

July 2, 2019

Dan Rich
City Manager
Mike Fuller
Public Works Director
City of Mountain View
500 Castro Street
Mountain View, CA 94041

Re: Sobrato Pear Ave Mixed Use Project Condition of Approval #190

Dan and Mike,

As you both might know, our recently entitled mixed-use project at 1255 Pear Ave in the North Bayshore Precise Plan area of Mountain View included over 295 Conditions of Approval (COAs). Following the Council approval of our project we have moved to develop the construction drawings for permit and have been working with Staff to address all of the COAs required to begin construction. During this period COA #190 has been a conceptually difficult condition to address without additional traffic analysis and agreement among City staff and Sobrato as to how to proceed.

The condition states:

“The North Bayshore Precise Plan (NBPP) identifies capacity limitations at all three gateways. This development project is projected to add additional trips beyond the current Shoreline Boulevard gateway capacity. Priority transportation improvement projects are identified in the NBPP to accommodate additional gateway trips, including trips related to this development project.

The Highway 101/Shoreline Boulevard (NB) Off-Ramp Project (T-16) and the Plymouth Street realignment to Space Park Way Project (T-5) are identified within the NBPP as priority transportation improvement projects. Both improvement projects are needed to provide Shoreline Boulevard gateway capacity for the development project. Both improvements will be built by the City and are anticipated to be completed after the occupancy date of the development project.

Because of the above conditions, the City will not grant a building permit to construct the new office building in the North Bayshore Precise Plan area unless and until:

The Completion of the construction of the Highway 101/Shoreline Boulevard (NB) Off-Ramp Project (T-16) and the Plymouth Street Realignment to Space Park Way Project (T-5) improvements.

OR, if the applicant demonstrates, to the reasonable satisfaction of the Community Development Director and Public Works Director, that the office component of the project will not add any new vehicle trips beyond the NBS Gateway capacity prior to the

completion of the Highway 101/Shoreline Boulevard (NB) Off-Ramp Project (T-16) and the Plymouth realignment to Space Park Way Project (T-6).”

This condition is similar to a COA in the Charleston East project with Google which also requires the two priority traffic improvements be in place before being issued a building permit. Their condition also included the “OR” option which Google was able to address with a cap on NBPP employee head count until the two improvements are completed. Though Google is the expected tenant for the Pear project, they have indicated an unwillingness to extend the head count cap to a third party leased property subsequent to those under contract at the execution of the North Bayshore Precise Plan cap.

Without this head count option, the ability to address this COA has not been apparent. We have had to focus closely on the projected dates to see how the project improvements would synchronize with the City’s traffic improvements and separately dug deeper into the Shoreline trip cap capacity as it relates to our project generated trips, our project’s delivery of a new Inigo street segment, the City’s COA traffic improvements and finally other Shoreline traffic improvements that might create trip capacity as it relates to our proposed project.

For reference I have attached the Pear Phase II Preliminary Summary schedule. The blue line items show the project's various permits and projected completion dates and orange line items show other North Bayshore projects and traffic improvements. The schedule indicates that should we be issued our cold shell office building construction permits on 9/23/19 that the projected occupancy of the building after the tenant improvements are completed would be approximately 4/20/22. This would be after the Plymouth realignment completion which staff currently projects to be Q4 of 2021 and similar in timing to the expected completion of the new NB 101 at La Avenida projected as Q2 2022.

The second part of our analysis and findings is discussed in the attached Hexagon Memo dated June 27, 2019. This memo studied the estimates of additional capacity in the North Shoreline corridor attributable to three planned improvements: 1) Inigo Way extension from Pear to Space Park Way which is to be constructed and delivered in our Pear project’s first phase, 2) dedicated right-turn from northbound Shoreline to Pear and 3) Reversible bus lane on Shoreline.

Our proposed project will be constructing a new North / South segment of Inigo contemplated in the NBPP that will connect Pear Ave to Space Park Way. The current COAs require this traffic improvement to be completed prior to the occupancy of the new office building. Attached is an aerial of the Shoreline and 101 area of NBPP area depicting the NB 101 offramp improvement, the Plymouth realignment and the new Inigo segment. When viewing this aerial, it appears that the two City improvements would benefit from being connected so it completes the loop and diverts traffic off of Shoreline. However, it does not appear that this new “connection” had been evaluated as to whether it provides additional Shoreline trip capacity above our proposed project.

