BCG A:/DST98-1.DIS

Parris N. Glendening
Governor

David L. Winstead
Secretary

Maryland Aviation Administration

*"To provide services to our customers and the air transportation industry
To foster and develop aviation in Maryland • To develop and empower our employees."*

Theodore E. Mathison Executive Director

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

MEMORANDUM

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: January 13, 1998

SUBJECT: Design Standard (DST) 98-1, New International Pier Millwork Modifications

Maryland Aviation Administration (MAA) would like to maintain the architectural standard and structural integrity of the New International Pier millwork. Accordingly, modifications to the ticket counter and holdroom millwork should be designed, reviewed, and constructed using the following general guidelines. Deviations from the following will require approval on a case by case basis by the MAA Resident Architect.

Cabinet Work Or Shell

1. Top, front, and sides of counters that are visible to the public should not be altered. The continuity of design that is presented to the public should be maintained.
2. Modifications for inserts should be done in a manner which insures that support is provided for all parts of the shell independent of the inserts.
3. The rear counter work surface can be modified, provided that supports are added so that the work surface can support itself without the use of inserts.
4. When modifications such as cut outs are made, all visible edges should be finished by a qualified case work specialist with plastic laminate, or solid surfacing material to match original design.

Baggage Scales

1. Stainless steel surrounding the scales and the scales should not be modified in any manner. The continuity of design that is presented to the public should be maintained.
2. Readouts should not be modified or relocated. The continuity of design that is presented to the public should be maintained.

Hardware

1. Hinges for the flip-up counter top work surface in front of the monitors should be concealed or located in such a manner so that clothing cannot be damaged.
2. Visible hardware, such as locks and hinges, should be the same as or compatible with the original design.
3. All hardware should be commercial grade.

Inserts and Equipment

1. New inserts should match original design with respect to colors, finish, plastic laminate, solid surface material, etc.
2. Monitors should have a metal angle or wood stops to prevent them from resting on the back of the front counter wall.
3. Scale readouts should remain on the side panels as originally designed. They should not be placed in the counter top work surface.
4. Telephones, outlets, etc. shall not be placed in areas that are visible to the public.

Plastic Laminate

1. Plastic laminate shall be Nevamar; MR-6-7CR, PHANTOM GRAY MATRIX.

Solid Surface

1. Solid surface material shall be Wilsonart; Surfacing veneer D315-TM, PLATINUM TEMPEST.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

Mr. Ian Bricknell (TAMS)
Mr. Emory Carrigan (MAA)
Mr. Brad Collins (DMJM)
Captain Woody Cullum (MAA)
Mr. Thomas Farrell, III (PB)
Mr. Ray Heverling (MAA)
Ms. Karen Kuczinski (MAA)
Mr. Ali Logmanni (MAA)
Mr. Steve Lucchesi (URSG)
Mr. Chirantan Mukhopadhyay (Parsons)
Mr. Derek Moore (Bodouva)
Mr. Charles Steen (MAA)
Mr. William Tsai (MAA)
Mr. Reginald Weaver (Baker)

cc: Mr. Alex Noorani
Mr. Mike West

DST 98-2 N/A

DST 98-3 New Designation of Old Pier "E"

BC9 A:/DST98-3.DIS

Maryland Aviation Administration

"Striving to do our best in everything we do - dedicated to providing outstanding airport facilities and services"

Theodore E. Mathison **Executive Director**

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: April 22, 1998

SUBJECT: Design Standard (DST) 98-3, New Designation of Old Pier 'E'

Effective immediately, old (former) Pier 'E' Upper and Lower Level will be redesignated as an extension of the current North Terminal Area. The boundary for the North Terminal area will now extend to the "smoke divider partition" separating the domestic terminal and the New International Pier. Please reflect this new designation on all future design and construction documents. In addition, reference documents, such as the "Terminal Floor Plans on AutoCad", should be revised.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

Mr. Ian Bricknell (TAMS)
Mr. Emory Carrigan (MAA)
Mr. Allen Carter (MAA)
Mr. Brad Collins (DMJM)
Mr. Thomas Farrell, III (PB)
Mr. Ray Heverling (MAA)
Ms. Karen Kuczinski (MAA)
Mr. Ali Logmanni (MAA)
Mr. Steve Lucchesi (URS Greiner)
Mr. Joe Marsala (Bodouva)
Mr. Chirantan Mukhopadhyay (Parsons)
Mr. Charles Steen (MAA)
Mr. William Tsai (MAA)
Mr. Reginald Weaver (Baker)

cc: Mr. Ed Croft
Captain Woody Cullum
Mr. Jay Huber
Mr. Alex Noorani
Mr. Mike West

BC10.A1/DESGNSTAN.DRD/DST98-4.DIS

Maryland Aviation Administration

"Striving to do our best in everything we do - dedicated to providing outstanding airport facilities and services"

Theodore E. Mathison Executive Director

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: April 24, 1998

SUBJECT: Design Standard (DST) 98-4, CAD Standards Manual

Attached for your use is the Maryland Aviation Administration (MAA) CAD Standards Manual. Effective immediately, all design projects shall conform to the Manual. This Manual is intended to provide a standard format for CAD files delivered to MAA to facilitate drawing plotting, the preparation of Record Drawings, or updating base plans for future projects. It is not intended to specify standards normally associated with basic architecture, engineering, or drafting techniques or procedures.

The Manual is based on the American Institute of Architects' CAD Layer Guidelines, Second Edition. Future editions should not be incorporated, unless otherwise directed by this office.

These standards are issued with the understanding they will need to be continually revised or updated to keep pace with technology and industry standards. Deviations from the Manual must be approved by the MAA Project Engineer on a project specific basis. Design consultants are encouraged to suggest general revisions to this standard and assist in maintaining its applicability.

P.O. Box 8766, BWI Airport, Maryland 21240-0766 (410) 859-7100
FAX: (410) 850-4729 — TDD for the hearing impaired: (410) 859-7227
The Maryland Aviation Administration is an agency of the Maryland Department of Transportation

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

Mr. Ian Bricknell (TAMS)
Mr. Emory Carrigan (MAA)
Mr. Allen Carter (MAA)*
Mr. Brad Collins (DMJM)
Mr. Thomas Farrell, III (PB)
Mr. Ray Heverling (MAA)
Mr. Ray Kauffman (MAA)*
Ms. Karen Kuczinski (MAA)
Mr. Ali Logmanni (MAA)
Mr. Steve Lucchesi (URS Greiner)
Mr. Joe Marsala (Bodouva)
Mr. Chirantan Mukhopadhyay (Parsons)
Mr. Claude Samuels (MAA)*
Mr. Jan Sayre (MAA)*
Mr. Charles Steen (MAA)
Mr. William Tsai (MAA)
Mr. Reginald Weaver (Baker)

cc: Mr. Lynn Bezilla
Mr. Alex Noorani

* **Also receiving AIA CAD Layer Guidelines**

MAA CAD STANDARDS MANUAL
VERSION 1.0

MAA-AE-96-005
TASK 1053

MARYLAND AVIATION ADMINISTRATION
JANUARY 1998

TABLE OF CONTENTS

INTRODUCTION

This manual was prepared for use by the Maryland Aviation Authority (MAA) and its consultants.

This manual states the requirements for CAD files delivered to the MAA by its consultants. This manual does not specify standards normally associated with basic engineering and drafting techniques, nor does it define design and drafting procedures for consultants to follow. This manual will cover standard naming, object properties, delivery format and plotting. Standard naming and delivery format will allow for efficient storage and retrieval of files. Standard layer naming facilitates sharing of information between drawings and better visibility control of drawing objects. Standard object properties will help provide uniform appearance to CAD drawings. Standard plot settings will help overcome problems associated with producing similar looking plots from different plotters.

The MAA requires that all CAD files be in AutoCAD DWG format, the version number to be specified by the MAA Project Engineer. The standards defined in this manual are specifically for AutoCAD environments. For those consultants/subconsultants who do not use AutoCAD, it is their responsibility to ensure that files translated to AutoCAD adhere to these standards before delivery.

This manual will be subject to revision to respond to changes in technology.

1.0 LAYERS AND FILES

For layer and file naming the MAA has adopted the "CAD LAYER GUIDELINES," Second Edition, available through the American Institute of Architects. Refer to the Appendix for additional file and layer names that may be used.

2.0 CAD DELIVERY

All CAD drawing files shall be delivered in AutoCAD DWG format, the version to be specified by the MAA Project Engineer, but not earlier than Version 12. All civil engineering type drawings shall use units of feet, while all architectural type drawings shall use units of inches. All CAD drawing files shall be "purged," "audited" and all extraneous objects in the file removed prior to delivery.

For record contract documents, one "sheet file" representing each contract drawing shall be submitted with 100 percent, Conformed and As-Built document submittals. The consultant shall "bind" all reference files associated with each "sheet file." Each "sheet file" shall be "ready to plot" at a scale of 1:1, with all layers appropriately turned on or off. The origin of the sheet (0.0) should be located at the lower left outside corner of the border. Just outside the border, in the lower right-hand corner of each "sheet file," there shall be a block named STAMP. This block shall have two attributes, one named FILENAME, the other named DATE. The text style used shall be ROMANS_060.

All files shall be delivered on 3.5-inch diskettes or Compact Disk (CD). Files submitted on 3.5-inch diskettes may be compressed using the PKZIP software. Files submitted on CD shall not be compressed. The diskettes or CDS shall be clearly labeled and include the project name, date, consultant's name and AutoCAD version number. Each submission of files shall include one comma delimited text file named "README.DAT." The first line of this file shall include the project name, date, consultant's name and AutoCAD version number. The remainder of the file shall include one line per file submitted. Each line shall include the file name and the file description.

For projects which do not require delivery of record CAD files, the consultant shall archive all CAD files associated with submissions of plotted CAD files for five years. These files may be requested by the MAA Project Engineer at a later date. The consultant will not be required to keep archived files updated for new releases of AutoCAD or transfer archived files to new types of storage media.

3.0 COLORS, LINE TYPES, AND TEXT STYLES

Colors shall be set to "bylayer." Layer colors shall be selected in order to produce the necessary plotted line weights.

All LINE TYPES used must be available in the MAA standard line type file. The MAA standard line type file includes all LINE TYPES delivered with AutoCAD. New LINE TYPES created by consultants must be submitted to the MAA Project Engineer for approval and inclusion in the MAA standard line type file.

All text fonts used must be available in the MAA standard font library. The MAA standard font library includes all fonts delivered with AutoCAD.

All text styles shall be named as follows:

{font name}_{text height in tenths of inch}

e.g., ROMANS_120

4.0 PLOT SETTINGS

Each "sheet file" submitted to the MAA, must be able to create a monochrome plot, matching the appearance of the submitted corresponding hard copy contract document, by using the MAA Standard Pen Settings in Figure 4.1

MAA STANDARD PEN SETTINGS

AutoCAD Color No.	Plotted Pen Width in Inches	Plotted Color
1	.012	Black
2	.014	Black
3	.010	Black
4	.020	Black
5	.024	Black
6	.031	Black
7	.007	Black
8	.005	Black
9	.047	Black
251	.01	Dark Grey
252	.012	Medium Grey
253	.012	Light Grey

Figure 4-1

As an alternative to using the MAA Standard Pen Settings, the consultant may include one "pcp file" called PLOT.PCP. This one "pcp file" must define the pen number and pen width for all color numbers and be capable of producing monochrome plots for all submitted "sheet files." In order to produce the black and grey shades on the plots, this "pcp file" must assume the following pen settings:

Pen No.	Plotted Color
1	Light Grey
5	Medium Grey
8	Dark Grey
10	Black

Figure 4-2

If the consultant does not submit a file named PLOT.PCP, along with the "sheet files," it will be assumed that the files use the MAA Standard Plot Settings.

5.0 MODEL FILES

If requested by the MAA Project Engineer, the consultant shall submit "model file(s)." If "model files" are referenced to each other, do not use the "include path option." All civil engineering type "model files" must be created using the BWI AIRPORT COORDINATE SYSTEM as detailed in Figure 5-1.

All model file(s) submitted to the MAA, must follow the color guidelines in Figure 3-1 and the MAA Standard Pen Settings shown in Figure 4-1.

All "polylines" used in "model files" shall use a width of zero.

6.0 STANDARD COVER SHEET AND BORDER

An example of the standard cover sheet and border sheet are available on Autocad. The standard sheet size is 24" x 36".

The following information will be included on all cover sheets:

BWI Logo and Name
Maryland Department of Transportation

Maryland Aviation Administration
Office of Planning and Engineering
"MAA CONTRACT NAME" (assigned by MAA Office of Planning & Engineering)
Contract No. MAA-CO-00-000 (last five digits assigned by MAA OP&E)
Submission Name (for example 30% Design, Bid Documents, etc.)
Location Map in Lower Left Above Consultant Name and Logo
Consultant Name Block Including Signature Line, Date Line and Stamp Block
Drawing Index Lower Center of Page (if additional space is required provide separate index sheet immediately behind cover sheet)
Vicinity Map in Lower Right above BWI Signature Block
Bwi Signature Block Including Signature Line, Date Line and Stamp Block

The following information will be included on all border sheets:

Key Plan in Lower Right above Border Area.
From Left to Right in Border Area Include:

- Consultant Name and Address Information
- Initial Block
- Stamp Block
- Revision Date and Description Block
- BWI Logo and Name Block
- Project Title, Sheet Title, Scale and Date Block
- Contract Number and Sheet Number Block

Modifications to the standard cover sheet and border require prior approval of the Office of Planning and Engineering Project Manager.

