

System and Method for Identifying and Tracking 3D Location of Precast Components

ABSTRACT

5 A 3-dimensional (3D) precast locating system for identifying and tracking 3D location, that includes ground elevation and geographical location, of a precast, is provided. The system comprises an RFID tag embedded within the precast, a precast lifting machinery having a hook for lifting the precast, wherein a 3D location of the lifting machinery is predetermined as a reference, and an RFID reader attached to the
10 lifting machinery for identifying the precast by operationally reading the RFID tag of the lifted precast. The system further comprises a sensor assembly for detecting an instant 3D location of the hook with reference to the predetermined 3D location of the lifting machinery and a position translational controller for deriving an instant 3D location of the lifted precast based on the 3D location of the hook detected by the
15 sensor assembly, with reference to the predetermined 3D location of the lifting machinery.

(FIG. 1)