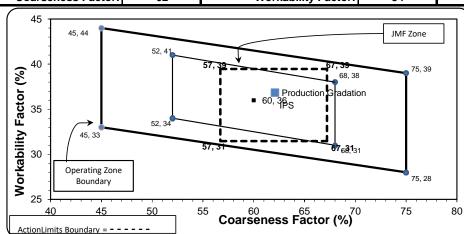
Production	Gradation	Report
------------	-----------	--------

PLANT #	#:	P-101					Contractor:			
Sample Date	:	6/6/22		С	oncrete Grade:	DM, 4500HP				
Dates Test R	epresents:	6/7/2022	through	6/13/2022			MDOT No.:			
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific	%				
6AA	71-47		1760	10.77	Gravity 2.62	Contribution 60.5				
6AA 26A	71-47	Presque Isle Presque Isle	0	0.00	2.62	0.0				
26A 2NS	75-051	Mid Michigan	1150	6.93	2.62	39.5				
2110	75-051	Total Wt		17.69	2.00	100.0	< Verify this n	umber is 100%		SUP
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		<u>Superior</u> 30701 W.
2"	1	100.0	100).0	100.0	100.0	0.0	0.0		Suite 500
1.5"	1	100.0	100).0	100.0	100.0	0.0	0.0		Farmingto
1"	1	100.0	100).0	100.0	100.0	0.0	0.0		
3/4"		89.2	100).0	100.0	93.5	6.5	6.5		
1/2"		52.1	97	.9	100.0	71.0	22.4	29.0		
3/8"		32.6	88	.1	100.0	59.2	11.8	40.8	*Maximum %	Retained must be
#4		4.7	23	.1	98.7	41.8	17.4	58.2	*Any two adja	cent sieves must
#8		2.1	5.		83.7	34.3	7.5	65.7	nom. max., #10	00 and #200 sieve
#16		1.7	3.		68.3	28.0	6.3	72.0	*% Retained r	must be at least 4
#30		1.5	2.		52.1	21.5	6.5	78.5	nom. max., #10	00 and #200 sieve
#50		1.5	2.		25.7	11.1	10.4	88.9	*% Retained r	must be at least 8
#100		1.4	2.		6.4	3.4	7.7	96.6	a 2" max. size	(nom. Max. 1.5") a
LBW		1.3	1.	9	0.9	1.1	2.2	98.9		
Production G	Gradation	O Batch Plant Gra	dations 💿 Aggi	regate Supplier Grac	lations	Adjusted WF	Initial Producti	on Sample (IPS	S)	
Coarsene	ess Factor:	62	Work	ability Factor:	34	36.8	Coars	eness Factor:	62	
45							Work	ability Factor:	35	
	45, 44				JMF Zone		Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
		52, 41					2"	100.0	0.0	0.0
्र ⁴⁰			57, 39	67, 39 68, 38	75, 39		1.5"	100.0	0.0	0.0
			! _				1"	100.0	0.0	0.0
j			60, 3	Production Gradatic	on		3/4"	95.0	5.0	5.0
Factor (%)							1/2"	70.5	24.5	29.5
ΙЩ I	\rightarrow	52, 34					3/8"	60.0	10.5	40.0
ž	45, 33						#4	44.4	15.6	55.6



r Materials, LLC 10 Mile Rd. on Hills, MI 48336

above the 3/8" sieve. equal 10% except max., es. 1% for each sieve except max., es. 3% for the 1" sieve when aggregate is used.



Coars	eness Factor:	62	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% 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"	70.5	24.5	29.5
3/8"	60.0	10.5	40.0
#4	44.4	15.6	55.6
#8	35.5	9.0	64.5
#16	28.5	7.0	71.5
#30	21.5	7.0	78.5
#50	10.2	11.3	89.8
#100	3.1	7.1	96.9
LBW	1.3	1.8	98.7

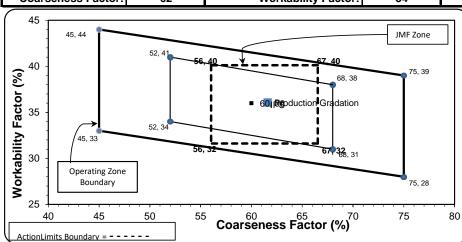
Approved By:

PLANT #	#:	P-102					Contractor:			
Sample Date	:	6/6/22		(Concrete Grade:	DM, 4500HP				
Dates Test R	epresents:	6/7/2022	through	6/13/2022			MDOT No.:			
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution				
6AA	58-003	Stoneco	1480	8.82	2.69	50.2				
26A	58-003	Stoneco	320	1.91	2.69	10.8				
2NS	81-019	Pleasant Lake	1150	6.95	2.65	39.0	1			SUPI
		Total Wt	2950	17.68		100.0	< Verify this n	umber is 100%	-	MATE
Sieve		6AA	20	6A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		<u>Superior N</u> 30701 W. 10
2"		100.0	10	0.0	100.0	100.0	0.0	0.0		Suite 500
1.5"		100.0	10	0.0	100.0	100.0	0.0	0.0		Farmington
1"		100.0	10	0.0	100.0	100.0	0.0	0.0		
3/4"		82.2	10	0.0	100.0	91.1	8.9	8.9		
1/2"		43.4	99	9.5	100.0	71.5	19.5	28.5		
3/8"		20.6	90).0	100.0	59.1	12.5	40.9	*Maximum %	Retained must be al
#4		3.6	13	3.3	98.4	41.6	17.5	58.4	*Any two adja	cent sieves must eq
#8		1.6	5	.2	82.6	33.6	8.0	66.4	nom. max., #10	00 and #200 sieves.
#16		1.5	3	.4	64.8	26.4	7.2	73.6	*% Retained	must be at least 4%
#30		1.2	2	.8	46.9	19.2	7.2	80.8	nom. max., #10	00 and #200 sieves.
#50		1.0	2	.6	22.9	9.7	9.5	90.3	*% Retained	must be at least 8%
#100		0.9		.5	7.0	3.5	6.3	96.5	a 2" max. size	(nom. Max. 1.5") ago
LBW		0.8	2	.4	1.2	1.1	2.3	98.9		
Production G	radation	O Batch Plant Gra	idations 💿 Agg	regate Supplier Gra	adations	Adjusted WF	Intial Producti	on Sample (IPS	5)	
Coarsene	ess Factor:	62	Worl	kability Factor:	34	36.1	Coars	eness Factor:	61	
45							Work	ability Factor:	36	
	15, 44				JMF Zone		Sieve	Cumulative	%	Cumulative
	,				3111 20110		Sieve	% Passing	Retained	% Retained
		52, 41 56	40	67 40			2"	100.0	0.0	0.0
<u>چ</u>					75, 39		1.5"	100.0	0.0	0.0
<u>ک</u>				68, 38	Ī		1"	00.3	07	0.7



