

Color Plan Procedure

Design Manual
Chapter 21
Automation Tools
 Originally Issued: 06-30-09
 Revised: 09-30-16

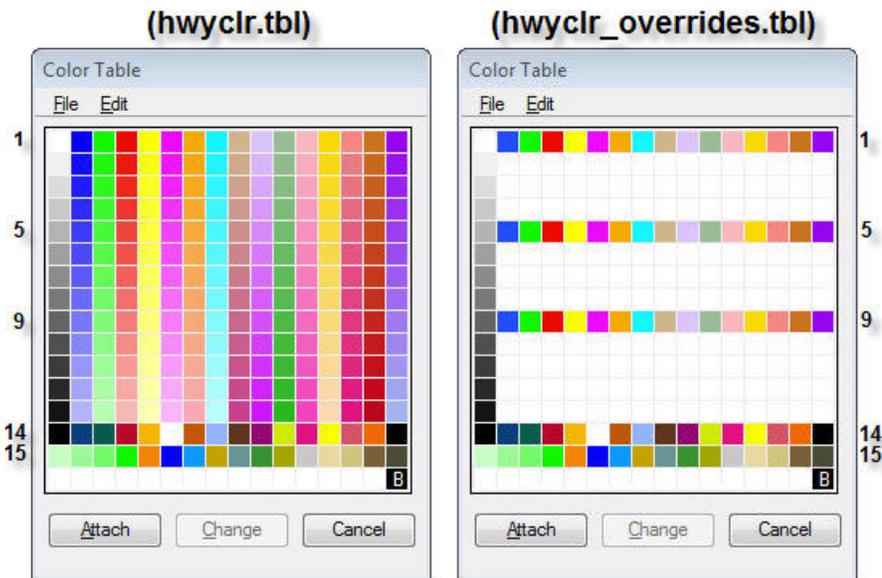
Color can be included on most sheets in a plan set; however, the color should add value to the sheets, i.e. make information easier to read or identify. Presently the plan sheet series that are standardized for color are:

- Staging Sheets (J)
- Roadway Design Plan and Profile Sheets (D, E, F)
- Interchange Sheets (K)
- Soils Plan and Profile Sheets (Q)
- Soils Design Borrow Sheets (R)
- Sidewalk Sheets (S)

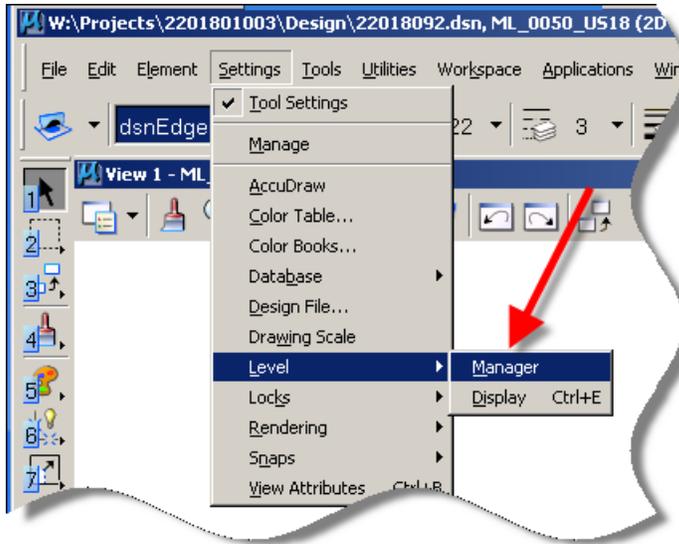
The color table shown on the next page left, (**hwyclr.tbl**), is to be used while placing elements and while viewing a file in full color. Items to be **printed** in color should use the colors on rows 1, 5, 9, 14, or 15, or the grayscale colors in the first column. The other color rows can be used for the items that are to be only **viewed** in color, but are to be **printed** in black. The color table shown below right, (**hwyclr_overrides.tbl**), is to be used to view the file as it will appear when printed in color. The overrides color table will cause the elements using colors on rows other than 1, 5, 9, 14, and 15 to view as black. This procedure works best on active elements. To produce the desired effect, it may be necessary to use **level overrides** on files that are referenced from other offices, and possibly even on older Design files. When using the MicroStation **Batch Print** procedure, the appearance caused by the overrides color table, described above, will be produced in the PDF print file by selecting one of the *...over-rides_PDF_Plots* plot drivers. For information on using the MicroStation **Batch Print** procedure, see Sections [21E-1](#) and [21A-80](#) (print shape placement).