Hexagon analyzed this new segment and concluded that, when built concurrently with the NB 101 offramp and the Plymouth realignment, it incrementally increases the N Shoreline trip capacity by 241 net vehicles after deducting our project’s 50 inbound trips and the new capacity provided by the two City improvements. The memo concludes: “Since the extension would add more capacity to the road system than the Sobrato project would utilize, the project should move forward in conjunction with the off-ramp and Plymouth realignments.”

The memo also identifies that the currently approved reversible busway project along Shoreline will be constructing a new right turn lane from Northbound N Shoreline Boulevard to Pear Ave. It is expected that this improvement will incrementally increase the Shoreline trip capacity by 213 vehicles trips during the AM peak hour. This project is expected to be completed in Q2 2021 well in advance of the two conditioned City transportation improvements and the proposed Inigo extension.

Additionally, the median reversible busway in the N Shoreline Boulevard from Middlefield Road to Charleston Road is expected to begin construction this fall and be completed by Spring of 2021. This improvement is expected to generate additional Shoreline trip capacity of 50 AM trips. When combined with the right turn lane onto Pear Ave, a total of 263 AM trips will be added to the N Shoreline Blvd trip capacity as the reversible busway construction completion.

In summary, Condition of Approval #190 was written to suggest that the new NB 101 offramp and the Plymouth realignment needed to be in place before there would be sufficient capacity on Shoreline. The attached traffic analysis suggests that the new dedicated Shoreline Boulevard right turn onto Pear and the completion of the N Shoreline Blvd reversible busway would provide sufficient new capacity on Shoreline prior to the completion of the two mentioned City improvements and the Sobrato project. Additionally, the attached construction schedule suggests that should the Sobrato project move forward with building permits in September of 2019 and be built concurrent with construction of the City improvements, that the Inigo extension and the Sobrato occupancy are all projected to conclude at similar times with the City improvements. Furthermore, this analysis concludes that it would be desirable to have the Sobrato built Inigo Way extension come on-line at the same time as the NB 101 offramp and Plymouth Street realignment. This is due to the extension adding significantly more capacity to the road system than the Sobrato project would utilize and recommends the project should move forward in conjunction with the off-ramp and Plymouth realignment.

In consideration of the attached construction schedule summary and the Hexagon traffic analysis conclusions I would respectfully request Staff's support for allowing the Sobrato project to move ahead with pulling building permits under COA #190. This would allow for construction of the new office building, the residential and the Inigo extension with the intent of having these improvements come on line generally concurrent with the City improvements. If you have any questions please don't hesitate to reach out. Look forward to hearing from you soon.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim Steele', with a long horizontal flourish extending to the right.

Tim Steele
Sr Vice President Real Estate Development

Attachments:

Pear II Preliminary Summary Schedule
Hexagon Memo dated June 27, 2019

**Pear II Preliminary Summary Schedule
06/25/19**

Gatekeeper Granted 06/01/15
 Planning Application Submittal 06/01/16
 North Bayshore PP EIR Adoption 10/01/17
 Planning Application / EIR Approval 10/23/18

Building:	DD/CD's	Submit	Permit	Construction		Other North Bayshore Projects	
				Start	Completion		
Phase 1 / Permit 1							
Relocate Trash/Generator Enclosure	02/01/18	02/17/19	08/27/18		12/21/18		
Demo North	09/04/18	11/26/18	02/08/19		03/21/19		
Temp. Parking North	09/20/18	11/26/18	03/15/19		05/16/19		
Demo South & Underground	09/12/18	04/05/19	08/19/19		11/11/19		
Phase 2 / Permit 2							
Proposed Res. South Garage	04/24/18	12/12/18	10/31/19	01/20/20	06/11/21		
Charleston Occupy (Google)						Q2 2021	***
Shoreline Reverse Bus Lane/Pear Right Turn Lane (City Project)				Q4 2019	Q2 2021		*
Plymouth Realignment (City Project)						Q4 2021	***
Phase 3 / Permit 3							
Proposed Office Building (Cold Shell)	01/12/18	12/12/18	09/23/19	01/20/20	08/16/21		
Google Tenant Improvement/Occupancy				08/17/21	04/20/22		
Phase 4 / Permit 4							
Proposed Res. South	02/05/18	12/10/18	10/07/19	05/04/20	03/04/22		
Inigo St. Extension Construction						04/20/22	**
101 NB Off-Ramp Completion (City Project)						Q2 2022	***

