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(**) T.O. STUB COLUMN
= B.O. WOOD BEAMS

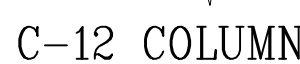


NOTE
"S" DENOTES SCHEDULED TIE SPACING

NOTES:

1. COLUMN SIZE IS MIN. DIMENSION OF COLUMN.
2. BAR SIZE IS MAX. SIZE ENCLOSED BY TIES.
3. ROUND OFF SIZES TO CLOSEST SIZE IN TABLE.
4. PLACE 1 SET OF TIES FROM TOP & BOTT. OF COLUMN.

NOTE:
1. ALTERNATE HOOKS IN PLACING
SUCCESSIVE SETS OF TIES.



NOTES:

1. TABULATED VALUES ARE BASED ON GRADE 60 REINFORCING BARS AND 4,000 PSI NORMAL WEIGHT CONCRETE. LENGTHS ARE IN INCHES.
2. TENSION LAP SPICE LENGTHS ARE CALCULATED PER ACI 318-19.
3. CASES 1 AND 2, WHICH DEPEND ON THE BARS CONCRETE COVER, THE CLEAR SPACING OF THE BARS, AND THE PRESENCE OF STIRRUPS OR TIES THROUGHOUT THE SPICE DEVELOPMENT LENGTH, ARE DEFINED AS:

CASE 1: CLEAR SPACING NOT LESS THAN ϕ_b ,
CLEAR COVER NOT LESS THAN ϕ_b ,
AND STIRRUPS OR TIES NOT LESS THAN CODE MIN.
OR
CLEAR SPACING NOT LESS THAN $2\phi_b$,
AND CLEAR COVER NOT LESS THAN ϕ_b

CASE 2: ALL OTHER CONDITIONS
4. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 IN. OF CONCRETE CAST BELOW THE BARS.
5. LAP SPICE LENGTHS ARE MULTIPLES OF TENSION DEVELOPMENT LENGTHS:
CLASS A = 1.0 l_d
CLASS B = 1.3 l_d
6. FOR LIGHTWEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.

TENSION LAP SPLICES AND DEVELOPMENT LENGTHS



NOTE
"S" DENOTES SCHEDULED TIE SPACING

TYPICAL DETAIL
COLUMN SPLICE AT FLOOR LINE
INTERIOR COLUMN TO C.I.P. BEAM

SHEET: