

**NOTES:**

1. PAVEMENT PATCH, 6 INCHES THICK OR THAT OF EXISTING, WHICHEVER IS MORE.
2. AGGREGATE BASE OR AGGREGATE BASE AND SUBBASE SECTION PER APPROVED PLAN. 95% RELATIVE COMPACTION.
3. PAVEMENT SECTION PER APPROVED PLANS.
4. 24 INCHES OF TWO SACK CONCRETE SLURRY PER CALTRANS STANDARD SPEC 16-302E
5. SIX INCHES OF SUBGRADE, PROCESSED TO 95% RELATIVE COMPACTION.
6. NATIVE BACKFILL MATERIAL, 90% RELATIVE COMPACTION.
7. EXISTING STREET PAVEMENT.
8. TACK COAT ON ALL VERTICAL PAVEMENT SAWCUTS, OR SAWCUT CONCRETE PER STREETS DETAIL ST-54.
9. TYPICAL EACH SIDE OF TRENCH IN EXISTING STREET.
10. FOR PIPE EMBEDMENT SEE TB-2 FOR PLASTIC STORM DRAIN, W-1 FOR WATER PIPE, SS-1 FOR SANITARY SEWER PIPE, OF THESE CONSTRUCTION STANDARDS.
11. PIPE
12. FOR REINFORCED CONCRETE PIPE EMBEDMENT: PLACE 1/2 OR 3/4 INCH CRUSHED ROCK UP TO SPRING LINE WITH MINIMUM OF FOUR (4) INCHES OF 1/2 OR 3/4 INCH CRUSHED ROCK BEDDING. MAINTAIN MINIMUM OF SIX (6) INCHES OF CLEARANCE BETWEEN THE PIPE AND THE TRENCH WALL.
13. ALTERNATE TRENCH BOTTOM. THE DIAMETER OF THE ALTERNATE ROUNDED TRENCH BOTTOM SHALL EQUAL THE WIDTH OF THE TRENCH.

NOTE: IN CONDITION #1, TRENCH CUT FEE MAY APPLY PER CITY ORDINANCE.

JASON SHYKOWSKI  
PUBLIC WORKS DIRECTOR

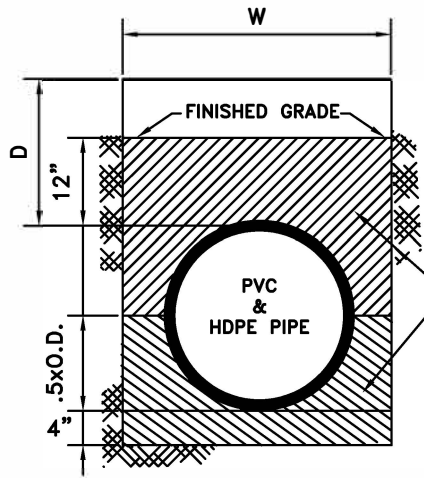
CITY OF  
**ROSEVILLE**  
CALIFORNIA

DEPARTMENT OF  
PUBLIC WORKS

UTILITY TRENCH PAVING BACKFILL  
AND EMBEDMENT

SCALE: NONE  
REVISED: DECEMBER 2024  
DRAWN BY: R MEDINA  
APPROVED BY: JASON SHYKOWSKI

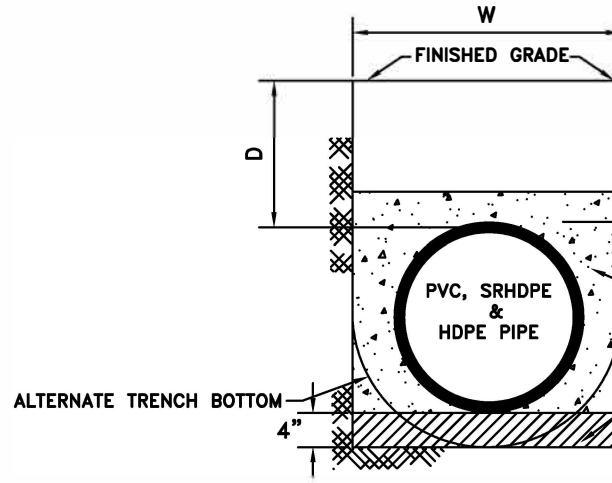
TB-1



IMPORTED MATERIAL: 1/2"  
OR 3/4" CRUSHED ROCK  
PER SECTION 71-5L OF  
THESE STANDARDS.

