Ministry of Transportation and Highways
GEOTECHNICAL AND MATERIALS BRANCH

PROJECT Nicolum Quarry
Station or T.H. _____ Sample No. _____
Depth _____ Cost Code _____
Date JUNE 17/97
Technician _____

SOUNDNESS TEST (A.S.T.M. C88)

Sieve Size		Grading of Original Sample (%)	Mass of Test Fractions Before Test (g)		After 5 Cycles		Weighted Percentage Mass Loss (%)
Passing	Retained				Mass Remaining (g)	Loss (%)	
SOUNDNESS TEST OF COARSE AGGREGATE							
63 mm	50 mm	–					
50 mm	37.5 mm						
37.5 mm	25.0 mm	3.1		501.6	496.1	1.1	0.2
25.0 mm	19.0 mm	16.0	501.6				
19.0 mm	12.5 mm	43.7	671.7	1003.2	979.7	2.3	1.5
12.5 mm	9.5 mm	19.2	331.5				
9.5 mm	4.75 mm	18.0		302.1	275.0	9.0	1.6
TOTALS		100.0					3.3
SOUNDNESS TEST OF FINE AGGREGATE							
★9.5 mm	4.75 mm						
4.75 mm	2.36 mm	34.2		100.0	70.2	29.8	10.2
2.36 mm	1.18 mm	18.3		100.0	49.2	50.8	9.3
1.18 mm	.600 mm	11.5		100.0	39.2	60.8	7.0
.600 mm	.300 mm	12.0		100.0	84.9	15.1	1.8
.300 mm	.150 mm	11.7					
.150 mm	PAN	12.3					
TOTALS		100.0					28.3

★ This Fraction is not used When Sample Contains Both Coarse and Fine Portions

% Of Initial Sample Passing 4.75 mm Sieve = 20.7 %

REMARKS:- _____

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RELATIVE DENSITY (agg.) TEST

Project NICOLUM QUARRY
Sta. or T.H. _____ Sample # _____
Depth _____
Date JULY 10/97
Technician JD

COARSE AGGREGATE

Mass of Basket + S.S.D. Sample in Air			g
Mass of Basket in Air			g
Mass of S.S.D. Sample in Air	(W)	1257.5	g
Mass of S.S.D. + S.S.D. Sample in Water			g
Mass of Basket in Water			g
Mass of S.S.D. Sample in Water	(C)	783.0	g

R.D. (S.S.D.) = $\frac{W}{W-C}$ = 2.650

Mass of Oven Dry Sample + Container in Air			g
Mass of Container in Air			g
Mass of Oven Dry Sample in Air		1244.7	g

ABSORPTION = $\frac{W-A}{A}$ X 100 = (A) 1.03 %

Apparent R.D. (if requied) = A/(A-C) = _____

FINE AGGREGATE

Mass of Flask + S.S.D. Sample			g
Mass of Flask	(W)		g
Mass of S.S.D. Sample			g
Mass of Flask + Water to Mark	(B)		g
Mass of Flask + S.S.D. Sample + Water	(D)		g

R.D. (S.S.D) = $\frac{W}{B+W-D}$ = _____

Mass of Oven Dry Sample + Container			g
Mass of Container			g
Mass of Oven Dry Sample	(A)		g

ABSORPTION = $\frac{W-A}{A}$ X 100 = _____ %

If Bulk R.D. is Required:
Coarse Agg. Bulk R.D. = $\frac{A}{W-C}$ Fine Agg. Bulk R.D. = $\frac{A}{B+W-D}$

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DEGRADATION TEST

Project Nicolum Quarry
Sta or T.H. _____ Sample # _____
Depth _____
Cost Code _____ Date June 17/97
Technician _____

