BUILDING SPECIFICATION MAPPING PLUG-IN AUTOMATICALLY PREPARES SPECIFICATION MANUAL WITH ARCHITECTURAL SOFTWARE (RFT 525)

Invention Summary:

Scientists at NDSU, in collaboration with architects at RLE Holdings, Inc., have developed SpecMapper™, a plug-in that enables existing architectural software to automatically produce, update, and maintain the specification manual for a building. This saves time and money throughout a building's life (including design, bid, construction, and post-construction facility management). SpecMapper™ is a mapping of building assembly codes (as used in Building Information Model (BIM) software products such as Revit) and specification sections (as found in the MasterSpec set of specification sections). This plug-in links building components in a BIM to appropriate specification sections, which may also include maintenance information for facilities management. The result is a streamlined workflow in a paperless environment and a reduction of errors, which result in significant time savings and reduced risk of liability. This intellectual property is of interest to architectural firms, who would benefit from the use of such automated systems in-house, or vendors who would provide automated systems as part of their turnkey services.

Phase of Development:

This technology has successfully completed laboratory testing with reproducible results.

Benefits:

In the context of architectural practice, the benefits of linking E-Specs to Revit in an automated system are as follows-

- 1. During Design and Construction Document Phase
 - Facilitates decision making for products to be used
 - Minimizes omission of specification sections/products because all building elements are matched to specification sections based on their assembly codes and it is possible to screen for assembly codes that do not have any matching specification sections
 - Links specification section to drawing details (i.e. click on any component in the drawing, and you're immediately shown the relevant specification).

2. During Bidding Phase

- Complete list, and quantities, of each component and all materials being used
- One electronic document, in lieu of two separate documents, to compare product location on drawing with specification

3. During Construction Phase

- All drawings, details, and specification are available on mobile device
- One electronic document, in lieu of three separate documents, to compare product location on drawing with specifications and installation information
- Complete list, and quantities, of each component and all materials being used

4. Post Construction Phase / Facility Management

- Accessible storage of "as-built" drawings, shop drawings, product data and warranties
- Quick search for products needing repairs and maintenance

Intellectual Property:

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