

CITY OF KIRKWOOD

R.O.W IMPROVEMENTS

STANDARD DRAWINGS

AND SPECIFICATIONS



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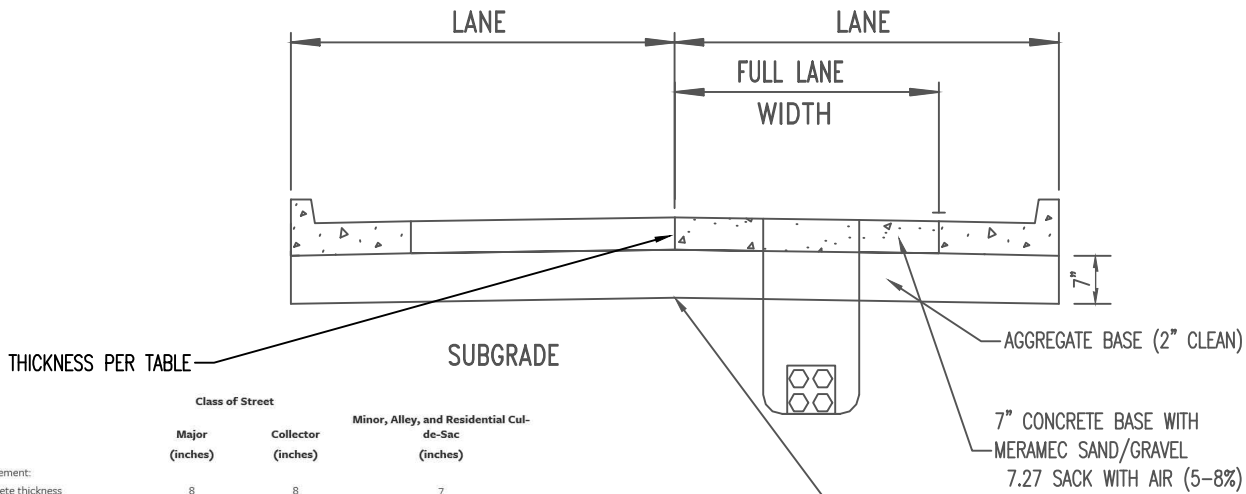
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NOTE:

1. ALL EXCAVATIONS WITHIN THE CITY OF KIRKWOOD RIGHT-OF-WAY REQUIRE AN EXCAVATION PERMIT. CONTACT THE ENGINEERING DEPARTMENT AT 314.822.5822.
2. ST. LOUIS COUNTY DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS AND SPECIFICATIONS SHALL APPLY EXCEPT AS MODIFIED BY THE CITY CODE AND/OR THESE STANDARD DRAWINGS AND SPECIFICATIONS.
3. ALL CONCRETE WITHIN THE CITY OF KIRKWOOD RIGHT-OF-WAY SHALL USE MERAMEC LARGE AND FINE AGGREGATES.
4. ANY EXCESS CONSTRUCTION AND/OR EXCAVATION MATERIALS SHALL BE REMOVED FROM THE RIGHT-OF-WAY AT THE END OF EACH WORK DAY.
5. CONTRACTOR TO DISTURB AFFECTED AREAS THE MINIMUM AMOUNT NECESSARY TO COMPLETE THE WORK AND TO TAKE EXTRA CARE NOT TO DISTURB ANY AREAS OUTSIDE THE CONSTRUCTION AREA.
6. ALL BACKFILL SHALL BE GRANULAR FILL WITH 1" NOMINAL MAX AGGREGATE SIZE.
7. MECHANICALLY COMPACT ALL BACKFILL IN EXCAVATED AREAS AND SOD DISTURBED AREAS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING EROSION CONTROL DEVICES AS NECESSARY TO CONTROL EROSION FOR THE DURATION OF THE PROJECT.
9. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING & MAINTAINING TRAFFIC CONTROL, IN ACCORDANCE WITH THE MUTCD.

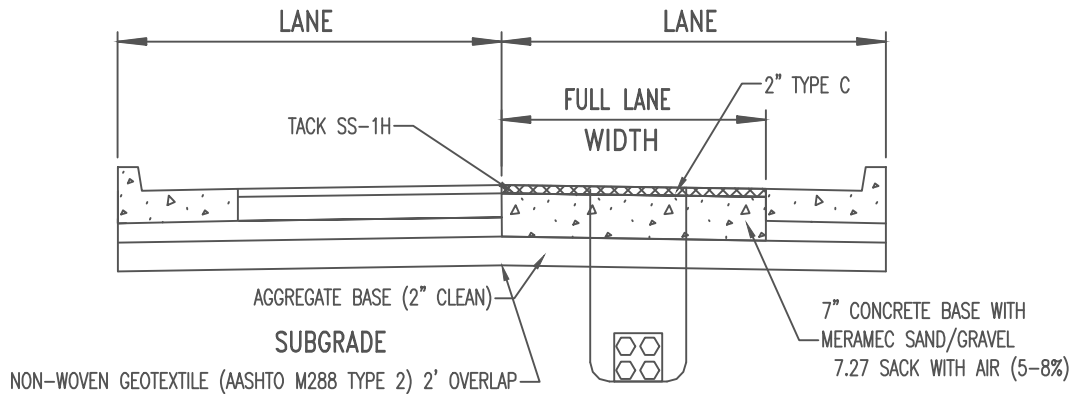
STANDAR DRAWINGS		DATE: 1/21/20				
SHEET NO.	CITY OF KIRKWOOD TITLE PAGE 139 S. KIRKWOOD ROAD KIRKWOOD, MISSOURI 63122	CHECKED: C.A.K.				
TITLE		DRAWN: M.T.S.				
		SCALE: NONE				
1 OF 13				NO.	DATE	REMARKS
				ISSUE / REVISION DESCRIPTIONS		

CONCRETE



NON-WOVEN GEOTEXTILE (AASHTO M288 TYPE 2) 2' OVERLAP

ASPHALT



NOTES:

1. CONCRETE PAVEMENT: FULL PANEL REPLACEMENT IF ONE OR MORE OF THE FOLLOWING EXIST:
 - A. ANY ARTERIAL STREET LESS THAN 15 YEARS OLD OR ANY STREET LESS THAN 10 YEARS OLD.
 - B. ANY SLAB WHERE THE CUT REMOVES MORE THAN 1/3 OF THE SLAB.
 - C. ANY DIAGONAL CUT.
 - D. ANY SLAB WHERE THE PROPOSED CUT WILL LEAVE THE SLAB WITH 3 OR MORE PIECES.
 - E. ANY TRENCHING THAT TRANSVERSES ANY ARTERIAL.
2. ASPHALT PAVEMENT:
 - A. MINIMUM WIDTH OF REPLACEMENT OVERLAY SHALL BE TO THE CENTERLINE ON TWO LANE ROADS.
3. JOINT REINFORCEMENT
 - A. 30" LONG, LONGITUDINAL TIE BAR #5 GRADE 40 EPOXY COATED (12" ON CENTER)
 - B. 18" LONG, 1" GRADE 40 SMOOTH EPOXY, SHALL BE INSTALLED IN ALL TRANSVERSE JOINTS SPACED ON 24" CENTERS.
4. SEE ENGINEER FOR PAVEMENT REQUIREMENTS
5. UNDERDRAIN SHALL BE INSTALLED WHEN NEXT TO STORM INLET (SEE SHEET 6)
6. EXCAVATION IN CENTER OF STREET SHALL BE FULL STREET WIDTH REPAIR

STANDARD DRAWINGS

SHEET NO.

