



(51) International Patent Classification:
E04C 3/02 (2006.01)

(21) International Application Number:
PCT/US2010/038115

(22) International Filing Date:
10 June 2010 (10.06.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/483,156 11 June 2009 (11.06.2009) US

(71) Applicant (for all designated States except US): **HC BRIDGE COMPANY, LLC** [US/US]; 1521 Lake Avenue, Wilmette, IL 60091 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HILLMAN, John, R.** [US/US]; 1521 Lake Avenue, Wilmette, IL 60091 (US). **ZICKO, Michael, A.** [US/US]; 2579 Spurwood Court, Apex, NC 27502 (US).

(74) Agent: **REICHEL, Mark, C.**; Ice Miller LLP, One American Square, Suite 2900, Indianapolis, IN 46282 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: HYBRID COMPOSITE BEAM AND BEAM SYSTEM

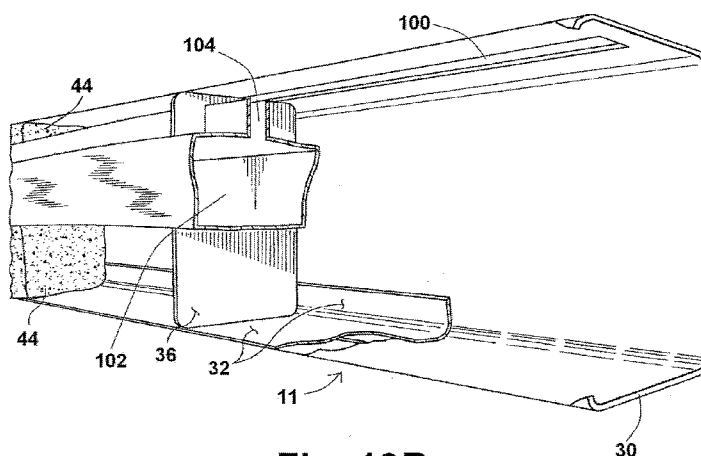


Fig. 13B

(57) Abstract: Hybrid composite beam and beam system. In at least one exemplary embodiment of a composite construction beam of the present disclosure, the beam comprises an elongated shell having a length and an interior volume, wherein the elongated shell defines a first aperture. An exemplary construction beam further comprises a first conduit within the interior volume of the elongated shell, the first conduit having a curved profile extending along a longitudinal direction of the beam, and a second conduit within the interior volume of the elongated shell, the second conduit extending along at least a portion of the length of the elongated shell, wherein the first conduit and the second conduit are in communication with one another. In at least one embodiment, a construction beam of the present disclosure comprises a first flange positioned upon the elongated shell relative to the first aperture.

