What is claimed is:

1. A method comprising:

generating an architectural diagram describing an architectural layout of a building, wherein one or more walls of the building are designated as standardized structural walls;

automatically positioning, using a computer, each of the standardized structural walls to a geometric grid by aligning the each of the standardized structural walls along grid lines of the geometric grid and along grid line intersections of the geometric grid; and

mapping, one or more of a plurality of standardized structural components to coordinates of the geometric grid, wherein the plurality of standardized structural components comprises standardized panels, standardized columns, and standardized trusses,

wherein mapping one or more of a plurality of standardized structural components further comprises solving a plurality of mapping solutions for the each of the one or more standardized structural walls and selecting one of the plurality of mapping solutions for the each of the one or more standardized structural walls based on a predetermined criterion,

wherein solving a plurality of mapping solutions further comprises analyzing the grid lines based on a structural performance criterion, determining position and direction of standardized trusses, and determining a layout of the standardized panels based on location of openings in the one or more standardized structural walls,

wherein each of the plurality of mapping solutions identifies the standardized structural components used for the each of the one or more standardized structural walls and structural performance characteristics of the standardized structural components used for the each of the one or more standardized structural walls, and

wherein the predetermined criterion is minimization of the number of structural columns supporting the each of the plurality of standardized structural walls.

2. The method of claim 1, wherein the solving a plurality of mapping solutions for each of the plurality of walls further comprises analyzing the each of the plurality of standardized structural walls in increments of two feet.

3. The method of claim 1, further comprising generating a standardized structural component list including unique identification for each of the plurality of standardized structural components for the each of the plurality of standardized structural walls.

4. The method of claim 3, further comprising:

generating a plurality of quick response (QR) codes; and

uniquely associating one or more of the plurality of QR codes with one or more of the plurality of the standardized structural components.

5. The method of claim 4, further comprising generating a plurality of uniform resource locators (URLs) and associating each of the plurality of QR codes with one of the plurality of URLs.

6. The method of claim 5, further comprising associating each of the plurality of QR codes with a location code, wherein the location code identifies a location of one of the standardized structural components within the building.

7. The method of claim 5, further comprising attaching an identification tag including the QR code to one or more of the plurality of standardized structural components.

8. The method of claim 5, further comprising associating a status of the one or more of the standardized structural components with the QR code associated with the one or more of the standardized structural components.

9. The method of claim 5, further comprising generating a plurality of structural panel names and associating each of the plurality of structural panel names with one or more of the plurality of standardized structural components, wherein each of the plurality of structural panel names identifies at least one of the location of an associated standardized structural panel in the building, dimensions of the associated standardized structural panel, an orientation of the associated standardized structural panel, a connection option for the associated standardized structural panel, and a filename of a drawing file of the associated standardized structural panel.

10. The method of claim 5, further comprising automatically generating (1) a three-dimensional model of the building, the three-dimensional model identifying the one or more of a plurality of standardized structural components within the building and (2) shop drawings and specifications for the building.

11. The method of claim 10, further comprising automatically generating a bill of material using the three-dimensional model of the building, the bill of material comprising the quantities of at least one of stud elements, track elements, connecting plates, column elements, and connectors.

12. The method of claim 10, further comprising:

automatically generating a macro file comprising track element specifications and stud element specifications;

transferring the macro file to a light gauge roll forming machine; and

communicating with the light gauge roll forming machine using the macro file to control positioning of at least one of punches, dimples and lengths of at least one of the track elements and the stud elements.

13. The method of claim 12, wherein the macro file further comprises assembly sequence instructions, the method further comprising controlling a printer of the light gauge roll-forming machine to label the track elements or the stud elements with the assembly sequence instructions.

