PUBLIC WORKS 1





### Ordinance 240335

TI & O Committee

April 10, 2024





## **Standards Change Process**

- 1. Public Works Standards Committee reviews proposed changes
- 2. Public meeting is held to receive public input on proposed changes
- 3. Public comments are received for 30 days immediately following the public meeting
- 4. Standards Committee may then recommend that the changes be approved, approved with modifications, denied, or continued for further consideration
- 5. City Council must make final approval of changes



### Focus Area

### **Summary of Changes**



Speed Humps TC-SH-1

- Updated intersection spacing from 150ft to 125ft
- Added signage details for standard drawings
- Updated use of Type 5 asphalt instead of Type 3
- Added waiver requirements for curbs



Raised Crosswalks TC-RC-1

Added new standard with various scenarios for drainage treatment



Raised Intersections TC-RI-1

Added new standard



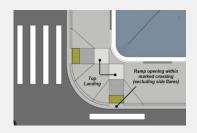
Chicane TC-C-1

Added new standard



### **Focus Area**

### **Summary of Changes**



ADA Ramps SW-1

- Consolidated the previous ADA Ramps to be aligned with PROWAG and MoDOT
- Added flares as preferred approach than vertical curb ramps
- Vertical curb ramps exception to be approved by an Engineer from the City
- Added standards for construction to be poured monolithic to the curb
- Added standards for island for pedestrian crossing



Alley (Concrete/Asphalt)

AS-2-C

AS-2-A

Added new standard



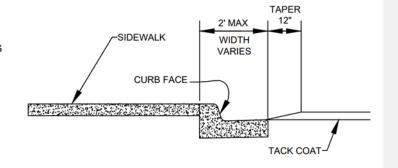
KCMO – APWA 2200 Subgrade Roll Testing Update subgrade roll testing from 20 tons to 25 tons (2201.3E)

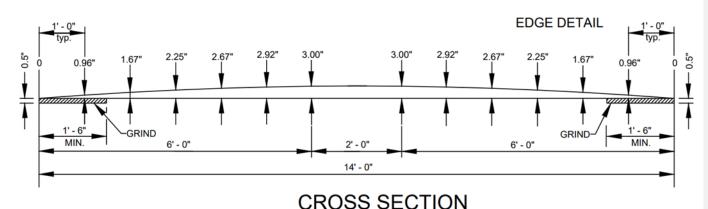


# Speed Humps (1 of 2) – TC-SH-1

### SPEED HUMP SPECIFICATIONS

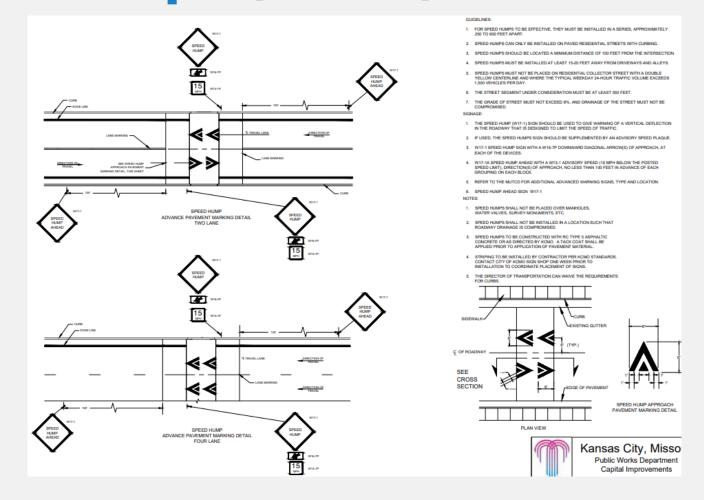
IMPORTANT: SPEED HUMPS TO BE 3" IN HEIGHT TO PROVIDE MAXIMUM EFFECTIVENESS, WHILE NOT BEING OVERLY RESTRICTIVE TO EMERGENCY, POLICE AND FIRE VEHICLES.





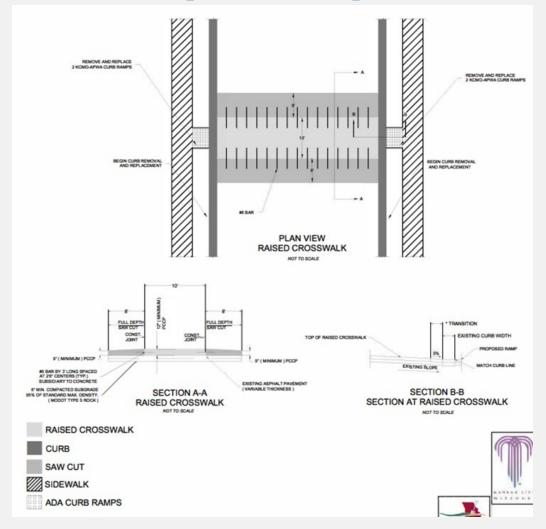


## Speed Humps (2 of 2)- TC-SH-1



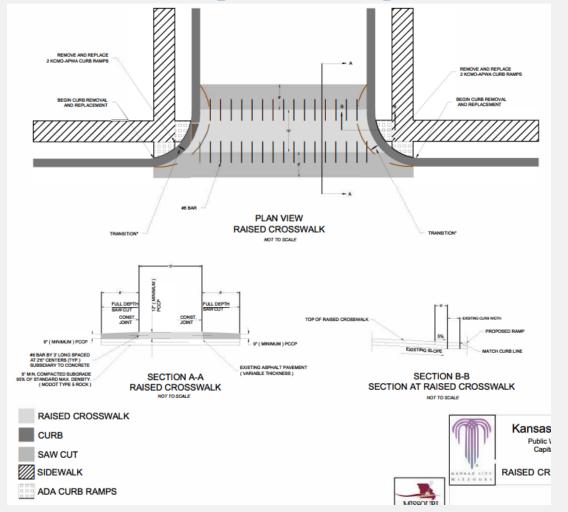


### Raised Crosswalk (1 of 7) - TC- RC-1



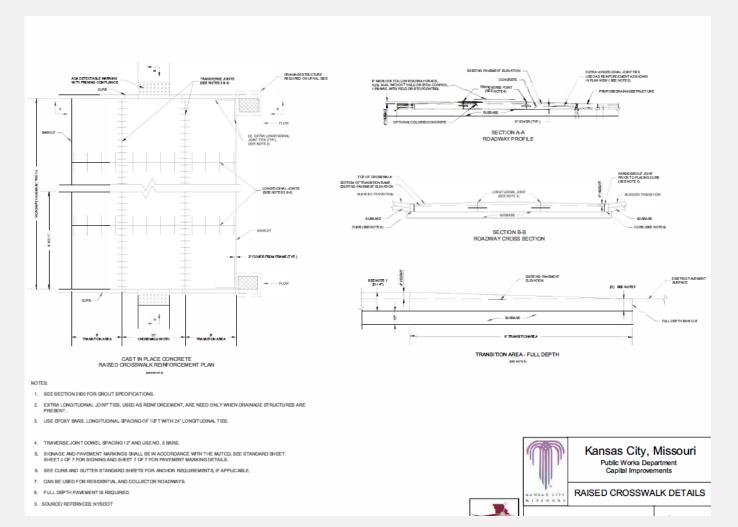


## Raised Crosswalk (2 of 7)-TC-RC-1



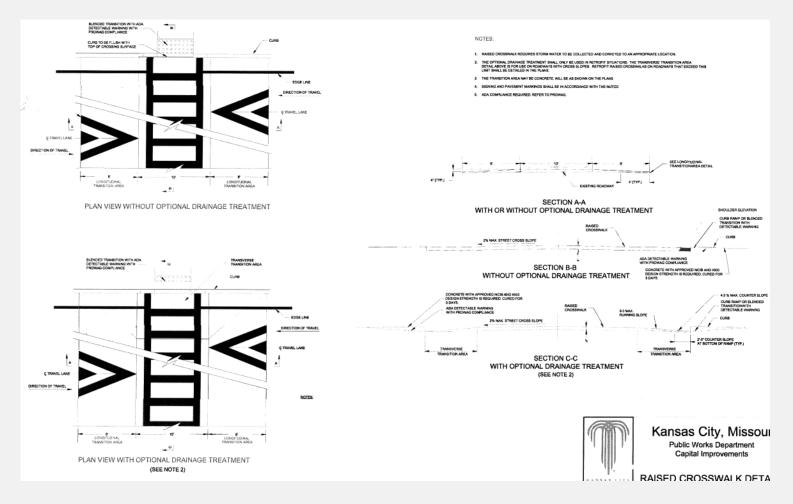


# Raised Crosswalk (3 of 7)-TC-RC-1



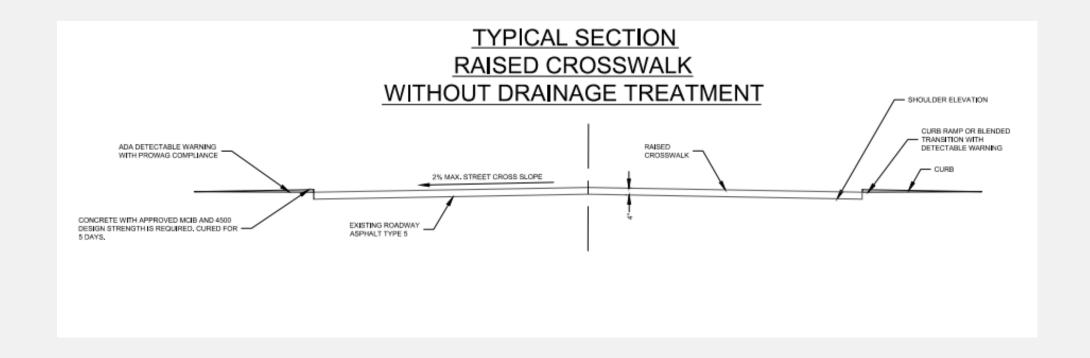