APPENDIX

APPENDIX

Listed below are additional values which can be used for file and layer naming in compliance with the "CAD Layer Guidelines."

Sheet and Model File Naming - Discipline Codes

B Bridge - Landside
K Highway - Landside

Model File Naming - Drawing Type Codes

Bridge

B-AB	Abutments
B-AP	Approach Details
B-BC	Box Culverts
B-BS	Border Sheet
B-CM	Camber Diagrams
B-DD	Dead Load Deflection
B-DE	Deck Elevations
B-DK	Deck
B-DR	Drainage Details
B-DT	Details
B-EJ	Expansion Joints
B-EL	Electrical Details
B-FN	Fencing Details
B-FP	Framing Plan
B-GD	Girder Details
B-GE	Girder Elevations
B-GN	General Notes
B-GP	General Plan and Elevation
B-GS	Borings
B-PR	Piers
B-QS	Quantity Summary
B-RB	Bar Schedules and Bending Diagrams
B-RW	Retaining Wall
B-SC	Typical Sections
B-SD	Seed File
B-SK	Stakeout Plan
B-SP	Slope Protection Details
B-UT	Utilities Details

Highway

K-BS	Border Sheet
K-DR	Drainage
K-CT	Cover Sheet
K-EL	Electrical
K-GR	Grading
K-GS	Geotechnical/Soils
K-LI	Lighting
K-ME	Mechanical
K-MK	Marking
K-NS	General Notes and Specifications
K-PF	Roadway Profiles
K-RP	Roadway, Pavement
K-RW	Retaining Walls
K-SC	Cross-Sections
K-SD	Seed File
K-SH	Tables, Schedules, Tabulations
K-SI	Signing
K-SP	Site Plan
K-SV	Survey/Geometric
K-UP	Utilities
K-WS	Work Sequence and Traffic Control

Airport

C-7P	Part 77, Airspace Plan
C-7S	Part 77, Imaginary Surfaces
C-BL	Boring Logs
C-BS	Border Sheet
C-CN	Contours/Spot Elevations
C-CS	Cover Sheet
C-CT	Contract Layout
C-DD	Drainage Details
C-DF	Drainage Profiles
C-DP	Demolition Plans
C-DR	Drainage Plan
C-EB	Exhibits
C-ED	Electrical Details
C-EP	Electrical Plans
C-ES	Erosion Sediment Control
C-FE	Fencing

C-FL	Fueling
C-GN	General Notes
C-GP	Geometry Plan
C-GR	Grading Plan
C-GS	Geotechnical/Soils
C-GR	Grooving
C-JD	Typical Joint Details
C-JT	Joint Layout Plan
C-KY	Keymap
C-LG	Legend
C-LP	Airport Layout Plan
C-MD	Marking Details
C-MK	Pavement Marking
C-MS	Miscellaneous General
C-ND	NAVAIDS Demolition Pl
C-NP	NAVAIDS Profiles
C-NV	NAVAIDS
C-PB	Presentation Boards
C-PE	Prop. Pavement Edges (Exist)
C-PF	Profiles
C-PH	Construction Phasing
C-PS	Paving Schedule
C-PV	Paving
C-RF	Report Figures
C-SC	Sections
C-SD	Shading/Hatching
C-SG	Sign Plans
C-ST	Structures
C-TP	Topography
C-TQ	Tables/Index/Quantities
C-TX	Text/Dimensions Ref. File
C-UT	Underground Utilities
C-VG	Revegetation Plans
C-WT	Wetland Delineation

Layer Naming - Airport Layers

Existing Topography

C-PVMT-EXST	Arfield Pavement
C-SIGN-EXST	Airfield Signs
C-LGHT-EXST	Airfield Lights
C-BLDG-EXST	Buildings

C-BLDG-PATT-EXST	Building Hatching
C-UNDR-CLOT-EXST	Cleanouts
C-TOPO-MAJR-EXST	Major Contours
C-TOPO-MINR-EXST	Minor Contours
C-TOPO-SPOT-EXST	Spot Elevations
C-DRNG-INLT-EXST	Drainage Inlets
C-DRNG-PIPE-EXST	Drainage Pipes
C-DRNG-MH-EXST	Drainage Manholes
C-FENC-EXST	Fences
C-GRID-EXST	Grid
C-DRNG-HDWL-EXST	Drainage Headwall
C-MTCH-EXST	Matchlines
C-MRKG-EXST	Pavement Marking
C-POND-EXST	Ponds, etc.
C-SSWR-MH-EXST	Sanitary Manholes
C-SSWR-LINE-EXST	Sanitary Lines
C-TREE-EXST	Trees/Shrubs
C-PVMT-SW-EXST	Sidewalk/Driveways
C-WATR-LINE-EXST	Water Lines
C-WATR-MH-EXST	Water Manholes
C-WATR-HYDR-EXST	Water Hydrant

Proposed Pavement Geometry

C-BSLN-NEWW	Baseline/Centerline
C-BSLN-STAT-NEWW	Baseline Stationing
C-BSLN-TICS-NEWW	Baseline Tics
C-BSLN-CO-NEWW	Baseline Info
C-BSLN-CRDS-NEWW	Baseline Coordinates
C-PVMT-APRN-NEWW	Apron Pavement
C-PVMT-RW4-NEWW	R/W Pavement
C-PVMT-TW4-NEWW	T/W Pavement
C-PVMT-SW-NEWW	Sidewalks/Driveways
C-MONU-PATT	Monuments
C-PVMT-CONC-PATT	Pavement/Concrete
C-PVMT-BITU-FULL-PATT	Pavement/Full Strength
C-PVMT-BITU-SHDR-PATT	Pavement/Shoulder
C-PVMT-ROAD-PATT	Pavement/Road
C-PVMT-RMVL-PATT	Pavement/Removal
C-PVMT-OVLY-PATT	Pavement/Overlay
C-PVMT-MILL-PATT	Pavement/Milling

Grading

C-CONT-LABL-NEWW	Contour Lables
C-CONT-MAJR-NEWW	Major Contours
C-CONT-MINR-NEWW	Minor Contours
C-CONT-SPOT-NEWW	Spots

Drainage

C-DRNG-PIPE-NEWW	Drainage Pipes
C-GLCL-PIPE-NEWW	Glycol Pipes
C-DRNG-MH-NEWW	Drainage Manholes
C-GLCL-MH-NEWW	Glycol Manholes
C-INLT-DV-NEWW	Inlets
C-DRNG-DV-NEWW	Diversion Vault
C-DRNG-LS-NEWW	Lift Station
C-DRNG-OWS-NEWW	Oil/Water Separator
C-DRNG-BUBL-NEWW	Drainage Bubble Callout
C-GLCL-BUBL-NEWW	Glycol Bubble Callout
C-BUBL-EXST	Existing Bubble Callout

Sediment and Erosion Control

C-SILT-FENC-NEWW	Silt Fencing
C-LIMT-CNST-NEWW	Limit of Disturbance
C-FLOW-PATH-NEWW	Flow
C-DVDE-NEWW	Drainage Divides
C-DVDE-SUB-NEWW	Sub Divide Areas
C-TARG-PNT-NEWW	Target Points
C-RIPR-NEWW	Riprap
C-TRAP-NEWW	Traps
C-INFL-TRCH-NEWW	Infiltration Trench
C-INLT-PROT-NEWW	Inlet Protection

Pavement Markings

C-HOLD-NEWW	Hold Lines
C-TWPM-CL-NEWW	Taxiway C/l Marking
C-TWPM-EDGE-NEWW	Taxiway Edge Marking
C-RWPM-CL-NEWW	Runway C/l Marking
C-RWPM-EDGE-NEWW	Runway Edge Marking
C-APPM-NEWW	Apron Marking

Jointing

C-JNTS	Joints
C-JNTS-PATT	Jointing Hatch
C-JNTS-SYMB	Symbols

Grooving

C-GRVE-NEWW	Proposed Grooves
C-GRVE-EXST	Existing Grooves

Fencing

C-FNCE-NEWW	Fence
C-FNCE-TEMP	Temporary Fence

Profiles and Sections

C-GRND-NEWW	Proposed Ground
C-GRND-EXST	Existing Ground
C-DATM-NEWW	Datum Line
C-CNTR-NEWW	Centerline
C-STRT-NEWW	Structures
C-PIPE-NEWW	Pipes
C-PVMT-SECT-NEWW	Proposed Pavement
C-PVMT-SECT-EXST	Existing Pavement
C-ELEC-UTIL-EXST	Existing Utilities
C-PVMT-PATT	Pavement Hatch

Details

C-OBJT-LINE-NEWW	Object Line
C-HIDD-LINE-NEWW	Hidden
C-CONC-PATT	Concrete Hatch
C-CNTR-NEWW	Centerlines
C-REBR-NEWW	Rebar
C-PIPE-NEWW	Piping
C-GRND-NEWW	Proposed Ground

Far Part 77 Surfaces

C-PT77-RPZ-EXST	Existing
C-PT77-RPZ-NEWW	Proposed RPZ

C-PT77-APP-EXST	Existing Approach
C-PT77-APP-NEWW	Proposed Approach
C-PT77-PRIM-NEWW	Primary
C-PT77-HORZ-NEWW	Horizontal
C-PT77-TRAN-NEWW	Transitional

Proposed Planning

C-APRN-NEWW	Aprons
C-RNWY-NEWW	Runways
C-TXWY-NEWW	Taxiways
C-BLDG-NEWW	Building Hatch
C-FENC-NEWW	Fencing
C-OFA-NEWW	OFA
C-RSA-NEWW	RSA
C-BRL-NEWW	BRL
C-CNTR-NEWW	Centerline

Miscellaneous and Border Information

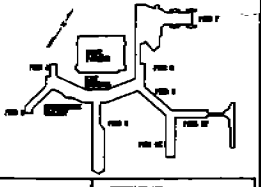
C-NRTH	North Arrow
C-SCHD-THCK-NEWW	Schedule/Thick Line
C-SCHD-MEDM-NEWW	Schedule/Medium Line
C-SCHD-THIN-NEWW	Schedule/Thin Line
C-SCAL	Graphic Scale
C-MTCH	Plan Matchline

Electrical

E-HH-NEWW	Handhole
E-HH-EXST	Handhole
E-MH-NEWW	Manhole
E-MH-EXST	Manhole
E-COMM-MH-NEWW	Communications Mh
E-JBOX-NEWW	Junction Box
E-JBOX-EXST	Junction Box
E-SIGN-NEWW	Guidance Sign
E-LITE-NEWW	Airport Lighting
E-LITE-POLE-NEWW	Light Pole
E-LITE-POLE-EXST	Light Pole
E-UTIL-POLE-NEWW	Utility Pole
E-CABL-GRND-NEWW	Ground Rod
E-EQUP-NEWW	Equipment

E-DUCT-MRKR-NEWW	Duct Marker
E-CABL-NEWW	Direct Buried Cable
E-CABL-CONC-NEWW	Concrete Encased Cable
E-DUCT-NEWW	Ductbank
E-CABL-FAA-NEWW	FAA Cable
E-SIGN-NEWW	Sign

KEY PLAN



COMPANY NAME COMPANY NAME COMPANY ADDRESS CITY, STATE ZIP CODE COMPANY PHONE NO. COMPANY FAX NO.	DESIGNED DRAWN CHECKED APPROVED		REVISION NO.	REVISION DATE	DESCRIPTION	BWI BALTIMORE/WASHINGTON INTERNATIONAL AIRPORT	MARYLAND DEPARTMENT OF TRANSPORTATION MARYLAND AVIATION ADMINISTRATION OFFICE OF PLANNING AND ENGINEERING

PROJECT TITLE		CONTRACT NO.
SHEET TITLE		SHEET NO.
SCALE	DATE	

BWI

BALTIMORE/WASHINGTON INTERNATIONAL AIRPORT

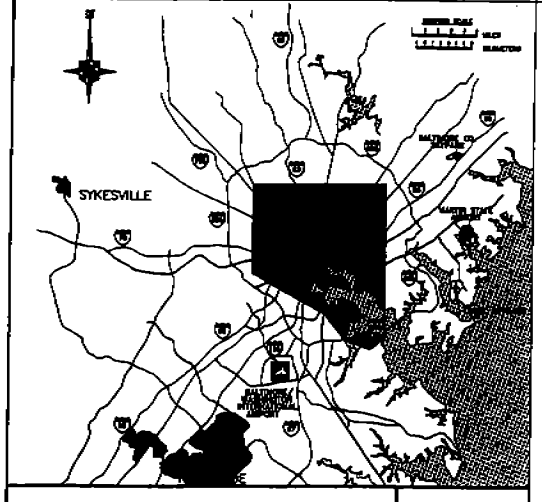
MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION
OFFICE OF PLANNING AND ENGINEERING

MAA CONTRACT NAME

CONTRACT NO. MAA-CO-00-000

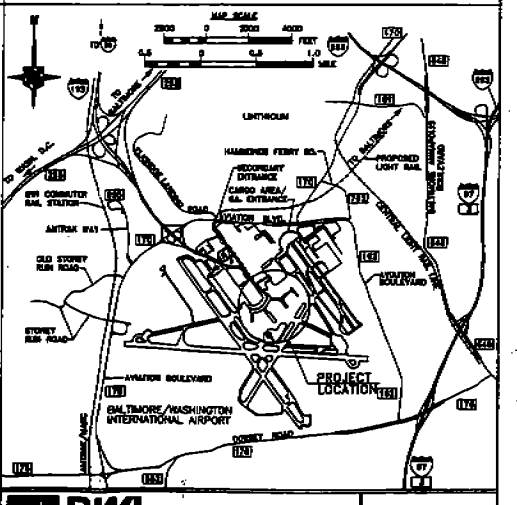
SUBMISSION NAME

LOCATION MAP



DRAWING INDEX

VICINITY MAP



COMPANY NAME

COMPANY NAME
COMPANY ADDRESS
CITY, STATE ZIP CODE
COMPANY PHONE NO. COMPANY FAX NO.

