTOR.
NOTES:

1. THE PUBLIC WORKS DIRECTOR MAY REQUIRE INSTALLATION OF SANITARY SEWER AT A DEPTH GREATER THAN 6 FEET.

2. ALTERNATE LOCATIONS CONSIDERED ONLY TO SALVAGE CORE ROADWAY, OR TO AVOID SUBSTANTIAL CONFLICT WITH EXISTING UTILITIES.

3. MANHOLES CONES TO BE ROTATED TO KEEP MANHOLE COVER LOCATED OUTSIDE OF WHEEL PATH.

4. GAS VALVES ARE TO BE LOCATED 2' MINIMUM FROM FACE OF CURB.

5. MODIFICATION TO THIS STANDARD IS SUBJECT TO THE REVIEW AND APPROVAL OF THE PUBLIC WORKS DIRECTOR.

6. PULL BOXES AND VAULTS OF PRIVATE UTILITIES WILL BE LOCATED OUTSIDE OF THE SIDEWALK.
NOTES:

1. FOR CONTROLLED INTERSECTIONS, STREETS SHALL HAVE MINIMUM CORNER SIGHT DISTANCES, AS MEASURED FROM A HEIGHT OF 3.5 FEET ABOVE THE CONTROLLED STREET.

2. PUBLIC, PRIVATE STREET INTERSECTIONS AND COMMERCIAL DRIVEWAYS ON ARTERIAL STREETS SHALL HAVE AN UNOBSTRUCTED SIGHT DISTANCE TRIANGLE MEASURED IN THE SAME FASHION AS CONTROLLED INTERSECTIONS.

3. IF THE STREETS ARE NOT LEVEL, FOLLOW WSDOT DESIGN MANUAL TO CONSIDER GRADE.

4. "DESIGN SPEED" SHALL BE THE POSTED SPEED LIMIT UNLESS EVIDENCE EXISTS WHICH SHOWS THAT ACTUAL TRAFFIC SPEEDS ARE GREATER THAN THE POSTED SPEED LIMIT.

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CONTROLLED INTERSECTION

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DS = DESIGN SPEED ON THE THROUGH HIGHWAY
NOTES:

1. THERE SHALL BE NO SIGHT OBSTRUCTION WITHIN THE TRIANGULAR VISION CLEARANCE AREA BETWEEN 30-INCHES AND 10- FEET ABOVE THE STREET GRADE.

2. VISION CLEARANCE TRIANGLES AND INTERSECTION SIGHT DISTANCES SHALL APPLY ABOVE. INTERSECTION SIGHT DISTANCES CONTROL.

3. PRIVATE DRIVE VISION TRIANGLE TO BE USED FOR A SINGLE FAMILY DWELLING.
TYPE A-1 CURB AND GUTTER

NOTES:

1. SEE CONCRETE CURBS DETAIL T-01 FOR CURBS.

2. PAVEMENT SECTION SHALL BE APPROVED IN ADVANCE AND COMPLETED TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR.

3. THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED PER THE STANDARD SPECIFICATIONS. ALL JOINTS SHALL BE SEALED WITH CRS-1 AND SANDED.

4. COMPACT SUBGRADE, CRUSHED AGGREGATE AND PAVEMENT TO 95% OF MAXIMUM DRY DENSITY.

5. HOT MIX ASPHALT SHALL BE (HMA) CLASS 2/" PG 64-22 3 TO 30 ESAL MIX DESIGN. MINIMUM LIFT THICKNESS IS 0.15" MAXIMUM LIFT THICKNESS IS 0.35" FOR BASE COURSE AND 0.25" FOR SURFACE COURSE.

6. MATCH EXISTING PAVEMENT SLOPE. NO STEEPER THAN 4% WITHOUT SPECIFIC CITY APPROVAL.

7. SAWCUT AND REMOVE EXISTING FAILING ASPHALT PAVEMENT.

8. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT. MINIMUM 6" WIDTH, MAXIMUM HALF STREET WIDTH.

9. 3' MIN. PAVEMENT RESTORATION AROUND MANHOLE.
CONCRETE JOINTS

NOTES:
1. CONTRACTION JOINTS MAY BE USED IN PLACE OF SURFACE JOINTS.
2. CONSTRUCTION COLD JOINTS MAY BE USED IN PLACE OF CONTRACTION JOINTS.
3. CONCRETE PAVEMENT LOAD TRANSFER REQUIREMENTS ACROSS JOINTS SHALL BE DETERMINED BY PCC PAVEMENT DESIGN.
4. PARALLEL JOINTS SHALL BE SEPARATED BY A MINIMUM OF 2’.

EXPANSION/ISOLATION JOINT DETAIL
1. 3/8” JOINT FILLER FOR SIDEWALKS
   ADA RAMPS AND DRIVEWAYS
   (PER WSDOT 9-04)

MANHOLES

1/2” ISOLATION JOINT
TRANSVERSE JOINT
LONGITUDINAL JOINT

CATCH BASINS

INTEGRAL CURB

1/2” ISOLATION JOINT
GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, EXCEPT WHERE OTHERWISE NOTED IN THESE STANDARDS. MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OR TRANSPORTATION (WSDOT) AND SHALL COMPLY WITH THE CURRENT EDITION.

2. TRENCH BACKFILL AND RESURFACING SHALL BE AS SHOWN IN THE STANDARD DETAILS, UNLESS MODIFIED BY THE RIGHT OF WAY USE PERMIT. SURFACING DEPTHS AND PAVING LIMITS SHOWN IN THE STANDARD DETAILS ARE MINIMUMS AND MAY BE INCREASED BY THE DIRECTOR TO MEET TRAFFIC LOADINGS OR SITE CONDITIONS.

