CHANGE LIST for PAVEMENT MARKING STANDARDS

MDOT Traffic and Safety Pavement Marking Standard Plans Note: Located at <u>http://mdotcf.state.mi.us/public/tands/plans.cfm</u>

November 17, 2020: The following updates were made to the website.

PAVE-900-G PAVEMENT ARROW & MESSAGE DETAILS: Added details for "NORTH", "SOUTH", "EAST", "WEST", "TO", "CANADA", and "EXIT" legends. Deleted obsolete overlay turn arrows. Added recessing and placement areas to the removal areas table.

PAVE-901-A PAVEMENT MARKING RECESSING DETAILS: New standard.

PAVE-904-A TEMPORARY LONGITUDINAL LINE TYPES AND PLACEMENT: New special detail.

PAVE-905-E LONGITUDINAL LINE TYPES & PLACEMENT: Added 6-inch width option for broken lane lines for freeways. Remove 8-inch width option from drop lane markings.

PAVE-906–C BLACK "SHADOW" PAVEMENT MARKINGS: Revised widths for 6-inch freeway lane lines and 12-inch drop lane markings.

PAVE-907-A GUIDE LINE PAVEMENT MARKINGS: New standard.

PAVE-916-A RAISED THERMOPLASTIC RUMBLE STRIPS: New standard.

PAVE-925-E FREEWAY AND RAMP PAVEMENT MARKINGS: Change width of all broken lines to 6 inch.

PAVE-926-B PARTIAL CLOVERLEAF TERMINAL MARKINGS: Remove 4-inch width option from turning guide lines. Add reference to new standard PAVE-907.

PAVE-927-A SINGLE POINT URBAN INTERCHANGE (SPUI) PAVEMENT MARKINGS: New standard.

PAVE-928-A DIVERGING DIAMOND INTERCHANGE (DDI) PAVEMENT MARKINGS: New standard.

PAVE-930-D PAVEMENT MARKINGS FOR NON-SIGNALIZED INTERSECTIONS: Added new note on sheets 1-6 "Where the paved shoulder is 5 ft or greater in width approaching an intersection, radius the edge line to the curb/edge of pavement on both sides of the intersection. For narrower shoulders, the edge line may be simply discontinued across the intersection (blunt ends).". Replaced taper table with reference to GEO-650. PAVE-935-E LEFT TURN LANE MARKINGS: Changed 8-inch width lines to 12-inch width. Added two new details for converting a center left turn lane into dual channelized turn lanes.

PAVE-940-D RIGHT TURN LANE AND ISLAND PAVEMENT MARKINGS: Changed 8inch width lines to 12-inch width. Added new detail for offset right turn lanes.

PAVE-945-D INTERSECTION, STOP BAR & CROSSWALK MARKINGS: Removed 4inch width option for turning guide lines. Deleted old note 5 "12 inch transverse lines can be used in place of 6 inch transverse lines at the Engineer's discretion.".

PAVE-946-A CENTERLINE HARDENING MARKINGS & DEVICES: New special detail.

PAVE-951-C ROUNDABOUT MARKINGS: Updated incoming lane line width from 4-inch and 8-inch to 4-inch and 12-inch.

PAVE-955-C ON-STREET PARKING ZONE MARKINGS: Added clarification that the lines must be retroreflective.

PAVE-956-D PARKING AREA PAVEMENT MARKINGS: Added new details for truck typical and accessible parking stall arrangements. Added clarification regarding accessible buffer locations. Updated accessible symbol drawing to match current MMUTCD requirements.

PAVE-957-B BACK-IN ANGLE PARKING: Corrected "Accessible Van Stall" label location. Added clarification regarding accessible buffer locations.

PAVE-961-C SHARED LANE (SHARROW) MARKING: Update note 1 reference to "AASHTO Guide for the Development of Bicycle Facilities".

PAVE-962-B BIKE LANE AND PATH PAVEMENT MARKINGS: Minor updates to linework and dimensions. Added detail to sheet 5 for approach roads utilizing shared lane markings. Changed 8-inch width lines to 12-inch width.

PAVE-966-A EXCLUSION ZONE PAVEMENT MARKINGS: New special detail.

PAVE-970-C 2-LANE TO 4-LANE TRANSITION PAVEMENT MARKINGS: Updated drawing to reflect PAVE-971 guidance. Added reference to PAVE-971.