The two color tables mentioned above are located as follows:

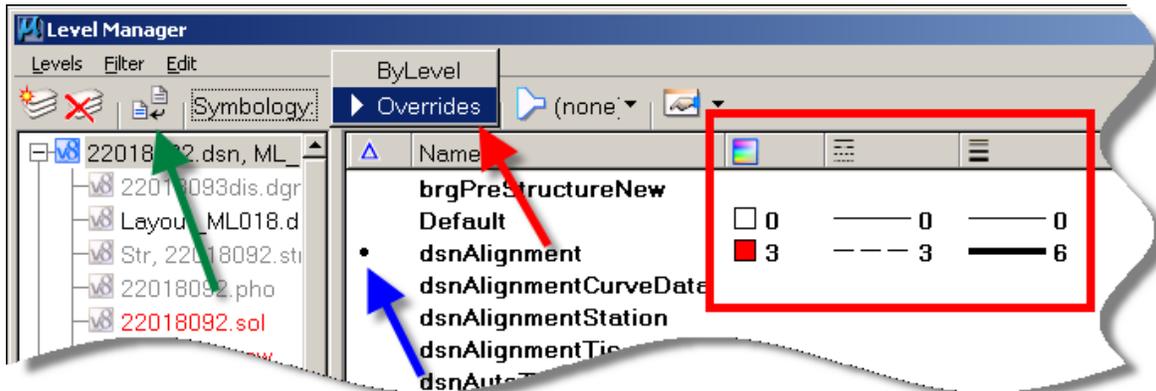
- PWMain\Documents\Standards\DOTCadd\ColorTables\hwyclr.tbl
- PWMain\Documents\Standards\RoadDesign\Microstation\ColorTables\hwyclr_overrides.tbl



To use **Level Overrides**, start **Level Manager**, as shown below.



Select **Symbology > Overrides**, as shown by the red arrow below.



Three new override columns will appear, as shown by the red box above. These will show the **override** values that are set for each level. The **level override** values for Design levels were intentionally left blank to make using overrides easier (this includes levels with prefixes dsn, pho, sur, and sol). Levels from other offices may have other values or a pre-set override of 0,0,0 (0 color, 0 line style, and 0 line weight).

To change the overrides for a level, *select* (highlight) the level and *click* on the color line style, or line weight to be changed and *enter* the new value. This new override setting is only effective for this one active file. The level override values must be set separately in each file by opening the file and changing the override settings as described above. If the override values for a level have been changed, a black dot will appear in the modified column, as shown by the blue arrow.

If it is necessary to cause all levels to return to the default setting, *click* the Update levels from library icon, (as located by the green arrow). All modifications and black dots should disappear.

Color Themes

Plan View of Plan and Profile Sheets (Road)

Linework

Green	(2)		All existing items in the plans, including text from the photo and survey files
Blue	(1)		Proposed alignment, stationing, and tic marks, as well as other alignment annotation
Magenta	(5)		Existing utilities

Shading

Yellow	(4)		Highlight critical notes or features
Red (hatching)	(3)		Reserved for delineating restricted areas such as archeological sites and wetlands
Lavender	(9)		Temporary pavement shading
Gray, Light	(48)		Proposed pavement and bridge shading
Gray, Med	(80)		Proposed granular shading
Gray, Dark	(112)		Proposed grade and pave shading
Brown, Light	(236)		Proposed future pavement shading on grade one year and pave the next projects
Tan	(8)		Proposed sidewalk shading
Blue, Light	(230)		Proposed sidewalk landing shading
Pink	(11)		Proposed sidewalk ramp shading

Profile View of Plan and Profile Sheets (Road)

