LONG BEACH TRANSIT

EAST REGIONAL TRANSIT CENTER FEASIBILITY STUDY

FEBRUARY 19, 2016

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ACKNOWLEDGEMENTS

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The technical direction for this project has been provided by joint effort including the Long Beach Transit Executive Steering Committee, an inter-agency technical advisory committee, and representatives from the cities staffing of the three selected potential sites. In addition, a project web site and three community meetings were held to provide updates on technical work performed and receive input from the public.

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TABLE OF CONTENTS

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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

Purpose and Goals

The East Regional Transit Center Feasibility Study identifies and evaluates potential sites for a new intermodal transit center. Long Beach Transit (LBT) is one of the largest municipal transit operators in Los Angeles County. It is known for generating a high transit use of approximately six percent of all trips within the service area, which is higher than the two percent average in southern California. The purpose of this project is to conduct a feasibility study on potential transit center locations and recommend a site for the next phase of technical analysis and property stakeholder support/partnership. The recommended site would play an important role in building a capital improvement project that allow buses to provide reliable service and safe access for customers.

This new center will complement the service provided by the First Street Transit Gallery, located in the south-western portion of the LBT service area, by providing a similar intermodal center in the eastern portion of the service area.

The goals of this new transit center are: increase customer access to transit, facilitate intermodal transfer and simplify transfer to other transit providers. In order to achieve these goals, the new transit center should be in proximity to existing ridership generators such as employment, retail and education nodes. The transit center should also be located so that it serves as many routes as possible, from as large a variety of providers as possible. Finally, the transit center should seek a location with high-quality pedestrian and bicycle infrastructure, in order to promote first- and last-mile connections by non-motorized modes.

Design Template

The intent of a design template is to establish a general set of criteria to be used in the planning and design phases of a new transit center project. Two design templates are used to meet the purpose of developing an inter-agency transit hub with layover capacity. The first configuration is an off-street, loop configuration accommodating 8 buses, as shown in Figure 1. The second configuration is an on-street, in-line configuration within the public right of way as shown is Figure 2. These design templates were applied to assess the potential for physical expansion and operation analysis as described in the methodology.

Figure 1: Off-street loop configuration outside the public right-of-way.

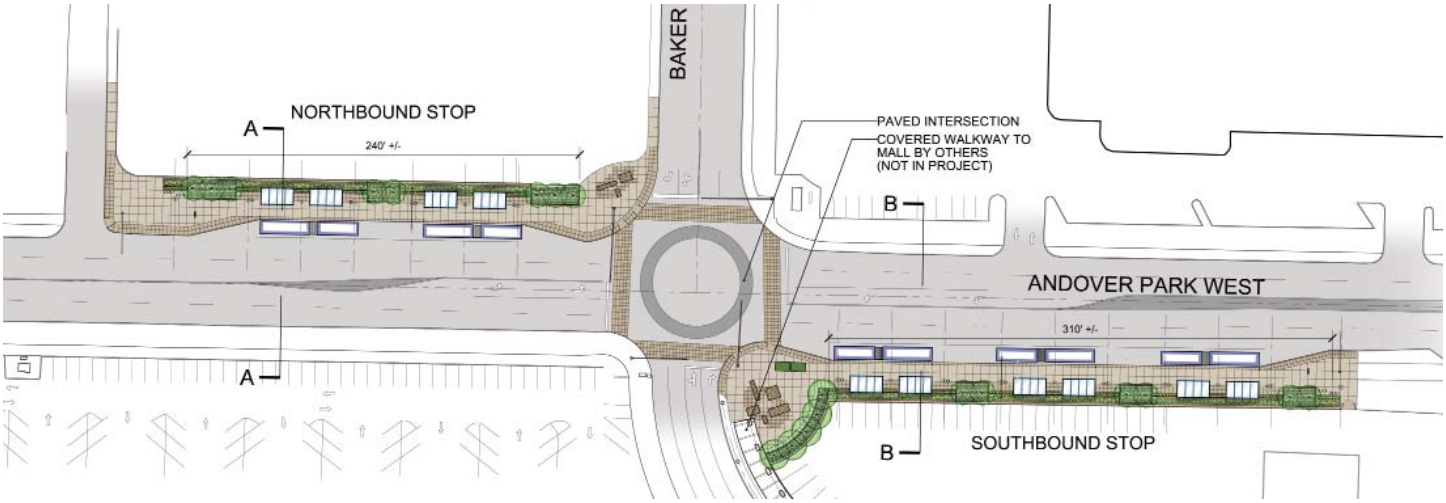
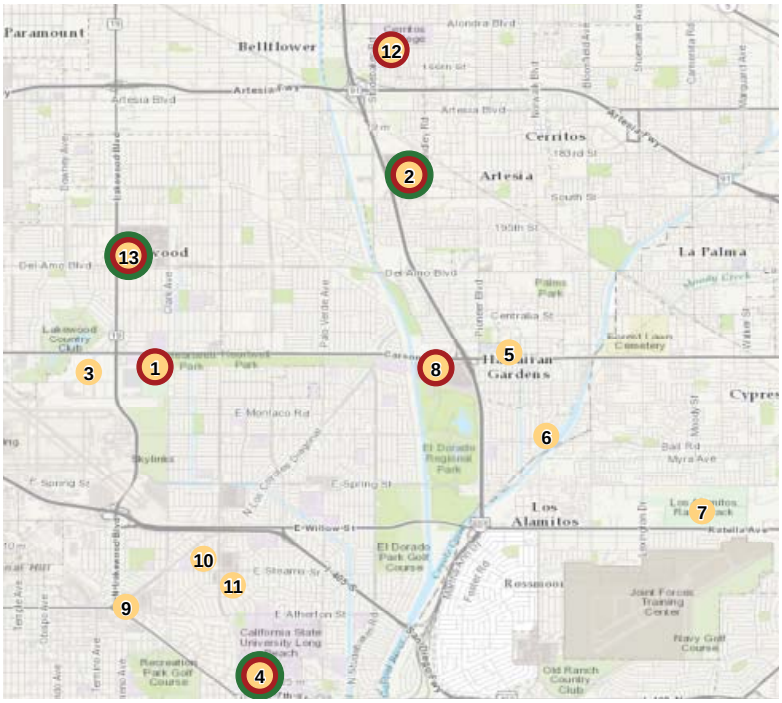
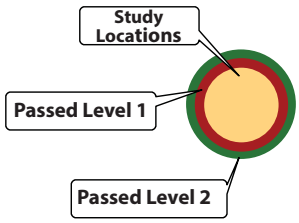


Figure 2: On-street, in-line configuration within the public right-of-way.





	List of Locations	Level 1 Pass	Level 2 Pass
1	Long Beach City College	✓	
2	Los Cerritos Center	✓	✓
3	Douglas Park Associates LLC		
4	VA Medical Center	✓	✓
5	Hawaiian Gardens		
6	Goodwill		
7	Los Alamitos Race Course		
8	Walmart	✓	
9	Hooman Toyota		
10	Stearns St & N Bellflower Blvd		
11	Los Altos Market Center		
12	Cerritos College	✓	
13	Lakewood Center	✓	✓

Figure 3: East Regional Transit Center Potential Locations

Methodology and Analysis

The study used a three-tier evaluation system, with each level of analysis becoming progressively more detailed.

Level 1: Initial Screening (Area)

An initial list of potential areas, some with two or more locations within them, was identified through stakeholder and agency participation. Initial screening evaluated each of these areas based on access, existing land use, environmental context and feasibility of property acquisition. This analysis used a simple pass/fail scoring system, and any area which failed one or more of the four categories was eliminated from further consideration. Seven areas were advanced to the next level of area analysis: Long Beach City College (1), Los Cerritos Center (2), VA Medical Center (4), Walmart (8), Cerritos College (12) and Lakewood Center (13).

Level 2: Detailed Evaluation (Location)

Detailed evaluation used a point criteria system to assess the selected seven areas advanced from the previous level. This evaluation applied more quantitative and qualitative analysis to the access issues studied in the previous Level 1 analysis, while also adding additional metrics pertaining to ridership generation and economic development potential. Given the project's goals of facilitating inter-agency transfer, proximity to transfer locations was weighted more heavily than other criteria. Three locations were advanced to the next level of analysis: Los Cerritos Center (2), VA Medical Center (4) and Lakewood Center (13).

Level 3: Concept Design (Site)

Stakeholder input prompted the study to expand the final list of three sites to include two additional, alternate sites near VA/CSULB, for a total of five final sites. Level 3 analysis prepared a site-specific concept plans for each site, which were then ranked based on the pros and cons of each site. This ranking considered ridership, customer amenities, safety, security, traffic impacts, pedestrian accessibility and bike infrastructure.

Public Process and Participants

General project information was available in Spanish and English on the LBT website throughout the life of the project. The team also held three community meetings and provided an on-line survey as alternate means for the public to learn about the project and provide input. In addition, technical input was provided by a Technical Advisory Committee (TAC) composed of transit providers and local jurisdictions.

Conclusions

This study recommended the VA Medical Center/California State University Long Beach (VA/CSULB) area as the preferred transit center location, but the exact site of that facility is the subject of on-going coordination with adjacent institutional land owners. Two sites remain under consideration, one on VA property fronting 7th Street and one approximately a half mile north on Beach Drive. The VA site would be an off-road, loop facility; the Beach Drive site could be an in-line within existing public right-of-way or a loop configuration on CSULB property immediately adjacent to the roadway.

It is important to note that all three of the sites advanced to Level 3 design were considered viable sites for a future transit facility. If further study determines that neither of the two sites in the VA/CSULB area is a viable option, LBT should explore the second-ranked site, Los Cerritos Center. If context around this second site has changed to a point that would preclude a transit center, LBT should then assess the third-ranked site, Lakewood Center.

Recognizing that LBT will be conducting a Comprehensive Operation Analysis (COA) in 2016 that will evaluate the overall system structure and service delivery, the recommended VA/CSULB transit center site would be ideally incorporated into the COA study for more analysis and verification. The COA will provide LBT with guidance for the development of new services through effective service integration, operation and delivery. A sustainable phased implementation plan in accordance with potential funding resources assessment will logically be developed, including findings whether to pursue the next steps of the transit center design and construction.

Preliminary Cost Estimate

The costs included in this document represent a preliminary cost estimate. Estimates include only hard construction estimates, and do not include property acquisition costs, utility relocation, historical or other unforeseen costs. Costs are estimated in 2015 dollars.

Site 4A: 7th Street Loop

Construction Cost	$5,818,869
Soft Costs	$1,396,529
Contingency 25%	$1,454,717
TOTAL	$8,670,115

Site 4A-Alternate: Beach Drive In-Line

Construction Cost	$2,996,158
Soft Costs	$ 719,078
Contingency 25%	$ 749,040
TOTAL	$4,464,276

Site 4A-Alternate: Beach Drive Loop

Construction Cost	$5,485,530
Soft Costs	$1,316,527
Contingency 25%	$1,371,383
TOTAL	$8,173,440

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01
PROJECT OVERVIEW

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1.0 PROJECT OVERVIEW

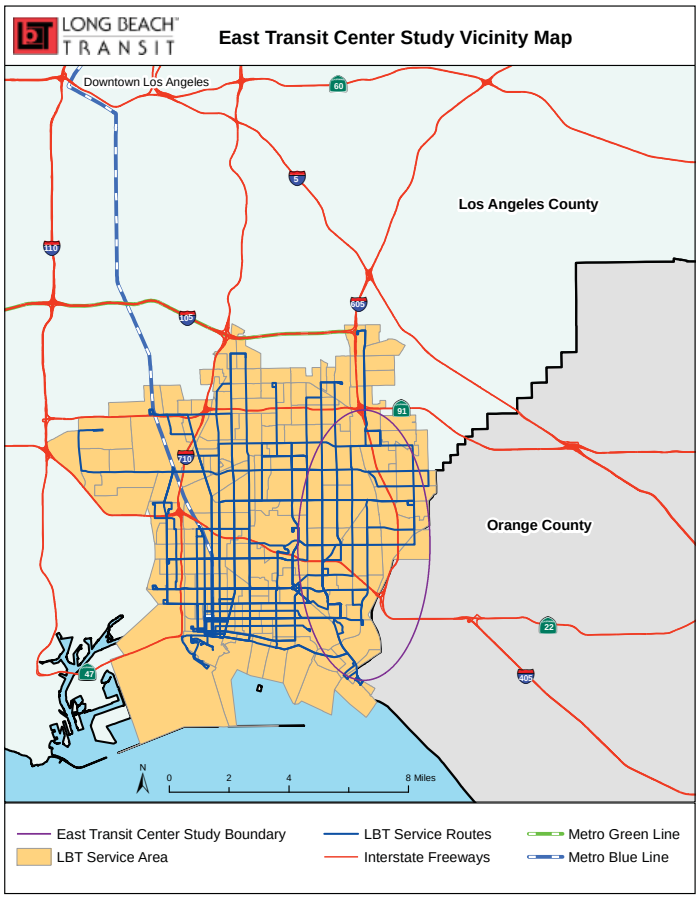

Figure 1.1: The map above illustrates the East Transit Center Study Boundary, as well as existing Long Beach Transit (LBT) bus routes. Additional maps of Orange County Transit Agency (OCTA), Metro and Norwalk systems can be found in Appendix B.

1.1 Long Beach Transit Profile

Long Beach Public Transportation Company, commonly known as Long Beach Transit or LBT, is a nonprofit corporation established in 1963 to provide public transportation to the City of Long Beach and its neighboring cities.

The LBT system maintains approximately 2,000 bus stops distributed across 35 fixed routes, including local service along major streets, limited stop service and a Passport complimentary circulator in downtown Long Beach and the waterfront. Annual boardings were approximately 28 million passengers in 2015 (90,000 boarding on an average weekday). Approximately 800,000 residents within 13 cities live within a quarter-mile of a LBT stop; these communities are:

- Artesia
- Bellflower
- Carson
- Cerritos
- Compton
- Hawaiian Gardens
- Lakewood
- Long Beach
- Los Alamitos
- Norwalk
- Paramount
- Seal Beach
- Signal Hill

LBT also provides regional and local connections to nine other transit providers:

- Los Angeles County Metropolitan Transportation Authority (Metro)
- Orange County Transportation Authority (OCTA)
- Torrance Transit
- Los Angeles Department of Transportation (LADOT)
- Norwalk Transit
- Carson Circuit
- Easy Rider Shuttle (City of Paramount)
- Bellflower Bus
- Cerritos on Wheels

1.2 Project Purpose

The current LBT fixed-route network is centered in downtown Long Beach, with the majority of the routes terminating at the Transit Gallery located on First Street between Pacific Avenue and Long Beach Boulevard. In recent years, more demand has emerged in the east side of LBT's service area, as employment clusters have strengthened and multiplied in that area. This study seeks to evaluate potential sites for a second LBT transit center to serve this emerging east side need.

The new transit center will serve as an anchor location for regional transfer between LBT, Los Angeles County Metropolitan Transportation Authority (Metro) and Orange County Transit Agency (OCTA). It will also offer potential as a facility for future bus rapid transit (BRT) service. This LBT regional transit center concept was recommended by Metro in its long range regional transit plan and builds upon LBT's own 2004 *Comprehensive Operations Analysis* (COA).

The goal of creating a new transit center is first and foremost to enhance regional connectivity and local transit access. The transit hub will serve as a central connection and transfer point for not only LBT routes, but also for customers to connect with other transit providers, such as OCTA and Metro. The transit center will also promote economic development and opportunity by offering transit-oriented development (TOD) opportunity and increasing citizen's transportation choices. The center will enhance multi-modal interface with particular attention on creating pedestrian and bicycle connections to the transit station.

1.3 Project Scope

Scope

This study is a feasibility analysis with the final goal of recommending a general area, location or specific site to be advanced to future design and engineering. The study identified an initial list of 21 potential transit center areas. Through technical analysis and stakeholder input, this list was reduced to a 'short list' of three locations. This list of three expanded to five when stakeholder input made it necessary to study three sites within the VA/CSULB area.

The study evaluated each of these five short-listed sites in more detail, including potential operational characteristics and adjacent land use compatibility, and a high-level concept plan produced for each site. Similar to the first list of areas, the short list is evaluated through technical and stakeholder criteria.

Concept plans included in this scope identify general layout of the transit facility and multi-modal circulation to and within the site as well as amenities. The concept plans consider impacts to existing land uses, as well as potential replacement of uses (such as parking) or mitigation of impacts. The concept plans do not include detailed traffic modeling, analysis of under- and above-ground utilities, required policy changes, or real estate or property negotiations. A preliminary cost estimate is included for comparison only, and may vary significantly depending upon final property acquisition needs and terms.

Location

The study focused on the northern and eastern portions of Long Beach Transit's service area. The study included but was not limited to the City of Long Beach itself, also encompassing the cities of Cerritos and Lakewood. Rough project parameters were Alondra Boulevard to the north, Valley View Avenue/Miller Street to the east, East 7th Street/Route 22 to the south, and Cherry Avenue to the west. These broad boundaries allowed the study to evaluate the potential for a number of significant ridership-generating destinations to be considered as potential hub locations, including California State University Long Beach (CSULB), several hospitals and a number of regional retail centers.

1.4 Project Process

Time Frame

The project began in July 2014 and took place over an approximately 18-month period. Coordination with land owners around the final three sites are on-going and will continue as the project moves forward and a final site is selected.

Methodology

The study began with a pool of 13 prospective transit center areas; some of the areas had more than one site within them. This original list of areas was identified through collaborative effort of the transit providers, local jurisdictions and representatives of the Technical Advisory Committee (TAC) familiar with the demographic characteristics and ridership patterns within the region.

After initial area identification, the project utilized a three-tiered evaluation process.

Level 1: Initial Screening (Area)

Level 1 applied a very high-level set of pass/fail criteria to identify significant area constraints. Approximately one-third of the original areas were advanced to the next level of evaluation.

Level 2: Detailed Evaluation (Location)

Level 2 analysis applied more detailed, qualitative criteria to the areas advanced from Level 1. Locations were scored on seven specific criteria, and three locations were moved forward to the final level of evaluation.

Level 3: Concept Design (Site)

Stakeholder input prompted the study to expand the final list of three sites to include two additional, alternate sites near the VA/CSULB, for a total of five final sites. All five sites in this level of evaluation were considered viable options for a future transit center, and this report discusses the pros and cons of each site. Final site selection will depend upon ongoing coordination with owners of the affected properties.

1.5 Project Participants

Technical Oversight

The TAC provided technical direction from a transit provider's and a local jurisdiction's points of view. TAC participants included representatives from: LBT, Metro, OCTA, City of Long Beach, City of Cerritos and City of Lakewood. The TAC met regularly at milestones throughout the span of the project, and was briefed on design options, technical issues and public input.

Public Outreach

The design team conducted three community meetings to disseminate project information and provide an opportunity for community input. All three meetings took place at the El Dorado Library in Long Beach and were held in June, July and August 2015. The first meeting reviewed the study process and profiled the final three sites moved into Tier 3 evaluation. The second meeting reviewed technical information, design recommendation and transit renderings. The final meeting shared ranking of the final three sites and discussed next steps to move the project forward.

Public information in both English and Spanish, including downloadable fact sheets and community meeting presentations, was available on LBT's project website over the course of the study. The website also included a three-minute survey regarding transit center design, results of which are available in the appendix of this document.

Stakeholder Coordination

After the VA Medical Center/California State University Long Beach (VA/CSULB) area had been identified in Tier 3 evaluation as the preferred general area for the new transit center, the design team held additional small-group meetings with the VA and with CSULB. These meetings discussed each institution's long-term capital plans in more detail, as well as concerns and design parameters for potential sites on each institution's campus.

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02

LEVEL 1: INITIAL SCREENING

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2.0 LEVEL 1: INITIAL SCREENING

2.1 Methodology

Area Identification

A starting slate of 13 areas, some with more than one location within them, was proposed by an integrated advisory group composed of regional transit providers and representatives of local jurisdictions. This initial area selection was not constrained by existing routing—which can be changed to accommodate a new transit center—but instead focused on local and regional destinations and origins such as major employment centers, educational institutions, health care facilities and retail nodes. In some cases, multiple locations were studied on or within a larger area, such as the two separate locations considered on the Long Beach City College Campus.

Programming Assumptions

For this initial assessment, the design team assumed an eight-bus transit center. Public parking, an operator relief station and other amenities were not included in this initial footprint.

Designers used a one-way loop configuration with sawtooth bus bays providing loading and unloading on an interior island; dimensions assumed six standard and two articulated bus bays. Sidewalks were assumed around the exterior perimeter of the loop and were included in dimensional assumptions, resulting in a generic, rectangular transit center template of approximately 280 feet by 110 feet. Areas which could not accommodate a facility of this size were eliminated from consideration.

Pass/Fail Evaluation

All areas were evaluated on a pass/fail basis. Any area that failed one or more of the four screening criteria was automatically eliminated from further consideration. In the instances in which areas contained multiple potential transit center locations, each area was evaluated separately with the same pass/fail criteria.

2.2 Screening Criteria

Location and Access

Generally, customers will avoid using a transit center if it is difficult or unsafe to access. Therefore the study's first criterion considered pedestrian and bicycle infrastructure, with a particular focus on the identification of intersections or other barriers that could complicate access. Needs of persons with strollers, wheelchairs, luggage or other similar items were used as the standard for this type of evaluation.

Signalized intersections were preferred over unsignalized intersections, for both pedestrian safety and timely bus operations. Intersections with a large number of cross-traffic turning movements were also considered undesirable, due to a higher potential for pedestrian-vehicular conflict and bus delays. Also considered were whether buses would need to use private roadways, such as internal university roads.

The relationship of the transit center to existing routes and destinations will be a critical factor in its success. Areas adjacent to significant ridership generators, such as regional shopping nodes, universities, hospitals and libraries, make more successful transit centers. Alternatively, areas adjacent to vacant or underutilized parcels could be either excellent or poor sites, depending upon development potential and local market conditions. Under the right conditions, a transit center could anchor transit-oriented development and promote local economic development.

Areas were given a 'Pass' score if they were located within reasonable walking distance (approximately a quarter mile) of significant destinations, or adjacent to vacant or underutilized property judged to have TOD potential. Areas were given a 'Fail' if neither of this two conditions applied. Areas were also given a 'Fail' score if pedestrian and/or bicycle access was judged to require significant roadway redesign or investment to mitigate difficult or unsafe conditions.

Land Use

This screening element evaluated existing local zoning to determine if a transit center would be permitted. The initial group of areas fell within five different jurisdictions: City of Cerritos, City of Cypress, City of Hawaiian Gardens, City of Long Beach and City of Lakewood. Due to the often time-consuming and divisive nature of a zone change, areas that did not allow a transit center under existing zoning were eliminated from consideration.

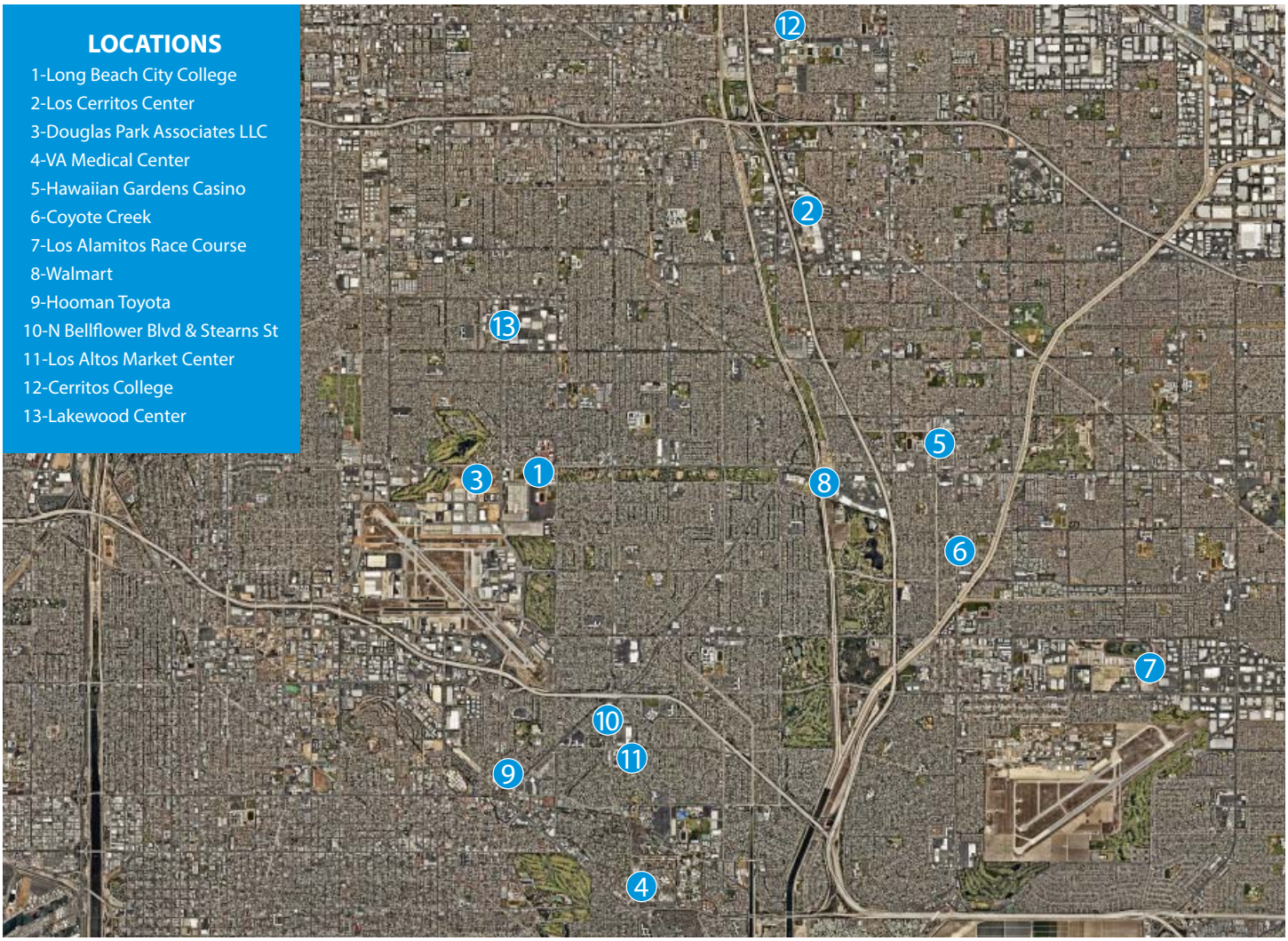


Figure 2.1: Level 1 Screening identified and evaluated 13 potential transit center areas. Some areas had more than one site within them.

Environmental Considerations

Environmental evaluation included three factors: demolition of existing structures, potential flooding, and liquefaction potential. Areas that would require an extensive amount of demolition, demolition of relatively new construction, or demolition of highly utilized structures (such as a fully-occupied strip retail center) were given a 'Fail.' Areas within a mapped flood zone and with a less than one percent annual chance of flood hazard were given a 'Fail'. Liquefaction potential was identified for due diligence purposes only, but was not considered a precluding factor.

Feasibility of Acquisition/Current Uses

This initial evaluation criterion investigated property ownership and possible challenges in property acquisition. Areas with a single owner are more attractive than areas requiring land assembly from multiple owners. 'Underdeveloped' areas with a low improvement-to-land-value relationship are also more likely candidates for acquisition.

Areas with historic buildings, particularly structures included on local, state or national historic registers, were eliminated from consideration. Similarly, properties protected under Section 4(f) designation, such as parks and cemeteries, were also eliminated.

Figure 2.2: Long Beach City College

Figure 2.3: Long Beach City College

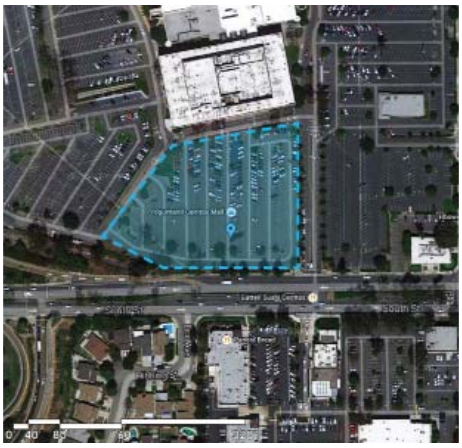


Figure 2.4: Los Cerritos Center

2.3 Areas

Level 1 screening considered 13 potential transit center areas. Some areas had more than one possible transit center location within them. Figure 2.20 on page 18 of this report provides a Level 2 comparison matrix, and the full Level 1 report, including aerial maps and photos of each area, can be found in Appendix C.

Area 1A: Long Beach City College

(Carson St and Clark Ave)

This area was given a 'Pass' and advanced to further study. *Note: Since initial evaluation, a dormitory has replaced the surface parking lot at this location.*

Major advantages of this area were proximity to existing transit routes and adjacency to the main Long Beach City College (LBCC) campus. Pedestrian and bicycle infrastructure was of mixed quality, but with potential for reasonable mitigation/upgrade. Significant drawbacks included a high volume of turn movements and roadway congestion, as well as right-in/right-out bus access to a potential transit center.

The institutional zoning designation restricts this area to public or institutional uses. Additional review of zoning requirements is necessary to determine whether a transit center would qualify as one of these two use categories. Environmental impacts are minimal, flooding risk is acceptable, and joint-use or long-term lease agreements may be possible.

Area 1B: Long Beach City College

(Lew Davis St and Faculty Ave)

This area was given a 'Fail' and eliminated from further consideration.

This area has good vehicular/bus access, but received poor ratings in all other areas including bicycle and pedestrian access, volume of turning movements and proximity to major ridership generators. Pedestrian connections to the LBCC campus were lengthy and bike facilities were completely absent.

Zoning, environmental and acquisition evaluation reflects those of the preceding Area 1A.

Area 2A: Los Cerritos Center

(off South St)

This area was given a 'Fail', with a note to focus on Areas 2B and 2C, also in the same area, for Level 2 analysis.

This area scored well in over half the location and access criteria, with particularly good pedestrian access and proximity to a regional commercial center. Site issues which prompted low scores on other criteria included a large number of cross-traffic turning movements, an absence of bicycle infrastructure and the need to route buses along the mall entry road and parking lots. Mall ownership did not support bus circulation on the private mall entry road and within mall parking lots.

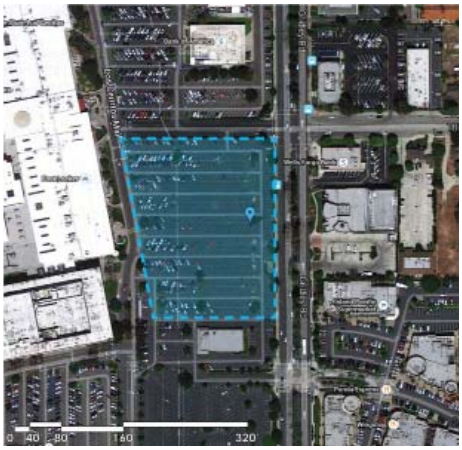


Figure 2.5: Los Cerritos Center

Area 2B: Los Cerritos Center (off Gridley St)

This area was given a 'Pass' and advanced to further study.

Also located within Cerritos Center, this site scored better than the South Street option, Area 2A. In comparison to Area 2A, this area had fewer cross-traffic turning movements. The same bus routing issues through the mall entry road and parking lots apply.

Existing zoning is compatible with a transit center, and there would be minimal environmental impact. The area is within a zone of liquefaction potential.

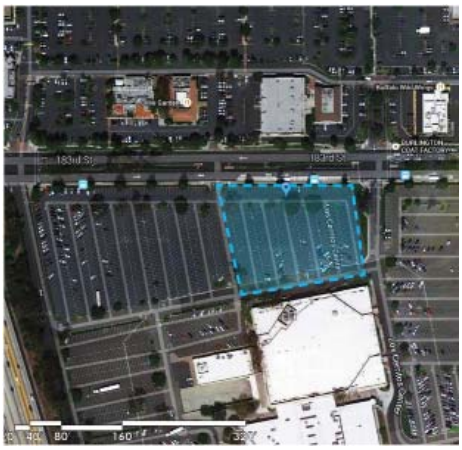


Figure 2.6: Los Cerritos Center

Area 2C: Los Cerritos Center (off 183rd St)

This area was given a 'Pass' and advanced to further study.

Also located within Cerritos Center, this area scored better than the South Street option (Area 2A) and similar to the Gridley Street option (Area 2B). Like Area 2B, this area also offers lower turn volume but still lacks bicycle infrastructure and support from mall ownership regarding internal circulation on private mall road and parking lots.

Existing zoning is compatible with a transit center, and there would be minimal environmental impact and no flooding concerns. The area is within a zone of liquefaction potential.

Figure 2.7: Douglas Park Associates LLC

Area 3: Douglas Park Associates LLC

This area was given a 'Fail' and eliminated from further consideration.

This area scored poorly on several points of evaluation. Adjacent low density industrial uses offer poor potential to generate ridership, and the transit center's location within the park interior would make it difficult to access.

Figure 2.8: VA Medical Center

Area 4A: VA Medical Center

(E 7th St and Channel Dr)

This area was given a 'Pass' and advanced to further study.

This area scored well on the majority of location and access indicators. Pedestrian and bicycle access are both good, and the area is adjacent to both a major roadway and the university. The area also offers the potential to expand an existing multi-bus pull-in on the north side of East 7th Street. Site disadvantages included a high volume of vehicular turning and the need to utilize private roadways for bus travel.

The institutional zoning designation restricts this area to public or institutional uses. Additional review of zoning requirements is necessary to determine whether a transit center would qualify as one of these two use categories. Environmental impacts are minimal, flooding and liquefaction are not concerns; long-term lease agreements may be possible.

Figure 2.9: VA Medical Center

Area 4B: VA Medical Center (Yogurtland)

(N Bellflower Blvd and Pacific Coast Hwy)

This area was given a 'Fail' and eliminated from further consideration.

This area scored poorly on all location and access criteria, except for bike access. Long walks, poor access, high turn volume and major roadway congestion made this site a poor option. Parking in this area is highly utilized, and for this reason parking loss was a more significant concern than in other areas studied. The high level of parking utilization in this area made parking loss and/or replacement a more significant concern than in other areas studied. The intensity of land use also suggested that the cost of property acquisition for a transit center could be high.

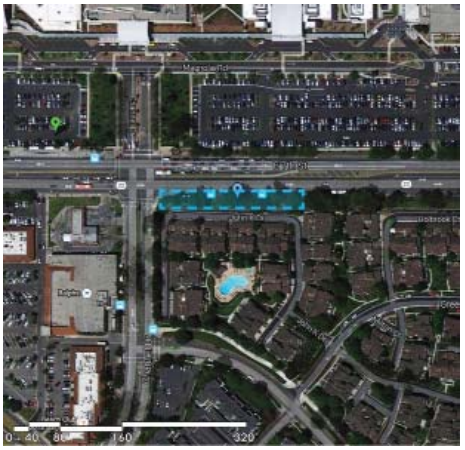


Figure 2.10: VA Medical Center

Area 4C: VA Medical Center

(Channel Dr and E 7th St)

This area was given a 'Fail' and eliminated from further consideration.

The area had very mixed scores on location and access criteria, with high turn volumes and poor traffic control of particular concern. The area was eliminated due to the required setback for existing residential development, a condition that would likely make the property extremely difficult to acquire or lease.

Figure 2.11: Hawaiian Gardens Casino

Area 5A: Hawaiian Gardens Casino (Northeast Corner Carson St and Norwalk Blvd)

This area was given a 'Fail' and eliminated from further consideration.

This area has good pedestrian access, but failed all other locational criteria. Additional concerns included high impact to existing structures, and split property ownership.

Figure 2.12: Hawaiian Gardens Casino

Area 5B: Hawaiian Gardens Casino (Southeast Corner Carson St and Norwalk Blvd)

This area was given a 'Fail' and eliminated from further consideration.

Slightly better than Area 5A, this area scored well on pedestrian access and proximity to existing bus routes. Circulation, however, is extremely challenging and the area has poor ridership generation potential. In addition, a new transit center would require acquisition of the entire site, including all existing improvements: likely a very costly acquisition, given existing uses.

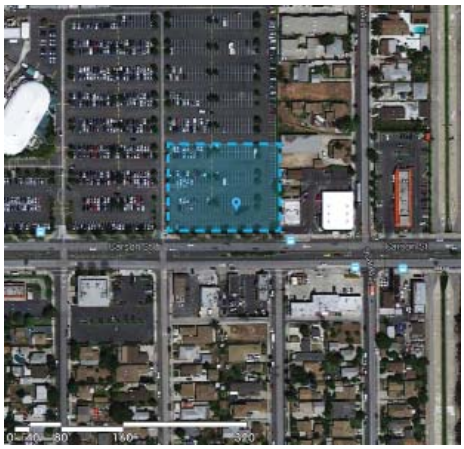


Figure 2.13: Hawaiian Gardens Casino

Area 5C: Hawaiian Gardens Casino (Carson St west of Juan Ave)

This area was given a 'Fail' and eliminated from further consideration.

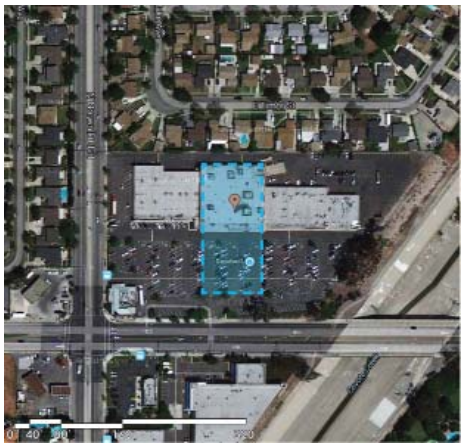
This area provided the best access of the 'Area 5' options, but significant issues with capacity and maintenance of existing private roads, as well as parking supply for peak periods, eliminated the site. Low density of adjacent use and resulting poor ridership generation potential was also a significant concern.

LOCATION 5D: Hawaiian Gardens Casino

Area 5D: Hawaiian Gardens Auto Repair (Norwalk Blvd between Civic Center Dr and 221st St)

This area was given a 'Fail' and eliminated from further consideration.

Potential opposition from adjacent residential development was a significant concern at this site. Property acquisition from multiple owners was also a concern, as was the extensive amount of existing structures which would require demolition.



LOCATION 6: Goodwill

Area 6: Goodwill (E Wardlow Rd and Norwalk Blvd)

This area was given a 'Fail' and eliminated from further consideration.

This area's existing zoning expressly prohibits a transit center. The area was eliminated from consideration prior to location/access, environmental and acquisition screening.

LOCATION 7: Los Alamitos Race Course

Area 7: Los Alamitos Race Course (W Katella Ave between Siboney St and Winners Cir)

This area was given a 'Fail' and eliminated from further consideration.

This area received a mix of scores on location and access elements. The greatest concern was the low ridership generation potential of adjacent uses, and the fact that the area is not on any existing LBT routes. Although served by one OCTA bus route, extensive interagency operations agreements would be necessary for cross-county service. It is also likely that a transit center would require a conditional use permit.

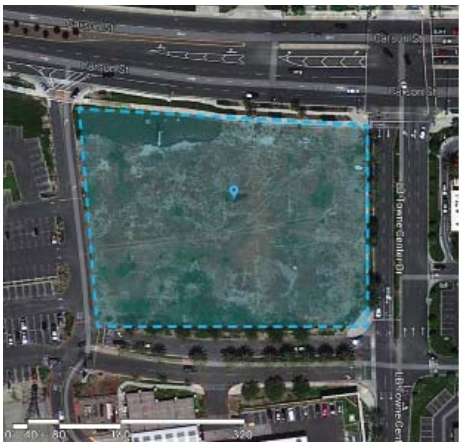


Figure 2.14: Walmart

Area 8: Walmart (Carson St and Long Beach Towne Center Dr)

This area was given a 'Pass' and advanced to further study.

This area scored well on transit proximity and pedestrian access, and is adjacent to a regional commercial center. Existing traffic control is very good, although a large number of cross-traffic turning movements is a concern. Buses would travel on private mall entrance roads.

Current zoning has no conflicts with a transit center, and long-term lease or fee-simple acquisition may be possible.

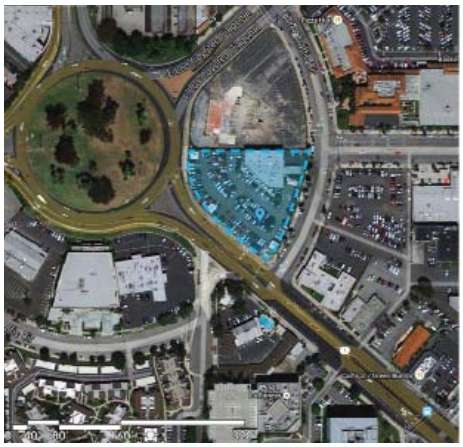


Figure 2.15: Hooman Toyota

Area 9: Hooman Toyota (Pacific Coast Highway)

This area was given a 'Fail' and eliminated from further consideration.

This area offers good bicycle infrastructure and proximity to existing bus routes, but scored poorly on all other elements. Bus access to the site would be particularly difficult, and low density adjacent uses offer little ridership benefit in terms of origins/destinations. A transit center would require a conditional user permit, and would require full site acquisition. Acquisition would likely be costly, in light of the property's 2013 sale value of $3.2 million. Existing use, a car dealership, would likely require replacement of parking. The property is within the 500-year floodplain, and in an area of liquefaction potential.

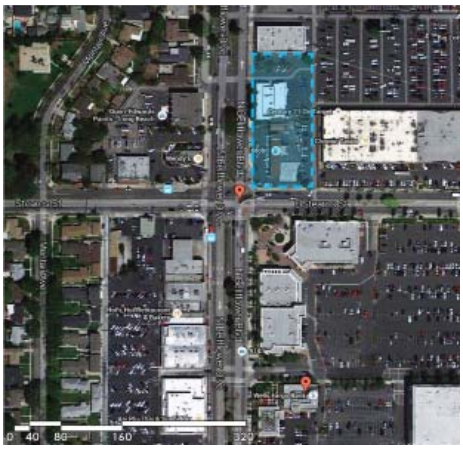


Figure 2.16: Bellflower Blvd and Stearns St

Area 10: N Bellflower Blvd and Stearns St

This area was given a 'Fail' and eliminated from further consideration.

This area's existing zoning expressly prohibits a transit center. The area was dropped from consideration prior to location/access, environmental and acquisition screening.

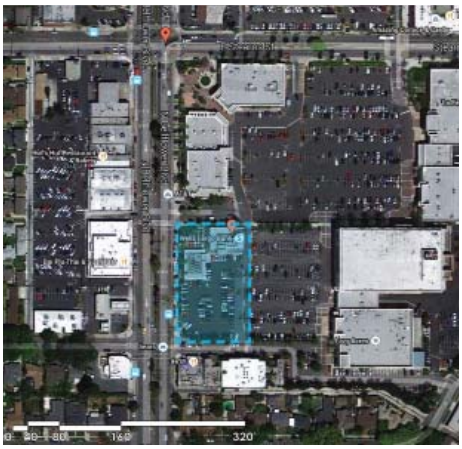


Figure 2.17: Los Altos Market Center

Area 11: Los Altos Market Center

(N Bellflower Blvd and East Britton Dr)

This area was given a 'Fail' and eliminated from further consideration.

This area's existing zoning expressly prohibits a transit center. The area was dropped from consideration prior to location/access, environmental and acquisition screening.

Figure 2.18: Cerritos College

Area 12: Cerritos College

(Alondra Blvd)

This area was given a 'Pass' and advanced to further study. *Note: Since initial evaluation, an academic building and surface parking has replaced the greenspace at this location.*

This area has extremely challenging bus and pedestrian access, and would require the use of private internal campus roadways. The area has high ridership generation potential, however, due to its relationship to the campus and was kept in consideration for this reason. Level 1 analysis also identified the potential to assess an alternate area on campus.

Permitted uses are unclear and would require further coordination with the local jurisdiction. Environmental impacts are minimal and the area is outside the floodplain. The area is within a zone of liquefaction potential. Long-term lease agreements may be possible.

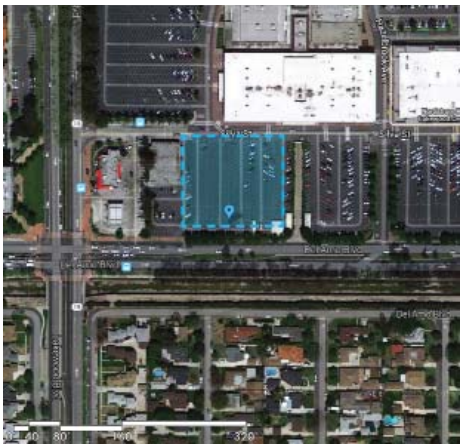


Figure 2.19: Lakewood Center

Area 13: Lakewood Center

(Del Amo and Lakewood Blvds)

This area was given a 'Pass' and advanced to further study.

This area scored well on all location and access issues, with the exception of bicycle infrastructure. Proximity to a regional mall indicates this area has high potential for ridership generation. Current zoning allows a bus or rail station, and a long term lease or other agreement may be possible.

LEVEL 1: INITIAL SCREENING			LOCATIONS								
			Long Beach City College		Los Cerritos Center			Douglas Park	VA Medical Center		
			1A	1B	2A	2B	2C	3	4A	4B	4C
Criteria	Location / Access	Proximity to Existing Routes	●	●	●	●	●	●	●	●	●
		Ease of Access	●	●	●	●	●	●	●	●	●
		Ped Access	●	●	●	●	●	●	●	●	●
		Bike Access	●	●	●	●	●	●	●	●	●
		Turning Movements	●	●	●	●	●	●	●	●	●
		Traffic Control	●	●	●	●	●	●	●	●	●
		Proiximity to Activity Center	●	●	●	●	●	●	●	●	●
		Use of Private Roads	●	●	●	●	●	●	●	●	●
	Land Use	Allowed	●	●	●	●	●	●	●	●	●
	Environmental Consideration	Demolition	●	●	●	●	●	●	●	●	●
		Floodplain	●	●	●	●	●	●	●	●	●
		Liquefaction	●	●	●	●	●	●	●	●	●
	Feasibility of Acquisition/Use	Acceptable Potential/Cost	●	●	●	●	●	●	●	●	●
		FINDING	PASS	FAIL	FAIL	PASS	PASS	FAIL	PASS	FAIL	FAIL

PASS/Very Good ● Good ● FAIL/Poor ●

LEVEL 1: INITIAL SCREENING			LOCATIONS											
			Hawaiian Gardens				Goodwill	Los Alamitos Racecourse	Walmart	Hooman Toyota	Stearns & N Bellflower	Los Altos Market Center	Cerritos College	Lakewood Center
			5A	5B	5C	5D	6	7	8	9	10	11	12	13
Criteria	Location / Access	Proximity to Existing Routes	●	●	●	●		●	●	●			●	●
		Ease of Access	●	●	●	●		●	●	●			●	●
		Ped Access	●	●	●	●		●	●	●			●	●
		Bike Access	●	●	●	●		●	●	●			●	●
		Turning Movements	●	●	●	●		●	●	●			●	●
		Traffic Control	●	●	●	●		●	●	●			●	●
		Proiximity to Activity Center	●	●	●	●		●	●	●			●	●
		Use of Private Roads	●	●	●	●		●	●	●			●	●
	Land Use	Allowed	●	●	●	●	●	●	●	●	●	●	●	●
	Environmental Consideration	Demolition	●	●	●	●		●	●	●			●	●
		Floodplain	●	●	●	●		●	●	●			●	●
		Liquefaction	●	●	●	●		●	●	●			●	●
	Feasibility of Acquisition/Use	Acceptable Potential/Cost	●	●	●	●		●	●	●			●	●
		FINDING	FAIL	FAIL	FAIL	FAIL	FAIL	FAIL	PASS	FAIL	FAIL	FAIL	PASS	PASS

PASS/Very Good ● Good ● FAIL/Poor ●

Figure 2.20: Scoring matrix summarizing Level 1 evaluation.

2.4 Level 1 Recommendation: Seven Areas for Further Study

Level 1 screening considered 13 areas for a potential transit center, some with more than one location within them. As shown in the accompanying matrix, seven areas showed sufficient promise to be moved to Level 2 study:

- Long Beach City College (1A)
- Los Cerritos Center (2B)
- Los Cerritos Center (2C)
- VA Medical Center (4A)
- Walmart (8)
- Cerritos College (12)
- Lakewood Center (13)

03

LEVEL 2: DETAILED EVALUATION

LONG BEACH TRANSIT

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3.0 LEVEL 2: DETAILED EVALUATION

3.1 Methodology

Each of the seven areas carried forward into Level 2 screening were evaluated on a set of seven criteria, described below.

Recognizing the role of the new facility as a transit center, proximity to transfer opportunities was weighted more heavily than the other factors, with a maximum score of seven. Five of the remaining six criteria were weighted equally, with values ranging between zero and five. One factor, proximity to regional bicycle infrastructure, was weighted more lightly, with a maximum of three points.

The total possible score was 35. Locations with the highest scores were advanced to Level 3.

CRITERIA	SCORE
Land Use, Major Employment & Activity Centers	5
Future Neighborhing Expansion Potential	5
Existing Proximity to Transit Activity	5
Transit Service Frequency	5
Proximity to Transit Route Transfer Locations	7
Proximity to Regional Bicycle Infrastructure	3
Project Development Costs	5
TOTAL	35

Figure 3.1: Level 2 evaluation criteria and weighted values.

3.2 Screening Criteria

Land Use, Major Employment & Activity Centers (5 points)

Level 1 performed a cursory examination of development patterns adjacent to the potential transit center areas with a particular focus on density as an indicator of potential ridership. Level 2 more thoroughly evaluated the uses themselves as well as customer demographics.

Office uses typically generate more transit customers than hospitals. Within the spectrum of health care destinations, large public hospitals providing a full range of a care are higher generators than small private hospitals with a high percentage of specialized or elective care. Additionally, large retail centers with a grocery store will typically promote higher transit use than retail centers with only apparel and lifestyle goods.

This evaluation focused on ensuring that a future transit center would provide a large number of transit routes where they are needed most. This criterion also evaluated the potential for future development and assessed whether the introduction of a transit center could have the potential to act as a catalyst for neighborhood development and economic growth.

Future Neighboring Expansion Potential (5 points)

As noted in the preceding chapter, this study utilized an eight-bay bus template. This Level 2 criterion evaluated the potential to expand beyond the assumed eight bays, either by adding additional bays, providing extended bays for articulated buses, or accommodating other transit services such as paratransit vehicles.

Existing Proximity to Transit Routes (5 points)

This metric assessed geographic proximity to transit corridors and the number of routes servicing those corridors. A location near seven transit routes, for instance, would score higher than a location adjacent to just two transit routes.

Transit Service Frequency (5 points)

Not all bus service runs with the same frequency, and frequency tends to follow ridership; routes with high demand typically have more buses per hour than routes with less ridership. Frequency can also reflect customer demographics, such as having limited evening and weekend service on routes that primarily serve office uses. In this evaluation, proximity to high-frequency routes scored higher than proximity to less frequent routes.

Proximity to Transit Route Transfer Locations (7 points)

This examination differentiated between locations that were close to a single transit corridor (such as one or more east-west routes, for example) and locations which were close to multiple intersecting transit corridors (east-west and north-south). Intersecting corridors of different providers (LBT, Metro, OCTA) scored higher than those served by a single provider.

Proximity to Regional Bicycle Infrastructure (3 points)

Bicycle infrastructure is typically classified with the following designations: Class I Bike Path, Class II Bike Lane and Class III Bike Route.

A Class I Bike Path is physically separated from vehicular traffic by an open space or barrier. This type of infrastructure is likely to attract the broadest spectrum of users, from routine bicycle commuters to casual riders.

Class II Bike Lanes are dedicated, on-street facilities identified by striping, signing and pavement markings within the roadway. These facilities may be considered mid-way between separated bike paths (Class I) and simple signed bike routes (Class III) in terms of cyclist comfort and perceived safety.

Class III Bike Routes typically include identifying signage and may or may not include bicycle-specific directional and wayfinding signage.

This criterion compared locations based on the specific type of bike facility available. Bike paths scored higher than bike lanes, which in turn scored higher that bike routes.

Project Development Costs (5 points)

Level 1 evaluated two components of project costs: likely demolition costs and land acquisition costs. This more detailed Level 2 analysis considered potential needs for upgraded traffic signalization, roadway upgrades or reconstruction, and intersection signalization, as well as necessary environmental clearances.

3.3 Locations

Level 2 screening considered seven locations. Appendix C contains the full Level 2 report, including specific description of the factors contributing to each sub-score.

Location 1A: Long Beach City College

Total Score: 24/35 Rank: 5th
Advance to Level 3: No

This location received full marks for bicycle infrastructure and land use/ activity center adjacency, with median scores for the three transit-specific criteria assessing number of routes, frequency, and multi-agency operators. This location scored poorly on expansion potential and project development costs.

Location 2B: Los Cerritos Center (off Gridley St)

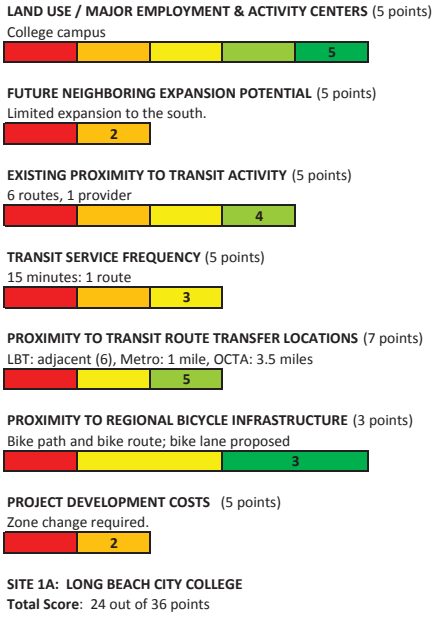
Total Score: 29/35 Rank: 3rd
Advance to Level 3: No

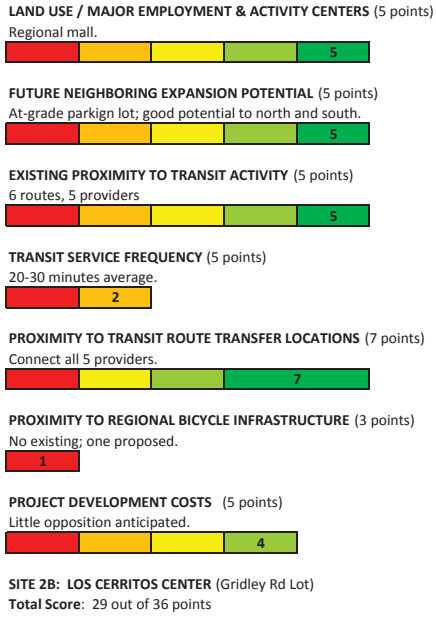
This location received full marks on four of the seven criteria, including land use/ activity, expansion, number of routes and inter-agency transfer. It had very favorable project development costs as well. The two Los Cerritos locations (2B and 2C) scored higher than all other Level 2 locations with regards to inter-agency transfer potential. Challenging elements included poor service frequency, with no buses currently running at a service frequency of 15 minutes or better, and bicycle infrastructure, with proposed but no existing infrastructure.

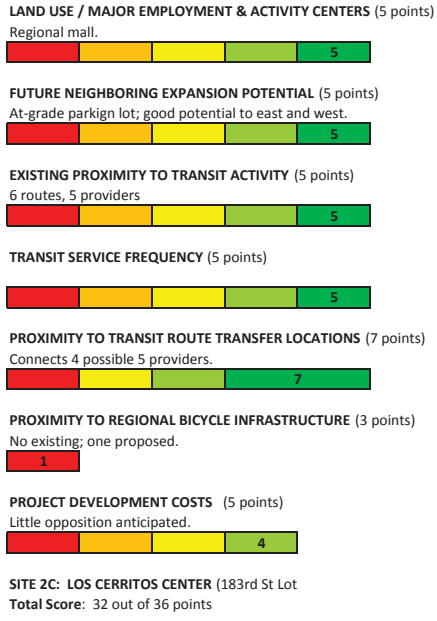
Location 2C: Los Cerritos Center (off 183rd St)

Total Score: 32/35 Rank: 1st
Advance to Level 3: Yes

This location received full scores for five of the seven criteria, and 4/5 on one of the remaining items, cost. As noted with Location 2B, the two Los Cerritos locations (2B and 2C) scored higher than all other Level 2 locations with regards to inter-agency transfer potential. This location also scored the highest of all seven locations relative to transit service frequency. The only item that did not score well was the proximity to regional bicycle infrastructure. As with the previous site, bicycle infrastructure are proposed but do not currently exist.



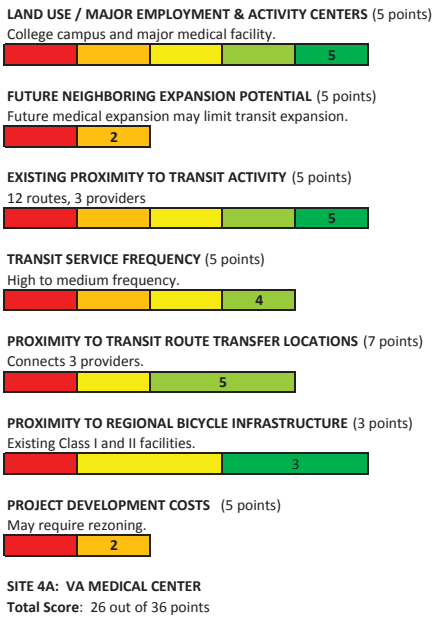




Location 4A: VA Medical Center

Total Score: 26/35 Rank: 4th
Advance to Level 3: Yes

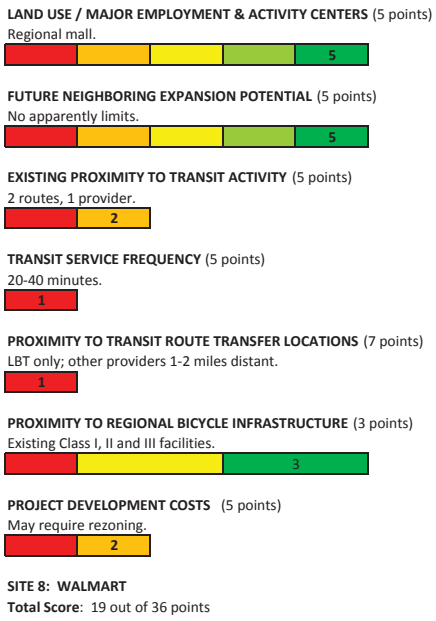
This location is adjacent to 12 mid- to high-frequency bus routes serviced by three providers, and received full scores on Land Use/Activity, number of routes, and bicycle infrastructure. It received middling scores on service frequency and inter-agency transfer. Most challenging aspects were limited expansion potential and high development costs. Development costs are particularly concentrated on administrative and legal effort to change zoning.



Location 8: Walmart

Total Score: 19/35 Rank: 6th
Advance to Level 3: No

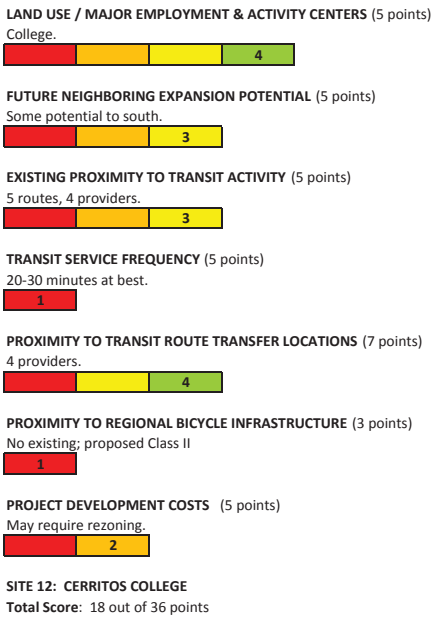
This location scored well on land use/activity, expansion and bicycle infrastructure. It scored exceptionally poorly on all metrics relating to existing transit: number of routes, frequency of service, inter-agency transfer. The site serves only mid- to low-frequency routes provided by a single agency. Project costs were also judged to be fairly high, due to the likely need for a change in zoning.



Location 12: Cerritos College

Total Score: 18/35 Rank: 7th
Advance to Level 3: No

This location did not receive maximum scores in any category, and was the only location of the seven to receive less than a full score on Land Use/Activity. It captured mid-range scores in four of the seven criteria, but scored exceptionally poorly on transit service frequency, bicycle infrastructure and costs. Of the five bus routes in the area, the most frequent service offers 20-30 minute headways, with other buses running at 45 and 50 minute headways.



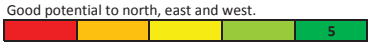
Location 13: Lakewood Center

Total Score: 31/35 Rank: 2nd
Advance to Level 3: yes

Situated adjacent to a regional mall and serving nine bus routes from two providers, this location received maximum scores on five of the seven screening criteria and scored high on inter-agency transfer. Of particular note is that this is the only location of the seven Level 2 locations to receive a full score for project development costs. The site's lowest score, still a mid-level three out of five, was transit service frequency.

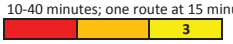
LAND USE / MAJOR EMPLOYMENT & ACTIVITY CENTERS (5 points)
Regional mall.

FUTURE NEIGHBORING EXPANSION POTENTIAL (5 points)
Good potential to north, east and west.



EXISTING PROXIMITY TO TRANSIT ACTIVITY (5 points)
9 routes, 2 providers.

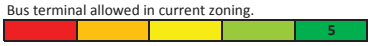
TRANSIT SERVICE FREQUENCY (5 points)
10-40 minutes; one route at 15 minutes.



PROXIMITY TO TRANSIT ROUTE TRANSFER LOCATIONS (7 points)
2 providers.

PROXIMITY TO REGIONAL BICYCLE INFRASTRUCTURE (3 points)
Existing Class I, II and III facilities.

PROJECT DEVELOPMENT COSTS (5 points)
Bus terminal allowed in current zoning.



SITE 13: LAKEWOOD CENTER
Total Score: 31 out of 36 points

3.4 Level 2 Recommendation: Three Locations for Further Study

Level 2 screening evaluated seven locations and selected three to advance into Conceptual Site Design. Since two of the three highest scoring locations were at Los Cerritos Center, the lower-scoring of those two locations was eliminated in favor of the fourth-ranked location, VA Medical Center. This change ensures the maximum amount of variety and flexibility for future design and planning. The final three locations to be examined in Level 3 include: Los Cerritos Center (2C), VA Medical Center (4A) and Lakewood Center (13).

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04

LEVEL 3: CONCEPT DESIGN

LONG BEACH TRANSIT

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4.0 LEVEL 3: CONCEPT DESIGN

4.1 Methodology

Level 3 evaluation created conceptual layouts for each of the three locations advanced to this final round. Whereas the previous levels of analysis scored candidate locations with a uniform set of criteria, Level 3 performed a detailed examination of the operational and experiential characteristics of each site order to identify commonalities and differences among the plans. The strengths and weaknesses of each plan were then compared with project and stakeholder goals to identify the concept plan that could best meet objectives for a new transit study.

Two significant pieces of stakeholder feedback prompted modifications to the Level 3 evaluation process. The first of these items pertained to Site 2C, Los Cerritos Center, and Site 13, Lakewood Center. Both of these sites would require acquisition of a portion of private property belonging to a regional mall. Both malls are managed by the same company, which indicated it was not supportive of the transit center proposal or the required property acquisition. Due to the high desirability of both sites, particularly with regards to their opportunities for multi-modal connectivity, Level 3 concept design therefore sought to identify an alternate transit center configuration that would offer the same advantages as the original proposal, but which could be executed within the public roadway instead of on private property. For this reason, the study examined potential for an in-line, instead of loop, configuration at these two locations. Additional information on both types of configurations are provided in the next section.

The second piece of stakeholder input concerned Site 4A, the VA/CSULB site. Coordination with the VA Medical Center indicated that the area advanced from Level 2 evaluation was potentially in conflict with the facility's long-term master plan. The VA's plans for a Spine Injury Treatment Center use the same site as that identified by this study for a potential transit center. The VA suggested that Level 3 concept planning explore other options in the immediate area that would still provide transit access for their patients but maintain flexibility for future building expansions. For this reason, this report illustrates concept plans for Site 4A, the original 7th Street site on the southern edge of the VA campus, as well as Site 4A-Alternate, on the northern edge of the VA campus. Evaluation of this northern site studied both a loop and an in-line configuration.

Transit Center Types

In-Line

LBT's existing First Street Transit Gallery is an in-line transit center. This configuration typically includes bus pull-outs on opposite sides of the street, with a pedestrian-priority intersection providing connection between the two areas. Depending upon local service patterns, the transit center may also include pull-outs on the intersecting street as well, to connect perpendicular routes.

Figure 4.1: An in-line station at the Tukwilla Transit Center in Tukwila, WA.

Figure 4.2: An in-line station at El Monte Transit Center in Los Angeles.

Buses pull out of the vehicular travel lane into straight-curb bays, which may be sized for either 40-foot standard or articulated buses, or for passenger or paratransit vans. The adjacent public sidewalk can provide all the elements found in an off-road transit center, including information kiosks, signage, shelters, trash receptacles and bike storage. The sidewalk area will typically be wider than average in order to avoid conflict between transit customers and pedestrians.

Loop

Loop stations provide a dedicated transit space outside of the public roadway. Buses may circulate in a one-way or two-way pattern, and loading may take place on an interior island, on the outside perimeter of the loop, or both. Pedestrian crossings can be a concern with center-island configurations. Like in-line stations, loops can serve standard and articulated buses as well as passenger vans.

Compared to an in-line configuration, loops tend to offer shorter inter-bus transfer distances; they may also have more space available for 'premium' amenities such as a bike hub, restrooms or even concessions.

4.2 Screening Criteria

As noted in the preceding Section, Level 3 evaluation did not utilize a strict set of criteria, but rather examined the strengths and weakness of each site relative to project and stakeholder goals.

Transit-Oriented Development Principles

A primary project objective was to identify a site with high transit-oriented development (TOD) potential. This type of development typically differs from more traditional development patterns in a more varied mix of land uses, an emphasis on multi-modality, an enhanced public realm, and reduced parking requirements. Each TOD, however, is different, and Level 3 concept design considered the following points.

Land Use

The transit center should promote and enhance existing, adjacent land uses that offer strong ridership potential, and create multi-modal connections to those uses. In cases where existing, adjacent uses do not attract transit customers, the transit center should be located to catalyze economic development on under- or undeveloped parcels.

Multi-Modal

TOD typically favors a modal hierarchy with pedestrians given priority, followed by cyclists and then transit users, with motorists are last. The transit center and its adjacent, supporting infrastructure (such as sidewalks and bicycle infrastructure) should be configured to promote this hierarchy. For example, in areas with constrained right-of-way, a widened pedestrian sidewalk or a bike land should both take priority over on-street parking.

Enhanced Public Realm

At this early stage of concept design, public realm considerations focus on reserving adequate space to create a well-functioning, amenity-rich space for pedestrians.

Reduced Parking

In order to promote non-motorized connections to the transit center, customer parking is not included as a program element in the potential transit center. However, in cases where introduction of the transit center would remove existing public or private parking, the planning process should identify and document opportunities for replacement. Replacement may be full or partial.

Stakeholder Input

Stakeholder input centered on concerns that could generally be categorized as form and function. Stakeholder input was very consistent in emphasizing customer safety and comfort. Overall facility attractiveness and cleanliness were also highlighted as very important. Although many components of the transit center's physical aesthetic will be identified at a later design phase, Level 3 evaluation considered how each concept plan could incorporate the following important stakeholder-highlighted considerations.

Safety

Customer safety can have two interpretations: reduced potential for pedestrian/bus conflicts (traffic safety) and reduced potential for crime (personal safety). Circulation patterns are critically important to traffic safety, as is the consideration of the needs and particular vulnerabilities of each mode.

Concept design should also identify measures that will discourage crime and promote a sense of personal security. The application of Crime Prevention Through Environmental Design (CPTED) principles is an important design tool. Concept design should ensure open sight lines and promote passive surveillance from the roadway and adjacent properties. Although lighting is not a concept-level element, it is an important consideration and will be evaluted at the more advanced, preliminary design level.

Ease of Use

Concept design influences the entire transit experience, from arrival to boarding to transfer, and ultimately determines whether a site is easy and intuitive to use, or confusing and difficult. It identifies where ticketing and ticket validation take place, safe and efficient transfer patterns, the most intuitive location for information kiosks, bus bay signage and schedule information. It considers circulation and function from all points of view, including customers with strollers, wheelchairs, luggage or other mobility impediments.

Comfort and Visual Appeal

Stakeholders expressed the need for a transit center that is attractive, as well as safe and functional. In cases where transit customers share space with pedestrians walking through the space, sidewalks should be sized to comfortably accommodate both uses as well as other amenities such as planting areas and street furnishings. Where the transit facility abuts a roadway or service uses, such as dumpsters, configuration of waiting areas should seek to eliminate or screen unappealing sight lines and mitigate exhaust and other odors.

Cleanliness

Cleanliness depends heavily on maintenance, but concept design should consider ways to enhance and promote those activities. Furnishing zones (including trash receptacles) should be accounted for, and space provided for maintenance vehicles and equipment storage.

4.3 Los Cerritos Center (Site 2C)

Existing Conditions

Physical Characteristics

Location

Located along 183rd Street in the City of Cerritos, the Los Cerritos Center site is the most northern and the most eastern of the three alternatives advanced to concept design. The proposed in-line transit center would abut the northern edge of a large regional mall. Bus bays would be located within the public right-of-way on both the near and the far side of the 183rd Street intersection with the private mall entry road. The I-605 Freeway is adjacent to but elevated over 183rd Street immediately west of the proposed location.

Existing Uses

Active bus stops already exist on both sides of 183rd Street. These existing stops are fairly minimal, with route signs and a simple bench and trash receptacle on concrete pads. No shelters are provided. The entire length of the proposed transit center is abutted by surface parking lots serving the adjacent retail, fast food and commercial uses. Distances between the sidewalk and adjacent building facades range from approximately 30 to 275 feet.

Several blocks of auto dealerships occupy a large area immediately west of the I-605 freeway. There is is a large concentration of small-lot, single family homes on the north side of 183rd Street. These homes are within a quarter mile radius of the proposed transit center site, but difficult to access due to roadway framework.

Pedestrian Circulation

Pedestrian circulation to and from the proposed transit center site is generally adequate, except for one residential side street that lacks sidewalks. 183rd Street offers a mix of five- and six-foot wide sidewalks, some attached (directly abutting the curb) and some detached (separated from the curb by a planting area). In areas with detached sidewalks, some users may feel the width is too narrow when compared to the speed and volume of vehicular traffic. Existing sidewalk conditions are not wide enough to accommodate the full amenities associated with an in-line transit center, but there appears to be sufficient setback between sidewalk and building facades for potential widening. In the segment identified for the potential transit center, mid-block driveways/access cuts are limited to one per block and do not significantly impede pedestrian flow.

Bicycle Circulation

There is currently no bicycle infrastructure of any type in the immediate area of the proposed transit center. A Type III Bike Route is proposed on Gridley Rd at the east end of the proposed transit center site.

LOS CERRITOS CENTER SUMMARY

- 11 transit routes
- 5 public transit agencies
- 433 daily bus trips
- 1,923 weekday boardings/alightings
- 2 routes at <20 minute headways
- near major land uses

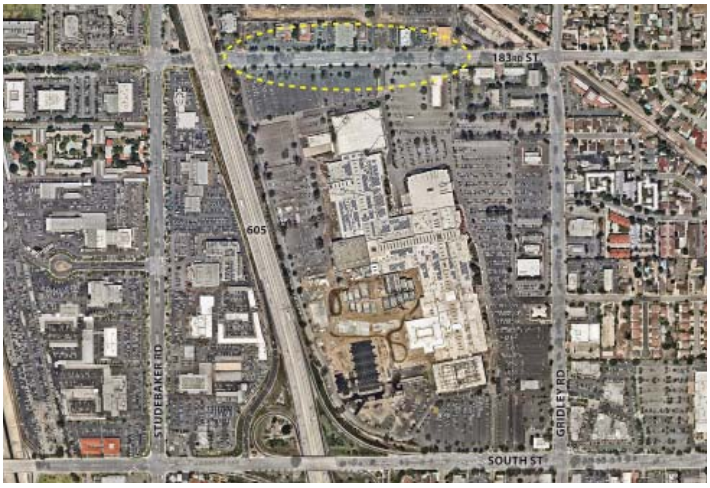


Figure 4.3: Site 2C Los Cerritos Center is located at the northern edge of the regional mall property.

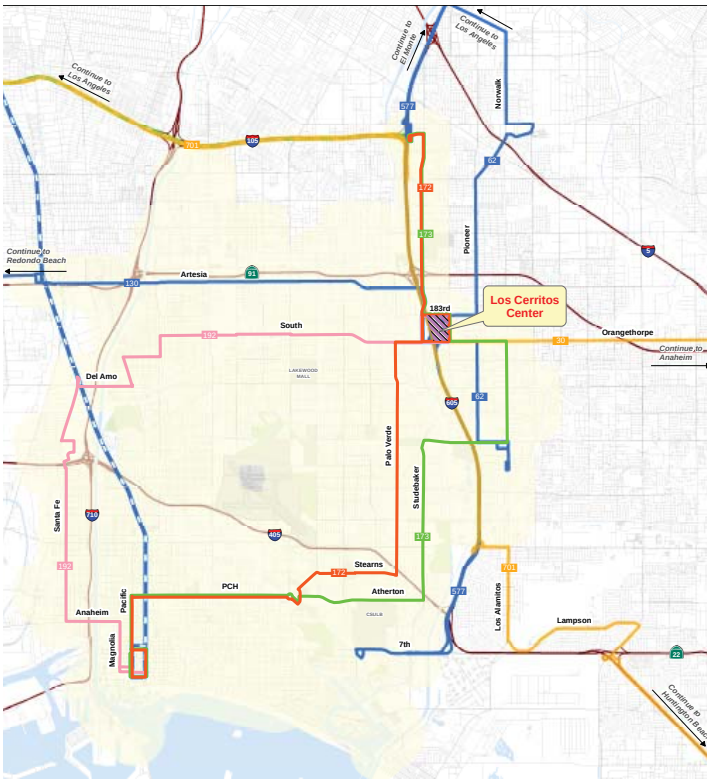
Figure 4.4: Existing view looking east along 183rd Street.

Figure 4.5: Existing view looking west along 183rd Street.

Vehicular Circulation

183rd Street is a median-divided, five-lane arterial roadway abutted by primarily retail and commercial uses. The multiple travel lanes on each side of the 183rd Street roadway allow for buses at existing bus stops to pull into and out of travel lanes, and the additional travel lane allows for vehicles to bypass these bus movements. The bus lines serving the 183rd Street stops do not make turns from routes in close proximity to the proposed transit center location, therefore access to this location does not require complicated lane change movements by buses.

Mid-block drives are limited to one per block, and all parking and structures have access to at least two other access points in addition to the driveway. All four intersections within the proposed transit center area are signalized.



Transit Characteristics

Routes and Frequency

A total of 11 routes run adjacent to the proposed transit center site: three LBT routes, two OCTA routes, three Metro routes, one Norwalk Transit route and two Cerritos on Wheels routes. The site may be able to provide connection to Bellflower buses also. None of these routes currently operate at high frequency, considered to be one bus at intervals of 15 minutes or less during peak hours. The graphic at right identifies specific routes and frequencies within walking distance of the proposed transit center site.

Ridership

Together, the routes surrounding Los Cerritos Center provide 433 daily bus trips and serve just less than 2,000 daily boardings and alightings.

Site Considerations

Compatibility Analysis

The proposed transit center could potentially enhance existing bus facilities in the area, and would be compatible with 183rd Street's existing roadway classification. This site would provide transit connection to two major retail and commercial centers, although existing pedestrian connections into those commercial and retail centers would require traversing large surface parking lots.

Los Cerritos Center is in the midst of a significant renovation, including the addition of several major tenants and a new 16-screen megaplex theater. As such, it is expected to remain a strong retail destination well into the future. A significant node of residential also exists near the proposed transit center site, although its low density, single-family nature and largely unconnected roadway system might limit the level of transit mode-share capture.

Using an in-line configuration, the transit center would not require demolition of high-value structures or the relocation of hard-to-move uses. However, a modest amount of additional right-of-way might be required depending upon desired customer amenities. Visual and noise impacts are not a concern given the location in the public right-of-way.

		Weekday			Saturday			Sunday		
	Route	Daily Bus Trips	Headway Peak/Base	Hours of Operation	Daily Bus Trips	Headway Peak/Base	Hours of Operation	Daily Bus Trips	Headway Peak/Base	Hours of Operation
Long Beach Transit	172: PCH/Palo Verde	68	20/30 min	04:59 - 23:25	37	45 min	06:10 - 21:25	37	45 min	06:10 - 21:25
	173: PCH/Studebaker	68	20/30 min	04:59 - 24:25	45	45 min	05:23 - 24:25	44	45 min	05:23 - 24:25
	192: Santa Fe/South	69	30 min	04:10 - 23:23	47	40 min	05:10 - 22:53	47	40 min	05:10 - 22:53
	LBT Subtotal	**205**			**129**			**128**		
Metro	62: Downtown LA/Hawaiian Gardens	76	25/33 min	04:29 - 00:14	47	40/60 min	04:14 - 00:14	41	60 min	04:36 - 00:14
	130: Redondo Beach/Cerritos	53	40 min	04:45 - 21:58	30	60 min	06:15 - 22:27	30	60 min	06:19 - 22:26
	577: Long Beach/El Monte	46	45 min	04:24 - 23:10	--	--	--	--	--	--
	Metro Subtotal	**175**			**77**			**71**		
OCTA	30: Long Beach/San Clemente	47	45 min	04:13 - 23:25	28	60 min	06:20 - 20:59	28	60 min	06:20 - 20:59
	701: Huntington Beach/LA Express	6	25 min	05:30 - 08:06 16:13 - 18:39	--	--	--	--	--	--
	OCTA Subtotal	**53**			**28**			**28**		
Regional Total		**433**			**234**			**227**		

Figure 4.6: Routes, frequencies and service hours of buses serving Los Cerritos Center.

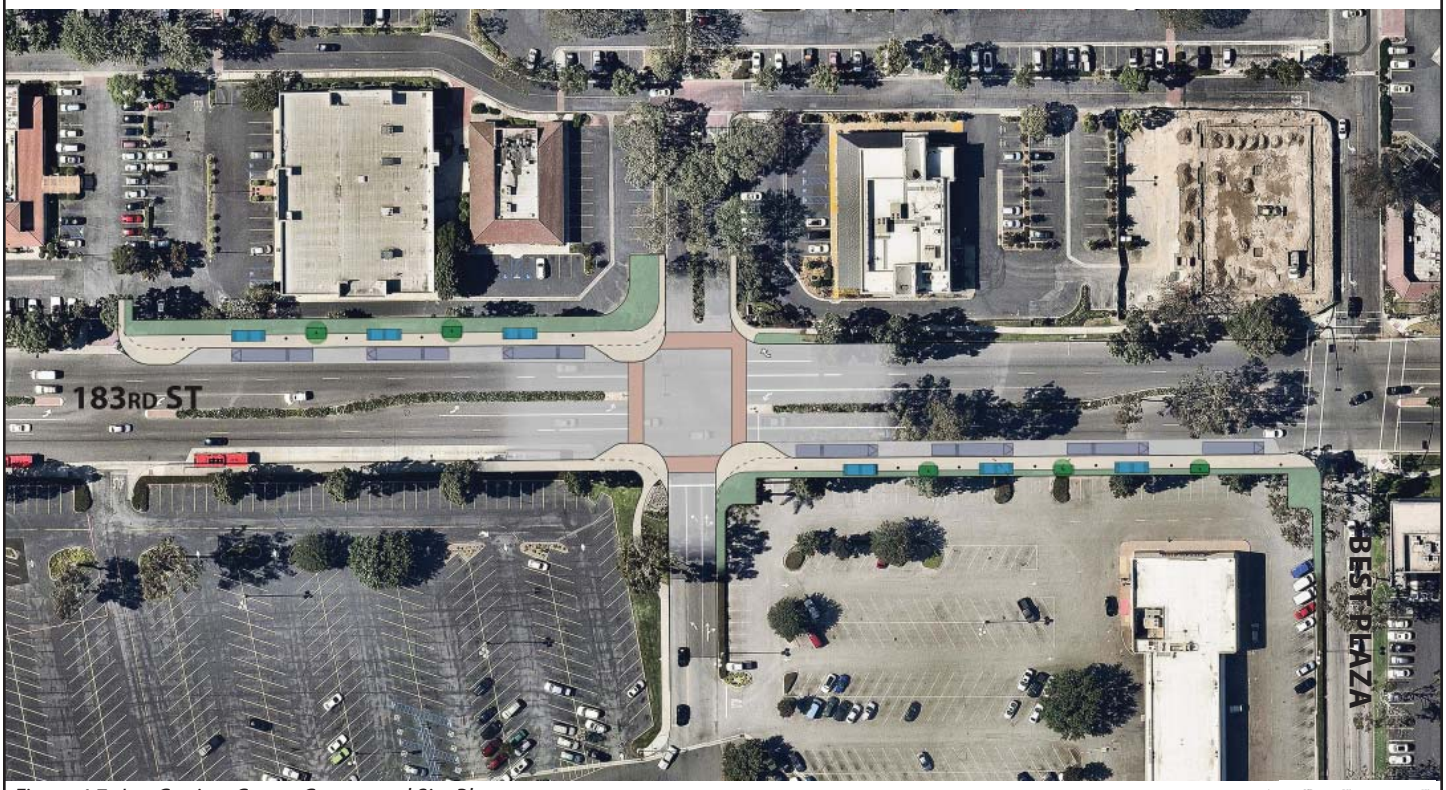


Figure 4.7: Los Cerritos Center Conceptual Site Plan

Initial Stakeholder Input

Initial site analysis considered a loop transit center on mall property, but mall ownership did not support this concept. Level 3 concept design instead considered an in-line configuration.

The in-line configuration would be constructed entirely within the public right-of-way. The City of Cerritos has prioritized transit improvements within its jurisdiction, is generally supportive of this potential transit center site, and has plans for shelter and seating improvements on 183rd Street using Metro Call for Projects funds.

Conceptual Site Plan

The concept plan identifies an in-line facility for the Los Cerritos Center Transit Center, with four eastbound bays and three westbound bays. The eastbound bays would require the closure of one existing mid-block driveway. The westbound bays would not require closure of the adjacent mid-block drive, however additional bays would be possible with such closure. All bays would be straight-curb bays within a dedicated transit pull-out beside the regular vehicular travel lane. The roadway medians would be retained, and the 183rd Street intersection with the mall entrance road would be redesigned for pedestrian priority and safety, including pedestrian bump-outs to reduce crossing distance, high-visibility crosswalks and an adjusted pedestrian walk phase.

Although Figure 4.8 does not designate areas for bus layover or paratransit vehicles, such areas could be included. Adding addition layover space on the south side of 183rd Street poses no issues, but additional bays on the north side would require elimination of the existing dedicated right-turn lane into the mall.

Strengths and Weaknesses

The Los Cerritos Center site offers particular strength in its relationship to existing transit service, in both number of routes and transfer opportunity between local and regional routes. Proximity to regional shopping enhances this potential transit center site. Weekday ridership, however, is the lowest of the three final Level 3 sites.

Strengths

- Adjacent to regional mall and other commercial areas
- Possible integration with planned bus stop improvements
- Potential integration of five regional and local transit agencies
- Minimal to no need for property acquisition/leasing/easement

Weaknesses

- In-line center would require longer distance for some transfers
- Transferring may require crossing the street at a signalized intersection
- Medium-to low service frequency
- No connection to existing bicycle routes
- An on-street transit center would pose potential for pedestrian congestion

VA/CSULB SUMMARY

- 12 transit routes
- 3 public transit agencies
- 839 daily bus trips
- 9,117 weekday boardings/ alightings
- 6 routes at <20 minute headways

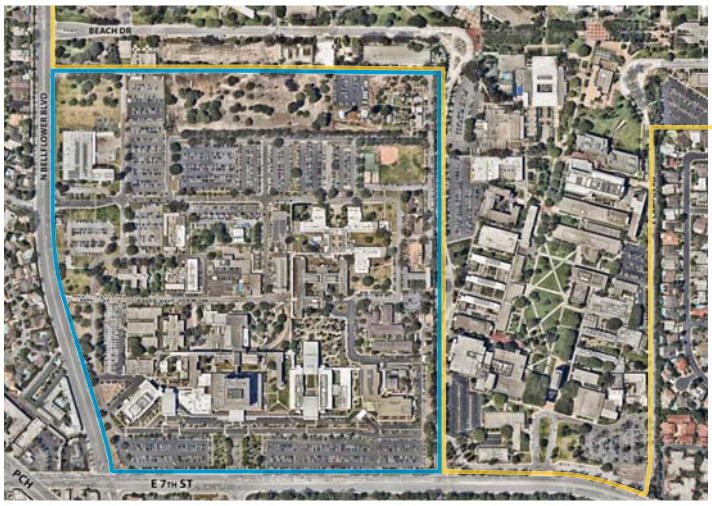


Figure 4.8: Site 4A VA/CSULB is located at the southeastern edge of the VA property.

Figure 4.9: Existing view within the VA site.

Figure 4.10: Existing view looking west along 7th Street.

4.4 VA / CSULB (Site 4A)

Existing Conditions

Physical Characteristics

Location

Located within the Los Altos neighborhood of the City of Long Beach, the VA Medical Center/California State University Long Beach (VA/CSULB) site is the southernmost of the final three sites carried forward to concept design. The site is located on the north side of East 7th Street, between Channel and West Campus Drives, and currently serves as a well-utilized surface parking lot for the adjacent VA Medical Center. Although Level I screening identified a similar location between Channel Drive and North Bellflower Boulevard (also a surface parking lot), subsequent assessment shifted the area of study a block east to evaluate the potential for a transit center to serve both the medical center and the university campus.

Existing Uses

As noted, the site currently provides roughly 450 parking spaces to the adjacent VA medical complex. The VA covers an approximately 112-acre area immediately north of the proposed transit center site. Immediately east of the transit center site is the CSU Long Beach campus. The 323-acre campus stretches almost a mile to the north, and has a student enrollment of nearly 37,000-students and 2,300 faculty and staff.

South of 7th Street, but still within a quarter-mile walk of the proposed site, is a regional mall and a significant amount of medium-density, multi-family residential.

Pedestrian Circulation

The south side of 7th Street has an approximately eight-foot wide, attached sidewalk with a two- to three-foot landscaped area between walk and wall. An approximately 6-foot tall masonry privacy wall screens the abutting residential development from the roadway.

On the north side of the roadway, an approximately three- to four-foot concrete retaining wall runs the length of the adjacent VA parking lot, which is higher than street level. A six-foot, detached sidewalk is provided next to the parking lot (above street level).

Along Campus Drive, there is a significant lack of sidewalk along nearly the entire west side of the roadway. The east side offers a six-foot attached sidewalk. The crosswalk across the northern leg of the 7th Street/Campus Drive intersection is unusable, due to an approximately four-foot vertical difference between sidewalk and roadway grades on the northwest corner. Pedestrians must instead cross Campus Drive at an unsignalized crosswalk approximately 200 feet north of the intersection.

Bicycle Circulation

Dedicated, on-street bike lanes are present in the immediate vicinity of the proposed transit center on both sides of 7th Street. West Campus Drive has an on-street bike lane on the west/southbound side, and a sharrow on the east/northbound side.

Vehicular Circulation

Seventh Street is a median-divided, seven-lane roadway with dedicated bike lanes on both sides. The intersections immediately east and west of the proposed transit center site, at Channel Drive and West Campus Drive, are both signalized with dedicated left-turn lanes. West Campus drive is one of the major entrances into the CSULB campus.

The State Route 22 freeway has a western terminus to the east of this site, and 7th Street is a main link to surface streets for vehicle routes using the freeway. The roadway has pronounced congestion during peak commuting times and during major times of ingress/egress times at Cal State Long Beach. Transit riders and drivers currently experience significant delay on 7th Street when using the roadway to travel in an east-west manner and connect with north-south roadways in the area.

Transit Characteristics

Routes and Frequency

A total of 12 public transit routes operate adjacent to or very near to the proposed transit center site: eight LBT routes, three OCTA routes and one Metro route. The majority of these routes operate at high to medium frequency, and the site could act as a transfer point for nine of these 12 routes. Exhibit 4.12 identifies specific routes and frequencies within walking distance of the proposed transit center site.

Ridership

Together, the12 adjacent routes provide 839 daily bus trips and serve 9,100 daily boardings and alightings.

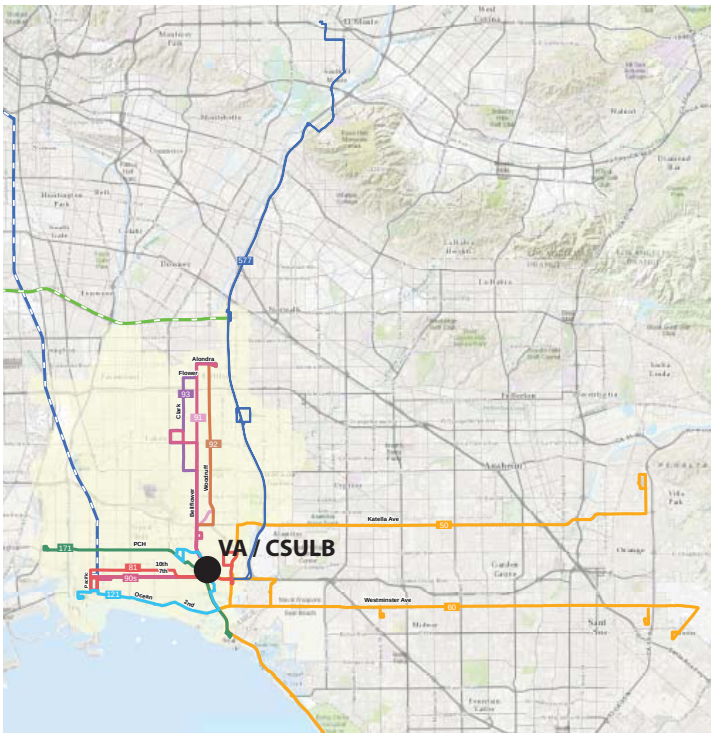
Site Considerations

Compatibility Analysis

The site would be extremely well situated to serve two significant ridership generators with traditionally high levels of transit ridership. The site is adjacent to the VA's main entrance and the University's academic quad, and would not require the demolition of high-value structures or the relocation of hard-to-move uses. The site does not abut any residential uses that might be sensitive to visual or noise impacts.

Initial Stakeholder Input

Unlike the other two potential sites advanced to Level 3, the VA/CSULB site is owned by the federal government and would be located on private property rather than within the public roadway. The VA has indicated a preliminary willingness to consider locating a public transit center on its campus, but not on this site.



	Route	Weekday Daily Bus Trips	Weekday Headway Peak/Base	Weekday Hours of Operation	Saturday Daily Bus Trips	Saturday Headway Peak/Base	Saturday Hours of Operation	Sunday Daily Bus Trips	Sunday Headway Peak/Base	Sunday Hours of Operation
Long Beach Transit	81: 10th Street	31	50 min	06:15 - 19:08	--	--	--	--	--	--
	91: 7th/Bellflower	36	60 min	05:00 - 21:10	38	40 min	05:30 - 20:55	39	40 min	05:30 - 20:25
	92: 7th/Woodruff	43	20/60 min	05:20 - 22:10	--	--	--	--	--	--
	93: 7th/Clark	71	15/30 min	05:15 - 23:25	--	--	--	--	--	--
	94: 7th/Los Altos	48	30 min	04:10 - 01:12	79	15/30 min	05:00 - 01:25	60	30/40 min	05:00 - 01:05
	96: ZAP 7th Street	39	6/8 min	06:32 - 17:15	--	--	--	--	--	--
	121: Ocean/CSULB/Outer Circle	105	20 min	04:50 - 01:14	90	20 min	05:02 - 01:12	80	25 min	05:02 - 01:12
	171: Pacific Coast Hwy.	115	12/20 min	04:30 - 00:04	33	45 min	07:00 - 20:06	33	45 min	07:08 - 20:06
	LBT Subtotal	**488**			**240**			**212**		
Metro	577: VA Hospital/El Monte	46	45 min	04:24 - 23:12	--	--	--	--	--	--
	Metro Subtotal	**46**								
OCTA	1: Long Beach/San Clemente	63	30 min	04:32 - 23:06	30	60 min	05:25 - 21:31	30	60 min	05:25 - 21:31
	50: Long Beach/Orange	67	25/40 min	04:00 - 01:39	46	50 min	04:00 - 01:43	46	50 min	04:00 - 01:43
	60: Long Beach/Tustin	175	10 min	03:59 - 01:37	111	15 min	04:00 - 01:36	106	15 min	04:00 - 01:36
	OCTA Subtotal	**305**			**187**			**182**		
Regional Total		**839**			**427**			**394**		

Figure 4.11: Routes, frequencies and service hours of buses serving VA/CSULB area.

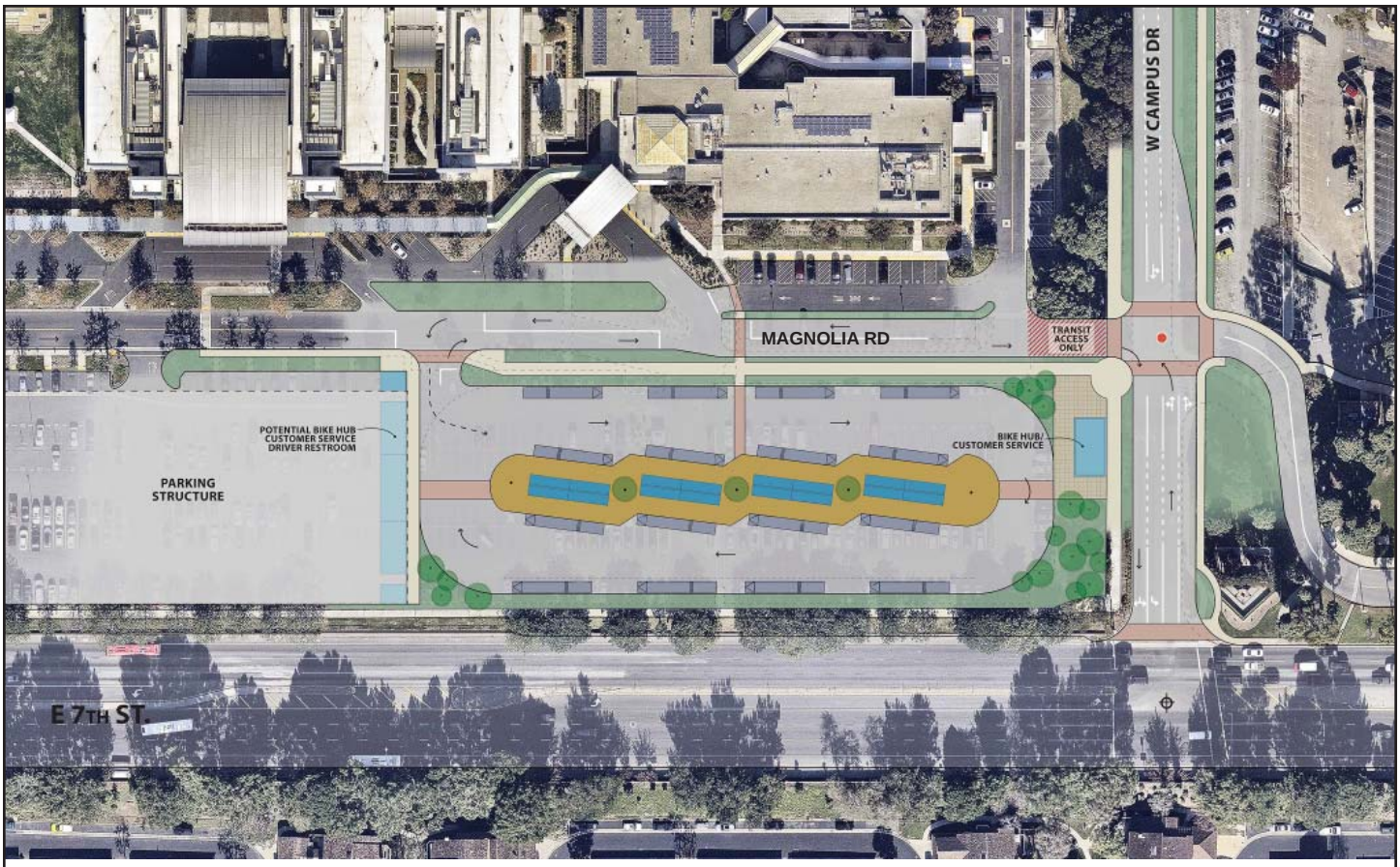


Figure 4.12: VA/CSULB Conceptual Site Plan

Conceptual Site Plan

The concept plan envisions a one-way loop facility with eight passenger bays arranged around a center island, and an additional eight layover bays around the perimeter of the loop. These eight perimeter bays would pull the left (non-door) side of the vehicle against the curb and for this reason cannot be used for traditional passenger boarding and alighting. These bays could be used for bus layover or for boarding buses and vans with left-side loading (such as Bus Rapid Transit (BRT) vehicles.

Buses would enter and exit the site off West Campus Drive, at a new intersection with Magnolia Road. It is suggested that this intersection be signalized, with access into the VA site restricted to transit vehicles only. Slight reconfiguration of the eastern end of Magnolia Road and the adjacent medical center access would also take place, in order to segregate transit from general traffic. This deviation from buses' primary routes to an off-road facility would slightly increase the time between the stops immediately before and after the transit station, and add to the overall time to complete the route.

Due to the grade challenges at the southern and eastern edges of the proposed transit center site, pedestrians and cyclists would also access the transit center from this new intersection. Site design would promote the use of three specific crosswalk locations in order to reduce pedestrian-bus conflict: one crosswalk across the loop entrance on Magnolia Road and one east-west crosswalk to the center island at each end of the loop.

Replacement of existing parking removed by a new transit center would be required as the proposed transit center would cover over half of the existing surface parking lot. The remaining lot area would offer sufficient dimensions for a possible parking structure, which could also offer transit amenities on the ground floor. These amenities might include facilities such as a bike hub, customer service or an operator restroom.

Strengths and Weaknesses

This alternative offers a number of benefits related to its potential to create an off-street, loop facility. Benefits relate to both transit function, such as additional space for bus layover and consolidated bus transfers, as well as customer comfort and amenities, including options for a bike hub in place of bike racks or lockers, enlarged waiting areas and reduced conflict with non-transit pedestrian traffic.

The site is also particularly strong in its relationship to existing transit service, in both number of routes and transfer between local and regional routes.

Strengths

- High volume of adjacent transt existing service and ridership levels
- Increased potential for amenities, improved transfers and waiting area away from traffic
- Proximity to significant ridership generators: VA and CSULB campuses
- Accessible transfer point for multiple transit agencies, and for Los Angeles County/Orange County paratransit service transfers
- Ability to improve existing LBT routes through restructuring and improved bus layover

Weaknesses

- Increased transit runtime to enter/depart center
- Displacement of existing parking would likely requires partnering / coordination for VA parking structure

VA/CSULB-Alternate SUMMARY

- 7 transit routes
- 1 agency
- 457 daily bus trips
- 4,900 weekday boardings/alightings
- 5 routes at <20 minute headways
- near bicycle facilities
- near major land uses

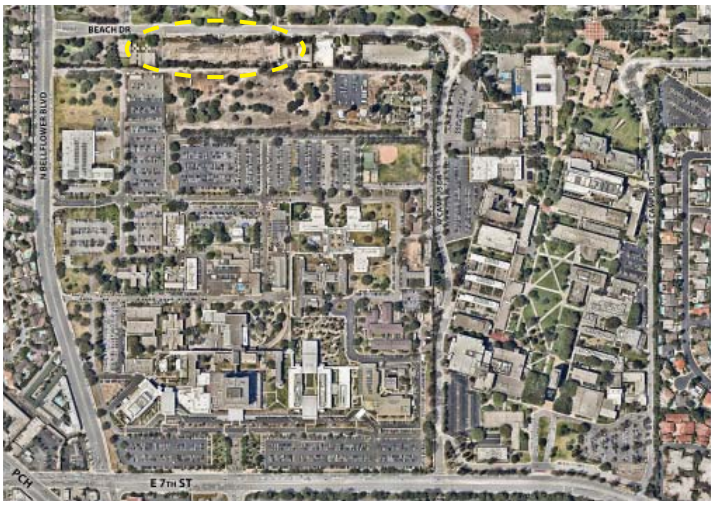


Figure 4.13: Site 4A-Alternate is located in the west/central portion of the CSULB campus.

Figure 4.14: Existing view looking west along Beach Drive.

Figure 4.15: Existing view looking east along Beach Drive.

4.5 VA/CSULB-Alternate

Existing Conditions

Physical Characteristics

Location

This alternate site is located along Beach Drive between Earl Warren Drive and Merriam Way. Beach Drive is a public roadway running through the CSULB campus, offering connection between Bellflower Boulevard to the west, and West Campus Drive/7th Street to the east and south. Both an in-line and an off-road loop configuration are possible. The in-line option would be contained within City of Long Beach right-of-way, while the off-road option would be on CSULB property. On the latter option, the site in question is currently used as surface parking.

Existing Uses

As noted, the site currently provides 270 general use parking spaces for the CSULB campus. A kiosk-style visitors' information center and several academic buildings are immediately adjacent to the proposed transit center location, although the central academic core of the campus is located approximately a half-mile to the southeast. Public-access to the buildings on the adjacent VA campus are located approximately a half mile south of the proposed location. A large amount of medium-density, single-family residential is located directly west of Bellflower Boulevard.

Pedestrian Circulation

Pedestrians are given priority along this section of Beach Drive, with clearly marked crosswalk, a stop-controlled intersection at Merriam Way and a stop-controlled mid-block crossing directly west of the proposed site. There are two additional stop-controlled mid-block crossings east of the site. Eight-foot wide sidewalks are also present on both sides of Beach Drive. Pedestrian connections into the CSULB campus are well developed.

There are no direct pedestrian connections into the adjacent VA Medical campus, and the existing surface parking lot abuts an undeveloped parcel.

Bicycle Circulation

Beach Drive is a 25 mph, four-lane roadway with sharrows marked in both outside lanes, and signs identify it as a bike route. To the west, Bellflower Boulevard currently has no marked bicycle infrastructure. To the east, West Campus Drive has an on-street bike lane on the west side, and a sharrow on the east side.

Vehicular Circulation

Beach Drive has significant traffic volumes during peak ingress/egress times for Cal State Long Beach. As the campus dormitories and other activity centers are nearby, there is significant pedestrian traffic that creates some added delay for vehicles using Beach Drive. There is not a significant amount of traffic turning off and onto Beach Drive from intersecting roadways in the vicinity of the transit center site.

Neither Beach Drive nor West Campus Drive provide vehicular access into the VA Campus, but these roadways do provide primary access to the majority of CSULB's parking. The University's northwestern surface lots provide over 3,500 spaces with an additional 2,700 spaces in a parking structure.

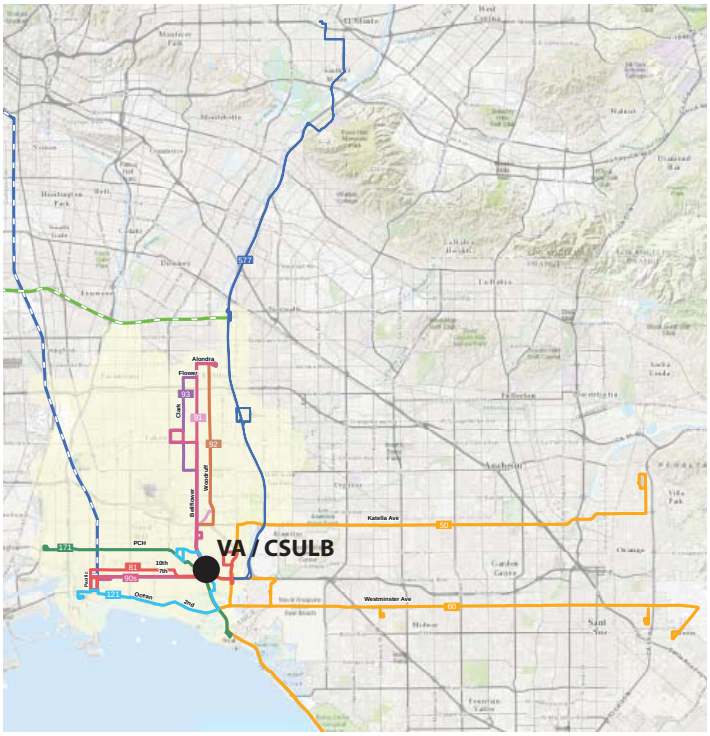
Transit Characteristics

Routes and Frequency

A total of seven routes, all of which are operated by LBT, run adjacent to or very near the proposed transit center site on Beach Drive. Five of these routes operate at high to medium frequency (20 minutes or better), and the site could act as a transfer point for these routes.

Ridership

Together, the routes that serve Beach Drive and West Campus Drive provide 457 daily bus trips and serve just over 4,900 daily boardings and alightings.



Other routes that serve the 7th Street and Pacific Coast Highway could be re-routed to the Beach Drive corridor (an approximate one-half-mile distance), the number of weekday bus trips would increase to 839, and ridership would increase to over 9,100. These projections would make ridership assumptions for Site 4A-Alternate commensurate with the ridership assumption for Site 4A.

Site Considerations

Compatibility Analysis

While this site has the potential to serve both the VA Medical Center and the CSULB campuses, it is less desirably located than the original Site 4A in that it is located a significant distance from the most heavily used portions of both campuses. Students would have a significantly longer walk to reach the heart of campus academics, and VA patients would likely require a shuttle service to link them to their final destination.

Regardless of whether an in-line or off-road loop configuration would be selected, the site would not require the demolition of high-value structures or the relocation of hard-to-move uses, and does not abut any residential uses that might be sensitive to visual or noise impacts.

Initial Stakeholder Input

This alternate location and configuration options evolved from discussions with VA administrators, but has not been reviewed by CSULB or the general public. As such, no input is available regarding the potential impacts of either an in-line or loop configuration.

Conceptual Site Plans

In-Line Configuration

An in-line configuration could potentially have up to 10 bays, five in each direction. Buses would use Beach and West Campus Drives as a loop deviation from regular routing on 7th Street and Bellflower Boulevard.

The existing visitor information kiosk would need to be relocated elsewhere on campus. A new location should carefully consider the increased levels of bus traffic on Beach

		Weekday			Saturday			Sunday		
	Route	Daily Bus Trips	Headway Peak/Base	Hours of Operation	Daily Bus Trips	Headway Peak/Base	Hours of Operation	Daily Bus Trips	Headway Peak/Base	Hours of Operation
Long Beach Transit	91: 7th/Bellflower	36	60 min	05:00 - 21:10	38	40 min	05:30 - 20:55	39	40 min	05:30 - 20:55
	92: 7th/Woodruff	43	20/60 min	05:20 - 22:10	--	--	--	--	--	--
	93: 7th/Clark	71	15/30 min	05:15 - 23:25	--	--	--	--	--	--
	94: 7th/Los Atos	48	30 min	04:10 - 01:12	79	15/30 min	05:00 - 01:25	60	30/40 min	05:00 - 01:05
	96: ZAP 7th St	39	6/8 min	06:32 - 17:15	--	--	--	--	--	--
	121: Ocean/CSULB/Outer Circle	105	20 min	04:50 - 01:14	90	20 min	05:02 - 01:12	80	25 min	05:02 - 01:12
	171: Pacific Coast Hwy	115	12/20 min	04:30 - 00:04	33	45 min	07:00 - 20:06	33	45 min	07:08 - 20:06
	LBT Subtotal	**457**			**240**			**212**		
Metro	None									
	Metro Subtotal	**0**			**0**			**0**		
OCTA	None									
	OCTA Subtotal	**0**			**0**			**0**		
Regional Total		**457**			**240**			**212**		

Figure 4.16: The table above shows route numbers, frequencies and service hours of buses serving the alternate Beach Drive site within the VA/CSULB area.

