

LUXURY RESIDENTIAL NEW CONSTRUCTION 3D LASER SCAN PROCESS FOR LARGE SCOPE EXTERIOR PROJECTS

Stone Tile Group provides a comprehensive service for large scope exterior new construction projects to ensure that all stone elements are fabricated to fit the exact built conditions on site. This minimizes installation issues and guarantees a precise, seamless fit with the structural base. Below is an overview of the complete workflow we follow:

On-Site Laser Scanning

Our process begins with a site visit where our team uses a 3D laser scanner to capture existing site conditions with millimeter precision. This includes:

- Structural concrete walls, slabs, and architectural features
- Control points (Point Clouds) to align the scan with project coordinates
- Multiple scan positions merged into one cohesive model

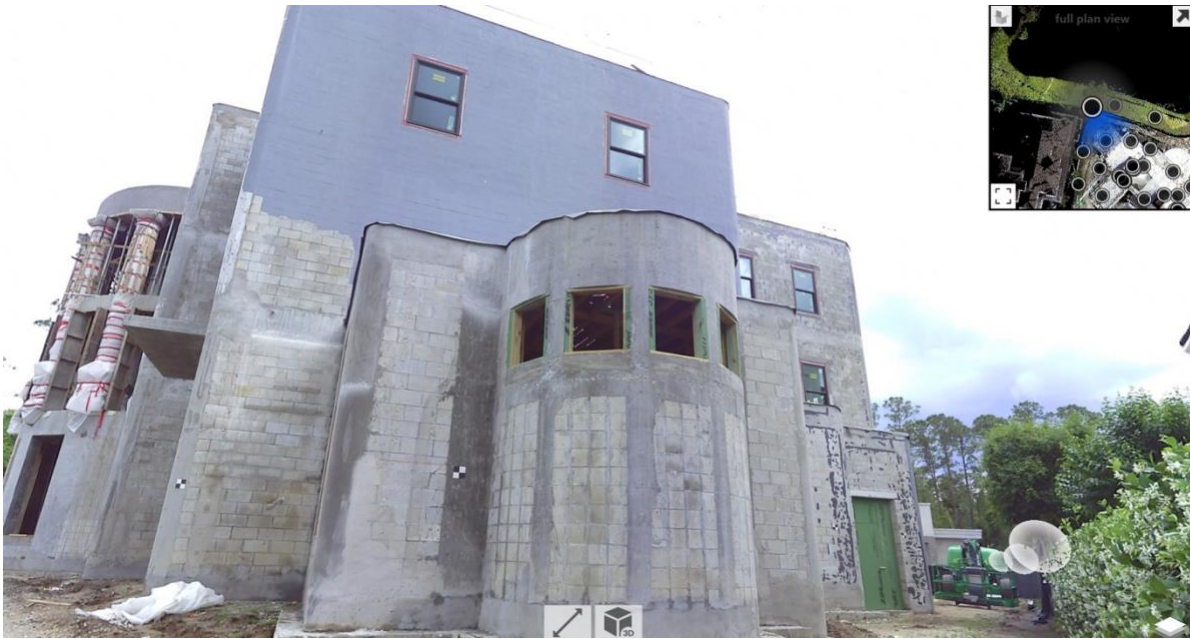


Processing the Point Clouds

The raw data is uploaded and processed using proprietary software to:

- Register and align all scanned images
- Clean and optimize point clouds
- Export data into a standard format for use in CAD

