RESOLUTION NO R-2014-082

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLYWOOD, FLORIDA, RECOMMENDING AN AMENDMENT TO THE BROWARD COUNTY TRAFFICWAYS PLAN TO ADD THE "CONTEXT SENSITIVE CORRIDOR" DESIGNATION TO A PORTION OF DIXIE HIGHWAY/21ST AVENUE BETWEEN PEMBROKE ROAD AND SHERIDAN STREET.

WHEREAS, in accordance with Section 163.3177(6)(b), Florida Statutes, the City previously adopted the Broward County Trafficways Plan ("Trafficways Plan") as part of the traffic circulation element of the City's Comprehensive Plan; and

WHEREAS, the Broward County Planning Council has established a procedure whereby waivers and amendments to the requirements of the Trafficways Plan may be considered; and

WHEREAS, the City of Hollywood desires to implement Complete Streets solutions along the Dixie Highway/21st Avenue corridor; and

WHEREAS, the proposed amendment to add the "Context Sensitive Corridor" designation to the Trafficways Plan section of Dixie Highway/21st Avenue will allow for the implementation of the Complete Streets Solution; and

WHEREAS, the proposed "Context Sensitive Corridor" designation will further facilitate the implementation of the Transit Oriented Corridor envisioned to accommodate the safe movement of vehicular traffic, mass transit and pedestrians along the mixed-use Dixie Highway/21st Avenue corridor; and

WHEREAS, the City Commission of the City of Hollywood, after due consideration of all matters, hereby finds that the proposed amendment is in conformance with the City of Hollywood Comprehensive Plan, and is in the best interest of the health, safety, and welfare of the citizens of Hollywood;

NOW THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLYWOOD, FLORIDA:

Section 1 That the foregoing WHEREAS paragraphs are hereby ratified and confirmed as being true and the same are hereby made a specific part of this Resolution.

Section 2: That the City Commission of the City of Hollywood recommends the amendment to the Broward County Trafficways Plan to add the "Context Sensitive Corridor" designation to a portion of Dixie Highway/21st Avenue between Pembroke Road and Sheridan Street.

Section 3: The City Clerk is hereby instructed to transmit a copy of this Resolution to the Broward County Planning Council.

Section 4: That this resolution shall be in full force and effect immediately upon its passage and adoption.

PASSED AND ADOPTED this 2 day of April, 2014.

PETER BOBER, MAYOR

ATTEST:

PATRICIA A. CERNY, MMC, CITY CLERK

APPROVED AS TO FORM AND LEGALITY
for the use and reliance of the
City of Hollywood, Florida, only.

JEFFREY P. SHEFFEL, CITY ATTORNEY

Kimley-Horn
and Associates, Inc.

LETTER OF APPLICATION

February 24, 2014
Rev. August 5, 2014

Ms. Barbara Blake Boy, Executive Director
Broward County Planning Council
115 South Andrews Avenue, Room 307
Fort Lauderdale, Florida 33301

Re: Application for Broward County Trafficways Amendment
Context Sensitive Corridor designation
Dixie Highway/21st Avenue from Pembroke Road to Sheridan Street
City of Hollywood

Dear Ms. Blake Boy:

The City of Hollywood is requesting an amendment to the Broward County Trafficways Plan for Dixie Highway/21st Avenue from Pembroke Road to Sheridan Street from 54 foot one way pair to 54 foot one way pair context sensitive corridor. This Trafficways Plan Amendment will provide for greater flexibility within the right-of-way by:

- Allowing for a reduction in design speed
- Allowing on street parking
- Allowing for the elimination of exclusive right turn lanes at some intersections
- Allowing for wider sidewalks
- Allowing for green buffered bike lanes

These changes are consistent with the City's vision for the area to create a more walkable, livable corridor. The changes will allow for a more pedestrian friendly environment and a transit-ready corridor in advance of the potential re-introduction of passenger rail service through the Tri-Rail Coastal Link project.

<u>AMENDMENT SUPPORT INFORMATION</u>

A. If a specific right-of-way plan or (re)alignment is proposed for a corridor, engineering drawings and/or other supporting documentation to establish the precise (re)alignment must be provided.

Response: The Trafficways Plan amendment intends to make no change to the width of the right-of-way for Dixie Highway/21st Avenue. The City is interested in having the option to allow the roadways to become more pedestrian and bicycle friendly as the area is redeveloped into a mixed use designation for the surrounding community. EXHIBITS A through D identify lane widths currently being recommended and studied for the Dixie Highway/21st Avenue corridor north of Tyler Street (at the Downtown Hollywood Station Area) and south of Fillmore Street (Downtown Hollywood Station Pick-Up/Drop-Off Area). Please note that the final widths have not been approved by the City Commission of the City of Hollywood. Below is a description of each portion of right-of-way.

21st Avenue Corridor

1. **A twelve (12) to fourteen (14) foot sidewalk on the east side to promote safe pedestrian mobility and the proper use of sidewalk zone design criteria**
2. **A two (2) foot curb and gutter on each side of 21st Avenue**
3. **An eight (8) foot (including curb and gutter) on-street parking lane with intermittent landscaped bulb-outs on the east side of 21st Avenue**
4. **A two (2) to four (4) foot door zone separating on-street parking from the bike lane**
5. **A four (4) foot bike lane**
6. **A two (2) foot buffer between the bike lane and the right motor vehicle lane**
7. **Two (2) ten foot motor vehicle lanes**
8. **Street trees and landscaping**
9. **Decorative lighting**

Dixie Highway

1. **An eight (8) to ten (10) foot sidewalk on the west side of Dixie Highway**
2. **A two (2) foot curb and gutter on each side of Dixie Highway**
3. **An eight (8) foot (including curb and gutter) on-street parking lane with intermittent landscaped bulb-outs on the west side of Dixie Highway**

4. **A two (2) to four (4) foot door zone separating on-street parking from the bike lane**
5. **A four (4) foot bike lane**
6. **A two (2) foot buffer between the bike lane and the right motor vehicle lane**
7. **Two (2) ten foot motor vehicle lanes**
8. **A ten (10) foot greenway trail on the east side of Dixie Highway**
9. **Street trees and landscaping**
10. **Decorative lighting**

B. Amendments to specific Trafficways which are also identified as "State Principal Arterial" or "State Minor Arterial" on the current Broward County State Highway Functional Classification Map must be accompanied by a position statement from the District IV Secretary of the Florida Department of Transportation. A2-2.

Response: Not applicable. Dixie Highway/21st Avenue is neither a State Principal Arterial nor a State Minor Arterial.

C. Describe the existing and planned future land uses, per the effective municipal land use plan(s), in the amendment area.

Response: The existing zoning along the corridor includes Neighborhood Commercial Medium Intensity, Neighborhood Commercial High Intensity (CN-3), Government Use District (GU), Central City Commercial Low Intensity (CCC-1), North Downtown District 1 (ND-1), and North Downtown District 2 (ND-2). The new proposed zoning map would allow for a mix of uses along Dixie Highway/21st Avenue corridor. The existing and proposed zoning map of the amendment area has been included as Exhibit E.

D. Describe the current availability of public right-of-way along the amendment corridor and the extent of existing uses and structures within the current and/or proposed Trafficways corridor.

Response: The Dixie Highway/21st Avenue roadways are classified in the Trafficways Plan as 54 foot one way pair. The existing corridor in the area is lined with primarily commercial uses. Adequate right-of-way exists along the corridor.

E. Describe the feasibility of acquiring additional rights-of-way along the amendment corridor as per the current and/or proposed Trafficways Plan width through the development and/or redevelopment of adjacent parcels.

Response: Not applicable. The City is not proposing to acquire any additional right-of-way along the Dixie Highway/21st Avenue corridor.

F. Describe impacts the amendment may have on ingress and egress relative to adjacent properties.

Response: There should be no impact on the ingress and egress of adjacent properties. The Broward County Land Development Code and City of Hollywood Land Development Code will continue to regulate ingress and egress of adjacent parcels.

G. Describe anticipated impacts on transit, bicycle, or pedestrian travel along the subject Trafficways segment and on the surrounding regional roadway network. Planning Council staff will collect the information listed below and analyze traffic impacts resulting from the amendment. You may provide a traffic impact analysis for the amendment. If you submit a traffic impact analysis, please address the items listed below and provide information on the methodology utilized.

Response: The Dixie Highway/21st Avenue corridor is currently serviced by Broward County Transit bus service lines 6, 7, and 9. There are no bicycle lanes present; however, there is sidewalk present along the outside of Dixie Highway and 21st Avenue. The anticipated impacts on mass transit, bicycle, or pedestrian mobility are that these desired transport modes will be greatly improved. The sidewalks are proposed to be widened and shade trees added, with on-street parking being proposed along the corridor to provide separation between pedestrians and motor vehicle travel lanes. Green bike lanes are also being added within the section, with buffer space and door zones to provide additional separation for bicyclists from motor vehicle travel lanes and on-street parking.

A traffic impact analysis was conducted for the lane reduction proposed for the corridor. The analysis determined that future traffic conditions will not be negatively impacted by the proposed lane reduction. In addition, the lane reduction will improve mobility conditions for pedestrians and

bicyclists. The traffic impact analysis is included under separate cover in the submittal of this Trafficways Plan Amendment.

H. Provide the current average daily traffic volumes, roadway capacity, and level of service for the Trafficways segment proposed for amendment and the affected surrounding regional roadway network.

Response: Current average daily volumes, roadway capacity and level of service for this corridor are found within the traffic study. The traffic study is included under separate cover in the submittal of this Trafficways Plan Amendment. The traffic analysis determined that future traffic conditions will not be negatively impacted by the proposed lane reduction. Furthermore, the traffic study findings demonstrate that there is significant excess capacity anticipated to be available on Dixie Highway and N/S 21st Avenue in the future conditions after the proposed lane elimination, which will limit any potential "spill over" traffic impacts. Therefore, any "spill over" traffic from Dixie Highway and N/S 21st Avenue to adjacent parallel roadways resulting from the proposed lane elimination is anticipated to be negligible because the Dixie Highway and N/S 21st Avenue corridor will continue to have significant excess capacity and will continue to operate at LOS C.

I. Provide Broward County Five (5) Year and Adopted Long Range Transportation Plan average daily traffic volumes, roadway capacities, and levels of service for the Trafficways segment proposed for amendment and the surrounding regional roadway network, both with and without the amendment.

Response: A traffic study was performed in the area which included intersection and roadway segment level of service analysis for existing and future conditions. The traffic study is included under separate cover in the submittal of this Trafficways Plan Amendment.

J. Indicate what improvements are programmed or planned for the Trafficways segment proposed for amendment, including intersection, mass transit, bikeway, and pedestrian improvements. Indicate the year of the programmed of planned improvement(s).

Response: The FY 2013/2014 – FY 2017/2018 Transportation Improvement Plan (TIP) lists the following project planned in the next five years that intersects the study corridor.

i. Sheridan Street from Dixie Highway to US 1, Add 2L (6LD)

The 2035 Long Range Transportation Plan (LRTP) lists the following roadway, transit, greenway, bicycle and pedestrian cost feasible projects, planned in the next five years that intersects the study corridor.

i. Sheridan Street from Dixie Highway to US 1, 0.4 miles, from 4 to 6 lanes (6LD)

We trust these responses, exhibits, and attachments adequately address the Trafficways Plan Amendment requirements. If there are any comments or questions, please contact me via e-mail at stewart.robertson@kimley-horn.com or via phone at (954) 535-5104.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Stewart E. Robertson

Stewart Robertson, P.E.
Transportation Engineer

Cc: Pete Schwarz, Planning Manager
Susan Goldberg, AIA, NCARB, LEED GA
Jonathan Vogt, P.E.
Walter Wernecke, RA

Enclosures

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Kimley-Horn
and Associates, Inc.

RESPONSE TO COMMENTS

August 5, 2014

Ms. Barbara Blake Boy, Executive Director
Broward County Planning Council
115 South Andrews Avenue, Room 307
Fort Lauderdale, Florida 33301

Re: Application for Broward County Trafficways Amendment
Context Sensitive Corridor designation
Dixie Highway/21st Avenue from Pembroke Road to Sheridan Street
City of Hollywood

Dear Ms. Blake Boy:

The City of Hollywood offers the following response to comments received on the February 24, 2014, Letter of Application for a Broward County Trafficways Amendment for the Dixie Highway/21st Avenue Context Sensitive Corridor designation. The comment letters received from each agency are attached.

BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION

1. On-street parking is shown on Exhibits A, B, and C but is not specifically listed as a design element in Section A of the Letter of Application. All design elements proposed for the corridor including street trees, decorative lighting, etc. should be listed in the narrative in Section A.

   Response: On-street parking is included in the narrative for Section A; however, we modified the narrative to specify an eight (8) foot (including curb and gutter) on-street parking lane with intermittent landscaped bulb-outs. In addition, we modified the narrative for Section A to include street trees, landscaping, and decorative lighting.

2. The proposal appears to be acceptable from a roadway operations stand point. However, staff notes that implementation of this application will result in an overall reduction in roadway capacity in this area. The application as submitted does not seem to consider the potential "spill over" traffic impacting other area roadways. In particular, Staff recommends expanding the traffic study to include the collateral impacts to Federal Highway and N/S 26th Avenue.

Response: The traffic study has been updated to address the potential "spill over" traffic impacting parallel roadways. In addition, the narrative for Section H in the application letter has been updated to reflect the results of the "spill over" traffic analysis. The results demonstrate that adjacent parallel roadways in the vicinity will not be negatively impacted by the proposed lane reduction.

The study team analyzed the area utilizing the Southeast Florida Regional Planning Model (SERPM) Version 6.5.4. However, it was found that the base year (2005) traffic volume in the Dixie Highway/21st Avenue corridor reported in SERPM ranges from approximately 11,500 per direction to approximately 16,500 per direction, which is an order of magnitude 2 to 3 times higher than actual 2005 traffic counts. The traffic study shows that actual daily traffic counts between 2005 and 2012 range from 5,000 to 7,000 depending on location within the corridor. A similar concern propagates in the future 2035 SERPM model regarding over-representation of traffic volumes. Therefore, SERPM was deemed to be an unreliable tool for analyzing the potential traffic "spill over" in this corridor due to inaccurate base condition traffic volume.

An alternative methodology was employed that calculated excess capacity on roadways in the future conditions with and without the proposed lane elimination. The excess capacity is represented as the percentage of the maximum hourly service capacity that remains unused by peak hour traffic volumes on the roadway. Excess capacity can be calculated by subtracting the 2040 anticipated peak hour volume from the maximum hourly service capacity, and then dividing by the maximum hourly service capacity.

The results show that there is more excess capacity anticipated to be available on Dixie Highway and N/S 21st Avenue in the future conditions after the proposed lane elimination than on U.S. 1 Federal Highway. Peak hour excess capacity on Dixie Highway and N/S 21st Avenue ranges from 55% to 62% in the future conditions even after the proposed lane elimination. Therefore, any "spill over" traffic from Dixie Highway and N/S 21st Avenue to adjacent parallel arterials resulting from the proposed lane elimination is anticipated to be negligible because the Dixie Highway and N/S 21st Avenue corridor will continue to have significant excess capacity and will continue to operate at LOS C.

3. Over time, the cumulative impact of capacity reductions (such as this amendment on Dixie Highway / 21st Avenue) will tend to preclude consideration of similar treatments to other Trafficway adjoining corridors.

Response: Noted. Each capacity reduction will need to be studied including the impact of previously approved capacity reductions.

4. Prior to issuance of HCED permits for installation of landscaping, irrigation, decorative lighting, pavers, etc., a maintenance agreement between the City and the County will be required.

Response: Noted.

BROWARD COUNTY TRANSPORTATION DEPARTMENT, TRANSIT DIVISION

Broward County Transit (BCT) Division, Service and Capital Planning staff has reviewed the proposed PCTW 14-1A Trafficways Amendment. Current fixed-route county bus service to the proposed Dixie Highway/21st Avenue Trafficway is currently provided by three (3) BCT bus routes. BCT Route 6 between Washington Street and Pembroke Road that have five (5) bus stops [Bus ID 478, 479, 480, 481, & 482]; BCT Route 7 between Tyler Street and Van Buren Street that traverses a short section of Dixie Highway with no bus stops along it; and BCT Route 9 between Tyler Street and Johnson Street that traverses a short section of Dixie Highway with no bus stops along it.

Broward County Transit is supportive of the proposed context sensitive corridor designation. As the area redevelops along this corridor, appropriate ADA infrastructure be incorporated that will make streets safe for all users, including those who walk, ride bikes and use public transportation. In addition, it will improve the current built environment, enhance the pedestrian experience, and address current ADA concerns.

Response: Noted.

BROWARD COUNTY PLANNING AND REDEVELOPMENT DIVISION

The Planning and Redevelopment Division has reviewed the proposed amendment to the Broward County Trafficways Plan designating Dixie Highway/21st Avenue between Pembroke Road and Sheridan Street as a Context Sensitive Corridor and the traffic study submitted with the application. We support the Context Sensitive Corridor concept, and have no objections to this proposal.

Response: Noted.

BROWARD METROPOLITAN PLANNING ORGANIZATION (MPO)

The Broward MPO has no objections to Dixie Highway/21st Ave trafficway amendment request by the City of Hollywood.

Response: Noted.

FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT)

Upon review of the request, the Department offers the following comment:

- The Department has no objection to the proposed designation amendment, since it is not a facility on the State Highway System and has no interchange with I-95. In addition, there are no proposed improvements in the Broward MPO's 2035 Long Range Transportation Plan along this section of roadway.

Response: Noted.

We trust these responses to the comments will provide additional support to the Trafficways Plan Amendment for the Context Sensitive Corridor designation. If there are any comments or questions, please contact me via e-mail at stewart.robertson@kimley-horn.com or via phone at (954) 535-5104.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Stewart Robertson, P.E.
Transportation Engineer

Cc: Pete Schwarz, Planning Manager
Susan Goldberg, AIA, NCARB, LEED GA
Jonathan Vogt, P.E.
Walter Wernecke, RA

Enclosures

Public Works Department
HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION
1 N. University Drive, Suite 300 • Plantation, Florida 33324-2038 • 954-577-4555 • FAX 954-577-2338

MEMORANDUM

DATE: July 25, 2014

TO: Pete Schwarz
Broward County Planning Council

FROM: Richard Tornese, P.E., Director
Highway Construction and Engineering Division

RE: Request to Amend Broward County Trafficways Plan
Dixie Highway / 21st Avenue (Pembroke Road to Sheridan Street)

Staff from the Highway Construction and Engineering Division has reviewed the application to amend the Trafficways Plan for Dixie Highway / 21st Avenue between Pembroke Road and Sheridan Street and we have the following comments:

1. On-street parking is shown on Exhibits A, B, and C but is not specifically listed as a design element in Section A of the Letter of Application. All design elements proposed for the corridor including street trees, decorative lighting, etc. should be listed in the narrative in Section A.

2. The proposal appears to be acceptable from a roadway operations stand point. However, staff notes that implementation of this application will result in an overall reduction in roadway capacity in this area. The application as submitted does not seem to consider the potential "spill over" traffic impacting other area roadways. In particular, Staff recommends expanding the traffic study to include the collateral impacts to Federal Highway and N/S 26th Avenue.

3. Over time, the cumulative impact of capacity reductions (such as this amendment on Dixie Highway / 21st Avenue) will tend to preclude consideration of similar treatments to other Trafficway adjoining corridors.

4. Prior to issuance of HCED permits for installation of landscaping, irrigation, decorative lighting, pavers, etc., a maintenance agreement between the City and the County will be required.

RECOMMENDATION: The Highway Construction and Engineering Division recommends approval subject to the applicant demonstrating that the proposed Trafficways Plan amendment will not have a detrimental impact on Federal Highway and N/S 26th Avenue.

BROWARD COUNTY
FLORIDA
Transportation Department
Transit Division – Service and Capital Planning
One N. University Drive, Suite 3100A, Plantation, FL 33324 ♦ Phone: 954-357-8340 ♦ Fax: 954-357-8482

June 18, 2014

Pete Schwarz, Planning Manager
Broward County Planning Council
115 South Andrews Avenue, Room 307
Fort Lauderdale, Florida 33301

RE: PCTW 14-1A - Proposed Amendment to Broward County Trafficways

Dear Mr. Schwarz:

The Trafficways Review Group met on June 2, 2014 to discuss the propose amendment of the 54 foot one-way-pair Dixie Highway/21st Avenue Trafficway between Pembroke Road and Sheridan Street to designate the Trafficway as a 54 foot one-way-pair Context Sensitive Corridor; located in the City of Hollywood.

Broward County Transit (BCT) Division, Service and Capital Planning staff has reviewed the proposed PCTW 14-1A Trafficways Amendment. Current fixed-route county bus service to the proposed Dixie Highway/21st Avenue Trafficway is currently provided by three (3) BCT bus routes. BCT Route 6 between Washington Street and Pembroke Road that have five (5) bus stops [Bus ID 478, 479, 480, 481, & 482]; BCT Route 7 between Tyler Street and Van Buren Street that traverses a short section of Dixie Highway with no bus stops along it; and BCT Route 9 between Tyler Street and Johnson Street that traverses a short section of Dixie Highway with no bus stops along it.

Broward County Transit is supportive of the proposed context sensitive corridor designation. As the area redevelops along this corridor, appropriate ADA infrastructure be incorporated that will make streets safe for all users, including those who walk, ride bikes and use public transportation. In addition, it will improve the current built environment, enhance the pedestrian experience, and address current ADA concerns.

If you have any additional questions concerning this matter, please feel free to contact me at 954-357-8450 or email jramos@broward.org if you require any additional information.

Sincerely,

John A. Ramos

John A. Ramos, Senior Planner
Service and Capital Planning

Environmental Protection and Growth Management Department
PLANNING AND REDEVELOPMENT DIVISION
115 S. Andrews Avenue, Room 329 K • Fort Lauderdale, Florida 33301 • 954-357-6666 • FAX 954-357-8655

RECEIVED
JUN 18 2014
BROWARD COUNTY PLANNING COUNCIL

DATE: June 18, 2014

TO: Pete Schwarz, Planning Manager
Broward County Planning Council

FROM: Kevin Fischer, Planning Section, Principal Planner

SUBJECT: Proposed Trafficways Plan Amendment PCTW 14-1A
Dixie Highway/21st Avenue between Pembroke Road and Sheridan Street
City of Hollywood

As per our Trafficways Review Group Meeting on Monday, June 2, 2014, the Planning Section has reviewed the proposed amendment to the Broward County Trafficways Plan designating the section of Dixie Highway/21st Avenue between Pembroke Road and Sheridan Street as a Context Sensitive Corridor. Based on the use of context sensitive corridor treatments consistent with the Broward County Comprehensive Plan and the data and analysis accompanying the request, we have no objections to this proposal and support these types of projects to enhance mobility options throughout Broward County.

If you have any further questions or comments please contact me at your convenience.

cc: Henry A. Sniezek, Director of Planning and Redevelopment

Environmental Protection and Growth Management Department
PLANNING AND REDEVELOPMENT DIVISION
1 North University Drive, Suite 102-A • Plantation, Florida 33324 • 954-357-6666 • FAX 954-357-6521 • 954-519-1412

DATE: June 12, 2014

TO: Pete Schwarz, Planning Manager
Broward County Planning Council

FROM: Martin Berger, Planning Section Manager

SUBJECT: Proposed Trafficways Plan Amendment PCTW 14-1A
Dixie Highway/21st Avenue, Pembroke Road to Sheridan Street

The Planning and Redevelopment Division has reviewed the proposed amendment to the Broward County Trafficways Plan designating Dixie Highway/21st Avenue between Pembroke Road and Sheridan Street as a Context Sensitive Corridor and the traffic study submitted with the application. We support the Context Sensitive Corridor concept, and have no objections to this proposal.

Schwarz, Pete

From: Sanders Buffy <SandersB@browardmpo.org>
Sent: Wednesday, June 25, 2014 10:44 AM
To: Schwarz, Pete
Subject: Dixie Highway

Pete,

The Broward MPO has no objections to Dixie Highway/21st Ave trafficway amendment request by the City of Hollywood.

Buffy C. Sanders II
Transportation Planner

broward MPO
metropolitan planning organization

Trade Centre South
100 W. Cypress Creek Road, Suite 850
Fort Lauderdale, FL 33309
sandersb@browardmpo.org
(954) 876-0033 Office
(954) 876-0046 Direct
(954) 876-0062 Fax
For more information on activities and projects of the Broward MPO, please visit:
www.browardMPO.org
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SPEAK UP BROWARD

For complaints, questions or concerns about civil rights or nondiscrimination; or for special requests under the American with Disabilities Act, please contact: Christopher Ryan, Public Information Officer/Title VI Coordinator at (954) 876-0036 or ryanc@browardmpo.org

FDOT

Florida Department of Transportation

RICK SCOTT
GOVERNOR

3400 West Commercial Boulevard
Fort Lauderdale, FL 33309

ANANTH PRASAD, P.E.
SECRETARY

June 24, 2014

Mr. Pete Schwarz
Senior Planner
Broward County Planning Council
115 South Andrews Avenue, Room 307
Fort Lauderdale, FL 33301

Dear Mr. Schwarz:

SUBJECT: **Broward County Trafficways Plan Amendments**
Dixie Highway between Pembroke Road and Sheridan Street
Context Sensitive Corridor Designation

The Department has received your request dated June 4, 2014, to review the following Broward County Trafficways Amendment:

- Proposed amendment of the 54-foot one-way pair Dixie Highway/21st Avenue Trafficway between Pembroke Road and Sheridan Street, located in the City of Hollywood, to designate the Trafficway as a 54-foot one-way-pair Context Sensitive Corridor.

Upon review of the request, the Department offers the following comment:

- The Department has no objection to the proposed designation amendment, since it is not a facility on the State Highway System and has no interchange with I-95. In addition, there are no proposed improvements in the Broward MPO's 2035 Long Range Transportation Plan along this section of roadway.

Please contact us at (954) 777-4601 should you have any questions.

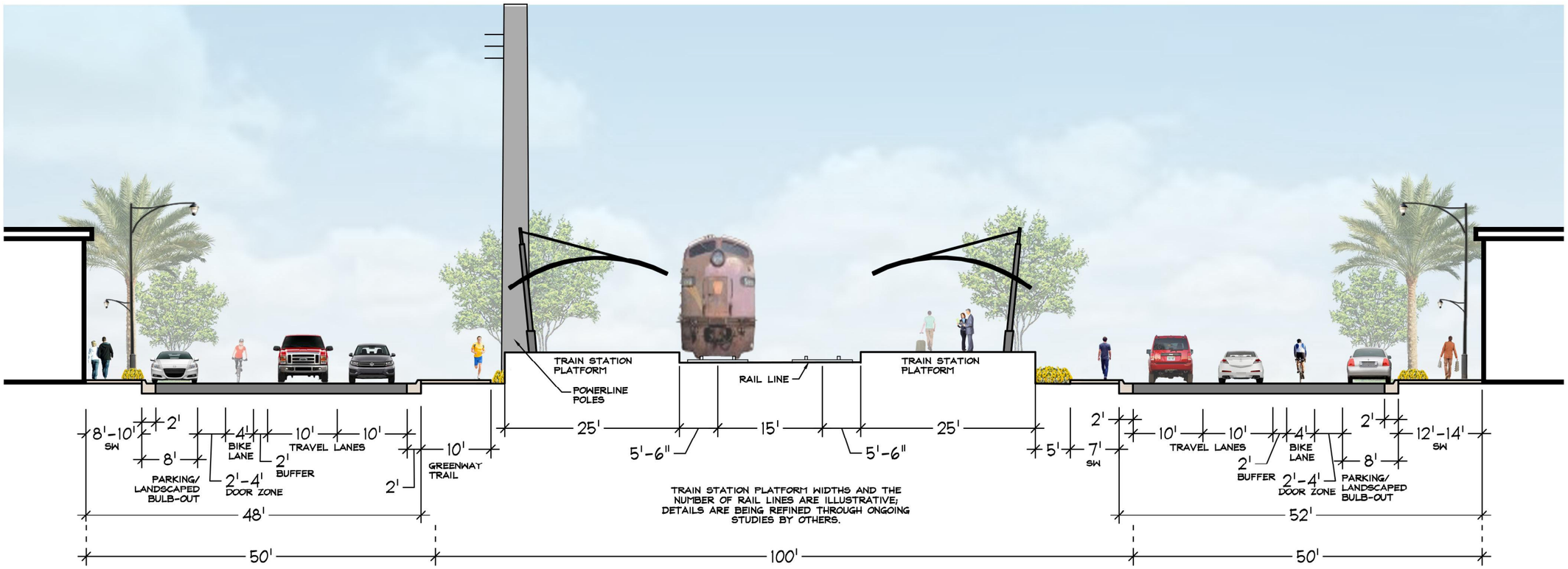
Sincerely,

Gustavo Schmidt, P.E.
District Planning and Environmental Engineer

GS:cw
cc: Greg Stuart – Broward MPO
Gerry O'Reilly – Director of Transportation Development, FDOT
Stacy Miller – Acting Modal Development Administrator, FDOT
Howard Webb – District Design Engineer, FDOT
Steve Braun – Transportation Planning and Environmental Manager, FDOT
Shi-Chiang Li – Systems Planning Manager, FDOT
Chon Wong – Senior Transportation Specialist, FDOT

Dixie Highway/21st Avenue Corridor Redesign Concept - City of Hollywood
Downtown Hollywood Station, North of Tyler Street

December 23, 2013



Dixie Highway
Southbound

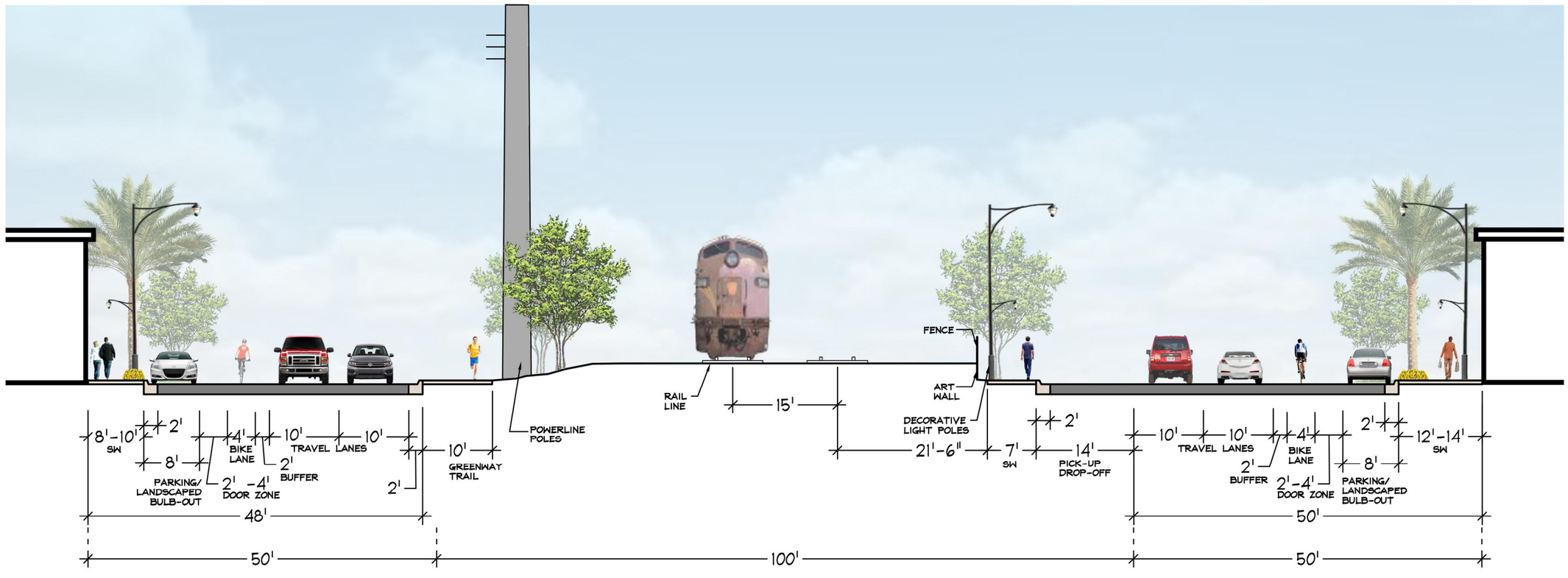
21st Avenue
Northbound

EXHIBIT A

Kimley-Horn and Associates, Inc.

Dixie Highway/21st Avenue Corridor Redesign Concept - City of Hollywood
Downtown Hollywood Station Pick-Up and Drop-Off Area, South of Fillmore Street

December 23, 2013



Dixie Highway
Southbound

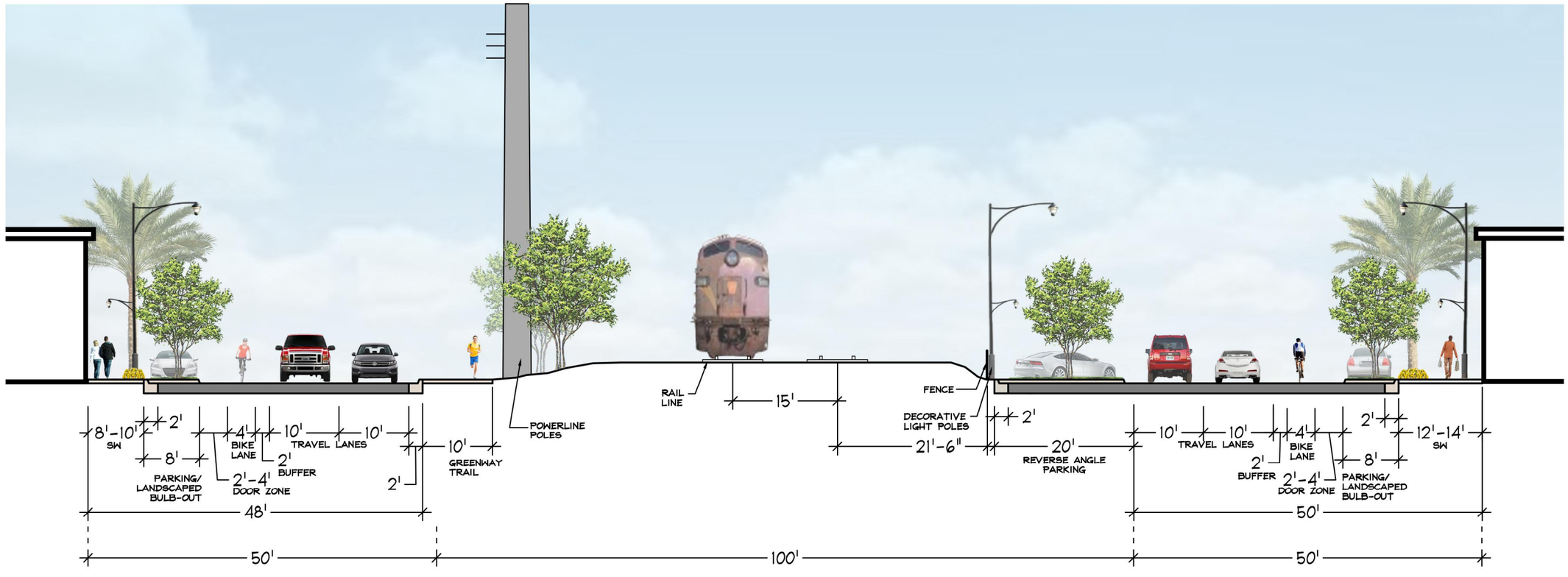
21st Avenue
Northbound

EXHIBIT B

Kimley-Horn and Associates, Inc.

Dixie Highway/21st Avenue Corridor Redesign Concept - City of Hollywood
Blocks with Angle Parking in the FEC Right-of-Way

December 23, 2013



Dixie Highway
Southbound

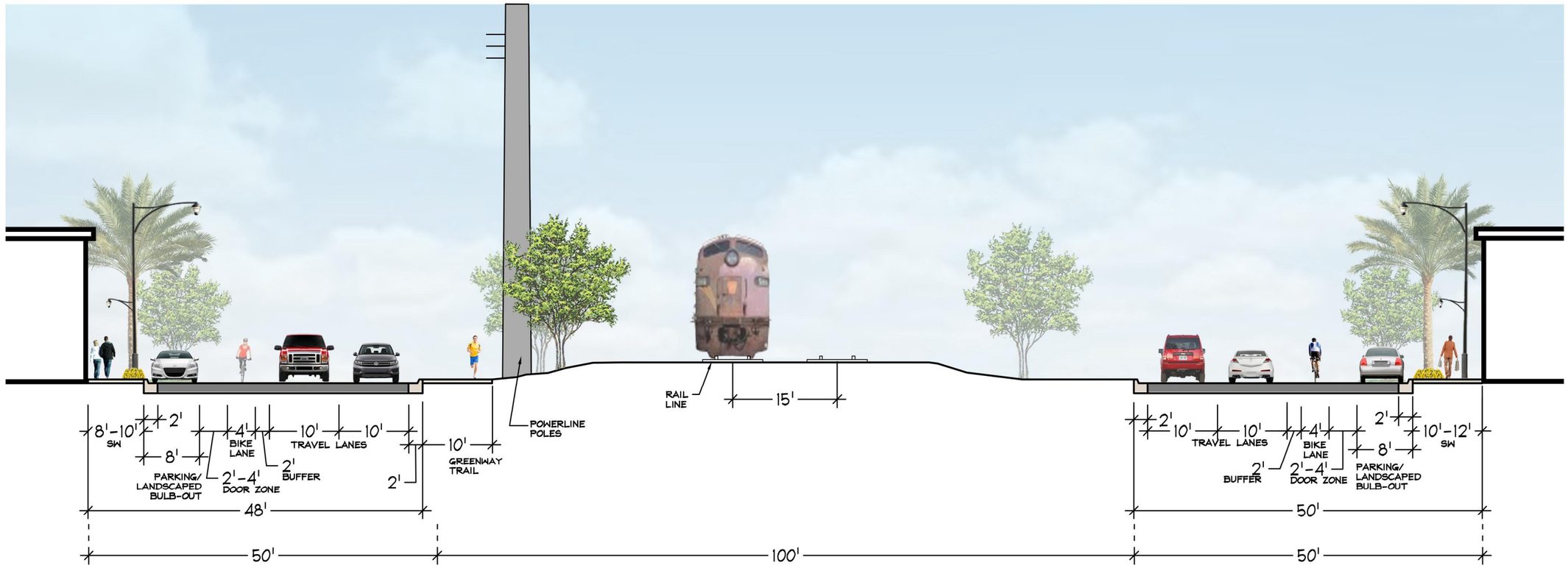
21st Avenue
Northbound

EXHIBIT C

Kimley-Horn and Associates, Inc.

Dixie Highway/21st Avenue Corridor Redesign Concept - City of Hollywood
Blocks without Angle Parking

December 23, 2013

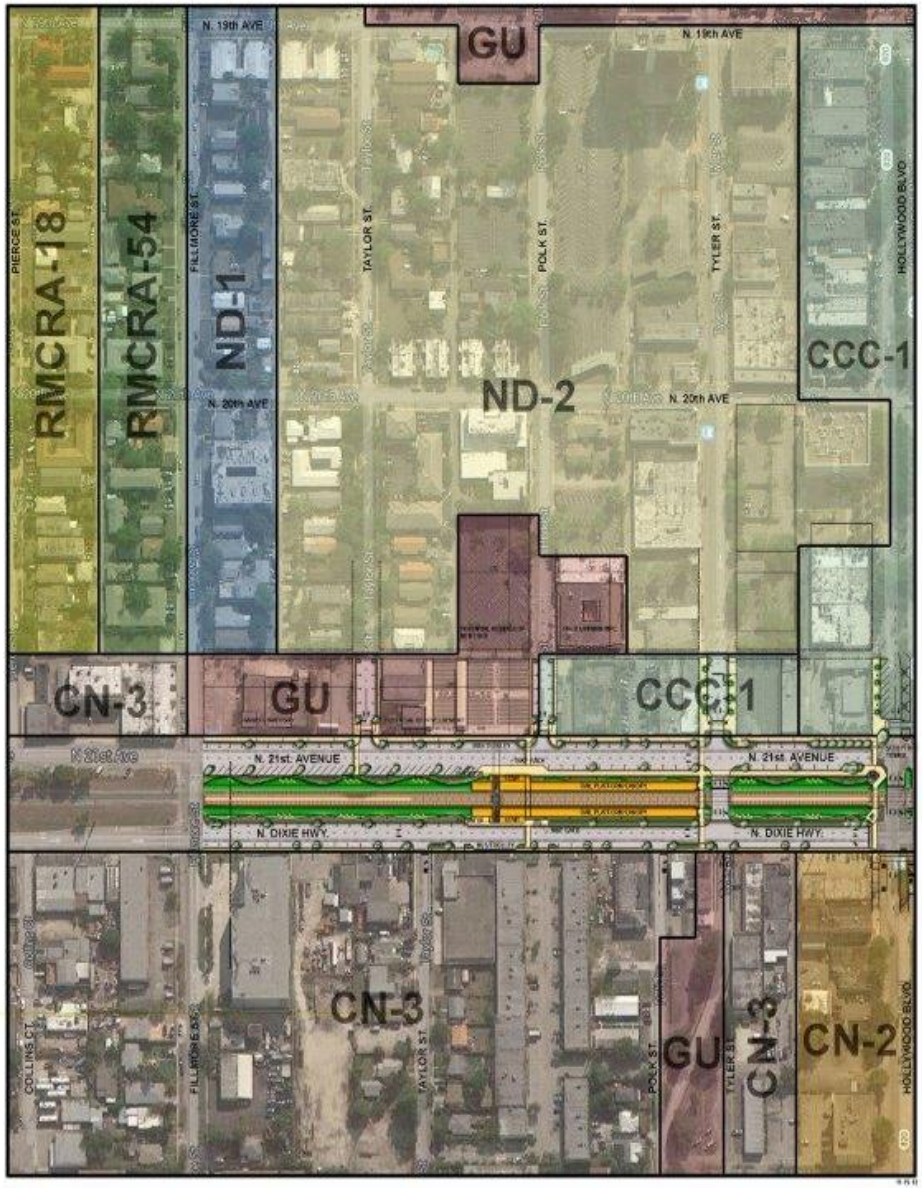


Dixie Highway
Southbound

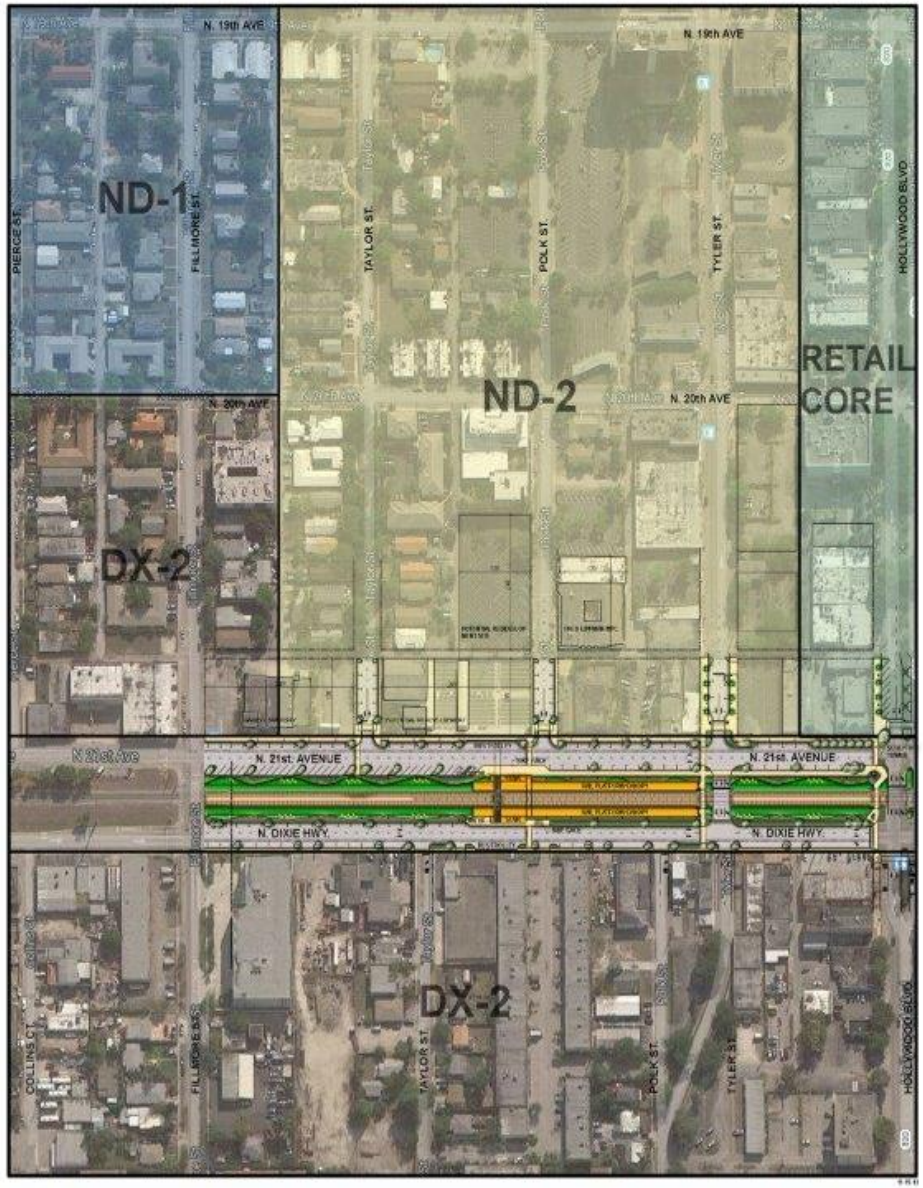
21st Avenue
Northbound

EXHIBIT D

Kimley-Horn and Associates, Inc.



Dixie Highway Corridor - Existing Zoning Map

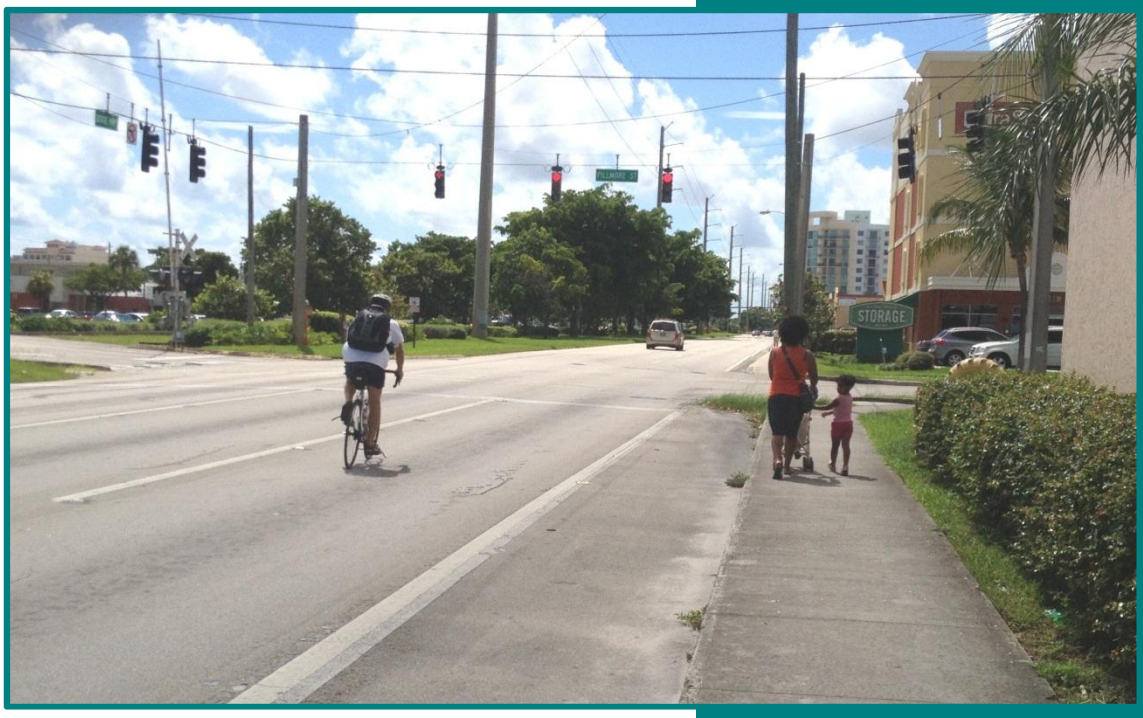


Dixie Highway Corridor - Proposed Zoning Map

EXHIBIT E

Traffic Study for the
Redesign Concept of
Dixie Highway/21st Avenue
for Submittal to the
City of Hollywood

Dixie Highway/21st Avenue Corridor Traffic Study City of Hollywood/Hollywood CRA



Kimley-Horn and Associates, Inc.

October 2013, Revised August 2014
044241018

Traffic Study for the
Redesign Concept of
Dixie Highway/21st Avenue
for Submittal to the
City of Hollywood

Dixie Highway/21st Avenue
Corridor Traffic Study
City of Hollywood/Hollywood CRA

Prepared for:

City of Hollywood

Prepared by:

Kimley-Horn and Associates, Inc.
Fort Lauderdale, Florida

October 2013, Revised August 2014
044241018

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INTRODUCTION

A traffic operational analysis study has been undertaken to address the feasibility of reducing the number of motor vehicle travel lanes on Dixie Highway and 21st Avenue between Pembroke Road and Sheridan Street to create a more livable, walkable environment that supports the City of Hollywood's transit and multimodal vision for the corridor. The lane reduction, or "road diet," proposal for Dixie Highway and 21st Avenue is to reduce from 3 or 4 directional lanes to two (2) directional lanes within the limits of the City of Hollywood. Comparative traffic demand forecasts are presented to address future (2040) traffic demands with and without the proposed lane reductions. The subject study area is depicted in Figure 1.

Background

Dixie Highway and 21st Avenue from Pembroke Road to Sheridan Street serve as north/south roadways within the limits of the City of Hollywood, connecting Hallandale Beach to Dania Beach. Dixie Highway operates as a one-way three (3) lane facility throughout the limits of the City of Hollywood, with the exception of two roadway sections (from Sheridan Street to Taft Street and from Washington Street to Pembroke Road) where the roadway operates as a one-way four (4) lane facility. 21st Avenue operates as a one-way three (3) lane facility throughout the limits of the City of Hollywood, with the exception of one roadway section (Pembroke Road to Washington Street) where the roadway operates as a one-way two (2) lane facility. This report examines the effect of reducing the study segments of Dixie Highway and 21st Avenue to one-way two (2) lane facilities within a long-range future buildout in 2040. Methodology correspondence detailing the analysis requirements is included in Appendix A. This report summarizes the data collection, intersection capacity analyses, roadway link analysis, speed data analyses, and crash data analyses.

Figure 1
Location
Dixie Highway/21st Avenue Corridor
City of Hollywood/Hollywood CRA
City of Hollywood, Florida

Kimley-Horn and Associates, Inc.

EXISTING (2013) TRAFFIC CONDITIONS

A.M. peak period (7:00 to 9:00 A.M.) and P.M. peak period (4:00 to 6:00 P.M.) turning movement counts were collected on September 19, 2013 (Thursday), September 24, 2013 (Tuesday), and September 25, 2013 (Wednesday) at the following intersections:

- Dixie Highway/21st Avenue and Pembroke Road
- Dixie Highway/21st Avenue and Washington Street
- Dixie Highway/21st Avenue and Monroe Street
- Dixie Highway/21st Avenue and Harrison Street
- Dixie Highway/21st Avenue and Hollywood Boulevard
- Dixie Highway/21st Avenue and Tyler Street
- Dixie Highway/21st Avenue and Fillmore Street
- Dixie Highway/21st Avenue and Johnson Street
- Dixie Highway/21st Avenue and Taft Street
- Dixie Highway/21st Avenue and Sheridan Street

The volumes were collected in 15-minute intervals and the peak hour was determined for each intersection. The Florida Department of Transportation (FDOT) peak season conversion factor was applied to the traffic counts to adjust the traffic to peak season volumes. The appropriate peak season conversion factor for the counts collected on September 19, 2013 is 1.05, and the peak season conversion factor for the counts collected from September 24-25, 2013 is 1.04.

In addition to vehicular turning movement count data, 24-hour machine counts were collected at Garfield Street between Dixie Highway and 21st Avenue and two (2) 24-hour speed and volume counts were collected on Dixie Highway halfway between Pembroke Road and Washington Street and halfway between Sheridan Street and Taft Street.

Detailed field reviews of the corridor were conducted to note the existing roadways typical section, number of travel lanes per block, turning lane configurations, travel lane dimensions, and other pertinent field dimensions. Existing field review notes of the roadway and intersections are provided in APPENDIX B.

The turning movement counts, FDOT peak season factor category report, and signal timing data provided by Broward County Traffic Engineering Division (BCTED) are included in Appendix C. Figures 2 and 3 present the existing turning movement volumes at the study intersections during the weekday A.M. and P.M. peak hours.

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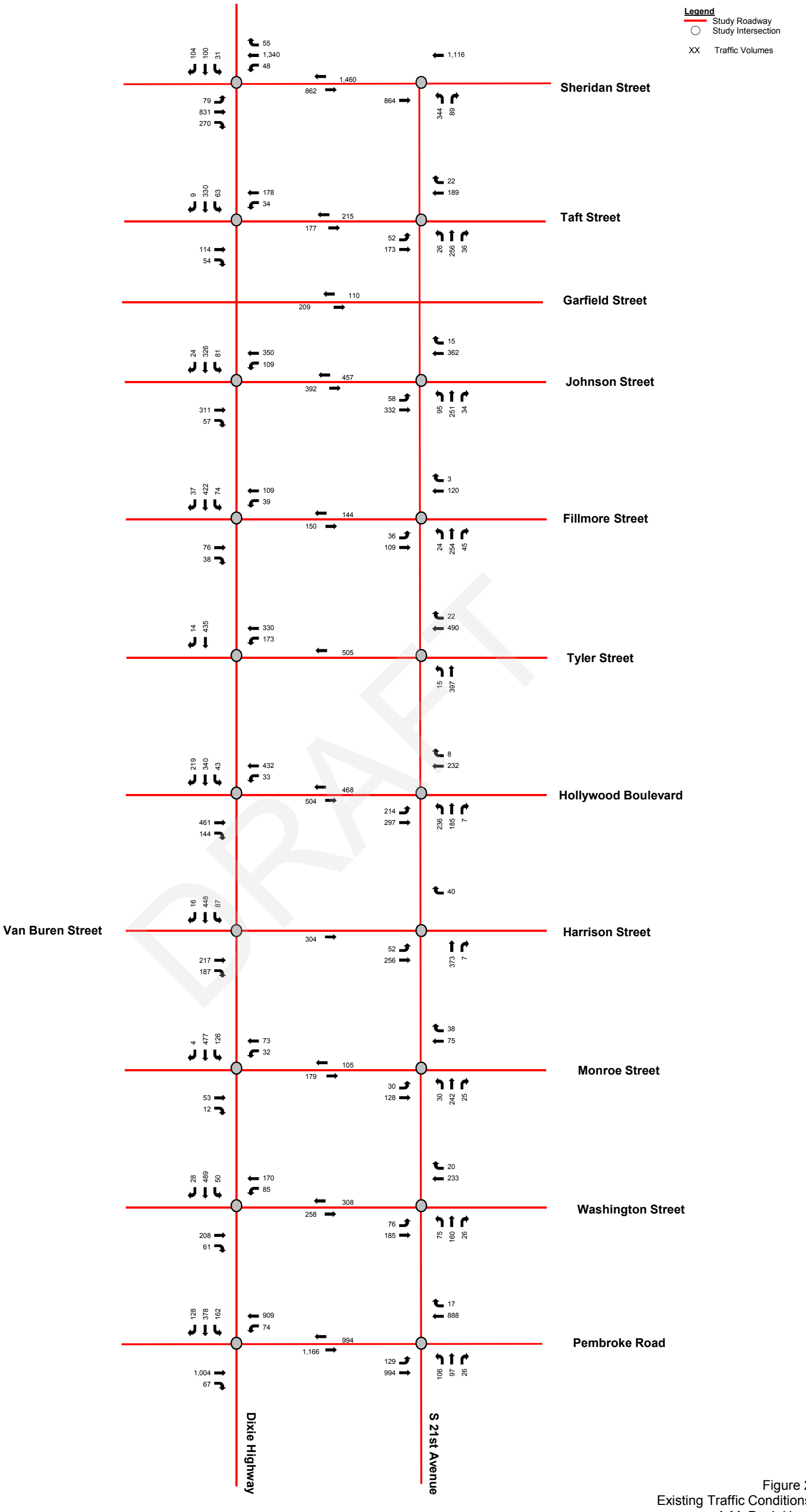

Figure 2
Existing Traffic Conditions
A.M. Peak Hour
Dixie Highway/21st Avenue Corridor
City of Hollywood/Hollywood CRA
City of Hollywood, Florida

Kimley-Horn and Associates, Inc.

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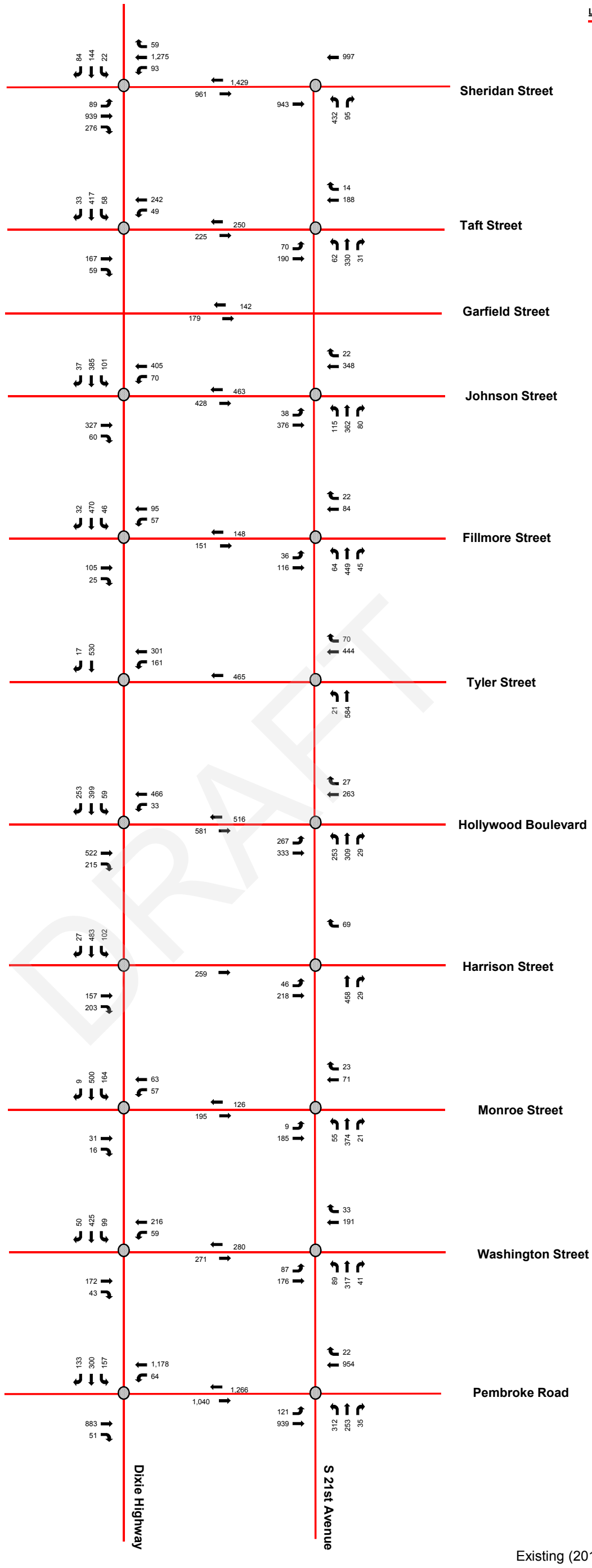


Figure 3
Existing (2013) Traffic Conditions
P.M. Peak Hour
Dixie Highway/21st Avenue Corridor
City of Hollywood/Hollywood CRA
City of Hollywood, Florida

Kimley-Horn and Associates, Inc.

EXISTING (2013) CAPACITY ANALYSIS

Intersection capacity analyses, roadway link capacity analyses, and speed data analyses were conducted under existing (2013) conditions. Crash data reviews were conducted for the roadways and intersections within the corridor for years 2010 through 2012. Below summarizes the four (4) analyses.

Intersection Capacity Analysis

The operating conditions were analyzed for study intersections, for existing (2013) conditions using *Trafficware's SYNCHRO 8.0 Software*, which applies methodologies outlined in the *Highway Capacity Manual, 2010 Edition*. Synchro worksheets and signal timing data for the study intersections are included in Appendix F. A summary of the intersection analyses for the A.M. and P.M. peak hours is presented in Table 1. As this table indicates, all the study intersections are expected to operate at adopted levels of service (LOS D or better) overall during the A.M. and P.M. peak hours under existing (2013) conditions.

Roadway Link Analysis

Roadway segments along Dixie Highway/21st Avenue were analyzed during daily and peak hour conditions. FDOT twenty-four hour continuous count data was used for the following roadway segments:

- Dixie Highway, south of Sheridan Street (station 8109)
- Dixie Highway, north of Johnson Street (station 8133)
- Dixie Highway, south of Hollywood Boulevard (station 8148)
- N/S 21st Avenue, south of Hollywood Boulevard (station 8103)
- N/S 21st Avenue, south of Sheridan Street (station 8105)
- N/S 21st Avenue, north of Johnson Street (station 8132)

The FDOT data was collected in 2012. Therefore, an annual growth rate of 1.00 percent (1.00%) was applied to the 2012 data to establish 2013 volumes.

Table 2 provides a summary of the daily and two-way peak hour roadway segment analysis for existing (2013) traffic conditions, respectively. The results indicate that the study roadway segments operate below adopted level of service for several analysis periods during existing (2013) conditions.

Speed Data Analysis

The purpose of collecting speed measurements is to determine the magnitude of vehicle speeds within the corridor. 24-hour speed measurements were collected on Dixie Highway, halfway between Pembroke Road and Washington Street and halfway between Taft Street and Sheridan Street.

The 85th percentile speed is often used as a measure of an upper limit of "reasonable" speeds for prevailing conditions. The 85th percentile speed is the speed at which 85 percent of the vehicles are traveling below. The 85th percentile speed and average speed are summarized in Table 3. Detailed speed data is contained in Appendix C.

The speed measurements demonstrate that the average speeds traveled by motorists along the corridor are generally between 37 and 39 miles per hour (mph), which are below the posted speed limit of 40 mph. An evaluation of the 85th percentile speeds demonstrates that some motorists travel in excess of the posted speed limits; however, no roadways exhibit 85th percentile speeds in excess of five (5) mph over the posted speed limit.

Table 1: Intersection Capacity Analysis						
Intersection	**Traffic Control**	**Overall LOS/Delay**	**Approach LOS**			
			NB	**SB**	**EB**	**WB**
Existing (2013) Conditions A.M. Peak Hour (P.M. Peak Hour)						
Dixie Highway at Pembroke Road	Signalized(1)	D/43.6 (D/39.4)	- -	E (E)	D (D)	C (C)
21st Avenue at Pembroke Road	Signalized(1)	D/36.7 (D/49.3)	E (F)	- -	A (A)	E (E)
Dixie Highway at Washington Street	Signalized(1)	D/36.2 (D/47.8)	- -	C (E)	D (D)	C (A)
21st Avenue at Washington Street	Signalized(1)	C/22.7 (B/19.8)	B (B)	- -	A (A)	D (D)
Dixie Highway at Monroe Street	Signalized(1)	C/25.6 (C/25.2)	- -	C (C)	B (B)	A (A)
21st Avenue at Monroe Street	Signalized(1)	C/20.3 (B/19.8)	B (C)	- -	A (A)	D (D)
Dixie Highway at Van Buren Street	Signalized(1)	D/44.6 (C/26.8)	- -	A (A)	F (E)	- -
21st Avenue at Harrison Street	Signalized(1)	C/23.2 (C/28.3)	C (C)	- -	D (D)	E (E)
Dixie Highway at Hollywood Boulevard	Signalized(1)	C/24.8 (C/24.8)	- -	D (D)	C (C)	A (A)
21st Avenue at Hollywood Boulevard	Signalized(1)	C/20.5 (C/21.4)	C (C)	- -	A (A)	D (D)
Dixie Highway at Tyler Street	Signalized(1)	A/5.3 (A/5.6)	- -	A (A)	- -	A (A)
21st Avenue at Tyler Street	Signalized(1)	C/22.2 (C/19.2)	A (A)	- -	- -	D (D)
Dixie Highway at Fillmore Street	Signalized(1)	C/20.6 (C/21.6)	- -	C (C)	C (C)	A (B)
21st Avenue at Fillmore Street	Signalized(1)	B/17.2 (B/18.7)	B (B)	- -	A (A)	C (C)
Dixie Highway at Johnson Street	Signalized(1)	B/19.9 (B/17.9)	- -	C (C)	C (C)	A (B)
21st Avenue at Johnson Street	Signalized(1)	B/19.4 (B/17.6)	C (B)	- -	A (A)	C (C)
Dixie Highway at Taft Street	Signalized(1)	C/21.9 (C/24.6)	- -	C (C)	D (D)	A (A)
21st Avenue at Taft Street	Signalized(1)	B/17.9 (B/18.7)	B (B)	- -	A (A)	C (D)
Dixie Highway at Sheridan Street	Signalized(1)	C/27.1 (C/32.9)	- -	E (E)	B (C)	C (C)
21st Avenue at Sheridan Street	Signalized(1)	C/21.6 (C/24.2)	E (E)	- -	A (A)	B (B)

Notes: (1) HCM 2000 utilized for analysis as the intersection does not strictly adhere to NEMA/HCM 2010 evaluation requirements and cannot be analyzed in HCM 2010.

Table 2: Roadway Segment Capacity Analysis (*2013 Existing Conditions)*

Roadway	Segment	Laneage	LOS Std.	Maximum Service Volume *(vph)*	2013 Peak Hour Volume	2013 Peak Hour LOS	Maximum Service Volume *(vpd)*	2013 AADT Volume	2013 AADT LOS
Dixie Highway	South of Sheridan Street (station 8109)	4LO(1)	D	3,890	510	C	43,250	5,656	C
	North of Johnson Street (station 8133)	3LO(1)	D	2,910	473	C	32,350	5,252	C
	South of Hollywood Boulevard (station 8148)	3LO(1)	D	2,910	536	C	32,350	5,959	C
N/S 21st Avenue	South of Hollywood Boulevard (station 8103)	3LO(2)	D	2,430	482	C	27,000	5,353	C
	South of Sheridan Street (station 8105)	3LO(2)	D	2,430	455	C	27,000	5,050	C
	North of Johnson Street (station 8132)	3LO(2)	D	2,430	464	C	27,000	5,151	C

(1) Class I roadway with 10 percent reduction for "Non-State Signalized Roadways" and 40 percent reduction for "One-Way Roadway".
(2) Class II roadway with 10 percent reduction for "Non-State Signalized Roadways" and 40 percent reduction for "One-Way Roadway".

Table 3: Speed Data Analysis (*2013 Existing Conditions)*

Roadway	Segment	Posted Speed Limit (mph)	Average Speed (mph)	85th Percentile Speed (mph)
Dixie Highway	Between Pembroke Road and Washington Street	40	37	42
N/S 21st Avenue	Between Taft Street and Sheridan Street	40	39	44

Crash Data Analysis

Crash data for the Dixie Highway/21st Avenue corridor for 2010 through 2012 (the last available full year of data) were provided by the University of Florida Signal Four Analytics from Department of Highway Safety and Motor Vehicle (DHSMV) traffic crash records. The data were tabulated to identify crash types by intersection and by roadway segment. The results of the crash analysis are described below.

Total Crashes by Year

A total of 209 crashes occurred within the study corridor between January 2010 and December 2012. These crashes included 76 injuries and 1 fatality.

Figure 4: Total Crashes by Year

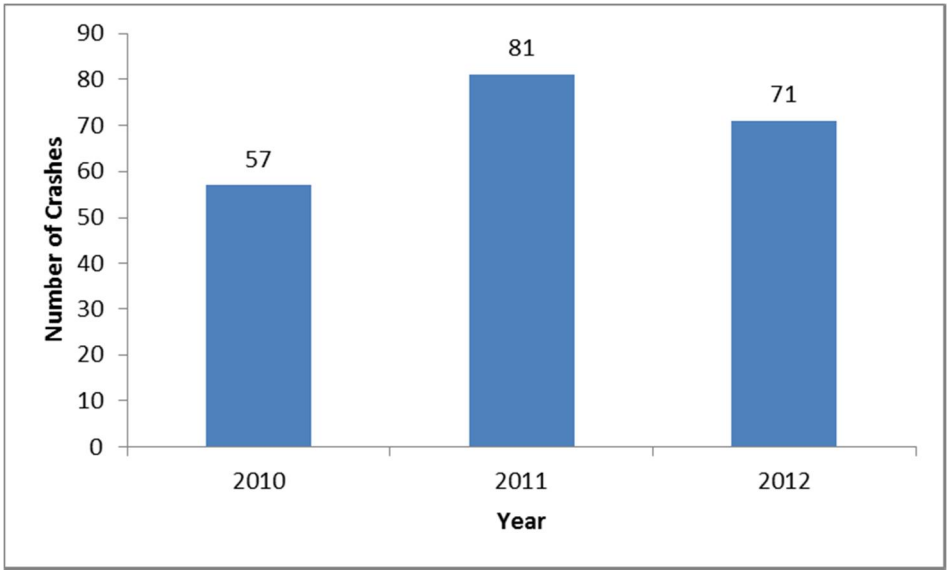


Table 4: Total Crashes by Year			
	2010	**2011**	**2012**
Total Crashes	57	81	71

Total Crashes by Crash Type

As shown in Figure 5 and Table 5, the most frequent crash types are other (22 percent), angle (16 percent), and rear end (14%). Furthermore, there were 7 pedestrian crashes (3 percent) and 11 bicycle crashes (5 percent). Most urbanized areas exhibit more pedestrian crashes than bicycle crashes; therefore, the results highlight the importance of Dixie Highway and 21st Avenue as bicycle mobility corridors since there were more bicycle crashes than pedestrian crashes and the need to provide bicycle facilities along the corridor.

Figure 5: Total Crashes by Crash Type

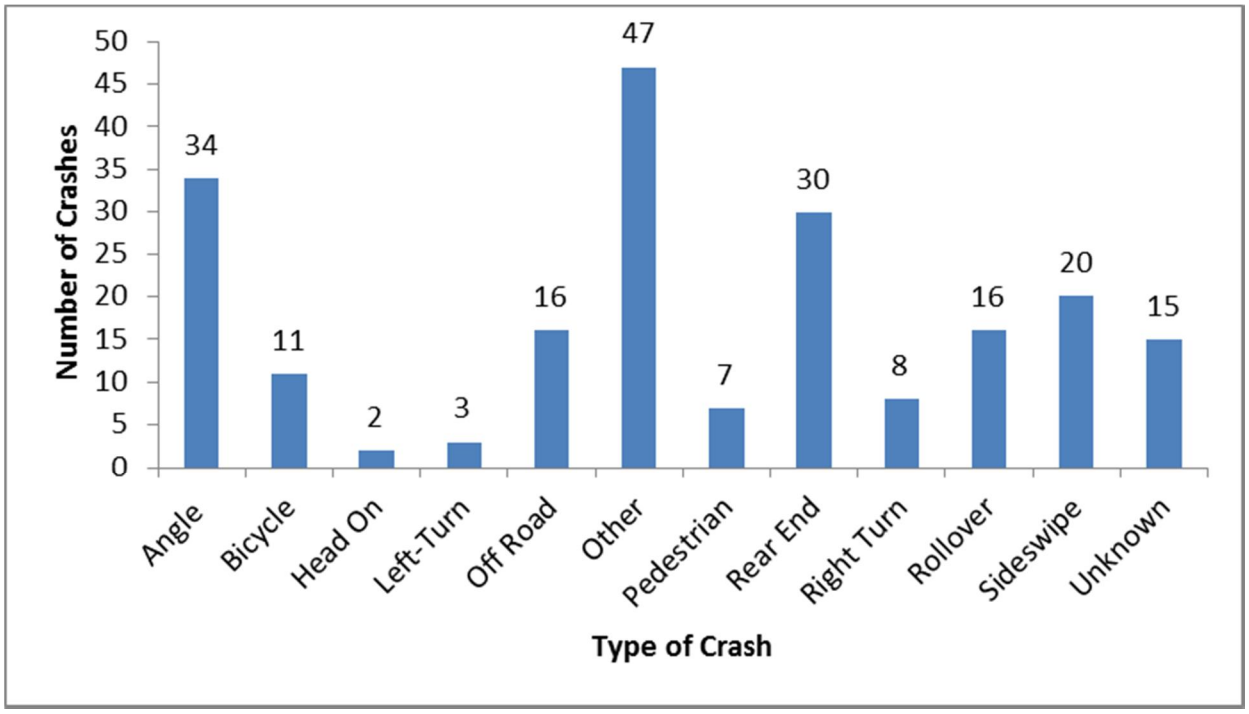


Table 5: Total Crashes by Crash Type		
Type of Crash	**Number of Crashes**	**Percent of Crashes**
Angle	34	16%
Bicycle	11	5%
Head On	2	1%
Left-Turn	3	1%
Off Road	16	8%
Other	47	22%
Pedestrian	7	3%
Rear End	30	14%
Right Turn	8	4%
Rollover	16	8%
Sideswipe	20	10%
Unknown	15	7%

Total Crashes by Lighting Type

Table 6 shows that 71 percent of crashes occurred during daylight conditions and 29 percent occurred during dark conditions. Overall, the percentage of dark condition crashes is lower than the statewide average (29 percent vs. 34 percent).

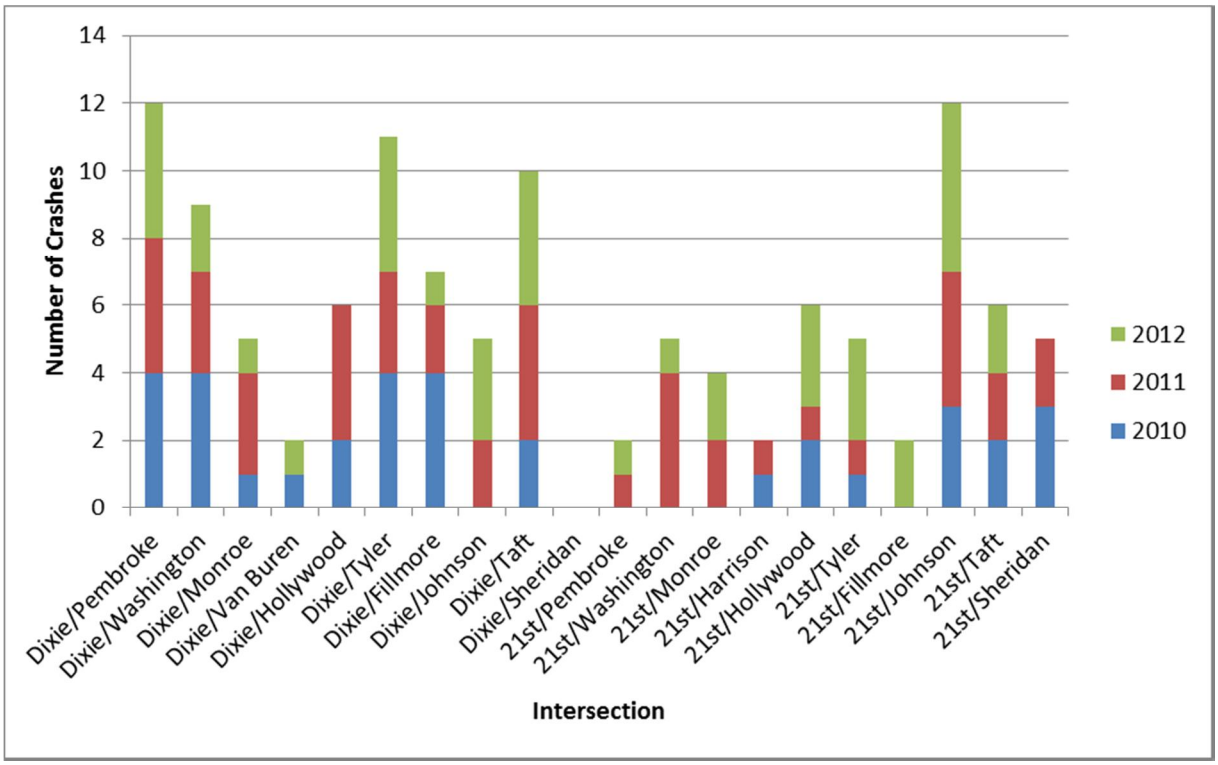
Table 6: Total Crashes by Lighting Type		
Lighting Conditions	**Number of Crashes**	**Percent of Crashes**
Dark – Lighted	47	23%
Dark – Not Lighted	3	1%
Dawn	1	1%
Daylight	146	71%
Dusk	9	3%
Unknown	3	1%

Crashes by Intersection Location

Figure 6 depicts the distribution of crashes by intersection location along the corridor. The locations with 10 or more crashes include:

- Dixie Highway and Pembroke Road
- Dixie Highway and Tyler Street
- Dixie Highway and Taft Street
- 21st Avenue and Johnson Street

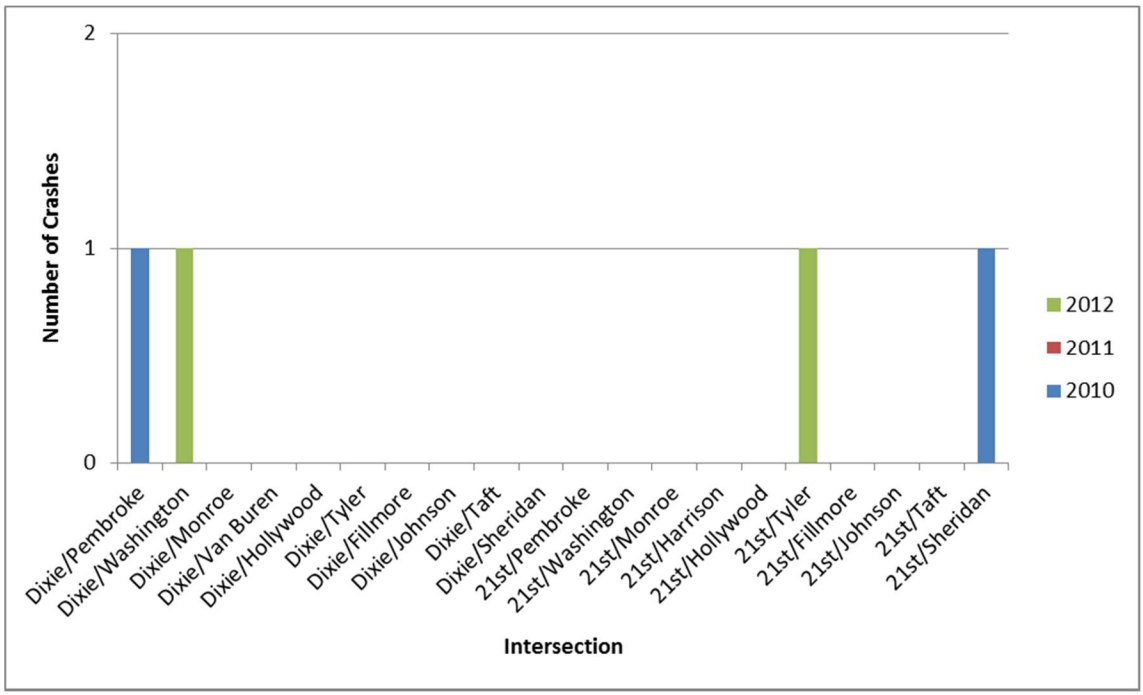
Figure 6: Crashes by Intersection



Pedestrian Crashes

Four (4) pedestrian crashes were reported at the intersections within the study corridor between 2010 and 2012. Three (3) additional pedestrian crashes occurred outside of the study intersections listed in Figure 7.

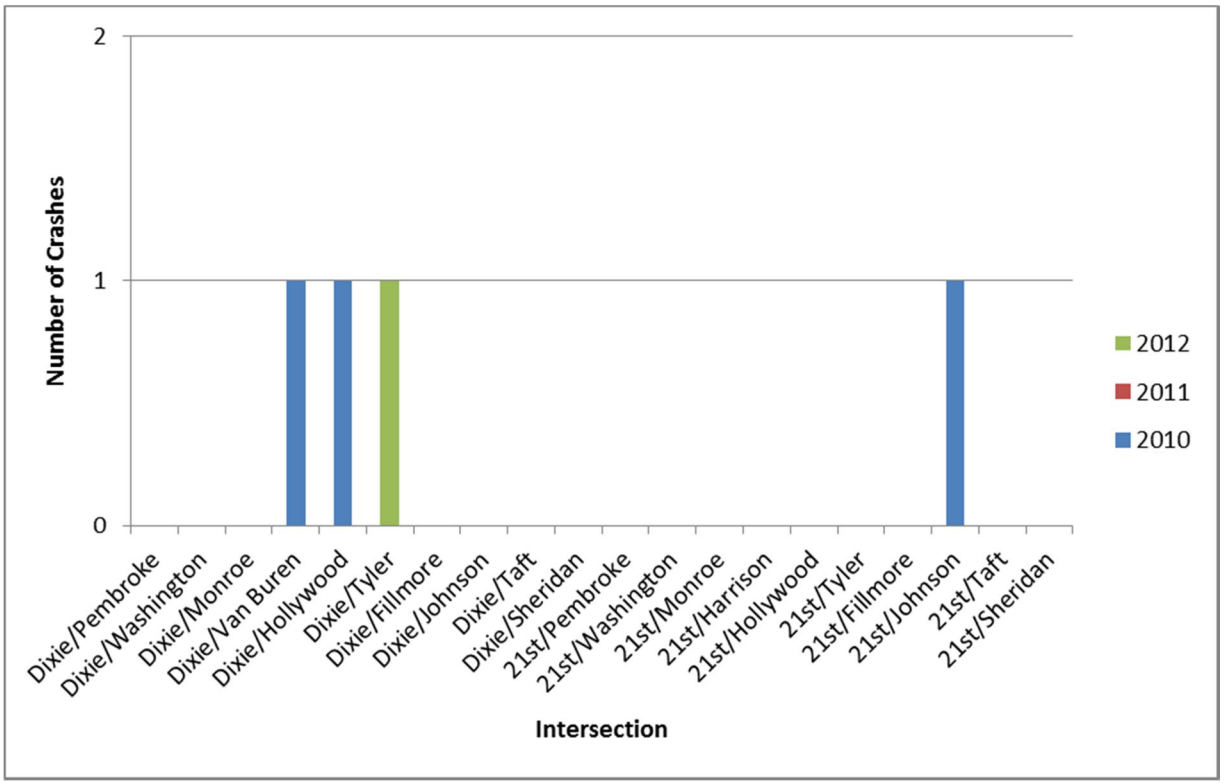
Figure 7: Pedestrian Crashes by Intersection



Bicycle Crashes

Four (4) bicycle crashes were reported at the signalized intersections within the study corridor between 2010 and 2012. Seven (7) additional bicycle crashes were reported along the corridor outside of the signalized intersections listed in Figure 8.

Figure 8: Bicycle Crashes by Intersection



FUTURE (2040) TRAFFIC CONDITIONS

Future traffic conditions are defined for this study as anticipated traffic conditions on the roadway network in the year 2040 with and without the proposed road diet configuration on Dixie Highway and N/S 21st Avenue. Future traffic volumes used in the analysis are the sum of the existing traffic and an additional amount of traffic generated by growth in the study area. Refer to Figures 9 and 10 for the year 2040 peak hour traffic volumes during the weekday A.M. and P.M. peak hours.

Future Area Growth

Future traffic growth on the transportation network was determined based upon (a) historic growth trends at nearby FDOT traffic count stations and (b) traffic volume comparisons from the year 2005 and 2035 Florida Standard Urban Transportation Model Structure (FSUTMS) Southeast Florida Regional Planning Model (SERPM) transportation models.

FDOT count stations referenced in this analysis include Count Station 8105 (N 21st Avenue – S of Sheridan Street), 8109 (Dixie Highway – S of Sheridan Street), 8103 (S 21st Avenue – S of Hollywood Boulevard), 8132 (N 21st Avenue – N of Johnson Street), 8133 (Dixie Highway – N of Johnson Street), and 8148 (Dixie Highway, S of Hollywood Boulevard). The growth rate analysis examined the most recent 7-year period. The 7-year period yielded a negative growth rate of -1.14 percent (-1.14%).

Based on the volume information obtained from years 2005 and 2035 FSUTMS SERPM model, an annual growth rate of 0.83 percent (0.83%) in the vicinity of the project site was calculated. In order to provide a conservative analysis, a growth rate of 1.00 percent (1.00%) was applied annually to the existing traffic volumes to attain future (2040) future traffic conditions. The worksheets used to analyze the historic growth trends along with the FSUTMS transportation model outputs are included in Appendix D.

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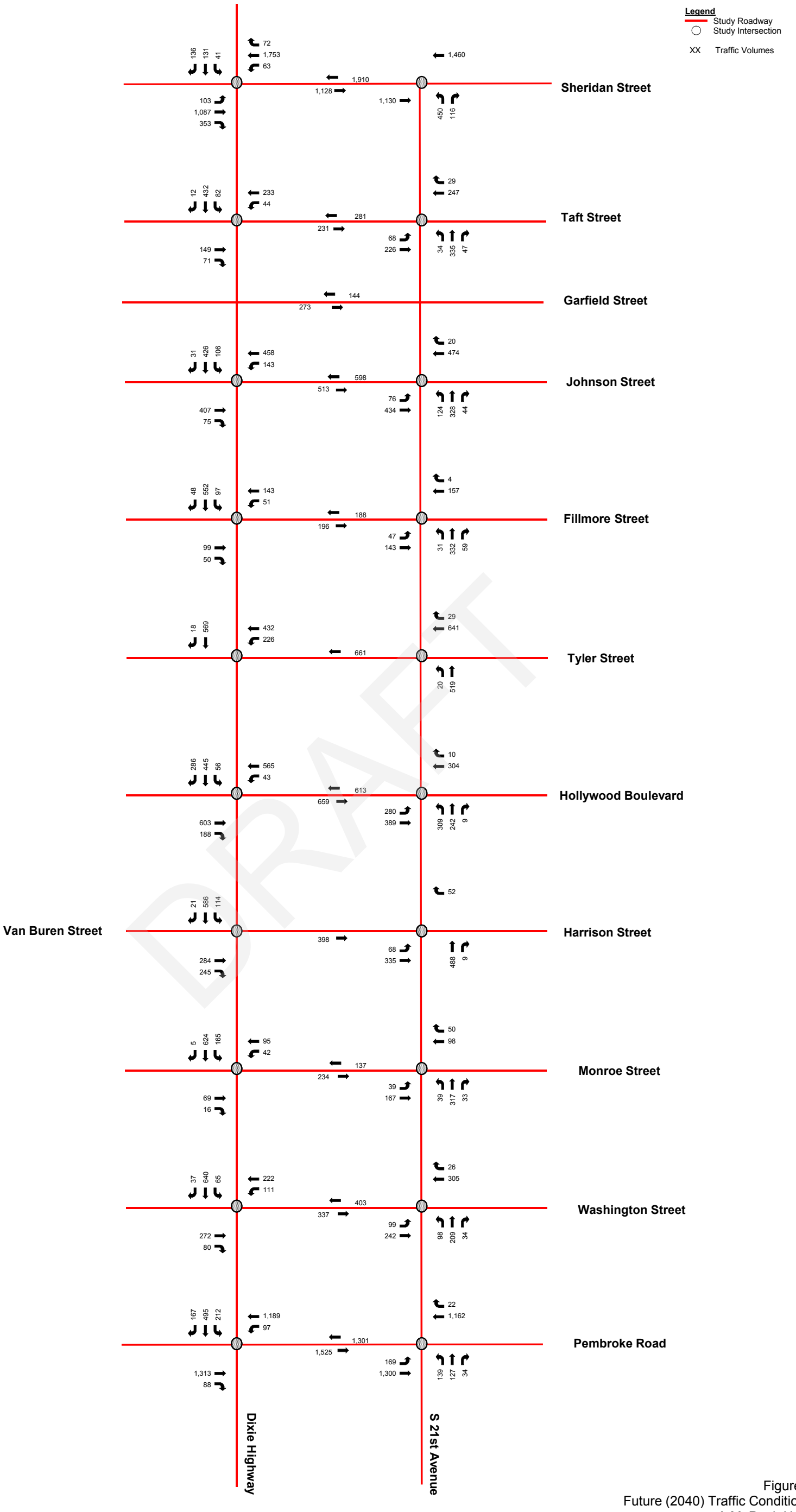

Figure 4
Future (2040) Traffic Conditions
A.M. Peak Hour
Dixie Highway/21st Avenue Corridor
City of Hollywood/Hollywood CRA
City of Hollywood, Florida

Kimley-Horn and Associates, Inc.

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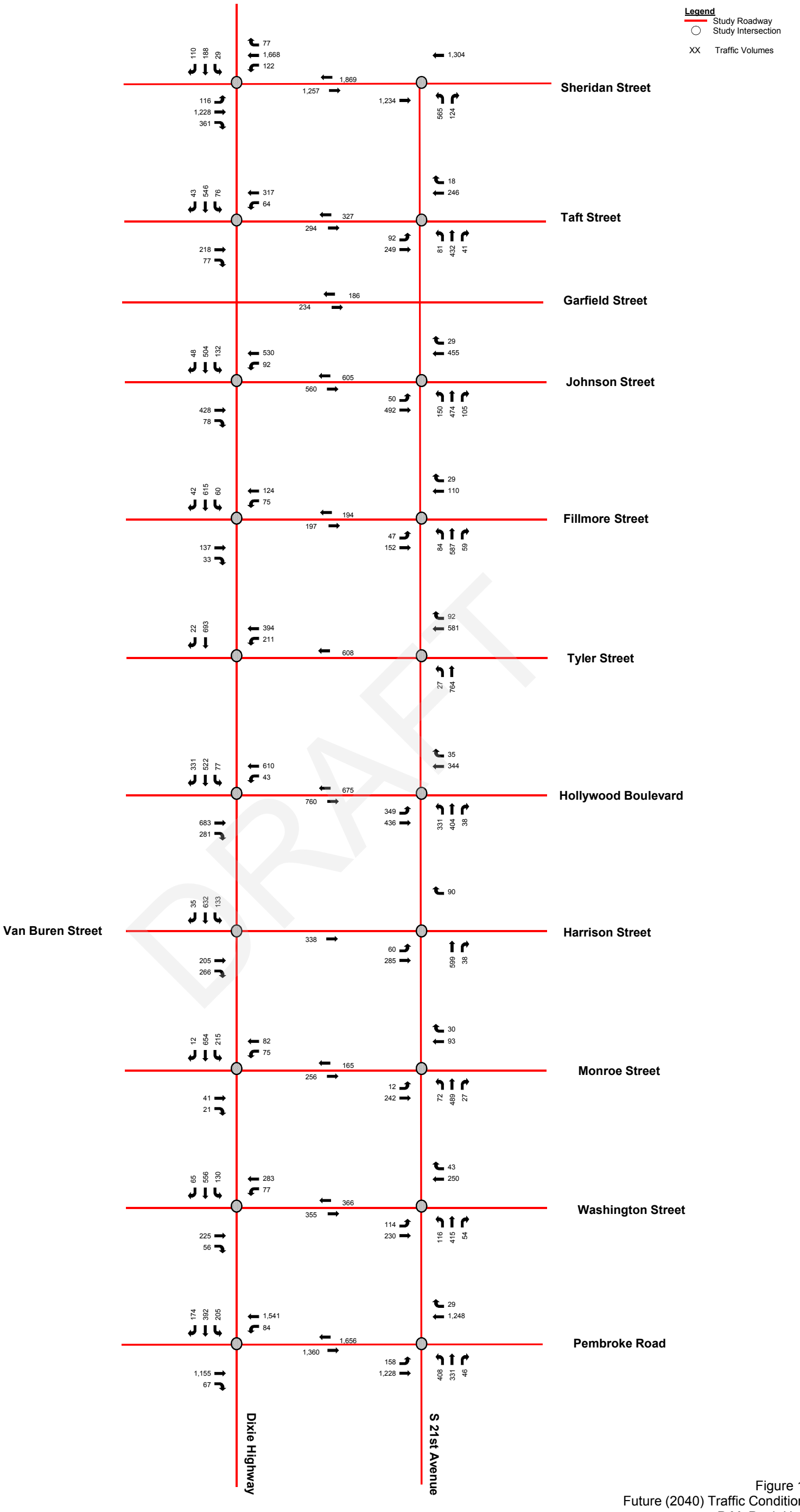

Figure 10
Future (2040) Traffic Conditions
P.M. Peak Hour
Dixie Highway/21st Avenue Corridor
City of Hollywood/Hollywood CRA
City of Hollywood, Florida

Kimley-Horn and Associates, Inc.

FUTURE (2040) CAPACITY ANALYSIS

Intersection capacity analyses and roadways link analyses were conducted under future (2040) conditions with and without the roadway diet. Below summarizes the intersection and roadway link analyses.

Intersection Capacity Analysis

The operating conditions were analyzed for study intersections, for both future (2040) conditions (No Roadway Diet and With Roadway Diet) using *Trafficware's SYNCHRO 8.0 Software*, which applies methodologies outlined in the *Highway Capacity Manual, 2010 Edition*. Synchro worksheets and signal timing data for the study intersections are included in Appendix F. A summary of the intersection analyses for the A.M. and P.M. peak hours for both future (2040) conditions (No Roadway Diet and With Roadway Diet) are presented in Tables 7 and 8. As these tables indicates, all the study intersections are expected to operate at adopted levels of service (LOS E or better) overall during the A.M. and P.M. peak hours under both future (2040) conditions (No Roadway Diet and With Roadway Diet) with the exception of the following:

- Dixie Highway at Pembroke Road, AM and PM peak hours
- S 21st Avenue at Pembroke Road, AM and PM peak hours
- Dixie Highway at Van Buren Street, AM peak hour

All three intersections are expected to operate at LOS F under future (2040) conditions with and without the proposed roadway diet; therefore, the proposed lane reductions do not cause the failure of the intersections.

Roadway Link Analysis

Roadway segments along Dixie Highway/21st Avenue were analyzed during daily and peak hour future (2040) conditions. FDOT twenty-four hour continuous count data was used for the following roadway segments:

- Dixie Highway, south of Sheridan Street (station 8109)
- Dixie Highway, north of Johnson Street (station 8133)
- Dixie Highway, south of Hollywood Boulevard (station 8148)
- N/S 21st Avenue, south of Hollywood Boulevard (station 8103)
- N/S 21st Avenue, south of Sheridan Street (station 8105)
- N/S 21st Avenue, north of Johnson Street (station 8132)

As previously mentioned, the FDOT data was collected in 2012. Therefore, an annual growth rate of 1.00 percent (1.00%) was applied to the 2012 data to establish 2040 volumes.

Table 9 and 10 provide a summary of the daily and two-way peak hour roadway segment analysis for both future (2040) traffic conditions (No Roadway Diet and With Roadway Diet), respectively. The results indicate that the study roadway segments operate below adopted level of service for the analysis periods during both future (2040) conditions (No Roadway Diet and With Roadway Diet). In addition, the findings demonstrate that there is more excess capacity anticipated to be available on Dixie Highway and N/S 21st Avenue in the With Roadway Diet future conditions than on the adjacent parallel arterial (U.S. 1 Federal Highway). N/S 26th Avenue (74%) is expected to have a slightly higher percentage of excess capacity than Dixie Highway and N/S 21st Avenue (55% to 62%). Therefore, any "spill over" traffic from Dixie Highway and N/S 21st Avenue to adjacent parallel roadways resulting from the proposed lane elimination is anticipated to be negligible because the Dixie Highway and N/S 21st Avenue corridor will continue to have significant excess capacity and will continue to operate at LOS C.

Table 7: Intersection Capacity Analysis						
Intersection	**Traffic Control**	**Overall LOS/Delay**	**Approach LOS**			
			NB	**SB**	**EB**	**WB**
Future (2040) Conditions without Roadway Diet *A.M. Peak Hour (P.M. Peak Hour)*						
Dixie Highway at Pembroke Road	Signalized(1)	F/90.0 (F/96.6)	- -	E (E)	F (E)	F (F)
21st Avenue at Pembroke Road	Signalized(1)	F/88.8 (F/121.9)	E (F)	- -	A (A)	F (F)
Dixie Highway at Washington Street	Signalized(1)	C/22.5 (D/36.1)	- -	B (D)	D (D)	C (A)
21st Avenue at Washington Street	Signalized(1)	C/26.4 (C/22.8)	C (C)	- -	A (A)	D (D)
Dixie Highway at Monroe Street	Signalized(1)	C/26.8 (C/25.9)	- -	C (C)	B (C)	A (A)
21st Avenue at Monroe Street	Signalized(1)	C/22.3 (C/23.0)	C (C)	- -	A (A)	D (D)
Dixie Highway at Van Buren Street	Signalized(1)	F/101.8 (D/39.8)	- -	A (A)	F (F)	- -
21st Avenue at Harrison Street	Signalized(1)	C/27.7 (D/36.3)	C (D)	- -	D (E)	E (E)
Dixie Highway at Hollywood Boulevard	Signalized(1)	C/27.9 (C/28.8)	- -	D (D)	D (D)	A (A)
21st Avenue at Hollywood Boulevard	Signalized(1)	C/21.4 (C/23.7)	C (C)	- -	A (A)	D (D)
Dixie Highway at Tyler Street	Signalized(1)	A/6.4 (A/6.9)	- -	A (A)	- -	A (A)
21st Avenue at Tyler Street	Signalized(1)	C/20.3 (B/18.1)	A (A)	- -	- -	C (C)
Dixie Highway at Fillmore Street	Signalized(1)	C/24.6 (C/25.3)	- -	C (C)	C (C)	A (B)
21st Avenue at Fillmore Street	Signalized(1)	C/20.6 (C/20.4)	C (C)	- -	A (B)	C (C)
Dixie Highway at Johnson Street	Signalized(1)	D/40.0 (C/30.0)	- -	C (C)	C (D)	D (C)
21st Avenue at Johnson Street	Signalized(1)	C/22.8 (C/24.2)	C (C)	- -	A (A)	D (D)
Dixie Highway at Taft Street	Signalized(1)	C/22.9 (C/22.6)	- -	C (C)	C (D)	A (A)
21st Avenue at Taft Street	Signalized(1)	B/19.8 (C/22.8)	C (C)	- -	A (A)	C (D)
Dixie Highway at Sheridan Street	Signalized(1)	E/62.5 (E/61.4)	- -	E (E)	C (D)	F (E)
21st Avenue at Sheridan Street	Signalized(1)	C/26.5 (C/29.4)	E (E)	- -	A (A)	C (C)

Notes: (1) HCM 2000 utilized for analysis as the intersection does not strictly adhere to NEMA/HCM 2010 evaluation requirements and cannot be analyzed in HCM 2010.

Table 8: Intersection Capacity Analysis						
Intersection	**Traffic Control**	**Overall LOS/Delay**	**Approach LOS**			
			NB	**SB**	**EB**	**WB**
Future (2040) Conditions with Roadway Diet A.M. Peak Hour (P.M. Peak Hour)						
Dixie Highway at Pembroke Road	Signalized(1)	F/90.1 (F/96.4)	- -	E (E)	F (E)	F (F)
21st Avenue at Pembroke Road	Signalized(1)	F/88.8 (F/121.2)	E (F)	- -	A (A)	F (F)
Dixie Highway at Washington Street	Signalized(1)	C/28.9 (C/28.9)	- -	C (C)	D (D)	C (A)
21st Avenue at Washington Street	Signalized(1)	C/37.6 (C/25.4)	C (C)	- -	A (A)	F (D)
Dixie Highway at Monroe Street	Signalized(1)	C/23.6 (C/21.5)	- -	C (C)	C (C)	A (A)
21st Avenue at Monroe Street	Signalized(1)	C/24.9 (C/26.7)	C (C)	- -	A (A)	D (D)
Dixie Highway at Van Buren Street	Signalized(1)	F/109.7 (D/43.1)	- -	A (A)	F (F)	- -
21st Avenue at Harrison Street	Signalized(1)	C/26.0 (C/34.0)	C (C)	- -	C (E)	E (E)
Dixie Highway at Hollywood Boulevard	Signalized(1)	C/36.4 (C/38.5)	- -	E (E)	D (D)	A (A)
21st Avenue at Hollywood Boulevard	Signalized(1)	C/22.8 (C/32.6)	C (D)	- -	A (A)	D (D)
Dixie Highway at Tyler Street	Signalized(1)	A/5.6 (A/7.4)	- -	A (B)	- -	A (A)
21st Avenue at Tyler Street	Signalized(1)	B/19.5 (B/17.5)	A (A)	- -	- -	C (C)
Dixie Highway at Fillmore Street	Signalized(1)	B/18.5 (C/20.8)	- -	C (B)	C (C)	A (B)
21st Avenue at Fillmore Street	Signalized(1)	B/18.0 (C/21.6)	B (C)	- -	A (B)	C (C)
Dixie Highway at Johnson Street	Signalized(1)	D/50.0 (C/36.3)	- -	D (D)	E (D)	E (C)
21st Avenue at Johnson Street	Signalized(1)	C/26.3 (C/30.7)	C (D)	- -	A (A)	D (D)
Dixie Highway at Taft Street	Signalized(1)	B/19.5 (C/25.9)	- -	C (D)	C (D)	A (A)
21st Avenue at Taft Street	Signalized(1)	C/23.1 (C/25.3)	C (C)	- -	A (A)	C (D)
Dixie Highway at Sheridan Street	Signalized(1)	E/62.5 (E/61.4)	- -	E (E)	C (D)	F (E)
21st Avenue at Sheridan Street	Signalized(1)	C/26.5 (C/29.4)	E (E)	- -	A (A)	C (C)

Notes: (1) HCM 2000 utilized for analysis as the intersection does not strictly adhere to NEMA/HCM 2010 evaluation requirements and cannot be analyzed in HCM 2010.

Table 9: Roadway Segment Capacity Analysis (2040 Future Conditions without Roadway Diet)

Roadway	Segment	Laneage	LOS Std.	Maximum Service Volume *(vph)*	2040 Peak Hour Volume	2040 Peak Hour LOS	2040 Peak Hour Excess Capacity	Maximum Service Volume *(vpd)*	2040 AADT Volume	2040 AADT LOS
Dixie Highway	South of Sheridan Street (station 8109)	4LO(1)	D	3,890	666	C	82.9%	43,250	7,399	C
	North of Johnson Street (station 8133)	3LO(1)	D	2,910	618	C	78.8%	32,350	6,871	C
	South of Hollywood Boulevard (station 8148)	3LO(1)	D	2,910	702	C	75.9%	32,350	7,796	C
N/S 21st Avenue	South of Hollywood Boulevard (station 8103)	3LO(2)	D	2,430	630	C	74.1%	27,000	7,003	C
	South of Sheridan Street (station 8105)	3LO(2)	D	2,430	595	C	75.5%	27,000	6,606	C
	North of Johnson Street (station 8132)	3LO(2)	D	2,430	606	C	75.1%	27,000	6,739	C
S 26th Avenue	South of Hollywood Boulevard (station 7311)	2LU(3)	D	960	250	C	74.0%	10,660	2750	C
US 1	North of Pembroke Road (station 0176)	4LD(4)	D	2,920	3,250	F	-11.3%	32,400	36,100	F
	North of Johnson Street (station 0165)	4LD(4)	D	2,920	3,240	F	-11.0%	32,400	35,980	F

(1) Class I roadway with 10 percent reduction for "Non-State Signalized Roadways" and 40 percent reduction for "One-Way Roadway".
(2) Class II roadway with 10 percent reduction for "Non-State Signalized Roadways" and 40 percent reduction for "One-Way Roadway".
(3) Class II roadway with 10 percent reduction for "Non-State Signalized Roadways" and 20 percent reduction for No left-turn or Right-turn lanes
(4) Class II roadway with no reductions.

Table 10: Roadway Segment Capacity Analysis (*2040 Future Conditions with Roadway Diet)*

Roadway	Segment	Laneage	LOS Std.	Maximum Service Volume *(vph)*	2040 Peak Hour Volume	2040 Peak Hour LOS	2040 Peak Hour Excess Capacity	Maximum Service Volume *(vpd)*	2040 AADT Volume	2040 AADT LOS
Dixie Highway	South of Sheridan Street (station 8109)	2LO(1)	D	1,580	666	C	57.8%	17,500	7,399	C
	North of Johnson Street (station 8133)	2LO(1)	D	1,580	618	C	60.9%	17,500	6,871	C
	South of Hollywood Boulevard (station 8148)	2LO(1)	D	1,580	702	C	55.6%	17,500	7,796	C
N/S 21st Avenue	South of Hollywood Boulevard (station 8103)	2LO(1)	D	1,580	630	C	60.1%	17,500	7,003	C
	South of Sheridan Street (station 8105)	2LO(1)	D	1,580	595	C	62.3%	17,500	6,606	C
	North of Johnson Street (station 8132)	2LO(1)	D	1,580	606	C	61.6%	17,500	6,739	C
S 26th Avenue	South of Hollywood Boulevard (station 7311)	2LU(2)	D	960	250	C	74.0%	10,660	2750	C
US 1	North of Pembroke Road (station 0176)	4LD(3)	D	2,920	3,250	F	-11.3%	32,400	36,100	F
	North of Johnson Street (station 0165)	4LD(3)	D	2,920	3,240	F	-11.0%	32,400	35,980	F

(1) Class II roadway with 10 percent reduction for "Non-State Signalized Roadways" and 40 percent reduction for "One-Way Roadway".
(2) Class II roadway with 10 percent reduction for "Non-State Signalized Roadways" and 20 percent reduction for No left-turn or Right-turn lanes
(3) Class II roadway with no reductions.

CONCLUSIONS

The foregoing analysis evaluated the effect of reducing Dixie Highway and 21st Avenue to one-way two (2) lane facilities between Pembroke Road and Sheridan Street. The analysis determined that future traffic conditions will not be negatively impacted by the proposed road diet. In addition, the road diet will improve mobility conditions for pedestrians and bicyclists.

- The results for the roadway segment analysis indicate that the study roadway segments operate better than adopted level of service for the analysis periods during both future (2040) conditions (No Roadway Diet and With Roadway Diet).
- Intersection capacity analyses indicate that all the study intersections are expected to continue to operate at LOS E or better, with the exception of the following:
    - Dixie Highway at Pembroke Road, AM and PM peak hours
    - S 21st Avenue at Pembroke Road, AM and PM peak hours
    - Dixie Highway at Van Buren Street, AM peak hour

  All three (3) intersections are expected to operate at LOS F under future (2040) conditions both with and without the proposed roadway diet. Therefore, the proposed lane reductions do not cause the LOS F conditions at the intersections. Furthermore, the intersection movements that fail tend to be the east-west movements not impacted by the road diet.
- An evaluation of the 85th percentile speeds demonstrates that motorists travel in excess of the 40 mile per hour posted speed limits. Therefore, the use of low-speed design principles is recommended for the future road diet condition to create a more livable, walkable environment by reducing speed through roadway design techniques.
- Based upon a crash data review, a total of 209 crashes occurred within the Dixie Highway/21st Avenue corridor between 2010 and 2012. These crashes included 76 injuries and 1 fatality. The intersections of Dixie Highway at Pembroke Road, Tyler Street, and Taft Street and the intersection of 21st Avenue at Sheridan Street experienced more than 10 crashes between 2010 and 2012.