



2026/2027

Precast Solutions Student Competition

Request for Proposals

Background

Missouri Department of Conservation needs to install in-line precast gate valves and duck blinds at their Schell-Osage Conservation Area.

Scope of Work

Missouri Department of Conservation is seeking a proposal for manufacturing and delivering of five precast gate valves, two ADA duck blinds and eight standard duck blinds. The in-line gate valves will have specific reinforcing and slide gate requirements. The duck blinds will have detailed reinforcing, access door and color requirements.

These structures will be delivered to the Schell-Osage Conservation Area located at Schell Lake near Schell City, Missouri, prior to the 2027 Missouri duck hunting season.

Proposal to Include

- Prepour: mix design, color tinting (Mud Brown) and set up which includes, but not limited to, form design, hardware location, block outs, setup process and plans.
- Manufacturing and production process and plan which includes but is not limited to, pre to post QC inspection.
- Delivery plan process and plan which includes, but is not limited to, lift logistics, transportation and transfer.
- Quote to fabricate and deliver and set the structures



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Specifications

- Custom block outs for floor drains
- Concrete mix design must be minimum of 4000 psi
- Hardware anchors: gate and door anchors
- Leave rebar out of specified areas
- Specific door and gate requirements

Restrictions

- Summer 2027 delivery due to low water.
- Transportation
 - Limit two gate valves per truck load.
 - Limit one duck blind per truck load.
- Concrete measurements must be within ½ tolerance.
- Tight tolerance for rebar placement and items cast in

Precast Plant Overview

Transportation

- Job site is approximately 150 miles from production facility.

Employees

- Six employees dedicated to this project.
 - Three steel and carpentry
 - Three general labors
- Normal work week is Monday through Friday, anything over 40 hours is considered overtime
- Exclude any holidays

Batch Plant\Truck Mixers

- Dry mix batch plant
- Truck capacity is 8 yards\truck
 - Extra time for cleanout due to color



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- Normal work week is Monday through Friday, anything over 40 hours is considered overtime

Yard and Storage Capacity

- Approximately 22 acres of land
- Approximately 0.5 acres for storage

Production Area

- 6500 square foot production slab, outside
 - Consider weather days
- 50-ton gantry crane

Forms

- Wall ties aluminum panels, pouring one structural item per day
 - Steel channel used for base and top

Shipping Equipment

- Truck & Trailer:
 - 48' x 8' trailer
 - 43,000 load capacity
 - Contractor to unload, no self-offloading