3. THE DIRECTOR MAY REQUIRE MATERIALS COMPACTING AND MOISTURE TESTING. TESTING SHALL BE PERFORMED BY A LAB PRE-APPROVED BY THE CITY WITH THE RESULTS BEING SUPPLIED TO THE DIRECTOR. THE TESTING IS NOT INTENDED TO RELIEVE THE CONTRACTOR FROM ANY LIABILITY FOR THE TRENCH RESTORATION. IT IS INTENDED TO SHOW THE INSPECTOR AND THE CITY THAT THE RESTORATION MEETS THIS SPECIFICATION.

4. THE FINAL PAVEMENT PATCH SHALL BE COMPLETED AS SOON AS POSSIBLE AND SHALL BE COMPLETED WITHIN THIRTY (30) DAYS AFTER FIRST OPENING THE TRENCH. THIS TIME FRAME MAY BE ADJUSTED IF DELAYS ARE DUE TO INCLEMENT WEATHER, OR OTHER ADVERSE CONDITIONS. HOWEVER, DELAYING OF FINAL PATCH OR OVERLAY WORK IS ALLOWABLE ONLY SUBJECT TO THE DIRECTOR'S APPROVAL. THE DIRECTOR MAY DEEM IT NECESSARY TO COMPLETE THE WORK WITHIN THIRTY (30) DAYS TIME FRAME AND NOT ALLOW ANY TIME EXTENSION. IF THIS OCCURS, THE CONTRACTOR SHALL PERFORM THE NECESSARY WORK AS DIRECTED. PATCHES, REPAIRS, OR OVERLAYS SHALL ONLY BE INSTALLED NEXT TO A CLEAN, NEAT SAWCUT LINE.

5. WHEN TRENCHING WITHIN THE ROADWAY SHOULDERS, THE SHOULDER SHALL BE RESTORED TO ITS ORIGINAL OR BETTER CONDITION. LONGITUDINAL TRENCH RESTORATION REQUIRING A HALF LANE WIDTH OR MORE SHALL BE REQUIRED TO RESTORE THE ENTIRE LANE TO CENTERLINE. UNDERMINED PAVEMENT SHALL BE CUT BACK, REMOVED, AND RESTORED TO LIMITS AS REQUIRED BY THE DIRECTOR TO ALLOW COMPACTATION AND BACKFILL OF DISTURBED AREAS. LIMITS OF TRENCH RESTORATION SHALL BE IDENTIFIED PRIOR TO TRENCH BACKFILL.

6. ANY PATCH OR OVERLAY ON ARTERIAL STREETS OR AREAS ZONED COMMERCIAL SHALL BE PERMANENT AND COMPLETED AS SOON AS POSSIBLE.

7. IF A PAVEMENT CUT IS PROPOSED IN A STREET THAT WAS CONSTRUCTED OR RE-PAVED WITHIN THE LAST FIVE YEARS, A DISRUPTION FEE WILL BE CHARGED IN ACCORDANCE WITH WMC 12.04.060. TRENCHLESS CONSTRUCTION METHODS MUST BE EXPLORED ON ALL PAVED ROAD CROSSINGS REGARDLESS OF THE PAVEMENT CONDITION.

8. CONTROL DENSITY FILL IS REQUIRED WHEN TRENCHING IN ARTERIAL STREETS, AND STREETS LOCATED IN THE CENTRAL BUSINESS DISTRICT. FOR LONGITUDINAL TRENCHES ALTERNATIVE METHODS OF RESTORATION MAY BE CONSIDERED.

9. THE OWNER SHALL WARRANT THE RESTORATION WORK FOR A PERIOD OF 2 YEARS ON RESIDENTIAL, LOCAL, AND UNCLASSIFIED STREETS AND 5 YEARS ON COLLECTOR AND ARTERIAL STREETS. FRANCHISE UTILITIES SHALL WARRANT THEIR WORK FOR THE LIFE OF THE RESTORATION. THE OWNER SHALL REPAIR ANY OF THE FOLLOWING DEFICIENCIES WHICH OCCUR DURING THIS TIME PERIOD.

SETTLEMENT OR BUMP: ANY SETTLEMENT OR BUMP MORE THAN 1/4 INCH LOWER OR HIGHER THAN THE ORIGINAL PAVEMENT SHALL BE REPAIRED. REPAIR MAY INCLUDE REMOVAL AND REPLACEMENT OR SKIN PATCHING AND WILL BE DETERMINED BY THE DIRECTOR.

EDGE SEPARATION: ANY SEPARATION OF THE TRENCH FROM SURROUNDING ROADWAY GREATER THAN 1/4 INCH SHALL BE CRACK SEALED PER WSDOT STANDARD SPECIFICATIONS SECTION 5-04.

ALLIGATOR CRACKING: ANY TRENCH PAVEMENT WHICH EXHIBITS ALLIGATOR CRACKING SHALL BE REPLACED. THE REPLACEMENT SHALL BE IN CONFORMANCE WITH THE PAVEMENT REPAIR SECTION OF THE STANDARD SPECIFICATIONS.

RAVELING: RAPELING IS DEFINED AS SURFACE DETERIORATION THAT OCCURS WHEN AGGREGATE PARTICLES ARE DISLODGED OR OXIDATION CAUSES LOSS OF ASPHALT BINDER. THE ASPHALT CONCRETE PAVEMENT LOSES ITS SMOOTH SURFACE AND BEGINS TO APPEAR VERY OPEN AND ROUGH. MEDIUM SEVERITY RAVELING AS DEFINED BY THE "PAVEMENT SURFACE CONDITION FIELD RATING MANUAL FOR ASPHALT PAVEMENT" DEVELOPED BY THE NORTHWEST PAVEMENT MANAGEMENT ASSOCIATION SHALL BE PLANED AND REPAVED.

10. PAVEMENT REMOVAL SHALL ONLY BE ACCOMPLISHED BY USE OF SAWCUTTING, PLANING, OR GRINDING EQUIPMENT SPECIFICALLY DESIGNED FOR THIS PURPOSE. TO ACCOMPLISH A NEAT STRAIGHT CUT LINE. USE OF PAVEMENT RIPPERS IS PROHIBITED.

11. ALL PAVEMENT, CURB, GUTTER, OR SIDEWALK DAMAGED AS A RESULT OF CONTRACTOR ACTIVITY SHALL BE RESTORED TO ORIGINAL CONDITION. PAVEMENT SHALL BE RESTORED TO NOT LESS THAN THE ORIGINAL CROSS SECTION AND STRENGTH. WHERE PAVEMENT, CURB, GUTTER, OR SIDEWALK HAVE BEEN UNDERMINED BY TRENCHING, IT SHALL BE REMOVED. THE SUBGRADE RESTORED AND SURFACES REPLACED TO LIMITS AS APPROVED BY THE CITY.

STANDARD TRENCH RESTORATION NOTES

APPROVED

REVISIONS  DATE  DRAWN  DESIGNED

T-32

PUBLIC WORKS DIRECTOR  DATE
EXISTING ASPHALT CONCRETE

EXISTING AGGREGATE BASE

VARIATES

TRENCH DEPTH IS 36" UNLESS SHALLOWER DEPTHS RECOMMENDED BY SPECIFICATIONS OR UTILITY STANDARDS

STREET SECTION

HOT MIX ASPHALT CLASS 3/" PG 64-22 3 TO 30 ESAL MIX DESIGN, CONSTRUCTED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SECTION 5-04 OF THE STANDARD SPECIFICATIONS. COMPACTION SHALL BE 92% OF MAXIMUM DENSITY AS DETERMINED BY WSDOT TEST METHOD 705.

ASPHALT CONCRETE AND BASE THICKNESS IS AS FOLLOWS:

<table>
<thead>
<tr>
<th>ROADWAY</th>
<th>HMA</th>
<th>BASE COURSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDUSTRIAL</td>
<td>0.50'</td>
<td>1.00'</td>
</tr>
<tr>
<td>ARTERIAL</td>
<td>0.50'</td>
<td>1.00'</td>
</tr>
<tr>
<td>RESIDENTIAL</td>
<td>0.40'</td>
<td>1.00'</td>
</tr>
<tr>
<td>COLLECTOR</td>
<td>0.45'</td>
<td>1.00'</td>
</tr>
</tbody>
</table>

OR 1" GREATER THAN EXISTING ASPHALT & BASE COURSE THICKNESS, MINIMUM LIFT THICKNESS IS 0.15’ - MAXIMUM LIFT THICKNESS IS 0.35’ FOR BASE COURSE, 0.25’ FOR TOP COURSE.

THE MIX TEMPERATURE SHALL BE 325 DEGREE MAXIMUM AT THE TIME OF PLANT DISCHARGE. AT THE TIME OF PLACEMENT THE MIX TEMPERATURE SHALL BE 250 DEGREE MINIMUM.

2 BASE COURSE SHALL CONSIST OF CRUSHED AGGREGATE BASE COURSE, MEETING THE REQUIREMENTS OF SECTION 4-04 OF THE STANDARD SPECIFICATIONS. COMPACTION SHALL BE TO 95% MAXIMUM DENSITY AS DESCRIBED IN SECTION 2-03 OF THE STANDARD SPECIFICATIONS. EACH LIFT SHALL NOT EXCEED 0.5’. AN EQUIVALENT DEPTH OF ASPHALT TREATED BASE (ATB) MAY BE SUBSTITUTED. ATB LIFTS SHALL NOT EXCEED 0.35’.

2A TRENCH ZONE - GRAVEL BACKFILL AS APPROVED BY LOCAL AGENCY OR WSDOT SPECIFICATIONS FOR GRAVEL BACKFILL (SECTION 9-03.10, AGGREGATE FOR GRAVEL BASE). COMPACTED TO 95% OF MAXIMUM DENSITY IN THE TRENCH ZONE USING METHOD C COMPACTION AS PER SECTION 2-03.3 (14). THE INSPECTOR SHALL EVALUATE THE BACKFILL BASED ON GRADATION AND MOISTURE. MATERIALS WET OF OPTIMUM MOISTURE CONTENT MAY BE REJECTED. MATERIALS DRY OF OPTIMUM MOISTURE CONTENT WILL NEED ADDITIONAL MOISTURE DURING COMPACTATION.

TRENCH ZONE WIDTH -- SEE BELOW.

<table>
<thead>
<tr>
<th>TRENCH ZONE WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIPE 8 IN. OR MORE = PIPE O.D. +2 FT.</td>
</tr>
<tr>
<td>PIPE 6 IN. OR LESS = PIPE O.D. +1 FT.</td>
</tr>
<tr>
<td>OR AS DIRECTED BY THE ENGINEER</td>
</tr>
</tbody>
</table>

3 PIPE BEDDING AND PIPE ZONE BACKFILL MATERIALS SHALL BE PER UTILITY OWNERS AND/OR CITY SPECIFICATIONS. DEPTH OF COVER MAY BE ADJUSTED PER UTILITY OWNERS, AND/OR CITY SPECIFICATIONS. 90% COMPACTION PER SEC. 7-08.3(1)c

4 THE EXISTING ROAD SURFACE SHALL BE CUT IN A NEAT LINE PRIOR TO PAVEMENT REPLACEMENT BY SAWCUTTING OR WHEEL CUTTER OR PLAINING EQUIPMENT. THIS WILL BE REQUIRED AROUND THE PERIMETER OF ALL EXCAVATIONS TO PROVIDE CLEAN, STRAIGHT, VERTICAL SIDES. THE CUT LINE SHALL BE ONE CONTINUOUS STRAIGHT LINE FROM THE OUTER EXCAVATION LIMITS OF MANHOLE, VALVE BOX, ETC. TO MANHOLE, VALVE BOX, ETC.

5 THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED PER SECTION 5-04 OF THE STANDARD SPECIFICATIONS.

6 ALL JOINTS SHALL BE SEALED USING HEATED PAVING ASPHALT PG58-22 OR PG64-22, AND Sanded WITH DRY SAND.

STD TRENCH RESTORATION GRANUAL BACKFILL—HMA OR BEST SURFACE

APPROVED

<table>
<thead>
<tr>
<th>REVISIONS</th>
<th>DATE</th>
<th>DRAWN</th>
<th>DESIGNED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PUBLIC WORKS DIRECTOR DATE

City of Woodland Washington

Public Works
HOT MIX ASPHALT CLASS $\frac{3}{8}$" PG 64-22 3 TO 30 ESAL MIX DESIGN, CONSTRUCTED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SECTION 5-04 OF THE STANDARD SPECIFICATIONS. COMPACTION SHALL BE 92% OF MAXIMUM DENSITY AS DETERMINED BY WSDOT TEST METHOD 705.

ASPHALT AND BASE THICKNESS IS AS FOLLOWS:

<table>
<thead>
<tr>
<th>ROADWAY CLASS</th>
<th>HMA</th>
<th>BASE COURSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDUSTRIAL</td>
<td>0.50'</td>
<td>1.00'</td>
</tr>
<tr>
<td>ARTERIAL</td>
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</tr>
<tr>
<td>COLLECTOR</td>
<td>0.45'</td>
<td>1.00'</td>
</tr>
</tbody>
</table>

TRENCH DEPTH IS 36" UNLESS SHALLOWER DEPTHS RECOMMENDED BY SPECIFICATIONS OR UTILITY STANDARDS.

OR 1" GREATER THAN EXISTING ASPHALT THICKNESS, MINIMUM LIFT THICKNESS IS 0.15" — MAXIMUM LIFT THICKNESS IS 0.35" FOR BASE COURSE, 0.25" FOR TOP COURSE.

THE MIX TEMPERATURE SHALL BE 325 DEGREE MAXIMUM AT THE TIME OF PLANT DISCHARGE. AT THE TIME OF PLACEMENT, THE MIX TEMPERATURE SHALL BE 250 DEGREE MINIMUM.

BACKFILL SHALL CONSIST OF CONTROL DENSITY FILL (CDF), A MIXTURE OF PORTLAND CEMENT, FLY ASH, AGGREGATES, WATER AND ADMIXTURES PROPORTIONED TO PROVIDE A NON-SEGREGRATING, SELF-CONSOLIDATING, FREE-FLOWING MATERIAL WHICH WILL RESULT IN A HARDENED, DENSE, NON-SETTLING FILL PRODUCING UNCONFINED COMPRESSIVE 28 DAY STRENGTHS FROM 50 PSI TO A MAXIMUM OF 150 PSI.

a) THE CONTROLLED DENSITY FILL (CDF) MIX DESIGN SHALL BE FROM AN APPROVED SOURCE.

b) THE CONTRACTOR SHALL SUBMIT THE MIX DESIGN ONE WEEK MINIMUM PRIOR TO INTENDED USE FOR REVIEW AND APPROVAL. ALTERNATIVELY THE CONTRACTOR MAY PROVIDE THE SUPPLIER AND MIX NUMBER IF THE CDF MIX HAS BEEN APPROVED WITHIN THE PREVIOUS 12 MONTHS.

c) THE CONTRACTOR WILL PROVIDE BATCH WEIGHTS SHOWING THE AMOUNTS OF ALL INGREDIENTS IN THE MIX, BATCH TIME, AND THE TOTAL AMOUNT OF THE BATCH.

d) CONTROL DENSITY FILL SHALL BE PERFORM BASED AND MEET THE FOLLOWING CRITERIA:

- THE CDF MIXTURE SHALL BE FLOWABLE NON-SEGREGATING AND SELF LEVELING.
- CAN BE PAVED WITHIN 48 HOURS UNLESS OTHERWISE APPROVED.
- TYPE F FLYASH: 200 LBS MINIMUM.
- TYPE I OR II CEMENT: 50 LBS MINIMUM.
- SETTLING SHALL BE LESS THAN 1/8" PER FOOT DEPTH.
- SHALL BE MACHINE DIGABLE UNLESS NOTED OTHERWISE.
- FINE AGGREGATE (LESS THAN 3/8") SHALL BE USED UNLESS OTHERWISE APPROVED.
- CONCRETE UNIT WEIGHT SHALL BE 100 PCF MINIMUM.