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CITY OF KIRKWOOD
STREET RESTORATION - FULL LANE
139 S. KIRKWOOD ROAD
KIRKWOOD, MISSOURI 63122

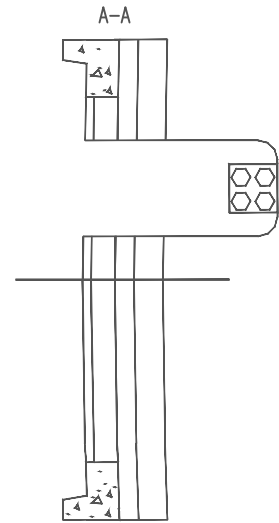
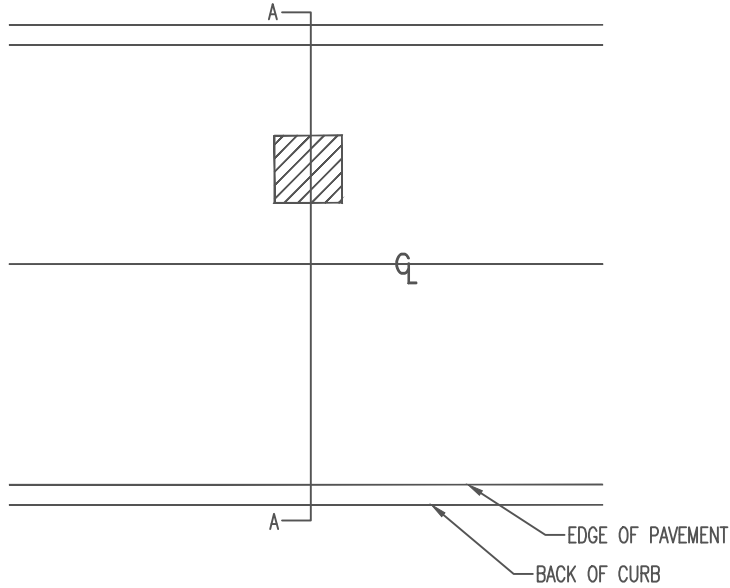
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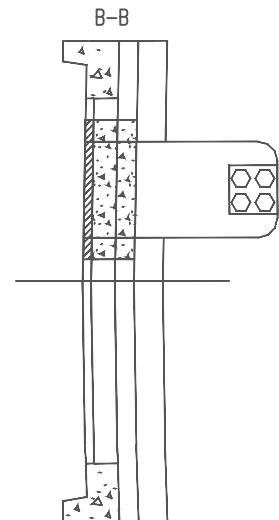
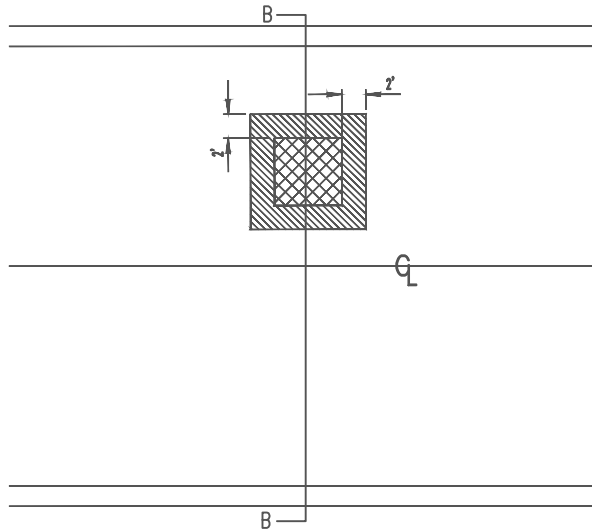
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TYPICAL SPOT EXCAVATION



TYPICAL SPOT RESTORATION



1. CONCRETE PAVEMENT (SHEET 4): WHERE PARTIAL PANEL REPLACEMENT IS ALLOWED, ADDITIONAL PAVEMENT REPLACEMENT BEYOND THE EXCAVATION WILL BE REQUIRED UNDER THE FOLLOWING CONDITIONS:

- CUTS LESS THAN 18 SQUARE FEET AND WHERE THE DEPTH OF THE EXCAVATION IS 6 FEET OR LESS BELOW GRADE AND NOT WITHIN IT'S INITIAL SIZE.
- MINIMUM RESTORATION SLAB SHALL BE 3 FEET WIDE IN THE LONGITUDINAL DIRECTION AND 5 FEET LONG IN TRANSVERSE DIRECTION.
- IF CUT IS LESS THAN 3 FEET FROM THE LONGITUDINAL OR 5 FEET FROM THE TRANSVERSE JOINT OR OTHER PATCHES OR CRACKS, THE INTERVENING PORTION OF THE SLAB MUST BE REMOVED.
- 18" SMOOTH 1" DIAMETER EPOXY COATED DOWELS WILL BE USED ON 24' CENTERS.

2. ASPHALT PAVEMENT (SHEET 5):

- THE LENGTH OF REPLACEMENT SHALL BE THE LENGTH OF THE EXCAVATION PLUS 24 INCHES ALL THE WAY AROUND. SEAL JOINTS WITH SS1-H AND SAND MIXTURE.
- WHERE EXISTING CONCRETE BASE IS PRESENT, 30" #5 GRADE 40 TIE BARS SHALL BE INSTALLED IN ALL JOINTS SPACED 24" ON CENTER.

STANDARD DRAWINGS

SHEET NO.