14. One or more non-transitory computer-readable storage media storing computer executable instructions for performing a computer process on a computing system, the computer process comprising:

generating an architectural diagram describing an architectural layout of a building, wherein one or more walls of the building are designated as standardized structural walls;

automatically positioning, using a computer, each of the standardized structural walls to a geometric grid by aligning the each of the standardized structural walls along grid lines of the geometric grid and along grid line intersections of the geometric grid;

solving a plurality of mapping solutions for the each of the one or more standardized structural walls;

selecting one of the plurality of mapping solutions for the each of the one or more standardized structural walls based on a predetermined criterion; and

mapping, one or more of a plurality of standardized structural components to coordinates of the geometric grid based on the selected mapping solution, wherein the plurality of standardized structural components comprises standardized panels, standardized columns, and standardized trusses,

wherein the predetermined criterion is minimization of the number of structural columns supporting the each of the plurality of standardized structural walls and wherein the solving a plurality of mapping solutions for each of the plurality of walls further comprises analyzing the each of the plurality of standardized structural walls in increments of two feet.

15. One or more non-transitory computer-readable storage media of claim 14, wherein the computer process for solving a plurality of mapping solutions further comprising:

analyzing the grid lines based on a structural performance criterion;

determining position and direction of standardized trusses; and

determining a layout of the standardized panels based on location of openings in the one or more standardized structural walls.

16. One or more non-transitory computer-readable storage media of claim 14, wherein each of the plurality of mapping solutions identifies the standardized structural components used for the each of the one or more standardized structural walls and structural performance characteristics of the standardized structural components used for the each of the one or more standardized structural walls.

17. One or more non-transitory computer-readable storage media of claim 14, wherein the computer process further comprising:

generating a standardized structural component list including unique identification for each of the plurality of standardized structural components for the each of the plurality of standardized structural walls;

generating a plurality of quick response (QR) codes;

uniquely associating one or more of the plurality of QR codes with one or more of the plurality of the standardized structural components; and

generating a plurality of uniform resource locators (URLs) and associating each of the plurality of QR codes with one of the plurality of URLs.

18. A system, comprising:

a design module configured to generate an architectural diagram describing an architectural layout of a building, wherein the design module is configured to allow designating one or more walls of the building as standardized structural walls;

a geometric grid module configured to generate a geometric grid having grid lines and grid intersections and to allow positioning, using a computer input device, one or more of the standardized structural walls to the geometric grid by aligning the each of the standardized structural walls along the grid lines and along the grid line intersections;

a mapping solution module comprising one or more computerized instructions stored on a computer memory, the mapping solution module configured to map, using a processor, one or more of a plurality of standardized structural components to the grid lines and the grid line intersections, wherein the plurality of standardized structural components comprises standardized panels, standardized columns, and standardized trusses; and

an output module configured to:

generate a standardized structural component list including unique identification for each of plurality of standardized structural components for the each of the plurality of standardized structural walls;

generate a plurality of quick response (QR) codes and uniquely associate one or more of the plurality of QR codes with one or more of the plurality of the standardized structural components;

generate a plurality of uniform resource locators (URLs) and associating each of the plurality of QR codes with one of the plurality of URLs and associate each of the plurality of QR codes with a location code, wherein the location code identifies a location of one of the standardized structural components within the building;

generate a plurality of structural panel names and associating each of the plurality of structural panel names with one or more of the plurality of standardized structural components, wherein each of the plurality of structural panel names identifies at least one of the location of an associated standardized structural panel in the building, dimensions of the associated standardized structural panel, an orientation of the associated standardized structural panel, a connection option for the associated standardized structural panel, and a filename of a drawing file of the associated standardized structural panel;

generate a three-dimensional model of the building, the three-dimensional model identifying the one or more of a plurality of standardized structural components within the building and shop drawings and specifications for the building; and

generate macro files comprising track element specifications and stud element specifications to control a light gauge roll-forming machine.

19. The system of claim 18, further comprising a QR code scanning device configured to scan a QR codes associated with one of the plurality of standardized structural components, receive an input from a user associated with the one of the plurality of standardized structural components, and updating information associated with the URL associated with the scanned QR code.

20. The system of claim 19, wherein the information associated with the URL is an installation status of the one of the plurality of standardized structural components.