(CONTINUED ON T-35)
2) CONTINUED
   e) CDF SHALL NOT BE PLACED ON FROZEN GROUND. CDF PATCHING, MIXING AND PLACING MAY BE
      STARTED IF WEATHER CONDITIONS ARE FAVORABLE, WHEN THE TEMPERATURE IS AT 34-DEGREES F
      AND RISING. AT THE TIME OF PLACEMENT, CDF MUST HAVE A TEMPERATURE OF AT LEAST
      40-DEGREES F. MIXING AND PLACING SHALL STOP WHEN THE TEMPERATURE IS 38 DEGREES F
      OR LESS AND FALLING. EACH FILLING STAGE SHALL BE AS CONTINUOUS AN OPERATION AS
      POSSIBLE.
   f) TRENCH SECTIONS TO BE FILLED WITH CDF SHALL BE CONTAINED AT EITHER END OF THE TRENCH
      SECTION BY BULKHEADS OR EARTH FILL.
   g) DURING CDF CURE TIME CONTRACTOR SHALL INSTALL STEEL STREET PLATES OR OTHER PROTECTIVE
      DEVICES WHICH WILL ALLOW FOR THE PASSAGE AND SAFETY OF TRAFFIC WITH NO LOAD
      TRANSFERRED TO THE CDF.
   h) CONTRACTOR SHALL ALLOW FOR A MINIMUM 48 HOUR CURE TIME FOR CDF PRIOR TO PLACING
      ASPHALT.
   i) 30-INCH DEPTH OF CDF MAY BE REDUCED IF CONFLICTING WITH PIPE ZONE BACKFILL.

2A) TRENCH ZONE — GRANULAR BACKFILL AS APPROVED BY LOCAL AGENCY OR WSDOT SPECIFICATIONS
     FOR GRANULAR BACKFILL. COMPACTED TO 95% OF MAXIMUM DENSITY IN THE TRENCH ZONE USING
     METHOD C COMPACTION AS PER SECTION 2-03.3 (14). CDF MAY BE USED IN LIEU OF GRANULAR
     BACKFILL.

     TRENCH ZONE WIDTH --- SEE BELOW.

     | TRENCH ZONE WIDTH |
     |--------------------|
     | PIPE 8 IN. OR MORE = PIPE O.D. +2 FT. |
     | PIPE 6 IN. OR LESS = PIPE O.D. +1 FT. |
     | OR AS DIRECTED BY THE ENGINEER |

4) PIPE BEDDING AND PIPE ZONE BACKFILL MATERIALS SHALL BE PER UTILITY OWNERS AND/OR CITY
   SPECIFICATIONS. DEPTH OF COVER MAY BE ADJUSTED PER UTILITY OWNERS, AND/OR CITY
   SPECIFICATIONS. 90% COMPACTION PER SEC. 7-08.3(C)

5) SAWCUTTING WILL BE REQUIRED AROUND THE PERIMETER OF ALL EXCAVATIONS TO PROVIDE CLEAN,
   STRAIGHT, VERTICAL SIDES. THE CUT LINE SHALL BE ONE CONTINUOUS STRAIGHT LINE FROM THE
   OUTER EXCAVATION LIMITS OF MANHOLE, VALVE BOX, ETC. TO MANHOLE, VALVE BOX, ETC.

6) THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE
   APPLIED PER SECTION 5-04 OF THE STANDARD SPECIFICATIONS.

7) ALL JOINTS SHALL BE SEALED USING HEATED PAVING ASPHALT AR400MW, AND SANDED WITH DRY
   SAND.
0.15' OF HMA CLASS
1/2" PG 64-22 3 TO
30 ESAL MIX DESIGN

FACE OF CURB OR EDGE OF PAVEMENT

CENTER LINE OR
LANE LINE

FACE OF CURB OR EDGE OF PAVEMENT

3' MIN. VARIES 3' MIN.
10' MIN.
0.15' DEPTH OF PLANING

EXISTING HOT
MIX ASPALT

10' MIN.

STANDARD TRENCH RESTORATION
FOR HMA OR BST SURFACE WITH
GRANULAR BACKFILL OR CONTROL
DENSITY FILL IN ACCORDANCE
WITH T-32 THROUGH T-35

STANDARD TRENCH RESTORATION

APPROVED
REVISIONS  DATE  DRAWN  DESIGNED

PUBLIC WORKS DIRECTOR  DATE

T-36
MAILBOX IN PLANTER STRIP

MAILBOX IN SIDEWALK

NOTES:
1. SEE WSDOT STANDARD DETAIL H-70 FOR MAILBOX, POST, BRACKET AND OTHER INSTALLATION DETAILS.
2. MAILBOXES MUST BE POSTMASTER APPROVED.
3. LOCATION OF MAILBOXES ARE SUBJECT TO APPROVAL BY THE PUBLIC WORKS DIRECTOR FOR ACCESS AND SIGHT DISTANCE REQUIREMENTS SEE INTERSECTION SIGHT DISTANCE REQUIREMENTS DETAIL T-28 AND VISION CLEARANCE TRIANGLE DETAIL T-29.
4. INSTALL EXPANSION JOINT MATERIAL AROUND MAILBOX POST WHEN SET IN SIDEWALK.
5. EXTEND SIDEWALK JOINTS THROUGH WIDENED SIDEWALK SECTION.
6. RESIDENTIAL ACCESS TO MODULE MAILBOX WILL BE ON SIDEWALK SIDE.
TYPICAL STREET SECTION DETAIL
(CROWN)
N.T.S.

NOTES:

1. ALL STREET SECTION DIMENSIONS TO BE CALCULATED BASED ON THE SITE SOIL CONDITIONS BY A LICENSED STATE OF WASHINGTON ENGINEER. MINIMUM PAVEMENT SECTION SHOWN IS FOR A RESIDENTIAL LOCAL ACCESS ROAD CLASSIFICATION.

2. STREET & RIGHT-OF-WAY DIMENSIONS SHALL BE IN ACCORDANCE WITH WMC 12.10 & AS DETERMINED BY THE PUBLIC WORKS DIRECTOR.

3. DETACHED SIDEWALKS ARE ALLOWED WHEN AUTHORIZED IN ACCORDANCE WITH WMC 12.10.
NOTES:

1. SIGN SIZE AND LETTER SIZE TO MEET MUTCD STANDARDS — (6" UPPER CASE, 4.5" LOWER CASE).

2. SIGN FACE SHALL BE FABRICATED FROM CUBED CORNERED LENS (VPP TYPE A DIAMOND GRADE) REFLECTIVE MATERIAL. FACE LEGEND AND BORDER SHALL BE WHITE ON A GREEN BACKGROUND — PRIVATE ROAD SIGNS SHALL BE WHITE ON A BROWN BACKGROUND.

3. LETTERING SHALL BE A COMBINATION OF UPPER AND LOWER CASE LETTERS PER MUTCD STANDARDS. THE PREFIX SHALL BE ABBREVIATED UPPER CASE LETTERS. THE STREET NAME SHALL BE LOWER CASE LETTERS WITH THE FIRST LETTER UPPER CASE. THE SUFFIX SHALL BE ABBREVIATED UPPER CASE AND LOWER CASE LETTERS.

4. ALL SIGN MATERIALS AND ATTACHMENT HARDWARE SHALL CONFORM TO MUTCD AND WSDOT STANDARD SPECIFICATIONS.

5. WHEN SIGN REQUIRES TWO MESSAGE LINES, USE 2 SIGN BOARDS WITH AN ARROW ADDED TO THE BOARD (LEFT ARROW LEFT OF THE DIRECTION AND RIGHT ARROW ON THE RIGHT).

6. ENGINEER SHALL APPROVE FACE COPY PRIOR TO FABRICATION.

7. BREAKAWAY SIGN POSTS ARE TO BE "QUICK-PUNCH" WITH KNIGHT OUTS IN PLACE.

GROUND MOUNTED STREET NAME SIGN

APPROVED

REVISIONS | DATE | DRAWN | DESIGNED
--- | --- | --- | ---

PUBLIC WORKS DIRECTOR

T-39

Post Stipp 5/2/13
CONSTRUCTION SPECIFICATIONS

GENERAL
THE FOLLOWING ARE TO BE USED IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND
MUNICIPAL CONSTRUCTION BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) AS ADOPTED BY THE
CITY OF WOODLAND.

CONCRETE STREET LIGHT FOUNDATION
ALL CONCRETE FOUNDATIONS SHALL BE THE SIZE AND CONFIGURATION SHOWN ON THE PLANS, EXCEPT WHERE, IN
THE JUDGMENT OF THE ENGINEER, UNSTABLE SOIL CONDITIONS REQUIRE ENLARGEMENT OF THE FOUNDATION. BEFORE
PLACING THE CONCRETE, THE CONTRACTOR SHALL BLOCK OUT AROUND ANY OTHER UNDERGROUND UTILITIES THAT LIE IN
THE EXCAVATED BASE SO THAT THE CONCRETE WILL NOT ADHERE TO THE UTILITY LINE. CONCRETE BASE SHALL BE
CLASS 4000 AND BE TROWELED, BRUSHED, EDGED, AND FINISHED IN A WORKMANLIKE MANNER. CONCRETE SHALL BE
PROMPTLY CLEANED FROM ANCHOR BOLTS AND CONDUITS AFTER PLACEMENT. ANCHOR BOLTS FOR ALL POLES
SHALL BE ARRANGED SO THAT THE POLE’S BRACKET ARM IS PERPENDICULAR TO THE CENTERLINE OF THE ADJACENT
ROADWAY RIGHT-OF-WAY. STREET LIGHTS MAY BE INSTALLED AFTER A COMPRESSION STRENGTH OF 2,400 PSI HAS BEEN
ACHIEVED.

ALL POLES SHALL BE INSTALLED ON LEVELING NUTS SECURED TO THE ANCHOR BOLTS AND WITH LOCKING NUTS ON
THE TOP OF THE BASE FLANGE. THE SIDE OF THE POLE SHAFT OPPOSITE THE LOAD SHALL BE PLUMBED BY
ADJUSTING THE LEVELING NUTS OR AS OTHERWISE DIRECTED BY THE ENGINEER. THE SPACE BETWEEN THE CONCRETE
BASE AND THE BOTTOM OF THE POLE FLANGE SHALL BE FILLED WITH DRY PACK MORTAR TO COMPLETELY FILL THE
SPACE UNDER THE FLANGE AND AROUND THE CONDUITS AND BE NEATLY TROWELED TO THE CURVE OF THE POLE
FLANGE. A PLASTIC DRAIN HOSE (1/2” DIAMETER) SHALL BE INSERTED THROUGH THE MORTAR TO PROVIDE
DRAINAGE FROM THE INTERIOR OF THE POLE BASE AND TRIMMED FLUSH WITH THE INTERIOR AND EXTERIOR SURFACE
OF THE MORTAR. DRY PACK MORTAR SHALL CONSIST OF A 1:3 MIXTURE OF CEMENT AND FINE SAND WITH JUST
ENOUGH WATER SO THAT THE MIXTURE WILL STICK TOGETHER ON BEING MOLDED INTO A BALL BY HAND AND WILL
NOT EXUDE FREE MOISTURE WHEN SO PRESSURED.