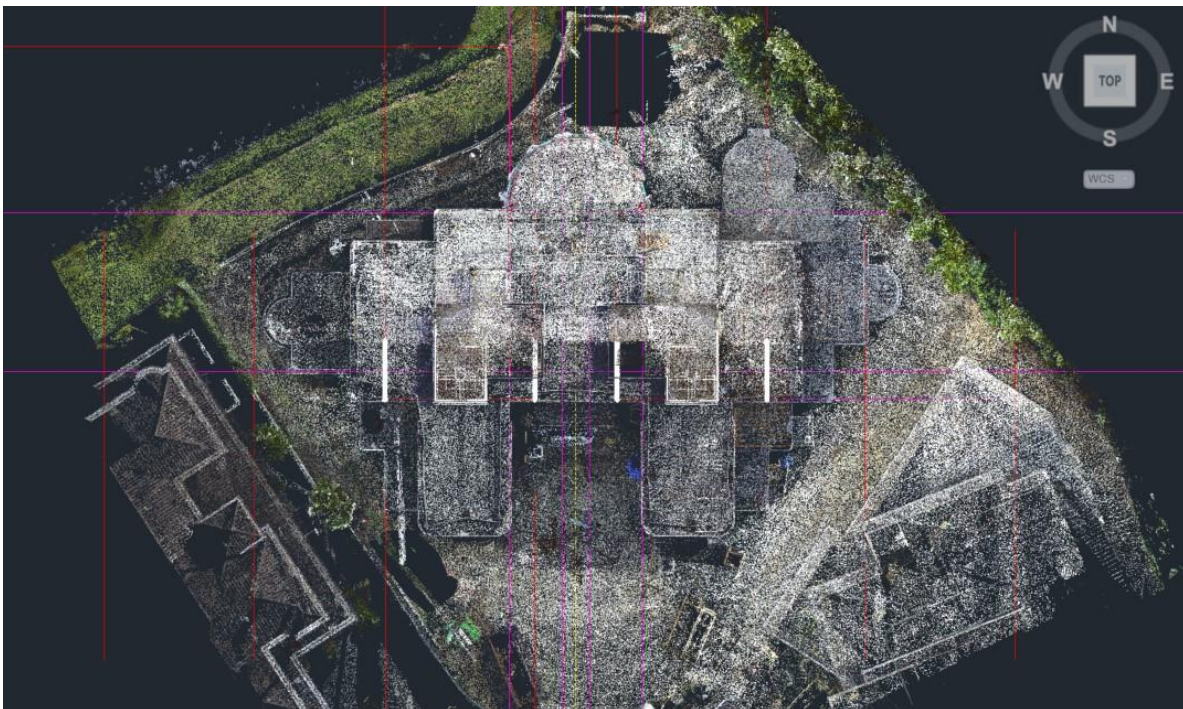


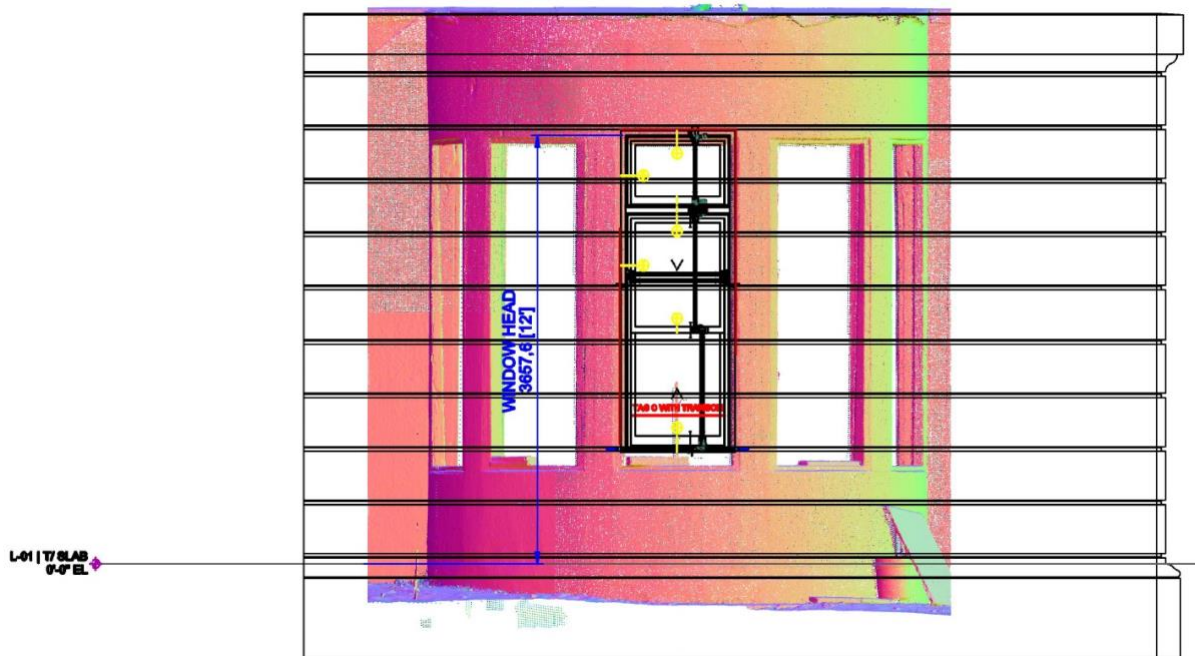


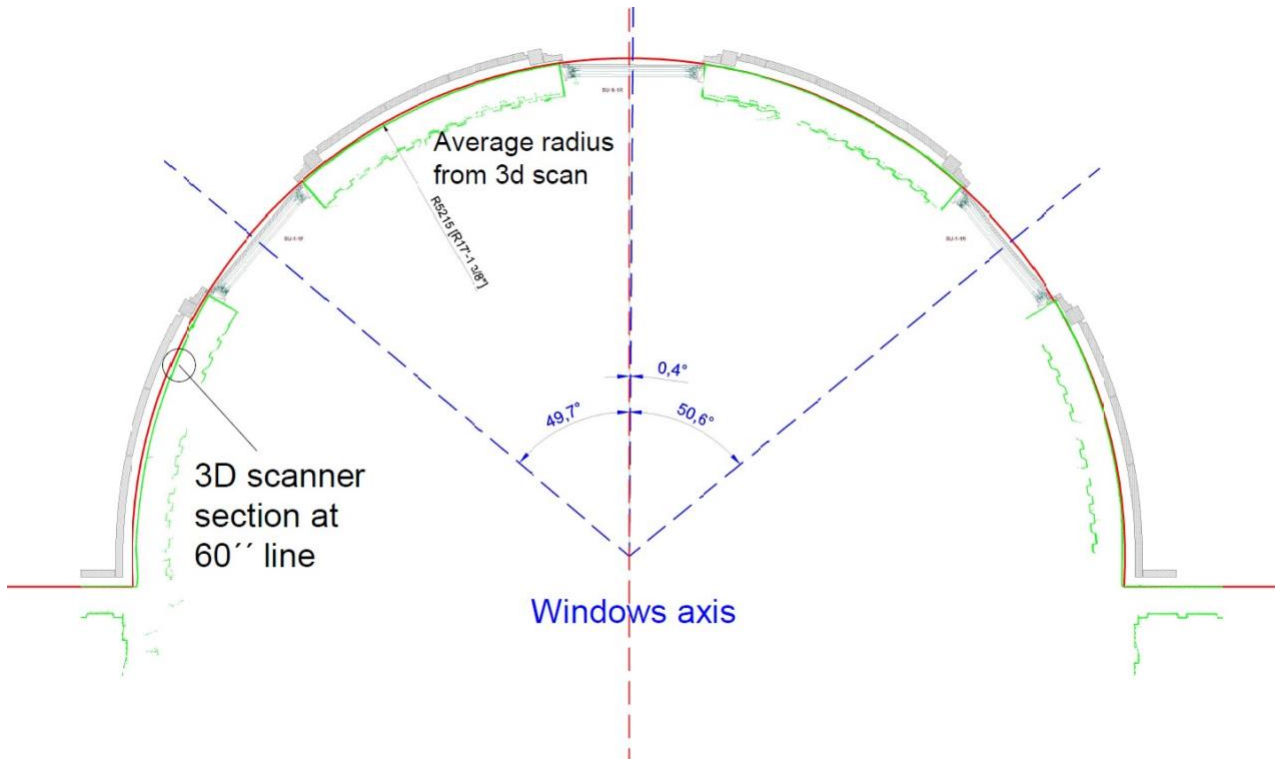
As-Built Drawing of Concrete Base

In CAD, we trace point clouds to create a precise 2D base drawing, including:

- Accurate outlines of all concrete elements
- Real-world dimensions, not theoretical ones
- Detection of any deviations from the original design