**DETAIL A**

SRHDPE, PVC & HDPE  
PIPE ONLY (NONRIGID)



SLURRY BACKFILL PER  
CALTRANS SEC. 19-3.02E

IMPORTED MATERIAL: 1/2"  
OR 3/4" CRUSHED ROCK  
PER SECTION 71-5L OF  
THESE STANDARDS.

**DETAIL B**

SRHDPE, PVC & HDPE  
PIPE ONLY (NONRIGID)

**NOTES:**

1. TRENCH WIDTH:

PIPE SIZE  
30" AND UNDER  
OVER 30"

TRENCH WIDTH = W  
O.D. + 16"  
O.D. x 1.25 + 12"

2. HIGH DENSITY POLYETHYLENE (HDPE) AND POLYPROPYLENE N-12HP, 12"-60" STORM DRAIN PIPE SHALL BE TYPE "S" AS DESCRIBED IN SECTION 64 OF THE CALTRANS STANDARD SPECIFICATIONS. PIPE INSTALLATION AND PIPE CONFIGURATION SHALL BE AS SHOWN ON THIS DRAWING AND AS DESCRIBED IN THESE GENERAL NOTES. JOINTS SHALL BE SEALED WITH A RUBBER GASKET. GASKETS SHALL MEET THE REQUIREMENT OF ASTM F-477. "
3. FILL HEIGHTS "D" FOR NONRIGID (PVS & HDPE) DRAIN PIPE SHALL BE A MINIMUM OF 36 INCH AND A MAXIMUM OF 15 FEET, AND (SRHDPE) SHALL HAVE A MINIMUM OF ONE FOOT (IN ADDITION TO THE ROADWAY STRUCTURAL SECTION) AND A MAXIMUM OF 30 FEET FROM THE TOP OF PIPE FINISHED GRADE. (SEE DETAILS A & B FOR TRENCH BACKFILL REQUIREMENTS. CONTRACTOR MAY USE EITHER DETAIL A OR B.)
4. PIPE MATERIAL CHANGES BETWEEN STRUCTURES ARE PROHIBITED. OUTFALL/INLET RUNS AND STUBS INTO FUTURE SITES SHALL BE RCP. (SEE SECTION 101-6 D.1.C. AND 101-8 D.4. FOR CONCRETE PIPE APPLICATION.)
5. REFER TO TB-1 FOR TREATMENT OF THE TOP PORTION OF THE TRENCH WITHIN THE CITY STREET.
6. THE DIAMETER OF THE ALTERNATE, ROUNDED TRENCH BOTTOM SHALL BE EQUAL TO THE WIDTH OF THE TRENCH.

MARC STOUT  
CITY ENGINEER

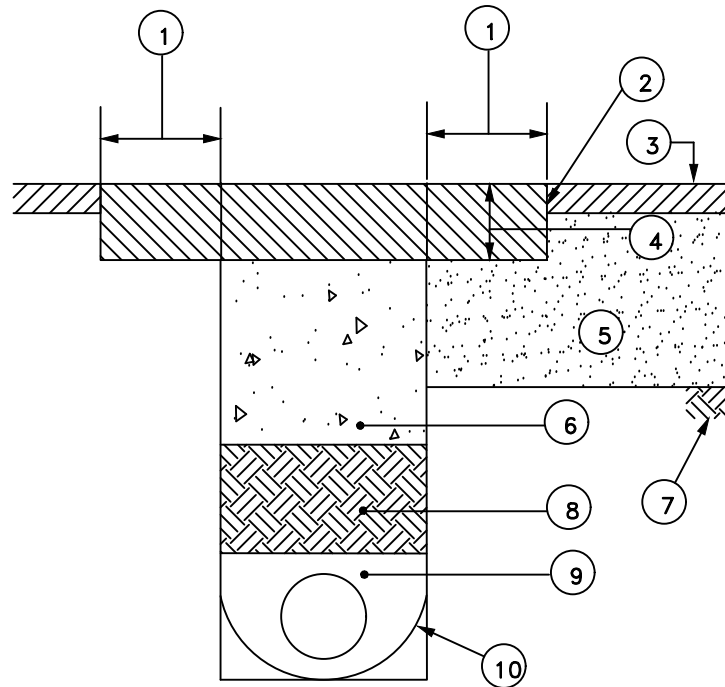
CITY OF  
**ROSEVILLE**  
CALIFORNIA

DEVELOPMENT SERVICES  
DEPARTMENT

HDPE, SRHDPE PVC STORM DRAIN  
PIPE ONLY (NONRIGID)  
BEDDING AND BACKFILL

SCALE: NONE  
REVISED: JANUARY 1, 2019  
DRAWN BY: R MEDINA  
APPROVED BY: MARC STOUT

TB-2



**NOTES:**

1. 18 INCH KEY OUTSIDE TRENCH LINE
2. COAT ALL EXISTING VERTICAL FACES WITH ASPHALTIC EMULSION (TACK) PRIOR TO PAVING
3. EXISTING PAVING
4. PATCH SHALL BE THICKNESS OF EXISTING SECTION PLUS 2 1/2 INCHES. PER CITY TRENCH CUT ORDINANCE (6 INCH MINIMUM THICKNESS).
5. AGGREGATE BASE/SUBBASE: RECOMPACT DISTURBED SURFACE AREAS TO 95%.
6. TWO FEET OF TWO SACK CONCRETE SLURRY PER CALTRANS STANDARD SPECIFICATION 19-3.062
7. NATIVE SOIL
8. NATIVE SOIL TO BE PROCESSED TO 90% RELATIVE COMPACTION.
9. FOR PIPE EMBEDMENT, SEE THE FOLLOWING CONDITIONS:
  - a. TB-2 FOR PLASTIC STORM DRAIN PIPE
  - b. W-1 FOR WATER PIPE
  - c. SS-1 FOR WASTE WATER PIPE
  - d. FOR REINFORCED CONCRETE PIPE, PLACE 1/2 OR 3/4 INCH CRUSHED ROCK UP TO SPRING LINE WITH A MINIMUM OF FOUR INCHES OF BEDDING BELOW PIPE. MAINTAIN A MINIMUM OF SIX INCHES OF CLEARANCE BETWEEN THE PIPE AND THE TRENCH WALL.
10. ALTERNATE TRENCH BOTTOM. THE DIAMETER OF THE ALTERNATE, ROUNDED TRENCH BOTTOM SHALL EQUAL THE WIDTH OF THE TRENCH.

NOTE: THIS DETAIL APPLIES TO UTILITY TRENCHES IN WHICH TRENCH CUT FEES WERE NOT PAID BY THE APPLICANT, OR AS SPECIFIED BY THE ENGINEER.