APPROVED BY DATE

BWI
BALTIMORE/WASHINGTON INTERNATIONAL AIRPORT

APPROVED BY DATE

BC 10 A:/DSG98DST1.DF4/DST98-5.DI

Maryland Aviation Administration

"Striving to do our best in everything we do - dedicated to providing outstanding airport facilities and services"

Theodore E. Mathison **Executive Director**

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: May 1, 1998

SUBJECT: Design Standard (DST) 98-5, Federal Aviation Administration (FAA) Specification Incentives

The Federal Aviation Administration (FAA) P-501 Portland Cement Concrete Pavement specification includes an incentive for flexural strength. An incentive is also planned for the next P-401 Plant Mix Bituminous Pavement specification.

In order to accommodate the increased costs associated with the incentive, without issuing a change order, Maryland Aviation Administration (MAA) is providing the following direction for preparation of the contract specifications and bid tabulation forms.

In the specifications, add the following to the P-501-8.1 Basis of Payment section:

> "c. An Allowance has been included as Item P-501-8.1c. Payment of any or all of the bid amount for P-501-8.1c will be based on any adjusted payment in excess of 100 percent when computed in accordance with Paragraph 501-8.1a.
>
> Payment will be made under:
>
> Item P-501-8.1c __-inch Portland Cement Concrete Pavement Incentive."

In the bid tabulation forms, add a Portland Cement Concrete Pavement Incentive allowance item (see attached sample form). The allowance amount should be calculated by multiplying the estimated costs for Portland Cement Concrete Pavement by 0.06.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

Mr. Ian Bricknell (TAMS)
Mr. Emory Carrigan (MAA)
Mr. Brad Collins (DMJM)
Mr. Thomas Farrell, III (PB)
Mr. Ray Heverling (MAA)
Ms. Karen Kuczinski (MAA)
Mr. Ali Logmanni (MAA)
Mr. Steve Lucchesi (URS Greiner)
Mr. Joe Marsala (Bodouva)
Mr. Chirantan Mukhopadhyay (Parsons)
Mr. Charles Steen (MAA)
Mr. William Tsai (MAA)
Mr. Reginald Weaver (Baker)

BC/jao

Attachment

cc: Mr. Joe Nessel
Mr. Alex Noorani

BID TABULATION FORMS

Item No.	Description	Unit	Approximate Quantity	Unit Price	Total Price
P-501-8.1b	15-Inch Portland Cement Concrete Pavement @_____ _____ Dollars _____ Cents per	S.Y.	25,200		
P-501-8.1c	15-Inch Portland Cement Concrete Pavement Incentive @_____ Eighty Thousand _____ Dollars and no _____ Cents per	ALLOW.	1	$80,000.00	$80,000.00
P-603-5.1	Bituminous Tack Coat @_____ _____ Dollars _____ Cents per	GAL.	11,000		
P-620-5.1	Permanent Pavement Marking @_____ _____ Dollars _____ Cents per	S.F.	20,000		
P-620-5.2	Temporary Pavement Marking @_____ _____ Dollars _____ Cents per	S.F.	1,500		

BC10 A1/DSGNSTAN.DRD/DST98-6.D1

Maryland Aviation Administration

"Striving to do our best in everything we do - dedicated to providing outstanding airport facilities and services"

Theodore E. Mathison Executive Director

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: May 12, 1998

SUBJECT: Design Standard (DST) 98-6, Building Specification Format and Technical Specifications

BUILDING SPECIFICATION FORMAT:

The Maryland Aviation Administration (MAA) has adopted the American Institute of Architects (AIA) "MASTERSPEC" building construction specifications system. Effective immediately, building contract specifications shall be developed using the most recent edition of "MASTERSPEC".

Please note the "MASTERSPEC" Division I requirements must be closely coordinated with the MAA "Standard Provisions for Construction" and individual construction management requirements. MAA "Standard Provisions for Construction" addresses many of the "MASTERSPEC" Division I requirements, and will take precedence. Generally, Division I should only be used to supplement and enhance the MAA Standard Provisions for Construction.

TECHNICAL SPECIFICATIONS:

MAA is very concerned about any special requirements the designer may be including in the contract technical specifications. The designer should identify, in writing to the MAA Manager, Design Services, inclusion of any special technical requirements in the contract specifications i.e. pre-qualification for minimum years of experience, dollar value of past work, certifications, etc.; warranties; proprietary procurement; value engineering; etc. MAA will approve the special requirements on a case by case basis.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

Mr. Ian Bricknell (TAMS)
Mr. Emory Carrigan (MAA)
Mr. Brad Collins (DMJM)
Mr. Thomas Farrell, III (PB)
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Mr. Chirantan Mukhopadhyay (Parsons)
Mr. Charles Steen (MAA)
Mr. William Tsai (MAA)
Mr. Reginald Weaver (Baker)

BC/jao

cc: Mr. Joe Nessel
Mr. Alex Noorani

BC10A:/DSGNSTAN.DRD/DST98-7.DI

Maryland Aviation Administration

"Striving to do our best in everything we do - dedicated to providing outstanding airport facilities and services"

Theodore E. Mathison Executive Director

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: May 20, 1998

SUBJECT: Design Standard (DST) 98-7, Underground Fuel Storage Tank System (UST) Standards

This Standard is being issued to summarize the Maryland Aviation Administration's (MAA) requirements for Underground Fuel Storage Tank Systems (UST). Effective immediately, UST design for Baltimore/Washington International (BWI) and Martin State (MTN) Airports shall comply with this Standard.

1. Compliance with the most recent: COMAR 26.10, Maryland Department of the Environment, Oil Pollution and Tank Management Regulation; the National Fire Protection Association Code; COMAR 12, State of Maryland Fire Prevention Code; and all related EPA or Federal regulatory requirements.

2. MAA Supplement to COMAR 26.10:

   a. Underground storage tanks shall be one of the following: double-walled fiberglass, double walled steel fiberglass-clad, or jacketed steel with secondary containment. All UST shall have interstitial monitoring capability.

   b. UST product and return piping shall be one of the following: UL approved double-walled fiberglass, or UL approved double-walled flexible piping, including the installation of product containment sumps.

   c. UST monitoring system shall be one of the following: automatic tank gauging including interstitial monitoring, containment sump and/or dispenser sump monitoring, with UST high level alarm.

d. UST shall be anchored by means of appropriately sized concrete dead-men or hold-down slab.

e. UST excavation shall be lined with geotextile fabric.

If the above requirements conflict with any other codes or regulations, it should be brought immediately to the attention of the Manager, Design Services Section.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

Mr. Ian Bricknell (TAMS)
Mr. Emory Carrigan (MAA)
Mr. Brad Collins (DMJM)
Captain Woody Cullum (MAA)
Mr. Peter Florian (PB)
Mr. Ray Heverling (MAA)
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Mr. Charles Steen (MAA)
Mr. William Tsai (MAA)
Mr. Ron Walden (MAA)
Mr. Reginald Weaver (Baker)

BC/jao

cc: Mr. Alex Noorani

BC10 A:/DSGNSTAN.DRD/DST98-8.D

Maryland Aviation Administration

"Striving to do our best in everything we do - dedicated to providing outstanding airport facilities and services"

Theodore E. Mathison **Executive Director**

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: May 22, 1998

SUBJECT: Design Standard (DST) 98-8
Model Performance Code, COMAR 05.02.01
Maryland Building Performance Standards, COMAR 05.02.07
Maryland Accessibility Code, COMAR 05.02.02

This Standard amends and supersedes my August 17,1992 letter regarding Governor's Executive Order 01.01.1992.11, Building Performance Standards for State Buildings. This Standard sets forth requirements mandated by Governor's Executive Order and COMAR, and is effective immediately.

By Executive Order 01.01.1992.11, signed by Governor William Donald Schaefer on May 27, 1992, all State agencies shall utilize and apply the building performance standards set forth in the State's **Model Performance Code (MPC) in COMAR 05.02.01** promulgated pursuant to Article 83B, Section 6-101 of the Annotated Code of Maryland and the State's **Fire Prevention Code in COMAR 12.03.01** promulgated pursuant to Article 38A, Section 3 of the Annotated Code of Maryland, as amended for construction, alteration, remodeling and renovations of all buildings that are owned, leased, operated or controlled by the State.

Please note the MPC must be used with the **Maryland Building Performance Standards**, as developed and promulgated by the Maryland Department of Housing and Community Development (MDHCD) under COMAR .05.02.07.04.

Basically, the Standards identified below constitute the Model Performance Code for Building Construction:

BOCA National Building Code 1996 with amendments, and modifications by COMAR .05.02.07
Maryland State Plumbing Regulations COMAR .09.20.01

P.O. Box 8766, BWI Airport, Maryland 21240-0766 (410) 859-7100
FAX: (410) 850-4729 — TDD for the hearing impaired: (410) 859-7227
The Maryland Aviation Administration is an agency of the Maryland Department of Transportation

International Mechanical Code 1996
CABO Model Energy Code 1995
National Electrical Code 1996
CABO One and Two Family Dwelling Code 1995
Maryland Accessibility Code at COMAR 05.02.02/Feb. 1, 1995

Copies of the following applicable regulations are attached for your reference:

The Governor Executive Order .01.01.1992.11, dated May 27, 1992
Model Performance Code, COMAR .05.02.01
Maryland Building Performance Standards, COMAR .05.02.07
Maryland Accessibility Code, COMAR .05.02.02

Any amendments to the aforementioned Codes and Standards, as a result of the 1998 Legislative session, will be published in the Maryland Register and issued by MDHCD by mid-Summer. Maryland Aviation Administration (MAA) will distribute the amendments when available.

If the above requirements conflict with any other codes or regulations, it should be brought immediately to the attention of the Manager, Design Services Section.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

Mr. Ian Bricknell (TAMS)
Mr. Emory Carrigan (MAA)
Mr. Brad Collins (DMJM)
Captain Woody Cullum (MAA)
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Mr. Charles Steen (MAA)
Mr. William Tsai (MAA)
Mr. Ron Walden (MAA)
Mr. Reginald Weaver (Baker)

Attachments

BC/jao

cc: Mr. Alex Noorani w/attachments

The Governor Executive Order .01.01.1992.11
Dtd. May 27, 1992

State Agencies to apply standards set forth in:

(1) **Model Performance Code COMAR .05.02.01** and

(2) The State Fire Prevention Code COMAR 12.03.01

Model Performance Code

Standards - as per COMAR .05.02.01.03 A(2)

Effective date : July 28, 1997

(1) The BOCA National Building Code/1996
with Amendments related to standards.
(As per the Maryland Building Performance Standards COMAR .05.02.07.04 A & B)

(2) Maryland Accessibility Code COMAR .05.02.02
(As per the Maryland Building Performance Standards COMAR .05.02.07.04B6)

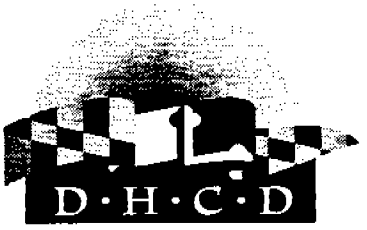
(3) State Plumbing Code COMAR .09.20.01
(Business Occupations and Professions Article Sec. 12-101--12-702)

(4) National Electrical Code/1996

(5) International Mechanical Code/1996

stagency/Sept.02, 1997

Model Performance Code
COMAR .05.02.01



Maryland Department of Housing and Community Development
Maryland Codes Administration
100 Community Place
Crownsville, Maryland 21032-2023
(410) 514-7220

Parris N. Glendening, Governor
Patricia J. Payne, Secretary
Raymond A. Skinner, Deputy Director

July 28, 1997

The Maryland Department of Housing and Community Development (DHCD) pledges to foster the letter and spirit of the law for achieving equal housing opportunity in Maryland.

Title 05

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

Subtitle 02 BUILDING AND MATERIAL CODES

Chapter 01 Model Performance Code

Authority: Article 83B, Sec. 6-101, Annotated Code of Maryland

.01 Definitions.

