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(54) **GEOSYNTHETIC LINER SEAM MODELING AND REPORTING SYSTEM AND ASSOCIATED METHODS**

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CPC **G06F 30/13** (2020.01); **G01S 19/06** (2013.01); **G06T 17/005** (2013.01); **G06T 17/05** (2013.01)

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(57) **ABSTRACT**

A Geosynthetic Liner Seam Modeling and Reporting System configured to capture Global Positioning System (GPS) points shot on geomembrane liner seams and to automatically create a three-dimensional (3D) as-built software model based on those GPS points. Each GPS point(s) need only be captured along the liner seam where a change(s) in direction from a straight line is detected on the seam. The system provides for tagging of each GPS point with identifiers for adjacent panels to each specific point. The system also supports sizing of the seamed panels of the as-built geomembrane structure based on the captured GPS points, results of which are formatted as installation metrics for inclusion in industry standard reports and/or custom reports (e.g., for quality assurance and/or contract adherence purposes).

9 Claims, 10 Drawing Sheets

