



PROJECT

St. Francis Xavier Catholic Church

LOCATION

Stillwater, Oklahoma

ARCHITECT

Franck & Lohsen Architects

GENERAL CONTRACTOR

Nabholz Construction

MASONRY CONTRACTOR

Sun Valley Masonry

COMPLETION DATE

March 6, 2018

VISION

The St. Francis Xavier Catholic Church is new American Gothic Style church in the prairie landscape on the edge of the bustling college town of Stillwater, OK. The architect for the church Franck & Lohsen Architects, designed color palate of the exterior brick veneer and precast limestone consistent with indigenous stone of the region that has a range of brown and red. A custom blend of five different brick colors is used for the exterior veneer.

The manufactured precast limestone was specified in the project for large size spires, detailed arches, window ornamentation, bandings, cornices, wall coping, architectural trim, etc. to achieve the desired end user experience and aesthetic appeal.

The church is crowned with a pair of towers and spires with the cross on the tallest spire reaching the height of 157', making it visible for several miles.



PROCESS

The designers had developed detailed large size profiles with precise, intricate design details to give the building a level of ornamentation appropriate for an American Gothic church. The AAS team worked closely with the architect and contractor for the project early in the design phase to review CAD drawings and confirm design feasibility.

The AAS team recommended combining three different stone materials for the precast limestone:

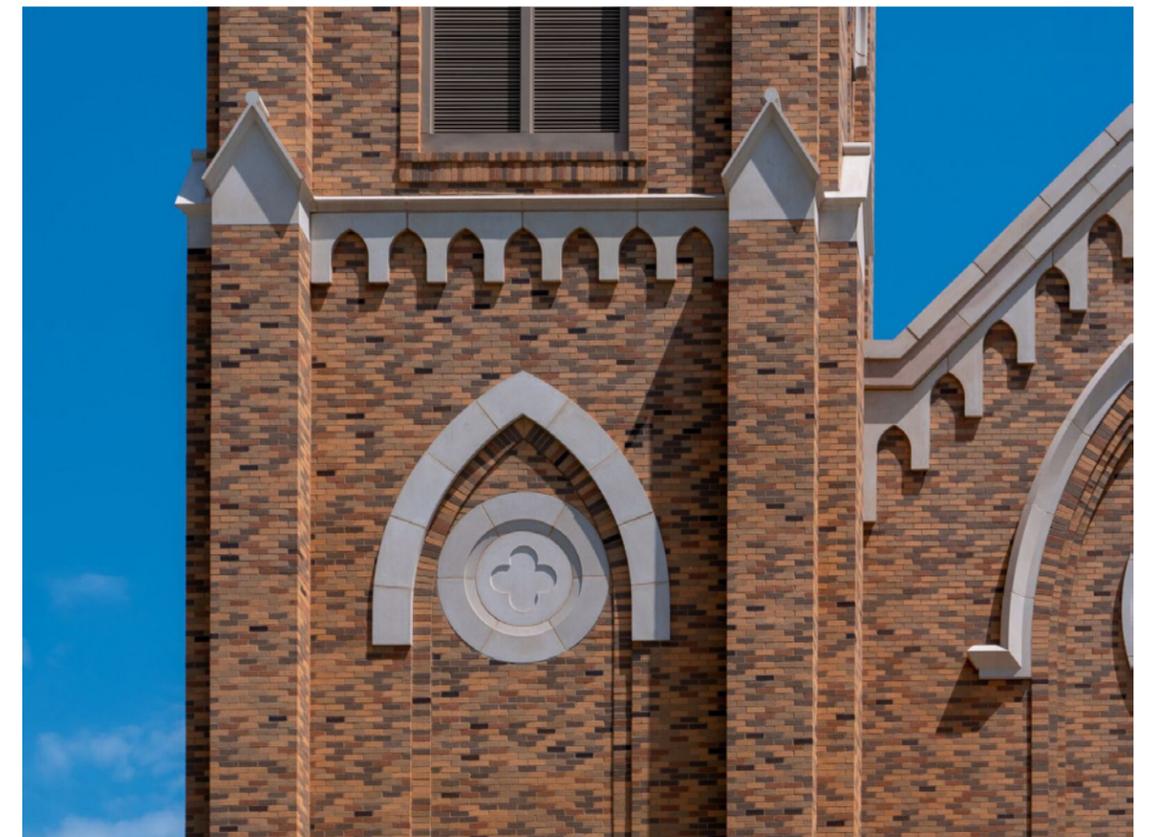
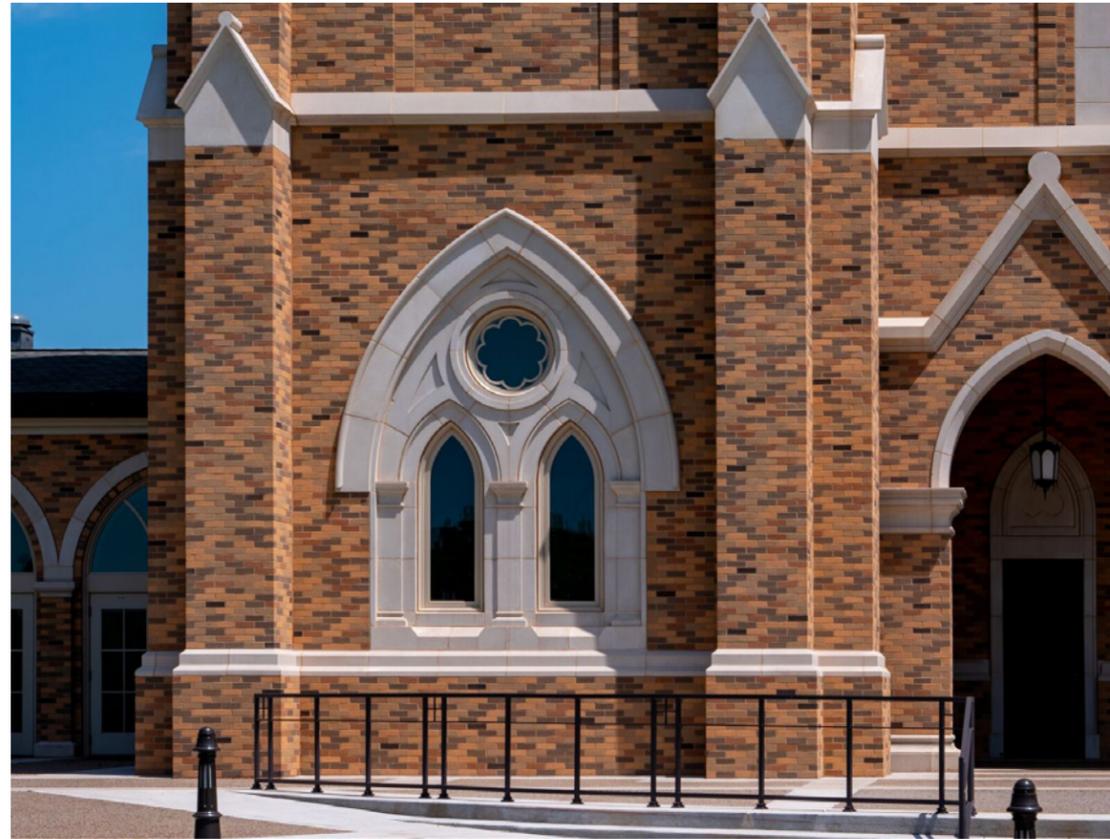
1. Wet-pour architectural precast concrete for large size pieces
2. Dry vibrant-tamp cast stone for majority of the detail pieces that could be molded on both sides for seamless integration with the exterior veneer
3. Architectural GFRC (Glass Fiber Reinforced Concrete) for the cornices, coping at higher elevation