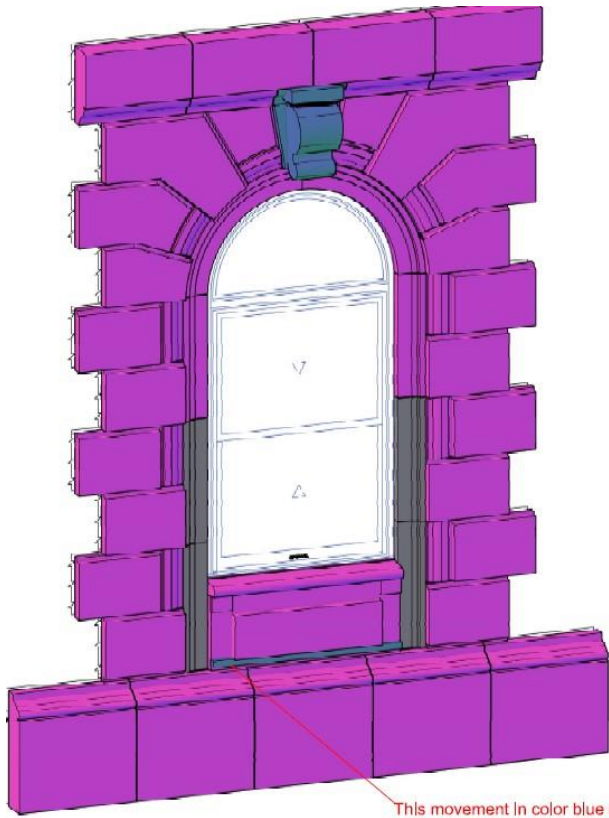


Design Review and Adjustment

We review all architectural and/or current shop drawings and compare them to the as-built geometry. We adjust and re-draw the pieces to ensure perfect fit and take into consideration:

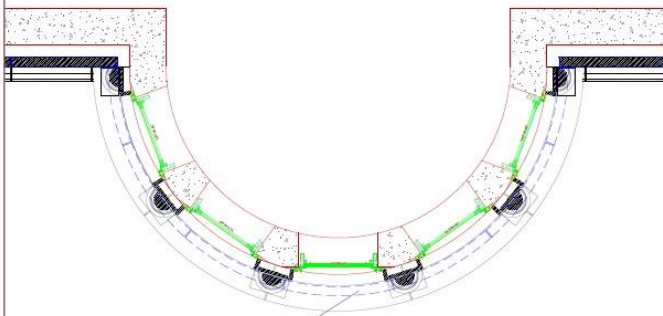
- Joint alignment
- Installation tolerances
- Site limitations or modifications





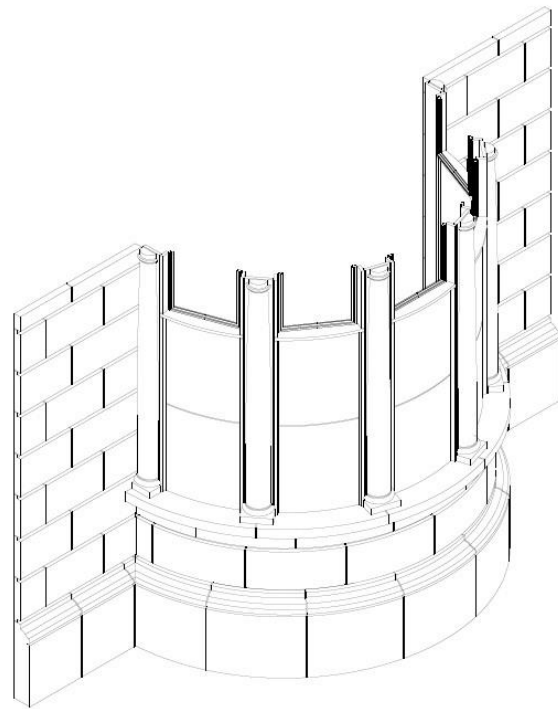
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Circular windows - Left elevation - Level 01 (REV_01)



