Oak Drive Right Turn Lane Preliminary Layout Options

- 1. Existing queuing from recent counts indicate the need for a 350 LF Right Turn Lane, greatest length in the AM peak hour.
- 2. <u>Option 1</u> Extending the existing right turn lane on Oak Drive (keeping it in current location and no changes to the overall intersection).

Option 2 – Channelized Right-Turn and Intersection Re-Alignment.

- a. The second option was at the request from Chris Canavan to look at the overall alignment of Oak Drive with Alderfer Rd. This option is more extensive as it means more improvements to the overall intersection. However, this option does provide a better overall intersection configuration.
- b. No formal signal analysis has been completed but our initial opinion is that 02 will be an overall improvement to the operations of the intersection.
- 3. Order of Magnitude Cost
 - a. Detailed cost estimates have not been completed at this stage.
 - b. Scope of work (Option 2 in particular) is comparable to the Main St/Ruth Rd sidewalk project.

Option 1 – Extending Existing Right Turn Lane

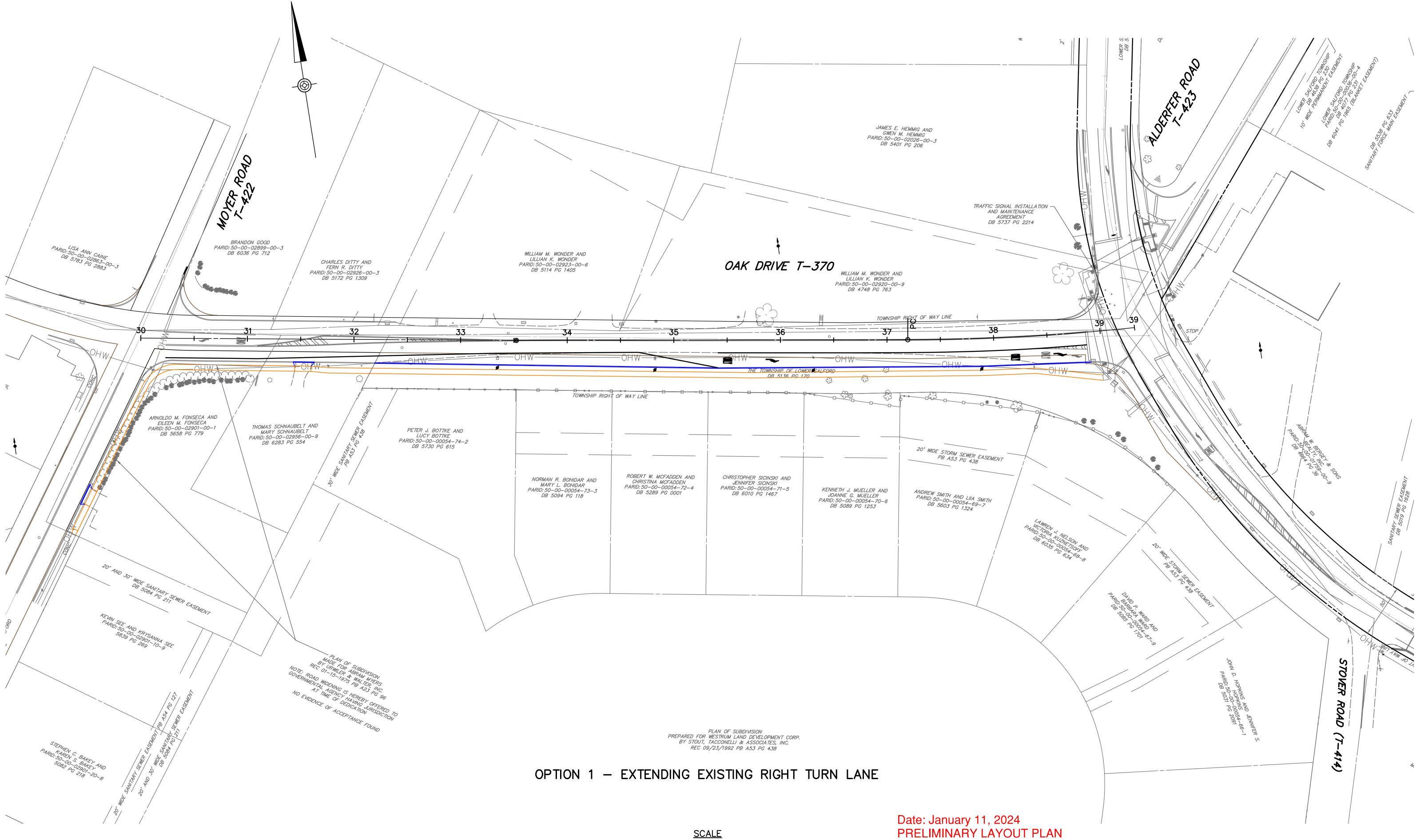
Order of Magnitude for Option 1 (Construction): \$650,000 - \$700,000 (2024)

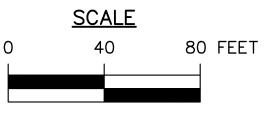
- Provides 350 LF of storage.
- Requires Utility pole relocations (4).
- Ties existing curb lines together with future option to lengthen RTL storage if necessary.
- Does NOT address alignment with Alderfer Road.
- Minimizes impacts to drainage system in vicinity of the intersection.
- Utilizes existing ADA ramps at the Main St. intersection.
- No Highway Occupancy Permit required, only a Signal Permit Modification for geometry.
- Maintains existing Left turn lane storage at Moyer Road.

Option 2 – Channelized Right Turn Lane with Intersection Re-alignment

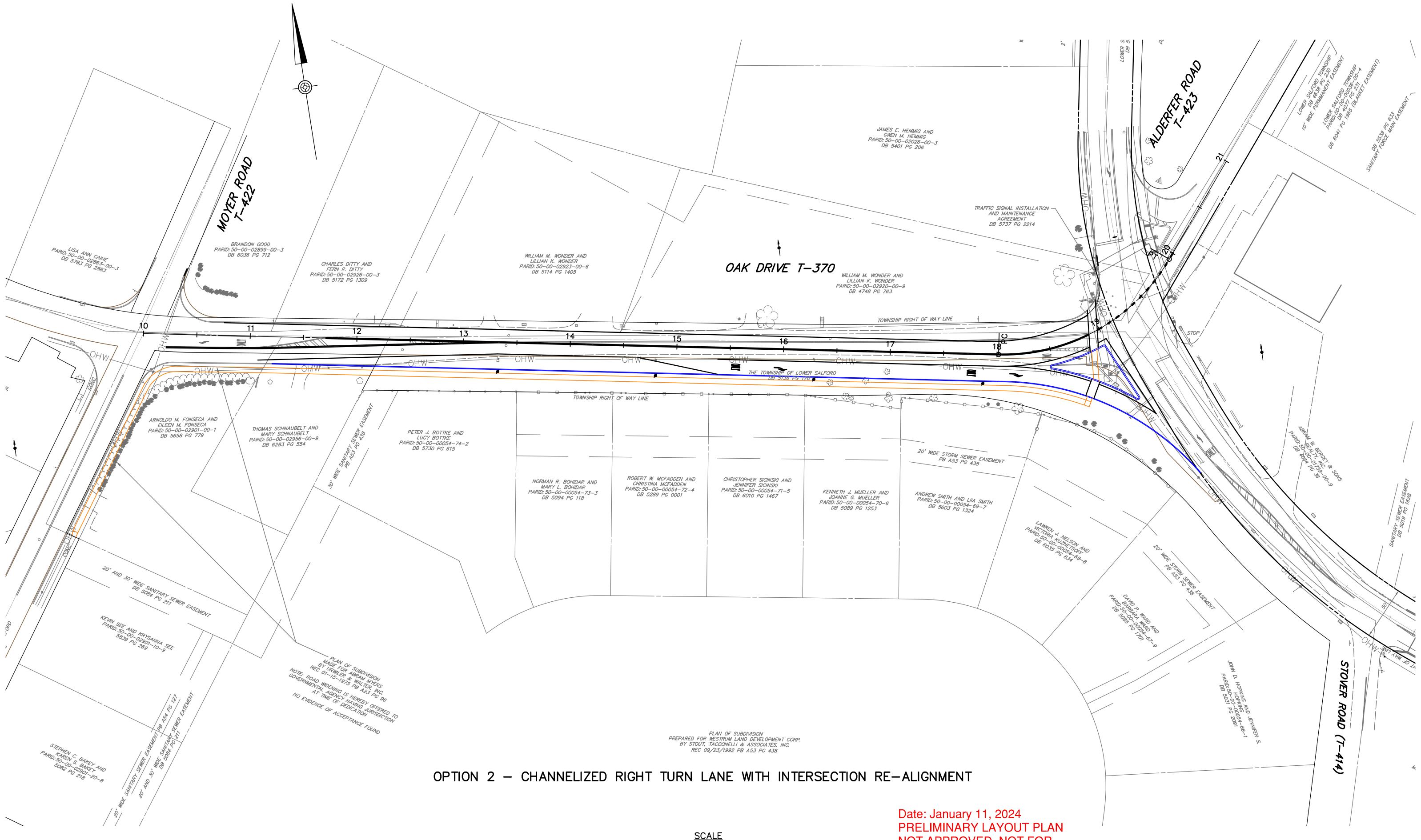
Order of Magnitude for Option 2 (Construction): \$950,000 - \$1,000,000 (2024)

- Provides additional storage beyond 350 LF with channelized yield right (similar to Alderfer Rd approach).
- Requires Utility pole relocations (4).
- Ties existing curb lines together with future option to lengthen RTL storage if necessary.
- Improves through lane alignment with Alderfer Road, adding DDY lines to direct traffic.
- Will require additional design and improvements to drainage system in vicinity of the intersection.
- Requires 3 new ADA ramps at the Main St. intersection.
- Island construction should accommodate existing utility pole. Signal design will have to evaluate need for increased mast arm length(s).
- Highway Occupancy Permit and Signal Permit Modification is required. Allows for striping modifications along Main St through the intersection.
- Have not evaluated all truck movements yet so island radii may need to be adjusted, in particular for the left turn from Main to Oak
- Maintains existing Left turn lane storage at Moyer Road.
- Improves right turn movement from Main to Oak with through lane shift for the intersection realignment.
- Utilizes more of the Township right of way area along Oak Drive.





NOT APPROVED, NOT FOR CONSTRUCTION



<u>SCALE</u> 80 FEET NOT APPROVED, NOT FOR CONSTRUCTION