* Dates provided by City Staff on 06/24/19

** Dedication to City

***Dates provided by Planning/Public Works staff on 04/25/19



June 27, 2019

Transportation Improvements for North Shoreline Corridor

Mountain View has planned several transportation improvements that will add capacity to the N. Shoreline Boulevard corridor. This corridor, which is defined herein as extending north from Middlefield Road to the Google campus, experiences significant congestion during the peak commute hours. Based on observations, the main bottleneck in the morning occurs at the intersections with Pear Avenue and Plymouth Street. At Pear Avenue, there is a high volume of right turns from northbound Shoreline because Pear Avenue provides the only access to development west of N. Shoreline Boulevard. The right turns clog the curb lane on N. Shoreline. At Plymouth Street, there are a high number of left turns from northbound N. Shoreline to access development on the east side of N. Shoreline Boulevard. The left turn at Plymouth Street is unsignalized, so vehicles queue waiting for gaps.

The following improvements are planned to add capacity (see Figure 1):

Realign Northbound US 101 Off-ramp: This project would tie the off-ramp into La Avenida Street, which connects with Inigo Way. This connection would allow vehicles with destinations west of N. Shoreline Boulevard to avoid using N. Shoreline Boulevard altogether. Expected completion is the second quarter of 2022.

Realignment of Plymouth Street: Plymouth Street would be realigned to tie into Space Park Way, and the intersection would be signalized. This improvement would provide additional capacity for left turns from Shoreline Boulevard to Plymouth Street. Expected completion is the fourth quarter of 2021.

Right turn lane from Shoreline to Pear: This improvement would provide additional capacity at the Shoreline & Pear intersection. Expected completion is the end of 2020.

Reversible Median Bus Lane: This improvement would add a bus lane from Middlefield Road to Charleston Road. The bus lane would decrease bus travel times and would also remove buses from the mixed-flow travel lanes. Expected completion is the end of 2020.

Inigo Way Extension: Inigo Way would be extended from Pear Avenue to Space Park Way. This improvement would allow additional access to west side properties without using N. Shoreline and would provide an alternate route to Plymouth Street. Expected completion is the second quarter of 2022 (assuming it can start before the completion of the off-ramp).

Traffic Estimate for US 101 and Plymouth Realignment

The added capacity of the realignment of the US 101 northbound off-ramp and the realignment of Plymouth Street were estimated for the Charleston East development. According to Table 3 in the Charleston East Council Report, these improvements will add capacity equal to 1,650 vehicles during the morning commute period. The morning commute period is three hours long (7 AM – 10 AM), so the peak-hour added capacity can be calculated as 550 vehicles.

Traffic Estimate for Right Turn Lane at Pear

Mountain View is planning to add a right turn lane from northbound N. Shoreline Boulevard to Pear Avenue in conjunction with the construction of a reversible busway in the median of N.



Shoreline Boulevard (see Figure 3). Construction is expected to start this year and be completed by late 2020. Currently there is no right turn lane on Shoreline at Pear, and the right turn is a very heavy movement. The number of right-turn vehicles adds to the delay on Shoreline, especially when the right turns must wait for pedestrians in the crosswalk on a green light.

According to the AM peak-hour count shown in Figure 2, there are 426 vehicles turning right at Pear. Assuming the right turn lane gets built before the US 101 northbound off-ramp realignment, the right-turn lane would add capacity to the corridor equal to the right turn volume of 426 vehicles during the morning peak hour.

