48" HALF BLOCK MASS EXTENDER & GRAVEL INFILL

CONCRETE BLOCK DATA
DESIGN UNIT WEIGHT \( (\gamma_c) \) = 142 pcf
VOLUME \( (V_c) \) = 9.80 cf
BLOCK WEIG HT \( (W_b) \) = 1,392 lbs
CENTER OF GRAVITY \( (\text{COG}_c) \) = 25.63" (SEE NOTES)

GRAVEL INFILL DATA
DESIGN UNIT WEIGHT \( (\gamma_g) \) = 110 pcf
VOLUME \( (V_g) \) = 6.20 cf
GRAVEL INFILL WEIGHT \( (W_g) \) = 682 lbs
CENTER OF GRAVITY \( (\text{COG}_g) \) = 21.49" (SEE NOTES)

COMBINED UNIT DATA
DESIGN UNIT WEIGHT \( (\gamma_t) \) = \( \frac{(1,392 \text{ lbs} + 682 \text{ lbs})}{16 \text{ cf}} = 130 \text{ pcf} \)
VOLUME \( (V_t) \) = \( 9.80 \text{ cf} + 6.20 \text{ cf} = 16.00 \text{ cf} \)
TOTAL UNIT WEIGHT \( (W_t) \) = 2,074 lbs
CENTER OF GRAVITY \( (\text{COG}_t) \) = 24.26" (SEE NOTES)

NOTES:
- VOLUME, WEIGHT AND COG CALCULATIONS WERE DONE USING CAD SOFTWARE.
- COG MEASUREMENTS ARE FROM BACK OF BLOCK.

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