

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **p11**

Sample Date: 4/21/25

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 4/22/2025 through 4/28/2025

Contractor: _____

MDOT No.: _____

| Agg. Class | Pit # | Source | Weight (SSD) | ft ³ | Specific Gravity | % Contribution |
|-----------------|--------|--------------|--------------|-----------------|------------------|----------------|
| 6AA | 71-47 | Presque Isle | 1670 | 10.21 | 2.62 | 54.8 |
| 26A | 71-47 | Presque Isle | 150 | 0.92 | 2.62 | 4.9 |
| 2NS | 63-115 | Ray Rd | 1230 | 7.44 | 2.65 | 40.3 |
| Total Wt | | | 3050 | 18.57 | | 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 | 98.6 | 1.4 | 1.4 |
| 3/4" | 82.2 | 100.0 | 100.0 | 90.3 | 8.3 | 9.7 |
| 1/2" | 41.2 | 95.2 | 100.0 | 67.6 | 22.7 | 32.4 |
| 3/8" | 23.5 | 83.0 | 100.0 | 57.3 | 10.3 | 42.7 |
| #4 | 3.0 | 21.0 | 97.7 | 42.1 | 15.2 | 57.9 |
| #8 | 1.8 | 6.6 | 78.4 | 32.9 | 9.1 | 67.1 |
| #16 | 1.6 | 4.2 | 62.0 | 26.1 | 6.8 | 73.9 |
| #30 | 1.5 | 3.5 | 46.6 | 19.8 | 6.3 | 80.2 |
| #50 | 1.4 | 3.2 | 24.8 | 10.9 | 8.9 | 89.1 |
| #100 | 1.4 | 3.0 | 4.8 | 2.8 | 8.1 | 97.2 |
| LBW | 1.2 | 2.4 | 0.7 | 1.1 | 1.8 | 98.9 |

*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 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Superior Materials, LLC

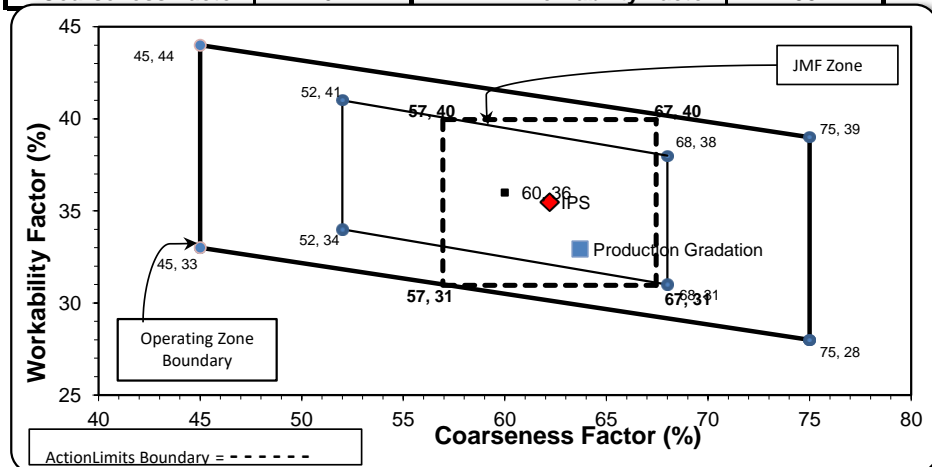
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Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

| | | | |
|---------------------------|-----------|----------------------------|-----------|
| Coarseness Factor: | 64 | Workability Factor: | 33 |
|---------------------------|-----------|----------------------------|-----------|



Initial Production Sample (IPS)

| Coarseness Factor: | | 62 | |
|---------------------|-------------------------|---------------|--------------------------|
| 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" | 100.0 | 0.0 | 0.0 |
| 3/4" | 94.0 | 6.0 | 6.0 |
| 1/2" | 70.2 | 23.7 | 29.8 |
| 3/8" | 59.9 | 10.4 | 40.1 |
| #4 | 42.7 | 17.2 | 57.3 |
| #8 | 35.5 | 7.2 | 64.5 |
| #16 | 28.4 | 7.0 | 71.6 |
| #30 | 19.2 | 9.2 | 80.8 |
| #50 | 8.9 | 10.3 | 91.1 |
| #100 | 3.1 | 5.9 | 96.9 |
| LBW | 1.4 | 1.7 | 98.6 |

PREPARED BY:
SM, LLC Technical Service

Approved By: