## Memorandum

## To: City of Woodburn <br> Marion County

Copy: Roseann Johnson, Lennar Northwest, LLC


RENEWS: 12/31/2023

## Introduction

In a memorandum dated September 6, 2022, the Brighton Pointe Transportation Impact Analysis (TIA) was deemed incomplete. As suggested, this addendum addresses those missing items and provides clarifications where requested. It also documents agreements from a meeting with agencies held on September 28, 2022, to discuss incompleteness comments. Where additional analysis is required, documentation of findings is attached.

## Bicycle and Pedestrian Modes

The comments indicated the need for additional discussion regarding the bicycle and pedestrian improvements and how they related to planned projects in the Woodburn Transportation System Plan (TSP). These items are listed as they appear in the comments with responses following.

Comment: The Pedestrian System Plan includes Project P-54 in the vicinity which will "Construct a connection between Santiam Drive and pedestrian facilities that are part of future development to the south." The TIA should provide an addendum which describes how this site, and the stubbed neighborhood street to the east side of the development, accommodate this TSP project. Note: This project is shown in TSP Figure 8 as project P-54 but listed as P-53 in TSP Table 5. The correct description is "Construct a connection between the Centennial Park multi-use path and pedestrian facilities that are part of future development to the west." The map reference will be used in the response below.

Response: The project will construct local roadways that will connect to the internal roadway system of the subdivision immediately to the east of the project site. The subdivision at 9008 Parr Road will include at least two tracts with along the eastern property line that will provide 8 -foot path connections extending eastward from the internal road network to the edge of Centennial Park. These paths will connect to the paths in the park.

Additionally, the project will construct proposed Tract 'P' with pathway leading to the subdivision at 9008 Parr Road. Should one of the 9008 Parr Road tracts be moved south, it could line up with the project's proposed Tract 'P', providing additional pathway connection between the two subdivisions and the park.

Together, these two subdivisions implement Project P-54.

Comment: The TSP (TIA) does not recognize that the sidewalks provided along the western and northern frontage of the site implement TSP Project P-14 to "Install new sidewalks (along Parr Road). This project improves safe routes to school for Heritage Elementary School and Valor Middle School." The TIA should provide an addendum which assesses how pedestrian connections within the development provide safe pedestrian passage and safe route to school access to this TSP project.

Response: The project will construct frontage improvements along Parr Road that will include sidewalks along the south and east sides of Parr Road, which implements a portion of Project P-14. The subdivision to the east at 9008 Parr Road will also include sidewalks as part of their frontage improvements. However, a gap in the sidewalks will remain until the parcel at 8908 Parr Road redevelops and frontage improvements are implemented. Until that occurs, a safe route to/from the elementary and middle school will be available using the local street network in Brighton Pointe as it connects to the street network within the 9008 Parr Road subdivision. Another potential safe route to/from the schools could be available should the 9008 Parr Road tract align with the project's proposed Tract 'P.' Pedestrians will then have two options to connect with sidewalks along Parr Road by either accessing the frontage improvements provided by the 9008 Parr Road subdivision or using the paths (Project P-54) that connect to Centennial Park.

Comment: The TSP includes Project B-21 which will "widen roadway and install bike lanes (along Parr Road). This project improves safe routes to school for Heritage Elementary School and Valor Middle School." The TIA should include an addendum which assesses the site's ability to provide for safe bicycle routing within the subdivision to this TSP project. The addendum should also address the potential impacts of left turn lane striping for the two site access points onto Parr Road and whether these would impact a continuous bike lane or shoulder along the site frontage.

Response: The project will construct frontage improvements along Parr Road that are planned to include bike lanes along the south and east sides of Parr Road, which implements a portion of Project B-21. The subdivision to the east at 9008 Parr Road will also include bike lanes on the south side of Parr Road as part of their frontage improvements. Additionally, subdivisions along the north side of Parr Road will construct bike lanes on the north side of the street up to the intersection with Stubb Road. Despite these improvements, which all work towards implementation of Project B-21, gaps in the bike lanes will remain on both sides of the roadway. Until the parcel at 8908 Parr Road and the properties west of Stubb Road redevelop and frontage improvements are implemented, the bike lanes will not extend continuously to Brighton Pointe. Until those improvements are made, a safe route to/from the elementary and middle school is available using the local street network in Brighton Pointe as it will connect to the street network of the 9008 Parr Road subdivision. Another potential safe route to/from the schools could be available should the 9008 Parr Road tract align with the project's proposed Tract 'P.' Eastbound bicyclists will then have two options to connect with bike facilities along Parr Road by either accessing the frontage improvements provided by the 9008 Parr Road subdivision or using the paths (Project P54) that connect to Centennial Park and the multiuse path that extends eastward along the south side of Parr Road. Westbound bicyclists to and from the schools will be more likely to use the multiuse path along the south side of Parr Road where they can access the trail in Centennial Park and connect to the local streets within the subdivisions.

Although the TIA assumed the ultimate lane configuration for Parr Road, an assessment of left-turn lane warrants included in this memorandum shows that a left-turn lane is not warranted at the Street A intersection with Parr Road through the horizon year 2033. Analysis of year 2033 horizon year conditions show the
intersection will operate acceptably with no left-turn lane on Parr Road at Street A. Therefore, a left-turn lane with an interim Parr Road configuration is not necessary.

The project team and the agencies agreed that the final decision on striping would be an engineering decision and not a completeness item.

Comment: The Evergreen Road/Parr Road intersection. Interim intersection configurations provided by Mackenzie for the Specht Spec Industrial proposal and Evergreen Road extension showed a combination of temporary and permanent crosswalks/ crossing locations at this intersection. The Brighton Pointe development should analyze these pedestrian provisions in light of their frontage improvements and upcoming signing and striping plan.

Response: The project team and the agencies agreed that the final decision on pedestrian improvements at this intersection would be an engineering decision and not a completeness item.

## Parr Road at "Street H" Intersection

The comments indicated the need for additional evaluation of the configuration of the Parr Road \& Street H intersection traffic control and lane configuration. The comment is listed below with a response following.

Comment: The TIA indicates that as an interim three-leg intersection, it will be all-way stop-controlled until all quadrants have been redeveloped and the roadways are built out to their ultimate alignment. It is noted here that based on the 2028 PM Peak buildout scenario traffic volumes (Figure 10), $79 \%$ of the traffic movements at the Parr Road/Street H intersection will be turning from north-to-west or from west-to-north. The TIA did not present an analysis justifying this as meeting preliminary all-way stop warrants and, in fact, would be stopping traffic for $79 \%$ of the vehicles using that intersection. The intersection should treat the "major street" movement as the north-to-west and vice versa traffic condition, which likely does not warrant an all-way stop. An addendum to the TIA is requested to provide a quantitative, warrant-based analysis of traffic control at this intersection and make a recommendation as to the lane configurations and traffic control signage at this intersection to be reviewed by both Marion County and City of Woodburn traffic staff. The recommended signage configuration should then be incorporated into the signing and striping plan component of the overall site engineering plans.

Response: At the meeting to discuss incompleteness, the project team and agencies agreed to consider an interim roadway and traffic control configuration at this intersection. The interim configuration would maintain the current alignment of Parr Road as a through street and extend Street H to a perpendicular intersection with Parr Road along the existing curve. Emerio is providing a concept illustrating this connection (attached).

Based on this configuration, left-turn lane warrants were prepared for a 2033 horizon year. The warrant analysis shows that a left-turn lane is not warranted at the Street H intersection with Parr Road through the horizon year 2033. Analysis of year 2033 horizon year conditions show the intersection will operate acceptably with no leftturn lane on Parr Road at Street H.

The sight distance was checked with this intersection configuration. With a statutory speed 55 mph , the recommended intersection sight distance is 610 feet and the required stopping sight distance is 495 feet. Photos of the available sight distance looking west and north are attached along with Google Earth images showing the

October 6, 2022
sight line and elevation profile for approximately 700 feet in each direction. Available sight lines are adequate to meet the recommended intersection sight distance recommendation.

## Five-Year Planning Horizon

At the meeting to discuss incompleteness, Marion County staff commented that their standards require a fiveyear planning horizon year analysis for developments that generate between 1,000 and 1,999 trips. A follow-up email from Chuck Green (attached) indicated that a five-year planning horizon should be the basis for the leftturn lane warrants and operations at the site access intersections with Parr Road, but a forecast will not be required for the intersections of Parr Road \& Butteville Road and Parr Road \& Evergreen Road because these intersections are under separate study or design.

Year 2033 volumes were developed by adding another five years of background traffic growth at 1 percent per year to the year 2028 buildout volumes. These volumes estimates are available in the attached Synchro reports.

## Attachments:

Left-Turn Lane Warrants
Synchro Operations
Queuing Reports
Potential Parr Road \& Street H Concept
Sight Distance Exhibit for Parr Road \& Street H
Email from Chuck Green, OTAK/City of Woodburn Traffic Engineer

## Left-Turn Lane Warrant Analysis

Project: 22082 - Brighton Pointe
Intersection: Parr Road \& Street A
Date: 10/5/2022
Scenario: 2033 Horizon Year - AM

2-lane roadway (English)
INPUT

| Variable | Value |
| :--- | :---: |
| $85^{\text {th }}$ percentile speed, $\mathrm{mph}:$ | 55 |
| Left-turns in advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/hr: | 10 |
| Advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/h: | 180 |
| Opposing volume $\left(\mathrm{V}_{\mathrm{O}}\right)$, veh/h: | 147 |

OUTPUT

| Variable | Value |
| :--- | :---: |
| Limiting advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/h: | 504 |
| Guidance for determining the need for a major-road left-turn bay: |  |
|  |  |

Left-turn treatment NOT warranted.


CALIBRATION CONSTANTS (2-Lane Roadway)

| Variable | Value |
| :--- | :---: |
| Average time for making left-turn, s: | 3.0 |
| Critical headway, $\mathrm{s}:$ | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, $\mathrm{s}:$ | 1.9 |

## Left-Turn Lane Warrant Analysis

Project: 22082 - Brighton Pointe
Intersection: Parr Road \& Street A
Date: 10/5/2022
Scenario: 2033 Horizon Year - PM

2-lane roadway (English)
INPUT

| Variable | Value |
| :--- | :---: |
| $85^{\text {th }}$ percentile speed, $\mathrm{mph}:$ | 55 |
| Left-turns in advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/hr: | 25 |
| Advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/h: | 156 |
| Opposing volume $\left(\mathrm{V}_{\mathrm{O}}\right)$, veh/h: | 154 |

OUTPUT

| Variable | Value |
| :--- | :---: |
| Limiting advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/h: | 312 |
| Guidance for determining the need for a major-road left-turn bay: |  |
|  |  |

Left-turn treatment NOT warranted.


CALIBRATION CONSTANTS (2-Lane Roadway)

| Variable | Value |
| :--- | :---: |
| Average time for making left-turn, s: | 3.0 |
| Critical headway, $\mathrm{s}:$ | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, $\mathrm{s}:$ | 1.9 |

## Left-Turn Lane Warrant Analysis

Project: 22082 - Brighton Pointe
Intersection: Parr Road \& Street H w/ 2-way Stop Control
Date: 10/5/2022
Scenario: 2033 Horizon Year - AM

2-lane roadway (English)
INPUT

| Variable | Value |
| :--- | :---: |
| $85^{\text {th }}$ percentile speed, $\mathrm{mph}:$ | 55 |
| Left-turns in advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/hr: | 8 |
| Advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/h: | 245 |
| Opposing volume $\left(\mathrm{V}_{\mathrm{O}}\right)$, veh/h: | 214 |

OUTPUT

| Variable | Value |
| :--- | :---: |
| Limiting advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/h: | 601 |
| Guidance for determining the need for a major-road left-turn bay: |  |
|  |  |

Left-turn treatment NOT warranted.


CALIBRATION CONSTANTS (2-Lane Roadway)

| Variable | Value |
| :--- | :---: |
| Average time for making left-turn, s: | 3.0 |
| Critical headway, $\mathrm{s}:$ | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, $\mathrm{s}:$ | 1.9 |

## Left-Turn Lane Warrant Analysis

Project: 22082 - Brighton Pointe
Intersection: Parr Road \& Street H w/ 2-way Stop Control
Date: 10/5/2022
Scenario: 2033 Horizon Year - PM

2-lane roadway (English)
INPUT

| Variable | Value |
| :--- | :---: |
| $85^{\text {th }}$ percentile speed, $\mathrm{mph}:$ | 55 |
| Left-turns in advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/hr: | 27 |
| Advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/h: | 205 |
| Opposing volume $\left(\mathrm{V}_{\mathrm{O}}\right)$, veh/h: | 253 |

OUTPUT

| Variable | Value |
| :--- | :---: |
| Limiting advancing volume $\left(\mathrm{V}_{\mathrm{A}}\right)$, veh/h: | 302 |
| Guidance for determining the need for a major-road left-turn bay: |  |

Left-turn treatment NOT warranted.


CALIBRATION CONSTANTS (2-Lane Roadway)

| Variable | Value |
| :--- | :---: |
| Average time for making left-turn, s: | 3.0 |
| Critical headway, $\mathrm{s}:$ | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, $\mathrm{s}:$ | 1.9 |


| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | $1.5$ |  | Parr EB |  | Parr SB |  |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | M |  | $\uparrow$ |  |  | 4 |
| Traffic Vol, veh/h | 33 | 23 | 201 | 13 | 8 | 237 |
| Future Vol, veh/h | 33 | 23 | 201 | 13 | 8 | 237 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, | \# 0 | - | 0 | - | - | 0 |
| Grade, \% | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, \% | 1 | 1 | 5 | 1 | 1 | 5 |
| Mvmt Flow | 42 | 29 | 254 | 16 | 10 | 300 |


| Major/Minor | Minor1 |  | Major1 |  | Major2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 582 | 262 | 0 | 0 | 270 | 0 |
| Stage 1 | 262 | - | - | - | - | - |
| Stage 2 | 320 | - | - | - | - | - |
| Critical Hdwy | 6.41 | 6.21 | - | - | 4.11 | - |
| Critical Hdwy Stg 1 | 5.41 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.41 | - | - | - | - | - |
| Follow-up Hdwy | 3.509 | 3.309 | - | - | 2.209 | - |
| Pot Cap-1 Maneuver | 477 | 779 | - | - | 1299 | - |
| Stage 1 | 784 | - | - | - | - | - |
| Stage 2 | 738 | - | - | - | - | - |
| Platoon blocked, \% |  |  | - | - |  | - |
| Mov Cap-1 Maneuver | 473 | 779 | - | - | 1299 | - |
| Mov Cap-2 Maneuver | 473 | - | - | - | - | - |
| Stage 1 | 784 | - | - | - | - | - |
| Stage 2 | 731 | - | - | - | - | - |
|  |  |  |  |  |  |  |
| Approach | WB |  | NB |  | SB |  |
| HCM Control Delay, s | 12.3 |  | 0 |  | 0.3 |  |
| HCM LOS | B |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBT | NBRWBLn1 |  | SBL | SBT |
| Capacity (veh/h) |  | - | - | 564 | 1299 | - |
| HCM Lane V/C Ratio |  | - | - | 0.126 | 0.008 | - |
| HCM Control Delay (s) |  | - | - | 12.3 | 7.8 | 0 |
| HCM Lane LOS |  | - | - | B | A | A |
| HCM 95th \%tile Q(veh) |  | - | - | 0.4 | 0 | - |




| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | $1.5$ |  | Parr EB |  | Parr SB |  |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | M |  | 个 |  |  | * |
| Traffic Vol, veh/h | 23 | 17 | 217 | 36 | 27 | 178 |
| Future Vol, veh/h | 23 | 17 | 217 | 36 | 27 | 178 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, \# | \# 0 | - | 0 | - | - | 0 |
| Grade, \% | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, \% | 1 | 1 | 2 | 1 | 1 | 2 |
| Mvmt Flow | 31 | 23 | 293 | 49 | 36 | 241 |


| Major/Minor | Minor1 |  | Major1 |  | Major2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 631 | 318 | 0 | 0 | 342 | 0 |
| Stage 1 | 318 | - | - | - | - | - |
| Stage 2 | 313 | - | - | - | - | - |
| Critical Hdwy | 6.41 | 6.21 | - | - | 4.11 | - |
| Critical Hdwy Stg 1 | 5.41 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.41 | - | - | - | - | - |
| Follow-up Hdwy | 3.509 | 3.309 | - | - | 2.209 | - |
| Pot Cap-1 Maneuver | 447 | 725 | - | - | 1223 | - |
| Stage 1 | 740 | - | - | - | - | - |
| Stage 2 | 744 | - | - | - | - | - |
| Platoon blocked, \% |  |  | - | - |  | - |
| Mov Cap-1 Maneuver | 432 | 725 | - | - | 1223 | - |
| Mov Cap-2 Maneuver | 432 | - | - | - | - | - |
| Stage 1 | 740 | - | - | - | - | - |
| Stage 2 | 719 | - | - | - | - | - |
|  |  |  |  |  |  |  |
| Approach | WB |  | NB |  | SB |  |
| HCM Control Delay, s | 12.7 |  | 0 |  | 1.1 |  |
| HCM LOS | B |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBT | NBRWBLn1 |  | SBL | SBT |
| Capacity (veh/h) |  | - | - | 522 | 1223 | - |
| HCM Lane V/C Ratio |  | - | - | 0.104 | 0.03 | - |
| HCM Control Delay (s) |  | - | - | 12.7 | 8 | 0 |
| HCM Lane LOS |  | - | - | B | A | A |
| HCM 95th \%tile Q(veh) |  | - | - | 0.3 | 0.1 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.4 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 1 |  |  | -1 | M |  |
| Traffic Vol, veh/h | 139 | 15 | 25 | 131 | 10 | 16 |
| Future Vol, veh/h | 139 | 15 | 25 | 131 | 10 | 16 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, \% | 2 | 1 | 1 | 2 | 1 | 1 |
| Mvmt Flow | 188 | 20 | 34 | 177 | 14 | 22 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 208 | 0 | 443 | 198 |
| Stage 1 | - | - | - | - | 198 | - |
| Stage 2 | - | - | - | - | 245 | - |
| Critical Hdwy | - | - | 4.11 | - | 6.41 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.41 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.41 | - |
| Follow-up Hdwy | - | - | 2.209 | - | 3.509 | 3.309 |
| Pot Cap-1 Maneuver | - | - | 1369 | - | 574 | 846 |
| Stage 1 | - | - | - | - | 838 | - |
| Stage 2 | - | - | - | - | 798 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1369 | - | 558 | 846 |
| Mov Cap-2 Maneuver | - | - | - | - | 558 | - |
| Stage 1 | - | - | - | - | 838 | - |
| Stage 2 | - | - | - | - | 776 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 1.2 |  | 10.4 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) |  | 706 | - | - | 1369 | - |
| HCM Lane V/C Ratio |  | 0.05 | - | - | 0.025 | - |
| HCM Control Delay (s) |  | 10.4 | - | - | 7.7 | 0 |
| HCM Lane LOS |  | B | - | - | A | A |
| HCM 95th \%tile Q(veh) |  | 0.2 | - | - | 0.1 | - |

Intersection: 12: Parr Rd NE/Parr Rd \& Street H (Access)

|  | H WB | Parr SB |
| :--- | ---: | ---: |
| Movement | WB | SB |
| Directions Served | LR | LT |
| Maximum Queue (ft) | 49 | 32 |
| Average Queue (ft) | 27 | 2 |
| 95th Queue (ft) | 47 | 17 |
| Link Distance (ft) | 611 | 572 |
| Upstream Blk Time (\%) |  |  |
| Queuing Penalty (veh) |  |  |
| Storage Bay Dist (ft) |  |  |
| Storage Blk Time (\%) |  |  |
| Queuing Penalty (veh) |  |  |

Intersection: 14: Street A (Access) \& Parr Rd NE

| Movement | WB | NB |
| :--- | ---: | ---: |
| Directions Served | LT | LR |
| Maximum Queue (ft) | 26 | 44 |
| Average Queue (ft) | 1 | 23 |
| 95th Queue (ft) | 12 | 47 |
| Link Distance (ft) | 522 | 453 |
| Upstream Blk Time (\%) |  |  |
| Queuing Penalty (veh) |  |  |
| Storage Bay Dist (ft) |  |  |
| Storage Blk Time (\%) |  |  |
| Queuing Penalty (veh) |  |  |
|  |  |  |
| Network Summary |  |  |
| Network wide Queuing Penalty: 0 |  |  |

Intersection: 12: Parr Rd NE \& Street H (Access)

|  | H WB | Parr SB |
| :--- | ---: | ---: |
| Movement | WB | SB |
| Directions Served | LR | LT |
| Maximum Queue (ft) | 51 | 36 |
| Average Queue (ft) | 22 | 6 |
| 95th Queue (ft) | 45 | 26 |
| Link Distance (ft) | 588 | 434 |
| Upstream Blk Time (\%) |  |  |
| Queuing Penalty (veh) |  |  |
| Storage Bay Dist (ft) |  |  |
| Storage Blk Time (\%) |  |  |
| Queuing Penalty (veh) |  |  |

Intersection: 14: Street A (Access) \& Parr Rd NE

| Movement | WB | NB |
| :--- | ---: | ---: |
| Directions Served | LT | LR |
| Maximum Queue (ft) | 26 | 49 |
| Average Queue (ft) | 3 | 19 |
| 95th Queue (ft) | 17 | 45 |
| Link Distance (ft) | 522 | 453 |
| Upstream Blk Time (\%) |  |  |
| Queuing Penalty (veh) |  |  |
| Storage Bay Dist (ft) |  |  |
| Storage Bk Time (\%) |  |  |
| Queuing Penalty (veh) |  |  |
| Network Summary |  |  |
| Network wide Queuing Penalty: 0 |  |  |




North $\longrightarrow$


| From: | Chuck Green [Chuck.Green@otak.com](mailto:Chuck.Green@otak.com) |
| :--- | :--- |
| Sent: | Tuesday, October 4, 2022 11:51 AM |
| To: | Roseann Johnson |
| Cc: | Chris Kerr; Dan Handel; Dago Garcia; Janelle Shanahan |
| Subject: | RE: Brighton Pointe TIA Follow-up |

Good morning, Roseann. I just completed a huddle with City planning staff to be able to provide a complete response.

First, on the proportionate share of the three Evergreen Road intersections. Public Works has just started some conceptual design work for two of the intersections that may indicate the cost is higher than the $\$ 500,000$ stated in my memo. However, that work is not complete. In our discussion, we decided to rely on the precedent set with Allison Way Apartments back in 2020 where two of the intersections, Evergreen at Stacey Allison Way and at Hayes, were identified as traffic issues. In that project, the final conditions of approval included the following:

T-A1. Evergreen \& W. Hayes: The developer shall: pay a mitigation fee or fee in-lieu of \$33,000 to fund a transportation (design) study.
T-A2. Allison \& Evergreen: The developer shall pay a mitigation fee or fee in-lieu of $\$ 33,000$ to fund a transportation (design) study.

Our preference then is to be consistent with the precedent set by the decision on Allison Way Apartments. Thus, the mitigation fee or fee-in-lieu would be $\$ 33,000$ for each of the three intersections identified (Evergreen at Stacey Allison Way, at Hayes and at Harvard).

Second, following up on the county's request for a TIA horizon year 5 years after completion, per the county's TIA guidelines
(https://urldefense.com/v3/ https://www.co.marion.or.us/PW/Engineering/Pages/analysis.aspx ;!!No0KQ4w! sdWN6nfU67T8DaLlijzx3b2RsXBO-E03anuc5azO-pbi6NHTZtnsPN4Hb6q Ah6eURca6-kaaeCmOInHLK6jiro\$ ) for developments such as Brighton Pointe, the TIA horizon year (expressed in years after the development is planned to build out) is 5 years. Per our meeting a couple of weeks ago, the remaining TIA components after our meeting are to follow up on the left turn lane warrants for the site's Street A and Street H intersections with Parr Road. We would request that for this follow-up analysis a horizon year of 2033 (five years after the planned 2028 build-out year) be
used for this analysis. Additionally, to support the engineering design of the Parr Road/ Street H intersection, we request that the 2033 with-site turning movement forecasts be provided along with the supplemental TIA information.

The other two intersections under county jurisdiction, Parr at Butteville and Parr at Evergreen extension, are under separate special study or design and we will not request additional TIA information for those.

I hope this provides you with what you need to move things forward with your project. If you have questions, please don't hesitate to reach out.

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-----Original Message-----
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