JASON SHYKOWSKI  
PUBLIC WORKS DIRECTOR

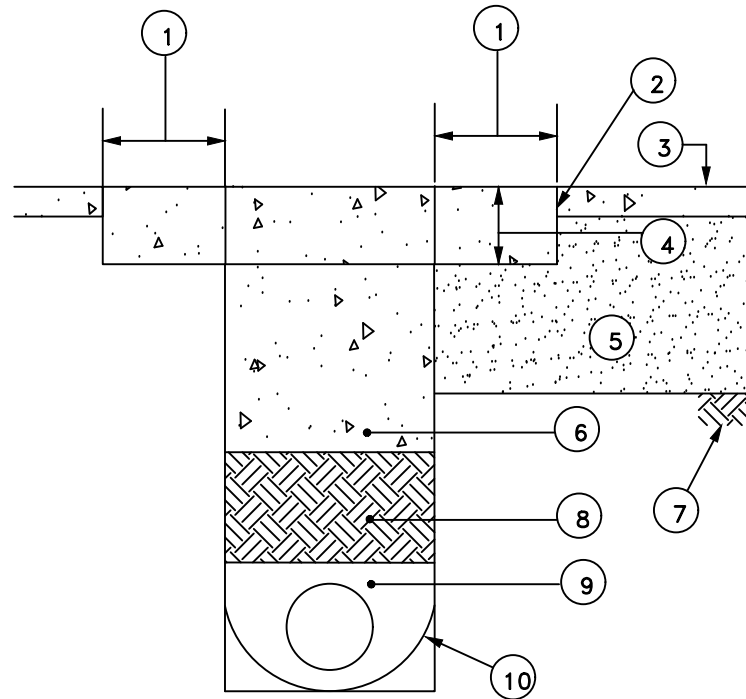


DEPARTMENT OF  
PUBLIC WORKS

DEEP CUT "T"  
PATCH RECONSTRUCTION  
ASPHALT STREETS

SCALE: NONE  
REVISED: FEBRUARY 2021  
DRAWN BY: R MEDINA  
APPROVED BY: JASON SHYKOWSKI

TB-3



**NOTES:**

1. SAWCUT EXISTING CONCRETE PAVEMENT PER ST-54 AT LEAST 18" FROM TRENCH LINE AND:
  - a. AT AN EXISTING JOINT
  - b. IN THE MIDDLE OF A TRAVELED LANE OR MID-PANEL PERPENDICULAR TO PATH OF TRAVEL
2. COAT ALL EXISTING VERTICAL FACES WITH TWO-PART EPOXY PRIOR TO PLACING CONCRETE.
3. EXISTING PAVING
4. PATCH SHALL BE THICKNESS OF EXISTING SECTION. PER CITY TRENCH CUT ORDINANCE (6 INCH MINIMUM THICKNESS).
5. AGGREGATE BASE/SUBBASE: RECOMPACT DISTURBED SURFACE AREAS TO 95%.
6. TWO FEET OF TWO SACK CONCRETE SLURRY PER CALTRANS STANDARD SPECIFICATION 19-3.062
7. NATIVE SOIL
8. NATIVE SOIL TO BE PROCESSED TO 90% RELATIVE COMPACTION.
9. FOR PIPE EMBEDMENT, SEE THE FOLLOWING CONDITIONS:
  - a. TB-2 FOR PLASTIC STORM DRAIN PIPE
  - b. W-1 FOR WATER PIPE
  - c. SS-1 FOR WASTE WATER PIPE
  - d. FOR REINFORCED CONCRETE PIPE, PLACE 1/2 OR 3/4 INCH CRUSHED ROCK UP TO SPRING LINE WITH A MINIMUM OF FOUR INCHES OF BEDDING BELOW PIPE. MAINTAIN A MINIMUM OF SIX INCHES OF CLEARANCE BETWEEN THE PIPE AND THE TRENCH WALL.
10. ALTERNATE TRENCH BOTTOM. THE DIAMETER OF THE ALTERNATE, ROUNDED TRENCH BOTTOM SHALL EQUAL THE WIDTH OF THE TRENCH.

NOTE: THIS DETAIL APPLIES TO UTILITY TRENCHES IN WHICH TRENCH CUT FEES WERE NOT PAID BY THE APPLICANT, OR AS SPECIFIED BY THE ENGINEER.

