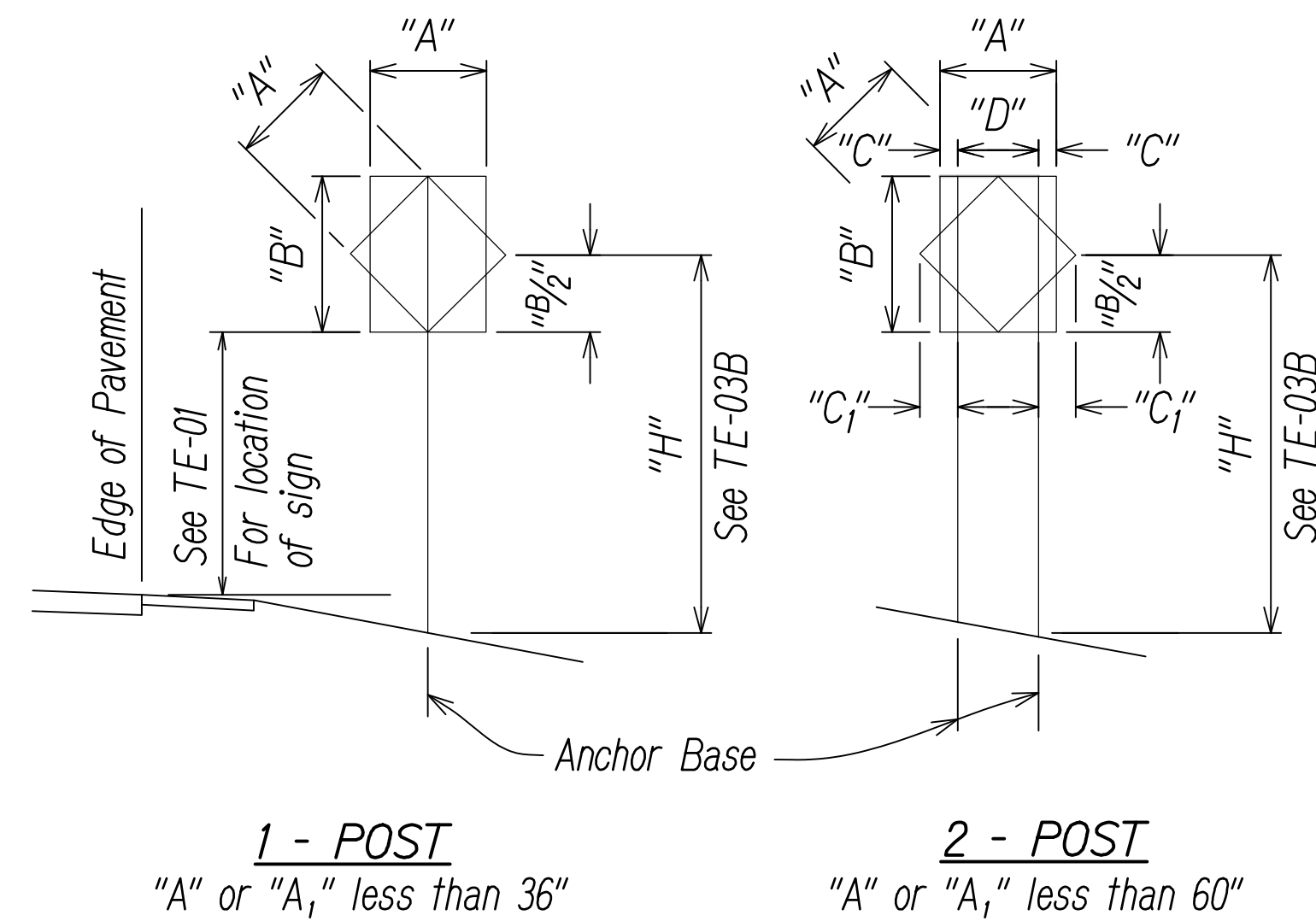


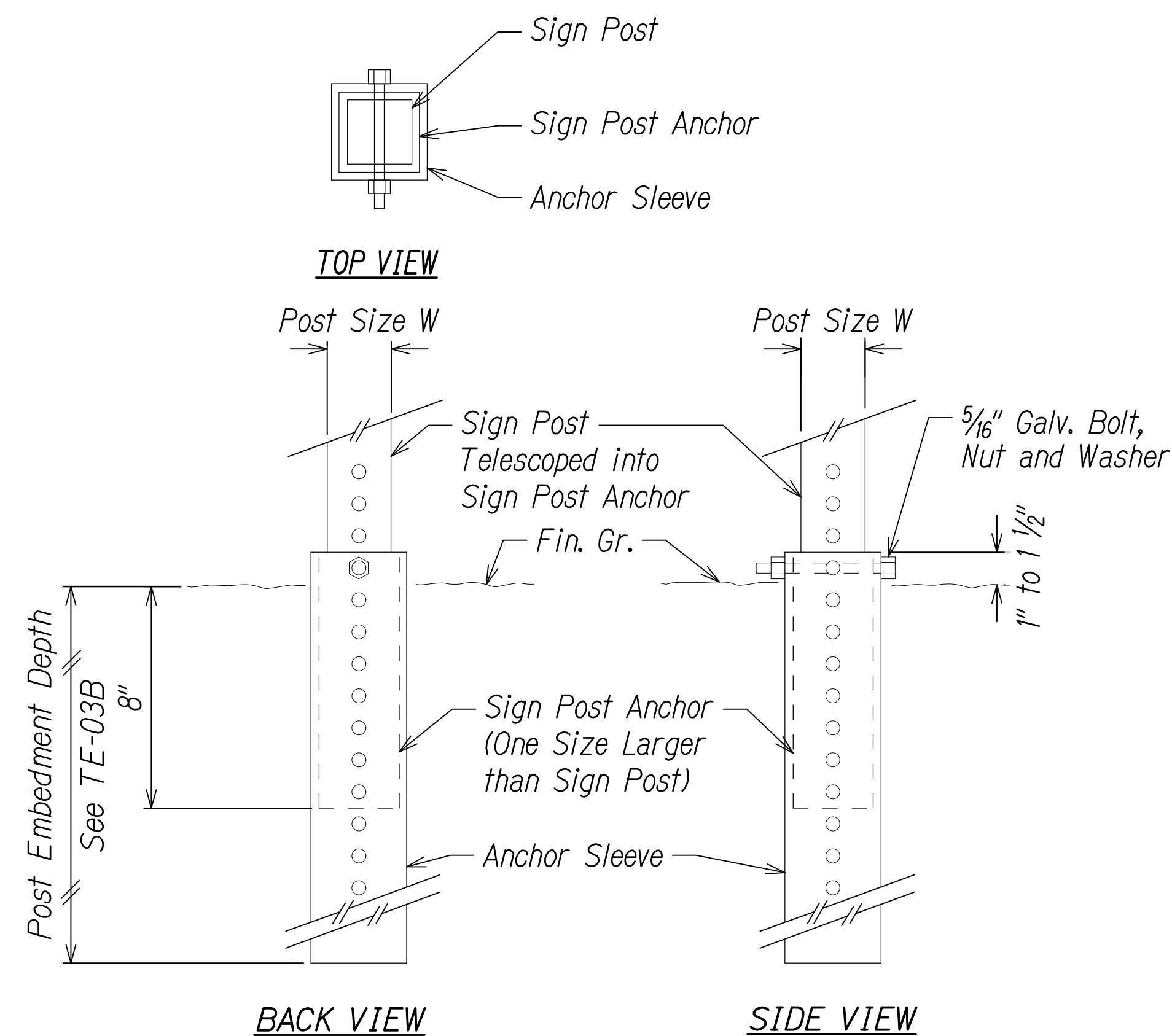
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HSIP-011-1(045)	2023	82	114



"A" or "A1"	"C"	"C1"
Less than 36"	6"	-
Greater than 36" and less than 48"	9"	19"
Greater than 48"	12"	24"

NOTE: Frame stiffeners are required when D is greater than 24" See General Notes.

## TYPICAL INSTALLATION



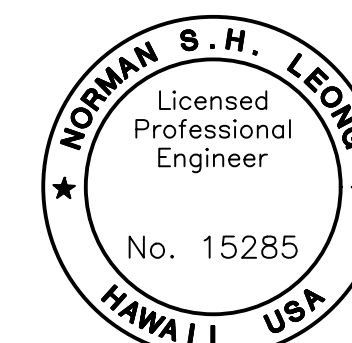
### SIGN POST INSTALLATION

*ANCHOR BASE DETAIL*

GENERAL NOTES

1. Design Specifications:
  - (A) Design shall conform w/ the latest AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 1st Edition (2015), including 2018 interim and all subsequent interim revisions and editions.
  - (B) Latest HDOT Memorandum with subject title "Design Criteria for Bridges and Structures."
2. Loads:
  - (A) Basic Wind Speed: 145 mph.
  - (B) Mean Recurrence Interval of 1,700 years.
3. Materials:
  - (A) Post shall conform to the Standard Specifications.
  - (B) All connection bolts shall be AASHTO M164 bolts and anchor bolts shall be AASHTO M314-105 bolt.
  - (C) Lap splice nuts and bolts shall be M180, with an ultimate tensile strength of 180 ksi, min.
  - (D) Aluminum members and surfaces in contact with structural steel shall be isolated with neoprene material as approved by the Engineer.
4. General:
  - (A) See General Notes on B-01, TE-01, and TE-03B for additional information.
  - (B) All posts shall be 12 gage unless otherwise specified or shown on the plans.
  - (C) Square tube posts shall be perforated with  $\frac{7}{16}$ "  $\varnothing$  holes, 1" o.c., 4 sides, along entire length of post.