laterials, LLC 0 Mile Rd. Hills, MI 48336

pove the 3/8" sieve. ual 10% except max., or each sieve except max., or the 1" sieve when regate is used.



Coars	seness Factor:	61	
Worl	kability Factor:	36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% 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

Approved By: Mart P. Ball

PLANT :	#:	P-103	_				Contractor:				
Sample Date	e:	6/6/22		C	Concrete Grade	: DM, 4500HP	_				
Dates Test R	Represents:	6/7/2022	through	6/13/2022			MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution					
6AA	58-003	Stoneco	1480	8.82	2.69	50.2					
26A	58-003	Stoneco	320	1.91	2.69	10.8					
2NS	81-019	Pleasant Lake	1150	6.95	2.65	39.0				SUP	ERIOR
		Total Wt	2950	17.68		100.0	< Verify this n	umber is 100%			RIALS
Sieve		6AA	26	Α	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		Superior 30701 W. 1	Materials, LLC 10 Mile Rd.
2"		100.0	10	0.0	100.0	100.0	0.0	0.0		Suite 500	
1.5"		100.0	100	0.0	100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336
1"		100.0	10	0.0	100.0	100.0	0.0	0.0			
3/4"		82.2	100		100.0	91.1	8.9	8.9			
1/2"		43.4	99		100.0	71.5	19.5	28.5			
3/8"		20.6	90		100.0	59.1	12.5	40.9	*Maximum %	Retained must be a	above the 3/8" sieve.
#4		3.6	13		98.4	41.6	17.5	58.4	*Any two adja	cent sieves must e	qual 10% except max.,
#8		1.6	5.		82.6	33.6	8.0	66.4	nom. max., #10	00 and #200 sieves	
#16		1.5	3.		64.8	26.4	7.2	73.6	*% Retained I	must be at least 4%	for each sieve except
#30		1.2	2.	-	46.9	19.2	7.2	80.8	,	00 and #200 sieves	
#50		1.0	2.	-	22.9	9.7	9.5	90.3			for the 1" sieve when
#100 LBW		0.9	2.		7.0	3.5	6.3	96.5	a 2" max. size	(nom. Max. 1.5") aç	gregate is used.
LBW		0.8	2.		1.2	1.1	2.3	98.9			
Production G	Gradation	O Batch Plant Gra	idations 💽 Agg	regate Supplier Gra	idations	Adjusted WF	Intial Production	on Sample (IPS	5)	_	
Coarsene	ess Factor:	62	Work	ability Factor:	34	36.1	Coars	eness Factor:	61		
45							Work	ability Factor:	36		
45	45, 44				JMF Zone		Sieve	Cumulative % Passing	% Retained	Cumulative % Retained	
1		52, 41					2"	100.0	0.0	0.0	
a ⁴⁰		56	40	67.40	75, 39		1.5"	100.0	0.0	0.0	
లి 1				68, 38			1"	99.3	0.7	0.7	
5			·				3/4"	89.2	10.1	10.8	
ž 35				oduction Gradation			1/2"	70.7	18.5	29.3	
107	\rightarrow	52, 34	-	!			3/8"	60.7	10.0	39.3	
ш" ј			L				#4	44.4	16.3	55.6	
ity Fa	45, 33	56	32	67, 32 68, 31			#8	35.9	8.5	64.1	
bility F	45, 33	50		00,01			#16	27.3	8.6	72.7	
kability Fa		_		00,01				21.5	0.0	12.1	
orkability Fa	Operating Zone Boundary	_		00, 01	75, 28		#30	19.1	8.2	80.9	
Worka	Operating Zone	_		00, 01			#30 #50	19.1 7.4	8.2 11.7	80.9 92.6	
Norkability Fa	Operating Zone	_	5 Coarseness			80	#30	19.1	8.2	80.9	