Once the US 101 northbound off-ramp gets realigned, some of the right turn vehicles would no longer use Shoreline. Half of the right-turn vehicles can be assumed to be coming from the northbound US 101 off-ramp and would be diverted off Shoreline with the planned off-ramp realignment. However, half of the right turns (213 vehicles) would remain and could utilize the right turn lane. Thus, the right turn lane would increase the capacity of N. Shoreline Boulevard by 213 vehicles during the AM peak hour.

Traffic Estimate for Reversible Busway

Mountain View is planning to add a reversible busway in the median of N. Shoreline Boulevard from Middlefield Road to Charleston Road. Construction is expected to start this year and be complete by late 2020. The busway would operate northbound in the morning and southbound in the evening. The busway would reduce delay for buses in the corridor, which would encourage increased ridership and would reduce operating costs. The busway also would remove buses from the regular lanes, leaving more room for cars. Hexagon understands that usage of the busway is estimated to be about 100 buses during the peak three-hour commute. This calculates to about 33 buses during the peak hour. Buses are larger and slower than cars, so it would be appropriate to assign a passenger car equivalency of 1.5 to the buses. Thus, not counting potential increased transit mode split, the busway would increase capacity in the corridor for cars by about 50 in the AM peak hour ($33 \times 1.5 = 49.5$).

Traffic Estimate for Inigo Way Extension from Pear to Space Park

As part of the approved Sobrato project in the North Bayshore area, an Inigo Way extension will be built extending north from Pear Avenue to Space Park Way. This extension is part of the long-range plan for the North Bayshore area to get an Inigo extension all the way north to Charleston Road. These improvements will provide alternative routes for traffic to reach North Bayshore developments.

Inigo Way Traffic Components

There are three sources of traffic that would use the Inigo Way extension:

1. Traffic that is destined for a development along Space Park Way.
2. Traffic that today uses Shoreline to Plymouth but could instead use Inigo to Plymouth.
3. Traffic that continues north on Shoreline but could use Inigo for part of the trip.

The following provides estimates of traffic usage from these three sources. All traffic volumes used in the estimates are taken from the Sobrato SSTA, which is based on 2017 counts (see Figure 2).

