Guilford Tile #20-06

PUBLIC HEARING

Defiance Soil & Water Conservation District

September 15, 2020

Introduction

- **This Public Hearing is being recorded.**

- **All participants are muted upon joining the meeting to reduce background noise. If you have a comment or question, please "raise your hand". This can be done by selecting the "More…" icon and choose "Raise Hand". You will be called upon and will be unmuted. Dial-in participants can "raise your hand" by typing *9. You may also use the chat feature and message the host if you are having any issues or have questions or comments.**

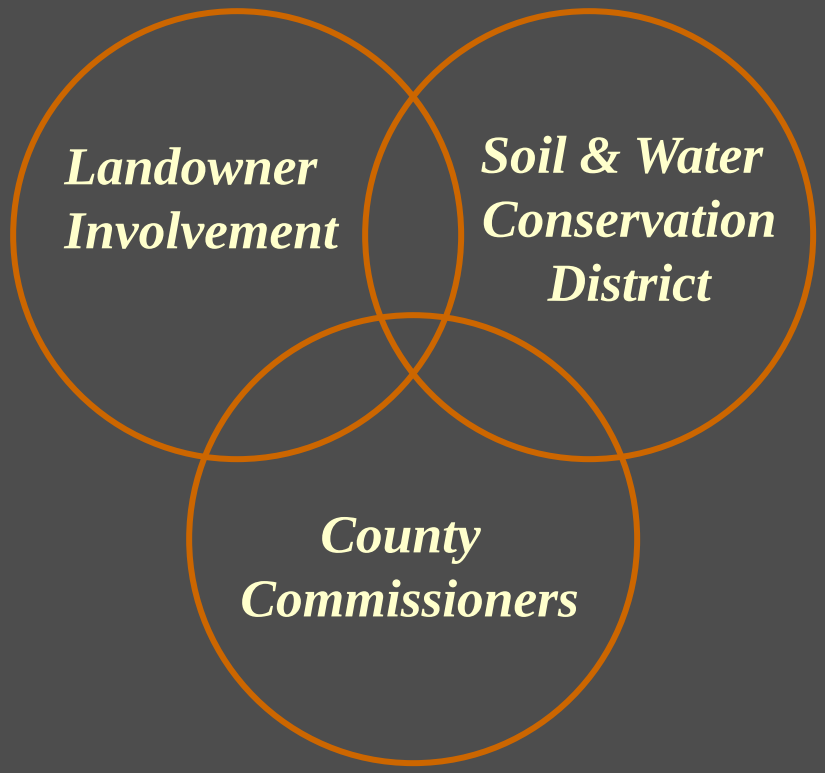
- **Roll call of meeting participants:**

Agenda

- **What are Conservation Works Of Improvement?**
- **Preliminary Report Review**
- **Recommendations/Preliminary Cost Estimate**
- **Assessments**
- **Ditch Maintenance**
- **Next Steps**
- **Questions/Comments**

Conservation Works of Improvement

Through Soil & Water Conservation District



How it Works?

- ✓ **A formal request for assistance is submitted to the Soil and Water Conservation District by an interested landowner or landowners.**
- ✓ **The Board of Soil & Water Conservation District Supervisors preliminarily accepts or rejects the request.**
- ✓ **If accepted, the District Supervisors hold a View to hear proof for need of project and to determine needed work. (August 4, 2020)**
- ➢ **The District Supervisors holds a Public Hearing according to section 940.23 of the Ohio Revised Code. Following the hearing, the Board decides whether to approve petition.**
- ➢ **If Approved, the District conducts final surveys/investigations and prepares the engineering plan and final cost estimates.**
- ➢ **Upon final review, the District Supervisors will decide whether to certify the project on to the Board of County Commissioners.**
- ➢ **The Board of County Commissioners approve or disapprove the project within 60 days of receipt of the certification.**
- ➢ **If approved, the project is bid out.**
- ➢ **Construction completed.**
- ➢ **Assessments mailed to landowners.**

Preliminary Report Review

- See printed copy of report online

EXISTING CONDITIONS

The 264-acre Guilford Tile watershed is currently drained by a single 12-inch clay tile main in conjunction with several submains for field and road catch basin drainage. The tile begins at a catch basin on the east side of Coy Road, just south of Blosser Road. The tile extends approximately 1,000 feet to the east before turning southward. The tile continues southward and outlets at the head of Donley Ditch, at the north side of Moon Road.

The existing 12-inch clay tile is in very poor condition with the presence of 8 large breakdowns that are creating large holes up to 4-feet deep along the length of the tile. The tile breakdowns are also allowing soil to enter and plug the tile main, holding water back even during near-drought conditions. Also, the breakdowns are transporting tons of soil downstream into Donley Ditch where it must be dipped from the Ditch Maintenance channel. This 12-inch clay tile main has the capacity to drain between 54 and 71 acres provided that is in good working order, which it is not. The age of the tile and the added pressure of being undersized has contributed to the breakdowns and associated issues.

In addition to the 12-inch clay tile main, a 6-inch clay submain drains a catch basin on the south side of Blosser Road and enters the 12-inch clay tile main where it turns south. This submain is also undersized for the watershed it receives, with most of the surface water coming from north of Blosser Road flowing across the field's surface to the south.

There is also an additional clay tile submain that drains east from Cline's property into the 12-inch clay tile main. Based on information from the homeowner, this submain is functioning poorly and is creating drainage issues for the home.

Finally, significant erosion from surface water is occurring at the bottom end of the project at the head of Donley Ditch with the presence of gullies there. Without adequate grade stabilization, this erosion area will continue to head-cut north into the field.

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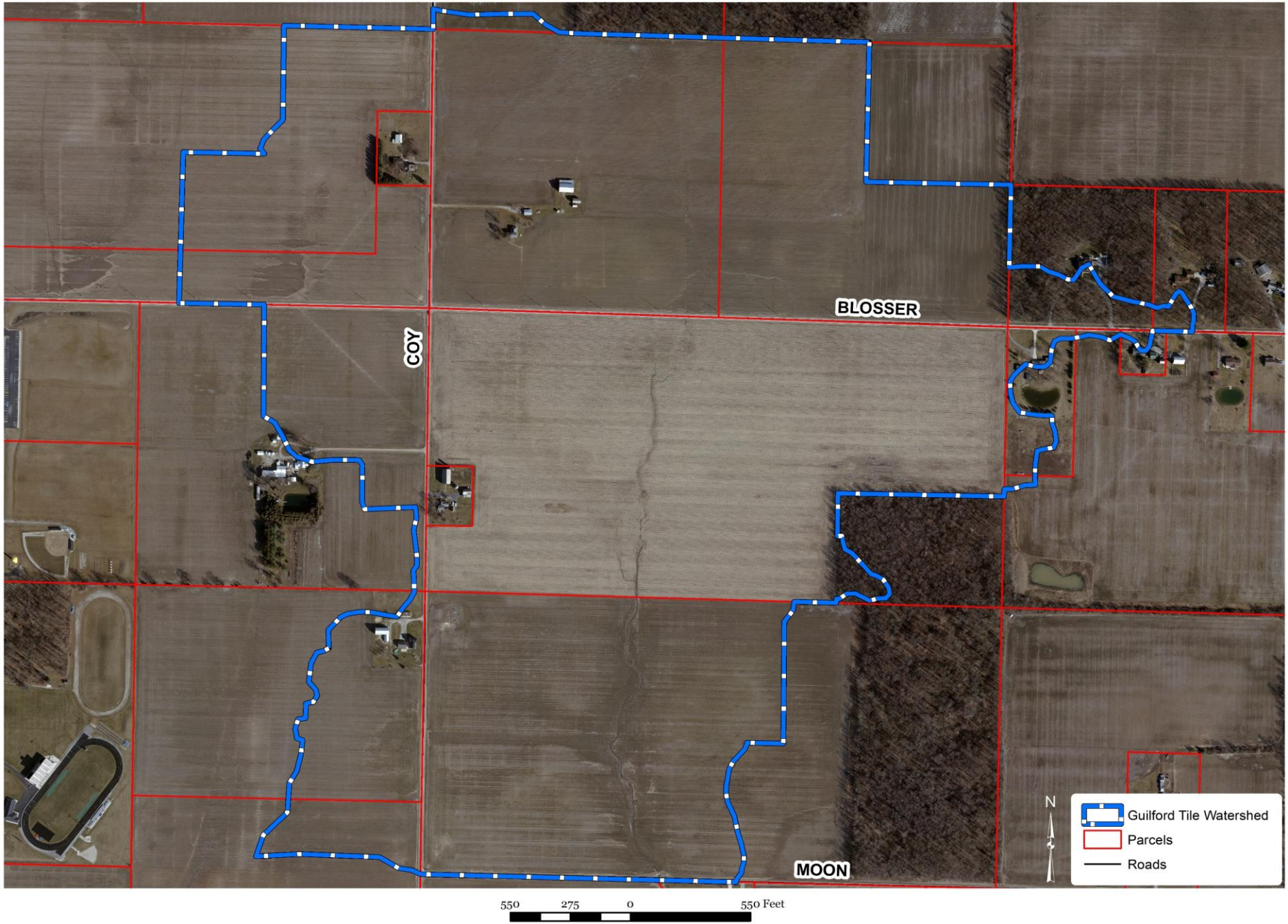