# Raised Crosswalk (4 of 7)-TC-RC-1





### Raised Crosswalk (5 of 7)-TC-RC-1

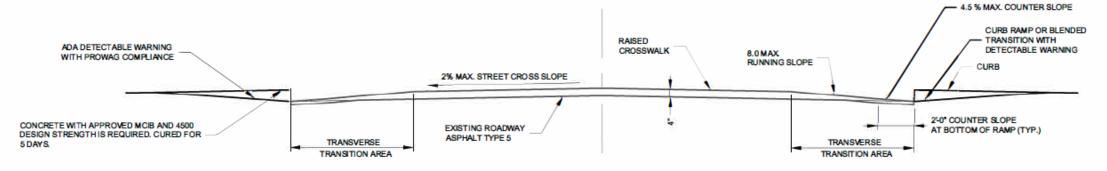




## Raised Crosswalk (6 of 7)-TC-RC-1

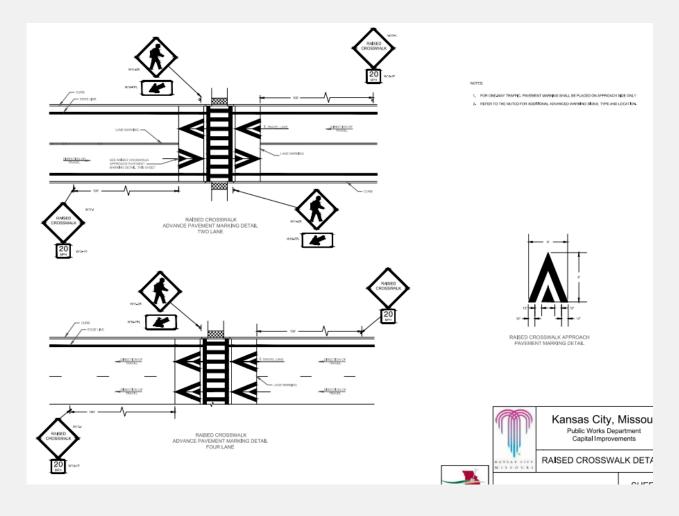
# TYPICAL SECTION RAISED CROSSWALK WITH OPTIONAL DRAINAGE TREATMENT

(REFER TO SHEET 4: NOTE 2)



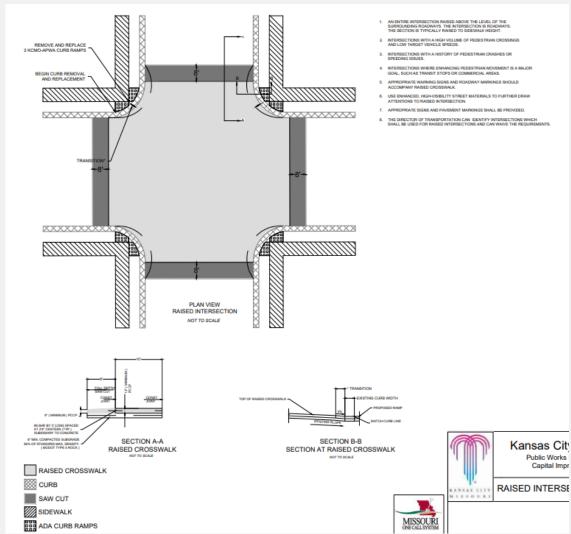


### Raised Crosswalk (7 of 7)-TC-RC-1



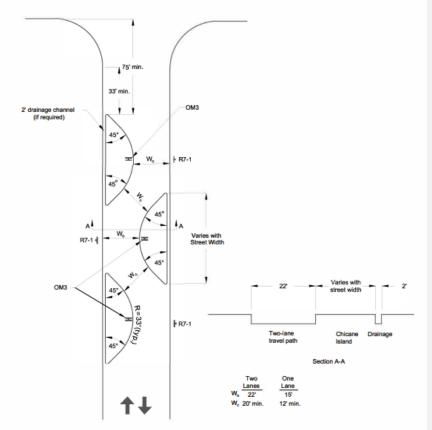


# Raised Intersection – TC-RI-1





# Chicane (1 of 2)-TC-C-1

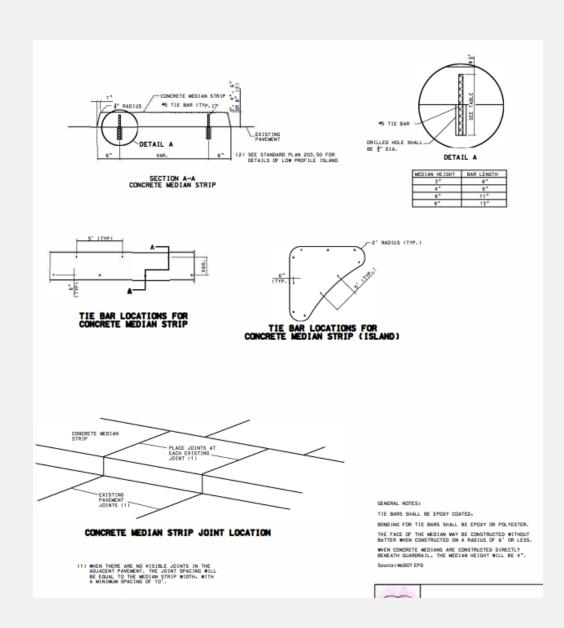


- The travel path through the chicane can be one lane or two lanes as noted.
- 2. Spacing of chicane segments dependent on site considerations. e.g. driveway locations.
- 3. Island planting should not obscure drivers view of chicane traffic.
- Additional R7-1 signs may be required to satisfy local convention.
- 5. Bicycles are to use the same path as motor vehicles, not the drainage channel.
- Depending of locale climate and preference, vertical delineation other than Object Markers (OM3) may be more appropriate. Possible alternatives include landscaping and curb painting.
- The drainage channel should be 2 feet wide or a minimum of gutter length as specified by CG-1 / CG-2.
- 8. The chicanes when placed shall be checked for turning movements.



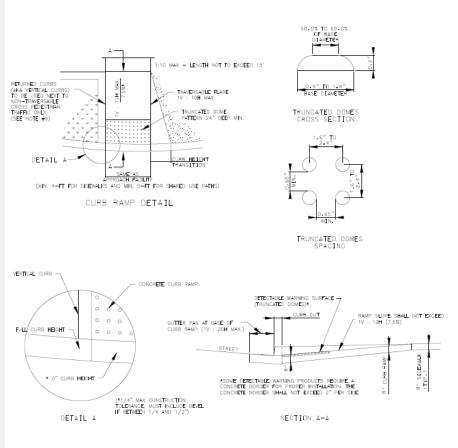


# Chicane (2 of 2)-TC-C-1



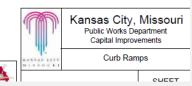


## ADA Ramps (1 of 4)-SW-1



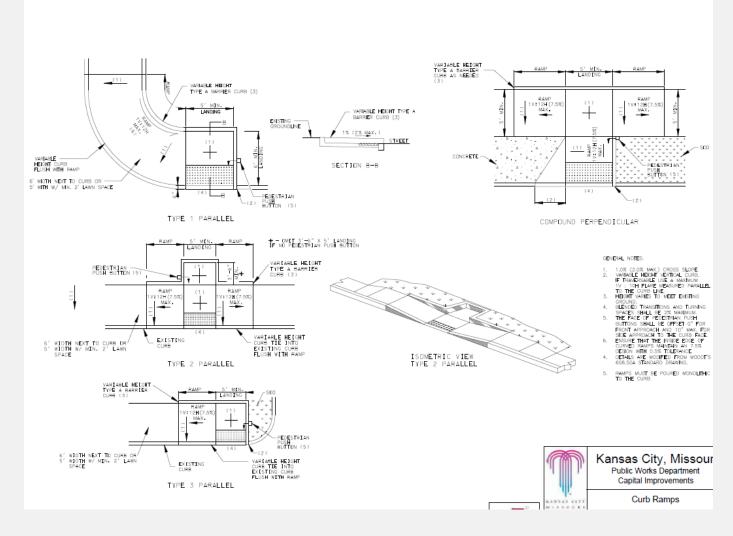
### GENERAL NOTES:

- ALL AREAS OF THE PEDESTRIAN ACCESS ROUTE MUST BE COMPLIANT WITH THE US ACCESSIBILITY BOARD'S PROPOSED PUBLIC BIOTHS OF WAY ACCESSIBILITY OUDSILESS. EXCEPTIONS MUST BE APPROVED BY THE ENGINEEY. ALL OTHER AREAS OF NON-COMPLIANCE SHALL BE PEDINOED AND CORRECTED AT THE CONTRACTOR'S EMPISIE.
- THE SURFACES OF PEDESTRIAN ACCESS ROUTES AND ELEMENTS, AND SPACES REQUIRED TO CONNECT TO PEDESTRIAN ACCESS ROUTES SHALL BE FIRM, STABLE, SUP RESISTANT AND SHALL NOT POND WATER.
- SIDEWALK, RAMP AND LANDING CROSS SLOPES SHALL 1.00% TO FACILITATE DRAINAGE (2.00% MAX.).
- THE CROSS SLOPE OF THE CONTINUOUS PEDESTRIAN ACCESS ROUTE THROUGH ENTRANCES, ALLEYS, AND SIDE ROAD CONNECTIONS WITH STDP OF YELD CONTROL SHELL BE LOOK TO FACILITATE DRAHAGE (2.00% MAX.).
- 5. WHERE PEDESTRIAN ACCESS ROUTES ARE CONTAINED WITHIN PEDESTRIAN STREET CROSSINGS WITHOUT YIELD OR STOP CONTROL THE ROSS SLOPE OF THE PEDESTRIAN ACCESS ROUTE SHALL BE 2.00% MAXIMUM.
- WHERE PEDESTRIAN ACCESS ROUTES ARE CONTAINED WITHIN MIDBLOCK PEDESTRIAN STREET CROSSINGS. THE CROSS SLOPE OF THE PEDESTRIAN ACCESS ROUTE SHALL BE PERMITTED TO EQUAL THE STREET OR HIGHWAY GRADE.
- 30" x 48" CLEAR SPACE SHALL BE PROVIDED CENTERED ON THE PEDESTRIAN PUSH BUTTON.
- 8. BEYOND THE BOTTOM GRADE BREAK OF A CURB RAMP, A CLEAR SPACE 4" MINMAIN SHALL BE PROVIDED WITHIN THE WEITH OF THE PEDESTRIAN STREET CROSSING CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LAME
- SIDE FLARES OF CURB RAMPS, IN THE PATH OF PEDESTRIAN TRAVEL (TRAVENSABLE), SHALL NOT EXCEED A SLOPE OF 19/10H. SIDE FLARES OUTSIDE THE PEDESTRIAN PATH (NON TRAVENSABLE) MAY BE VERTICAL
- 10. TRANSMON FROM SIDEWALK OR CURB RAMP TO GUTTER TO ROADWAY SHALL BE FLUSH
- 11. DETECTABLE WARNING SUFFACES (TRUNCATED DOMES) SHALL BE PREFORMED AND INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS. RECOMMEND CAST IRON. GESTABLE WARNING SUFFACE STAMPED CONCRETE OR BRICKS WILL NOT DESCRIPTION.
- THE DETECTABLE WARNING SURFACE SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, ETHER LIGHT-ON-DARK OR DARK-ON-LIGHT. TUNCATED DOMES SHALL SPAN THE FULL WIDTH OF THE RAMP OR LANDING 24" DEEP MINIMUM.
- 13. DETECTABLE WARNING SURFACES SHALL BE AUGNED PERPENDICULAR OR RADIAL TO THE BREAK BETWEEN THE RAMP, LANDING OR BLENDED TRANSIONS, AND THE STREET.
- 14. DETAILS ARE MODIFIED FROM MODOT'S 608.50A STANDARD DRAWING.
- VERTICAL EDGES ON RAMPS NEED TO BE APPROVED BY THE ENGINEER FROM THE CITY, YELLOW PAINT SHALL BE REQUIRED TO ADDED AT THESE LOCATIONS FOR MISBILITY.
- 16. ADA RAMP SHALL BE POURED MONOLITHIC CURB AND RAMP.



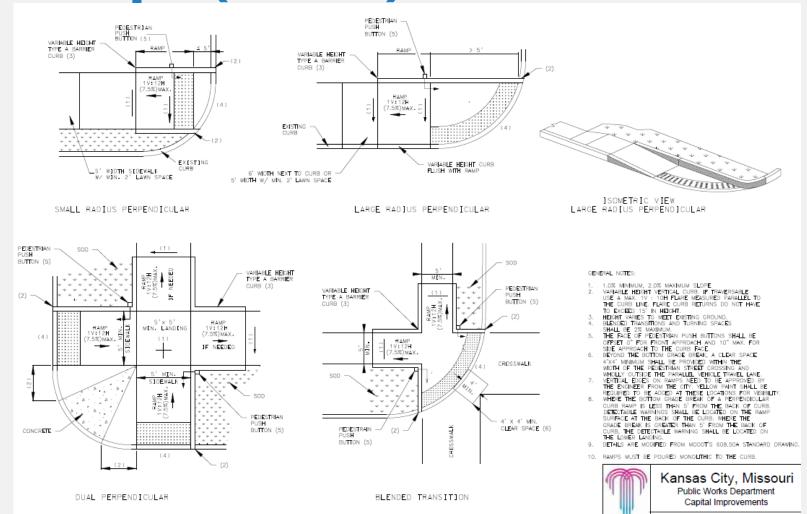


### ADA Ramps (2 of 4)-SW-1



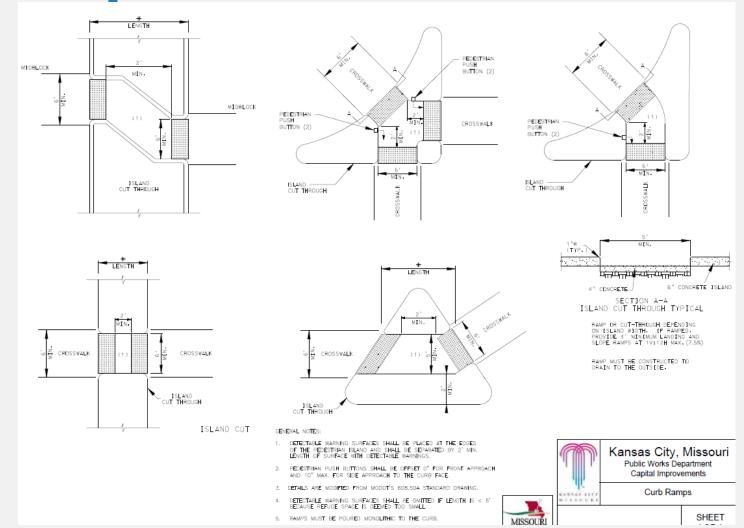


### ADA Ramps (3 of 4)-SW-1



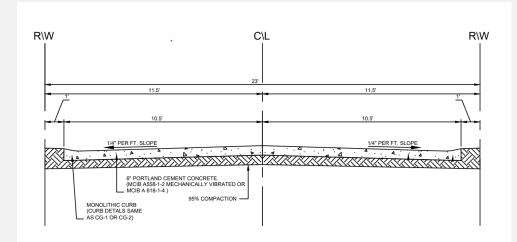


### ADA Ramps (4 of 4)-SW-1





### Alley Typical Detail (Concrete)-AS-2-C



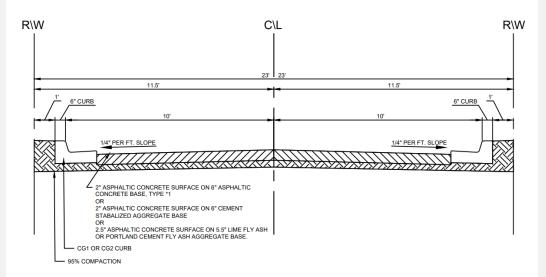
### **ALLEY SECTION**

### NOTES:

- 1 MIX DESIGNS OF P.C.C. SHALL BE PER SECTION 2208.2
- TRANSVERSE CONTRACTION JOINT SHALL BE SPACED AT INTERVALS EQUAL TO THE WIDTH OF ALLEY. IF THE ALLEY IS 15 FEET OR GREATER IN WIDTH, A LONGITUDINAL CONTRACTION JOINT SHALL BE CONSTRUCTED AT THE CLL OF THE ALLEY.
- 3. EXPANSION JOINTS SHALL BE CONSTRUCTED AT EACH END OF THE ALLEY AND AT EACH ABUTTING DRIVEWAY
- 4. DRAINAGE STRUCTURES MAY BE REQUIRED IF DETERMINED BY THE CITY ENGINEER.
- 5. WHERE THE ALLEY INTERSECTS WITH A STREET, A DRIVEWAY APPROACH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE STANDARD DRAWING.
- 6. WHERE NEEDED, HANDICAP RAMPS SHALL BE CONSTRUCTED.



# Alley Typical Detail (Asphalt)-AS-2-A



### **ALLEY SECTION**

### NOTES:

- 1 MIX DESIGNS OF P.C.C. SHALL BE PER SECTION 2208.2
- TRANSVERSE CONTRACTION JOINT SHALL BE SPACED AT INTERVALS EQUAL TO THE WIDTH OF ALLEY. IF THE ALLEY IS 15 FEET OR GREATER IN WIDTH, A LONGITUDINAL CONTRACTION JOINT SHALL BE CONSTRUCTED AT THE C.L OF THE ALLEY.
- 3. EXPANSION JOINTS SHALL BE CONSTRUCTED AT EACH END OF THE ALLEY AND AT EACH ABUTTING DRIVEWAY.
- 4. DRAINAGE STRUCTURES MAY BE REQUIRED IF DETERMINED BY THE CITY ENGINEER.
- 5. WHERE THE ALLEY INTERSECTS WITH A STREET, A DRIVEWAY APPROACH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE STANDARD DRAWING.
- 6. WHERE NEEDED, HANDICAP RAMPS SHALL BE CONSTRUCTED.



### KCMO APWA 2200 (2201.3E)

- E. Roll Testing: Once the subgrade has been brought to the final plan elevation, but prior to approval of the subgrade for paving, all lanes shall be roll tested in their entire length. The subgrade will not be acceptable if rutting, pumping, or deformation of the subgrade results from the roll test. This testing will be done by the contractor, and will be in addition to the applicable moisture and density testing.
- Equipment for roll testing shall be a tandem dump truck (one front and two rear axles) carrying a twenty ton load. (Increasing this twenty ton load to twenty five ton load).