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- (54) **THREE-DIMENSIONAL MEMORY DEVICE
AND METHOD OF MAKING THEREOF
INCLUDING EXPANDED SUPPORT
OPENINGS AND DOUBLE SPACER WORD
LINE CONTACT FORMATION**

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- (57) **ABSTRACT**

A memory device includes at least one alternating stack of respective insulating layers and respective electrically conductive layers and memory stack structures vertically extending through the at least one alternating stack. A layer contact via structure contacts a top surface of one of the electrically conductive layers, and is laterally surrounded by at least one dielectric spacer, which may include a plurality of dielectric spacers, and optionally by a plurality of dielectric support pillar structures. Additionally or alternatively, the layer contact via structure may comprise a convex surface segment that is adjoined to a straight sidewall segment.

