



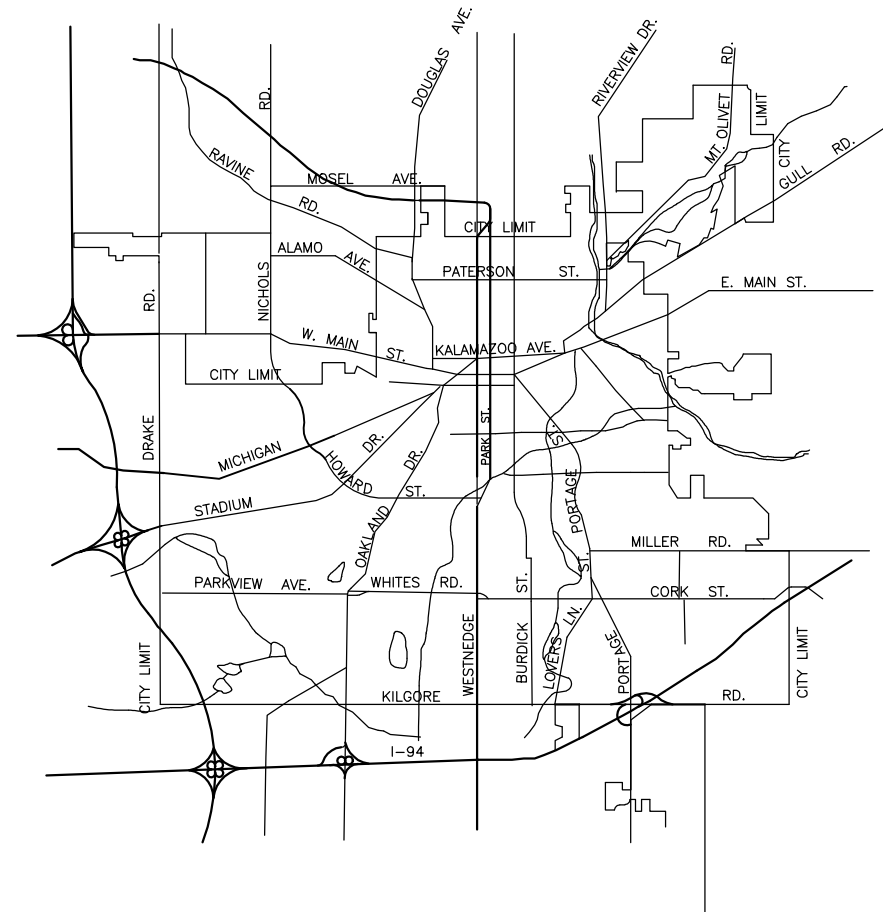
CITY OF KALAMAZOO  
DEPARTMENT OF PUBLIC SERVICES  
ENGINEERING

# CITY OF KALAMAZOO STANDARD STREETS DETAILS

*City of Kalamazoo*

### INDEX OF SHEETS

- 1 STANDARD DETAILS FOR SIDEWALK AND STREETS
- 2 TYPICAL CUTS FOR UTILITIES AND STREETS
- 3-4 FULL/PARTIAL WIDTH MILL AND FILL GUIDELINES
- 5 ADJUSTING DRAINAGE STRUCTURE – MDOT\_20SP-430A-02  
18" CORE / HYDROVAC FOR EXPOSING UTILITY  
BRICK STREET STANDARD DETAIL  
LOCAL STREETS – WINTER CUT DETAIL



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EXTERNAL  
CONTRACTORS



ROW PERMIT  
COK INTERNAL



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MDOT STANDARD BRIDGE PLANS



MDOT STANDARD ROAD PLANS

APPROVAL

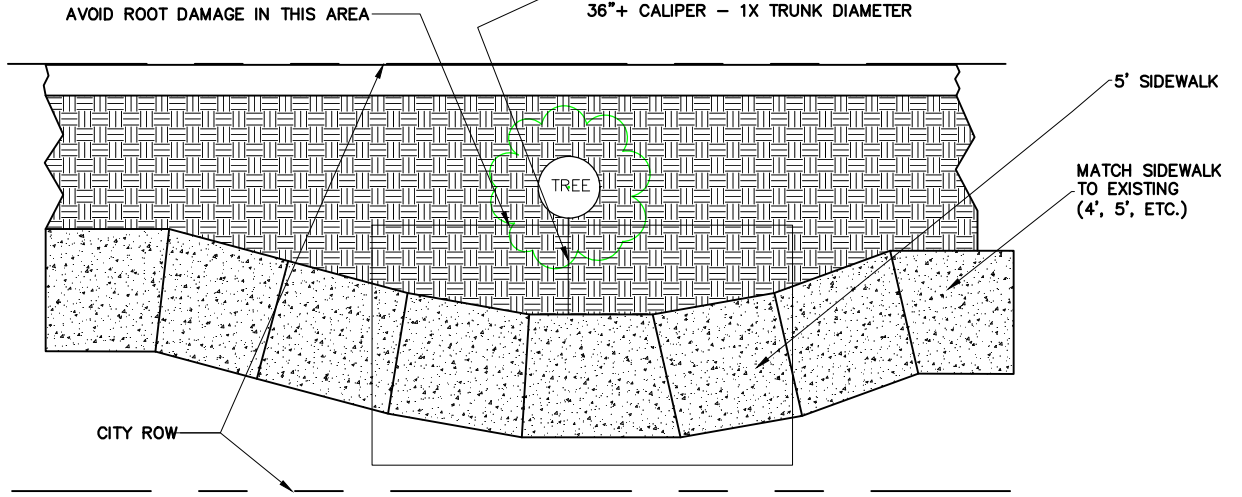
CITY OF KALAMAZOO, MICHIGAN

JAMES J. BAKER, PE 01/01/2025

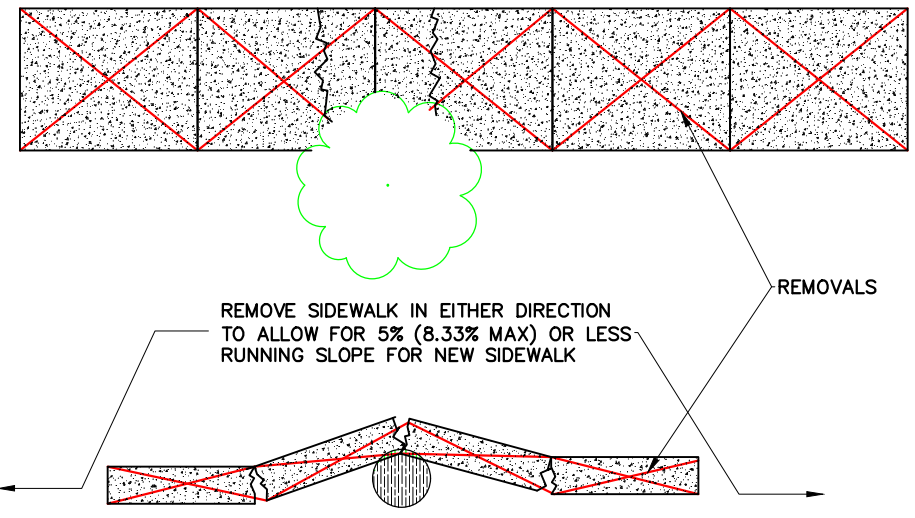
PUBLIC SERVICES DIRECTOR & CITY ENGINEER DATE

**STANDARD DETAIL - SIDEWALK  
ROOT AVOIDANCE - MEANDERING SIDEWALK**

DISTANCE FROM TREE:  
6"-18" CALIPER - 3X TRUNK DIAMETER  
19"-36" CALIPER - 2X TRUNK DIAMETER  
36"+ CALIPER - 1X TRUNK DIAMETER



**ROOT CRACKING OF SIDEWALK**

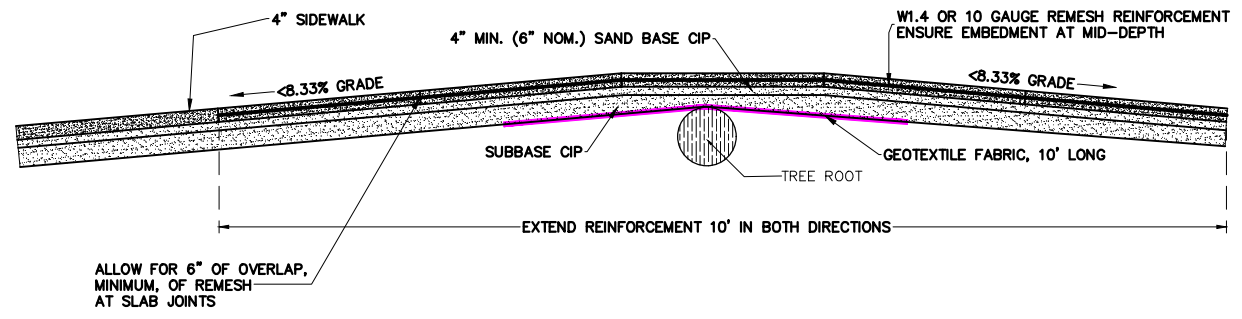


DEPARTMENT OF PUBLIC SERVICES - Engineering  
**STANDARD DETAILS - SHEET 1**  
CITY OF KALAMAZOO

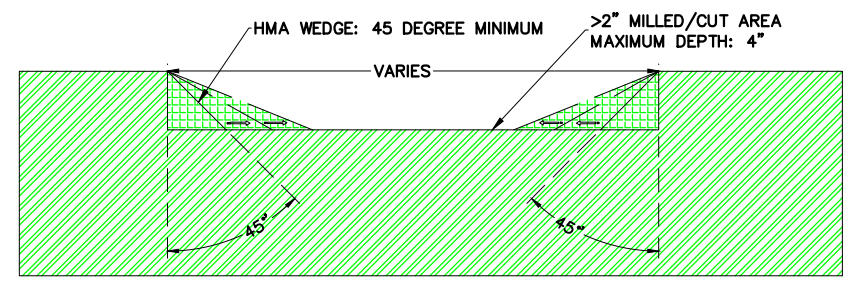
DESIGNED	GHW / JJB	SCALE	
DRAWN	GHW / WEE	VERTICAL	NOT TO SCALE
QA/QC	JJB	HORIZONTAL	NOT TO SCALE
		DATE	01/01/2025

- GENERAL NOTES:**
- MDOT STANDARD PLANS R-28-K, R-29-J, R-30-G, AND R-44-F SHALL BE FOLLOWED IN CONJUNCTION WITH THESE STANDARD PLANS
  - ALL SAW CUTTING SHALL BE DONE PERPENDICULAR AND PARALLEL TO THE DIRECTION OF TRAVEL
  - SAW CUTTING SHALL PROVIDE A STRAIGHT, CLEAN, EDGE TO ENHANCE BONDING
  - ALL CUTS SHALL BE RECTANGULAR AND NEATLY CUT TO AVOID SPALLING OF PAVEMENT
  - IN GENERAL ALL ROAD/UTILITY CUTS OF AN AREA GREATER THAN 9SFT (3FTX3FT TYPICAL) SHALL EXTEND THE FULL WIDTH OF THE TRAVEL LANE FOR PAVEMENT WITH LOAD TRANSFER DOWEL RODS OR REINFORCEMENT: NEW LOAD TRANSFER DOWELS/REINFORCEMENT SHALL BE PLACED TO MAINTAIN BEARING CAPACITY OF ROADWAY
  - CUTS LESS THAN 12" SHALL BE PATCHED WITH PCC. IF GREATER THAN 12", ENSURE CUT IS IN ACCORDANCE WITH STANDARD DETAILS AND MATCHING EXISTING ROADWAY
  - BUMPS/CUTS/MILLED AREAS WITH EDGE GREATER THAN 2" DEEP/HIGH MUST BE WEDGED WITH HMA BEFORE OPEN TO TRAFFIC. SEE STANDARD DETAIL.
  - MEANDERING SIDEWALK SHALL ONLY BE PLACED IN THE CITY'S ROW OR WHERE AN EASEMENT IS ESTABLISHED
  - NEW SIDEWALK CONSTRUCTION SHALL MEET OR EXCEED CURRENT ADA AND ACCESSIBILITY STANDARDS
  - REPLACED SIDEWALK SHALL, TO THE EXTENT PRACTICABLE, MEET OR EXCEED ADA AND ACCESSIBILITY STANDARDS
  - SIDEWALK, DRIVEWAY OPENINGS & APPROACHES SHALL CONFORM TO MDOT STANDARD PLAN DETAILS R-28-K AND R-29-J
  - MARSHALL MIX 36/13A (TOP/LEVELING) MAY BE SUBSTITUTED FOR HMA MIX DESIGNS WITH CITY OF KALAMAZOO APPROVAL IF DEEMED APPROPRIATE BY THE ENGINEER
  - ASPHALT BINDER SHALL BE INCLUDED IN THE PAY ITEM FOR HMA
  - MDOT PCC 3500 MIX DESIGN SHALL BE USED FOR ALL CONCRETE UNLESS OTHERWISE STATED OR DIRECTED BY THE ENGINEER
  - OPENING TO TRAFFIC STRENGTHS (2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION, TABLE 603-1):
    - <72 HOURS, GRADE P-NC, 300 psi
    - 72 HOURS +, GRADE 3500/HP, 550 psi

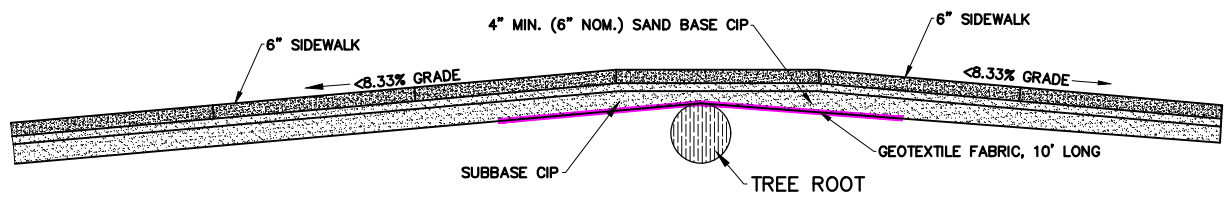
**STANDARD DETAIL -  
SIDEWALK ROOT AVOIDANCE**



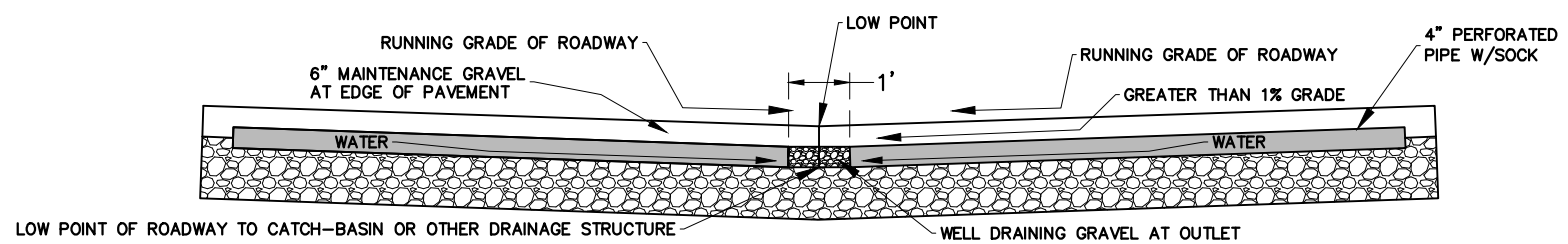
**STANDARD DETAIL - WEDGING  
CUT / MILLED SECTION**



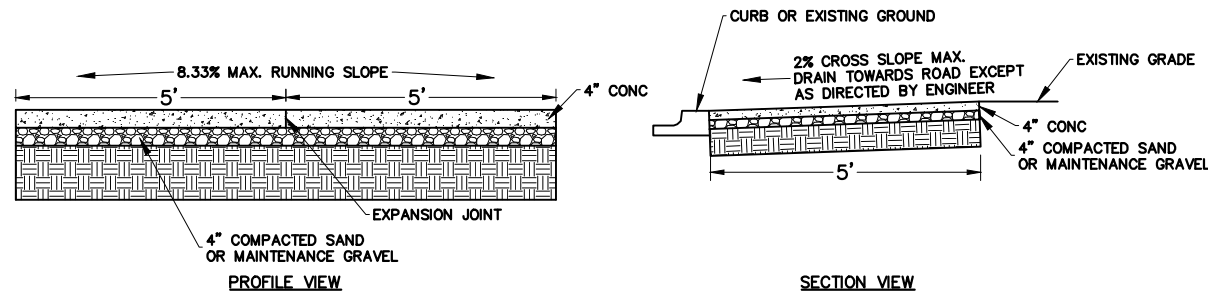
**STANDARD DETAIL - SIDEWALK ROOT AVOIDANCE  
WITHOUT REINFORCEMENT  
(USE ONLY AS DIRECTED BY ENGINEER)**



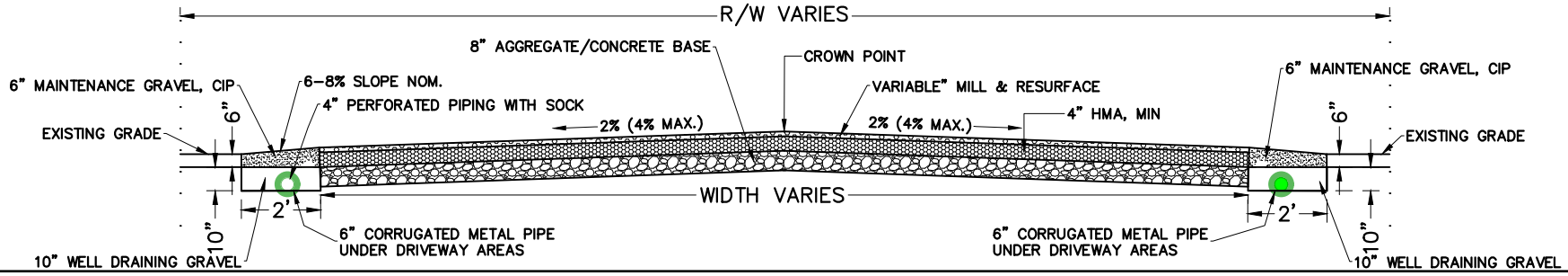
**STANDARD DETAIL - LOW VOLUME / RESIDENTIAL ROADS PERFORATED PIPE DETAIL**



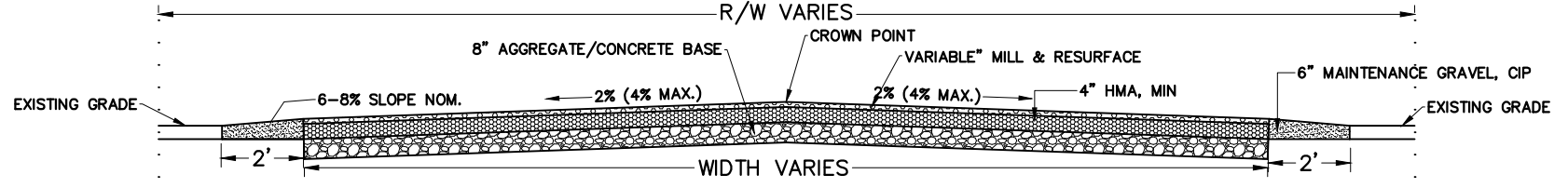
**TYPICAL 4" SIDEWALK DETAIL**



**STANDARD DETAIL - LOW VOLUME / RESIDENTIAL ROADS - POORLY DRAINED AREAS**

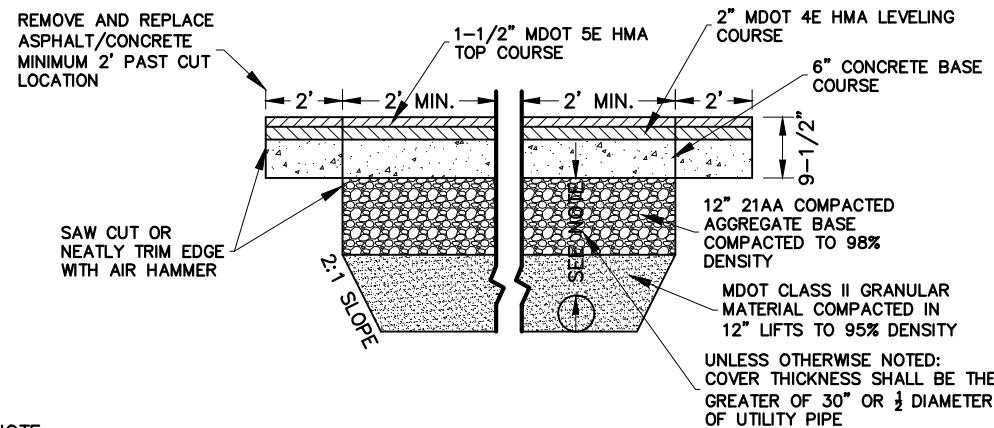


**STANDARD DETAIL - LOW VOLUME / RESIDENTIAL ROADS - EASILY DRAINED AREAS**



### ASPHALT WITH CONCRETE BASE TRENCH DETAIL

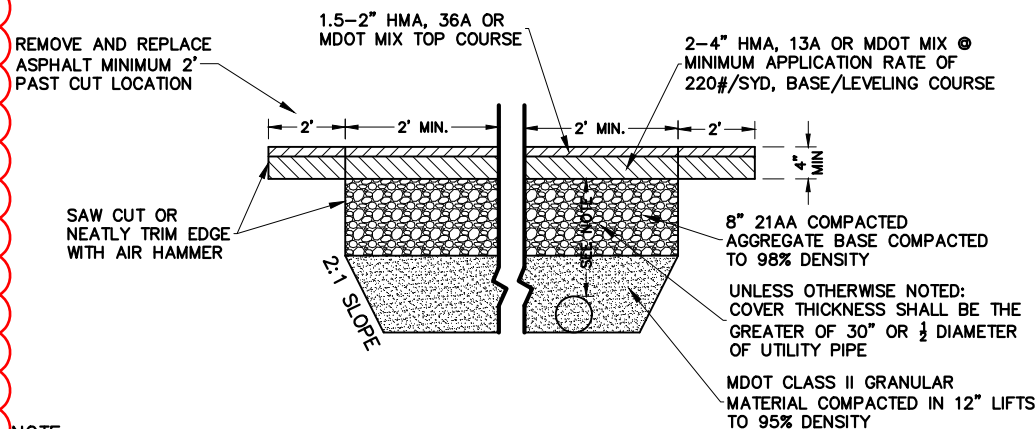
APPLIES TO:  
 CITY MAJOR ROADS  
 COMMERCIAL ROADS  
 HIGH VOLUME ROADS



- NOTE:
- CUT SHALL BE PARALLEL OR PERPENDICULAR TO EDGE OF ROADWAY/GUTTER
  - FOR POTHoles 12" DIAMETER AND SMALLER - ALL CONCRETE
  - FOR RESTORATION TOO SMALL TO FIT A PLATE COMPACTOR, HAND COMPACT LAYERS AS SHOWN AND FINISH WITH CONCRETE

### RESIDENTIAL / LOW TRAFFIC VOLUME ROAD ASPHALT UTILITY TRENCH DETAIL

APPLIES TO:  
 RESIDENTIAL ROADS  
 CITY LOCAL ROADS  
 LOW-VOLUME ROADS

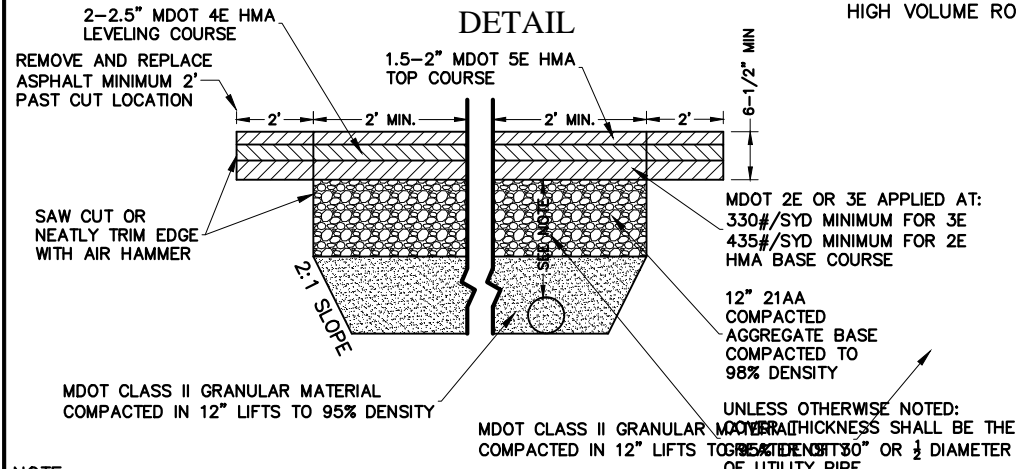


- NOTE:
- CUT SHALL BE PARALLEL OR PERPENDICULAR TO EDGE OF ROADWAY/GUTTER
  - \*SS-1H @ 0.10/GAL/SYD BETWEEN LIFTS
  - PERFORMANCE GRADE BINDER TO BE USED: PG 64-28

- GENERAL NOTES:
- MDOT STANDARD PLANS R-28-K, R-29-J, R-30-G, AND R-44-F SHALL BE FOLLOWED IN CONJUNCTION WITH THESE STANDARD PLANS
  - ALL SAW CUTTING SHALL BE DONE PERPENDICULAR AND PARALLEL TO THE DIRECTION OF TRAVEL
  - SAW CUTTING SHALL PROVIDE A STRAIGHT, CLEAN, EDGE TO ENHANCE BONDING
  - ALL CUTS SHALL BE RECTANGULAR AND NEATLY CUT TO AVOID SPALLING OF PAVEMENT
  - IN GENERAL ALL ROAD/UTILITY CUTS OF AN AREA GREATER THAN 9SFT (3FTX3FT TYPICAL) SHALL EXTEND THE FULL WIDTH OF THE TRAVEL LANE FOR PAVEMENT WITH LOAD TRANSFER DOWEL RODS OR REINFORCEMENT: NEW LOAD TRANSFER DOWELS/REINFORCEMENT SHALL BE PLACED TO MAINTAIN BEARING CAPACITY OF ROADWAY
  - CUTS LESS THAN 12" SHALL BE PATCHED WITH PCC. IF GREATER THAN 12", ENSURE CUT IS IN ACCORDANCE WITH STANDARD DETAILS AND MATCHING EXISTING ROADWAY
  - BUMPS/CUTS/MILLED AREAS WITH EDGE GREATER THAN 2" DEEP/HIGH MUST BE WEDGED WITH HMA BEFORE OPEN TO TRAFFIC. SEE STANDARD DETAIL.
  - MEANDERING SIDEWALK SHALL ONLY BE PLACED IN THE CITY'S ROW OR WHERE AN EASEMENT IS ESTABLISHED
  - NEW SIDEWALK CONSTRUCTION SHALL MEET OR EXCEED CURRENT ADA AND ACCESSIBILITY STANDARDS
  - REPLACED SIDEWALK SHALL, TO THE EXTENT PRACTICABLE, MEET OR EXCEED ADA AND ACCESSIBILITY STANDARDS
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  - ASPHALT BINDER SHALL BE INCLUDED IN THE PAY ITEM FOR HMA
  - MDOT PCC 3500 MIX DESIGN SHALL BE USED FOR ALL CONCRETE UNLESS OTHERWISE STATED OR DIRECTED BY THE ENGINEER
  - OPENING TO TRAFFIC STRENGTHS (2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION, TABLE 603-1):
    - <72 HOURS, GRADE P-NC, 300 psi
    - 72 HOURS +, GRADE 3500/HP, 550 psi

### COMMERCIAL ROAD ASPHALT UTILITY TRENCH DETAIL

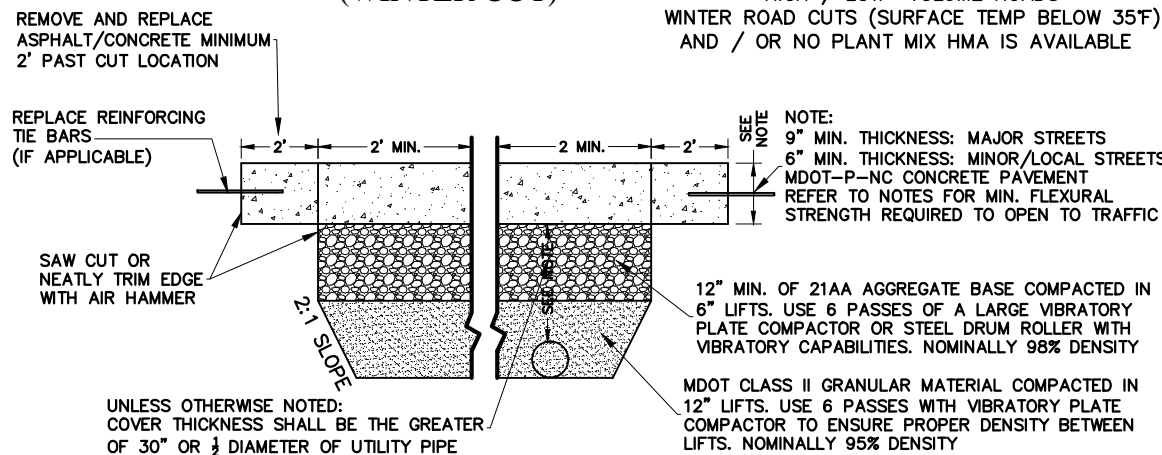
APPLIES TO:  
 CITY MAJOR ROADS  
 COMMERCIAL ROADS  
 HIGH VOLUME ROADS



- NOTE:
- CUT SHALL BE PARALLEL OR PERPENDICULAR TO EDGE OF ROADWAY/GUTTER
  - \*SS-1H @ 0.10/GAL/SYD BETWEEN LIFTS
  - PERFORMANCE GRADE BINDER TO BE USED: PG 64-28
  - HEAVY COMMERCIAL ADT COULD WARRANT CHANGE TO DESIGN.

### TYPICAL CUT USING PCC TO FILL (WINTER CUT)

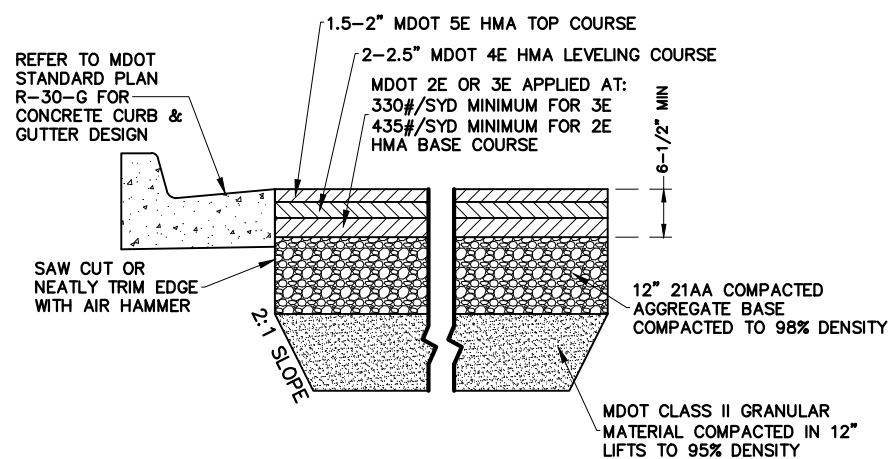
APPLIES TO:  
 CITY MAJOR / LOCAL ROADS  
 COMMERCIAL ROADS  
 HIGH / LOW VOLUME ROADS  
 WINTER ROAD CUTS (SURFACE TEMP BELOW 35°F)  
 AND / OR NO PLANT MIX HMA IS AVAILABLE



- NOTE:
- CUT SHALL BE PARALLEL OR PERPENDICULAR TO EDGE OF ROADWAY/GUTTER
  - FOR POTHoles 12" DIAMETER AND SMALLER - ALL CONCRETE
  - FOR RESTORATION TOO SMALL TO FIT A PLATE COMPACTOR, HAND COMPACT LAYERS AS SHOWN AND FINISH WITH CONCRETE

### COMMERCIAL ROAD ASPHALT PAVEMENT DETAIL

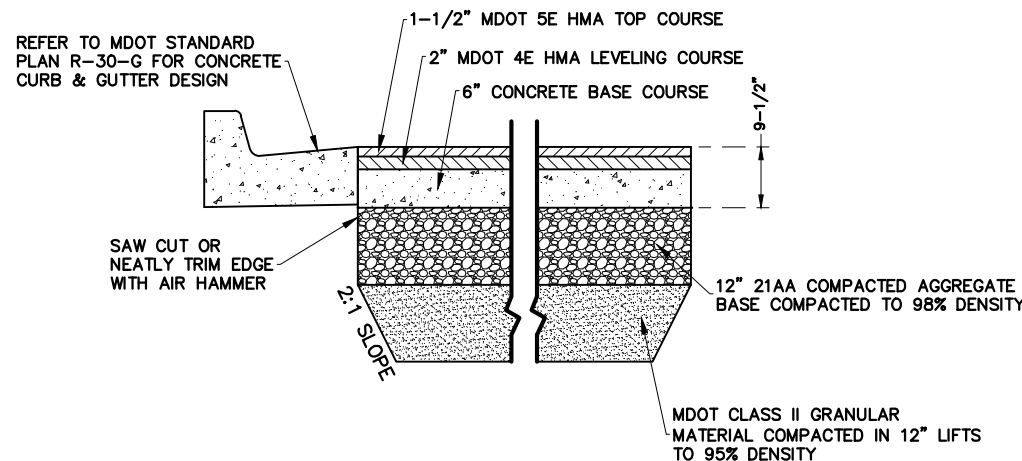
APPLIES TO:  
 CITY MAJOR ROADS  
 COMMERCIAL ROADS  
 HIGH VOLUME ROADS



- NOTE:
- \*SS-1H @ 0.10/GAL/SYD BETWEEN LIFTS
  - PERFORMANCE GRADE BINDER TO BE USED: PG 64-28

### ASPHALT PAVEMENT WITH CONCRETE BASE DETAIL

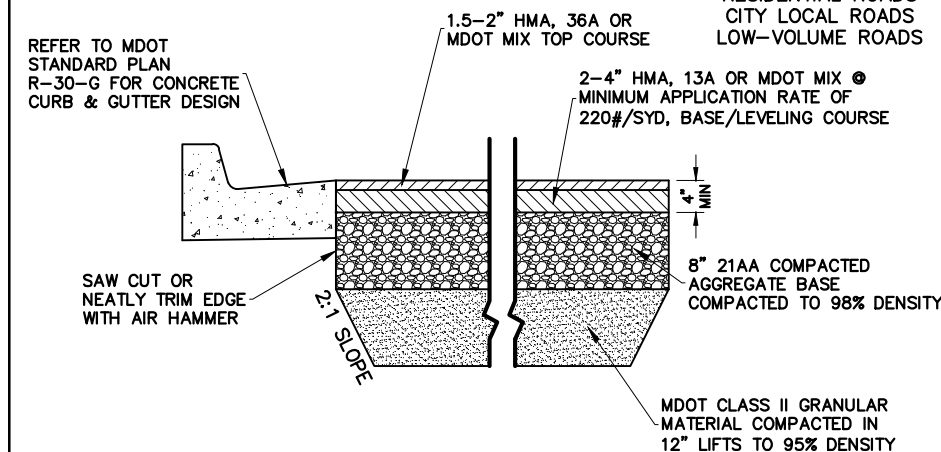
APPLIES TO:  
 CITY MAJOR ROADS  
 COMMERCIAL ROADS  
 HIGH VOLUME ROADS



- NOTE:
- \*SS-1H @ 0.10/GAL/SYD BETWEEN LIFTS
  - PERFORMANCE GRADE BINDER TO BE USED: PG 64-28

### RESIDENTIAL / LOW TRAFFIC VOLUME ROAD ASPHALT PAVEMENT DETAIL

APPLIES TO:  
 RESIDENTIAL ROADS  
 CITY LOCAL ROADS  
 LOW-VOLUME ROADS



- NOTE:
- \*SS-1H @ 0.10/GAL/SYD BETWEEN LIFTS
  - PERFORMANCE GRADE BINDER TO BE USED: PG 64-28

PAVEMENT CUT / PATCHING DETAILS

THE CITY OF Kalamazoo		DEPARTMENT OF PUBLIC SERVICES - Engineering	
		STANDARD DETAILS - SHEET 3	
		CITY OF KALAMAZOO	
DESIGNED	GHW / JJB	SCALE	
DRAWN	GHW / WEE	VERTICAL	NOT TO SCALE
QA/QC	JJB	HORIZONTAL	NOT TO SCALE
		DATE	01/01/2025

CUT OR PATCH DETAILS

IF PAVEMENT CUT EXTENDS INTO LANE MORE THAN 25% (3FT FOR A TYPICAL LANE WIDTH) THEN...  
 · MILL & REPAVE FULL LANE WIDTH  
 · MILLING SHOULD EXTEND THE FILL WIDTH OF THE LANE AND 2FT PAST THE CUT AREA TO A MINIMUM DEPTH OF 1.5" AND REPAVED USING MDOT 5E\_ HMA  
 · EXAMPLES 1-4

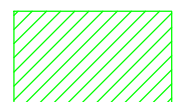
IF PAVEMENT CUT IS GREATER THAN OR EQUAL TO 9SFT IN AREA (3FTX3FT TYPICAL) THEN...  
 · MILL & REPAVE FULL LANE WIDTH  
 · MILLING SHOULD EXTEND THE FILL WIDTH OF THE LANE AND 2FT PAST THE CUT AREA TO A MINIMUM DEPTH OF 1.5" AND REPAVED USING MDOT 5E\_ HMA  
 · EXAMPLES 1, 3, & 4

IF PAVEMENT CUT EXTENDS ACROSS MULTIPLE LANES THEN...  
 · MILL & REPAVE THE FULL WIDTH OF EACH LANE THE CUT COMES INTO - EVEN IF IT ONLY PARTIALLY GOES INTO AN ADJOINING TRAVEL LANE  
 · MILLING SHOULD EXTEND THE FILL WIDTH OF THE LANE(S) AND 2FT PAST THE CUT AREA TO A MINIMUM DEPTH OF 1.5" AND REPAVED USING MDOT 5E\_ HMA  
 · EXAMPLE 3

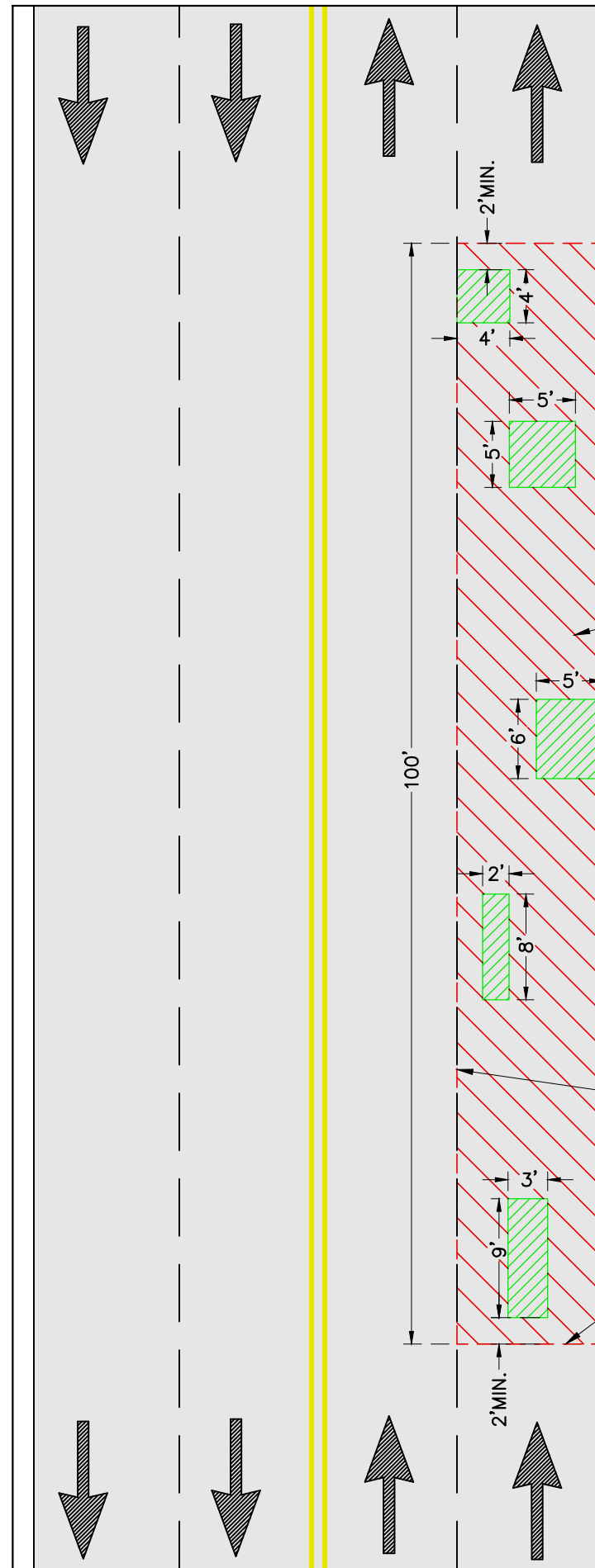
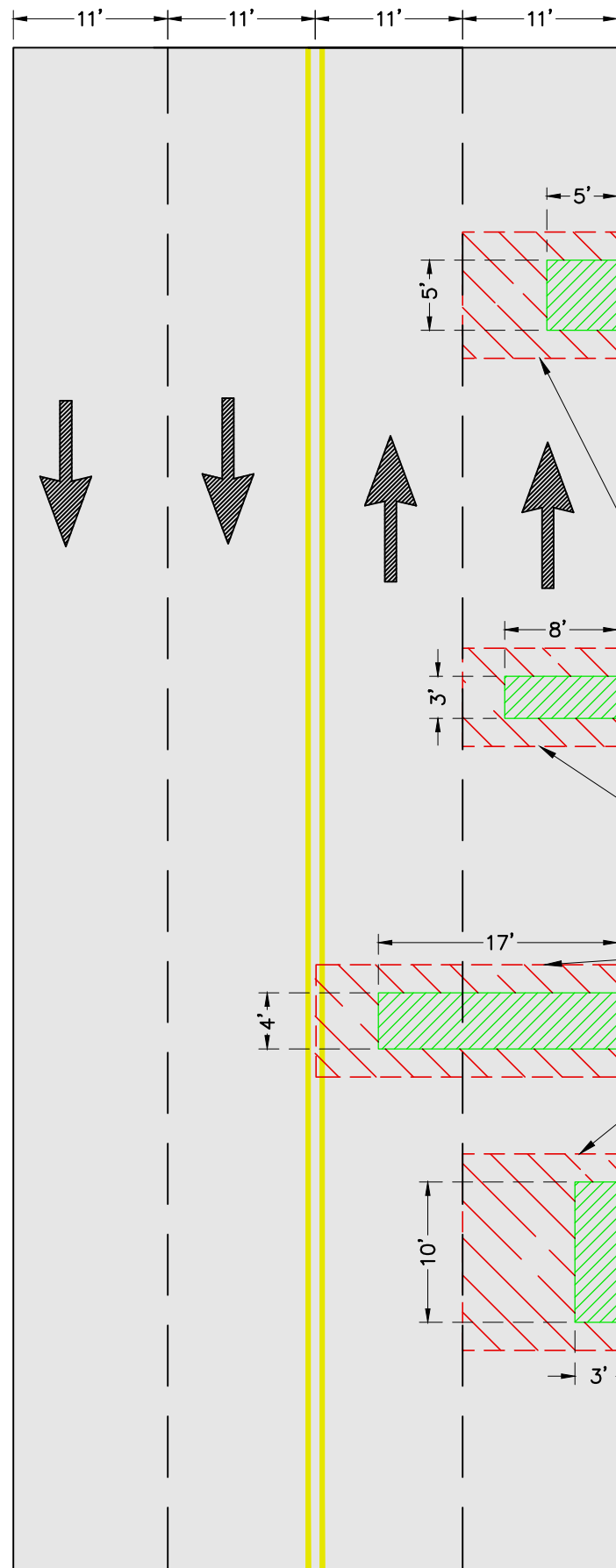
IN AREAS WITH MULTIPLE CUTS, CONTACT THE CITY OF KALAMAZOO RIGHT OF WAY COORDINATOR PRIOR TO RESTORATION. RIGHT OF WAY COORDINATOR WILL DETERMINE THE BEST APPLICATION FOR THE AREA.

EDGES SHOULD BE SAW CUT IN A CLEAN LINE SO THEY ARE PARALLEL OR PERPENDICULAR TO TRAFFIC

1.5" MILL & RESURFACE FULL LANE WIDTH & 2' BEYOND THE OUTSIDE OF THE PATCH AREA

 = MILLING AREA

 = PAVEMENT CUT / PATCH AREA



CUT OR PATCH DETAILS

IF PAVEMENT CUTS EQUAL 5 OR MORE IN A 100 FT LINEAR LENGTH OF PAVEMENT OR THE TOTAL CUT AREAS EQUAL 100SFT OR MORE THEN...  
 · MILLING SHOULD EXTEND THE FILL WIDTH OF THE LANE AND 2FT PAST THE FURTHEST CUT AREAS TO A MINIMUM DEPTH OF 1.5" AND REPAVED USING MDOT 5E\_ HMA

IF PAVEMENT CUTS EXTEND ACROSS MULTIPLE LANES THEN...  
 · FOLLOW THE MILLING & RESURFACING GUIDANCE ABOVE ACROSS ALL AFFECTED LANES

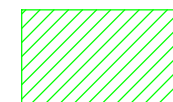
MILL & RESURFACE FULL LANE WIDTH

IN AREAS WITH MULTIPLE CUTS, CONTACT THE CITY OF KALAMAZOO RIGHT OF WAY COORDINATOR PRIOR TO RESTORATION. RIGHT OF WAY COORDINATOR WILL DETERMINE THE BEST APPLICATION FOR THE AREA.

114 SQ FT

EDGES SHOULD BE SAW CUT IN A CLEAN LINE SO THEY ARE PARALLEL OR PERPENDICULAR TO TRAFFIC

1.5" MILL & RESURFACE FULL LANE WIDTH & 2' BEYOND THE OUTSIDE OF THE PATCH AREA

 = MILLING AREA

 = PAVEMENT CUT / PATCH AREA

PAVEMENT CUT / PATCHING DETAILS

DESIGNED	GHW / JJB	SCALE	
DRAWN	GHW / WEE	VERTICAL	NOT TO SCALE
QA/QC	JJB	HORIZONTAL	NOT TO SCALE
		DATE	01/01/2025

CUT OR PATCH DETAILS


IF PAVEMENT CUTS EQUAL 4 OR MORE IN A 100 FT LINEAR LENGTH OF PAVEMENT AND THE TOTAL CUT AREAS EQUAL 150SFT OR MORE THEN...  
 MILLING SHOULD EXTEND THE FULL WIDTH OF THE LANE AND 2FT PAST THE FURTHEST CUT AREAS TO A MINIMUM DEPTH OF 1.5" AND REPAVED USING MDOT 5E\_ HMA

IF PAVEMENT CUTS EXTEND ACROSS MULTIPLE LANES THEN...  
 FOLLOW THE MILLING & RESURFACING GUIDANCE ABOVE ACROSS ALL AFFECTED LANES

IN AREAS WITH MULTIPLE CUTS, CONTACT THE CITY OF KALAMAZOO RIGHT OF WAY COORDINATOR PRIOR TO RESTORATION. RIGHT OF WAY COORDINATOR WILL DETERMINE THE BEST APPLICATION FOR THE AREA.

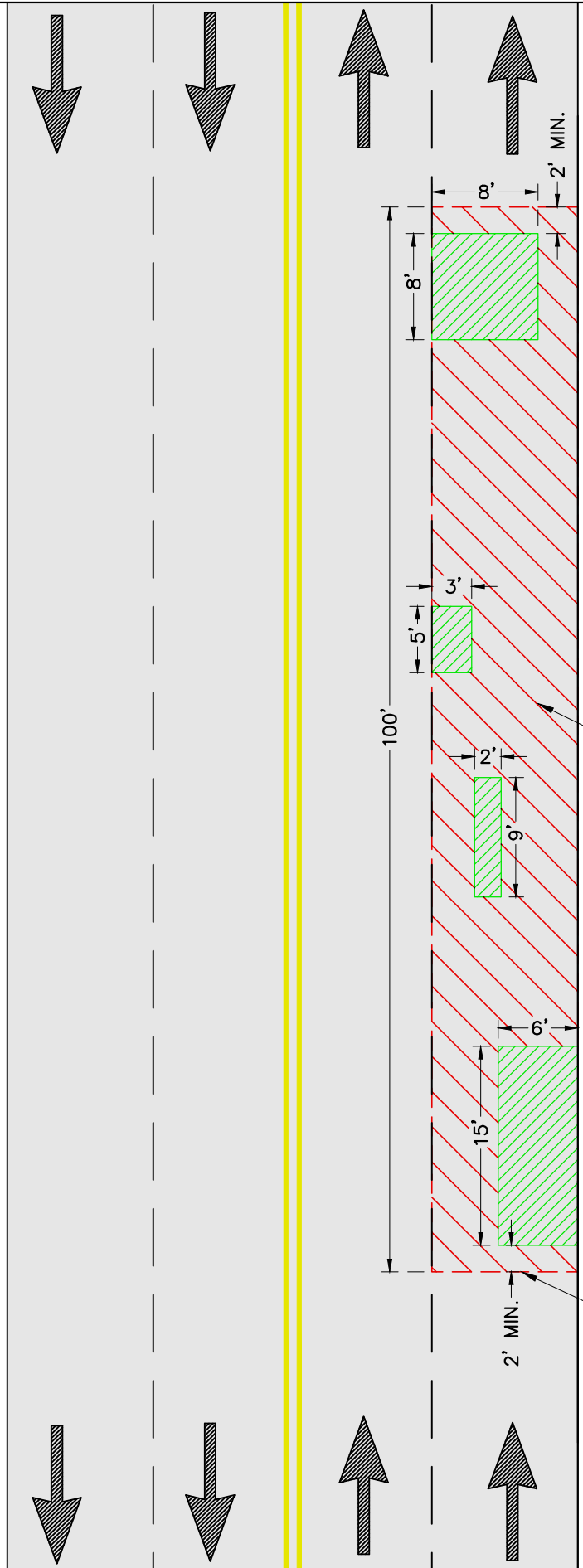
187 SQ FT

MILL & RESURFACE FULL LANE WIDTH

 = MILLING AREA

 = PAVEMENT CUT / PATCH AREA

EDGES SHOULD BE SAW CUT IN A CLEAN LINE SO THEY ARE PARALLEL OR PERPENDICULAR TO TRAFFIC



CUT OR PATCH DETAILS

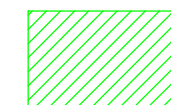
IF PAVEMENT CUTS EQUAL 2 OR MORE IN A 100 FT LINEAR LENGTH OF PAVEMENT AND THE TOTAL CUT AREAS EQUAL 200SFT OR MORE THEN...  
 MILLING SHOULD EXTEND THE FULL WIDTH OF THE LANE AND 2FT PAST THE FURTHEST CUT AREAS TO A MINIMUM DEPTH OF 1.5" AND REPAVED USING MDOT 5E\_ HMA

IF PAVEMENT CUTS EXTEND ACROSS MULTIPLE LANES THEN...  
 FOLLOW THE MILLING & RESURFACING GUIDANCE ABOVE ACROSS ALL AFFECTED LANES

IN AREAS WITH MULTIPLE CUTS, CONTACT THE CITY OF KALAMAZOO RIGHT OF WAY COORDINATOR PRIOR TO RESTORATION. RIGHT OF WAY COORDINATOR WILL DETERMINE THE BEST APPLICATION FOR THE AREA.

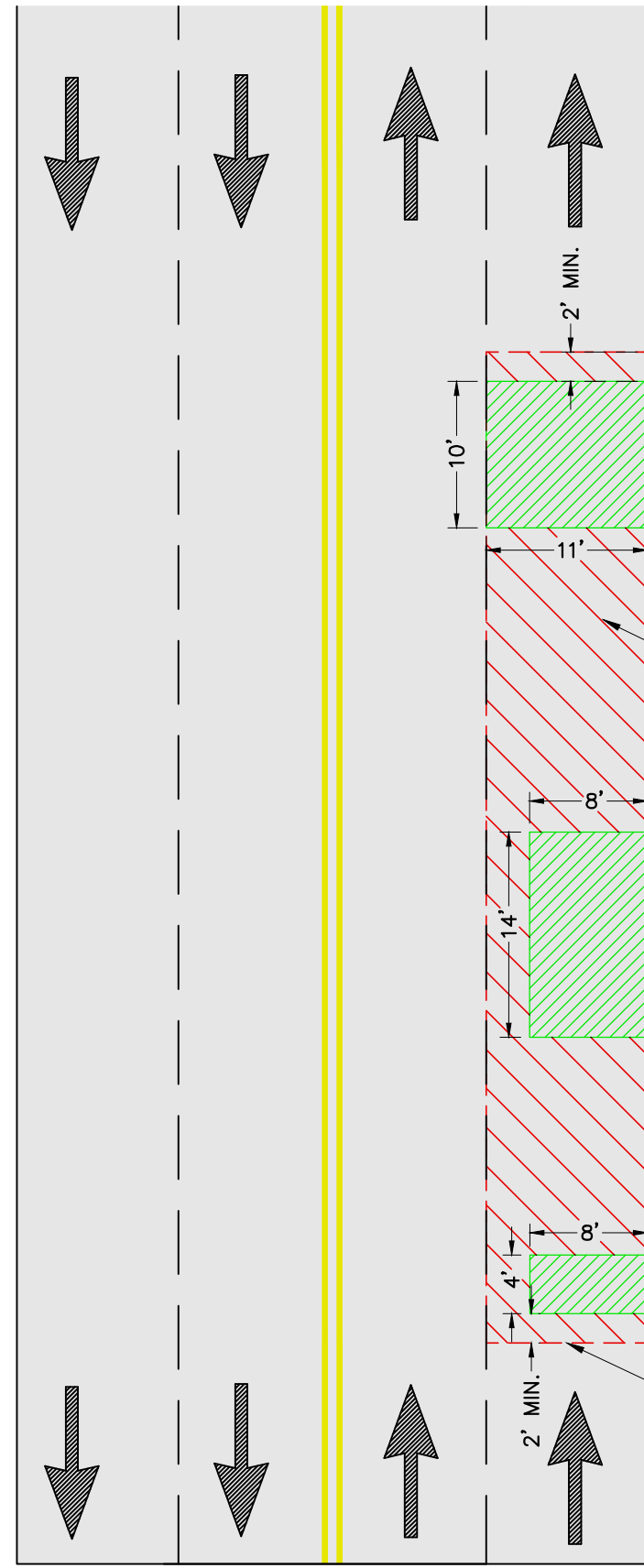
254 SQ FT

MILL & RESURFACE FULL LANE WIDTH


 = MILLING AREA

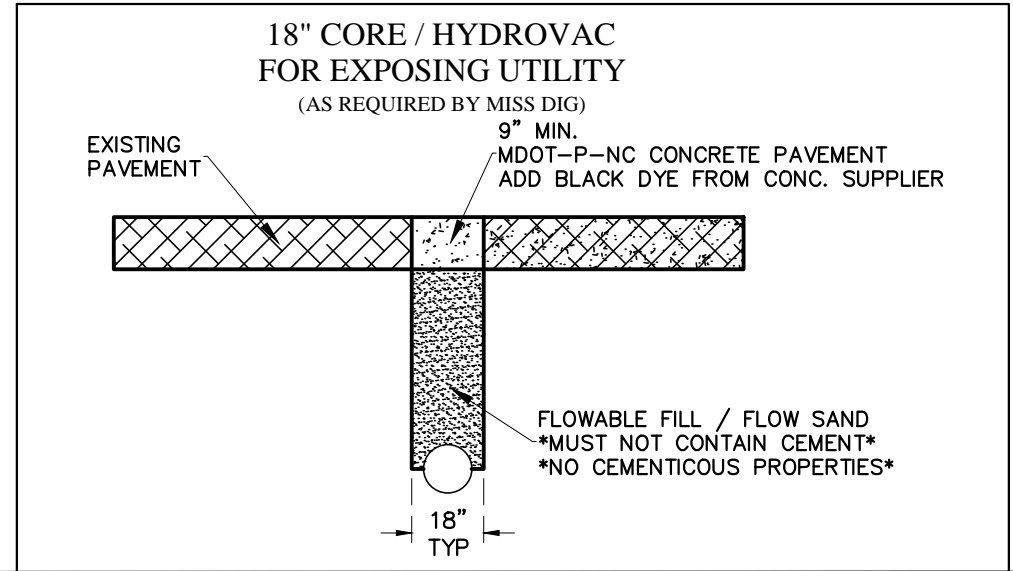
 = PAVEMENT CUT / PATCH AREA

EDGES SHOULD BE SAW CUT IN A CLEAN LINE SO THEY ARE PARALLEL OR PERPENDICULAR TO TRAFFIC



PAVEMENT CUT / PATCHING DETAILS

 DEPARTMENT OF PUBLIC SERVICES - Engineering STANDARD DETAILS - SHEET 5 CITY OF KALAMAZOO		SCALE VERTICAL NOT TO SCALE HORIZONTAL NOT TO SCALE DATE 01/01/2025
DESIGNED	GHW / JJB	
DRAWN	GHW / WEE	
QA/QC	JJB	



CFS:DMG

3 of 3

20SP-403A-02  
 03-08-22