PAVE-971-B LANE REDUCTION PAVEMENT MARKINGS: Revised delineator graphics and callout to match current standards. Added clarification for placement flexibility.

PAVE-985-E CROSSOVER PAVEMENT MARKINGS: Changed 8-inch width lines to 12-inch width. Added new detail for crosshatching wide single-lane crossovers.

September 29, 2017: The following updates were made to the website.

PAVE-900-F PAVEMENT ARROW & MESSAGE DETAILS: Added details for "TRAIL" legend and bike lane turn arrows. Added several items to the removal areas table.

PAVE-905-D LONGITUDINAL LINE TYPES & PLACEMENT: Added additional uses to the turning guide line and dotted line patterns. Defined the dashed line pattern used in roundabouts.

PAVE-906–B BLACK "SHADOW" PAVEMENT MARKINGS: Revised notes to require shadow markings for all installations on new concrete, regardless of pavement marking material.

PAVE-911-A AERIAL SPEED SURVEILLANCE MARKINGS: New special detail.

PAVE-925-D FREEWAY AND RAMP PAVEMENT MARKINGS: Extended dotted lines across the full on-ramp openings.

PAVE-935-D LEFT TURN LANE MARKINGS: Added details for turn lanes with storage lengths exceeding 350ft.

PAVE-940-C RIGHT TURN LANE AND ISLAND PAVEMENT MARKINGS: Removed "Desired" from dotted line dimension on Sheet 1.

PAVE-945-C INTERSECTION, STOP BAR & CROSSWALK MARKINGS: Revised note detailing uses of special emphasis crosswalks on Sheet 2.

PAVE-951-B ROUNDABOUT MARKINGS: Added roundabout arrow details for movements that include right turns.

PAVE-956-C PARKING AREA PAVEMENT MARKINGS: Added labels and revised notes for clarification.

PAVE-962-A BIKE LANE AND PATH PAVEMENT MARKINGS: New standard for pavement markings in bike lanes and on shared use paths.

PAVE-965-D RAILROAD GRADE CROSSING PAVEMENT MARKINGS. Added new Sheet 3 with details for shared use path rail crossings.

PAVE-985-D CROSSOVER PAVEMENT MARKINGS. Revised notes and drawings to be in alignment with other PAVE standards.

September 21, 2015: The following updates were made to the website.

PAVE-INDEX: PAVE-900-E, PAVE-951-A, and PAVE-957-A changed from Special Details to standards with 08/12/2015 approval date. Added new standards PAVE-906-A, PAVE-926-A, and PAVE-971-A with approval date of 08/12/2015. Standards PAVE-905, PAVE-925, PAVE-930, PAVE-935, PAVE-940, PAVE-945, PAVE-965, and PAVE-985 were changed from "B" to "C" with approval date of 08/12/2015. PAVE-961 was changed from "A" to "B" with approval date of 08/12/2015.

PAVE-900-E PAVEMENT ARROW & MESSAGE DETAILS: Sheets 1-4 of 8: added note 5: 2" gaps shown are for liquid templates only and are not allowed in tape applications. Sheet 7: removed "No Left Turn" item from removal table; updated Merge Arrow removal area from 24 SFT to 42 SFT; updated Accessible removal area from 8 SFT to 12 SFT.

PAVE-905-C LONGITUDINAL LINE TYPES & PLACEMENT: Sheet 1 of 2: revised turning guide line labeling to include options for yellow color and 6" width; removed 12" option from the detail for "White Dotted Line (Parallel and Tapered Exits)" for consistency with PAVE-925 changes.

PAVE-906-A BLACK "SHADOW" PAVEMENT MARKINGS: NEW

PAVE-925-C FREEWAY AND RAMP PAVEMENT MARKINGS: Additional sheet added; all sheets renumbered to "of 8". Sheet 2 of 8: deleted Note 1: "All "dotted lines" on sheets 1, 2, 3 and 4 are 12 inches wide, 5 ft line, 20 ft gap, except for tapered exit, use 6 inch or 12 inch wide line". Sheet 3 of 8: removed 12" width option from loop ramp dotted line callout. Sheet 4 of 8: revised Detail A dotted line callout to indicate mark and gap lengths; revised Detail C dotted line callout to remove 12" width option. Sheet 5 of 8: revised Detail D dotted line callout to remove 12" width option. Sheet 5 of 8: revised Detail D dotted line callout to remove 12" width option. Sheet 6 of 8: new detail sheet for multilane exit ramps. Sheet 7 of 8: added third lanes to the ramp and crossroad of the multilane terminal detail; added broken lane line on the ramp and turning guide line to the crossroad; added note 3: "Include a dotted turning guide line for all double turn movements".