A. The following terms have the meanings indicated.

B. Terms Defined.

(1) "BOCA" means Building Officials and Code Administrators International, Inc.

(2) "CABO" means Council of American Building Officials, 5203 Leesburg Pike, Suite 708, Falls Church, VA 22041.

(3) "Department" means the Department of Housing and Community Development.

(4) "Industrialized building" has the meaning stated in Article 83B, Sec. 6-202(d), Annotated Code of Maryland.

(5) "Model Performance Code and Model Code" means the Model Performance Code for building construction as detailed in Regulation .03 of these regulations.

(6) "NFPA" means National Fire Protection Association, Inc.

(7) "Person" means any private individual, firm, or corporation and any public officer or agency.

(8) "Regulations" means the regulations as defined in Regulation .02.

(9) "Secretary" means the Secretary of Housing and Community Development, or a designated representative.

(10) "State certified inspector" means an individual qualified by reason of experience, training, and/or examination, to inspect buildings for compliance with the State Model Performance Code, and certified pursuant to Regulation .07.

.02 General.

A. Title. These regulations shall be known and may be cited as the Maryland Model Performance Code Regulations. Except as otherwise indicated, "regulations" as used here shall mean the Maryland Model Performance Code Regulations.

B. Application. These regulations may not be binding upon any subdivision of the State unless the subdivision adopts the Model Performance Code, by law, ordinance, or resolution of its governing body referring to the Model Performance Code.

C. Equivalency. Nothing in the Model Performance Code is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety to those prescribed by the Model Code, providing technical documentation is submitted to the authority having jurisdiction to demonstrate equivalency, and the system, method, or device is approved for the intended purpose.

.02-1 Incorporation by Reference.

A. In this chapter, the following documents are incorporated by reference, except as modified in Regulation .03 of this chapter.

B. Documents Incorporated.

(1) The BOCA National Building Code (Building Officials and Code Administrators International, Inc., Thirteenth Edition, 1996).

(2) International Plumbing Code (International Code Council, Inc., Building Officials and Code Administrators International, Inc. and International Conference of Building Officials and Southern Building Code Congress International, Inc., First Edition, 1995).

(3) National Electrical Code (National Fire Protection Association, 1996 Edition).

(4) International Mechanical Code (International Code Council, Inc., Building Officials and Code Administrators International, Inc., International

Conference of Building Officials, and Southern Building Code Congress International, Inc., First Edition, 1996).

.03 Model Performance Code.

A. The standards incorporated by reference in Regulation .02-1 of this chapter, and modified as follows, constitute the Model Performance Code for building construction in the State:

(1) For industrialized building construction:

(a) The BOCA National Building Code **with modifications** related to building standards, **as adopted under COMAR 05.02.07.04,**

(b) International Plumbing Code/1995 (International Code Council, Inc., Building Officials and Code Administrators International, Inc., 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795) with the following modification: Delete all of Sec. 405.0; the subject matter is covered by Maryland Accessibility Code, COMAR 05.02.02,

(c) National Electrical Code/1996 Edition (National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269), and

(d) International Mechanical Code/1996 (International Code Council, Inc., and Building Officials and Code Administrators International, Inc., 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795);

(2) For all other building construction:

(a) The BOCA National Building Code with modifications related to building standards, as adopted under COMAR 05 02.07.04,

(b) Plumbing Code requirements adopted under Business Occupations and Professions Article, Sec. 12-101–12-702, Annotated Code of Maryland,

(c) National Electrical Code/1996 Edition (National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269), and

(d) International Mechanical Code/1996 (International Code Council, Inc., and Building Officials and Code Administrators International, Inc., 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795).

B. The incorporated documents listed above are on deposit in the following public libraries:

(1) Maryland Department of Legislative Reference Library, 90 State Circle, Annapolis, MD 21401, Monday through Friday, 8:30 am–4:30 pm;

(2) State Library Resource Center, Enoch Pratt Central, Maryland Department, 400 Cathedral Street, Baltimore, MD 21201, Monday through Thursday, 9 am–9 pm; Friday and Saturday, 9 am–5 pm; Sunday (October–May), 1 pm–5 pm;

(3) Frostburg State University Library, Midlothian Road and Center Street, Frostburg, MD 21532, Monday through Thursday, 3:30–12 midnight; Friday, 3:30–10 pm; Saturday, 8:30 am–5 pm; Sunday, 1 pm–12 midnight;

(4) Southern Maryland Regional Library, Charles County Public Library Building, Charles and Garrett Streets, La Plata, MD 20642, Monday through Thursday, 9 am–8 pm; Friday, 12 pm–5 pm; Saturday (during school year), 9 am–5 pm;

(5) Salisbury State University Library, College and Camden Avenues, Salisbury, MD 21801, Monday–Friday, 8 am–10 pm; Saturday, 10 am–10 pm; Sunday, 12 pm–10 pm (library closed when school not in session);

(6) Library of Congress, Gifts and Exchanges Division, 10 First Street S.E., Washington, DC 20540, Monday through Friday, 8 am–4:30 pm;

(7) Division of State Documents, Old Armory Building, 11 Bladen Street, Annapolis, MD 21401, Monday through Friday, 9 am–5 pm;

(8) State Law Library, Courts of Appeal Building, 361 Rowe Boulevard, Annapolis, MD 21401, Monday, Wednesday, and Friday, 8:30 am–4:30 pm; Tuesday and Thursday, 8:30 am–9 pm; Saturday, 9 am–4 pm.

.04 Modifications to Model Performance Code.

A. As stated in Regulation .02B, the Model Performance Code is not binding on any subdivision of the State unless specifically adopted by it. A copy of the law, ordinance, or resolution adopting the Model Code shall be sent by the governing body of the adopting subdivision to the Secretary. Copies of all subsequent laws, ordinances, or resolutions pertaining to the Model Code shall similarly be sent by the governing body to the Secretary.

B. After adoption by a subdivision, alteration or modification of the Model Code is prohibited without prior concurrence of the Secretary.

C. The Department will regularly consult with local officials to review the application and effectiveness of the Model Code in each adopting subdivision.

D. Requests for Changes.

(1) Requests for changes, modifications, or exceptions to make the Model Code more effective and useful in any subdivision shall be submitted in writing by certified mail, return receipt requested, to the Secretary by the appropriate authority in the subdivision, together with the reasons for the request.

(2) Upon receipt of a request, the Secretary may:

(a) Concur with it.

(b) Take no action for a period of 30 days after receipt of the request, which shall be deemed concurrence.

(c) Refer the request to the Advisory Commission on Industrialized Building and Mobile Homes, or to any subcommittee of it, for advice on the request. The Secretary shall notify the requesting subdivision of the referral. The time for decision by the Secretary shall be extended for 90 days from the date of the referral.

(d) Deny the request, either before or after referral to the Advisory Commission, so notifying the requesting subdivision in writing. The Secretary may utilize the 30-day and 90-day periods provided hereby for informal consultation with the requesting subdivision and with any other individuals or groups.

(3) Concurrence with requests for special Model Code provisions to meet local conditions will not be unreasonably withheld.

E. The administrative sections of Article 1 of the BOCA National Building Code are entirely administrative and may require alteration to adapt them to local use. Alterations to these sections of Article 1 are therefore excluded from the requirement of concurrence by the Secretary. However, any alterations shall be forwarded to the Secretary for the Department's records.

.05 Appeals of Code Interpretations or Applications.

A. If a subdivision provides for a body and procedures to hear building appeals, any person aggrieved by any application or interpretation of the Model Code may obtain review under the procedures.

B. Review by this Department shall be granted:

(1) If requested by the appeals body referred to in Sec. A.

(2) If requested by the aggrieved party before commencement of appeal procedures provided by the subdivision. In that case, the Director of Codes Administration may, in his discretion, decline to review the question of interpretation or application and remand the question to the subdivision, because the question is of insufficient importance or can be resolved more readily at a local level, or for other reasons. The action is not reviewable.

(3) When a building appeals procedure is not provided by the subdivision.

C. An aggrieved person requesting review by the Department of an application or interpretation of the Model Code shall do so in writing, addressed to the Director of Codes Administration in the Department, together with a full statement of the circumstances and the reasons for challenge.

D. The Director of Codes Administration will normally refer the question of interpretation or application to BOCA or NFPA, as the case may be, for answer by their respective interpretation services. The Director is not required to refer the question to BOCA or NFPA. He shall notify the parties of the referral.

E. Within 10 days from receipt by the Director of Codes Administration of the request for review, or within 10 days from receipt by the Director of an answer from BOCA or NFPA when the question has been referred, the Director shall notify the parties of his decision, with a statement of the reasons for it, including a copy of any communication from BOCA or NFPA.

F. Review of an adverse decision of the Director of Codes Administration shall be by appeal to the Secretary, filed within 30 days after issuance of the decision by the Director.

.06 Code Improvements.

Any recommendations for changes to improve these regulations should be submitted to the Secretary with an explanation of the modification desired.

.07 Training and Certification of Building Inspectors.

In order to assist local jurisdictions to effectively administer the Model Code, the Department has the responsibility to train and certify building code

enforcement officials in any jurisdiction where the Model Performance Code is in effect.

Administrative History

Effective date: April, 1973
Regulation .01 amended effective December 30, 1985 (12:26 Md. R. 2542)
Regulation .02C adopted effective December 30, 1985 (12:26 Md. R. 2542)
Regulation .03 amended effective August 6, 1975 (2:17 Md. R. 1188); March 3, 1976 (3:5 Md. R. 295); June 29, 1979 (6:13 Md. R. 1124); March 1, 1983 (10:3 Md. R. 208); December 30, 1985 (12:26 Md. R. 2542)
Regulations .04 and .05 amended effective November 3, 1978 (5:22 Md. R. 1671)
Regulations .04E and .05C amended effective December 30, 1985 (12:26 Md. R. 2542)
Regulation .07A amended effective December 30, 1985 (12:26 Md. R. 2542)
Regulation .07B amended effective August 6, 1975 (2:17 Md. R. 1188) and November 3, 1978 (5:22 Md. R. 1671); repealed effective December 30, 1985 (12:26 Md. R. 2542)

Chapter recodified from COMAR 05.01.03 to COMAR 05.02.01
Regulation .01B amended effective June 1, 1988 (15:11 Md. R. 1329); July 28, 1997 (24:15 Md. R. 1061)
Regulation .02-1 adopted effective July 28, 1997 924:15 Md. R. 1061)
Regulation .03 amended effective June 1, 1988 (15:11 Md. R. 1329); July 22, 1991 (18:14 Md. R. 1609); July 28, 1997 (24:15 Md. R. 1061)
Regulation .04E amended effective June 1, 1988 (15:11 Md. R. 1329)

Maryland Building Performance Standards

COMAR .05.02.07

Maryland Department of Housing and Community Development
Maryland Codes Administration
100 Community Place
Crownsville, Maryland 21032-2023
(410) 514-7220

Parris N. Glendening, Governor
Patricia J. Payne, Secretary
Raymond A. Skinner, Deputy Director

April 7, 1997

EQUAL HOUSING OPPORTUNITY

The Maryland Department of Housing and Community Development (DHCD) pledges to foster the letter and spirit of the law for achieving equal housing opportunity in Maryland.

Title 05

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

Subtitle 02 BUILDING AND MATERIAL CODES

Chapter 07 Maryland Building Performance Standards

Authority: Article 83B, Sec. 6-401—6-406, Annotated Code of Maryland

.01 Title.

These regulations shall be known and may be cited as the Maryland Building Performance Standards Regulations.

.02 Purpose and Scope.

The purposes of these regulations are to adopt the BOCA National Building Code, as may be modified by the Department, as the Maryland Building Performance Standards, which will provide reasonable protection to the public against hazards to life, health, and property, and to establish the policies and procedures associated with the operation of a data base that contains the Standards, the local amendments, and other related information.

.03 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) "BOCA" means the organization known as the Building Officials and Code Administrators International, Inc.

(2) "BOCA Code" means the BOCA National Building Code, as incorporated by reference in these regulations.

(3) "Building" has the meaning and interpretation set forth in the BOCA Code.

(4) "Codes Administration" means the Maryland Codes Administration, an administration within the Department.

(5) "County" means any of the 23 counties of the State and the Mayor and City Council of Baltimore.

(6) "Department" means the Department of Housing and Community Development of Maryland.

(7) "Local amendment" means:

(a) An amendment to the standards that has been adopted by a local jurisdiction in accordance with applicable local laws and regulations; and

(b) A copy of the amendment has been provided to the Department for inclusion in the data base within the following time period:

(i) At least 15 days before the effective date of the amendment, or

(ii) In the case of an emergency adoption of an amendment, within 5 days of the emergency amendment's adoption.

(8) "Local jurisdiction" means the county or municipality responsible for implementation and enforcement of the Maryland Building Performance Standards.

(9) "MBPS" or "Standards" means the Maryland Building Performance Standards established by these regulations.

(10) "Municipality" means a municipal corporation subject to the provisions of Article XI-E of the State Constitution.

(11) "Person" means an individual, corporation, partnership, association, or any other legal entity authorized to do business in the State.

(12) "Standard Building Code" means the Standard Building Code issued by the Southern Building Code Congress International, Inc. The Standard Building Code is not the standard incorporated by reference in these regulations.

