Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-32

Sample Date: 6/1/20

Concrete Grade: **DM**

Contractor: _____

Dates Test Represents: 6/2/2020 through 6/8/2020

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1455	8.90	2.62	50.1
26A	71-47	Presque Isle	300	1.83	2.62	10.3
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6
		Total Wt	**2905**	**17.69**		100.0

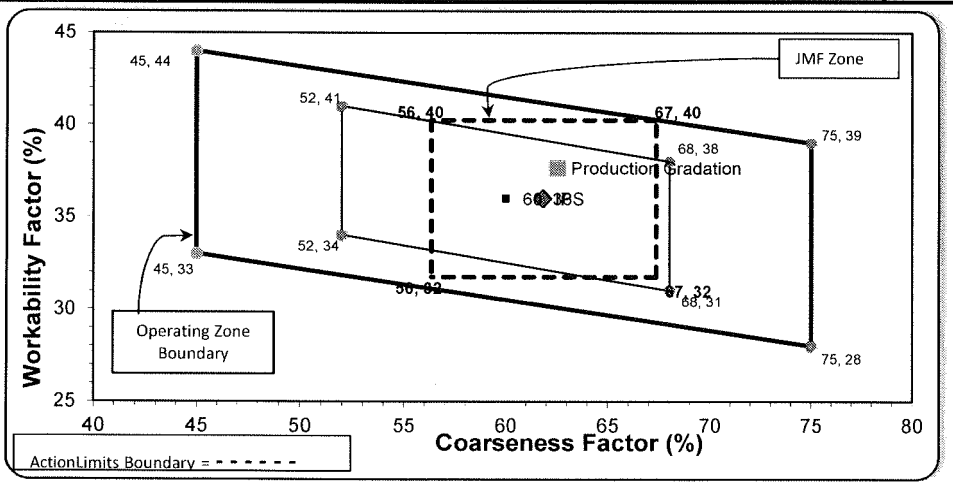
<------ Verify this number is 100%

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	97.4	100.0	100.0	98.7	1.3	1.3
3/4"	81.9	100.0	100.0	90.9	7.8	9.1
1/2"	42.0	98.3	100.0	70.8	20.2	29.2
3/8"	21.6	87.5	100.0	59.4	11.3	40.6
#4	4.3	27.3	96.1	43.0	16.4	57.0
#8	2.5	9.0	83.3	35.2	7.9	64.8
#16	2.1	4.8	69.3	29.0	6.2	71.0
#30	2.0	3.9	46.8	19.9	9.1	80.1
#50	1.9	3.5	18.5	8.6	11.3	91.4
#100	1.7	3.2	4.5	3.0	5.7	97.0
LBW	1.2	2.2	1.0	1.2	1.7	98.8

*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:	63	Workability Factor:	35	Adjusted WF 37.7



Intial Production Sample (IPS)

Coarseness Factor:	62
Workability Factor:	36

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	95.0	5.0	5.0
1/2"	72.3	22.8	27.7
3/8"	60.4	11.8	39.6
#4	42.6	17.8	57.4
#8	36.0	6.6	64.0
#16	29.5	6.5	70.5
#30	20.3	9.2	79.7
#50	9.5	10.8	90.5
#100	3.4	6.1	96.6
LBW	1.3	2.1	98.7

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

PREPARED BY:
SM, LLC Technical Service

Approved By:

Edw. C. Levy Co.

8911 W. Jefferson
Detroit, 48209
(313) 429-2429

Plant 958-JMT

Product 1054-6AA LS PI

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	97.4	%	95-100
	3/4" (19mm)	81.9	%	
	1/2" (12.5mm)	42.0	%	30-60
	3/8" (9.5mm)	21.6	%	
	#4 (4.75mm)	4.3	%	0-8
	#8 (2.36mm)	2.5	%	
	#16 (1.18mm)	2.1	%	
	#30 (.6mm)	2.0	%	
	#50 (.3mm)	1.9	%	
	#100 (.15mm)	1.7	%	
	#200 (75µm)	1.2	%	
	Wash Loss (#200/75um)	1.1	%	0-2
	Total Moisture	2.7	%	

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(313) 429-2429

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 05/31/2020 - 06/06/2020

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	26A Mod LS Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	
	1" (25mm)	100.0	%	
	3/4" (19mm)	100.0	%	100-100
	1/2" (12.5mm)	98.3	%	95-100
	3/8" (9.5mm)	87.5	%	60-95
	#4 (4.75mm)	27.3	%	5-30
	#8 (2.36mm)	9.0	%	0-12
	#16 (1.18mm)	4.8	%	
	#30 (.6mm)	3.9	%	
	#50 (.3mm)	3.5	%	
	#100 (.15mm)	3.2	%	
	#200 (75µm)	2.2	%	
	Wash Loss (#200/75um)	2.0	%	0-3
	Total Moisture	1.9	%	

Edw. C. Levy Co.

8911 W. Jefferson
Detroit, 48209
(313) 429-2429

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.1	%	95-100
	#8 (2.36mm)	83.3	%	65-95
	#16 (1.18mm)	69.3	%	35-75
	#30 (.6mm)	46.8	%	20-55
	#50 (.3mm)	18.5	%	10-30
	#100 (.15mm)	4.5	%	0-10
	#200 (75µm)	1.0	%	
	FM	2.82		2.6-3
	Wash Loss (#200/75um)	1.0	%	0-3
	Total Moisture	4.5	%	

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-35

Contractor: _____

Sample Date: 6/1/20

Concrete Grade: DM

Dates Test Represents: 6/2/2020 through 6/8/2020

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1505	8.97	2.69	50.9
26A	58-003	Stoneco	350	2.09	2.69	11.8
2NS	81-093	Burmeister	1100	6.65	2.65	37.2
		Total Wt	**2955**	**17.70**		100.0

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

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	79.0	100.0	100.0	89.3	10.7	10.7
1/2"	35.0	99.6	100.0	66.8	22.5	33.2
3/8"	17.4	80.9	100.0	55.7	11.2	44.3
#4	4.9	15.7	98.5	41.0	14.6	59.0
#8	2.7	4.9	84.5	33.4	7.6	66.6
#16	2.1	2.8	68.3	26.8	6.6	73.2
#30	1.8	2.1	50.0	19.8	7.0	80.2
#50	1.5	1.7	17.8	7.6	12.2	92.4
#100	1.4	1.5	4.1	2.4	5.2	97.6
LBW	1.1	1.1	1.3	1.2	1.2	98.8

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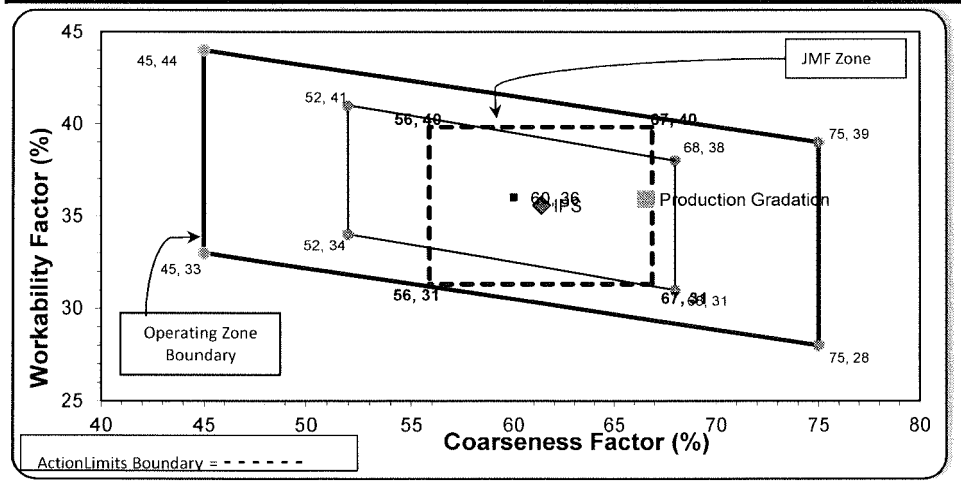
Farmington Hills, MI 48336

