Ardaman & Associates, Inc.

LIMEROCK BEARING RATIO TEST REPORT

Test Designations: FM 1-T 180 / FM 5-515

Report Date: Pending
Sample ID: 7532

Sarasota Branch
Florida Registration No. 5950
1724 Barber Road
Sarasota, FL 34240
Phone: 941-922-3526

Client:
Masterrock, LLC
5802 Bee Ridge Road, Suite 101
Sarasota, FL 34233

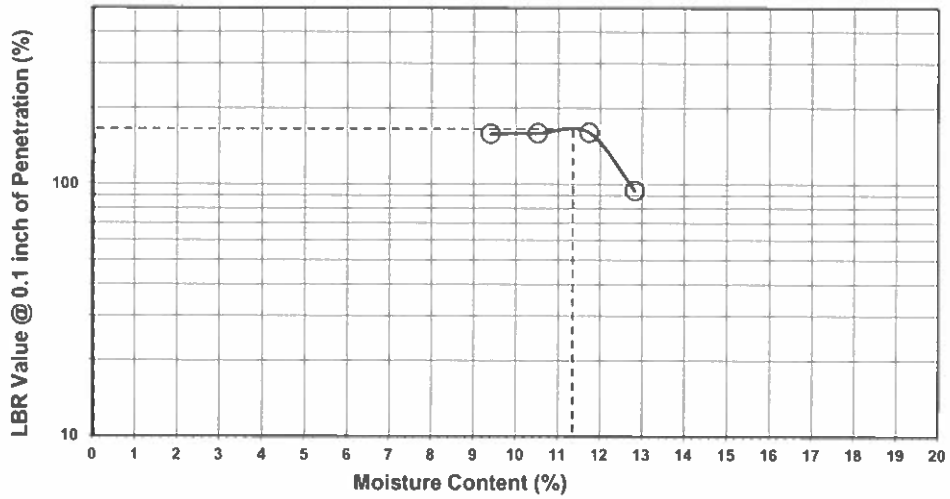
Project:
24-31-7207
Masterrock Production Facility (QC Testing)
3915 Goodrich Avenue
Sarasota, FL 34234

Sample Details

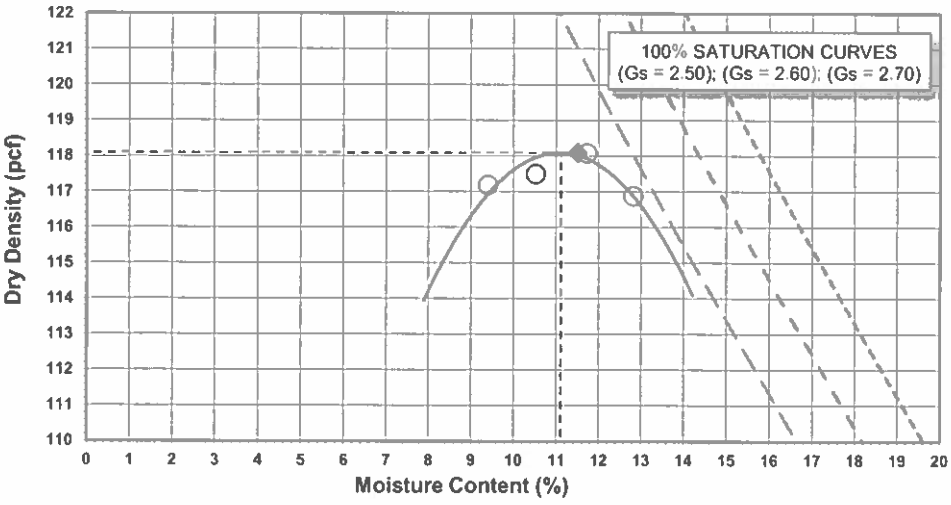
Date Sampled: 12/11/2025 **Sampled By:** Mark Ochs **Product:** Crushed Concrete (1 1/2" minus)
Sample Location: Stockpile of crushed concrete
Sample Description: Recycled concrete aggregate (RCA)
USCS Group Symbol: SP **AASHTO M 145 Classification Group:** ND

Test Details

LBR Value vs. Moisture Content Curve



Dry Density vs. Moisture Content Curve



Compaction Details

Test Method: D
Preparation: Dry
Rammer Type: Mechanical
Rammer Face: Sector
Date Compacted: 1/7/2026
Technician: Chris Oberhoff

LBR Details

Soak Time (hrs): 48 ± 4
Surcharge (lbs): 0
Date Penetrated: 1/7/2026
Technician: Chris Oberhoff

Plot Data Points

Moisture Content (%)	Dry Density (pcf)	LBR Value (%)
9.4	117.2	158
10.5	117.5	159
11.7	118.1	160
12.8	116.9	94

Maximum Dry Density (pcf)
118.1
Optimum Moisture Content (%)
11.5
(Tested) Maximum LBR Value (%)
160
(Specified) Minimum LBR Value (%)
Not Provided

Comments:

7532

MOISTURE DENSITY RELATIONS SERVICE ORDER

Client: Masterock Quarterly / Various
Project:

Client No.:
Project No.: 24-7207
Report No.:
Date/Time Requested:
Date/Time of Service: 12-11-25

Auth:

Services: Obtain sample of material used for construction, prepare samples and perform moisture-density relations test to establish the maximum density and optimum moisture of the material.