(13) "Structure" has the meaning and interpretation set forth in the BOCA Code.

.04 Incorporation by Reference.

A. The BOCA National Building Code (Building Officials and Code Administrators International, Inc. Thirteenth Edition, 1996), with the modifications found in Sec. B of this regulation, is incorporated by reference.

B. Modifications to the BOCA National Building Code.

(1) Add note to Chapter 1 of the BOCA Code: Local jurisdictions are responsible for the implementation and enforcement of the Maryland Building Performance Standards. Refer to each local jurisdiction for local amendments to Chapter 1 of the BOCA Code. Each local jurisdiction having authority shall establish, on or before the application date in Regulation .06 of this chapter, implementation and enforcement procedures that include:

(a) Review and acceptance of appropriate plans;

(b) Issuance of building permits;

(c) Inspection of the work authorized by the building permits; and

(d) Issuance of use and occupancy certificates.

(2) Chapter 5, delete the first paragraph of Section 504.2 Automatic sprinkler systems and replace with the following:

504.2 Automatic sprinkler systems: Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 906.2.1, the building height limitation specified in Table 503 shall be increased one story and 20 feet (6096 mm). The building height limitations for buildings with an occupancy in Use Groups R-1 and R-2 specified in Table 503 shall be increased one story and 20 feet (6069 mm) but not to exceed a height of four stories and 60 feet (18288 mm) where the building is equipped throughout with an automatic

sprinkler system installed in accordance with Section 906.2.2 and the system is supervised in accordance with Section 924.1, method 1. The building height limitations for buildings with an occupancy in Use Group R-3 specified in Table 503 shall be increased one story and 20 feet (6096 mm) but not to exceed a height of four stories and 60 feet (18288 mm) where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 906.2.3 and the system is supervised in accordance with the applicable standards.

(3) Chapter 7, delete Item 2 in Section 707.6.2 Residential occupancies, and replace with the following:

2. The roof sheathing or deck is constructed of approved noncombustible materials or of fire retardant-treated wood, for a distance of 4 feet (219 mm) on both sides of the wall, or such roof sheathing or deck is constructed with 5/8 inch Type X gypsum board supported directly beneath the underside of the roof sheathing or deck, using minimum 2 inch ledgers attached to the sides of the roof framing members, for a minimum distance of 4 feet (219 mm) on both sides of the fire wall.

Exception: This requirement does not apply to sprinklered buildings.

(4) Add note to Chapter 9 of the BOCA Code: Fire protection system requirements of Chapter 9 may be concurrently covered in the State Fire Code, Article 38A, Sec. 3--67, and COMAR 12.03.01. The State Fire Code is enforced by the State Fire Marshal or authorized fire official.

(5) Chapter 10.

(a) Delete Exception 8 in Section 1014.6 Treads and risers and replace with the following:

In occupancies in Use Group R-3 and in occupancies in Use Group U which are accessory to an occupancy in Use Group R-3, the maximum riser height shall be 8-1/4 inches (210 mm) and the minimum tread depth shall be 9 inches (229 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1-1/4 inches (32mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).

Within dwelling units in occupancies in Use Group R-2, the maximum riser height shall be 8 inches (204 mm) and the minimum tread depth shall be 9 inches (229 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1-1/4 inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).

(b) Add note to Chapter 10 of the BOCA Code: Means of egress requirements of Chapter 10 may be concurrently covered in the State Fire Code, Article 38A, Sec. 3--67, and COMAR 12.03.01. The State Fire Code is enforced by the State Fire Marshal or authorized fire official.

(6) Chapter 11 of the BOCA Code related to accessibility requirements is hereby replaced with the Maryland Accessibility Code set forth in COMAR 05.02.02.

(7) Add note to Chapter 13 of BOCA Code: The requirements concerning energy conservation for buildings and structures are governed by Article 78, Sec. 54J, Energy Conservation Building Standards Act, Annotated Code of Maryland, as amended. In the event of a conflict between the Annotated Code of Maryland and the BOCA Code, the requirements of the Annotated Code of Maryland shall prevail.

(8) The requirements for safety glazing set forth in Article 83B, Sec. 6-301--6-306, Annotated Code of Maryland, are in addition to Chapter 24, Sec. 2405.0 of the BOCA Code

related to safety glazing. In the event of a conflict between Chapter 24 of the BOCA Code and the Annotated Code of Maryland, the requirements of the Annotated Code of Maryland shall prevail.

(9) Delete Chapters 27, 28, and 29 of the BOCA Code as the subject matter is not within the scope of the Maryland Building Performance Standards.

(10) The provisions of Chapter 30 of the BOCA Code relate to elevators and conveying systems and are in addition to and not instead of the requirements set forth in Article 89, Sec. 49B, Annotated Code of Maryland. In the event of a conflict between the BOCA Code and the Annotated Code of Maryland, the provisions of the Annotated Code of Maryland shall prevail.

C. The CABO One and Two Family Dwelling Code 1995 Edition, with the modifications below, is incorporated by reference:

(1) Delete Section 314.2 Treads and risers, and replace with the following:

314.2 Treads and risers. The maximum riser height shall be 8-1/4 inches (210 mm) and the minimum tread depth shall be 9 inches (299 mm). The riser height shall be measured vertically between leading edges of the adjacent treads. The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The walking face of treads and landings of a stairway shall be sloped no steeper than one unit vertical in 48 units horizontal (2 percent slope). The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

(2) Add the following sentence to Section 316.1 Smoke detectors required:

Smoke detectors are not required in sleeping rooms where the dwellings are equipped throughout with an approved automatic sprinkler system as prescribed in Chapter 9 of the BOCA National Building Code/1996.

.05 Maryland Building Performance Standards.

A. The BOCA Code, as modified in Regulation .04 of this chapter, shall constitute the Maryland Building Performance Standards.

B. Local Amendments.

(1) Each local jurisdiction may by local amendment modify the provisions of the Standards to address conditions peculiar to the local jurisdiction's community.

(2) If a local jurisdiction adopts a local amendment, the Standards as amended by the local jurisdiction shall apply in that local jurisdiction.

(3) If a local amendment conflicts with the provisions of the Standards, the provisions of the local amendment shall prevail in the local jurisdiction.

(4) Local amendments shall be submitted to the Department:

(a) At least 15 days before the effective date of the amendment; or

(b) In the case of an emergency adoption of a local amendment, within 5 days after the local amendment's adoption.

.06 Application of the Standards.

The Standards shall apply to all buildings and structures within the State for which a building permit application is received by a local jurisdiction on or after October 1, 1997, except:

A. In counties or municipalities that have adopted the Standard Building Code as of October 1, 1993, the Standards shall apply to all buildings and structures for which a building permit application is received by the local jurisdiction on or after August 1, 1999; and

B. A local jurisdiction may implement and enforce the Standards and any local amendments on or before the dates specified in this regulation.

.07 Utilization of Standards.

A. Central Data Base.

(1) The Department shall establish an automated central data base which shall contain the following information:

(a) The Standards;

(b) Local amendments;

(c) State Fire Prevention Code and amendments to the State Fire Prevention Code promulgated by the State Fire Prevention Commission, or the State Fire Prevention Commission's successor;

(d) The fire codes adopted by the local jurisdictions and any amendments to them;

(e) The electrical code required under Article 38A, Sec. 59 and 60, Annotated Code of Maryland;

(f) Local amendments to the electrical code required under Article 38A, Sec. 59 and 60, Annotated Code of Maryland;

(g) The energy code required under Article 78, Sec. 54J, Annotated Code of Maryland; and

(h) Local code provisions that are more restrictive than the energy code required under Article 78, Sec. 54J, Annotated Code of Maryland.

(2) The Department may compile and include in the central data base:

(a) Any information provided by the local jurisdiction on the implementation and interpretation of the Standards by the local jurisdiction;

(b) Interim amendments to the BOCA Code including subsequent printing of the most recent edition; and

(c) Any other information the Department determines is relevant to the construction or rehabilitation of buildings and structures in the State.

(3) Software.

(a) The Department shall be responsible for the development and distribution among the local jurisdictions of software related to the operation of the central data base.

(b) Any software developed by or on behalf of the Department shall be owned by the Department, or the developer of the software.

(c) Neither the local jurisdiction nor any other user acquires any proprietary right in any of the BOCA copyrighted material or BOCA trademark contained in the software.

(4) Sublicense of BOCA Copyrighted Materials and Trademarks.

(a) The information in the Standards is developed from the copyrighted BOCA Code and is reproduced with BOCA's permission.

(b) The copyrighted information is the sole and exclusive property of BOCA and may not be printed out except that it may be transferred to a printer or computer disk using the print screen key or its equivalent.

(c) The copyrighted material and BOCA trademark used in the data base may be used only on one personal computer and may not be connected to a network of personal computers unless there is a license for each personal computer.

(d) BOCA makes no warranties, guarantees, conditions, covenants, or representations as to fitness for a particular purpose, or any other attribute, whether express or implied (in law or in fact), oral or written, of the copyrighted BOCA property contained in the data base.

(e) If any user fails to comply with the provisions of this regulation, BOCA or the Department, in their discretion, may require the user to discontinue use of the data base.

B. Voluntary Dispute Resolution.

(1) Upon the written request of a local jurisdiction and any person aggrieved by the Standards or any local amendments to them, the Codes Administration shall conduct an informal mediation or conciliation with the local jurisdiction and any person aggrieved by the Standards or any local amendments to them.

(2) The aggrieved person and the local jurisdiction shall each submit to the Codes Administration a written statement of the dispute and include any related material either party feels is appropriate. In addition to the written statement, either party may request a meeting with the other party and the Codes Administration to discuss the dispute.

(3) Within the latter to occur of 30 days of receipt of both statements of the disputed and any related material, or 30 days after a meeting conducted in accordance with Sec. B(2) of this regulation, the Director of the Codes Administration shall issue a decision on behalf of the Department regarding resolution of the dispute.

(4) Within 15 days of the date of the decision of the Director of the Codes Administration, either party may appeal to the Secretary of the Department or the Secretary's designee, in writing. The Secretary of the Department or the Secretary's designee shall respond to the appeal within 15 days of receipt of the appeal.

(5) Neither a decision by the Codes Administration nor the Department under Sec. B(3) or (4) of this regulation shall constitute a contested case proceeding under the Maryland Administrative Procedure Act and is not subject to the provisions of COMAR 05.01.01.

.08 Enforcement of the Standards.

Enforcement of the Standards shall be the responsibility of the local jurisdiction in which the building or structure is located.

.09 Enforcement of State Fire Code Requirements.

There is a State Fire Code, Article 38A, Sec. 3–67, Annotated Code of Maryland, and COMAR 12.03.01, which requires enforcement of the Fire Code by the State Fire Marshal or authorized fire official.

Administrative History

Effective date:
Regulations .01–.09 adopted as an emergency provision effective January 13, 1995 (22:3 Md. R. 148); adopted permanently effective June 5, 1995 (22:11 Md. R. 818)
Regulation .03B amended effective April 7, 1997 (24:7 Md. R. 552)
Regulation .04B, C amended effective April 7, 1997 (24:7 Md. R. 552)
Regulation .06 amended effective April 7, 1997 (24:7 Md. R. 552)
Regulation .07 amended effective April 7, 1997 (24:7 Md. R. 552)
Regulation .09 amended effective April 7, 1997 (24:7 Md. R. 552)

This is a consolidated easy to read version of the Maryland Accessibility Code. The official text has been published in the Maryland Register, COMAR Vol. 21, issue 24, November 25, 1994, and Vol. 21, issue 17, August 19, 1994.

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

CODES ADMINISTRATION

CODE OF MARYLAND REGULATIONS

05.02.02

Maryland Accessibility Code

State of Maryland

Requirements
for Accessible Design
February 1, 1995

This is a consolidated easy to read version of the Maryland Accessibility Code. The official text has been published in the Maryland Register, COMAR Vol. 21, issue 24, November 25, 1994, and Vol. 21, issue 17, August 19, 1994.

Title 05
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

Subtitle 02 BUILDING AND MATERIAL CODES

Chapter 02 Maryland Accessibility Code

Authority: Article 83B, §6-102, Annotated Code of Maryland

.01 Title.

This chapter shall be known as the Maryland Accessibility Code, and is referred to in these regulations as "this Code".

.02 Purpose.

A. The purpose of this Code is to carry out the mandate of Article 83B, §6-102, Annotated Code of Maryland, as amended (the "Act") which requires the Department to establish minimum requirements that will provide for the accessibility and usability of buildings and facilities by individuals with disabilities.

B. The standards promulgated under this chapter are designed to carry out the purposes as set forth in §A of this regulation establishing minimum requirements for the construction, alteration, and changes in use of the buildings and facilities covered by this Code.

.03 Scope.