2

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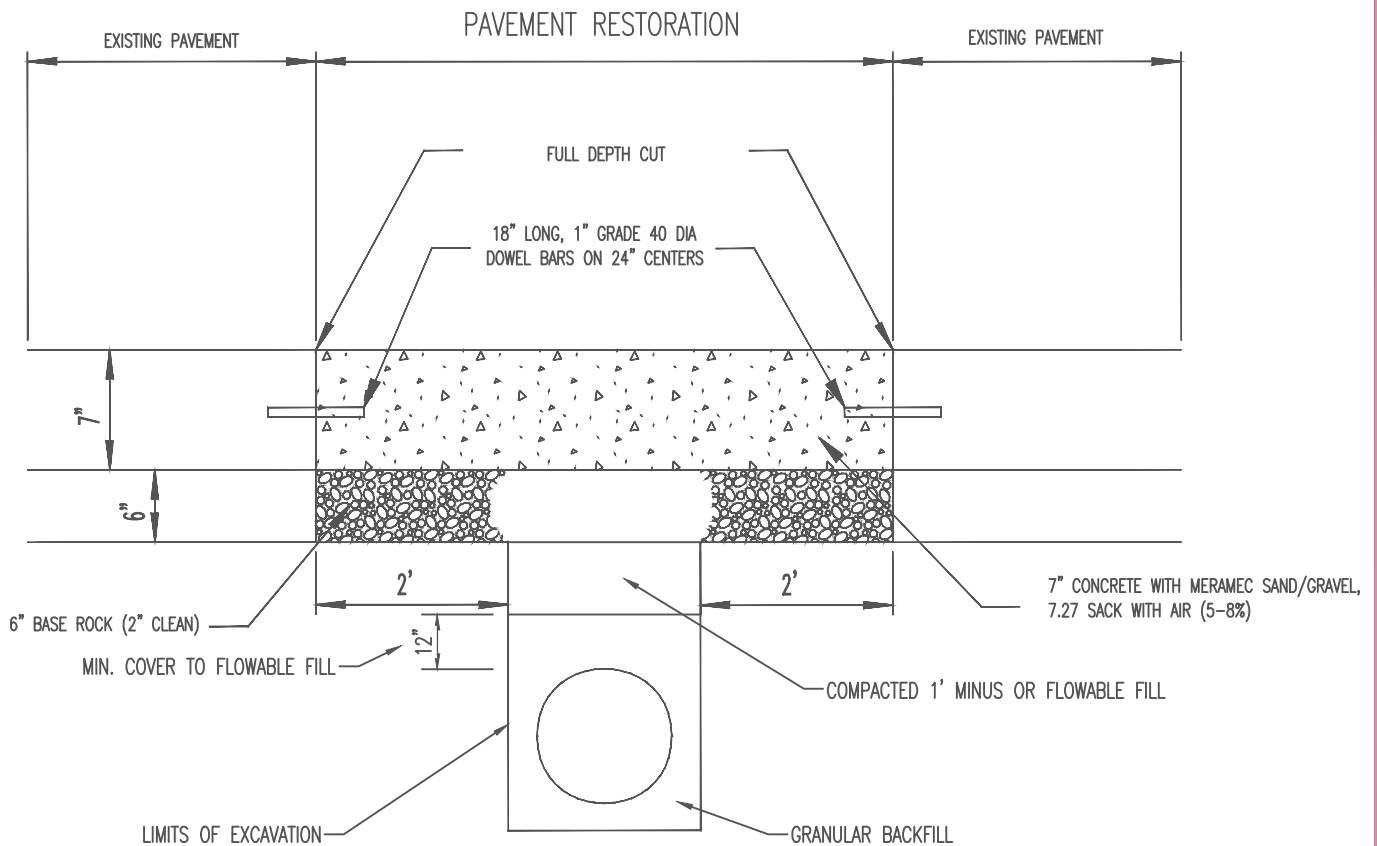
CITY OF KIRKWOOD
SPOT - STREET RESTORATION
139 S. KIRKWOOD ROAD
KIRKWOOD, MISSOURI 63122


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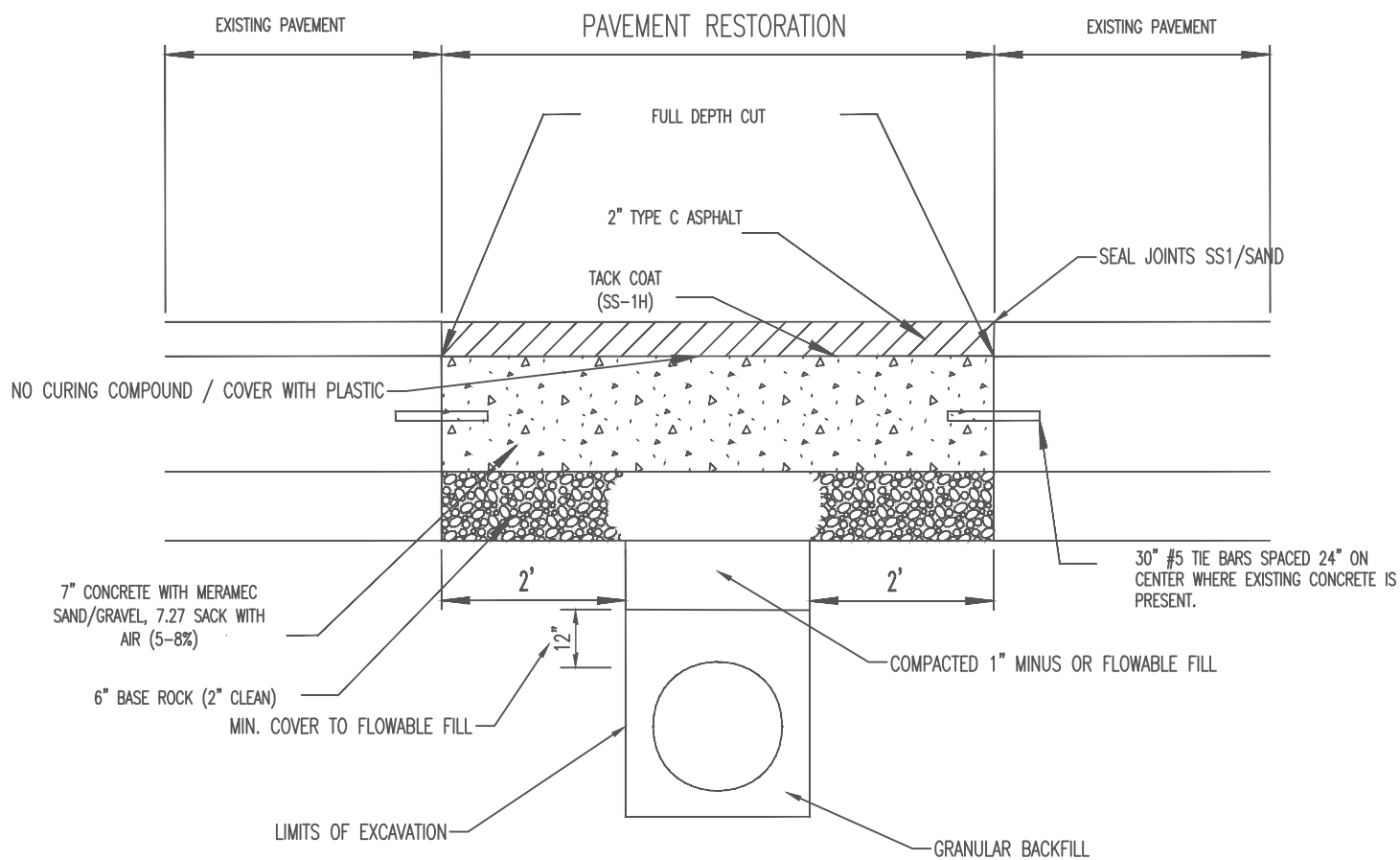



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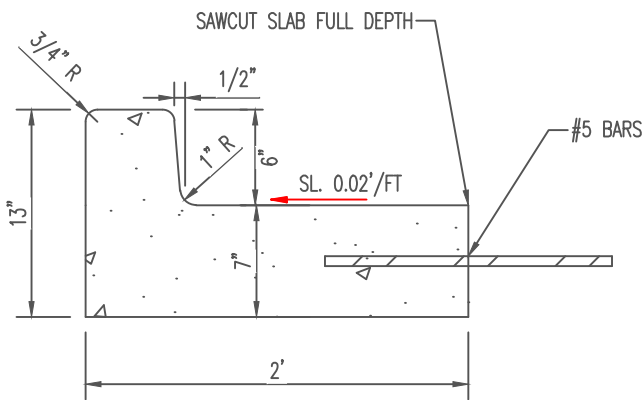
ISSUE / REVISION DESCRIPTIONS



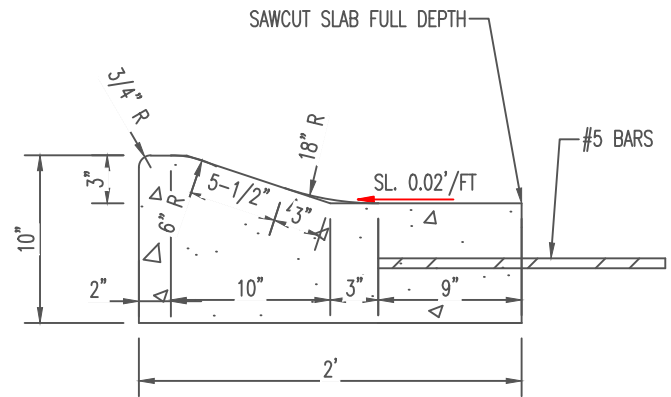
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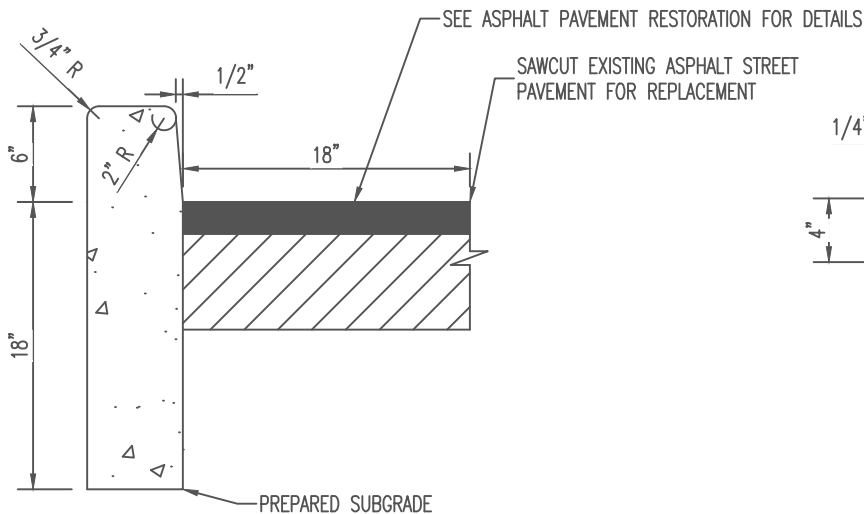
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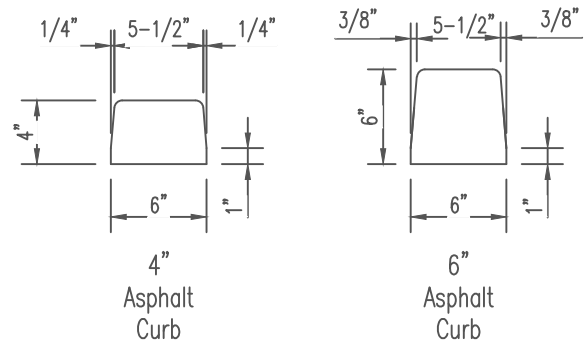
CURB AND GUTTER
REPLACEMENT



ROLLED CURB AND GUTTER
REPLACEMENT



VERTICAL CURB
REPLACEMENT / FULL
DEPTH ASPHALT



ASPHALT CURB REPLACEMENT

- * MOLDS AVAILABLE WITH STREET DEPARTMENT
- * TACK CURB TO PAVEMENT SURFACE

NOTES:

1. CONCRETE CURBS SHALL BE REPLACED JOINT TO JOINT.
2. CONCRETE STREETS LESS THAN 5 YEARS IN AGE SHALL REQUIRE REPLACEMENT OF THE ENTIRE SLAB. VERIFY WITH ENGINEERING DEPARTMENT.
3. DOWEL BARS REQUIRED WHEN REPLACING CURBS ON EXISTING CONCRETE PAVEMENT.
 - A. 18" LONG, #5 GRADE 40 EPOXY COATED BAR
 - B. SHALL BE INSTALLED IN ALL TRANSVERSE JOINTS SPACED ON 24" CENTERS
 - C. CONCRETE SHALL MEET CONCRETE PAVEMENT STANDARDS

STANDARD DRAWINGS

SHEET NO.

5

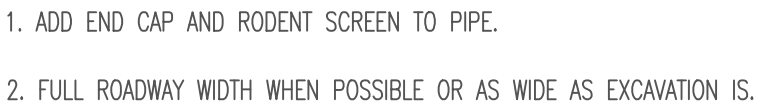
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CITY OF KIRKWOOD
CURB RESTORATION DETAILS
139 S. KIRKWOOD ROAD
KIRKWOOD, MISSOURI 63122

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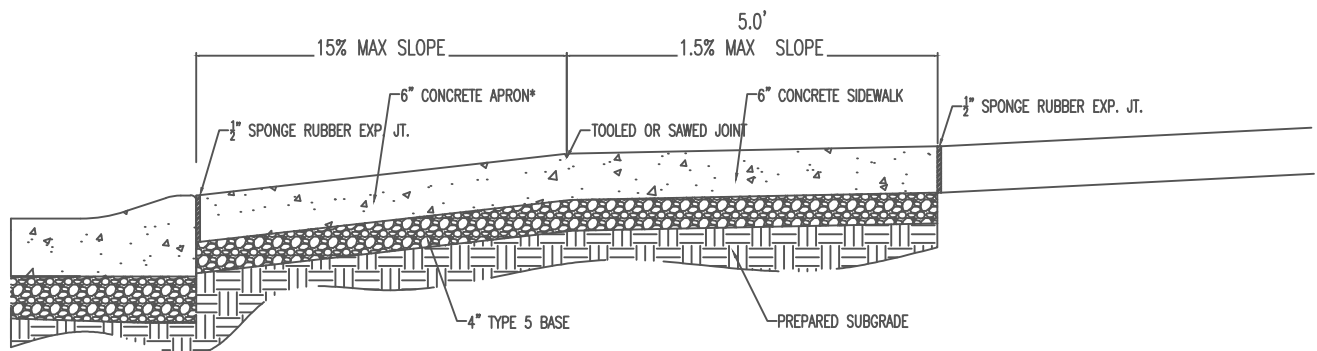