  - (D) All accessories, fittings and stiffener details (as required) shall be submitted to the Engineer for approval 20 days prior to installation.
  - (E) Alternate designs in accordance with the plans and specifications shall use the Service Load Design Method and shall be stamped by a registered structural engineer of the State of Hawaii and submitted to the Engineer for approval.
  - (F) All sign support posts shall be outside of the clear zone or shielded by an appropriate traffic barrier system. The traffic barrier system shall be submitted to the Engineer for his approval.
  - (G) The Contractor shall use templates while installing the anchor bolts. Anchor bolts shall be installed with misalignments of less than 1:40 from vertical. After installation, firm contact shall exist between the anchor bolt nuts, washers, and base plate on any anchor bolt installed in a misaligned position.
  - (H) Excavation and backfill shall be considered incidental to the cost of the sign foundation.

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK	DRAWN BY _____	" "
	TRACED BY _____	" "
	DESIGNED BY _____	" "
	QUANTITIES BY _____	" "
No. _____	CHECKED BY _____	" "



This work was prepared by me or under my supervision and construction of this project will be under my observation.

  
 Expiration Date of License 4/24

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

*GALVANIZED SQUARE TUBE*  
*SIGN POST MOUNTING*  
*MAMALAHOA HIGHWAY*  
*SAFETY IMPROVEMENTS*

*Vicinity of Halelii Street and Bruner Road*  
*Federal-Aid Project No. HSIP-011-10(45)*

*Scale: NTS* *Date: September 2023*