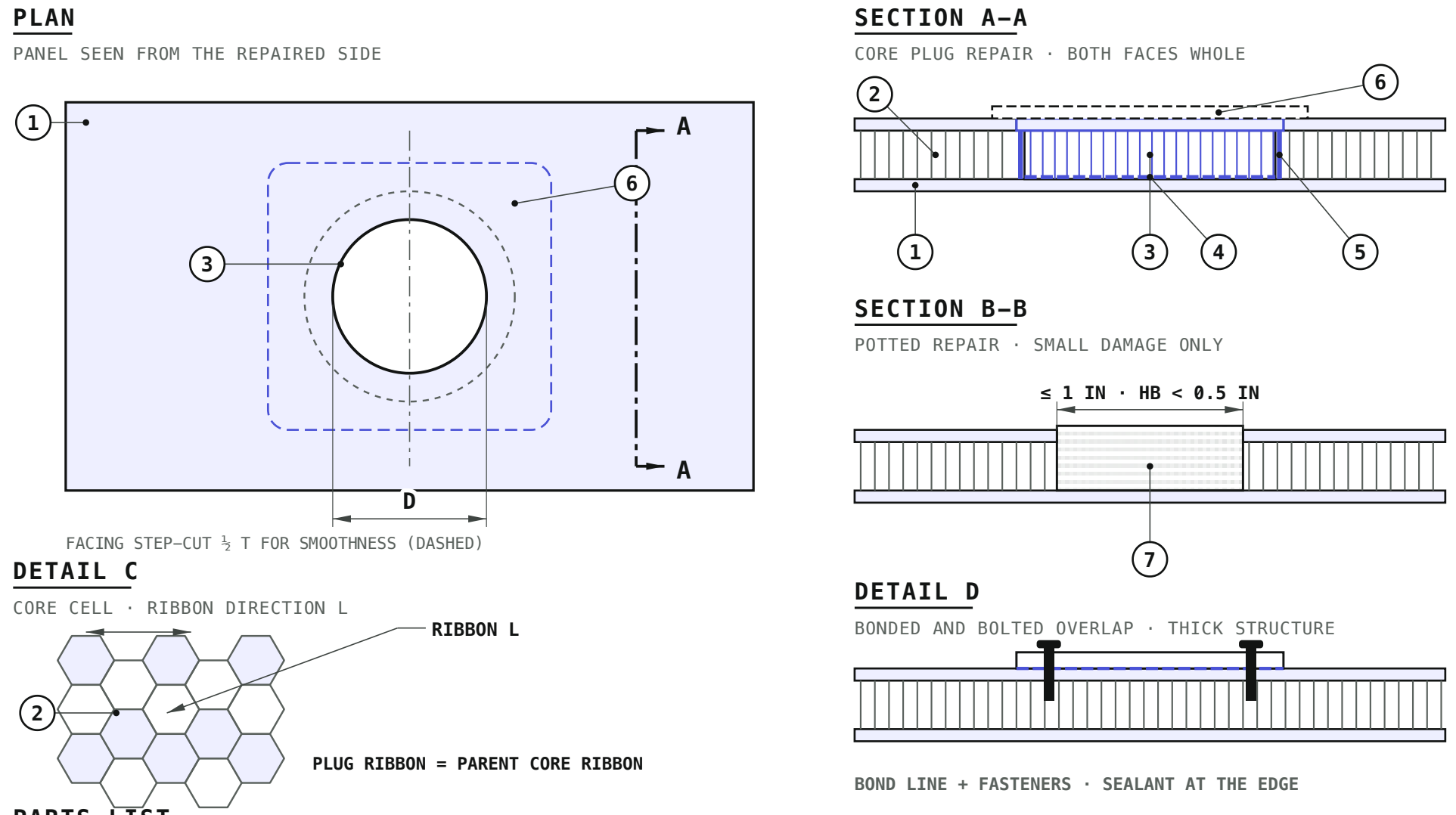
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Metal-Bonded Honeycomb Panels: Potting, Core Plugs and Overlaps

Core plug · potting · overlap

REFERENCE DRAWING — NOT APPROVED DATA · THE SRM ALWAYS GOVERNS



PARTS LIST

#	PART	RULE	SOURCE
1	Facing	Clad alloy on clad facing; 7075-T6, 2024-T3, 2014-T6	AC 43.13-1B 3-10
2	Core	Same material and cell size; same ribbon direction	AC 3-10d
3	Core plug	At least original density, cell, thickness; 0.001 in proud	AC 3-10h(2)
4	Film adhesive	One disk full depth, two for partial depth	AC 3-10h(3)
5	Splice adhesive	Strip round the plug; foams, so restrain it	AC 3-10h(3), (4)
6	Overlap patch	Bonded, bolted or both; the SRM sets the size	AC 3-10f
7	Potting	Epoxy + microballoons; heavier than core: check balance	H-8083-31A p. 7-34

NOTES

1. Dimensions in inches. Do not scale: the SRM sets the values.
2. For reference. The applicable manual always governs.
3. Based on AC 43.13-1B ch. 3 sec. 2.

REVISIONS

REV	DESCRIPTION	DATE
A	First issue	2026-10-30

The Aviation Point. Structural repair reference

TITLE			
Metal-bonded honeycomb			
DRAWING NO.	REV	SCALE	SHEET
TAP-DWG-032	A	NTS	1 OF 1
APPLIES TO			
Secondary structure			

DO NOT SCALE DRAWING

After AC 43.13-1B pars. 3-10 and 3-11, Figs. 3-10 to 3-16, and FAA-H-8083-31A p. 7-34. Typical only: the SRM gives the repair for the panel.

Match the repair to the damage

Damage	Repair	Source
Dent, scratch or fracture up to 1/4 in in an aluminium facing	Viscous epoxy filler. A delaminated dent is repaired, not filled. A fracture also gets a surface patch	AC 3-10a
Core damaged, 1 in or less	Potting (the Handbook says under 0.5 in); heavier than the core	AC 3-10g; HB p. 7-34
Core and one facing damaged	Route out facing and core, core plug with film adhesive, new facing	AC 3-10b, 3-10h
Through both facings	As a laminate repair, access to both sides	AC 3-10c
Thick structure, many loads	Overlap patch: bonded, bolted, or both	AC 3-10f

Key points

- **The SRM governs**; the AC covers secondary structure only.
- **Dry the core** first: trapped water boils in the cure.
- **Same core:** material, cell size, ribbon direction.
- **Plug** 0.001 in proud; restrain the foaming splice adhesive.
- **Potting** is heavy: check control balance. Limit 1 in (AC), 0.5 in (HB).

Step by step

1. Map the damage by tap test; check for water.
2. Dry the area.
3. Route out facing and core with a template.
4. Fit the plug with film and splice adhesive; cure.
5. Trim flush; bond the facing or patch; seal edges.

SOURCES · FAA AC 43.13-1B CHG 1, Chapter 3, Section 2 · FAA-H-8083-31A, AMT Handbook — Airframe, Volume 1, Chapter 7

SCAN · OPEN THIS GUIDE
theaviationpoint.com/sheet-metal/bonded-honeycomb/

Educational reference only, not approved data. Always consult the applicable SRM, AMM, or AC 43.13-1B and your certifying authority.