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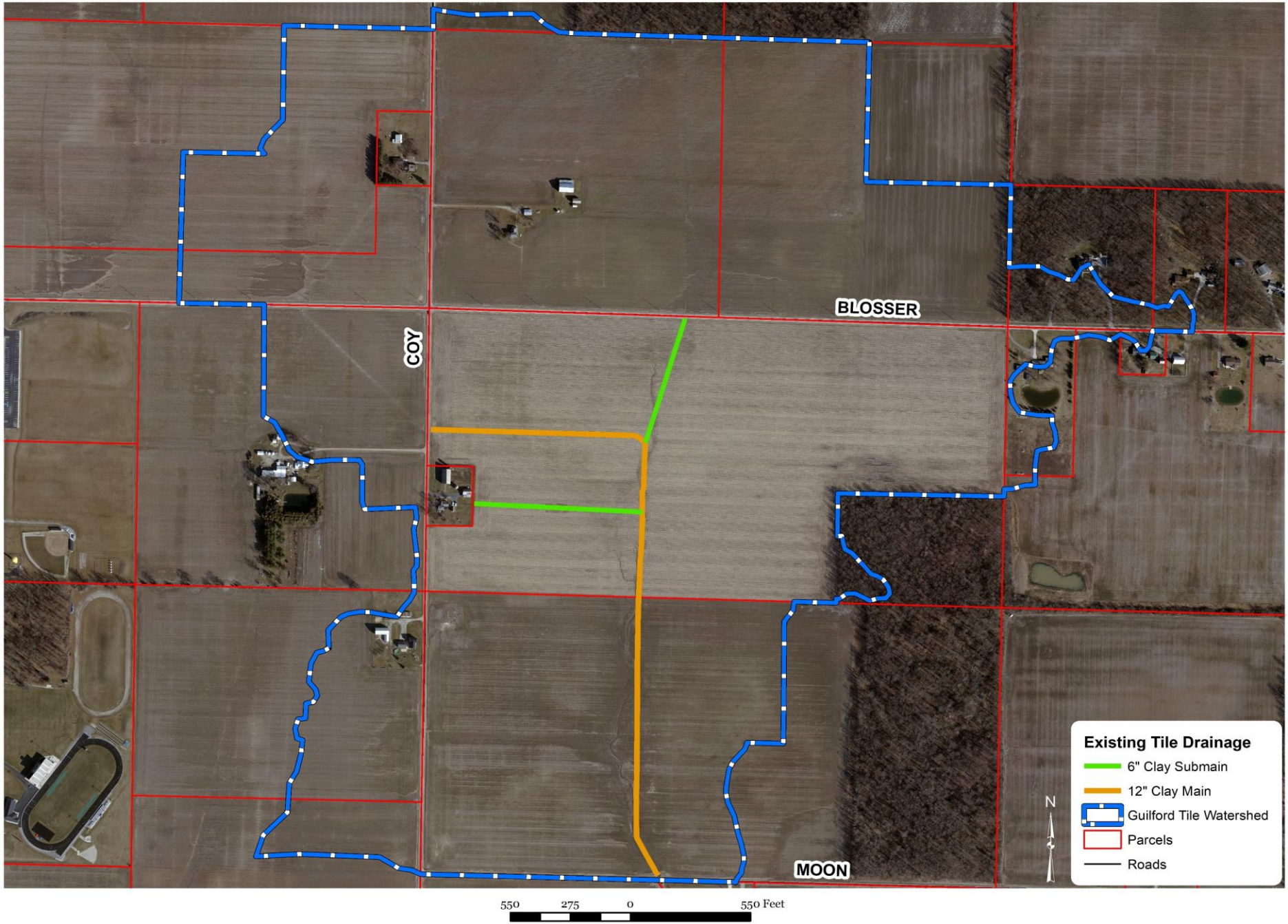


FILL

RECOMMENDATIONS

It is recommended that the existing, undersized, and failing 12-inch clay tile main be replaced with a new tile system having the capacity to handle drainage from the 264-acre watershed. To meet this capacity, two tile mains will need to be installed; one to be located on each side of the existing 12-inch clay tile main. The first tile main would begin at the catch basins on Coy Road just south of Blosser Road. Both the west and the east catch basins would be replaced with concrete catch basins and a new 24-inch pipe would be installed under Coy Road. This first new tile main would exit the east Coy Road catch basin as a 12-inch CPTS and would transition to a 15-inch CPTS just prior to turning southward. This tile main will continue as 15-inch CPTS all the way to the outlet at Donley Ditch.

The second tile main would begin at the catch basin on Blosser Road (replacing the existing 6-inch clay submain). Here, a new concrete catch would be installed on the north side of Blosser Road and the catch basin on the south side of Blosser Road would also be replaced. In addition, a new 30-inch pipe would be installed under Blosser Road. This second tile main would exit the south Blosser Road catch basin as a 15-inch CPTS and will head toward the turn of the first tile main and then parallel it to the outlet at Donley Ditch. This second tile main will be a 15-inch CPTS for its full length.

It should be noted that both tile mains are being designed to a ½" drainage coefficient, which accounts for the fact that surface water is directly entering the subsurface tile system. Even with this increased capacity, these tile mains will not be capable of handling all surface water. Therefore, surface water will continue to flow across the fields as it has traditionally done. The upgraded tile will help to reduce the magnitude and duration of this flow but will by no means eliminate it.

RECOMMENDATIONS

In addition to the tile main installations above, all existing lateral tile will need to be reconnected to the new mains through the use of 6-inch CPT submains that would parallel the new tile mains, where needed.

Also, an 8-inch CPT tile would be installed to replace the failing clay tile submain from the Cline's property to be connected to the first 15-inch CPTS tile main.

Upon installation of the new tile mains, the existing 12-inch clay tile main will be broken down at 30-foot intervals to prevent the formation of future holes. In addition, the 8 holes across the length of the tile main will be filled and leveled.

Finally, a grassed waterway with an approximate length of 50 feet followed by a 20-foot rock pad transitioning to the head of Donley Ditch would also be constructed to prevent further gullying at the end of the project.

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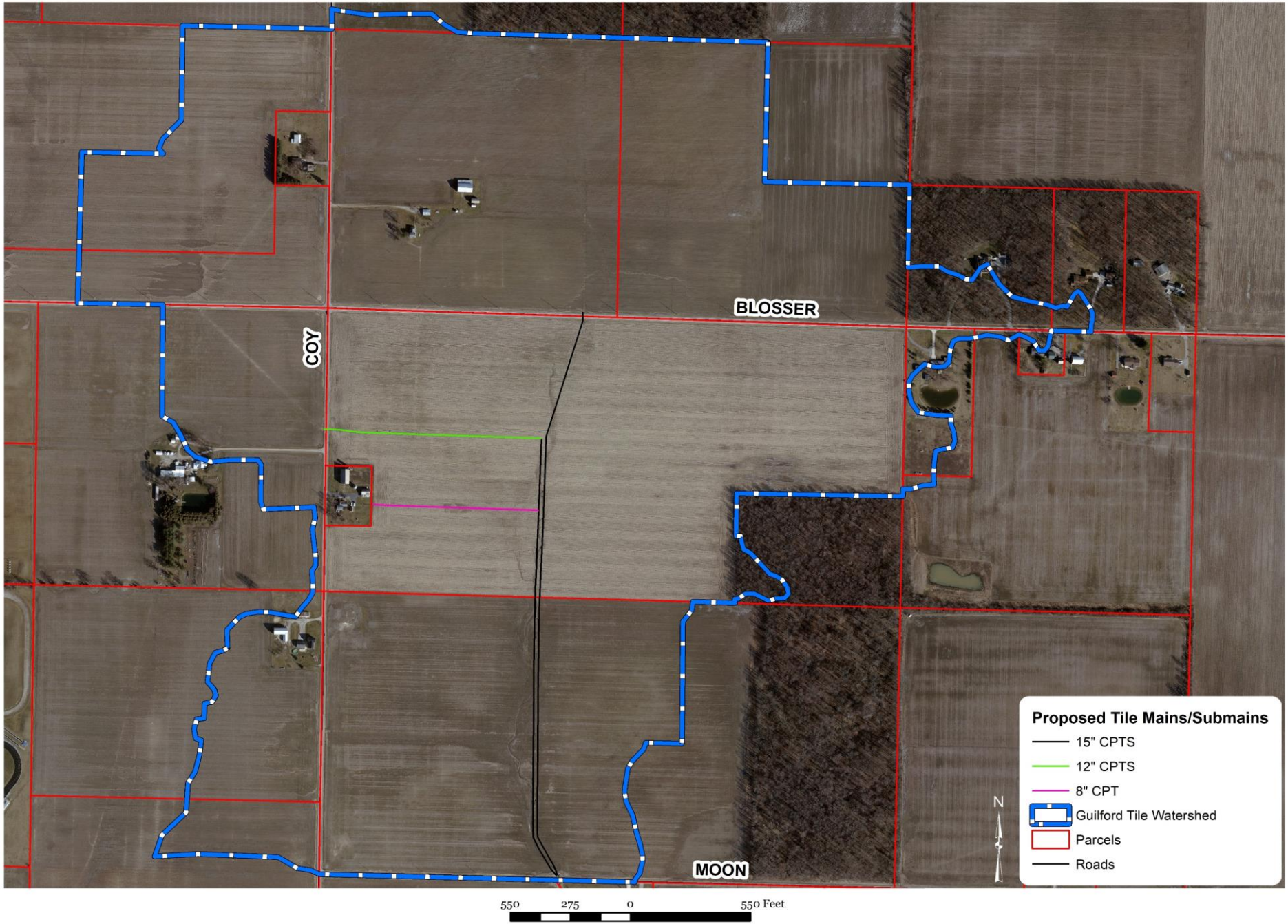

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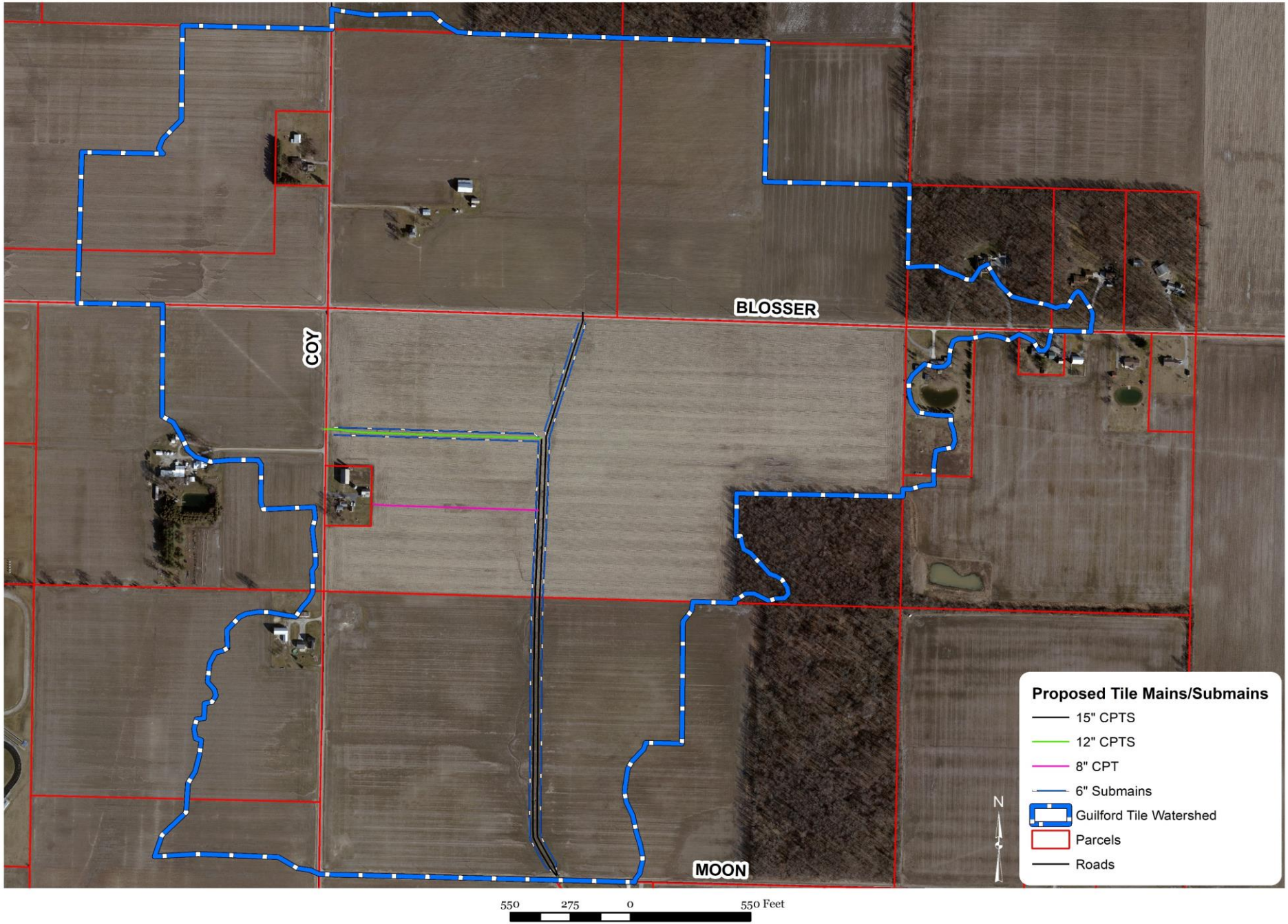

Preliminary Cost Estimate

Items	Estimated Cost
4,760 Feet of 15-Inch CPTS Tile and Installation	$45,720.00
980 Feet of 12-Inch CPTS Tile and Installation	$8,085.00
762 Feet of 8-Inch CPT Tile and Installation	$3,620.00
7,152 Feet of 6-Inch CPT Tile and Installation	$28,608.00
15-Inch Tile Outlets	$550.00
Lateral Tile Taps	$9,437.00
Blosser Road 4’x 4’x 4’ Catch Basins (2) and 30-Inch CPTS & Installation	$8,010.00
Coy Road 2’x 3’x 4’Catch Basins (2) and 24-Inch CPTS & Installation	$5,467.00
Fill for Existing Tile Breakdowns (8)	$1,020.00
Destruction of Existing 12-Inch Clay Tile	$2,550.00
Grassed W/Way & Rock Pad	$3,000.00
Seed/Fertilize/Mulch	$120.00
Damages	$562.00
Interest/Legal/Administrative Cost	$19,906.00
Contingency	$11,675.00
Total Tile Project Cost Estimate	**$148,330.00**

Examples

How are assessments figured?

FACTORS USED TO FIGURE INDIVIDUAL ASSESSMENTS

Acres Drained – Only the physical acreage of land within the actual watershed boundary is considered in making assessments.

Land Use – Each tract of land contributing runoff water to the proposed improvement is assessed according to the amount of water that is actually being generated from that tract of land. High runoff areas such as roads, parking lots, residential areas, etc. are assessed at a higher rate than the lower runoff areas such as farm ground and woodland regions, due to the fact that more runoff water is being produced from those higher runoff areas.

Soil Type – The soil type of your land draining into the project is determined using the *Defiance County Soil Survey*. Soils in Defiance County have been classified into four hydrologic soil groups. These four groups range from soils having low runoff potential and high infiltration rates even when thoroughly wetted (these consist mainly of sands and gravels that are deeply subsoiled) to soils having high runoff potential that have very low infiltration rates when thoroughly wetted (these consist mainly of clay soils with a high swelling potential, a permanent high-water table, and a claypan or clay layer at or near the surface).

Tile Drainage – This takes in account whether the land in the watershed area is tiled and whether or not the tile drains to or away from the open ditch project.

Topography Consideration – The actual difference in elevation that each tract of land is in relation to the elevation of the project itself is considered in the assessment calculation.

Use of the Drainage Improvement – Your ground is assessed only on the amount or length of the drainage project that your water actually travels through.

PAYMENT OF ASSESSMENTS

1. Pay all the assessment when notice is received.
2. Pay part of the assessment and have remaining amount placed on your real estate taxes.
3. Do not pay any of the assessment and have it all go onto your real estate taxes to be repaid as follows:

Assessments from $100.00 to $499.99 you have one (1) year to pay.

Assessments from $500.00 to $999.99 you have two (2) years to pay.

Assessments that are over $1,000.00 you have five (5) years to pay.

When assessments are paid in installments on your taxes, they will include interest (at the same rate as bonds or notes bear interest) plus legal costs. Current rates are around 3-5%.

4. Take out your own loan to pay the assessment.

COST BENEFIT ANALYSIS

Benefits are divided into two types :

1. *Obligation benefits* is based upon the need for an outlet for drainage resulting from deforestation, artificial drainage and urban development. Upper owners have a right to improve the drainage on their property, thus accelerating their drainage runoff. However, they are responsible or obligated to share in the cost of an outlet downstream that is adequately sized to handle their accelerated runoff.

2. *Drainage benefits* is the benefit that will be seen from a decrease in the flood potential and just overall better drainage of land along the improvement.

Ditch Maintenance

If the project is constructed it is required by law to be placed under the County Ditch Maintenance Program. This is done so that you will not have to go through this process again to have the project cleaned or reconstructed.

DITCH MAINTENANCE ASSESSMENTS

Yearly maintenance assessments will be placed on Real Estate Taxes at a percentage of your base (which is your construction cost for the project) to cover the cost of any work needing to be done during that year on the project. Money collected can only be used on the project that it is collected for. At no time can the maintenance fund have an unencumbered balance greater than 20% of the total project base.

EXAMPLE:

Base or Construction Cost = $500.00

10% assessment would be $50.00

Minimum Maintenance Assessment Per Parcel = $5.00

Maintenance Money Is Used To:

- Spray for brush/cattails at bottom end of project
- Repairs to tile, waterway, rockpad
- Inspect the project a minimum of once a year

Who decides if the project gets done?

The Board of Supervisors will consider comments from the meetings and written comments received along with reviewing the project to determine whether the project should proceed as proposed. The District Supervisors may approve the petition if…

- They are reasonably certain that the costs of the proposed project are less than benefits of the project
- That the project is necessary
- The project is conducive to the public welfare
- That the project will improve the water management and development in the county
- The project will promote economical, industrial, environmental, or social development in the area

Next Steps

- The District Supervisors will decide whether to approve the petition for the improvement.
- If approved, the Board of Supervisors will establish a date by which plans, specifications, and cost estimates will be completed.
- District Supervisors submit / certify plans, specifications, and cost estimates to Board of County Commissioners.

Next Steps

- Board of County Commissioners either approve or disapprove the project within 60 days.
- If approved, the project is bid out.
- Construction completed.
- Assessments, with notification of right to object to assessment, are mailed after construction is completed.

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