Linework

Green	(2)		Existing ground line profile
Blue	(1)		Proposed profile and annotation
Magenta	(5)		Existing utilities
Blue, Light	(230)		Ditch grades, Left
White	(0)		Ditch grades, Median (prints as black)
Rust	(14)		Ditch grades, Right

Plan View Staging (Road)

Linework

Green	(2)		Existing topography & features
Magenta	(5)		Pavement marking Call Outs
Blue	(1)		Proposed alignment, stationing, and tic marks, as well as other alignment annotation
Yellow	(4)		Pavement markings, Yellow
Off White	(254)		Pavement markings, White - (Red, Green, Blue = 254, 254, 254)
Violet	(15)		Temporary barrier rail, Unpinned
Flush Orange	(228)		Temporary barrier rail, Pinned

Shading

Green, Light	(225)		Existing pavement
Gray, Light	(48)		Previously constructed pavement
Gray, Med	(80)		Previously constructed granular surface
Blue, Light	(230)		Proposed pavement
Lavender	(9)		Temporary pavement
Brown, Light	(236)		Proposed grading limits
Pink, Dark	(13)		Proposed MSE or CIP wall
Red	(3)		Proposed bridges and Sign Trusses
Black w/Gray, Light Fill	(0,48)		Previously constructed structure
Black (hatched)	(208)		Pavement removal pattern to be set by D&C

Cross Section View Staging (Road)

Shading

Green, Light	(225)		Existing pavement
Gray, Light	(48)		Previously constructed pavement
Gray, Med	(80)		Previously constructed granular surface
Blue, Light	(230)		Proposed pavement
Lavender	(9)		Temporary pavement
Brown, Med	(237)		Future proposed pavement

Plan View Soils (Road)**Linework**

Green	(2)		Existing topography & features
Purple (halo)	(15)		Backslope drains
Blue	(1)		Proposed alignment, stationing, and tic marks, as well as other alignment annotation

Shading

Brown, Light	(236)		Core Out
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Profile View Soils (Road)

In the Profile view the material types should be shown with colored patterns.

Class 10 should not be shown with a filled shape.

Proposed treatments will be shown with filled shapes.

The original pattern associated with that treatment will remain in black on top of the filled shape.

The colors for various cells on the boring will be reviewed in the future.

Linework

Blue	(1)		Proposed alignment, stationing, and tic marks, as well as other alignment annotation
Green	(2)		Existing ground line profile
Green, Med	(227)		Class 10 Topsoil
Green, M.Light	(226)		Unsuitable A Topsoil
Green, Light	(225)		Unsuitable B Topsoil
Green, V.Light	(224)		Unsuitable C Topsoil
Orange	(6)		Loam
Brown, Dark	(238)		Class 10
Brown, Med	(237)		Sand
Red	(3)		Unsuitable A
Pink, Dark	(13)		Unsuitable B
Pink	(11)		Unsuitable C
Red	(3)		Shale
Red	(3)		Waste
Gray, Light	(48)		Broken and Weathered Rock

Gray, Med	(80)	80	Rock
Gray, V.Dark	(128)	128	Boulders

Plan View of Sidewalk Sheets (Road)

Linework

Green	(2)	2	Existing ground line profile
Blue	(1)	1	Proposed profile and annotation
Magenta	(5)	5	Existing utilities

Shading

Tan	(8)	8	Proposed sidewalk shading
Blue, Light	(230)	230	Proposed sidewalk landing shading
Pink	(11)	11	Proposed sidewalk ramp shading
Yellow	(4)	4	Highlight critical notes or features
Red (hatching)	(3)	3	Reserved for delineating restricted areas such as archeological sites and wetlands
Lavender	(9)	9	Temporary pavement shading
Gray, Light	(48)	48	Proposed pavement and bridge shading
Gray, Med	(80)	80	Proposed granular shading
Gray, Dark	(112)	112	Proposed grade and pave shading
Brown, Light	(236)	236	Proposed future pavement shading on grade one year and pave the next projects

Color Plans for Methods Review or Contracts Turn-in

All sheets in the same section must be the same, either color or B/W

All sheets in any one section of the plan set, such as the D, E, or K, sheets, etc., must be the same for the entire section, either color or B/W. This does not mean that all sheets need to contain color, but they must be grouped with the color sheets (Example: If some of the D sheets must be color, then the entire D sheet section will be printed on a color printer).