Approved BY: Mary P. Ball

PLANT	#:	P-12					Contractor:				
Sample Date	e:	6/6/22		C	Concrete Grade	DM, 4500HP					
Dates Test F	Represents:	6/7/2022	through	6/13/2022			MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution					
6AA	71-47	Presque Isle	1400	8.56	2.62	48.2					
26A	71-47	Presque Isle	355	2.17	2.62	12.2					
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6				SUP	FRIOR
		Total Wt	2905	17.69		100.0	< Verify this n	umber is 100%	•	MATE	RIALS
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		<u>Superior I</u> 30701 W. 1	<u>Materials, LLC</u> .0 Mile Rd.
2"	1	00.0	10	0.0	100.0	100.0	0.0	0.0		Suite 500	
1.5"		00.0	10		100.0	100.0	0.0	0.0		Farmingtor	n Hills, MI 48336
1"		98.6		0.0	100.0	99.3	0.7	0.7			
3/4"		80.7	-	0.0	100.0	90.7	8.6	9.3			
1/2"		36.8	93		100.0	68.7	22.0	31.3			
3/8"		13.4	79		100.0	55.8	12.9	44.2			above the 3/8" sieve.
#4		3.1	20		96.8	42.3	13.5	57.7			equal 10% except max.,
#8		2.6		.9	79.2	33.2	9.1	66.8		00 and #200 sieves	
#16 #30		2.4 2.3	2	-	61.0 43.2	25.6 18.5	7.6 7.1	74.4 81.5			6 for each sieve except
#30 #50		2.3		.5 .4	23.1	10.5	8.1	89.6		00 and #200 sieves	6 for the 1" sieve when
#100		1.9	2		5.3	3.3	7.2	96.7		(nom. Max. 1.5") a	
LBW		1.4		.8	1.1	1.3	2.0	98.7		(1011: 104. 1.5) a	ggregate is used.
Production G	Gradation	O Batch Plant Gra	dations 💿 Agg	regate Supplier Gra	dations	Adjusted WF	Intial Production	on Sample (IPS	3)		
Coarsen	ess Factor:	66	Work	ability Factor:	33	35.7	Coars	eness Factor:	63		
45							Work	ability Factor:	36		
1	45, 44							Cumulative	%	Cumulative	
-	- ,	52, 41			JMF Zone		Sieve	% Passing	Retained	% Retained	
40		52, 4	57, 40	68, 40			2"	100.0	0.0	0.0	
@ ~				68, 38	75, 39		1.5"	100.0	0.0	0.0	
			!				1"	99.3	0.7	0.7	
Factor (%)			■ 60, 36	IPS 🔳 Production	n Gradation		3/4"	89.0	10.3	11.0	
3 5 -			1	i			1/2"	70.3	18.7	29.7	
2	45, 33	52, 34		U			3/8"	59.9	10.4	40.1	
	/ .0, 00		37,32	68, 32 68, 31			#4	41.9	18.0	58.1	
		_		00, 31			#8	35.9	6.0	64.1	
Workability	Operating Zone				75, 28		#16	27.8	8.2	72.2	
š IL	Boundary				75,20		#30 #50	18.9 6.3	8.8 12.6	81.1 93.7	
25	····			~~			#50 #100	0.3 1.7	4.6	93.7 98.3	
40	45	<u>50</u> 55	Coarseness	Factor (%) ⁷⁰	75	80	LBW	1.0	4.6	98.3 99.0	
								1.0	0.1	55.0	

Approved By:

PLANT #	#:	P-32					Contractor:				
Sample Date	:	6/6/22		C	Concrete Grade	DM, 4500HP				-	
Dates Test R	epresents:	6/7/2022	through	6/13/2022			MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution					
6AA	71-47	Presque Isle	1305	7.98	2.62	44.9					
26A	71-47	Presque Isle	450	2.75	2.62	15.5					
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6				SUP	ERIOR
		Total Wt	2905	17.69		100.0	< Verify this n	umber is 100%	1		RIALS
Sieve	(5AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained			<u>Materials, LLC</u> 10 Mile Rd.
2"	1	00.0	100	0.0	100.0	100.0	0.0	0.0		Suite 500	
1.5"	1	00.0	100	0.0	100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336
1"	9	99.3	100	0.0	100.0	99.7	0.3	0.3			
3/4"		74.2	100		100.0	88.4	11.3	11.6			
1/2"		31.9	93		100.0	68.4	20.1	31.6			
3/8"		13.5	79		100.0	58.0	10.4	42.0	*Maximum %	Retained must be	above the 3/8" sieve.
#4		2.5	20		96.6	42.5	15.4	57.5			qual 10% except max.,
#8		2.2	4.	-	84.6	35.2	7.3	64.8		00 and #200 sieves	
#16		2.0	2.		69.8	29.0	6.3	71.0			6 for each sieve except
#30 #50		<u>1.9</u> 1.7	2.		50.8 24.5	21.4 10.8	7.6	78.6 89.2		00 and #200 sieves	
#50 #100		1.6	2.		24.5 6.9	3.8	10.5 7.0	89.2 96.2			6 for the 1" sieve when
LBW		1.2	1.		1.3	1.3	2.5	98.7	a z max. size	(nom. Max. 1.5") a	ggregate is used.
roduction G	radation	Batch Plant Gra		egate Supplier Gra		-	-	on Sample (IPS	5)		
Coarsene	ss Factor:	65	Work	ability Factor:	35	37.7		eness Factor:	62		
			-	,			Work	ability Factor:	36		
45								Cumulative	%	Cumulative	
- 4	5, 44				JMF Zone		Sieve	% Passing	Retained	% Retained	
-		52, 41	5.40	67, 40			2"	100.0	0.0	0.0	
a ⁴⁰					75, 39		1.5"	100.0	0.0	0.0	
ð				68, 38	radation		1"	100.0	0.0	0.0	
j j			6 0, 3B				3/4"	95.0	5.0	5.0	
Factor (%)		l					1/2"	72.3	22.8	27.7	
Ľ		52, 34	-	i			3/8"	60.4	11.8	39.6	
lit	45, 33	R.					#4	42.6	17.8	57.4	
ig 30 -	ļ		,	67, 32 68, 31			#8	36.0	6.6	64.0 70.5	
ž	Operating Zone						#16 #30	29.5 20.3	6.5 9.2	70.5 79.7	
Workability	Boundary				75, 28		#30	9.5	9.2	90.5	
> ₂₅							#100	9.5 3.4	6.1	96.6	
40	45	<u>50</u> 55	60	Factor (%) ⁷⁰	75	80	LBW	1.3	2.1	98.7	