A. The following buildings and facilities are not covered by this Code:

(1) Residential buildings consisting of less than four dwelling units;

(2) Structures, sites, and equipment directly associated with the actual processes of construction, such as scaffolding, bridging, materials hoists, or construction trailers;

(3) Observation galleries less than 150 square feet and used primarily for security purposes;

(4) Nonoccupiable spaces accessed only by ladders, catwalks, crawl spaces, very narrow passageways, or nonpassenger freight elevators and frequented only by service personnel for repair purposes including, but not limited to elevator pits, elevator penthouses, and piping or equipment catwalks;

(5) Transportation vehicles;

(6) Existing buildings or facilities not undergoing any addition, alteration, or change in use as defined in Regulation .05 of this chapter; and

(7) Existing buildings and facilities undergoing alteration for the sole purpose of complying with the Americans with Disabilities Act, which requires removal of architectural barriers in existing buildings and facilities where removal is readily achievable.

B. This Code applies to all new construction, additions, alterations, and changes of use of certain buildings and facilities in Maryland, as follows:

(1) Covered multifamily dwellings as defined in Regulation .05 of this chapter;

(2) State and local government buildings and facilities, including transit facilities;

(3) All other buildings and facilities, including buildings and facilities used or owned by private clubs and religious organizations, except those listed in §A of this regulation.

.04 Relationship to Federal Law.

A. There is also federal law governing many of the buildings and facilities covered by this Code, and to the extent federal law is more restrictive than this Code, federal law shall control. Federal law also governs some buildings and facilities which are not covered by this Code. For instance, the Americans with Disabilities Act requires owners of existing buildings to make changes that are "readily achievable to accommodate individuals with disabilities".

B. The Department has no authority to interpret federal law. When this Code is parallel with federal law, the Department may only interpret the Code as State law and its interpretations are not binding interpretations of the concurrent federal law.

C. The Department has no authority to waive requirements imposed by federal law, and only where this Code is more restrictive than federal law can the Department exercise its waiver or exemption authority.

.05 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) "Accessible" means a site, building, facility, or portion of them that complies with these regulations and that can be approached, entered, and used by individuals with disabilities.

(2) "ADA" means the Americans with Disabilities Act of 1990, Public Law 101-336, 42 U.S.C. §12101 et seq.

(3) "ADAAG" means the Americans with Disabilities Act Accessibility Guidelines for Building and Facilities developed by the United States Architectural and Transportation Barriers Compliance Board, and adopted by the United States Department of Justice in Appendix A to 28 CFR 36.

(4) "Addition" means an expansion, extension, or increase in the gross floor area of a building or facility.

(5) Alteration.

(a) "Alteration" means a change to a building or facility made by, on behalf of, or for the use of a building or facility, that affects or could affect the usability of the building or facility or part of it.

(b) "Alteration" includes, but is not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, changes or rearrangement of the structural parts or elements, and changes in the plan configuration of walls and full-height partitions.

(c) "Alteration" does not include normal maintenance, reroofing, painting or wallpapering, or changes to mechanical and electrical systems unless they affect the usability of the building or facility.

(6) "ANSI A117.1-1986" means the 1986 Edition of American National Standard for Buildings and Facilities Providing Accessibility and Usability for Physically Handicapped People, which is incorporated by reference.

(7) "Building" means any structure used and intended for supporting or sheltering any use or occupancy.

(8) "Change of use" means an alteration in an existing building to a new use group which imposes special provisions of law governing building construction, equipment, or means of egress.

(9) "Covered multifamily dwelling" means:

(a) Buildings consisting of four or more dwelling units if the buildings have one or more elevators; and

(b) Ground floor dwelling units in buildings consisting of four or more dwelling units if there are no elevators in the building, although dwelling units within a single structure separated by fire walls do not constitute separate buildings.

(10) "Designated disability advisory group" means an individual, group of individuals, agency, or organization designated in writing by a local government or, in the absence of a written designation of a local government, by the Secretary, to advise the Department with respect to standards substantially equivalent to ADAAG under Regulation .08 of this chapter and waiver requests under Regulation .09 of this chapter.

(11) Dwelling Unit.

(a) "Dwelling unit" means a single unit of residence for a household of one or more individuals.

(b) "Dwelling unit" includes:

(i) Condominiums;

(ii) An apartment unit within an apartment building; and

(iii) Other types of units in which sleeping accommodations are provided but toilet or cooking facilities are shared by occupants of more than one room or portion of the dwelling unit, with examples of this including dormitory rooms and sleeping accommodations in shelters intended for occupancy as a residence for homeless individuals.

(12) "Existing building" means a structure erected before the adoption of this Code, or one for which a legal building permit has been issued.

(13) "Facilities" means all or any portion of buildings, structures, site improvements, roads, walks, passageways, parking lots, or other real property, located on a site.

(14) "FHAA" means the Federal Fair Housing Amendments Act of 1988, 42 U.S.C., §3604 et seq.

(15) "FHAG" means Fair Housing Accessibility Guidelines, adopted by the United States Department of Housing and Urban Development in 24 CFR Ch. 1, Part IV to provide technical guidance on how to comply with the Federal Fair Housing Amendments Act (FHAA).

(16) "Historic properties" means a qualified historic building or facility that is:

(a) Listed or eligible for listing in the National Register of Historic Places; or

(b) Designated as historic under State or local law.

(17) "Mezzanine or mezzanine floor" means that portion of a story which is an intermediate floor level placed within the story and having occupiable space above and below its floor. For the purpose of these regulations, mezzanine or mezzanine floor is considered as a story.

(18) "Secretary" means the Secretary of the Maryland Department of Housing and Community Development.

(19) "Site" means a parcel of land bounded by a property line or a designated portion of a public right-of-way.

(20) "Story" means that portion of a building between the upper surface of any floor and the upper surface of the floor next above, or the roof above.

(21) "Structure" means that which is built or constructed.

(22) "UFAS" means Uniform Federal Accessibility Standards developed in accordance with the Architectural Barriers Act of 1968, as amended, Public Law No. 90-40, 42 U.S.C. §§4151—4157, and adopted by the Department of Housing and Urban Development in 24 CFR 40.

(23) "Use group" means the classification of a building based on the purpose for which the building is used as listed in the building code of the jurisdiction.

.06 Implementation.

A. Application.

(1) Except as set forth in §A(2) of this regulation, application and enforcement of this Code is the responsibility of the local subdivision or other governmental agency having primary jurisdiction over a building, structure, facility, or site.

(2) The application and enforcement of this Code as it pertains to State and local government buildings and facilities including public transit facilities shall be delegated as the responsibility of the governmental agency having jurisdiction over the building or facility.

B. Interpretation. The Department of Housing and Community Development shall decide all questions relating to interpretation of this Code and shall determine whether any requests for waivers or exemptions from this Code may be approved.

C. Actions to Enforce.

(1) Except as provided in §C(3) of this regulation, the Secretary may institute in any court of competent jurisdiction an action for equitable relief, if the Secretary determines that a violation of this Code exists.

(2) The Secretary may not institute an action under §C(1) of this regulation until 5 working days after the Secretary has sought to seek a resolution of the violation through informal mediation and conciliation.

(3) Enforcement of this Code as it pertains to a covered multifamily dwelling as defined in Regulation .05B of this chapter is also under the jurisdiction of the Human Relations Commission under Article 49B, §22, Annotated Code of Maryland. The Department is required to cooperate with and provide technical assistance to the Human Relations Commission.

.07 Applicable Standards.

A. Dwelling Units.

(1) This section is not applicable to the dwelling units used on a transient basis and covered under §§B and C of this regulation.

(2) New Construction—Covered Multifamily Dwellings. The design and construction of a newly constructed covered multifamily dwelling shall be in accordance with FHAG and subsequent federal standards issued in reference to FHAA.

(3) Additions, Alterations or Change of Use of Existing Buildings of Four or More Dwelling Units. The alteration, change of use, or addition to an existing residential building of four or more units shall comply with this Code as follows:

(a) Dwelling units shall comply with this Code by either:

(i) Containing at least one dwelling unit for every 25 dwelling units, or fraction of dwelling units, if the structure is accessible and usable according to the requirements pertaining to dwelling units in ANSI A117.1-1986, with the complying dwelling units proportionately distributed throughout all types of units, or

(ii) Having dwelling units at the accessible level comply with the standards under §A(2) of this regulation;

(b) If the addition or alteration involves common area facilities and parking, it shall be accessible in accordance with the standards under §A(2) of this regulation.

B. New Construction, Alterations, Additions, Change of Use of State and Local Government Buildings and Facilities.

(1) All State and local government-owned buildings and facilities, including public transit facilities, shall comply with the standards prescribed in Title II of ADA and 28 CFR 35.

(2) The federal regulations require that all State and local government-owned buildings comply either with:

(a) UFAS; or

(b) ADAAG, except that the elevator exemption set forth at §§4.1.3(5) and 4.1.6(1)(j) of ADAAG does not apply.

(3) As additional Maryland requirements for State and local government buildings, accessibility for toilet stalls shall be assured as follows:

(a) The size of a wheelchair-accessible toilet stall shall be a minimum of 60 inches wide and 56 inches deep for wallhung water closets, and 59 inches deep for floor-mounted water closets;

(b) In instances of alteration work when provision of this minimum stall size is structurally impracticable or when plumbing code requirements prevent combining existing stalls to provide space, the minimum dimensions of the wheelchair accessible stall are 48 inches wide and 66 inches deep for wall-hung water closets and 69 inches deep for floor-mounted water closets.

C. New Construction, Alterations, Additions, and Changes of Use of All Other Buildings and Facilities. The new construction, alteration, addition to, or change of use of buildings and facilities, including buildings and facilities owned or used by private entities such as private clubs and religious organizations, shall comply with:

(1) ADAAG and all federal accessibility guidelines promulgated to carry out Title III of the ADA and set forth in 28 CFR 36; and

(2) The following additional Maryland requirements:

(a) Accessibility shall be assured for the second story of a two-story building if the gross floor area of the second story exceeds 4,000 square feet; and

(b) Accessibility for toilet stalls shall be assured as follows:

(i) The size of a wheelchair-accessible toilet stall shall be a minimum of 60 inches wide and 56 inches deep for wall-hung water closets, and 59 inches deep for floor-mounted water closets,

(ii) In instances of alteration work when provision of this minimum stall is structurally impracticable or when plumbing code requirements prevent combining existing stalls to provide space, the minimum dimensions of the wheelchair accessible stall shall be 48 inches wide and 66 inches deep for wall-hung water closets, and 69 inches deep for floor-mounted water closets.

D. Parking Space Signs—Public and Private Facilities.

(1) The parking areas of all buildings and facilities, including the buildings and facilities of State and local governments, shall identify each accessible parking space by a sign.

(2) If the sign in §D(1) of this regulation is:

(a) Not placed flush against a building, structure, or other location that does not obstruct vehicle or pedestrian traffic, it shall be at least 7 feet above the ground;

(b) Placed flush against a building structure or other location that does not obstruct vehicle or pedestrian traffic, it shall be at least 6 feet, and not more than 10 feet, above the ground.

(3) Signs shall bear the international symbol of access and the words "Reserved Parking", and shall be in conformance with the requirements for uniform traffic control devices under Transportation Article, §25-104, Annotated Code of Maryland. (See Regulation .12 of this chapter for explanatory material).

(4) Each van-accessible parking space shall be identified with a supplemental sign in conformance with the requirements for uniform traffic control devices under Transportation Article, §25-104, Annotated Code of Maryland (See Regulation .12 of this chapter for explanatory material.)

.08 Standards Substantially Equivalent to ADAAG.

A. Applicability.

(1) Standards substantially equivalent to ADAAG may be used only when a building or facility elects to or is required by these regulations to comply with ADAAG.

(2) This regulation does not apply to the additional Maryland requirements set forth in Regulation .07A(3), B(3), and C(2) of this chapter. A request for a waiver of the additional Maryland requirements shall be submitted in accordance with the provisions of Regulation .09 of this chapter.

B. Substantially Equivalent Standards for State and Local Government Buildings and Facilities. A State-owned or government-owned building or facility which has elected to comply with the ADAAG instead of the UFAS may depart from

particular technical and scoping requirements of ADAAG by using alternative designs or technologies that are substantially equivalent to ADAAG, or that provide greater access to and usability of the building or facility.

C. Substantially Equivalent Standards for Other Buildings and Facilities. Other buildings and facilities that are required to comply with ADAAG may depart from particular technical and scoping requirements of ADAAG by using alternative designs and technologies that are substantially equivalent to ADAAG, or that provide greater access to and usability of the building or facility.

D. Determination of Substantial Equivalency.

(1) Proposed alternative designs or technologies shall be submitted to the Department before beginning construction, alteration, addition, or change of use of the building or facility by the owner or other person identified as the responsible person in the submission to the Department.

(2) The Department shall issue a written determination to the responsible party identified in the submission as to whether the Department considers that the alternative design or technology is substantially equivalent to ADAAG, or provides greater access to or usability of the building or facility than the applicable ADAAG standards.

(3) Construction, alteration, addition, or change of use of the building or facility may not begin until the responsible person has received a favorable determination from the Department.

(4) A determination by the Department of substantially equivalent or greater access relates only to the requirements imposed under these regulations. The determination by the Department does not apply as to whether the building or facility complies with ADA.

(5) The Department may consult with public building officials, the designated disability advisory group, or the State historic preservation officer or the designee of the State historic preservation officer, in a determination of substantial equivalency.

(6) A request for a determination under this regulation does not constitute a contested case proceeding under the Maryland Administrative Procedure Act and is not subject to the provisions of COMAR 05.01.01.