*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:	67	Workability Factor:	33	Adjusted WF 35.9



Intial Production Sample (IPS)

Coarseness Factor:	61
Workability Factor:	36

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.1	10.2	10.9
1/2"	70.5	18.6	29.5
3/8"	60.5	10.0	39.5
#4	44.1	16.4	55.9
#8	35.6	8.5	64.4
#16	27.7	7.9	72.3
#30	20.6	7.1	79.4
#50	8.7	11.8	91.3
#100	1.6	7.1	98.4
LBW	1.1	0.6	98.9

PREPARED BY:
SM, LLC Technical Service

Approved By:

SUPERIOR MATERIALS

Plant S35-Superior Romulus

Product 1051-6AA LS

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	100.0	%	95-100
	3/4" (19mm)	79.0	%	
	1/2" (12.5mm)	35.0	%	30-60
	3/8" (9.5mm)	17.4	%	
	#4 (4.75mm)	4.9	%	0-8
	#8 (2.36mm)	2.7	%	
	#16 (1.18mm)	2.1	%	
	#30 (.6mm)	1.8	%	
	#50 (.3mm)	1.5	%	
	#100 (.15mm)	1.4	%	
	#200 (75µm)	1.13	%	
	Wash Loss (#200/75um)	1.1	%	0-2
AASHTO T11	-#200 (75um)	1.13	%	
ASTM C566	Total Moisture	2.90	%	

SUPERIOR MATERIALS

Plant S35-Superior Romulus

Product 1067-26A Mod LS

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	26A LS Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	
	1" (25mm)	100.0	%	
	3/4" (19mm)	100.0	%	100-100
	1/2" (12.5mm)	99.6	%	95-100
	3/8" (9.5mm)	80.9	%	60-95
	#4 (4.75mm)	15.7	%	5-30
	#8 (2.36mm)	4.9	%	0-12
	#16 (1.18mm)	2.8	%	
	#30 (.6mm)	2.1	%	
	#50 (.3mm)	1.7	%	
	#100 (.15mm)	1.5	%	
	#200 (75µm)	1.1	%	
	Wash Loss (#200/75um)	1.0	%	0-3
ASTM C566	Total Moisture	2.33	%	

Plant S35-Superior Romulus

Product 1022-2NS GR

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	98.5	%	95-100
	#8 (2.36mm)	84.5	%	65-95
	#16 (1.18mm)	68.3	%	35-75
	#30 (.6mm)	50.0	%	20-55
	#50 (.3mm)	17.8	%	10-30
	#100 (.15mm)	4.1	%	0-10
	#200 (75µm)	1.3	%	
	FM	2.77		2.6-3
	Wash Loss (#200/75um)	1.3	%	0-3
AASHTO T11	-#200 (75um)	1.33	%	
ASTM C566	Total Moisture	5.31	%	

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-36

Contractor: _____

Sample Date: 6/1/20

Concrete Grade: DM

Dates Test Represents: 6/2/2020 through 6/8/2020

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1555	9.51	2.62	53.5
26A	71-47	Presque Isle	250	1.53	2.62	8.6
2NS	63-92	Grange Hall	1100	6.65	2.65	37.9
		Total Wt	**2905**	**17.69**		100.0

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

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	96.6	100.0	100.0	98.2	1.8	1.8
3/4"	80.8	100.0	100.0	89.7	8.5	10.3
1/2"	43.1	96.6	100.0	69.2	20.5	30.8
3/8"	24.6	79.6	100.0	57.9	11.4	42.1
#4	5.7	23.0	97.5	41.9	15.9	58.1
#8	3.1	8.9	85.5	34.8	7.1	65.2
#16	2.6	5.3	70.6	28.6	6.2	71.4
#30	2.5	4.5	50.1	20.7	7.9	79.3
#50	2.4	4.1	18.5	8.6	12.1	91.4
#100	2.2	3.7	2.9	2.6	6.0	97.4
LBW	1.8	2.8	0.3	1.3	1.3	98.7

*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.