Approved By:

							Contractor:				
Sample Date		6/6/22			Concrete Grade	DM, 4500HP	MDOTN				
Dates Test R	1	6/7/2022	through	6/13/2022	Specific	%	MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Gravity	Contribution					
6AA	58-003	Stoneco	1480	8.82	2.69	50.2					
26A	58-003	Stoneco	320	1.91	2.69	10.8					
2NS	81-019	Pleasant Lake	1150	6.95	2.65	39.0				SUD	ERIOR
		Total Wt	2950	17.68		100.0	< Verify this n	umber is 100%	1	MATE	RIALS
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		Superior 30701 W. 1	Materials, LLC 10 Mile Rd.
2"		100.0	10	0.0	100.0	100.0	0.0	0.0		Suite 500	
1.5"		100.0	100	0.0	100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336
1"		100.0	10	0.0	100.0	100.0	0.0	0.0			
3/4"		82.2	100		100.0	91.1	8.9	8.9			
1/2"		43.4	99	9.5	100.0	71.5	19.5	28.5			
3/8"		20.6	90	0.0	100.0	59.1	12.5	40.9	*Maximum %	Retained must be a	above the 3/8" sieve
#4		3.6	13	3.3	98.4	41.6	17.5	58.4	*Any two adja	cent sieves must e	qual 10% except ma
#8		1.6	5.	.2	82.6	33.6	8.0	66.4	nom. max., #10	00 and #200 sieves	
#16		1.5	3.	.4	64.8	26.4	7.2	73.6	*% Retained r	must be at least 4%	for each sieve exce
#30		1.2	2.	.8	46.9	19.2	7.2	80.8	nom. max., #10	00 and #200 sieves	
#50		1.0	2.	.6	22.9	9.7	9.5	90.3	*% Retained r	must be at least 8%	for the 1" sieve whe
#100		0.9	2.	F	7.0	25	6.0				naregate is used
LBW				-	-	3.5	6.3	96.5	a 2" max. size ((nom. Max. 1.5") ag	geogato lo abbai
LDII		0.8	2.	-	1.2	3.5 1.1	6.3 2.3	96.5 98.9	a 2" max. size ((nom. Max. 1.5") aç	<u>gg</u> , egate te acca.
	adation		2.	-	1.2	1.1	2.3			(nom. Max. 1.5") aູ	
Production G	aradation	0.8	2. dations	.4	1.2 dations	1.1	2.3 Intial Production	98.9		(nom. Max. 1.5") aູ	, , , , , , , , , ,
Production G		0.8 O Batch Plant Gra	2. dations	.4 regate Supplier Gra	1.2 dations	1.1 Adjusted WF	2.3 Intial Productio Coars	98.9 on Sample (IPS	·)	(nom. Max. 1.5") aç	
Production G Coarsene	ess Factor:	0.8 O Batch Plant Gra	2. dations	.4 regate Supplier Gra	1.2 Idations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work	98.9 on Sample (IPS eness Factor:	5) 61	(nom. Max. 1.5") aç Cumulative	
Production G Coarsene		0.8 Batch Plant Gra 62	2. dations	.4 regate Supplier Gra	1.2 dations	1.1 Adjusted WF	2.3 Intial Productio Coars	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing) 61 36		
Production G Coarsene	ess Factor:	0.8 O Batch Plant Gra	2. dations	.4 regate Supplier Gra	1.2 Idations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2"	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0	5) 61 36 %	Cumulative % Retained 0.0	
Coarsene	ess Factor:	0.8 Batch Plant Gra 62	2. dations	4 regate Supplier Gra cability Factor:	1.2 Idations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2" 1.5"	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0) 61 36 % Retained	Cumulative % Retained 0.0 0.0	
Coarsene	ess Factor:	0.8 Batch Plant Gra 62	2. dations	.4 regate Supplier Gra	1.2 Idations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2" 1.5" 1"	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3) 61 36 % Retained 0.0 0.0 0.7	Cumulative % Retained 0.0 0.0 0.7	
Coarsene	ess Factor:	0.8 Batch Plant Gra 62	2. dations () Agg Work	4 regate Supplier Gra cability Factor:	1.2 Idations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4"	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.1) 61 36 % Retained 0.0 0.0 0.0 0.7 10.2	Cumulative % Retained 0.0 0.0 0.7 10.9	
Coarsene	ess Factor:	0.8 Batch Plant Gra 62	2. dations () Agg Work	4 regate Supplier Gra cability Factor:	1.2 Idations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2"	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.1 70.5) 61 36 % Retained 0.0 0.0 0.0 0.7 10.2 18.6	Cumulative % Retained 0.0 0.0 0.7 10.9 29.5	
Coarsene	45, 44	0.8 Batch Plant Gra 62	2. dations () Agg Work	4 regate Supplier Gra cability Factor:	1.2 Idations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8"	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.1 70.5 60.5	61 36 % Retained 0.0 0.0 0.7 10.2 18.6 10.0	Cumulative % Retained 0.0 0.0 0.7 10.9 29.5 39.5	
Coarsene	ess Factor:	0.8 Batch Plant Gra 62 52, 41 56, 52, 34	2. dations () Agg Work	4 regate Supplier Gra cability Factor:	1.2 Idations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.1 70.5 60.5 44.1	61 36 % Retained 0.0 0.0 0.7 10.2 18.6 10.0 16.4	Cumulative % Retained 0.0 0.0 0.7 10.9 29.5 39.5 55.9	
Coarsene	45, 44	0.8 () Batch Plant Gra 62 52, 41 56,	2. dations () Agg Work	4 regate Supplier Gra cability Factor:	1.2 Idations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.1 70.5 60.5 44.1 35.6	61 36 % Retained 0.0 0.0 0.7 10.2 18.6 10.0 16.4 8.5	Cumulative % Retained 0.0 0.0 0.7 10.9 29.5 39.5 55.9 64.4	
Coarsene	45, 44	0.8 () Batch Plant Gra 62 52, 41 52, 34 52, 34 56,	2. dations () Agg Work	4 regate Supplier Gra cability Factor: 68, 38 pduction Gradation	1.2 Idations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.1 70.5 60.5 44.1 35.6 27.7	61 36 % Retained 0.0 0.0 0.7 10.2 18.6 10.0 16.4 8.5 7.9	Cumulative % Retained 0.0 0.7 10.9 29.5 39.5 55.9 64.4 72.3	
Production G Coarsene	45, 44 45, 33	0.8 () Batch Plant Gra 62 52, 41 52, 34 52, 34 56,	2. dations () Agg Work	4 regate Supplier Gra cability Factor: 68, 38 pduction Gradation	1.2 Idations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16 #30	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.1 70.5 60.5 44.1 35.6 27.7 20.6	61 36 % Retained 0.0 0.0 0.7 10.2 18.6 10.0 16.4 8.5 7.9 7.1	Cumulative % Retained 0.0 0.7 10.9 29.5 39.5 55.9 64.4 72.3 79.4	
Norkability Factor (%)	45, 44 45, 33 Operating Zone	0.8 () Batch Plant Gra 62 52, 41 52, 34 52, 34 56,	2. dations () Agg Work	4 regate Supplier Gra cability Factor: 68, 38 pduction Gradation	1.2 dations 34	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16 #30 #50	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.1 70.5 60.5 44.1 35.6 27.7 20.6 8.7	61 36 % Retained 0.0 0.7 10.2 18.6 10.0 16.4 8.5 7.9 7.1 11.8	Cumulative % Retained 0.0 0.7 10.9 29.5 39.5 55.9 64.4 72.3 79.4 91.3	
Production G Coarsene	45, 44 45, 33 Operating Zone	0.8 () Batch Plant Gra 62 52, 41 52, 34 52, 34 56,	2. dations • Agg	4 regate Supplier Gra cability Factor: 68, 38 pduction Gradation	1.2 idations 34 JMF Zone 75, 39 75, 28	1.1 Adjusted WF	2.3 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16 #30	98.9 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.1 70.5 60.5 44.1 35.6 27.7 20.6	61 36 % Retained 0.0 0.0 0.7 10.2 18.6 10.0 16.4 8.5 7.9 7.1	Cumulative % Retained 0.0 0.7 10.9 29.5 39.5 55.9 64.4 72.3 79.4	



3/8" sieve. except max., sieve except max., sieve when is used.

PREPARED BY: SM, LLC Technical Service

ActionLimits Boundary = - - - - -



PLANT #	#:	P-36					Contractor:				
Sample Date	:	6/6/22		C	Concrete Grade	DM, 4500HP					
Dates Test R	epresents:	6/7/2022	through	6/13/2022			MDOT No.:				•
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution					
6AA	71-47	Presque Isle	1400	8.56	2.62	48.2					
26A	71-47	Presque Isle	405	2.48	2.62	13.9					
2NS	63-92	Grange Hall	1100	6.65	2.65	37.9				SUP	ERIOR
		Total Wt	2905	17.69		100.0	< Verify this n	umber is 100%			RIALS
Sieve	(6AA	26	Α	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		<u>Superior</u> 30701 W. 3	Materials, LLC 10 Mile Rd.
2"	1	00.0	100	0.0	100.0	100.0	0.0	0.0		Suite 500	
1.5"		00.0	100	-	100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336
1"	9	98.6	100).0	100.0	99.3	0.7	0.7			
3/4"		80.7	100		100.0	90.7	8.6	9.3			
1/2"		36.8	93	.2	100.0	68.6	22.1	31.4			
3/8"		13.4	79	-	100.0	55.4	13.2	44.6	*Maximum %	Retained must be a	above the 3/8" sieve.
#4		3.1	20		97.4	41.2	14.2	58.8	*Any two adja	cent sieves must e	qual 10% except max.,
#8		2.6	4.	-	83.3	33.5	7.8	66.5	nom. max., #10	00 and #200 sieves	i.
#16		2.4	2.		69.1	27.7	5.8	72.3			for each sieve except n
#30		2.3	2.		52.1	21.2	6.5	78.8	,	00 and #200 sieves	
#50		2.1	2.		25.0	10.8	10.4	89.2			for the 1" sieve when
#100 LBW		1.9 1.4	2.		3.0 0.4	2.4 1.1	8.5 1.3	97.6 98.9	a 2" max. size	(nom. Max. 1.5") ag	ggregate is used.
	1.4	Batch Plant Gra		egate Supplier Gra	.						
Production G		0		• • • •	1			on Sample (IPS		1	
Coarsene	ess Factor:	67	Work	ability Factor:	33	36.0		eness Factor:	63		
45							Work	ability Factor:	35		I
	15, 44				JMF Zone		Sieve	Cumulative	%	Cumulative	
							OIEVE				
-		ED 44						% Passing	Retained	% Retained	
40 -		52, 41					2"	100.0	0.0	0.0	
% ⁴⁰		52, 41	58, 39	68 , 39	75, 39		2" 1.5"	100.0 100.0	0.0 0.0	0.0	
40 (%) J		52, 41	58, 39	68 , 38	75, 39		2" 1.5" 1"	100.0 100.0 99.1	0.0 0.0 0.9	0.0 0.0 0.9	
ctor (%)		52, 41	58, 39 60, 36	P roducti	75, 39 ion Gradation		2" 1.5" 1" 3/4"	100.0 100.0 99.1 90.3	0.0 0.0 0.9 8.8	0.0 0.0 0.9 9.7	
Factor (%)			58, 32 6 0, 36				2" 1.5" 1"	100.0 100.0 99.1	0.0 0.0 0.9	0.0 0.0 0.9	
Factor (%)	45.33	52, 41	58, 39 • 60, 36	P roducti			2" 1.5" 1" 3/4" 1/2"	100.0 100.0 99.1 90.3 69.2	0.0 0.0 0.9 8.8 21.1 10.1	0.0 0.9 9.7 30.8 40.9	
Factor (%)	45, 33			IPS Producti	ion Gradation		2" 1.5" 1" 3/4" 1/2" 3/8"	100.0 100.0 99.1 90.3 69.2 59.1	0.0 0.0 0.9 8.8 21.1	0.0 0.0 0.9 9.7 30.8	
Factor (%)		52, 34	58 , 39 6 0, 36 58 , 31	P roducti	ion Gradation		2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16	100.0 100.0 99.1 90.3 69.2 59.1 41.8	0.0 0.9 8.8 21.1 10.1 17.3 6.6 6.6	0.0 0.9 9.7 30.8 40.9 58.2 64.9 71.5	
Factor (%)	45, 33 Operating Zone Boundary	52, 34		IPS Producti	ion Gradaton		2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16 #30	100.0 100.0 99.1 90.3 69.2 59.1 41.8 35.1 28.5 21.2	0.0 0.9 8.8 21.1 10.1 17.3 6.6 6.6 7.3	0.0 0.9 9.7 30.8 40.9 58.2 64.9 71.5 78.8	
Workability Factor (%)	Operating Zone	52, 34		IPS Producti	ion Gradation		2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16 #30 #50	100.0 100.0 99.1 90.3 69.2 59.1 41.8 35.1 28.5 21.2 8.7	0.0 0.9 8.8 21.1 10.1 17.3 6.6 6.6 7.3 12.5	0.0 0.9 9.7 30.8 40.9 58.2 64.9 71.5 78.8 91.3	
orkability Factor (%)	Operating Zone	52, 34	58, 31	IPS Producti	ion Gradaton		2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16 #30	100.0 100.0 99.1 90.3 69.2 59.1 41.8 35.1 28.5 21.2	0.0 0.9 8.8 21.1 10.1 17.3 6.6 6.6 7.3	0.0 0.9 9.7 30.8 40.9 58.2 64.9 71.5 78.8	

Approved By:

#:	P-39	_				Contractor:			-	
:	6/6/22			Concrete Grade:	DM, 4500HP					
epresents:	6/7/2022	through	6/13/2022		-	MDOT No.:			-	
Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution					
71-47	Presque Isle	1805		2.62	62.1					
	Presque Isle									
44-051				2.65					SUP	ERIOR
	l otal Wt	2905	17.69	-	100.0	< Verify this n	umber is 100%	1		RIALS
	6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		Superior 30701 W. 1	Materials, LLC 10 Mile Rd.
	100.0	10	0.0	100.0	100.0	0.0	0.0	1	Suite 500	
	100.0	10	0.0	100.0	100.0	0.0	0.0]	Farmingto	n Hills, MI 48336
		-		100.0	100.0	0.0	0.0]		
				100.0	93.3	6.7	6.7]		
					-					
							-			
								· · ·		
								· ·		
									must be at least 8%	
									(man Max 1 Ell) as	
							95.3 98.4	a 2" max. size	(nom. Max. 1.5") aç	ggrogato lo uoou.
radation	1.4 1.3 O Batch Plant Gra	1.	. I .9 regate Supplier Gra	2.1	1.6	3.1	98.4]	(nom. Max. 1.5") aູ	grogato lo dood.
	1.3 Batch Plant Gra	1. Idations	.9 regate Supplier Gra	2.1 adations	1.6 Adjusted WF	3.1 Intial Productio	98.4 on Sample (IPS	5)	(nom. Max. 1.5") aç	
radation ess Factor:	1.3 Batch Plant Gra	1. Idations	.9	2.1 adations	1.6	3.1 Intial Productio Coars	98.4 on Sample (IPS eness Factor:	63	(nom. Max. 1.5") aເ	ggrogato to accu.
ess Factor:	1.3 Batch Plant Gra	1. Idations	.9 regate Supplier Gra	2.1 adations : 32	1.6 Adjusted WF	3.1 Intial Productio Coars Work	98.4 on Sample (IPS	5)	(nom. Max. 1.5") aç Cumulative	
	1.3 Batch Plant Gra	1. Idations	.9 regate Supplier Gra	2.1 adations	1.6 Adjusted WF	3.1 Intial Productio Coars	98.4 on Sample (IPS eness Factor: ability Factor:	63 36		ggrogato io acco.
ess Factor:	1.3 Batch Plant Gra	1. Idations	.9 regate Supplier Gra	2.1 adations : 32	1.6 Adjusted WF	3.1 Intial Productio Coars Work	98.4 on Sample (IPS eness Factor: ability Factor: Cumulative	63 63 36 %	Cumulative	
ess Factor:	1.3 Batch Plant Gra 61	1. Idations	9 regate Supplier Gra kability Factor: 96, 40	2.1 adations : 32 JMF Zone	1.6 Adjusted WF	3.1 Intial Productio Coars Work Sieve 2" 1.5"	98.4 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0	63 36 % Retained 0.0 0.0	Cumulative % Retained 0.0 0.0	
ess Factor:	1.3 Batch Plant Gra 61	1. Idations	.9 regate Supplier Gra	2.1 adations : 32 JMF Zone	1.6 Adjusted WF	3.1 Intial Productio Coars Work Sieve 2" 1.5" 1"	98.4 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 100.0	63 36 % Retained 0.0 0.0 0.0	Cumulative % Retained 0.0 0.0 0.0	
ess Factor:	1.3 Batch Plant Gra 61	1. Idations () Agg Work	9 regate Supplier Gra cability Factor: p8, 40 68, 38	2.1 adations : 32 JMF Zone	1.6 Adjusted WF	3.1 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4"	98.4 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 100.0 89.7	63 36 % Retained 0.0 0.0 0.0 10.3	Cumulative % Retained 0.0 0.0 0.0 10.3	
ess Factor:	1.3	1. idations () Agg Work 58, 40 58, 40 60, 36	9 regate Supplier Gra kability Factor: 68, 38 IPS	2.1 adations 32 JMF Zone 75, 39	1.6 Adjusted WF	3.1 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2"	98.4 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 100.0 89.7 70.3	63 36 % Retained 0.0 0.0 0.0 10.3 19.4	Cumulative % Retained 0.0 0.0 0.0 10.3 29.7	
Pess Factor:	1.3 Batch Plant Gra 61	1. idations () Agg Work 58, 40 58, 40 60, 36	9 regate Supplier Gra cability Factor: p8, 40 68, 38	2.1 adations 32 JMF Zone 75, 39	1.6 Adjusted WF	3.1 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8"	98.4 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 100.0 89.7 70.3 59.1	63 36 % Retained 0.0 0.0 0.0 10.3 19.4 11.2	Cumulative % Retained 0.0 0.0 10.3 29.7 40.9	
ess Factor:	1.3	1. idations () Agg Work 58, 40 58, 40 60, 36	9 regate Supplier Gra kability Factor: 98, 40 08, 38 IPS oduction Gradation	2.1 adations : 32 JMF Zone	1.6 Adjusted WF	3.1 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4	98.4 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 100.0 89.7 70.3 59.1 42.8	63 36 % Retained 0.0 0.0 0.0 10.3 19.4 11.2 16.3	Cumulative % Retained 0.0 0.0 10.3 29.7 40.9 57.2	
