

**Kansas Citys, Missouri and Kansas  
Flood Risk Management Feasibility Study  
Engineering Appendix to the Final Feasibility Report**

**CHAPTER A-8**

**ACCESS ROADS**



## CHAPTER A-8 ACCESS ROADS

### A-8.1 ACCESS ASSOCIATED WITH EXISTING LEVEE

The Armourdale Unit is a highly developed manufacturing area with a significant road network. Contractor access into the area is via the West Kansas Avenue Bridge from the west, the I-70 and US Highway 69 from the north, the East Kansas Avenue Bridge from the east, and US Highway 69 from the south. The bridges can be accessed from I-70, which runs east-west on the north side of the Armourdale area. Bridge load limits and clearances will be included during design of plans and specifications.

Direct access to the site will be via the existing road network shown by Exhibit A of the Civil Design Chapter. The main artery running east-west is Kansas Ave. Osage Avenue is a smaller road but runs east-west as well. There are various north-south streets connecting the levee. Kaw Valley Drainage District (KVDD) will provide access during and after construction to the levee at the following landward ramps along the levee unit:

#### Construction Access Points

Access Point	Station	Roads		Private/Public	Direction of travel once access to levee is gained
A	32+10	Railroad Dirt Roads via 26th Street via Bayard Street		Private Public Public	Upstream/Downstream
B	60+56	Kansas Ave		Public	Upstream
B	63+04	Kansas Ave		Public	Downstream
C	42+50	Procter & Gamble		Private	Upstream/Downstream
D	128+25	12th Street		Public	Upstream
D	131+10	12th Street		Public	Downstream
E	Left Blank Intentionally				
F	184+70	5th Street		Public	Upstream/Downstream
G	220+25	Sambol Meat Packing Parking Lot via Osage Ave		Private Public	Downstream
H	252+35	Pitney Bowles Parking Lot via Kansas Ave		Private Public	Downstream
I	275+00	Railroad Dirt Roads via Kansas Ave		Private Public	Downstream
J	292+00	Central Ave		Public	Upstream/Downstream

The following table contains a list of all ramps, access points and turnouts currently located along the Armourdale Unit. This table provides the location of the feature according to station, what recommended action is proposed, and miscellaneous notes pertaining to the feature. According to EM 1110-2-1913, turnouts should be provided on one-lane access roads on levees at intervals of approximately 2500 feet, provided there are no ramps within the reach. Considering where all the landward and riverward access ramps and turnouts are located, the current ramps and turnouts meet this criteria.

### All Ramps and Access Points (A.P.) Recommended Improvements

Access Point	Station	Landward or Riverward Access	Action	Notes
Ramp	11+90UE	Riverward	Reestablish for N500+3 raise	Access is to new road at base of new floodwall
Ramp	13+50UE	Riverward	Reestablish for N500+3 raise	Access is to new road at base of new floodwall
Ramp	16+55UE	Riverward	Abandon	
Ramp	15+20	Riverward	Reestablish for N500+3 raise	
A.P. A	32+10	Landward	Reestablish for N500+3 raise	
A.P. A	32+10	Riverward	Reestablish for N500+3 raise	
A.P. B	60+56	Landward	Reestablish for N500+3 raise	Access is to new road at base of new floodwall
A.P. B	63+04	Landward	Reestablish for N500+3 raise	
Ramp	75+53	Landward	Reestablish for N500+3 raise	
Ramp	77+05	Landward	Reestablish for N500+3 raise	
Ramp	113+00	Landward	Abandon	Ramp currently dead ends at fence around salvage yard
Ramp	121+70	Riverward	Reestablish for N500+3 raise	
A.P. D	128+25	Landward	Reestablish for N500+3 raise	
A.P. D	131+10	Landward	Reestablish for N500+3 raise	
Ramp	131+30	Landward	Abandon	Access is to private parking lot with no means of locking off access
Ramp	168+35	Riverward	Reestablish for N500+3 raise	
A.P. F	184+70	Landward	Reestablish for N500+3 raise	Access is to new road at base of new floodwall
Ramp	222+50	Riverward	Reestablish for N500+3 raise	Access is to new road at base of new floodwall
A.P. G	230+25	Landward	Reestablish for N500+3 raise	Access is to new road at base of new floodwall
Ramp	231+00	Riverward	Reestablish for N500+3 raise	Access is to new road at base of new floodwall
A.P. H	252+35	Landward	Reestablish for N500+3 raise	Access is to new road at base of new floodwall
Ramp	253+50	Riverward	Reestablish for N500+3 raise	Access is to new road at base of new floodwall

A.P. I	275+00	Landward	No action	Not a ramp, just an access point to slot area prior to new floodwall construction
A.P. J	292+00	Landward		Not a ramp, just an access point to the landside of the existing floodwall
Ramp	302+58	Landward	Reestablish for N500+3 raise	
Ramp	313+00	Landward	Reestablish for N500+3 raise	

### Turnouts

Station	Landward or Riverward Access	Action
4+00UE	Landward	Reestablish for N500+3 raise
16+05	Landward	Reestablish for N500+3 raise
40+00	Landward	Abandon
110+00	Landward	Reestablish for N500+3 raise
157+70	Landward	Reestablish for N500+3 raise
168+35	Landward	Reestablish for N500+3 raise
247+15	Landward	Reestablish for N500+3 raise. New turnout will be riverside as new floodwall is going in here with a riverside access road.
40+00LE	Landward	Reestablish for N500+3 raise

Public access to these ramps is available over city streets and roadways except where noted. Coordination with the KVDD has shown that each access is maintained and usable for the project. The borrow area is located approximately 8 miles to the west of the site and is accessible via the public road system. In addition, multiple rights-of-entry through privately owned property will be required along the levee for direct access during construction. Temporary work area easements will be needed for location of construction trailers, contractor storage areas, and may also be needed for temporary construction roads.

Temporary aggregate construction roads will be constructed along the levee. These roads have little value for permanent use after construction is completed. They will be removed and replaced by permanent parking or seeded for turf establishment. Use of construction roads as permanent access to the levee is not viable since the current access is via existing ramps, which will be modified to accommodate any raise.

It is assumed that the city will require a road repair bond from the contractor in the amount of \$500,000. The bond will be held by the city to use for any damages caused by the

contractor’s construction equipment. It is also assumed a full-time street sweeper will be required during the earth hauling operations. Inspections of the contractor’s access route will be conducted prior to the start of construction and periodically during construction to determine the extent of any damage caused by the contractor. Costs are included in the estimate (see Cost Engineering chapter of the appendix) for cleaning and repair of existing roads.

### A-8.1.1 Private Roads and Access

When the levee is raised landward of the existing centerline, some private roads and access will be impacted. These roads and access will need to be reestablished if real estate interests are present. The following table lists the known impacts and proposed remedies

#### Private Roads and Private Access Routes

Station	Issue	Proposed Remedy
100+00	KC Hardwoods – Gravel road around “silo” is currently on levee slope	Reestablish access road on raised levee slope for N500+3 raise.
131+00	Pallet Processing – Industry stores some pallets and accesses rear of their building using toe of existing levee	Real Estate interest appears to not exist therefore, access will not be reestablished.
175+00 to 185+00	Schock Co. – Access Road from 5 <sup>th</sup> Street P.S. to Schock loading docks will be impacted with levee raise	Reroute access road north of existing road and then back to toe of levee near corner of building
197+00 to 257+56	Levee and T-Wall raise will extend onto existing parking lots and distribution warehouse truck lots	Impacts are being evaluated by real estate and will be detailed during next report iteration.
275+00 197+00 to 257	Slot access under MO Pacific Bridge and Union Pacific Bridge will be eliminated with new floodwall	Coordinate with railroad and PBI Gordon regarding at-grade crossings of railroad tracks onto PBI Gordon property.

At Sta. 275+00, there is a route under the Union Pacific Bridge and MO Pacific Bridge through the “slot” area. The route will no longer be available with the construction of a new floodwall and stoplog closure structure. The railroad has an undeveloped crossing under the Union Pacific track (southern track) that gives them access to their rail yard and maintenance buildings. This access will be left in place. During flood fights, the slot area has not been available due to flooding within the slot. Therefore, access around the slot with not additional access improvements, would be no different than current means. However, after the N500+3 recommendations are implemented, access around the slot area could be provided with at-grade crossings of the two railroad tracks passing over the tracks onto PBI Gordon access roads. No coordination with the railroad or with PBI Gordon has been made at this point.

Additional information regarding impacts to parking lots and private real estate is included in the Real Estate Appendix.