cladding line

SECTION C-C



SECTION C-C

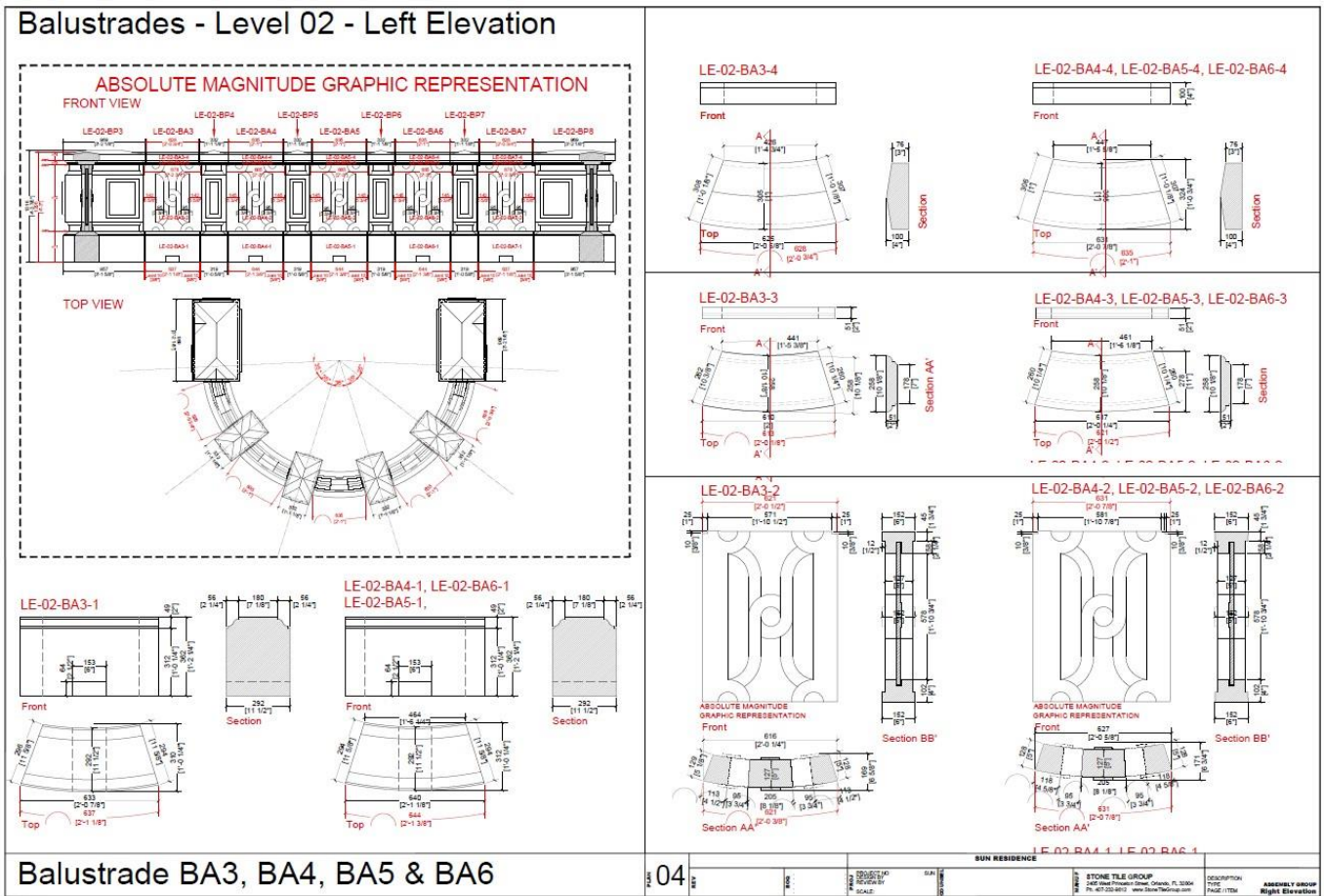
<p>PROJECT NO: 20200101 DATE: 01/2021 SCALE: 1/4" = 1'-0"</p>				<p>WIN RESIDENCE</p>		<p>BY: STONE TILE GROUP 4425 WINDHOLM BLVD, ORLANDO, FL 32834 TEL: 407-228-1170 www.stonetilegroup.com</p>		<p>DESCRIPTION: TILES PAGE: 1/128</p>	
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Production Drawings / Shop Drawings

Based on updated site dimensions, we produce fully detailed shop drawings used for:

- Fabrication
- Architect or contractor approval
- Installer coordination

These drawings include labels, piece dimensions, finishes, and anchor details.



Coordination and Quality Control

We maintain constant communication with all project stakeholders to ensure:

- Drawings reflect current site status
- Fabricated elements are precise and ready for installation
- Material is dry laid in the factory for quality control
- Packaging and delivery meet site logistics and timing





Benefits of Our Workflow

- Accuracy: Based on real-world site conditions
- Efficiency: Minimizes on-site rework
- Flexibility: Can adapt from architectural drawings or provide redrafting services
- Experience: Proven track record in high-end residential and commercial projects