ess Factor:	1.3 Batch Plant Gra 61 52, 41 52, 34	1. idations () Agg Work 58, 40 58, 40 60, 36	9 regate Supplier Gra kability Factor: 68, 38 IPS	2.1 adations : 32 JMF Zone	1.6 Adjusted WF	3.1 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8	98.4 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 100.0 89.7 70.3 59.1 42.8 35.5	63 36 % Retained 0.0 0.0 0.0 10.3 19.4 11.2 16.3 7.3	Cumulative % Retained 0.0 0.0 10.3 29.7 40.9 57.2 64.5	
Derating Zone	1.3 Batch Plant Gra 61 52, 41 52, 34	1. idations () Agg Work 58, 40 58, 40 60, 36	9 regate Supplier Gra kability Factor: 98, 40 08, 38 IPS oduction Gradation	2.1 adations : 32 JMF Zone 75, 39	1.6 Adjusted WF	3.1 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16	98.4 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 100.0 89.7 70.3 59.1 42.8 35.5 29.0	63 36 % Retained 0.0 0.0 0.0 10.3 19.4 11.2 16.3 7.3 6.5	Cumulative % Retained 0.0 0.0 10.3 29.7 40.9 57.2 64.5 71.0	
ess Factor:	1.3 Batch Plant Gra 61 52, 41 52, 34	1. idations () Agg Work 58, 40 58, 40 60, 36	9 regate Supplier Gra kability Factor: 98, 40 08, 38 IPS oduction Gradation	2.1 adations : 32 JMF Zone	1.6 Adjusted WF	3.1 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16 #30	98.4 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 100.0 89.7 70.3 59.1 42.8 35.5 29.0 21.2	63 36 % Retained 0.0 0.0 0.0 10.3 19.4 11.2 16.3 7.3 6.5 7.7	Cumulative % Retained 0.0 0.0 10.3 29.7 40.9 57.2 64.5 71.0 78.8	
Derating Zone	1.3 Batch Plant Gra 61 52, 41 52, 34	1. idations () Agg Work 58, 40 60, 36 Pro 56, 32	9 regate Supplier Gra kability Factor: 98, 40 08, 38 IPS oduction Gradation	2.1 adations : 32 JMF Zone 75, 39 32 75, 28	1.6 Adjusted WF	3.1 Intial Productio Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16	98.4 on Sample (IPS eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 100.0 89.7 70.3 59.1 42.8 35.5 29.0	63 36 % Retained 0.0 0.0 0.0 10.3 19.4 11.2 16.3 7.3 6.5	Cumulative % Retained 0.0 0.0 10.3 29.7 40.9 57.2 64.5 71.0	
ŗ	epresents: Pit # 71-47 71-47 44-051	6/6/22 epresents: 6/7/2022 Pit # Source 71-47 Presque Isle 71-47 Presque Isle 71-47 Presque Isle 44-051 Krake Willis Ro Total Wt 6AA 100.0 100.0 100.0 100.0 100.0 32.6 4.7 2.1 1.7 1.5 1.5 1.5	6/6/22 epresents: 6/6/22 Pit # Source Weight (ssp) 71-47 Presque Isle 1805 71-47 Presque Isle 0 44-051 Krake Willis Rd 1100 Total Wt 2905 6AA 26 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 101.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 100.0 100 10.5	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	6/6/22 Concrete Grade: DM, 4500HP epresents: 6/7/2022 through 6/13/2022 Pit # Source Weight (ssp) ft ³ Specific Gravity % Contribution 71-47 Presque Isle 1805 11.04 2.62 62.1 71-47 Presque Isle 0 0.00 2.62 0.0 44-051 Krake Willis Rd 1100 6.65 2.65 37.9 Total Wt 2905 17.69 100.0 100.0 100.0 6AA 26A 2NS Cumulative % Passing % Passing 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 32.6	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	i 6/6/22 Concrete Grade: DM, 4500HP MDOT No.: Pit # Source Weight (ssp) ft ³ Specific Gravity MDOT No.: 71-47 Presque Isle 1805 11.04 2.62 62.1 64.1 71-47 Presque Isle 0 0.00 2.62 0.0 64.1 44-051 Krake Willis Rd 1100 6.65 2.65 37.9 66.2 Total Wt 2905 17.69 100.0 c Verify this number is 100% 6AA 26A 2NS Cumulative % Passing % Retained 100.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0	6/6/22 Concrete Grade: DM, 4500HP epresents: 6/7/2022 through 6/13/2022 MDOT No.: Pit # Source Weight (ssp) ft ³ Specific Gravity Contribution 71-47 Presque Isle 1805 11.04 2.62 62.1 71-47 Presque Isle 0 0.00 2.62 0.0 44-051 Krake Willis Rd 1100 6.65 2.65 37.9 Total Wt 2905 17.69 100.0 Cumulative % Passing % Retained 100.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0 70.2 23.1 29.8 <td>Image: book of the construction of the cons</td>	Image: book of the construction of the cons