PAVE-926-A PARTIAL CLOVERLEAF TERMINAL MARKINGS: NEW

PAVE-930-C PAVEMENT MARKINGS FOR NON-SIGNALIZED INTERSECTIONS: Sheets 1-4 and 8 of 8: removed "Only" legends from drawings; changed "Arrow & Legend Markings" callouts to "Lane Use Arrow" callouts. Sheets 1-5 and 8 of 8: Changed "Arrow and legend markings" references in notes to "Arrow markings". Sheet 5 of 8: revised callout for "left turn arrow marking" to "lane use arrow" and added reference to Note 1. Sheets 5 and 6 of 8: combined solid and broken line callouts into single callout of "4" Solid Yellow and 4" Broken Yellow".

PAVE-935-C LEFT TURN LANE MARKINGS: Sheet 1 of 5: replaced two existing drawings with a single drawing utilizing 100 ft arrow spacing; removed "and legends"

from note 1; removed note 3: "When two or more arrow/legend sets are used and the spacing between sets is less than "D", the Engineer may choose to reduce the distance between the arrow and the legend". Sheet 2 of 5: revised second detail to remove "Only" legends and utilize 100 ft arrow spacing; added new detail for dual developed turn lanes; revised note 1 from "Where through lanes become exclusive turn lanes, arrow and legend markings shall be used" to "Where at least one through lane becomes an exclusive turn lane, arrow and legend markings shall be used. Otherwise, omit the legend markings"; added note 4: "Include a dotted turning guideline for all double turn movements". Sheet 3 of 5: removed "Only" legends from both drawings; revised callouts from "Space arrow and legend per scheme 1/2 layout on Sheet 1" to "Lane use arrow (Typ)/Locate arrow(s) per layout on Sheet 1". Sheet 4 of 5: revised arrow dimensions from 8'-3" to 8'-0" in first detail; removed "Only" legends from second detail. Sheet 5 of 5: removed "Only" legends from second detail. Sheet 5 of 5: removed "Only" legend from first detail; revised callouts in first detail from "arrow and legend" to "arrow"; revised arrow dimensions from 8'-3" to 8'-0" in second detail.

PAVE-940-C RIGHT TURN LANE AND ISLAND PAVEMENT MARKINGS: Additional sheet added; all sheets renumbered to "of 5". Sheet 1 of 5: revised callout language from "Arrow/Legend" to "Arrow". Sheets 2 and 3 of 5: removed "Only" legends from details; revised callout language from "Arrow/Legend" to "Arrow" and to remove "Omit second arrow if 280' or less". Sheet 5 of 5: new sheet detailing raised island painting.

PAVE-945-C INTERSECTION, STOP BAR & CROSSWALK MARKINGS: Sheet 1 of 3: removed "Only" legend from top leg of intersection drawing. Sheet 2 of 3: added option for 6" to turning guide line callout; added second sentence to note 7: "Include a dotted turning guide line for all double turn movements". Sheet 3 of 3: added detail for skewed crossings; added note 1: "Install special emphasis crosswalk markings parallel to traffic flow"; added "Yield" before "Triangle" in detail title.

PAVE-951-A ROUNDABOUT MARKINGS: changed from Special Detail to standard.

PAVE-957-A BACK-IN ANGLE PARKING: changed from Special Detail to standard.

PAVE-961-B SHARED LANE (SHARROW) MARKING: Sheet 1 of 2: added "(Sharrow)" to sheet title. Sheet 2 of 2: added "(Sharrow)" to detail title; removed note: "See PAVE-900 Sh 6 for Bicycle Symbol (Lane/Path) Detail".