CONDUIT
ALL CONDUIT SHALL BE SCHEDULE 40 PVC, MINIMUM ONE INCH DIAMETER EXCEPT UNDER DRIVEWAYS, AND STREET
CROSSINGS. THESE EXCEPTIONS SHALL BE RIGID STEEL CONDUIT AND SHALL BE A MINIMUM OF TWO INCHES IN
DIAMETER. ALL ELBOWS SHALL BE RIGID STEEL.

RIGID CONDUIT TO BE PROVIDED AS SPECIFIED ON THE PLANS SHALL BE OF HOT DIPPED GALVANIZED STEEL METALLIC
CONDUIT CONFORMING TO THE REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.

ALL UNDERGROUND CONDUIT SHALL BE INSTALLED A MINIMUM OF 24” BELOW GRADE. IN PAVED DRIVEWAY OR
ROADWAY AREAS, ELECTRICAL CONDUIT SHOULD BE INSTALLED BY PUSHING OR BORING METHODS.

GROUNNING
ALL POLES, METAL CONDUITS AND CABINETS IN THE SAME AREA COVERED BY THE SAME POWER SERVICE SHALL BE
MADE MECHANICALLY AND ELECTRICALLY SECURE FOR A CONTINUOUS GROUNDING SYSTEM IN ACCORDANCE WITH
THE STANDARD SPECIFICATIONS. BONDING JUMPERS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR IN
ACCORDANCE WITH WSDOT STANDARD PLAN J-9A TO ALL #8 BARE METAL CONDUITS IN THE JUNCTION BOX.
GROUNDING OF CONDUIT AND GROUND WIRE AT THE SERVICE POINT TO THE PUD SERVICE GROUND ON THE PUD
POWER POLE SHALL BE ACCOMPLISHED AS REQUIRED UNDER THE NATIONAL ELECTRICAL CODE.

CATALOG CUTS
PRIOR TO THE BEGINNING OF CONSTRUCTION, CATALOG CUTS OF THE FOLLOWING ITEMS SHALL BE SUBMITTED AND
APPROVED BY THE PUBLIC WORKS DIRECTOR. 1. STREET LIGHT STANDARDS 2. LUMINARIES 3. JUNCTION BOXES
4. WYE AND IN-LINE CONNECTORS 5. SERVICE CABINET 6. IN-LINE FUSE HOLDERS 7. CONDUIT 8. WIRE.

CRITICAL INSPECTION POINTS
THE ILLUMINATION SYSTEM WILL BE INSPECTED BY THE PUBLIC WORKS DEPARTMENT. THE TELEPHONE NUMBER IS:
(360)225-7999.

THE FOLLOWING ARE THE CRITICAL INSPECTION POINTS. NO WORK SHALL BE DONE UNTIL INSPECTION IS COMPLETED.

WIRING 1. CHECK OF CONDUIT DEPTH, NO TRENCHING SHALL BE FILLED WITHOUT THE DEPTH OF CONDUIT VERIFIED.
2. SERVICE. THE SERVICE SHALL BE INSPECTED AND APPROVED BY THE INSPECTOR. 3. WIRING. THE WIRING,
SPLICES, GROUNDING, AND FUSING SHALL BE INSPECTED AND APPROVED BY THE INSPECTOR.

POLES 1. POLE LOCATIONS. THE POLE LOCATIONS SHALL BE APPROVED BY THE PUBLIC WORKS DEPARTMENT PRIOR
TO EXCAVATION OF THE POLE BASES. 2. POLE BASES. THE POLE BASES SHALL BE INSPECTED AND APPROVED
PRIOR TO THE POURING OF THE CONCRETE.
DESIGN SPECIFICATIONS

1. STREET LIGHT LOCATIONS ARE TO BE PLACED ON THE PROPERTY LINE WHENEVER POSSIBLE. LIGHTING FACILITIES SHALL BE LOCATED WITHIN PUBLIC RIGHT-OF-WAY OR AN EASEMENT DEDICATED TO THE CITY OF WOODLAND.

2. THE FOLLOWING TABLE SHALL BE FOLLOWED FOR STREET LIGHT DESIGN:

<table>
<thead>
<tr>
<th>ROADWAY AND AREA CLASSIFICATION</th>
<th>AVERAGE LUMINANCE</th>
<th>LUMINANCE UNIFORMITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L AVG. TO L MIN.</td>
<td>L MAX. TO L MIN.</td>
</tr>
<tr>
<td>ARTERIAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMMERCIAL</td>
<td>1.0</td>
<td>3 TO 1</td>
</tr>
<tr>
<td>INTERMEDIATE</td>
<td>0.8</td>
<td>3 TO 1</td>
</tr>
<tr>
<td>RESIDENTAL</td>
<td>0.6</td>
<td>3.5 TO 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 TO 1</td>
</tr>
<tr>
<td>COLLECTOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMMERCIAL</td>
<td>0.8</td>
<td>3 TO 1</td>
</tr>
<tr>
<td>INTERMEDIATE</td>
<td>0.6</td>
<td>3.5 TO 1</td>
</tr>
<tr>
<td>RESIDENTAL</td>
<td>0.4</td>
<td>4 TO 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 TO 1</td>
</tr>
<tr>
<td>LOCAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMMERCIAL</td>
<td>0.6</td>
<td>5 TO 1</td>
</tr>
<tr>
<td>INTERMEDIATE</td>
<td>0.5</td>
<td>6 TO 1</td>
</tr>
<tr>
<td>RESIDENTAL</td>
<td>0.3</td>
<td>6 TO 1</td>
</tr>
</tbody>
</table>

3. THE PUBLIC WORKS DEPARTMENT SHALL ADJUST, ADD, OR REMOVE STREET LIGHTS WHERE NECESSARY. THE CONTRACTOR MAY SUBMIT STAMPED CALCULATIONS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON IF THE CONTRACTOR DOES NOT AGREE WITH THE MODIFIED POLE LOCATIONS.