Figure 4.17: Alternate VA/CSULB Conceptual Site Plan, In-Line Configuration

Figure 4.18: Alternate VA/CSULB Conceptual Site Plan, Loop Configuration

Figure 4.19: Alternate VA/CSULB Conceptual Site Plan, Loop Configuration

Drive and seek to minimize conflict between visitor vehicles, who may be lost or unfamiliar with the location, and buses.

The following traffic movements could experience heightened delay due to localized congestion from the VA and CSULB campuses. The delay at these locations might not be significant for general vehicle travel, but bus schedules would need to include the effects of the related added delay to bus movements:

- Outbound left-turn vehicle movements from the adjacent southern parking lot, at either the eastern or western access points. This delay could occur due to increased east-west bus traffic and increased pedestrian crossing activity generate by the transit center at this location.
- Bus movements into and out of the bus bays of the transit center, due to heavy CSULB-generated vehicle traffic during peak times.
- Bus movements across the intersections to the east and west, due to pedestrian crossing activity and general high traffic conditions during peak periods.

The existing 270-car parking lot would remain unchanged, although use patterns might need to be evaluated in light of increased bus traffic. If the lot currently experiences heavy pulses of arrivals and departures, or if there is frequent turnover, these patterns could cause an elevated level of modal conflict between private vehicles and buses. In this case, a designated parking use with patterns more compatible to the adjacent bus transfer center should be considered.

Loop Configuration

A loop configuration could potentially have up to 10 bays arranged around a center island, with space for an additional five layover bays on the outside curb of the loop. Buses would circulate one-way in a clockwise direction, and could return to the roadway on which they entered (ie, enter and exit Beach Drive via West Campus Drive) or complete a West Campus/Beach/Bellflower loop (i.e. enter Beach Drive via West Campus Drive and exit Beach Drive to Bellflower Boulevard). As mentioned in the description of the 7th Street option, this deviation from buses' primary routes to an off-road facility would slightly increase the time between the stops immediately before and after the transit station, and add to the overall time to complete the route.

In this configuration, the existing visitor information center could remain unchanged, or could be combined with a new transit information center. All existing 270 CSULB parking spaces would be removed and likely need to be relocated.

Pedestrian connections from Beach Drive and the adjacent CSULB campus to both potential configurations is acceptable and complete. In contrast, pedestrian connections into the VA Medical campus are non-existent and would need to be planned and constructed in advance of or in conjunction with the construction of the transit center.

Strengths and Weaknesses

The potential site is located adjacent to two major ridership generators, but is not optimally located relative to the primary destinations within the larger VA and CSULB campuses. It offers a good but not outstanding connection to existing transit routes, and it is uncertain whether it would serve only LBT buses or also Metro and OCTA buses.

The site also offers the potential for a loop configuration. Benefits of this type of facility, compared to an in-line station, are several: additional space for bus layover, consolidated bus transfers, potential for a full bike hub in place of bike racks or lockers, enlarged waiting areas and reduced conflict with non-transit pedestrian traffic. The loop configuration would improve traffic conditions in the following manner:

- Buses would enter and exit bays at the transit center within a dedicated facility, without causing the traffic conflict in adjacent travel lanes that would occur with an in-line/on-street transit center.
- Buses would primarily enter the transit center via an eastbound right-turn movement from Beach Drive, with little conflict occurring between buses and vehicles on Beach Drive.
- Buses would primarily exit the transit center via a northbound left-turn movement at the proposed traffic signal at the east end of the site. This pattern would be likely to reduce delay for exiting buses, as the intersections would be controlled.
- Pedestrian activity crossing Beach Drive would be lessened, which would in turn avoid additional vehicle and bus delay on Beach Drive, as the transit center activity hub would be off of the street. Pedestrian safety would also be improved.

Strengths

- High existing service and ridership levels
- Low intensity of existing on-site uses (surface parking)
- A loop configuration could provide increased amenities, improved transfers
- A loop configuration would provide waiting area away from traffic
- A loop configuration could integrate bus layover within the transit center

Weaknesses

- Peripheral location and longer distance to main destinations on VA and CSULB campuses
- Increased transit runtime to access center
- Loop configuration would displace existing parking and likely require parking replacement
- Low potential for transfer between regional service providers, although it may be possible to reroute OCTA routes to serve this location

LAKEWOOD CENTER SUMMARY

- 9 transit routes
- 2 agencies
- 445 daily bus trips
- 2,818 weekday boardings/alightings
- 2 routes at <20 minute headways
- near bicycle facilities
- near major land uses

Figure 4.19: Site 13 Lakewood Center is located at the western edge of the regional mall property.

Figure 4.20: Existing view looking east along Lakewood Boulevard.

Figure 4.21: Existing view looking west along Lakewood Boulevard.

4.6 Lakewood Center (Site 13)

Existing Conditions

Physical Characteristics

Location

Lakewood Center is a super-regional mall located within the City of Lakewood. The proposed in-line transit center location on Lakewood Boulevard straddles the intersection with Hardwick Street, between Del Amo Boulevard to the south and Candlewood Street to the north. The mall's main entrance is set back just 300 feet from the roadway and offers an enhanced public realm connection to the mall, with generous sidewalk and landscaping. Lakewood Boulevard is already well-used by transit providers and has pull-out bus stops on the far side of the intersection.

Existing Uses

Within a quarter-mile radius of the proposed transit center, land use is dominated by retail and commercial uses. The two east quadrants abutting Lakewood Blvd are completely occupied by Lakewood Center and its associated surface parking lots. Outbuildings are present only at the corners, at the intersections with Del Amo Boulevard and Candlewood Street. Otherwise, the entire Lakewood Boulevard frontage is occupied by unscreened surface parking. The two west quadrants are dominated by strip retail with exterior businesses entrances. Both centers utilize an unusual one-bay parking configuration abutting Lakewood Boulevard. This configuration is significant as the widened sidewalk associated with a transit center would require acquisition of a portion of this parking area. Since the parking area is only one bay in width, parking functionality would be severely impacted.

A concentrated area of two-story, multi-family residential occupies the area behind the strip retail. This area is still within a quarter-mile walk of the proposed transit center.

Within a half-mile radius, land use is dominated by tightly-packed, small-lot single family dwellings. These residential areas are configured on a standard gridded street network, providing good connectivity out of the neighborhoods.

Pedestrian Circulation

As noted, adjacent neighborhoods offer good connectivity, but pedestrian facilities within the immediate area of the proposed transit center may require enhancement. The segment of Lakewood Boulevard between Del Amo Boulevard and Candlewood Street lacks sidewalk on both sides. The distance between the curb and adjacent surface parking varies between approximately six and twenty feet, and the installation of even modest sidewalks would require the removal of a significant number of street trees.

The two intersections bookending the proposed transit center site, plus the central intersection at the mall entrance, all offer pedestrian enhancements including high-contrast unit paver crosswalks and landscaped pedestrian 'landing pad' corners. Pedestrian connection into the main mall entrance is excellent, however, connection to the strip retail on the west side is via an attached sidewalk of minimum width or through the parking lots.

Bicycle Circulation

There is very limited bicycle access to the proposed transit center site. To the south, Del Amo Boulevard offers the only dedicated bicycle facility in the area, a Class II on-street bike lane. This lane exists only west of Lakewood Boulevard. Cyclists turning onto Lakewood Boulevard would need to ride with regular vehicular traffic.

Vehicular Circulation

Lakewood Boulevard is a median-divided, seven-lane roadway. The eastern edge of the roadway has an unbroken curb for 850 – 900 feet in both directions; the western curb has mid-block driveways approximately 350 feet north and 500 feet south of the intersection. Lakewood Boulevard is signalized at Candlewood Street, Hardwick Street and Del Amo Boulevard.

The multiple travel lanes on each side of the Lakewood Boulevard roadway allow for buses at existing bus stops to pull into and out of travel lanes, and the additional travel lane allows for vehicles to bypass these bus movements. The bus lines serving the Lakewood Boulevard stops do not make turns from routes in close proximity to the proposed transit center location, therefore access to this location does not require complicated lane change movements by buses

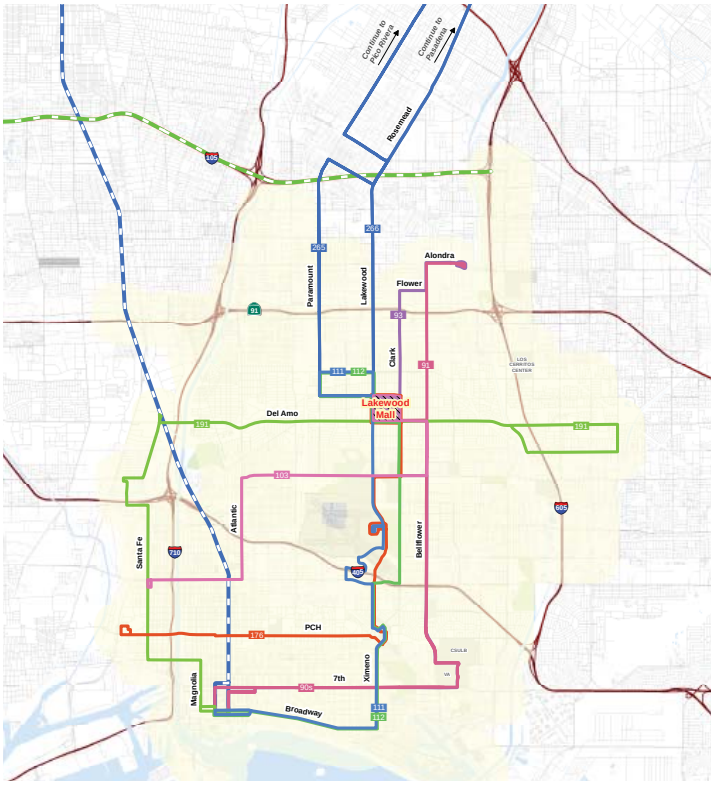
Transit Characteristics

Routes and Frequency

A total of nine LBT and Metro routes run adjacent or very near to the proposed transit center site: seven LBT routes and two Metro routes. Seven of these routes run on Lakewood Boulevard, with the remaining two routes on Del Amo Boulevard. The majority of these routes operate at medium to low frequency, with only one route offering a peak frequency of 15 minutes or better. Figure 4.23 identifies specific routes and frequencies within walking distance of the proposed transit center site.

Ridership

Together, the Lakewood Center-area routes provide 445 daily bus trips and serve 2,800 daily boardings and alightings.



	Route	Weekday Daily Bus Trips	Weekday Headway Peak/Base	Weekday Hours of Operation	Saturday Daily Bus Trips	Saturday Headway Peak/Base	Saturday Hours of Operation	Sunday Daily Bus Trips	Sunday Headway Peak/Base	Sunday Hours of Operation
Long Beach Transit	*91:* 7th/Bellflower	*Does not go to Lakewood Mall on Weekdays*			38	40 min	05:30 - 20:55	40	40 min	05:30 - 20:25
	93: 7th/Clark	71	15/30 min	05:15 - 23:25	--	--	--	--	--	--
	103: Willow/Lakewood Mall	46	40 min	06:00 - 22:15	26	60 min	06:28 - 19:45	26	60 min	06:36 - 19:45
	111: Broadway/Lakewood	54	40 min	05:00 - 01:20	41	60 min	05:05 - 01:01	41	60 min	05:05 - 00:59
	112: Broadway/Clark	49	40 min	05:30 - 22:55	30	60 min	06:05 - 21:55	30	60 min	06:05 - 21:55
	176: ZAP PCH	49	30 min	06:46 - 19:10	--	--	--	--	--	--
	191: Santa Fe/Del Amo	80	10/30 min	04:34 - 01:13	52	40 min	05:05 - 01:20	52	40 min	05:05 - 01:17
	LBT Subtotal	**349**			**187**			**189**		
Metro	*265:* Lakewood/Pico Rivera	40	35/55 min	05:05 - 21:44	28	55 min	07:25 - 20:46	28	55 min	07:25 - 20:46
	266: Lakewood/Pasadena	56	30/40 min	04:18 - 23:16	50	45 min	05:24 - 23:22	45	45 min	05:43 - 21:56
	Metro Subtotal	**96**			**78**			**73**		
Regional Total		**445**			**265**			**262**		

Figure 4.22: The table above shows route numbers, frequencies and service hours of buses serving Lakewood Center area.

Figure 4.23: Lakewood Center Conceptual Site Plan

Site Considerations

Compatibility Analysis

The transit center would provide access to two significant retail hub destinations, as well as serve a significant quantity of residential customers. While a large in-line transit center would be compatible with the arterial character of the roadway, the level of pedestrian and bicycle enhancement required to provide appropriate connectivity to the site could have significant impact on existing land uses and streetscape.

Initial Stakeholder Input

Lakewood Center and Los Cerritos Center share the same management company, and like the previous site, mall ownership did not support a loop configuration on their property. For this reason, this site also changed to an in-line configuration in the public right-of-way.

The City of Lakewood has expressed preliminary support for a new transit center within their jurisdiction and at this site in particular. The City has plans to improve transit facilities along this corridor, and a transit center may be able to capitalize on this commitment to make funding go further.

The site would require acquisition and reconfiguration of adjacent parking areas. Business owners on the west side of Lakewood Boulevard have expressed concern over the potential loss of parking.

Conceptual Site Plan

The concept plan explores an in-line facility with four northbound bays and four southbound bays. On the east side of the proposed transit center, the northbound bays could extend the sidewalk and landscape treatment at the existing bus stop an additional 200 feet to the north. This extension would require acquisition and minor reconfiguration of a small portion of Lakewood Center parking and a loss of approximately 10-20 parking spaces. Likewise, the southbound bays on the west side of the proposed transit center would extend pedestrian improvements approximately 250 feet to the south, requiring acquisition and removal of 23 parking spaces. Customers transferring routes would need to cross at the Lakewood Boulevard/Hardwick Street intersection. The construction of the transit center likely would not require any other changes to roadway cross section, including width, number of lanes or driveway closures; planted medians would also remain.

Although Figure 4.24 does not illustrate designated areas for bus layover or vans/alternative transit vehicles, such areas could be added on the near-side of the intersection (south of the intersection on the east side of the roadway, and north of the intersection on the west side of the roadway). Improvements of both these areas would require property acquisition similar to the main boarding and alighting areas, and would result in similar loss of parking.

Strengths and Weaknesses

The site offers strong connectivity to regional retail and commercial hubs, but would require acquisition and reconfiguration of adjacent parking areas. Beyond the retail hubs immediately abutting the site, pedestrian and bicycle infrastructure are particularly week. Existing transit service is only moderately strong, with 40 percent more customers than the Los Cerritos site but less than one-third the customers of the VA/CSULB site.

Strengths

- Adjacent to very active regional mall and other commercial areas
- Possible integration with planned corridor improvements

Weaknesses

- In-line center would require longer distance and street crossing for some transfers
- Medium-to low service frequency
- Moderate need for property acquisition/leasing/easement
- Limited connection to existing bicycle routes
- Limited existing pedestrian connection to adjacent residential areas
- Potential displacement of some parking

4.7 Level 3 Recommendation: Preferred Site

As previously stated, the VA/CSULB 7th Street site ranked highest among the final three sites. Further discussion with the VA identified potential conflicts with that institution's long-term plans at this site, so an alternative site within the VA/CSULB area was assessed. The alternate Beach Drive site offers similar advantages, including the potential for an off-road loop configuration with enhanced amenities. Optimal ridership at this site would depend upon whether OCTA and Metro would choose to divert their existing 7th Street routes to this facility.

This study recommends that a new multi-modal transit center be constructed within the VA/CSULB area. Although the exact location remains a point of continued discussion, the two sites within this area offer stronger established ridership and higher potential for enhanced rider amenities than the second and third ranked sites. It should be noted, however, that Los Cerritos Center and Lakewood Center remain viable locations for a potential new transit center, should property acquisition or use agreements at the two VA/CSULB sites prove unresolvable.

Land Use Summary

Site	Ownership	Center Type	Service Bays	Increase in Trip Time	Amenity Level
VA/CSULB					
7th St	Federal	Loop	8	Yes	High
Beach Dr (In-line)	City ROW	In-line	10	Yes	Limited
Beach Dr (Loop)	State	Loop	10	Yes	High
CERRITOS	City ROW	In-line	7	No	Limited
LAKEWOOD	City ROW	In-line	8	No	Limited

Service & Access Summary

Site	Transit Lines	Agencies	Daily Weekday Bus Trips	Weekday Ridership	Near Major Land Use	Near Bicycle Facilities
VA/CSULB						
7th St	12	3	839	9117	Yes	Yes
Beach Dr (In-line)	7	1	457	4900	Yes	Yes
Beach Dr (Loop)	7	1	457	4900	Yes	Yes
CERRITOS	11	5	433	1923	Yes	No
LAKEWOOD	9	2	445	2818	Yes	Yes

Recommended Site Rankings

Site	Site Location	Center Type	Service Bays	Layover Spaces	Transit Service Intensity	Amenity Level
VA/CSULB						
7th St	🔴	🟢	🟢	🟢	🟢	🟢
Beach Dr (In-line)	🟡	🟡	🟢	🟡	🟡	🟡
Beach Dr (Loop)	🟡	🟢	🟢	🟢	🟡	🟢
CERRITOS	🟢	🟡	🟡	🟡	🟡	🔴
LAKEWOOD	🟢	🟡	🟢	🔴	🔴	🔴

High 🟢 Mid 🟡 Low 🔴

Figure 4.24: Level 3 summary tables.

05
CONCLUSIONS

LONG BEACH
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5.0 CONCLUSIONS

5.1 Considerations for Further Study

LBT plans to conduct a Comprehensive Operation Analysis (COA) in 2016 that will evaluate the overall system structure and service delivery. The recommended VA/CSULB transit center site should be incorporated into the COA study for more analysis and verification.

Finalization of Site Selection

This East Regional Transit Center Feasibility Study identified the VA/CSULB area as the preferred area for a new transit center. The exact site of a potential facility remains the subject of on-going coordination. One potential site on VA property and one potential site on CSULB property remain under discussion.

Continued collaboration between LBT and the two institutions is the next step in advancing the East Regional Transit Center project. The following issues must be discussed and resolved in order to determine final site location:

- Alignment with long-term institutional development and expansion plans
- Impacts to existing uses / relocation of existing uses (parking, on both sites)
- Property lease/acquisition/use agreement

It is important to note that all three sites advanced to Level 3 evaluation, as described in Chapter 4 of this report, were considered viable transit center locations. If further study determines that neither of the two sites in the VA/CSULB area is a viable option, LBT should explore the second-ranked site, Los Cerritos Center. If context around this second site has changed to a point that would preclude a transit center, LBT should then assess the third-ranked site, Lakewood Center.

Simultaneous with institutional coordination, LBT should also pursue operational coordination among the transit providers anticipated to use the station. While this study identified the number of transit routes adjacent to and near the proposed transit center site, further coordination is needed to explore the potential impacts to routing and run times. The primary goal of these discussions should be to confirm that the proposed site would provide optimal bus transfer opportunity, particularly between providers. These discussions should also serve as a critical forum to establish site programming including appropriate number, size and type of bays, layover space, and site amenities such as customer service, ticketing, operator relief stations, bike hubs and other multi-modal technology.

Funding and Phasing

Funding

Funding and phasing should be considered in parallel with design and engineering. At a minimum, LBT should have an order-of-magnitude budget in mind prior to issuing a Request for Proposal (RFP). The agency can then continue to explore internal and external funding sources while design and engineering is underway. LBT should coordinate with both regional and local agencies to determine if the transit center can capitalize on any existing or planned projects--- such as regularly scheduled repaving, safe routes to school, bike station grants or similar funds--- to optimize the budget of each. The earlier the budget can be determined the better, to avoid rework during the design and engineering process.

Phasing

The nature of both in-line and loop transit centers provide limited phasing opportunities, although minor non-essential vertical amenities such as bike stations or customer service centers may be deferred until additional funding is secured.

This study recommends a site for potential capital development of a transit center from a concept design perspective. It is also essential to further evaluate this site from operational and transit network efficiency aspects. LBT will be conducting a Comprehensive Operation Analysis (COA) in 2016 that will evaluate the overall system structure and service delivery. Ideally, the recommended VA/CSULB transit center site would be incorporated into the COA study for more analysis and verification. The COA will provide LBT with guidance for the development of new services through effective service integration, operation and delivery. A sustainable phased implementation plan in accordance with potential funding resources assessment will logically be developed, including findings whether to pursue the next steps of the transit center design and construction.

RFP, Design and Engineering

Upon determination of a final site, LBT should determine preferred delivery method. Typical approaches include Design-Build, Design-Bid-Build or even Public Private Partnership. Once delivery method is identified, LBT should prepare an RFP, which will be the primary mechanism to move this initial feasibility study forward into design, engineering and ultimately construction.

LBT has set a strong precedent with the opening of the First Street Transit Gallery, demonstrating that transit facilities can be urban design assets designed to enhance the public realm and promote a human-scaled streetscape. Using this model, it is strongly recommended that LBT pursue an inter-disciplinary design team that includes architects, urban designers and other professions that focus on both form and function.

5.2 Preliminary Cost Estimates

While cost is not the only factor, it is a significant consideration in the planning and phasing of capital improvements, even as early as the site identification phase. The costs included in this study represent a preliminary cost estimate. The estimates are intended primarily to contrast the costs of an in-line versus loop facility, and to highlight any special considerations or costs associated with the two potential sites on the recommended VA/CSULB site. A summary of costs is included below, and full line item estimates can be found in Appendix D of this document.

This preliminary cost estimate includes only hard construction costs and does not include costs associated with property acquisition or use agreements, as these costs can vary widely. Utility relocation is also not included, as this information was not examined during this study.

Costs: Loop vs. In-Line

An off-road, loop configuration would cost significantly more than an in-line configuration, even before addition of property acquisition costs. Both potential loop sites identified would require demolition and replacement of existing parking, and replacement costs can range from $7,000/space for surface parking to $25,000/space for structured parking. In order to create an equal comparison, both potential loop sites assume surface parking as a replacement.

A loop configuration would also require a much larger area overall. An in-line configuration would require only a concrete pull-out for the bus bays and a widened sidewalk. A loop configuration would include bus bays, the roadway within the loop, and the sidewalk and amenity areas at the edges of the facility. In both cases, the roadway must be concrete due to the heavy wear and tear caused by the sheer number of buses and also by the stopping and starting.

The level of amenities represents another significant cost in both layouts, although the greater area of the loop layout would provide more space for enhancements. An in-line station would include widened sidewalk and upgraded shelters, landscaping and enhanced streetscape. The loop configuration could include larger custom shelters (due to double-sided function and greater length), a transit information booth, a bike hub and a transit plaza.

Figure 5.1: VA/CSULB, 7th Street Loop

Figure 5.12: VA/CSULB, Beach Drive In-Line

Figure 5.3: VA/CSULB, Beach Drive Loop

Site Costs

Site 4A: VA/CSULB 7th Street Loop

Beyond the additional costs associated with a loop configuration, conditions associated with the 7th Street Loop include signalization of the Campus Drive access point and construction/re-alignment of the access roadway into the facility. It is also likely that a significant amount of re-grading will be required along the West Campus Drive side of the facility. These costs have been included in the estimate.

It should be noted that although estimated costs for the 7th Street and Beach Drive loops are similar, the 7th Street facility would include 8 bus bays while the Beach Drive facility would include 10 bus bays. Both facilities would include additional layover space within the loop.

Finally, adjacent medical uses may limit hours of construction at this site, a potential impact on both schedule and cost.

Construction Cost	$5,818,869
Soft Costs	$1,396,529
Contingency 25%	$1,454,717
TOTAL	$8,670,115

Site 4A-Alternate: VA/CSULB Beach Drive In-Line

Unique costs associated with this site and configuration would include demolition/replacement of the existing CSULB information booth and demolition/replacement of existing landscape and irrigation behind the northern curb of Beach Drive. These costs are included in the estimate. This site would also be likely to require more extensive traffic control or even temporary roadway closure during construction; these costs are closely related to phasing and are not included in the estimate.

Potential additional costs associated with this option would include a southern bus turnaround road and increased wear and tear on existing adjacent roadways. The new bus road would depend upon routing and would be located south of the existing parking lot for buses to reverse direction and return the way they came. If a significant number of buses routed in this manner, it could also be necessary to signalize the two access points into the parking lot/roadway; both the roadway and signalization costs are not included in the estimate. Likewise, increased frequency of repaving or resurfacing Beach Drive and West Campus Drive with concrete is not included in the estimate.

Construction Cost	$2,996,158
Soft Costs	$ 719,078
Contingency 25%	$ 749,040
TOTAL	$4,464,276

Site 4A-Alternate: VA/CSULB Beach Drive Loop

In addition to the added-cost elements identified for loop configurations, the Beach Drive loop would likely require signalization of both access points into the loop; this cost is included in the estimate. Like the in-line option in the same location, it would also be likely to increase wear and tear on existing adjacent roadways; this cost is not included in the estimate.

Construction Cost	$5,485,530
Soft Costs	$1,316,527
Contingency 25%	$1,371,383
TOTAL	$8,173,440

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APPX
APPENDICES

LONG BEACH
TRANSIT

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APPENDIX A: PUBLIC PROCESS

Fact Sheets

LONG BEACH TRANSIT

Long Beach Transit (LBT) is conducting a study on the feasibility of a regional transit center that could be located in the eastern portion of LBT's service area. LBT is holding three community meetings to discuss the feasibility study, seek input on location, amenities, design and more.

- This transit center would be the first such facility located outside of the downtown area of Long Beach. The proposed location could serve as a rapid service commuting area to Los Angeles and Orange County and a central transit hub connecting the services of LBT, Metro, Access, Dial-A-Lift and OCTA.
- The meetings are being held to discuss possible locations and review the benefits of a centrally located transit hub serving multiple transit agencies. Technical evaluation, project location and design recommendations and cost estimates will be provided as part of the scope of work.
- **lbtregionaltransit.com** has been established to provide information about the feasibility study and to receive community feedback about the proposed locations and conceptual designs. The public comment period will commence on June 25, 2015 and conclude on September, 15, 2015.
- Resulting from the feasibility study and community outreach efforts, LBT will have a recommended transit center location, technical evaluation, location rendering, amenities profile, and cost estimates to complete the project.

All community meetings will be held at:

El Dorado Library
2900 N. Studebaker Road
Long Beach, CA. 90815
6:00 p.m.

Parking is FREE

Upcoming Community Meetings

Meeting #1, (June 25, 2015)
The first meeting will review LBT's process in determining potential locations and profile the three finalists. The areas that have been recommended after a search of thirteen possible locations include the areas around: Cerritos, Lakewood, 7th Street Corridor from Bellflower to CSULB in Long Beach.

Meeting #2 (July 30, 2015)
Based upon community input following the first meeting, technical information, project location, and design recommendations, up to three transit center renderings will be reviewed for community feedback and documentation.

Meeting #3, (August 27, 2015)
Based upon community feedback following the first two community meetings, a final conceptual location and design will be presented to the public.

LONG BEACH TRANSIT

Long Beach Transit (LBT) is conducting a study on the feasibility of a regional transit center that could be located in the eastern portion of LBT's service area. LBT is holding three community meetings to discuss the feasibility study, seek input on location, amenities, design and more.

WHAT IS THE LONG BEACH TRANSIT EAST REGIONAL TRANSIT CENTER FEASIBILITY STUDY?

The East Regional Transit Center Feasibility Study will determine where and what type of transit center would best meet the needs of customers connecting to local and regional public transportation providers.

This would be the first transit center located outside of the downtown area of Long Beach. It could serve as a central transit hub connecting the services of LBT, Metro, Access, Dial-A-Lift and OCTA. The future site could also serve as a rapid service commuting area to Los Angeles and Orange County. The information gathered through this study and meetings will help LBT determine the location, amenities, design, and customer service requirements of a transit center in the eastern portion of LBT's service area.

GET INVOLVED

Public input is essential in determining where and what type of transit center would best meet the needs of customers connecting between LBT, Metro, Access, Dial-A-Lift and OCTA. Over the next few months, LBT will host a series of community meetings with the purpose of:

- educate and inform public transportation customers about the needs and benefits of a transit center in the eastern portion of the LBT's service area.
- proposing three (3) potential transit center sites that could help to connect the services of local and regional public transportation providers.
- provide technical information, project site and design recommendations (based upon community input), and submit cost estimates for a new transit center.
- receiving feedback on the conceptual designs and requirements the viability of a transit center in the eastern portion of LBT's service area.

Upcoming Community Meetings

Thursday, June 25, 2015

Thursday, July 30, 2015

Thursday, August 27, 2015

All community meetings will be held at:

El Dorado Library
2900 N. Studebaker Road
Long Beach, CA. 90815
6:00 p.m.

Parking is FREE

(562) 599-8504

lbtregionaltransit.com

facebook.com/lbtransit

Meeting Invites

LONG BEACH TRANSIT

You are invited

Community Meeting

Thursday, August 27, 2015 at 6:00 p.m.

Long Beach Transit (LBT) is conducting a study on the feasibility of a Regional Transit Center that could be located in the eastern portion of LBT's service area. LBT is holding three community meetings to discuss the study and seek input on location, amenities, design and more.

El Dorado Library
2900 N. Studebaker Road
Long Beach, CA. 90815

Parking is free

Take Route 173 to Studebaker Road at El Dorado Library
All meetings start at 6:00 p.m.

Public comments will be accepted at the meeting, and at **lbtregionaltransit.com** or via phone at **(562) 599-8504** from June 25 to August 30, 2015 at 6:00 p.m.

For more information about the study, please visit us at:

lbtregionaltransit.com (562) 599-8504

LONG BEACH TRANSIT

LONG BEACH TRANSIT

Estás Invitado

Reunion con la comunidad.

Jueves, 27 de agosto de 2015 a las 6:00p.m.

Long Beach Transit (LBT) está realizando un estudio para la viabilidad de un centro de transporte regional que podría ubicarse en la zona este del área de servicio de LBT. LBT llevará a cabo tres reuniones con la comunidad para considerar las posibilidades derivadas de este estudio, y solicitar tu opinión acerca de la ubicación, los servicios, el diseño, y mucho más.

El Dorado Library
2900 N. Studebaker Road
Long Beach, CA 90815

El estacionamiento es gratis

Toma la ruta 173 hacia Studebaker hasta El Dorado Library
Todas las reuniones comienzan a las 6:00 p.m.

Se aceptarán comentarios en la reunión, por internet en lbtregionaltransit.com o por teléfono al (562) 599-8504, desde el 25 de junio hasta el 30 de agosto de 2015, a las 6:00p.m.

Para más información acerca del estudio en cuestión, favor de llamar o visítanos en:

lbtregionaltransit.com (562) 599-8504

LONG BEACH TRANSIT

Click here if you have trouble viewing this.

LONG BEACH TRANSIT

You Are Invited

Community Meetings

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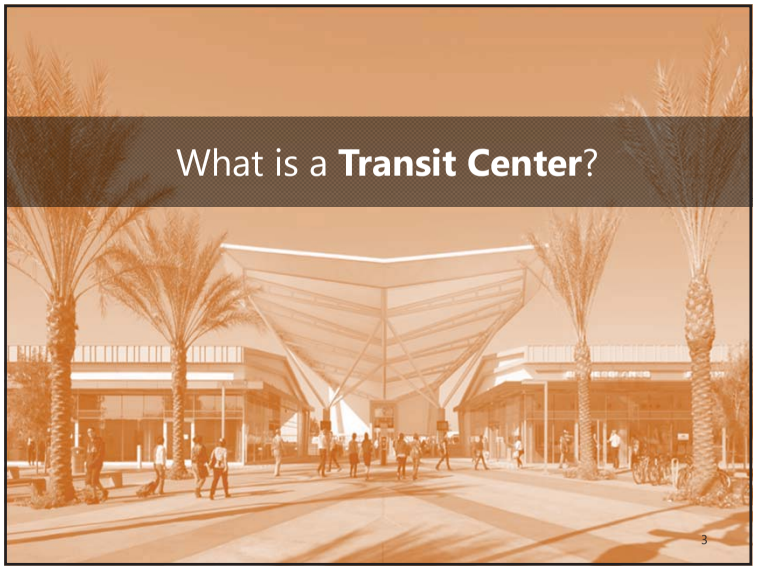
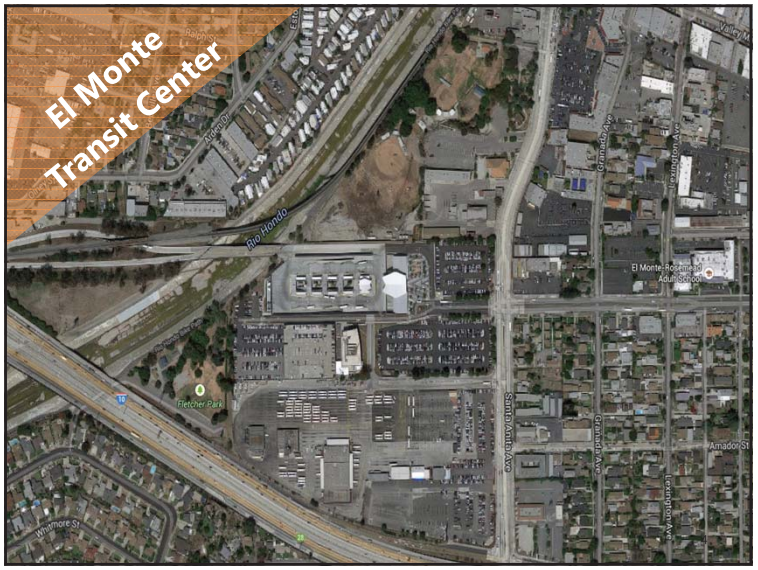
(562) 599-8504 from
June 25 to August 30, 2015 at 6:00 p.m.

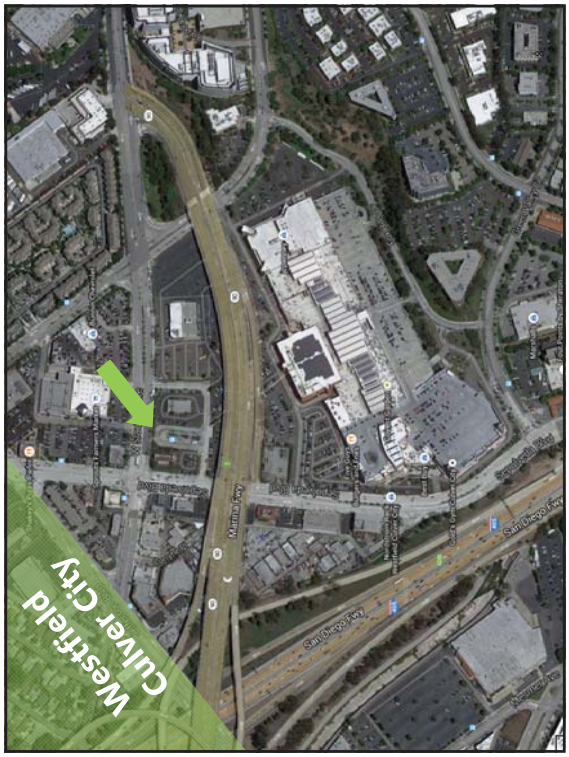

East Regional
Transit Center
Feasibility Study
LONG BEACH TRANSIT
2520
Community Presentation
1

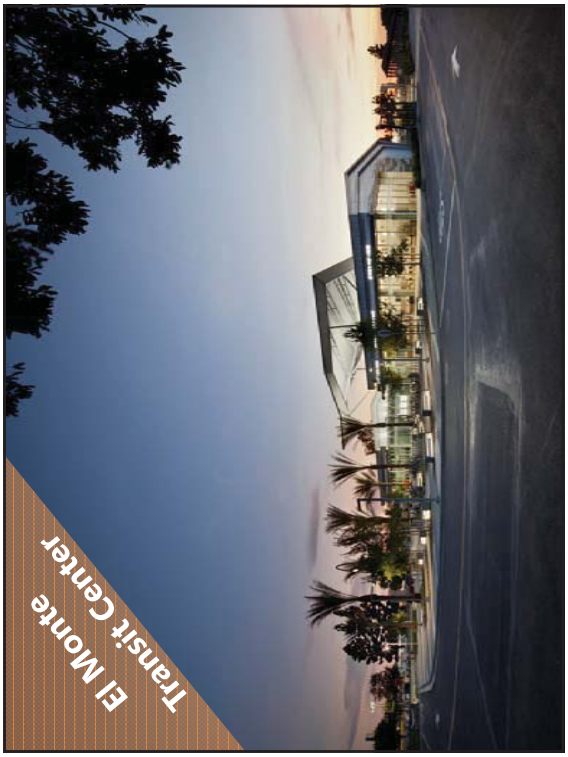

Transit Agencies
Cities
Design Team
RNL
KOA CORPORATION
PLANNING & ENGINEERING
kosmont companies
MBI
OCTA
CITY OF LONG BEACH
INCORPORATED 1897
CITY OF LAKEWOOD
CALIFORNIA
2


What is a Transit Center?
3


El Monte
Transit Center
Rio Hondo
Fletcher Park
Santa Anita Ave
Granada Ave
Whitmore St
Amador St


El Monte
Transit Center


Westfield
Culver City


El Monte
Transit Center

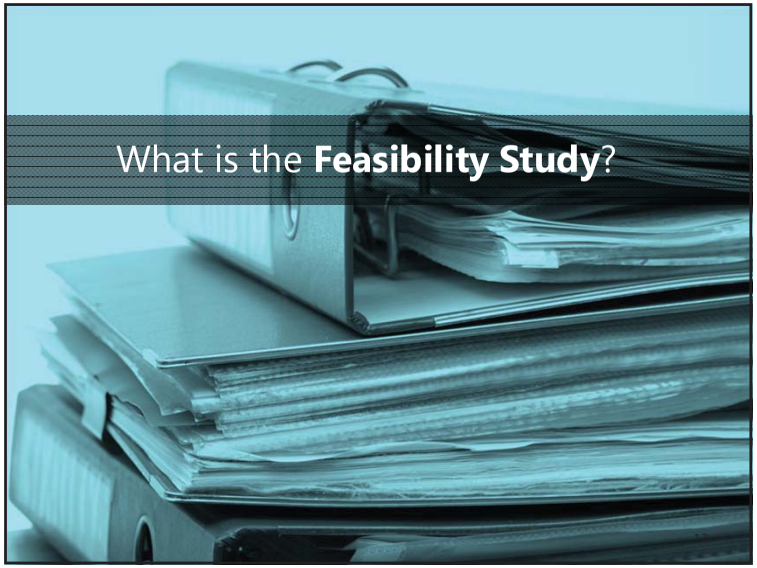

El Monte
Transit Center

Culver City Trans'it Center
Westfield Culver City
10

SPEED LIMIT 5
Westfield Culver City
12

W Slauson Ave
Westfield Culver City
9

Westfield Culver City
11

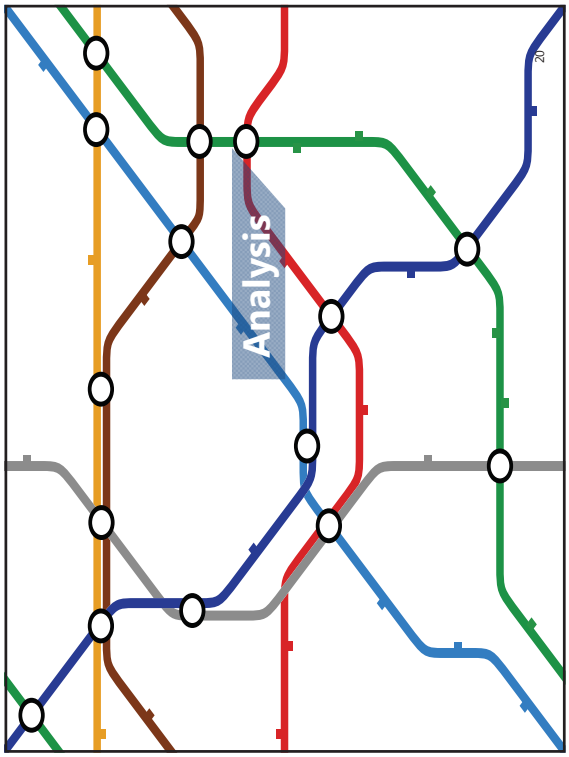

What is the **Feasibility Study**?


Identify
Analysis
Financing
Concepts


Identify
15


Analysis
16


Analysis
18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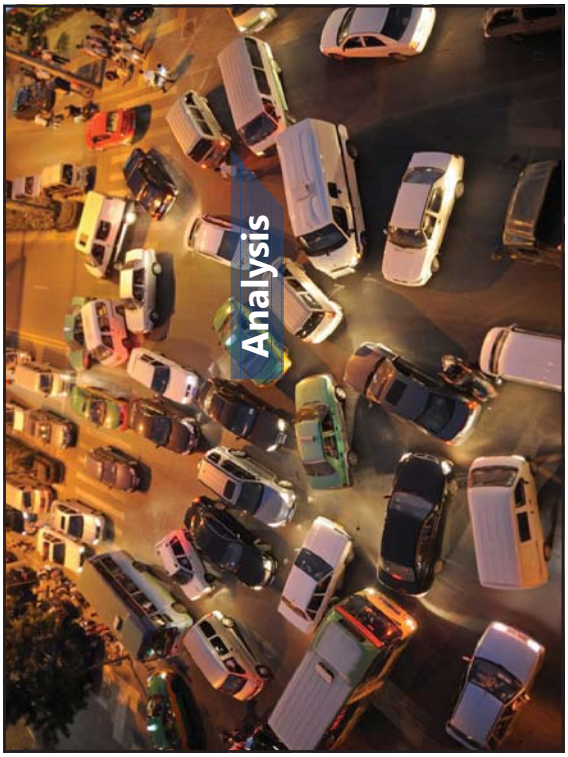
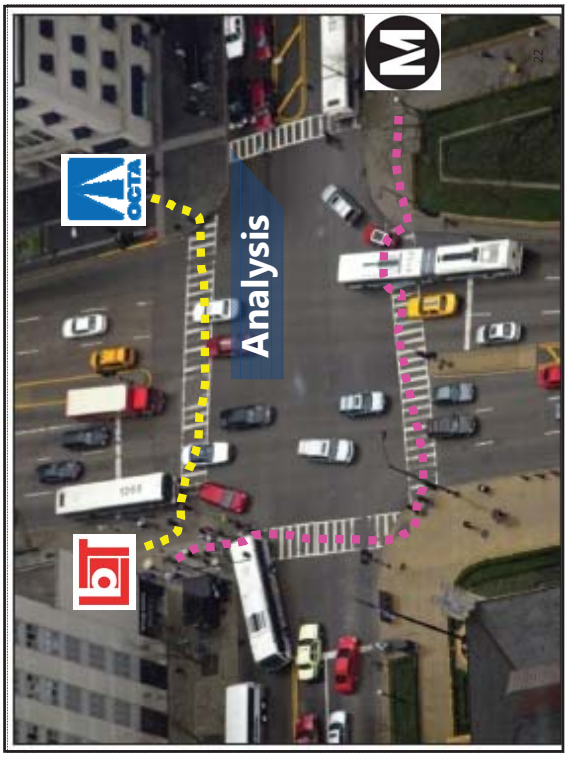

Analysis


Analysis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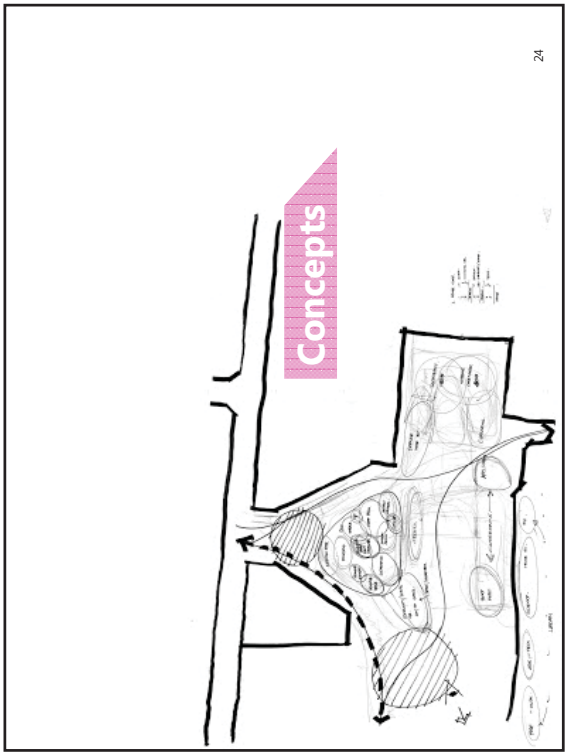
Concepts
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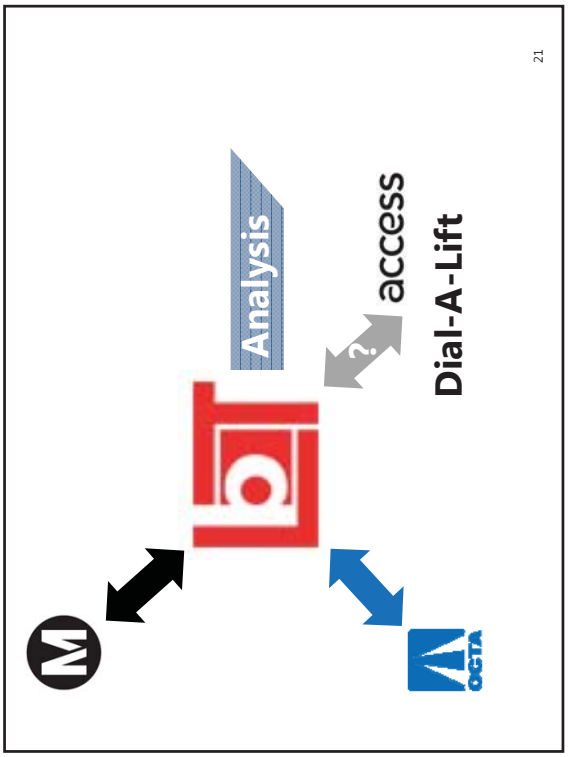
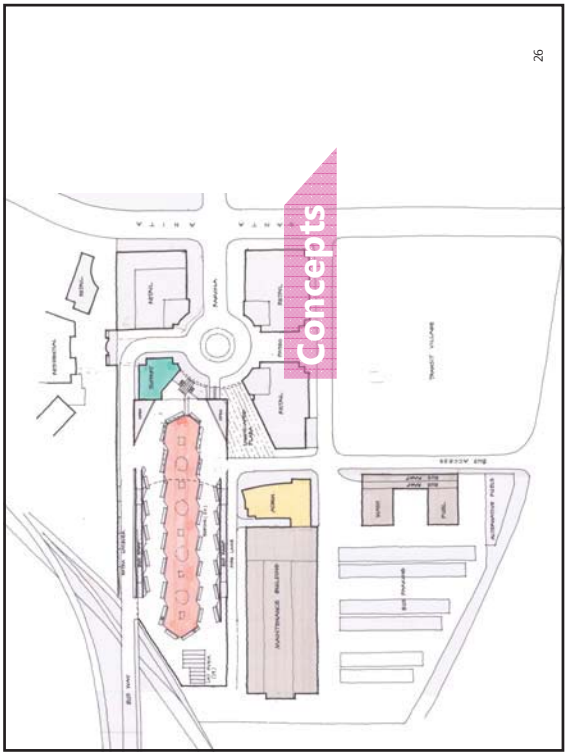

Analysis
access
Dial-A-Lift
21


Concepts
23


Concepts
28


Concepts
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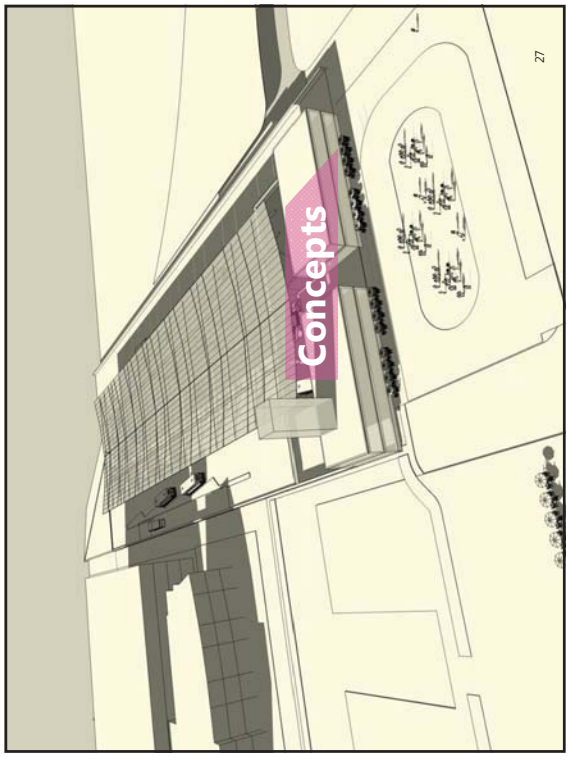
Concepts
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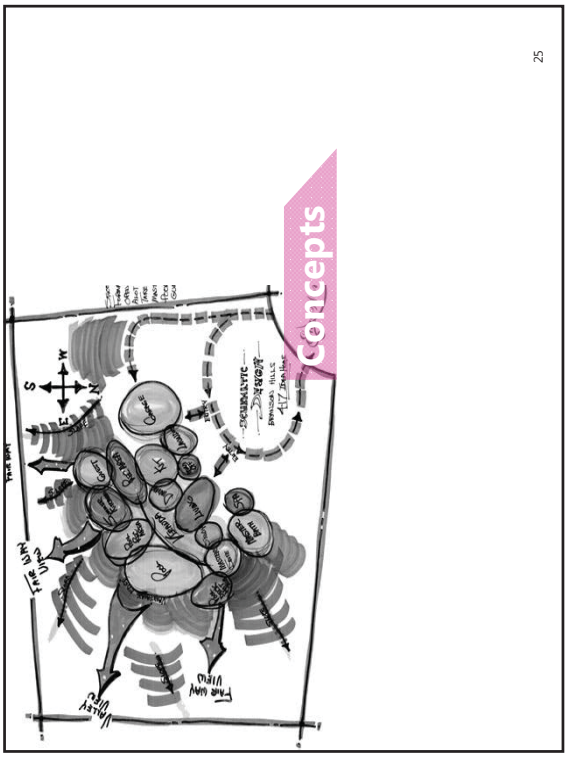
Concepts
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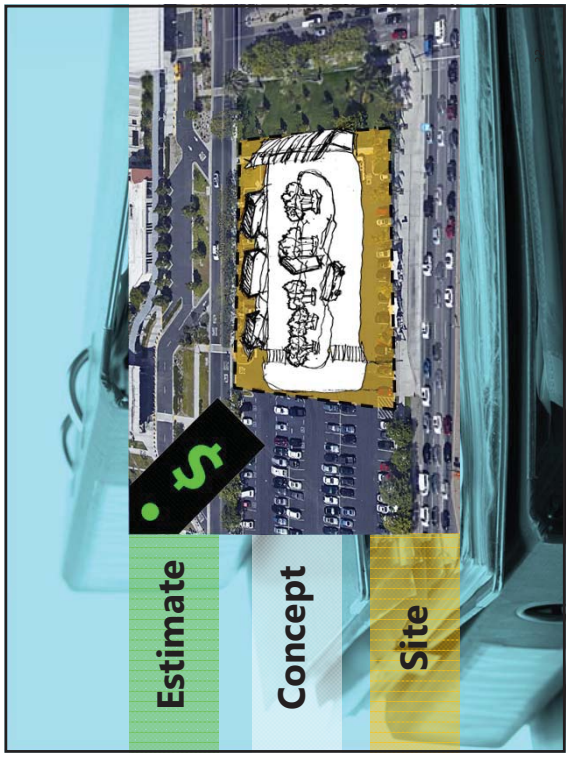
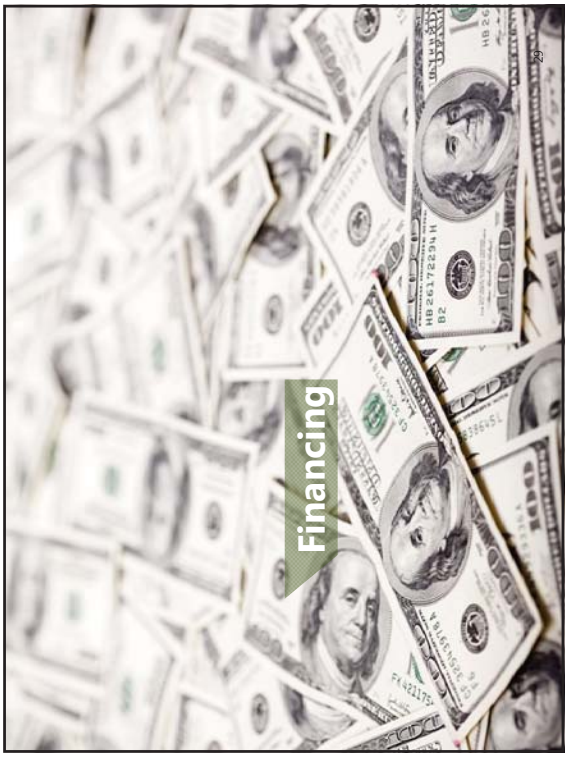
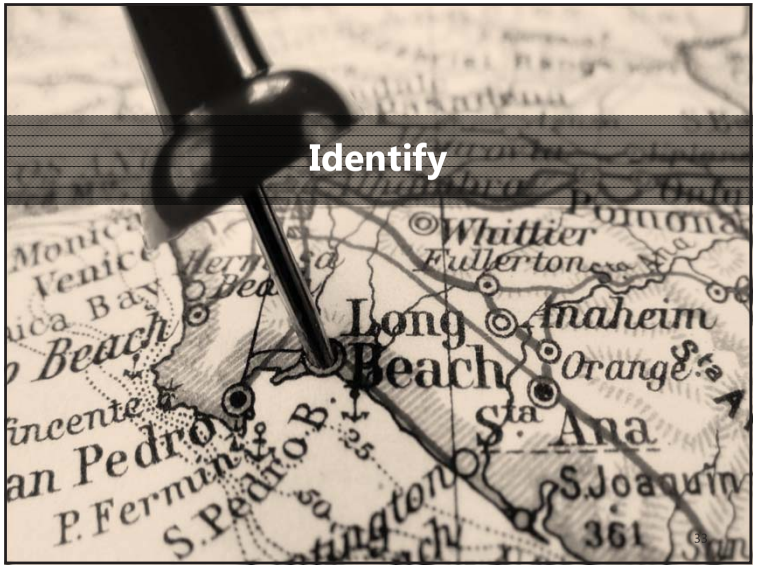
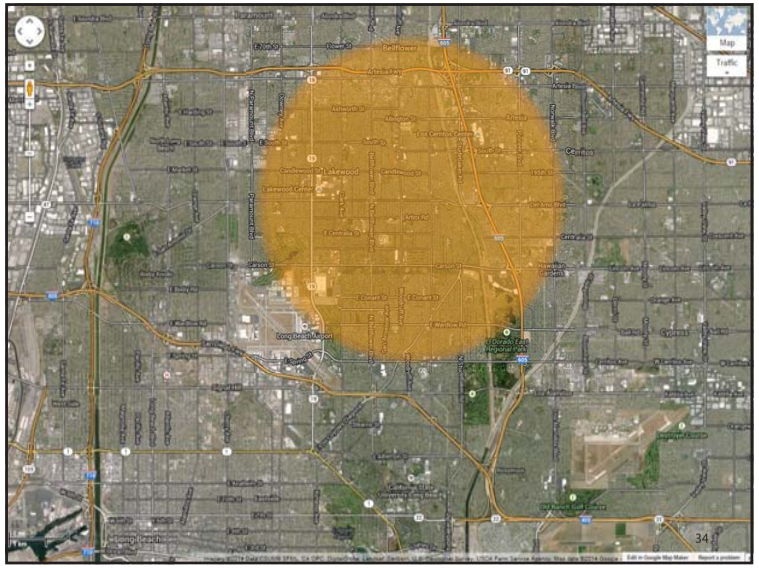
Financing


Site
Concept
Estimate


Financing


Financing


Identify
Whittier
Fullerton
Long Beach
Anaheim
Orange
Sta Ana
S.Joaquin
P. Fermin
S. Pedro B.
361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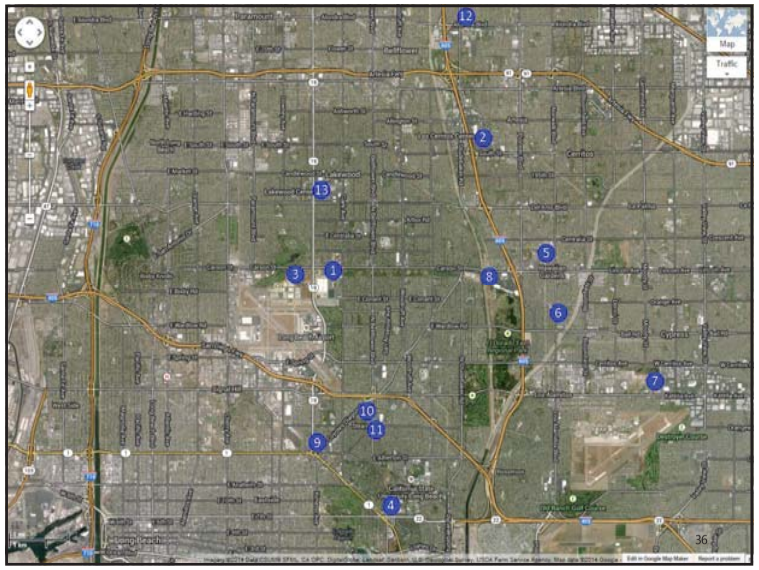
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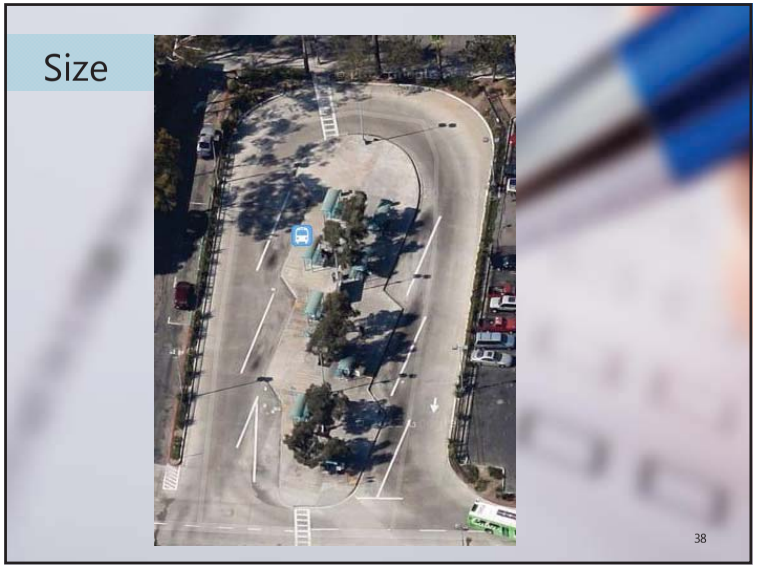
Excellent
37


Size
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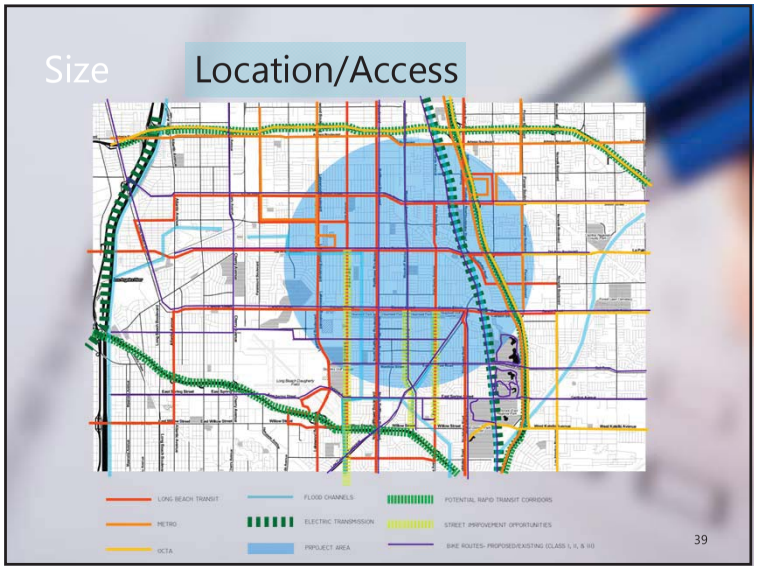
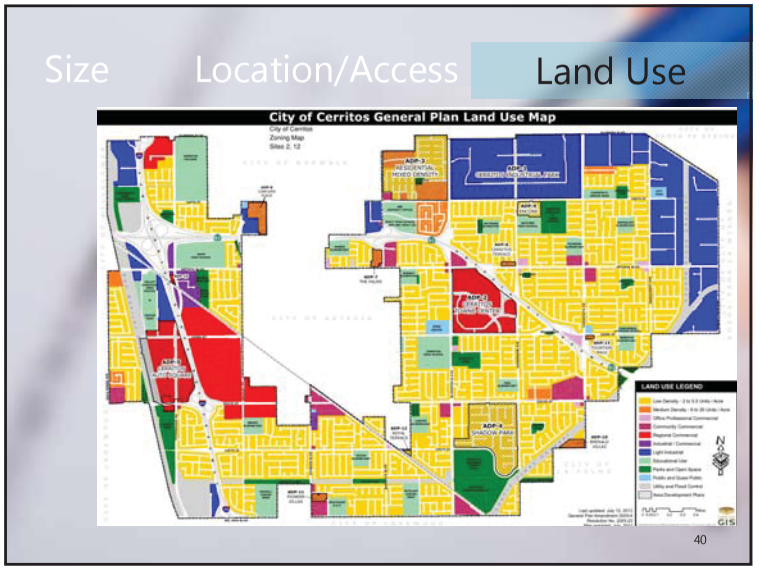

Size
Location/Access
LONG BEACH TRANSIT
METRO
OCTA
FLOOD CHANNELS
ELECTRIC TRANSMISSION
PROJECT AREA
POTENTIAL RAPID TRANSIT CORRIDORS
STREET IMPROVEMENT OPPORTUNITIES
39


Size
Location/Access
Land Use
City of Cerritos General Plan Land Use Map
LAND USE LEGEND
40

Size Location/Access Land Use

Circulation

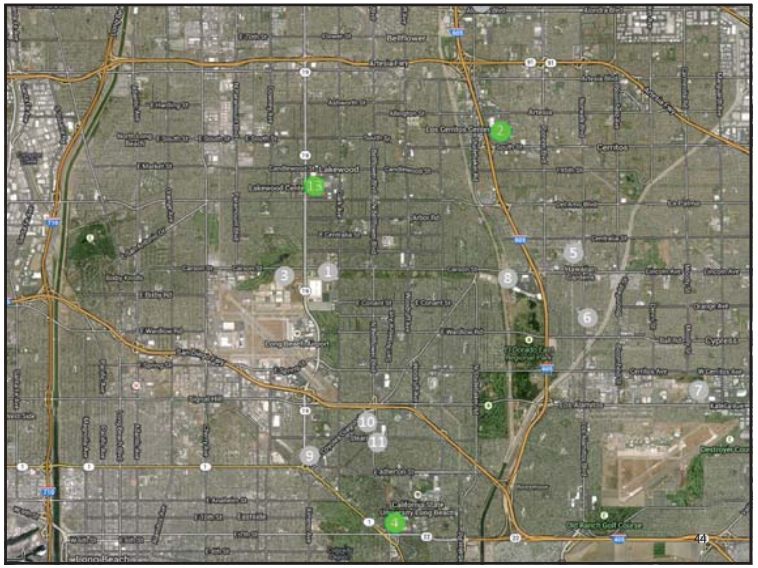
41

Size Location/Access Land Use

Circulation Ownership

42

43



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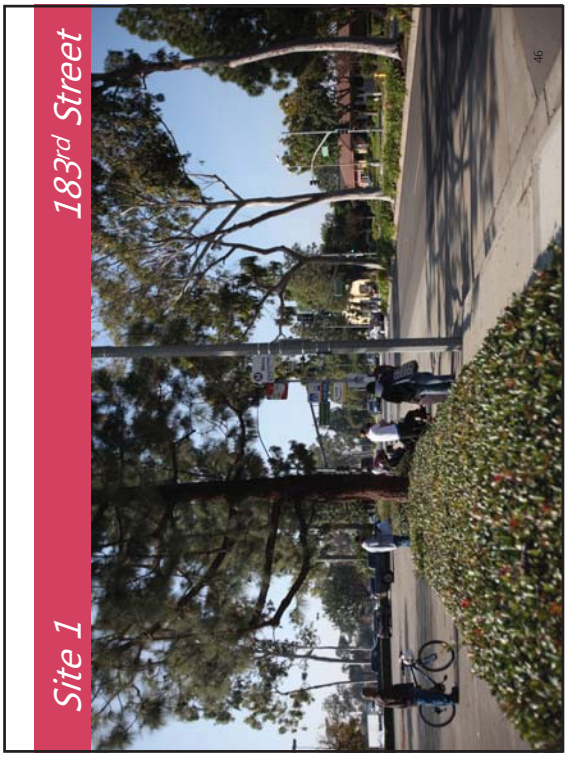
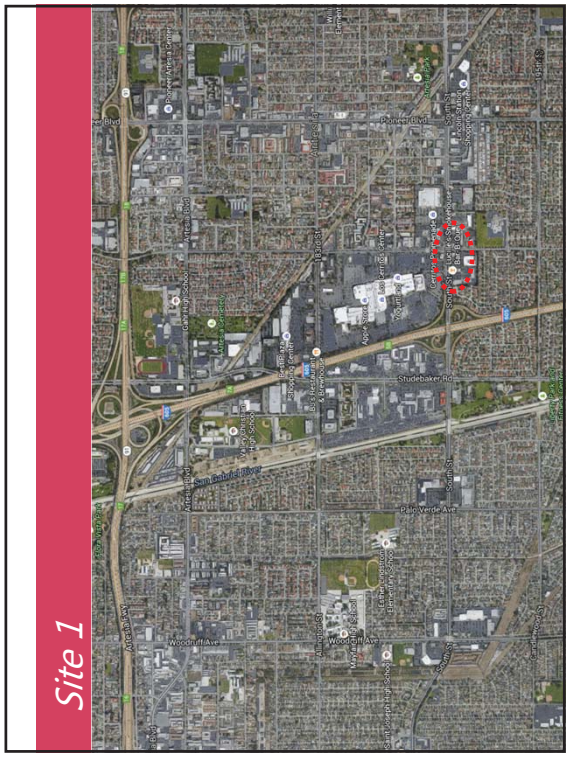
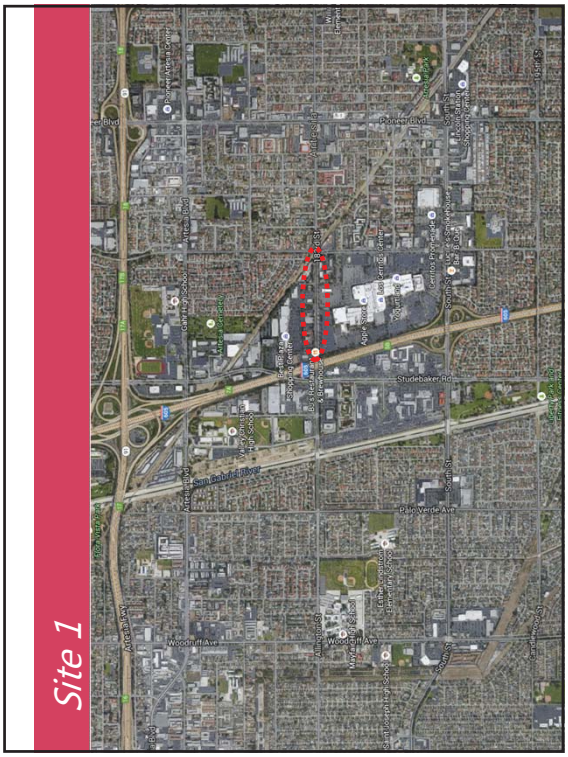

Site 1
183rd Street


Site 1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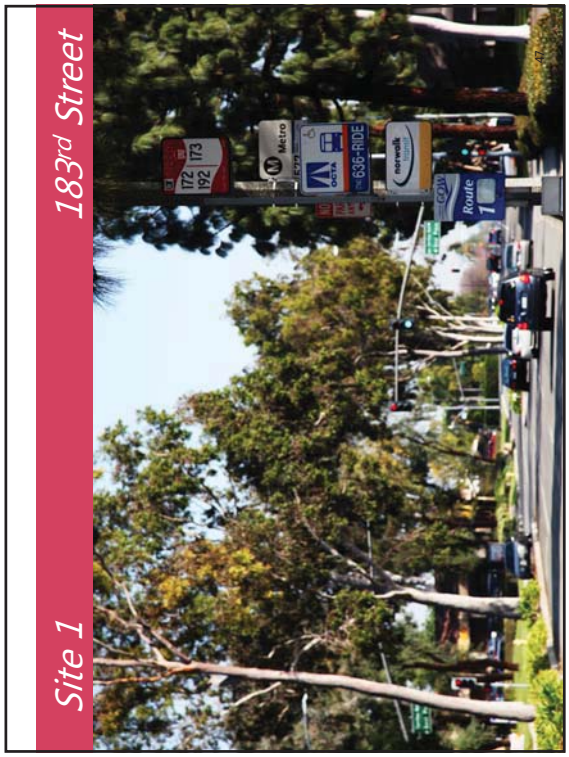
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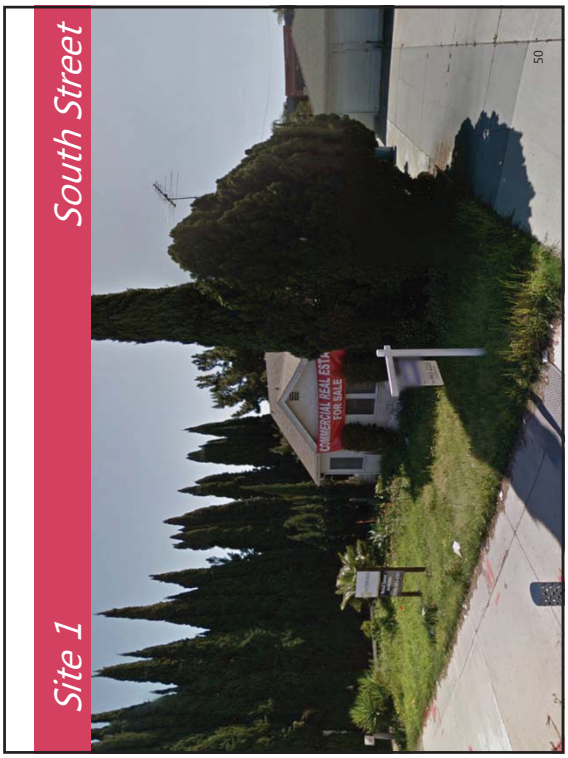
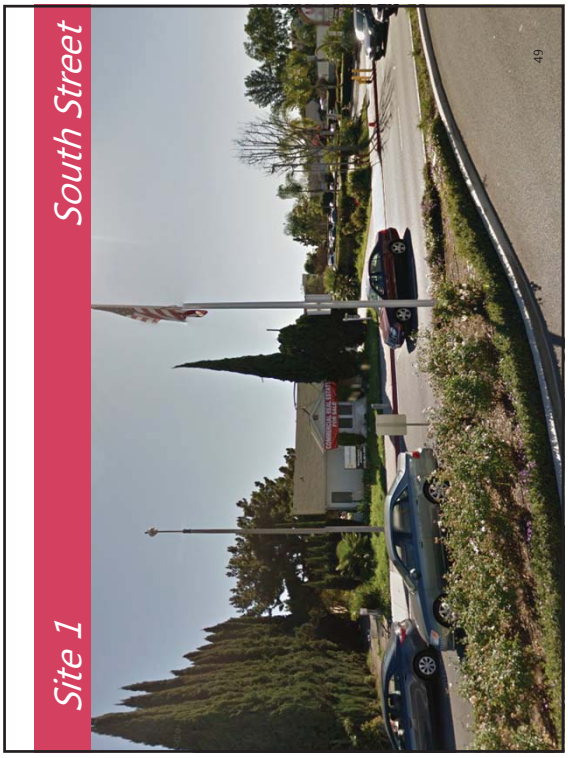
183rd Street


Site 1
South Street
COMMERCIAL REAL EST
FOR SALE
50


Site 1
Gridley Road
DOLLAR LOAN CENTER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South Street
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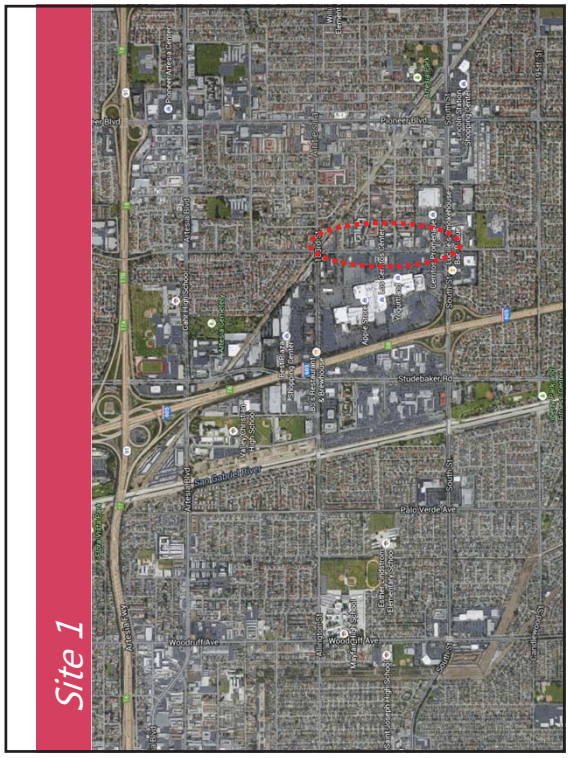
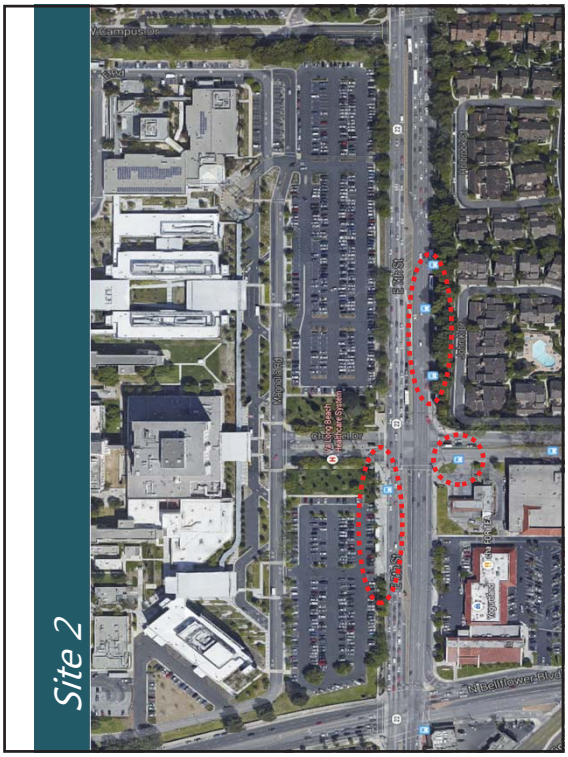

Site 1
Pioneer Blvd
Studebaker Rd
Del Amo Blvd
Woodruff Ave
Palo Verde Ave
South St
Artesia Blvd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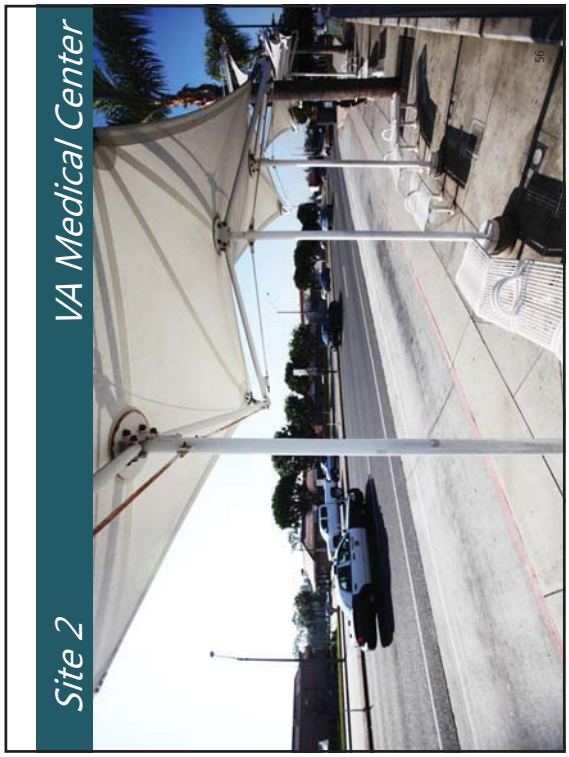
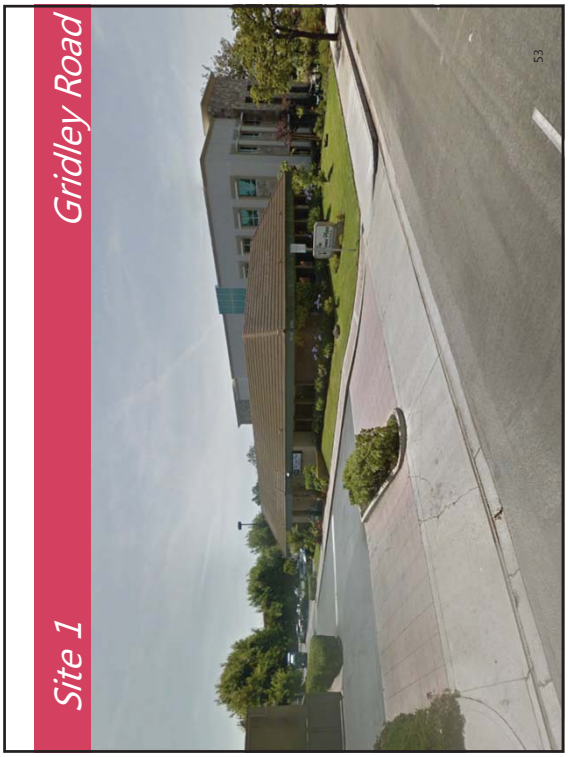
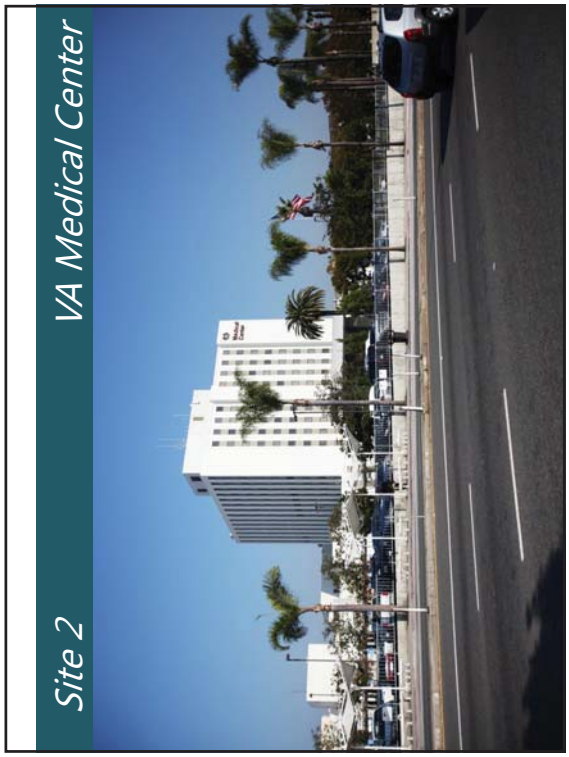
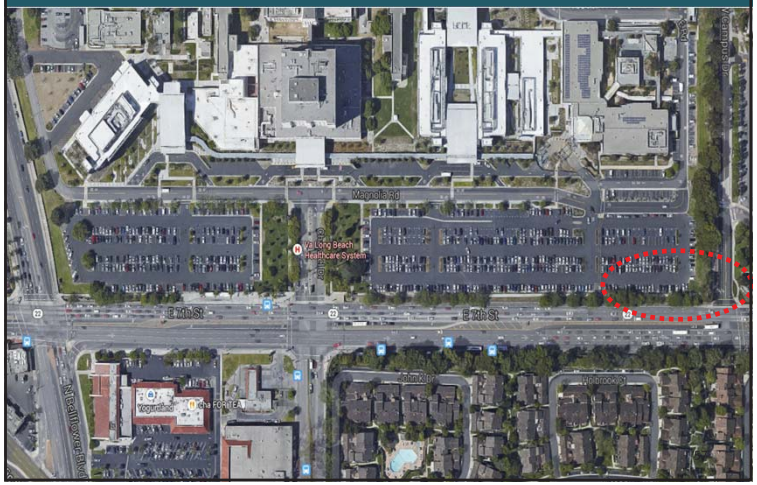

Site 2
VA Medical Center


Site 1
Gridley Road


Site 2
VA Medical Center

Site 2



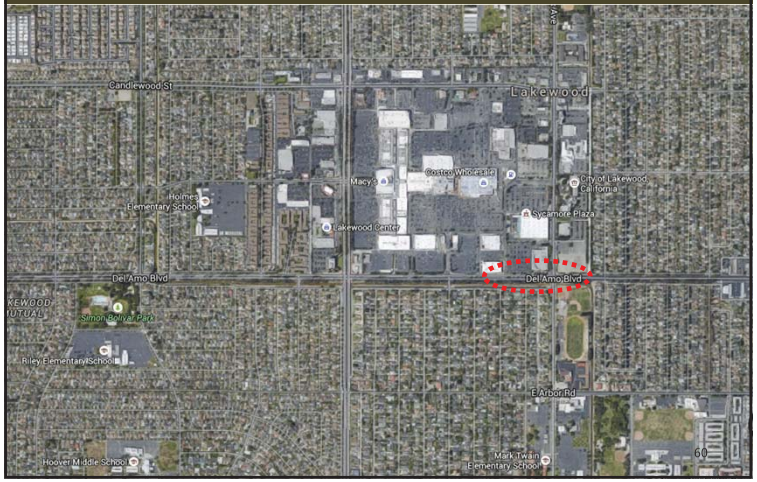
Site 2 CSU Long Beach

58

Site 2 7th Street

59

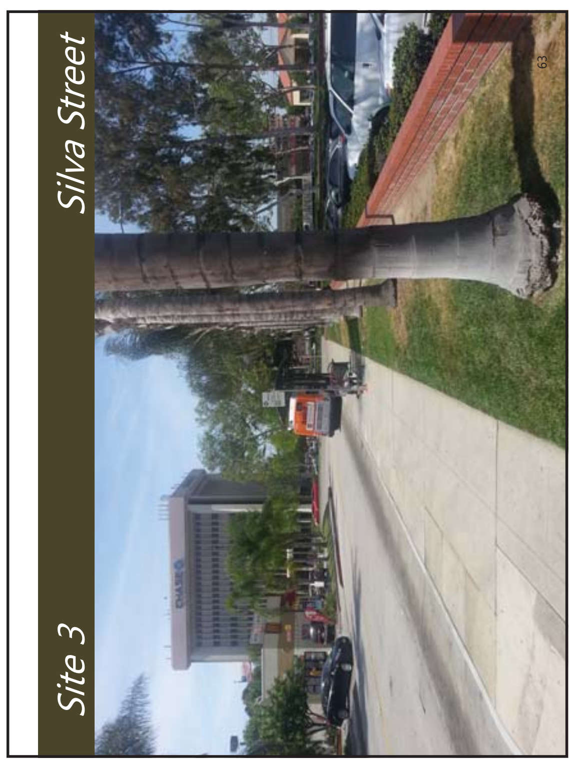
Site 3



60


Site 3
Del Amo Blvd
61


Site 3
62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Silva Street
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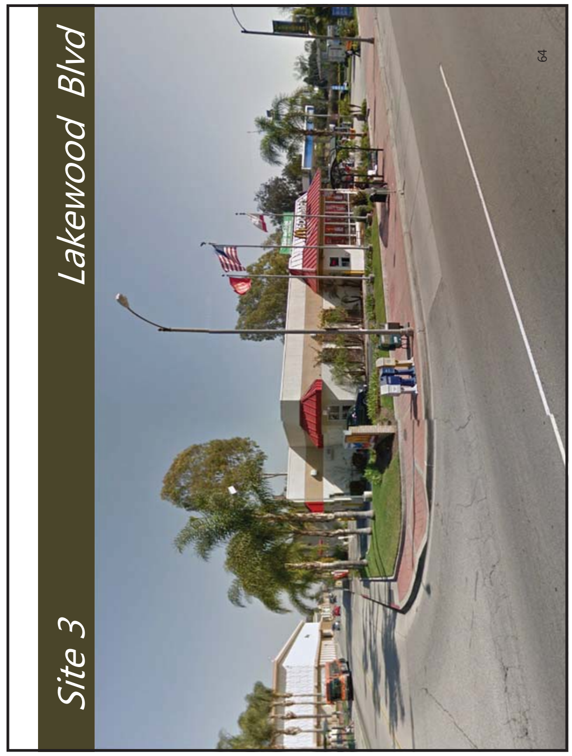
Site 3
Lakewood Blvd
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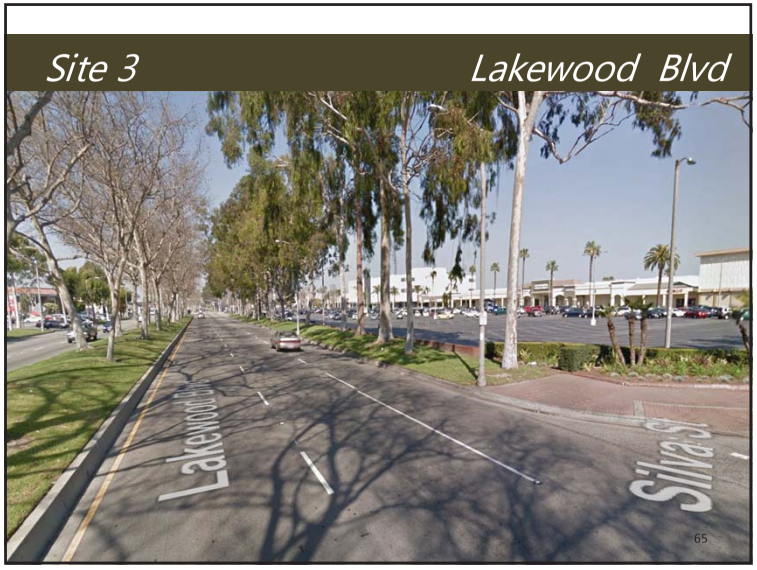
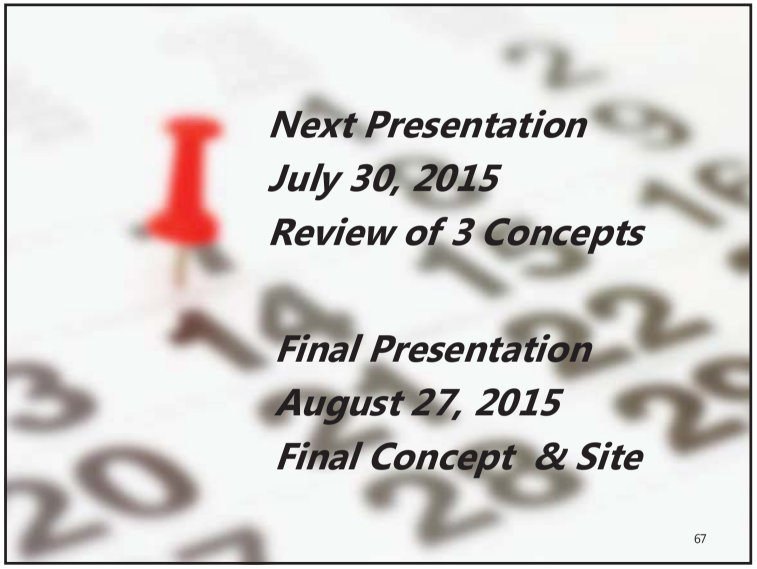
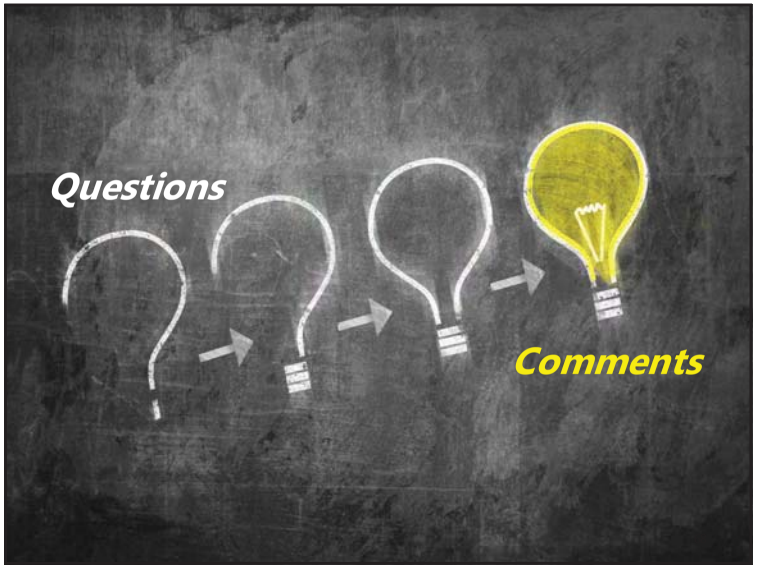
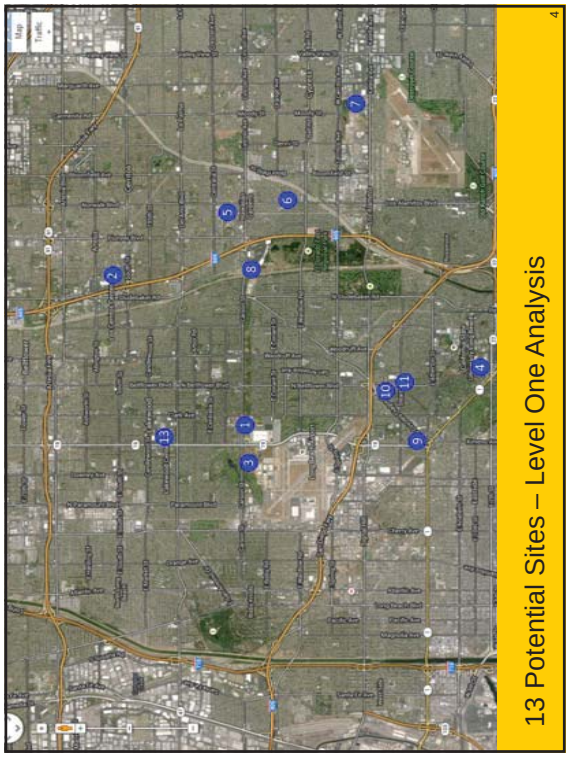

Site 3
Lakewood Blvd
65

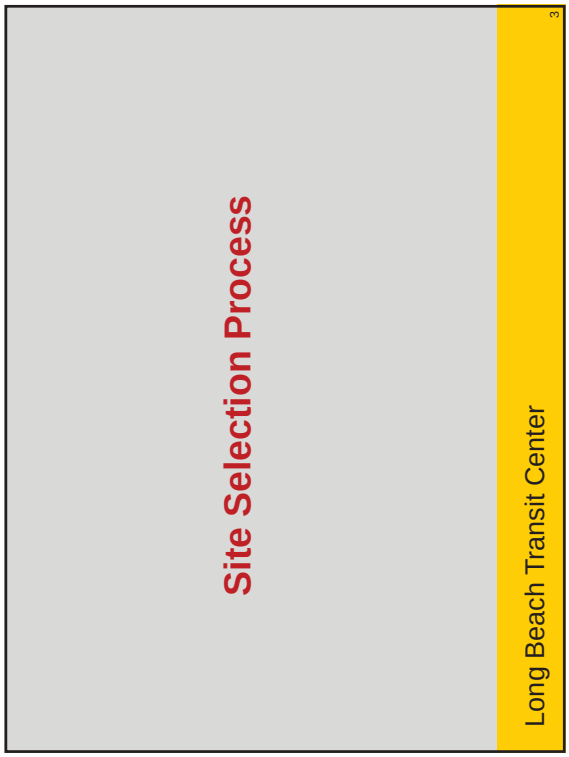

Website:
www.lbtregionaltransit.com
66


Next Presentation
July 30, 2015
Review of 3 Concepts
Final Presentation
August 27, 2015
Final Concept & Site
67


Questions
Comments

Community Meeting #2

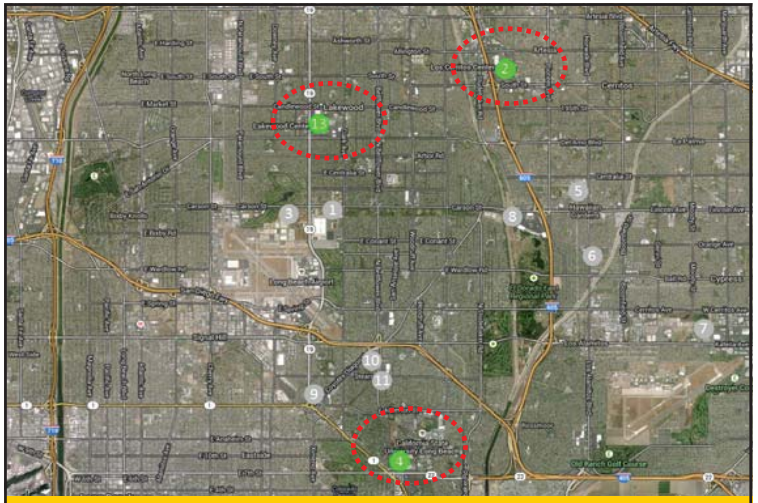




- **Evaluation of initial site list conducted in two phases**
- Measures of evaluation included the following:
  - Land Use / Major Employment & Activity Centers
  - Future Neighboring Expansion Potential
  - Existing Proximity to Transit Activity
  - Transit Service Frequency
  - Proximity to Transit Line Transfer Locations
  - Proximity to Regional Bike Facilities
  - Project Development Costs
- **Results of the evaluation were a selection of three sites for detailed review**

13 Potential Sites – Evaluation of Sites To - Date

5



3 Potential Sites - Level Two Analysis

6

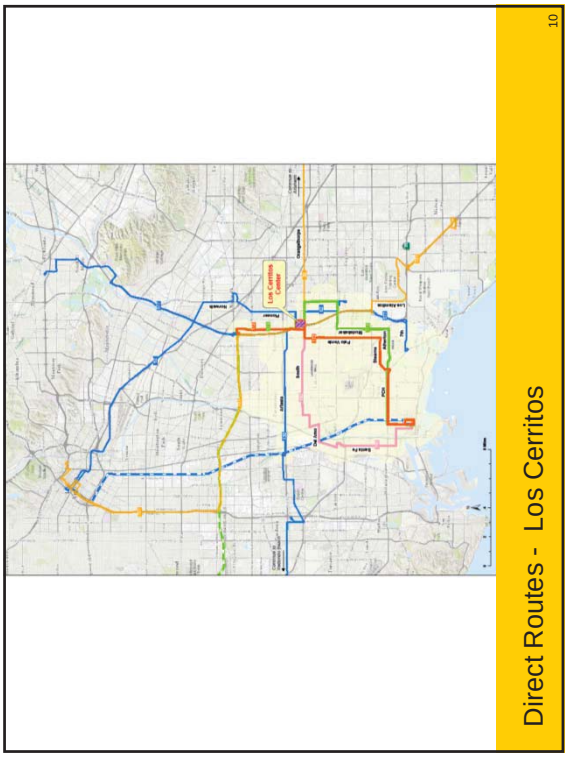
Existing Transit Routes Serving Potential Sites

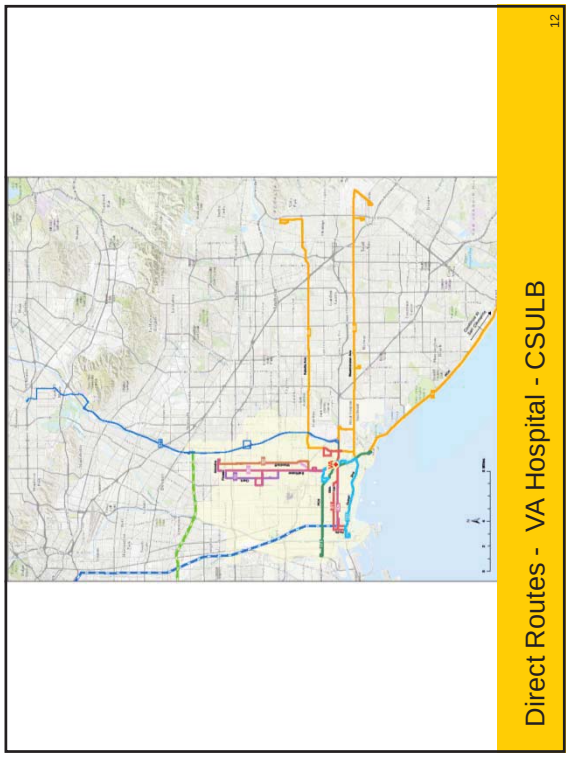
Long Beach Transit Center

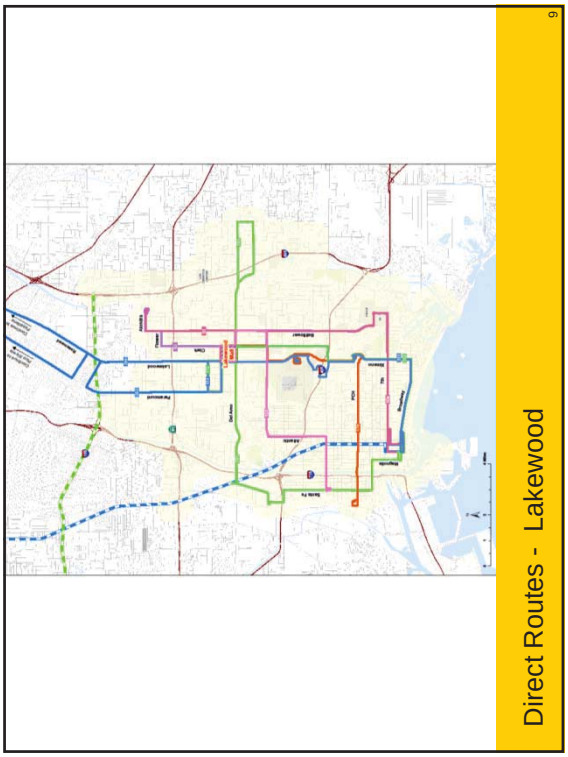
7

Direct Routes - Lakewood

8


Direct Routes - Los Cerritos
10


Direct Routes - VA Hospital - CSULB
12


Direct Routes - Lakewood
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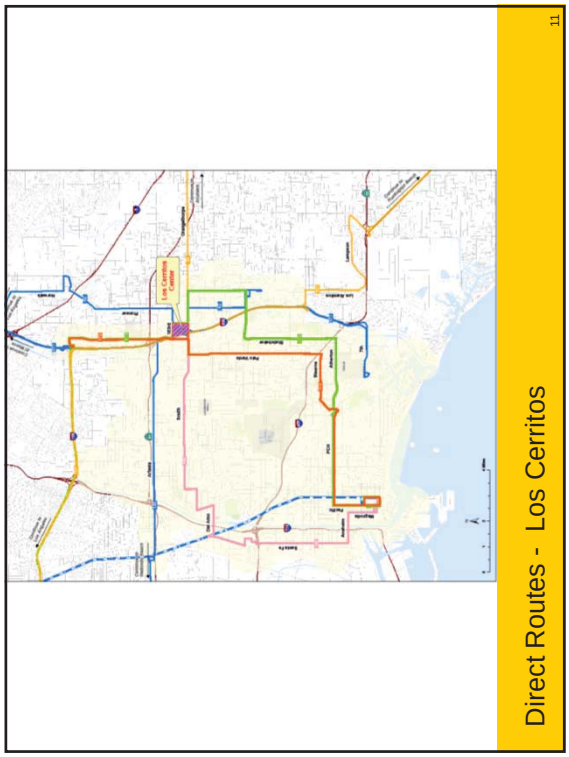
Direct Routes - Los Cerritos
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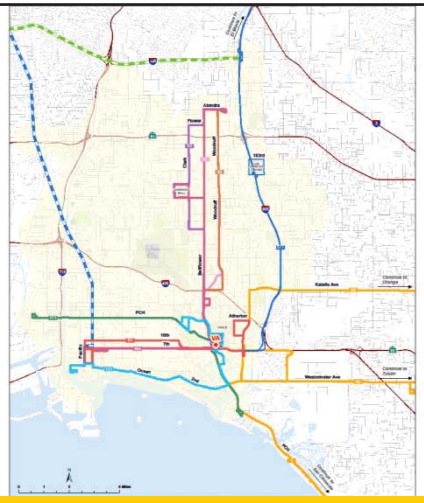


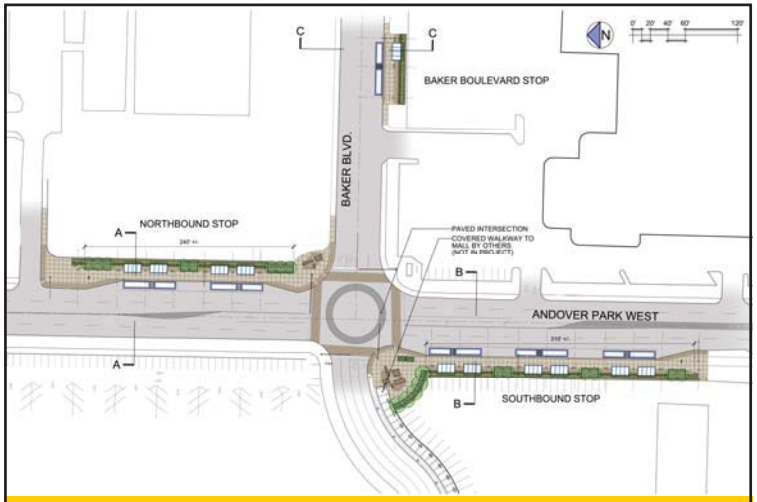
Direct Routes - VA Hospital - CSULB

13

Types of Transit Centers

Long Beach Transit Center

14



Transit Center Types – On Street/Inline, Tukwila

15

Transit Center Types – On Street – Inline, Tukwilla

16

Transit Center Types – On Street/Inline, Tukwila

17

Transit Center Types - On Street/Inline, Long Beach

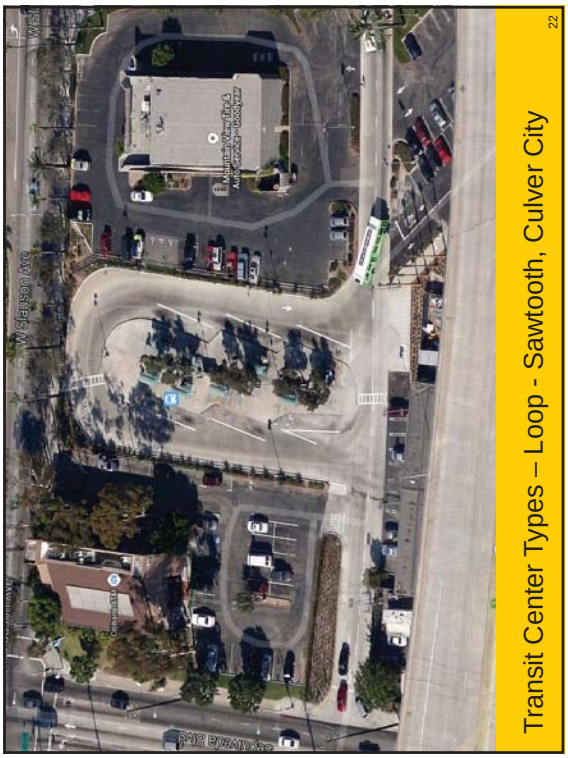
18

Transit Center Types - On Street/Inline, Long Beach

19

Transit Center Types – Loop Sawtooth

20


Transit Center Types – Loop - Sawtooth, Culver City
22


Transit Center Types – Loop Sawtooth, El Monte
24


Transit Center Types – Loop-Sawtooth, Tempe
21


Transit Center Types – Loop Sawtooth, Culver City
23

Transit Center Types – Loop, Lynnwood

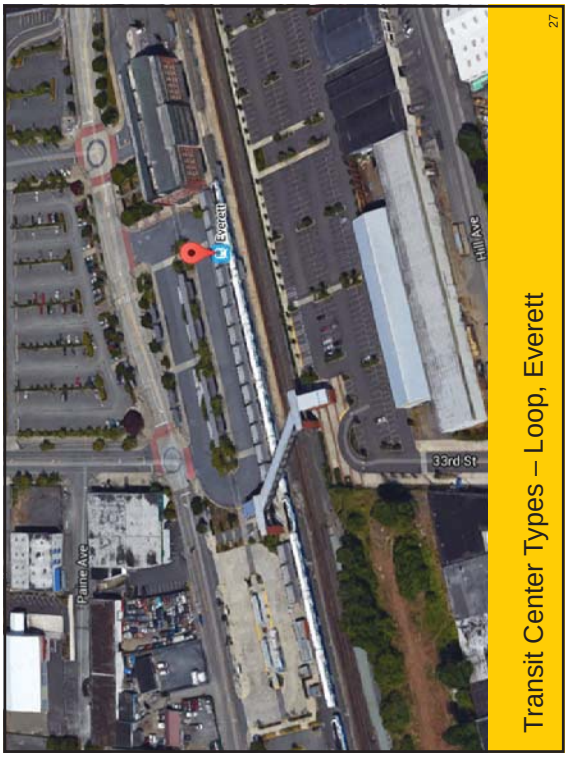
26

Transit Center Types – Loop, Everett

28

Transit Center Types – Loop, Lynnwood

25



Transit Center Types – Loop, Everett

27

Transit Center Types - Loop

29

Transit Center Design Considerations and Amenities

Long Beach Transit Center

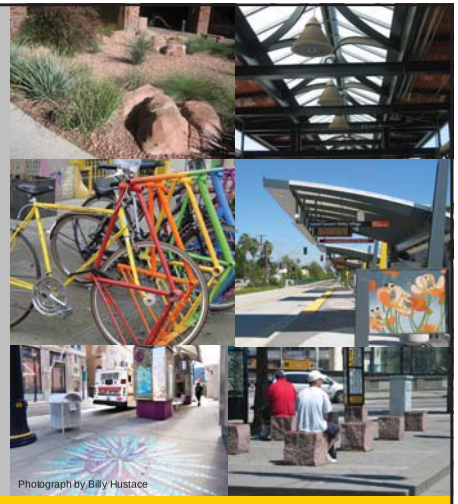
30

- Visibility
- Ease of Use
- Accessible
- Circulation
- Rapid Transfers and Loading
- Secure
- Sight-lines
- Sustainable
- Maintainable

Transit Center – Design Considerations

31

- Weather Protection
- Lighting
- Next Bus Signage
- Seating
- Security
- Maps/ Information
- Communications
- Art
- Bike Storage
- Ticket Vending
- Trash
- Low Impact Planting
- Solar



