Foreword

Thank you for purchasing the United States National CAD Standard® (NCS or Standard). This standard is an important first step in coordinating the efforts of the building design and construction industry. By classifying electronic building design CAD data consistently, communication among design and construction project teams can be streamlined, resulting in cost savings and greater efficiency in the design and construction process. By adopting this Standard, you are making a wise choice for the future of your company or organization. Broad implementation of this Standard will significantly improve building design and construction service delivery to all clients.

Recognizing the evolving nature of computer technology, the National CAD Standard Project Committee (NCS Project Committee) is committed to the continuous growth and development of the Standard to keep pace with technology as it develops. The evolution of the Standard is dependent upon the participation of a broad cross-section of industry professionals. You are invited to contribute to the development of the Standard by joining the NCS Project Committee. For further information, visit the National CAD Standard website at http://www.nationalcadstandard.org.

This Standard is intended as a foundation for information sharing. Undoubtedly, it will not meet the needs of all users in all cases. To the extent possible, we urge you to classify your basic data according to the Standard, augmenting it only in those cases where your data cannot be sufficiently classified, organized or represented according to it. In this way, you can ensure that a baseline of your construction data can be freely exchanged with others who adopt the Standard. Moreover, the task of educating others about your particular customized data-classification or organizational system for CAD can be minimized.

Note on Version 6: To denote changes from version 5 to version 6, we have placed a delta (Δ) where material has been deleted and red text where material has been added or revised.

New in Version 6

Below are highlights of the major revisions and additions to Version 6:

- New "BIM Implementation" guidelines on successful implementation of NCS for BIM use. Addressing relevant topics within the NCS that can be incorporated within BIM workflow.

- Improved style format applied to the body of the standard to properly number chapter and subchapter headings

- Enhanced, revised and improved Symbols library:
  - All 1300+ NCS Symbol CAD files replaced and renamed:
    - All symbols renamed with a unique 3 digit extension number and abbreviated name
    - All symbols converted to inches
    - Include new insertion points
    - Include line type and pattern file type definitions where appropriate
    - Individual symbols linked to corresponding drawing file
  - 72 new and 40 revised symbols:
    - 18 revised symbols in Division 01 – General Requirements
    - 10 revised symbols in Division 21 – Fire Suppression
    - 6 new symbols in Division 22 – Plumbing
    - 10 new symbols in Division 26 – Integrated Automation

- 43 new symbols in Division 27 – Communications
- 9 revised symbols in Division 28 – Electronic Safety and Security
- Two new Symbols chapters:
  - How to create new symbols
  - Using colors in symbols

- New "Survey/Mapping" Discipline Designators
- New Major and Minor Groups definitions added for "Airports and Plumbing".
- Revised "Module 1 – File Naming? section to better address Model Files and Sheet Files.
- Revised "Module 4 – Drafting Conventions, 4.2 Drawing Standards" list of common scales to add Site/Civil scale descriptions.
- Revised "Module 4 – Drafting Conventions, 4.3 Sheet Types" section to include new "Floor Numbering" format.
- New and revised "Communications Terms and Abbreviations".
- Revised "Module 7 – Notations, 7.4 User's Guide" text format for notes.
- Revised "Plotting Guidelines" Introduction.
- Apendixes:
  - Updated Appendix F – NCS Rules of Governance. Allowing Task Team members to vote on their own ballots during task team reviews.