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STANDARD DRAWINGS		DATE: 1/21/20				
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7 OF 13		SCALE: NONE				
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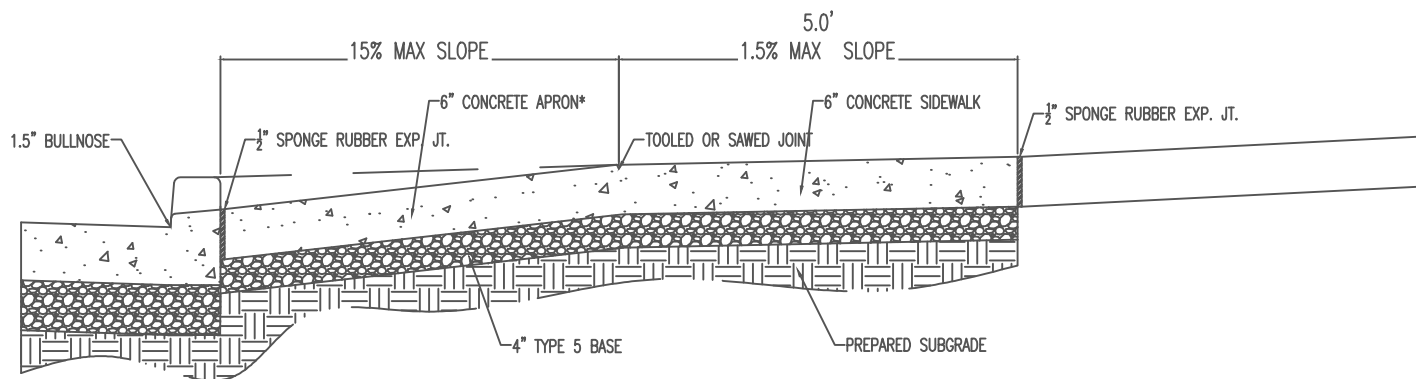
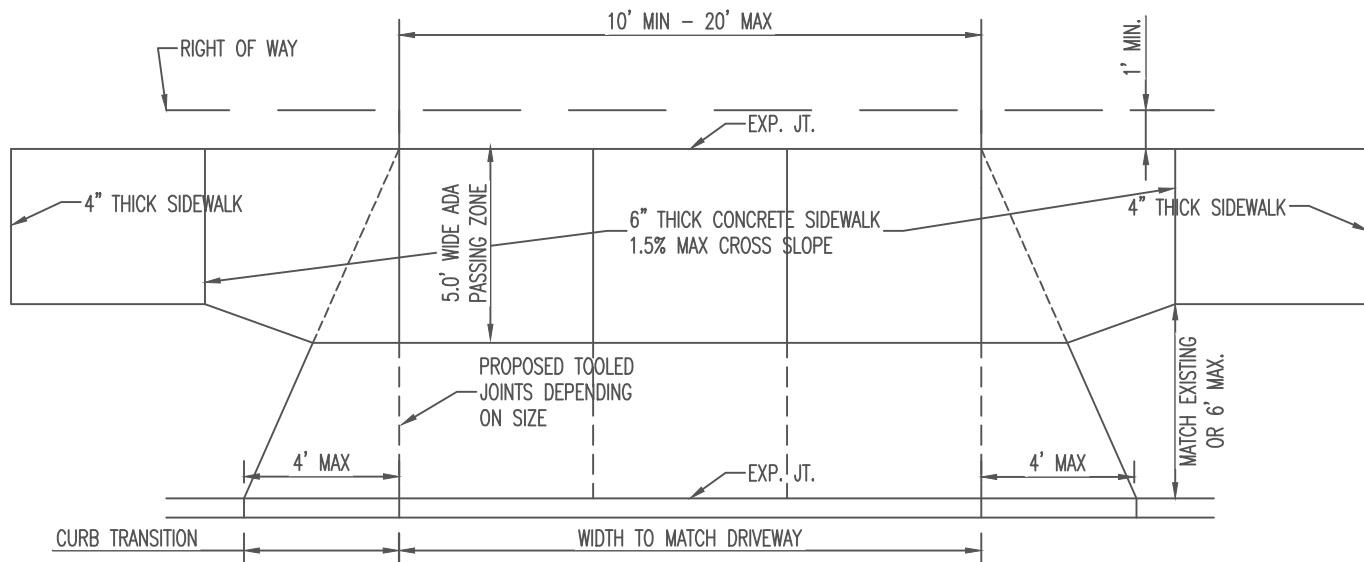
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- 1.) COMMERCIAL ENTRANCES AND ENTRANCES TO MULTIFAMILY UNITS (OVER TWO UNITS) SHALL BE CONSTRUCTED OF 6.25 SACK CONCRETE WITH MERAMEC SAND AND GRAVEL. WITH A MINIMUM THICKNESS OF SEVEN INCHES.
- 2.) COMMERCIAL ENTRANCES SHALL NOT BE MORE THAN 35 FEET WIDE OR LESS THAN 12 FEET WIDE FOR ONE-WAY TRAFFIC. THE OPENING AT THE CURB OR PAVEMENT EDGE SHALL NOT BE LESS THAN A RADIUS OF 10 FEET NOR MORE THAN 20 FEET.



RESIDENTIAL



*APRON MAY ALSO BE 2" ASPHALTIC CONCRETE OVER 6" TYPE 5 BASE. SIDEWALK MUST BE 6.25 SACK MERAMEC SAND/GRAVEL CONCRETE CONCRETE.

- 1.) COMMERCIAL ENTRANCES AND ENTRANCES TO MULTIFAMILY UNITS (OVER TWO UNITS) SHALL BE CONSTRUCTED OF 6.25 SACK CONCRETE WITH MERAMEC SAND AND GRAVEL. WITH A MINIMUM THICKNESS OF SEVEN INCHES.
- 2.) COMMERCIAL ENTRANCES SHALL NOT BE MORE THAN 35 FEET WIDE OR LESS THAN 12 FEET WIDE FOR ONE-WAY TRAFFIC. THE OPENING AT THE CURB OR PAVEMENT EDGE SHALL NOT BE LESS THAN A RADIUS OF 10 FEET NOR MORE THAN 20 FEET.

STANDARD DRAWINGS

SHEET NO.

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CITY OF KIRKWOOD
DRIVEWAY DETAIL - VERTICAL CURB
139 S. KIRKWOOD ROAD
KIRKWOOD, MISSOURI 63122

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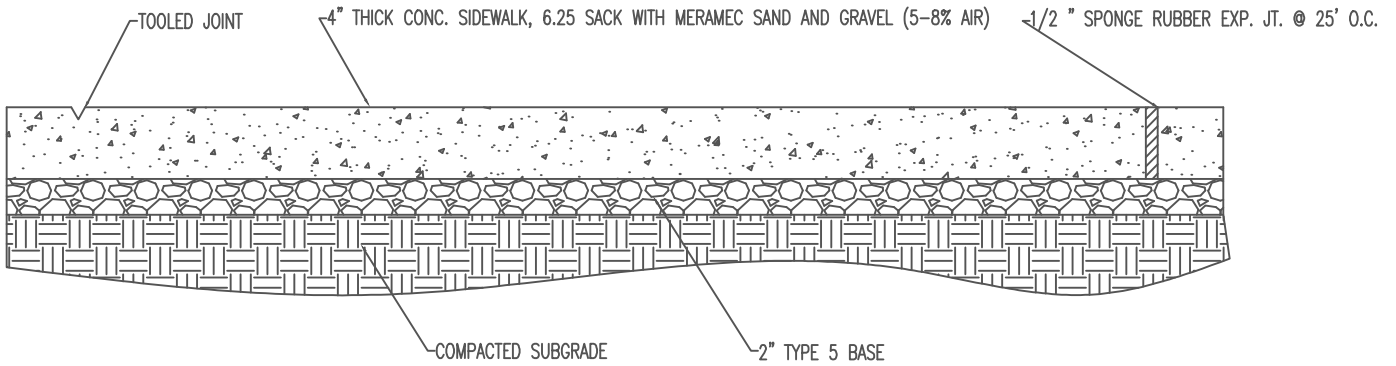
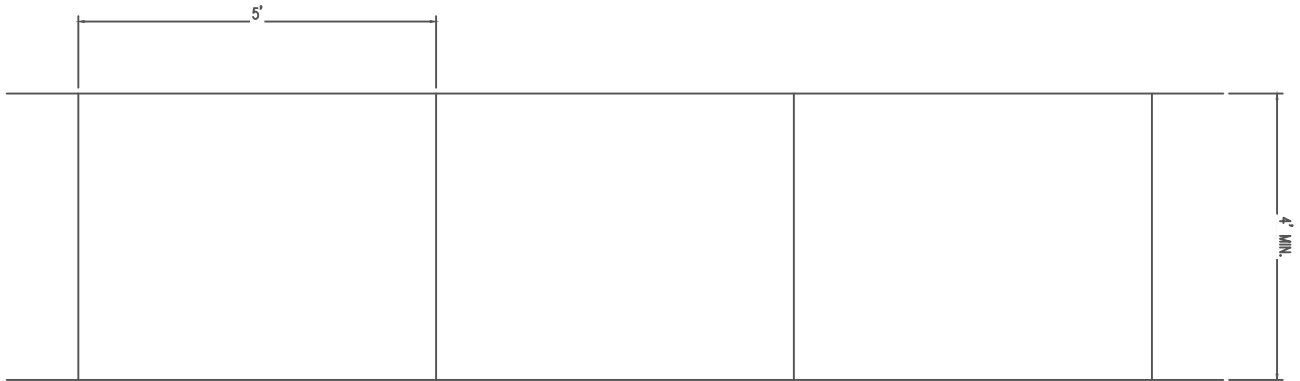
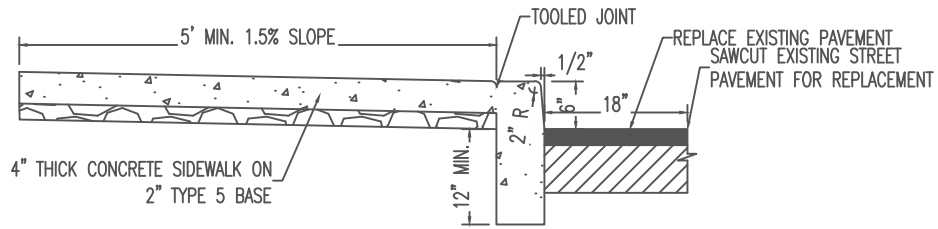
SCALE:

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NO. DATE REMARKS

ISSUE / REVISION DESCRIPTIONS



STANDARD DRAWINGS

SHEET NO.

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CITY OF KIRKWOOD
TYPICAL SIDEWALK DETAIL
139 S. KIRKWOOD ROAD
KIRKWOOD, MISSOURI 63122

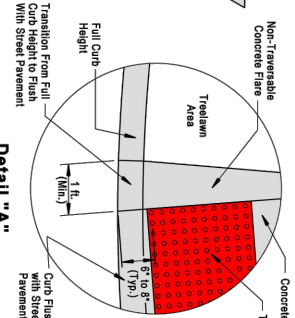
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ISSUE / REVISION DESCRIPTIONS

- | NEW | | REVISIONS | | ST. LOUIS COUNTY PROJ. | | | | |
|--|--------------|-----------|--|---|----------------|--------------|--|--|
| 3-1-10 | 7-1-10 | | | | | | | |
| Slabwork Width 4 foot Wide (Typ. Residential) _____
* From Front of Curb Line
** For Truncated Dome Man Details, See Std. Drawg. C808.61 | | | | <table border="1"> <thead> <tr> <th>PROJECT NUMBER</th> <th>TOTAL SHEETS</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table> | PROJECT NUMBER | TOTAL SHEETS | | |
| PROJECT NUMBER | TOTAL SHEETS | | | | | | | |
| | | | | | | | | |



- Type "1" Curb Ramp**
Vertical Curb - ARS, Collector & CRS-2 Roads Typical

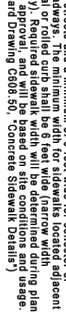
1 ft
Min.
(Width as per Approved Plans)
1 ft
Min.
7 inch Thick Concrete
Slope
Slope
Ground Line

12
1
12:1 (8.3%)

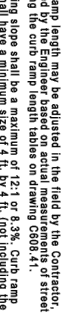
* See General Notes, Item #13



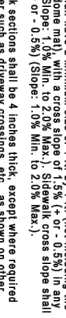
- 12.1 maximum ramp slope**
arterial road
to a vertice
right-of-way
review and
(see Stand



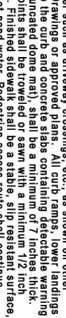
-
- Concrete Curb Ramp or Lower Ramp Landing
- 16 in.
- 6 in.
- Ground Line
- Sloped Width to 6 Feet Per Lin. and Accepted Plans



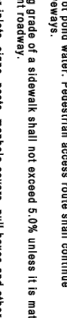
-
- Diagram illustrating the construction of a sidewalk curb and ramp landing. The curb is 7 in. thick concrete and 13 in. high. The ramp landing is 24 in. wide and has a 2% slope. The sidewalk is 24 in. wide and has a 2% slope. The curb is labeled "7 in. Thick Concrete" and "13 in.".



