

# INDEX

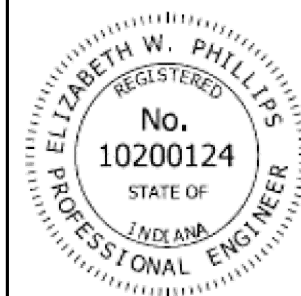
SHEET NO.	SUBJECT
1	Temporary Concrete Barrier Index Sheet
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3	Temporary Concrete Barrier Details
4	Temporary Concrete Barrier Double Taper End Section
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INDIANA DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER  
INDEX SHEET

SEPTEMBER 2019

STANDARD DRAWING NO. E 801-TCCB-01

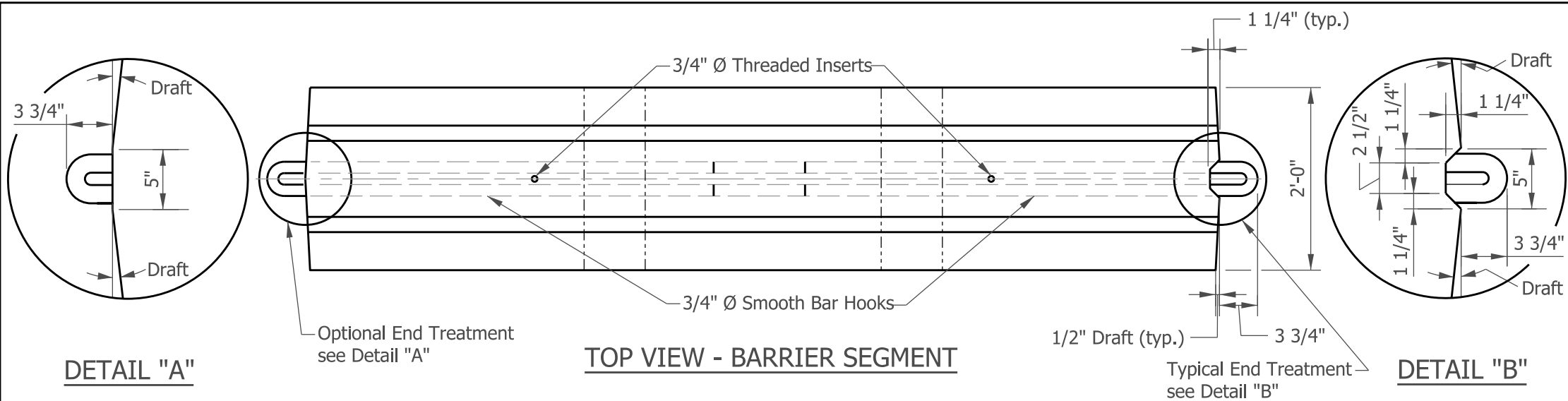


*Elizabeth W. Phillips*  
DESIGN STANDARDS ENGINEER

5/2/2019  
DATE

*[Signature]*  
CHIEF ENGINEER

6/5/2019  
DATE



**NOTES:**

1. For freeways and interstates, the maximum barrier flare rate and construction clear zone distance shall be based on 70 mph for the first run of barrier within the construction zone. For subsequent barrier placement, the barrier flare rates and construction clear zone distance shall be based on 70 mph unless otherwise shown on the plans.
2. The barrier taper flare rate and construction clear zone distance are shown in Table No. 1. Construction clear zone distance is measured from the through travel lane. The barrier taper flare rate shall be as shown or flatter.
3. The dimensions of the lifting slots are subject to adjustment as necessary to accommodate handling equipment.
4. For additional connection details see Standard Drawing E 801-TCCB-03.

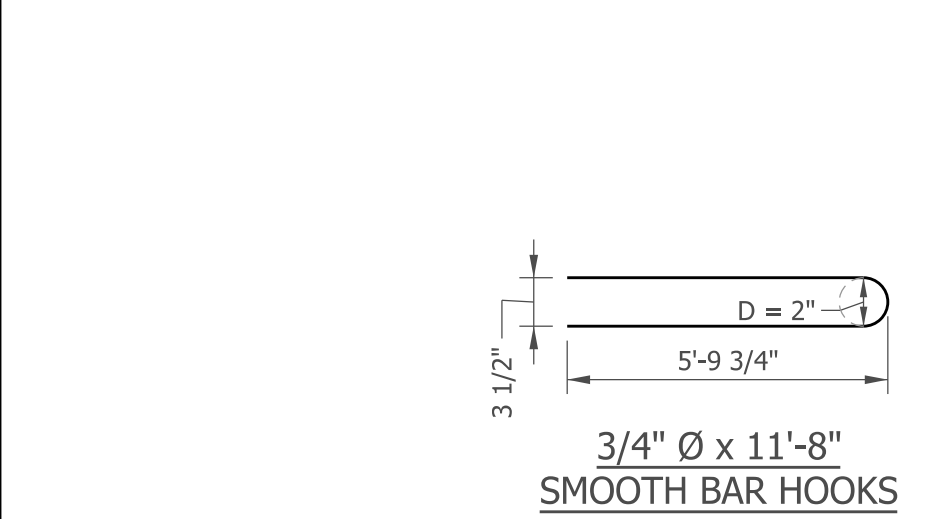
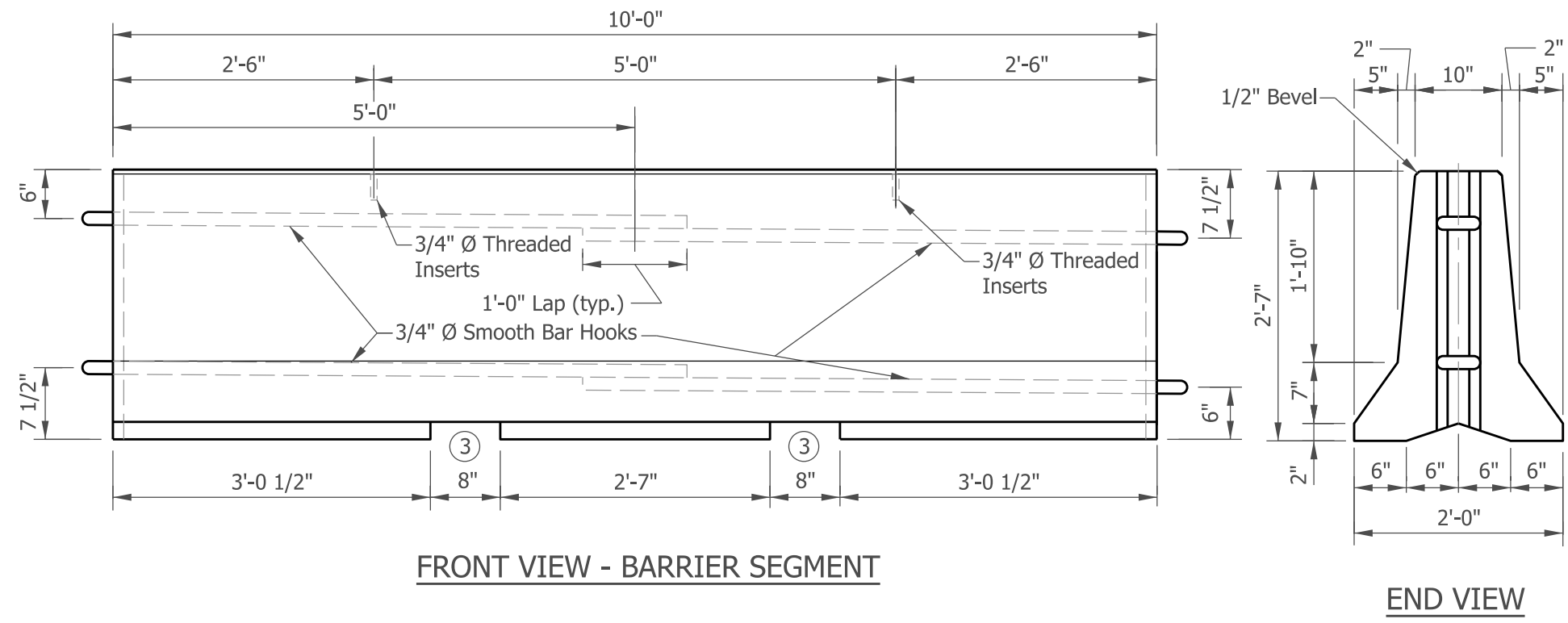


TABLE NO. 1

Construction Zone Design Speed	Barrier Taper Flare Rate	Construction Clear Zone Distance
70 mph	20:1	30
60 mph	18:1	30
55 mph	16:1	23
50 mph	14:1	16
45 mph	12:1	16
40 mph	10:1	13
≤ 35 mph	10:1	13

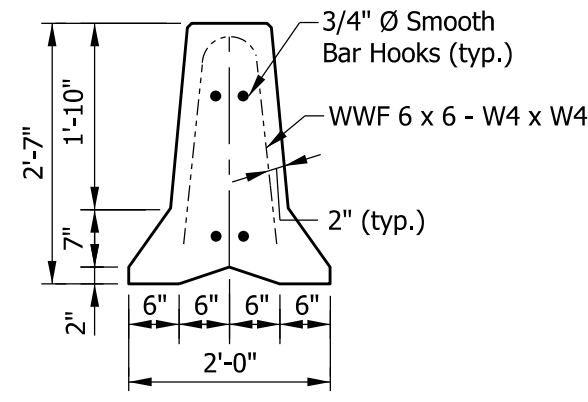
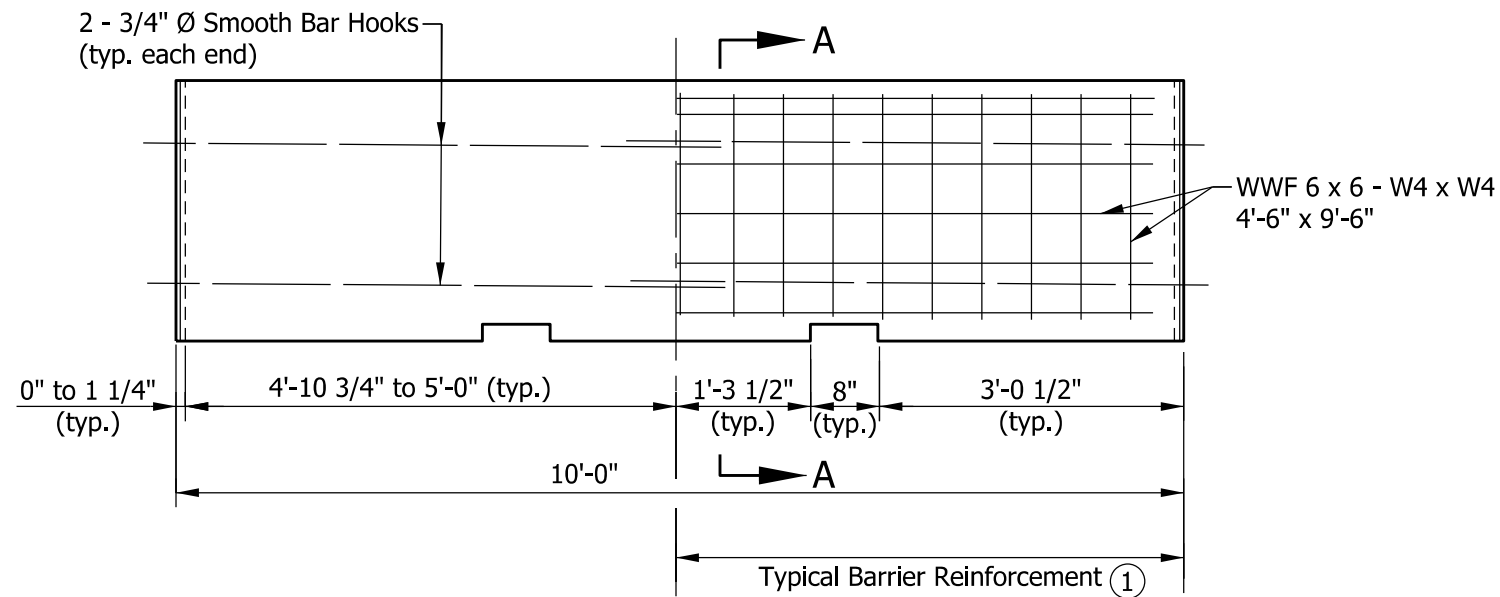
**INDIANA DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER DIMENSIONS AND FLARE RATES**

**SEPTEMBER 2024**

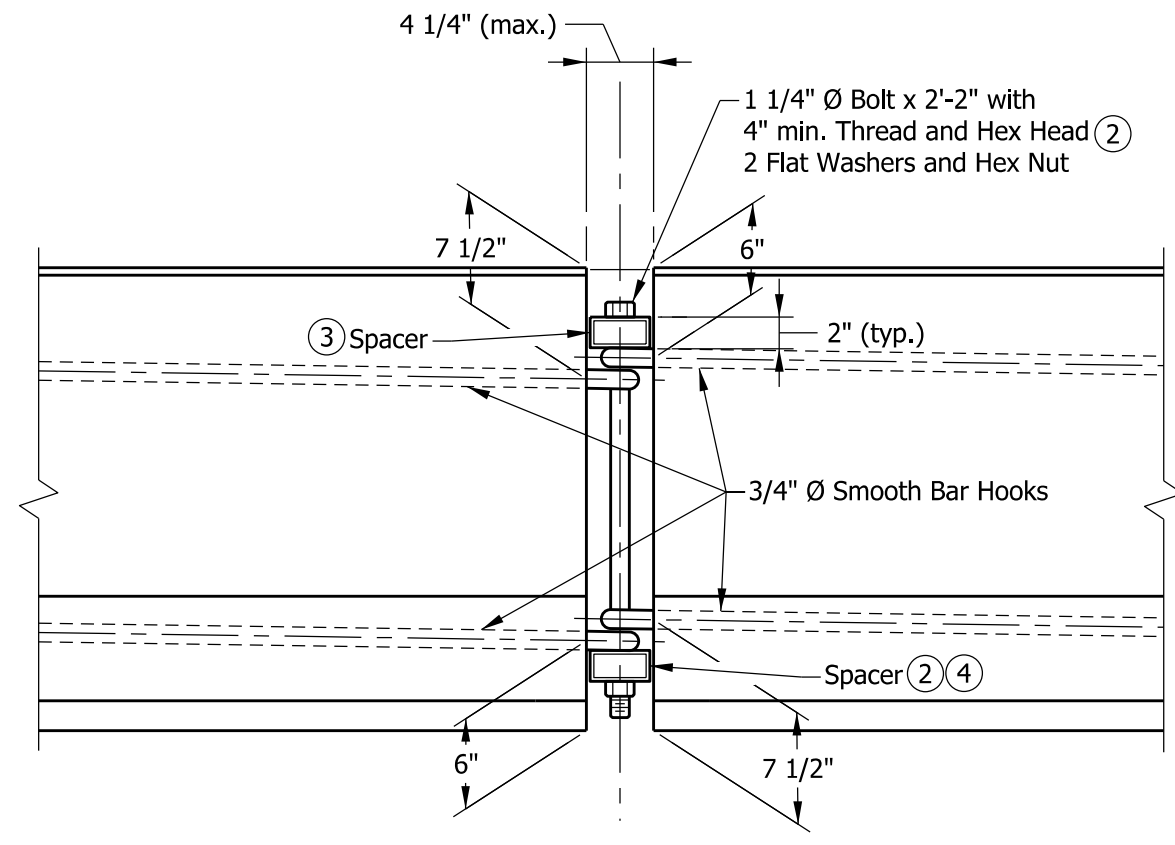
**STANDARD DRAWING NO. E 801-TCCB-02**

	 DESIGN STANDARDS ENGINEER      04/09/2024 DATE
	 CHIEF ENGINEER      04/17/2024 DATE

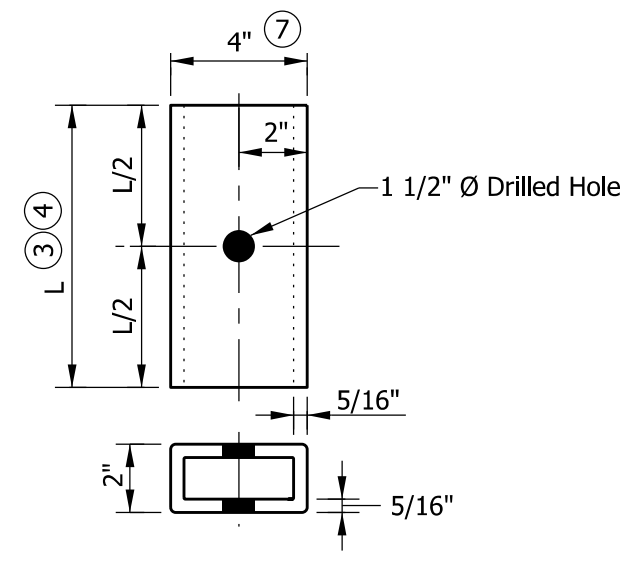


**SECTION A-A** ①

**REINFORCEMENT DETAILS**






**FRONT VIEW  
CONNECTION DETAIL**

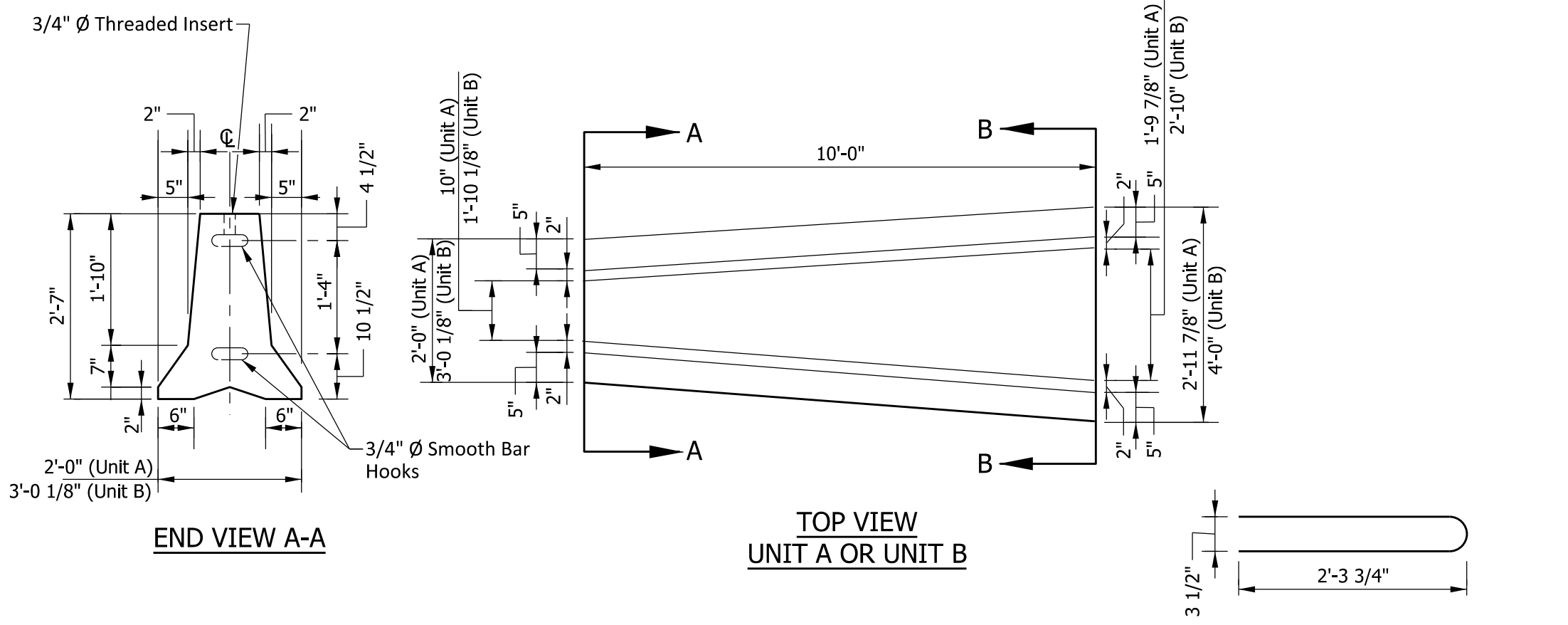


**SPACER DETAIL**

**NOTES:**

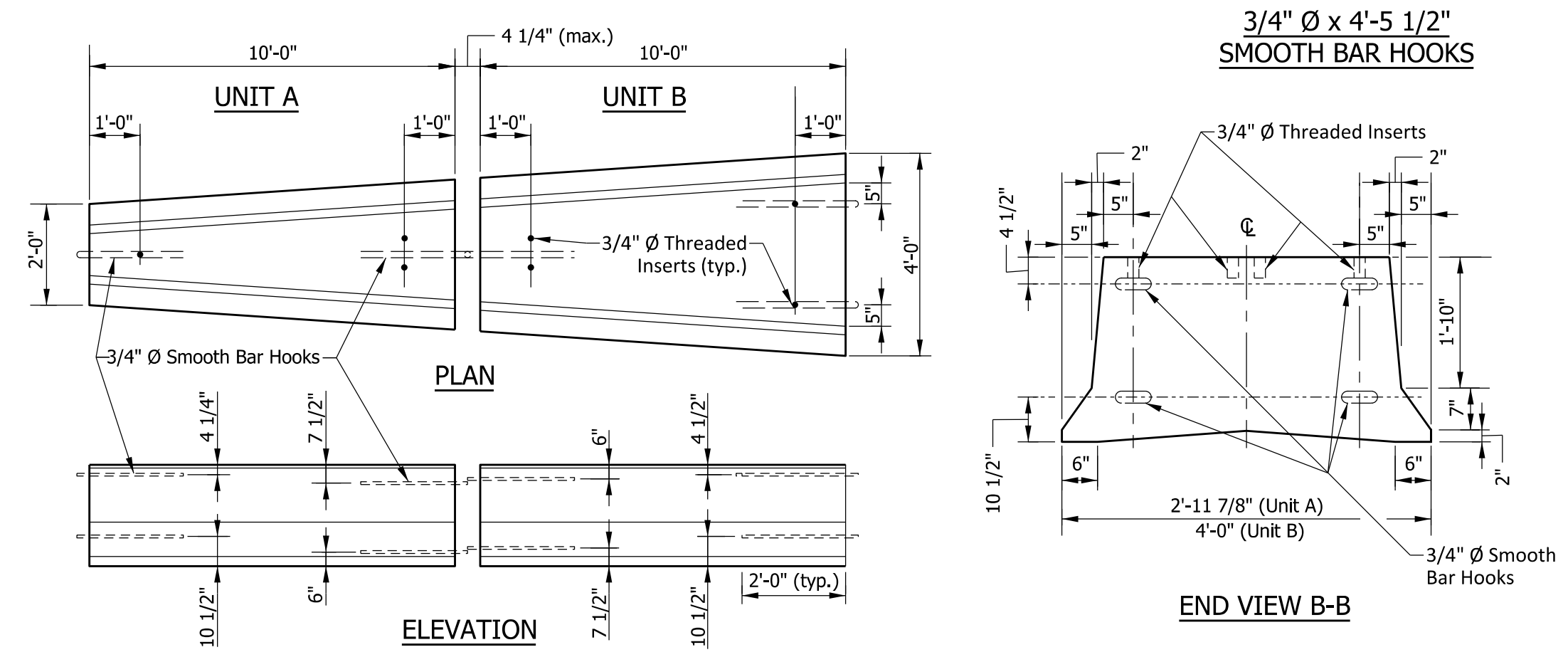
- ① Section A-A shows reinforcement with welded wire fabric. The WWF may be bent to the shape of the wall.
- ② Hex nut may be tack welded to bottom spacer to facilitate installation and removal. Bolts shall be torqued only to tight condition. Clearance between the spacer and the ends of the barrier shall allow angular deflection at the joints to allow flare rate 11:1 or flatter.
- ③ Top spacer TS 4" x 2" x 5/16" x 10" long.
- ④ Bottom spacer TS 4" x 2" x 5/16" x 1'-4" long.
5. Where necessary to meet short radius curving alignment, the shorter top spacer (10") may be substituted for the standard bottom spacer (16").
6. For additional connection details see Standard Drawing E 801-TCCB-02.
- ⑦ Where very short radius curving alignment is encountered, spacers may be TS 3" x 2" x 1/4" x the appropriate length as shown above.
8. In lieu of the connection detail shown, the J-J Hook temporary barrier connection of Easi-Set Industries as described in FHWA eligibility letter B-52 of March 26, 1999 may be used.

<b>INDIANA DEPARTMENT OF TRANSPORTATION</b>	
<b>TEMPORARY CONCRETE BARRIER DETAILS</b>	
SEPTEMBER 2019	
STANDARD DRAWING NO.	E 801-TCCB-03
	 DESIGN STANDARDS ENGINEER      5/2/2019 DATE
	 CHIEF ENGINEER      6/5/2019 DATE



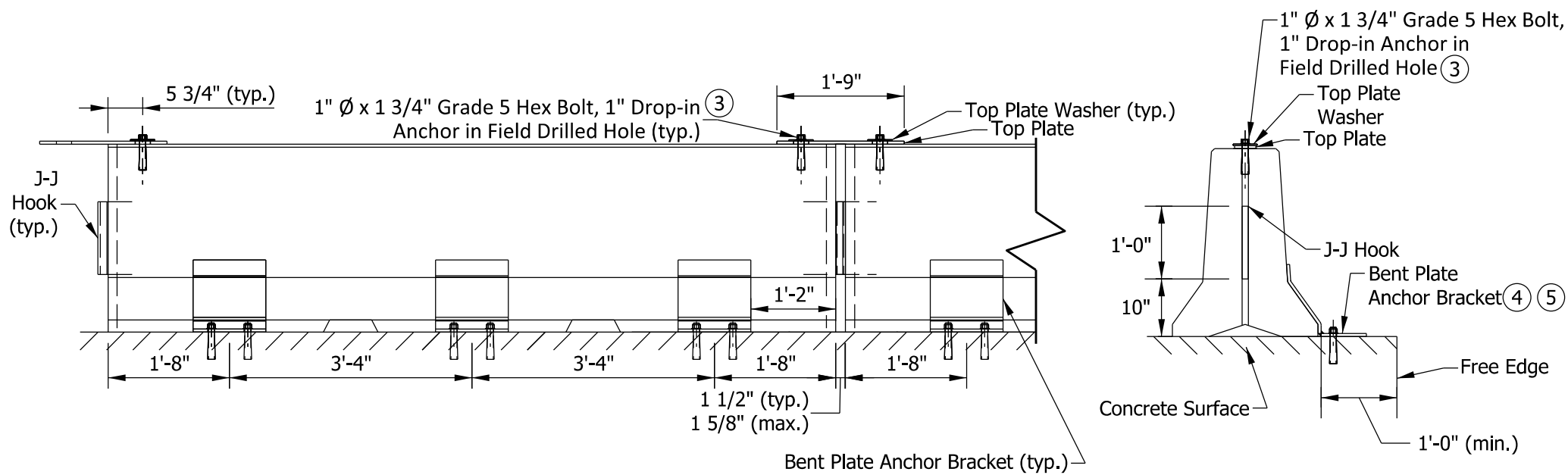
**NOTES:**

1. For connection details between Units A and B, see Standard Drawing E 801-TCCB-03.
2. Extreme ends of the double taper end section assembly require a 1 1/4" Ø bolt x 2'-3 1/2" (4" min. thread, hex head and hex nut) for connecting to adjacent temporary concrete barriers.



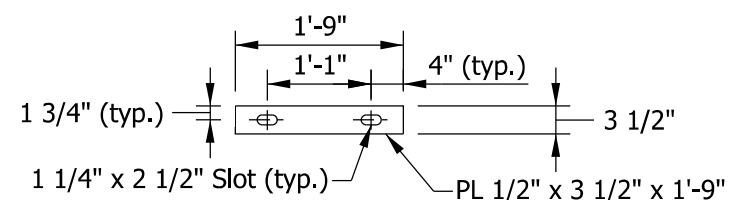
**DOUBLE TAPER END SECTION ASSEMBLY**  
(Showing location of inserts and bar hooks)

INDIANA DEPARTMENT OF TRANSPORTATION	
TEMPORARY CONCRETE BARRIER DOUBLE TAPER END SECTION	
SEPTEMBER 2019	
STANDARD DRAWING NO.	E 801-TCCB-04
	 DESIGN STANDARDS ENGINEER      5/2/2019 DATE
	 CHIEF ENGINEER      6/5/2019 DATE

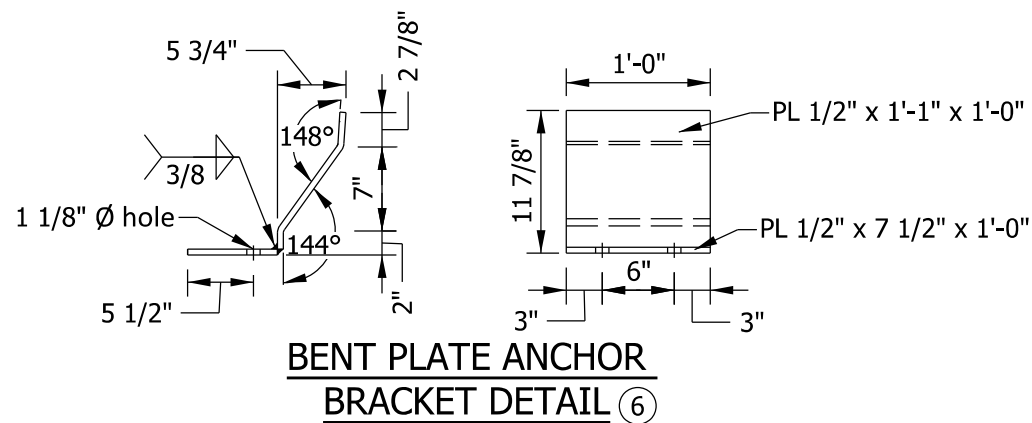


**BARRIER FRONT VIEW**

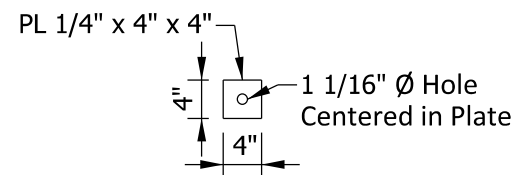
**END VIEW**



**TOP PLATE DETAIL**




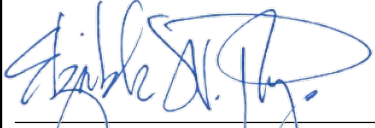

**BENT PLATE ANCHOR BRACKET DETAIL (6)**

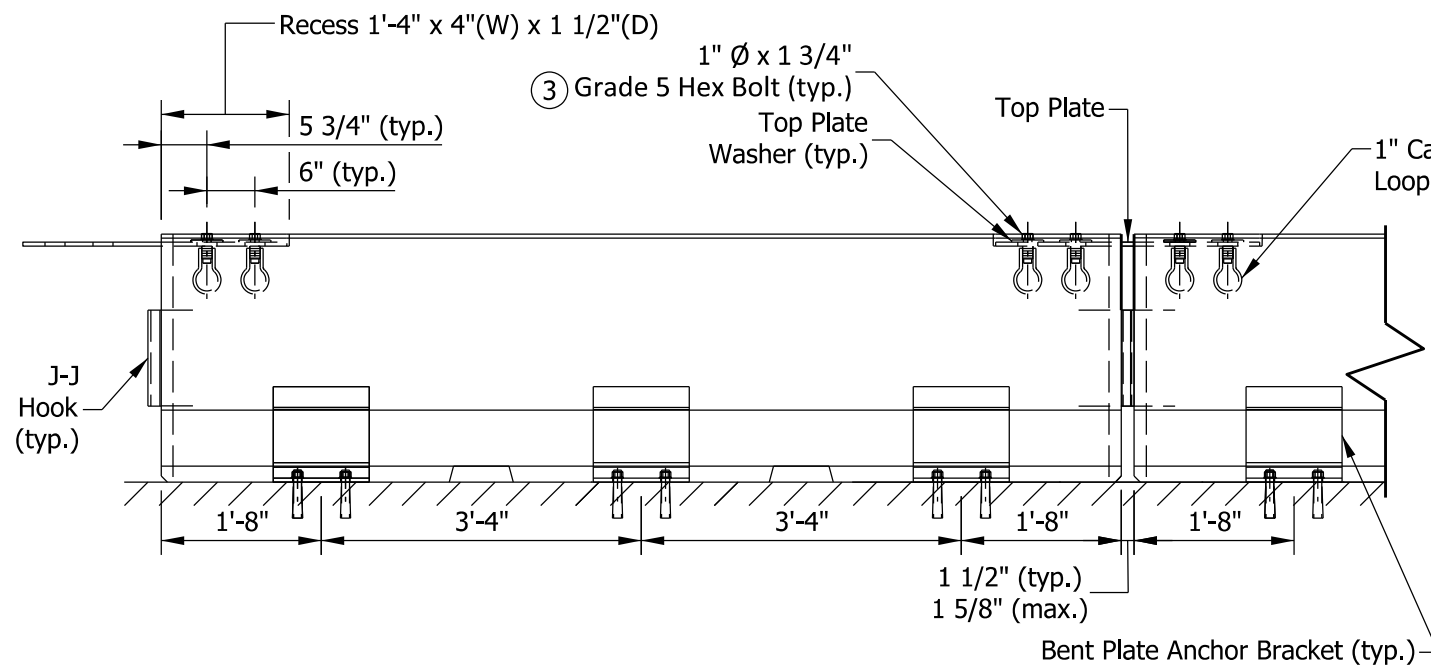


**TOP PLATE WASHER DETAIL**

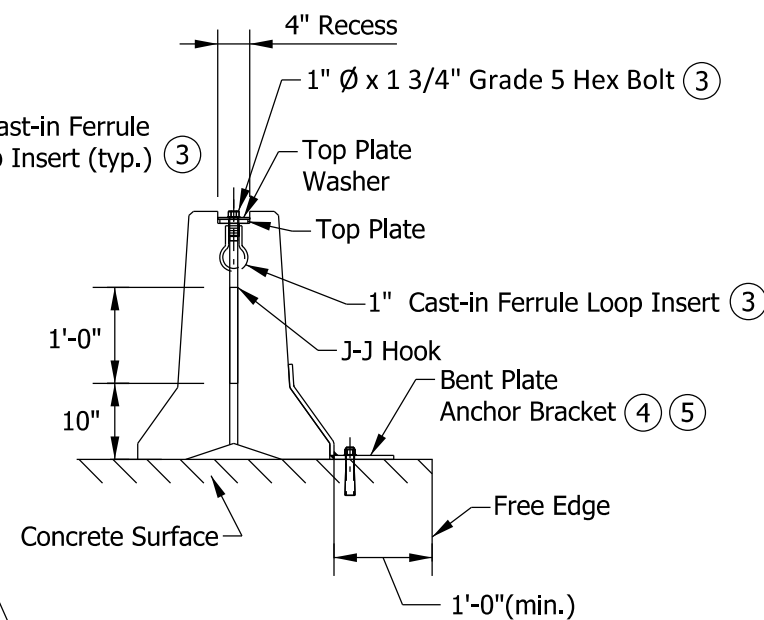
**NOTES:**

1. All steel shall be ASTM A-36 hot rolled unless otherwise noted.
2. J-J Hooks are a product of Easi-Set Worldwide. Hooks shall be cast into the barrier in accordance with the manufacturer's recommendations.
- (3) The drop-in anchor and bolt shall be tightened to the anchor manufacturer's specifications. The anchor shall have a minimum ultimate shear capacity of 26.4 kips.
- (4) Bent plate anchor bracket shall be attached to a concrete surface using one of the following anchor systems. Minimum embedment shall be in accordance with the manufacturer's recommendations, but not less than 4 1/2 in.
  - 1-in. threaded rod, grade 55 minimum, with washer and nut. Rod shall be installed using an approved epoxy chemical anchor system with a minimum ultimate shear capacity of 21.2 kips; or
  - 1-in. diameter wedge anchor; or
  - 1-in. nominal diameter drop-in anchor with 1-in. diameter, grade 5 hex bolt.
- (5) When concrete will remain in place after anchoring is removed, the threaded rod anchoring system shall be used. The rod shall be completely removed, the hole shall be blown out to remove any moisture or debris, and the hole completely filled using the same epoxy that was used for anchoring the rod.
- (6) A single bent plate anchor bracket may be used instead of the two-plate detail as shown.

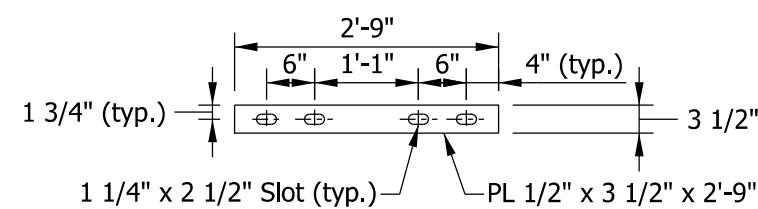
<b>INDIANA DEPARTMENT OF TRANSPORTATION</b>	
<b>ANCHORED TEMPORARY CONCRETE BARRIER, DROP-IN ANCHOR SEPTEMBER 2019</b>	
<b>STANDARD DRAWING NO.</b>	<b>E 801-TCCB-05</b>
	 5/29/2019 DESIGN STANDARDS ENGINEER      DATE
	 6/5/2019 CHIEF ENGINEER      DATE



**BARRIER FRONT VIEW**



**END VIEW**



**TOP PLATE DETAIL**

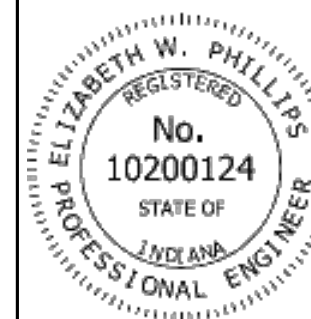
**NOTES:**

1. All steel shall be ASTM A-36 hot rolled unless otherwise noted.
2. J-J Hooks are a product of Easi-Set Worldwide. Hooks shall be cast into the barrier in accordance with the manufacturer's recommendations.
- ③ The bolt shall be installed snug tight in the cast-in ferrule loop insert. The insert shall have a minimum ultimate shear capacity of 12.1 kips.
- ④ Bent plate anchor bracket shall be attached to a concrete surface using one of the following anchor systems. Minimum embedment shall be in accordance with the manufacturer's recommendations, but not less than 4 1/2 in.
  - 1-in. threaded rod, grade 55 minimum, with washer and nut. Rod shall be installed using an approved epoxy chemical anchor system with a minimum ultimate shear capacity of 21.2 kips; or
  - 1-in. diameter wedge anchor; or
  - 1-in. nominal diameter drop-in anchor with 1-in. diameter, grade 5 hex bolt.
- ⑤ When concrete will remain in place after anchoring is removed, the threaded rod anchoring system shall be used. The rod shall be completely removed, the hole shall be blown out to remove any moisture or debris, and the hole completely filled using the same epoxy that was used for anchoring the rod.
6. See E 801-TCCB-05 for bent plate anchor details, top plate washer details, and additional notes.

INDIANA DEPARTMENT OF TRANSPORTATION

ANCHORED TEMPORARY  
CONCRETE BARRIER,  
FERRULE LOOP INSERT  
SEPTEMBER 2019

STANDARD DRAWING NO. E 801-TCCB-06



	5/29/2019
DESIGN STANDARDS ENGINEER	DATE
	6/5/2019
CHIEF ENGINEER	DATE