

# Aggregate Optimization Chart

## Production Gradation Report

**PLANT #:** **p11**

Sample Date: 9/15/25

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 9/16/2025 through 9/22/2025

Contractor: \_\_\_\_\_

MDOT No.: \_\_\_\_\_

| Agg. Class      | Pit #  | Source       | Weight (SSD) | ft <sup>3</sup> | Specific Gravity | % Contribution |
|-----------------|--------|--------------|--------------|-----------------|------------------|----------------|
| 6AA             | 71-47  | Presque Isle | 1420         | 8.69            | 2.62             | 46.6           |
| 26A             | 71-47  | Presque Isle | 400          | 2.45            | 2.62             | 13.1           |
| 2NS             | 63-115 | Ray Rd       | 1230         | 7.44            | 2.65             | 40.3           |
| <b>Total Wt</b> |        |              | <b>3050</b>  | <b>18.57</b>    |                  | <b>100.0</b>   |

<----- 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"    | 96.8  | 100.0 | 100.0 | 98.5                 | 1.5        | 1.5                   |
| 3/4"  | 77.6  | 100.0 | 100.0 | 89.6                 | 8.9        | 10.4                  |
| 1/2"  | 35.1  | 99.2  | 100.0 | 69.7                 | 19.9       | 30.3                  |
| 3/8"  | 16.1  | 85.9  | 100.0 | 59.1                 | 10.6       | 40.9                  |
| #4    | 2.9   | 17.7  | 97.3  | 42.9                 | 16.2       | 57.1                  |
| #8    | 1.8   | 6.1   | 79.9  | 33.9                 | 9.1        | 66.1                  |
| #16   | 1.5   | 3.3   | 61.3  | 25.9                 | 8.0        | 74.1                  |
| #30   | 1.4   | 2.7   | 44.9  | 19.1                 | 6.7        | 80.9                  |
| #50   | 1.3   | 2.5   | 24.2  | 10.7                 | 8.4        | 89.3                  |
| #100  | 1.3   | 2.4   | 6.3   | 3.5                  | 7.2        | 96.5                  |
| LBW   | 1.1   | 2.2   | 0.9   | 1.2                  | 2.3        | 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 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



**Superior Materials, LLC**

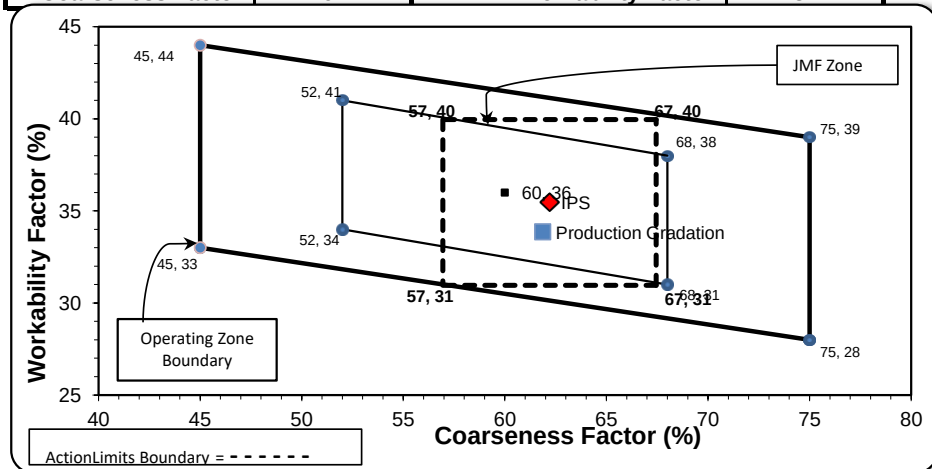
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Farmington Hills, MI 48336

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

|                           |           |                            |           |
|---------------------------|-----------|----------------------------|-----------|
| <b>Coarseness Factor:</b> | <b>62</b> | <b>Workability Factor:</b> | <b>34</b> |
|---------------------------|-----------|----------------------------|-----------|



Initial Production Sample (IPS)

| Coarseness Factor:  |                         | 62            |                          |
|---------------------|-------------------------|---------------|--------------------------|
| Workability Factor: |                         | 35            |                          |
| Sieve               | Cumulative<br>% Passing | %<br>Retained | Cumulative<br>% 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: