The preferred alternative incorporates various drainage improvements throughout the project limits to reduce flooding and improve water quality:

- Three retention ponds for water quality
- Two regional stormwater detention basins
- Stormwater detention in oversized sewer pipes
- Larger culverts at streams and tributary water crossings
- New bridge over Unnamed Tributary to Fox River, near Lillian Street / Grove Avenue
- Widened ditches including bioswales and native plantings
- Stream meandering of Squaw Creek
- Compensatory storage to mitigate for fill in floodways / floodplains
- New large sewer under roadway from Unnamed Tributary to Fox River to Boone Creek to reduce flooding