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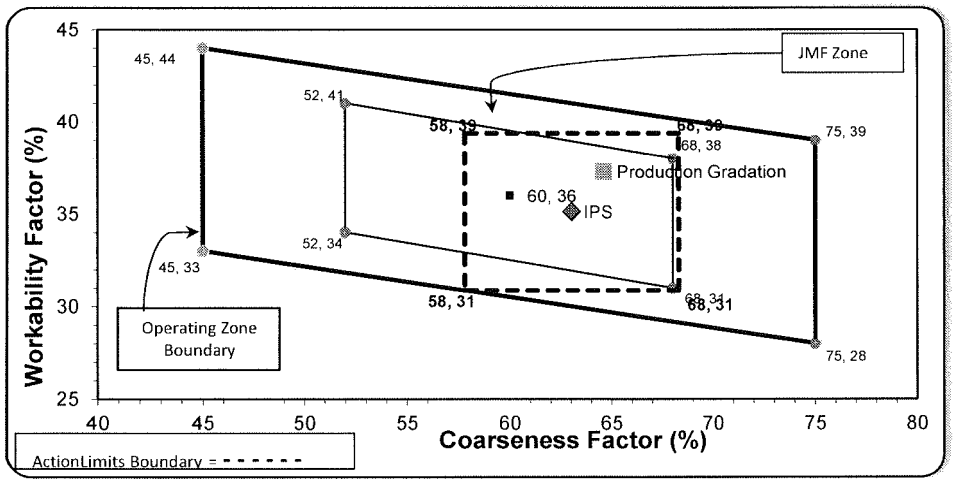
Production Gradation ◉ Batch Plant Gradations ○ Aggregate Supplier Gradations

Coarseness Factor:	65	Workability Factor:	35	Adjusted WF: 37.3



Intial Production Sample (IPS)

Coarseness Factor:	63
Workability Factor:	35

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.1	0.9	0.9
3/4"	90.3	8.8	9.7
1/2"	69.2	21.1	30.8
3/8"	59.1	10.1	40.9
#4	41.8	17.3	58.2
#8	35.1	6.6	64.9
#16	28.5	6.6	71.5
#30	21.2	7.3	78.8
#50	8.7	12.5	91.3
#100	1.8	7.0	98.2
LBW	0.7	1.0	99.3

PREPARED BY:
SM, LLC Technical Service

Approved By:

2470 Auburn Road
Auburn Hills, MI 48432

Plant S36-Superior Auburn Hills

Product 1051-6AA LS

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	96.6	%	95-100
	3/4" (19mm)	80.8	%	
	1/2" (12.5mm)	43.1	%	30-60
	3/8" (9.5mm)	24.6	%	
	#4 (4.75mm)	5.7	%	0-8
	#8 (2.36mm)	3.1	%	
	#16 (1.18mm)	2.6	%	
	#30 (.6mm)	2.5	%	
	#50 (.3mm)	2.4	%	
	#100 (.15mm)	2.2	%	
	#200 (75µm)	1.8	%	
	Wash Loss (#200/75um)	1.7	%	0-2
	Total Moisture	3.70	%	
AASHTO T11	-#200 (75um)	1.83	%	

2470 Auburn Road
Auburn Hills, MI 48432

Plant S36-Superior Auburn Hills

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 05/31/2020 - 06/06/2020

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	26A LS Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	
	1" (25mm)	100.0	%	
	3/4" (19mm)	100.0	%	100-100
	1/2" (12.5mm)	96.6	%	95-100
	3/8" (9.5mm)	79.6	%	60-95
	#4 (4.75mm)	23.0	%	5-30
	#8 (2.36mm)	8.9	%	0-12
	#16 (1.18mm)	5.3	%	
	#30 (.6mm)	4.5	%	
	#50 (.3mm)	4.1	%	
	#100 (.15mm)	3.7	%	
	#200 (75µm)	2.8	%	
	Wash Loss (#200/75um)	2.7	%	0-3
	Total Moisture	3.05	%	

2470 Auburn Road
Auburn Hills, MI 48432

Plant S36-Superior Auburn Hills

Product 1022-2NS GR

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	97.5	%	95-100
	#8 (2.36mm)	85.5	%	65-95
	#16 (1.18mm)	70.6	%	35-75
	#30 (.6mm)	50.1	%	20-55
	#50 (.3mm)	18.5	%	10-30
	#100 (.15mm)	2.9	%	0-10
	#200 (75µm)	0.3	%	
	FM	2.75		2.6-3
	Wash Loss (#200/75um)	0.3	%	0-3
	Total Moisture	3.33	%	

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-39

Contractor: _____

Sample Date: 6/1/20

Concrete Grade: DM

Dates Test Represents: 6/2/2020 through 6/8/2020

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1605	9.82	2.62	55.2
26A	71-47	Presque Isle	200	1.22	2.62	6.9
2NS	44-051	Krake Willis Rd	1100	6.65	2.65	37.9
		Total Wt	**2905**	**17.69**		100.0

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

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.5	100.0	100.0	99.7	0.3	0.3
3/4"	73.2	100.0	100.0	85.2	14.5	14.8
1/2"	37.2	96.6	100.0	65.1	20.1	34.9
3/8"	22.8	80.5	100.0	56.0	9.1	44.0
#4	5.2	17.8	96.0	40.4	15.6	59.6
#8	2.8	5.5	78.2	31.5	8.9	68.5
#16	2.3	3.2	64.6	26.0	5.6	74.0
#30	2.1	2.7	47.4	19.3	6.7	80.7
#50	1.9	2.5	20.3	8.9	10.4	91.1
#100	1.7	2.3	6.0	3.4	5.5	96.6
LBW	1.2	1.9	1.0	1.2	2.2	98.8

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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.

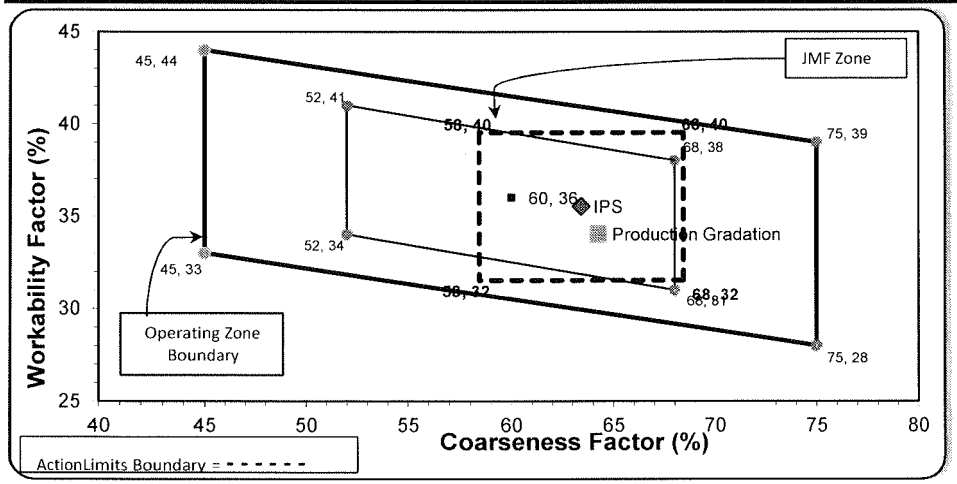
Production Gradation ◉ Batch Plant Gradations ○ Aggregate Supplier Gradations

Coarseness Factor:	64	Workability Factor:	32	Adjusted WF 34.0

Intial Production Sample (IPS)

Coarseness Factor:	63
Workability Factor:	36

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	89.7	10.3	10.3
1/2"	70.3	19.4	29.7
3/8"	59.1	11.2	40.9
#4	42.8	16.3	57.2
#8	35.5	7.3	64.5
#16	29.0	6.5	71.0
#30	21.2	7.7	78.8
#50	9.8	11.5	90.2
#100	3.7	6.1	96.3
LBW	1.2	2.5	98.8



PREPARED BY:
SM, LLC Technical Service

Approved By:

Plant S39-Superior Sterling Heights

Product 1051-6AA LS

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	99.5	%	95-100
	3/4" (19mm)	73.2	%	
	1/2" (12.5mm)	37.2	%	30-60
	3/8" (9.5mm)	22.8	%	
	#4 (4.75mm)	5.2	%	0-8
	#8 (2.36mm)	2.8	%	
	#16 (1.18mm)	2.3	%	
	#30 (.6mm)	2.1	%	
	#50 (.3mm)	1.9	%	
	#100 (.15mm)	1.7	%	
	#200 (75µm)	1.19	%	
	Wash Loss (#200/75um)	1.1	%	0-2
	Total Moisture	3.04	%	

Plant S39-Superior Sterling Heights

Product 1067-26A Mod LS

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	26A LS Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	
	1" (25mm)	100.0	%	
	3/4" (19mm)	100.0	%	100-100
	1/2" (12.5mm)	96.6	%	95-100
	3/8" (9.5mm)	80.5	%	60-95
	#4 (4.75mm)	17.8	%	5-30
	#8 (2.36mm)	5.5	%	0-12
	#16 (1.18mm)	3.2	%	
	#30 (.6mm)	2.7	%	
	#50 (.3mm)	2.5	%	
	#100 (.15mm)	2.3	%	
	#200 (75µm)	1.9	%	
	Wash Loss (#200/75um)	1.8	%	0-3
	Total Moisture	2.36	%	

Plant S39-Superior Sterling Heights

Product 1022-2NS GR

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.0	%	95-100
	#8 (2.36mm)	78.2	%	65-95
	#16 (1.18mm)	64.6	%	35-75
	#30 (.6mm)	47.4	%	20-55
	#50 (.3mm)	20.3	%	10-30
	#100 (.15mm)	6.0	%	0-10
	#200 (75µm)	1.0	%	
	FM	2.88		2.6-3
	Wash Loss (#200/75um)	1.0	%	0-3
	Total Moisture	3.53	%	

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-102

Sample Date: 6/1/20

Concrete Grade: DM

Contractor: _____

Dates Test Represents: 6/2/2020 through 6/8/2020

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1500	8.94	2.69	50.8
26A	58-003	Stoneco	305	1.82	2.69	10.3
2NS	63-114	Highland	1150	6.95	2.65	38.9
		Total Wt	**2955**	**17.71**		100.0