.09 Waiver Request.

A. Standards Covered.

(1) If strict compliance with the additional Maryland requirements set forth in Regulation .07A(3), B(3), and C(2) of this chapter will cause undue hardship because of the nature of use, occupancy, or other factors, a waiver from these requirements may be requested.

(2) The Department has no authority to waive requirements imposed by federal law and shall only exercise its waiver authority when this Code is more restrictive than federal law in connection with the additional Maryland requirements set forth in Regulation .07A(3), B(3), and C(2) of this chapter.

B. Procedures.

(1) A written waiver request form and supporting documents shall be submitted in triplicate to the Director, Maryland Codes Administration, Department of Housing and Community Development.

(2) The Maryland Codes Administration shall review the documents submitted for completeness, and shall contact the applicant promptly for any additional information needed to process the request.

(3) Upon receipt of all required documents, the Maryland Codes Administration shall send one copy of the waiver request documents to the local government officials and one copy to the designated disability advisory group.

(4) The local government officials and the designated disability advisory group may provide their written comments jointly or separately to the Maryland Codes Administration within 21 days of dated transmittal from the Maryland Codes Administration.

(5) The Maryland Codes Administration shall review the waiver documents and any comments received from the local building officials and the agency or organization advocating for individuals with disabilities. For historic properties, the Maryland Codes Administration shall make its decisions in consultation with the State historic preservation officer or the officer's designee.

(6) The investigation may include a site visit by a State official, local government official, designated disability advisory group, and, for historic properties, the State historic preservation officer or the officer's designee.

(7) Upon completion of the investigation, the Director of the Maryland Codes Administration, or the Director's designee, shall determine if a waiver should be granted or denied based upon factors such as, but not limited to:

(a) Feasibility hardship due to unusual building or site conditions which prevent the construction of access facilities as described in supporting documentation, such as plans, sketches, and site drawings provided for clarification by the applicant;

(b) Financial hardship when the cost of compliance is disproportionate to the cost of construction, if the applicant has provided financial statements; or

(c) The information supplied by the designated disability advisory group, State and local government officials, and, for historic properties, the State historic preservation officer or the officer's designee.

(8) Notice of the waiver determination shall be delivered to:

(a) The local government official;

(b) The designated disability advisory group;

(c) The waiver applicant; and

(d) For historic properties, the State historic preservation officer or the officer's designee.

(9) The applicant may request reconsideration of the decision of the Maryland Codes Administration within 45 days by writing to the Director of the Community Assistance Administration for a final administrative decision. The reconsideration review may include additional site visits and meetings with the applicants, the designated disability advisory group, and local building officials. The decision by the Director of the Community Assistance Administration is final and binding upon the parties.

C. A waiver request and decision on it under §B(7) or (9) of this regulation does not constitute a contested case proceeding under the Maryland Administrative Procedure Act and is not subject to the provisions of COMAR 05.01.01.

.10 Private Action.

This Code is not intended to grant or imply a private cause of action to an individual against the State, the Department, its employees, agents, or assignees for violations of this Code.

.11 Copies of Standards and Code.

A. Copies of the standards and Code referenced in this chapter may be obtained as follows:

(1) The Maryland Department of Housing and Community Development, 100 Community Place, Crownsville, Maryland 21032, telephone (410) 514-7220, TDD (410) 514-7531;

(2) United States Department of Justice, Office of the Americans with Disabilities Act, Civil Rights Division, P. O. 66118, Washington, D.C. 20035-6118, telephone (202) 514-0301(V), TT/TDD (202) 514-0381 or 0383;

(3) Architectural and Transportation Compliance Board, 1331 F Street, N.W., Suite 1000, Washington, D.C. 20004-1111, telephone V and TT/TDD (800) USA-ABLE, or V and TT/TDD (202) 272-5434;

(4) Independence Center for Northern Virginia, 2111 Wilson Boulevard, Suite 400, Arlington, Virginia 22201, telephone (703) 525-3268, V/TT/TDD (800) ADA-4999;

(5) United States Department of Housing and Urban Development (HUD), Office of the General Counsel, 451 Seventh Street, S.W., Washington, D.C. 20410-0500, telephone (202) 755-5570, TDD (800) 543-8294;

(6) Public libraries throughout Maryland.

B. The final rule implementing the Fair Housing Amendments Act of 1988 is available in braille and on tapes at the United States Department of Housing and Urban Development (HUD), Office of the Rules Docket Clerk, Room 10276, 451 Seventh Street, S.W., Washington, D.C. 20410-0500, telephone (202) 755-5570, TDD (800) 543-8294.

.12 Explanatory Material.

For purposes of Regulation .07D of this chapter, the following signs may be used:

(See "Parking Space Signs", 21:17 Md. R. 1445, and "Van Accessible Parking Sign", 21:17 Md. R. 1446)

Administrative History

Effective date: April 16, 1975 (2:8 Md. R. 563)
Regulations .01—.11 amended effective March 3, 1976 (3:5 Md. R. 295)
Chapter revised effective September 5, 1980 (7:18 Md. R. 1736)
Chapter revised effective January 1, 1985 (11:26 Md. R. 2277)

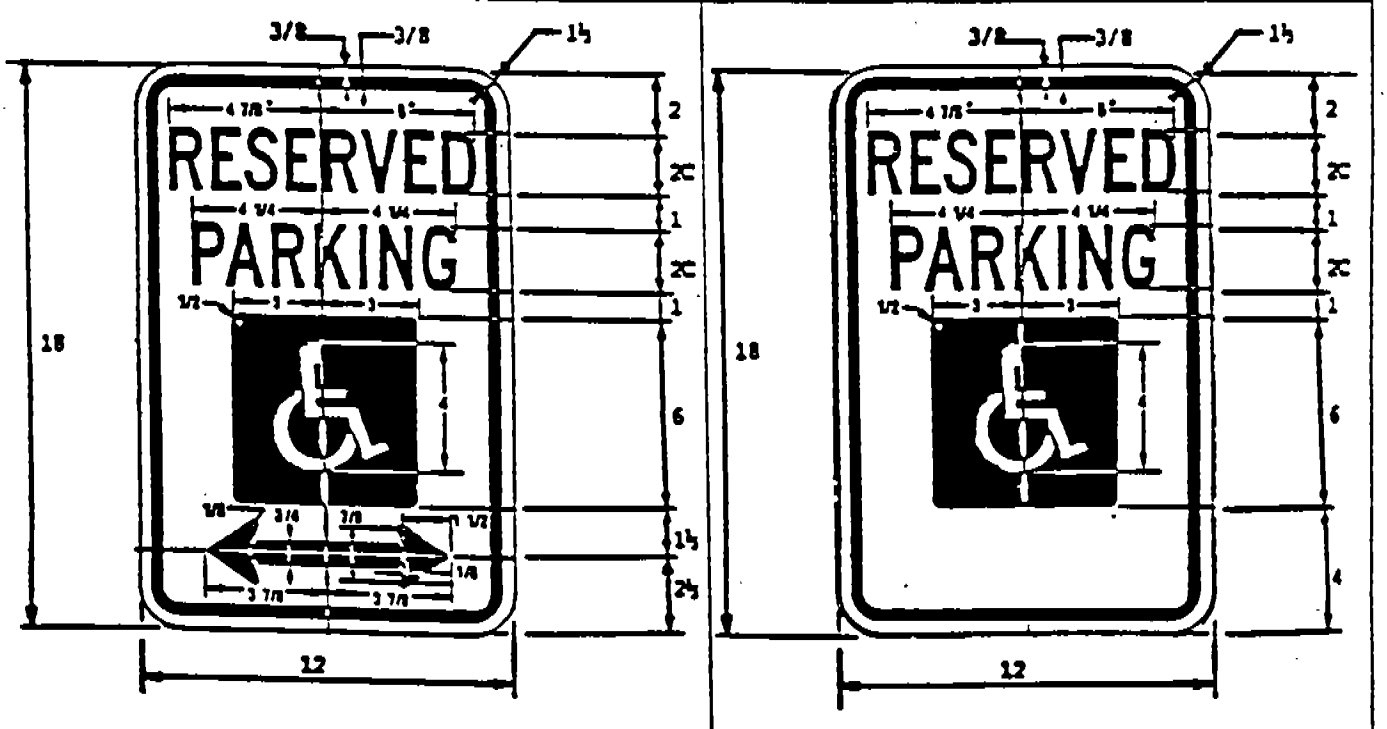
Chapter recodified from COMAR 05.01.07 to COMAR 05.02.02
Appendix A recodified as Regulation .07

Regulations .01—.07 under Maryland Building Code for the Handicapped repealed and new Regulations .01—.12 under Maryland Accessibility Code adopted effective February 1, 1995 (21:24 Md. R. 1986)

.12 Explanatory Material.

For purposes of Regulation .07D of this chapter, the following signs may be used:

PARKING SPACE SIGNS
(Either sign is acceptable)

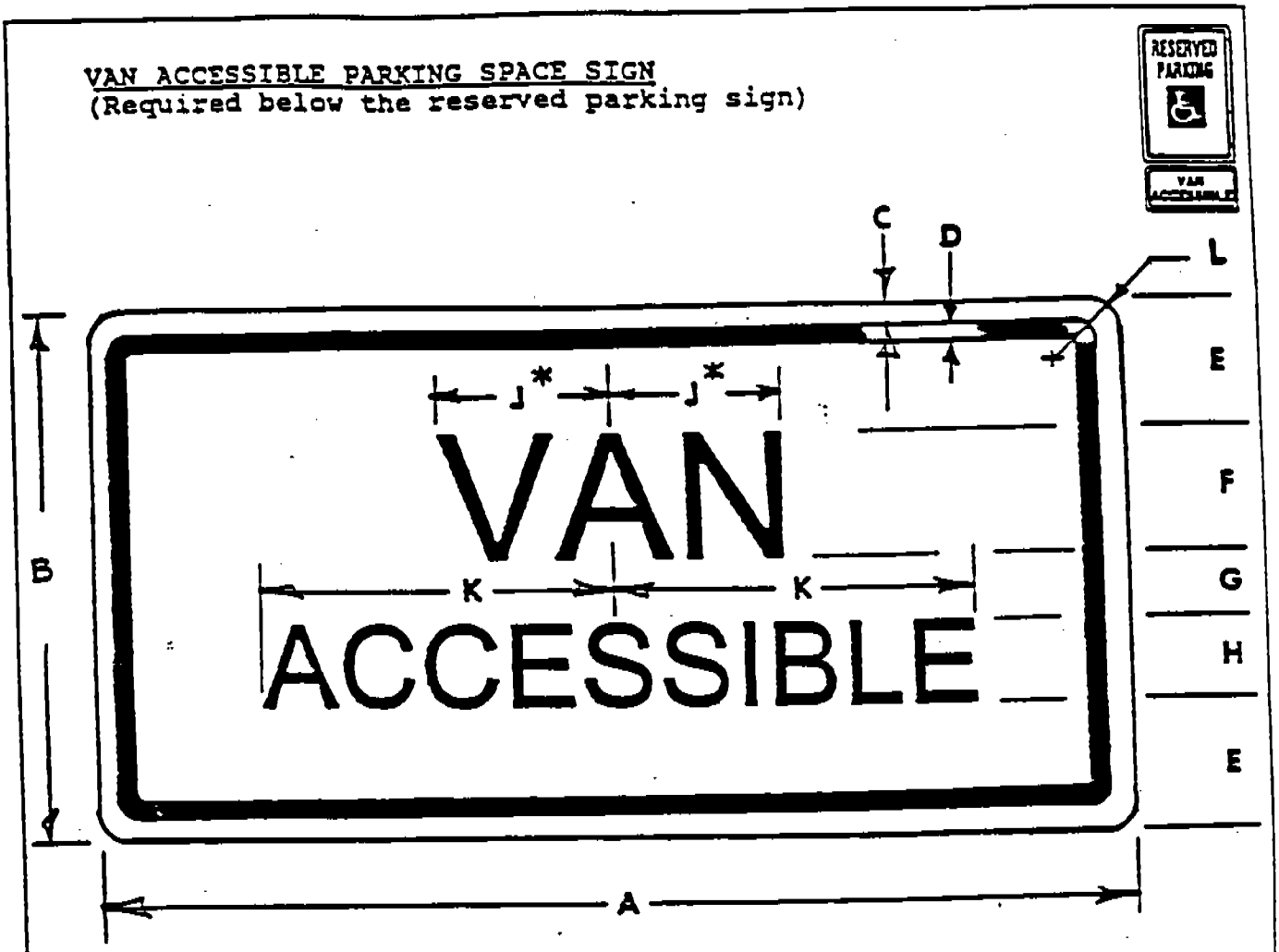


*REDUCE SPACING 50 PERCENT

COLORS

LEGEND AND BORDER - GREEN
WHITE SYMBOL AND BLUE BACKGROUND
BACKGROUND - WHITE

VAN ACCESSIBLE PARKING SPACE SIGN
(Required below the reserved parking sign)



* Increase spacing 50%

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN.	12	6	3/8	3/8	1½	1½D	½	1 D	2½	4	1½
STD.	18	9	3/8	5/8	2½	2 D	1	1½D	2 3/4	7	1

COLORS

REGULATORY (COLORS MAY BE REVERSED)
LEGEND: GREEN OR BLACK
BACKGROUND: WHITE (RETROREFLECTIVE)

JACQUELINE H. ROGERS
Secretary of Housing and Community Development

Maryland Aviation Administration

"Striving to do our best in everything we do - dedicated to providing outstanding airport facilities and services"

Theodore E. Mathison Executive Director

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: July 6, 1998

SUBJECT: Design Standard (DST) 98-9
Electronic Equipment and Building System Specifications

Effective immediately, all electronic equipment and building system specifications and plans shall require that the work is year 2000 compliant. This requirement also applies to "embedded systems" (equipment or devices that are controlled by microchip) which can be found in boilers, chillers, thermostats, leak detectors, underground storage tank monitors, lights, generators, elevators, alarms, smoke detectors, sprinklers, etc. In addition, the specifications shall require the contractor to certify on the shop drawings and submittals that the work is year 2000 compliant.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

Mr. Ian Bricknell (TAMS)
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Mr. Brad Collins (DMJM)
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Mr. Peter Florian (PB)
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Mr. Chirantan Mukhopadhyay (Parsons)
Mr. Charles Steen (MAA)
Mr. William Tsai (MAA)
Mr. Ron Walden (MAA)
Mr. Reginald Weaver (Baker)

cc: Ms. Suzette Moore
Mr. Alex Noorani

Bc 10 A1/DSGNSTAN.DRD/DST98-10.DIS

Maryland Aviation Administration

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Theodore E. Mathison **Executive Director**

TO NOTE	AN					
CONCURRED						
DATE	7/8					

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: July 6, 1998

SUBJECT: Design Standard (DST) 98-10
Cement Treated Base Course Material

Effective immediately, cement treated base course (CTBC) materials shall not be used in the design and construction of flexible pavements in projects at Baltimore/Washington International (BWI) and Martin State (MTN) Airports. Maryland Aviation Administration (MAA) has experienced substantial reflective cracking when CTBC is used as a base material with bituminous concrete surface courses.

MAA's Director of Engineering must approve any waiver of this DST. In addition, any conflict between this DST and federal funding requirements shall be brought to my immediate attention.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

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Mr. Reginald Weaver (Baker)

cc: Ms. Suzette Moore
Mr. Alex Noorani

DST 98-11 Fire Hydrant Color (Replaced by DST 99-08)

BC 10 A:/DSGNSTAN.DRD/DST98-11.DIS

Parris N. Glendening
Governor

David L. Winstead
Secretary

Maryland Aviation Administration

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Theodore E. Mathison Executive Director

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: August 11, 1998

SUBJECT: Design Standard (DST) 98-11
Fire Hydrant Color

Effective immediately, all fire hydrants shall be specified to be painted OSHA orange. This requirement also applies to approval of submittals for projects currently under construction.

Administratively, please change "safety yellow" to "OSHA orange" in DST 96-8, Fire Hydrant, dated September 10, 1996, section G, Fire Hydrant Installation, item 5.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

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Mr. Reginald Weaver (Baker)

cc: Mr. Alex Noorani

BC11 A:\DSGNSTAN.DRD\DST98-12.D1

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Theodore E. Mathison Executive Director

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: September 1, 1998

SUBJECT: Design Standard (DST) 98-12
Metasys Facility Management System and Duct Liner Standards

Effective immediately, all Baltimore/Washington International (BWI) and Martin State (MTN) Airport projects are to be designed and specified per the following:

METASYS FACILITY MANAGEMENT SYSTEM STANDARD (BWI ONLY)

Insert the following qualification and standard in the Quality Assurance Section of the Mechanical Specifications.

The HVAC, lighting control system, and deicing collection system **[NOTE: revise list as needed for each project]** shall communicate with the existing BWI Airport Facility Management System (FMS). The Building Automation Contractor shall be responsible for full communication to the existing BWI Metasys network. Full communication means the Maryland Aviation Administration (MAA) facility operators will be able, from the existing Metasys operator workstations, to do the following: fully utilize the Metasys network manager software. The FMS operator will be able to receive alarms, logs, and reports; monitor operating conditions; change control setpoints and operating schedules; and operate equipment, as desired, at all existing Metasys operator workstation locations, including two portable workstations. It shall be the responsibility of the Building Automation Contractor to become familiar with the existing Metasys network to determine existing Metasys network layout and new **"INSERT LOCATION"** network tie-in locations.

It shall be the responsibility of the Building Automation Contractor to maintain and support the integrity of the existing network. It shall also be the responsibility of the Building Automation Contractor to modify and update the existing Metasys network database on all existing operator workstations. This database shall be modified to communicate and recognize the new **"INSERT LOCATION"** DDC points as specified in the contract documents.

The Building Automation Contractor shall be a single firm or corporation, subcontracted by the Contractor, to assume full responsibility to perform all engineering, to select, furnish, and place into operation a complete and functional system of HVAC, lighting, and deicing collection system **[NOTE: revise list as needed for each project]** monitoring and control. Acceptable System Supplier shall be a "Factory Branch Office" of Johnson Controls, Inc. Other bids by wholesalers, contractors, and franchised dealers are not acceptable.

DUCT LINER STANDARD (BWI AND MTN)

Unless otherwise approved by MAA, duct liners on supply ducts shall not be used. Where sound acoustics are a concern in public spaces, all insulation shall be installed on the exterior of the ductwork.

For critical non-public spaces where noise control is required, duct silencers shall be utilized, where space allows. If space for duct silencers is not available, then only the low velocity ducts shall be lined. No duct liner shall be provided in high velocity ducts, especially in ductwork on the supply to variable air volume terminals.

Return ducts to air handling units from return ceiling plenum spaces may have duct liners if the designer feels they are necessary.

When utilized, duct liner shall be installed with anti-microbial products. In addition, reinforcing shall be provided for the liner material to guarantee that the liner will not peel away from the duct wall.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

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Mr. Reginald Weaver (Baker)

cc: Mr. Hamid Gazy
Mr. Alex Noorani

DST 98-13 Restroom Paper Towel and Toilet Paper Dispensers and Trashcans

BC 11 A:/DSGNSTAN.DRD/...

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Theodore E. Mathison Executive Director

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: September 23, 1998

SUBJECT: Design Standard (DST) 98-13
Restroom Paper Towel and Toilet Paper Dispensers and Trashcans

---

Restroom Paper Towel and Toilet Paper Dispensers

Effective immediately, all Baltimore/Washington International Airport projects are to be designed and specified to exclude the installation of restroom paper towel and toilet paper dispensers. Maryland Aviation Administration (MAA) Division of Maintenance (DOM) will contract separately for installation of these items. The designer should coordinate with MAA-DOM to establish the location, quantity, and any special mounting requirements for the dispensers. Installation of the dispensers should be shown on the plans as Not In Contract (NIC). Special mounting requirements, i.e. wall reinforcing should be included in the contract.

Restroom Trashcans

Effective immediately, all Baltimore/Washington International Airport projects are to be designed and specified to procure restroom trashcans under an allowance item in the contract. The designer should coordinate with MAA-DOM to determine the allowance amount, and then obtain MAA Engineering's project manager's approval.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

Mr. Ian Bricknell (TAMS)
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cc: Mr. Alex Noorani
Mr. Claude Samuels

BC 12 A:/...

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Secretary

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Theodore E. Mathison Executive Director

TO NOTE	AM
CONCURRED	
DATE	12/23

TO: Distribution

FROM: Benjamin Chin, Manager
Design Services

DATE: December 16, 1998

SUBJECT: Design Standard (DST) 98-14
Runway 10-28 and 15R-33L Intersection Closure

Effective immediately, all Baltimore/Washington International (BWI) Airport projects should be designed and specified per the following:

Construction of **utilities** within the safety areas of the intersection of Runway 10-28 and 15R-33L, which will require simultaneous closure of both major runways, will not be permitted. Alternate routes or methods, such as crossing one runway point at a time and remaining clear of the adjacent runway safety area should be used. The Director of Engineering **must** approve any project that requires closure of both runways.

The implementation of this standard will allow BWI to maintain airport capacity during utility construction by keeping at least one major runway open. It will hopefully provide additional periods of time for accessing work areas for utility installation, which would be limited if both runways required closing. Also, it alleviates closure of both major runways for subsequent maintenance, emergency repairs, periodic inspections, tie-ins, etc. These types of occurrences are even more problematic, as they may be unscheduled and occur at peak times.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Distribution:

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Chief Woody Cullum (MAA)
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Mr. Ron Walden (MAA)
Mr. Reginald Weaver (Baker)

cc: Mr. Alex Noorani
Mr. John Stewart

DST 98-15 Above Ground Glycol Storage Tank (Glycol AST) Systems (Replaced by DST 2000-08)

BC 12 A:/...

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Governor

David L. Winstead
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TO: Distribution

FROM: Benjamin Chin. Manager
Design Services

DATE: December 17, 1998

SUBJECT: Design Standard (DST) 98-15
Above Ground Glycol Storage Tank (Glycol AST) Systems

Effective immediately, all Baltimore/Washington International (BWI) and Martin State (MTN) Airport projects should be designed and specified per the attached "Above Ground **Glycol** Storage Tank (Glycol AST) System Design Standard", dated December 14, 1998.

If you should have any questions regarding this matter, please contact me at 410-859-7093.

BC/jao

Attachment

Distribution:

Mr. Ian Bricknell (TAMS)
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Mr. Brad Collins (DMJM)
Chief Woody Cullum (MAA)
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Mr. Charles Steen (MAA)
Mr. William Tsai (MAA)
Mr. Ron Walden (MAA)
Mr. Reginald Weaver (Baker)

cc: Mr. Alex Noorani
Ms. Barbara Grey

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION
OFFICE OF PLANNING AND ENGINEERING

To: Alex E. Noorani, Director
Division of Engineering

From: Barbara Grey, Manager
Environmental Plans & Programs

Date: December 14, 1998

Subject: Above Ground **Glycol** Storage Tank (Glycol AST) System Design Standards

This Standard is being issued to summarize the Maryland Aviation Administration's (MAA) requirements for Above Ground **Glycol** Storage Tank (Glycol AST) Systems. ***Effective October 15, 1999,*** **all existing and new Glycol AST's are required to comply with this design standard for Baltimore/Washington International (BWI) and Martin State (MTN) Airports.** ***In the interim,*** **any new Glycol AST's to be used only for the 1998/99 deicing season are considered "temporary". The MAA Building/Installation Permit Review Committee will review temporary tanks on a case by case basis, taking into consideration the new standards and identifying where and why they deviate.** ***Effective immediately,*** **all transporter tankers used to store glycol will require cribbing for the 1998/99 season. Also, any new Glycol AST's which are not temporary installations to be used only during the 1998/99 deicing season are required to meet the new standards effective immediately.** The new standard is as follows:

1. Compliance with the most recent Above Ground Storage Tank (AST) Regulations: COMAR 26.10, Maryland Department of the Environment, Oil Pollution and Tank Management Regulation and all related EPA or Federal regulatory requirements.

2. Compliance with all applicable codes of the National Fire Protection Association (NFPA), particularly NFPA 1, 10, 30 & 30A, 70, 415 and 704, and COMAR 12, State of Maryland Fire Prevention Code.

3. Compliance with MAA Supplement to COMAR 26.10:

Aboveground Storage Tanks for Glycol shall be either a) single-wall steel with containment, or b) double-wall polypropylene (fiberglass) with containment. Installation is to be in accordance with manufacturer's specifications. Transporter tanker trucks will no longer be permitted for glycol storage after October 15, 1999, except for short term

use, which must be approved in advance by the Office of Airport Operations, Environmental Compliance Division.

All Glycol AST's, regardless of capacity size, shall be surrounded by a continuous containment dike, either self-contained or constructed, capable of holding the total tank volume, providing protection from collision, and shall include a lockable drain valve, in accordance with COMAR 26.10.01.12B-1.

Additionally, all Glycol AST aboveground piping and valves shall be located inside the containment dike area. The tank operator must have a spill control plan. The containment dike area is required to have a rain shield.

4. Mandatory operational procedures include:

a. Operator hoses must be securely fastened in an upright manner to prevent any leaking.

b. Operation must be secure and limited to trained personnel.

c. If contamination is present upon visual or other inspection, MAA Operations Center is to be notified immediately. The MAA Operations Center is to notify the MAA Environmental Compliance Division in order to call in a Glycol Recovery Vehicle (GRV) for clean up and to assess the situation.

d. Loading and unloading operations for the Glycol AST must not occur near a storm water drain.

NFPA CODES SPECIFICALLY REFERENCED:

- Maryland Fire Laws – 1998 ed.
- NFPA 1 - .22, .26 Fire Prevention Code – 1997 ed.
- NFPA 10 Fire Extinguishers
- NFPA 30, 30A – Flammable and Combustible Liquids Code, Service Stations - Dispensing
- NFPA 70 – National Electric Code
- NFPA 101 – Life Safety Code
- NFPA 415 – Airport Terminal Building, Fuel Ramp Drainage
- NFPA 704 – Identification of Fire Hazards, Signs\Signal System