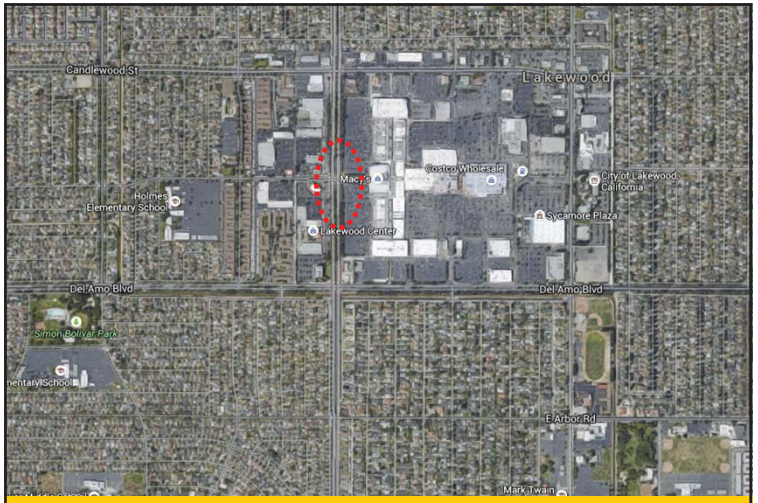
Transit Center – Potential Amenities

32

Conceptual Site Design

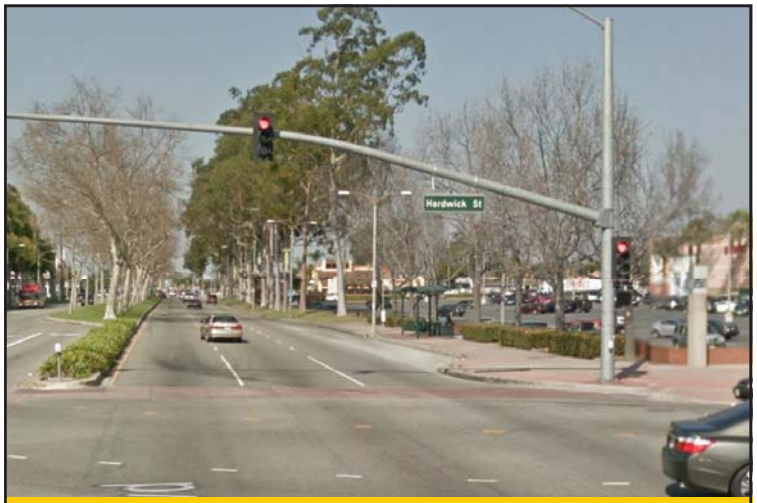
Long Beach Transit Center

33



Lakewood Site

34



Lakewood Site

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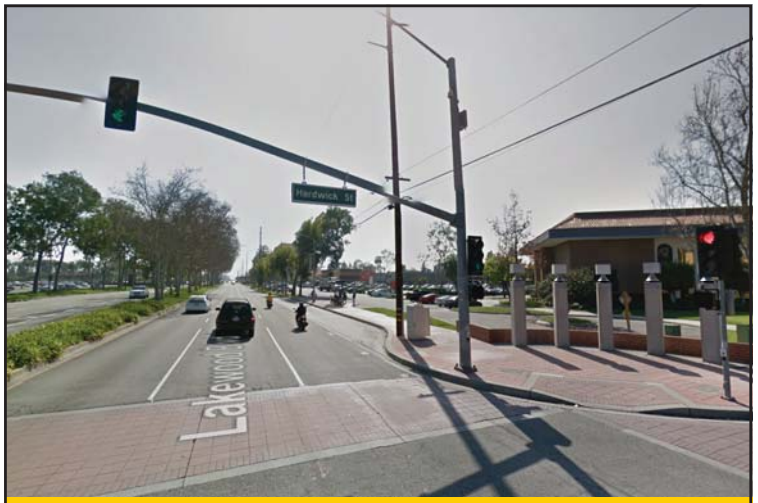

Lakewood Site

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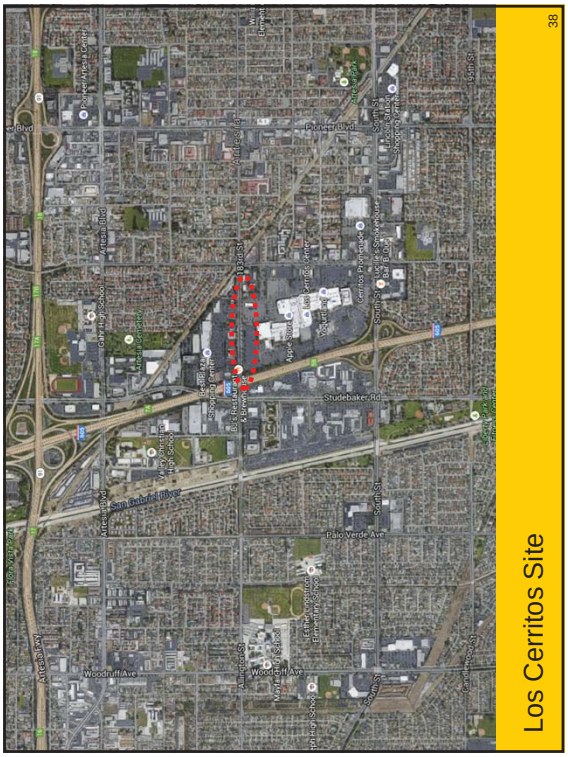
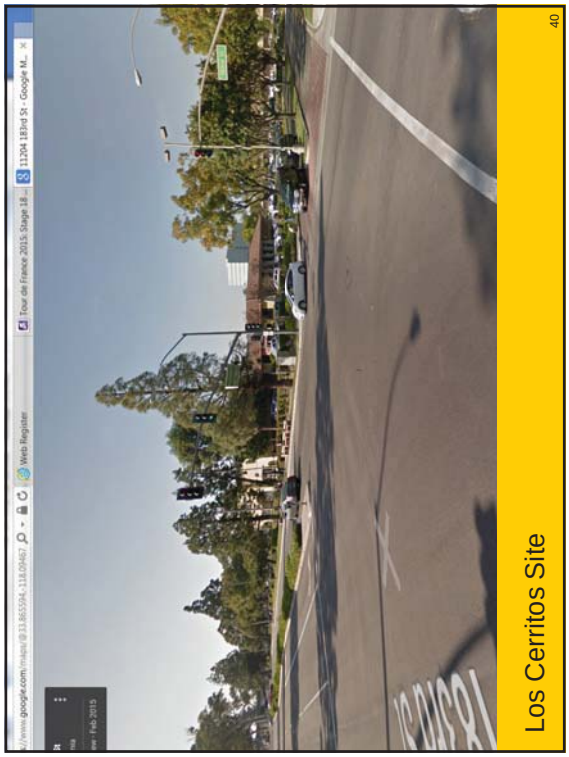

Los Cerritos Site
38
Pioneer Blvd
Studebaker Rd
Palo Verde Ave
South St
Woodruff Ave
San Gabriel River


Los Cerritos Site
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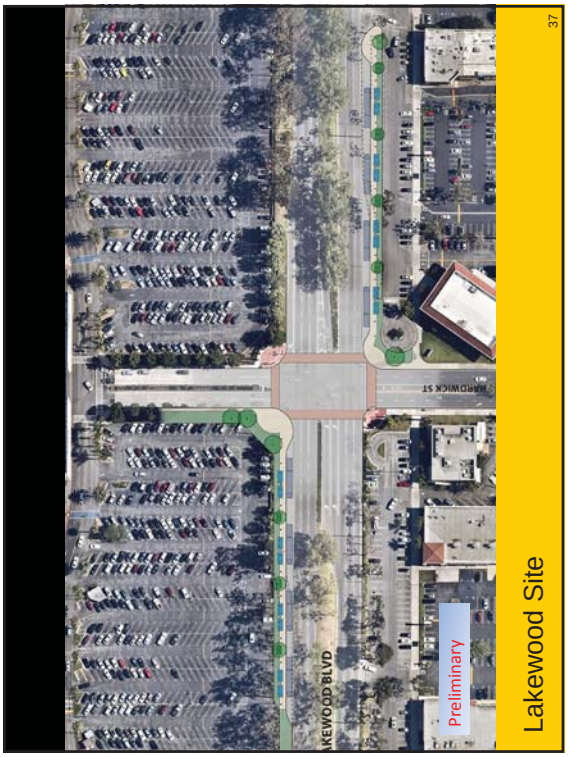
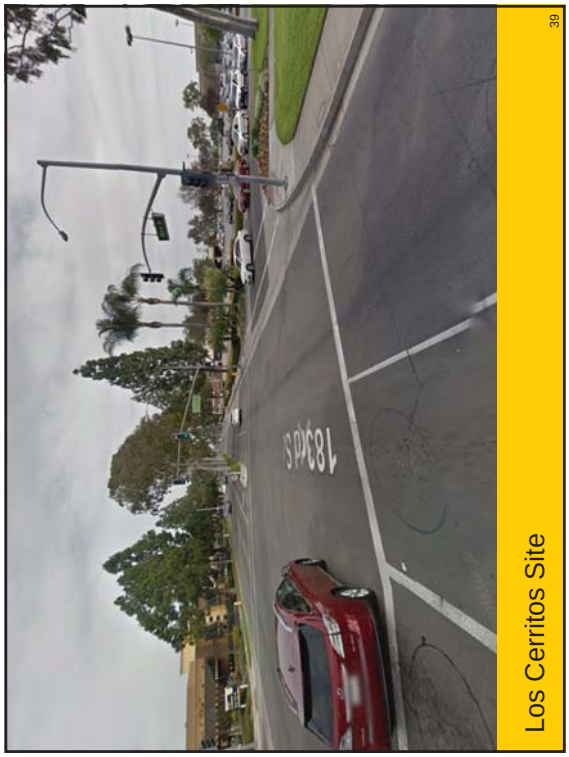

Lakewood Site
37
Preliminary
LAKEWOOD BLVD
CARSON ST


Los Cerritos Site
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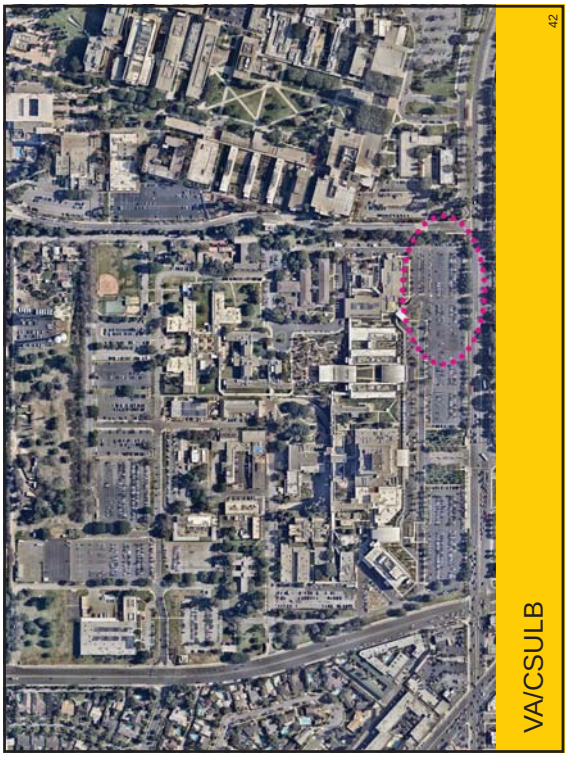
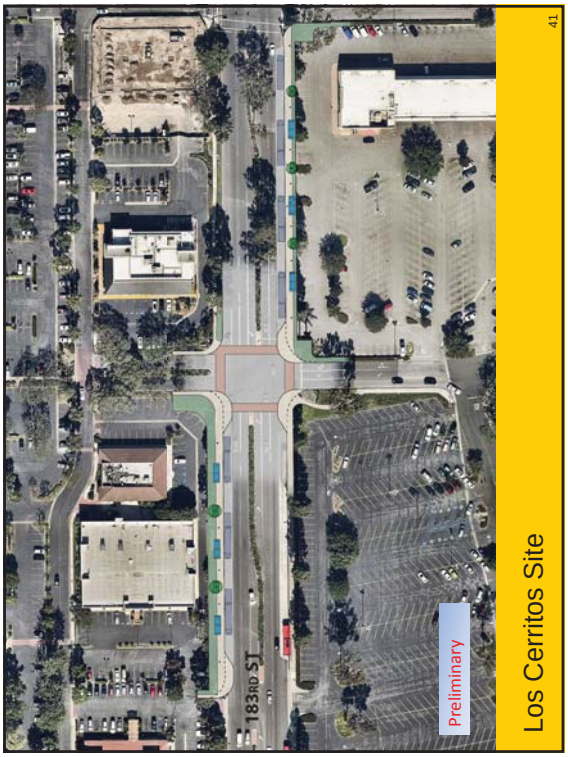
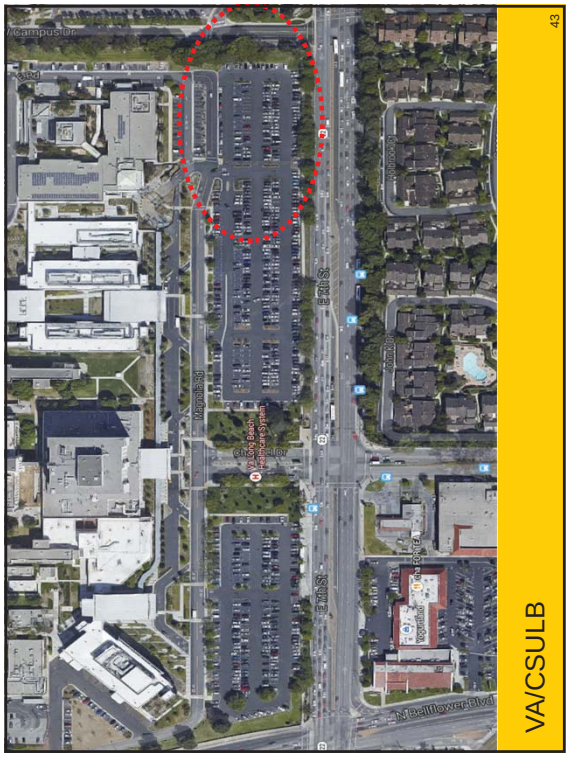

VA/CSULB
42

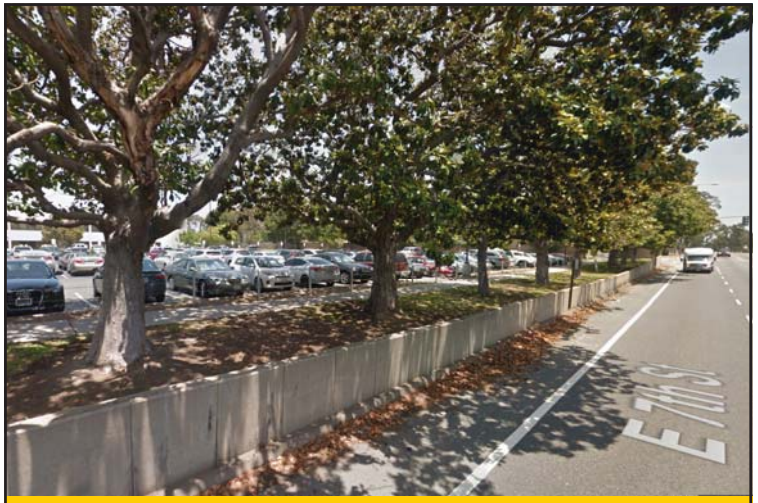

VA/CSULB Site
44


Los Cerritos Site
41
183RD ST
Preliminary


VA/CSULB
43
Campus Dr
Magnolia Rd
E 7th St
N Bellflower Blvd

VA/CSULB Site

45



VA/CSULB Site

46

VA/CSULB Site - Loop

47

Evaluation of Sites

Long Beach Transit Center

48

Site Transit/Access Comparison – Lakewood Mall, VA/CSULB, Los Cerritos Center

Site	Number of Transit Lines	Number of Agencies	Daily Weekday Bus Trips	Weekday Ridership	Nearby Major Land Use?	Nearby Bicycle Facilities
Lakewood Mall	9	2	445	2,818	Yes	Yes
Los Cerritos Center	11	5	433	1,923	Yes	No
VA/CSULB	12	3	839	9,117	Yes	Yes

Long Beach Transit Center

49

Lakewood Mall – Existing Service Summary

	Route	Weekday Daily Bus Trips	Weekday Headway Peak/Base	Weekday Hours of Operation	Saturday Daily Bus Trips	Saturday Headway Peak/Base	Saturday Hours of Operation	Sunday Daily Bus Trips	Sunday Headway Peak/Base	Sunday Hours of Operation
Long Beach Transit	91: 7th/Bellflower	Does not go to Lakewood Mall on Weekdays			38	40 min	05:30 - 20:55	40	40 min	05:30 - 20:25
	93: 7th/Clark	71	15/30 min	05:15 - 23:25	--	--	--	--	--	--
	103: Willow/Lakewood Mall	46	40 min	06:00 - 22:15	26	60 min	06:28 - 19:45	26	60 min	06:36 - 19:45
	111: Broadway/Lakewood	54	40 min	05:00 - 01:20	41	60 min	05:05 - 01:01	41	60 min	05:05 - 00:59
	112: Broadway/Clark	49	40 min	05:30 - 22:55	30	60 min	06:05 - 21:55	30	60 min	06:05 - 21:55
	176: ZAP PCH	49	30 min	06:46 - 19:10	--	--	--	--	--	--
	191: Santa Fe/Del Amo	80	10/30 min	04:34 - 01:13	52	40 min	05:05 - 01:20	52	40 min	05:05 - 01:17
	LBT Subtotal	349			187			189		
Metro	265: Lakewood/Pico Rivera	40	35/55 min	05:05 - 21:44	28	55 min	07:25 - 20:46	28	55 min	07:25 - 20:46
	266: Lakewood/Pasadena	56	30/40 min	04:18 - 23:16	50	45 min	05:24 - 23:22	45	45 min	05:43 - 23:56
	Metro Subtotal	96			78			73		
	Regional Total	445			265			262		

- Served by 7 Long Beach Transit lines, 2 Metro lines
- Two lines operate at 15 minutes peak frequency or better (LBT 93, 191)
- Total bus trips of LBT and Metro are 445 on weekdays and 265/262 on weekends
- High rankings from overall project screening analysis: Neighboring Land Use / Activity, Proximity To LBT Transit Activity & Frequency, Proximity To Regional Bike Facilities

Long Beach Transit Center

50

Los Cerritos Center – Existing Service Summary

	Route	Weekday Daily Bus Trips	Weekday Headway Peak/Base	Weekday Hours of Operation	Saturday Daily Bus Trips	Saturday Headway Peak/Base	Saturday Hours of Operation	Sunday Daily Bus Trips	Sunday Headway Peak/Base	Sunday Hours of Operation
Long Beach Transit	172: PCH/Palo Verde	68	20/30 min	04:59 - 23:25	37	45 min	06:10 - 21:25	37	45 min	06:10 - 21:25
	173: PCH/Studebaker	68	20/30 min	04:59 - 24:25	45	45 min	05:23 - 24:25	44	45 min	05:23 - 24:25
	192: Santa Fe/South	69	30 min	04:10 - 23:23	47	40 min	05:10 - 22:53	47	40 min	05:10 - 22:53
	LBT Subtotal	205			129			128		
Metro	62: Downtown LA/Hawaiian Gardens	76	25/33 min	04:29 - 00:14	47	40/60 min	04:14 - 00:14	41	60 min	04:36 - 00:14
	130: Redondo Beach/Cerritos	53	40 min	04:45 - 21:58	30	60 min	06:15 - 22:27	30	60 min	06:19 - 22:26
	577: Long Beach/El Monte	46	45 min	04:24 - 23:10	--	--	--	--	--	--
	Metro Subtotal	175			77			71		
OCTA	30: Long Beach/San Clemente	47	45 min	04:13 - 23:25	28	60 min	06:20 - 20:59	28	60 min	06:20 - 20:59
	701: Huntington Beach/LA Express	6	25 min	05:30 - 08:06 16:13 - 18:39	--	--	--	--	--	--
	OCTA Subtotal	53			28			28		
	Regional Total	433			234			227		

- Served by 3 Long Beach transit lines, 2 Metro local lines, 1 Metro express line, 1 OCTA local lines, 1 OCTA express line
- No lines operate at 15 minutes peak frequency or better
- Total bus trips of LBT, Metro, and OCTA are 433 on weekdays and 234/227 on weekends
- Medium rankings from overall project screening analysis: Neighboring Land Use / Activity, Proximity To Transit Activity & Transfers

Long Beach Transit Center

51

VA Hospital/CSULB – Existing Service Summary

	Route	Weekday Daily Bus Trips	Weekday Headway Peak/Base	Weekday Hours of Operation	Saturday Daily Bus Trips	Saturday Headway Peak/Base	Saturday Hours of Operation	Sunday Daily Bus Trips	Sunday Headway Peak/Base	Sunday Hours of Operation
Long Beach Transit	81: 10th Street	31	50 min	06:15 - 19:08	--	--	--	--	--	--
	91: 7th/Bellflower	36	60 min	05:00 - 21:10	38	40 min	05:30 - 20:55	39	40 min	05:30 - 20:25
	92: 7th/Woodruff	43	20/60 min	05:20 - 22:10	--	--	--	--	--	--
	93: 7th/Clark	71	15/30 min	05:15 - 23:25	--	--	--	--	--	--
	94: 7th/Los Altos	48	30 min	04:10 - 01:12	79	15/30 min	05:00 - 01:25	60	30/40 min	05:00 - 01:05
	96: ZAP 7th Street	39	6/8 min	06:32 - 17:15	--	--	--	--	--	--
	121: Ocean/CSULB/Outer Circle	105	20 min	04:50 - 01:14	90	20 min	05:02 - 01:12	80	25 min	05:02 - 01:12
	171: Pacific Coast Hwy.	115	12/20 min	04:30 - 00:04	33	45 min	07:00 - 20:06	33	45 min	07:08 - 20:06
	LBT Subtotal	488			240			212		
Metro	577: VA Hospital/El Monte	46	45 min	04:24 - 23:32	--	--	--	--	--	--
	Metro Subtotal	46								
OCTA	1: Long Beach/San Clemente	63	30 min	04:32 - 23:06	30	60 min	05:25 - 21:31	30	60 min	05:25 - 21:31
	50: Long Beach/Orange	67	25/40 min	04:00 - 01:39	46	50 min	04:00 - 01:43	46	50 min	04:00 - 01:43
	60: Long Beach/Tustin	175	10 min	03:59 - 01:37	111	15 min	04:00 - 01:36	106	15 min	04:00 - 01:36
	OCTA Subtotal	305			187			182		
	Regional Total	839			427			394		

- Served by 8 Long Beach transit lines, 1 Metro express line, three OCTA lines.
- Four lines operate at 15 minutes peak frequency or better (LBT 93, LBT96, LBT 171, OCTA 60)
- Total bus trips of LBT, Metro, and OCTA are 839 on weekdays and 427/394 on weekends
- High rankings from overall project screening analysis: Neighboring Land Use / Activity, Proximity To Transit Activity & Transfers, Proximity To Regional Bike Facilities

Long Beach Transit Center

52

Next Steps

Long Beach Transit Center

53

1. Input from Stakeholders including Lakewood, Los Cerritos, VA Hospital and Cal State University Long Beach.
2. Final evaluation of best fit for existing transit service lines and frequencies.
3. Detailed access evaluation and effort with LBT to determine any transit schedule impacts.
4. Select a Final Preferred Site – (Present findings at the next community meeting).
5. Complete Final Report.

Selection Process

54

Questions?

Long Beach Transit Center

55

Next Community Meeting – August 27th

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Long Beach Transit Center

56

Meeting Purpose

- Present process used to identify and evaluate potential Transit Center sites
- Present recommended ranking of top sites
  - VA/CSULB
  - Cerritos
  - Lakewood
- Discuss Next Steps

2

Study Team

- Long Beach Transit
- Area transit agencies and municipalities
  - OCTA, LA Metro
  - City of Long Beach, Cerritos, Lakewood
- RNL – (Phil Klinkon)
- KOA – (Brian Marchetti)
- Kosmont – (Wil Soholt)

3

Outline

- Work to Date
- Sample Transit Centers & Amenities
- Discussion of Top Sites & Outreach
- Summary of Site Attributes
- Identification of Top Sites
- Next Steps

4

Work to Date

- Identification of site pool (13+ sites) with Team
- Evaluation and ranking of potential sites
- Identification of top three sites by Team
- Community Meeting 1
- Meetings with the VA, Cities of Long Beach, Cerritos, & Lakewood
- Conceptual site design for top three sites
- Community Meeting 2

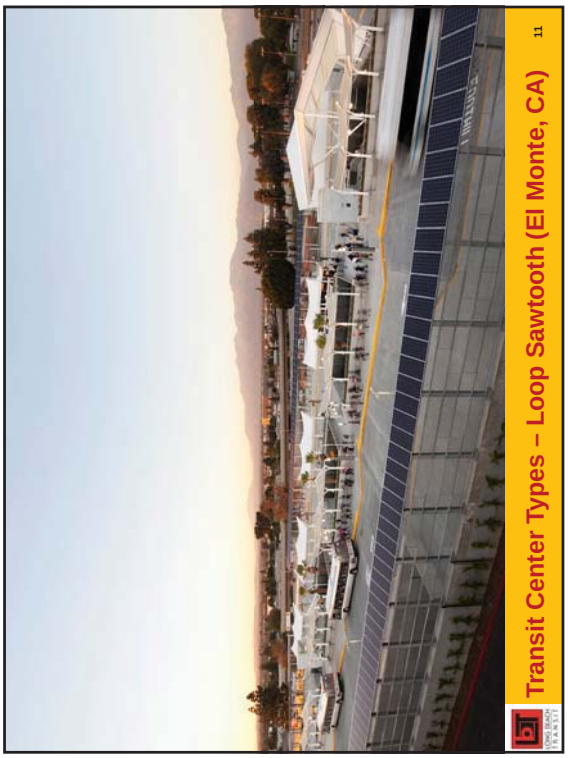
5

Transit Center Types – On Street / Inline (Tukwila, WA) 7

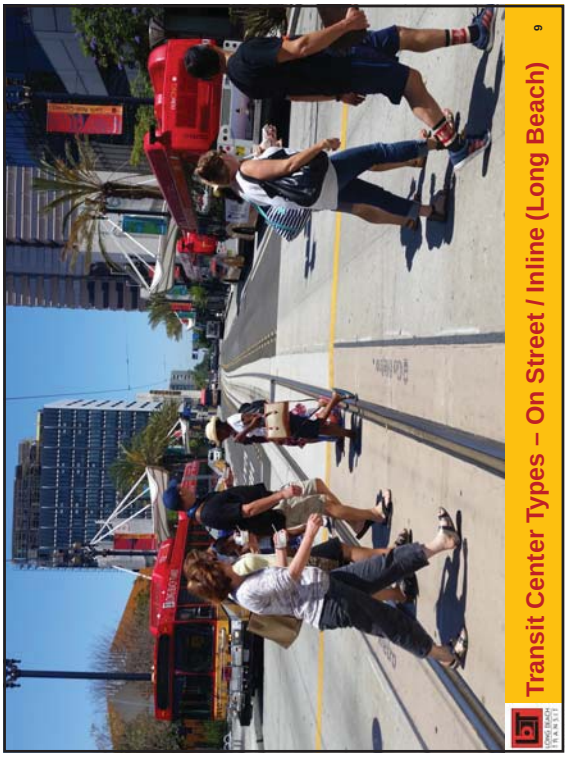
Sample
Transit Centers
&
Design Considerations

6

Transit Center Types – On Street / Inline (Tukwila, WA) 8


Transit Center Types – Loop Sawtooth (El Monte, CA)
11


Transit Center Types – Loop Sawtooth (Tempe, AZ)
12


Transit Center Types – On Street / Inline (Long Beach)
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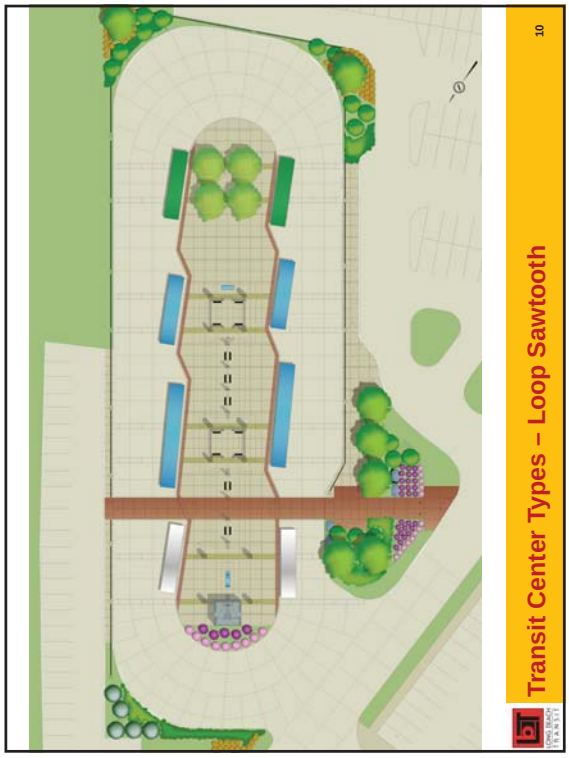
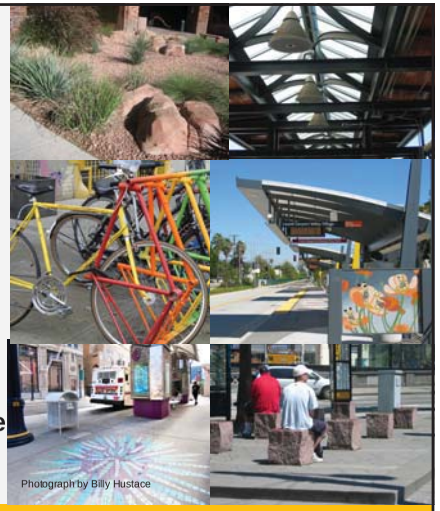

Transit Center Types – Loop Sawtooth
10

Transit Center Types – Loop Sawtooth (Everett, WA) 13

- Weather Protection
- Lighting
- Bus Schedules
- Security
- Maps/Information
- Communications
- Art
- Bike Facilities
- Trash Containers
- Low Impact Landscape
- Solar



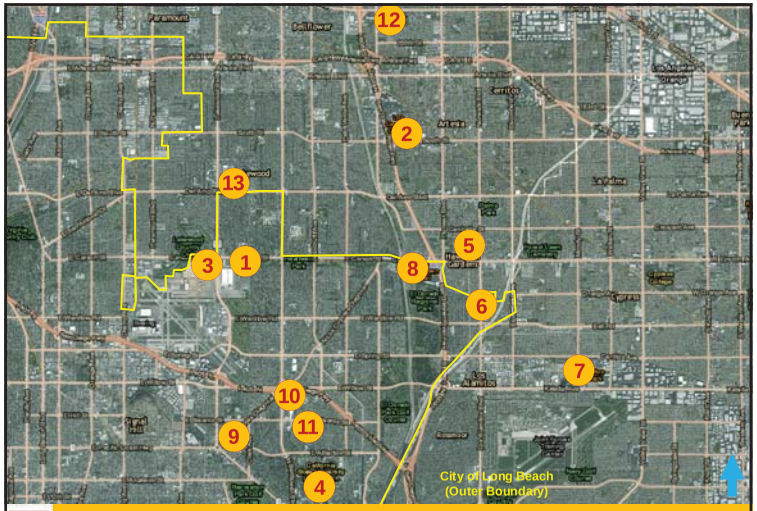
Transit Center – Design Amenities 15

- Visibility
- Ease of Use
- Accessibility
- Circulation
- Seamless Connections
- Security
- Sight-lines
- Safety
- Comfort
- Sustainable
- Maintainable

Transit Center – Design Considerations 14

Top Sites & Design Concepts

16

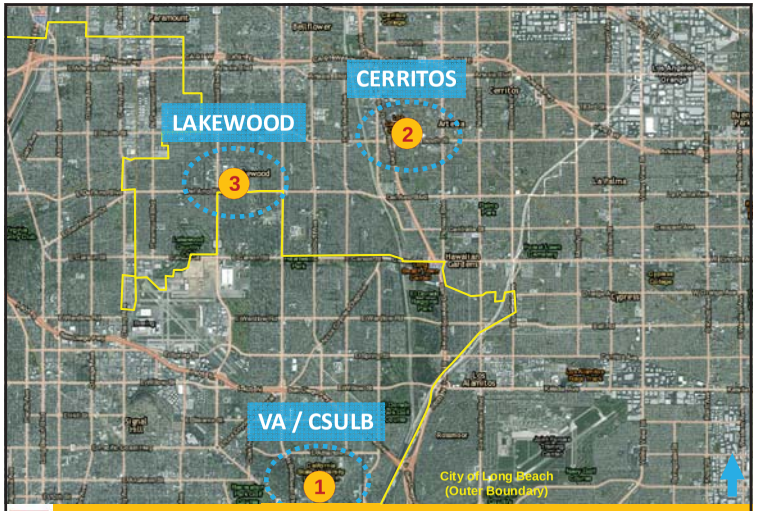


Level One Analysis - 13+ Potential Sites 17

Identification of Top Sites

- 13+ potential sites evaluated
- Narrowed to three sites based primarily on:
  - Proximity to Existing Routes
  - Ease of Access
  - Bike Facilities & Access
  - Pedestrian Access
  - Volume of Turn Movements
  - Existing Traffic Control
  - Proximity to Activity Center(s)
  - Use of Private / Institutional Roadways
  - Environmental Considerations
  - Size
  - Land Use
  - Feasibility of Acquisition & Use

18



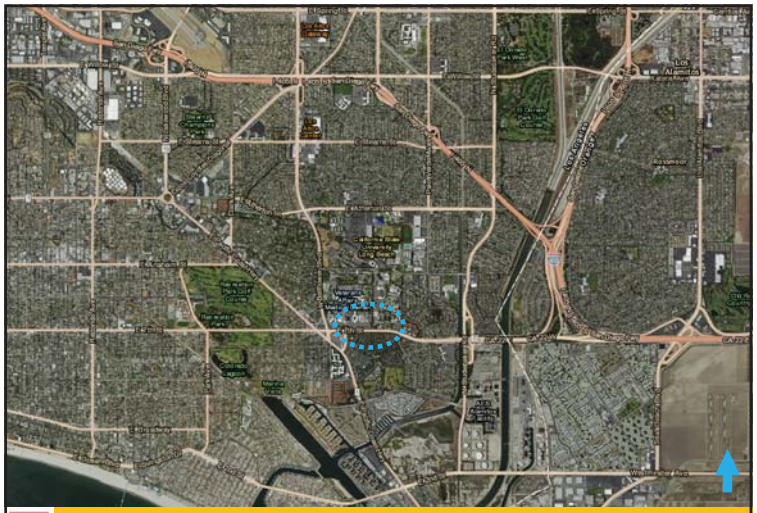
Level Two Analysis - Three Potential Sites 19

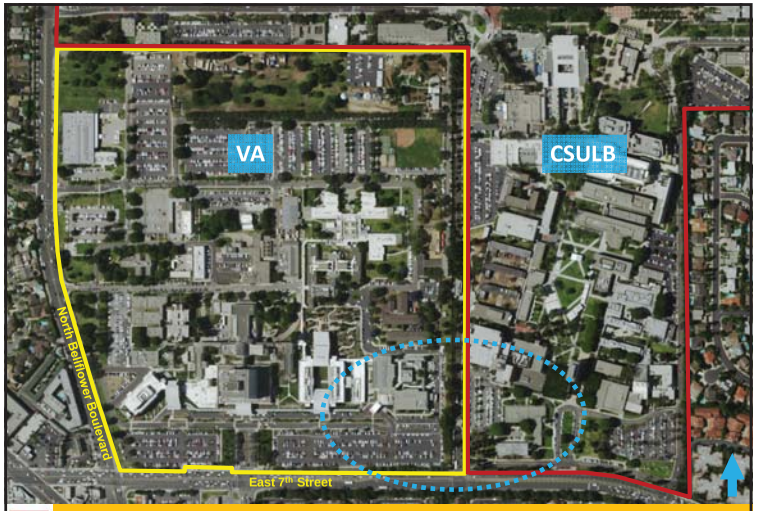
Top Sites – Ranking

1. VA/CSULB
2. Cerritos
3. Lakewood

20

1. VA / CSULB
Site Discussion





- 12 Transit lines
- 3 Agencies
- 839 Daily bus trips
- 9,117 Weekday ridership
- Near major land uses
- Near bicycle facilities
- 4 Lines at 15 min or shorter interval

VA Stakeholder Considerations

- Team had an initial meeting with VA
- VA open to potential use of site
- May be able to reconfigure parking lots to provide area for Transit Center
- New parking structure contemplated as part of Master Plan – could add to structure to replace lost parking
- Potential design needs to heavily consider:
  - Security of VA buildings
  - Separation of hospital & transit center users
  - Site access
  - Potential for mutual beneficial configurations

VA Site Discussion

Strengths:

- High existing service and ridership levels
- An off-street center can provide increased amenities, improved transfers
- An off-street center provides waiting area away from traffic
- Proximity to VA and CSULB campuses
- Seamless transfer point for highest number of lines, multiple transit agencies, and LA / OC paratransit transfers
- Potential space for electric bus charging stations

VA Site Discussion – Cont'd

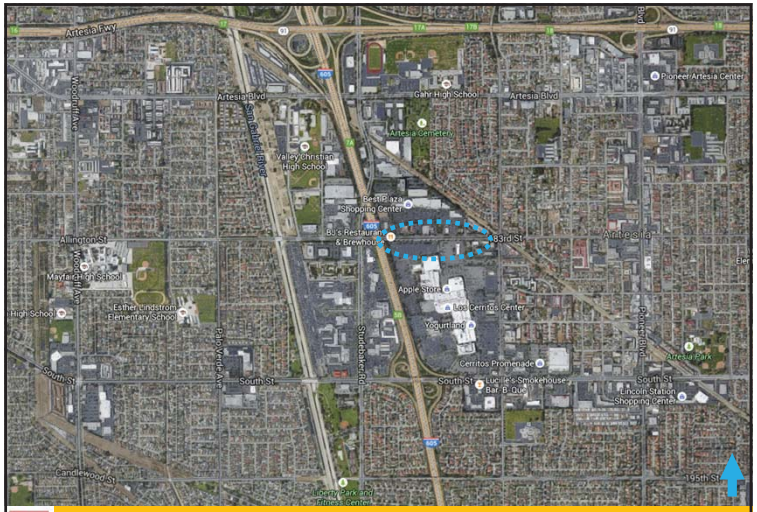
Strengths:

- Ability to improve existing LBT routes through restructuring, use of new layover capacity
- Bus layover integrated with transit center

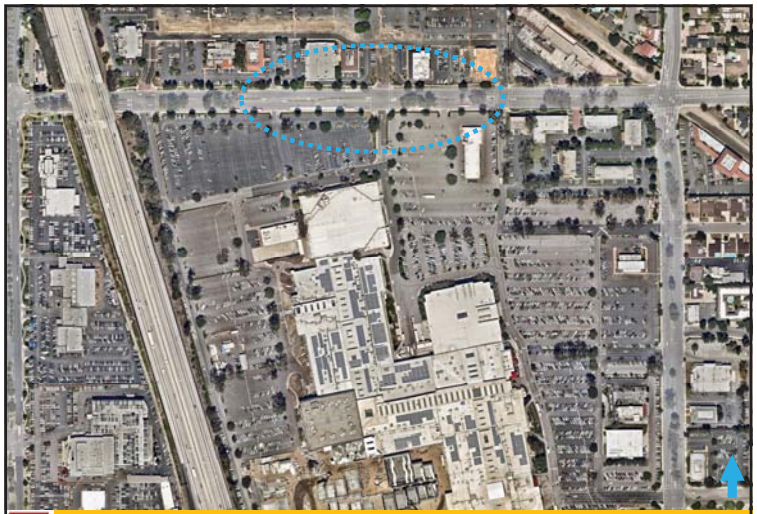
Weaknesses:

- Increased transit runtime to enter/depart center
- Intensity of existing on-site uses
- Displacement of existing parking likely requires partnering / coordination for VA parking structure

2. Cerritos Site Discussion



2. Cerritos



2. Cerritos

- 11 Transit lines
- 5 Agencies
- 433 Daily bus trips
- 1,923 Weekday ridership
- Near major land uses

2. Cerritos – Existing Service

Cerritos Stakeholder Considerations

- City of Cerritos has attended project TAC meetings
- City has been attempting to provide transit improvements at multiple potential sites
- City plans to use Metro Call for Projects funding for shelter/seating improvements on 183rd Street
- Some commercial centers in area are redeveloping

2. Cerritos

Cerritos Site Discussion

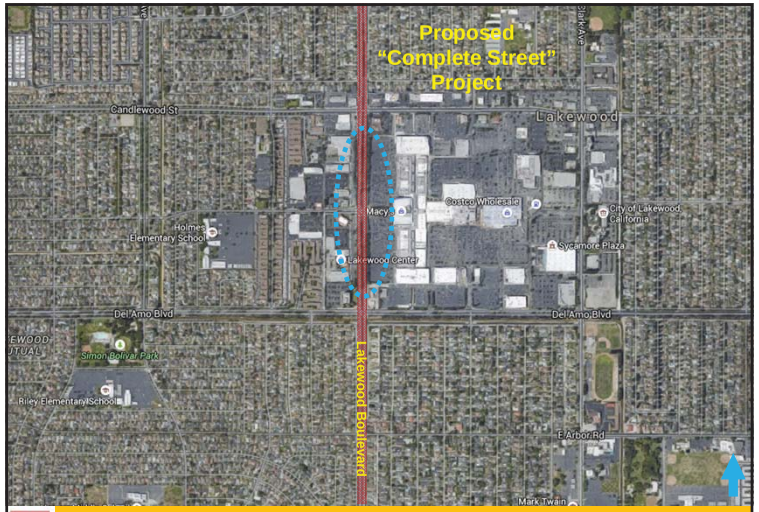
Strengths:

- Adjacent to regional mall, other commercial areas
- Possible integration into planned bus stop improvements
- Site would integrate services from five regional and local transit agencies

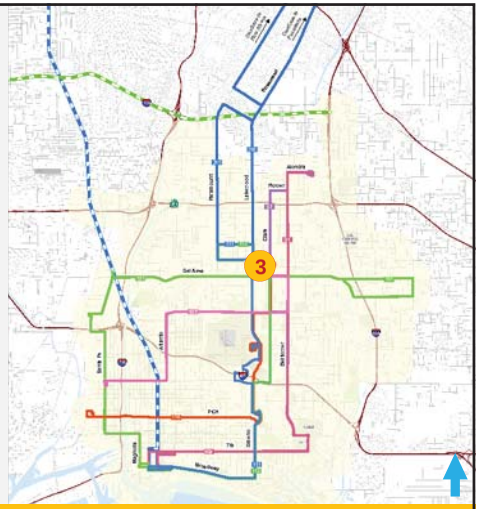
Weaknesses:

- On-street center requires longer walk for some transfers
- Changing line direction requires street crossing at traffic signal

3. Lakewood
Site Discussion



- 9 Transit lines
- 2 Agencies
- 445 Daily bus trips
- 2,818 Weekday ridership
- Near major land uses
- Near bicycle facilities



Lakewood Site Discussion

Strengths:

- Adjacent to regional mall, other commercial areas
- Possible integration into Complete Street project

Weaknesses:

- On-street center requires longer walk for some transfers
- Changing line direction requires street crossing at traffic signal

Lakewood Stakeholder Considerations

- LBT will be meeting with City of Lakewood
- City has been finalizing a Complete Streets Plan (potentially providing improved pedestrians, transit, and bicycle amenities/facilities) on Lakewood Boulevard
- LBT concept could be integrated with Complete Streets plan, to complement improvements and avoid conflicts

Summary of Site Attributes

Service & Access Summary

Site	Transit Lines	Agencies	Daily Weekday Bus Trips	Weekday Ridership	Near Major Land Use	Near Bicycle Facilities
VA / CSULB	12	3	839	9,117	Yes	Yes
CERRITOS	11	5	433	1,923	Yes	No
LAKEWOOD	9	2	445	2,818	Yes	Yes

41

Land Use Summary

Site	Ownership	Center Type	Service Bays	Increase in Trip Time	Potential Level of Amenities
VA / CSULB	Federal	Off-Street / Sawtooth	8	Yes	High
CERRITOS	City ROW	On-Street / Inline	7	No	Limited
LAKEWOOD	City ROW	On-Street / In-line	8	No	Limited

42

Recommended Site Rankings

Site	Site Location	Transit Center Type	Service Bays	Layover Spaces	Transit Service Intensity	Amenities
VA / CSULB	Low	High	High	High	High	High
CERRITOS	High	Mid	Mid	Mid	Mid	Low
LAKEWOOD	High	Mid	High	Low	Low	Low

43

Next Steps

- **Ongoing discussions with site owners and cities**
- **Completion of Final Report – October 2015**

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44


Thank You!
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LONG BEACH TRANSIT
2520
East Regional Transit Center Feasibility Study
45

Web Survey: Questionnaire and Results

Long Beach Transit East Regional Transit Center Feasibility Study

Questionnaire for Transit Center Design Concept

1	Please rank the following amenities of a potential Transit Center on a scale of one (1) to five (5):							
1	VERY UNIMPORTANT	2	NOT IMPORTANT	3	NO OPINION	4	IMPORTANT	5	VERY IMPORTANT

Shade	**1 2 3 4 5**	Electronic display showing when the next bus will arrive	**1 2 3 4 5**
Wind protection	**1 2 3 4 5**	Vending machines for bus tickets	**1 2 3 4 5**
Rain protection	**1 2 3 4 5**	Vending machines for soda and snacks	**1 2 3 4 5**
A bench/seating	**1 2 3 4 5**	A garbage can	**1 2 3 4 5**
Bus schedules	**1 2 3 4 5**	Lighting at night	**1 2 3 4 5**
Route map	**1 2 3 4 5**	An emergency call button	**1 2 3 4 5**
System map	**1 2 3 4 5**	A public payphone	**1 2 3 4 5**
General bus info. (fares and customer service numbers)	**1 2 3 4 5**	Bicycle racks	**1 2 3 4 5**
Neighborhood info.	**1 2 3 4 5**	Bicycle lockers	**1 2 3 4 5**

2	Of all the improvements listed above, which is the most important to you?	
3	Which is the second most important?	
4	Which is the third most important?	

5	Which transit agency do you usually ride with?	
	Long Beach Transit	If yes, how often? A. Every day F. Several times a year B. Several times a week G. Rarely C. Once a week H. Today is my first time D. Several times a month I. I'm just visiting E. Once a month

Long Beach Transit East Regional Transit Center Feasibility Study

Questionnaire for Transit Center Design Concept

	LA METRO	If yes, how often? A. Every day F. Several times a year B. Several times a week G. Rarely C. Once a week H. Today is my first time D. Several times a month I. I'm just visiting E. Once a month
	OCTA	If yes, how often? A. Every day F. Several times a year B. Several times a week G. Rarely C. Once a week H. Today is my first time D. Several times a month I. I'm just visiting E. Once a month
	Norwalk Transit	If yes, how often? A. Every day F. Several times a year B. Several times a week G. Rarely C. Once a week H. Today is my first time D. Several times a month I. I'm just visiting E. Once a month
	Other, please specify: _____	If yes, how often? A. Every day F. Several times a year B. Several times a week G. Rarely C. Once a week H. Today is my first time D. Several times a month I. I'm just visiting E. Once a month

Long Beach Transit East Regional Transit Center Feasibility Study

Questionnaire for Transit Center Design Concept

6	How do you usually access transit?	
	A. Walk/Wheelchair	
	B. Dropped off	
	C. Parked nearby	
	D. Bicycle	Do you store bicycle at shelter? Y N
		Is the storage adequate? Y N
	E. Other, please specify:	

7	Is there a car available for your use if not riding the bus?	Yes No

8	What is your age?	
	A. Under 19	B. 19 - 30
	C. 31 - 40	D. 41 - 50
	E. 51 - 64	F. 65 or over

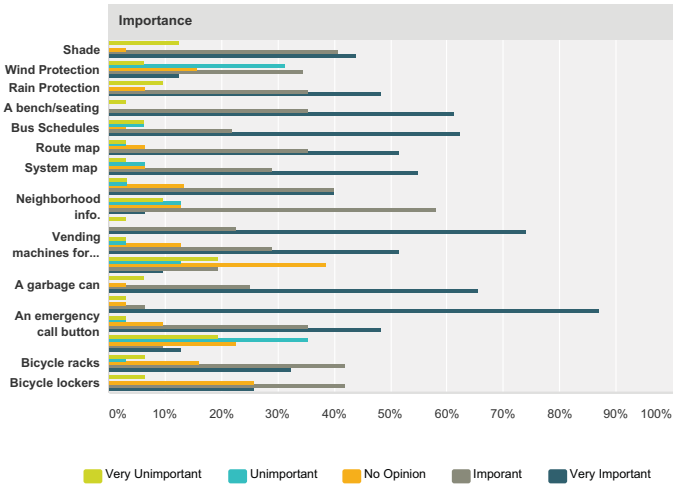
9	What is your home ZIP code?	
10	Where is the closest major street intersection near your home?	_____ & _____ (Street A) (street B)

11	What is your annual household income before taxes?	
	A. Less than $10,000	B. Between $10,000 and $19,999
	C. Between $20,000 and $29,999	D. Between $30,000 and $39,999
	E. Between $40,000 and $49,999	F. Between $50,000 and $59,999
	G. Between $60,000 and $69,999	H. More than $70,000

SurveyMonkey

Q1 1. Please rank the following amenities of a potential Transit Center.

Answered: 34 Skipped: 0



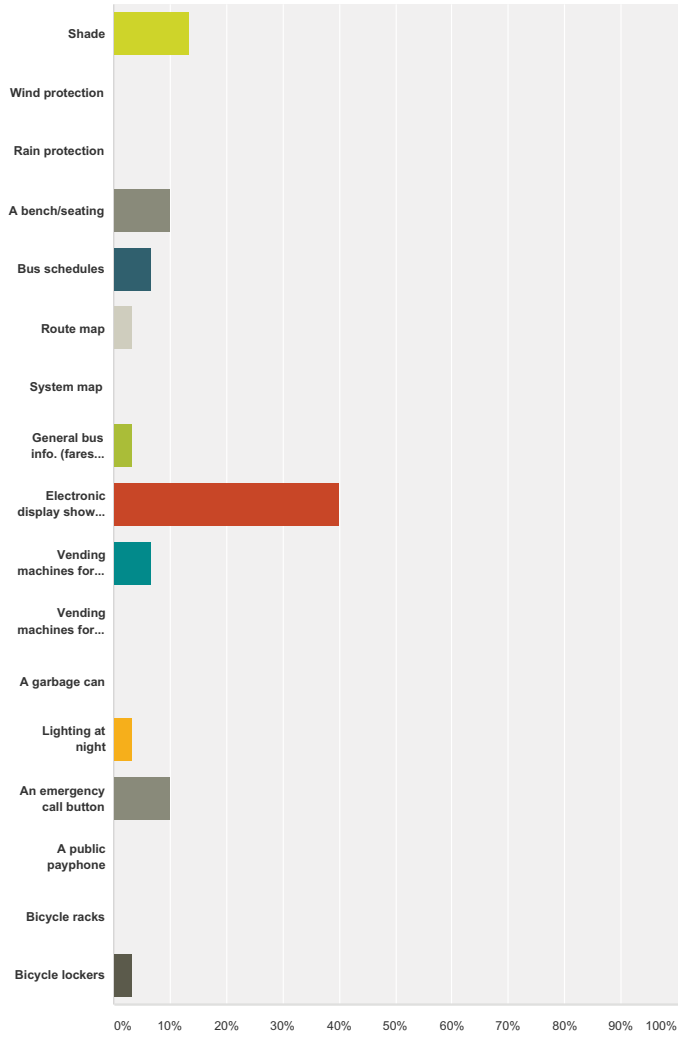
Importance						
	Very Unimportant	Unimportant	No Opinion	Imporant	Very Important	Total
Shade	12.50% 4	0.00% 0	3.13% 1	40.63% 13	43.75% 14	32
Wind Protection	6.25% 2	31.25% 10	15.63% 5	34.38% 11	12.50% 4	32
Rain Protection	9.68% 3	0.00% 0	6.45% 2	35.48% 11	48.39% 15	31
A bench/seating	3.23% 1	0.00% 0	0.00% 0	35.48% 11	61.29% 19	31
Bus Schedules	6.25% 2	6.25% 2	3.13% 1	21.88% 7	62.50% 20	32
Route map	3.23% 1	3.23% 1	6.45% 2	35.48% 11	51.61% 16	31
System map	3.23% 1	6.45% 2	6.45% 2	29.03% 9	54.84% 17	31
General bus info. (Fares and customers service numbers)	3.33% 1	3.33% 1	13.33% 4	40.00% 12	40.00% 12	30
Neighborhood info.	9.68% 3	12.90% 4	12.90% 4	58.06% 18	6.45% 2	31

SurveyMonkey

Vending machines for bus tickets	3.23% 1	3.23% 1	12.90% 4	29.03% 9	51.61% 16	31
Vending machines for soda and snacks	19.35% 6	12.90% 4	38.71% 12	19.35% 6	9.68% 3	31
A garbage can	6.25% 2	0.00% 0	3.13% 1	25.00% 8	65.63% 21	32
Lighting at night	3.23% 1	0.00% 0	3.23% 1	6.45% 2	87.10% 27	31
An emergency call button	3.23% 1	3.23% 1	9.68% 3	35.48% 11	48.39% 15	31
A public payphone	19.35% 6	35.48% 11	22.58% 7	9.68% 3	12.90% 4	31
Bicycle racks	6.45% 2	3.23% 1	16.13% 5	41.94% 13	32.26% 10	31
Bicycle lockers	6.45% 2	0.00% 0	25.81% 8	41.94% 13	25.81% 8	31

Q2 2. Of all the improvements listed on question #1, which is the most important to you?

