Install an Intersection Control Beacon

Installation of traffic signal faces for each approach of a stop-controlled intersection in which only flashing circular red or circular yellow signal indications are used. The flashing red indications supplement STOP (R1-1) signs and face the stop-controlled approaches; if the intersection does not operate under all-way stop control, then flashing yellow indications are installed to face the uncontrolled approaches. An Intersection Control Beacon is usually mounted over the center of an intersection; however, the beacons may be used at other suitable locations.

Targeted Crash Types
- Right-angle
- Opposing left turn
- Rear-end (minor road)
- Rear-end (major road)

Problems Addressed
- Non-compliance with intersection traffic control devices
- Inadequate visibility of intersection or intersection traffic control devices
- Speeding

Conditions Addressed
- Crash history or observed conflicts related to lack of driver awareness of the intersection or of the traffic control device.
- Citation history or observed non-compliance with traffic control.
- Intersections with poor nighttime visibility.
- Isolated rural intersections.
- Intersections characterized by high approach speeds.
- From the first FHWA Report listed below: “There is anecdotal evidence that suggests that the overhead beacons have been interpreted as indicating a four-way stop at locations that were in fact only a two-way stop. This has caused motorists to pull out in front of the approaching vehicles because they assumed the approaching vehicle would be stopping.” These observations suggest that overhead beacons might be limited to all-way stop-controlled intersections.

Considerations
- A beacon must be visible from every approach.
- Flashing yellow signal indications shall not face conflicting vehicular approaches.
- A flashing circular red indication supplements—and does not replace—a STOP sign.
- Public outreach may be needed to address motorists who may be confused by the intersection control beacon operation. Some motorists approaching a red flasher on the minor street may assume that the major street also receives a red flasher.
- The intersection control beacon will require a power source.

Industry Standard
- MUTCD
  Section 4L.02: Flashing Beacons

Select Examples
- US 258 & NC 42/43, Pinetops, NC
- NH 11 & Depot Rd., New Durham, NH

Other Resources
- NCHRP 500 Volume 5: A Guide for Addressing Unsignalized Intersections
- Safety Evaluation of Flashing Beacons at STOP-Controlled Intersections, FHWA
- Low-Cost Safety Enhancements for Stop-Controlled and Signalized Intersections, FHWA
- Intersection Safety: A Manual for Local Rural Road Owners, FHWA
- Strategies to Address Nighttime Crashes at Rural, Unsignalized Intersections, Iowa DOT