4. WHERE THE AVERAGE RESIDENTIAL DENSITY IS IN EXCESS OF 12 UNITS PER ACRE - USE INTERMEDIATE CLASSIFICATIONS.

5. TYPICAL MOUNTING DIMENSIONS UNLESS OTHERWISE REQUIRED BY THE PUBLIC WORKS DEPARTMENT SHALL BE:

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>MOUNTING HEIGHT</th>
<th>WATTAGE</th>
<th>ARM LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTERIAL</td>
<td>35'</td>
<td>200 W</td>
<td>8'</td>
</tr>
<tr>
<td>COLLECTOR</td>
<td>30'</td>
<td>200 W</td>
<td>6'</td>
</tr>
<tr>
<td>LOCAL</td>
<td>25'</td>
<td>100 W</td>
<td>6'</td>
</tr>
</tbody>
</table>

ILLUMINATION SPECIFICATIONS
PE CELL, FISHER PIERCE, MODEL N7790B, OR APPROVED EQUAL

POLE CAP

ARM LENGTH
PER T-21.02

SATIN GROUND
FINISH

3'-0"

POLE:
HAPCO TAPERED
ALUM. TUBE WITH
TAPERED SINGLE BRACKET
OR APPROVED EQUAL

SEE STREET LIGHT WIRING DETAIL, T-21.12

3/4" CHAMFER, ALL SIDES
EXCEPT CURB; CURB SIDE
FLUSH W/ TOP OF CURB

TYPE 1-b JUNCTION BOX PER
WSDOT STD. DETAIL J-11a

1" DIA. GALV. STEEL CONDUIT,
18" MIN. COVER

ANCHOR BOLT, TYP. (4 TOTAL)

PORTLAND CEMENT
CONC. LIGHT POLE BASE.
ALTERNATIVE BASE
DESIGN ALLOWED WITH
DEPARTMENT APPROVAL

LIGHT FIXTURE:
GE LIGHTING SYSTEMS
MDC HIGH PRESSURE SODIUM
(OR APPROVED EQUAL)

SECTION

(2) 18" #4
BARS @12" O.C.

3'-0" SQ

1" DIA. GALV. STEEL CONDUIT,
18" MIN. COVER

ANCHOR BOLT, TYP. (4 TOTAL)

PORTLAND CEMENT
CONC. LIGHT POLE BASE.
ALTERNATIVE BASE
DESIGN ALLOWED WITH
DEPARTMENT APPROVAL

LIGHT FIXTURE:
GE LIGHTING SYSTEMS
MDC HIGH PRESSURE SODIUM
(OR APPROVED EQUAL)

PLAN

DETAIL IS FOR INSTALLATION WITH
DETACHED SIDEWALK.

FOR BASES POURED IN THE SIDEWALK
SECTION, MINIMUM 5' WALK PATH
REQUIRED AROUND POLE.

FOR ATTACHED SIDEWALK SET CENTER
OF POLE 18" FROM BACK OF WALK.

STREET LIGHT POLE

APPROVED
Bart Stipp 5/8/12
PUBLIC WORKS DIRECTOR DATE
NOTE - SCREW IN FOUNDATION ONLY ALLOWED WITH PERMISSION FROM PUBLIC WORKS DIRECTOR.

NOTE:
① VARIES WITH APPLICATION
CONDUIT, TYP.

CONDUCTOR SHALL COMPLY WITH WSDOT 9-29

#8 BARE COPPER BONDING JUMPER

TYPES 1 & 2 JUNCTION BOX, SEE WSDOT STD. DETAIL J-40.10-02. LID TO BE LABELED "LT".


#8 BARE COPPER BONDING JUMPER

ALL BENDS SHALL BE 1" MINIMUM, HOT DIPPED GALV. STEEL CONFORMING TO REQUIREMENTS OF THE NATIONAL ELECTRIC CODE. INSTALL INSULATING GROUND BUSHINGS AT ENDS.
10 AMP FUSIBLE QUICK DISCONNECT (TRON IN-LINE FUSE HOLDER, HEB- OR APPROVED EQUAL)

#8 BARE COPPER TO POLE GROUND TERMINAL

BASE FLANGE

POLE

MINIMUM OF 2 THREADS MUST BE VISIBLE ABOVE LEVELING NUT FOR 120 VOLT SYSTEM - 1 FUSE FOR 240 VOLT SYSTEM - 2 FUSE (DO NOT FUSE NEUTRAL)

CONDUIT

ANCHOR BOLTS

CONDUIT SHALL NOT EXTEND MORE THAN 3" ABOVE THE TOP OF CONCRETE BASE
NOTES:

1. ENCLOSURE SHALL BE TESCO CLASS 26-000 OR EQUIVALENT APPROVED BY CITY OF WOODLAND.

2. THIS IS AN EXAMPLE OF A TYPICAL CIRCUIT FOR AN ILLUMINATION SYSTEM. THE ILLUMINATION PLAN SHALL SHOW THE ACTUAL CIRCUIT AND WILL BE REVIEWED BY THE PUBLIC WORKS DEPARTMENT.
NOTE:
SEE T-46 FOR STREET LIGHT SERVICE CABINET DETAIL.