JASON SHYKOWSKI  
PUBLIC WORKS DIRECTOR

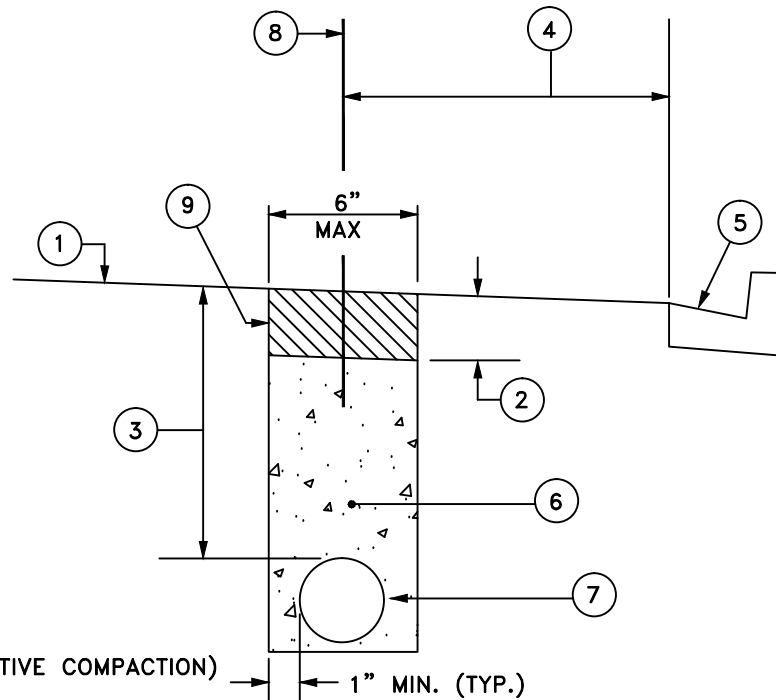


DEVELOPMENT SERVICES  
DEPARTMENT

DEEP CUT "T"  
PATCH RECONSTRUCTION  
CONCRETE STREETS

SCALE: NONE  
REVISED: FEBRUARY 2021  
DRAWN BY: BENNETT ENGINEERING  
APPROVED BY: JASON SHYKOWSKI

TB-3a



**LEGEND:**

1. SURFACE OF EXISTING STREET SECTION
2. .25' THICK ASPHALT CONCRETE PER SECTION 71-4.D. (93% RELATIVE COMPACTION)
3. PIPE COVER PER UTILITY CO. (18" MIN TO 30" MAX)
4. DISTANCE VARIES. IF LESS THAN 3 FEET, THEN CONTRACTOR IS REQUIRED TO EDGE GRIND FROM LIP OF GUTTER (.15' DEEP) TO INSIDE LIMIT LINE OF TRENCH
5. EXISTING CURB AND GUTTER
6. "MINOR CONCRETE" CONFORMING TO THE PROVISIONS IN SECTION 71-5B, "CONCRETE", WITH FINE AGGREGATE (PEA GRAVEL MIX). CONCRETE SHALL BE FLOW-ABLE AT DISCRETION OF CITY INSPECTOR
7. CONDUIT AS SPECIFIED
8. CENTER LINE OF BIKE LANE STRIPE
9. PLACE BINDER (TACK COAT) ON ALL SURFACES PRIOR TO PAVING PER SECTION 39 OF STATE STANDARD SPECIFICATIONS

**NOTES:**

1. THE CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF BIKE LANE STRIPE AND LEGENDS (AFFECTED BY TRENCHING) WITH THERMOPLASTIC MATERIAL.
2. ALL EXCAVATED AREAS IN THE PAVEMENT SHALL BE BACKFILLED, EXCEPT FOR THE TOP 0.25' BY THE END OF EACH WORK DAY. THE TOP .25' SHALL BE PLACED WITHIN 3 WORKING DAYS AFTER TRENCHING. DELINEATORS SHALL BE PLACED ON TEN FOOT CENTERS, AND WITHIN 1' OF EACH SIDE OF DRIVEWAYS IN THE INTERIM. REFER TO SECTION 6.2W.5 FOR TRANSITION LOCATIONS.
3. TRENCH CUT FEE SHALL APPLY PER CITY ORDINANCE. NO ALTERNATE TRENCH CONFIGURATION IS ALLOWED.
4. SEE DETAIL TS-13 FOR MULTIPLE CONDUIT PROVISIONS.