Answered: 30 Skipped: 4

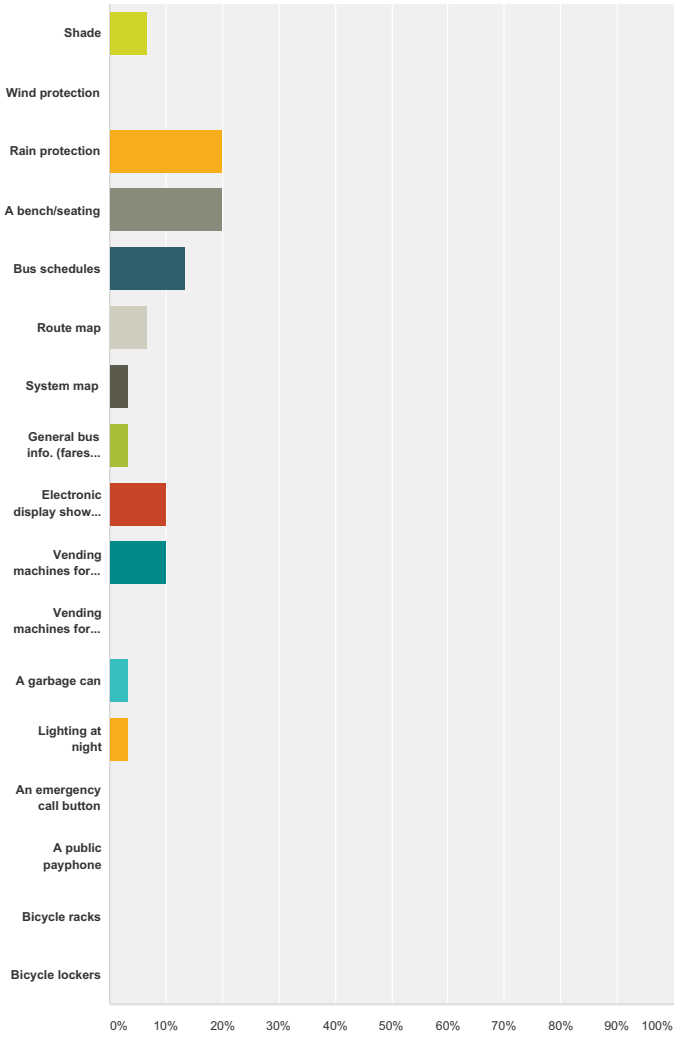


Answer Choices	Responses	
Shade	13.33%	4
Wind protection	0.00%	0
Rain protection	0.00%	0
A bench/seating	10.00%	3
Bus schedules	6.67%	2
Route map	3.33%	1
System map	0.00%	0
General bus info. (fares and customer service numbers)	3.33%	1
Electronic display showing when the next bus will arrive	40.00%	12
Vending machines for bus tickets	6.67%	2
Vending machines for soda and snacks	0.00%	0
A garbage can	0.00%	0
Lighting at night	3.33%	1
An emergency call button	10.00%	3
A public payphone	0.00%	0
Bicycle racks	0.00%	0
Bicycle lockers	3.33%	1
Total		30

SurveyMonkey

Q3 3. Which is the second most important?

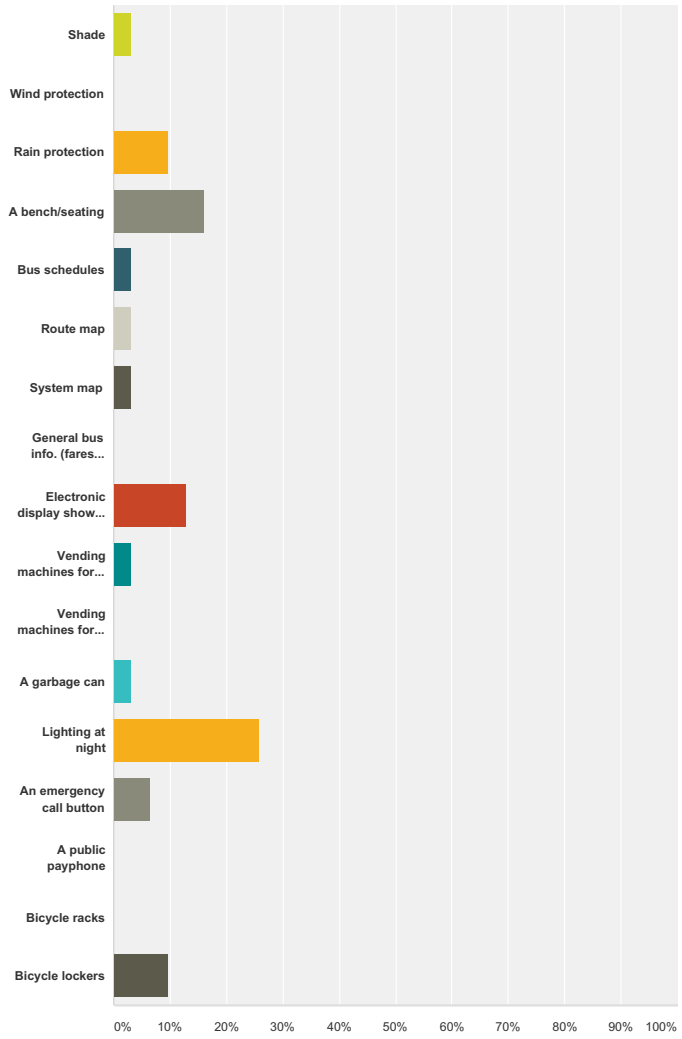
Answered: 30 Skipped: 4



Answer Choices	Responses	
Shade	6.67%	2
Wind protection	0.00%	0
Rain protection	20.00%	6
A bench/seating	20.00%	6
Bus schedules	13.33%	4
Route map	6.67%	2
System map	3.33%	1
General bus info. (fares and customer service numbers)	3.33%	1
Electronic display showing when the next bus will arrive	10.00%	3
Vending machines for bus tickets	10.00%	3
Vending machines for soda and snacks	0.00%	0
A garbage can	3.33%	1
Lighting at night	3.33%	1
An emergency call button	0.00%	0
A public payphone	0.00%	0
Bicycle racks	0.00%	0
Bicycle lockers	0.00%	0
Total		30

Q4 4. Which is the third most important?

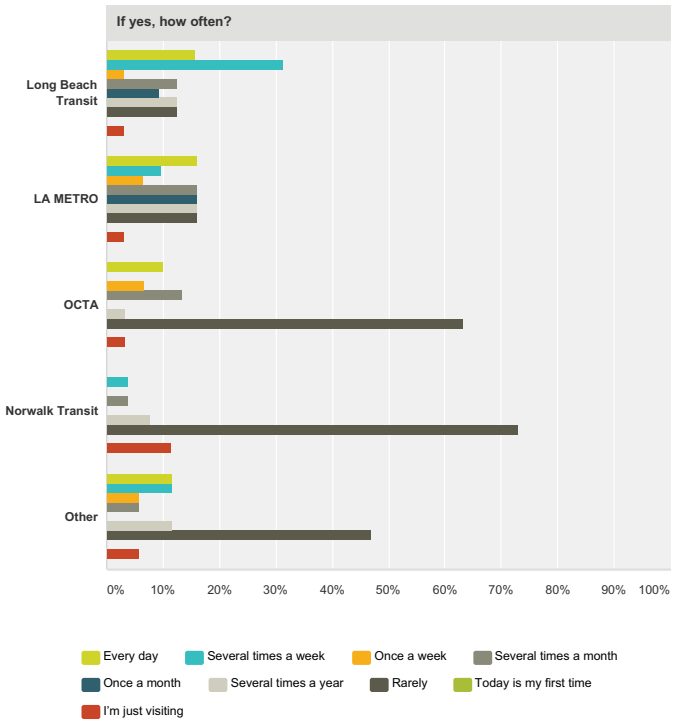
Answered: 31 Skipped: 3



Answer Choices	Responses	
Shade	3.23%	1
Wind protection	0.00%	0
Rain protection	9.68%	3
A bench/seating	16.13%	5
Bus schedules	3.23%	1
Route map	3.23%	1
System map	3.23%	1
General bus info. (fares and customer service numbers)	0.00%	0
Electronic display showing when the next bus will arrive	12.90%	4
Vending machines for bus tickets	3.23%	1
Vending machines for soda and snacks	0.00%	0
A garbage can	3.23%	1
Lighting at night	25.81%	8
An emergency call button	6.45%	2
A public payphone	0.00%	0
Bicycle racks	0.00%	0
Bicycle lockers	9.68%	3
Total		31

Q5 5. Which transit agency do you usually ride with?

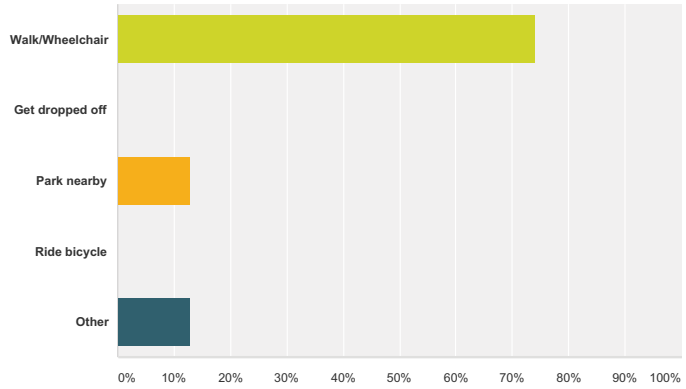
Answered: 32 Skipped: 2



If yes, how often?	Every day	Several times a week	Once a week	Several times a month	Once a month	Several times a year	Rarely	Today is my first time	I'm just visiting	Total
Long Beach Transit	**15.63%** 5	**31.25%** 10	**3.13%** 1	**12.50%** 4	**9.38%** 3	**12.50%** 4	**12.50%** 4	**0.00%** 0	**3.13%** 1	32
LA METRO	**16.13%** 5	**9.68%** 3	**6.45%** 2	**16.13%** 5	**16.13%** 5	**16.13%** 5	**16.13%** 5	**0.00%** 0	**3.23%** 1	31
OCTA	**10.00%** 3	**0.00%** 0	**6.67%** 2	**13.33%** 4	**0.00%** 0	**3.33%** 1	**63.33%** 19	**0.00%** 0	**3.33%** 1	30
Norwalk Transit	**0.00%** 0	**3.85%** 1	**0.00%** 0	**3.85%** 1	**0.00%** 0	**7.69%** 2	**73.08%** 19	**0.00%** 0	**11.54%** 3	26
Other	**11.76%** 2	**11.76%** 2	**5.88%** 1	**5.88%** 1	**0.00%** 0	**11.76%** 2	**47.06%** 8	**0.00%** 0	**5.88%** 1	17

Q6 6. How do you usually access transit?

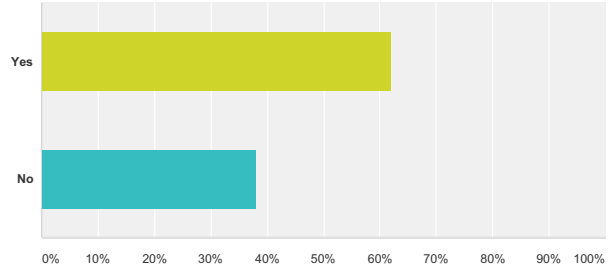
Answered: 31 Skipped: 3



Answer Choices	Responses	
Walk/Wheelchair	**74.19%**	23
Get dropped off	**0.00%**	0
Park nearby	**12.90%**	4
Ride bicycle	**0.00%**	0
Other	**12.90%**	4
Total		**31**

Q7 7. Is there a car available for your use if not riding the bus?

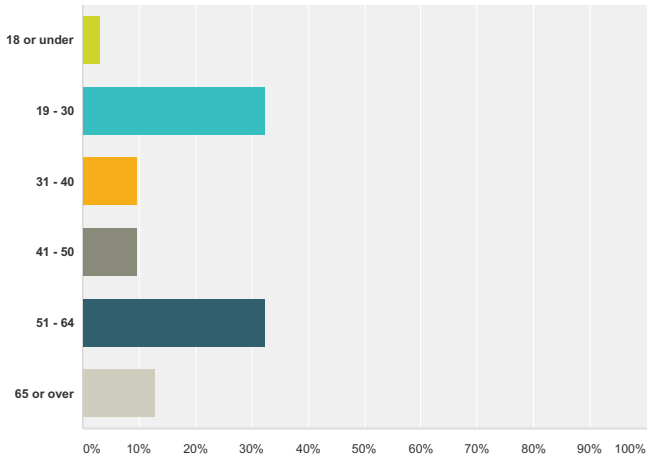
Answered: 29 Skipped: 5



Answer Choices	Responses	
Yes	**62.07%**	18
No	**37.93%**	11
Total		**29**

Q8 8. What is your age?

Answered: 31 Skipped: 3



Answer Choices	Responses	
18 or under	3.23%	1
19 - 30	32.26%	10
31 - 40	9.68%	3
41 - 50	9.68%	3
51 - 64	32.26%	10
65 or over	12.90%	4
Total		31

Q9 What is your home zip code?

Answered: 28 Skipped: 6

Q10 Where is the closest major street intersection near your home?

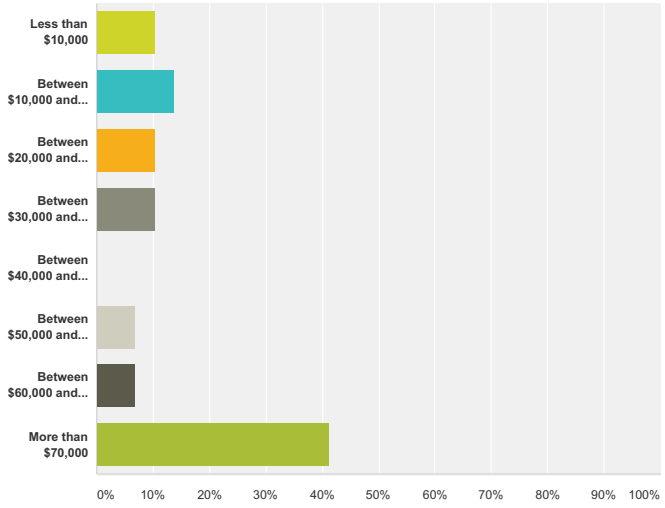
Answered: 27 Skipped: 7

Answer Choices	Responses	
Street A	100.00%	27
Street B	100.00%	27

SurveyMonkey

Q11 What is your annual household income before taxes?

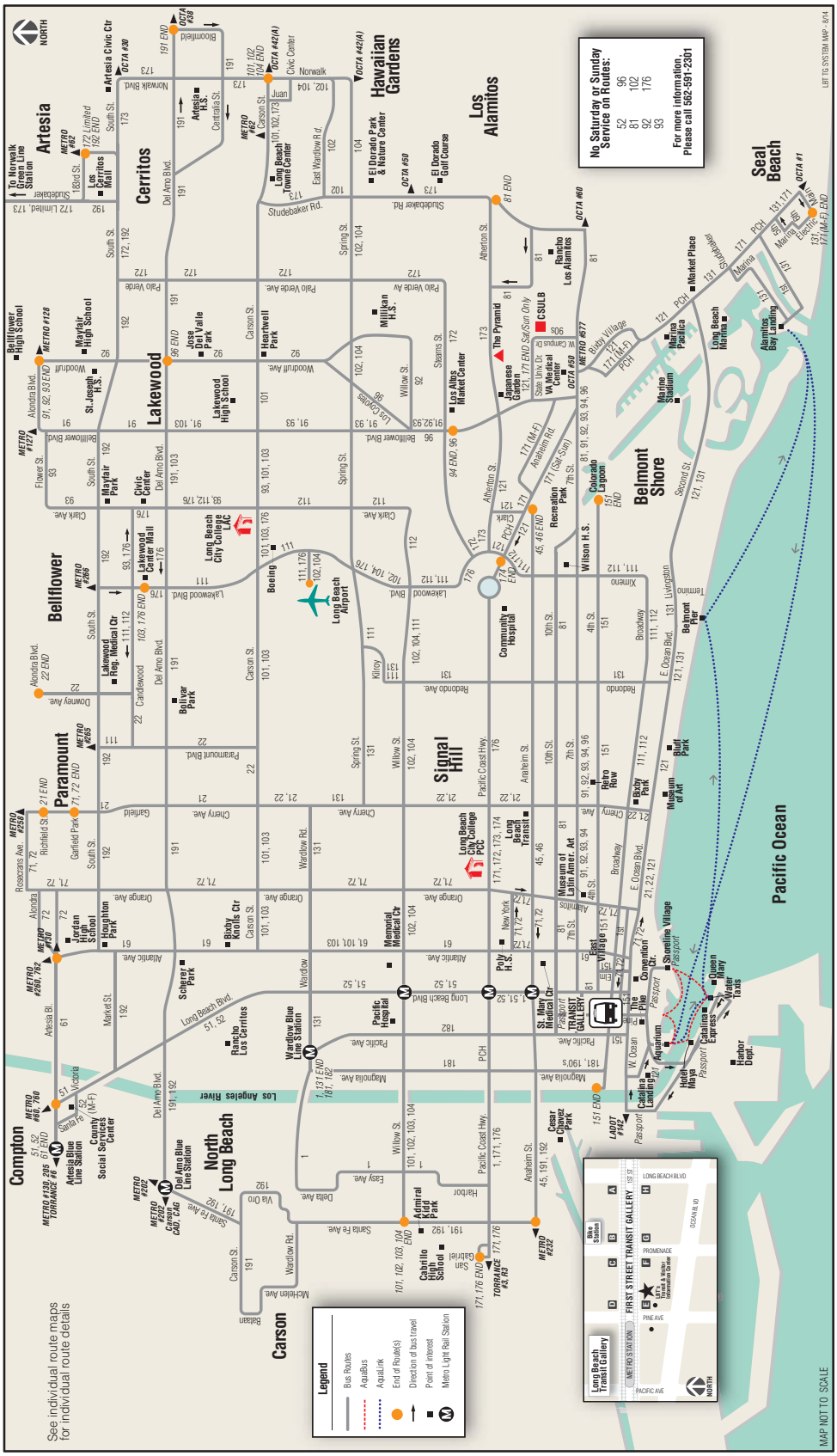
Answered: 29 Skipped: 5



Answer Choices	Responses	
Less than $10,000	10.34%	3
Between $10,000 and $19,999	13.79%	4
Between $20,000 and $29,999	10.34%	3
Between $30,000 and $39,999	10.34%	3
Between $40,000 and $49,999	0.00%	0
Between $50,000 and $59,999	6.90%	2
Between $60,000 and $69,999	6.90%	2
More than $70,000	41.38%	12
Total		29

APPENDIX B: EXISTING CONDITIONS

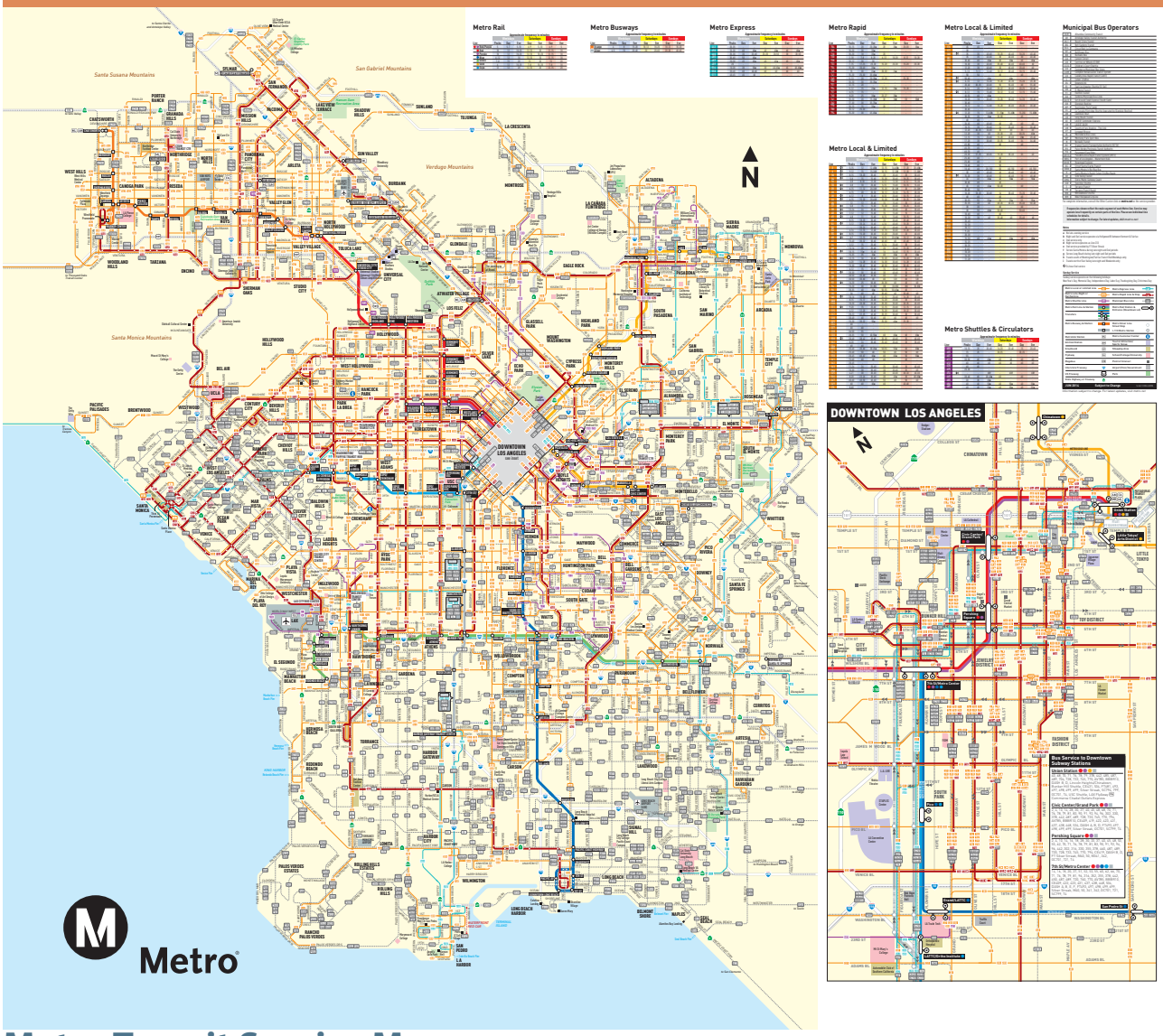
Existing Conditions Memo and Maps



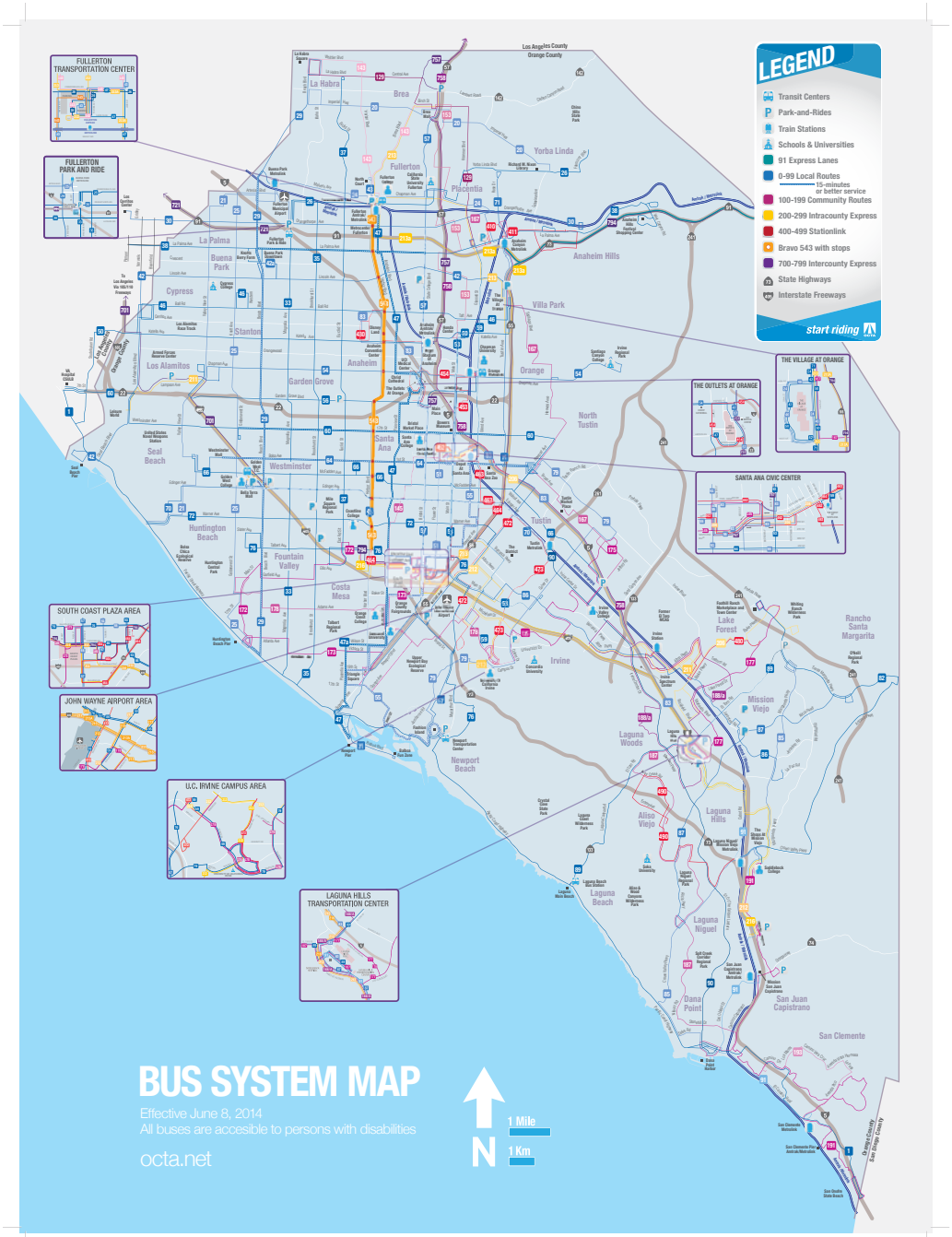
Long Beach Transit Service Map

Bus and Rail System

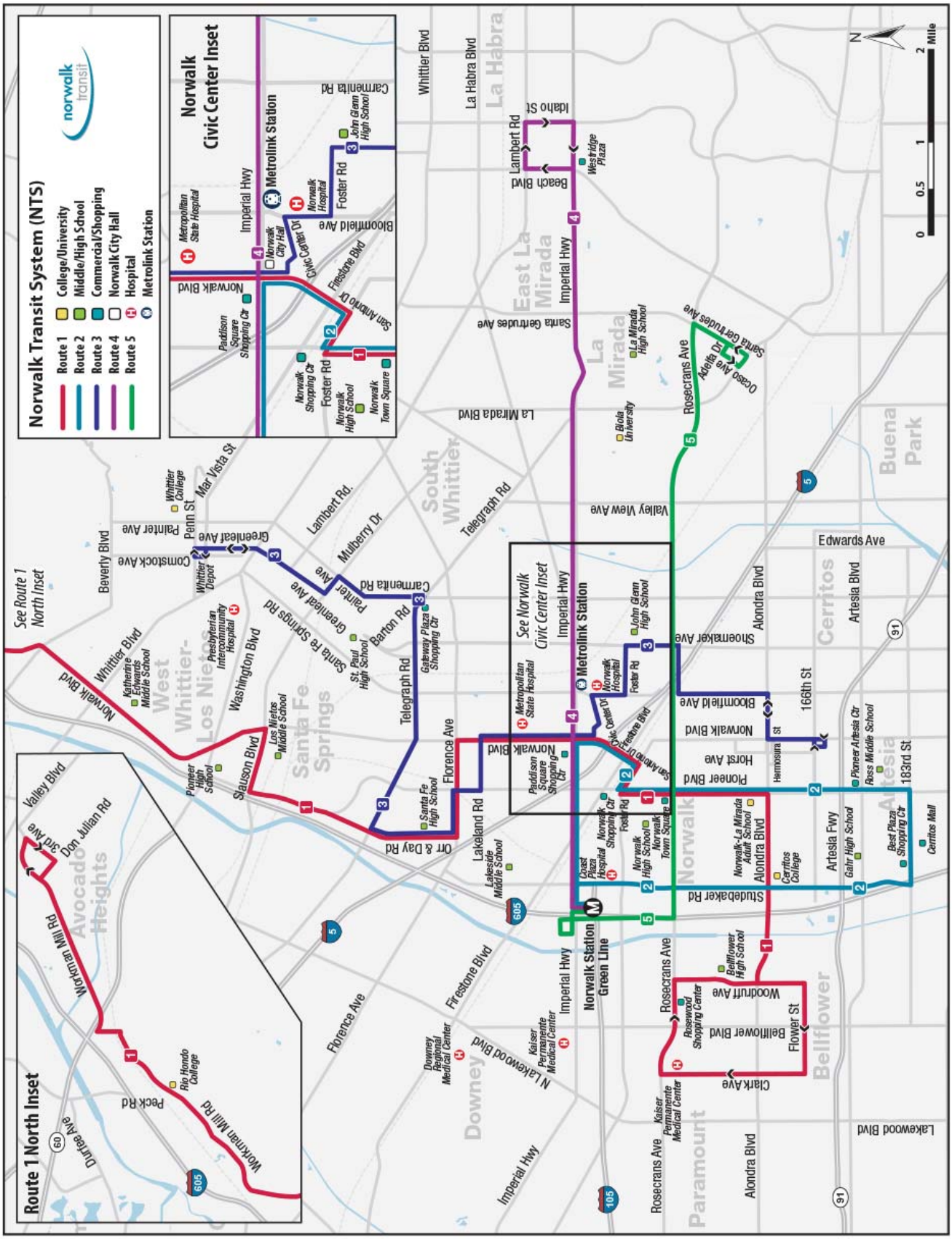
metro.net



Metro Transit Service Map



Orange County Transportation Authority (OCTA) Service Map



Norwalk Transit System (NTS) Service Map

APPENDIX C: REPORTS AND DELIVERABLES

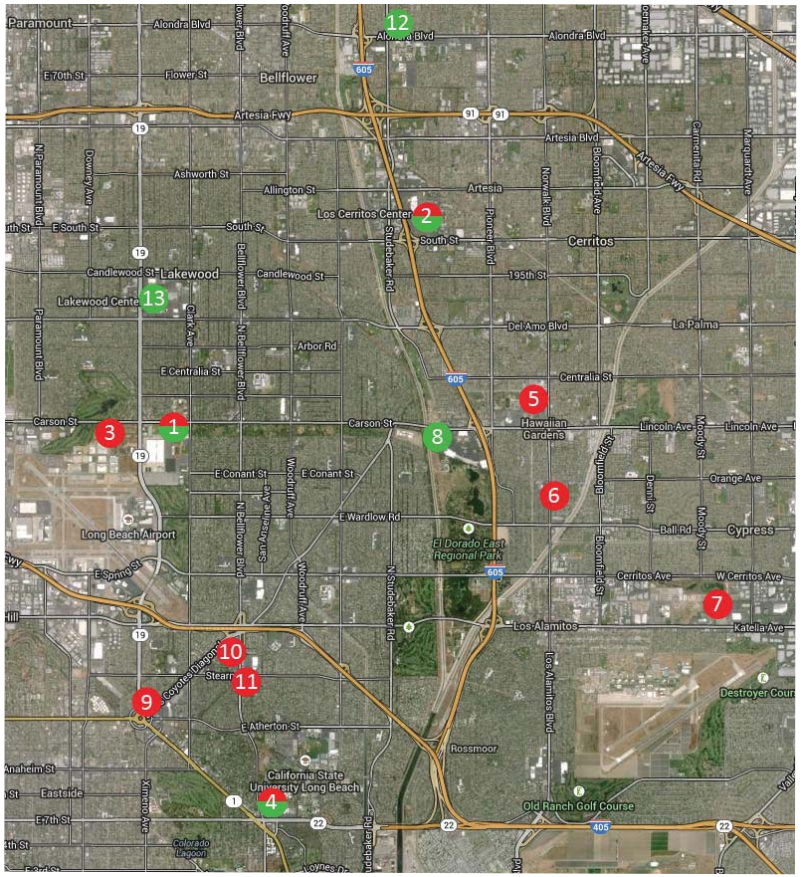
Level 1 Evaluation Report

ARCHITECT
RNL INTERPLAN, INC. ("RNL DESIGN")
333 South Grand Avenue, Suite 1480
Los Angeles, CA 90071
Telephone: 213-955-9775
Facsimile: 213-955-9885

FINANCIAL CONSULTANT
Kosmont Companies
865 S. Figueroa St., Suite 3500
Los Angeles, CA 90017
Telephone: 310-640-8063
Facsimile: 310-740-5681

PUBLIC OUTREACH
MBI Media
957 S. Village Oaks Drive, Suite 100
Covina, CA 91724
Telephone: 626-967-1510
Facsimile: 626-967-1718

TRANSPORTATION PLANNING
KOA Corporation
1100 Corporate Center Drive, Suite 201
Monterey Park, CA 91754
Telephone: 323-260-4703
Facsimile: 323-260-4705



MAP OF POTENTIAL SITES
(SOURCE: GOOGLE MAPS)

LIST OF SITES

1. Long Beach City College
2. Los Cerritos Center
3. Douglas Park Associates LLC
4. VA Medical Center
5. Carson St and Norwalk Blvd - Hawaiian Gardens Casino
6. Coyote Creek
7. Los Alamitos Race Course
8. Walmart (at Long Beach Town Center)
9. Hooman Toyota
10. N Bellflower Blvd and Stearns St
11. Los Altos Market Center
12. Cerritos College
13. Lakewood Center

SUMMARY OF LEVEL 1 CRITERIA

The following pages illustrate the research for mulitple sites considered for the East Regional Transit Center.

Site were assessed with a PASS or FAIL

Sites in RED were assessed a FAIL and not considered for further evaluation in LEVEL 2.

Some sites have multiple parcels under consideration may have both a PASS and FAIL.

To help focus the efforts on the better suited parcels, the site with better potential will be evaluated further in LEVEL 2.

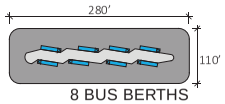
GOOGLE MAP OF SURROUNDING CONTEXT

0' 125' 250' 500' 1000'

CONTEXTUAL MAP

LAND USE
Research of the local City Zoning Code illustrates allowable uses for all areas.

SIZE
A scale plan diagram of an eight-bus terminal with the dimensions of 280 ft by 110 ft helps to illustrate whether the potential site can accommodate the generic terminal.



8 BUS BERTHS

GOOGLE MAP OF IMMEDIATE CONTEXT

0' 40' 80' 160' 320'

SITE MAP

SITE NAME
NEAREST INTERSECTION

LOCATION/ACCESS
Identifies location on Parcel Maps
This has multiple subcategories that will be graded as Very Good, Good, OK or Poor. These subcategories are: Proximity to Routes, Ease of Access, Pedestrian Access, Bike Facilities/Access, High volume turn movements/congestion, Traffic Control, Activity Center, Use of Private/Institutional Roadways

ENVIRONMENTAL CONSIDERATION
The impact examined is the effect on existing structures. Empty lots will have the least impact while having to demolish structures will have the most impact.
Is the site located in a Flood Zone or Liquefaction Potential Area?

FEASIBILITY OF ACQUISITION / USE
Initial investigation of site property ownership and possible challenges in their acquisition.

GOOGLE STREET VIEW PERSPECTIVE

PERSPECTIVE 1

GOOGLE STREET VIEW PERSPECTIVE

PERSPECTIVE 2

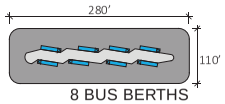
CONTEXTUAL MAP

SITE MAP

LAND USE

City of Long Beach Zoning - I - Institutional
"The principal permitted uses of the institutional district shall be those of a public or institutional nature."

SIZE



8 BUS BERTHS

SITE 1A: LONG BEACH CITY COLLEGE

CARSON ST AND CLARK AVE

LOCATION/ACCESS

Portion of APN 7182-026-904

Proximity to Routes – Across street from main LBCCD campus, Adjacent to four LBT routes on Carson Street – 101, 103, 111, 176 and two routes 93, 112, and also 176 on Clark Avenue. (Very Good)

Ease of Access – Access points close to major intersection, not likely full access due to conflicts with intersection turn pockets, intersection spacing. (Poor)

Pedestrian Access – Nearby bus stops consolidation due to transit center routing will make pedestrian trips longer to/from LBCCD campus, but pedestrian access to nearby major roadways can be accommodated. (Good)

Bike Facilities/Access – Bicycle lanes do not exist, on either Carson Street or Clark Avenue. (Poor)

High volume turn movements/congestion – High turn movement volumes at northbound approach to adjacent intersection, due to traffic flow to/from main campus parking lots to south. Carson Street general traffic activity is high. (Poor)

Traffic Control – Nearby traffic signals, outside of adjacent intersection signal, are far from site. Access would need to be right-in/right-out only on either frontage. (Poor)

Activity center – Adjacent to college campus, but across major street from primary buildings. Potential to be located on external portion of campus and potentially complimentary to existing uses. (Good)

Use of Private/Institutional Roadways – Buses would travel on campus parking lot surface which would need upgrade. (Poor)

ENVIRONMENTAL CONSIDERATION

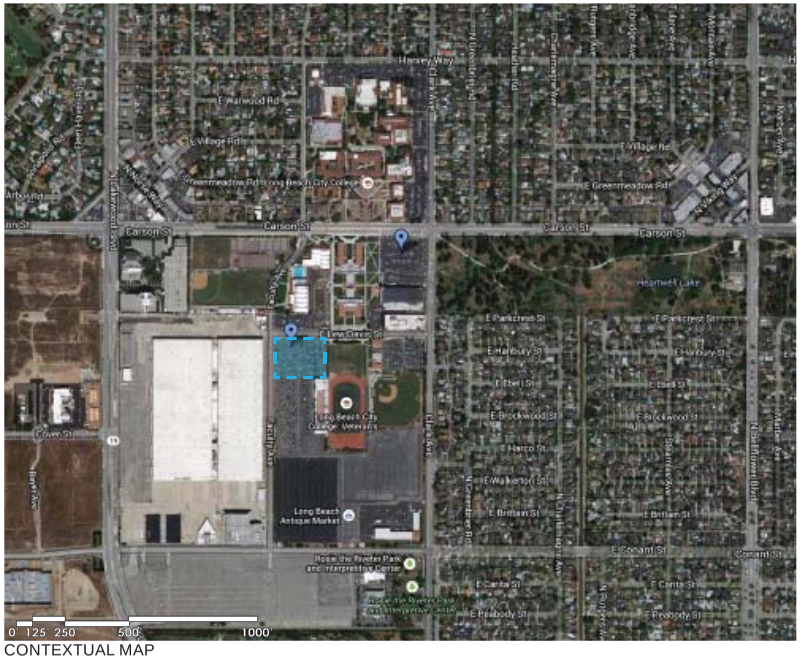
If re-developing one of the parking lots, it will require little demolition and have minimal impact. No apparent structures at this intersection would be impacted.
Flood Zone - 0.2% Annual Chance of Flood Hazard
Liquefaction Potential- No

FEASIBILITY OF ACQUISITION / USE

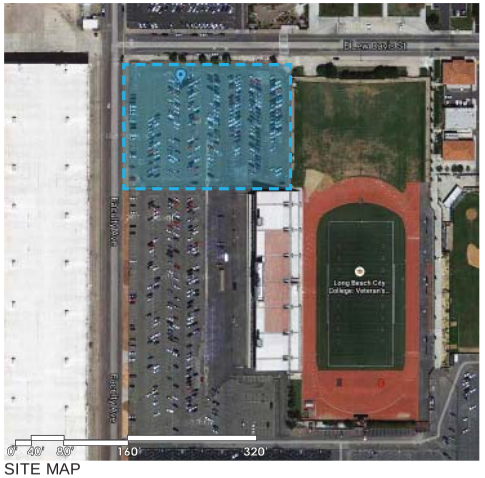
Potential to enter into joint use agreement, long term lease, or other agreement. Under a worst case scenario replacement structured parking could be developed to replace lost parking capacity.

NORTHWEST CORNER

SOUTHEAST CORNER



CONTEXTUAL MAP



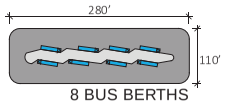
SITE MAP

LAND USE

City of Long Beach Zoning - I - Institutional

"The principal permitted uses of the institutional district shall be those of a public or institutional nature."

SIZE



8 BUS BERTHS

SITE 1B: LONG BEACH CITY COLLEGE

LEW DAVIS ST AND FACULTY AVE

LOCATION/ACCESS

Portion of APN 7182-027-904

Proximity to Routes – Location within far south-end of campus, near parking lots, reroute deviations required via Lew Davis Street traffic signal and campus parking lot traffic. (Poor)

Ease of Access – Access provided by traffic signal on east (Lew Davis/Clark intersection), but not north roadway to/from Carson Street; Campus traffic delays, pedestrian crossings to/from parking lots will cause delays. (Poor)

Pedestrian Access – At south end of campus. Pedestrian connections to campus are long, pedestrian connections to nearby major roadways are long. (Poor)

Bike Facilities/Access – None on campus or nearby roadways. (Poor)

High volume turn movements/congestion – Campus congestion, buses will be routed via main vehicle access point to the campus parking lots or would require circuitous routing to/from south. (Poor)

Existing Traffic Control – Existing traffic signal at Lew Davis/Clark intersection will provide access to site and nearby arterials, but buses will need to pass through two traffic signals to travel to/from Carson Street routes. (Good)

Activity Center Proximity – Far from campus and major land uses on nearby roadway corridors. Potentially complimentary to existing uses. (Poor)

Use of Private/Institutional Roadways – Buses would travel on Lew Davis Street within campus but also on campus parking lot surface which would need upgrade. (Poor)

FAIL

ENVIRONMENTAL CONSIDERATION

If re-developing one of the parking lots, it will require little demolition and have minimal impact. No apparent structures at this intersection would be impacted.

Flood Zone - 0.2% Annual Chance of Flood Hazard

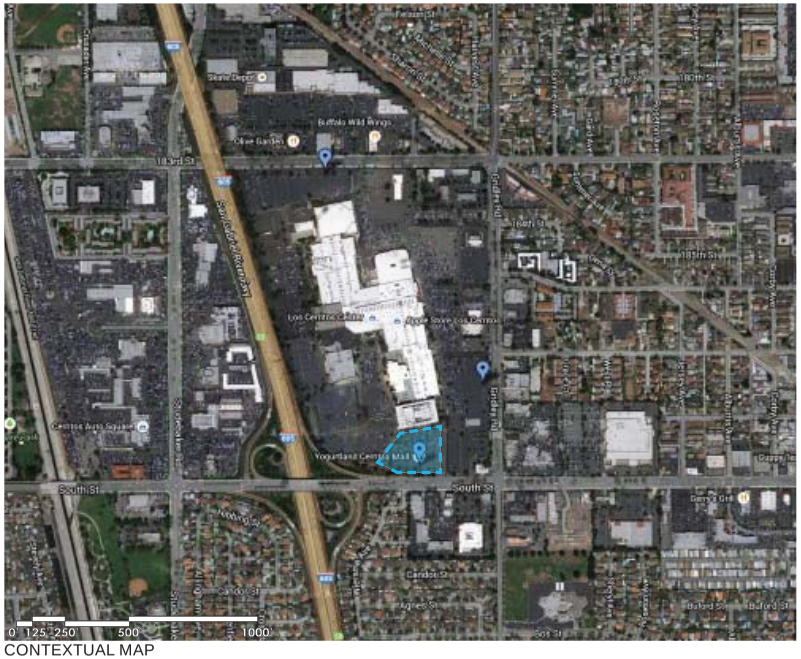
Liquefaction Potential - No

FEASIBILITY OF ACQUISITION / USE

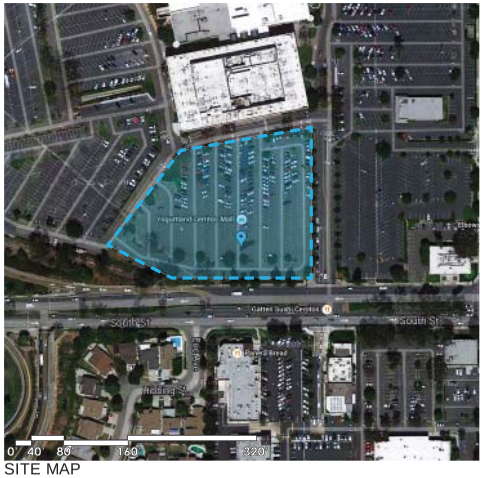
Potential to enter into joint use agreement, long term lease, or other agreement. Under a worst case scenario replacement structured parking could be developed to replace lost parking capacity.

NORTHEAST CORNER

SOUTHWEST CORNER



CONTEXTUAL MAP



SITE MAP

SITE 2A: LOS CERRITOS CENTER

SOUTH ST LOT

LOCATION/ACCESS

Portion of APN 7038-014-018
Proximity to Routes – Intersection of two or more LBT routes, half of routes need to deviate. (Good)
Ease of Access – Traffic signals exist nearby, but buses will require routing through new on-site drive aisles. (Good)
Pedestrian Access – Access to/from South Street could be convenient if center is close to road. (Very Good)
Bike Facilities/Access – None on either nearby roadway. (Poor)
High volume turn movements/congestion – Private mall roadways, localized congestion, parking lot activity. Access point to nearby entrance roadway will need to be deep into site to avoid conflicts with inbound buses/vehicles and outbound buses with traffic queues. (Poor)
Existing Traffic Control – Existing mall roadway traffic signal could be used for access to/from South Street. (Very Good)
Activity Center Proximity – Adjacent to regional commercial center. (Very Good)
Use of Private/Institutional Roadways – Buses would travel on mall entrance roadway and on parking lot surface, both would likely need upgrade. (Poor)

ENVIRONMENTAL CONSIDERATION

If re-developing one of the parking lots, it will require little demolition and have minimal impact. Depending on the specific site, there are existing Retail structures (Comerica Bank or Allen Tire Company) near the corner of South and Gridley which may be impacted.
Flood Zone - No
Liquefaction Potential - Yes

FEASIBILITY OF ACQUISITION / USE

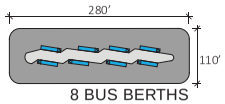
Potential to enter into long term lease, or other agreement. Underlying property may be subject to multi-party parking covenants. Under a worst case scenario replacement structured parking could be developed to replace lost parking capacity.

FOCUS ON SITE 2B AND 2C FOR LEVEL 2 STUDY

LAND USE

City of Cerritos Zoning - Regional Commercial
From Cerritos Municipal Code Chapter 22.27.300 Permitted Uses
Assume this is a Public Service Facility which is a Permitted Use.

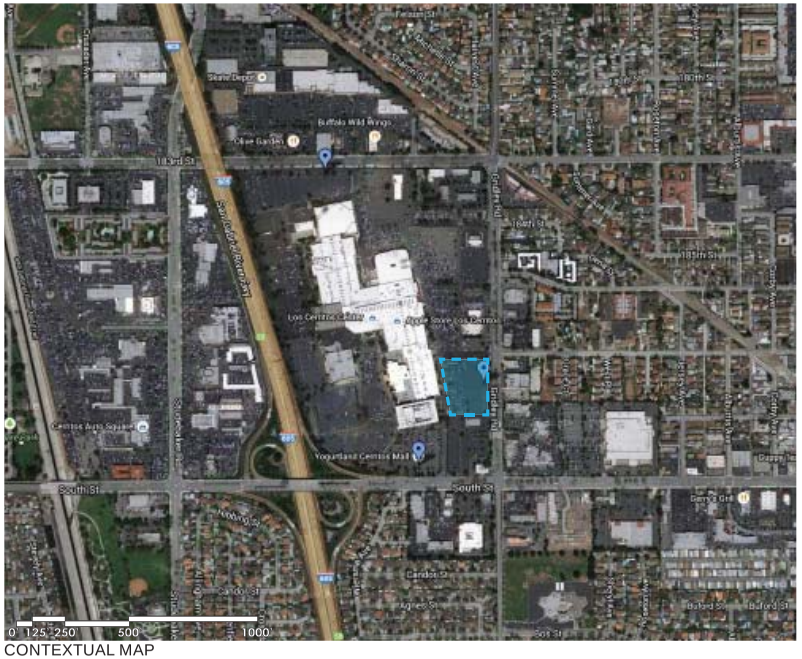
SIZE



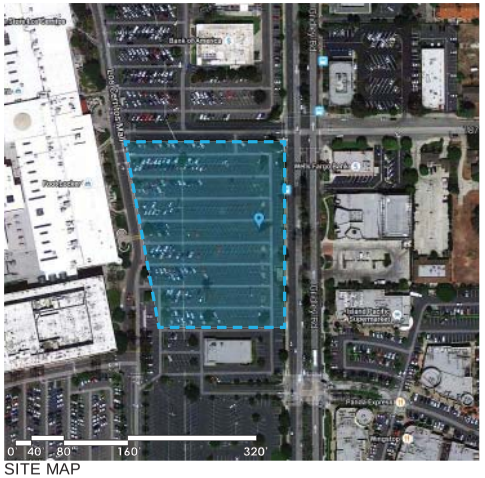
8 BUS BERTHS


SOUTHEAST CORNER


SOUTHWEST CORNER



CONTEXTUAL MAP

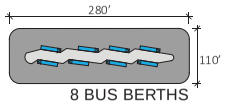


SITE MAP

LAND USE

City of Cerritos Zoning - Regional Commercial
From Cerritos Municipal Code Chapter 22.27.300 Permitted Uses
Assume this is a Public Service Facility which is a Permitted Use.

SIZE



8 BUS BERTHS

SITE 2B: LOS CERRITOS CENTER

GRIDLEY RD LOT

LOCATION/ACCESS

Portion of APN 7038-014-022
Proximity to Routes – Intersection of two or more LBT routes, seven total bus lines on Gridley. (Very Good)
Ease of Access – Traffic signals exist nearby, need routing through new drive aisles and access to main driveway would need to be deep within site, but distance to main driveway/roadway is not significant. (Good)
Pedestrian Access – Adjacent to major roadway, would be relatively close to mall buildings. (Very Good)
Bike Facilities/Access – No existing bike lanes or other dedicated facilities appear to be in area. (Poor)
High volume turn movements/congestion – Nearby intersection of mall roadway/187th/Gridley appears to have low cross-traffic. Routes already turn at other nearby major intersections to north/south. (Very Good)
Existing Traffic Control – Mall has traffic signals at driveway. (Very Good)
Activity Center Proximity – Adjacent to mall buildings. (Very Good)
Use of Private/Institutional Roadways – Private mall roadways, localized congestion, parking lot activity, roadway upgrade/maintenance likely needed. (Poor)

ENVIRONMENTAL CONSIDERATION

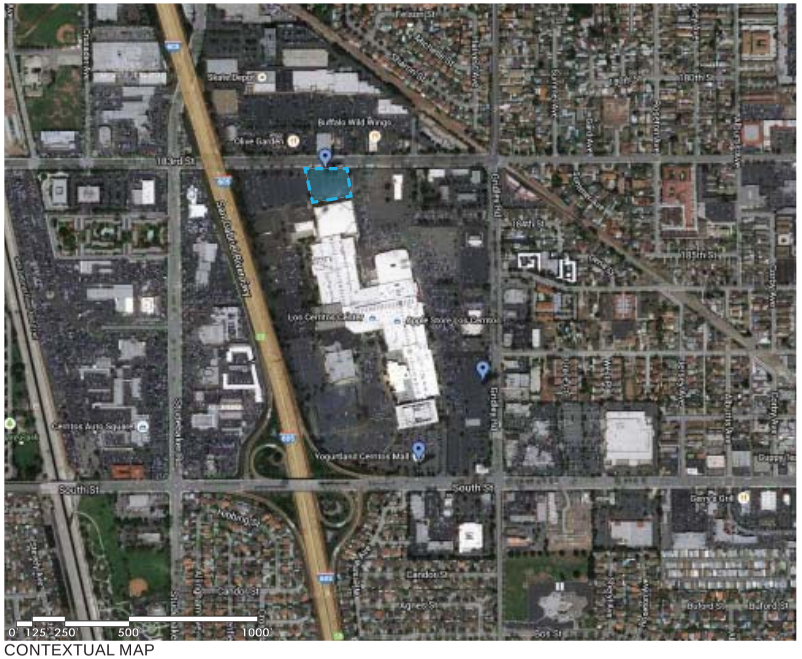
If re-developing one of the parking lots, it will require little demolition and have minimal impact. Depending on the specific site, there are existing Retail structures (Bank of America, Chick-fil-A, etc) near the corner of 184th and Gridley which may be impacted.
Flood Zone - No
Liquefaction Potential - Yes

FEASIBILITY OF ACQUISITION / USE

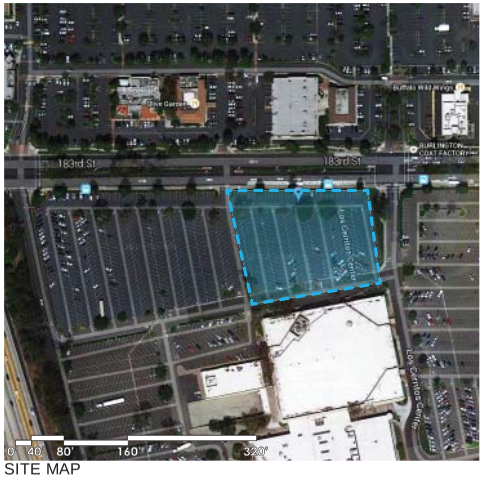
Potential to enter into long term lease, or other agreement. Underlying property may be subject to multi-party parking covenants. Under a worst case scenario replacement structured parking could be developed to replace lost parking capacity.


NORTHEAST CORNER


SOUTHEAST CORNER



CONTEXTUAL MAP

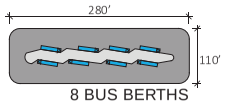


SITE MAP

LAND USE

City of Cerritos Zoning - Regional Commercial
No apparent conflicts with Bus Terminal.

SIZE



8 BUS BERTHS

SITE 2C: LOS CERRITOS CENTER

183 ST LOT

LOCATION/ACCESS

Portion of APN 7038-014-016
Proximity to Routes – Studebaker routes require deviation, 83rd street routes do not. 83rd Street has six bus routes that could deviate easily. (Very Good)
Ease of Access – Nearby traffic signal. Bus routes will be affected by some mall congestion, parking access traffic, but distance to main roadway is not significant. (Good)
Pedestrian Access – Adjacent to major roadway, would be relatively close to mall buildings. (Very Good)
Bike Facilities/Access – No existing bike lanes or other dedicated facilities appear to be in area. (Poor)
High volume turn movements/congestion – Turn to/from major roadway at traffic signal could create some delays, but intersection is not a major/major intersection. (Very Good)
Existing Traffic Control – Signal exists at adjacent mall roadway intersection. (Very Good)
Activity Center Proximity – Major commercial center/regional mall. (Very Good)
Use of Private/Institutional Roadways – Mall roadway, pavement upgrades and maintenance would be required. (Poor)

ENVIRONMENTAL CONSIDERATION

If re-developing one of the parking lots, it will require little demolition and have minimal impact. Depending on the specific site, there are existing Retail structures (Sears Auto Center, Big 5, etc) off of 183rd Street which may be impacted.
Flood Zone - No
Liquefaction Potential - Yes

FEASIBILITY OF ACQUISITION / USE

Potential to enter into long term lease, or other agreement. Underlying property may be subject to multi-party parking covenants. Under a worst case scenario replacement structured parking could be developed to replace lost parking capacity.