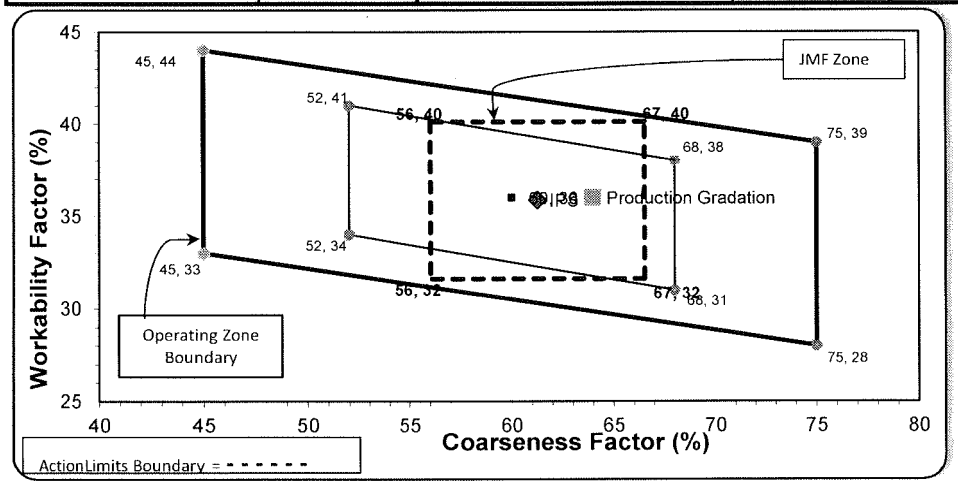
<----- Verify this number is 100%

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	78.6	100.0	100.0	89.1	10.9	10.9
1/2"	36.5	99.7	100.0	67.7	21.4	32.3
3/8"	18.0	91.0	100.0	57.4	10.3	42.6
#4	3.8	17.5	99.2	42.3	15.1	57.7
#8	1.7	5.1	82.5	33.5	8.8	66.5
#16	1.3	3.0	63.0	25.5	8.0	74.5
#30	1.1	2.4	44.5	18.1	7.4	81.9
#50	1.0	2.1	19.4	8.3	9.8	91.7
#100	1.0	1.9	4.0	2.3	6.0	97.7
LBW	0.9	1.8	1.0	1.0	1.2	99.0

*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:	64	Workability Factor:	33	Adjusted WF: 36.0



Intial Production Sample (IPS)

Coarseness Factor:	61
Workability Factor:	36

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

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PREPARED BY:
SM, LLC Technical Service

Approved By:

SUPERIOR MATERIALS

Plant S102-Superior Novi

Product 1051-6AA LS

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	100.0	%	95-100
	3/4" (19mm)	78.6	%	
	1/2" (12.5mm)	36.5	%	30-60
	3/8" (9.5mm)	18.0	%	
	#4 (4.75mm)	3.8	%	0-8
	#8 (2.36mm)	1.7	%	
	#16 (1.18mm)	1.3	%	
	#30 (.6mm)	1.1	%	
	#50 (.3mm)	1.0	%	
	#100 (.15mm)	1.0	%	
	#200 (75µm)	0.91	%	
	Wash Loss (#200/75um)	0.8	%	0-2
	Total Moisture	3.14	%	

SUPERIOR MATERIALS

Plant S102-Superior Novi

Product 1067-26A Mod LS

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	26A Mod LS Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	
	1" (25mm)	100.0	%	
	3/4" (19mm)	100.0	%	100-100
	1/2" (12.5mm)	99.7	%	95-100
	3/8" (9.5mm)	91.0	%	60-95
	#4 (4.75mm)	17.5	%	5-30
	#8 (2.36mm)	5.1	%	0-12
	#16 (1.18mm)	3.0	%	
	#30 (.6mm)	2.4	%	
	#50 (.3mm)	2.1	%	
	#100 (.15mm)	1.9	%	
	#200 (75µm)	1.8	%	
	Wash Loss (#200/75um)	1.7	%	0-3
	Total Moisture	3.08	%	

Plant S102-Superior Novi

Product 1022-2NS GR

Period: 05/31/2020 - 06/06/2020

Name/Title Doug Storey / QC Technician

Report Date 06/05/2020

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	99.2	%	95-100
	#8 (2.36mm)	82.5	%	65-95
	#16 (1.18mm)	63.0	%	35-75
	#30 (.6mm)	44.5	%	20-55
	#50 (.3mm)	19.4	%	10-30
	#100 (.15mm)	4.0	%	0-10
	#200 (75µm)	1.0	%	
	FM	2.87		2.6-3
	Wash Loss (#200/75um)	0.8	%	0-3
	Total Moisture	4.03	%	