



NOTES:

1. SAWCUT EDGES TO BE TACKED WITH EMULSIFIED ASPHALT
2. ASPHALT JOINTS SHALL BE SAND SEALED WITH CRS-1 OR CRS-2 EMULSIFIED ASPHALT OR EQUIVALENT.
3. CONTROL DENSITY FILL (CDF) CONSISTS OF A MIXTURE OF PORTLAND CEMENT, FLY ASH, AGGREGATES, WATER AND ADMIXTURES PROPORTIONED TO PROVIDE A NON-SEGREGATING, SELF-CONSOLIDATING, FREE-FLOWING MATERIAL WHICH WILL RESULT IN A HARDENED, DENSE, NON-SETTLING FILL PRODUCING UNCONFINED COMPRESSIVE 28 DAY STRENGTH FROM 100 PSI TO A MAXIMUM OF 200 PSI.
 - 3.1. CONTRACTOR WILL PROVIDE BATCH WEIGHTS SHOWING THE AMOUNTS OF ALL INGREDIENTS IN THE MIX, BATCH TIME, AND THE TOTAL AMOUNT OF THE BATCH.
 - 3.2. CDF SHALL BE PERFORMANCE BASED AND MEET THE FOLLOWING CRITERIA:
 - TYPE F FLY ASH: 200 LB MIN, TYPE I OR II CEMENT: 50 LB MIN
 - SETTLING SHALL BE LESS THAN 1/8" PER FT DEPTH
 - FINE AGGREGATE (LESS THAN 3/8") SHALL BE USED
 - CONCRETE UNIT WEIGHT SHALL BE 100 PCF MIN
 - 3.3. CDF SHALL NOT BE PLACED ON FROZEN GROUND. DURING PLACEMENT TEMPERATURE MUST BE AT LEAST 34 DEGREES F. AND RISING. CDF PLACING SHALL STOP WHEN TEMPERATURE IS 38 DEGREES F OR LESS AND FALLING.
 - 3.4. TRENCH SECTIONS TO BE FILLED WITH CDF SHALL BE CONTAINED AT EITHER END OF THE TRENCH SECTION BY BULKHEADS OR EARTH FILL.
 - 3.5. DURING CDF CURE TIME THE CONTRACTOR SHALL INSTALL STEEL SHEETS OR OTHER PROTECTIVE DEVICES TO ALLOW FOR THE PASSAGE AND SAFETY OF TRAFFIC AND SO NO LOAD IS TRANSFERRED TO THE CDF.
 - 3.6. CONTRACTOR SHALL ALLOW FOR A MINIMUM 48 HOUR CURE TIME FOR CDF PRIOR TO PLACING ASPHALT.
 - 3.7. 30 INCH DEPTH OF CDF MAY BE REDUCED IF CONFLICTING WITH PIPE ZONE BACKFILL.

**CITY OF HAPPY VALLEY
ENGINEERING DIVISION**
16000 SE MISTY DRIVE
HAPPY VALLEY, OR 97086

DWG NO: 210	TRENCH RESTORATION WITH CDF	
CITY ENGINEER CAROL EARLE, P.E.	DATE: 4/1/2019	REVISED BY: PCB/JHH