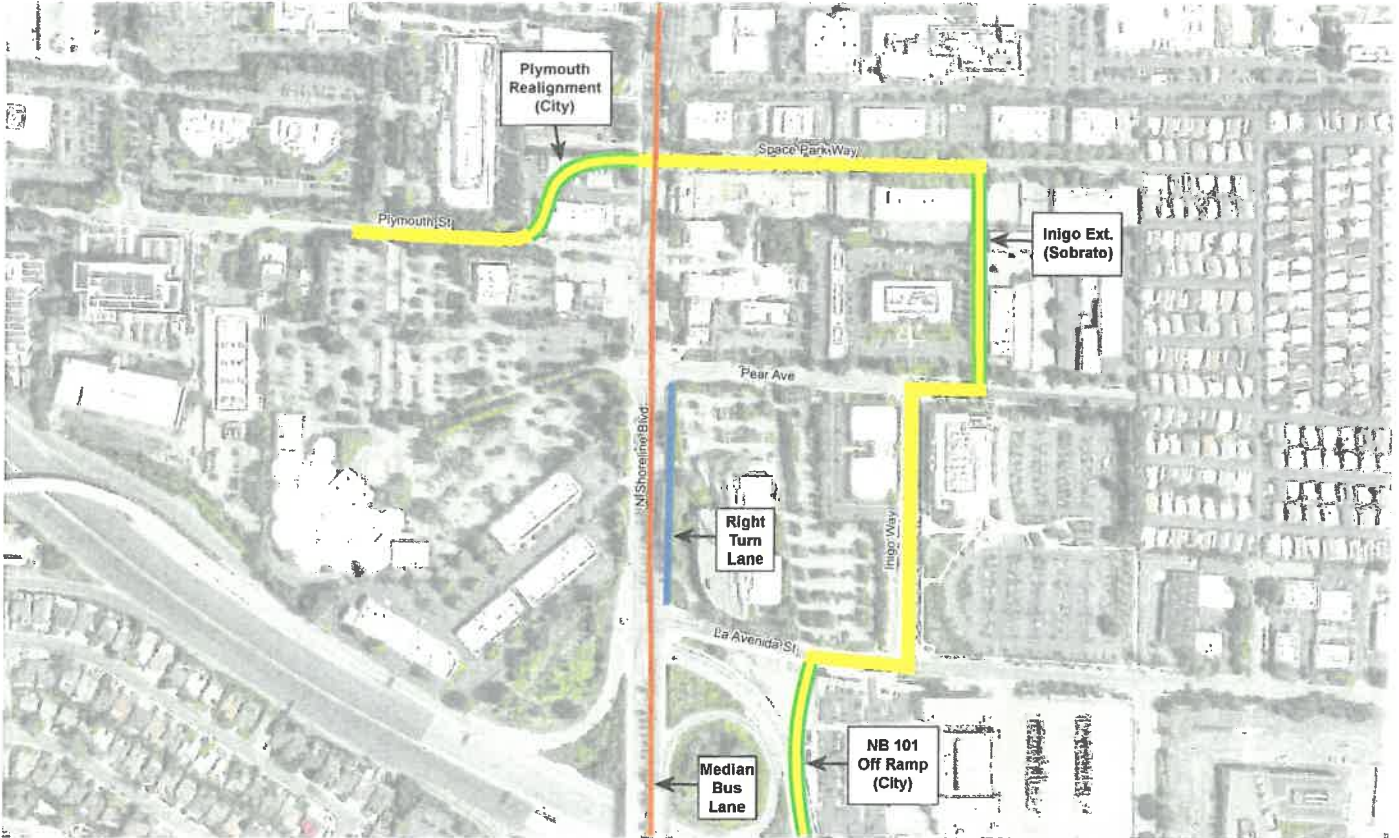


Figure 1
Planned Street Improvements



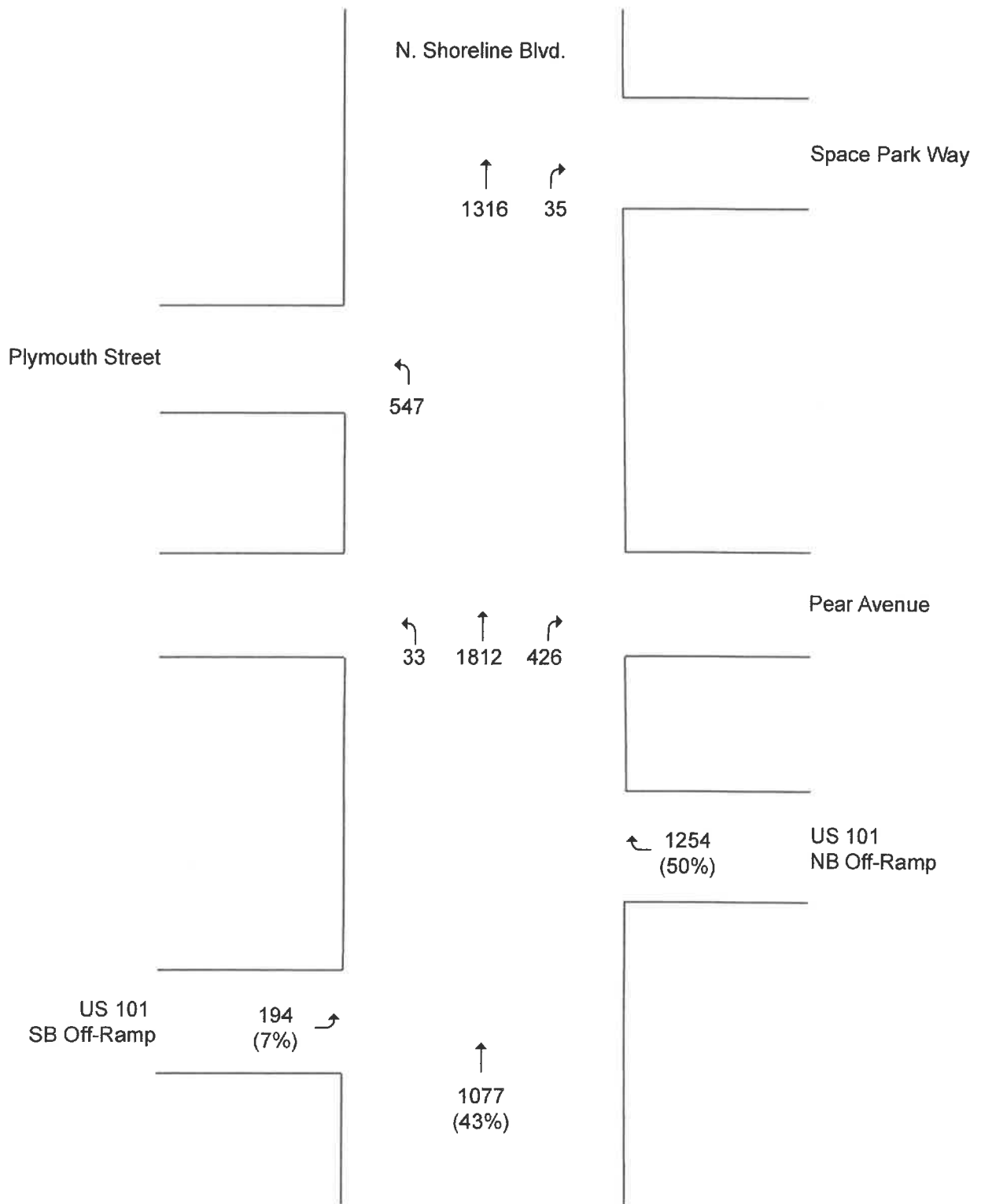


Figure 2
AM Peak Hour Volumes



Space Park Way. Traffic heading to Space Park Way would all use Inigo Way and avoid N. Shoreline Boulevard if possible. Traffic coming from the US 101 northbound off-ramp would be able to easily access the Inigo extension. This off-ramp traffic represents 50% of the total traffic on N. Shoreline Boulevard. The traffic turning on to Space Park Way during the AM peak hour is 35 vehicles. Assuming 50% of these come from the northbound US 101 off-ramp means that 18 vehicles would divert to Inigo Way (see Table 1).

**Table 1
 Inigo Way Traffic Estimate – AM Peak-Hour**

Component	AM Peak Hour Volume	Coming from US 101 NB Off-ramp	Percent that will Use Inigo	Inigo Volume
Right turn from Shoreline to Inigo	35	50%	100%	18
Left turn from Shoreline to Plymouth	547	50%	50%	137
NB Through on Shoreline to Charleston	1316	50%	20.80% *	137
Total Volume				291
<u>Notes:</u>				
* factored by the amount of greentime available at Shoreline & Space Park signal				

Plymouth Street. With the Inigo extension and the Plymouth realignment, traffic that now turns left to Plymouth could use the Inigo extension to Space Park Way. The AM peak hour left turn traffic to Plymouth is 547 vehicles. Assuming 50% come from the northbound US 101 off-ramp yields 274 vehicles as candidates for using the Inigo extension. If they were to use Inigo, they would have to go through only one signal (at Shoreline & Space Park). If they use Shoreline, they would have to go through three signals (at La Avenida, Pear, and Space Park). Therefore, Hexagon assumes that 50% would divert to Inigo Way.

N. Shoreline. Traffic getting off northbound US 101 and heading north on Shoreline would have the option to use the Inigo extension and get to Shoreline from Space Park Way. During the AM peak hour, this would be up to 658 vehicles (half of the 1,316 vehicles north on Shoreline at Space Park Way). However, these vehicles would have a hard time making a right turn on to N. Shoreline because of the continuous northbound flow. They probably couldn't turn right on a red light, but they could turn right when the signal turned green. We assumed that 137 vehicles during the AM peak hour would use the Inigo Extension to get to Plymouth Street. During that same signal green time, 137 vehicles could turn right from Space Park Way to N. Shoreline.

