



**NOTE:**

ASCE-7 ALLOWS FOR SMALL WOOD ROOF DIAPHRAGMS TO BE IDEALIZED AS RIGID DIAPHRAGMS, SUCH AS FOR THIS GARAGE.

WITH A RIGID DIAPHRAGM, THE LATERAL DESIGN METHOD COLLOQUIALLY KNOWN AS THE "THREE SIDED BOX" IS APPLICABLE.

THE DESIGN ALLOWS FOR ONE WALL TO BE OPEN AND/OR WITHOUT LATERAL DESIGN CAPACITY. THE OPPOSITE WALL RESISTS ALL IN-PLANE LATERAL LOADS, AND THE COUPLED, ORTHOGONAL WALLS RESIST THE INDUCED TORSIONAL LOADING CAUSED BY THE ECCENTRICITY OF THE CENTER OF LOADING TO THE CENTER OF RIGIDITY.

ALL TWO CAR GARAGES OF THIS SIZE AND TYPE MEET THE CRITERIA SUCH THAT THEY MAY BE DEEMED STABLE IN LATERAL LOAD CONDITIONS IN ACCORDANCE WITH THE DESIGN METHOD ABOVE.

AS SUCH, THE PORTAL FRAMES ARE NOT NECESSARY AND MAY REMAIN AS CONSTRUCTED IN SUITABLE CONDITION FOR BEARING AND TRANSFER OF GRAVITY LOADS AND NEGLECTING LATERAL LOADS.