

# Precast Traffic Barrier Considerations

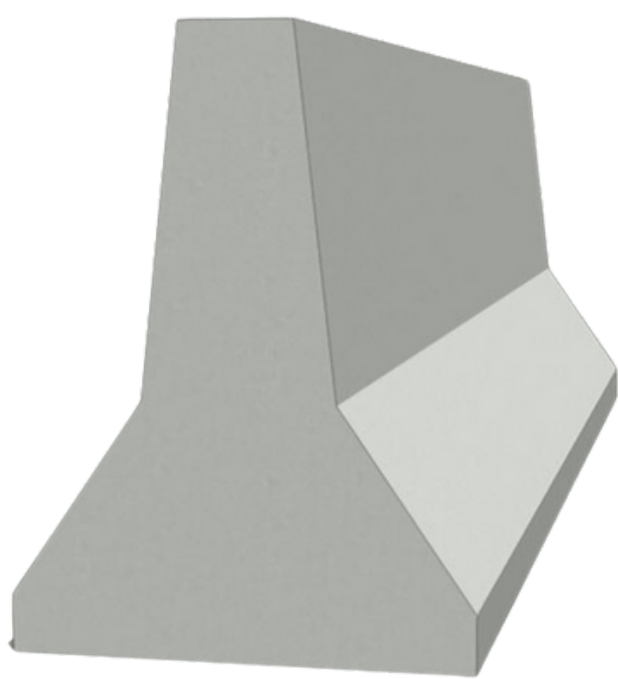
## Why Precast Traffic Barriers?

Precast traffic barriers serve as medians or guardrails that prevent vehicles from straying too far from the designated area within a roadway.

You should also consider incorporating traffic barriers in pedestrian areas, to create organized and therefore efficient patterns of foot traffic.

The advantage of using precast traffic barriers is that implementation is fairly simple. In contrast to poured in place structures, precast installation can be completed with simple machinery and a small group of professionals.

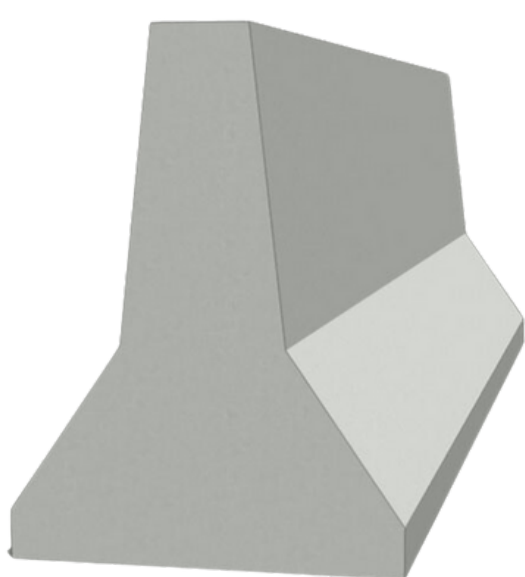
## Traffic Barrier Shapes



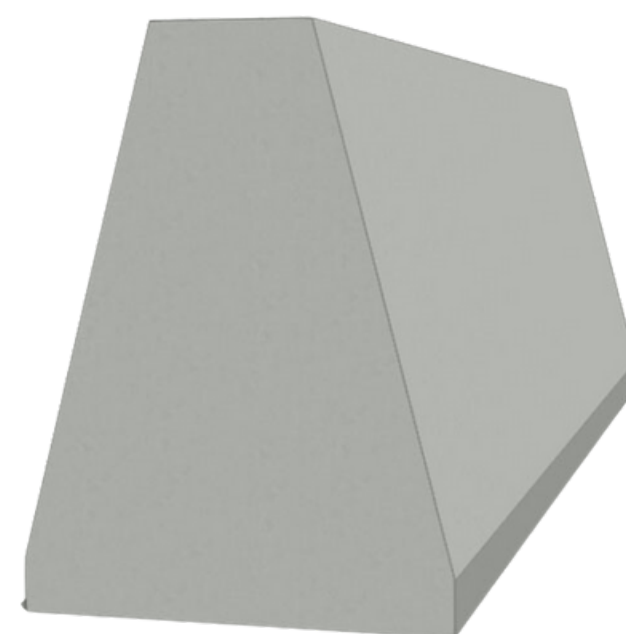
**Jersey Barrier**



**F-Shape Barrier**



**Constant Slope Barrier**



**Pedestrian Barriers**

# Precast Traffic Barrier Installation

## Basic Installation Steps

Installation of precast concrete grease interceptors should be completed by qualified and knowledgeable contractors. Be sure to follow all local and project requirements.

### 1 Prepare the work site.

**Tip:** This should be a flat, level, compact area. Ideally this will be on a paved road, free of bumps and depressions. Plan the formation and orientation in which they will be installed.

### 2 Unload the traffic barriers.

**Tip:** One person should be stationed at the installation site and another person should be located on or near the delivery flatbed trailer to guide the lift operator. The lift should be placed near the center of gravity of each barrier so that when suspended, the structure is nearly level. Place it in the installation area, guided by the designated person. The connecting end should be guided to the open end of the already-placed structure.

### 3 Engage the connectors, if applicable.

**Tip:** This will differ depending on the mechanism employed by the specific product you've chosen. Some projects may not require connectors.