PAVE-965-C RAILROAD GRADE CROSSING PAVEMENT MARKINGS: Two sheets removed; all sheets renumbered to "of 3". Sheet 1 of 3: drawings from old sheets 1, 3, and 4 combined into this single drawing. Sheet 2 of 3: added "shown" to end of drawing subtitle text; revised drawing to show standard markings rather than alternate; removed "(Alternate markings shown)" drawing subtitle text; added dimension from rail to W10-1 sign. Sheet 3 of 3: added note 6: "When placed on a shared-use path, reduce all vertical dimensions (except for stop bars) by half".

PAVE-971-A LANE REDUCTION PAVEMENT MARKINGS: NEW

PAVE-985-C CROSS-OVER PAVEMENT MARKINGS: Sheet 2 of 2: removed "(Optional)" from turning guide line callout in second detail and added 6" width option; removed 6" option from solid lane line callout; added note 3: "Include a dotted turning guideline for all double turn movements".

June 17, 2014: The following updates were made to the website.

PAVE-INDEX: PAVE-900 was changed from "D" to "E". Added Special Details PAVE-951-A and PAVE-957-A.

PAVE-900-E PAVEMENT ARROW & MESSAGE DETAILS: Sheet 5 of 8: Replaced the overlay left turn arrow and thru left/right arrow with revised shapes and dimensions. Added note 3: "Existing arrow markings may be oriented differently than the shown overlay arrow. Align the head and stem pieces of the overlay arrow to fit the existing arrow orientation as practical". Added note 4: "The overlay arrow is an elongated version of the arrows placed prior to 2014, and as such will extend beyond the footprint of the existing arrows. This is the intent of the overlay shape and it should not be trimmed to match existing". Sheet 7 of 8: revised "Roundabout Arrow LC" and "Roundabout Arrow LTC" to "Lt Roundabout Arrow" and "Thru, Lt Roundabout Arrow", respectively, in the removal areas table.

PAVE-951-A ROUNDABOUT MARKINGS: NEW

PAVE-957-A BACK-IN ANGLE PARKING: NEW

April 3, 2014: The following updates were made to the website.

PAVE-INDEX: PAVE-900 was changed from "C" to "D" and the approval date was replaced with "Special Detail".

PAVE-900-D PAVEMENT ARROW & MESSAGE DETAILS: Additional sheet added; all sheets renumbered to "of 8". Sheets 1-5 of 8: added note 4: "When placed on a shared-use path, reduce all vertical dimensions (except 2" liquid template gaps) by half". Sheet 4 of 8: added "AHEAD" legend. Sheet 5 of 8: replaced left turn arrow and thru left/right arrow with revised shape and dimensions, and labeled it for overlay use only. Added new left turn arrow and thru left/right arrow to be used for new applications. Sheet 6 of 8: New. Moved symbols and non-turn arrows from Sheet 5 to this sheet. Sheet 7 of 8: added note 2: "Smaller (bike lane/path) bicycle symbol is to be used in bike lanes (including bike lanes on roadways), and on paths/trails". Added note 3: "The larger (road) bicycle symbol is intended to be used in conjunction with the 'XING' legend in vehicle travel lanes in advance of a bike path/trail crossing the roadway". Changed stem width of bicycle directional arrow from 10" to 8". Added new items and areas to the removal table: Roundabout Arrow LTC – 41 SFT, Roundabout Arrow LC – 28 SFT, Sharrow – 21 SFT, AHEAD – 67 SFT.

January 15, 2013: The following updates dated 10/18/2011 were made to the web site.

PAVE-905-B: Added note 4: "When a centerline construction joint does not correspond to the geometric centerline of the roadway for roadway segments over ½ mile, place the centerline in the location that will provide lanes of equal width unless otherwise directed by the Engineer."

August 21, 2012: The following updates dated 05/21/2012 were made to the web site.

PAVE – INDEX: PAVE-900 was changed from 'B' to 'C'.

PAVE-900-C PAVEMENT ARROW AND MESSAGE DETAILS: Wrong Way Arrow Removal Area was changed from 13 to 35 ft² and 'Handicap' was changed to 'Accessible' (Sheet 6 of 7).

October 18, 2011: The following updates were made to the web site.

PAVE – INDEX: Existing PAVE- drawings were changed from 'A' to 'B'. Removed PAVE-910-A, PAVE-915-A, PAVE-920-A and PAVE-950-A. Added PAVE-961-A. Removed PAVE-975-A, PAVE-980-A and PAVE-990-A.

PAVE-900-B PAVEMENT ARROW AND MESSAGE DETAILS: Added information regarding acceptable templates for liquid applied special markings. Removed sq ft information from under individual legend/symbol and created chart on sheet 6 of 7 which lists special marking removal areas. Added 'YIELD' and 'NO' legends. Added bike symbol and directional arrow for use with bicycle symbol. Corrected merge arrow shape to concur with Federal merge arrow. Changed the name of the 'directional arrow' to 'wrong way arrow' to match MUTCD.

PAVE-905-B LONGITUDINAL LINE TYPES AND PLACEMENT: Sheet 1, added the option of using a 12" white dotted line for parallel and tapered exits. Added 8" wide dotted line for lane drops. Removed asterisk notes that referred user to PAVE-925-A. Sheet 2, expanded drawing for curbed and un-curbed roadways for clarification. Removed note 2 that stated 'On all multilane undivided highways, lane lines shall be offset 2 in from pavement construction joints when facing northward. Double solid yellow centerline may straddle the construction joint.'

PAVE-910-A INTERCHANGE PAVEMENT MARKINGS: DELETED

PAVE-915-A RAISED PAVEMENT MARKERS FOR INTERCHANGES: DELETED

PAVE-920-A RAISED PAVEMENT MARKER INSTALLATION DETAILS: DELETED

PAVE-925-B FREEWAY AND RAMP PAVEMENT MARKINGS: Merged contents from PAVE-910-A. Sheet 1, changed the '1/3 Y' dimension to 300' when showing the 12" solid white line prior to the gore markings. Removed note 1 that stated 'If Y > 900 feet, refer to Note 3 on Sheet 2.' Note 2 became Note 1. Sheet 2, Added and corrected drawing labels. Changed top drawing dimensions from '900' – 1/2 mile' to '900' \leq y \leq 2640'.' Changed bottom drawing dimension from '> 1/2 mile' to '2640' < y.' Revised note 5. Sheet 3, Removed improperly placed directional arrow. Added Loop Ramp detail. Sheet 4, relocated ramp terminal detail to Sheet 6. Extended 'Y' in Detail A to include taper. Removed PC Label. Sheet 5, now shows tapered acceleration and deceleration lanes. Sheet 6, Removed option for 4" or 6" lane line at the ramp terminal and shows 6" only. Wrong way arrow dimension to intersecting road now 200' max (not approx.). Added Note 1, stating when wrong way arrows are mandatory. Sheet 7, relocated gore marking detail to this page.

PAVE-930-B PAVEMENT MARKINGS FOR INTERSECTIONS: Sheet 1-3, corrected and formatted labels and notes for consistency and continued broken centerline through intersections. Removed sign references. Sheet 4, Corrected and formatted labels and notes for consistency and removed sign references when possible. Sheet 5, Revised existing drawing to show two acceptable center, left-turn lane marking schemes. Headed-up, left-turn arrows (with no intersection split) are no longer used. Removed sign references. Added Sheet 6, Shows clarification for what needs to be gapped at minor intersections. Sheet 7, (was Sheet 6) Removed detail A. Revised notes for consistency and continued broken centerline marking through intersection in stop bar detail. Sheet 8, (was Sheet 7) Corrected labels for consistency and revised 'T' distances.

PAVE-931-A FOR INTERSECTIONS WITH RAISED PAVEMENT MARKERS: DELETED

PAVE-935-B LEFT TURN LANE MARKINGS: Sheet 1, Removed chart for 'D' and 'T' dimensions and referred to PAVE-900-A. Revised storage lane dimensions and corrected labels for consistency. Added Note 4. Sheet 2, Revised storage lane dimensions, corrected labels for consistency. 4" broken line was changed to a 8" dotted line because this is a lane drop situation. Added notes 1-3. Sheet 3, Revised storage lane dimensions, corrected labels for consistency. Sheet 4, added dimensions and revised labels for consistency. Sheet 5, Removed headed-up, left-turn arrows. Added 'Bi-directional left turn lane – conventional markings' drawing. Added/removed labels for clarification and consistency.

PAVE-940-B RIGHT TURN LANE AND ISLAND PAVEMENT MARKING: Sheet 1, revised markings for a lane drop situation. Removed 'L' values and labels. Referred 'D' distance to PAVE-900-A. Sheet 2-3, Revised storage lane dimension. Corrected notes and referred to PAVE-900-A for 'D' distance. Sheet 4, added detail, rotated existing detail. Referred to PAVE-945-A for 'Y' values. Changed 20' dimension to 'Y' in lower detail. Removed 'L' distance references.

PAVE-945-B INTERSECTION, STOP BAR AND CROSSWALK MARKINGS: Merged contents from PAVE-950-A. Sheet 1, Removed 'Z' and 'L' dimensions. Revised Detail A. All standard cross-hatching will be 12". Sheet 2, added detail to intersection drawing for clarity and additional information. Defined what constitutes a special emphasis crosswalk and when they are to be placed. Added turning guidelines. Removed Note 2 and 3. Added new Notes 1-5, 7. Sheet 3, Added mid-block details, Yield Line, and yield triangle detail.

PAVE-950-A SPECIAL EMPHASIS CROSSWALK PAVEMENT MARKINGS: DELETED

PAVE-955-B ON-STREET PARKING ZONE MARKINGS: Sheet 1, correct labels for clarity and consistency. Sheet 2, Replaced 'Handicap' with 'Accessible'. Added sign information for reference only. Revised notes, added supplemental blue option. Added 'Z' dimension chart.

PAVE-956-B PARKING AREA PAVEMENT MARKINGS: Sheet 1, Replaced 'Handicap' with 'Accessible'. Revised/Removed labels and notes on drawing for clarification. Sheet 2, New – Added typical markings for a park and ride lot and accessible/van accessible space requirements. Sheet 3, Revised labels for consistency and added optional blue stall marking. Sheet 4, Replaced 'Handicap' with 'Accessible' and changed parking limit guide from 'desirable' to 'optional'. Sheet 5, Replaced 'Handicap' with 'Accessible', removed grid and added dimensions to accessible symbol.

PAVE-960-B SCHOOL MARKINGS: 3 Sheets became 2. Sheet 1, Removed signing dimensions and updated sign labels. Consolidated details to a signalized and non-signalized mid-block school crossing. Added a mid-block multi-lane non-signalized crossing detail. Sheet 2, Removed legend (referred to PAVE-900-A, sheet 1) and removed large two-lane marking. Revised and updated notes.

PAVE-961-A SHARED LANE MARKING: NEW

PAVE-965-B RAILROAD GRADE CROSSING PAVEMENT MARKINGS: Sheet 1, Removed signing dimensions. Spacing for RR symbol and 24" white bars changed from 52' to 48' (center to center). Added breaks to drawing, similar to those in the MMUTCD (all sheets). Sheet 2, Removed signing dimensions and added 15' dimension from stop bar to nearest rail for consistency. Changed 60' outside to outside dimension to 58' center to center for consistency. Sheet 3, removed signing dimensions and W10-2 sign. Changed 60' outside to outside dimension to 58' center to center for consistency. Sheet 4, Removed signing dimension and added additional required RR marking for clarification. Spacing for RR symbol and 24" white bars changed from 52' to 48' (center to center). Removed Notes. Sheet 5, Revised square foot from '4' to '6' for 'R'. Spacing for RR symbol and 24" white bars for conventional markings changed from 52' to 48' (center to center). Changed 60' outside to outside to outside to outside to outside for 52' to 48' (center to center). Changed 60' outside to outside dimension to 58' center to 58' center to center). Changed 60' outside to outside dimension to 58' center to 58' center to center). Changed 60' outside to outside dimension to 58' center to center for consistency. Removed old note 3 and old note 4. Revised note 5 for simplicity.

PAVE-970-B 2-LANE TO 4-LANE TRANSITION PAVEMENT MARKINGS: Merged contents from PAVE-975-A. Sheets 1-3, combined sheets to 1 and consolidated drawing to a more typical situation. Removed signing references, dimensions, and duplicate tables when possible.

PAVE-975-A 4-LANE TO 2-LANE TRANSITION PAVEMENT MARKINGS: DELETED

PAVE-980-A GORE MARKINGS AT BEGINNING OF DIVIDED HIGHWAY: DELETED

PAVE-985-B CROSS-OVER PAVEMENT MARKINGS: Sheet 1, broken line now continues through the directional cross-over intersection. Revised labels and dimensions for consistency. Sheet 2, broken line now continues through the directional cross-over intersections, added optional turning guide line to dual lane cross-over drawing. Changed lane lines to 8" dotted to 8" solid for lane drop situations.

PAVE-990-A CROSS-HATCHING FOR LEFT TURN PROHIBITIONS: DELETED

November 8, 2007: The following updates were made to the web site.

PAVE-935-A LEFT TURN LANE MARKINGS: On Sheet 4 made arrow turn right to turn left on "Use Where Distance Between Adjacent Intersections Is 600ft or More".

PAVE-940-A RIGHT TURN LANE AND ISLAND PAVEMENT MARKINGS: Added note to Sheet 3 to say "NOTE: FOR DISTANCE "D" SEE PAVE-900-A SHEET 6."

<u>August 2, 2007:</u> The following updates were made to the web site. Sixteen Pavement Marking Typicals have been approved by the FHWA as Traffic Standards.

PAVE-900-A PAVEMENT ARROW & MESSAGE DETAILS: Added additional Legends to the message details on all sheets. Revised the spacing between letters in each legend to correspond with FHWA spacing. Revised dimensions on pavement arrows.

PAVE-930-A PAVEMENT MARKINGS FOR INTERSECTIONS: On Sheet 3, revised Full Intersection with Passing Flare taper length to 225 feet. On Sheet 6, deleted Note 4 on Stop Line Detail. Note 5 became Note 4.

PAVE-931-A FOR INTERSECTIONS WITH RAISED PAVEMENT MARKERS: On Sheet 4, Note 4 was deleted. On Sheets 5 and 7, revised beginning location of right turn lane marking. On Sheet 9, revised center left turn lane markings. PAVE-935-A LEFT TURN LANE MARKINGS: On Sheet 5, revised arrow spacing, Bi-directional turn lane per the Michigan Manual on Uniform Traffic Control Devices (MMUTCD).

PAVE-940-A RIGHT TURN LANE AND ISLAND PAVEMENT MARKINGS: Format changes only. No technical changes.

PAVE-945-A INTERSECTION, STOP LINES, & CROSSWALK MARKINGS: Format changes only. No technical changes.

PAVE-950-A SPECIAL EMPHASIS CROSSWALK PAVEMENT MARKINGS: Format changes only. No technical changes.

PAVE-955-A ON-STREET PARKING ZONE MARKINGS: Format changes only. No technical changes.

PAVE-956-A REST AREA PAVEMENT MARKING: On sheet 2 and sheet 4, revised handicap symbol per MMUTCD. On Sheet 3, revised handicap symbol per MMUTCD and added Notes 3 and 4.

PAVE-960-A SCHOOL SIGNS AND MARKINGS: Format changes only. No technical changes.

PAVE-965-A RAILROAD GRADE CROSSING PAVEMENT MARKINGS: On Sheet 3, added note regarding detail for grade crossing pavement marking. On Sheet 5, Note 1 was revised to reflect markings are standard for active grade crossings.

PAVE-970-A 2-LANE TO 4-LANE TRANSITION PAVEMENT MARKINGS: Format changes only. No technical changes.

PAVE-975-A 4-LANE TO 2-LANE TRANSITION PAVEMENT MARKINGS: Format changes only. No technical changes.

PAVE-980-A GORE MARKINGS AT BEGINNING OF DIVIDED HIGHWAY: Format changes only. No technical changes.

PAVE-985-A CROSS-OVER PAVEMENT MARKINGS: On Sheet 1, Modified turn lane markings for crossover to 4 or 6 inches. Notes were also modified. On Sheet 2, Lane lines were modified to 4 or 6 inches.

PAVE-990-A CROSS-HATCHING FOR LEFT TURN PROHIBITIONS: Format changes only. No technical changes.

Traffic Standards, applicable to the plans, are to be listed on the Note Sheet with the other Traffic Standards, Bridge Standards, and Road Standards. Traffic Standards are

not inserted into the plan sets.

Traffic Special Details, applicable to the plans, are to be included in the plan set.

The Pavement Marking Index includes both the Standards and the Special Details and it indicates which drawings are Standards and which ones are Special Details.

NOTE: There were no Pavement Markings Standards previous to this update. The documents were all Special Details.