

## ITEM 10560.2013 M - ARCHITECTURAL TERRA COTTA MEDALLIONS

### DESCRIPTION

This work shall consist of furnishing and installation Architectural Terra Cotta medallions at the locations specified and as shown on the plans. In addition to the number of medallions required to be placed on structures, three additional medallions, one of each type (community insignia circle, standard diamond medallion, end pilaster medallion) as shown on the plans shall be furnished as spares. These spare medallions shall become the property of the Department and shall be delivered to the Nassau County Department of Public Works; 1550 Franklin Avenue; Mineola, NY 11501 or as directed by the Engineer.

### MATERIALS

#### ARCHITECTURAL TERRA COTTA

Medallions shall be fabricated from Architectural Terra Cotta in the sizes, colors and patterns shown on the plans. The medallions shall be of a thickness to be embedded into the concrete substrate a maximum of 12 mm, inclusive of thin set mortar. The glaze shall be hand painted on the Terra Cotta. Architectural Terra Cotta shall be fired at 1180°C in a reduction atmosphere.

Medallions shall meet all criteria set forth by ASTM C 67-87 and ASTM C126-86 or latest revision and all of the following specifications:

<u>TEST NAME</u>	<u>PROCEDURE</u>	<u>ANSI STANDARD</u>
Compressive Strength	ASTM C 67	41,370 kPa
Water Absorption (24 hr. Soak)	ASTM C 373	7.5%
Water Absorption (5 hr. Boil)	ASTM C 373	11.5%
Saturation Coefficient	ASTM C 373	.69
Crazing Resistance	ASTM C 424	1 Cycle - 1,035 kPa
Glaze Absorption	ASTM C 126	.15 %
Freeze/Thaw	ASTM C 67	3 0 0 C y c l e s ( w / o degradation
Frost Resistance	ASTM C 1026	
Thermal Shock	ASTM C 484	No Disintegration
Bond Strength	ASTM C 482	345 kPa or greater
Scratch Hardness	Mohs Scale	
Breaking Strength	ASTM C 648	115 kg
Abrasion Resistance	ASTM C 1027	

Warpage Tolerances. The exposed face of Architectural Terra Cotta medallions shall not vary from a true plane by more than 0.13 mm per 25 mm of length.

Handmade Tolerances. Table II and Table III, ASTM C 126. Exposed face shall not vary from shop drawing dimensions by more than 3 mm+/-.

## **ITEM 10560.2013 M - ARCHITECTURAL TERRA COTTA MEDALLIONS**

The manufacturer of the Architectural Terra Cotta and Architectural Terra Cotta setting products shall be a company specializing in the manufacturing of products which meet the specification above, with at least ten (10) years of experience. The Contractor's installers shall be thoroughly trained with a minimum of five (5) years of experience. The Contractor's installers shall be capable in the necessary craft to provide quality work and shall demonstrate the following:

1. Production capability to meet the project schedules;
2. Artistic capability to faithfully produce the medallions in quality, dimension, color, texture and finish.

The medallions shall be obtained from a single source with the resources to provide products of consistent quality in appearance and physical properties without delaying the progress of the work. The following are known to be potential suppliers:

LDDK Studios  
213 East Main Street  
Seagrove, NC 27341  
336-873-8600

Terra Designs  
241 Blackwell Street  
Dover, NJ 07801  
201-539-2999

Summitville Clay Products Co.  
Summitville, Ohio

The Contractor shall submit samples of the type of Terra Cotta to be provided, to the Engineer and the Regional Landscape Architect for approval, prior to ordering the production tiles.

Bond coat and setting mortar shall be a thin set mortar system recommended by the manufacturer. Thin set mortar shall be commercially prepared mixture of Portland Cement with epoxy, sand and additives imparting water retentivity and used as a bond coat for setting Terra Cotta in architectural concrete. Only potable water need be added to the thin-set mortar. Thin set mortar color shall be approved by the Engineer and the Regional Landscape Architect.

Grout shall be a dry-set grout, commercially prepared mixture of Portland Cement with sand and additives imparting water retentivity and suitable for Terra Cotta installation. Only potable water need be added to the grout. Grout color shall be approved by the Engineer and the Regional Landscape Architect.

### **CONSTRUCTION DETAILS**

Specific instructions are as follows:

1. Dampen wall surfaces before mortar application;
2. Architectural Terra Cotta does not require water soaking for installation;
3. After Architectural Terra Cotta medallions have been set, apply grout and remove excess from faces of the medallions;
4. Provide damp curing for the Architectural Terra Cotta installation using thin-set mortar and grout as recommended by the materials manufacturer;
5. Maintain minimum temperature limits and installation practices recommended by the materials manufacturers.

## **ITEM 10560.2013 M - ARCHITECTURAL TERRA COTTA MEDALLIONS**

Architectural Terra Cotta shall be cleaned after installation using only soap and water. A continuous covering of laminated, reinforced, non-staining kraft paper shall be installed for protection until acceptance. Such protection shall be maintained until removal is ordered by the Engineer. Upon removal, Terra Cotta shall be cleaned again as directed by the Engineer.

### **SUBMITTALS**

The Contractor shall submit the following for approval:

- 1) Shop drawings for each type of Architectural Terra Cotta medallion (community insignia circle, diamond medallion, end pilaster medallion) shown on the plans. The Contractor's installer shall visit the site and examine the job conditions and verify field measurements as necessary. Any conditions that could adversely affect the installation should be reported to the Engineer. The installation shall not proceed until such adverse conditions have been resolved to the satisfaction of the Engineer.
- 2) Manufacturer's specifications and other product data for each manufactured product including instructions for storage, handling and use.
- 3) Two 150 mm x 150 mm x 37 mm thick samples of Terra Cotta showing color, surface finish and gloss of the surface glaze.
- 4) Two copies of test reports showing that Terra Cotta Conforms to the requirements of the specification.

### **METHOD OF MEASUREMENT**

Architectural Terra Cotta Medallions will be measured on a square meter basis to the limits shown on the plans.

### **BASIS OF PAYMENT**

The unit price bid per square meter shall include the cost of all labor, equipment and materials necessary to furnish and install the Architectural Terra Cotta Medallions and to provide spare medallions as directed under this item.