JOBSITE:
CONTRACTOR:
TEST FOR:
MATERIAL: CS. conc.
CLASSIFICATION SP
TEST METHOD LBR, gradation

KEYMAP:
DATE SAMPLED: 12-11-25
SAMPLED BY: MO
SAMPLE LOCATION: stockpile
RAMMER TYPE Sector face

SAMPLE NUMBER	1	2	3	4	5	6
Wt of Material (g)						
Water Added (g)						
Admixture Wt. (g)						
Wt. of Mold + Wet (g)						
Wt. of Mold Only (g)						
Wt. Molded Spec. (g)						
Voi. Conv. Factor						
Wet Density, pcf						
Can Number						
Wt of Tare + Wet (g)						
Wt. of Tare + Dry (g)						
Wt. of Water (g)						
Wt. of Tare Only (g)						
Wt. of Dry Material (g)						
Moisture Content (%)						
Dry Density, pcf						

R Square _____ Curve?_____

Optimum Moisture _____
Max. Density (pcf) _____
Tested By: C. Oberhoff
Date Tested: 1-7-26

Attach Lab Test Data
Liquid Limit _____
Plastic Limit _____
Plasticity Index _____
% Pass # 40 _____
% Pass #200 _____

DEPT	ECODE	SUBLAB	UNITS	RATE

CLIENT REP:
REVIEWED BY:

TIME START: _____ STOP: _____
MILEAGE: _____

24-31-7207
Masterrock Various

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
COMPACTION TEST (STANDARD/MODIFIED) & L.B.R. WORKSHEET

FM1-T180
FM5-515

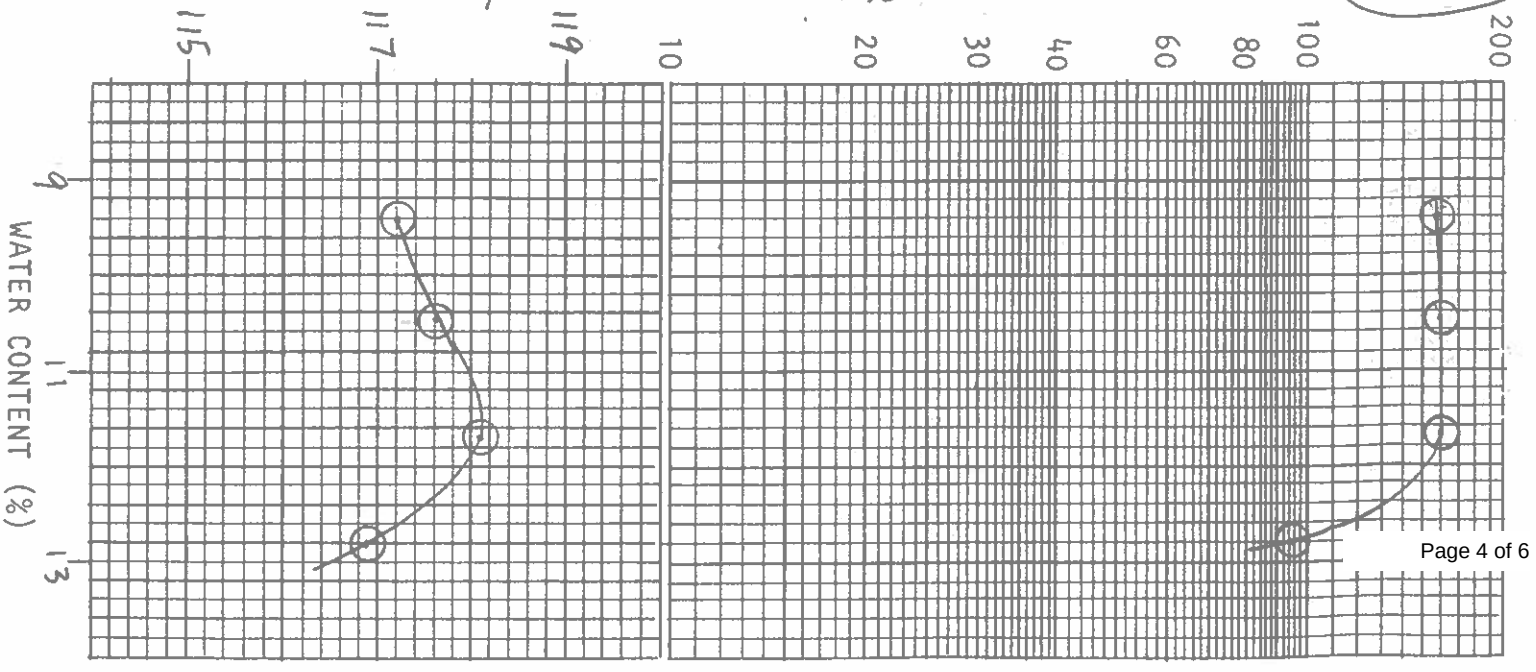
Sample Number 7532 Lab Number I01004 Material Number ——
Pit Number ____ Tested By C. Oberhoff Date Tested 1-7-26
Material Description crushed concrete Base

Date Compacted 1-5-26					[0.075 Mold Volume (13.33) or (30)]				
Mold Number	U	X	G	B				Pass/Ret	%
Water Added(%)	8.3	7.1	9.5	5.9				/90	
Wet Wt + Mold(gm)	12658	12642	12703	12533				90/50	
Wet Wt + Mold(lbs)	27.905	27.870	28.005	27.630				50/19	
Mold Wt(lbs)	18.010	18.130	18.115	18.015			+4	19/4.75	39.0
Wet Wt(lbs)	9.895	9.740	9.890	9.615			-4	4.75/Pan	61.0
Wet Unit Wt(lbs/ft³)	131.9	1299	131.9	128.2					
Dry Unit Wt(lbs/ft³)	118.1	117.6	116.9	117.2					
L.B.R.	160	159	94	158					
Begin Soak	< 1/5 @		4:00	>					
End Soak 1/7	2:07	1:55	2:19	1:43					
Time of Test 1/7	2:22	2:10	2:34	1:58					

Moisture Determination

Can Number	4N	gall	bart	J.T					
Wet Soil + Can(gm)	782.1	782.0	763.6	756.6					
Dry Soil + Can(gm)	720.5	726.3	696.8	706.5					
Water Wt(gm)	61.6	55.7	66.8	50.1					
Can Wt(gm)	195.4	196.5	175.9	173.5					
Dry Soil Wt(gm)	525.1	529.8	520.9	533.0					
Moisture Content(%)	11.7	10.5	12.8	9.4					

DRY UNIT WT (pcf) 118.1 @ 11.5% LBR @ 0.1" PENETRATION 160



Master Rock Various # 7532

JOB NO. 24-31-7207 TYPE SAMPLE Base // BR LAB NO. 70004

GROSS WT. _____ TARE WT. _____

MINUS WT. _____ OVER 2" (& FOREIGN MATTER)

MOISTURE CHECK

_____ WET WT. _____ DRY WT. _____

_____ DRY WT. _____ TARE WT. _____

WATER WT. _____ SOIL WT. _____

TOTAL WT. 44849.3 TOTAL MINUS

+ 3/4 MATL. _____ = _____

+ 4 MATL. _____ = _____

TOTAL +4 17510.3 = 0.390

TOTAL -4 27339.0 = 0.610

19812.7
+ 7526.3
27339.0

17510.3 / TOTAL +4 - 44849.3 / TOTAL WT. = .390 / % + 4 MATL. · 5900 / SIZE SAMPLE = 2304 / GRAMS

27339.0 / TOTAL -4 - 44849.3 / TOTAL WT. = .610 / % - 4 MATL. × 5900 / SIZE SAMPLE = 3596 / GRAMS

TOTAL SAMPLE WT. 5900

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JOB NO. _____ TYPE SAMPLE _____ LAB NO. _____

GROSS WT. _____ TARE WT. _____

MINUS WT. _____ OVER 2" (& FOREIGN MATTER)

MOISTURE CHECK

_____ WET WT. _____ DRY WT. _____

_____ DRY WT. _____ TARE WT. _____

WATER WT. _____ SOIL WT. _____

TOTAL WT. _____ TOTAL MINUS

+ 3/4 MATL. _____ = _____

+ 4 MATL. _____ = _____

TOTAL +4 _____ = _____

TOTAL -4 _____ = _____

_____ / TOTAL +4 - _____ / TOTAL WT. = _____ / % + 4 MATL. · _____ / SIZE SAMPLE = _____ / GRAMS

_____ / TOTAL -4 - _____ / TOTAL WT. = _____ / % - 4 MATL. · _____ / SIZE SAMPLE = _____ / GRAMS

TOTAL SAMPLE WT _____

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