

Drainage District:

#48

Investigation Summary:

- Per recommendation of previous investigation summary, performed preliminary survey of existing main open ditch flowline, inventory of main open ditch condition, and found the following issues:
  1. 6,000± feet of the main open ditch that has silt accumulation of ½± feet to 1½± feet (see attached map for locations).
  2. 15,460± feet of the main open ditch that has eroded below the original design grade (see attached map for locations).
  3. 8,800± feet of the main open ditch that has a bottom width narrower than the original design (see attached map for locations).
  4. Erosion around the outlet of the main tile at the upper end of the main open ditch.
  5. 10± locations of existing tile outlets that are in disrepair.
  6. 20± locations of existing surface drains that are in disrepair or a new psurface drain is needed.
  7. 15± locations of sluffing on the banks of the main open ditch.
  8. 5± patches of trees that could promote beaver activity or root growth that could plug tiles.
  9. 2± locations of rocks/former crossing remnants in the flowline.

Contractor Time and Materials (spent while CGA was on-site):

None recorded as only visual observation and field survey was performed.

Additional Actions Recommended:

Given all of the above issues that could negatively impact drainage capacity, we would recommend a large scale project to remedy them. Since these issues are spread throughout the length of the main open ditch, the construction cost would be well over \$50,000. This amount is high enough that a hearing and an engineer's report would be required.





Revision table with columns for NO, REVISION, and DATE.

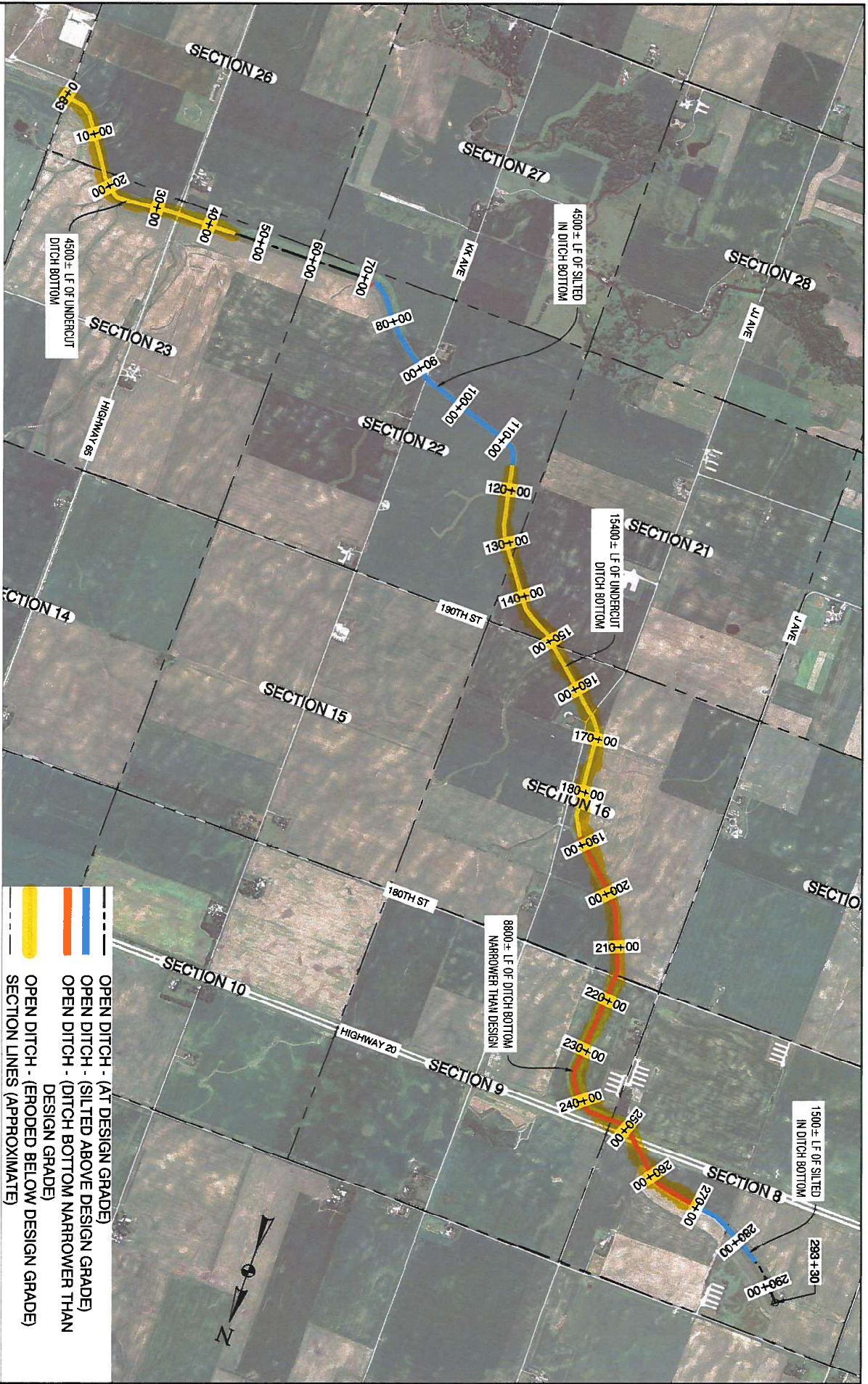


Project information table with columns for PREPARED BY, DRAWN BY, CHECKED BY, APPROVED BY, DATE, and DATE.

**DRAINAGE DISTRICT 48**  
HARDIN COUNTY, IOWA

**INVESTIGATION MAP**

PROJECT NO. 64865  
SHEET NO. 1 OF 1



- OPEN DITCH - (AT DESIGN GRADE)
- OPEN DITCH - (SILTED ABOVE DESIGN GRADE)
- OPEN DITCH - (DITCH BOTTOM NARROWER THAN DESIGN GRADE)
- OPEN DITCH - (ERODED BELOW DESIGN GRADE)
- SECTION LINES (APPROXIMATE)