Approved By:

PLANT :	#:	P-02					Contractor:				
Sample Date	e:	6/6/22			Concrete Grade:	DM, 4500HP					
Dates Test R	epresents:	6/7/2022	through	6/13/2022			MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution					
6AA	71-47	Presque Isle	1400	8.56	2.62	48.2					
26A	71-47	Presque Isle	355	2.17	2.62	12.2					
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6				SUP	ERIOR
		Total Wt	2905	17.69		100.0	< Verify this n	umber is 100%	•		ERIALS
Sieve	(6AA	26	Α	2NS	Cumulative % Passing	% Retained	Cumulative % Retained			<u>Materials, LLC</u> 10 Mile Rd.
2"	1	00.0	10	0.0	100.0	100.0	0.0	0.0	1	Suite 500	
1.5"	1	00.0	100).0	100.0	100.0	0.0	0.0]	Farmingto	n Hills, MI 48336
1"		98.6	10		100.0	99.3	0.7	0.7			
3/4"		30.7	100		100.0	90.7	8.6	9.3			
1/2"		36.8	93		100.0	68.7	22.0	31.3			
3/8"		13.4	79		100.0	55.8	12.9	44.2	*Maximum %	Retained must be	above the 3/8" sieve.
#4		3.1	20	-	96.8	42.3	13.5	57.7			equal 10% except max.,
#8		2.6	4.		79.2	33.2	9.1	66.8		00 and #200 sieves	
#16		2.4	2.		61.0	25.6	7.6	74.4			6 for each sieve except
#30		2.3	2.		43.2	18.5	7.1	81.5	· ·	00 and #200 sieves	
#50 #100		2.1 1.9	2.		23.1 5.3	10.4 3.3	8.1 7.2	89.6 96.7			6 for the 1" sieve when
LBW		<u>1.9</u> 1.4			<u> </u>	3.3 1.3	2.0	98.7	a 2° max. size	(nom. Max. 1.5") a	ggregate is used.
Production G	Gradation	Batch Plant Gra		egate SupplierGra		Adjusted WF			. 5)		
	ess Factor:	66		ability Factor	1	35.7		eness Factor:	63		
45							Work	ability Factor:	35		
45	45, 44				JMF Zone		Sieve	Cumulative % Passing	% Retained	Cumulative % Retained	
]		52, 41					2"	100.0	0.0	0.0	
G ⁴⁰			58, 39	68, 39	75, 39		1.5"	100.0	0.0	0.0	
Factor (%)			i	é8, 38	š I		1"	100.0	0.0	0.0	
D I			■ 60, 36		on Cradation		3/4"	95.1	4.9	4.9	
5 35		1	1 00,00	IPS Ploductio	Sin Gradation		1/2"	74.6	20.5	25.4	
		52, 34	_ <u>i</u> _	!			3/8"	59.3	15.3	40.7	
Ē	45, 33						#4	42.1	17.2	57.9	
iq 30 -		_	58, 31	6 8 8.33	1		#8	35.1	7.1	64.9	
22 1	Operating Zone						#16	29.2	5.9	70.8	
	Boundary				75, 28		#30 #50	21.9 9.6	7.3 12.4	78.1 90.4	
Vor											
No L				<u> </u>							
	45	50 55	5 60	65 70 Factor (%)) 75	80	#30 #100 LBW	2.4	7.2	90.4 97.6 99.1	

PREPARED BY: SM, LLC Technical Service

ActionLimits Boundary = - - - - -

Approved By: