Amended 09-19-2022, See #4, Details 16, 31and 54

## 1. REQUEST FOR DEVIATION FROM THE UMB A/E DESIGN STANDARDS

To View / Access This Form Go to the UMB D&C Web Site @
https://www.umaryland.edu/designandconstruction/design-and-construction-documents/umb-standard-project-forms---current-editions/

## 2. UMB MASTER SPECIFICATION TABLE OF CONTENTS

To View / Access the TOC Go to the UMB D&C Web Site @
https://www.umaryland.edu/designandconstruction/design-and-construction-documents/umb-master-specifications---current-editions/

## 3. UMB STANDARDS FOR IT & TELECOMM INFASTRUCTURE SPECIFICATIONS

To View / Access This Standard Go to the UMB D&C Web Site @
https://www.umaryland.edu/designandconstruction/design-and-construction-documents/umb-standard-project-forms---current-editions/

## 4. UMB MECHANICAL CAD DETAIL LIST

| | |
|---|---|
| 1 – ChillerPlantdet.dwg | Chiller Plant Diagram for condenser water, chilled water, primary and secondary systems, cooling water systems for the building TBD |
| 2 – HeatPlantdet.dwg | Heating Plant Diagram includes primary heating water, secondary heating water (reheat), perimeter heating water zones and steam and condensate systems TBD |
| 3 – Chldet.dwg | Centrifugal Chiller Piping Details for chilled water and condenser water piping for single and multiple chillers |
| 4 – CtWlDrFldet.dwg | Cooling Tower Water Level Control Detail |
| 5 – CtDraindet.dwg | Cooling Tower Automatic Drain and Fill Detail TBD |
| 6 – CtWaTreatdet.dwg | Cooling Tower Water Treatment Detail TBD |
| 7 – Bmpdet.dwg | Base Mounted Pump Details for slab on grade and mezzanine applications utilizing end suction pumps and split case pumps |
| 8 – InlinePumpdetdet.dwg | Inline Pump Detail |
| 9 – Extdet.dwg | Expansion Tank Detail (No Glycol) |

| | |
|---|---|
| 10 – Glydet.dwg | Expansion Tank Detail (Glycol) |
| 11 – Hcdet.dwg | Heating Coil Details for single coils, and multiple coil applications with two way and three way control valves for TRU's & AHU's |
| 12 – Ccdet.dwg | Cooling Coil Details for single coils, and multiple coil applications with two way and three way control valves for AHU's |
| 13 – Ercdet.dwg | Energy Recovery Coil Piping Details for single coils, and multiple coil applications with two way and three way control valves for AHU's |
| 14 – Hxdet.dwg | Heat Exchanger Detail for single and multiple heat exchanger applications with 1/3, 2/3 control valves, equipment supports, etc. |
| 15 – Chuhdet.dwg | Cabinet Heater & Unit Heater Coil Details |
| 16 – Phdet.dwg | Perimeter Heat Details for connections to zoned PD and reheat systems |
| 17 – Convdetdet.dwg | Convector Piping Detail |
| 18 – FanCoilUnitPipingdet.dwg | Fan Coil Piping Detail |
| 19 – WcAcudet.dwg | Water Cooled Compressorized A/C Unit Piping Detail |
| 20 – Tprvdet.dwg | Temperature & Pressure Relief Valve Piping Detail |
| 21 – Mpsdet.dwg | Miscellaneous Pipe & Fitting Details |
| 22 – Stsrvdet.dwg | Steam Service Building Piping Detail for new projects |
| 23 – Srvdet.dwg | Steam Relief Vent Detail |
| 24 – Stcdet.dwg | Steam Coil Piping Detail |
| 25 – Humdet.dwg | Humidifier - Duct Mounted Steam Grid Type Detail |
| 26 – Emddet.dwg | End of Main Drip Detail |
| 27 – Rdrpdet.dwg | Steam Riser Drip Detail. |

| | |
|---|---|
| 28 – Trudet.dwg | Terminal Reheat Unit Detail for sheet metal connections |
| 29 – Etudet.dwg | Exhaust Terminal Unit Detail for sheet metal connections |
| 30 – Ddtdet.dwg | Dual Duct Terminal Unit Detail for sheet metal connections |
| 31 – FcuAbvClgdet.dwg | Fan Coil Unit – Above Ceiling Duct Connection Details |
| 32 – AirDevicedet.dwg | Air Device Details |
| 33 – Ductdet.dwg | Miscellaneous Duct Details |
| 34 – Dfddet.dwg | Duct Fire Dampers Details for both horizontal and vertical applications |
| 35 – Shdet.dwg | Sprinkler Head Piping Detail for renovation projects and new projects |
| 36 – Szvdet.dwg | Sprinkler Zone Valve Piping Detail for new projects |
| 37 – WaServdet.dwg | Water Service Entry Piping Details |
| 38 – Acddet.dwg | Air Conditioning Condensate Drain Details for Draw through and Blow through Air Handling Units |
| 39 – Rodidet.dwg | RO / DI Water Piping Details |
| 40 – WallFlrPipSlvdet.dwg | Wall / Floor Sleeve Piping Details for new construction and renovation projects |
| 41 – BotGasPdet.dwg | Bottled Gas Piping Details for manifold systems |
| 42 – GasZoneValvedet.dwg | Gas Zone Valve Detail for laboratories |
| 43 – BSCPipingdet.dwg | Bio Safety Cabinet Piping Detail. |
| 44 – IceMachinePdet.dwg | Ice Machine Piping Detail |
| 45 – EmergencyShowerdet.dwg | Emergency Shower Piping Detail |
| 46 – MopSinkdet,dwg | Mop Sink Piping Detail |
| 47 – Rcbdet.dwg | Roof Curb Details |

| | |
|---|---|
| 48 – Esbdet.dwg | Equipment Support Base Detail |
| 49 – Atcdet.dwg | ATC TRU Control Diagrams for TRU's only, TRU's with Fume Hoods and TRU's with Fume Hoods and Exhaust Terminal Units |
| 50 – BtuFmPipedet.dwg | Btu Flow Meter Pipe Details for both in line and insertion type flow meters. |
| 51 – BtuFmBasEthdet.dwg | Btu Flow Meter BAS Ethernet Details for both in line and insertion type flow meters for ethernet applications |
| 52 – FmBasEthdet.dwg | Flow Meter BAS Ethernet Details for both in line and insertion type flow meters for ethernet applications |
| 53 – UltrFloEngMdet.dwg | Ultrasonic Energy /Flow Meter Detail |
| 54 – HousekeepingPaddet.dwg | Housekeeping Pad Detail for M/E Equipment |
| xx – BtuFmBasNoEthdet.dwg | Btu Flow Meter BAS Non Ethernet Details for both in line and insertion type flow meters for non ethernet applications. (Reference Only - No Longer Required) |

## 5. UMB STANDARD PDF FILE BOOKMARKS FOR A/E SUBMISSIONS

**Note:** The intent of this document is to identify and standardize bookmarks for pdf files submitted to the University by Consultants. See examples below.

**Bookmarks**: Bookmarks shall be Set Up as Document Outlines. Thumbnails are not required.

### EXAMPLE: PDF DRAWING FILE SUBMISSION

**Document Outline:** (List each drawing number – sheet title for the project in each discipline)
(See Drawing Index and UMB Standard Drawing Numbers and Sheet Titles)
Architectural
- G000 – Cover Sheet
- A002 – Code Analysis
- AD100 – Basement Floor Demolition Plan
- A100 – Basement Floor Plan

Mechanical
- M001 – Symbols and Abbreviations
- MD100 – Basement Floor Demolition Plan – HVAC

M100 – Basement Floor Plan – HVAC
MD200 – Basement Floor Demolition Plan – HVAC Piping
M200 – Basement Floor Plan – New Work – HVAC Piping

Plumbing
P001 – Symbols and Abbreviations
PD100 – Basement Floor Demolition Plan – Plumbing
P100 – Basement Floor Plan - Plumbing

Fire Protection
FP001 – Symbols and Abbreviations
FPD100 – Basement Floor Demolition Plan - Sprinkler
FP100 – Basement Floor Plan - Sprinkler

Electrical
E001 – Symbols and Abbreviations
ED100 – Basement Floor Demolition Plan – Power
E100 – Basement Floor Plan – Power
ED200 – Basement Floor Demolition Plan – Lighting
E200– Basement Floor Plan – Lighting

Telecomm
E001 – Symbols and Abbreviations
ED100 – Basement Floor Demolition Plan
E100 – Basement Floor Plan – Power

Fire Alarm
FA001 – Symbols and Abbreviations
FAD100 – Basement Floor Demolition Plan

**EXAMPLE: PDF SPECIFICATION FILE SUBMISSION – USING FULL SPECIFICATIONS**

**Document Outline:**
Cover Sheet
Table of Contents
(Full Specs - List each specification section for the project in each Division)
Division 01
010100 – Summary of Work
010200 – Allowances

Division 08
081113 – Hollow Metal Doors and Frames
081416 – Flush Wood Doors

Division 21

210000 – Basic Mechanical Requirements – Fire Protection
210513 – Motor Requirements for Fire Protection Equipment

Division 22
220000 – Basic Mechanical Requirements – Plumbing
220513 – Motor Requirements for Plumbing Equipment

Division 22
220000 – Basic Mechanical Requirements – HVAC
220513 – Motor Requirements for HVAC Equipment

(Do Not Include Bookmarks for Articles, Paragraphs, Subparagraphs in Full Specification Sections)

**EXAMPLE: PDF SPECIFICATION FILE SUBMISSION – USING FULL SPECIFICATION DIVISION 01 & CONDENSED SPECS**

**Document Outline:**
Cover Sheet
Table of Contents

(Full Specs - List each specification section for the project in each Division)
Division 01
010100 – Summary of Work
010200 – Allowances

Division 08
081113 – Hollow Metal Doors and Frames
081416 – Flush Wood Doors

(Do Not Include Bookmarks for Articles, Paragraphs, Subparagraphs in Full Specification Sections)

(Condensed Specs - List each article for project in each Part in each Division)

Division 21 (Cond Spec) [List each article in each Part]
Part 1 - General
1.1 Related Documents
1.2 Scope
Part 2 - Products
Part 3 - Execution

Division 22 (Cond Spec)
Part 1 - General
1.1 Related Documents
1.2 Scope

Part 2 - Products
2.1 Listed Manufacturers
2.2 Fire Stops, Smoke Seals and Wall and Floor Sleeve Applications
Part 3 – Execution
3.1 General Requirements – Execution
3.2 Connections and Alterations to Existing Work

Division 23 (Cond Spec)
Part 1 - General
1.1 Related Documents
1.2 Scope
Part 2 - Products
2.1 Listed Manufacturers
2.2 Fire Stops, Smoke Seals and Wall and Floor Sleeve Applications
Part 3 – Execution
3.1 General Requirements – Execution
3.2 Connections and Alterations to Existing Work

Division 26 (Cond Spec)
Part 1 - General
1.1 Related Documents
1.2 Scope
Part 2 - Products
2.1 Listed Manufacturers
2.2 Fire Stops, Smoke Seals and Wall and Floor Sleeve Applications
Part 3 – Execution
3.1 General Requirements – Execution
3.2 Sleeves

(Condensed Specs: Do Not Include Bookmarks for Paragraphs and Subparagraphs Parts 1 - 3)

**EXAMPLE: PDF STUDY / REPORT FILE SUBMISSION**

**Document Outline:**
Cover Sheet
Table of Contents
Executive Summary
Existing Conditions
Physical Conditions
Environmental Conditions
Design Options
Option – 1
Option – 2
Recommendations
Appendices

Appendix A
Appendix B
Tables
Table 1
Table 2
Figures
Figure 1
Figure 2

(Study / Report: Actual bookmarks may vary, depending on the type of Study / Report. See actual study / report Table of Contents for bookmarks.)

**END OF CHAPTER 7 APPENDICES**

**END OF UMB A/E DESIGN STANDARDS**