

**CDF TECHNICAL SPECIFICATIONS**

- 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 SHALL 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 PERFORMANCE BASED AND MEET THE FOLLOWING CRITERIA:
  - THE CDF MIXTURE SHALL BE FLOWABLE, NON-SEGREGATING, AND SELF LEVELING.
  - CAN BE PAVED ON WITHIN 48 HOURS UNLESS OTHERWISE APPROVED.
  - TYPE F FLY ASH: 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.
  - COMPRESSIVE 28 DAY STRENGTHS FROM MIN. 50 PSI TO MAX. 150 PSI.
- 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, THE 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 WITH ENGINEER'S APPROVAL IF CONFLICTING WITH PIPE ZONE BACKFILL.

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**STANDARD TRENCH RESTORATION - HMA - CONTROLLED DENSITY FILL**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
TRANSPORTATION DIVISION

DRAWN BY	APPROVED BY	APPROVAL DATE
CDC	<i>M.H.H.</i>	8/04
REVISION	APPROVED BY	APPROVAL DATE
7	<i>M.H.H.</i>	3/24

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