MARC STOUT  
CITY ENGINEER

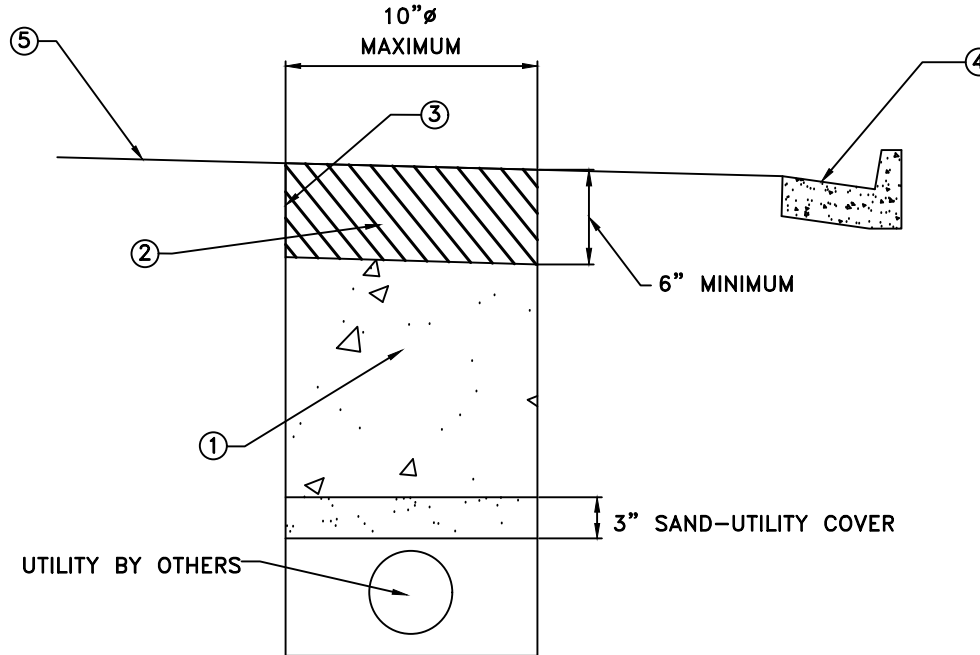
CITY OF  
**ROSEVILLE**  
CALIFORNIA

DEVELOPMENT SERVICES  
DEPARTMENT

ROCK WHEEL TRENCH  
(IN EXISTING STREET)

SCALE: NONE  
REVISED: JANUARY 1, 2016  
DRAWN BY: J MCKINNEY  
APPROVED BY: MARC STOUT

TB-4



**LEGEND:**

1. "MINOR CONCRETE" CONFORMING TO THE PROVISIONS IN SECTION 71-5B, "CONCRETE", WITH FINE AGGREGATE (PEA GRAVEL MIX).
2. A) FOR ASPHALT CONCRETE, 1/2" ASPHALT PER CONSTRUCTION STANDARDS SECTION 71-4.D. (93% RELATIVE COMPACTION).  
B) FOR PORTLAND CEMENT CONCRETE, SEE CONSTRUCTION STANDARDS SECTION 71-4.
3. A) FOR ASPHALT CONCRETE, PLACE BINDER (TACK COAT) ON ALL SURFACES PRIOR TO PAVING PER SECTION 39 OF STATE STANDARD SPECIFICATIONS.  
B) FOR PORTLAND CEMENT CONCRETE, SAWCUT PER DETAIL ST-54 AND COAT ALL SURFACES WITH TWO-PART EPOXY PRIOR TO PLACING CONCRETE PAVEMENT.
4. EXISTING CURB AND GUTTER
5. SURFACE EXISTING STREET SECTION (PAVEMENT)

**NOTES**

1. ASPHALT CONCRETE ROADWAY SURFACE POTHOLE SHALL BE SAW CUT OR JACKHAMMERED IN A UNIFORM FASHION. FOR PORTLAND CEMENT CONCRETE ROADWAYS, BRING CONCRETE BACKFILL TO SURFACE, AND FINISH WITH MEDIUM BROOM FINISH PARALLEL TO PATH OF TRAVEL.
2. MAXIMUM POTHOLE SIZE SHALL BE 10" DIAMETER. SHOULD POTHOLE SIDEWALL CAVE-IN OCCUR DURING JET-VAC EXCAVATION ADDITIONAL EXCAVATION MAY BE REQUIRED (AT THE DISCRETION OF THE DEVELOPMENT SERVICES INSPECTOR).
3. REPLACE ALL PAVEMENT MARKINGS AND THERMOPLASTIC LEGENDS THAT WERE DAMAGED.
4. POTHOLE EXCAVATION MUST BE TEMPORARILY BACKFILLED SAME DAY AS EXCAVATION AND PERMANENTLY WITHIN SEVEN CALENDAR DAYS.
5. TEMPORARY STEEL COVERS ARE REQUIRED WHEN POTHOLING IS LOCATED WITHIN THE TRAVEL LANES, WHEN OPEN TO TRAFFIC.