NORTHEAST CORNER

NORTHWEST CORNER

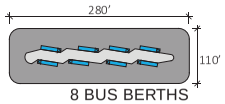
CONTEXTUAL MAP

SITE MAP

LAND USE

City of Long Beach Zoning - PD - Planned Development
PD-32- Douglas Park - Commercial and/or Industrial Sub areas - Mixed-use, Office, Office/R and D/Light Industrial
No conflicts with Bus Terminal

SIZE



8 BUS BERTHS

SITE 3: DOUGLAS PARK ASSOCIATES

SCHAUFELE AVE AND COVER STREET

LOCATION/ACCESS

Multiple parcels, marker at 7149-017-043
Proximity to Routes – Two bus routes on Carson to north, one on Lakewood to east. Sizeable route deviation for both nearby corridors, and to include other routes in center would require major deviations. (Poor)
Ease of Access – Site is set back within former aerospace site/current industrial park. (Poor)
Pedestrian Access – Sidewalk trail within local block, but pedestrians need to reach center via local roadways. Sidewalks are provided on north-south access road of Worsham Avenue. (Good)
Bike Facilities/Access – Inconvenient access to activity centers, major roadway corridors, sidewalk trail present on Carson Street within local block, but is not provided for a significant distance. (Good)
High volume turn movements/congestion – Access will rely on traffic signal at Worsham/Carson, but cross-traffic appears minimal so delays will be minimized. (Very Good)
Existing Traffic Control – Traffic signal at Worsham/Carson. (Very Good)
Activity Center Proximity – Low density industrial surroundings. Potential to be located on external portion of property and potentially complimentary to existing uses. (Poor)
Use of Private/Institutional Roadways – Local public roadways. Roundabout to southeast may not be accessible for bus radius, all access would likely need to come to/from north. (Good)

ENVIRONMENTAL CONSIDERATION

If re-developing one of the vacant plots, it will appear to have minimal impact.
Flood Zone - No
Liquefaction Potential - No

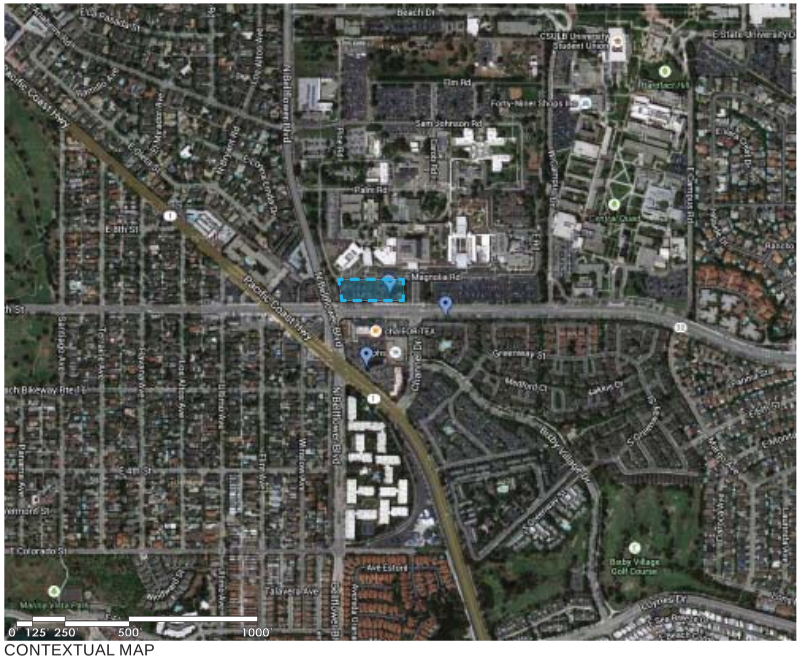
FEASIBILITY OF ACQUISITION / USE

Potential to enter into long term lease, or other agreement. Fee simple acquisition may be possible.

FAIL


NORTHEAST CORNER

SOUTHWEST CORNER



CONTEXTUAL MAP

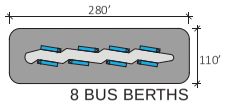
SITE MAP

LAND USE

Zoning - I - Institutional

"The principal permitted uses of the institutional district shall be those of a public or institutional nature."

SIZE



8 BUS BERTHS

SITE 4A: VA MEDICAL CENTER

E 7TH ST AND CHANNEL DR

LOCATION/ACCESS

Portion of APN 7239-021-903

Proximity to Routes – Adjacent to 7th street, Six LBT routes. Not adjacent to Bellflower, some deviation to centralize routes, but only one route on Bellflower. (Very Good)

Ease of Access – Deviation from 7th Street into campus roadways, congestion, high pedestrian volumes at intersection and traveling to/from parking lots, but close to main access roadway and 7th Street. Route deviation distance is not significant. (Good)

Bike Facilities/Access – Bike lanes exist on 7th, but only in vicinity of campus along two major blocks. Bike lanes exist on PCH, south/east of Bellflower Boulevard, but linkages to do not exist to Cal State campus. (Good)

Pedestrian Access –Adjacent to college and major roadway. (Very Good)

High volume turn movements/congestion – At one of main entrances to campus – congestion/delay, high pedestrian volumes. (Poor)

Existing Traffic Control – Existing traffic signal at campus access roadway/7th. (Very Good)

Activity Center Proximity – College campus-adjacent. (Very Good)

Use of Private/Institutional Roadways - Institutional roadways, pavement quality/rehab/maintenance issues. (Poor)

ENVIRONMENTAL CONSIDERATION

If re-developing one of the parking lots, it will require little demolition and have minimal impact. No apparent structures off the north portion of 7th Street would be impacted.

It also appears that there is an existing multi-stop street pull-in for buses on the NW corner of 7th Street and Channel Drive. This could be studied further for expansion possibilities.

Flood Zone - No

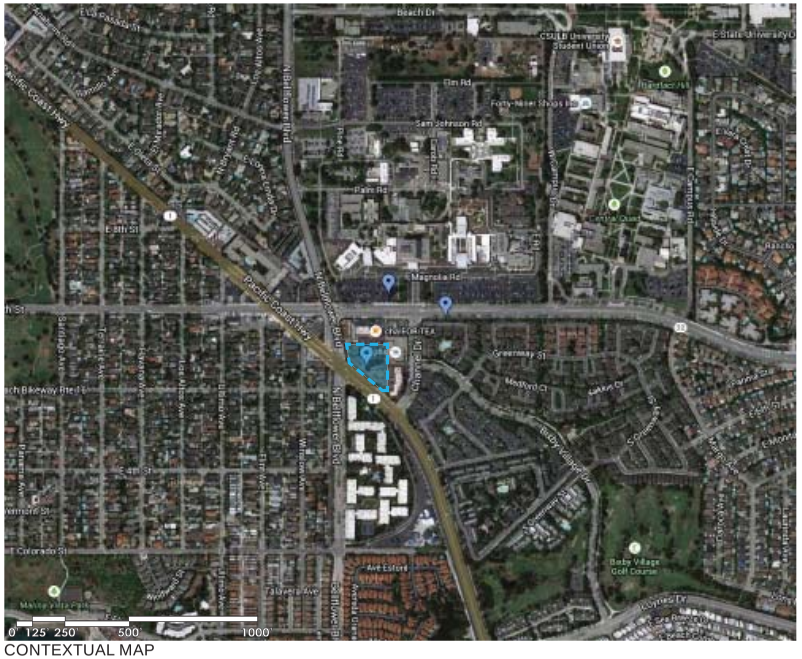
Liquefaction Potential - No

FEASIBILITY OF ACQUISITION / USE

Potential to enter into long term lease, or other agreement. Adjacent uses are intense in development. Under a worst case scenario replacement structured parking could be developed to replace lost parking capacity.

SOUTHEAST CORNER

SOUTHWEST CORNER



CONTEXTUAL MAP

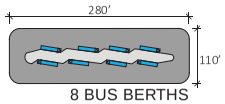
SITE MAP

LAND USE

City of Long Beach Zoning - PD-1 SEADIP Subarea 13 - Commercial

No conflicts with Bus Terminal on initial research.

SIZE



8 BUS BERTHS

SITE 4B: VA MEDICAL CENTER (YOGURTLAND)

N BELLFLOWER BLVD AND PACIFIC COAST HIGHWAY

LOCATION/ACCESS

Portion of APN 7237-016-019

Proximity to Routes –Near multiple corridors, only adjacent to two. (Good)

Ease of Access – major congestion at nearby intersections, backups across access points likely. (Poor)

Bike Facilities/Access – Bike lanes exist on PCH, south/east of Bellflower Boulevard, but linkages to do not exist to Cal State campus, and east-west lanes on 7th Street are only provided for a short distance. (Good)

Pedestrian Access –Consolidated stops will force longer walks, one to two block walk from Cal State, but signalized intersections will facilitate crossing. (Poor)

High volume turn movements/congestion – Near major intersections with long peak-period queues, short blocks, queues will overlap access points. (Poor)

Existing Traffic Control – Existing nearby traffic signals, but none will provide access to site. (Poor)

Activity Center Proximity – low density commercial, away from Cal State. (Poor)

Use of Private/Institutional Roadways – On institutional roadways, pavement quality/rehab/maintenance issues. (Poor)

ENVIRONMENTAL CONSIDERATION

If re-developing one of the parking lots, it will require little demolition but have a major impact on existing parking which appears limited. All the existing Retail structures would be affected depending on the location of the proposed terminal.

Flood Zone - No

Liquefaction Potential - No

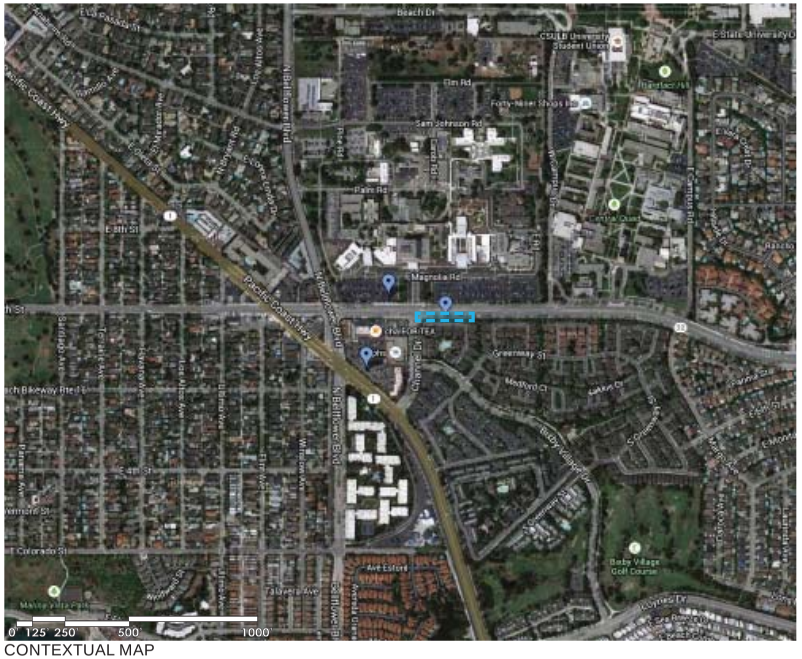
FEASIBILITY OF ACQUISITION / USE

Site already appears intense in use. Would likely require acquisition of site and demolition of existing improvements. Given existing uses acquisition likely costly.

FAIL

NORTHWEST CORNER

SOUTHEAST CORNER



CONTEXTUAL MAP

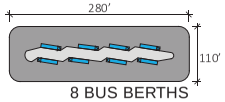
SITE MAP

LAND USE

City of Long Beach Zoning - PD-1 SEADIP Subarea 13 - Commercial

No conflicts with Bus Terminal on initial research.

SIZE



8 BUS BERTHS

SITE 4C: VA MEDICAL CENTER (SE CORNER)

CHANNEL DR AND E 7TH ST

LOCATION/ACCESS

Portion of APN of 7237-024-216

Proximity to Routes – Adjacent to 7th street, Six LBT routes. Not adjacent to Bellflower, some deviation to centralize routes, but only one route on Bellflower. (Very Good)

Ease of Access – Deviation from 7th Street into off-street center (assumed to be where residential is located now), congestion, high pedestrian volumes at intersection. Route deviation distance is not significant, signalized access to from 7th Street will not be possible due to proximity to existing Channel/7th intersection (Poor)

Bike Facilities/Access – Bike lanes exist on 7th, but only in vicinity of campus along two major blocks. Bike lanes exist on PCH, south/east of Bellflower Boulevard, but linkages to do not exist to Cal State campus. (Good)

Pedestrian Access –Adjacent to college and major roadway, but crossing of major roadway of 7th Street and Channel intersection signal would be required. (Good)

High volume turn movements/congestion – Adjacent one of main entrance intersections to campus/VA Hospital – congestion/delay, high pedestrian volumes. (Poor)

Existing Traffic Control – Existing traffic signal at campus access roadway/7th, but access to and from this site would not benefit from that signal. (Poor)

Activity Center Proximity – College campus-adjacent, but across major roadway. (Good)

Use of Private/Institutional Roadways – Site would be developed on currently developed land. All roadways would be new and would be assumed to be dedicated to the transit center only. (Very Good)

ENVIRONMENTAL CONSIDERATION

Lots of built structures and housing will require extensive construction work...

Flood Zone - No

Liquefaction Potential - No

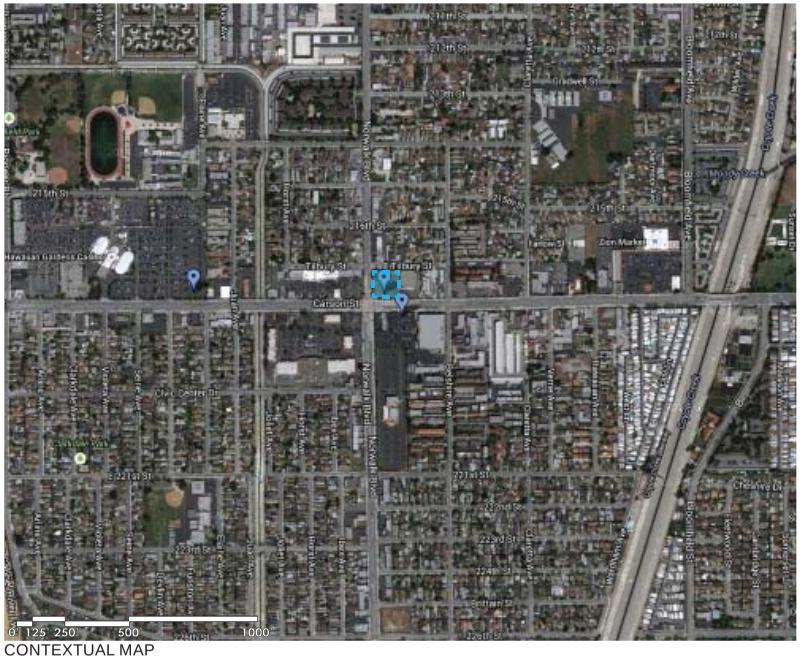
FEASIBILITY OF ACQUISITION / USE

Setback for adjacent residential development. Probably extremely difficult to acquire or even lease.

FAIL

NORTHEAST CORNER

NORTHWEST CORNER



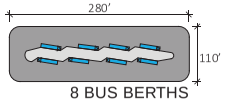
CONTEXTUAL MAP

SITE MAP

LAND USE

City of Hawaiian Gardens Zoning: C4 Commercial
See City of HG Zoning Code 18.60.050 Uses Permitted in Non-Residential Zones
The closest LAND USE could be "Motor Vehicle Services" which are PERMITTED in this zone. There are no BUS TERMINAL uses listed, so on initial research it does not appear to have any conflicts.

SIZE



8 BUS BERTHS

SITE 5A: HAWAIIAN GARDENS (NORTH)

CARSON ST AND NORWALK BLVD

LOCATION/ACCESS

APN 7066-018-034 (Strip Center, 38,377 SF) and 7066-018-033 (CVS, 1.36 AC)
Proximity to Routes –Three LBT routes on Norwalk Blvd., south of Carson Street; One LBT route on Carson, east of Norwalk. Adjacent to Norwalk and Carson corridors. (Very Good)
Ease of Access – Site constraints may limit access – potential access point close to major intersection, may not provide access to both route directions. (Poor)
Bike Facilities – None in vicinity. (Poor)
Pedestrian Access – Good, adjacent to major corridors with sidewalks, signalized intersections. (Very Good)
High volume turn movements/congestion – Carson is major roadway facility. Access to and from Carson will be delayed by traffic volumes, and signalized access cannot likely be provided. (Poor)
Existing Traffic Control – No existing traffic signal to use for access, potential access locations would be too close to adjacent signalized intersection. (Poor)
Activity Center Proximity– Low density commercial. (Poor)
Use of Private/Institutional Roadways – Commercial center – will require pavement upgrade, maintenance, etc., but distance to travel on-site is low.
Site is not likely correct size for off-street transit center, unless CVS is taken/reconstructed. (Poor)

FAIL

ENVIRONMENTAL CONSIDERATION

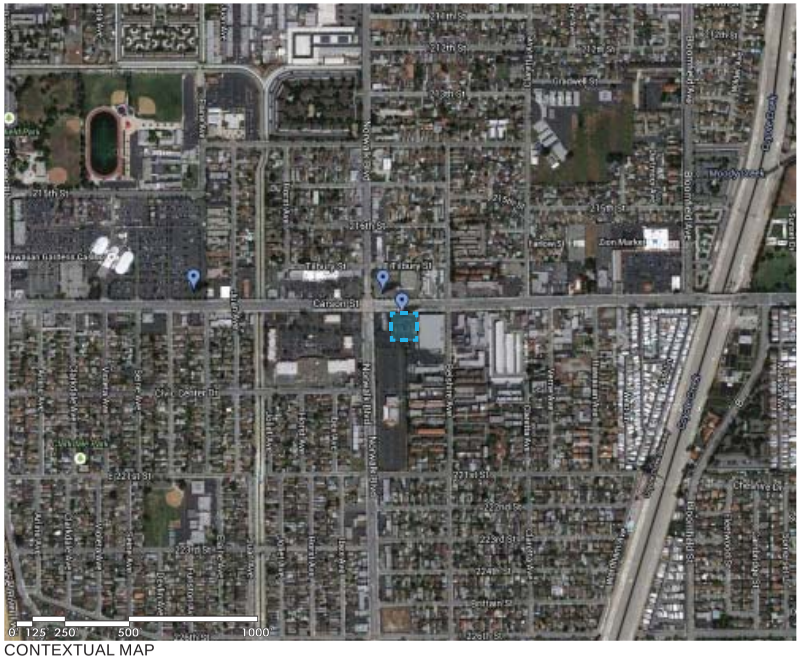
If re-developing one of the parking lots, it will require little demolition but have a major impact on existing parking which appears limited. A possibility for a pull-in off of Carson Street could be studied. All the existing Retail structures would be affected depending on the location of the proposed terminal.
Flood Zone - No
Liquefaction Potential - Yes

FEASIBILITY OF ACQUISITION / USE

Site consists of two parcels – one utilized by strip center, the other CVS. Would likely require acquisition of site and demolition of existing improvements. Acquisition of strip center may be more feasible than CVS property.


NORTHWEST CORNER


SOUTHEAST CORNER



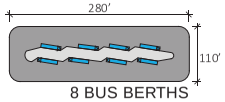
CONTEXTUAL MAP

SITE MAP

LAND USE

City of Hawaiian Gardens Zoning: C4 Commercial
See City of HG Zoning Code 18.60.050 Uses Permitted in Non-Residential Zones
The closest LAND USE could be "Motor Vehicle Services" which are PERMITTED in this zone. There are no BUS TERMINAL uses listed, so on initial research it does not appear to have any conflicts.

SIZE



8 BUS BERTHS

SITE 5B: HAWAIIAN GARDENS (SOUTH)

CARSON ST AND NORWALK BLVD

LOCATION/ACCESS

Portion of APN 7076-039-060
Proximity to Routes –Adjacent to Norwalk Blvd., three LBT routes; and Carson Street, one OCTA route. (Very Good)
Ease of Access – site constraints may limit access – potential driveways close to major intersection, may not provide access to both route directions. Parking lot would need to be merged with lot to south with reciprocal access to provide two-way access for buses at a potentially signalized intersection. (Poor)
Bike Facilities/Access – Bicycle lanes not provided in vicinity. (Poor)
Pedestrian Access – Adjacent to major roadway corridor with sidewalks, adjacent to signalized intersection. (Very Good)
High volume turn movements/congestion – Existing left-turn pockets at the eastbound and northbound approaches to the adjacent intersections overlap the existing driveways at the site. Turn pockets would need to be modified to incorporate full access, if limited to the supermarket parcel. (Poor)
Existing Traffic Control – No existing traffic signal to use for access, access to close to adjacent signalized intersection. (Poor)
Activity Center Proximity – Low density commercial, Food4Less Supermarket. (Poor)
Use of Private/Institutional Roadways – Commercial center. Potential conflicts with parking lot activity, pedestrians, truck deliveries. Roadway design not intended for transit vehicles. (Poor)

FAIL

ENVIRONMENTAL CONSIDERATION

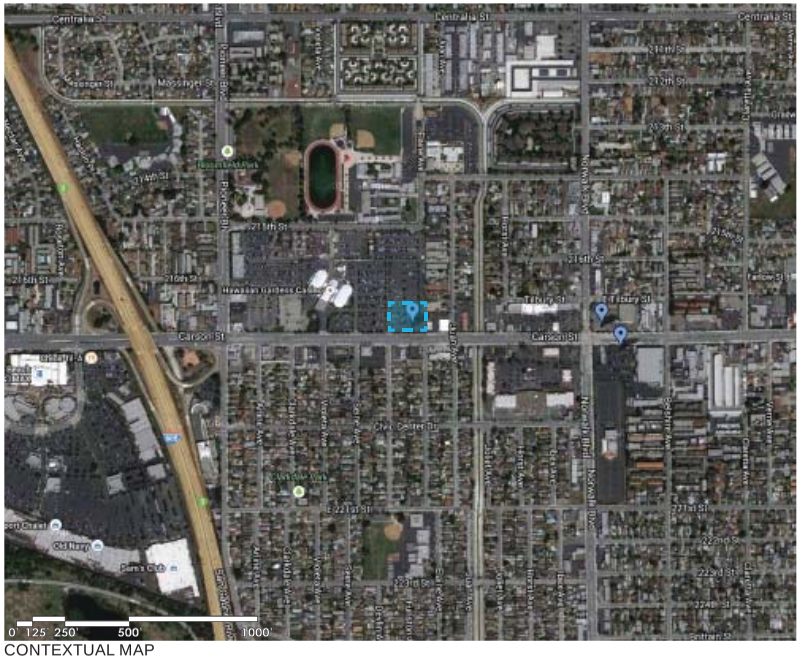
If re-developing one of the parking lots, it will require little demolition but have a major impact on existing parking which appears limited. A possibility for a pull-in off of Carson Street could be studied. All the existing Retail structures would be affected depending on the location of the proposed terminal.
Flood Zone - No
Liquefaction Potential - Yes

FEASIBILITY OF ACQUISITION / USE

Full site appears to be required for existing uses. Would likely require acquisition of site and demolition of existing improvements. Given existing uses acquisition likely costly.

NORTHEAST CORNER

SOUTHWEST CORNER



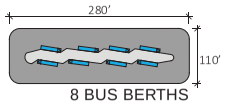
CONTEXTUAL MAP

SITE MAP

LAND USE

City of Hawaiian Gardens Zoning: C4 Commercial
See City of HG Zoning Code 18.60.050 Uses Permitted in Non-Residential Zones
The closest LAND USE could be "Motor Vehicle Services" which are PERMITTED in this zone. There are no BUS TERMINAL uses listed, so on initial research it does not appear to have any conflicts.

SIZE



8 BUS BERTHS

SITE 5C: HAWAIIAN GARDENS CASINO

CARSON ST AND ELAINE AVE

LOCATION/ACCESS

Portion of APN 7065-007-146
Proximity to Routes –Adjacent to Norwalk and Carson corridors. (Very Good)
Ease of Access – Site constraints may limit access – Potential driveways access at uncontrolled locations, not centered with Casino traffic signal. potential access point close to major intersection, may not provide access to both route directions, access to main signalized driveway for Casino is unlikely. New traffic signal could be installed for transit center access at Devlin Avenue intersection that overlaps with existing parking lot driveway. (Good)
Bike Facilities/Access – Bicycle lanes not provided in vicinity. (Poor)
Pedestrian Access –Adjacent to major corridor, but mid-block location without immediately adjacent pedestrian signalized crossing point. (Poor)
High volume turn movements/congestion – No major intersection in vicinity of potential access point, but access would likely be restricted. (Very Good)
Existing Traffic Control – No nearby traffic signal at east end of Casino site. (Poor)
Activity Center Proximity – Casino/institutional, low density commercial nearby. (Poor)
Use of Private/Institutional Roadways - HG Casino, private facility roads, capacity/maintenance issues with site. Parking supply issues for Casino during peak periods. Roadway design not intended for transit vehicles. (Poor)

ENVIRONMENTAL CONSIDERATION

If re-developing one of the parking lots, it will require little demolition with minor impact on existing parking. A possibility for a pull-in off of Carson Street could be studied.
There are multiple possibilities off of Carson Street.
Flood Zone - No
Liquefaction Potential - Yes

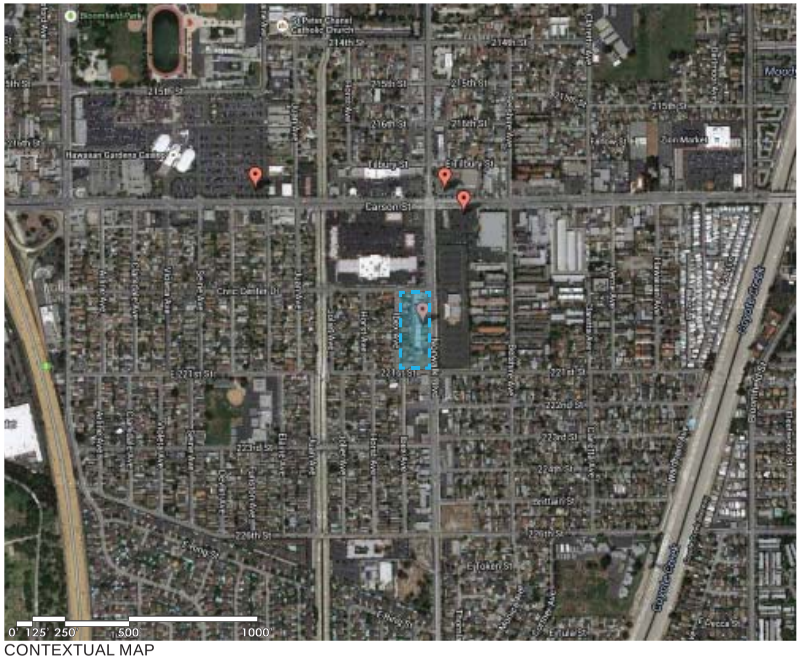
FEASIBILITY OF ACQUISITION / USE

Potential to enter into long term lease, or other agreement. Adjacent uses likely require full land area. Under a worst case scenario replacement structured parking could be developed to replace lost parking capacity.

FAIL


NORTHEAST CORNER


SOUTHWEST CORNER



CONTEXTUAL MAP

SITE 5D: HAWAIIAN GARDENS AUTO REPAIRS

NORWALK BLVD BETWEEN CIVIC CENTER DR AND 221ST ST

LOCATION/ACCESS

APN:
7068-015-055 (21929 Norwalk Blvd, 5,750 SF; likely 5,250 net of alley). Marker is on this property only, but if reference is to adjacent similar properties to the south, they are as follows: 7068-015-034 (21975 Norwalk Blvd, 4,780 SF net of alley and Norwalk Blvd easement) / 7068-015-054 (22005 Norwalk Blvd, 5,310 SF net of alley) / 7068-015-058 (22011 Norwalk Blvd, 5,340 SF net of alley)

Proximity to Routes – This site would connect four Long Beach Transit bus lines (102, 104 on Norwalk Boulevard, 101 on Carson Street, and 173 on Norwalk and Carson Streets), one LA Metro bus line (62 on Carson and Norwalk Boulevard), and one OCTA line (42 on Carson and Norwalk Boulevard). (Good)
Ease of Access – The facility site can be accessed from Norwalk Boulevard, Civic Center Drive, and 221st Street. Alterations to the raised median on Norwalk Boulevard and curb cuts along site frontages might be required to further ease bus and vehicle access. (Good)
Bike Facilities/Access – There are existing Class II Bike Lanes on Civic Center Drive (striped), west of Norwalk Boulevard, and on Norwalk Boulevard (striped), south of Civic Center Drive. (Good)
Pedestrian Access – Well-maintained and lit sidewalks along all frontage streets. Crosswalks are located at both north and south ends of proposed facility at traffic signals. (Very Good)
High volume turn movements/congestion – Bing Club across the street and the Walmart Shopping Center to the north most likely generate a significant amount of traffic on streets fronting the site. The Civic Center, located west of the site on Civic Center Drive can also generate significant traffic. (Adequate)
Existing Traffic Control – Existing traffic signals are present at the north and south ends of the site at the intersections of Norwalk Boulevard Civic Center Drive and Norwalk Boulevard and 221st Streets. Buses would likely turn in and depart from the site at the narrow north and south ends of the site. Turn restrictions would be problematic for mainline bus lines to access site. (Poor)
Activity Center Proximity – Walmart Neighborhood Market, Food4Less, Bingo Club, and other commercial facilities are within a quarter-mile of the proposed facility. The Hawaiian Gardens Casino and the City of Hawaiian Gardens Civic Center are within a half-mile of the site. Not traditional all-day multi-use activity center. (Poor)
Use of Private/Institutional Roadways – Site would be developed on currently developed land. All roadways would be new and would be assumed to be dedicated to the transit center only. (Good)

ENVIRONMENTAL CONSIDERATION

Lots of built existing structures which will require complete demolition. It would be adjacent to several Residential units which may have opposition and noise concerns.
Flood Zone - No
Liquefaction Potential - Yes

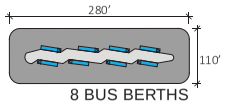
FEASIBILITY OF ACQUISITION / USE

The three northern properties are owned by a single family trust. The southernmost property is owned by what appears to be an unrelated individual. Given existing business users, and depending on potential lease terms, relocation compensation could be required. To the extent that parcels from both property owners are required it may make acquisition negotiations more difficult and/or acquisition more costly.

LAND USE

City of Hawaiian Gardens Zoning: C4 Commercial. See City of HG Zoning Code 18.60.050 Uses Permitted in Non-Residential Zones. The closest LAND USE could be "Motor Vehicle Services" which are PERMITTED in this zone. Bus terminal use potentially undesirable to residential uses across alley/ west of site.

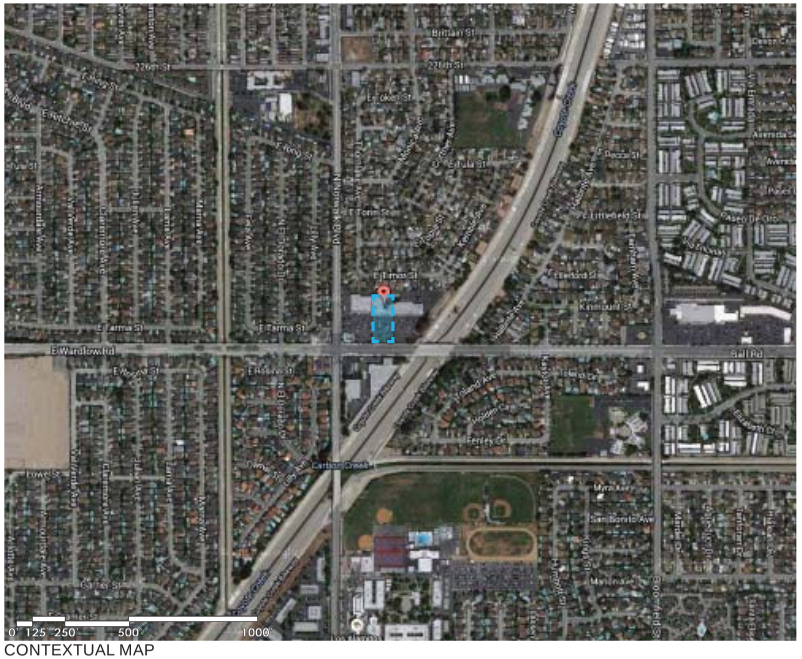
SIZE



8 BUS BERTHS

SITE MAP

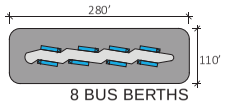

SOUTHEAST CORNER



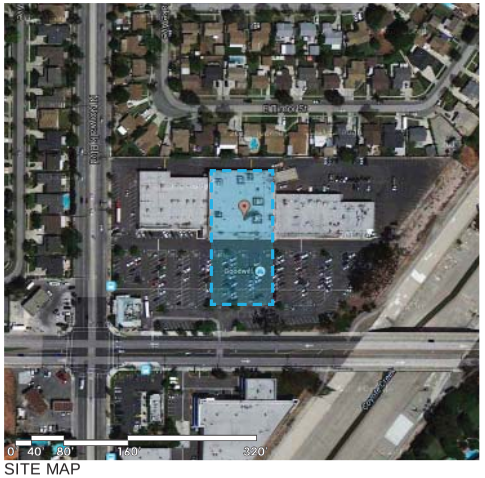
CONTEXTUAL MAP

LAND USE
City of Long Beach Zoning: CCA Community Commercial Automobile-Oriented
From City of LB Ordinance 21.32.110 Table 32-1, Bus Terminal is NOT a permitted use

SIZE



8 BUS BERTHS



SITE MAP

SITE 6: COYOTE CREEK
E WARDLOW RD AND NORWALK BLVD

LOCATION/ACCESS
Not pursued per LAND USE -FAIL

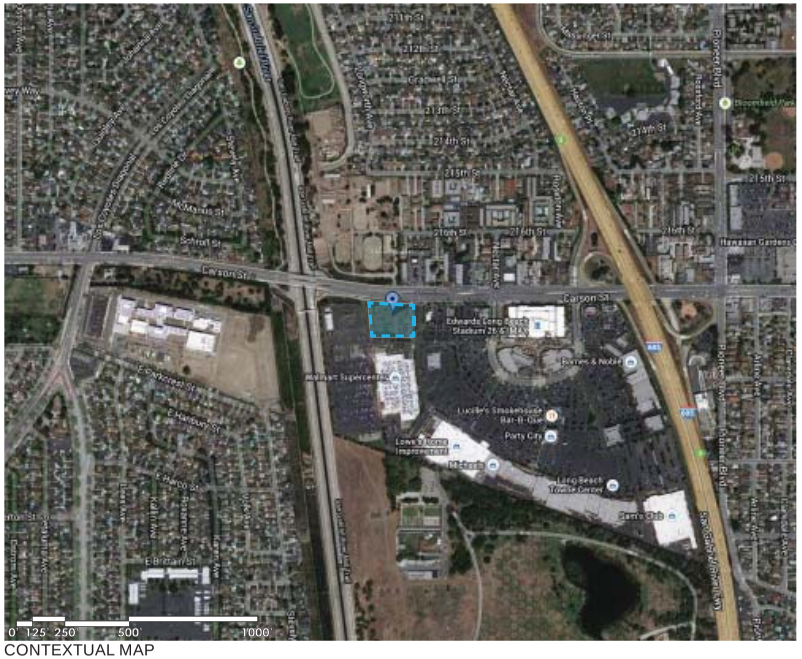
ENVIRONMENTAL CONSIDERATION
Not pursued per LAND USE -FAIL

FEASIBILITY OF ACQUISITION / USE
Not pursued per LAND USE -FAIL

FAIL


NORTHWEST CORNER


SOUTHEAST CORNER



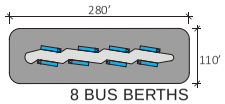
CONTEXTUAL MAP

SITE MAP

LAND USE

City of Long Beach Zoning - CHW - Regional Highway Commercial
No conflicts with Bus Terminal on initial research.

SIZE



8 BUS BERTHS

SITE 8: WALMART

CARSON ST AND LB TOWNE CENTER DR

LOCATION/ACCESS

Portion of APN 7075-001-944 (Listed Owner is City of Long Beach)
Proximity to Routes –Two LBT bus lines on Carson, along north frontage of Towne Center mall. Los Coyotes Diagonal/Studebaker Road corridor is one-half mile to west, but does not have additional bus lines that can be diverted to this site. Pioneer Blvd. corridor is more than one-half mile to east, but only has one Metro line that can be diverted. (Good)
Ease of Access – Traffic signals exist nearby, but buses will require routing through existing on-site drive aisles. (Good)
Pedestrian Access – Access to/from Carson Street could be convenient if center is close to road, and access to/from center of mall near movie theater could be convenient if good east-west access provided. (Very Good)
Bike Facilities/Access – None exist on Carson Street. (Poor)
High volume turn movements/congestion – Private mall roadways, localized congestion, parking lot activity. Access point to nearby entrance roadway will need to be deep into site (at first east-west access roadway, with access to/from south side of site) to avoid conflicts with inbound buses/vehicles and outbound buses with traffic queues. (Poor)
Existing Traffic Control – Existing western Towne Center roadway traffic signal could be used for access to/from South Street. (Very Good)
Activity Center Proximity – Adjacent to regional commercial center. (Very Good)
Use of Private/Institutional Roadways – Buses would travel on mall entrance roadway and on parking lot surface, both would likely need upgrade. (Poor)

ENVIRONMENTAL CONSIDERATION

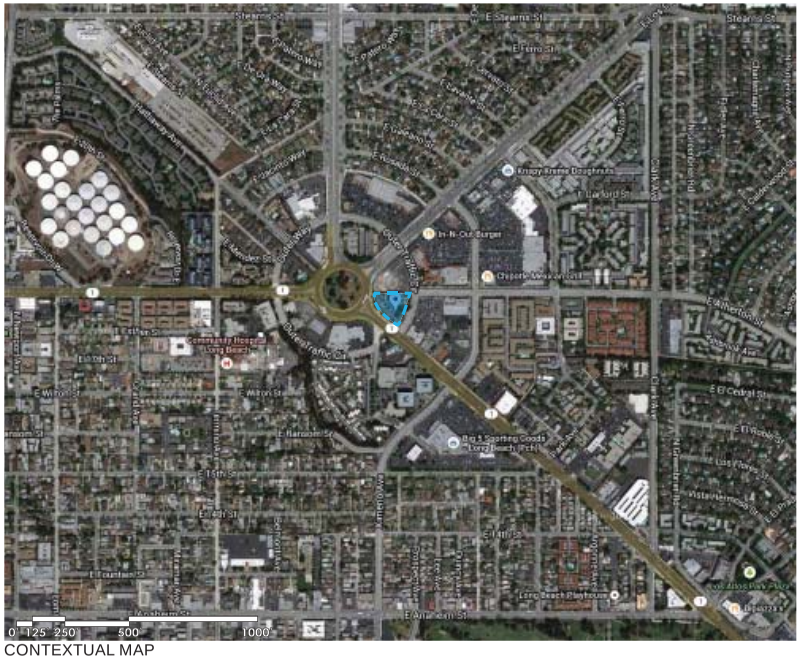
This is an empty lot with no structures or paving.v
Flood Zone - 0.2% Annual Chance of Flood Hazard
Liquefaction Potential - Yes

FEASIBILITY OF ACQUISITION / USE

Need to determine currently proposed future use. Potential to enter into long term lease, or other agreement. Fee simple acquisition may be possible.

NORTHEAST CORNER

NORTHWEST CORNER



CONTEXTUAL MAP

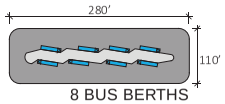
LAND USE

City of Long Beach Zoning CHW - Regional Highway Commercial

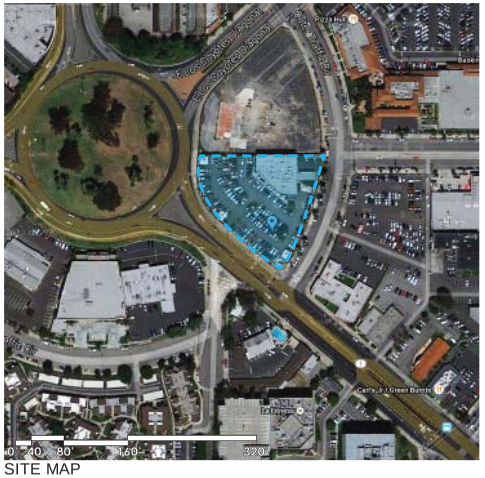
From City of LB Ordinance 21.32.110 Table 32-1

Bus Terminal will require a CONDITIONAL USE PERMIT

SIZE



8 BUS BERTHS



SITE MAP

SITE 9: HOOMAN TOYOTA

HIGHWAY 1 AND OUTER TRAFFIC CIR

LOCATION/ACCESS

APN 7219-009-009

Proximity to Routes – Adjacent to Lakewood Blvd traffic circle. LBT Line 171 serves route along south side of site, other route connections would require deviations/extensions to serve site and traverse outer or inner traffic circle roadways. Three other LBT lines in close vicinity. (Good)

Ease of Access –Access difficult based on roadway configurations near traffic circle. One-way travel would compromise access to site, would likely only be feasible for one direction of bus travel. Some service, however, could access site from Outer Traffic Circle, but access point would be close to PCH intersection. (Poor)

Bike Facilities/Access – Bicycle lanes exist on PCH to east of traffic circle, and on Los Coyotes Diagonal to northeast, but not to west or south. (Good)

Pedestrian Access – Hindered by traffic circle, multiple intersections along Inner and Outer Traffic Circle loops. (Poor)

High volume turn movements/congestion – Extremely congested corridor, site is on approach to traffic circle. Peak-period queuing will likely overlap with site access points. (Poor)

Existing Traffic Control –Site access points would be uncontrolled, due to proximity of nearby intersections. (Poor)

Activity Center Proximity –Low density commercial and residential. (Poor)

Use of Private/Institutional Roadways – Private site, pavement upgrades/maintenance issues, Roadway design not intended for transit vehicles. (Poor)

ENVIRONMENTAL CONSIDERATION

If re-developing one of the parking lots, it will require little demolition but have a major impact on existing parking which appears limited depending also on what the car dealership would require for new cars parking/storage. All the existing Retail structures would be affected depending on the location of the proposed terminal.

Flood Zone - 0.2% Annual Chance of Flood Hazard

Liquefaction Potential Area - Yes

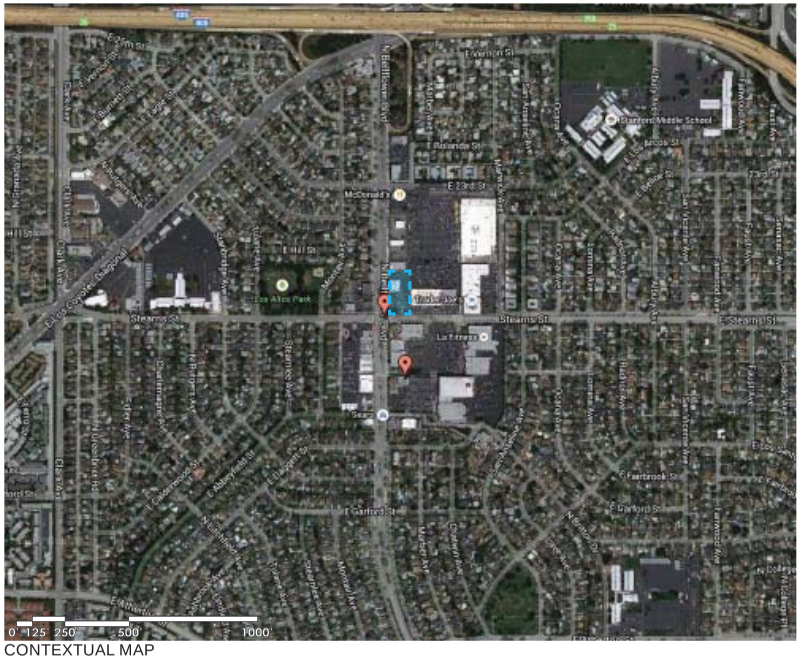
FEASIBILITY OF ACQUISITION / USE

Full site appears to be required for existing uses. Would likely require acquisition of site and demolition of existing improvements. Given existing uses acquisition likely costly. Property appears to have been sold in 2013 for approximately $3.2 million.

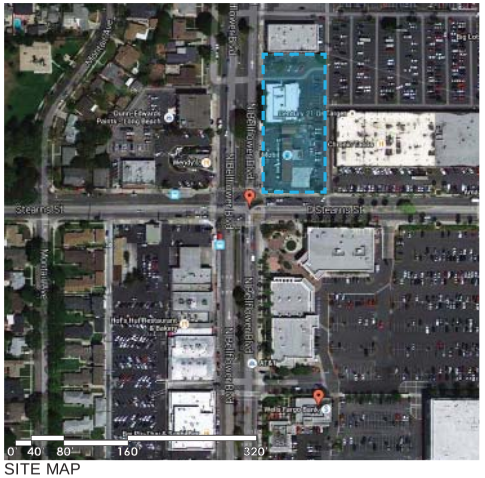
FAIL


NORTHWEST CORNER

SOUTHEAST CORNER



CONTEXTUAL MAP

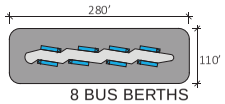


SITE MAP

LAND USE

City of Long Beach Zoning: CCA Community Commercial Automobile-Oriented
From City of LB Ordinance 21.32.110 Table 32-1, Bus Terminal is NOT a permitted use

SIZE



SITE 10: BELLFLOWER AND STEARNS

N BELLFLOWER BLVD AND E STEARNS ST

LOCATION/ACCESS

Not pursued per LAND USE -FAIL

ENVIRONMENTAL CONSIDERATION

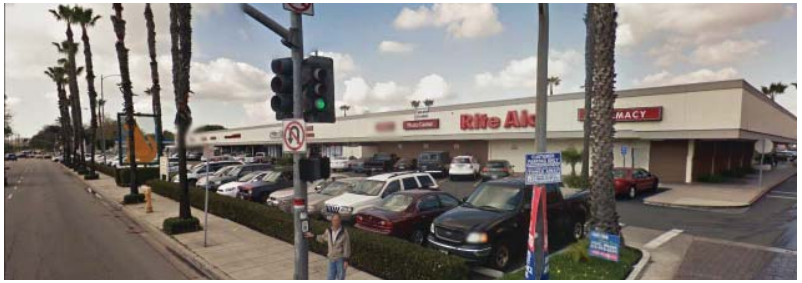
Not pursued per LAND USE -FAIL

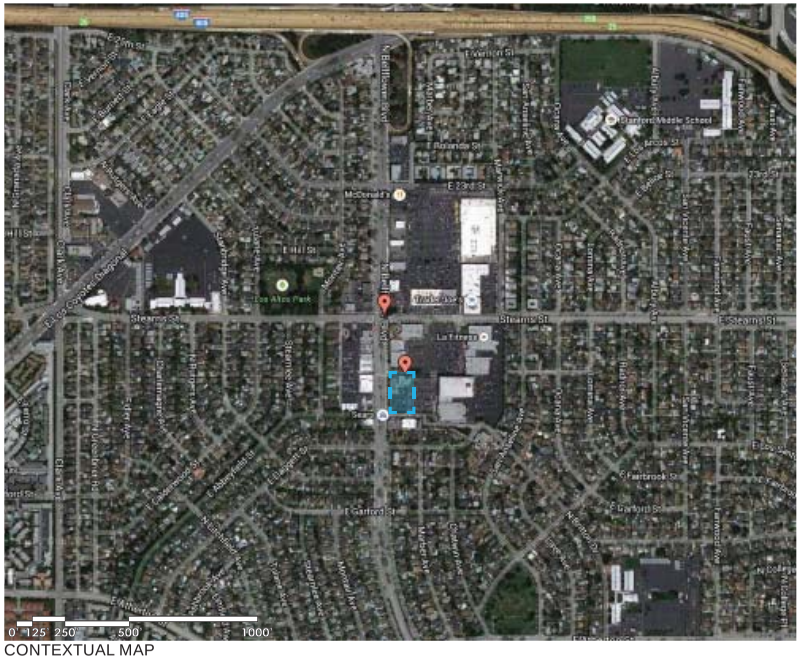
FEASIBILITY OF ACQUISITION / USE

Not pursued per LAND USE -FAIL

FAIL


SOUTHWEST CORNER


SOUTHEAST CORNER

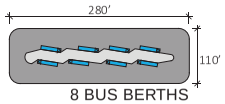


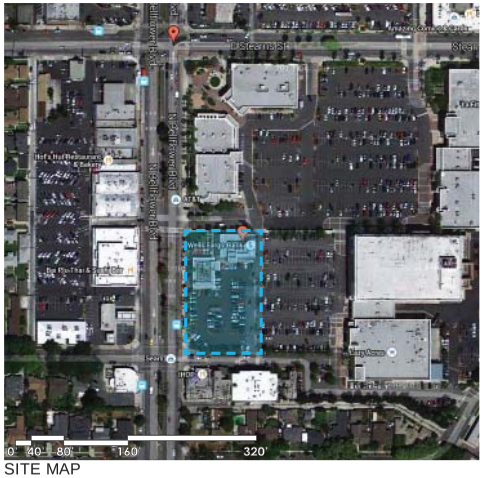
CONTEXTUAL MAP

LAND USE

City of Long Beach Zoning: CCA Community Commercial Automobile-Oriented
From City of LB Ordinance 21.32.110 Table 32-1, Bus Terminal is NOT a permitted use

SIZE





SITE MAP

SITE 11: LOS ALTOS MARKET CENTER

N BELLFLOWER BLVD AND E STEARNS ST

LOCATION/ACCESS
Not pursued per LAND USE -FAIL

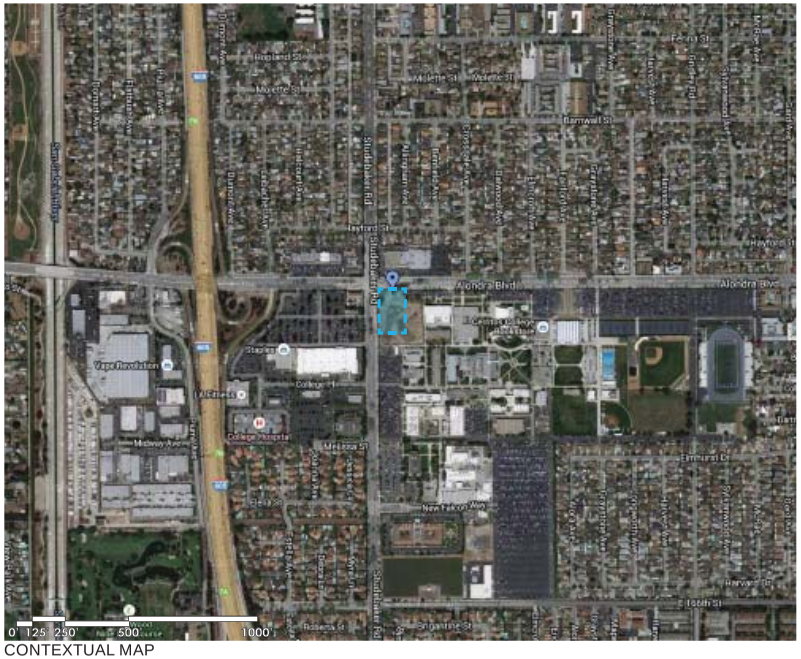
ENVIRONMENTAL CONSIDERATION
Not pursued per LAND USE -FAIL

FEASIBILITY OF ACQUISITION / USE
Not pursued per LAND USE -FAIL

FAIL


NORTHWEST CORNER


SOUTHWEST CORNER



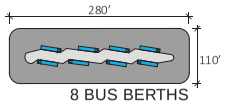
CONTEXTUAL MAP

SITE MAP

LAND USE

City of Cerritos Zoning - Educational Use
On initial research, Educational Use was not listed in the Cerritos Municipal Code. This will require some inquiry to the City Planning as to what uses may be permitted in this zone.

SIZE



8 BUS BERTHS

SITE 12: CERRITOS COLLEGE

STUDEBAKER RD AND ALONDRA BLVD

LOCATION/ACCESS

Portion of APN 7016-007-906
Proximity to Routes – Two LBT routes on Studebaker Road, one Metro route on Alondra Blvd. (Good)
Ease of Access – Driveway access will be compromised by intersection turn pockets, and turns will be prohibited unless reconfiguration is feasible. Site appears to be under construction now, or was so very recently. (Poor)
Bike Facilities/Access – Bicycle lanes or similar facilities are not provided in site vicinity. (Poor)
Pedestrian Access – Adjacent to major roadway with sidewalks, and can be linked directly to campus circulation routes with proper design. (Very Good)
High volume turn movements/congestion – Northbound queue at Studebaker Road may block site access during peak times. Westbound turn pocket at intersection would block full access at northern frontage of site. On-Site and periphery congestion of campus will delay bus movements. (Poor)
Existing Traffic Control –Nearby traffic signal, but site is too close to intersection for additional traffic controls to be installed. (Poor)
Activity Center Proximity –Site is at college, but at northwest corner on periphery. (Good)
Use of Private/Institutional Roadways – On-campus parking lots and roadways will require upgrades and on-going maintenance. Roadway design not intended for transit vehicles. (Poor)

ENVIRONMENTAL CONSIDERATION

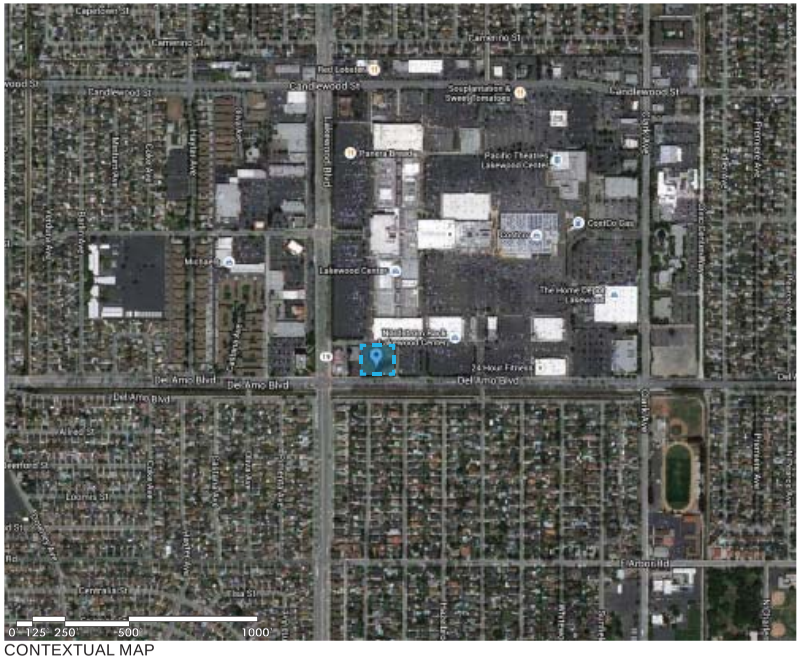
If re-developing one of the many parking lots off Alondra Blvd, it will require little demolition and have minimal impact. No apparent structures at this intersection would be impacted.
If re-developing the SE corner Alondra Blvd and Studebaker Rd, it is currently a green space and will require little demolition and there are no apparent structures at this intersection that would be impacted.
There is a good possibility for a pull-in off Alondra Blvd which would have minimal impact of the parking lots.
Flood Zone - No
Liquefaction Potential - Yes

FEASIBILITY OF ACQUISITION / USE

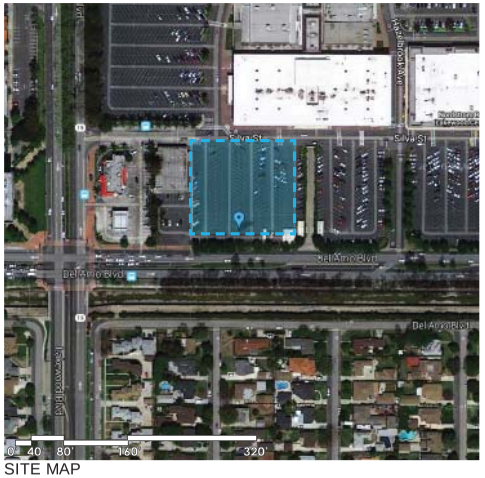
Potential to enter into joint use agreement, long term lease, or other agreement. Under a worst case scenario replacement structured parking could be developed to replace lost parking capacity.


NORTHEAST CORNER


SOUTHWEST CORNER



CONTEXTUAL MAP

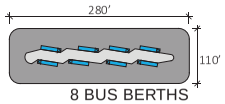


SITE MAP

LAND USE

City of Lakewood Zoning - C-4 General Commercial
From Lakewood Municipal Code Part 5 9350 Uses Permitted
Bus or railway station is permitted.

SIZE



8 BUS BERTHS

SITE 13: LAKEWOOD CENTER

LAKEWOOD BLVD AND DEL AMO BLVD

LOCATION/ACCESS

Portion of APN 7172-001-047
Proximity to Routes – Four LBT lines on Del Amo Blvd., turning onto Lakewood. Three additional lines serve Lakewood Blvd. (Very Good)
Ease of Access – Adjacent to major intersection, access thru mall to signalized mall driveway to east will be problematic without major parking lot and access configuration, but could be feasible. (Good)
Bike Facilities/Access – Bicycle lanes or similar facilities not in vicinity. (Poor)
Pedestrian Access – Adjacent to two major corridors, nearby but not adjacent signalized intersection. Pedestrian access across parking lots to mall must be provided, but appears feasible with site reconfiguration. (Good)
High volume turn movements/congestion – Access point at signalized mall driveway intersection to east would cause some delay to inbound/outbound bus movements, but would allow full access to site. Mall congestion between site and main mall access roadway could cause delay. (Good)
Existing Traffic Control – Mall driveways with traffic signal is not adjacent to site, but connection would likely be feasible. (Good)
Activity Center Proximity– Regional mall. Potential to be located on external portion of property (need to review current building footprint) and potentially complimentary to existing uses. (Very Good)

ENVIRONMENTAL CONSIDERATION

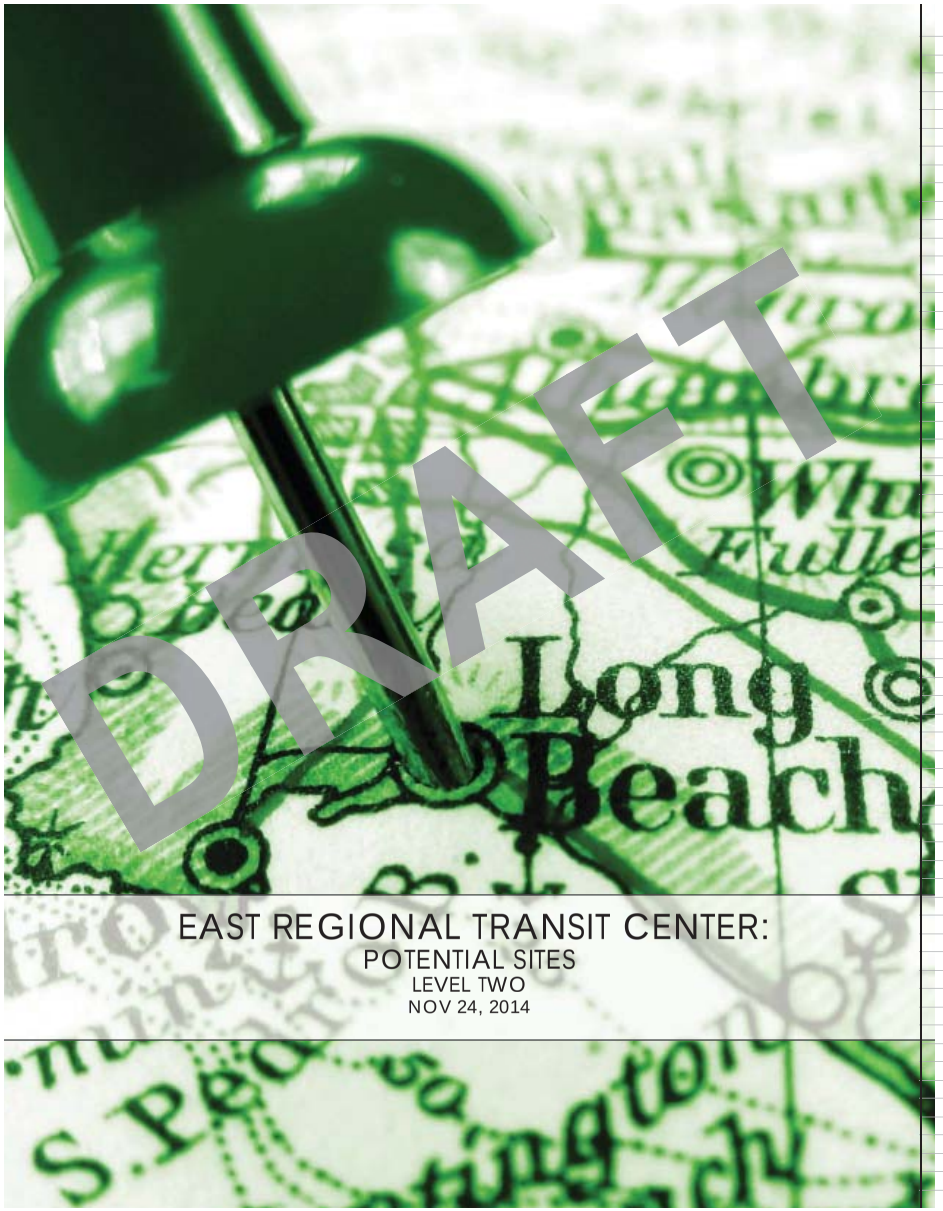
If re-developing one of the parking lots, it will require little demolition and have minimal impact. Depending on the specific site, there are existing freestanding Retail structures which may be impacted.
Flood Zone - 0.2% Annual Chance of Flood Hazard
Liquefaction Potential - Unknown

FEASIBILITY OF ACQUISITION / USE

Potential to enter into long term lease, or other agreement. May be subject to multi-party parking covenants. Under a worst case scenario replacement structured parking could be developed to replace lost parking capacity.


SOUTHEAST CORNER


SOUTHWEST CORNER



EAST REGIONAL TRANSIT CENTER:
POTENTIAL SITES
LEVEL TWO
NOV 24, 2014

ARCHITECT

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PUBLIC OUTREACH

MBI Media
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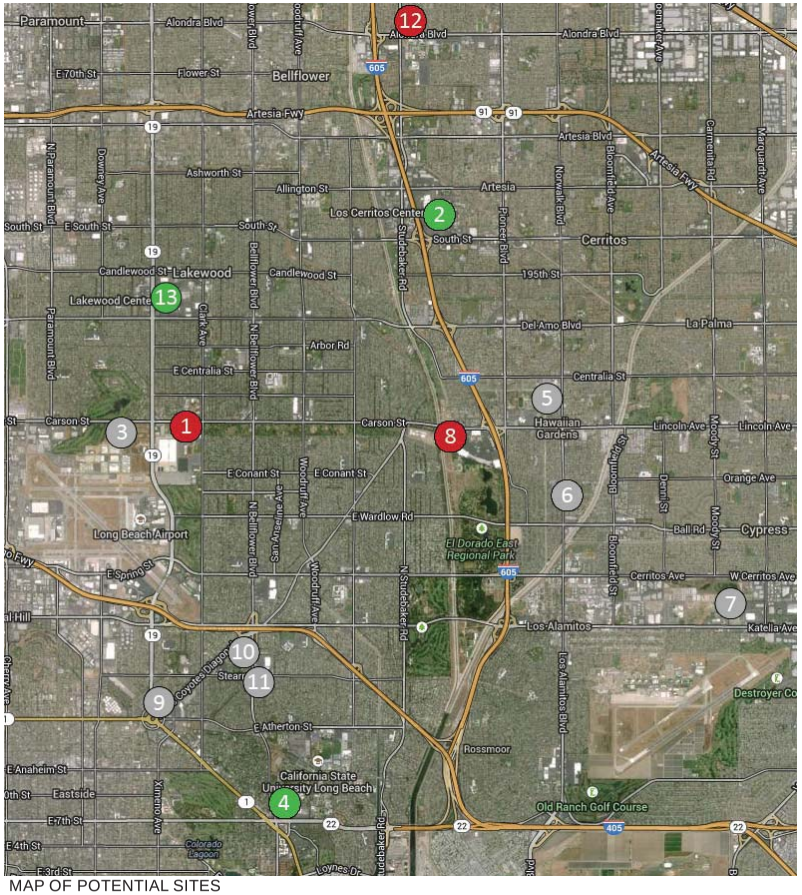
Covina, CA 91724
Telephone: 626-967-1510
Facsimile: 626-967-1718

TRANSPORTATION PLANNING

KOA Corporation
1100 Corporate Center Drive, Suite 201
Monterey Park, CA 91754
Telephone: 323-260-4703
Facsimile: 323-260-4705



MAP OF POTENTIAL SITES
(SOURCE: GOOGLE MAPS)

LIST OF SITES - LEVEL 2	SITE PASS / FAIL	SCORE
1. Long Beach City College	1. Long Beach City College	24 out of 35
2B. Los Cerritos Center	2B. Los Cerritos Center	29 out of 35
2C. Los Cerritos Center	2C. Los Cerritos Center	32 out of 35
3. Douglas Park Associates LLC	3. Douglas Park Associates LLC	
4. VA Medical Center	4. VA Medical Center	26 out of 35
5. Hawaiian Gardens Casino	5. Hawaiian Gardens Casino	
6. Norwalk Blvd and Wardlow Rd	6. Norwalk Blvd and Wardlow Rd	
7. Los Alamitos Race Course	7. Los Alamitos Race Course	
8. Walmart (at Long Beach Town Center)	8. Walmart (at Long Beach Town Center)	19 out of 35
9. Hooman Toyota	9. Hooman Toyota	
10. N Bellflower Blvd and Stearns St	10. N Bellflower Blvd and Stearns St	
11. Los Altos Market Center	11. Los Altos Market Center	
12. Cerritos College	12. Cerritos College	18 out of 35
13. Lakewood Center	13. Lakewood Center	31 out of 35

SUMMARY OF LEVEL 2 CRITERIA

Scoring for each site will be on a point scale, with 0 being the lowest and 35 being the highest. Each category will have a different amount of points to give more weight to categories that are deemed more important. The sites with the highest scores will be considered for the next Task 3.3 Concept Designs.

GOOGLE STREET VIEW
PERSPECTIVE

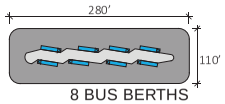
PERSPECTIVE 1

GOOGLE STREET VIEW
PERSPECTIVE

PERSPECTIVE 2

SIZE

A scale plan diagram of an eight-bus terminal with the dimensions of 280 ft by 110 ft helps to illustrate whether the potential site can accommodate the generic terminal.



8 BUS BERTHS

GOOGLE MAP OF
IMMEDIATE
CONTEXT

0' 40' 80' 160' 320'

SITE MAP

SITE NAME

NEAREST INTERSECTION

LAND USE / MAJOR EMPLOYMENT & ACTIVITY CENTERS

0-1	2	3	4	5

The evaluation of existing adjacent sites, their land uses and whether the proposed Transit Center would be a good fit. This also evaluates the existing sites with established building programs that would benefit with a proposed transit center.

FUTURE NEIGHBORING EXPANSION POTENTIAL

0-1	2	3	4	5

The evaluation of sites for adequate space to increase in size to accommodate additional buses and related its services.

EXISTING PROXIMITY TO TRANSIT ACTIVITY

0-1	2	3	4	5

The evaluation of existing service routes within the area.

TRANSIT SERVICE FREQUENCY

0-1	2	3	4	5

The evaluation of existing service routes frequency within the area.

PROXIMITY TO TRANSIT LINE TRANSFER LOCATIONS

0-1	2-3	4-5	6-7

The evaluation of Long Beach Transit services within a 1/4 mile distance of other service providers including: Metro, OCTA and possibly Norwalk, Cerritos and Bellflower.

PROXIMITY TO REGIONAL BIKE FACILITIES

0-1	2	3

The three basic types described by Caltrans are Class I Bike Path, Class II Bike Lane and Class III Bike Route. For more details see the City of Long Beach, City of Cerritos and City of Lakewood Bicycle Plans.

PROJECT DEVELOPMENT COSTS

0-1	2	3	4	5

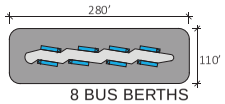
This will take into account the cost of infrastructure improvements and environmental clearances which affect project costs.

POINT TOTAL: X OUT OF 35

NORTHWEST CORNER

SOUTHEAST CORNER

SIZE



8 BUS BERTHS

SITE MAP

SITE 1A: LONG BEACH CITY COLLEGE

CARSON ST AND CLARK AVE

LAND USE / MAJOR EMPLOYMENT & ACTIVITY CENTERS

5

Adjacent to college campus, but across major street from primary buildings. Potential to be located on external portion of campus and potentially complimentary to existing uses.

FUTURE NEIGHBORING EXPANSION POTENTIAL

2

The site is currently an at-grade parking lot for the college. Depending on the future plans of the college and how the Transit Center is designed, there may be limited potential for expansion towards the south. There is no expansion potential toward the East and West.

EXISTING PROXIMITY TO TRANSIT ACTIVITY

4

This site would connect six Long Beach Transit bus lines (93, 112, 176 on Clark; 101, 103, 111, 176 on Carson) but not any lines from other agencies.

TRANSIT SERVICE FREQUENCY

3

The best peak weekday frequency of current service is approximately 16 minutes (high), provided by one line (LBT line 93). LBT Line 176 operates at a service frequency of 30 minutes (medium), and the other lines on adjacent roadways operate at frequencies of 30 to 40 minutes (medium).

PROXIMITY TO TRANSIT LINE TRANSFER LOCATIONS

5

This site could provide a transfer point for six LBT lines. The nearest Metro stop is to the north at Lakewood Center, located approximately one mile away. Location is 3.5 miles from OCTA Route 42.

PROXIMITY TO REGIONAL BIKE FACILITIES

3

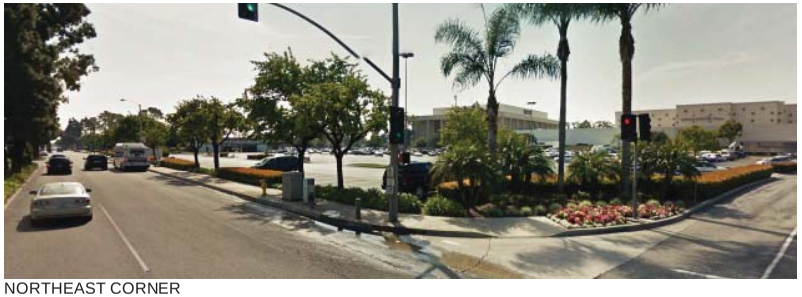
Carson Street – Has Class I Bike Path adjacent (south of) south-curb sidewalk. Bike path continues east of Clark Avenue within the Heartwell Park.
Clark Avenue - Class III (signed) Bike Route south of Carson / Proposed Class II Bike Lane north of Carson.

PROJECT DEVELOPMENT COSTS

2

Due to the current zoning, it may be determined by City Planning or during the Environmental Study that a Transit Center may not be a suitable use for this site. This would lead to a lot of time and cost spent in administrative hearings and legal work?

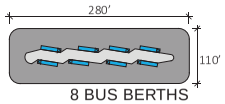
POINT TOTAL: 24 OUT OF 35

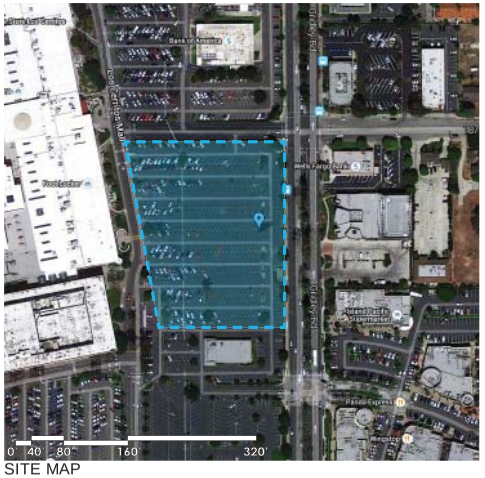


NORTHEAST CORNER

SOUTHEAST CORNER

SIZE





SITE MAP

SITE 2B: LOS CERRITOS CENTER

GRIDLEY RD LOT

LAND USE / MAJOR EMPLOYMENT & ACTIVITY CENTERS

5

Adjacent to a major commercial center/regional mall and satellite retailers.

FUTURE NEIGHBORING EXPANSION POTENTIAL

5

The site is currently an at-grade parking lot for the center. Depending on the how the Transit Center is designed and where it is initially sited, there is very good potential for expansion towards the north and south.

EXISTING PROXIMITY TO TRANSIT ACTIVITY

5

This site is near two Long Beach Transit bus lines (172 and 173) on 183rd Street , two Metro bus lines (62 and 577), one OCTA bus line (30) that has a western terminus at the Center, and Norwalk Transit (2). The same two LBT lines (172 and 173) also serve stops on Gridley Road. Cerritos on Wheels (COW, 1 and 2) operates on Studebaker Road, located approximately ½-mile to the west.

TRANSIT SERVICE FREQUENCY

2

LBT bus lines 172 and 173 operate at a 20 to 30 minute average peak frequency. Metro bus line 62 operates at a frequency of 20 to 30 minutes. Metro bus line 577 operates at a frequency of 30 to 45 minutes. OCTA line 30 operates at a frequency of 45 minutes. There are not any bus lines in the area that currently operate at a high service frequency of 15 minutes or better.

PROXIMITY TO TRANSIT LINE TRANSFER LOCATIONS

7

This site would connect LBT, Metro, OCTA, Cerritos, and Norwalk buses.

PROXIMITY TO REGIONAL BIKE FACILITIES

1

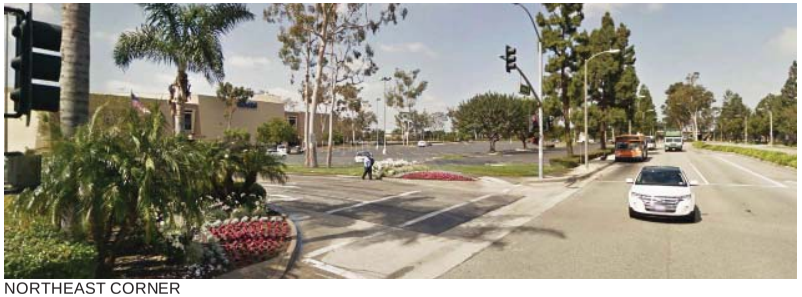
No existing bike lanes or other dedicated facilities appear to be in area. Gridley Rd has a proposed Class III Bike Route. A future Class I bike path is proposed that would follow a northwest-to-southeast diagonal, crossing the Gridley/183rd intersection.

PROJECT DEVELOPMENT COSTS

4

Assuming this is a Public Services Facility, there may be little opposition in the Environmental Study.

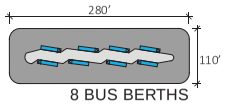
POINT TOTAL: 29 OUT OF 35



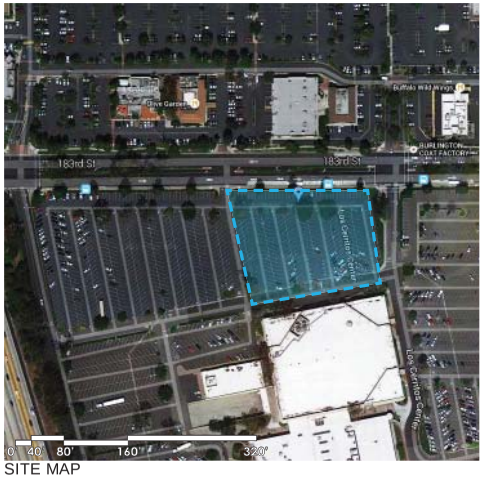
NORTHEAST CORNER

NORTHWEST CORNER

SIZE



8 BUS BERTHS



SITE MAP

SITE 2C: LOS CERRITOS CENTER

183 ST LOT

LAND USE / MAJOR EMPLOYMENT & ACTIVITY CENTERS

5

Adjacent to a major commercial center/regional mall and satellite retailers.
(5/5 points)

FUTURE NEIGHBORING EXPANSION POTENTIAL

5

The site is currently an at-grade parking lot for the center. Depending on the how the Transit Center is designed and initially sited, there is very good potential for expansion towards the east and west.

EXISTING PROXIMITY TO TRANSIT ACTIVITY

5

This site is near to two Long Beach Transit bus lines (172 and 173) on 183rd Street , two Metro bus lines (62 and 577), one OCTA bus line (30, which has a western terminus at the Center), and Norwalk Transit (2). The same two LBT lines (172 and 173) also serve stops on Gridley Road. Cerritos on Wheels (1 and 2) operates on Studebaker Road, located approximately ½-mile to the west.

TRANSIT SERVICE FREQUENCY

5

Studebaker routes require deviation, 83rd street routes do not. 83rd Street has six bus routes that could deviate easily.

PROXIMITY TO TRANSIT LINE TRANSFER LOCATIONS

7

This site connects LBT, Metro, OCTA, COW, Norwalk and possibly Bellflower buses.

PROXIMITY TO REGIONAL BIKE FACILITIES

1

No existing bike lanes or other dedicated facilities appear to be in area. Gridley Rd has a proposed Class III Bike Route. A future Class I bike path is proposed that would follow a northwest-to-southeast diagonal, crossing the Gridley/183rd intersection.

PROJECT DEVELOPMENT COSTS

4

Assuming this is a Public Services Facility, there may be little opposition in the Environmental Study.

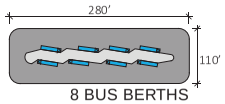
POINT TOTAL: 32 OUT OF 35

91%

SOUTHEAST CORNER

SOUTHWEST CORNER

SIZE



SITE MAP

SITE 4A: VA MEDICAL CENTER

E 7TH ST AND CHANNEL DR

LAND USE / MAJOR EMPLOYMENT & ACTIVITY CENTERS

5

Adjacent to a college campus and a major medical facility. To the south, there is a regional mall.

FUTURE NEIGHBORING EXPANSION POTENTIAL

2

The site is currently an at-grade parking lot for the medical center. It appears the Transit Center may occupy a large portion of this site which would limit future expansion potential.

EXISTING PROXIMITY TO TRANSIT ACTIVITY

5

Pacific Coast Highway is served by two Long Beach Transit bus lines (121 and 171), 7th Street is served by five LBT lines (81, 91, 92, 93, and 94). Bellflower Blvd. is also served by LBT line 171. The PCH and 7th Street corridors are also served by OCTA bus lines 1, 50, and 60. One Metro bus line (577) ends at this site.

TRANSIT SERVICE FREQUENCY

4

The Long Beach Transit bus lines operate at a frequency of 15-45 minutes, but lines 91 through 94 operate as a joint route, sharing an overall main corridor. The overall LBT joint-line frequency is 6 to 8 minutes. The OCTA buses operate at a frequency of 20 to 60 minutes. The Metro line 577 operates at a frequency of 30-40 minutes. There is one bus line in the area that currently operates at a high service frequency of 15 minutes or better, but the shared LBT set of routes has an overall high frequency as well.

PROXIMITY TO TRANSIT LINE TRANSFER LOCATIONS

5

Adjacent to 7th street, Six LBT routes. This site could provide a transfer point for five LBT bus lines, one Metro bus and three OCTA buses.

PROXIMITY TO REGIONAL BIKE FACILITIES

3

7th Street has an existing Class II bicycle lane, to the east of Bellflower Blvd. Pacific Coast Highway has Class II bicycle lanes in both directions. A bike boulevard, a corridor with sharrows (striped symbols for reinforcement of sharing of road between bicycles/ motorists) and traffic calming improvements, is planned for nearby 6th Street, to the west of Bellflower Blvd. Class I bicycle paths also exist on Channel Drive and Bixby Village Drive to the south.

PROJECT DEVELOPMENT COSTS

2

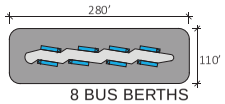
Due to the current zoning, it may be determined by City Planning or during the Environmental Study that a Transit Center may not be a suitable use for this site. This would lead to a lot of time and cost spent in administrative hearings and legal work.

POINT TOTAL: 26 OUT OF 35

NORTHEAST CORNER

NORTHWEST CORNER

SIZE



8 BUS BERTHS

SITE MAP

SITE 8: WALMART

CARSON ST AND LB TOWNE CENTER DR

LAND USE / MAJOR EMPLOYMENT & ACTIVITY CENTERS

5

Adjacent to a major commercial center/regional mall and satellite retailers.

FUTURE NEIGHBORING EXPANSION POTENTIAL

5

The site is currently an vacant lot and can accommodate a fully programmed Transit Center. It does not appear to have any limits for future expansion potential in any direction.

EXISTING PROXIMITY TO TRANSIT ACTIVITY

2

This site would provide a connection point for two LBT lines (101 and 173), unless other lines are restructured/rerouted to serve the center. The site is one mile from OCTA Route 42 and 1.5 miles from OCTA Route 38. OCTA may consider extending service to this location. Metro operates express service via Line 577 on the adjacent I-605 freeway to the east but does not have local stops in the area. Local Metro Line 62 has an eastern terminus near Norwalk Boulevard and 226th Street, which is approximately two miles by roadway to the east.

TRANSIT SERVICE FREQUENCY

1

LBT joint bus line 101/103 has a service frequency of 20 to 40 minutes. LBT bus line 173 has a service frequency of 20 to 30 minutes. There are not any bus lines in the area that currently operate at a high service frequency of 15 minutes or better.

PROXIMITY TO TRANSIT LINE TRANSFER LOCATIONS

1

This site connects LBT only. Metro and OCTA stops are one to two miles away.

PROXIMITY TO REGIONAL BIKE FACILITIES

3

The San Gabriel River Trail has an access point immediately west of this site, which is a Class I bike path. This connects north and south, and also connects with El Dorado Regional Park, which has a recreational bicycle network. Carson Street also has a Class I bike path within a dedicated area south of the south-curb sidewalk. Connections are provided to west, including north-south Class II bicycle lanes and neighborhood Class III signed bicycle routes.

PROJECT DEVELOPMENT COSTS

2

Due to the current zoning, it may be determined by City Planning or during the Environmental Study that a Transit Center may not be a suitable use for this site. This would lead to a lot of time and cost spent in administrative hearing and legal work.

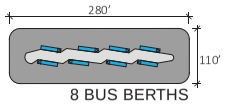
POINT TOTAL: 19 OUT OF 35

54%

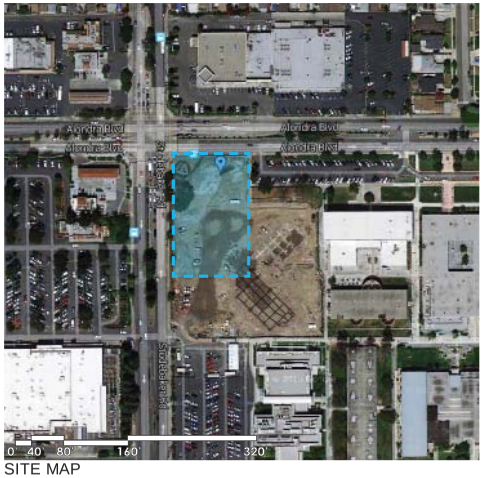
NORTHEAST CORNER

SOUTHWEST CORNER

SIZE



8 BUS BERTHS



SITE MAP

SITE 12: CERRITOS COLLEGE

STUDEBAKER RD AND ALONDRA BLVD

LAND USE / MAJOR EMPLOYMENT & ACTIVITY CENTERS

4

Site is at college, but at northwest corner on periphery. The other 3 corners have commercial and retail uses.

FUTURE NEIGHBORING EXPANSION POTENTIAL

3

The site is currently a vacant lot for the college. Depending on the future plans of the college and how the Transit Center is designed, there is some potential for expansion towards the south.

EXISTING PROXIMITY TO TRANSIT ACTIVITY

3

This site would potentially connect two Long Beach Transit bus lines (172 and 173) and one Norwalk Transit but line (2) that currently operate on Studebaker Road. One Metro bus line (128) and one Norwalk Transit bus line (1) operate on Alondra Boulevard.

TRANSIT SERVICE FREQUENCY

1

The joint LBT bus lines 172, 173, and 174 have a combined service frequency of 20-30 minutes. Metro bus line 128 has a service frequency of 50 minutes. The Norwalk Transit bus lines have a frequency of 45 minutes. There are no bus lines in the area that currently operate at a high service frequency of 15 minutes or better.

PROXIMITY TO TRANSIT LINE TRANSFER LOCATIONS

4

This site connects LBT, Metro and Norwalk buses. A Cerritos on Wheels service point is to the south, within 1/2 mile. This site is located 2.5 miles from OCTA Route 30. OCTA is not likely to extend service to this location. Metro operates express service via Line 577 on the nearby I-605 freeway to the west but does not have local stops in the area.

PROXIMITY TO REGIONAL BIKE FACILITIES

1

No existing bike lanes or other dedicated facilities appear to be in the immediate area. Studebaker Road has a proposed Class II Bike Lane.

PROJECT DEVELOPMENT COSTS

2

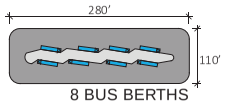
Due to the current zoning, it may be determined by City Planning or during the Environmental Study that a Transit Center may not be a suitable use for this site. This would lead to a lot of time and cost spent in administrative hearing and legal work.

POINT TOTAL: 18 OUT OF 35

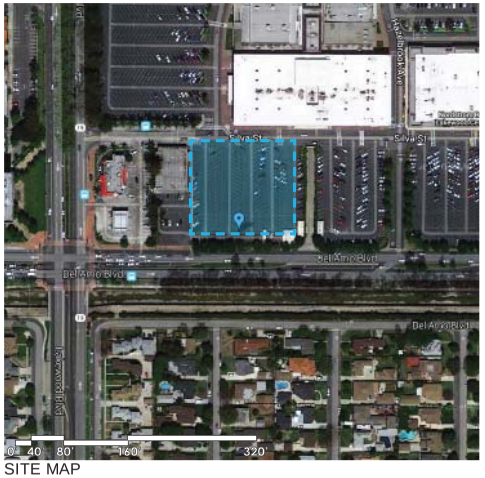
SOUTHEAST CORNER

SOUTHWEST CORNER

SIZE



8 BUS BERTHS



SITE MAP

SITE 13: LAKEWOOD CENTER

LAKEWOOD BLVD AND DEL AMO BLVD

LAND USE / MAJOR EMPLOYMENT & ACTIVITY CENTERS

5

The site is adjacent to a regional mall. There is potential to be located on external portion of property depending on the proposed design and potentially complimentary to existing uses. To the west are retailers and to the south are single-family residential.

FUTURE NEIGHBORING EXPANSION POTENTIAL

5

The site is currently an at-grade parking lot for the center. Depending on the future plans of the center and how the Transit Center is designed and initially sited, there is very good potential for expansion towards the north, east or west.

EXISTING PROXIMITY TO TRANSIT ACTIVITY

5

This site connects LBT and Metro buses. Lakewood Boulevard has five LBT bus transit lines (93, 103, 111, and 112). Lakewood Boulevard is also served by two Metro bus transit lines (265 and 266). Del Amo Boulevard is served by LBT line 93 (on a loop around the mall via Del Amo, Lakewood, Candlewood, and Clark) and LBT line 191.

TRANSIT SERVICE FREQUENCY

3

LBT line 93 operates at a trip frequency of 30 to 60 minutes. LBT line 103 operates at a frequency of 10 to 45 minutes. LBT joint lines 111 and 112 operate at a combined trip frequency of 20 minutes. Metro line 265 operates at a trip frequency of 30 to 60 minutes, and line 266 operates at a trip frequency of 30 to 40 minutes. One LBT bus line has a peak frequency of 15 minutes or better.

PROXIMITY TO TRANSIT LINE TRANSFER LOCATIONS

5

This site connects five LBT and two Metro buses. This site is 3.5 miles from OCTA Route 38, and OCTA is not likely to extend service to this location.

PROXIMITY TO REGIONAL BIKE FACILITIES

3

Class II bike lanes exist on Del Amo Boulevard, to the east of the mall and Fidler Avenue, and also to the west of Lakewood Boulevard. A Class I bike path on the south side of the roadway, next to a storm channel, links the bike lane segments together. Clark Avenue is a designated Class III signed bike route.

PROJECT DEVELOPMENT COSTS

5

The current zoning allows for Bus Terminal use which would lead to no conflicts in the Environmental Study.

POINT TOTAL: 31 OUT OF 35

APPENDIX D: COST ESTIMATES

7TH ST: LOOP FACILITY

7th St: Loop Transit Center					
Item	**Unit**	**Price**	**Quantity**	**Cost**	**Notes**
Soft Costs					
Survey	LS	$ 20,000	1	$ 20,000	
Geotechnical testing	LS	$ 8,000	1	$ 8,000	
Demolition					
bus shelter demolition	EA	$ 500	6	$ 3,000	shelters on 7th at Channel Dr and Campus Dr
information kiosk demolition	LS	$ 3,000	0	$ -	not applicable
landscape removal	SY	$ 5	15000	$ 75,000	W Campus Dr
irrigation line removal	SY	$ 2	0	$ -	
sawing pavement	LF	$ 12	670	$ 8,040	pullouts on 7th st
pavement removal	SY	$ 15	8790	$ 131,850	pullouts on 7th st
light pole removal	EA	$ 500	14	$ 7,000	
sign removal	EA	$ 150	4	$ 600	
Landscape and Furnishings					
Re-sod	SF	$ 2.35	0	$ -	
Irrigation	SF	$ 2.35	19250	$ 45,237.50	along W campus Dr
Bus Shelters, custom	EA	$ 60,000	4	$ 240,000	
Transit Information kiosk	EA	$ 40,000	1	$ 40,000.00	
Pedestrian Lighting	EA	$ 7,500	20	$ 150,000.00	
Street Lights, 150' oc both sides	EA	$ 10,000	14	$ 140,000.00	
bike hub	LS	$ 162,000	1	$ 162,000.00	
trees, grated	EA	$ 2,850	0	$ -	
landscape, seed and shrub	SF	$ 35	19250	$ 673,750.00	tree lawn access drive and campus dr, edges of loop, 7th st median @ USCLB
Signage	LS	$ 40,000	1	$ 40,000.00	
Paving					
subgrade prep/clear and grub	SY	$ 25	8592	$ 214,792	
asphalt paving, base course incl	SF	$ 2	0	$ -	
concrete curb and guttter/drain pan	LF	$ 35	3280	$ 114,800	access road (both sides), outer loop, inner island, 7th ST median @ USCLB
Concrete drive-reinforced, base course incl	SF	$ 16	77325	$ 1,237,200	access road plus loop minus island
curb ramp	EA	$ 1,500	14	$ 21,000	
sidewalk, 10' wide	SF	$ 6	6300	$ 37,800	N side of loop, campus drive to intersection; does not include Campus dr north of intsxn
pavers	SF	$ 14	4200	$ 58,800	
Utilities					
fire hydrant relocation	EA	$ 10,000	0	$ -	
communications pedestal and transformer relocation	LS	$ 25,000	0	$ -	
irrigation connection relocation	LS	$ 50,000	0	$ -	
intersecton signalization	LS	$ 150,000	1	$ 150,000	signalize Campus Dr/Access Road
Parking					
surface parking lot, asphalt (replacement)	space	$ 7,000	320	$ 2,240,000	alternate: additional $2.24 million
alternate: structured parking (replacement)	space	$ 25,000	0	$ -	alternate: $8 million
Other					
rough and fine grading, West Campus Drive	LS	$ 200,000	0	$ -	likely need extensive regrading along West Campus Drive, approx 15K SF@$15/SF
			SUBTOTAL	**$ 5,818,869**	
			MOBILIZATION 5%	**$ 290,943**	
			ENGINEERING/DESIGN 8%	**$ 465,510**	
			CONSTRUCTION OVERSIGHT 1%	**$ 58,189**	
			PUBLIC ART ALLOWANCE 5%	**$ 290,943**	
			PROJECT MANAGEMENT 5%	**$ 290,943**	
			CONTINGENCY 25%	**$ 1,454,717**	
			TOTAL	**$ 8,670,115**	

Campus Dr →
+/- 2 shelters
125'x2 curb
radius 126.30
trees + plant
← Channel Dr
+/- 2 bus shelters
240'x12 conc. pullout
150'x12
60 SCALE

Beach Drive: In-Line Transit Center					
Item	**Unit**	**Price**	**Quantity**	**Cost**	**Notes**
Soft Costs					
Survey	LS	$ 20,000	1	$ 20,000	block length = 775' N, 600' south
Geotechnical testing	LS	$ 8,000	1	$ 8,000	sidewalk = 9' wide
Demolition					
bus shelter demolition	EA	$ 500	2	$ 1,000	
information kiosk demolition	LS	$ 3,000	1	$ 3,000	
landscape removal	SY	$ 5	17550	$ 87,750	
irrigation line removal	SY	$ 2	17550	$ 35,100	
sawing pavement	LF	$ 12	1185	$ 14,220	
pavement removal	SY	$ 15	1580	$ 23,700	
light pole removal	EA	$ 500	8	$ 4,000	
sign removal	EA	$ 150	6	$ 900	
Landscape and Furnishings					
Re-sod	SF	$ 2.35	5850	$ 13,748	n side, behind new sidewalk
Irrigation	SF	$ 2.35	5850	$ 13,748	n side, behind new sidewalk
Bus Shelters	EA	$ 10,000	10	$100,000	stock
Transit Information kiosk	EA	$ 12,000	1	$ 12,000	assume static; dynamic $40K
Pedestrian Lighting	EA	$ 7,500	9	$ 67,500	
Street Lights, 150' oc both sides	EA	$ 10,000	8	$ 80,000	relocate those removed under demolition, above
bike hub	LS	$ 162,000	1	$ 162,000	19'x28' (double racks, 54 spaces); secure rack enclosure, $3K/space
trees, grated	EA	$ 2,850	13	$ 37,050	southern edge of parking lot
landscape, seed and shrub	SF	$ 35	26550	$ 929,250	north and south edges of parking lot
Signage	LS	$ 40,000	1	$ 40,000	
Paving					
subgrade prep/clear and grub	SY	$ 25	5573	$ 139,333	
asphalt paving, base course incl	SF	$ 2	0	$ -	asphalt mat, 6" thick: $120/ton = 100 SF; aggregate base: $40/ton=50SF
concrete curb and guttter/drain pan	LF	$ 35	2760	$ 96,600	north and southsides Beach Drive, both sides bus return road
Concrete drive-reinforced, base course incl	SF	$ 16	50160	$ 802,560	2-540' long 12' wide continuous bus pad, w and e drives, bus road
curb ramp	EA	$ 1,500	7	$ 10,500	
sidewalk, 20' wide, both sides	SF	$ 6	28200	$ 169,200	block length = 810' N, 600' south
pavers, INCL BASE COURSE	SF	$ 35	0	$ -	not used
Utilities					
fire hydrant relocation	EA	$ 10,000	1	$ 10,000	
communications pedestal and transformer relocation	LS	$ 25,000	1	$ 25,000	assumed
irrigation connection relocation	LS	$ 50,000	1	$ 50,000	assumed
intersecton signalization	LS	$ 150,000	0	$ -	not necessary
Parking					
surface parking lot, asphalt (replacement)	space	$ 7,000	0	$ -	parking preserved
alternate: structured parking (replacement)	space	$ 25,000	0	$ -	
Other					
relocation/rebuild of USCLB Info Kiosk	LS	$ 40,000	1	$ 40,000	tollbooth style, 200 SF @ $200/SF
			SUBTOTAL	**$ 2,996,158**	
			MOBILIZATION 5%	**$ 149,808**	
			ENGINEERING/DESIGN 8%	**$ 239,693**	
			CONSTRUCTION OVERSIGHT 1%	**$ 29,962**	
			PUBLIC ART ALLOWANCE 5%	**$ 149,808**	
			PROJECT MANAGEMENT 5%	**$ 149,808**	
			CONTINGENCY 25%	**$ 749,040**	
			TOTAL	**$ 4,464,276**	

LONG BEACH TRANSIT

CSULB TRANSIT CENTER - INLINE

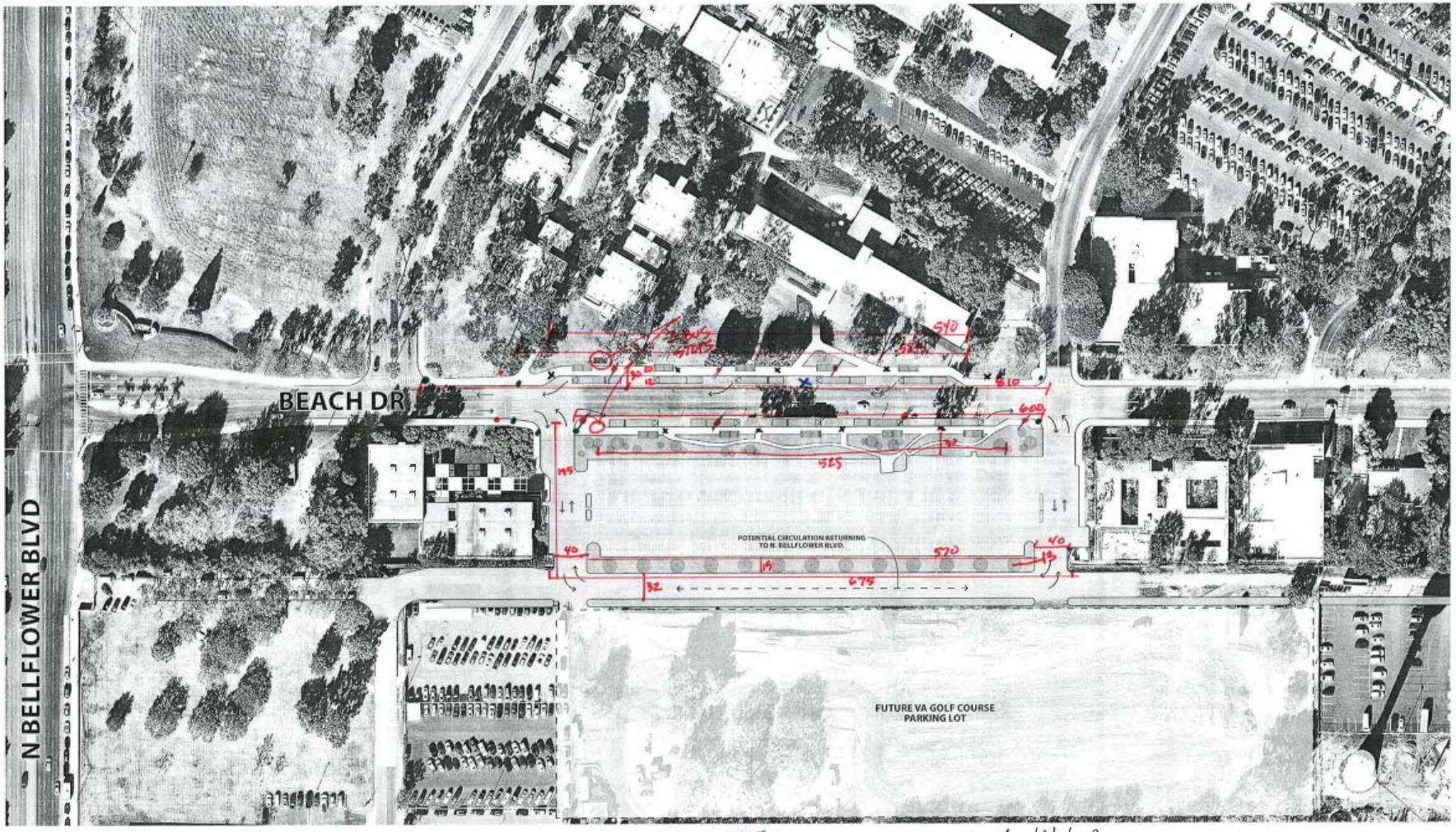
ENTRANCE FROM N. BELLFLOWER BLVD.
CIRCULATION SHARED WITH NW CORNER OF VA HOSPITAL LONG BEACH

PRELIMINARY - 12.15.2015

SCALE: 1" = 50'

N

RNL



Beach Drive: Loop Transit Center					
Item	**Unit**	**Price**	**Quantity**	**Cost**	**Notes**
Soft Costs					
Survey	LS	$ 20,000	1	$ 20,000	
Geotechnical testing	LS	$ 8,000	1	$ 8,000	
Demolition					
bus shelter demolition	EA	$ 500	2	$ 1,000	
information kiosk demolition	LS	$ 3,000	0	$ -	kiosk maintained
landscape removal	SY	$ 5	26325	$ 131,625	N side of ex lot
irrigation line removal	SY	$ 2		$ -	not necessary
sawing pavement	LF	$ 12	455	$ 5,460	remove 190' x 15' @ USCLB kiosk; remove 265x12 @ N side bus stop
pavement removal	SY	$ 15	10795	$ 161,925	see above (6030 SF): 9 SF = 1 SY; remove existing pk lot(675*135)
light pole removal	EA	$ 500	3	$ 1,500	
sign removal	EA	$ 150	3	$ 450	
Landscape and Furnishings					
Re-sod	SF	$ 2.35	2850	$ 6,697.50	bus stop on N side of Beach Dr
Irrigation	SF	$ 2.35	2850	$ 6,697.50	
Bus Shelters, custom	EA	$ 60,000	5	$ 300,000	
Transit Information kiosk	EA	$ 40,000	1	$ 40,000.00	assume dynamic (enhanced amenity level); if static $12K
Pedestrian Lighting	EA	$ 7,500	14	$ 105,000.00	
Street Lights, 150' oc both sides	EA	$ 10,000	11	$ 110,000.00	
bike hub	LS	$ 162,000	1	$ 162,000.00	19'x28' (double racks, 54 spaces); secure rack enclosure, $3K/space
trees, grated	EA	$ 2,850	4	$ 11,400.00	
landscape, seed and shrub	SF	$ 35	15400	$ 539,000.00	385' x 40, north edge of lot
Signage	LS	$ 40,000	1	$ 40,000.00	
Paving					
subgrade prep/clear and grub	SY	$ 25	8100	$ 202,500	
asphalt paving, base course incl	SF	$ 2	0	$ -	
concrete curb and guttter/drain pan	LF	$ 35	3555	$ 124,425	
Concrete drive-reinforced, base course incl	SF	$ 16	72900	$ 1,166,400	loop; optional bus drive not included
curb ramp	EA	$ 1,500	9	$ 13,500	
sidewalk, 10' wide	SF	$ 6	8350	$ 50,100	N side replacement at ex bus stop, s side replacement, s meander (5')
pavers	SF	$ 14	6275	$ 87,850	at transit plaza, both ends of loop
Utilities					
fire hydrant relocation	EA	$ 10,000	0	$ -	not necessary
communications pedestal and transformer relocation	LS	$ 25,000	0	$ -	assumed not necessary
irrigation connection relocation	LS	$ 50,000	0	$ -	assumed not necessary
intersecton signalization	LS	$ 150,000	2	$ 300,000	likely need to signalize both access points to bus facility
Parking					
surface parking lot, asphalt (replacement)	space	$ 7,000	270	$ 1,890,000	
alternate: structured parking (replacement)	space	$ 25,000	0	$ -	alternate: $6.75 million
Other					
relocation/rebuild of USCLB Info Kiosk	LS	$ 40,000	0	$ -	kiosk maintained
			SUBTOTAL	**$ 5,485,530**	
			MOBILIZATION 5%	**$ 274,277**	
			ENGINEERING/DESIGN 8%	**$ 438,842**	
			CONSTRUCTION OVERSIGHT 1%	**$ 54,855**	
			PUBLIC ART ALLOWANCE 5%	**$ 274,277**	
			PROJECT MANAGEMENT 5%	**$ 274,277**	
			CONTINGENCY 25%	**$ 1,371,383**	
			TOTAL	**$ 8,173,440**	

LONG BEACH TRANSIT

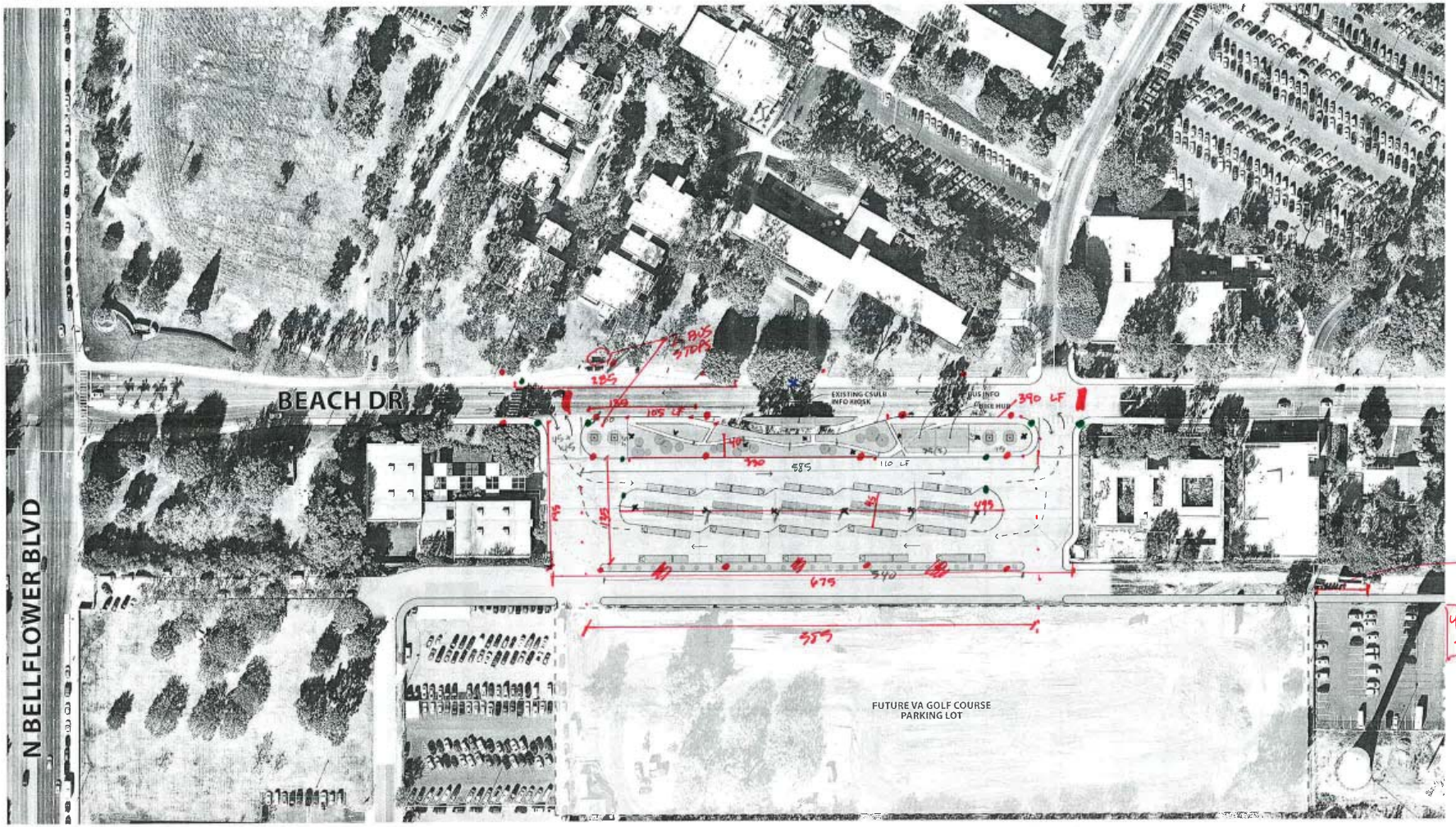
CSULB TRANSIT CENTER - LOOP

ENTRANCE FROM N. BELLFLOWER BLVD.
CIRCULATION SHARED WITH NW CORNER OF VA HOSPITAL LONG BEACH

PRELIMINARY - 12.15.2015

SCALE: 1" = 50'

NTS



CURB RAMP 9
SIGNAL
EX. ST LIGHT (1 RELOCATE) 3
HYDRANT
PED LIGHT 14