

Aggregate Optimization Chart

MIX ID'S: DDP154E7, DDP154E8, DDP164E7 and DDP164E8

Production Gradation Report

PLANT #: **P-101**

Sample Date: 4/24/17

Concrete Grade: **P1M**

Contractor: _____

Dates Test Represents: 4/24/2017 to 4/30/2017

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	850	5.20	2.62	27.7
IA	71-47	Presque Isle	920	5.63	2.62	30.0
2NS	63-115	Ray Road	1300	7.86	2.65	42.3
Total Wt			3070	18.69		100.0

<----- Verify this number is 100%

Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	95.6	100.0	100.0	98.8	1.2	1.2
1"	45.2	100.0	100.0	84.8	14.0	15.2
3/4"	14.6	96.8	100.0	75.4	9.4	24.6
1/2"	3.2	68.9	100.0	63.9	11.5	36.1
3/8"	2.4	40.4	100.0	55.1	8.8	44.9
#4	2.0	5.6	97.0	43.3	11.8	56.7
#8	2.0	2.2	78.9	34.6	8.7	65.4
#16	1.8	1.7	61.0	26.8	7.8	73.2
#30	1.8	1.6	44.6	19.9	7.0	80.1
#50	1.7	1.5	21.3	9.9	9.9	90.1
#100	1.6	1.4	3.6	2.4	7.6	97.6
LBW	1.3	1.2	0.4	0.9	1.5	99.1



Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

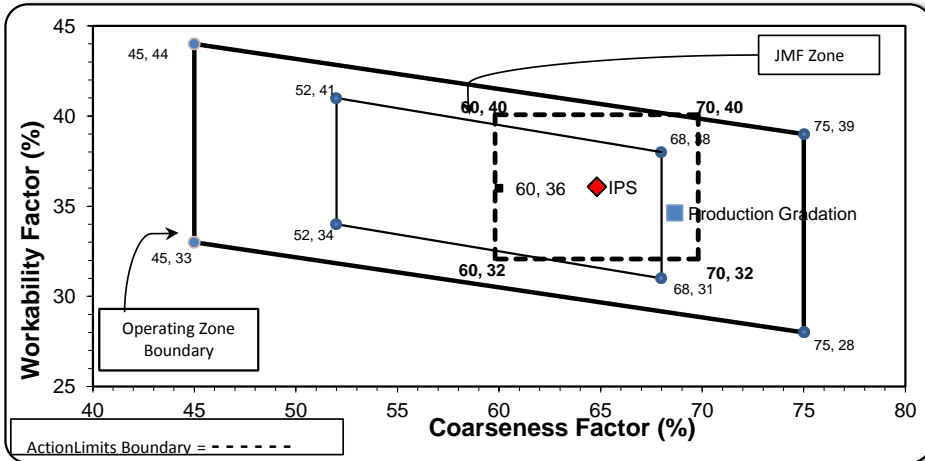
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor:	69	Workability Factor:	35
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Initial Production Sample (IPS)

Coarseness Factor:	65		
Workability Factor:	36		
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	99.3	0.7	0.7
1"	83.6	15.7	16.4
3/4"	73.0	10.6	27.0
1/2"	65.1	7.9	34.9
3/8"	58.6	6.5	41.4
#4	45.8	12.8	54.2
#8	36.1	9.7	63.9
#16	28.8	7.3	71.2
#30	21.7	7.1	78.3
#50	10.3	11.4	89.7
#100	3.1	7.2	96.9
LBW	1.3	1.8	98.7



PREPARED BY:
 SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

MIX ID'S: DDP154E7, DDP154E8, DDP164E7 and DDP164E8

Production Gradation Report

PLANT #: **P-39**

Sample Date: 4/24/17

Concrete Grade: **P1M**

Contractor: _____

Dates Test Represents: 4/24/2017 to 4/30/2017

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
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Total Wt			3070	18.69		100.0

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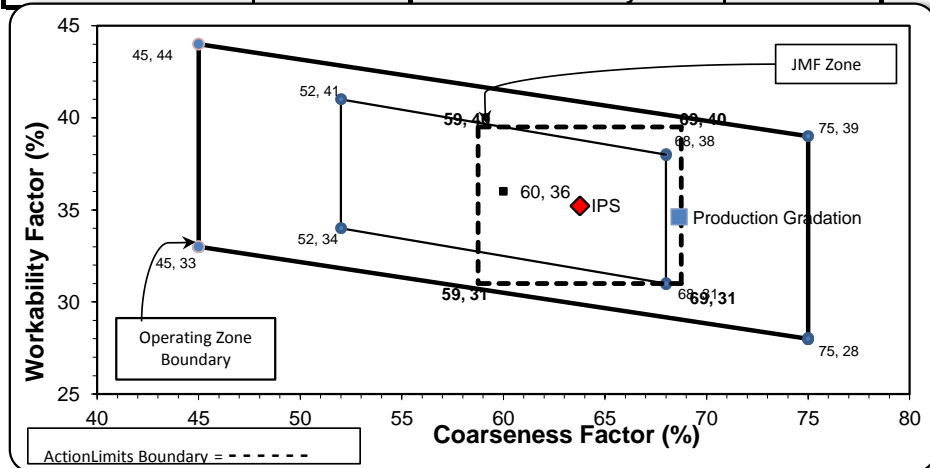
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2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	95.6	100.0	100.0	98.8	1.2	1.2
1"	45.2	100.0	100.0	84.8	14.0	15.2
3/4"	14.6	96.8	100.0	75.4	9.4	24.6
1/2"	3.2	68.9	100.0	63.9	11.5	36.1
3/8"	2.4	40.4	100.0	55.1	8.8	44.9
#4	2.0	5.6	97.0	43.3	11.8	56.7
#8	2.0	2.2	78.9	34.6	8.7	65.4
#16	1.8	1.7	61.0	26.8	7.8	73.2
#30	1.8	1.6	44.6	19.9	7.0	80.1
#50	1.7	1.5	21.3	9.9	9.9	90.1
#100	1.6	1.4	3.6	2.4	7.6	97.6
LBW	1.3	1.2	0.4	0.9	1.5	99.1

*Maximum % Retained must be above the 3/8" sieve.
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Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor:	69	Workability Factor:	35
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Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
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#100	3.1	7.0	96.9
LBW	1.4	1.7	98.6

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