Asterisk (*) precedes colored sheet sections in the Index of Sheets tabulation

An asterisk (*) must be placed to the left of the color sheet name groups on the **Index of Sheets** tabulation on the title sheet, as shown at the right.

The asterisk identifier is to assist with the ease of identification and the reproduction of the colored sections.

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 6	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1	Project Description
C.1 - 2	Estimated Project Quantities
C.3 - 6	Estimate Reference Information
C.7	Standard Road Plans
C.8	Index of Tabulations
C.9	Pollution Prevention Plan
C.10	General Notes
C.11 - 15	Tabulations
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan and Profile Legend and Symbol Information Sheet
* D.2 - 18	US 20
E Sheets	Side Road Plan and Profile Sheets
* E.1 - 2	SR D20/D26 Connector
* E.3 - 4	UPRR Access Road
G Sheets	Survey Sheets
G.1 - 9	Reference Ties and Bench Marks
G.10 - 12	Horizontal Control Tab. for Mainline and Side Roads
H Sheets	Right-of-Way Sheets
H.1 - 13	US 20
L Sheets	Geometric, Staking and Jointing Sheets
L.1	Geometric & Staking D20/D26 Conn. To D26
L.2	Edge Profiles D20/D26 Conn. To D26
L.3	Jointing D20/D26 Conn. To D26
Q Sheets	Soils Sheets
Q.1	Soils Legend and Symbol Information Sheet
Q.2 - 16	Soils Sheets US 20
R Sheets	Borrow Sheets
R.1 - 2	Borrow Sheets
T Sheets	Earthwork Quantity Sheets
T.1 - 8	Earthwork Quantity Sheets
U Sheets	500 Series, Mod.Stds. and Detail Sheets
U.1	Modified RF-30A
U.2	D20/D26 Bridge
U.3	US20Bridge over UPRR
W Sheets	Mainline Cross Sections
W.1	Cross Section legend and Symbol Inforamtion Sheet
W.2 - 95	US 20 Cross Sections
X Sheets	Side Road Cross Sections
X.1 - 15	Side Road D20/D26 Connector
X.16 - 54	UPRR Entrance
Z Sheets	Borrow Cross Sections
Z.1 - 5	Borrow Cross Sections
	* Color Plan Sheets

Plan Sheet Files and Cross Section Files are to remain separate

As described above, the color sheet groups must be reproduced on a color printer and the grayscale sheet groups need to go to a B/W printer.



All roadway cross section sheets are always to be placed into one separate multipage PDF file, no matter how many cross section sheets are in the plan set.

For Plan Turn-In information, see section [1H-1](#).

Chronology of Changes to Design Manual Section:

021E-004 Color Plan Procedure

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|-----------|---|
| 9/30/2016 | Revised
Republished. 4-29-2011 version inadvertently published after 1-25-16 version was published. |
| 1/25/2016 | Revised
Added colors for temporary barrier rail (pinned and unpinned) line work to staging "Plan View Staging (Road)" section. Removed outdated procedures for plan reproduction by Document Services including references to index.dat file. Updated color table images to include new colors for Traffic and Safety signs (row 14, colors 209 to 223). |
| 9/30/2011 | Revised
Removed reference to TC Series Standard Road Plans in Detail Sheet (U) note. Added that Sidewalk Sheets (S) are color and identified colors to use in S Sheets and sidewalk-related colors for D Sheets. Added previously constructed structures color to J Sheets. Reorganized colors to distinguish between shading and linework. |
| 4/29/2011 | Revised
Updated to maintain consistency with color legends and added section for Cross Section View Staging (Road). |
| 3/23/2011 | Revised
Removed M Sheets and updated documentation. |
| 6/15/2010 | Revised
Made a slight color change in the profile colors and changed submittal process to meet the new color plan procedure |