



**ALBERT FEDERICO CONSULTING, LLC**

*Traffic Engineering and Mobility Solutions*

133 Rutgers Avenue  
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July 2, 2020 (revised July 6, 2020)

*via email only*

Russell Hatton, Chair  
Westtown Township Planning Commission  
1039 Wilmington Pike  
West Chester, PA 19382

**Re:** Conditional Use - Traffic Review  
Robinson Tract (aka Crebilly Farms) Development  
Westtown Township, Chester County

**Mr. Hatton:**

As requested, a technical review of the following materials has been completed relative to the Westtown Township Zoning Ordinance as well as reasonable and customary standards of Traffic Engineering practice:

- Roundabout Exhibit (unattributed, dated June 8, 2020)
- Concept Plan, S-ALTPLAN 12 (prepared by ESE Consultants, dated June 5, 2020)
- Transportation Impact Study for the Robinson Tract (prepared by McMahon Associates, dated August 13, 2019, revised May 15, 2020)
- Conceptual Design Exhibit for Wilmington Pike (SR 0202) and Skiles Blvd/Stetson Drive (prepared by McMahon Associates, last revised May 15, 2020)
- Conceptual Design Exhibit for Street Road (SR 0926) and New Street (prepared by McMahon Associates, last revised May 18, 2020)
- Widening Plan for West Pleasant Grove Road (prepared by ESE Consultants, dated May 15, 2020)
- Conceptual Design Exhibit for West Pleasant Grove Mini-Roundabout (prepared by McMahon Associates, last revised May 13, 2020)
- West Pleasant Grove Road Traffic Calming Exhibit (unattributed, dated May 13, 2020)

Please note that this review should be considered preliminary and subject to change based on the submission of revised materials to address the comments presented herein.



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The following comments are offered for the Township's consideration:

1. *In consideration of conditional use approval, the Township may require the applicant to submit a development impact study which considers the impact of the proposed flexible development on traffic volume and safety. {§170-906.D(2)}*

- a. As previously noted, to allow for consideration of the impact of the proposed development the Transportation Impact Study (TIS) should be revised to address the following:

- i. Table 1 should be updated to identify West Pleasant Grove Road as a Township Collector Roadway. *{Westtown Township Comprehensive Plan Update, page 9-7}*.

**Status: This comment remains outstanding. Westtown Township identifies West Pleasant Grove as a Collector Road and the Study should be revised accordingly.**

- ii. The sections of the TIS discussing improvements should note that the internal Collector Road provides access to the property.

**Status: The Study has been revised to address this comment.**

- iii. As previously noted, the scope of physical improvements required to provide acceptable sight distance to public roads should be clearly indicated on the plans.

**Status: This comment remains outstanding. The limits of clearing and/or other improvements required to provide adequate sight distance should be illustrated on the plans to allow the Planning Commission to consider potential impacts. Further, it does not appear that the analyses have been updated to consider required roadway widening.**

- iv. As previously noted, Cost Estimates for necessary improvements to accommodate future traffic should be provided. *{§149-804.A(10)}*

**Status: This comment remains outstanding. The Applicant has previously indicated that this information will be provided once there is "concurrence" regarding the scope of improvements.**

- v. As previously noted, an Implementation Strategy for necessary improvements to accommodate future traffic should be provided. *{§149-804.A(11)}*

**Status: This comment remains outstanding. The Applicant has previously indicated that this information will be provided once there is "concurrence" regarding the scope of improvements.**



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- b. The following comments address new materials presented in the May 15, 2020 Study:
- i. References to Proposed Access Road names should consistent with the Alternative Plan submitted to the Township for consideration.
  - ii. Conclusions regarding project traffic impacts to the intersection of PA Route 926 and New Street remain outstanding pending resolution of the following technical comments below:
    - (1) Verify the capacity analysis inputs for PA Route 926 and New Street, including detector settings and arrival type, to ensure the accuracy of the counter-intuitive results. Of particular note, the average delay for westbound vehicles making left turn and through movements are projected to decrease from 9.9 seconds/vehicle to 0.9 seconds per vehicle, even though the lane group volume increases from 377 vehicles (including right turns) to 406 vehicles per hour (excluding right turns). This improvement in operations appears disproportionate to the additional green time associated with the 49 vehicles assumed to be diverted from the southbound approach.
    - (2) The future coordination presented for PA Route 926 appears unlikely to be approved by PennDOT. Written confirmation from PennDOT should be provided that the New Street and Connector Road intersections will operate at different cycle lengths than US 202 (90 versus 120 seconds) and not be coordinated with US 202. If confirmation cannot be provided an alternative analysis utilizing a consistent cycle length and coordination with US 202 should be provided.
2. *The burden of proof shall be upon the applicant to prove to the satisfaction of the Board of Supervisors, by credible evidence, that the use will not result in or substantially add to a significant traffic hazard or significant traffic congestion. The peak traffic generated by the development shall be accommodated in a safe and efficient manner. Such analysis shall consider any improvements to streets that the applicant is committed to complete or fund. {§170-2009.D(1)(h)}*
- a. As previously noted,
    - i. The Applicant has indicated that turn lanes will be provided to accommodate post development volumes at the following intersections, but these improvements are not reflected on the submitted plans:
      - (1) PA Route 926 at New Street
      - (2) US Route 202 at Pleasant Grove Road

**Status: Supplemental exhibits for the improvement of PA Route 926 and New Street have been provided to the Township and PennDOT. US Route 202 and West Pleasant Grove Road remains outstanding.**



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- ii. Additional grading and/or traffic management measures appear warranted to enhance safety at the three accesses proposed to have insufficient sight distance or the exact minimum distance (without considering required roadway widening):

- (1) Collector Road at PA Route 926
- (2) Road N (previously M) at West Pleasant Grove Road
- (3) Collector Road at West Pleasant Grove Road

**Status: (1) To date the limits of disturbance associated with the Collector Road and PA Route 926 have not been provided. (2) Based on discussions at the Planning Commission Road N may be recommended for Emergency Access only. (3) A separate exhibit (dated June 8, 2020) has been provided for a full roundabout at the Collector Road and West Pleasant Grove Road. Based on the information provided there appear to be very limited impacts to Primary (Steep Slopes) and Secondary resources. These impacts may be further minimized through coordination with the Westminster Presbyterian Church.**

- iii. The design of the internal Collector Road should incorporate suitable traffic calming measures to maintain a 35 mile per hour average travel speed.

**Status: This comment remains outstanding. The Applicant has previously requested to defer this until Land Development.**

- iv. The following internal roadways should be reconfigured to remove geometric irregularities.

**Status: The Concept Plan exhibit (dated June 5, 2020) addresses these items.**

- v. Additional facilities should be provided to address non-vehicular connectivity, including:

- (1) A perimeter trail around the portion of the site west of the internal Collector Road. {*Westtown Township Comprehensive Plan Update, page 9-15*}
- (2) Connections to existing and planned facilities along Dunvegan Road and within the Arborview neighborhood. {*Westtown Township Comprehensive Plan Update, page 9-15*}
- (3) Sidewalks along proposed roads, including accessible crossings. {*§149-916*}
- (4) Connectivity to pedestrian attractors, including Stetson Middle School, Westminster Presbyterian Church, and the existing retail uses at US Route 202 and PA Route 926. {*§149-916*}

**Status: The Concept Plan exhibit (dated June 5, 2020) substantially addresses these items.**



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- vi. Provisions should be made for future access from the Westminster Presbyterian Church to the internal Collector Road.

**Status: This comment remains outstanding. It is noted that the connection should be at a mutually agreed upon location. Based on preliminary conversations with the church it is understood that a connection to the southern parking area may be considered preferable.**

- vii. Provisions should be made for School Bus Stops, including short-term parking for drop-off and pick-up.

**Status: This comment remains outstanding.**

- b. The following comments address supplemental materials submitted to the Township:

- i. The conclusion that the project does not adversely impact the intersection of PA Route 926 and New Street is based in part on an assumed corridor coordination which appears unlikely to be approved by PennDOT. As noted above, additional supporting information and analyses should be provided.
- ii. It is anticipated that School Buses and other large vehicles will use the intersection of the Collector Road and West Pleasant Grove Road. As such a full roundabout is considered preferable to a min-roundabout where vehicles may transverse the central island.

Based on the preceding, the Applicant has not demonstrated compliance with the conditional use criteria in §170-2009.D(1)(h).

As requested by the Planning Commission's Solicitor, the list of recommended transportation related improvements provided to the Planning Commission (May 13, 2020) has been updated and incorporated into this letter, including references to the supplemental materials provided by the Applicant.

- 1) Connector Road, construct:
  - a) Dimensionally compliant with Township standards for a Collector Road
  - b) With a sufficient pavement structure, as determined by the Township Engineer, to accommodate heavy equipment and truck traffic
  - c) Reasonable traffic calming measures to maintain a consistent, appropriate travel speed



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- d) Facilities accommodating:
  - i) Non-vehicular travel
  - ii) Personal vehicles waiting for school buses

**Status: Items "a" and "d.i" are addressed by the most current Alternative Plan (June 5, 2020). Unless otherwise directed by the Board of Supervisors it is anticipated that the remaining items will be addressed during Land Development.**

- 2) West Pleasant Grove Road, modify:
  - a) Along the site frontage in a manner compliant with Township standards for a Collector Road
  - b) At the proposed local road site access(es) to control turning movements in a manner that enhances safety and aesthetics, preferably with a roundabout(s)
  - c) At the Connector Road site access to control turning movements and connectivity with Orvis Way in a manner that enhances safety and aesthetics, preferably with a roundabout

**Status: These items are addressed by the Widening Plan for West Pleasant Grove Road (May 15, 2020), West Pleasant Grove Road Traffic Calming (May 13, 2020) and Roundabout Exhibit (June 8, 2020), subject to certain design aspects that are anticipated to be addressed during Land Development. The full roundabout at the Connector Road is preferred over the mini-roundabout and the location appears reasonable from a transportation perspective.**

- 3) PA 926 (Street Road), modify as determined appropriate in coordination with PennDOT and Thornbury Township:
  - a) At the Connector Road site access to install a traffic signal and turn lanes
  - b) At New Street to:
    - i) Mitigate project impacts (as determined based on the review of revised analyses, submission pending) and to address PennDOT comments (currently by constructing eastbound and westbound left turn lanes)
    - ii) Provide appropriate non-vehicular connectivity

**Status: The Transportation Impact Study for the Robinson Tract (May 15, 2020) commits to completing item "a". Unless otherwise directed by the Board of Supervisors it is anticipated that the detailed design will be completed during Land Development and PennDOT Permitting. The Applicant is currently pursuing turning lanes consistent with the Conceptual Design Exhibit for Street Road (SR 0926) and New Street (May 18, 2020) to address item "b". An opinion regarding the adequacy of these modifications will be provided once the previously noted technical issues with the submitted analysis have been addressed.**



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- 4) US Route 202, modify as determined appropriate in coordination with PennDOT:
  - a) At West Pleasant Grove Road to provide a southbound right turn lane as determined appropriate in coordination with PennDOT
  - b) At PA 926 to mitigate project impacts (as determined based on the review of revised analyses, submission pending) and address PennDOT comments
  - c) At Skiles Boulevard/Stetson Drive to mitigate project impacts and address PennDOT comments

**Status: The Transportation Impact Study for the Robinson Tract (May 15, 2020) commits to completing item "a". To date the Applicant has not provided an exhibit illustrating the scope and impact of the work. Unless otherwise directed by the Board of Supervisors it is anticipated that the detailed design will be completed during Land Development and PennDOT Permitting. The Study also concludes that item "b" is unwarranted. To date PennDOT has not concurred with this opinion. The Conceptual Design Exhibit for Wilmington Pike (SR 0202) and Skiles Blvd/Stetson Drive (May 15, 2020) addresses item "c", subject to certain design aspects that are anticipated to be addressed during Land Development.**

- 5) Non-vehicular elements, construct facilities connecting to existing and/or planned non-vehicular facilities, including:
  - i) Arborview
  - ii) Orvis Way
  - iii) Bridlewood Boulevard
  - iv) Signalized intersection of US Route 202 and PA 926

**Status: These items are addressed by the most current Alternative Plan (June 5, 2020). Unless otherwise directed by the Board of Supervisors it is anticipated that detailed design and issues associated with connecting to adjacent properties will be addressed during Land Development.**

- 6) Westminster Presbyterian Church, as determined appropriate by the Township and in coordination with the Church:
  - a) Remove the existing westernmost driveway adjacent to the Connector Road
  - b) Provide for future access from the Westminster Presbyterian Church to the Collector Road at a mutually agreed upon location

**Status: Based on the Roundabout Exhibit (June 8, 2020) item "a" may be unwarranted. As previously noted, it is understood that a connection to the southern parking area may be considered preferable to address item "b" than the location illustrated by the most current Alternative Plan (June 5, 2020).**



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Please do not hesitate to contact me at 610.608.4336 or [albert@federico-consulting.com](mailto:albert@federico-consulting.com) should you have any questions or require additional information.

Sincerely,

Albert Federico, P.E., PTOE