JASON SHYKOWSKI  
PUBLIC WORKS DIRECTOR

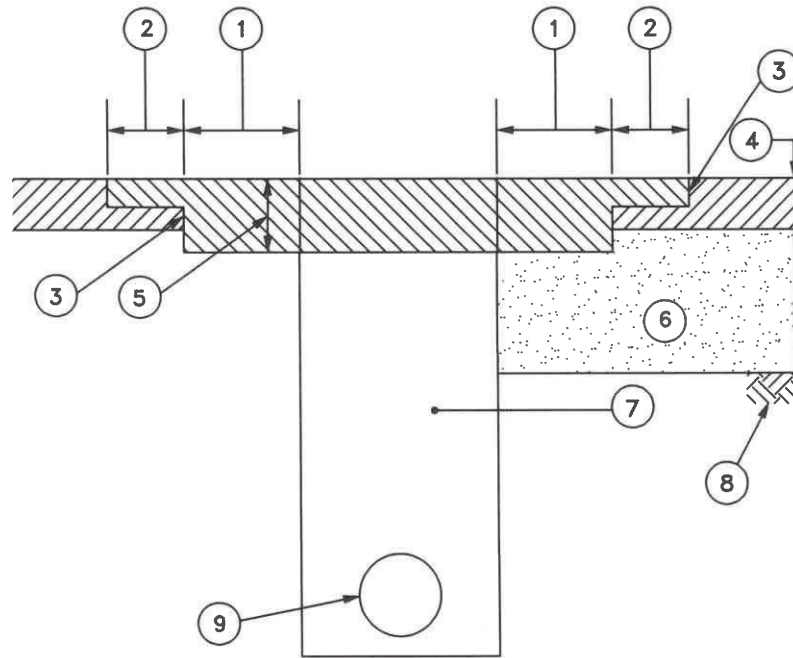


DEPARTMENT OF  
PUBLIC WORKS

**POTHOLE  
RECONSTRUCTION**

SCALE: NONE  
REVISED: FEBRUARY 2021  
DRAWN BY: N. SIVIGLIA  
APPROVED BY: JASON SHYKOWSKI

TB-5





**NOTES:**

1. 18 INCH KEY OUTSIDE TRENCH LINE
2. FINAL LIFT, MINIMUM 2" THICK, SHALL EXTEND 12" BEYOND KEY LOCATION IDENTIFIED IN NOTE 1 OR ADJACENT LANE LINE AS DETERMINED BY THE STREETS DEPARTMENT.
3. COAT ALL EXISTING VERTICAL FACES WITH ASPHALTIC EMULSION (TACK) PRIOR TO PAVING
4. EXISTING PAVING
5. PATCH SHALL BE THICKNESS OF EXISTING SECTION PLUS 2 1/2 INCHES. PER CITY TRENCH CUT ORDINANCE (6 INCH MINIMUM THICKNESS).
6. AGGREGATE BASE/SUBBASE: RECOMPACT DISTURBED SURFACE AREAS TO 95%.
7. UTILITY TRENCH, CONSTRUCTED AS REQUIRED BY CITY STANDARDS
8. NATIVE SOIL
9. UTILITY

AS PART OF THE TRENCH BACKFILL, THE CONTRACTOR SHALL COORDINATE WITH DEVELOPMENT SERVICES—ENGINEERING PRIOR TO START OF PAVEMENT REHABILITATION WORK TO DETERMINE EXACT LIMITS OF THE PAVEMENT RESTORATION. DEVELOPMENT SERVICES – ENGINEERING RETAINS ALL RIGHTS TO INCREASE THE EXTENTS OF THE REPAIRS ABOVE, DUE TO FIELD CONDITIONS.

WHERE THE ADJACENT SURFACE IS MICROSURFACED, CONTRACTOR SHALL MICROSURFACE AREA IDENTIFIED BY DEVELOPMENT SERVICES – ENGINEERING AND REPAIR STRIPING AS NECESSARY.

  
 JASON SHYKOWSKI  
 PUBLIC WORKS DIRECTOR

 CITY OF <b>ROSEVILLE</b> CALIFORNIA	DEPARTMENT OF PUBLIC WORKS
<b>MORATORIUM STREET DEEP CUT "T"          PATCH RECONSTRUCTION          ASPHALT STREETS</b>	
SCALE: NONE REVISED: DECEMBER 2023 DRAWN BY: J. KHATKAR APPROVED BY: JASON SHYKOWSKI	<b>TB-6</b>