ATLANTIC TESTING LABORATORIES

WBE certified company

Fine Grout

Mix Designation: F-34

MIX VERIFICATION REPORT NUMBER AT2505CL-13D-07-17

| CLIENT: PROJECT: | Oneonta Block Co. Mix Design Verification | PLACEMENT CYLINDERS F | DATE: July 2 FABRICATED BY: R | , | (Tuesday) | | |
|---------------------|--|--------------------------|----------------------------------|-----|-----------|--|--|
| | Otsego Ready Mix, Inc. | SUPPLIER: | Otsego Ready Mix, Ir | IC. | | | |
| PLACEMEN | T LOCATION: Mix Design Verification | | · | | | | |
| MIX DESIGN DATA | | | | | | | |

MIX DATA OBTAINED FROM: Client DESIGN STRENGTH AT 28 DAYS: 2500

MIX DESIGN DATA

| DESIGN ST | RENGTH AT 28 DAYS: 25 | 00 psi | | |
|-----------|-----------------------|--------|--------------------|-----------------------------------|
| PER cy: | CEMENT (lbs): | 670 | CEMENT BRAND: | Lafarge North America, type I/II |
| | WATER (gals): | 56 | W/CM RATIO: | 0.70 |
| | FINE AGG. (lbs): | 3100 | FINE AGG. SOURCE: | Poland Sand and Gravel, Russia NY |
| | COARSE AGG. #2 (lbs): | N/A | COARSE AGG SOURCE: | Cobleskill Stone, Cobleskill, NY |
| | COARSE AGG. #1 (lbs): | N/A | COARSE AGG SOURCE: | Cobleskill Stone, Cobelskill, NY |
| | AEA (oz): | N/A | AEA BRAND: | AEA92, Euclid Chemical Co. |
| <u></u> | WRA (oz): | 26,8 | WRA BRAND: | Eucon WR91, Euclid Chemical Co. |

LABORATORY INFORMATION

At the request of Mr. Robert Harlem, representing Otsego Ready Mix, Inc., concrete testing was performed. Laboratory testing was performed in accordance with the following ASTM methods: C 31, C 138, C 143, C 231, and C 1064.

| Fine Aggregate Absorption (%) | Coarse Aggregate Absorption (%) | Yield (cf) | Batch Number | Air (%) | Slump (in.) | Concrete Temperature (°F) | Plastic Unit Weight (pcf) | Volume (cf) | Number of Cylinders Fabricated |
|--|--|---------------|-----------------|------------|----------------|---------------------------------|------------------------------|----------------|--------------------------------------|
| 0.3 | 0.4 | 31.4 | 1 | 6.0 | 6.5 | 71.6 | 135.0 | 1.0 | . 9 |

| LABORATORY DATA (ASTM C 39, C 511, and C 1231) | | | | | | | | | | |
|--|--------|-------|--------|----------|--------|---------------------|--------|-------|----------|--|
| | | | Unit | Date | | Cylinder | Total | Unit | | |
| Cylinder | Batch | Slump | Weight | of | Age | Area | Load | Load | Sample | |
| I.D. | Number | (in.) | (pcf) | Test | (days) | (in. ²) | (lbs.) | (psi) | Location | |
| 2505CL-109 | | | 134 | 08/01/17 | 7 | 12.50 | 38,560 | 3080 | | |
| 2505CL-110 | | | 134 | 08/01/17 | 7 | 12.50 | 38,480 | 3080 | | |
| 2505CL-111 | | | 134 | 08/08/17 | 14 | 12.50 | 47,430 | 3790 | | |
| 2505CL-112 | | | 135 | 08/08/17 | 14 | 12.50 | 45,590 | 3650 | | |
| 2505CL-113 | 1 | 6 1⁄2 | 135 | 08/22/17 | 28 | 12.44 | 53,710 | 4320 | ATL Lab | |
| 2505CL-114 | | | 134 | 08/22/17 | 28 | 12.50 | 54,280 | 4340 | | |
| 2505CL-115 | | | 135 | 08/22/17 | 28 | 12.50 | 56,530 | 4520 | | |
| 2505CL-116 | | | 133 | 09/19/17 | 56 | 12.57 | 60,000 | 4770 | | |
| 2505CL-117 | | | 134 | 09/19/17 | 56 | 12.57 | 55,780 | 4440 | | |

The design data was provided by the client.

The final curing was performed in tanks filled with lime saturated water.

Due to the violent release of energy stored in pads, the broken cylinder rarely exhibits conical fracture typical of capped cylinders, and the sketches of fracture in ASTMC 39 are not descriptive.

REMARKS

Reviewed by:

John Dimm

September 25, 2017