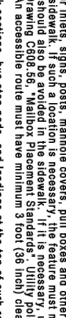
- Section B - B**
- Standard D adjacent to surface (in Street) is depth joint.
- 6 inch Wide, Type "A" Variable Height Concrete Vertical Curb Section
- Prepared Subgrade
- Diagram showing cross-section details:
- Top width: 18 inches
 - Bottom width: 10 inches
 - Height: 12 inches
 - Material: CRS 6' Diameter
 - Depth: 6 inches
 - Angle: 15°
 - Label: 6 inch Wide, Type "A"



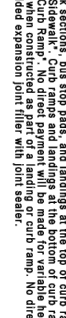
-
- 6 inch Wide, Type "A" Variable Height
- 12:1 Slope (ft)
- Variable Height Concrete Vertical Curb (See Standard Drawings CS92.03 & CS95.41)
- 12 inch Wide Variable Height



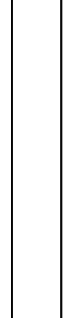
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- (Order in increments of 1000 ft. long)
 (Std. Dwg. C902.03)
- 3' 0"
- NOT USED —
- Asphalt
 • Concrete
 • Concrete or saw cut for pre-mo
- Type "2" Curb Ramp
 (Vertical Curb)



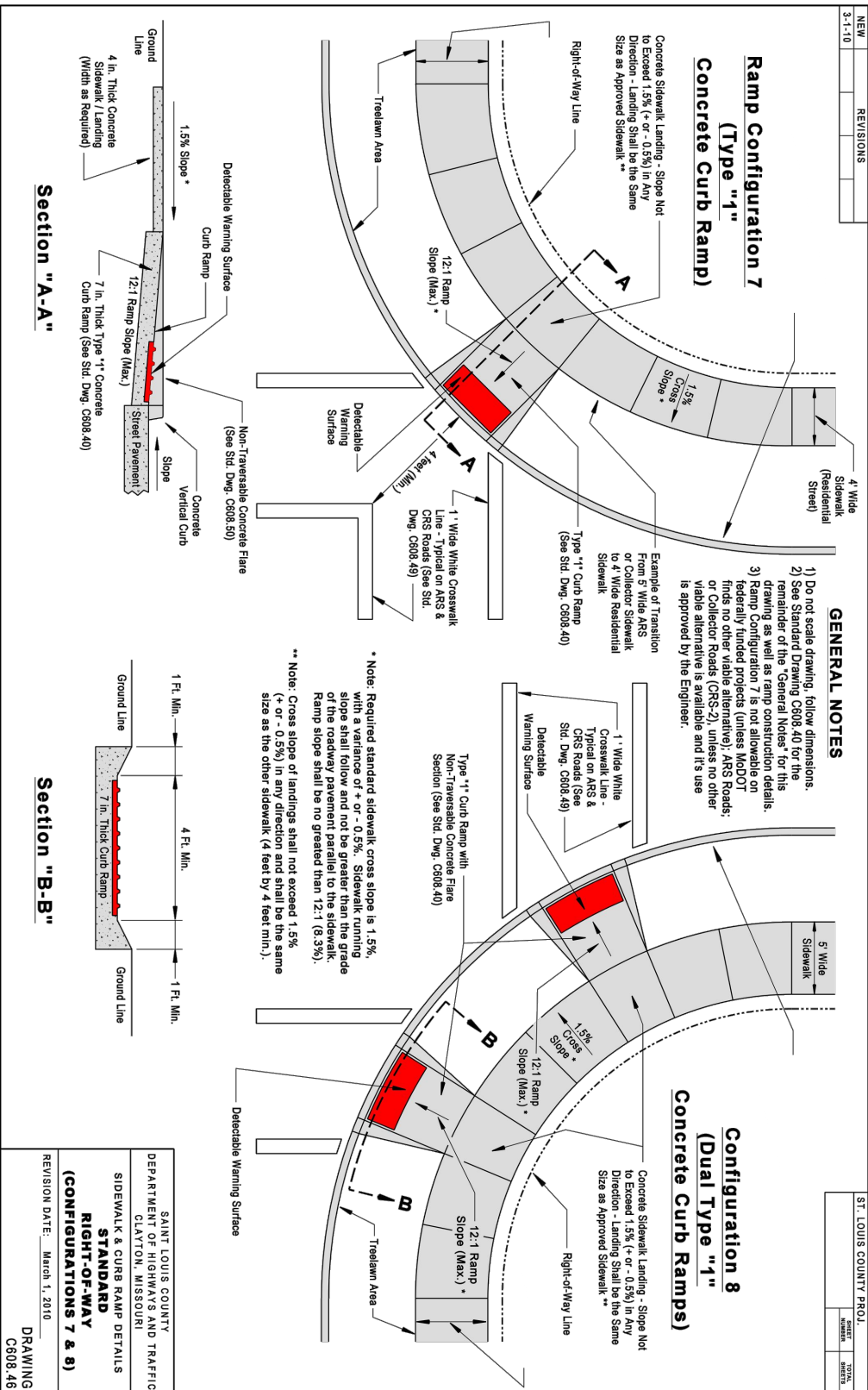
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- 1.) ALL TRUNCATED DOMES SHALL BE CAST IN PLACE. DOMES SHOULD BE YELLOW EXCEPT FOR ON KIRKWOOD ROAD WHERE THEY SHALL BE RED.
- 2.) ADA STANDARDS NOT PROVIDED WITHIN SHALL BE FOLLOWED FROM THE ST. LOUIS COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.



STANDARD DRAWINGS

SHEET NO.

C-2

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CITY OF KIRKWOOD
ADA CURB RAMP DETAILS
139 S. KIRKWOOD ROAD
KIRKWOOD, MISSOURI 63122

DATE:
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COUNTY
SCALE:
NONE



NO.	DATE	REMARKS

ISSUE / REVISION DESCRIPTIONS

1.) ALL TRUNCATED DOMES SHALL BE CAST IN PLACE. DOMES SHOULD BE YELLOW EXCEPT FOR ON KIRKWOOD ROAD WHERE THEY SHALL BE RED.
2.) ADA STANDARDS NOT PROVIDED WITHIN SHALL BE FOLLOWED FROM THE ST. LOUIS COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

NEW	REVISIONS
7-24-03	7-31-07 [0-22-08] 3-1-10 7-8-11

General Notes

- Do not scale drawings, follow dimensions.
- The surface shall be compliant with the Americans with Disabilities Act Accessibility Guidelines (ADAAG), Detectable Warnings (Paragraph 4.29), and Curb Ramps (Paragraph 4.7), and Ramps (Paragraph 4.5). Non-compliance shall be removed and corrected at contractor's expense.
- The contractor and/or manufacturer must provide a performance warranty on the product and installation of the Detectable Warning Surface (DWS) for a minimum period of 1-year from the date of project acceptance or installation (whichever date is later). The performance warranty shall guarantee that the DWS is free from defect in workmanship and material including deformation, breakage, excessive wearing or breakage of truncated domes, color fastness, delamination, or attachment to pavement surface.
- The Detectable Warning Surface (DWS) type shall be "Cast-in-Place with Screw Anchoring" (both new and retrofit applications) with the approved manufacturers listed on the "MODOT Qualified Lists, Qualified Truncated Domes, FS-1067 Table 1" (also see MODOT Std. Dwg. C608.10N). The MODOT "Qualified Lists" are located on the internet at: www.modot.org/business/materials/pdf/main/tables.pdf
- Refer to St. Louis County Standard Drawings C608.40 through C608.50 for sidewalk and curb ramp details and typical configurations. Truncated dome mats, tiles or panels are required on all raised concrete channelization islands with curb ramps (see Standard Drawing C608.49).
- SAFETY MEASURES - Using barricades, cones or other safety devices, block off work area to pedestrian and vehicle traffic during installation process. Have work crew be prepared to offer alternate accessible pathway to disabled pedestrians during the time work is being performed and adhesive is curing.
- Contractors or manufacturers shall at the request of this Department, provide product literature, installation procedures, maintenance instructions, detectable warning (truncated dome) samples (minimum 12 in. x 12 in.), and if necessary current test reports in accordance with ASTM guidelines, and possible test installation by the contractor or manufacturer.
- 50% to 85% of Base Diameter
- Truncated dome mats, tiles or panels shall be a cast-in-place product and approved by the project engineer prior to usage. Tiles or mats shall be pre-cast and installed per manufacturer's recommendations and instructions. Stamped concrete truncated domes or grooves will not be accepted.
- 11) Truncated dome mats, tiles or panels shall be a cast-in-place product and approved by the project engineer prior to usage. Tiles or mats shall be pre-cast and installed per manufacturer's recommendations and instructions. Stamped concrete truncated domes or grooves will not be accepted.

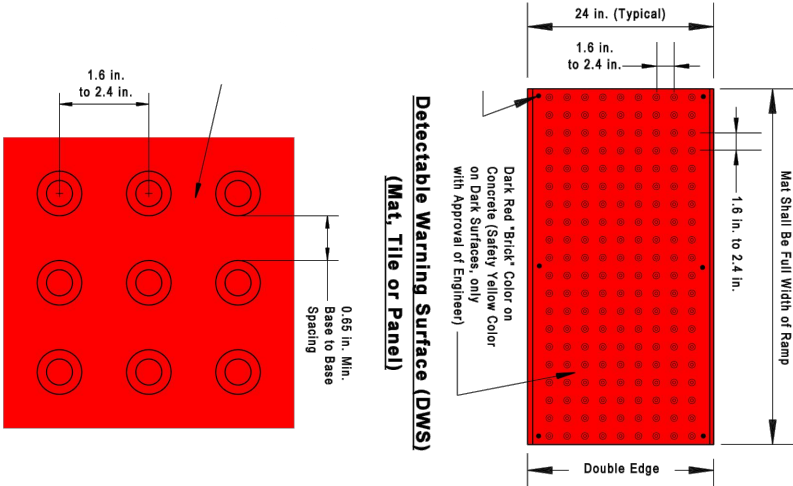
MATERIALS

Cast-in-place composite tiles or mats shall be made of polyester/nylon ester reinforced compression molded material or similar approved material, throughout the thickness of the detectable warning surface. Colors shall be dark red "brick" color (on concrete surface) and Safety Yellow (on dark surfaces with the approval of the engineer). DWS shall meet the Federal standard colors for tactile panels. UV stabilization protection (fade resistance) shall be homogeneous throughout the composite material and not rely on any type of painted or coated surface to achieve color or UV code compliance. Mats or tiles shall have a minimum of six (6) corrosion resistant anchors with color coordinated corrosion resistant fasteners.

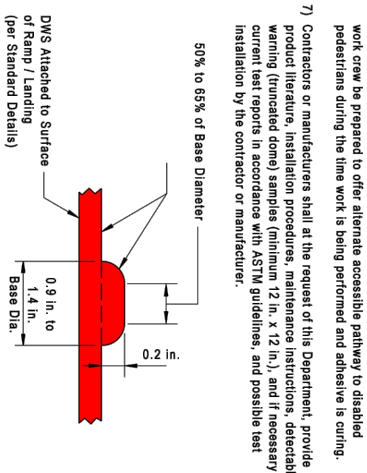
- Detectable Warning Surface (DWS) shall consist of a surface of truncated domes aligned in a square or radial grid pattern. The pattern shall be aligned with the edge of pavement in the direction of travel. The DWS shall extend 24 inches in the direction of travel and span the full width of the curb ramp (exclusive of flares), landing or blended transition. The DWS shall contrast visually with the ramp or landing surface (dark-on-light surface, or light-on-dark surface). Truncated domes shall be aligned parallel to the running slope of a ramp, in a square grid, when installed in the direction of pedestrian travel, to permit wheels to roll between the domes. DWS shall be installed 6 in. to 8 in. from the face of curbs, the full width of the ramp (max. of 2 in. from each side of the ramp or landing - see Detail A, on Std. Dwg. C608.40). DWS in a cut-through island, shall be installed full width, aligned with the face of the cut-through island curb (see Std. Dwg. C608.49).
- The DWS, truncated dome mats, tiles or panels used, shall be consistent throughout the project and are required to be installed on all curb ramps at public and private street intersections, signalized entrances, and at all channelized and raised islands where a curb ramp or cut-through is provided. DWS shall be omitted on curb ramps adjacent to private entrances. The DWS type and location shall be approved by the Engineer prior to installation.

Detectable Warning Surface (DWS)

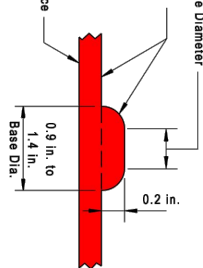
(Mat, Tile or Panel)



Square Pattern, Parallel Alignment



Truncated Dome Detail



SAINT LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC CLAYTON, MISSOURI	REVISION DATE: JULY 6, 2011
SIDEWALK & CURB RAMP DETAILS DETECTABLE WARNING SURFACE FOR NEW CONSTRUCTION AND RETROFITTING OF CURB RAMP	DRAWING C608.51

STANDARD DRAWINGS

CITY OF KIRKWOOD
ADA CURB RAMP DETAILS
139 S. KIRKWOOD ROAD
KIRKWOOD, MISSOURI 63122

SHEET NO.
C-3

13 OF 13

DATE: 1/21/20
CHECKED: C.A.K.
DRAWN: COUNTY
SCALE: NONE



NO. DATE REMARKS

ISSUE / REVISION DESCRIPTIONS