AAS developed color samples for all three product materials to precisely match texture and finish. With fully automated, computerized batch plants, the structural and aesthetic properties of the stone products were consistently maintained for all phases of the building.

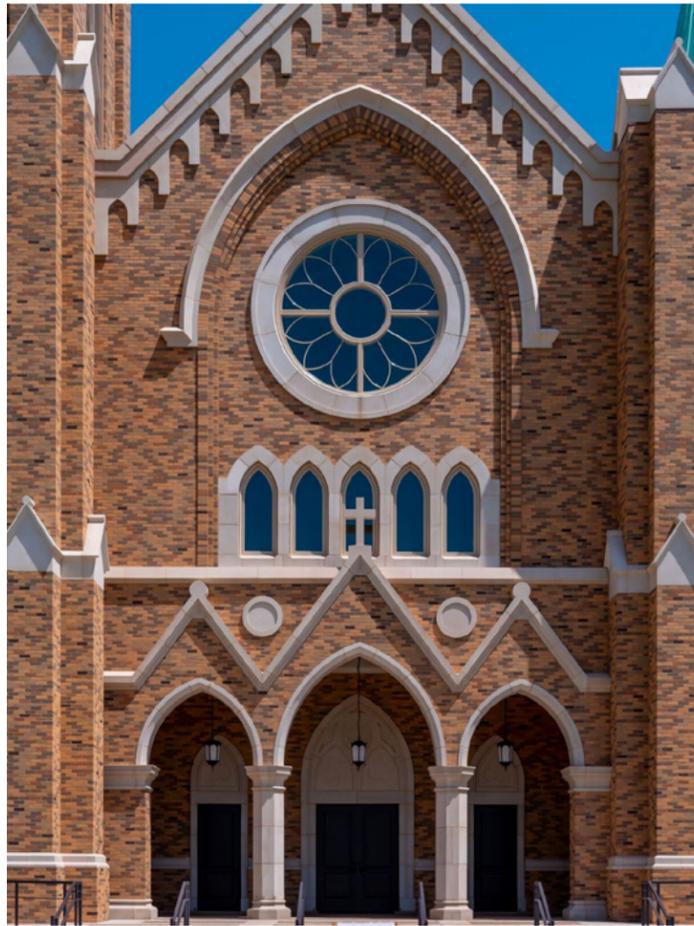
The AAS team developed custom molds using CNC technology. The stone cladding ornamentation with large stone pieces and intricate design details required extensive detailed mold work throughout the project. The large spires for the church weighed over 7,000 pounds.

The process to design and fabricate each stone piece included pre-engineered anchorage conditions to achieve the minimal design aesthetic of monolithic stone. Customer got detailed drawings to understand installation details for the stone pieces.





The manufacturing schedule for different phases of the project was lined up to synchronize with the construction milestones. The installation team got settings plan with detailed numbering system to identify specific placement location of every single stone piece delivered by AAS. Customer was able to track each stone piece individually using the RFID based tagging system of AAS.





The manufactured stone cladding highlights the exterior design of the church. The Advanced Architectural Stone (AAS) panels cost-effectively emulated the look and finish of the natural limestone.