TRIAL #	1	2	3	4
Sediment Height (H) mm	28			
Degradation Factor (D)	82.09			

CALCULATIONS

$$D = \frac{381 - H}{381 + 1.75\ H} \times 100$$

H374 81/02

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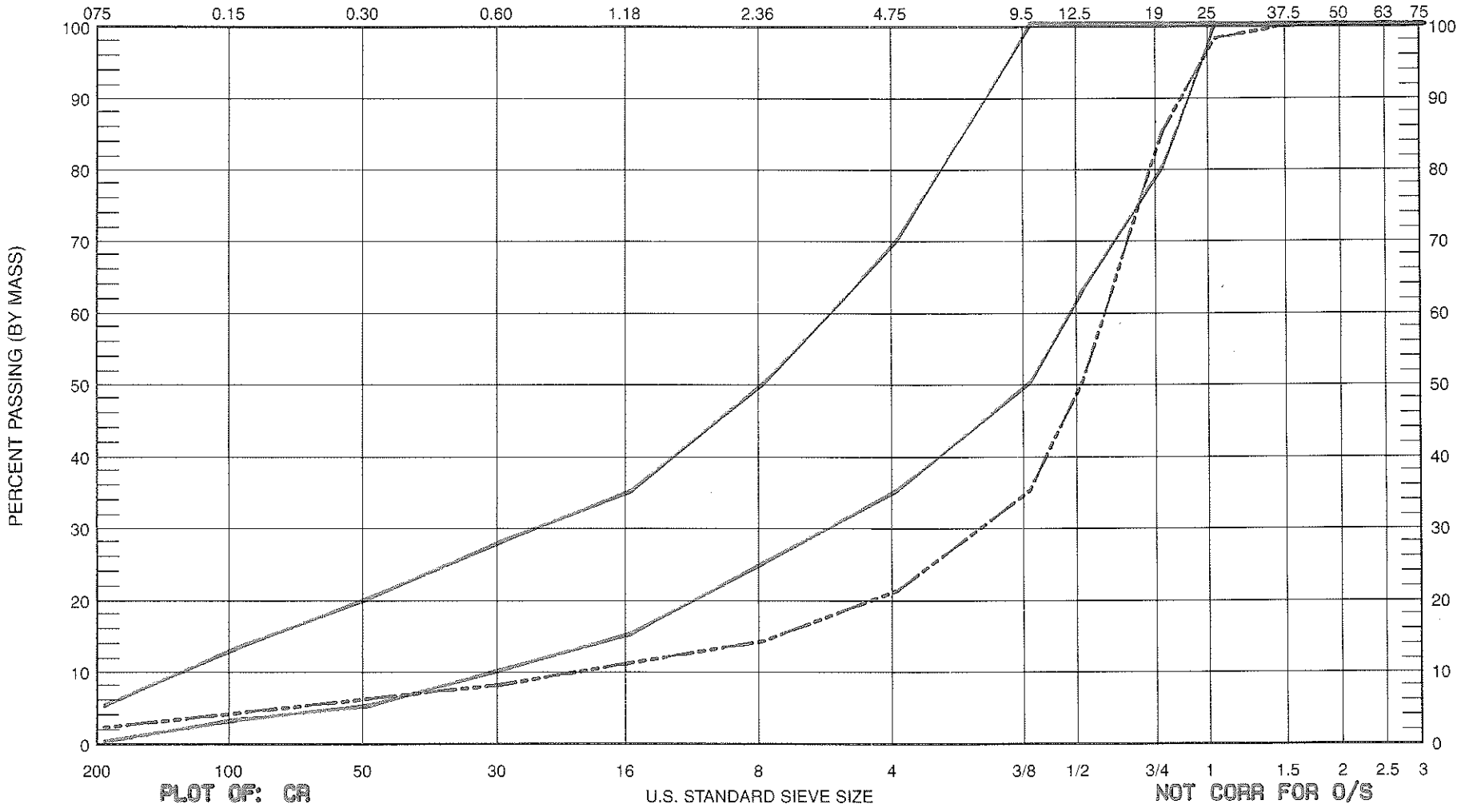
AGGREGATE GRADATION CHART

REGION: South Coast
PROJECT: Nicolum Quarry
DISTRICT: Fraser Valley
FILE NUMBER:



BAG #	SAMPLE #	TESTHOLE/PIT	DEPTH	SAMPLE OF	SAMPLED BY	METHOD	DATE	TESTED BY	DATE
98176	1	1	0.0 TO 0.0	CR	S.L.	shovel	MAY1997	J.D.	MAY1997

