KCI TECHNOLOGIES
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December 26, 2024

Timothy Kramer, P.E., PTOE
Pennoni Associates, Inc.
81 Highland Avenue
Suite 230
Bethlehem, PA 18017

Re: 13th Street Warehouse TIS & HOP Review
TIS for Proposed Warehouse Development at 1525 Wood Avenue
Easton Wood Avenue PropCo, LLC
KCI Project No. 222209756 (00000433_00001)

Dear Mr. Kramer:

KCI Technologies, Inc. has prepared this response letter to address the City of Easton's comments dated October 30, 2024 (from Pennoni Associates) regarding the Transportation Impact Study (TIS) and Highway Occupancy Permit Plans (HOP) for the proposed warehouse development at 1525 Wood Avenue in Wilson Borough, Palmer Township and City of Easton, Northampton County.

Transportation Impact Study (TIS)

1. *The applicant should explain in detail how eastbound truck traffic generated by the proposed development will access the site if the driver does not exit at 25th Street. It is inevitable that this scenario will occur, even if infrequently, or drivers will follow GPS to the 13th St exit where truck movements cannot be accommodated to the site. Accommodations for this movement should be evaluated to avoid having large trucks attempt to navigate through the residential neighborhoods with narrow streets, on street parking and small turning radii at intersections.*

   The concept of accommodating left turns from the SR 22 eastbound ramp at 13th Street should be evaluated including a concept plan, which would likely require ramp signalization, ramp pre-emption, ramp widening for a left turn lane, and intersection improvements. Once this alternative is evaluated, additional coordination with the applicant should occur to discuss feasibility, costs and schedule.

   One option for consideration to monitor the operation of the intersection after the development is operational is to determine if the site generated truck traffic creates an issue at 13th Street. The applicant could be required to post escrow funds for a post development study of the 13th Street interchange and construct additional roadway improvements if necessary to mitigate the site generated traffic. This has been done on other warehouse developments in the region when the end user/tenant is unknown at the time of land development.

This comment has been discussed in detail with the Mayor and City of Easton staff at multiple meetings. No signalization of the ramp is desired at this time by PennDOT, the City of Easton, or Scannell Properties. Scannell is working with the City of Easton including determination of a possible escrow or community benefit contribution which could be applied to additional improvements along the 13th Street corridor if desired by the City in the future (e.g., traffic calming or truck restrictions of local/City streets). All parties are in agreement that the improvements identified in the TIS will facilitate truck ingress/egress via the desired truck routes.

2. *Provide a detailed description of how traffic leaving the site will access westbound Route 22.*

   See Figure 4C which depicts the truck routing. This comment has been discussed in detail with City of Easton staff.

3. *Provide a detailed description of how traffic leaving the site will access eastbound Route 22.*

   See Figure 4C which depicts the truck routing. This comment has been discussed in detail with City of Easton staff.

4. *Volumes shown on Figure 3A do not match the counts at the intersection of 13th Street and Wood Ave for the weekday PM peak hour. There are 270 trips unbalanced between the ramp intersection and 13th Street and Wood Ave intersection. To provide a conservative analysis, the higher counted volumes should be used in the analysis.*

   A combined peak hour for Node/Intersection 5 and Node/Intersection 11 was considered. Since the signalized intersection of 13th Street controls the combined intersection peak, the result of a combined intersection peak would be using the earlier peak hour (3:15 – 4:15 PM) for both nodes rather than the later peak hour (4:45 – 5:45 PM) for Node 11 (the US 22 East On-Ramp).

   This would change the critical left turn volume for the Wood Avenue eastbound left turn movement by only 4 vehicles (77 vs. 73). Since the volume for the critical left turn is approximately the same, the individual intersection peak hour was utilized for each intersection. Revising the analysis to utilize a combined peak hour will not result in an increase of 270 trips as the peak hour for the combined intersection will match the existing signalized intersection peak hour. Rather the adjustment would result in a decrease in the peak hour volumes for Node 11 (of 270 trips as noted).

   We acknowledge that a combined peak may have been appropriate here but note that the combined peak hour methodology will only reduce the analysis volumes at the unsignalized US 22 East On-Ramp intersection and will not impact the results/recommendations of the TIS. Additional balancing as alluded to in the comment is inappropriate as PennDOT/ITE TIS methodology require analysis of an overall intersection peak hour, not separate peak hours by leg/approach. Nodes 5 & 11 should be treated as a single intersection given the distance and traffic operations. For these reasons, we request that the current methodology, which was overly conservative for the volumes at Node 11, be found acceptable.

5. *The analysis for the Wood Avenue & 13th Street intersection shows that the eastbound left queue will be blocking the SR 22 eastbound median opening proposed by the applicant. This should be evaluated to increase the stacking distance between 13th Street and the proposed on-ramp opening. Providing advanced lane use control signage and alternative median designs should be evaluated to better separate the left turn movement at 13th Street and the left turn movement onto SR 22 eastbound.*

   See revised HOP plan.

6. *While the proposed development does not add a significant amount of traffic to the interchange, there are some noted increases in delay at critical movements and increases in queues at the intersection of 13th Street and Wood Ave.*

   a. *Southbound 13th Street Right Turn: LOS F worsens in PM peak hour.*

      The proposed improvements meet the requirements of the City of Easton ordinance (§520-40). There are no feasible improvements to mitigate an existing LOS 'F' for a specific movement, nor is there a requirement to do so. The addition of proposed development traffic is anticipated to increase the delay for the noted movement by approximately 5%, which operates at LOS 'F' in existing conditions and in future without development conditions. This movement is a yield-controlled movement, so drivers turn right as gaps allow. There is no feasible improvement to increase capacity for a right turn movement that is already channelized with yield control. The presence of the US 22 East On-Ramp makes dual right turn lanes infeasible here (dual right turn lanes would mean losing the capacity benefits of yield control in the existing condition even if it were feasible).

   b. *Eastbound Wood Ave: Left turn warrants up to 400 FT left-turn lane. Queues block ramp access.*

      See revised TIS recommendations and conceptual roadway improvement plans.

Highway Occupancy Permit (HOP) Plans

1. *The HOP plans should be signed and sealed by a licensed Professional Engineer in the Commonwealth of PA.*

   Acknowledged (seal to be provided in subsequent submission).

2. *The Traffic Data table should be filled out completely.*

   See revised HOP plan.

3. *The HOP plans are labeled as 25 scale but appear to be drawn at 20 scale.*

   The plans are 25 scale.

4. *Demonstrate that a WB-67 can make the left-turn from Wood Avenue onto the SR 22 eastbound on-ramp. The proposed median break design opening does not appear to be adequate to allow this maneuver. The applicant should consider a longer ramp spur providing a larger radius and stacking for eastbound Wood Avenue as the queue at 13th Street blocks this entrance in proposed conditions. (see attached sketch)*

   See Sheet 33.

5. *The eastbound Wood Avenue shoulder should remain the same width as existing between STA 103+00 to 105+53 and should not be narrowed due to the proposed continued use of increased truck traffic.*

   See revised HOP plans.

Should you have any questions regarding the revised TIS or HOP plans and response to comments letter, please contact me.

Regards,

Ian Preston

Ian Preston, PE
Project Engineer
KCI Technologies Inc.