

## Polk Township – Bond Road



**Problem:** Runoff had to travel a long distance in the road ditch before entering existing cross pipes. The existing cross pipes were undersized and could not handle the runoff from heavy rain events. Runoff overflowed at the cross pipes, causing erosion on the road and at the cross pipe outlets. An outlet from an existing field drain was directed into the road ditch, causing erosion and increased runoff in the ditch.

**Solution:** Larger cross pipes as well as additional cross pipes were installed. Inlet boxes were laid on their sides to stabilize the inlets of the new cross pipes. The field drain was connected into an inlet box. The road base was built up where needed and a grade break was installed. Large stone was installed at the outlets of the cross pipes. Road ditches were lined with large stone to encourage the runoff to slow down.