### 4 Ensure the barriers are set within the Traffic Control Plan details and any applicable requirements.

### 5 Install the anchoring system.

**Tip:** Drill holes on the traffic side of each barrier to accommodate the pins, which are typically 1½" diameter by 48" long. Sink the pins into the holes until the washers rest in the designated pockets.

## Equipment Required

- Excavator or backhoe
- Vibratory compactor
- Any proper bracing that is required
- Sealants, grouts, and mastic
- All proper safety equipment & PPE

# Precast Traffic Barrier Technical Resources

## What is a Precast Traffic Barrier?

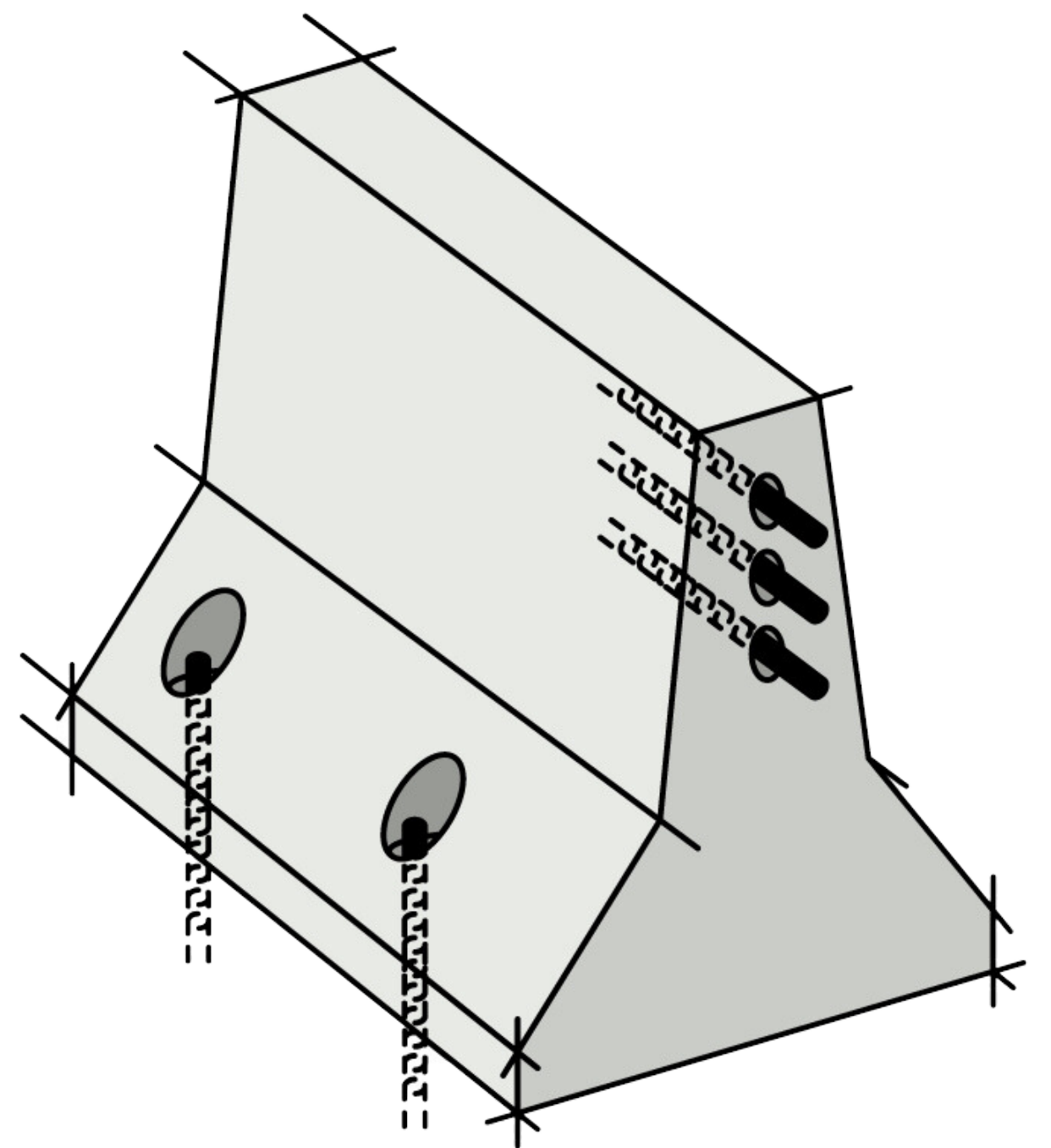
Precast traffic barriers are concrete structures that prevent vehicles or pedestrians from entering vulnerable or unsafe areas or colliding with dangerous obstacles.

There are three common shapes of traffic barriers: Jersey, F-Shaped, and Constant Slope. Each of these meets durability and crash test standards.

## Variations

The most common length of a traffic barrier is 10 feet. 20- and 30-foot variations may be better suited for some DOT applications that require greater permanence or stability.

Greater stability can be achieved by incorporating mat and bar reinforcement. Improved anchorage to prevent lateral movement can be addressed with interlocking joints and dowels.



## ASTM C825 Standard Specification

This specification covers precast concrete barriers intended for use adjacent to a roadway or as a median to redirect vehicles unintentionally leaving the roadway. The acceptance criteria for these barriers shall be based on strength properties, dimensional properties, and end results