Total Inigo Volume

Adding up the three traffic components that could use the Inigo extension, we get a total of 291 vehicles during the AM peak hour. This can be thought of as the additional capacity that is created by extending Inigo Way from Pear Avenue to Space Park Way. If we take the peak one-hour volume and expand that to the three-hour gateway capacity limit, we get an added gateway capacity of around 800 vehicles.



Relationship to Sobrato Project

According to the Sobrato SSTA, the Sobrato project would add 50 inbound trips to the Shoreline gateway during the AM peak hour. Since the Inigo extension would add capacity for 291 vehicles during the AM peak hour, the net increase in capacity would be 241 vehicles. Thus, traffic conditions on N. Shoreline Boulevard would be better with the Sobrato project plus the Inigo extension than without either.

It would be desirable to have the Inigo Way extension come on-line at the same time as the US 101 northbound off-ramp realignment and the Plymouth Street realignment. It is necessary for the Sobrato project to be built in order for the Inigo Way extension to be built. Since the extension would add more capacity to the road system than the Sobrato project would utilize, the project should move forward in conjunction with the off-ramp and Plymouth realignments.

Summary of Added Roadway Capacity

The Charleston East Council Report provided an estimate of the added capacity due to the US 101 northbound off-ramp and Plymouth Street realignments. The analysis in this paper provide estimates for the other planned improvements. Table 2 presents Hexagon's estimate of the capacity added by all of the planned improvements. In total, the added capacity would be equal to about 1,100 vehicles during the AM peak hour, which calculates to about 3,300 vehicles during the morning peak 3-hour period. The added capacity for just the right turn lane at Pear Avenue and the busway, which will be completed before the other improvements, would be equal to about 575 peak-hour vehicles, or about 1,725 vehicles for the 3-hour morning commute.

Table 2
Summary of Added Shoreline Capacity – AM Peak-Hour

Component	Added Capacity (Vehicles)
US 101 Off-Ramp & Plymouth Realignments	550
Inigo Way Extension	291
Right turn Lane at Pear	213
Median Busway	50
Total	1104

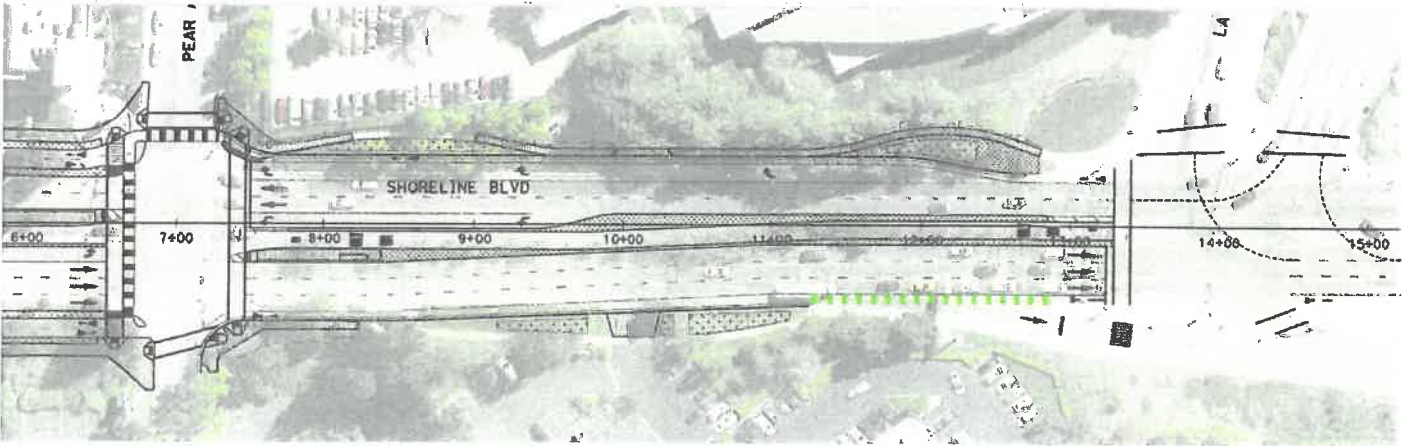


Figure 3
Right Turn Lane Modifications