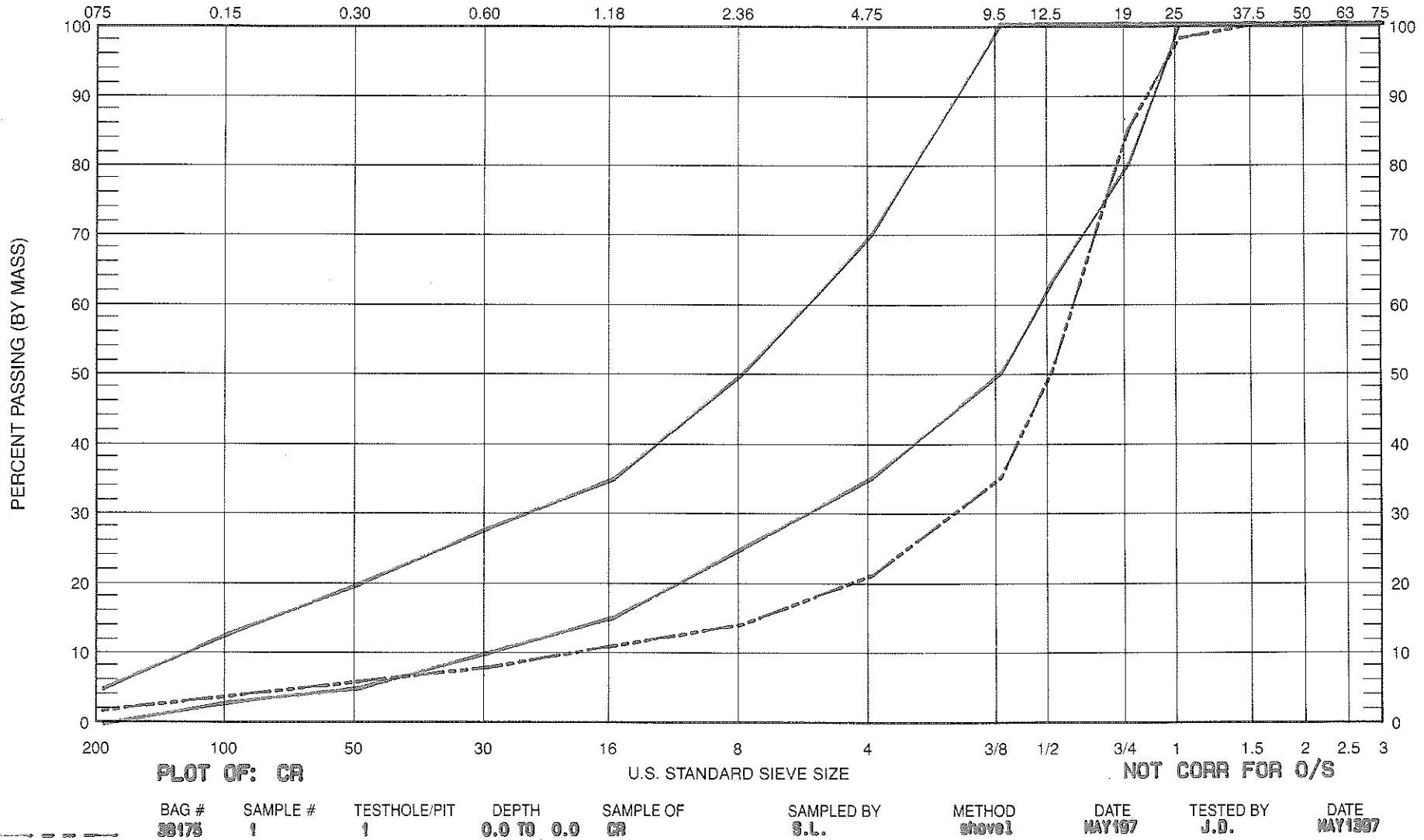
H-187F (96/05)

25 MM WELL GRADED BASE 202-C

Ministry of Transportation and Highways

AGGREGATE GRADATION CHART

REGION: South Coast
PROJECT: Nicolum Quarry
DISTRICT: Fraser Valley
FILE NUMBER:



BAG #	SAMPLE #	TESTHOLE/PIT	DEPTH	SAMPLE OF	SAMPLED BY	METHOD	DATE	TESTED BY	DATE
98176	1	1	0.0 TO 0.0	CR	S.L.	shovel	MAY197	J.D.	MAY1397

H-187F (96/05)

25 MM WELL GRADED BASE 202-C