



Planning & Zoning Board Regular Meeting

Agenda

August 6, 2024 @ 6:00 PM

City Hall Commission Chambers
401 S. Park Avenue

welcome

Agendas and all backup material supporting each agenda item are accessible via the city's website at cityofwinterpark.org/meetings/ and include virtual meeting instructions.

assistance & appeals

Persons with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk's Office ([407-599-3277](tel:407-599-3277)) at least 48 hours in advance of the meeting.

"If a person decides to appeal any decision made by the Board with respect to any matter considered at this hearing, a record of the proceedings is needed to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based." (F.S. 286.0105).

please note

Times are projected and subject to change.

1. Call to Order**2. Consent Agenda**

- a. Approve the minutes of July 2, 2024. 1 minute

3. Public Comments (for items not on the agenda): Three minutes allowed for each speaker**4. Public Hearings (Public participation and comment on these matters must be in person.)**

- a. ZTA #24-05 Request of the City of Winter Park for: 10 minutes
- An Ordinance to amend Article V, Divisions 6 and 8 of Chapter 58 of the Land Development Code concerning Tree Preservation and Protection and Landscape Regulations.
- b. CU #24-08. Request of Rollins College for Conditional Use and Special Permit approval to build a 45,842 square foot Rollins Faculty & Staff housing building of 30 units that is a combination of two and three stories. 45 minutes
- c. CU #24-10. Request of DI Partners LLLP for: Conditional Use approval to construct 26,210 square feet of one-story retail and restaurant space with approximately 106 parking spaces on the properties at 805, 801, 771 W. Fairbanks Avenue and 555 S. Capen Avenue, with vested Commercial (C-3) zoning together with a Community Benefit Agreement that includes transportation, storm water retention and flood control improvements. 30 minutes
- d. RZ #24-04/ZTA #24-06. Request of the City of Winter Park for: 10 minutes
- An Ordinance to amend the existing Multi-family (high density R-4) District zoning to Public, Quasi-Public (PQP) District zoning on the former Winter Park Library property at 460 E. New England Avenue in conformance with the existing Comprehensive Plan Future Land Use designation of Institutional.
 - An Ordinance amending the Public, Quasi-Public (PQP) zoning district to establish a new Permitted Use for "performance art venues together with ancillary gallery, educational, rehearsal, recording studios and offices to support the like, within a city-owned building".

-
- 5. Action Items**
 - 6. Non-Action Items**
 - 7. Staff Updates**
 - 8. Board Comments**
 - 9. Upcoming Agenda Items**
 - 10. Adjournment**



Planning & Zoning Board

agenda item 2.a

item type

Consent Agenda

meeting date

August 6, 2024

prepared by

Mary Bush, Administrative Coordinator III

approved by**subject**

Approve the minutes of July 2, 2024.

motion | recommendation**background****alternatives | other considerations****fiscal impact****attachments**

1. Draft Planning & Zoning Board Regular Meeting Minutes



Planning & Zoning Board Regular Meeting Minutes

July 2, 2024 at 6:00 PM

City Hall Commission Chambers
401 S. Park Avenue

Present

David Bornstein, Alex Stringfellow, Warren Lindsey, Michael Spencer, Bill Segal, Jim Fitch

Absent

Jason Johnson

Staff Present

City Attorney Dan Langley, Director of Planning and Zoning Allison McGillis, Park Services Manager Josh Nye, Planner II Nicholas Lewis, Planner I Corinna Lundgren, Administrative Coordinator Mary Bush

1. Call to Order

Chairman David Bornstein called the meeting to order at 6:00 p.m.

2. Consent Agenda

- a. Approve the minutes of June 11, 2024.

Motion made by Warren Lindsey, seconded by Michael Spencer, to approve the June 11, 2024 meeting minutes.

The motion carried unanimously by a 6-0 vote. (Jason Johnson was absent from the meeting.)

3. Public Comments (for items not on the agenda): Three minutes allowed for each speaker

The Board heard public comment from the following resident:

Gigi Papa of 1440 Hibiscus Avenue, Winter Park, FL 32789. Ms. Papa spoke about concerns regarding statements that were made at the July 2, 2024 Planning & Zoning Board meeting with regard to the importance of Rollins College to the city of Winter Park. She noted that the city's boards should be advocating for the best interests of Winter Park residents.

No one else from the public wished to speak. The public hearing was closed.

4. Public Hearings (Public participation and comment on these matters must be in person.)

- a. CU #24-08. Request of Rollins College for Conditional Use and Special Permit approval to build a 45,842 square foot Rollins Faculty & Staff housing building of 30 units that is a combination of two and three stories. **Applicant has requested to table this item until the August 6, 2024 meeting agenda.**

Chairman Bornstein explained that due to the applicant not having anyone available to attend and present the item at the meeting, the applicant requested to table it until the August 6, 2024 regular meeting.

Motion made by Bill Segal, seconded by Michael Spencer to table the item until the August 6, 2024 regular meeting.

The motion carried unanimously by a 6-0 vote. (Jason Johnson was absent from the meeting.)

- b. SUB #24-02. Request of William Keegan for subdivision approval to split the properties at 1760 and 1780 Bryan Avenue into three single-family lots, zoned R-1A. Each proposed lot would have 66.8 feet of lot width and 8,466 square feet of lot area in lieu of the 75 feet of lot width and 8,500 square feet of lot area required by R-1A zoning.

Mr. Lewis provided a summary of the item. He indicated that the applicants' lots are both 100 feet in width, but the neighboring lots vary greatly in lot size. He then noted that the applicant had provided preliminary plans and elevations for the proposed homes, and they all meet the city's single-family requirements and setback criteria. He then explained that as part of the city's 2023 comprehensive plan amendment, the subdivision lot conformance standards for the neighborhood test was revised to be more street focused, with the review radius changed from 500 feet to 300 feet and on the same block. He also indicated that the lots meet the amendment's new median lot width and size criteria. Mr. Lewis then noted that the request had previously been approved by the Board in 2020. He added that at that time the applicant pulled the request before being heard by the City Commission and the project was placed on the back-burner due to the COVID-19 pandemic. He went on to note that staff had received 18 letters of support for the item from the surrounding neighbors, but one neighbor to the rear of the lots had expressed concerns regarding existing invasive landscape species on the lots and a dilapidated wood fence along the rear property line. He indicated that the applicant had agreed to remove the invasive landscape species and replace the dilapidated wood fence with a white vinyl fence.

Staff recommendation was for approval with the following conditions:

- That the final front elevations of the homes be of varied architectural styles to each other to provide diversity to the neighborhood;
- That invasive landscape species be removed from the properties; and
- That the existing, dilapidated wood fence along the rear property line be removed and replaced with a 6-foot white vinyl privacy fence, installed in a manner that does not damage the neighbor's existing podocarpus landscaping.

The Board asked if the lots were currently vacant, about the applicant's intent with regard to developing and building on the lots, and for clarification of the width of the adjacent neighboring lots. Mr. Lewis noted that the lots currently have homes on them and the applicant wanted to split the lots and sell them separately.

The applicant's representative, Raul Veitia at 1561 Lyndale Boulevard, Maitland, FL 32751 addressed the Board. He noted that staff had provided a good explanation of the applicant's plan and purpose for the three proposed lots.

The Board inquired with Mr. Veitia about when construction was expected to be started, and he responded that it was expected to be started within the 12 months following the City Commission's hearing for the item, if approved.

The Board heard public comment from the following residents:

Barry and Laura Laboda of 1765 Edwin Boulevard, Winter Park, FL 32789. Both residents shared concerns regarding the item but felt it would be in the best interest of the neighborhood, and that they were satisfied with the conditions of approval. Mr. Laboda asked to have the word "uniform" added to the vinyl fence condition.

No one else from the public wished to speak. The public hearing was closed.

Motion made by Warren Lindsey, seconded by Alex Stringfellow, to approve the subdivision request at 1760/1780 Bryan Avenue subject to the following conditions:

- **That the final front elevations of the homes be of varied architectural styles to each other to provide diversity to the neighborhood;**
- **That invasive landscape species be removed from the properties; and**
- **That the existing, dilapidated wood fence along the rear property line be removed and replaced with a 6-foot uniform white vinyl privacy fence, installed in a manner that does not damage the neighbor's existing podocarpus landscaping.**

The motion carried unanimously by a 6-0 vote. (Jason Johnson was absent from the meeting.)

c. ZTA #24-05 Request of the City of Winter Park to:

- Amend Article V, Divisions 6 and 8 of Chapter 58 of the Land Development Code concerning tree preservation and protection and landscape regulations; providing urban forestry, tree, and landscape regulations, requirements, permit and mitigation procedures, and setting forth related fees and penalties; clarifying and amending the authority of the urban forestry division and other city departments; providing supplemental compliance methods ensuring observance of tree and landscape regulation, replacement, mitigation, maintenance, and best pruning and planting practices.

Mrs. McGillis introduced the city's Park Services Manager, Josh Nye who provided a presentation on the item. Mr. Nye noted that the last update to the tree preservation ordinance had been completed in 2012. He then reviewed recent changes in State law that impact the city's ability to regulate tree removals on residential property. He went on to discuss three ordinance revision themes, which were strengthening the ordinance, clarifying the ordinance, and updating the ordinance. He explained that the current ordinance's key areas regarding the appeals process, creation of a special class of trees with added protections, lowering the size at which trees are protected, increasing mitigation/compensation requirements for commercial projects, and disallowing the use of hedges and topiaries as understory replacement trees needed to be strengthened. He further explained that the portions of the code that need to be clarified are the tree removal permit financial compensation requirements; the outdated, non-industry-standard, and incorrect terminology; and the requirements for tree protection barricades. He then discussed the areas of the ordinance that need updating, which include the recommended and exempt species lists, prohibition on inorganic mulch, and the specified minimum distances for new stormwater detention areas installed near protected trees. Mr. Nye then reviewed highlights of the ordinance revisions, which included definitions; exempt trees; Florida Statutes protocol; appeals; Florida Statutes regarding tree pruning, trimming, or removals on residential properties; tree removal permit replanting mitigation; tree removal financial compensation; and precautions for grade changes near trees.

The Board inquired about the following:

- the diameter at breast height (DBH) being revised from nine inches to six inches,

- how the diameter of the trees on residential properties are determined and documented,
- including information in the city's appeals process regarding what can be appealed, the grounds for appeal, and the procedures for appealing that can be easily understood by regular citizens,
- whether a Tree Risk Assessment Documentation from a citizen's certified arborist overrides the city's code,
- if the tree removal process is waived when a tree gets knocked down during a storm or natural disaster,
- if the previously tracked citywide tree canopy coverage metric is still being measured,
- if a citizen is subject to fines and/or mitigation for removing a tree without a permit after going through the appeals process,
- if a tree's caliper size is standard for replacement criteria,
- if the city has a physical inventory of replacement trees,
- and clarifying whether non-residential excludes subdivisions or is defined by State Statutes.

City Attorney Langley clarified the appeals process and the standards for appeal. The Board then suggested that the ordinance reference the tree preservation code section for information on how to appeal. Mr. Nye noted that a person can't appeal if a tree is removed without a permit. Discussion ensued regarding the appeals process, how much a citizen can be penalized if they obtain an arborist letter after removing a landmark tree, if there is a penalty for over pruning a tree causing its decline, and if there is code language in regard to waiving the tree removal process after natural disasters. The Board suggested some flexibility be considered on constrained sites that now require the city's new stormwater requirements, have no trees near them, and are on a septic system.

The Board expressed concerns about making sure the changes that had been discussed at the meeting would be properly implemented in the update to the ordinance.

The Board heard public comment from the following resident:

Gigi Papa of 1440 Hibiscus Avenue, Winter Park, FL 32789. Ms. Papa spoke about concerns regarding charging significant fines to residents for tree removals.

No one else from the public wished to speak. The public hearing was closed.

Motion made by Jim Fitch, seconded by Warren Lindsey, to table the item until the August 6, 2024 regular meeting for the applicant to consider the recommendations discussed by the Board.

The motion carried by a 6-0 vote. (Jason Johnson was absent from the meeting.)

- d. CPA #24-04/RZ #24-04 Request of City of Winter Park for:
- An Ordinance of the City of Winter Park, Florida, amending Chapter 58, "Land Development Code", Article I, "Comprehensive Plan" Future Land Use Map so as to change the Institutional Future Land Use designation on the former Winter Park Library property at 460 E. New England Avenue to a Commercial Future Land Use designation.
 - An Ordinance of the City of Winter Park, Florida, amending Chapter 58, "Land Development Code", Article III, "Zoning" and the official zoning map so as to change the existing Multi-family (high density R-4) District zoning to Commercial (C-3) District zoning on the former Winter Park Library property at 460 E. New England Avenue.

Chairman Bornstein explained that staff requested to table the item to the August 6, 2024 regular meeting.

Motion made by Michael Spencer, seconded by Alex Stringfellow to table the item until the August 6, 2024 regular meeting.

The motion carried unanimously by a 6-0 vote. (Jason Johnson was absent from the meeting.)

5. Action Items

6. Non-Action Items

7. Staff Updates

8. Board Comments

9. Upcoming Agenda Items

10. Adjournment

The meeting adjourned at 7:34 p.m.

ATTEST:

/s/ Mary Bush, Recording Secretary



Planning & Zoning Board

agenda item 4.a

item type

Public Hearings (Public participation and comment on these matters must be in person.)

meeting date

August 6, 2024

prepared by

Allison McGillis, Director of Planning and Zoning

approved by

Allison McGillis, Director of Planning and Zoning

subject

ZTA #24-05 Request of the City of Winter Park for:

- An Ordinance to amend Article V, Divisions 6 and 8 of Chapter 58 of the Land Development Code concerning Tree Preservation and Protection and Landscape Regulations.

motion | recommendation

Staff recommendation is to approve the Ordinance as presented.

Motion to approve the Ordinance as presented.

background

At the July 2nd P&Z Board meeting, the Board voted to table this Ordinance to be able to review the changes discussed during the meeting. Attached is the version of the Ordinance with the changes made since the last meeting. These changes include clarifying the appeals process with added language drafted by the city attorney with reference to the Tree Preservation Board, and adding better definitions for residential versus multifamily/non-residential properties.

The overall summary of the attached Ordinance is below.

- **Landmark trees** – live oaks and bald cypress measuring 30" DBH and above require triple the replanting/financial compensation requirements of other protected trees.
- **58-282** – Protected tree species now require a removal permit beginning at 6-inches DBH as opposed to the previous standard of 9-inches diameter-at-breast-height (DBH).
- **58-284(a)** – Updated exempt trees list.
- **58-284(e)** – New language pertaining to Florida Statutes 163.045 which allows residential property owners to remove a tree without a permit. Written by City Attorney in consultation with staff. Clarifies requirements for compliance with both the statute

and City ordinance.

- **58-285(d)(4)** – The City Commission now has the final say on appeals to denied tree removal permit applications. Language permitting the appellant to remove the tree after a 60-day waiting period following the City Commission’s upholding of the denial is struck from the code.
- **58-286(c)(10)** – Replacement trees planted on non-residential property as mitigation for tree removal permits no longer count towards meeting minimum landscape requirements.
- **58-286(d)** – Clarification on how financial compensation works when mitigation requirements are not met by planting.
- **58-287** – Updated recommended species list.
- **58-292(b)** – Tree barricade requirements strengthened.
- **58-295/296/297** – Clarification on City’s vs residents’ authorities/responsibilities for trees on public/private property.

alternatives | other considerations

fiscal impact

attachments

1. Updated V2 Ordinance - Tree Preservation & Landscape Regs

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF WINTER PARK, FLORIDA AMENDING ARTICLE V, DIVISIONS 6 AND 8 OF CHAPTER 58 OF THE LAND DEVELOPMENT CODE CONCERNING TREE PRESERVATION AND PROTECTION AND LANDSCAPE REGULATIONS; PROVIDING URBAN FORESTRY, TREE, AND LANDSCAPE REGULATIONS, REQUIREMENTS, PERMIT AND MITIGATION PROCEDURES, AND SETTING FORTH RELATED FEES AND PENALTIES; CLARIFYING AND AMENDING THE AUTHORITY OF THE URBAN FORESTRY DIVISION AND OTHER CITY DEPARTMENTS; PROVIDING SUPPLEMENTAL COMPLIANCE METHODS ENSURING OBSERVANCE OF TREE AND LANDSCAPE REGULATION, REPLACEMENT, MITIGATION, MAINTENANCE, AND BEST PRUNING AND PLANTING PRACTICES.

WHEREAS, the City Commission of the City of Winter Park (the "City") recognizes the importance of preserving and growing the tree canopy within the City and that the City contains many species of native and non-native trees and vegetation of significant size and quality that contribute in a positive way to the environment and City aesthetics; and

WHEREAS, the City recognizes that properly maintained trees and landscaping increase property values, filter air pollutants, maintain the natural ecology, temper the effects of extreme temperatures and climate change, reduce stormwater runoff, mediate erosion of topsoil, and otherwise help create and maintain the distinct identity and visual character of the City; and

WHEREAS, the City finds that the current process to appeal the denial of a tree removal permit application does not allow for consideration of the professional judgement of the City's International Society of Arboriculture (ISA) Certified Arborists, or the decision to uphold such judgement by the Tree Preservation Board and the City Commission

WHEREAS, the City has deemed it necessary to clarify existing regulations and to revise the City's tree preservation regulations and procedures as well as the City's landscaping regulations and procedures, relating to planting, pruning, removal, and replacement of trees as well as ensuring proper care and treatment of private and City trees comprising the City's urban tree canopy and flora;

WHEREAS, the City deems these revisions as necessary to promote community health, safety, and welfare; and

WHEREAS, the City determines that recurring violations of landscaping and tree protection regulations and requirements necessitates that the City explore alternative and cumulative options to lawfully enforce the City's policies set forth herein and to maintain the City's nationally-recognized urban forest; and

WHEREAS, the City desires to strengthen, clarify, and streamline its appellate review processes and procedures regarding tree permit decisions, determinations of violations, and fines assessed relating to tree preservation within the City; and

WHEREAS, in accordance with section 163.3174, Florida Statutes, and section 58-3 of the City Code of Ordinances, the City's local planning agency, which is the designated planning and zoning board, has reviewed and made recommendations as to the amendments set forth herein;

NOW, THEREFORE, BE IT ENACTED BY THE CITY OF WINTER PARK, FLORIDA:

SECTION I: RECITALS. The above recitals are true and correct, are adopted and incorporated herein, and constitute the legislative findings of the City Commission of the City of Winter Park.

SECTION II: That Article V, Division 6 of Chapter 58 of the Land Development Code of the City Winter Park regarding Tree Preservation and Protection is hereby repealed and replaced as shown below:

DIVISION 6. - TREE PRESERVATION AND PROTECTION

Sec. 58-281. - Purpose and intent.

The City of Winter Park recognizes the environmental and community resiliency benefits and contributions urban trees provide to our ecosystem, air and water quality, energy conservation, temperature moderation, economic development, aesthetic value, public health and livability. It is the intent of this division to establish policies, regulations, and standards necessary to ensure that the city will continue to realize the benefits provided by its urban forest throughout the city, on public and private lands, and within rights-of-way.

The tree preservation and protection policies are intended to achieve the following objectives:

- a) Establish and nurture a sustainable urban forest through fostering biodiversity, productivity, regenerative capacity, vitality and the interconnection of our public parks, multi-use trails, and natural systems.
- b) Reverse canopy loss through the preservation of existing trees and planting of diverse tree species appropriate to the various site conditions found throughout the city.
- c) Maintain our recognition as a Tree City USA community through adherence to standards set forth by the National Arbor Day Foundation.

Sec. 58-282. - Definitions.

For the purposes of this division, certain terms or words used herein shall be interpreted as follows:

Caliper shall mean a nursery standard measurement of a tree's trunk diameter as measured at a predetermined point of measurement. Trunk caliper for trees up to four inches shall be measured six inches above the soil line. Trees greater than four inches in caliper shall be measured twelve inches above the soil line. Caliper measurements shall be used when measuring replacement trees.

Canopy coverage shall mean the coverage of a tree, by its limbs and leaves, of the ground below. This area may include trees offsite on adjacent properties or public rights-of-way where limbs and portions of a tree's canopy overhang onto the subject property.

Canopy tree shall mean a tree that typically reaches a height of over thirty feet.

Clear trunk shall mean the measurement from the top of the root ball to the lowest branch.

Dead tree shall mean a tree with no living cambium, foliage, or buds.

DBH (Diameter at breast height) shall mean a standard measurement of a tree trunk diameter as measured at a predetermined point of measurement. Trunks of existing trees shall be measured at four and one-half feet above the soil line. For multi-trunked trees the DBH shall mean the cumulative diameter of the two largest stems measured at four and one-half feet above the soil line. Measurements ranging between whole numbers shall be rounded up to from half an inch and above.

Drip-line shall mean a vertical line from the horizontal extremity of the canopy of a tree to the ground. For trees with canopies set off-center, the drip-line is projected based on the average diameter of the existing drip-line using the center of the tree trunk as its point of origin.

Improper pruning shall include but not be limited to poor pruning techniques such as flush cutting, stub cutting, topping, heading, thinning, lion's-tailing, and over-lifting.

Landmark tree shall mean any live oak or bald cypress in fair to excellent condition measuring thirty inches DBH or greater.

Major damage shall mean improper pruning, root damage, mechanical damage, poisoning, or any other irreparable harm inflicted upon a tree as determined by a City arborist will result in significantly a reduced lifespan or death.

Major root shall mean any root that is one-fifth or larger than the size of a tree's trunk measured at DBH.

Multifamily residential shall refer to multifamily development under Sec. 58-66 through Sec. 58-69.

Non-residential shall refer to development under Sec. 58-72 through Sec. 58-83.

Protected tree shall mean any tree measuring at least six inches DBH, any replacement tree or any tree of any size, on City property.

Pruning shall mean removing or reducing tree branches and/or limbs. Pruning shall be done according to current standards established by the most recent editions of the International Society of Arboriculture (ISA) Best Management Practices – Pruning, and the American National Standards Institute (ANSI) A300 Part 1 – Pruning.

Removal of a tree shall mean either actually removing a tree from the ground in which it grew, transplanting a tree, or effectively removing a tree through inflicting major damage.

Replacement tree shall mean any tree planted as a condition of approval of a tree removal permit or as may be required to meet the conditions of this division.

Residential shall refer to ~~single-family and duplex development R-1 zoned land use codes under within the Land Development Code (s~~Sec. 58-65), Sec. 58-66 and Sec. 58-69.

Root pruning shall mean the process of cutting roots prior to mechanical excavation near a tree.

Root zone shall mean the area starting from a tree's trunk to equal to a minimum distance of two and one-half times a tree's drip-line.

Size shall mean as determined by a tree's DBH or caliper as defined in this section as defined in this section.

Stop work order shall mean a written notice requiring all work to cease, stating the reasons for stoppage. Stop work orders shall be given to the property owner, their agent, the person doing the work, or posted on the property where tree work is occurring or trees are being damaged.

Top main root shall mean the uppermost major root emerging from the base of a tree's trunk, transitioning from the trunk into the root system.

Tree protection area shall mean an area surrounding a tree encompassed by a tree's drip-line or projected drip-line.

Tree protection barrier shall mean a suitable structure as installed as close as possible to the perimeter of the tree drip line prior to construction, land clearing, or demolition (sec. 58-292).

Trunk root flare shall mean the swelling at the base of a tree trunk that increases the trunk diameter.

Unacceptable risk shall mean a tree which poses a risk of moderate or higher where removal is the only means of practically mitigating its risk below moderate, as determined by tree risk assessment procedures outlined in the most recent edition of the International Society of Arboriculture's (ISA) Best Management Practices – Tree Risk Assessment.

Understory tree shall mean a tree that typically does not reach a height above thirty feet.

Sec. 58-283. - Establishing duties and authority.

(a) The Parks and Recreation Department is delegated the following authority:

- (1) To jointly work with the Building & Permitting Services Department in administering the provisions of this division including, but not limited to, technical and advisory support.
- (2) To grant or deny, in whole or in part, tree removal permits.
- (3) To oversee the implementation of the Tree Preservation Ordinance through the administration and operation of the Urban Forestry Division.
- (4) To waive or modify all or some of the requirements of this division in the case of a hurricane, tornado, severe rainstorm, or other emergency.
- (5) To regulate and supervise pruning or removal of trees in the public rights-of-ways and on City property.
- (6) To issue a stop work order at a site if unauthorized tree work is occurring or if trees are being damaged through construction or other potentially harmful activity.
- (7) To require immediate removal of any tree that poses an unacceptable risk to public property or persons on public property.
- (8) To oversee the City's Utility Vegetation Management Program in coordination with the Electric Utility Department.

(b) The Building & Permitting Services Department is delegated the following authority:

- (1) To require that a tree removal permit be obtained with building, demolition, site development, foundation work, and other construction activity permits, where removal of a protected tree is requested.
- (2) To place conditions on the issuance of construction, demolition, or other land development permits when recommended as a condition of a tree removal permit.
- (3) To grant a building setback encroachment up to a maximum distance of ten feet into a required setback area in order to preserve a protected tree. The City shall require a letter of approval from the affected abutting property owner(s) as a condition of approving the setback encroachment.

(c) The Planning & Zoning Board is delegated the following authority:

- (1) To make formal recommendations to the City Commission on any proposed changes to the Land Development Code, which includes the Tree Preservation Ordinance.
- (2) Any protected trees approved for removal or protection by the Planning & Zoning Board or City Commission shall not subsequently need approval from the City or the Tree Preservation Board, except for the administrative processing of a permit to verify approval by the respective board or commission. Prior to granting any tree removal request on appeal or otherwise, if the Tree Preservation Board rendered any decision with regard to tree removal or protection on a property that later comes before the Planning & Zoning Board or City Commission, then that decision and related information of that decision shall be transmitted in writing to the respective board or commission.
- (d) The Tree Preservation Board shall be delegated the following authority:
 - (1) To hear appeals of the denial, in whole or in part, of a tree removal permit application or any of the conditions attached to the approval of a tree removal permit as outlined in this division prior to any protected tree removal. The Tree Preservation Board may affirm, reverse, or modify the decision of the Director of Parks & Recreation or their designee to deny an application or to strike conditions of the permit.
 - (2) To hear appeals of an order by the City requiring the removal of a tree or parts of a tree on private property deemed to pose an unacceptable risk to public property or persons on public property.
 - (3) To make formal recommendations to the Planning & Zoning Board on any proposed changes to the Tree Preservation Ordinance.
 - (4) To periodically conduct educational programs and/or publish educational material as to the importance of trees to the City and the requirements of this division.

Sec. 58-284. - Tree removal permits.

- (a) Exempt trees. Unless on City property or near shorelines and waterways (referenced in sec. 114-6), no permit shall be required to remove the following types of trees:
 - any tree found on the most recent edition of the [Florida Invasive Species Council's List of Invasive Plant Species](#);
 - palms;
 - fruit trees;
 - any tree with a DBH less than six inches, not including replacement trees;
 - protected trees that have fallen due to acts of nature such as storms, fire, or natural decay.
- (b) Unless preempted by Florida statutes, it shall be unlawful to authorize or undertake the removal, destruction, improper pruning, moving, or damaging of major roots of any protected tree within the city, without prior issuance by the City of a tree removal permit approving the act(s), or as otherwise authorized by the City, as further described in this division.
- (c) Each application for a tree removal permit shall be reviewed and a decision rendered on approval or denial (in whole or in part) on the basis of tree assessment standards set forth in the most recent edition of the International Society of Arboriculture Best Management Practices – Tree Risk Assessment and ANSI A300 Standards for Tree Risk Assessment, including any amendments thereto. Additional considerations may include but are not limited to:

- (1) The health of the tree(s).
 - (2) Canopy coverage and available planting space on the lot.
 - (3) Active damage to structures or hardscapes which the City determines cannot be mitigated through lesser measures such as limb or root pruning.
 - (4) Whether structures were designed to minimize the removal of trees.
 - (5) The denial of the permit would create an unreasonable hardship on the property owner by severely limiting the use of the property in a manner not typically experienced by owners of similarly zoned and situated properties. A minor reduction of the potential number of residential units or building size due to the tree location does not represent a severe limit of the economic enjoyment of the property.
 - (6) The applicant has demonstrated to the satisfaction of the City that there are no reasonable alternatives to preserving the tree(s).
- (d) Unless otherwise permitted by the relevant federal and/or state authorities, no permit shall be granted for the removal of any tree that contains active nests of migratory birds, bird species listed as species of special concern, rare, threatened, or endangered by the Florida Fish and Wildlife Commission, or which are a breeding area for a colony of birds.
- (e) If a person or entity is removing a tree on an occupied residential property without a permit on the basis that such tree poses an unacceptable risk to persons or property, the property owner and person or entity removing such tree must have in their respective possession at the time of removal supporting documentation from an arborist certified by the International Society of Arboriculture or a Florida licensed landscape architect finding that such tree poses an unacceptable risk to persons or property ("Tree Risk Assessment Documentation"). The Tree Risk Assessment Document must have the credentials, name, address, telephone number and certification signature of the professional that issued the Tree Risk Assessment Documentation and must conform to tree risk assessment procedures as outlined in the International Society of Arboriculture's (ISA) Best Management Practices – Tree Risk Assessment. A copy of the Tree Risk Assessment Documentation must be kept onsite where and when the tree is being removed and displayed in a place clearly visible from the public right-of-way. Upon request, the person or entity performing the removal of the tree must present the Tree Risk Assessment Documentation to any City officer, employee, or contractor requesting to review such documentation. Within ten days after the commencement of the removal of the tree, the property owner shall cause the delivery of the Tree Risk Assessment Documentation to the City's Urban Forestry Division. Failure to comply with this subsection or any part thereof constitutes a violation of this code, for which the property owner and any agent, contractor, consultant, or other entity causing or advocating for such removal of such tree may be held jointly and severally liable.

Sec. 58-285. - Tree removal permit procedure.

- (a) When no construction or demolition is involved. Applications for tree removal permits shall include:
- (1) Remittance of a tree removal permit fee of an amount established by the City Commission in the Fee Schedule; and
 - (2) An accurate site plan drawn (hand-drawn site plan may be acceptable) to scale depicting which protected trees are proposed for removal, with the locations, common and/or botanical names, and sizes.
 - (3) A photograph of the protected trees proposed for removal.

- (4) Trees requested for removal shall be marked with flagging and noted accordingly on the site plan. Paint shall not be used for marking protected trees.
 - (5) Application forms may also require information regarding reasons for tree removal and other specifics as determined by the City.
 - (6) Trees requested for removal with trunks that originate from two or more adjacent properties shall require the written consent of all property owners.
 - (b) When construction or demolition involving other permitting is involved.
 - (1) In addition to the requirements of subsection 58-285(a), applications relating to or arising out of new building construction, renovation, demolition, or site work permits, or requiring construction permits shall include an accurate site plan drawn to scale indicating the square footage of the site and the square footage of the proposed building area(s). The site plan shall depict any proposed grade changes and a plan view of actual trees on site including:
 - a. The property lines and footprint of existing structures.
 - b. The existing and proposed grades.
 - c. Proposed additions to existing buildings, proposed new buildings, structures, and other impervious surfaces, such as but not limited to sidewalks, pool decks, patios, fences, walls, driveways, parking areas, stormwater retention areas, overhead and underground utilities, and other physical improvements.
 - (2) Incomplete or incorrect applications that require additional site visits by City staff shall require an additional fee equal to the original permit fee for each subsequent visit.
 - (c) Removal voids appeal process.
 - (1) Removal of any protected tree requested on a tree removal permit application is regarded as the applicant's acceptance of the conditions for removal as stated on the application, and voids any appeal.
 - (2) Except as allowed under subsections 58-283(a)(4) and 58-284(e), removal of a protected tree without a permit shall make void any appeal as provided in this division.
 - (d) Appeals.
 - (1) Upon denial of an application, or conditions placed on the approval of a tree removal permit, the grounds for such action shall be given to the applicant in writing. An applicant may appeal the tree removal denial decision or specific conditions placed on the tree removal approval to the Tree Preservation Board provided that such appeal is filed with the Urban Forestry Division within ten (10) days of the applicant's receipt of the decision or approval conditions being appealed. The appeal must be in writing, state the grounds of the appeal, and articulate in detail why the written decision (or a portion thereof) is incorrect. An applicant appealing a decision must pay to the city a fee prescribed by the City Commission to cover the administrative costs of an appeal taken under this subsection (d).
 - (2) Following the Urban Forestry Division's receipt of a written appeal of a denial of a tree removal permit or the conditions placed on the approval of a tree removal permit, the Tree Preservation Board shall consider the appeal as a de novo quasi-judicial hearing within 45 calendar days or as soon as possible thereafter and make a final decision. The Tree Preservation Board will hear such an appeal pursuant to its authority under Section 2-68. The applicant appealing the decision has the burden to prove that the tree removal denial decision or specific conditions placed on the tree removal is incorrect or exceeds the authority given under the city code. The Tree Preservation Board's decision on the appeal must be supported by competent, substantial evidence in the record at the

appeal hearing. A written rendition of the decision of the Tree Preservation Board will be sent to the applicant within ten (10) days of the appeal hearing.

(3) The applicant may appeal the decision of the Tree Preservation Board to the City Commission if a further written appeal is filed with the City Clerk within ten (10) days of the date of the written rendition of the decision by the Tree Preservation Board. Further, with approval of the City Manager, the Urban Forestry Division may appeal the decision of the Tree Preservation Board to the City Commission by filing a written appeal with the City Clerk within ten (10) days of the date of the written rendition of the decision by the Tree Preservation Board. The City Commission will conduct a quasi-judicial hearing on the appeal at a regularly scheduled meeting to be conducted within forty-five (45) days of the appeal being filed, or at such later meeting as may be agreed to by the applicant and the City Manager. The City Commission may reverse, modify or uphold the decision of the Tree Preservation Board. The City Commission's decision on the appeal constitutes a final decision by the City. If the Commission upholds the denial, the tree(s) may not be removed.

(1) Upon denial, in whole or in part, of a tree removal permit application, or conditions placed on the approval of a tree removal permit, the grounds for such action shall be given to the applicant in writing. Applicants may appeal the denial decision or specific conditions placed on the approval.

(2) Following the receipt of a written request to appeal a denial of a tree removal permit or a request to appeal conditions placed on the approval of a tree removal permit, the Tree Preservation Board shall consider the appeal within thirty calendar days or as soon as possible thereafter and make a final decision. The final decision of the Tree Preservation Board shall be sent to the applicant by certified and regular mail within ten days.

(3) The applicant may appeal the decision of the Tree Preservation Board to the City Commission within fifteen days of the date of the decision by the Tree Preservation Board. The City Commission may reverse, modify or uphold the decision of the Tree Preservation Board at its next available regularly scheduled meeting or at a later meeting if requested by the applicant or the City.

(4) The City Commission's final decision constitutes the end of the appeal process. If the Commission upholds the denial, the tree(s) may not be removed.

(5) Trees on City property are not eligible for the appeals process.

(e) Time for processing tree removal permit applications.

(1) Notice of an incomplete or inaccurate application shall be given to the applicant within seven working days of the receipt of the application.

(2) Each application shall either be approved, approved with conditions, denied, or returned to the applicant, requesting further action on the application within fourteen business days of the receipt of a complete application.

(f) Duration of tree removal permit.

(1) Unless associated with new building construction, renovation, demolition, site work, or other construction permits, each tree removal permit shall remain in effect for one year from the date of issuance. If the action approved in the permit is not completed within the permit's effective date, then the permit is void and a new tree removal permit must be obtained before any tree removal occurs.

(2) All conditions for removal, except financial compensation to the City which is required at the time a permit is approved in accordance with subsection 58-286(d)(1), shall be met within 30 days of the tree removal date unless an extension is documented on an approved permit.

Extensions of no longer than one year from date of removal may be considered on a case by case basis.

- (3) Tree removal permits associated with new building construction, renovation, demolition, site work, or other construction permits shall remain in effect through the duration of the associated building project. All conditions for removal shall be met before final building inspection.

Sec. 58-286. - Tree removal permit mitigation and financial compensation requirements.

- a) Requirements for approval of a tree removal permit shall include tree replacement and/or financial compensation.
- b) Protected trees deemed by the City to be dead by natural causes shall not require mitigation or compensation. At the City's discretion, photographic evidence may be accepted as proof that a tree is dead. A visual inspection for a tree removal permit application may be required.
- c) Tree removal mitigation may be made in the form of planting replacement trees on the subject property or other private property within city limits or public property with City approval in accordance with the following criteria:
 - 1) Mitigation for the removal of protected trees shall require replacement by approved canopy trees. Removed trees measuring from six to eighteen DBH inches shall require one replacement tree. Trees measuring nineteen DBH inches and above shall require two replacement trees.
 - 2) Landmark trees shall require replacement by six replacement trees.
 - 3) Canopy trees planted as replacement trees shall have a minimum size of three caliper inches.
 - 4) At the City's discretion, understory trees may be approved as replacement trees in appropriate locations at a rate of two understory trees per one canopy tree.
 - 5) Understory trees planted as replacement trees shall have a minimum size of two caliper inches.
 - 6) The caliper of multi-trunk trees shall be determined by the container size or root ball diameter, in accordance with the most recent edition of Florida Grades and Standards for Nursery Plants. If the root ball diameter is smaller than the container size, the root ball diameter shall be determinant.
 - 7) Any tree removal which renders a property non-compliant with the Division 8 - Landscape Regulations, must be replanted on the same property where the tree removal took place.
 - 8) Hedge shrubs, including but not limited to podocarpus, viburnum, ligustrum, and clusia, shall not count towards mitigation requirements.
 - 9) Trees improperly pruned or pruned as topiaries shall not count towards mitigation requirements.
 - 10) Replacement trees shall not count toward meeting the planting requirements of Division 8 - Section 58-336, ~~landscape regulations for non-residential properties.~~
 - 11) All replacement trees shall adhere to the current guidelines established by the most recent edition of Florida Grades and Standards for Nursery Plants and shall be Florida #1 or Florida Fancy grade. Replacement trees shall be installed with their top main root one inch above the surrounding grade.
 - 12) Replacement trees shall be maintained and warrantied to survive for a period of one year from installation. Trees not deemed to have satisfactorily survived shall be replaced with new trees of the same or larger caliper size. Replacement trees shall comply with the same maintenance and replacement warranty as the original replacement trees and the new warranty period will restart at the date of replanting.
 - 13) Minor deviations regarding the required replacement trees in this section may be determined by the City based on the condition of the trees being removed and other conditions that exist on the subject property. Minor deviations shall include considering any adjustments in the required tree

replacement based on existing conditions on the property such as existing tree canopy coverage of the property, topography, space available for planting, or similar criteria.

d) Financial compensation.

- 1) Caliper inches not planted as replacement trees shall be compensated by payment into the Tree Replacement Trust Fund. Each caliper inch of assigned mitigation shall constitute an equal percentage of the total DBH inches removed (see Example 1). Compensation shall equal the rate per DBH inch set by the City Commission in the Fee Schedule.
- 2) Landmark trees shall require triple the rate of compensation established by the City Commission in the Fee Schedule.
- 3) The City may disperse funds into the Tree Replacement Trust Fund (sec. 58-288).
- 4) A stop work order may be issued for any development or active construction project until all applicable permit compensation conditions are satisfied.
- 5) The certificate of occupancy or certificate of completion shall not be issued for any development until all applicable permit conditions have been satisfied.

Example 1: Removal of a 24-inch DBH laurel oak. Requires replanting mitigation of two 3-inch caliper canopy trees or financial compensation of \$2,640 (24-inches DBH x \$110 per inch). The formula for partial planting and payment is:

Planting of one 3-inch caliper canopy tree equals half of the required financial compensation (12-inches DBH). The remaining financial compensation owed is \$1,320 (12-inches DBH x \$110 per inch).

Sec. 58-287. - Recommended shade and understory species to use as replacement trees.

Understory trees shall not be used as replacement trees except as indicated in section 58-286. Palms and trees on the most recent edition of the [Florida Invasive Species Council's List of Invasive Plant Species](#) shall not be used as replacement trees. The City may approve other species on a case-by-case basis.

CANOPY TREES

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>
<u>Acer rubrum</u>	<u>Red maple</u>
<u>Betula nigra</u>	<u>River birch (Duraheat)</u>
<u>Celtis laevigata</u>	<u>Sugarberry</u>
<u>Carya glabra</u>	<u>Pignut hickory</u>
<u>Handroanthus heptaphyllus</u>	<u>Pink trumpet tree</u>
<u>Juniperus virginiana</u>	<u>Southern red cedar</u>
<u>Liriodendron tulipifera</u>	<u>Tulip poplar</u>
<u>Magnolia grandiflora</u>	<u>Southern magnolia</u>
<u>Magnolia virginiana</u>	<u>Sweet bay magnolia</u>
<u>Nyssa sylvatica</u>	<u>Blackgum</u>
<u>Pinus elliotii</u>	<u>Slash pine</u>
<u>Pinus palustris</u>	<u>Longleaf pine</u>
<u>Platanus occidentalis</u>	<u>Sycamore</u>

UNDERSTORY TREES

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>
<u>Callistemon citrinus</u>	<u>Bottlebrush</u>
<u>Callistemon viminalis</u>	<u>Weeping bottlebrush</u>
<u>Elaeocarpus decipiens</u>	<u>Japanese blueberry</u>
<u>Eriobotrya japonica</u>	<u>Loquat</u>
<u>Handroanthus chrysotrichus</u>	<u>Golden trumpet tree</u>
<u>Ilex cassine</u>	<u>Dahoon holly</u>
<u>Ilex vomitoria</u>	<u>Yaupon holly</u>
<u>Ilex vomitoria 'Pendula'</u>	<u>Weeping yaupon holly</u>
<u>Ilex x attenuata 'Eagleston'</u>	<u>Eagleston holly</u>
<u>Lagerstroemia indica</u>	<u>Crapemyrtle</u>
<u>Magnolia grandiflora 'Little Gem'</u>	<u>Little Gem magnolia</u>
<u>Myrcianthes fragrans</u>	<u>Simpson's stopper (tree form)</u>
<u>Prunus angustifolia</u>	<u>Chickasaw plum</u>

<u>Quercus austrina</u>	<u>Bluff oak</u>
<u>Quercus germinata</u>	<u>Sand live oak</u>
<u>Quercus virginiana</u>	<u>Live oak</u>
<u>Taxodium distichum</u>	<u>Bald cypress</u>
<u>Ulmus alata</u>	<u>Winged elm</u>
<u>Ulmus parvifolia 'Allee'</u>	<u>Allee elm</u>

Sec. 58-288. - Tree replacement trust fund.

- (a) There is hereby created a Tree Replacement Trust Fund. All funds collected as tree replacement fees shall be administered by the Director of Parks and Recreation or their designee.
- (b) Disbursements from the Tree Replacement Trust Fund shall be made only for the following purposes:
- (1) Purchasing trees for planting and any associated costs in accordance with the City's tree planting program.
 - (2) Pruning and care of trees planted on City property.
 - (3) Educational and community outreach purposes related to trees.
 - (4) Protection of trees and enforcement of this division.

Sec. 58-289. - Responsibilities for costs, fees, or fines.

- (a) Any property owner, or their agent or representative, including without limitation any contractor, consultant, or other entity who applies for a tree removal permit on behalf of a property owner or, who on behalf of a property owner removes a tree or otherwise violates this division of the code without appropriate permits, City approval, or documentation complying with state statutes is jointly and severally liable with the property owner for resulting costs, fees, or fines. The City may pursue, in its sole discretion, one or more liable parties to recover said costs, fees, or fines.
- (b) Any person or entity who is liable for unpaid costs, fees, or fines under this division is subject to the placement of a stop work order on any project involving said person or entity until all costs, fees, or fines are paid and certified as paid by the City. No person or entity who is liable for unpaid costs, fees, or fines under this division shall be entitled to obtain or perform work under any other permits until all costs, fees, or fines are paid and certified as paid by the City. No person or entity who is liable for unpaid costs, fees, or fines under this division shall be entitled to obtain a certificate of occupancy until all the costs, fees, or fines are paid and certified as paid by the City.
- (c) The City is entitled to and shall determine the real party or parties in interest when an entity is liable for a cost, fee, or fine, and the real party or parties in interest shall be subject to the sanctions in subsection (b), by way of illustration and not limitation, an individual who does business in more than one corporate or business name shall be considered the "real party in interest" for purposes of applying subsection (b) if any of that individual's entities have unpaid costs, fines, or fees under this division and both that individual and any of the individual's entities may be subjected to the sanctions in subsection (b) until there are no longer any unpaid costs, fees, or fines.

Sec. 58-290. - Penalties for tree removal without required permit or for tree damage.

- (a) Any protected tree removed without a permit or destroyed or having received major damage in violation of this division shall be replaced and/or compensated at double the requirements of section 58-286.
- (b) If no evidence exists on site to calculate the DBH inches of the tree(s) removed, then the tree(s) shall be presumed to be a minimum of a twenty-four DBH inches. It is the property owner's responsibility and burden of proof to prove otherwise.
- (c) For repeat offenders the City has the right to double restoration requirements or fines (or both) for each subsequent infraction, and in the alternative or in addition to revoke or suspend a contractor's license to do business in the city.

Sec. 58-291. - Tree banking.

To encourage voluntary tree replacement plantings, there is hereby created a tree banking program. The Urban Forestry Division may allow the planting of three caliper inches or larger approved canopy trees to compensate for future permitted tree removals. Banked trees are to be planted on the same lot from which future tree removals are anticipated. Each banked tree shall count as one replacement tree irrespective of size at the time a permitted tree is removed. If the banked mitigation is not sufficient to meet the conditions required for tree removals, additional mitigation shall be required until all conditions are satisfied. Trees shall be Florida Grade #1 or better as defined in the most recent edition of Florida Grades and Standards for Nursery Plants. Banked trees shall be thriving and in good condition as determined by the City at the time of inspection, which shall be within fourteen days of tree removals.

Furthermore, it shall be the responsibility of the applicant to maintain and present all necessary documentation required by the City in order to receive credit for any tree replacement as a required condition for tree removals.

Sec. 58-292. - Precautions and standards required during construction and other land development permits.

- (a) Before plans are submitted for permit, the City or designee shall be consulted before any permanent structure or impervious paving is constructed within the tree protection area.
 - (1) A tree protection barrier plan shall be provided illustrating how protected trees located on, or adjacent to the subject property will be protected from any adverse effects of proposed construction or grade changes. The plan must include the tree protection barrier that will be installed. Any wall or fence on or near property lines shall be constructed so as to avoid damage to major roots of protected trees.
 - (2) If a major root of any protected tree affected by a grade change extends beyond its drip-line, then additional root protection per section 58-293 may be required.
 - (3) Prior to demolition, grade change and/or construction, tree protection barricades shall be placed and maintained as necessary to prevent damage to protected trees on or adjacent to the subject property.
 - (4) Tree protection barricades shall be placed at or beyond the tree's drip-line whenever possible. At no time shall the tree protection barricades be closer than ten feet from a trunk unless existing or proposed structures are within that range.
- (b) On all construction and demolition sites, tree protection shall be provided by a barrier as shown in Figure 1.
 - (1) Barricade posts and two rails shall be made of two-by-four lumber.

- (2) Posts shall extend into the ground a minimum of eighteen inches.
- (3) The barricade shall be a minimum of four feet high with posts spaced no more than six feet apart.
- (4) Use the DBH of the existing tree to be preserved to determine the distance of the tree barricade from the protected tree.
- (5) Each side of the barricade shall maintain a minimum distance as specified in Table 1, measured from the perimeter of the tree trunk on all sides.
- (6) Barricade layout may be adjusted as required to accommodate sidewalks, curbs, buildings, and proposed building footprints.
- (7) Barricade shall remain in place and maintained throughout the construction process.
- (8) Only hand tools shall be used within the barricade. Trenching, digging, or grading is prohibited.

Figure 1. Tree barricade specifications.

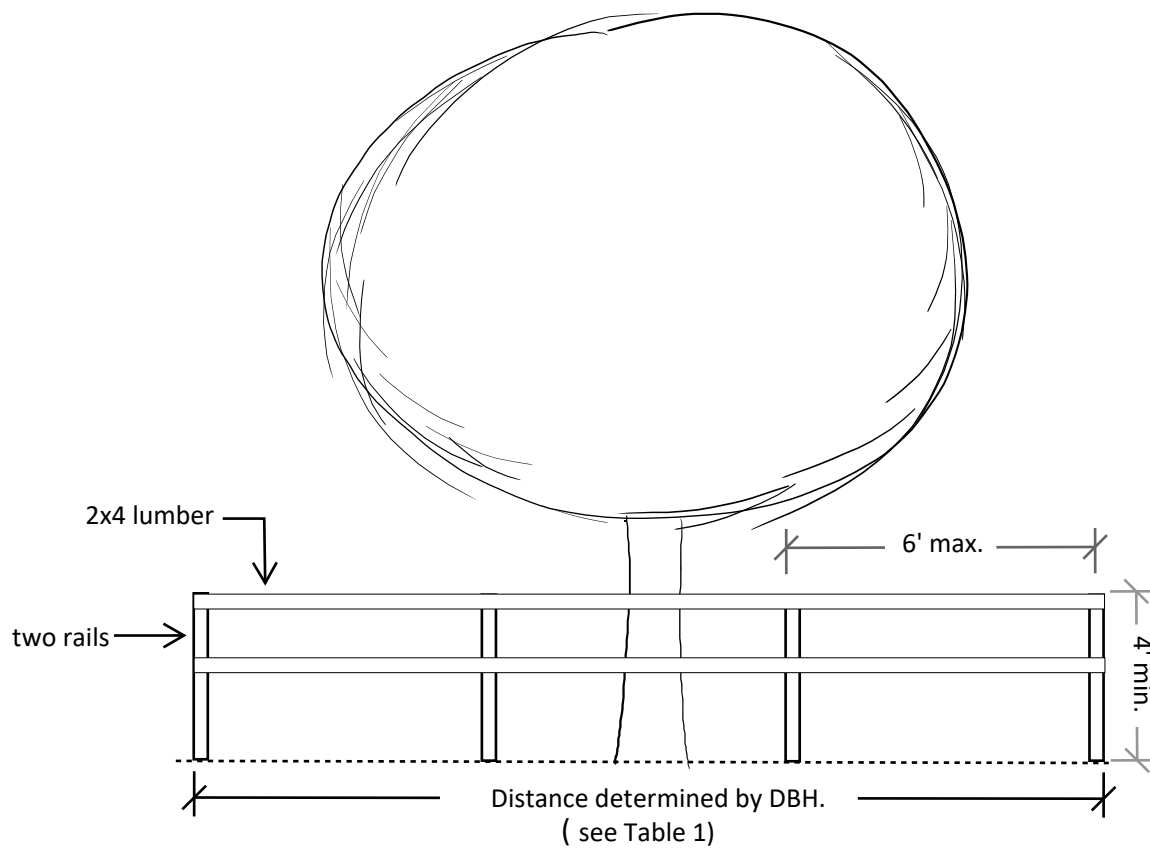


Table 1. Tree barricade distances.

Tree Barricade Distances	
DBH Range	Distance
6"-12"	10'
13"-18"	12'
19"-29"	15'
30"+	20'

- (c) Unless prior approval is granted by the City, the following activities are prohibited within the drip-line of a protected tree or within ten feet of its trunk, whichever is greater:
 - (1) Parking or use of vehicles, equipment, or machinery.
 - (2) Storing or dumping any material or liquids.
 - (3) Construction, excavation, or trenching.
- (d) Permit/inspection boxes, wires, braces, nails, screws, bolts, chains, ropes, lights, antennas, flags, banners, and other similar materials shall not be attached to a tree in a way that the City determines to be injurious to the tree.
- (e) The precautions required in this section may be modified or waived in writing by the City.

Sec. 58-293. - Precautions required for significant grade changes for protected trees.

- (a) Grade changes involving the removal or addition of more than three inches of soil within a protected tree's drip-line or projected drip-line are prohibited. The removal of any soil is prohibited within the drip-line of pine trees. Before any grade changes involving the removal or addition of up to three inches of soil, the property owner or permittee shall:
 - (1) Leave the area within the drip-line at its original grade with terraces by use of dry stacked retaining walls at the drip-line that are constructed to allow for drainage and aeration;
 - (2) Cut roots cleanly and re-trim them after excavation;
 - (3) Cover exposed root system and keep moist;
 - (4) Irrigate tree to compensate for root loss.
- (b) New or expanded stormwater detention and retention areas shall maintain distance from existing trees sufficient to protect their root systems from significant damage. Where possible, retention shall not encroach on the drip-line of protected trees. Detention and retention areas shall remain a minimum of ten feet from protected trees measuring up to eighteen inches DBH and fifteen feet from trees measuring nineteen inches DBH or greater.

Sec. 58-294. - Precautions required for excavation and paving around protected trees.

- (a) Whenever possible, water, sewer, and other underground utility lines shall be routed around the drip-lines of protected trees.
- (b) If compliance with subsection (a) is impossible, then directional boring for the utility shall be routed under the protected tree's root zone to prevent damage to major roots. Mechanical trenching is prohibited.
- (c) Suitable pervious pavement may be placed within the drip-line of a protected tree as long as the tree is not damaged by grade change, soil compaction, or any other cause. There is to be no disturbance to the trunk root flair.
- (d) All hardscapes installed near existing trees must remain a minimum of ten feet from the trunk perimeter.

Sec. 58-295. – Private trees encroaching on rights-of-way.

It shall be the duty of all property owners to keep trees which encroach on rights-of-way pruned so that the views of motorists and pedestrians are not obstructed at intersections, points of ingress and egress, and/or sidewalks. Where proper pruning is not maintained, the City may, after reasonable notice to the property owner, enter upon that property and perform the necessary work. Upon

performing such work, the City will charge the property owner for the actual cost and administrative costs as determined by the schedule of fees established by the City Commission. The City may, without notice, prune any portions of privately-owned trees encroaching on rights-of-way that do not require accessing private property.

Sec. 58-296. - Trees on city property.

- (a) The City of Winter Park shall have control of all trees now or hereafter in any park, City right-of-way, easement, or other public place within the city limits, and shall have the power to plant, care for, maintain, remove, and replace such trees.
- (b) It shall be unlawful to move, remove, or damage any tree of any size on City property except as part of official City business and operations.
- (c) Trees on City property, including exempt species, removed without a permit or destroyed or having received major damage as defined in section 58-282 shall be replaced as per applicable sections of this division.
- (d) Trees planted on rights-of-way shall be pruned by the City for clearance over roads and sidewalks, line-of-sight, around traffic signs and signals, streetlights and other public infrastructure. The City does not perform clearance pruning on portions of right-of-way trees which encroach on private property.
- (e) Property owners may request authorization from the City to perform pruning of right-of-way trees at their own cost provided that:

1. Pruning shall retain the natural form of that tree species.

- 2. All tree pruning shall be conducted according to the most current International Society of Arboriculture (ISA) standards, and the most current American National Standards Institute (ANSI) A-300 Part 1 that are hereby incorporated by this reference.

Sec. 58-297. - Trees on private property that impact public facilities.

Removal or pruning of a tree on private property that poses an unacceptable risk to public property or persons on public property is the responsibility of the property owner. If the City determines that a tree poses an unacceptable risk, the City will send a written notice outlining the work that must be performed. The required work must be performed within thirty days of receipt of the notice.

Sec. 58-298. Enforcement and authority to enforce this division.

- (a) The City shall provide interpretations, administration, and enforcement of the provisions of this division and shall be synonymous with and referred to as "the City" or "City" for references contained herein. Appeals of decisions and determinations in the enforcement of this division shall follow the procedure as set forth in subsection 58-285(d) or as specifically addressed elsewhere.
- (b) The City shall have the authority to stop work at a site if unauthorized tree work is occurring. Once a stop work order is issued, work shall not commence until the necessary permits have been issued and any applicable fine has been paid.
- (c) Failure to meet permit condition requirements for replacement within thirty days of the removal of the tree(s) shall require compensation, including administrative costs plus accrued interest at the rate of twelve percent per annum filed as a lien upon the property and the provisions of [section 102-135](#) shall apply.

- (d) Violations for this division shall be subject to the following: Code enforcement actions or citations as per Class IV level citation as listed under Article II, Code Enforcement Citation, [Section 1-23](#) "Classes of violations and penalties" and/or code enforcement board penalties of \$250.00 and/or \$500.00 per day and/or irrevocable fee of \$5,000.00 and remedial action to restore the property.
- (e) Failure to remove or prune any tree deemed by the City to pose an unacceptable risk to public property or persons on public property shall constitute a violation of this article. Such violation may result in giving notice to the owner or the agent of the owner an order to correct the violation by removing the entire tree or limb(s). Failure to correct the violation may result in the City taking the necessary action to remove the tree or limb(s) and assess all costs incurred by the City to the owner of the property, plus an administrative fee as established by the City Commission in the Fee Schedule. Where the full amount due the City is not paid by such owner or agent of the owner within thirty days after invoicing the owner for removing the tree or limb(s), such charges shall be declared a lien on the property. In addition, nothing shall prevent the City from pursuing other legal courses of action to correct the violation, including referring the matter to the Code Compliance Board. Appeals of an order to remove a tree or limb(s) of a tree will be heard by the Tree Preservation Board and must be filed with the City within thirty days of receipt of notice or within thirty days of posting the property with a notice to remove the tree or limb(s). An appeal shall include payment of any required fees, provision of documentation verifying the health of the tree, and any other information which may justify withdrawing the order to remove the tree or limb(s). Appeals of the decision of the Tree Preservation Board on this matter shall be taken to the Code Compliance Board.

Secs. 58-299—58-320. - Reserved.

SECTION III: That Article V, Division 8 of Chapter 58 of the Land Development Code of the City Winter Park regarding Tree Preservation and Protection is hereby amended to read as follows (~~struck out text~~ indicates deletions; underlined text indicates additions; and non-referenced sections shall remain unchanged):

DIVISION 8. - LANDSCAPE REGULATIONS

Sec. 58-331. - Purpose and intent.

* * *

~~(7) Contributing to the city's reforestation plan~~

(7) Upholding the intentions of the City's Tree Preservation Ordinance and Urban Forest Management Plan.

* * *

Sec. 58-333. – General criteria for all properties.

* * *

(4)Mulch: Maintain two to three inches of mulch to help retain soil moisture, prevent erosion and suppress weeds.

(4) Mulch: Maintain two to three inches of mulch to help retain soil moisture, prevent erosion, and suppress weeds. Dyed mulch is not recommended due to [concerns over source material](#). Cypress mulch and inorganic mulch are prohibited.

* * *

Sec. 58-336. – Non-residential and multifamily properties.

* * *

~~(g) Stormwater retention areas. Stormwater retention areas not screened from view from any public right-of-way by a building or wall shall be screened by a hedge maintained at a four-foot height installed in a landscape area a minimum of four feet in width. In addition, a cypress tree of at least four-inch diameter shall be planted within the stormwater retention area for each 50 linear feet of the stormwater retention area.~~

(g) Stormwater detention and retention areas. Stormwater detention and retention areas not screened from view from any public right-of-way by a building or wall shall be screened by a hedge maintained at a four-foot height installed in a landscape area a minimum of four feet in width. In addition, a bald cypress tree of at least four caliper inches shall be planted within the stormwater area for each fifty linear feet of the stormwater area.

* * *

Sec. 58-339. – Tree protection and tree removal.

~~The protection and/or removal of existing trees at nine-inch dbh or greater are governed by the city's tree ordinance detailed in division 6, tree removal and protection. Landscape plans prepared for compliance with these regulations shall include the protected trees indicated by type and size and the proposed preservation or removal pursuant to the city's tree ordinance.~~

The protection and/or removal of existing trees at six inches DBH or greater are governed by the City's Tree Preservation Ordinance detailed in Division 6 - Tree Removal and Protection. Landscape plans prepared for compliance with these regulations shall include the locations of the protected trees along with the species and size and the calculations for the proposed preservation or removal pursuant to the City's tree ordinance.



Planning & Zoning Board

agenda item 4.b

item type

Public Hearings (Public participation and comment on these matters must be in person.)

meeting date

August 6, 2024

prepared by

Jeffrey Briggs

approved by

Allison McGillis, Director of Planning and Zoning

subject

CU #24-08. Request of Rollins College for Conditional Use and Special Permit approval to build a 45,842 square foot Rollins Faculty & Staff housing building of 30 units that is a combination of two and three stories.

motion | recommendation

Staff recommendation is for approval of site plan Option 2 with the Community Benefit Agreement which includes the conditions outlined below:

1. Rollins shall provide a 5-foot easement along the West Welbourne Ave for City to install on-street parking and street trees in bump-outs
2. Approval shall prohibit undergrad and grad housing and no classroom instruction space
3. Property to remain subject to ad valorem taxes unless otherwise permitted by FL statutes
4. A landscape plan approved by city staff with no drainage swales along the Welbourne Avenue frontage to inhibit the landscape design
5. Construction plans indicate areas of a laydown area during construction
6. Lease of units by Rollins College shall be a minimum of 6 months; only plants and patio furniture on patios and balconies
7. Solar on roof (specs TBD)
8. Rollins and City to coordinate undergrounding of powerlines.
9. Rollins to commit to use exclusively as faculty and staff housing for 30 years.

background

This is a continuation of the Conditional Use request that was tabled by the Planning and Zoning Board at the June 4th meeting. In the motion to Table, there was a direction to hold a Community Meeting, which was held on Monday, June 24th. In the motion to Table, there was a direction to return with the draft of a Community Benefit Agreement that incorporated the eight conditions of approval suggested by staff and agreed to by the College and also to include a commitment that the Project would be used exclusively as faculty and staff housing

for a period of 30 years. That has been done and is attached. In the motion to Table, there was also a direction to return with a 'payment in lieu of taxes' (pilot) proposal based on the annual operating costs of police and fire services. At the June 4th meeting, Rollins stated that the College was not in agreement on that levy because it is counter to the goal of providing affordable rents.

Under the zoning code provisions for conditional uses, the Planning and Zoning Board may only table a request one time. The P&Z Board then must act on a motion for a recommendation to either approve or deny. The text following repeats what was presented at the previous public hearing with only the section discussing the Community Benefit Agreement updated..

Rollins College is requesting Conditional Use and Special Permit approval to build a 45,842 square foot Rollins Faculty & Staff housing building of 30 units that is a combination of two and three stories on 1.34 acres (58,500 sq. ft.) fronting Welbourne Avenue.

The previous submittals began with a proposal to build an 80,981 square foot, 48-unit faculty and staff housing development that included property fronting on New England Avenue. That proposal was subsequently downsized to 72,933 square feet and 39 units before it was withdrawn for this revised application, which is now close to half of the square footage that the request started with.

The current site includes nine platted lots with frontage on Welbourne Avenue comprising of 58,500 sq. ft. of land that is zoned R-3. The two platted lots on the east end now hold 14 existing apartments referred to as the Dan Hunter apartments (named after the former owner/mayor). There is a Settlement Agreement for the three vacant lots at 316 W. Welbourne Avenue. This arose from a Bert Harris claim by the New England Partners LLC over the adoption of the 2010 Comprehensive Plan.

The Settlement Agreement allows a density of up to 25 units/acre. The entitled density for these properties is outlined below:

4 Regular lots (210 Va. 308/262 Welbourne) of	26,000 sf @ 17/acre	=	10 units
3 Settlement Agreement lots (316 Welbourne) of	19,500 sf @ 25/acre	=	11 units
2 Dan Hunter Apt. lots fronting on Welbourne of	13,000 sf @ 17/acre	=	5 units
			26 units (total)

The unique feature of this site is the 14 small (550 sf) garden apartments built in 1959, Dan Hunter Apartments, on the eastern two lots. Since there are more apartments than the current code would allow, the property is a "non-conforming use", meaning it is now "used" for more units than the zoning code allows. However, the zoning code, provides that the City may allow the demolition and redevelopment of a "non-conforming use" to the existing density, if such use is deemed a community benefit. As a result, the two lots upon which the 14 units of the Dan Hunter apartments are now situated is where the Special Permit portion of this new project is proposed to contain nine (9) new apartments. That is four (4) units more than the entitlements allow, but can be permitted via the City Commission approval of a "special permit" as outlined in Sec 58-64 (f).

Rollins College has previously provided a project narrative outlining the need for faculty and staff housing for the college. One of the goals of the City Commission and the Chamber of Commerce is to find ways to promote 'attainable' housing in the city. The City has been a leader among cities in Florida in promoting 'attainable' housing by assisting non-profit partners of the Winter Park Housing Authority, the Hannibal Square Community Land Trust, and Habitat for Humanity with financial support for the creation of such housing.

Zoning Code Compliance

Floor Area Ratio: While this project may have four (4) units more than the entitlements allow, the building size in total square feet does not exceed the 110% floor area ratio (FAR) permitted by the R-3 Zoning. The proposed total building size is 45,842 sq. ft. which is a floor area ratio of 78%. The maximum building size could be up to 64,350 sq. ft. (110% FAR).

Front Setback: The project complies with the Virginia Avenue setback and exceeds the setback requirements along Welbourne Avenue, providing ample space for planting new oak trees and enhancing the street frontage. Most of the building is set back 29 feet, with sections setback 35 feet, exceeding the required 20 feet. Additionally, there are 4.5-foot bump-outs for porches. These variations in setback create a more visually appealing street frontage with ample articulation, resulting in an overall improved project design from what was previously submitted.

Building Heights: The project now features a combination of two and three-story buildings. Within the Central Business District and along the New England Avenue corridor, the Comprehensive Plan and Zoning Code permits three-story structures with flat roofs, as seen to the west on New England Avenue. However, outside these areas, buildings must employ a sloped third-floor roof with dormers to reduce the visual impact, making the structure appear like 2.5 stories.

For this project, lots fronting Welbourne Avenue must adhere to the 2.5-story design requirement. The two-story section at the northwest corner complies with this code. Some sections of the three-story portion use an alternative method to align with the policy's intent of reducing third-floor massing. These third story sections are set back an additional nine feet beyond the front setback, maintaining a 30-foot height limit with a flat roof and five-foot parapet, thus achieving the policy's goal of minimizing street-level massing with the additional setback.

Furthermore, sections of the building with a 6:12 roof slope—typical for Mediterranean architecture—are also set back on the third floor, aligning with the theoretical 2.5-story height (a 12:12 or 45-degree angle of sight) to reduce massing. The architect has provided the attached cut sheet to illustrate how this alternate compliance method eliminates three-story vertical walls at the front setback.

The prominent features on the cut sheet are the flat roof sections, which showcase the setback of the third floor from the balcony below. The blue dashed lines delineate the 6:12 roof slope sections, also illustrating the third-floor setback from the roofline below.

Additionally, the green dashed line highlights the section described further below.

The code permits architectural features to extend up to 8 feet above the 35-foot height limit. The design includes a taller central tower element extending to this maximum height which is at the 20-foot setback, but this section of the building is not habitable space and is part of the main entrance to the building. The other sections of the building extending up to this height maximum setback are shown on the cut sheet.

The staff feels that the proposed building height is compatible with the surroundings, especially since the building will face the four-story Douglas Grande building and is adjacent to two- and three-story apartments. None of the surrounding buildings offer any type of third-story relief.

Parking Compliance: The Code requires 2½ spaces per unit (75 spaces) for the 30 apartments. Historically, via Conditional Use approvals for the other apartments on New England Avenue, the City has required 2 spaces per unit, recognizing that on-street parking is available. The College also does not believe that its occupants will need the full number of 2½ spaces per unit.

As was discussed at previous public hearings, there is an opportunity to also create more on-street parking along Welbourne Avenue and to make traffic travel safer on that street section.

The Welbourne Avenue roadway could be expanded to create indented on-street parking (that does not block the travel lanes) with the sidewalk moved 5 feet onto the project property, as well as designing the layout to allow for bump-outs for new street trees. The added separation distance between those oak trees from the new building would allow for a fuller canopy spread. With the Douglas Grande building located about 10 feet from the street curb, the minimally reduced front landscaped yard setback area would not be out of context. Rollins has agreed to provide an easement for this improvement and the City will work with their contractor to have that implemented at the same time as this project is constructed.

Furthermore, during the creation of the Orange Avenue Overlay (OAO) there was comfort among the OAO Steering Committee and the Commission to reduce the parking spaces from 2.5 per unit to a per-bedroom analysis for the OAO – 1.25 spaces for a one-bedroom unit, 2 spaces for a two-bedroom unit, and 2.5 spaces for a three-bedroom unit. This request follows that same methodology by providing a total of 66 spaces on their site plan Option 1, which is an extra eight (8) spaces over this calculation based on the proposed bedroom counts. They have also provided Option 2, which proposes the 58 spaces needed following the bedroom count methodology and provides enough extra space at the northwest corner of the site to provide a pocket park amenity.

Staff believe that Option 2, which provides 58 parking spaces for the 30 units, is sufficient, given that the majority of the units are one- and two-bedrooms. This takes into account the available on-street parking and the additional on-street parking previously discussed. Although Option 2 offers fewer parking spaces than Option 1, it allows for the creation of a pocket park and additional landscaping and tree canopy at the Welbourne/Virginia corner, enhancing the overall project.

Tree Preservation: There are two trees in the middle of the open field that are in poor condition and not worthy of preservation. There are other camphor and wild weed trees along the eastern property line with the Wells Fargo Bank that will be removed. There is one live oak tree in the courtyard of the existing apartment building that cannot be saved.

Storm Water Retention: A preliminary storm water retention design has been provided to indicate how underground exfiltration chambers will be used under a portion of the parking lot to provide the required retention that satisfies the City and St. Johns Water Management District criteria. The design does not anticipate bringing in any fill (as we have seen in other instances). Overflow from this property is carried by storm pipes ultimately to the large retention pond area behind the Ninth Grade Center, so overflow here does not contribute to drainage issues at MLK Jr. Park.

Conditional Use Criteria: As discussed with previous applications for conditional use approval, there are 12 standards or criteria for approval in Sec. 58-90 that are deemed to be satisfied with any approval. The criteria that is often the basis for discussion is that “the project is compatible with the scale and character of the neighborhood”. This was the catalyst for the architectural design change to the current version versus the more contemporary or modern design styling of the previous submittal. The building also now includes a section that is two-stories at the corner of Welbourne and Virginia. The new proposed architectural style mimics the College’s Mediterranean style and is more compatible with the surroundings.

Implementation of Conditions of Approval: The current submittal includes a Community Benefit Agreement to impose conditions of approval outlined below.

1. Rollins shall provide a 5-foot easement along the West Welbourne Ave for City to install on-street parking and street trees in bump-outs
2. Approval shall prohibit undergrad and grad housing and no classroom instruction space
3. Property to remain subject to ad valorem taxes unless otherwise permitted by FL statutes
4. A landscape plan approved by city staff with no drainage swales along the Welbourne Avenue frontage to inhibit the landscape design
5. Construction plans indicate areas of a laydown area during construction
6. Lease of units by Rollins College shall be a minimum of 6 months; only plants and patio furniture on patios and balconies
7. Solar on roof (specs TBD)
8. Rollins and City to coordinate on undergrounding of powerlines.
9. Rollins to commit to use exclusively as faculty and staff housing for 30 years.

Staff Evaluation and Recommendation: This Rollins Faculty and Staff housing project is important to the College and also the City at-large in providing attainable housing in proximity to their employment. Winter Park’s most successful affordable/attainable housing to-date has been done in conjunction with non-profit partners. This project is well below the maximum building size (FAR) permitted under the existing zoning and, as such, is significantly smaller than what is allowed in terms of building size. The architectural styling is also greatly

improved. . This project will be of benefit to the College and to the benefit of the City. The staff recommendation is for approval of site plan Option 2 (pocket park) with the Community Benefit Agreement to incorporate the conditions of approval outlined above.

alternatives | other considerations

fiscal impact

attachments

1. Map and aerial
2. Faculty and Staff Housing Project Narrative
3. A1.1 SITE PLAN OPT 1
4. A1.1 SITE PLAN OPT 2
5. A3.0 SECTION - CUT SHEET
6. A6.1 ELEVATIONS
7. A1.0a RENDERING
8. Preliminary Drainage Analysis 4-23-2024
9. New England Partners, LLC - Settlement Agreement
10. Agreement of Transferee - Holt Properties
11. Community Benefit Agreement (Rollins College)
12. Douglas Grand Rollins Meeting Agenda_June 24, 2024
13. Douglas Grand Rollins Community Meeting Summary_July.2024





STAFF AND FACULTY HOUSING

OCTOBER 2023

Staff and Faculty Housing

In Rollins College's Winter Park and metropolitan Orlando area, as in many cities across the United States, buying or renting housing near to where they work is becoming increasingly difficult for middle-income workers such as many Rollins employees. This is due in part to wages not keeping up with increasing costs of living but is due also to the limited supply of housing affordable to these workers. In response to limited affordable housing options in the areas where they work, many middle-income workers move to the outer fringes of a region, leading to longer commute times for the worker, higher levels of traffic, and other negative externalities for the surrounding area (Parlow, Matthew J. "Whither Workforce Housing?" *Journal of Affordable Housing & Community Development Law*; Chicago, Vol. 23, Iss 3/4 (2015): 373-391).

Access to stable and affordable housing options allows households to prioritize other important household expenses, grow their savings, and engage in long-term financial planning. It can also increase employee availability and reliability and support better job performance and career advancement opportunities. In today's economy, where competition for workers is strong, access to housing near one's place of work provides a competitive advantage for employers (*Economic Benefits of Affordable and Workforce Housing Options*, Ulster County (NY) Housing Smart Communities Initiative, July 2022).

Recognizing the challenges and benefits, several years ago Rollins College established a faculty housing program (<https://www.rollins.edu/property-management/faculty-housing/>). However, to date the challenges have outpaced the College's ability to meet them. "We have struggled in my tenure at Rollins to find enough availability (of staff and faculty housing) to meet the needs of incoming tenure track faculty," said Edward Kania, Vice President for Business & Finance and Treasurer. Dr. Donald Davison, Vice President for Academic Affairs and Provost, added, "It is becoming increasingly difficult to hire faculty, for many reasons, and the cost of living/housing is prominent among those reasons. Affordable housing close to campus contributes to faculty being able to attend campus events."

Students and their families choose Rollins because they value living and learning in a community grounded in close relationships between students, faculty, and staff. Faculty and student-facing staff having to live further and further away from campus is coming increasingly closer to constituting an existential threat to the College. The proposed staff and faculty housing project will situate several dozen faculty or student-facing staff

members within walking or bicycling distance from campus, not only connecting them with students (and one another) more closely and more frequently but also taking their motor vehicles largely off the local roads and aiding the economy in Winter Park's central business district.

A Strategy that Meets Multiple Needs

Rollins College has begun pursuing approval from the City of Winter Park to construct a staff and faculty housing apartment complex on vacant property the College owns three blocks north and two and one-half blocks west of the Rollins campus, in downtown Winter Park's Hannibal Square shopping and dining district, which also is only two blocks west of downtown Winter Park's Park Avenue shopping and dining district. The property is bounded on the north by West Welbourne Avenue, on the west by South Virginia Avenue, and on the south by West New England Avenue.

Rollins plans to direct net leasing revenue from the housing to support scholarships to Rollins students with demonstrated financial need, and thereby execute on a second College strategic effort: filling a critical need to fund more of our unfunded financial aid. Doing that secures the economic viability of Rollins' core business plan.

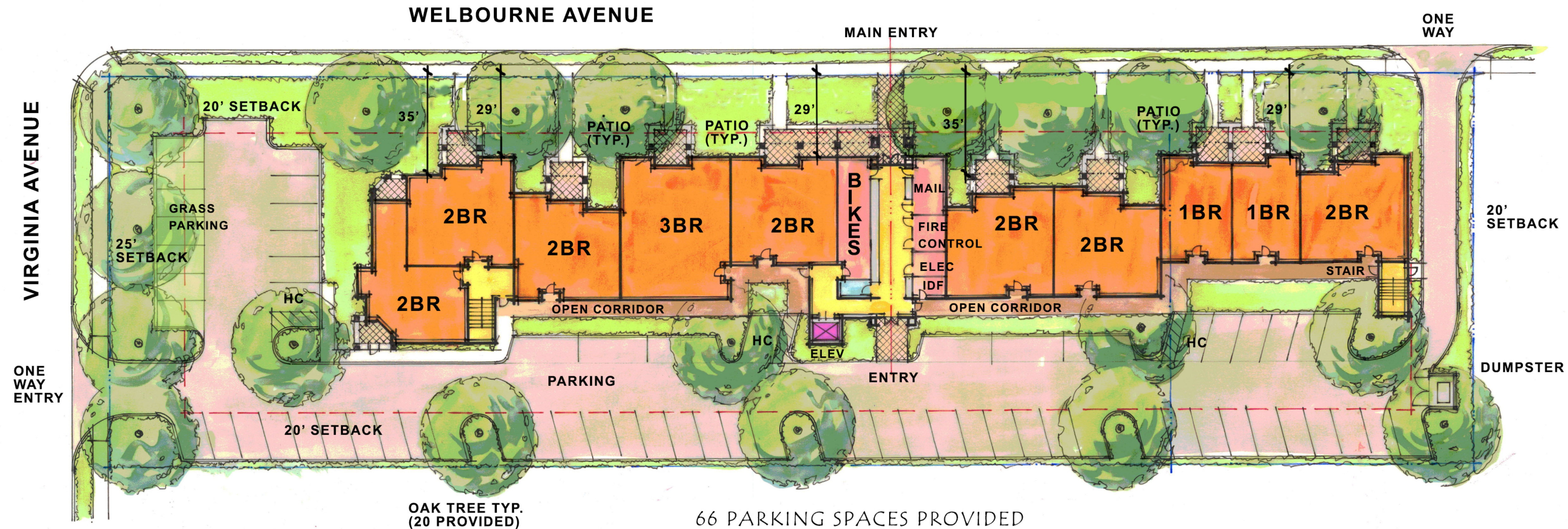
Meeting the Moment

While momentum in academic and mission reputation and market position makes Rollins College an increasingly attractive place to teach, mentor, or otherwise serve, there is no denying or escaping "the other side" of Rollins' being situated near the epicenter of the dynamic Greater Orlando/Winter Park economy/milieu. The other side: unaffordable housing costs relative to one's income. The price per square foot for a single family home in Rollins College's ZIP code in Winter Park (32789) is 44% higher than in the rest of Rollins' county (Orange County, Florida). Most of the rental product that both is near the Rollins campus and would appeal to Rollins employees rents for a minimum of \$1,800 to \$2,000 per month for a one-bedroom, one-bathroom unit, or for \$2,300+ per month for a two-bedroom, one-bathroom unit.

Although the high cost prevents most middle- and lower-income Rollins employees from living near the College, demand for staff and faculty housing near campus remains high. Students and their families choose Rollins because they value the students' living and Additionally, many of those who have been able to avail themselves of Rollins' faculty housing program extoll the virtues of living near campus.

Dr. Walter Mswaka, Associate Professor of Social Entrepreneurship, who currently is living in Rollins faculty housing, explained that his being able to move into a furnished apartment near campus upon his entry into this country from England for work "was great, because it made everything seamless and so much more convenient." Dr. Mswaka also said that being neighbors with some faculty members from different departments throughout the College has been not only wonderful for social purposes but also useful for building special connections; it even has helped those faculty members become more comfortable reaching

across academic disciplinary boundaries for ideas and partnerships in their teaching, service, and research. Dr. Victoria Machado, Visiting Assistant Professor of Environmental Studies, another current tenant in faculty housing, cited the availability of it as “one of the main reasons that I decided to accept a position at Rollins. I have found friendships there, and I really appreciate how close it is to campus.” Other tenants of the housing have also emphasized that living so close to campus facilitated their ability to engage more in the Rollins community beyond their teaching and advising. “Connection” has become a real thing for several faculty members who otherwise might never have assimilated so well into our living learning community.



SITE PLAN - OPTION ONE

BUILDING SUMMARY

	APTS.	BEDS	UNIT AREA	SUB TOTAL
1 BEDROOM	6	6	904 GSF	5,424 GSF
2 BEDROOM	19	38	1,252 GSF	12,520 GSF
3 BEDROOM	5	15	1,216 GSF	17,024 GSF
TOTAL	30	59	AVG = 1,243 GSF	37,292 GSF

BUILDINGS GROSS AREA

UNITS, APARTMENTS	37,292 GSF
PUBLIC SPACES	1,800 GSF
CORRIDORS/ STAIRS	6,750 GSF
TOTAL = 45,842 GSF	

REVISIONS
PERMIT SET
XX-XX-XX

SLOCUM PLATTS
ARCHITECTS, P.A.

RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
670 NORTH ORLANDO AVENUE, SUITE 1001 MAITLAND, FL 32751
TEL (407) 845-3019 FAX (407) 845-2771
WWW.SLOCUMPLATTS.COM

SITE PLAN

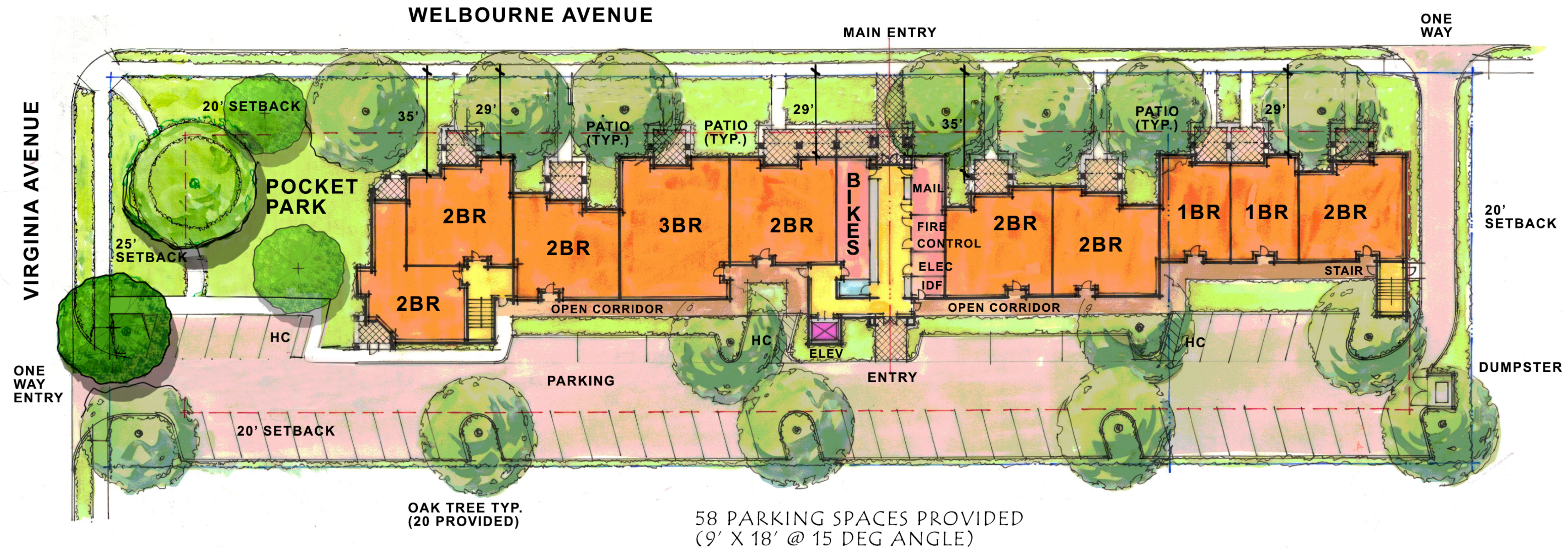
ROLLINS FACULTY APARTMENTS

FLORIDA

WINTER PARK

DRAWN	WTEJr
CHECKED	WPP
DATE	05-02-2024
SCALE	AS NOTED
JOB NO.	23-013
SHEET	

A1.1



SITE PLAN - OPTION TWO

BUILDING SUMMARY

	APTS.	BEDS	UNIT AREA	SUB TOTAL
1 BEDROOM	6	6	904 GSF	5,424 GSF
2 BEDROOM	19	38	1,252 GSF	12,520 GSF
3 BEDROOM	5	15	1,216 GSF	17,024 GSF
TOTAL	30	59	AVG = 1,243 GSF	37,292 GSF

BUILDINGS GROSS AREA

UNITS, APARTMENTS	37,292 GSF
PUBLIC SPACES	1,800 GSF
CORRIDORS/ STAIRS	6,750 GSF
TOTAL =	45,842 GSF

REVISIONS
PERMIT SET
XX-XX-XX

SLOCUM PLATTS
ARCHITECTS, P.A.

RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
670 NORTH ORLANDO AVENUE, SUITE 1001 MAITLAND, FL 32751
TEL (407)445-3019 FAX (407)445-2771
WWW.SLOCUMPLATTS.COM

SITE PLAN

ROLLINS FACULTY
APARTMENTS

FLORIDA

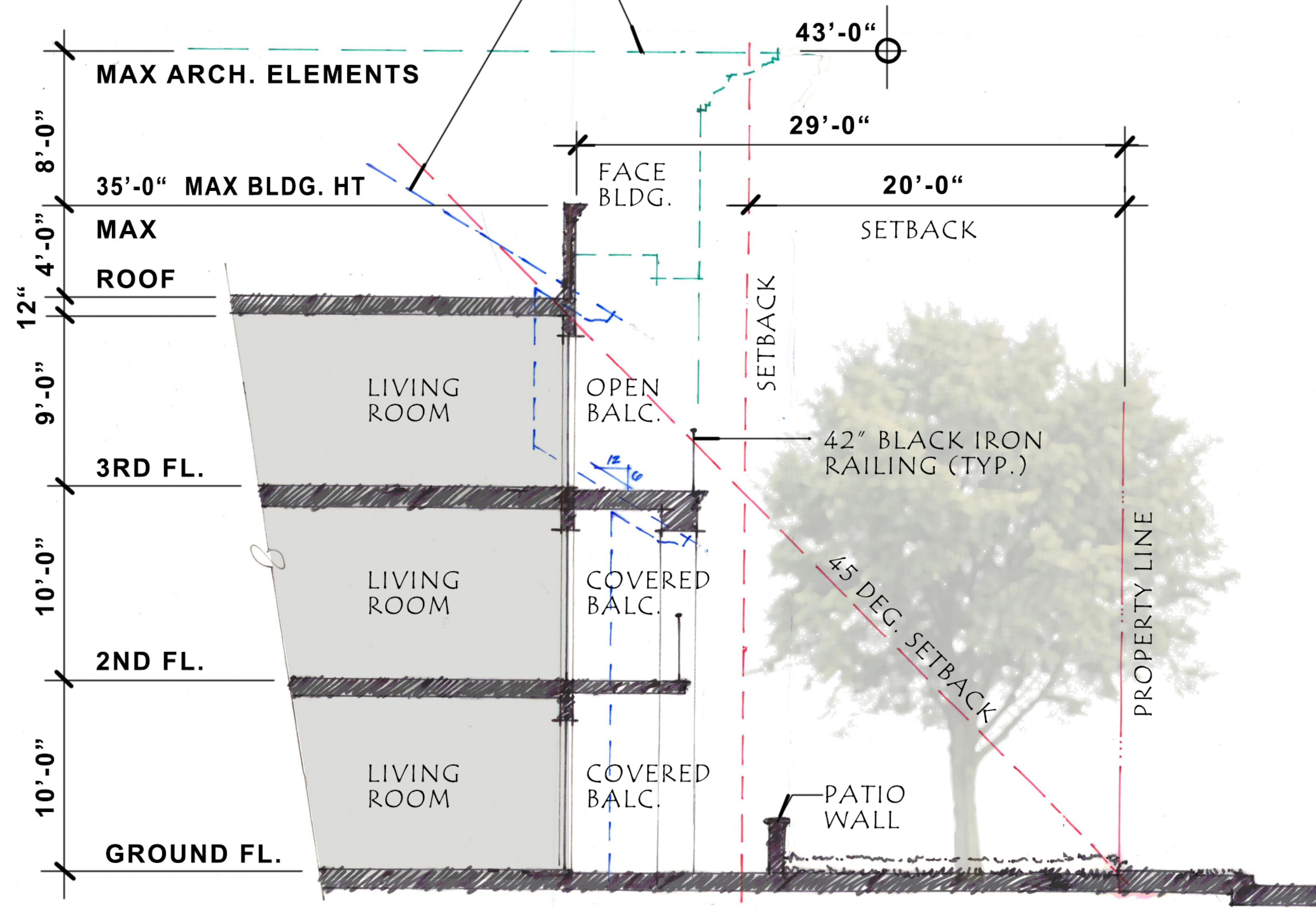
WINTER PARK

DRAWN
WTEJr
CHECKED
WPP
DATE
05-02-2024
SCALE
AS NOTED
JOB NO.
23-013
SHEET

A1.1

GREEN - TOWER AT MAIN ENTRANCE
ARCHITECTURAL FEATURE

BLUE - CONDITION AT BEDROOM BEYOND



ROLLINS FACULTY HOUSING - SECTION @ THREE BEDROOM

REVISIONS
PERMIT SET
XX-XX-XX

SLOCUM PLATTS
ARCHITECTS, P.A.
RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
670 NORTH ORLANDO AVENUE, SUITE 1001 MAITLAND, FL 32751
TEL (407) 645-3019 FAX (407) 645-2771
WWW.SLOCUMPLATTS.COM



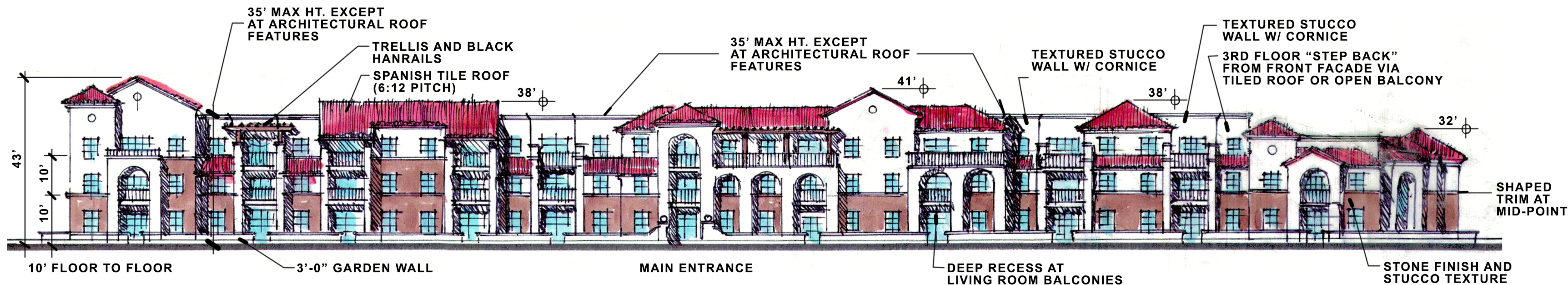
BUILDING SECTION

ROLLINS FACULTY
APARTMENTS

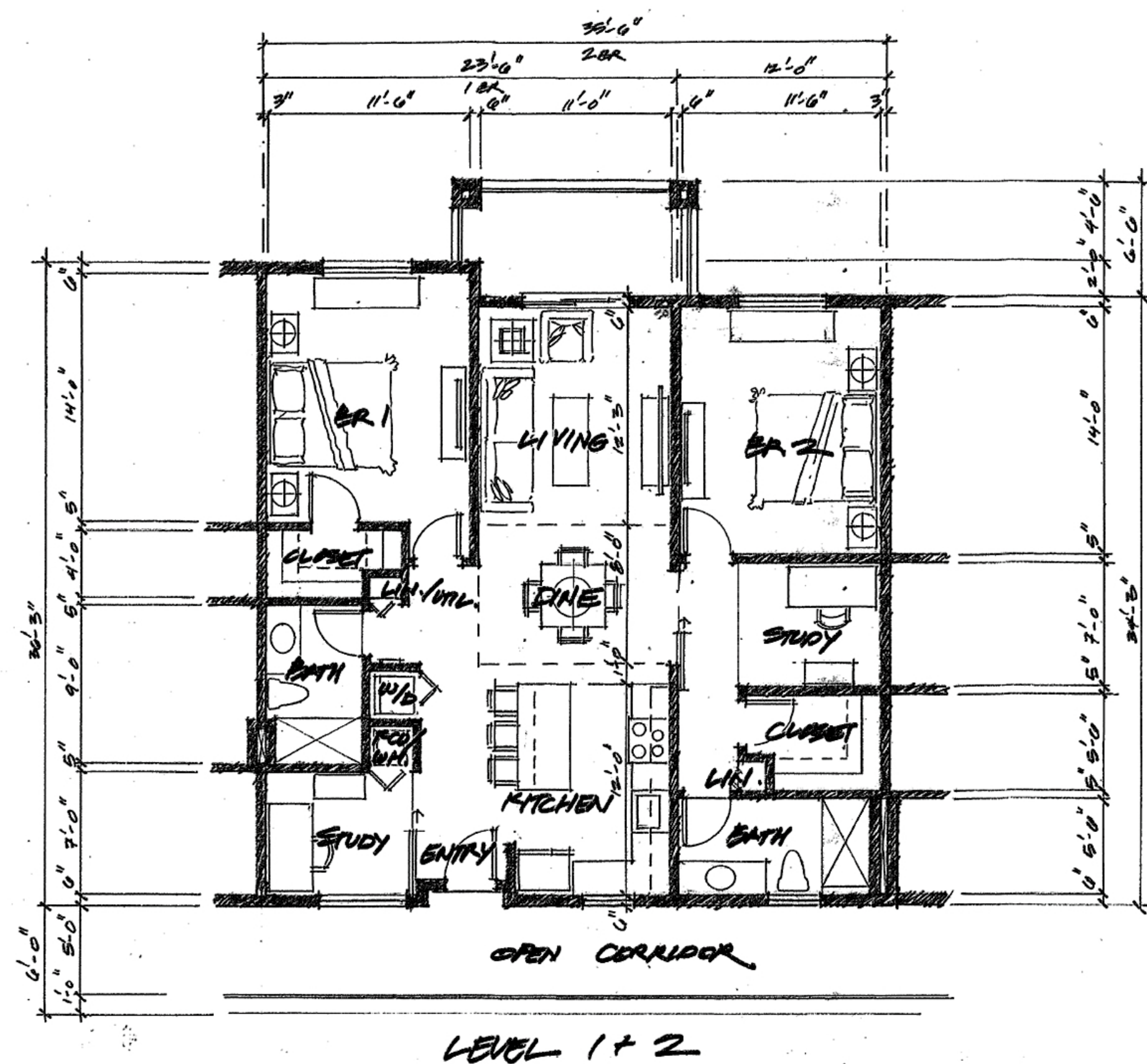
WINTER PARK FLORIDA

DRAWN
WTEJr
CHECKED
WPP
DATE
05-02-2024
SCALE
AS NOTED
JOB NO.
23-013
SHEET

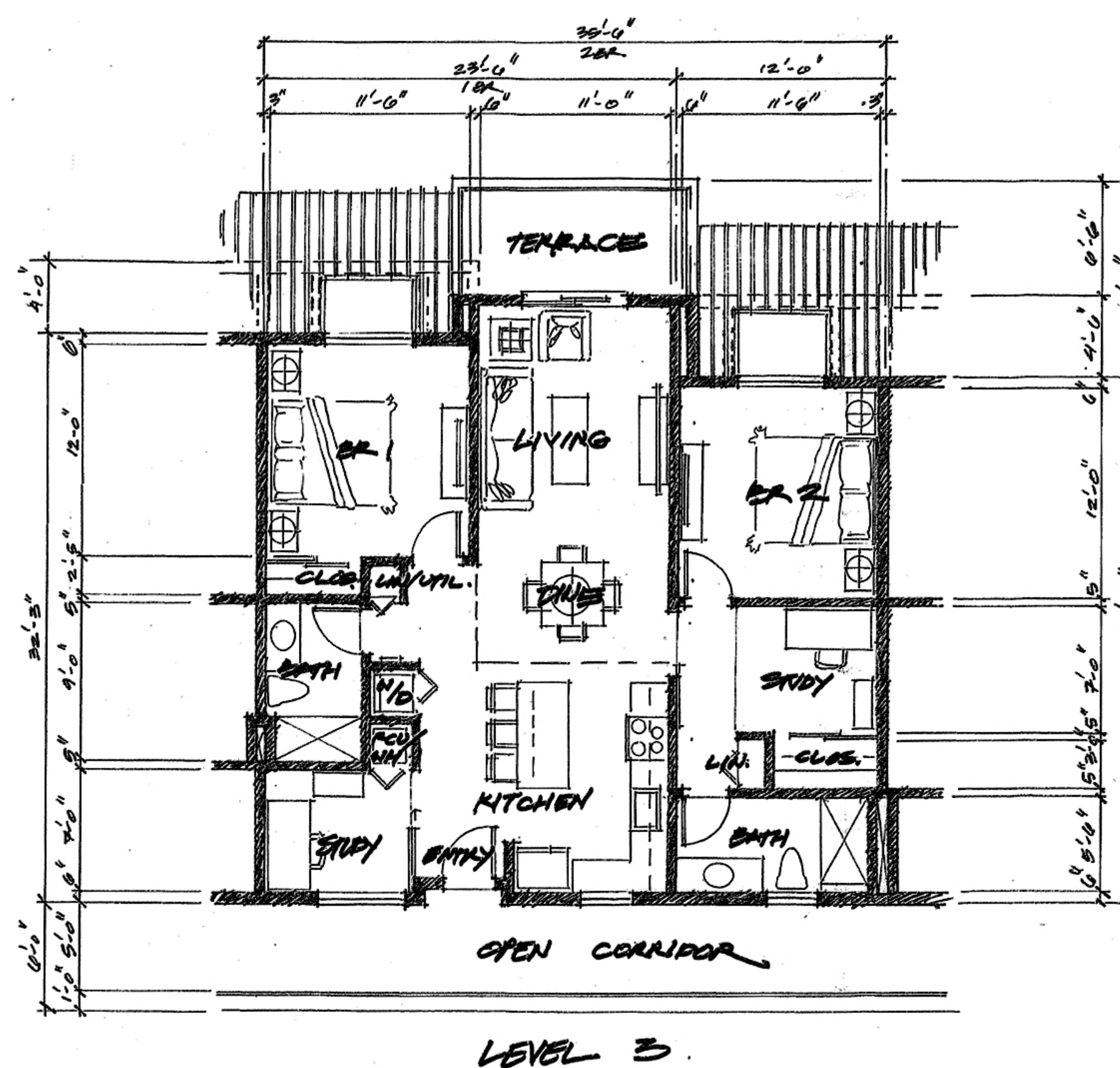
A3.0



WELBOURNE AVENUE ELEVATION



A2 - TWO BEDROOM UNIT



A3 - TWO BEDROOM UNIT

REVISIONS
PERMIT SET
XX-XX-XX

SLOCUM PLATTS
ARCHITECTS, P.A.
RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
670 NORTH ORLANDO AVENUE, SUITE 1001 MAITLAND, FL 32751
TEL (407) 845-3019 FAX (407) 845-2771
WWW.SLOCUMPLATTS.COM



EXTERIOR ELEVATIONS
ROLLINS FACULTY
APARTMENTS
WINTER PARK
FLORIDA

DRAWN
WTEJr
CHECKED
WPP
DATE
05-02-2024
SCALE
A5 NOTED
JOB NO.
23-013
SHEET

A6.1



VIEW FROM WELBOURNE

REVISIONS	
PERMIT SET	XX-XX-XX



SLOCUM PLATTS
ARCHITECTS, P.A.

RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
670 NORTH ORLANDO AVENUE, SUITE 1001 MAITLAND, FL 32751
TEL (407)645-3019 FAX (407)645-2771
WWW.SLOCUMPLATTS.COM

VIEW FROM WELBOURNE

**ROLLINS FACULTY
APARTMENTS**

FLORIDA
WINTER PARK

DRAWN	WTEJr
CHECKED	WPP
DATE	05-02-2024
SCALE	AS NOTED
JOB NO.	23-013
SHEET	A1.0a



April 23, 2024

City of Winter Park
401 Park Avenue South
Winter Park, FL 32789

Mr. John Harbilas:

A preliminary drainage analysis has been conducted for the proposed Rollins Faculty Apartments project located at 262 W Welbourne Ave, Winter Park to determine an approximate size for a dry detention stormwater vault storage system. This would be in the form of a stormwater exfiltration vault such as a StormTrap vault system. The vault system would provide the storage necessary for water attenuation and water quality treatment.

The site consists of 1.34 acres with type A soils throughout. The seasonal high groundwater table is assumed to be roughly at an 84' elevation or 8' deep, based on geotechnical borings done on the site. The approximate percent impervious area existing on site is 14.77% with a curve number of 47.7. It is assumed that the entire site drains to an existing storm inlet on the North-West corner of the property along S Virginia Ave. Based on Google Earth elevations, the site ranges from 91' to 93' in elevation with the relative slope draining from East to West.

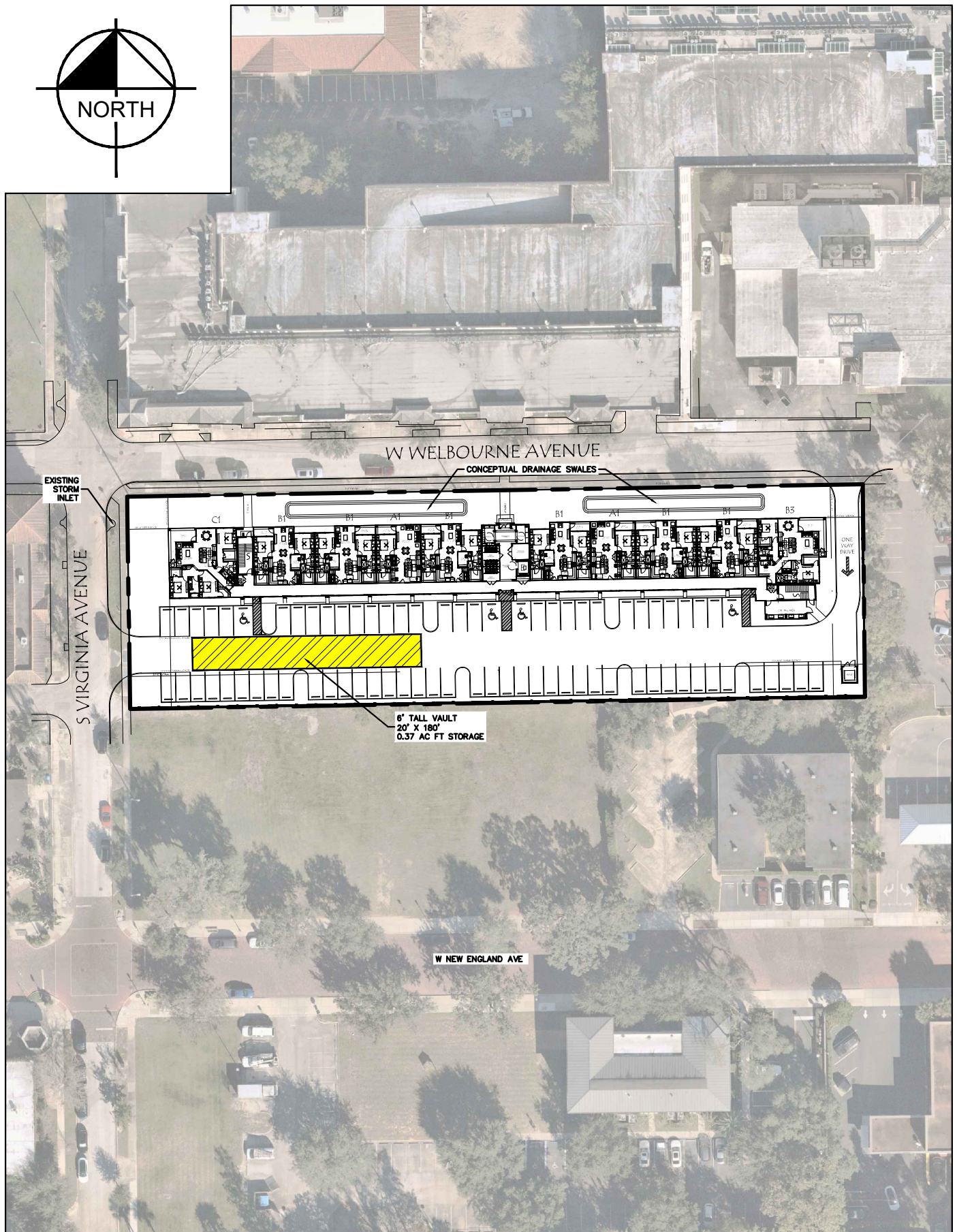
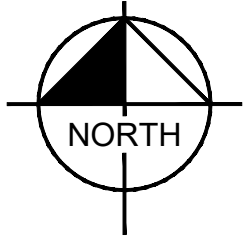
Per the City of Winter Park, Section 58 – Land Development Code, Article V, Division 1 – Stormwater Management, all City of Winter Park underground stormwater systems must meet the following requirements:

1. Two inches of runoff for all contributing impervious area.
2. Bottom of stormwater treatment system shall be constructed a minimum of one foot above the estimated seasonal high ground water elevation.
3. Proposed design shall now allow or permit the grade of the site to be elevated above two feet from the existing grade of the adjoining properties along right-of-ways.

Per the above requirements, a vault storage system has been preliminarily designed to treat and store the additional runoff from the post development. The proposed site has an approximate percent impervious area of 69.88% (or 0.94 Ac) with a curve number of 80.4. A treatment volume size of 0.16 Ac-Ft (0.94 total impervious area x 2") was determined to meet City requirements. The bottom of the vault is set at an elevation of 85' to provide one foot of clearance above the estimated seasonal high water table. In addition to storing the 2" of runoff from the City's requirement, the vault would also need to be sized to discharge equal to or less than the pre-development condition per the St. John's River Water Management District. Therefore, the vault would be sized appropriately to handle the limiting discharge rate. A 0.37 Ac-Ft storage vault size would provide enough storage to limit the discharge rate to match the existing discharge rate conditions for the design storm event defined by the Water Management District. This would be a 6' tall by 180' long by 20' wide concrete vault system that would sit on a rock layer. This all would need to be discussed and approved with the St. John's River Water Management District, but a preliminary analysis has determined that the site can handle the underground vault system and would allow this development to be constructed on this property.

Furthermore, swales around the proposed trees would be implemented along the northern property line to add some above ground dry detention storage in addition to the vault.

Please see **Exhibit A** attached for the approximate size and location of the stormwater vault system.



SCALE	N.T.S.
DESIGNED BY	VNT
DRAWN BY	VNT
CHECKED BY	JRS

Kimley»Horn

© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
PHONE (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

DATE	04/22/2024
PROJECT NO.	249517000

**ROLLINS FACULTY
APARTMENTS
PRELIMINARY DRAINAGE**

DESIGN ENGINEER:	JEFFREY R. SWISHER
FLORIDA P.E. LICENSE NUMBER:	60275

SHEET NUMBER	EX-A
--------------	------

If you have any further questions, please do not hesitate to contact our office, or email me at jeff.swisher@kimley-horn.com.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

A handwritten signature in blue ink, appearing to read "Jeff Swisher".

Jeffrey Swisher, P.E.
Project Manager

Prepared by and return to:
Catherine D. Reichmann, Esq.
Brown, Garganese, Weiss & D'Agresta, P.A.
P.O. Box 2873
Orlando, FL 32802-2873

DOC# 20110106240 B 10178 P 8948
03/01/2011 08 36 10 AM Page 1 of 16
Rec Fee \$137 50
Deed Doc Tax \$0 00
DOR Admin Fee \$0 00
Intangible Tax \$0 00
Mortgage Stamp \$0 00
Martha O. Haynie, Comptroller
Orange County, FL
SA - Ret To BROWN GARGANESE WEISS & D
SA

SETTLEMENT AGREEMENT

This Settlement Agreement ("Agreement") is entered into this 14th day of February, 2011, between the **City of Winter Park, Florida**, a municipality, 401 Park Avenue South, Winter Park, FL 32789, ("City"), and **New England Partners, LLC**, a Florida limited liability company, P.O. Box 2456, Winter Park, FL 32790, ("New England"), as follows

WITNESSETH

WHEREAS, New England is the owner of certain real property (the "Property") on Welbourne Avenue and New England Avenue in the City, being more particularly described in Exhibit "A" attached hereto

WHEREAS, for purposes of this Agreement, the Property will be referred to as the property at 316 W Welbourne Ave. (the "Welbourne Property"), and the property abutting New England Ave. (the "New England Property")

WHEREAS, in the 1991 Comprehensive Plan, the Welbourne Property was designated Multi-Family Residential with R-3 zoning, and this Comprehensive Plan designation allowed either R-3 or R-4 zoning, and had no limitation on the location of parking garages. If New England had requested and received approval for rezoning the Welbourne Property to R-4 before the 2009

Comprehensive Plan amendments then up to 25 units/acre would have been allowed

WHEREAS in the 2009 Comprehensive Plan and the 2010 Land Development Code the Welbourne Property was designated Medium Density Residential and zoned R 3 which allows a maximum of 110% FAR and a maximum of 17 units/acre The only compatible zoning is R-3

WHEREAS in 2010 the City adopted Land Development Code Sections 58-71(jj) and 58-84(bb) which provide that any above grade parking garage or parking deck shall be setback at least 100 feet from any property used for single family or low density residential

WHEREAS in a 1995 amendment to the Comprehensive Plan the New England Property was designated Commerce as the future land use designation and under the 1991 Comprehensive Plan this designation allowed 45% FAR

WHEREAS in the 2009 Comprehensive Plan the New England Property was designated Commercial which now allows up to 17 units/acre and up to 100% FAR and C 3 is the only compatible zoning district

WHEREAS for the New England Property in the 2010 Land Development Code the third floor must be residential

WHEREAS the City is unable to determine the actual impact on New England of any of the changes to the Comprehensive Plan and the Land Development Code without the benefit of an actual development application which demonstrates the actual achievable density for the Property

WHEREAS on May 10 2010 the parties entered into a Tolling Agreement tolling New England's claim under Fla Stat 70 001 the Bert Harris claim to allow the parties time to discuss possible settlement of the matter

WHEREAS New England seeks damages as a result of a burden New England has alleged on its ability to develop the Property as originally contemplated prior to the City's 2009 Comprehensive Plan and 2010 Land Development Code changes The City denies both the existence of a valid Bert Harris Claim and all liability that may arise from any Bert Harris claims raised by New England

WHEREAS the parties desiring to amicably resolve the issues in the Bert Harris claim have engaged in settlement negotiations relative to same

WHEREAS after having consulted with attorneys and consultants of their choice the parties desire to amicably resolve their differences to avoid expensive and protracted litigation

WHEREAS New England and the City agree to enter into this Agreement as full and complete resolution of all issues regarding the Bert Harris claim and to provide for the mutually acceptable redevelopment of the Property

WHEREAS this Agreement is authorized by the Charter and code of the City and by Fla Stat 70 001 even though suit has not yet been filed *Charlotte County Park of Commerce LLC v Charlotte County* 927 So 2d 236 (Fla 2d DCA 2006)

WHEREAS the City has determined with New England's agreement that the terms of this Agreement protect the public interest served by the City's

Comprehensive Plan and Land Development Code and this Agreement allows the City to avoid protracted expensive litigation and the possibility of a large judgment including the payment of New England's attorneys' fees the cost of which would be a burden on all taxpayers in the City

WHEREAS the City has determined with New England's agreement that the terms of this Agreement constitute the appropriate relief necessary to prevent the 2009 Comprehensive Plan and the 2010 Land Development Code amendments from inordinately burdening the Property

NOW, THEREFORE, in consideration of the terms and conditions set forth herein the parties agree as follows

1 **Incorporation of Recitals** The recitals set forth above are true and accurate and are hereby incorporated herein

2 **New England Property Land Use** Regarding the New England Property the City agrees to process New England's application to change the future land use to CBD and the zoning to C-2 The parties agree that the application shall follow the standard notice and hearing procedures The future land use shall be processed first The City agrees to waive all application fees The City acknowledges that C-2 is the only zoning category consistent with CBD land use per Table 2 Chapter 1 of the City's Comprehensive Plan

3 **Welbourne Property Land Use** Regarding the Welbourne Property the City agrees to an interpretation of Sections 58-71(jj) and 58-84(bb) of the City's Land Development Code That Section's reference to parking garage shall mean a multi-level parking garage structure designed for

commercial use and not a parking garage that is one level and part of a residential dwelling

4 **Welbourne Property Intensity** Regarding the Welbourne Property in light of New England's expenditures toward development of the Property prior to the recent Comprehensive Plan Change the City Agrees in order to settle the claim to allow maximum density of 25 units per acre so long as the R 3 zoning standards are met in all other respects In other words the Welbourne Property may develop with R-4 density (25 units/acre) subject to R 3 development standards

5 **Conditions of Effectiveness of Agreement** If approval of the Comprehensive Plan amendment and rezoning for the New England Property is not granted by the City or is challenged by an independent third party then this Agreement will be null and void and of no force and effect and the parties shall return to their former positions under the Tolling Agreement Further the parties rights positions defenses and claims in the Bert Harris Claim shall not be affected by having entered into this Agreement or by the Agreement having been voided pursuant to the provisions of this paragraph

6 **Tolling Agreement** The Tolling Agreement shall remain in effect during the pendency of the approval process for the New England Property If the approval is not granted the Tolling Agreement shall continue in accordance with its terms

7 **Release and Waiver** As a material inducement for the City to execute this Agreement New England for and on behalf of themselves and their

respective existing past and/or future partners managers employees and independent agents shareholders members officers directors including their respective successors and assigns do hereby now and forever jointly and severally release relinquish waive discharge acquit satisfy and forever discharge the City from any and all claims actions causes of action damages and costs and liability whatsoever in law or in equity whether presently known or hereafter discovered absolute or contingent which New England ever had now has or hereafter may have against the City based upon pertaining to relating to or arising out of the City's 2009 Comprehensive Plan or the 2010 amendments to the Land Development Code the application of the plan and code changes to New England's Property or the validity constitutionality or enforceability of the City's 2009 Comprehensive Plan or the 2010 amendments to the Land Development Code New England acknowledges that it is signing this Agreement with full knowledge of any and all rights it may have and that it is not relying upon any representations or warranties made by the City and New England hereby assumes the risk of any mistake of fact now known or unknown to New England

8 **Effective Date** This Agreement shall become effective as of the date it is approved by the City Commission of the City and is executed by the appropriate official of the City and New England Properties (the Effective Date)

9 **Enforcement** In the event of a default of this Agreement and as a condition of any party exercising any enforcement remedies the non defaulting party shall provide written notice of the default to the defaulting party The

defaulting party shall have ninety (90) days from receipt of such notice to cure such default. If the defaulting party fails to cure within ninety (90) days, then the non defaulting party shall be entitled to seek specific performance and injunctive relief and shall be entitled to an order of the court to enforce this Agreement and other equitable relief as the court may deem just.

10 **Notices** All notices and other communication as required or permitted to be given hereunder shall be in writing and shall be mailed by certified or registered mail, postage prepaid, or by Federal Express Airborne Express or similar overnight delivery service, addressed as follows:

If to City
City of Winter Park
401 Park Avenue South
Winter Park, FL 32789
Attn: City Manager
Telephone: 407-599-3245

With copies to
Brown, Garganese, Weiss & D'Agresta, P.A.
111 N. Orange Ave., Suite 2000
Orlando, FL 32801
Attn: City Attorney
Telephone: 407-425-9566

If to New England
New England Partners, LLC
P.O. Box 2456
Winter Park, FL 32790
Attn: Managing Member

With copies to
Rebecca Furman, Esq.
215 North Eola Drive
Orlando, FL 32801

11 **Further Representations and Warranties** New England hereby represents and warrants that (a) New England and its general partners are each

in good standing under the laws of the State of their formation (b) New England is duly authorized to transact business in the State of Florida and (c) New England and its general partners have taken corporate and partnership action necessary to authorize this Agreement The City hereby represents and warrants that the City has the power to enter into this Agreement The parties mutually represent and warrant that this Agreement has been duly authorized by the City pursuant to the City Charter City Code and is in accord with Florida law in effect as of the Effective Date

12 **Miscellaneous**

a **Construction and Governing Law** This Agreement was drafted by all parties and therefore any ambiguity shall not be construed against any party In addition this Agreement has been executed and delivered in and should be interpreted construed and enforced pursuant to and in accordance with the laws of the State of Florida

b **Counterparts** If multiple counterparts of this Agreement are executed each shall be deemed an original but all counterparts together shall constitute one and the same instrument

c **Headings** The section and paragraph headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement

d **Entire Agreement** This Agreement sets forth all the promises agreements conditions and understandings among the parties hereto as to the subject matters referenced herein and supersedes all

prior and contemporaneous agreements understandings inducements or conditions expressed or implied oral or written except as herein contained

e **Assignments/Binding Nature** This Agreement will be binding upon and shall inure to the benefit of the City and New England and each party's subsidiaries affiliates successors and assigns Further the parties agree that they will not challenge the adoption of or the validity constitutionality or enforceability of the provisions contained within this Agreement New England shall have a right of assignment of rights and obligations under this Agreement but New England agrees not to assign its rights and obligations under this Agreement unless the transferee shall execute and deliver to the City a consent to be bound by the terms and conditions of this Agreement which consent shall be in substantially the form attached hereto as Exhibit B

f **Amendments** No change in or addition to this Agreement shall be enforceable unless evidenced by a writing executed by the parties Any such enforceable amendment(s) shall become effective on the date stipulated therein

g **Release and Waiver** Any condition to a party's obligation hereunder may be waived by that party provided such waiver is in writing However the waiver by any party of a breach or violation of any provision of this Agreement shall not operate as or be construed to be a waiver of any subsequent breach of the same or any other provision hereof The

failure by any party to timely enforce any of the provisions of this Agreement shall not be deemed a waiver thereof

h **Invalidity** If any section phrase or portion of this Agreement is for any reason held invalid or unconstitutional by any court of competent jurisdiction such portion shall be deemed a separate distinct and independent provision and such holding shall not affect the validity of the remaining portions hereof In the event this Agreement is invalidated by a third party then the parties hereto shall be returned to their respective legal positions as such existed on the date on day prior to the Effective Date of this Agreement

i **Integrated Agreement** Each party's obligations hereunder are dependent upon performance of the material obligations of the other party

j **Third Party Challenges** In the event that this Agreement is invalidated by a court of competent jurisdiction as a result of a challenge instituted by a third party all the rights of obligations of the parties hereto shall terminate and be of no further force and effect including without limitation any claim by New England for vested rights arising under this Agreement Further in the event this Agreement is terminated under this provision the parties hereto shall then be returned to their respective legal positions as existing on the Effective Date

k **Compromise of Disputed Claims** The parties acknowledge that this Agreement is a compromise and resolution of the

disputed claims and agree that neither this Agreement nor any action taken in furtherance of this Agreement shall ever be treated as an admission or evidence of liability by any of them for any purpose whatsoever nor shall it be admissible in Court

l **No Third Party Beneficiaries** This Agreement is intended for the sole benefit of the parties and their subsidiaries affiliates successors or assigns No other person or entity shall have any right of action hereunder or be deemed to be a third party beneficiary of any provision contained herein

m **Attorneys' Fees and Costs** Each party agrees to bear the expense of its own attorneys fees and costs in connection with the settlement of New England's Bert Harris claim and with the negotiation and preparation of this Agreement In the event a dispute or litigation arises in connection with this Agreement neither party shall be entitled to the recovery of attorneys fees or costs incurred in connection therewith whether suit be brought or not It is the specific intent of both the City and New England that each party to this Agreement bear its own attorneys fees and costs Should this Agreement become null and void under Paragraph 4 then Fla Stat §70.001 shall govern the award of attorneys fees

n **No Precedent** This Agreement does not create a precedent obligating the City to enter any other contract as to settle any other matter consistent with subsection l hereinabove

IN WITNESS WHEREOF, the parties hereto have executed this Agreement
this 15th day of FEBRUARY 2011

WITNESSES

Troy Stevens
Printed name Troy Stevens

NEW ENGLAND PARTNERS, LLC
a Florida limited liability company

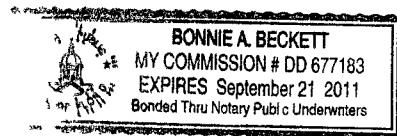
By [Signature]
Printed name ROBERT P HOLD
Title MANAGING MEMBER

[Signature]
Printed name Jean Ferland

STATE OF FLORIDA
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this 15th day
of FEBRUARY 2011 by ROBERT P HOLD the
MANAGING MEMBER of NEW ENGLAND PARTNERS LLC a Florida limited
liability company (check one) ☒ who is personally known to me or ☐ who
produced _____ as identification

Bonnie A Beckett
Notary Public – State of Florida
Print Name BONNIE A BECKETT
My Commission expires 09/21/2011



CITY OF WINTER PARK

Kenneth W. Bradley
Kenneth W Bradley Mayor

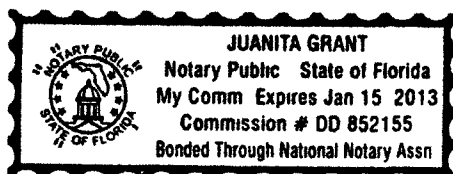
ATTEST

Cynthia Bonham
Cynthia Bonham
City Clerk

Date 2-15-11

STATE OF FLORIDA
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this 15th day of FEBRUARY 2011 by Kenneth W Bradley Mayor of the CITY OF WINTER PARK a Florida municipal corporation (check one) ☒ who is personally known to me or ☐ who produced _____ as identification



Juanita Grant
Notary Public – State of Florida
Print Name JUANITA GRANT
My Commission expires _____

G:\D ICty fW t P kLa d Development\Legal Challenge to La d D l pme tCode & Comp Plan\Tolling Agr em t W w E gl d Part s\Settlement Agreement 2 10 11 clean d

LEGAL DESCRIPTION

Lots 9 10 11 and 16 Block 40 REVISED MAP OF THE TOWN OF WINTER PARK according to the plat thereof as recorded in Plat Book A Pages 67 through 72 inclusive Public Records of Orange County Florida together with the North half of the alley vacated by the City of Winter Park by instrument recorded in Official Records Book 3663 Pages 2787 and 2788 abutting the South lot line of Lots 9 10 11 and 16

EXHIBIT "A"

EXHIBIT B
[Proposed Consent by Transferee]

AGREEMENT OF TRANSFeree

Under this Agreement of Transferee made this _____ day of _____

(Transferee) acknowledges and agrees as follows

1 Transferee acknowledges that _____
[New England Partners LLC or identity of New England Partners LLC successor in interest who owns the property at the time of this agreement of Transferee] is transferring the property located at 316 W Welbourne Avenue Winter Park Florida ('Property ') to Transferee as reflected in Exhibit _____

2 Transferee acknowledges that New England Partners LLC and the City of Winter Park have entered into an Settlement Agreement dated as of _____ (copy attached) and recorded in O R Book _____ Page _____ Public Records of Orange County Florida which related to the settlement of a Bert Harris claim concerning the Property Transferee acknowledges having received a copy of said Settlement Agreement and understands all of the terms provisions conditions and limitations of that Settlement Agreement

3 In consideration for receiving the benefits of the transfer of the Property and for other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged Transferee agrees to be bound by all of the terms provisions conditions and limitations of that Settlement Agreement as the same may apply to the Property owned by me or in which I have an interest including the condition that the undersigned Transferee obtain this same agreement from any subsequent transferee

(print name)

EXHIBIT B
[Proposed Consent by Transferee]

AGREEMENT OF TRANSFeree

Under this Agreement of Transferee made this 2nd day of May
Holt Properties LLC / Rollins College
(Transferee) acknowledges and agrees as follows

1 Transferee acknowledges that New England Partners LLC
[New England Partners LLC or identity of New England Partners LLC successor in
interest who owns the property at the time of this agreement of Transferee] is transferring
the property located at 316 W Welbourne Avenue Winter Park Florida ('Property ') to
Transferee as reflected in Exhibit 1

2 Transferee acknowledges that New England Partners LLC and the City
of Winter Park have entered into an Settlement Agreement dated as of February 14, 2011
(copy attached) and recorded in O R Book 10178 Page 8948 Public Records of
Orange County Florida which related to the settlement of a Bert Harris claim concerning
the Property Transferee acknowledges having received a copy of said Settlement
Agreement and understands all of the terms provisions conditions and limitations of
that Settlement Agreement

3 In consideration for receiving the benefits of the transfer of the Property
and for other good and valuable consideration the receipt and sufficiency of which is
hereby acknowledged Transferee agrees to be bound by all of the terms provisions
conditions and limitations of that Settlement Agreement as the same may apply to the
Property owned by me or in which I have an interest including the condition that the
undersigned Transferee obtain this same agreement from any subsequent transferee

Edward A. Kania, Vice President
Edward A Kania
(print name)

After Recording Return to:
City of Winter Park
Attn: City Clerk
401 S. Park Ave.
Winter Park, FL 32789

COMMUNITY BENEFIT AGREEMENT (Rollins College)

This **COMMUNITY BENEFIT AGREEMENT** (the “Agreement”) is made and entered into the ____ day of _____, 2024, between the **City of Winter Park, Florida**, a Florida municipality (“**City**”), whose address is 401 Park Avenue South, Winter Park, Florida 32789; **Rollins College**; a Florida non-profit corporation (“**Rollins College**”), whose address is 1000 Holt Avenue, Winter Park, Florida 32789 and **Holt Properties LLC**, a Florida limited liability company (“**Holt Properties**”), whose address is 1000 Holt Avenue, Winter Park, Florida 32789.

WHEREAS, Rollins College is a not-for-profit university located in the City which owns approximately fifty-six (56) acres which is used as its main campus (the “Main Campus”);

WHEREAS, Rollins College and Holt Properties own the properties generally located south of W. Welbourne Avenue, west of S. New York Avenue, north of W. New England Avenue and east of N. Virginia Avenue as set forth on **Exhibit “A”** attached hereto (“Subject Property”);

WHEREAS, the Subject Property is partially vacant and partially developed as fourteen (14) dwelling units (“Daniel Hunter Apartments”);

WHEREAS, Rollins College desires to redevelop the Subject Property as thirty (30) new dwelling units for Rollins faculty and professional staff;

WHEREAS, the City desires to ensure the orderly redevelopment of the Subject Property;

WHEREAS, Rollins College has submitted a request for a Final Conditional Use Permit for approvals to build thirty (30) units;

NOW, THEREFORE, in consideration of the premises thereof, the promises and provisions contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City, Rollins College and Holt Properties LLC agree as follows:

1. Incorporation of Recitals. The foregoing recitals shall be and are hereby incorporated into and made a part of this Agreement.

2. Conditional Use Permit. The following are conditions of approval:

(a) Rollins College and Holt Properties agree to prohibit the use of the dwelling units as undergraduate or graduate student housing or use for classroom instruction. Persons who are not Rollins College faculty or professional staff will not be permitted to lease dwelling units for a period of at least 30 years from the Effective Date of this Agreement.

(b) The Subject Property to remain subject to ad valorem taxes unless otherwise permitted by Florida Statutes.

(c) That a final landscape plan be approved by City staff with no drainage swales along Welbourne Avenue frontage to inhibit the landscape design.

(d) Rollins College shall provide to a Methods of Transportation and Construction Plan for staff approval prior to breaking ground on the Subject Property, in no event will construction staging or laydown area be placed on W. Welbourne Avenue right of way.

(e) No short-term rentals are permitted. Leases for dwelling units shall be a minimum of six (6) months. Each lease shall state that only plants and patio furniture are allowed on patios and balconies.

(f) During the initial construction of the building upon the Subject Property, Rollins College shall include solar energy panels on the roof.

(g) Rollins College shall work with the City in order to relocate the existing powerlines on the south side of W. Welbourne Avenue between Virginia Avenue and New York Avenue to underground locations within public right-of-way in coordination with the City prior to the final Certificate of Occupancy for the project.

(h) The project shall be constructed, operated and maintained upon the Subject Property consistent with the architectural drawings and site plan reviewed and approved by the City Commission on _____, 2024 as part of the conditional use permit and special permit approval process.

3. Workforce Housing Use Restriction. Rollins College and Holt Properties agree to only rent the proposed thirty (30) dwelling units to be constructed upon the Subject Property for workforce and attainable housing to Rollins College faculty and professional staff for a period of at least thirty (30) years from the Effective Date of this Agreement. For the purpose of this Agreement “professional staff” shall include full time employees of the following departments: Administration, Admissions, Finance, IT, Alumni Engagement, Student Services, Athletic Department and Career and Life Planning. Faculty and professional staff will be as screened by the Provost and VP for Business & Finance and Treasurer.

4. Welbourne Avenue. Rollins College agrees to reserve five feet (5’) along the West Welbourne Avenue frontage of the Subject Property for the City to install on-street parking. When requested by the City, Rollins College shall grant a five-foot (5’) City Services and Sidewalk

Easement to the City over said area. Such easement will be granted at no charge and without credit against any fee charged pursuant to the City of Winter Park Code of Ordinances.

5. Special Permit for Continuance of Non-Conforming Use. Pursuant to Land Development Code section 58-64(g), state that there are limited and special circumstances where overall community and public policy objectives of the city encourage, and shall be served by, the continuation of some nonconforming uses, provided said uses are not detrimental to the surrounding neighborhood and to the community values established in the city's comprehensive plan and city codes. In order to allow the continuation of a nonconforming use, the applicant must demonstrate, in this instance, that: (a) The use is capable of contributing in a positive way to the character and serves the need of the community, (b) Is compatible with, and not detrimental to, the surrounding neighborhood in terms of traffic, noise, parking, odor, light, intensity and land uses, hours of operation, landscaping, aesthetics, structural design, and density; and (c) Is consistent with the community values, objectives, and policies established in the city's comprehensive plan and City Code.

The City has reviewed the Conditional Use Permit application and the back-up material provided by Rollins College. The City hereby determines that following based on the competent and substantial evidence provided for consideration: (a) the proposed use of maintaining a portion of the non-conforming use of residential density will contribute in a positive way to the community by providing housing at below market rents in order to encourage Rollins faculty and professional staff (as defined herein) to live in the Central Business District proximate to their place of employment and within walking distance of the Central Business District's retail and restaurants. Further, this serves a need in the community of providing housing at workforce and attainable rents within the Community Redevelopment Agency (CRA) which encourage workforce housing options; (b) the proposed use is compatible with surrounding uses, to the north is a four-story mixed use project (condominiums at 25 units an acre and commercial) with a large parking garage, to the east and south are commercial uses and to the west is a mix of 2 and 3 story residential.; and (c) the Comprehensive Plan Housing Element section 3-2.0 and 3-1.1. together encourage the City to partner with private development to provide workforce and attainable housing in the City.

6. Conditional Use Permit. In exchange for the obligations set forth herein, the City agrees that the Preliminary Conditional Use Permit shall be valid for a term of five (5) years from the Effective Date of this Agreement.

7. Effective Date. This Agreement shall become effective upon City Commission approval of the Final Conditional Use Permit and the expiration of all appeal periods.

8. Notices. Any notice delivered with respect to this Agreement shall be in writing and shall be deemed to be delivered (whether or not actually received) (i) when hand delivered to the person(s) hereinafter designated, or (ii) upon deposit of such notice in the United States Mail, postage prepaid, certified mail, return receipt requested, addressed to the person at the address set forth opposite the Party's name below, or at such other address or to such other person as the party shall have specified by written notice to the other Party delivered in accordance herewith.

As to City: City of Winter Park
Attn: City Manager
401 Park Avenue South
Winter Park, Florida 32789

And a Copy to: Fishback Dominick LLP
Attn: Kurt Ardaman
1947 Lee Road
Winter Park, Florida 32789

As to Rollins and Holt Properties: Rollins College
Attn: Ed Kania
1000 Holt Avenue
Winter Park, Florida 32789

And a Copy to: Lowndes, Drosdick, Doster, Kantor & Reed, P.A.
Attn: M. Rebecca Wilson
215 N. Eola Drive
Orlando, Florida 32801

9. Amendment. Except as expressly provided herein, this Agreement contains the entire agreement between the parties and may not be changed, modified, amended, waived, or cancelled except by an amendment in writing and executed by each of the parties hereto.

10. Recording. This Development Agreement may be recorded in the official records of Orange County, Florida, at the time and expense of Rollins College.

11. Counterparts and Facsimile Signatures. This Agreement may be executed in one or more counterparts each of which shall be deemed an original but all of which together shall constitute one and the same instrument. This Agreement may be executed by facsimile or .pdf electronic signature by any party and such signature will be deemed binding for all purposes hereof without delivery of an original signature being thereafter required

12. Applicable Law and Jurisdiction. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida. Each party agrees that any action or proceeding with respect to this Agreement may only be brought in a federal or state court situated in Orange County, Florida, and by execution and delivery of this Agreement, such party irrevocably consents to jurisdiction and venue in each such court

13. Binding Nature. This Agreement inures to the benefit of and is binding upon the successors or assigns in interest or the legal representatives of the parties hereto.

(SIGNATURES ON FOLLOWING PAGES)

WITNESSES:

CITY OF WINTER PARK, FLORIDA, a
Florida municipality

Print Name: _____
Address: _____

By: _____
Name: _____
Title: _____

Print Name: _____
Address: _____

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of ☐ physical presence
or ☐ online notarization, this _____ day of _____, 2024, by
_____, as _____ of the City of Winter Park, a Florida
municipality, on behalf of the municipality. He (She) ☐ is personally known to me or ☐ has
produced _____ as identification.

(NOTARY SEAL)

Notary Public Signature

(Name typed, printed or stamped)

WITNESSES:

ROLLINS COLLEGE, a Florida non-profit corporation

Print Name: _____
Address: _____

By: _____
Name: _____
Title: _____

Print Name: _____
Address: _____

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization, this _____ day of _____, 2024, by _____, as _____ of Rollins College, a Florida non-profit corporation, on behalf of the corporation. He (She) ☐ is personally known to me or ☐ has produced _____ as identification.

(NOTARY SEAL)

Notary Public Signature

(Name typed, printed or stamped)

WITNESSES:

HOLT PROPERTIES LLC, a Florida
limited liability company

Print Name: _____
Address: _____

By: _____
Name: _____
Title: _____

Print Name: _____
Address: _____

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of ☐ physical presence
or ☐ online notarization, this _____ day of _____, 2024, by
_____, as _____ of Hold Properties, LLC, a Florida
limited liability company, on behalf of the company. He (She) ☐ is personally known to me or
☐ has produced _____ as identification.

(NOTARY SEAL)

Notary Public Signature

(Name typed, printed or stamped)

EXHIBIT “A”

**Douglas Grand / Rollins
Community Engagement Meeting
June 24, 2024
5:00 p.m.
Alfond Inn- 2nd Floor Boardroom**

A G E N D A

- I. **Purpose of the Meeting:** To provide Rollins with the opportunity to understand and try to mitigate any real or perceived impacts the conditional use application for Staff and Faculty attainable housing have on the Douglas Grand community. The meeting is not intended to produce complete consensus but to encourage Rollins to be a good neighbor and to allow for informed decision making.
- II. **Introductions/Sign-in Sheet**
- III. **Status of Application Overview- Rollins Team**
- IV. **Topics for Discussion**
 - Comments/suggestions on Building Appearance
 - On-street recessed parking Welbourne Ave.- proposed agreement with City, treed bumpouts, 5' vs. 7' easement
 - On site parking spaces- pocket park detail, grassed parking detail
 - Unit entitlement- 22, 26, 30?
 - Identification of Community Benefits- Rollins/City
 - 2.5 stories on Welbourne Ave.
 - Landscape plan
 - Tax exemption/PILOT agreement
 - Other
- V. **Meeting Follow-up**
 - Summary of concerns
 - Description of how Rollins has addressed or intends to address DG input
 - Identification of input Rollins is unwilling to or unable to address and statement as to why
- VI. **Adjourn**

D R A F T Douglas Grand / Rollins
Community Engagement Meeting Summary
June 24, 2024

At its June 11, 2024 meeting, one of the reasons the Planning & Zoning Board tabled the Rollins Welbourne Ave. Staff and Faculty attainable housing application was to allow the owners of Douglas Grand Condominium and the Rollins team a second opportunity to meet. On June 24, 2024, 9 DG owners representing 7 units and 3 Rollins team members met at the Alford Inn as indicated by the attached attendee sign-in sheet. The meeting lasted 1 ¾ hours and the attached agenda reflects the topics discussed.

Status of Application- Overview

Rollins' Sam Stark welcomed the attendees and offered a brief history of the application from the first DG/Rollins meeting on December 19, 2023 through the current building rendering with two site plan options. He then introduced new architect Rob Schaeffer who provided an overview of the current application which includes the third and newest building appearance facade and elevation conceptual renderings abutting Welbourne Ave., the two site plan options and landscape details.

Topics for Discussion

Michael Dick provided an opening statement to structure the meeting along the goals of the proposed "Community Engagement" ordinance approved by P&Z and to be considered by the City Commission. He highlighted meeting protocol and presented the Topics for Discussion with the essentials as follows:

- Building Appearance- Attendees agreed that the current building appearance meets the code required threshold of compatibility with other buildings in the neighborhood. DG attendees praised the new appearance and two DG owners suggested three possible additions to the elevation- inclusion of partial facades with real stone or etched stone along with the textured stucco, adding some arched windows intermixed with the square window frames and window banding, all within the Mediterranean architectural theme.

Rollins believes that the proposed architecture is attractive and will be an enhancement to the neighborhood. Rollins already made significant and costly revisions and does not intend to revise the architecture again.

- On-street Recessed Parking- Sam confirmed Rollins was offering the City the 5' easement so the City could implement the recessed parking and treed bumpouts. Rob stated that a 5' easement is all that's needed when asked whether a 7' easement would be preferable.

Rollins agreed that no new parking spaces would be added on Welbourne due to the addition of recessed parking and that some existing parking availability could be lost due to the bumpouts.

- Onsite Parking Spaces- It was acknowledged that while Rollins had provided for the code required 2.5 spaces per unit or 75 spaces in its second site plan submission with the linear, monolithic building, DG owners agreed that 2.5 spaces per unit was not possible to achieve with the new articulated building design. A majority of DG owners, all facing Welbourne Ave., favored the Option 2 site plan which included the passive pocket park and provides 1.9 parking spaces per unit or 58 spaces. These majority attendees felt the proposed parking spaces were adequate. Another DG owner pointed out it was his perception in meetings with individual P&Z and Commission decision makers that a higher number of parking spaces were needed and that the number of Option 2 spaces was less than 2 per unit as proposed by Staff. He inquired whether another 2 spaces could be found in the pocket park or elsewhere on the site to at least meet the 2 per unit threshold or 60 spaces. Rob stated they had looked for other areas within the site but couldn't find room for any more spaces under Option 2. Rob also shared that the number of 2 spaces per unit was in alignment with other districts and jurisdictions under similar circumstances.

Rollins has offered the City 2 options for parking and will defer to City decision. Once the project is approved, Rollins can and will work with the City to refine the parking and, if possible, add more spaces.

- Unit Entitlement/Community Benefits- It was pointed out that the site is zoned R-3 allowing for 22 units but that Rollins had subsequently been successful in securing R-4 zoning intensity for a few lots entitling the site for 26 units. One DG owner stated Rollins had not "earned" the extra 4 units and requested that Rollins provide justification for the extra 4-unit request.

The Settlement Agreement grants 25 u/a for a portion of the property. Rollins is not required to "earn" those units. Rollins is seeking to vest 4 of the 14 Daniel Hunter apartments which will be demolished. Rollins has set forward its belief that providing housing for faculty and staff proximate to the College and downtown Winter Park is a benefit to the City.

Specifically related to "community benefit," it is hard to imagine the City enjoying such successes (vibrant business district, high property values, brand reputation, etc.) without the existence of Rollins College. And similarly, Rollins enjoys success that would not be actualized in other cities. The history of the City and College are inextricably connected and must be acknowledged that one thrives, in many ways, because of the other. Through support from other educational partners, business owners, community organizations, and non-profits, Rollins is, undeniably, a community benefit and this small

but significant request only helps the academic reputation of Rollins while helping attract students to sustain our business model.

- 2.5 Stories on Welbourne- Rob detailed Rollins' efforts to comply with the 2.5 story limitation on Welbourne Ave. and the consensus of DG owners found the Welbourne elevation treatment to be acceptable.

Acknowledged

- Landscape Plan- Rob offered greater detail on the proposed landscape plan and that it exceeded City specifications and attempted to emulate the layers of landscaping found on the Rollins campus. He also committed to buying trees early in the process and allowing them to grow to mitigate the costs of purchasing higher caliper trees. Alan stated the plan was prepared by Kimley Horne's landscape division and far exceeded what's required. DG attendees were pleased with the conceptual landscape plan and, while acknowledging that it couldn't go "hard" until the application was approved by the Commission, Rollins was urged to provide a "final" plan prior to the second approval reading.

At this time final landscape plans are not required, and we are pleased that the DG attendees like the conceptual landscape plan.

- Tax Exemption/PILOT Agreement- Sam reiterated Rollins previous public representations that Rollins will take advantage of any available tax exemption status allowed for the property. One attendee felt that even with a property tax exemption, the cost of basic City provided services for the developed site (fire, police, stormwater) should be borne by Rollins under a separate PILOT agreement. This was not a matter of being punitive to Rollins but simply Rollins paying its share of basic city services which will be provided.

The application pending before the City is not related to property taxes. It should also be pointed out that Rollins pays approximately \$1.2M annually property taxes (top 2 or 3 tax payer in the City). In addition, for the demographic occupying the units, it is unlikely there will be an excessive or frequent burden on police or fire departments.

Attendees on both sides felt this meeting was amicable and beneficial to both sides. A DG attendee commented that the first and only meeting back in December was cordial yet yielded no results on concerns brought forward by DG yet was hopeful that this meeting would advance remaining concerns.

Content approved and respectfully submitted:

8-82

7/16/24

Rollins

Date

Douglas Grand

Date



Planning & Zoning Board

agenda item 4.c

item type

Public Hearings (Public participation and comment on these matters must be in person.)

meeting date

August 6, 2024

prepared by

Jeffrey Briggs

approved by

Allison McGillis, Director of Planning and Zoning

subject

CU #24-10. Request of DI Partners LLLP for: Conditional Use approval to construct 26,210 square feet of one-story retail and restaurant space with approximately 106 parking spaces on the properties at 805, 801, 771 W. Fairbanks Avenue and 555 S. Capen Avenue, with vested Commercial (C-3) zoning together with a Community Benefit Agreement that includes transportation, storm water retention and flood control improvements.

motion | recommendation

Staff recommendation is for approval of the Conditional Use subject to the Community Benefit Agreement and that the applicant landscapes and maintains the ten-foot land donation on the north side of W. Fairbanks Avenue until such time as the turn lane traffic improvement project can be implemented.

background

The owners of 805, 801, 771 W. Fairbanks Avenue and 555 S. Capen Avenue are requesting Conditional Use approval to build a one-story commercial redevelopment of those four properties to hold 26,210 sq. ft. of one-story commercial building space with approximately 106 parking spaces. That available parking would allow a mix of retail and restaurant tenants.

Traffic access to the project has a right turn exit only onto Fairbanks Avenue mid-block, with the other existing driveways on W. Fairbanks Avenue being closed, and the principal access is to occur from the side streets of Denning Drive and Capen Avenue. A traffic study is included in the agenda materials. Generally, the project meets the code requirements of C-3 zoning with respect to parking, traffic circulation and access, storm water retention, impervious coverage and floor area ratio. In order to fit the parking and building on a reduced site area after the donation of property along W. Fairbanks Avenue, per the request of the City, there is a variance to allow the parking layout with a rear setback and for the front of the building to be 7 feet from the future property line in lieu of 10 feet.

Community Benefit Agreement: A Community Benefit Agreement has been conceptually

approved by the City Commission on July 10, 2024, that provides for donation of 10 feet along the W. Fairbanks Avenue frontage of these properties in order to provide land for the future traffic congestion and safety improvement of a westbound left turn lane southbound onto Denning Drive and the donation of the three vacant lots at 882; 872 and 862 W. Comstock Avenue for a joint stormwater retention and flood control improvement. The design of the storm water area provides for the volume of runoff from this project and adjacent city street sections as well as added capacity for flood control. In order to make this project fit onto the site with adequate parking and safe pedestrian circulation around the building, considering the 10-foot right-of-way donation, the building will be at a 7-foot street front setback versus the 10-foot required and the rear parking will be adjacent to the property line versus a 10-foot setback. However, the parking lot will have a 6-foot screen fence/wall separating the parking from the adjacent residential properties.

Vesting of the Property Under Commercial (C-3) Zoning: At the July 10, 2024, City Commission meeting, approval was granted by a 5-0 vote to allow this project to be vested under the previous Commercial (C-3) zoning versus the Orange Avenue Overlay (OAO) regulations. That vesting for C-3 applies to this project site, as well as the neighboring properties at 860, 718, 711, 670, 666 and 660 West Fairbanks Avenue. With the adoption of the Orange Avenue Overlay, a “vesting” provision was added to the Ordinance to allow property owners who could demonstrate that they would lose economic value due to the regulations included in the Orange Avenue Overlay versus their previous underlying zoning (Commercial (C-3) in this case) to petition to request the ability to develop under the previous C-3 zoning. In particular, the impact of the required 25% meaningful open space in the OAO was identified as the limiting factor when applied to projects over 1.25 acres in size. That provision significantly reduces the building yield. As a term and condition of the approval for “vesting”, the property owners are committing that none of the properties specified will have a parking garage, that none will have any building higher than three stories and all the properties will only have surface parking lots. The net result will be that the C-3 development rules will be the exact same for these properties as all the other C-3 zoned properties in the City, such as on Fairbanks, Orlando, and Aloma Avenues.

Details of the Community Benefit Agreement: In the review of this project, the City expressed interest in acquiring land along W. Fairbanks Avenue in order to construct a left turn lane, heading west on Fairbanks at Denning Drive, in order to remove the current bottleneck that now exists. The City also expressed interest in acquiring the vacant residential properties on the southeast corner of Comstock and Denning Drive for a regional stormwater retention area to help with the flooding that occurs at MLK Jr. Park and Lake Midget. This has resulted in a draft Development Agreement between the property owners, DI Partners LLLP and the City, as follows:

DI Partners LLLP commitments to the City of Winter Park:

a. Donation of the south 10.4 feet of 805 and 801 W. Fairbanks Avenue and a triangular transition parcel from 801 W. Fairbanks Avenue starting at 10.4 feet at the eastern boundary and transitioning down to Zero feet at the eastern boundary of 771 W. Fairbanks Avenue altogether for the purpose of providing for a transportation safety and mobility improvement to create a left-hand turn lane heading westbound at the intersection of Fairbanks and Denning Drive. Such improvements shall be at no expense to DI Partners LLLP and shall be

the responsibility of the City and/or FDOT.

b. Donation of the north 2 feet of 860 W. Fairbanks Avenue and a triangular transition parcel from 710 W. Fairbanks starting at 2 feet at the western boundary and transitioning down to Zero feet at a point 100 feet from Capen Avenue for the purpose of providing for transportation safety and mobility improvement to widen the travel lanes from 9 feet wide to 10 feet wide.

c. Donation of the properties at 882; 872 and 862 W. Comstock Avenue for stormwater treatment of roadway and parking lot drainage and runoff as may be accommodated. City to attractively landscape such stormwater retention area with perimeter hedging and interior cypress tree plantings.

d. Sale to the City of Winter Park of the vacant single-family lot/property at 809 W. Comstock Avenue for development as attainable housing for \$250,000 with the City to cover all closing costs and provide written confirmation as to the charitable contribution of any such value confirmed by appraisal above that cost

City of Winter Park commitments to DI Partners LLLP:

a. The application of vested C-3 zoning (without exception or carveout except as set forth below) for construction on 805; 801; 771; 860, 718, 711, 670, 666 and 660 West Fairbanks provided that:

i. No building would exceed 3 stories anywhere on the properties;

ii. No parking garage would be built on any of the properties;

iii. The existing landscape islands and live oak trees at the two corners of W. Fairbanks and Denning Drive and Capen Avenue will be preserved and maintained in any redevelopment plan and consistent with current code, credits applied for any parking that otherwise could occur in those two locations.

iv. No type of motor vehicle use (sales, service, rental) would be requested on the redeveloped property except as a continuation of a current business, to the extent it may still be allowable in C-3 zoning;

v. Parking standards of the Orange Avenue Overlay apply but no variances from the C-3 zoning requirements would be requested and no conditional uses for any special business type would be requested.

b. The City to vacate (subject to reservation of underground utility easements) the north 6 feet of the right-of-way of Holt Avenue from its intersection with South Denning Drive east to its intersection with Capen Avenue.

c. Consistent with Section 59-9 of the City's Transportation Impact Fee ordinance and in recognition of the aforementioned donations, the City provides credit for such and waives transportation impact fees on any development on 860/805/801/771/711 West Fairbanks Avenue, in conformance with the Transportation Impact Fee ordinance provisions for contributions toward roadway improvement projects in lieu of fees paid.

d. The City to preserve the public parking on West Comstock Avenue immediately in front of the proposed stormwater retention improvement and allow the properties at 805, 801 and 771 W. Fairbanks to access the stormwater retention area for development on the aforementioned properties, if feasible.

Summary and Recommendation: The city's transportation impact fee ordinance provides for land contributions/donations toward traffic improvements to function as credits toward those fees. In this case, the donations of land on the north side of Fairbanks Avenue for the

left-hand turn lane on Fairbanks Avenue at Denning Drive, the widening of the roadway width on the south side of Fairbanks Avenue, and the provision of storm water retention for roadway drainage all such land donations qualify for such transportation impact fee credits. Given the self-imposed limitations on the scale of future redevelopment by DI Partners LLLP, the provisions of the Orange Avenue Overlay need not apply. The Conditional Use generally meets the requirements of the C-3 zoning and the two setback variances result from the city's request for the land donation. The design of the traffic circulation and access/egress maximizes traffic safety. The development scale and intensity and architectural images are compatible with this location on a state arterial highway with 30,000 cars/day. The two parties functioning as partners in allowing for this redevelopment and redevelopment credits/contributions will improve traffic flow and traffic safety along with much-needed storm water and flood control improvements.

alternatives | other considerations

fiscal impact

attachments

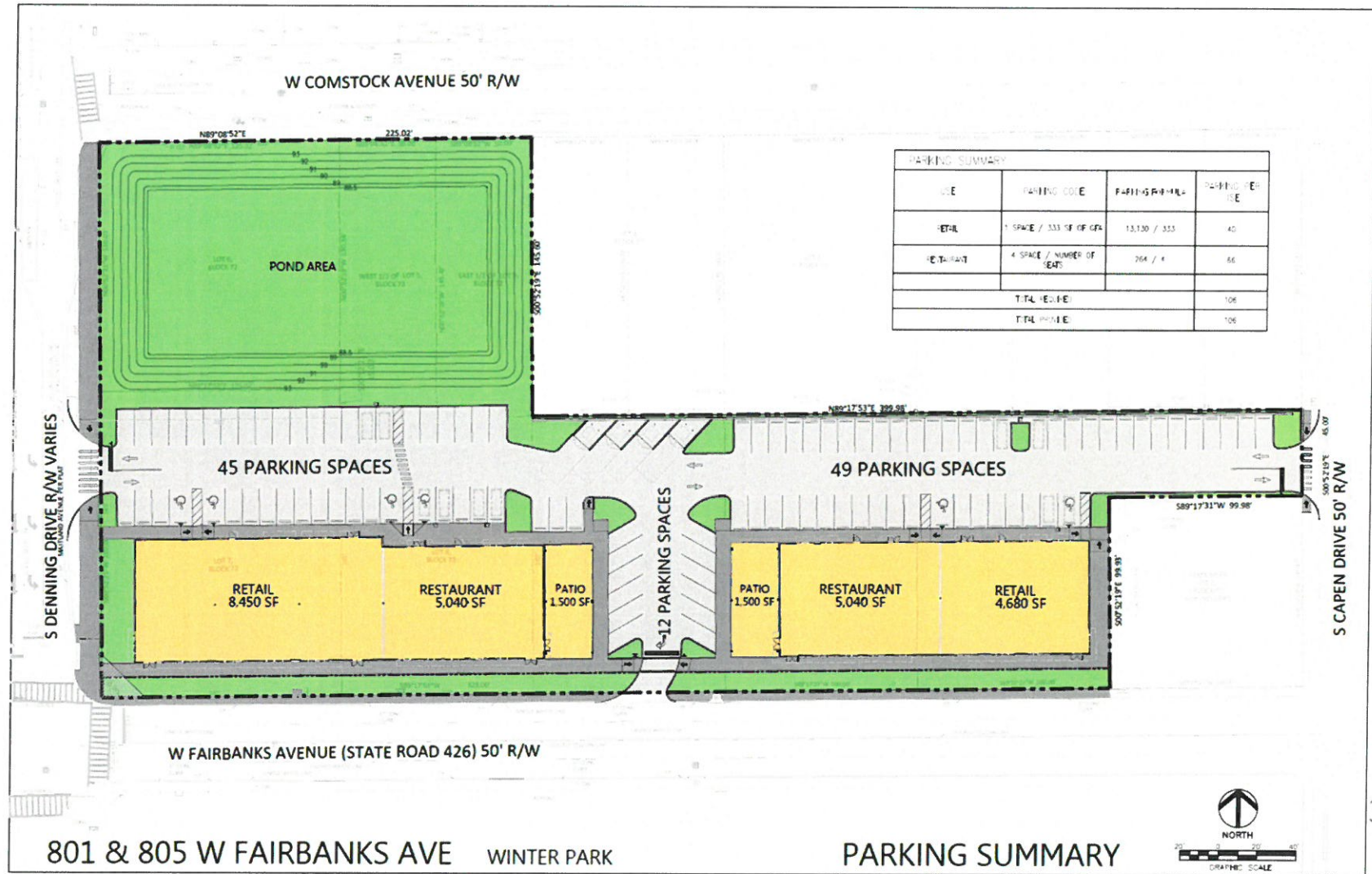
1. Location Maps and existing pictures
2. Site and Landscape plan
3. Fairbanks Retail Rendering-view 1
4. Fairbanks Retail Rendering-view 2
5. FBS Winter Park Traffic Impact Analysis



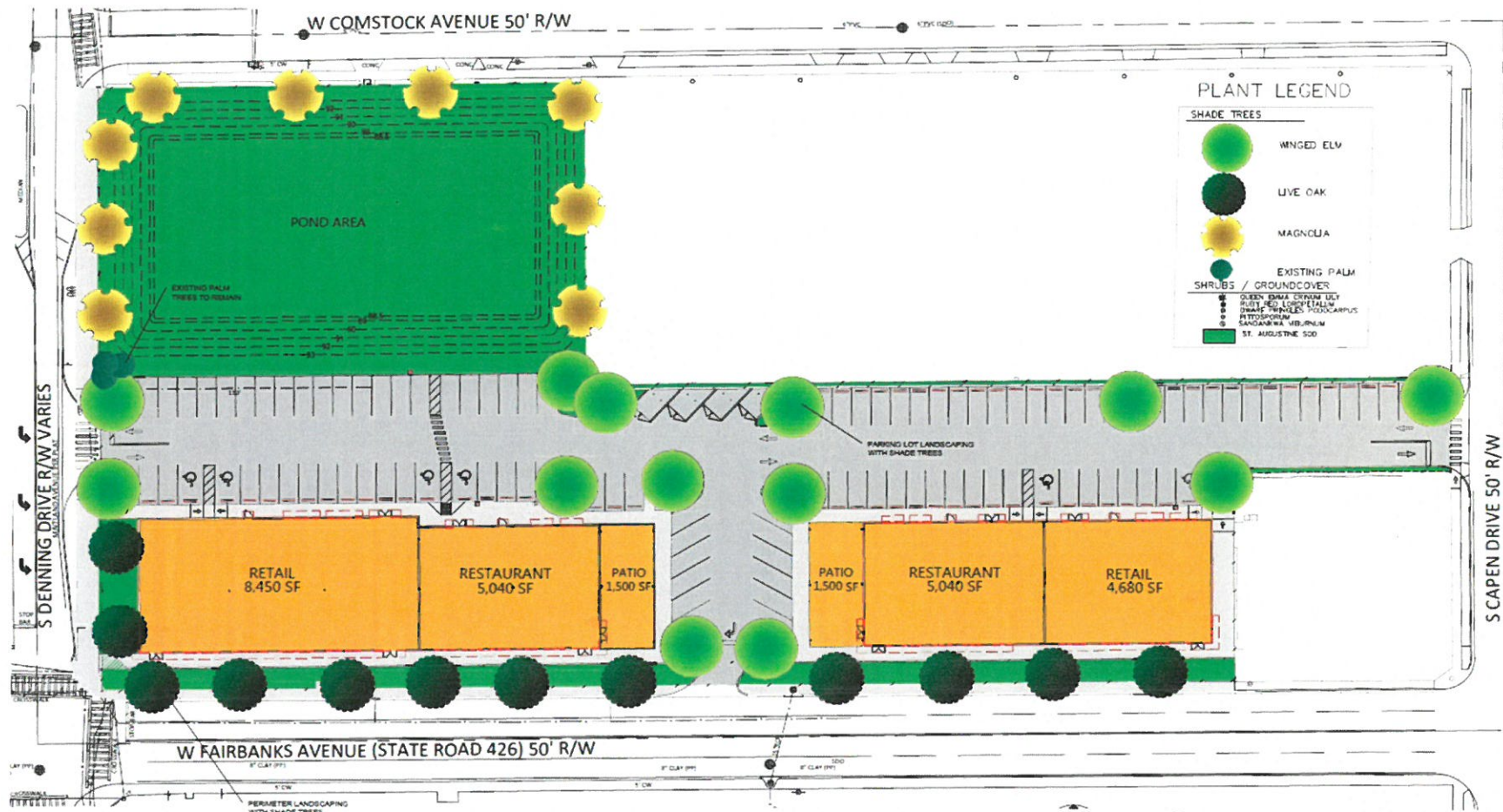




31



3



801 & 805 W. FAIRBANKS AVE WINTER PARK LANDSCAPE CONCEPT PLAN







A000

TRAFFIC IMPACT ANALYSIS

805 W FAIRBANKS AVENUE
WINTER PARK, FLORIDA



Prepared for:

Z Development Services
1201 E. Robinson St
Orlando, FL 32801

Prepared by:

Traffic Planning and Design, Inc.
535 Versailles Drive
Maitland, Florida 32751
407-628-9955

April 2024

TPD № 5810.1

PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic Planning & Design, Inc., a corporation authorized to operate as an engineering business, EB-3702, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: 805 W Fairbanks Avenue

LOCATION: Winter Park, Florida

CLIENT: Z Development Services

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.

NAME: Turgut Dervish, P.E.

P.E. No.: 20400

DATE: April 16th, 2024

SIGNATURE:



TABLE OF CONTENTS

	Page
INTRODUCTION	1
EXISTING CONDITIONS ANALYSIS	4
Roadway Segment Analysis	
Intersection Analysis	
PROPOSED DEVELOPMENT AND TRIP GENERATION	7
Trip Generation	
Trip Distribution / Trip Assignment	
PROJECTED CONDITIONS ANALYSIS	9
Background Traffic Volumes	
Roadway Segment Analysis	
Intersection Analysis	
Internal Traffic Flow Analysis	
STUDY CONCLUSIONS	15
APPENDICES	
A City of Winter Park TIA Guidelines	
B Intersection Turning Movement Counts, Signal Timings, and FDOT SF Report	
C Existing Intersection Capacity Analysis Worksheets	
D ITE Trip Generation Worksheets	
E Model Output	
F Trends Analysis Worksheets	
G Background Intersection Capacity Analysis Worksheets	
H Projected Intersection Capacity Analysis Worksheets	

TABLE OF CONTENTS, continued

LIST OF TABLES

	Page
Table 1 Existing Daily Roadway Capacity Analysis	4
Table 2 Existing P.M. Peak Hour Roadway Capacity Analysis.....	4
Table 3 Existing Intersection Capacity Analysis	5
Table 4 Trip Generation Summary.....	7
Table 5 Projected Daily Roadway Capacity Analysis	9
Table 6 Projected P.M. Peak Hour Roadway Capacity Analysis	10
Table 7 Projected Background Traffic Intersection Capacity Analysis.....	10
Table 8 Total Projected Traffic Intersection Capacity Analysis	14
Table 9 Total Projected Traffic Intersection Capacity Analysis – Optimized Signal Timings	14

LIST OF FIGURES

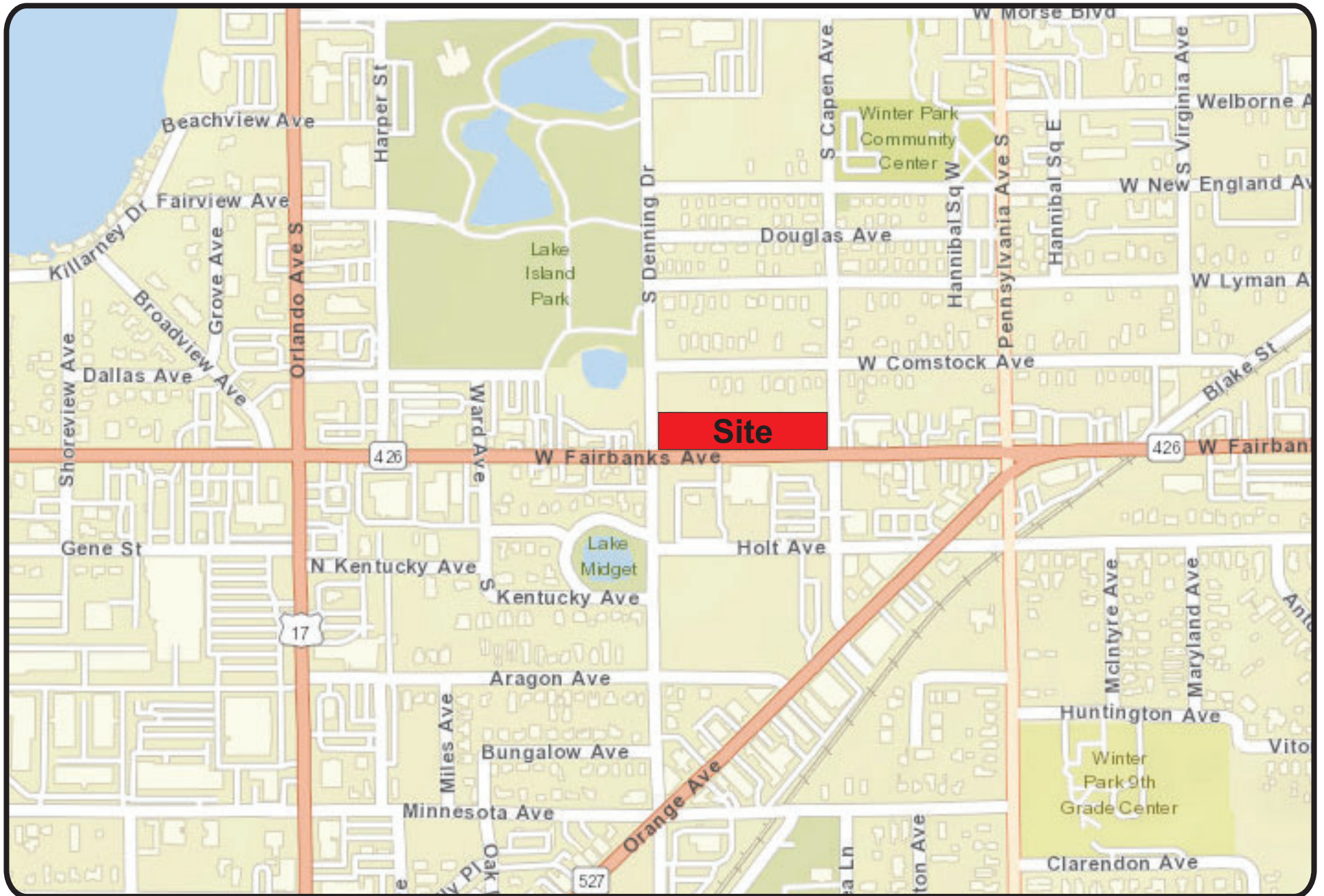
Figure 1 – Site Location	2
Figure 2 – Site Plan and Access Configuration	3
Figure 3 – Existing A.M. and P.M. Peak Hour Traffic Volumes	6
Figure 4 – Project Trip Distribution	8
Figure 5a – Projected A.M. Peak Hour Traffic Volumes	11
Figure 5b – Projected P.M. Peak Hour Traffic Volumes	12

INTRODUCTION

This analysis was undertaken in order to assess the traffic impact of a proposed retail and restaurant development to be located at 805 W Fairbanks Avenue, in the northeast corner of the intersection of Fairbanks Avenue (SR 426) and Denning Drive in Winter Park, Florida. The proposed development will consist of 10,080 square feet of restaurant space and 13,130 square feet of retail space. **Figure 1** depicts the site location and the area roadways. Access to the site will be provided via two full access driveways on Denning Drive and Capen Avenue, as well as a right-out-only driveway on Fairbanks Avenue. **Figure 2** depicts its site plan and its access configuration.

This analysis was conducted according to the City of Winter Park's Traffic Impact Analysis guidelines, which were provided by the City and are included in **Appendix A**. Data utilized in the analysis consisted of a site plan provided by Project Engineers and A.M. and P.M. peak hour turning movement counts obtained by Traffic Planning and Design (TPD) at the study intersections. Reference data were obtained from the Florida Department of Transportation (FDOT) and the Institute of Transportation Engineers (ITE).





805 W Fairbanks Avenue
Project № 5810.1
Figure 1

Site Location



EXISTING CONDITIONS ANALYSIS

A capacity analysis was performed for the adjacent roadway segments and intersections in order to establish their current operating conditions.

Roadway Segment Analysis

The adjacent roadway segments were analyzed by comparing their existing daily and P.M. peak hour traffic volumes with the corresponding capacities at the adopted LOS standard. The existing traffic volumes were obtained from FDOT count stations and intersection counts, and peak hour directional capacities were obtained from FDOT's 2023 Quality/Level of Service Handbook. A summary of the daily roadway capacity analysis is presented in **Table 1**, and a summary of the P.M. peak hour roadway capacity analysis is presented in **Table 2**. The existing condition analyses reveal that the study segments are currently operating at satisfactory Levels of Service within their adopted LOS standards for both the daily and P.M. peak hour conditions.

Table 1
Existing Daily Roadway Capacity Analysis

Count Station	Segment	Lanes	Daily Capacity*	Existing Volume**	Existing v/c	LOS
Fairbanks Avenue (SR 426)						
755072	Orlando Ave to Orange Ave	4	40,800	19,032	0.47	C
Denning Drive						
758038	Morse Blvd to Orange Ave	2	21,600	4,368	0.20	D

* Capacities obtained from the 2023 FDOT Generalized Service Volume Tables

** Volumes obtained from FDOT Count Stations, grown to existing year

Table 2
Existing P.M. Peak Hour Roadway Capacity Analysis

Segment	Lanes	Dir. Capacity*	Dir	Existing Volume**	Existing v/c	LOS
Fairbanks Avenue (SR 426)						
Orlando Ave to Orange Ave	4	2,020	EB	1,180	0.58	C
		2,020	WB	1,311	0.65	D
Denning Drive						
Morse Blvd to Orange Ave	2	1,071	NB	396	0.37	D
		1,071	SB	317	0.30	D

* Capacities obtained from the 2023 FDOT Generalized Service Volume Tables

** Volumes obtained from intersection counts; Highest volume on segment used



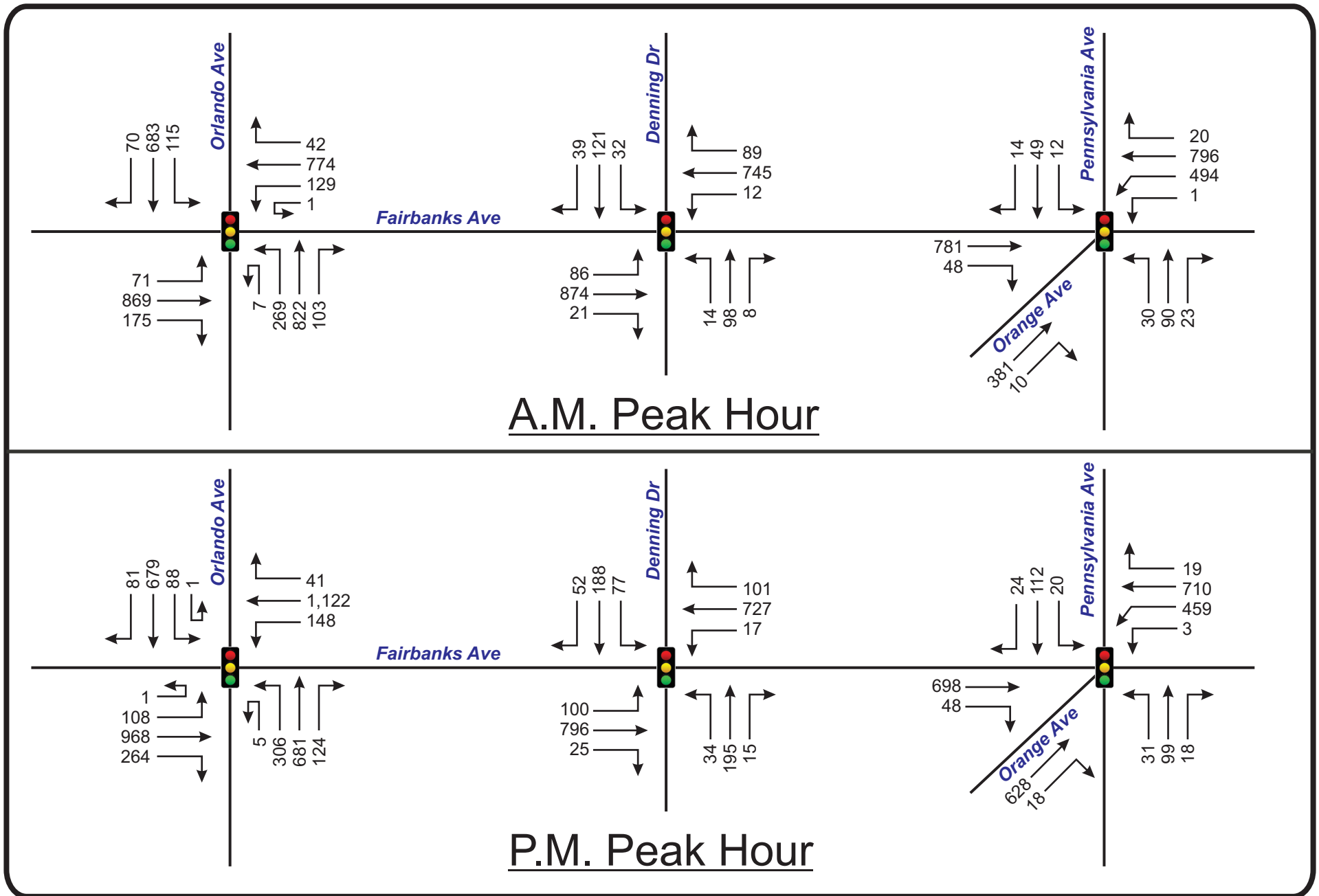
Intersection Analysis

Intersection capacity analyses were conducted for the A.M. and P.M. peak hours for the study intersections with *Synchro* software in accordance with the procedures of the *Highway Capacity Manual (HCM)*. Existing turning movement counts were taken on May 18th, 2023, when the FDOT Seasonal Factor for Orange County was 0.99, and therefore were not adjusted. The existing intersection volumes are illustrated in **Figure 3**, and the turning movement counts, FDOT Seasonal Factor report, and signal timing data are included in **Appendix B**. The intersection capacity analysis is summarized in **Table 3**. As shown, the study intersections currently operate at satisfactory overall Levels of Service, except for the intersection of Orlando Avenue and Fairbanks Avenue, which is failing in the P.M. peak hour. Additionally, each study intersection has minor approach movements that are failing in either the A.M. or the P.M. peak hour due to the existing traffic volumes. Detailed printouts of the existing capacity analyses are included in **Appendix C**.

Table 3
Existing Intersection Capacity Analysis

Intersection	Control	Time Period	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Fairbanks Ave/Orange Ave & Pennsylvania Ave	Signal	A.M.	64.5	E	78.4	E	64.8	E	61.6	E	67.6	E
		P.M.	82.4	F	48.1	D	66.9	E	68.2	E	60.7	E
Fairbanks Ave & Denning Dr	Signal	A.M.	8.8	A	5.5	A	82.5	F	83.4	F	18.3	B
		P.M.	16.2	B	12.1	B	54.4	D	47.2	D	22.9	C
Fairbanks Ave & Orlando Ave	Signal	A.M.	71.1	E	53.2	D	98.1	F	63.8	E	73.3	E
		P.M.	88.1	F	68.3	E	128.8	F	76.5	E	90.2	F





805 W Fairbanks Avenue
Project № 5810.1
Figure 3

**Existing A.M./P.M.
Peak Hour Volumes**



PROPOSED DEVELOPMENT AND TRIP GENERATION

The proposed development will consist of 10,080 square feet of restaurant space and 13,130 square feet of retail space. To determine the impact of this development, an analysis of its trip generation characteristics was conducted. This included the determination of the trips to be generated as well as their distribution and assignment to the area roadway segments.

Trip Generation

Trip generation rates were obtained from the Institute of Transportation Engineer's (ITE) *Trip Generation Manual, 11th Edition*. The trip generation calculation of daily, A.M., and P.M. peak hour volumes is summarized in **Table 4**, and the trip generation graphs are included in **Appendix D**. As shown, the project will generate 1,045 net new daily trips, of which 73 will occur in the A.M. peak hour and 104 in the P.M. peak hour.

Table 4
Trip Generation Summary

ITE Code	Land Use	Size*	Daily		A.M. Peak Hour				P.M. Peak Hour			
			Rate	Trips	Rate	Enter	Exit	Total	Rate	Enter	Exit	Total
822	Strip Retail Plaza (<40K)	13.13 KSF	54.45**	715	2.36**	19	12	31	6.59**	43	44	87
932	High-Turnover (Sit-Down) Restaurant	10.08 KSF	107.20**	1,081	9.57**	53	43	96	9.05**	56	35	91
Total Trips:				1,796	--	72	55	127	--	99	79	178
Retail Pass-by (40%***):				286	--	8	5	13	--	17	18	35
Restaurant Pass-by (43%):				465	--	23	18	41	--	24	15	39
Net New Trips:				1,045	--	41	32	73	--	58	46	104

* KSF = 1,000 sq ft

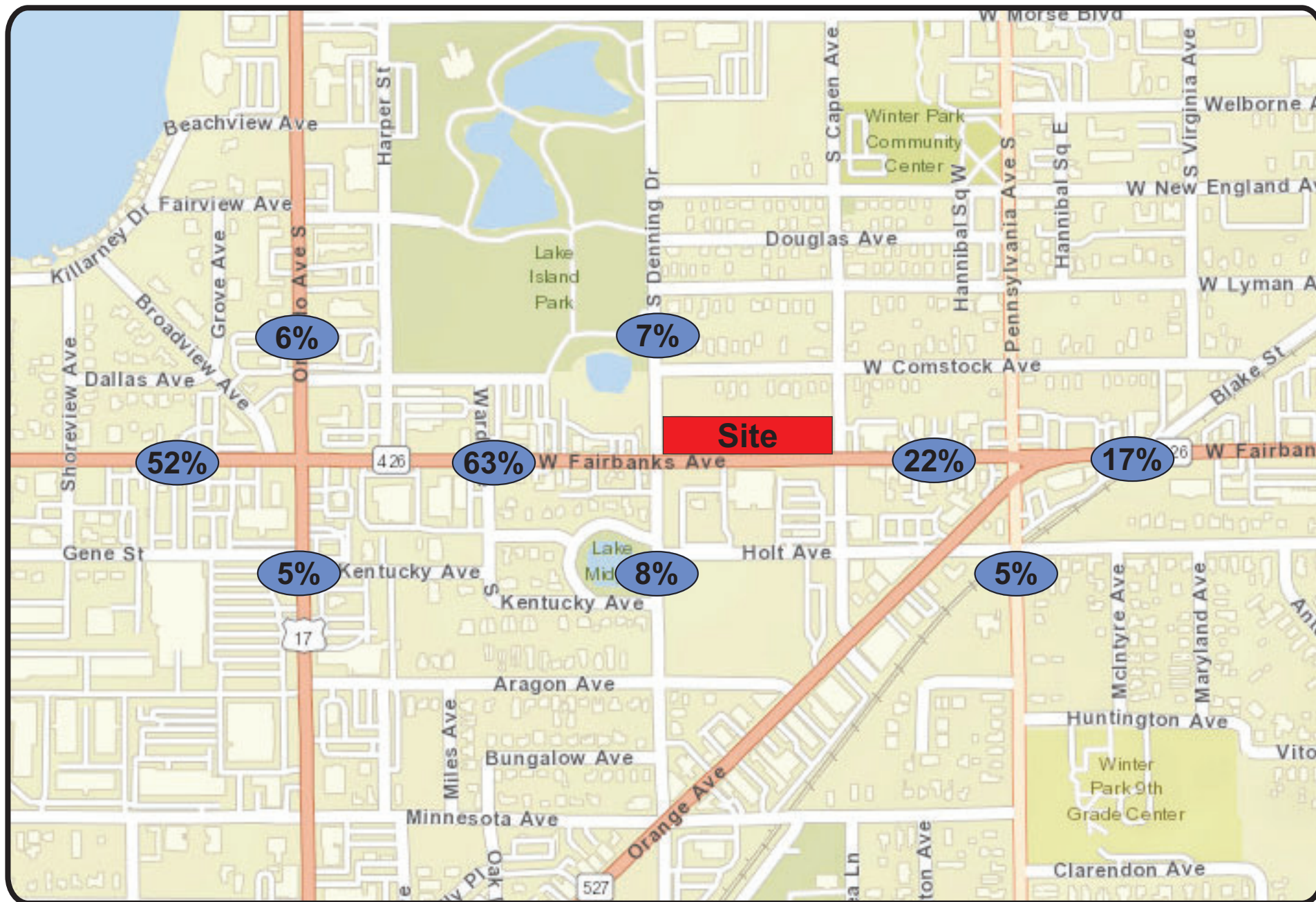
** Less than 20 studies performed, no Equation provided, or $R^2 < 0.75$; therefore, Average Rate used

*** No pass-by rates provided for LUC 822, therefore rates for LUC 821 used

Trip Distribution / Trip Assignment

A trip distribution pattern was estimated using the currently adopted Central Florida Regional Planning Model (CFRPM). A Select Zone Analysis (SZA) was conducted by modifying the 2030 interim year model network to include a Traffic Analysis Zone (TAZ) representing the proposed project and the model's socio-economic data updated to reflect the proposed project buildout. The trip distribution obtained from the model is provided in **Figure 4**. Utilizing this distribution, the development project trips were assigned to the study roadways and intersections. The model output is included in **Appendix E**.





805 W Fairbanks Avenue
Project № 5810.1
Figure 4

Trip Distribution



PROJECTED CONDITIONS ANALYSIS

Traffic conditions were analyzed for the study roadway segments and intersections to assess the operations at the project buildout in 2026. Projected traffic volumes consist of background traffic combined with site generated traffic.

Background Traffic Volumes

A historical trends analysis was conducted using the available Annual Average Daily Traffic (AADT) from the nearest FDOT traffic count locations on Fairbanks Avenue and Denning Drive. The analysis revealed an average growth trend of -8.10%; therefore, a minimum 2.00% annual growth rate was used to determine the projected background volumes for the project buildout. The trends analysis worksheets are included in **Appendix F**.

Roadway Segment Analysis

A roadway segment analysis was performed for the adjacent roadway segments by comparing their projected daily and peak hour segment volumes with their respective capacities at the adopted Level of Service standard, similarly to the existing conditions analysis. The analyses, summarized in **Table 5** and **Table 6**, revealed that the study roadway segments will continue to operate at satisfactory Levels of Service within their adopted capacities during both the daily and peak hour conditions.

Table 5
Projected Daily Roadway Capacity Analysis

Count Station	Segment	Lanes	Daily Capacity	Bkgd Volume	Project Trips*		Total Traffic	Projected v/c	LOS
					%	Trips			
Fairbanks Avenue (SR 426)									
755072	Orlando Ave to Orange Ave	4	40,800	19,793	63%	658	20,451	0.50	C
Denning Drive									
758038	Morse Blvd to Orange Ave	2	21,600	4,543	93%	972	5,515	0.26	D

* Highest on Segment



Table 6
Projected P.M. Peak Hour Roadway Capacity Analysis

Segment	Lanes	Dir. Capacity	Dir	Bkgd Volume	Project Trips*		Total Traffic	Projected v/c	LOS
					%	Trips			
Fairbanks Avenue (SR 426)									
Orlando Ave to Orange Ave	4	2,020	EB	1,251	63%	37	1,288	0.64	D
		2,020	WB	1,390	63%	29	1,419	0.70	D
Denning Drive									
Morse Blvd to Orange Ave	2	1,071	NB	420	93%	43	463	0.43	D
		1,071	SB	336	93%	54	390	0.36	D

* Highest on Segment

Intersection Analysis

To assess the projected operating conditions at the study intersections, intersection capacity analyses were conducted using both the background traffic growth alone and the total projected traffic volumes, as shown in **Figures 5a** and **5b**. The intersections were analyzed using *Synchro* software, and the results for the background analyses are summarized in **Table 7**. As can be seen from the table, the intersections will operate similarly to the existing conditions. The movements that are failing in the existing conditions will continue to fail, as well as the westbound approach and overall Level of Service of Fairbanks Avenue and Orange Avenue/Pennsylvania Avenue in the A.M. peak hour, as well as the overall Level of Service for Fairbanks Avenue and Orlando Avenue in both peak hours. Detailed printouts of the background capacity analysis worksheets are included in **Appendix G**.

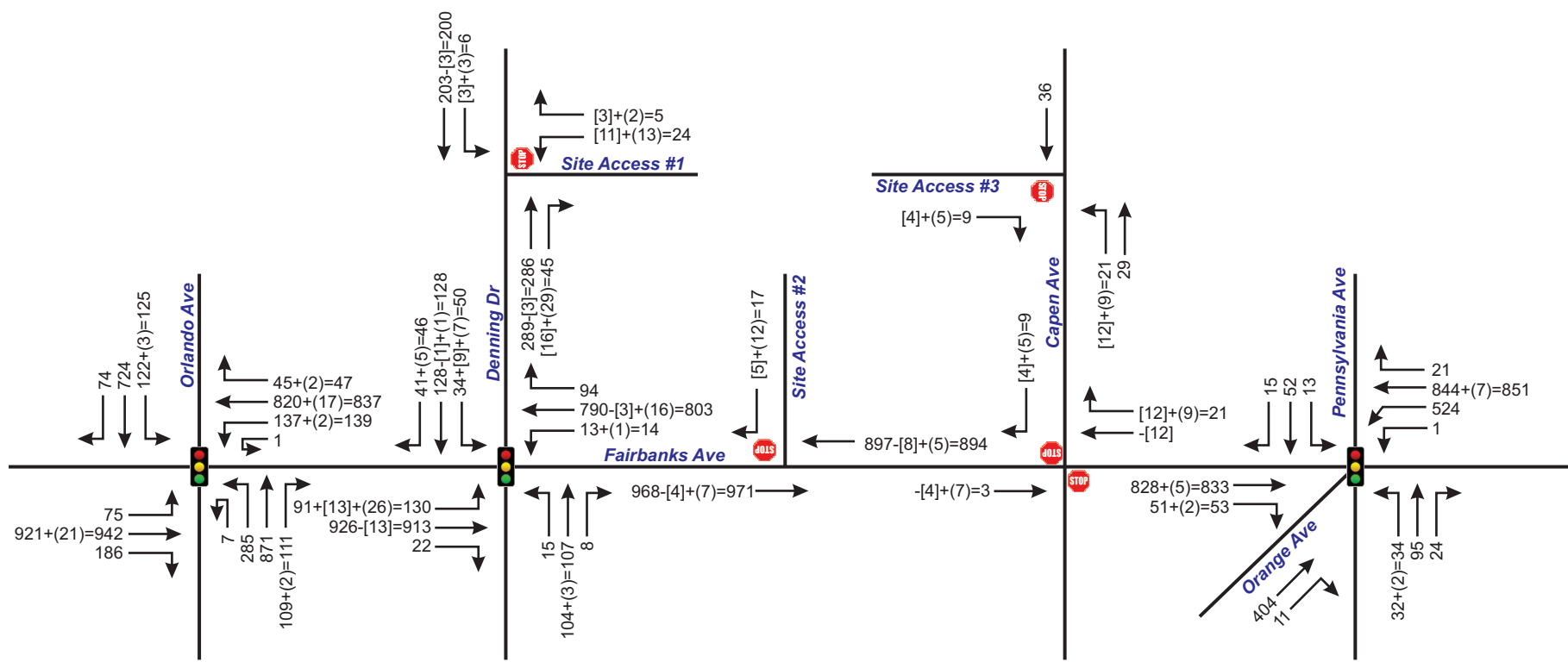
Table 7
Projected Background Traffic Intersection Capacity Analysis

Intersection	Control	Time Period	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Fairbanks Ave/Orange Ave & Pennsylvania Ave	Signal	A.M.	61.3	E	112.8	F	65.7	E	62.0	E	83.5	F
		P.M.	81.0	F	63.7	E	67.8	E	68.9	E	67.9	E
Fairbanks Ave & Denning Dr	Signal	A.M.	11.4	B	9.8	A	80.7	F	83.4	F	21.1	C
		P.M.	17.8	B	12.2	B	57.6	E	50.1	D	24.4	C
Fairbanks Ave & Orlando Ave	Signal	A.M.	75.2	E	64.0	E	133.1	F	64.0	E	87.1	F
		P.M.	113.5	F	73.3	E	160.9	F	73.7	E	106.2	F



Legend:

- 00+[00]+(00)=00
- Total Traffic
- Project Trips
- Pass-by Trips
- Background Traffic



805 W Fairbanks Avenue
Project № 5810.1
Figure 5a

**Projected A.M. Peak
Hour Volumes**



The results for the total projected traffic analyses are summarized in **Table 8**. As can be seen from the table, the study intersections will continue to operate with failing approaches and failing overall Levels of Service. It should be noted, however, that the addition of the project traffic will not cause any deficiencies to the study intersections that are not caused by the background growth of the existing traffic. The failing approaches and intersections will continue to fail regardless of the addition of the project trips. The site access driveways, however, are projected to operate satisfactorily upon the addition of the project trips. Detailed printouts of the projected capacity analysis worksheets are included in **Appendix H**.

The site of the proposed development is located in a built-out area with no available right-of-way for geometric improvements to the study intersections. Therefore, the signalized study intersections were analyzed once more using optimized signal timings in order to improve their operations. Summarized in **Table 9** are the results of the analysis. As can be seen from the table, the study intersections will still operate with failing approaches upon signal timing optimization. While there are approaches that will continue to operate with failing Levels of Service at the study intersections, the overall delays are significantly reduced with optimization.

Internal Traffic Flow Analysis

An analysis of the internal traffic flow was conducted to determine if the site plan provides adequate stacking areas and if the queue lengths will impact site ingress and egress. To conduct this analysis, the detailed *Synchro* analysis worksheets for the site access driveways were reviewed. The analysis revealed that the maximum 95th percentile queue length for each site access driveway was 25 feet or less. The site plan provides more than 200 feet of space for vehicle stacking for Site Access #1, 75 feet of space for Site Access #2, and more than 295 feet of space for Site Access #3. Therefore, it was determined that the site plan provides adequate stacking area and that the queue lengths will not impact site ingress or egress due to the short lengths.



Table 8
Total Projected Traffic Intersection Capacity Analysis

Intersection	Control	Time Period	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Fairbanks Ave/Orange Ave & Pennsylvania Ave	Signal	A.M.	57.6	E	115.9	F	66.0	E	62.0	E	84.0	F
		P.M.	80.1	F	66.6	E	68.3	E	68.9	E	69.1	E
Fairbanks Ave & Denning Dr	Signal	A.M.	15.2	B	9.4	A	81.1	F	81.9	F	23.1	C
		P.M.	23.9	C	12.9	B	65.9	E	48.0	D	27.7	C
Fairbanks Ave & Orlando Ave	Signal	A.M.	76.9	E	67.5	E	136.9	F	65.1	E	89.6	F
		P.M.	122.6	F	74.8	E	166.3	F	73.3	E	110.4	F
Denning Dr & Site Access #1	Stop	A.M.	--	--	12.5	B	0.0	A	0.2	A	0.7	A
		P.M.	--	--	16.9	C	0.0	A	0.2	A	0.9	A
Fairbanks Ave & Site Access #2	Stop	A.M.	0.0	A	0.0	A	--	--	12.1	B	0.1	A
		P.M.	0.0	A	0.0	A	--	--	12.2	B	0.2	A
Capen Ave & Site Access #3	Stop	A.M.	8.5	A	--	--	3.1	A	0.0	A	2.4	A
		P.M.	8.8	A	--	--	2.1	A	0.0	A	1.6	A

Table 9
Total Projected Traffic Intersection Capacity Analysis – Optimized Signal Timings

Intersection	Control	Time Period	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Fairbanks Ave/Orange Ave & Pennsylvania Ave - Optimized	Signal	A.M.	98.4	F	30.8	C	146.0	F	95.9	F	57.8	E
		P.M.	96.0	F	28.0	C	110.4	F	99.7	F	55.6	E
Fairbanks Ave & Denning Dr - Optimized	Signal	A.M.	15.1	B	8.9	A	83.4	F	83.1	F	23.1	C
		P.M.	--	--	--	--	--	--	--	--	--	--
Fairbanks Ave & Orlando Ave - Optimized	Signal	A.M.	84.3	F	66.1	E	74.9	E	82.4	F	77.0	E
		P.M.	102.8	F	82.6	F	87.5	F	96.2	F	92.2	F



STUDY CONCLUSIONS

This analysis was undertaken in order to assess the traffic impact of the proposed retail and restaurant development to be located at 805 W Fairbanks Avenue, in the northeast corner of the intersection of Fairbanks Avenue (SR 426) and Denning Drive in Winter Park, Florida. The proposed development will consist of 10,080 square feet of restaurant space and 13,130 square feet of retail space. Access to the site will be provided via full access driveways on Denning Drive and Capen Avenue, as well as a right-turn-only exit on Fairbanks Avenue. The results of the study as documented herein are summarized below:

- The proposed development will generate 1,045 net new daily trips, of which 73 will occur in the A.M. peak hour and 104 in the P.M. peak hour.
- The analysis indicated that the adjacent roadway segments currently operate at satisfactory Levels of Service and will continue to do so with the addition of project trips.
- The analysis indicated that the study intersections currently operate at satisfactory Levels of Service, except for the intersection of Orlando Avenue and Fairbanks Avenue, which fails during the P.M. peak hour. Each study intersection has minor approach movements that are failing during the A.M. or P.M. peak hour in the existing condition. Background traffic growth will cause the intersection of Orlando Avenue and Fairbanks Avenue to fail during the A.M. peak hour, as well as additional failing approaches at the other study intersections. The addition of the project trips will not cause any additional deficiencies. Signal timing optimization will reduce the overall delays at the study intersections.
- The proposed development will be accessed via two full access driveways, one on Denning Drive and one on Capen Avenue, as well as a right-out-only driveway on Fairbanks Avenue. All three site access driveways are projected to operate satisfactorily upon completion of the project.
- Based upon a review of the site plan and the detailed *Synchro* analysis worksheets, the site plan provides adequate space for stacking vehicles. The queues formed by vehicles exiting the site will not impact site ingress or egress.



APPENDICES

APPENDIX A

City of Winter Park TIA Guidelines

Sean Smith

From: Rita Merhi
Sent: Friday, May 19, 2023 11:30 AM
To: Sean Smith
Subject: FW: Traffic Impact Analysis Guidelines

From: Nicholas Lewis <nlewis@cityofwinterpark.org>
Sent: Tuesday, May 16, 2023 9:52 AM
To: Rita Merhi <rita@tpdtraffic.com>
Cc: Allison McGillis <amcgillis@cityofwinterpark.org>; Hongmyung Lim <hlim@cityofwinterpark.org>
Subject: RE: Traffic Impact Analysis Guidelines

Good Morning Rita,

The City's traffic impact analysis guidelines are as follows:

Traffic Data and a Transportation Impact Analysis: including but not limited to the current average daily traffic on adjacent streets and the current peak hour(s) traffic on adjacent streets. This data shall also include estimated daily and a.m. and p.m. peak-hour traffic generation to and from the site utilizing current Institute of Transportation Engineers (ITE) data or data collected specifically for the site, as well as the documented distribution of trips to the various entrances and exits. The peak hour analysis shall be for the peak hour(s) of the business as well as the peak hours of the adjacent roadways. This data shall also include a detailed analysis of internal traffic flow including a queuing analysis completed with a city approved methodology, an analysis of the nature and adequacy of stacking areas on site for average and peak periods, and an analysis of the impact of vehicle queuing on site ingress and egress. Relevant accident history data near the proposed site and at sites with similar uses shall also be presented by the Applicant and considered by the City.

Best,
Nick

 City of Winter Park 401 Park Ave. South Winter Park, FL. 32789 cityofwinterpark.org	Nicholas W. Lewis Planner II Planning & Zoning 407.599.3508 nlewis@cityofwinterpark.org
--	---

From: Rita Merhi <rita@tpdtraffic.com>
Sent: Monday, May 15, 2023 5:08 PM
To: Nicholas Lewis <nlewis@cityofwinterpark.org>
Subject: [External] Traffic Impact Analysis Guidelines

APPENDIX B

Intersection Turning Movement Counts, Signal Timings, and FDOT SF Report

15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: May 18, 2023 (Thursday)

CITY: Winter Park

LATITUDE: 0

LOCATION: Pennsylvania Av & Fairbanks Av

COUNTY: Seminole County

LONGITUDE: 0

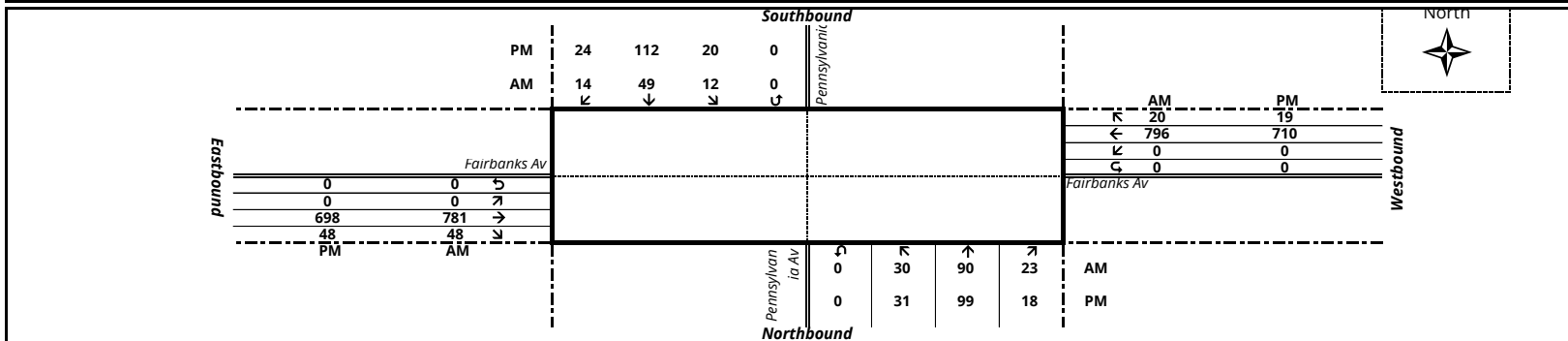
Pennsylvania Av

Pennsylvania Av

Fairbanks Av

Fairbanks Av

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL	
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL			
07:00 AM	8	20	11	0	39	2	11	2	0	15	54	0	138	5	0	143	0	170	0	0	170	313	367	
07:15 AM	10	13	6	0	29	4	8	1	0	13	42	0	186	8	0	194	0	246	5	0	251	445	487	
07:30 AM	12	20	2	0	34	4	4	5	0	13	47	0	161	15	0	176	0	201	4	0	205	381	428	
07:45 AM	8	14	2	0	24	3	9	3	0	15	39	1	228	7	0	236	1	199	2	0	202	438	477	
TOTAL	38	67	21	0	126	13	32	11	0	56	182	1	713	35	0	749	1	816	11	0	828	1,577	1,759	
08:00 AM	9	17	5	0	31	1	16	4	0	21	52	0	178	10	0	188	0	201	1	0	202	390	442	
08:15 AM	8	21	7	0	36	2	11	3	0	16	52	0	201	18	0	219	0	199	4	0	203	422	474	
08:30 AM	9	31	5	0	45	8	11	3	0	22	67	0	193	10	0	203	0	179	5	0	184	387	454	
08:45 AM	4	21	6	0	31	1	11	4	0	16	47	0	209	10	0	219	0	217	10	0	227	446	493	
TOTAL	30	90	23	0	143	12	49	14	0	75	218	0	781	48	0	829	0	796	20	0	816	1,645	1,863	
04:00 PM	8	28	10	0	46	8	17	8	0	33	79	0	135	12	0	147	0	153	9	0	162	309	388	
04:15 PM	5	20	6	0	31	6	18	5	0	29	60	0	203	8	0	211	0	159	9	0	168	379	439	
04:30 PM	8	16	2	0	26	4	18	3	0	25	51	0	164	8	0	172	0	170	3	1	174	346	397	
04:45 PM	12	21	4	0	37	8	19	6	0	33	70	1	157	6	0	164	0	167	9	0	176	340	410	
TOTAL	33	85	22	0	140	26	72	22	0	120	260	1	659	34	0	694	0	649	30	1	680	1,374	1,634	
05:00 PM	3	26	6	0	35	6	47	10	0	63	98	0	163	7	0	170	0	186	6	0	192	362	460	
05:15 PM	5	29	5	0	39	4	21	7	0	32	71	0	174	10	0	184	0	179	3	0	182	366	437	
05:30 PM	10	22	0	0	32	6	21	3	0	30	62	0	177	20	0	197	0	165	7	0	172	369	431	
05:45 PM	13	22	7	0	42	4	23	4	0	31	73	0	184	11	0	195	0	180	3	0	183	378	451	
TOTAL	31	99	18	0	148	20	112	24	0	156	304	0	698	48	0	746	0	710	19	0	729	1,475	1,779	
AM Peak																							Peak Hour Factor: 0.945	
08:00 AM to 09:00 AM																							Peak Hour Factor: 0.945	
PM Peak																							Peak Hour Factor: 0.967	
05:00 PM to 06:00 PM																							Peak Hour Factor: 0.967	



15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: May 18, 2023 (Thursday)

CITY: Winter Park

LATITUDE: 0

LOCATION: Pennsylvania Av & Fairbanks Av

COUNTY: Seminole County

LONGITUDE: 0

Pennsylvania Av

Pennsylvania Av

Fairbanks Av

Fairbanks Av

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		
07:00 AM	0	0	0	0	0	1	0	0	0	1	1	0	4	0	0	4	0	1	0	0	1	5	6
07:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	5	2	0	7	0	5	0	0	5	12	13
07:30 AM	1	2	1	0	4	0	0	0	0	0	4	0	3	0	0	3	0	0	0	0	0	3	7
07:45 AM	1	0	0	0	1	1	0	0	0	1	2	0	4	0	0	4	0	5	0	0	5	9	11
TOTAL	3	2	1	0	6	2	0	0	0	2	8	0	16	2	0	18	0	11	0	0	11	29	37
08:00 AM	1	0	0	0	1	0	1	0	0	1	2	0	3	0	0	3	0	2	0	0	2	5	7
08:15 AM	0	1	0	0	1	0	0	0	0	0	1	0	6	0	0	6	0	2	0	0	2	8	9
08:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	4	0	0	4	0	2	0	0	2	6	7
08:45 AM	0	1	0	0	1	0	0	0	0	0	1	0	10	0	0	10	0	2	1	0	3	13	14
TOTAL	1	2	0	0	3	0	2	0	0	2	5	0	23	0	0	23	0	8	1	0	9	32	37
04:00 PM	0	1	1	0	2	0	0	0	0	0	2	0	1	0	0	1	0	0	0	0	0	1	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	2	0	0	2	6	6
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
TOTAL	0	1	1	0	2	0	0	0	0	0	2	0	7	0	0	7	0	4	0	0	4	11	13
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3	3
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	5	0	0	5	8	8
AM Peak																							
08:00 AM to 09:00 AM	1	2	0	0	3	0	2	0	0	2	5	0	23	0	0	23	0	8	1	0	9	32	37
PM Peak																							
05:00 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	5	0	0	5	8	8

15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: May 18, 2023 (Thursday)

CITY: Winter Park

LATITUDE: 0

LOCATION: Pennsylvania Av & Orange Av/Fairbanks Av

COUNTY: Seminole County

LONGITUDE: 0

Pennsylvania Av

Pennsylvania Av

Orange Av

Fairbanks Av

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S	EASTBOUND					WESTBOUND					E/W	GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		
07:00 AM	0	0	0	0	0	0	0	2	0	2	2	0	39	0	0	39	3	110	0	0	113	152	154
07:15 AM	0	0	0	0	0	0	0	3	0	3	3	0	52	0	0	52	1	107	0	0	108	160	163
07:30 AM	0	0	0	0	0	0	0	4	0	4	4	0	78	0	0	78	0	140	0	0	140	218	222
07:45 AM	0	0	0	0	0	0	0	7	0	7	7	0	84	0	0	84	0	132	0	0	132	216	223
TOTAL	0	0	0	0	0	0	0	16	0	16	16	0	253	0	0	253	4	489	0	0	493	746	762
08:00 AM	0	0	0	0	0	0	0	5	0	5	5	0	69	2	0	71	1	126	0	0	127	198	203
08:15 AM	0	0	0	0	0	0	0	13	0	13	13	0	95	6	0	101	0	129	0	0	129	230	243
08:30 AM	0	0	0	0	0	0	0	6	0	6	6	0	115	0	0	115	0	107	0	0	107	222	228
08:45 AM	0	0	0	0	0	0	0	6	0	6	6	0	102	2	0	104	0	132	0	0	132	236	242
TOTAL	0	0	0	0	0	0	0	30	0	30	30	0	381	10	0	391	1	494	0	0	495	886	916
04:00 PM	0	0	0	0	0	0	0	18	0	18	18	0	130	4	0	134	0	86	0	0	86	220	238
04:15 PM	0	0	0	0	0	0	0	7	0	7	7	0	142	5	0	147	0	91	0	0	91	238	245
04:30 PM	0	0	0	0	0	0	0	13	0	13	13	0	114	5	0	119	1	84	1	0	86	205	218
04:45 PM	0	0	0	0	0	0	0	15	0	15	15	0	129	4	0	133	0	106	0	0	106	239	254
TOTAL	0	0	0	0	0	0	0	53	0	53	53	0	515	18	0	533	1	367	1	0	369	902	955
05:00 PM	0	0	0	0	0	0	0	22	0	22	22	0	145	4	0	149	0	102	0	0	102	251	273
05:15 PM	0	0	0	0	0	0	0	15	0	15	15	1	124	4	0	129	1	136	0	0	137	266	281
05:30 PM	0	0	0	0	0	0	0	9	0	9	9	0	169	2	0	171	0	89	0	0	89	260	269
05:45 PM	0	0	0	0	0	0	0	16	0	16	16	0	190	8	0	198	2	132	0	0	134	332	348
TOTAL	0	0	0	0	0	0	0	62	0	62	62	1	628	18	0	647	3	459	0	0	462	1,109	1,171

AM Peak

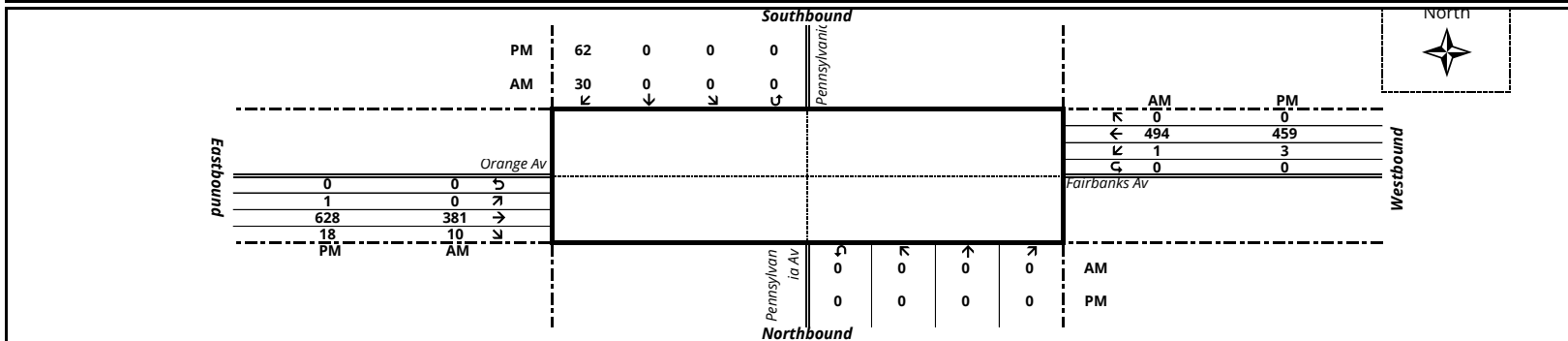
Peak Hour Factor: 0.942

08:00 AM to 09:00 AM	0	0	0	0	0	0	0	30	0	30	30	0	381	10	0	391	1	494	0	0	495	886	916
----------------------	---	---	---	---	---	---	---	----	---	----	----	---	-----	----	---	-----	---	-----	---	---	-----	-----	-----

PM Peak

Peak Hour Factor: 0.841

05:00 PM to 06:00 PM	0	0	0	0	0	0	0	62	0	62	62	1	628	18	0	647	3	459	0	0	462	1,109	1,171
----------------------	---	---	---	---	---	---	---	----	---	----	----	---	-----	----	---	-----	---	-----	---	---	-----	-------	-------



15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: May 18, 2023 (Thursday)

CITY: Winter Park

LATITUDE: 0

LOCATION: Pennsylvania Av & Orange Av/Fairbanks Av

COUNTY: Seminole County

LONGITUDE: 0

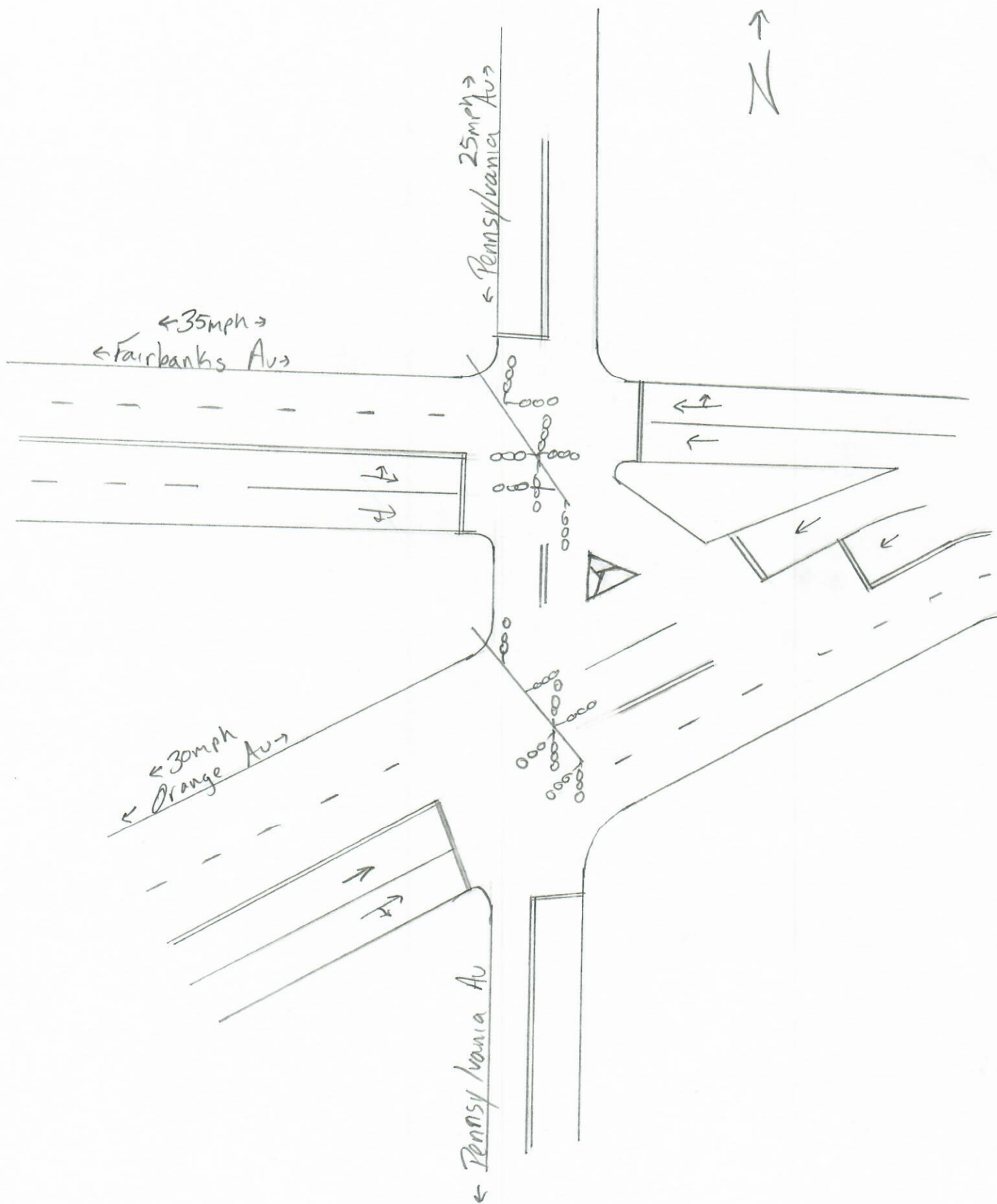
Pennsylvania Av

Pennsylvania Av

Orange Av

Fairbanks Av

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5	5
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3	3
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	6	0	0	6	13	13
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	4	4
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	4	4
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	8	0	0	8	13	13
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	4	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5	5
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	5	0	0	5	12	12
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2	2
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	4	4
AM Peak																							
08:00 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	8	0	0	8	13	13
PM Peak																							
05:00 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	4	4



MaxTime Basic Default Timing Sheet

Controller Number	3055
Controller Name	SR 426 & Pennsylvania / Orange Ave
Main St.	SR 426
Side St.	Pennsylvania / Orange Ave
IP Address	10.32.29.22:81
NTCIP Receive Port	Automatic
NTCIP Send Port	161
NTCIP Timeout	1000

Unit Parameters

Startup Flash	8
All Red Exit	0
MCE Seq.	1

Auto Ped Clr	Enable
Grn Flash Freq.	60
Primary Start	0

Red Revert	4
Yel Flash Freq.	60
Secondary Start	0

Backup Time	600
MCE Enable	Enable
Free Seq.	1

Ext Mode	Disable
----------	---------

Day Plan 1		Description		SUN																								
Month of Year		Days of Week		Days of Month																								
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X	X	X	X	X	X	X	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Day Plan 2		Description		MON																								
Month of Year		Days of Week		Days of Month																								
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X	X	X	X	X	X	X	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Day Plan 3		Description		TUE																								
Month of Year		Days of Week		Days of Month																								
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X	X	X	X	X	X	.	.	X	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Day Plan 4		Description		WED																								
Month of Year		Days of Week		Days of Month																								
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X	X	X	X	X	X	.	.	.	X	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Day Plan 5		Description		THU																								
Month of Year		Days of Week		Days of Month																								
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X	X	X	X	X	X	.	.	.	.	X	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J	A	S	O	N	D								17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X	X	X	X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Day Plan 6		Description		FRI																
Month of Year		Days of Week		Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4				

Month of Year					Days of Week							Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J	A	S	O	N	D	.	.	.	.	.	.	.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan		12	Description																									
Month of Year					Days of Week							Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J	A	S	O	N	D	.	.	.	.	.	.	.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan		13		Description																								
Month of Year					Days of Week								Days of Month															
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J	A	S	O	N	D	.	.	.	.	.	.	.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan		14		Description																										
Month of Year					Days of Week								Days of Month																	
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
J	A	S	O	N	D	.	.	.	.	.	.	.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	.		
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		

Day Plan		15		Description																												
Month of Year					Days of Week								Days of Month																			
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
J	A	S	O	N	D	.	.	.	.	.	.	.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	.				
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				

Day Plan 1				
Event	Hour	Min.	Act	
1	0	0	99	
2	8	0	6	
3	21	0	99	
4	0	0	0	
5	0	0	0	

Day Plan 2				
Event	Hour	Min.	Act	
1	0	0	99	
2	6	30	1	
3	10	0	3	
4	15	15	4	
5	19	30	99	

Day Plan 3				
Event	Hour	Min.	Act	
1	0	0	99	
2	6	30	1	
3	10	0	3	
4	15	15	4	
5	19	30	99	

Day Plan 4				
Event	Hour	Min.	Act	
1	0	0	99	
2	6	30	1	
3	10	0	3	
4	15	15	4	
5	19	30	99	

Day Plan 1				
Event	Hour	Min.	Act	
6	0	0	0	
7	0	0	0	
8	0	0	0	
9	0	0	0	
10	0	0	0	

Day Plan 2				
Event	Hour	Min.	Act	
6	0	0		
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 3				
Event	Hour	Min.	Act	
6	0	0		
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 4				
Event	Hour	Min.	Act	
6	0	0		
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 5				
Event	Hour	Min.	Act	
1	0	0	99	
2	6	30	1	
3	10	0	3	
4	15	15	4	
5	19	30	99	
6	0	0		
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 6				
Event	Hour	Min.	Act	
1	0	0	99	
2	6	30	1	
3	10	0	3	
4	13	0	4	
5	19	30	99	
6	0	0		
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 7				
Event	Hour	Min.	Act	
1	0	0	99	
2	8	0	6	
3	21	0	99	
4	0	0		
5	0	0		
6	0	0		
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 8				
Event	Hour	Min.	Act	
1	0	0		
2	0	0		
3	0	0		
4	0	0		
5	0	0		
6	0	0		
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 9				
Event	Hour	Min.	Act	
1	0	0		
2	0	0		
3	0	0		
4	0	0		
5	0	0		
6	0	0		
7	0	0		

Day Plan 10				
Event	Hour	Min.	Act	
1	0	0		
2	0	0		
3	0	0		
4	0	0		
5	0	0		
6	0	0		
7	0	0		

Day Plan 11				
Event	Hour	Min.	Act	
1	0	0		
2	0	0		
3	0	0		
4	0	0		
5	0	0		
6	0	0		
7	0	0		

Day Plan 12				
Event	Hour	Min.	Act	
1	0	0		
2	0	0		
3	0	0		
4	0	0		
5	0	0		
6	0	0		
7	0	0		

Phases	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Yel Ped Clr	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Red Clr Ped Clr	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cond Reservice	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Yel Min Override	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
No Start Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Adv. Warn Flasher	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
No Ped Startup Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
ed Clr During OVTG	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Ped Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Min2 Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Min3 Vehicle Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ped2 Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Phase Configuration

Ph.	Startup	Ring	Concurrent	No Served Phases	Phs Min	Description
1	Phase Not On	1	5,6		0	EB
2	Red Clear	1	5,6		0	NEB / WB O2
3	Phase Not On	1	7,8		0	
4	Phase Not On	1	7,8		0	NB
5	Phase Not On	2	2,1		0	
6	Red Clear	2	2,1		0	WB
7	Phase Not On	2	3,4		0	
8	Phase Not On	2	3,4		0	SB
9	None	0			0	
10	None	0			0	
11	None	0			0	
12	None	0			0	
13	None	0			0	
14	None	0			0	
15	None	0			0	
16	None	0			0	
17	None	0			0	
18	None	0			0	
19	None	0			0	
20	None	0			0	
21	None	0			0	
22	None	0			0	
23	None	0			0	
24	None	0			0	
25	None	0			0	
26	None	0			0	
27	None	0			0	
28	None	0			0	
29	None	0			0	
30	None	0			0	
31	None	0			0	
32	None	0			0	
33	None	0			0	
34	None	0			0	
35	None	0			0	
36	None	0			0	

105	0	0	0	0	105	1	Yellow	Max Inhibit	1	1	1
106	0	0	0	0	106	1	Yellow	Max Inhibit	1	1	1
107	0	0	0	0	107	1	Yellow	Max Inhibit	1	1	1
108	0	0	0	0	108	1	Yellow	Max Inhibit	1	1	1
109	0	0	0	0	109	1	Yellow	Max Inhibit	1	1	1
110	0	0	0	0	110	1	Yellow	Max Inhibit	1	1	1
111	0	0	0	0	111	1	Yellow	Max Inhibit	1	1	1
112	0	0	0	0	112	1	Yellow	Max Inhibit	1	1	1
113	0	0	0	0	113	1	Yellow	Max Inhibit	1	1	1
114	0	0	0	0	114	1	Yellow	Max Inhibit	1	1	1
115	0	0	0	0	115	1	Yellow	Max Inhibit	1	1	1
116	0	0	0	0	116	1	Yellow	Max Inhibit	1	1	1
117	0	0	0	0	117	1	Yellow	Max Inhibit	1	1	1
118	0	0	0	0	118	1	Yellow	Max Inhibit	1	1	1
119	0	0	0	0	119	1	Yellow	Max Inhibit	1	1	1
120	0	0	0	0	120	1	Yellow	Max Inhibit	1	1	1
121	0	0	0	0	121	1	Yellow	Max Inhibit	1	1	1
122	0	0	0	0	122	1	Yellow	Max Inhibit	1	1	1
123	0	0	0	0	123	1	Yellow	Max Inhibit	1	1	1
124	0	0	0	0	124	1	Yellow	Max Inhibit	1	1	1
125	0	0	0	0	125	1	Yellow	Max Inhibit	1	1	1
126	0	0	0	0	126	1	Yellow	Max Inhibit	1	1	1
127	0	0	0	0	127	1	Yellow	Max Inhibit	1	1	1
128	0	0	0	0	128	1	Yellow	Max Inhibit	1	1	1

Split Parameters

Split 1		Coord	Ref	Mode
PH.	Time	PH	PH	
1	80	.	.	None
2	55	X	.	None
3	0	.	.	None
4	45	.	.	None
5	0	.	.	None
6	135	X	X	None
7	0	.	.	None
8	45	.	.	None
9	0	.	.	None
10	0	.	.	None
11	0	.	.	None
12	0	.	.	None
13	0	.	.	None
14	0	.	.	None
15	0	.	.	None
16	0	.	.	None

Split 2		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0	.	.	None
2	0	.	.	None
3	0	.	.	None
4	0	.	.	None
5	0	.	.	None
6	0	.	.	None
7	0	.	.	None
8	0	.	.	None
9	0	.	.	None
10	0	.	.	None
11	0	.	.	None
12	0	.	.	None
13	0	.	.	None
14	0	.	.	None
15	0	.	.	None
16	0	.	.	None

Split 3		Coord	Ref	Mode
PH.	Time	PH	PH	
1	62	.	.	None
2	63	X	.	None
3	0	.	.	None
4	55	.	.	None
5	0	.	.	None
6	125	X	X	None
7	0	.	.	None
8	55	.	.	None

Split 4		Coord	Ref	Mode
PH.	Time	PH	PH	
1	78	.	.	None
2	76	X	.	None
3	0	.	.	None
4	66	.	.	None
5	0	.	.	None
6	154	X	X	None
7	0	.	.	None
8	66	.	.	None

Phase Parameters

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Walk Time	0	7	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0
Clear Time	0	13	0	8	0	10	0	22	0	0	0	0	0	0	0	0	0	0	0	0
Don't Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	8	8	0	8	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0
Passage	5	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0
Max-1	25	25	0	30	0	25	0	30	0	0	0	0	0	0	0	0	0	0	0	0
Max-2	25	25	0	30	0	25	0	30	0	0	0	0	0	0	0	0	0	0	0	0
Max-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Change	4.1	3.7	3	3.4	3	3.7	3	3.4	3	3	3	3	3	3	3	3	3	3	3	3
Red Clear	2.1	4.4	3	4.5	0	2	0	4.5	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert	4	4	0	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Ped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr																				
Pre Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre Clearance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Add Red Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Phases	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Walk Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clear Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Don't Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Change	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Red Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Ped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr																				

15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: May 18, 2023 (Thursday)

CITY: Winter Park

LATITUDE: 0

LOCATION: Denning Dr & Fairbanks Av

COUNTY: Seminole County

LONGITUDE: 0

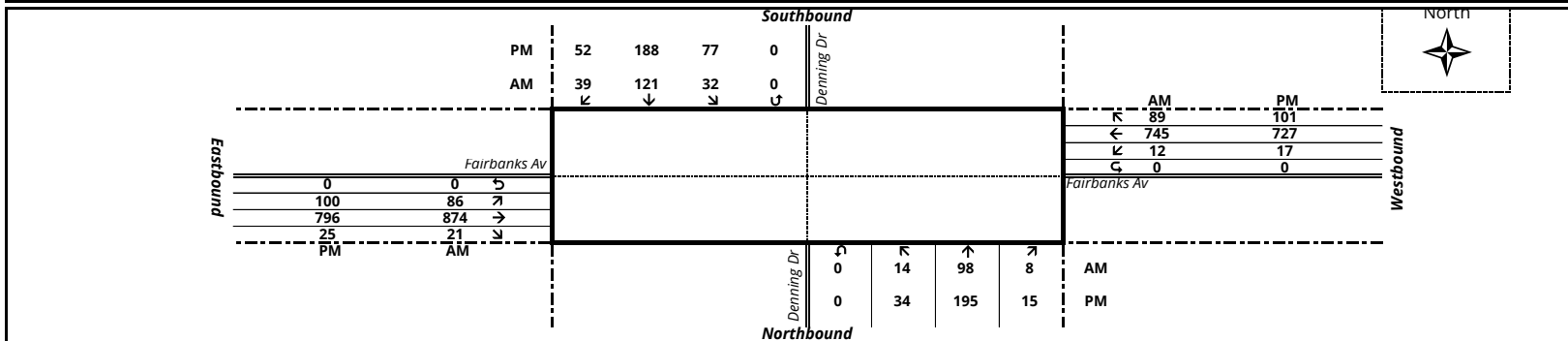
Denning Dr

Denning Dr

Fairbanks Av

Fairbanks Av

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		
07:00 AM	4	9	1	0	14	5	7	5	0	17	31	9	152	1	0	162	2	191	6	0	199	361	392
07:15 AM	0	10	0	0	10	4	20	6	0	30	40	3	173	4	0	180	0	234	23	0	257	437	477
07:30 AM	2	20	1	0	23	7	20	10	0	37	60	19	209	6	0	234	3	201	19	0	223	457	517
07:45 AM	2	26	0	0	28	6	32	13	0	51	79	28	225	6	0	259	5	217	26	0	248	507	586
TOTAL	8	65	2	0	75	22	79	34	0	135	210	59	759	17	0	835	10	843	74	0	927	1,762	1,972
08:00 AM	3	28	0	0	31	8	26	9	0	43	74	22	227	5	0	254	3	179	25	0	207	461	535
08:15 AM	5	22	5	0	32	10	31	11	0	52	84	16	207	3	0	226	4	166	20	0	190	416	500
08:30 AM	4	22	3	0	29	8	32	6	0	46	75	20	215	7	0	242	0	183	18	0	201	443	518
08:45 AM	3	28	4	0	35	7	35	9	0	51	86	14	240	13	0	267	5	201	19	0	225	492	578
TOTAL	15	100	12	0	127	33	124	35	0	192	319	72	889	28	0	989	12	729	82	0	823	1,812	2,131
04:00 PM	3	35	1	0	39	16	41	14	0	71	110	28	178	6	0	212	2	185	15	0	202	414	524
04:15 PM	6	44	3	0	53	18	51	14	0	83	136	15	177	5	0	197	7	163	20	0	190	387	523
04:30 PM	7	47	2	0	56	19	39	6	0	64	120	12	144	7	0	163	9	183	22	1	215	378	498
04:45 PM	10	56	1	0	67	20	52	13	0	85	152	30	166	5	0	201	2	178	27	0	207	408	560
TOTAL	26	182	7	0	215	73	183	47	0	303	518	85	665	23	0	773	20	709	84	1	814	1,587	2,105
05:00 PM	10	46	2	0	58	21	55	13	0	89	147	37	165	9	0	211	4	184	25	0	213	424	571
05:15 PM	9	54	5	0	68	20	48	10	0	78	146	23	180	6	0	209	2	170	29	0	201	410	556
05:30 PM	8	42	2	0	52	19	49	13	0	81	133	22	245	4	0	271	7	184	21	0	212	483	616
05:45 PM	7	53	6	0	66	17	36	16	0	69	135	18	206	6	0	230	4	189	26	0	219	449	584
TOTAL	34	195	15	0	244	77	188	52	0	317	561	100	796	25	0	921	17	727	101	0	845	1,766	2,327
AM Peak																							Peak Hour Factor: 0.913
07:45 AM to 08:45 AM	14	98	8	0	120	32	121	39	0	192	312	86	874	21	0	981	12	745	89	0	846	1,827	2,139
PM Peak																							Peak Hour Factor: 0.944
05:00 PM to 06:00 PM	34	195	15	0	244	77	188	52	0	317	561	100	796	25	0	921	17	727	101	0	845	1,766	2,327



15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: May 18, 2023 (Thursday)

CITY: Winter Park

LATITUDE: 0

LOCATION: Denning Dr & Fairbanks Av

COUNTY: Seminole County

LONGITUDE: 0

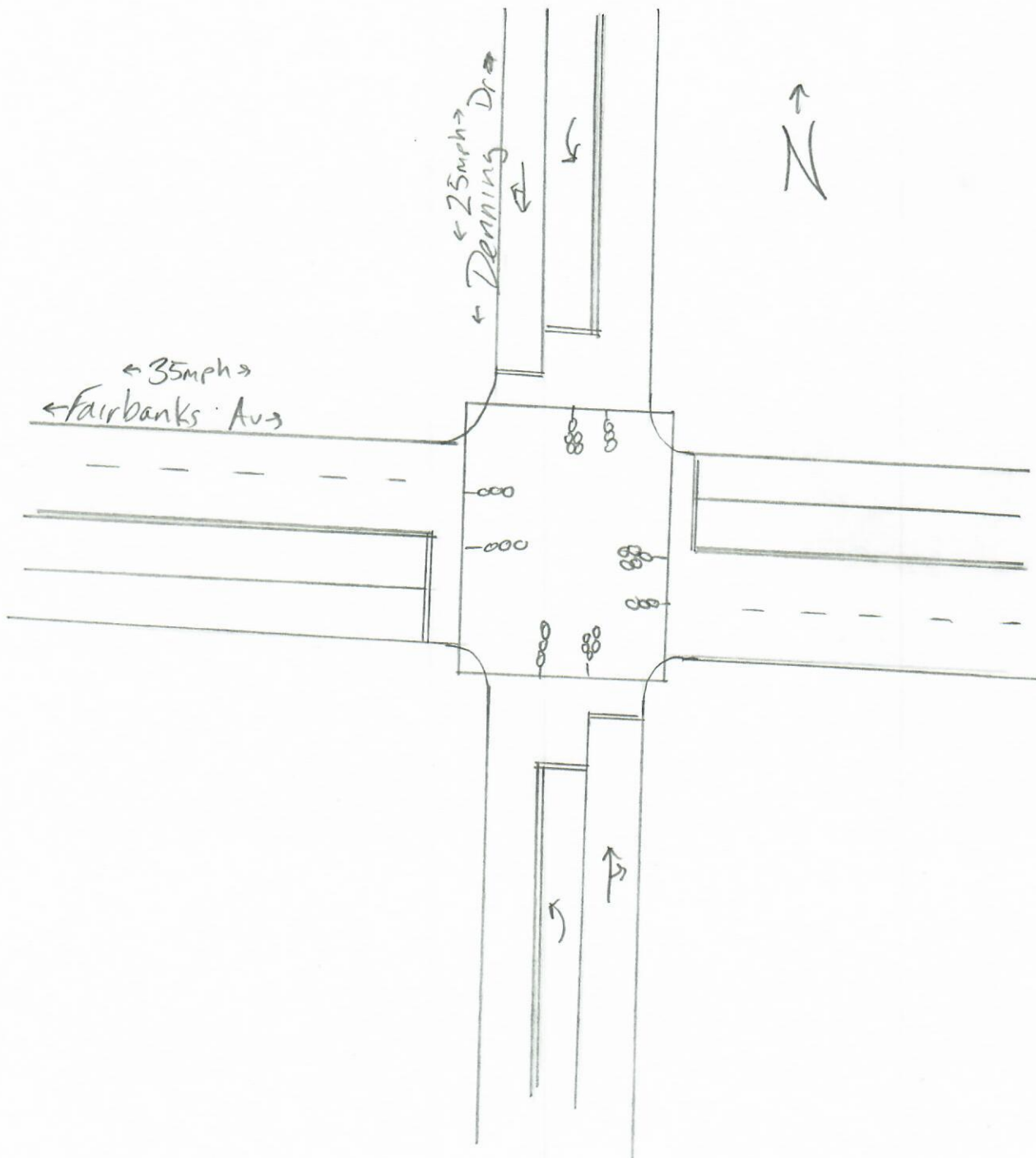
Denning Dr

Denning Dr

Fairbanks Av

Fairbanks Av

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	1	0	0	1	7	7
07:15 AM	0	0	0	0	0	1	0	0	0	1	1	0	6	0	0	6	0	3	2	0	5	11	12
07:30 AM	0	0	0	0	0	0	0	1	0	1	1	1	3	0	0	4	0	1	0	0	1	5	6
07:45 AM	0	0	0	0	0	1	1	0	0	2	2	0	2	0	0	2	0	5	0	0	5	7	9
TOTAL	0	0	0	0	0	2	1	1	0	4	4	1	17	0	0	18	0	10	2	0	12	30	34
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5	5
08:15 AM	0	0	2	0	2	1	0	0	0	1	3	0	4	1	0	5	0	1	1	0	2	7	10
08:30 AM	0	0	0	0	0	1	0	1	0	2	2	0	8	0	0	8	0	3	0	0	3	11	13
08:45 AM	0	0	0	0	0	1	1	0	0	2	2	0	7	1	0	8	0	3	0	0	3	11	13
TOTAL	0	0	2	0	2	3	1	1	0	5	7	0	21	2	0	23	0	10	1	0	11	34	41
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	1	0	2	0	0	2	3	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	2	0	0	2	5	5
04:45 PM	1	0	0	0	1	1	0	1	0	2	3	0	1	0	0	1	0	0	0	0	0	1	4
TOTAL	1	0	0	0	1	2	0	1	0	3	4	0	6	0	0	6	0	4	0	0	4	10	14
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3	3
05:15 PM	2	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	2	2	4
05:30 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	1	0	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	1	0	2	0	0	2	3	4
TOTAL	2	0	0	0	2	0	0	2	0	2	4	0	3	0	0	3	0	6	0	0	6	9	13
AM Peak																							
07:45 AM to 08:45 AM	0	0	2	0	2	3	1	1	0	5	7	0	16	1	0	17	0	12	1	0	13	30	37
PM Peak																							
05:00 PM to 06:00 PM	2	0	0	0	2	0	0	2	0	2	4	0	3	0	0	3	0	6	0	0	6	9	13



MaxTime Basic Default Timing Sheet

Controller Number	3050
Controller Name	SR 426 & Denning Dr
Main St.	SR 426
Side St.	Denning Dr
IP Address	10.32.29.39:81
NTCIP Receive Port	Automatic
NTCIP Send Port	161
NTCIP Timeout	1000

Unit Parameters

Startup Flash	8
All Red Exit	0
MCE Seq.	1

Auto Ped Clr	Enable
Grn Flash Freq.	60
Primary Start	0

Red Revert	4
Yel Flash Freq.	60
Secondary Start	0

Backup Time	600
MCE Enable	Enable
Free Seq.	1

Ext Mode	Disable
----------	---------

Schedules

Day Plan	1	Description	SUN															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	2	Description	MON															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	3	Description	TUE															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	4	Description	WED															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	5	Description	THU															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	6	Description	FRI															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	7	Description	SAT															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	8	Description																
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan	9	Description																
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan	10	Description																
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan	11	Description																
----------	----	-------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Schedules

Day Plan	1	Description	SUN															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	2	Description	MON															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	3	Description	TUE															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	4	Description	WED															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	5	Description	THU															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	6	Description	FRI															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	7	Description	SAT															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	8	Description																
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan	9	Description																
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan	10	Description																
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan	11	Description																
----------	----	-------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Phases	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Yel Ped Clr	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Red Clr Ped Clr	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cond Reservice	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Yel Min Override	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
No Start Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Adv. Warn Flasher	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
No Ped Startup Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
ed Clr During OVTG	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Ped Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Min2 Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Min3 Vehicle Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ped2 Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Phase Configuration

Ph.	Startup	Ring	Concurrent	No Served Phases	Phs Min	Description
1	Phase Not On	1	5,6		0	
2	Green No Walk	1	5,6		0	EB
3	Phase Not On	1	7,8		0	NBL
4	Phase Not On	1	7,8		0	SB
5	Phase Not On	2	1,2		0	EBL
6	Green No Walk	2	1,2		0	WB
7	Phase Not On	2	3,4		0	SBL
8	Phase Not On	2	3,4		0	NB
9	None	0			0	
10	None	0			0	
11	None	0			0	
12	None	0			0	
13	None	0			0	
14	None	0			0	
15	None	0			0	
16	None	0			0	
17	None	0			0	
18	None	0			0	
19	None	0			0	
20	None	0			0	
21	None	0			0	
22	None	0			0	
23	None	0			0	
24	None	0			0	
25	None	0			0	
26	None	0			0	
27	None	0			0	
28	None	0			0	
29	None	0			0	
30	None	0			0	
31	None	0			0	
32	None	0			0	
33	None	0			0	
34	None	0			0	
35	None	0			0	
36	None	0			0	

105	0	0	0	0	105	1	Yellow	Max Inhibit	1	1	1
106	0	0	0	0	106	1	Yellow	Max Inhibit	1	1	1
107	0	0	0	0	107	1	Yellow	Max Inhibit	1	1	1
108	0	0	0	0	108	1	Yellow	Max Inhibit	1	1	1
109	0	0	0	0	109	1	Yellow	Max Inhibit	1	1	1
110	0	0	0	0	110	1	Yellow	Max Inhibit	1	1	1
111	0	0	0	0	111	1	Yellow	Max Inhibit	1	1	1
112	0	0	0	0	112	1	Yellow	Max Inhibit	1	1	1
113	0	0	0	0	113	1	Yellow	Max Inhibit	1	1	1
114	0	0	0	0	114	1	Yellow	Max Inhibit	1	1	1
115	0	0	0	0	115	1	Yellow	Max Inhibit	1	1	1
116	0	0	0	0	116	1	Yellow	Max Inhibit	1	1	1
117	0	0	0	0	117	1	Yellow	Max Inhibit	1	1	1
118	0	0	0	0	118	1	Yellow	Max Inhibit	1	1	1
119	0	0	0	0	119	1	Yellow	Max Inhibit	1	1	1
120	0	0	0	0	120	1	Yellow	Max Inhibit	1	1	1
121	0	0	0	0	121	1	Yellow	Max Inhibit	1	1	1
122	0	0	0	0	122	1	Yellow	Max Inhibit	1	1	1
123	0	0	0	0	123	1	Yellow	Max Inhibit	1	1	1
124	0	0	0	0	124	1	Yellow	Max Inhibit	1	1	1
125	0	0	0	0	125	1	Yellow	Max Inhibit	1	1	1
126	0	0	0	0	126	1	Yellow	Max Inhibit	1	1	1
127	0	0	0	0	127	1	Yellow	Max Inhibit	1	1	1
128	0	0	0	0	128	1	Yellow	Max Inhibit	1	1	1

Split Parameters

Split 1		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0	.	.	None
2	130	X	X	None
3	15	.	.	None
4	35	.	.	None
5	15	.	.	None
6	115	X	.	None
7	15	.	.	None
8	35	.	.	None
9	0	.	.	None
10	0	.	.	None
11	0	.	.	None
12	0	.	.	None
13	0	.	.	None
14	0	.	.	None
15	0	.	.	None
16	0	.	.	None

Split 2		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0	.	.	None
2	0	.	.	None
3	0	.	.	None
4	0	.	.	None
5	0	.	.	None
6	0	.	.	None
7	0	.	.	None
8	0	.	.	None
9	0	.	.	None
10	0	.	.	None
11	0	.	.	None
12	0	.	.	None
13	0	.	.	None
14	0	.	.	None
15	0	.	.	None
16	0	.	.	None

Split 3		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0	.	.	None
2	128	X	X	None
3	20	.	.	None
4	32	.	.	None
5	15	.	.	None
6	113	X	.	None
7	20	.	.	None
8	32	.	.	None

Split 4		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0	.	.	None
2	72	X	X	None
3	15	.	.	None
4	23	.	.	None
5	15	.	.	None
6	57	X	.	None
7	15	.	.	None
8	23	.	.	None

Phase Parameters

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Walk Time	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0
Clear Time	0	12	0	15	0	14	0	13	0	0	0	0	0	0	0	0	0	0	0	0
Don't Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	0	15	4	10	4	15	4	10	1	1	1	1	1	1	1	1	1	1	1	1
Passage	0	4	3	3	3	4	3	3	0	0	0	0	0	0	0	0	0	0	0	0
Max-1	0	55	10	25	15	55	10	25	0	0	0	0	0	0	0	0	0	0	0	0
Max-2	0	40	15	15	10	40	15	15	0	0	0	0	0	0	0	0	0	0	0	0
Max-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Change	3	4	3.4	3.4	4	4	3.4	3.4	3	3	3	3	3	3	3	3	3	3	3	3
Red Clear	0	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Ped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr																				
Pre Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre Clearance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Add Red Clear	0	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0

Phases	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Walk Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clear Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Don't Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Passage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Change	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Red Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Ped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr																				

15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: May 18, 2023 (Thursday)

CITY: Winter Park

LATITUDE: 0

LOCATION: US 1792 & Fairbanks Av

COUNTY: Seminole County

LONGITUDE: 0

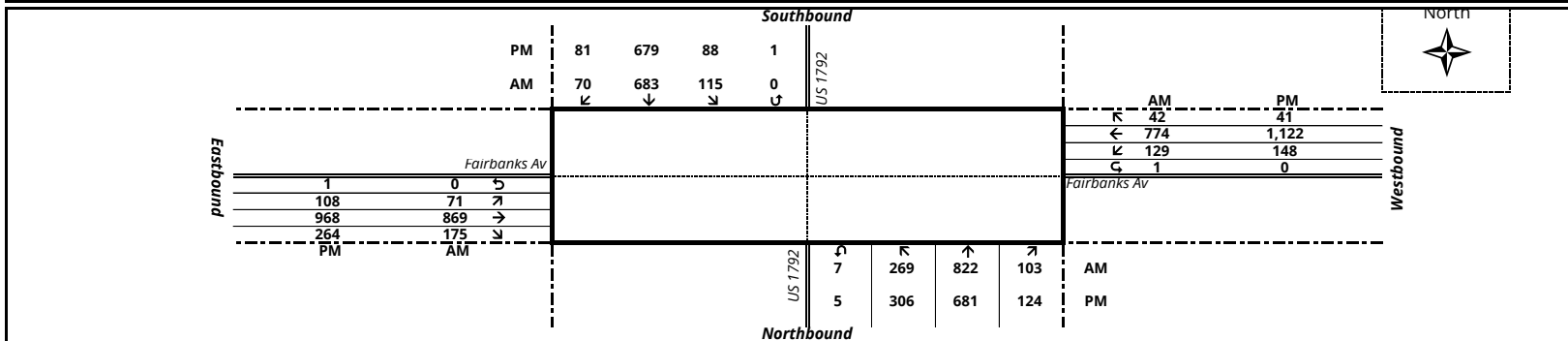
US 1792

US 1792

Fairbanks Av

Fairbanks Av

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		
07:00 AM	42	123	21	0	186	16	163	12	0	191	377	10	172	37	3	222	17	94	4	0	115	337	714
07:15 AM	52	162	17	1	232	12	160	7	0	179	411	11	194	34	3	242	28	126	5	0	159	401	812
07:30 AM	56	168	25	0	249	18	174	15	1	208	457	19	207	29	0	255	31	150	4	0	185	440	897
07:45 AM	66	210	23	1	300	30	174	14	0	218	518	19	228	44	0	291	34	194	8	1	237	528	1,046
TOTAL	216	663	86	2	967	76	671	48	1	796	1,763	59	801	144	6	1,010	110	564	21	1	696	1,706	3,469
08:00 AM	60	201	33	5	299	30	179	20	0	229	528	14	227	47	0	288	27	166	11	0	204	492	1,020
08:15 AM	68	191	17	1	277	22	138	18	0	178	455	16	192	39	0	247	33	206	11	0	250	497	952
08:30 AM	75	220	30	0	325	33	192	18	0	243	568	22	222	45	0	289	35	208	12	0	255	544	1,112
08:45 AM	68	186	29	0	283	23	124	26	0	173	456	22	194	64	0	280	29	203	13	0	245	525	981
TOTAL	271	798	109	6	1,184	108	633	82	0	823	2,007	74	835	195	0	1,104	124	783	47	0	954	2,058	4,065
04:00 PM	70	162	19	2	253	32	139	20	0	191	444	26	215	64	0	305	46	289	18	0	353	658	1,102
04:15 PM	68	160	28	3	259	26	157	20	0	203	462	31	209	58	0	298	51	275	6	0	332	630	1,092
04:30 PM	85	170	41	2	298	28	200	27	0	255	553	23	233	73	1	330	29	286	10	0	325	655	1,208
04:45 PM	73	137	31	1	242	13	124	14	1	152	394	26	249	61	0	336	40	290	5	0	335	671	1,065
TOTAL	296	629	119	8	1,052	99	620	81	1	801	1,853	106	906	256	1	1,269	166	1,140	39	0	1,345	2,614	4,467
05:00 PM	88	180	28	1	297	26	171	17	0	214	511	32	254	60	0	346	38	270	12	0	320	666	1,177
05:15 PM	60	194	24	1	279	21	184	23	0	228	507	27	232	70	0	329	41	276	14	0	331	660	1,167
05:30 PM	69	162	26	1	258	32	147	20	0	199	457	29	254	53	0	336	40	286	8	0	334	670	1,127
05:45 PM	79	176	27	0	282	23	101	22	0	146	428	28	248	57	0	333	31	284	12	0	327	660	1,088
TOTAL	296	712	105	3	1,116	102	603	82	0	787	1,903	116	988	240	0	1,344	150	1,116	46	0	1,312	2,656	4,559
AM Peak																							Peak Hour Factor: 0.929
07:45 AM to 08:45 AM	269	822	103	7	1,201	115	683	70	0	868	2,069	71	869	175	0	1,115	129	774	42	1	946	2,061	4,130
PM Peak																							Peak Hour Factor: 0.956
04:30 PM to 05:30 PM	306	681	124	5	1,116	88	679	81	1	849	1,965	108	968	264	1	1,341	148	1,122	41	0	1,311	2,652	4,617



15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: May 18, 2023 (Thursday)

CITY: Winter Park

LATITUDE: 0

LOCATION: US 1792 & Fairbanks Av

COUNTY: Seminole County

LONGITUDE: 0

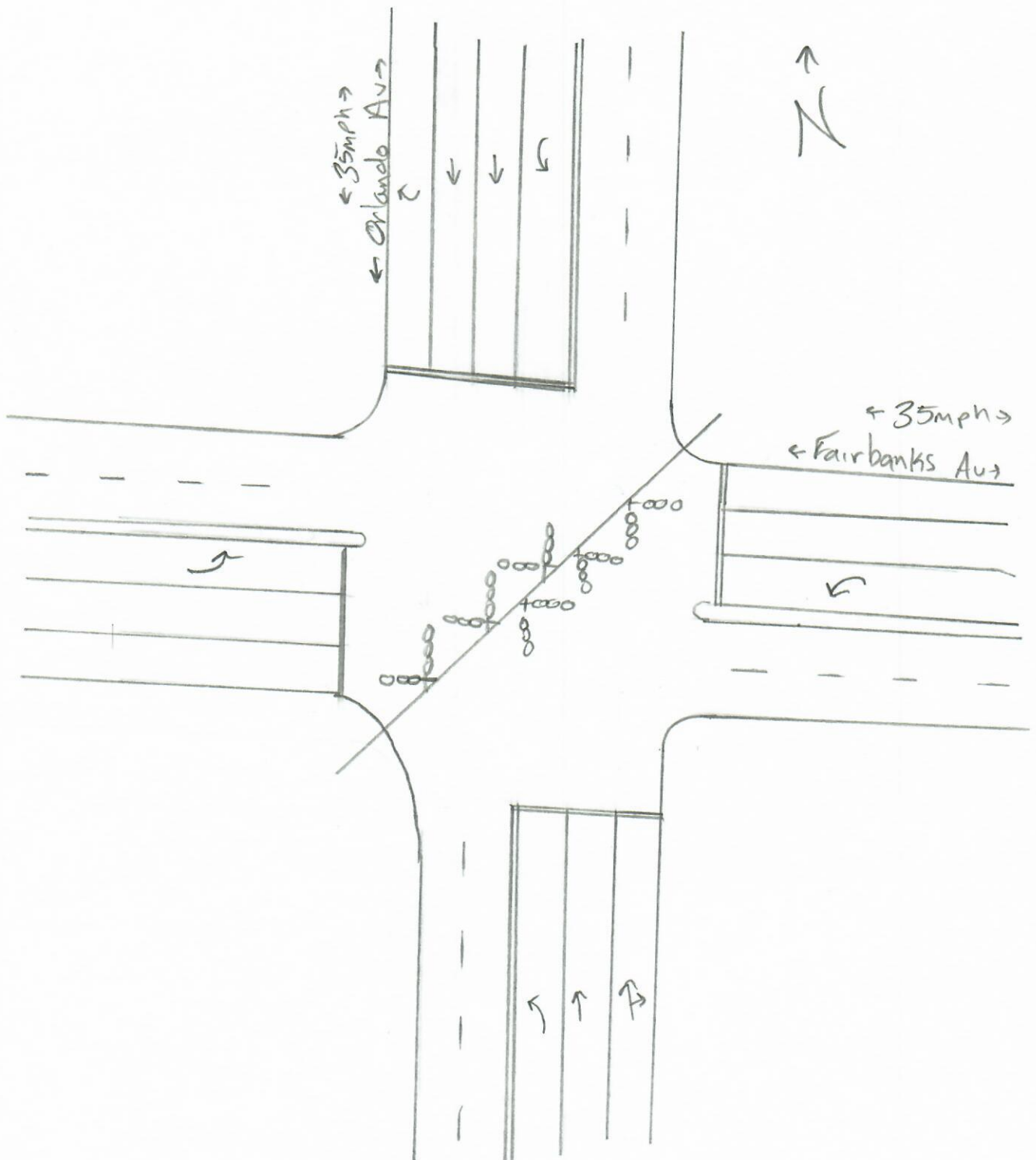
US 1792

US 1792

Fairbanks Av

Fairbanks Av

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		
07:00 AM	4	4	0	0	8	0	4	0	0	4	12	0	0	0	0	0	0	0	1	0	1	1	13
07:15 AM	1	0	1	0	2	1	1	0	0	2	4	1	1	1	0	3	1	1	0	0	2	5	9
07:30 AM	1	4	0	0	5	0	0	0	0	0	5	0	1	1	0	2	0	0	0	0	0	2	7
07:45 AM	1	3	0	0	4	0	1	0	0	1	5	2	3	2	0	7	0	1	0	0	1	8	13
TOTAL	7	11	1	0	19	1	6	0	0	7	26	3	5	4	0	12	1	2	1	0	4	16	42
08:00 AM	4	6	1	0	11	0	1	0	0	1	12	1	0	0	0	1	0	2	0	0	2	3	15
08:15 AM	2	3	0	0	5	0	4	1	0	5	10	1	2	0	0	3	2	2	0	0	4	7	17
08:30 AM	1	6	1	0	8	0	7	1	0	8	16	1	1	0	0	2	0	5	1	0	6	8	24
08:45 AM	3	2	0	0	5	0	2	0	0	2	7	2	3	0	0	5	0	2	0	0	2	7	14
TOTAL	10	17	2	0	29	0	14	2	0	16	45	5	6	0	0	11	2	11	1	0	14	25	70
04:00 PM	0	2	1	0	3	0	1	0	0	1	4	1	0	0	0	1	1	1	0	0	2	3	7
04:15 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	0	1	0	0	0	0	0	1	2
04:30 PM	1	4	1	0	6	0	3	0	0	3	9	0	0	0	0	0	0	1	0	0	1	1	10
04:45 PM	1	0	0	0	1	0	2	0	0	2	3	0	1	0	0	1	0	0	0	0	0	1	4
TOTAL	2	6	2	0	10	0	7	0	0	7	17	1	2	0	0	3	1	2	0	0	3	6	23
05:00 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	0	1	1	1	0	0	2	3	4
05:15 PM	0	0	0	0	0	0	2	0	0	2	2	1	1	0	0	2	0	0	0	0	0	2	4
05:30 PM	0	3	0	0	3	0	3	0	0	3	6	0	0	0	0	0	0	0	0	0	0	0	6
05:45 PM	0	2	0	0	2	0	3	0	0	3	5	0	0	0	0	0	1	0	0	0	1	1	6
TOTAL	0	5	0	0	5	0	9	0	0	9	14	1	2	0	0	3	2	1	0	0	3	6	20
AM Peak																							
07:45 AM to 08:45 AM	8	18	2	0	28	0	13	2	0	15	43	5	6	2	0	13	2	10	1	0	13	26	69
PM Peak																							
04:30 PM to 05:30 PM	2	4	1	0	7	0	8	0	0	8	15	1	3	0	0	4	1	2	0	0	3	7	22



MaxTime Basic Default Timing Sheet

Controller Number	3020
Controller Name	US 17/92 & SR 426 (Fairbanks Ave)
Main St.	US 17/92
Side St.	SR 426 (Fairbanks Ave)
IP Address	10.32.80.131
NTCIP Receive Port	Automatic
NTCIP Send Port	161
NTCIP Timeout	1000

Unit Parameters

Startup Flash	8
All Red Exit	0
MCE Seq.	1

Auto Ped Clr	Enable
Grn Flash Freq.	60
Primary Start	0

Red Revert	4
Yel Flash Freq.	60
Secondary Start	0

Backup Time	600
MCE Enable	Enable
Free Seq.	1

Ext Mode	Disable
----------	---------

Schedules

Day Plan	1	Description	SUN															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	2	Description	MON															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	3	Description	TUE															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	4	Description	WED															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	5	Description	THU															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	6	Description	FRI															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	7	Description	SAT															
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
X X X X X X	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
X X X X X X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Day Plan	8	Description																
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan	9	Description																
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan	10	Description																
Month of Year		Days of Week	Days of Month															
J F M A M J	S	M T W T F S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J A S O N D			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan	11	Description																
----------	----	-------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Month of Year					Days of Week							Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J	A	S	O	N	D	.	.	.	.	.	.	.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan		12	Description																									
Month of Year					Days of Week							Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
J	A	S	O	N	D	.	.	.	.	.	.	.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plan		13	Description																													
Month of Year					Days of Week							Days of Month																				
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
J	A	S	O	N	D	.	.	.	.	.	.	.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	.				
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				

Day Plan		14		Description																									
Month of Year					Days of Week								Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
J	A	S	O	N	D	.	.	.	.	.	.	.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	.	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Day Plan		15		Description																									
Month of Year					Days of Week								Days of Month																
J	F	M	A	M	J	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
J	A	S	O	N	D	.	.	.	.	.	.	.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	.	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Day Plan 1				
Event	Hour	Min.	Act	
1	0	0	99	
2	9	0	6	
3	20	0	99	
4	0	0		
5	0	0		

Day Plan 2				
Event	Hour	Min.	Act	
1	0	0	99	
2	6	30	1	
3	10	0	3	
4	15	15	4	
5	19	30	5	

Day Plan 3				
Event	Hour	Min.	Act	
1	0	0	99	
2	6	30	1	
3	10	0	3	
4	15	15	4	
5	19	30	5	

Day Plan 4				
Event	Hour	Min.	Act	
1	0	0	99	
2	6	30	1	
3	10	0	3	
4	15	15	4	
5	19	30	5	

Day Plan 1				
Event	Hour	Min.	Act	
6	0	0		
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 2				
Event	Hour	Min.	Act	
6	21	0	99	
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 3				
Event	Hour	Min.	Act	
6	21	0	99	
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 4				
Event	Hour	Min.	Act	
6	21	0	99	
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 5				
Event	Hour	Min.	Act	
1	0	0	99	
2	6	30	1	
3	10	0	3	
4	15	15	4	
5	19	30	5	
6	21	0	99	
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 6				
Event	Hour	Min.	Act	
1	0	0	99	
2	6	30	1	
3	10	0	3	
4	13	0	4	
5	19	30	5	
6	21	0	99	
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 7				
Event	Hour	Min.	Act	
1	0	0	99	
2	9	0	6	
3	20	0	99	
4	0	0		
5	0	0		
6	0	0		
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 8				
Event	Hour	Min.	Act	
1	0	0		
2	0	0		
3	0	0		
4	0	0		
5	0	0		
6	0	0		
7	0	0		
8	0	0		
9	0	0		
10	0	0		

Day Plan 9				
Event	Hour	Min.	Act	
1	0	0		
2	0	0		
3	0	0		
4	0	0		
5	0	0		
6	0	0		
7	0	0		

Day Plan 10				
Event	Hour	Min.	Act	
1	0	0		
2	0	0		
3	0	0		
4	0	0		
5	0	0		
6	0	0		
7	0	0		

Day Plan 11				
Event	Hour	Min.	Act	
1	0	0		
2	0	0		
3	0	0		
4	0	0		
5	0	0		
6	0	0		
7	0	0		

Day Plan 12				
Event	Hour	Min.	Act	
1	0	0		
2	0	0		
3	0	0		
4	0	0		
5	0	0		
6	0	0		
7	0	0		

Phases	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Yel Ped Clr	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Red Clr Ped Clr	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cond Reservice	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Yel Min Override	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
No Start Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Adv. Warn Flasher	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
No Ped Startup Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
ed Clr During OVTG	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Ped Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Exit Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Min2 Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Min3 Vehicle Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ped2 Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Phase Configuration

Ph.	Startup	Ring	Concurrent	No Served Phases	Phs Min	Description
1	Phase Not On	1	5,6		0	NBL
2	Green No Walk	1	5,6		0	SB
3	Phase Not On	1	7,8		0	EBL
4	Phase Not On	1	7,8		0	WB
5	Phase Not On	2	1,2		0	SBL
6	Green No Walk	2	1,2		0	NB
7	Phase Not On	2	3,4		0	WBL
8	Phase Not On	2	3,4		0	EB
9	None	0			0	
10	None	0			0	
11	None	0			0	
12	None	0			0	
13	None	0			0	
14	None	0			0	
15	None	0			0	
16	None	0			0	
17	None	0			0	
18	None	0			0	
19	None	0			0	
20	None	0			0	
21	None	0			0	
22	None	0			0	
23	None	0			0	
24	None	0			0	
25	None	0			0	
26	None	0			0	
27	None	0			0	
28	None	0			0	
29	None	0			0	
30	None	0			0	
31	None	0			0	
32	None	0			0	
33	None	0			0	
34	None	0			0	
35	None	0			0	
36	None	0			0	

105	0	0	0	0	105	1	Yellow	Max Inhibit	1	1	1
106	0	0	0	0	106	1	Yellow	Max Inhibit	1	1	1
107	0	0	0	0	107	1	Yellow	Max Inhibit	1	1	1
108	0	0	0	0	108	1	Yellow	Max Inhibit	1	1	1
109	0	0	0	0	109	1	Yellow	Max Inhibit	1	1	1
110	0	0	0	0	110	1	Yellow	Max Inhibit	1	1	1
111	0	0	0	0	111	1	Yellow	Max Inhibit	1	1	1
112	0	0	0	0	112	1	Yellow	Max Inhibit	1	1	1
113	0	0	0	0	113	1	Yellow	Max Inhibit	1	1	1
114	0	0	0	0	114	1	Yellow	Max Inhibit	1	1	1
115	0	0	0	0	115	1	Yellow	Max Inhibit	1	1	1
116	0	0	0	0	116	1	Yellow	Max Inhibit	1	1	1
117	0	0	0	0	117	1	Yellow	Max Inhibit	1	1	1
118	0	0	0	0	118	1	Yellow	Max Inhibit	1	1	1
119	0	0	0	0	119	1	Yellow	Max Inhibit	1	1	1
120	0	0	0	0	120	1	Yellow	Max Inhibit	1	1	1
121	0	0	0	0	121	1	Yellow	Max Inhibit	1	1	1
122	0	0	0	0	122	1	Yellow	Max Inhibit	1	1	1
123	0	0	0	0	123	1	Yellow	Max Inhibit	1	1	1
124	0	0	0	0	124	1	Yellow	Max Inhibit	1	1	1
125	0	0	0	0	125	1	Yellow	Max Inhibit	1	1	1
126	0	0	0	0	126	1	Yellow	Max Inhibit	1	1	1
127	0	0	0	0	127	1	Yellow	Max Inhibit	1	1	1
128	0	0	0	0	128	1	Yellow	Max Inhibit	1	1	1

Split Parameters

Split 1		Coord	Ref	Mode
PH.	Time	PH	PH	
1	25	.	.	None
2	65	X	.	None
3	38	.	.	None
4	52	.	.	None
5	20	.	.	None
6	70	X	X	None
7	20	.	.	None
8	70	.	.	None
9	0	.	.	None
10	0	.	.	None
11	0	.	.	None
12	0	.	.	None
13	0	.	.	None
14	0	.	.	None
15	0	.	.	None
16	0	.	.	None

Split 2		Coord	Ref	Mode
PH.	Time	PH	PH	
1	0	.	.	None
2	0	.	.	None
3	0	.	.	None
4	0	.	.	None
5	0	.	.	None
6	0	.	.	None
7	0	.	.	None
8	0	.	.	None
9	0	.	.	None
10	0	.	.	None
11	0	.	.	None
12	0	.	.	None
13	0	.	.	None
14	0	.	.	None
15	0	.	.	None
16	0	.	.	None

Split 3		Coord	Ref	Mode
PH.	Time	PH	PH	
1	32	.	.	None
2	73	X	.	None
3	35	.	.	None
4	60	.	.	None
5	22	.	.	None
6	83	X	X	None
7	25	.	.	None
8	70	.	.	None

Split 4		Coord	Ref	Mode
PH.	Time	PH	PH	
1	30	.	.	None
2	90	X	.	None
3	43	.	.	None
4	57	.	.	Min Veh Recall
5	28	.	.	None
6	92	X	X	None
7	25	.	.	None
8	75	.	.	Min Veh Recall

Phase Parameters

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Walk Time	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0
Clear Time	0	24	0	26	0	24	0	29	0	0	0	0	0	0	0	0	0	0	0	0
Don't Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	5	15	5	7	5	15	5	7	0	0	0	0	0	0	0	0	0	0	0	0
Passage	3	4	3	3	3	4	3	3	0	0	0	0	0	0	0	0	0	0	0	0
Max-1	30	60	34	45	30	60	34	45	0	0	0	0	0	0	0	0	0	0	0	0
Max-2	25	40	25	30	25	40	25	30	0	0	0	0	0	0	0	0	0	0	0	0
Max-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Change	4	4	4	4.1	4	4	4.1	4	3	3	3	3	3	3	3	3	3	3	3	3
Red Clear	2	2	2	2.5	2	2	2.1	2	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Ped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr																				
Pre Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre Clearance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Add Red Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Phases	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Walk Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clear Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Don't Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Change	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Red Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Ped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr																				

2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 7500 ORANGE COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.98 PSCF
1	01/01/2022 - 01/01/2022	1.01	1.03
2	01/02/2022 - 01/08/2022	1.03	1.05
3	01/09/2022 - 01/15/2022	1.05	1.07
4	01/16/2022 - 01/22/2022	1.04	1.06
5	01/23/2022 - 01/29/2022	1.03	1.05
6	01/30/2022 - 02/05/2022	1.01	1.03
7	02/06/2022 - 02/12/2022	1.00	1.02
8	02/13/2022 - 02/19/2022	0.98	1.00
* 9	02/20/2022 - 02/26/2022	0.98	1.00
*10	02/27/2022 - 03/05/2022	0.98	1.00
*11	03/06/2022 - 03/12/2022	0.97	0.99
*12	03/13/2022 - 03/19/2022	0.97	0.99
*13	03/20/2022 - 03/26/2022	0.97	0.99
*14	03/27/2022 - 04/02/2022	0.97	0.99
*15	04/03/2022 - 04/09/2022	0.97	0.99
*16	04/10/2022 - 04/16/2022	0.98	1.00
*17	04/17/2022 - 04/23/2022	0.98	1.00
*18	04/24/2022 - 04/30/2022	0.98	1.00
*19	05/01/2022 - 05/07/2022	0.98	1.00
*20	05/08/2022 - 05/14/2022	0.98	1.00
*21	05/15/2022 - 05/21/2022	0.98	1.00
22	05/22/2022 - 05/28/2022	0.99	1.01
23	05/29/2022 - 06/04/2022	0.99	1.01
24	06/05/2022 - 06/11/2022	1.00	1.02
25	06/12/2022 - 06/18/2022	1.01	1.03
26	06/19/2022 - 06/25/2022	1.02	1.04
27	06/26/2022 - 07/02/2022	1.02	1.04
28	07/03/2022 - 07/09/2022	1.03	1.05
29	07/10/2022 - 07/16/2022	1.04	1.06
30	07/17/2022 - 07/23/2022	1.03	1.05
31	07/24/2022 - 07/30/2022	1.02	1.04
32	07/31/2022 - 08/06/2022	1.01	1.03
33	08/07/2022 - 08/13/2022	1.00	1.02
34	08/14/2022 - 08/20/2022	0.99	1.01
35	08/21/2022 - 08/27/2022	1.00	1.02
36	08/28/2022 - 09/03/2022	1.02	1.04
37	09/04/2022 - 09/10/2022	1.03	1.05
38	09/11/2022 - 09/17/2022	1.05	1.07
39	09/18/2022 - 09/24/2022	1.03	1.05
40	09/25/2022 - 10/01/2022	1.01	1.03
41	10/02/2022 - 10/08/2022	0.99	1.01
42	10/09/2022 - 10/15/2022	0.97	0.99
43	10/16/2022 - 10/22/2022	0.98	1.00
44	10/23/2022 - 10/29/2022	0.99	1.01
45	10/30/2022 - 11/05/2022	1.00	1.02
46	11/06/2022 - 11/12/2022	1.01	1.03
47	11/13/2022 - 11/19/2022	1.03	1.05
48	11/20/2022 - 11/26/2022	1.02	1.04
49	11/27/2022 - 12/03/2022	1.02	1.04
50	12/04/2022 - 12/10/2022	1.01	1.03
51	12/11/2022 - 12/17/2022	1.01	1.03
52	12/18/2022 - 12/24/2022	1.03	1.05
53	12/25/2022 - 12/31/2022	1.05	1.07

* PEAK SEASON

23-FEB-2023 09:11:22

830UPD

5_7500_PKSEASON.TXT

APPENDIX C

Existing Intersection Capacity Analysis Worksheets

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Existing AM
05/30/2023

												
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	781	48	1	494	796	20	30	90	23	12	49	14
Future Volume (vph)	781	48	1	494	796	20	30	90	23	12	49	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.97	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991				0.996			0.979			0.975	
Flt Protected				0.950				0.990			0.992	
Satd. Flow (prot)	3479	0	0	3502	3557	0	0	1807	0	0	1791	0
Flt Permitted				0.322				0.915			0.937	
Satd. Flow (perm)	3479	0	0	1187	3557	0	0	1670	0	0	1692	0
Right Turn on Red						Yes			Yes			
Satd. Flow (RTOR)					3			5				
Link Speed (mph)	35				35			25			25	
Link Distance (ft)	1331				543			770			658	
Travel Time (s)	25.9				10.6			21.0			17.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	0%	0%	0%	1%	5%	3%	2%	0%	0%	4%	0%
Adj. Flow (vph)	831	51	1	526	847	21	32	96	24	13	52	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	882	0	0	527	868	0	0	152	0	0	80	0
Turn Type	NA		custom	custom	NA		Perm	NA		Perm	NA	
Protected Phases	1				6			4			8	
Permitted Phases			2	2			4			8		
Detector Phase	1		2	2	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	8.0		8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	24.2		26.1	26.1	23.7		25.9	25.9		25.9	25.9	
Total Split (s)	80.0		55.0	55.0	135.0		45.0	45.0		45.0	45.0	
Total Split (%)	44.4%		30.6%	30.6%	75.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	73.8		46.9	46.9	129.3		37.1	37.1		37.1	37.1	
Yellow Time (s)	4.1		3.7	3.7	3.7		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.1		4.4	4.4	2.0		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0			0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2			8.1	5.7			7.9			7.9	
Lead/Lag	Lead		Lag	Lag								
Lead-Lag Optimize?	Yes		Yes	Yes								
Vehicle Extension (s)	5.0		5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	None		C-Max	C-Max	Max		Max	Max		Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0		0	0		0	0	
Act Effect Green (s)	58.5			62.2	129.3			37.1			37.1	
Actuated g/C Ratio	0.32			0.35	0.72			0.21			0.21	
v/c Ratio	0.78			1.29	0.34			0.44			0.23	
Control Delay	64.5			191.3	9.8			64.8			61.6	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	64.5			191.3	9.8			64.8			61.6	
LOS	E			F	A			E			E	
Approach Delay	64.5				78.4			64.8			61.6	

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Existing AM
05/30/2023

		
Lane Group	NER	NER2
Lane Configurations	RT	
Traffic Volume (vph)	381	10
Future Volume (vph)	381	10
Ideal Flow (vphpl)	1900	1900
Lane Util. Factor	0.88	1.00
Frt	0.850	
Flt Protected		
Satd. Flow (prot)	2815	0
Flt Permitted		
Satd. Flow (perm)	2815	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	67	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.94	0.94
Heavy Vehicles (%)	1%	0%
Adj. Flow (vph)	405	11
Shared Lane Traffic (%)		
Lane Group Flow (vph)	416	0
Turn Type	Perm	
Protected Phases		
Permitted Phases	2	
Detector Phase	2	
Switch Phase		
Minimum Initial (s)	8.0	
Minimum Split (s)	26.1	
Total Split (s)	55.0	
Total Split (%)	30.6%	
Maximum Green (s)	46.9	
Yellow Time (s)	3.7	
All-Red Time (s)	4.4	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.1	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	C-Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	62.2	
Actuated g/C Ratio	0.35	
v/c Ratio	0.41	
Control Delay	39.9	
Queue Delay	0.0	
Total Delay	39.9	
LOS	D	
Approach Delay		

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Existing AM
05/30/2023

	→	↘	↙	←	←	↗	↖	↑	↘	↙	↓	↘
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E				E			E			E	
Queue Length 50th (ft)	564			~405	187			154			80	
Queue Length 95th (ft)	590			#572	219			234			135	
Internal Link Dist (ft)	1251				463			690			578	
Turn Bay Length (ft)												
Base Capacity (vph)	1426			410	2555			348			348	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.62			1.29	0.34			0.44			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 91 (51%), Referenced to phase 2:WBL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.29

Intersection Signal Delay: 67.6

Intersection LOS: E

Intersection Capacity Utilization 87.7%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

→ Ø1	↘ Ø2 (R)	↑ Ø4
80 s	55 s	45 s
← Ø6		↓ Ø8
135 s		45 s



Lane Group	NER	NER2
Approach LOS		
Queue Length 50th (ft)	178	
Queue Length 95th (ft)	257	
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)	1016	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.41	
Intersection Summary		

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Existing PM
05/30/2023

	→	↘	↙	↖	←	↗	↘	↑	↙	↘	↓	↙
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑			↖↗	↑↑			↕			↕	
Traffic Volume (vph)	698	48	3	459	710	19	31	99	18	20	112	24
Future Volume (vph)	698	48	3	459	710	19	31	99	18	20	112	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.97	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.990				0.996			0.983			0.979	
Flt Protected				0.950				0.990			0.994	
Satd. Flow (prot)	3574	0	0	3502	3561	0	0	1849	0	0	1849	0
Flt Permitted				0.360				0.893			0.943	
Satd. Flow (perm)	3574	0	0	1327	3561	0	0	1668	0	0	1754	0
Right Turn on Red						Yes			Yes			
Satd. Flow (RTOR)					3			3				
Link Speed (mph)	35				35			25			25	
Link Distance (ft)	1331				543			770			658	
Travel Time (s)	25.9				10.6			21.0			17.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	720	49	3	473	732	20	32	102	19	21	115	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	769	0	0	476	752	0	0	153	0	0	161	0
Turn Type	NA		custom	custom	NA		Perm	NA		Perm	NA	
Protected Phases	1				6			4			8	
Permitted Phases			2	2			4			8		
Detector Phase	1		2	2	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	8.0		8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	24.2		26.1	26.1	23.7		25.9	25.9		25.9	25.9	
Total Split (s)	78.0		76.0	76.0	154.0		66.0	66.0		66.0	66.0	
Total Split (%)	35.5%		34.5%	34.5%	70.0%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	71.8		67.9	67.9	148.3		58.1	58.1		58.1	58.1	
Yellow Time (s)	4.1		3.7	3.7	3.7		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.1		4.4	4.4	2.0		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0			0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2			8.1	5.7			7.9			7.9	
Lead/Lag	Lead		Lag	Lag								
Lead-Lag Optimize?	Yes		Yes	Yes								
Vehicle Extension (s)	5.0		5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	None		C-Max	C-Max	Max		Max	Max		Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0		0	0		0	0	
Act Effect Green (s)	58.5			81.2	148.3			58.1			58.1	
Actuated g/C Ratio	0.27			0.37	0.67			0.26			0.26	
v/c Ratio	0.81			0.97	0.31			0.35			0.35	
Control Delay	82.4			100.2	15.2			66.9			68.2	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	82.4			100.2	15.2			66.9			68.2	
LOS	F			F	B			E			E	
Approach Delay	82.4				48.1			66.9			68.2	

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Existing PM
05/30/2023

		
Lane Group	NER	NER2
Lane Configurations	RT	
Traffic Volume (vph)	628	18
Future Volume (vph)	628	18
Ideal Flow (vphpl)	1900	1900
Lane Util. Factor	0.88	1.00
Frt	0.850	
Flt Protected		
Satd. Flow (prot)	2842	0
Flt Permitted		
Satd. Flow (perm)	2842	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	55	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.97	0.97
Heavy Vehicles (%)	0%	0%
Adj. Flow (vph)	647	19
Shared Lane Traffic (%)		
Lane Group Flow (vph)	666	0
Turn Type	Perm	
Protected Phases		
Permitted Phases	2	
Detector Phase	2	
Switch Phase		
Minimum Initial (s)	8.0	
Minimum Split (s)	26.1	
Total Split (s)	76.0	
Total Split (%)	34.5%	
Maximum Green (s)	67.9	
Yellow Time (s)	3.7	
All-Red Time (s)	4.4	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.1	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	C-Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	81.2	
Actuated g/C Ratio	0.37	
v/c Ratio	0.61	
Control Delay	55.6	
Queue Delay	0.0	
Total Delay	55.6	
LOS	E	
Approach Delay		

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 2

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Existing PM
05/30/2023

	→	↘	↙	←	↖	↗	↘	↑	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	F				D			E			E	
Queue Length 50th (ft)	556			353	227			179			192	
Queue Length 95th (ft)	603			#530	263			259			274	
Internal Link Dist (ft)	1251				463			690			578	
Turn Bay Length (ft)												
Base Capacity (vph)	1166			489	2401			442			463	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.66			0.97	0.31			0.35			0.35	

Intersection Summary

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 162 (74%), Referenced to phase 2:WBL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 60.7

Intersection LOS: E

Intersection Capacity Utilization 94.7%

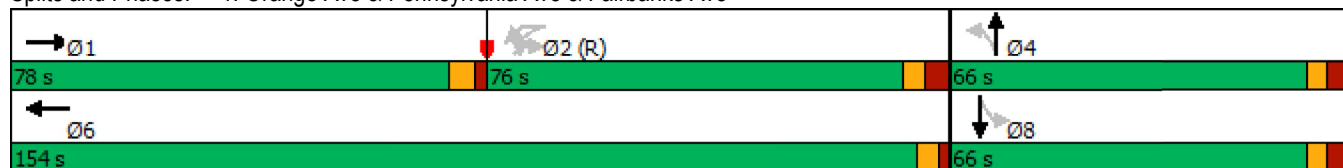
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Orange Ave & Pennsylvania Ave & Fairbanks Ave





Lane Group	NER	NER2
Approach LOS		
Queue Length 50th (ft)	417	
Queue Length 95th (ft)	532	
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)	1083	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.61	
Intersection Summary		

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Existing AM
05/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	874	21	12	745	89	14	98	8	32	121	39
Future Volume (vph)	86	874	21	12	745	89	14	98	8	32	121	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	190		0	185		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.984			0.988			0.963	
Flt Protected		0.996			0.999		0.950			0.950		
Satd. Flow (prot)	0	3518	0	0	3484	0	1805	1842	0	1656	1803	0
Flt Permitted		0.697			0.928		0.381			0.429		
Satd. Flow (perm)	0	2462	0	0	3236	0	724	1842	0	748	1803	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			13			2			8	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1314			1331			1173			1331	
Travel Time (s)		25.6			25.9			32.0			36.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	5%	0%	2%	1%	0%	0%	25%	9%	1%	3%
Adj. Flow (vph)	95	960	23	13	819	98	15	108	9	35	133	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1078	0	0	930	0	15	117	0	35	176	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2			6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0		15.0	15.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	24.0		24.0	24.0		10.4	23.4		10.4	23.4	
Total Split (s)	15.0	130.0		115.0	115.0		15.0	35.0		15.0	35.0	
Total Split (%)	8.3%	72.2%		63.9%	63.9%		8.3%	19.4%		8.3%	19.4%	
Maximum Green (s)	9.0	124.0		109.0	109.0		9.6	29.6		9.6	29.6	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		5.4	5.4		5.4	5.4	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		Min	Min		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effect Green (s)		137.2			137.2		25.2	19.6		29.7	23.7	
Actuated g/C Ratio		0.76			0.76		0.14	0.11		0.16	0.13	
v/c Ratio		0.57			0.38		0.11	0.58		0.21	0.72	
Control Delay		8.8			5.5		57.9	85.6		60.9	87.8	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 5

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Existing AM
05/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		8.8			5.5		57.9	85.6		60.9	87.8	
LOS		A			A		E	F		E	F	
Approach Delay		8.8			5.5			82.5			83.4	
Approach LOS		A			A			F			F	
Queue Length 50th (ft)		156			116		15	131		35	196	
Queue Length 95th (ft)		68			297		36	198		67	278	
Internal Link Dist (ft)		1234			1251			1093			1251	
Turn Bay Length (ft)							190			185		
Base Capacity (vph)		1877			2470		167	304		174	303	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.57			0.38		0.09	0.38		0.20	0.58	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 82 (46%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 18.3

Intersection LOS: B

Intersection Capacity Utilization 77.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 7: Denning Dr & Fairbanks Ave

 Ø2 (R)	 Ø3	 Ø4
130 s	15 s	35 s
 Ø5	 Ø6	 Ø7
15 s	115 s	15 s
		35 s

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Existing PM
05/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	796	25	17	727	101	34	195	15	77	188	52
Future Volume (vph)	100	796	25	17	727	101	34	195	15	77	188	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	190		0	185		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.982			0.989			0.968	
Flt Protected		0.995			0.999		0.950			0.950		
Satd. Flow (prot)	0	3578	0	0	3511	0	1703	1879	0	1805	1823	0
Flt Permitted		0.682			0.922		0.386			0.325		
Satd. Flow (perm)	0	2452	0	0	3241	0	692	1879	0	618	1823	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			18			3			11	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1314			1331			1173			1331	
Travel Time (s)		25.6			25.9			32.0			36.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	6%	0%	0%	0%	0%	4%
Adj. Flow (vph)	106	847	27	18	773	107	36	207	16	82	200	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	980	0	0	898	0	36	223	0	82	255	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2			6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	10.0	15.0		15.0	15.0		4.0	10.0		4.0	5.0	
Minimum Split (s)	16.0	24.0		24.0	24.0		10.4	23.4		10.4	23.4	
Total Split (s)	16.0	72.0		57.0	57.0		15.0	23.0		15.0	23.0	
Total Split (%)	14.4%	64.9%		51.4%	51.4%		13.5%	20.7%		13.5%	20.7%	
Maximum Green (s)	10.0	66.0		51.0	51.0		9.6	17.6		9.6	17.6	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		5.4	5.4		5.4	5.4	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		Min	Min		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effect Green (s)		69.9			69.9		24.0	17.9		27.3	21.5	
Actuated g/C Ratio		0.63			0.63		0.22	0.16		0.25	0.19	
v/c Ratio		0.63			0.44		0.17	0.73		0.33	0.70	
Control Delay		16.2			12.1		29.6	58.4		32.9	51.8	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 5

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Existing PM
05/30/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		16.2			12.1		29.6	58.4		32.9	51.8	
LOS		B			B		C	E		C	D	
Approach Delay		16.2			12.1			54.4			47.2	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)		233			174		18	148		42	164	
Queue Length 95th (ft)		297			214		44	#262		82	#312	
Internal Link Dist (ft)		1234			1251			1093			1251	
Turn Bay Length (ft)							190			185		
Base Capacity (vph)		1573			2048		246	320		256	372	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.62			0.44		0.15	0.70		0.32	0.69	

Intersection Summary

Area Type: Other

Cycle Length: 111

Actuated Cycle Length: 111

Offset: 20 (18%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 22.9

Intersection LOS: C

Intersection Capacity Utilization 84.9%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Denning Dr & Fairbanks Ave

											
Ø2 (R)						Ø3			Ø4		
72 s						15 s			23 s		
											
Ø5			Ø6			Ø7			Ø8		
16 s			57 s			15 s			23 s		

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Existing AM
05/30/2023

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	71	869	175	1	129	774	42	7	269	822	103	115
Future Volume (vph)	71	869	175	1	129	774	42	7	269	822	103	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		0		375		0		175		0	175
Storage Lanes	1		0		1		0		1		0	1
Taper Length (ft)	25				25				25			25
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Frt		0.975				0.992				0.983		
Flt Protected	0.950				0.950				0.950			0.950
Satd. Flow (prot)	1687	3485	0	0	1770	3544	0	0	1754	3479	0	1805
Flt Permitted	0.950				0.950				0.950			0.950
Satd. Flow (perm)	1687	3485	0	0	1770	3544	0	0	1754	3479	0	1805
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)		14				3				8		
Link Speed (mph)		35				35				35		
Link Distance (ft)		1558				1314				1656		
Travel Time (s)		30.4				25.6				32.3		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	1%	1%	0%	2%	1%	2%	0%	3%	2%	2%	0%
Adj. Flow (vph)	76	934	188	1	139	832	45	8	289	884	111	124
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	1122	0	0	140	877	0	0	297	995	0	124
Turn Type	Prot	NA		Prot	Prot	NA		Prot	Prot	NA		Prot
Protected Phases	3	8		7	7	4		1	1	6		5
Permitted Phases												
Detector Phase	3	8		7	7	4		1	1	6		5
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	5.0	7.0		5.0	5.0	15.0		5.0
Minimum Split (s)	11.0	24.0		11.2	11.2	24.6		11.0	11.0	24.0		11.0
Total Split (s)	38.0	70.0		20.0	20.0	52.0		25.0	25.0	70.0		20.0
Total Split (%)	21.1%	38.9%		11.1%	11.1%	28.9%		13.9%	13.9%	38.9%		11.1%
Maximum Green (s)	32.0	64.0		13.8	13.8	45.4		19.0	19.0	64.0		14.0
Yellow Time (s)	4.0	4.0		4.1	4.1	4.1		4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		2.1	2.1	2.5		2.0	2.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0			6.2	6.6			6.0	6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	4.0		3.0
Recall Mode	None	None		None	None	None		None	None	C-Min		None
Walk Time (s)		7.0				7.0				7.0		
Flash Dont Walk (s)		11.0				11.0				11.0		
Pedestrian Calls (#/hr)		0				0				0		
Act Effct Green (s)	13.5	62.1			17.3	65.5			23.2	62.1		14.3
Actuated g/C Ratio	0.08	0.34			0.10	0.36			0.13	0.34		0.08
v/c Ratio	0.60	0.93			0.82	0.68			1.32	0.83		0.87
Control Delay	99.4	69.2			122.0	42.2			224.4	60.3		126.3
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0		0.0

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 7

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Existing AM
05/30/2023



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	683	70
Future Volume (vph)	683	70
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		125
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1568
Flt Permitted		
Satd. Flow (perm)	3539	1568
Right Turn on Red		Yes
Satd. Flow (RTOR)		132
Link Speed (mph)	35	
Link Distance (ft)	1093	
Travel Time (s)	21.3	
Peak Hour Factor	0.93	0.93
Heavy Vehicles (%)	2%	3%
Adj. Flow (vph)	734	75
Shared Lane Traffic (%)		
Lane Group Flow (vph)	734	75
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		
Minimum Initial (s)	15.0	15.0
Minimum Split (s)	24.0	24.0
Total Split (s)	65.0	65.0
Total Split (%)	36.1%	36.1%
Maximum Green (s)	59.0	59.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	6.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Recall Mode	C-Min	C-Min
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	53.3	53.3
Actuated g/C Ratio	0.30	0.30
v/c Ratio	0.70	0.13
Control Delay	59.7	0.5
Queue Delay	0.0	0.0

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 8

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Existing AM
05/30/2023

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Total Delay	99.4	69.2			122.0	42.2			224.4	60.3		126.3
LOS	F	E			F	D			F	E		F
Approach Delay		71.1				53.2				98.1		
Approach LOS		E				D				F		
Queue Length 50th (ft)	89	656			173	470			~500	568		148
Queue Length 95th (ft)	147	756			#337	566			#708	645		#281
Internal Link Dist (ft)		1478				1234				1576		
Turn Bay Length (ft)	550				375				175			175
Base Capacity (vph)	299	1248			170	1291			225	1243		144
Starvation Cap Reductn	0	0			0	0			0	0		0
Spillback Cap Reductn	0	0			0	0			0	0		0
Storage Cap Reductn	0	0			0	0			0	0		0
Reduced v/c Ratio	0.25	0.90			0.82	0.68			1.32	0.80		0.86

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 149 (83%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.32

Intersection Signal Delay: 73.3

Intersection LOS: E

Intersection Capacity Utilization 91.1%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Orlando Ave & Fairbanks Ave

 Ø1	 Ø2 (R)	 Ø3	 Ø4
25 s	65 s	38 s	52 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
20 s	70 s	20 s	70 s



Lane Group	SBT	SBR
Total Delay	59.7	0.5
LOS	E	A
Approach Delay	63.8	
Approach LOS	E	
Queue Length 50th (ft)	398	0
Queue Length 95th (ft)	463	0
Internal Link Dist (ft)	1013	
Turn Bay Length (ft)		125
Base Capacity (vph)	1160	602
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.63	0.12
Intersection Summary		

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Existing PM
05/30/2023

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	1	108	968	264	148	1122	41	5	306	681	124	1
Future Volume (vph)	1	108	968	264	148	1122	41	5	306	681	124	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		550		0	375		0		175		0	
Storage Lanes		1		0	1		0		1		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	0.95	1.00	0.95	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.968			0.995				0.977		
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	1787	3494	0	1787	3592	0	0	1787	3492	0	0
Flt Permitted		0.950			0.950				0.950			
Satd. Flow (perm)	0	1787	3494	0	1787	3592	0	0	1787	3492	0	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)			16			2				11		
Link Speed (mph)			35			35				35		
Link Distance (ft)			1558			1314				1656		
Travel Time (s)			30.4			25.6				32.3		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	1%	1%	1%	0%
Adj. Flow (vph)	1	113	1008	275	154	1169	43	5	319	709	129	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	114	1283	0	154	1212	0	0	324	838	0	0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	Prot	NA		Prot
Protected Phases	3	3	8		7	4		1	1	6		5
Permitted Phases												
Detector Phase	3	3	8		7	4		1	1	6		5
Switch Phase												
Minimum Initial (s)	5.0	5.0	7.0		5.0	7.0		5.0	5.0	15.0		5.0
Minimum Split (s)	11.0	11.0	24.0		11.2	24.6		11.0	11.0	24.0		11.0
Total Split (s)	43.0	43.0	75.0		25.0	57.0		30.0	30.0	92.0		28.0
Total Split (%)	19.5%	19.5%	34.1%		11.4%	25.9%		13.6%	13.6%	41.8%		12.7%
Maximum Green (s)	37.0	37.0	69.0		18.8	50.4		24.0	24.0	86.0		22.0
Yellow Time (s)	4.0	4.0	4.0		4.1	4.1		4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	2.0		2.1	2.5		2.0	2.0	2.0		2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0			0.0	0.0		
Total Lost Time (s)		6.0	6.0		6.2	6.6			6.0	6.0		
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	4.0		3.0
Recall Mode	None	None	None		None	None		None	None	C-Min		None
Walk Time (s)			7.0			7.0				7.0		
Flash Dont Walk (s)			11.0			11.0				11.0		
Pedestrian Calls (#/hr)			0			0				0		
Act Effect Green (s)		19.4	81.8		28.1	90.1			27.9	69.4		
Actuated g/C Ratio		0.09	0.37		0.13	0.41			0.13	0.32		
v/c Ratio		0.73	0.98		0.68	0.82			1.43	0.76		
Control Delay		122.2	85.0		106.8	63.4			276.0	71.8		
Queue Delay		0.0	0.0		0.0	0.0			0.0	0.0		

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 7

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Existing PM
05/30/2023

			
Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	88	679	81
Future Volume (vph)	88	679	81
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	175		125
Storage Lanes	1		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	1805	3574	1615
Flt Permitted	0.950		
Satd. Flow (perm)	1805	3574	1615
Right Turn on Red			Yes
Satd. Flow (RTOR)			108
Link Speed (mph)		35	
Link Distance (ft)		1093	
Travel Time (s)		21.3	
Peak Hour Factor	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	0%
Adj. Flow (vph)	92	707	84
Shared Lane Traffic (%)			
Lane Group Flow (vph)	93	707	84
Turn Type	Prot	NA	Perm
Protected Phases	5	2	
Permitted Phases			2
Detector Phase	5	2	2
Switch Phase			
Minimum Initial (s)	5.0	15.0	15.0
Minimum Split (s)	11.0	24.0	24.0
Total Split (s)	28.0	90.0	90.0
Total Split (%)	12.7%	40.9%	40.9%
Maximum Green (s)	22.0	84.0	84.0
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	4.0	4.0
Recall Mode	None	C-Min	C-Min
Walk Time (s)		7.0	7.0
Flash Dont Walk (s)		11.0	11.0
Pedestrian Calls (#/hr)		0	0
Act Effect Green (s)	16.5	58.0	58.0
Actuated g/C Ratio	0.08	0.26	0.26
v/c Ratio	0.69	0.75	0.17
Control Delay	123.6	79.0	3.6
Queue Delay	0.0	0.0	0.0

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 8

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Existing PM
05/30/2023

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Total Delay		122.2	85.0		106.8	63.4			276.0	71.8		
LOS		F	F		F	E			F	E		
Approach Delay			88.1			68.3				128.8		
Approach LOS			F			E				F		
Queue Length 50th (ft)		165	943		218	807			~680	587		
Queue Length 95th (ft)		240	#1283		307	#1102			#908	640		
Internal Link Dist (ft)			1478			1234				1576		
Turn Bay Length (ft)		550			375				175			
Base Capacity (vph)		300	1309		228	1472			226	1371		
Starvation Cap Reductn		0	0		0	0			0	0		
Spillback Cap Reductn		0	0		0	0			0	0		
Storage Cap Reductn		0	0		0	0			0	0		
Reduced v/c Ratio		0.38	0.98		0.68	0.82			1.43	0.61		

Intersection Summary

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 29 (13%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.43

Intersection Signal Delay: 90.2

Intersection LOS: F

Intersection Capacity Utilization 99.6%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Orlando Ave & Fairbanks Ave

 Ø1	 Ø2 (R)	 Ø3	 Ø4
30 s	90 s	43 s	57 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
28 s	92 s	25 s	75 s



Lane Group	SBL	SBT	SBR
Total Delay	123.6	79.0	3.6
LOS	F	E	A
Approach Delay	76.5		
Approach LOS	E		
Queue Length 50th (ft)	134	499	0
Queue Length 95th (ft)	204	533	23
Internal Link Dist (ft)	1013		
Turn Bay Length (ft)	175		125
Base Capacity (vph)	180	1364	683
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.52	0.52	0.12
Intersection Summary			

APPENDIX D

ITE Trip Generation Worksheets

Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

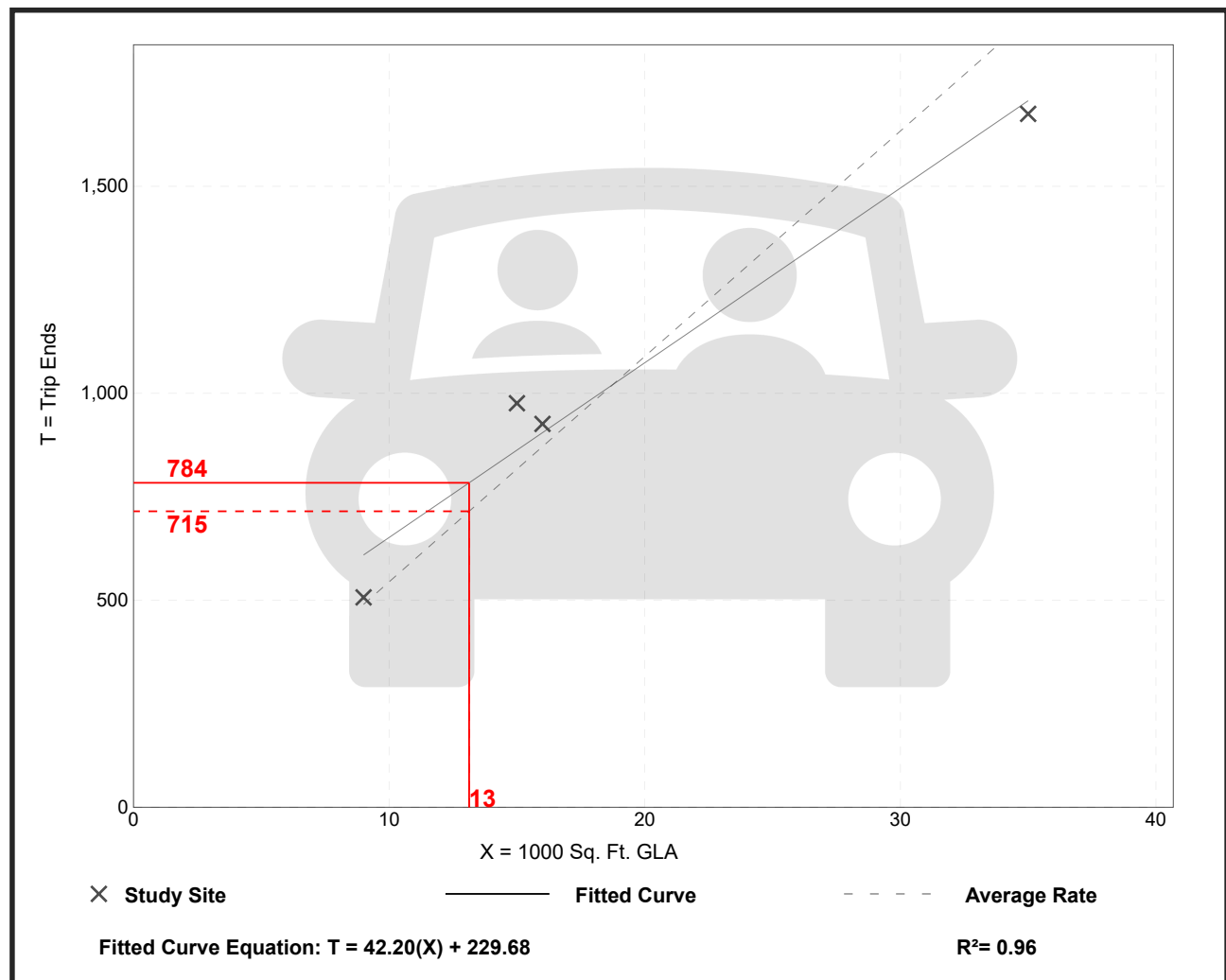
Setting/Location: General Urban/Suburban
Number of Studies: 4
Avg. 1000 Sq. Ft. GLA: 19
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
54.45	47.86 - 65.07	7.81

Data Plot and Equation

Caution – Small Sample Size



Strip Retail Plaza (<40k) (822)

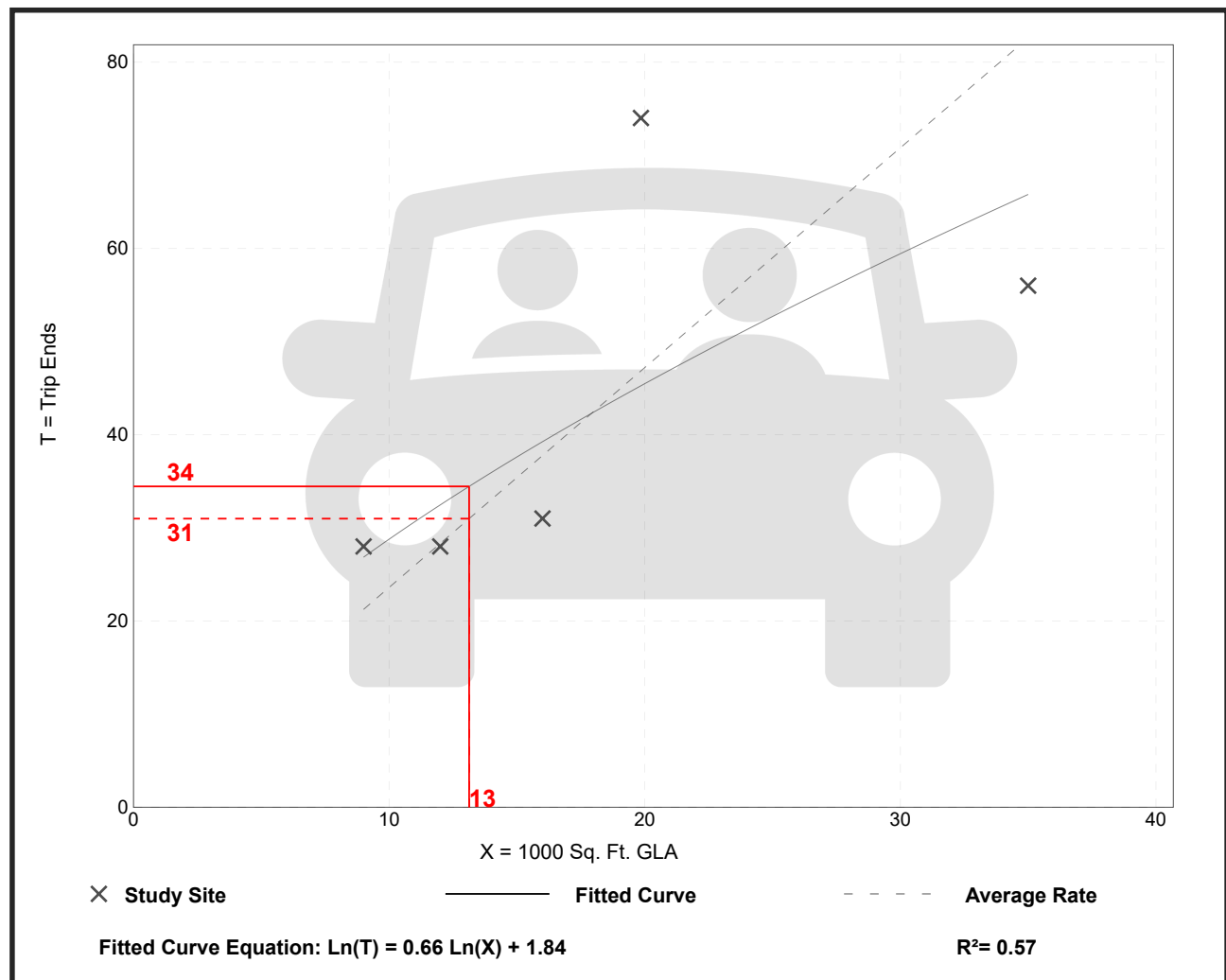
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 5
 Avg. 1000 Sq. Ft. GLA: 18
 Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

Data Plot and Equation

Caution – Small Sample Size



Strip Retail Plaza (<40k)

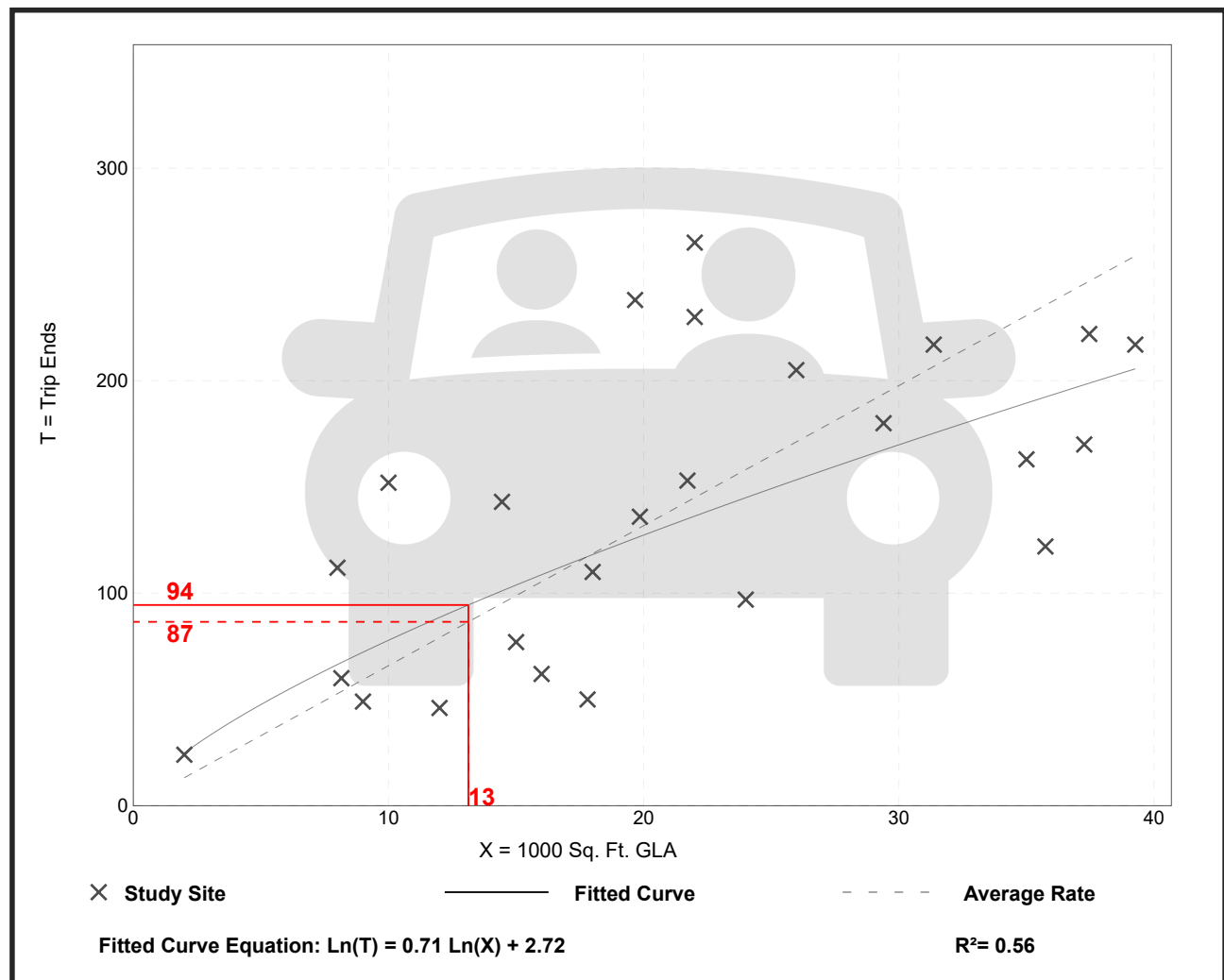
(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 25
 Avg. 1000 Sq. Ft. GLA: 21
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	821								
Land Use	Shopping Plaza (40 - 150k)								
Setting	General Urban/Suburban								
Time Period	Weekday PM Peak Period								
# Data Sites	15								
Average Pass-By Rate	40%								
	Pass-By Characteristics for Individual Sites								
GLA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
45	Florida	1992	844	56	24	20	44	—	30
50	Florida	1992	555	41	41	18	59	—	30
52	Florida	1995	665	42	33	25	58	—	30
53	Florida	1993	162	59	—	—	41	—	30
57.23	Kentucky	1993	247	31	53	16	69	2659	34
60	Florida	1995	1583	40	38	22	60	—	30
69.4	Kentucky	1993	109	25	42	33	75	1559	34
77	Florida	1992	365	46	—	—	54	—	30
78	Florida	1991	702	55	23	22	45	—	30
82	Florida	1992	336	34	—	—	66	—	30
92.857	Kentucky	1993	133	22	50	28	78	3555	34
100.888	Kentucky	1993	281	28	50	22	72	2111	34
121.54	Kentucky	1993	210	53	30	17	47	2636	34
144	New Jersey	1990	176	32	44	24	68	—	24
146.8	Kentucky	1993	—	36	39	25	64	—	34

High-Turnover (Sit-Down) Restaurant (932)

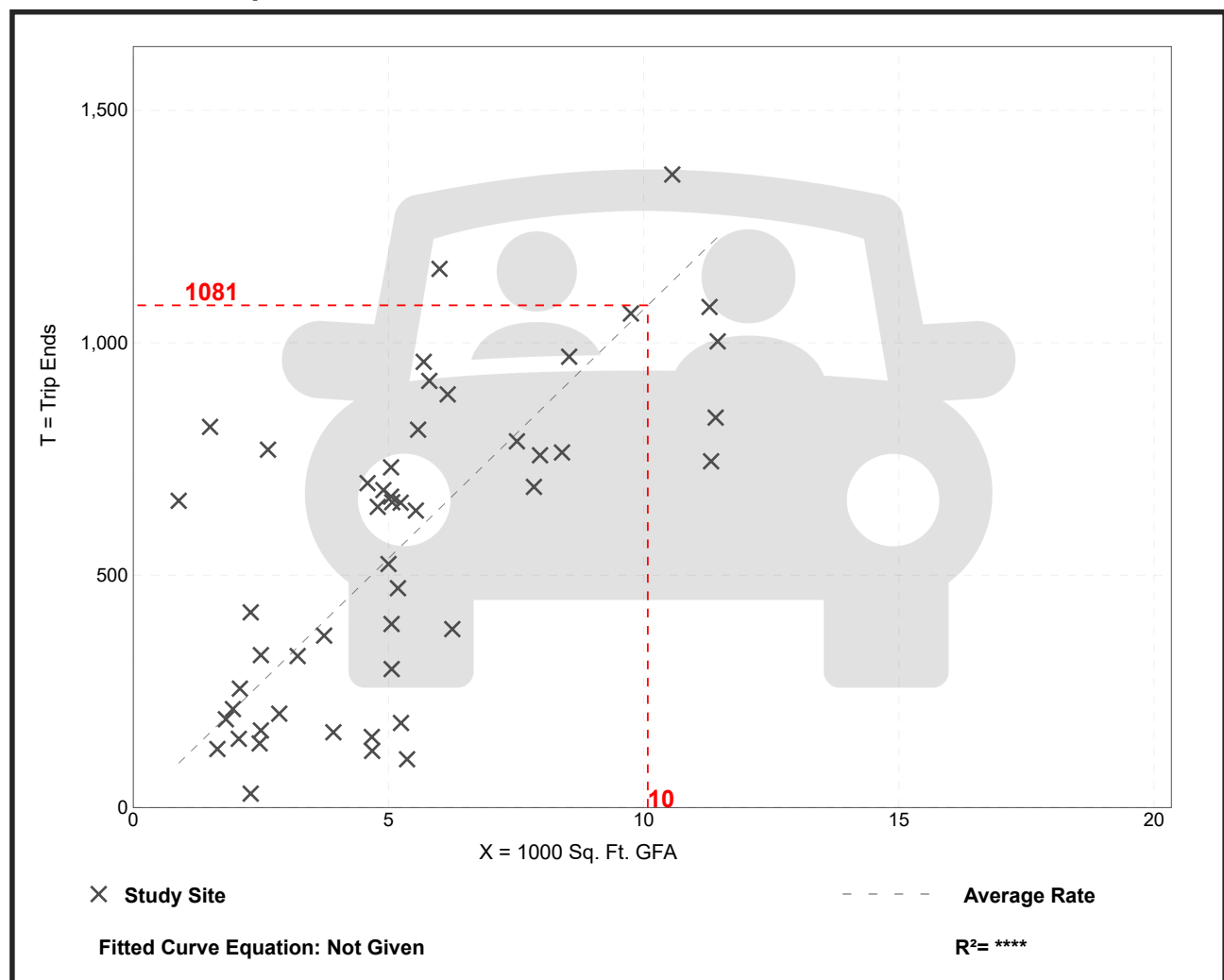
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 50
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
107.20	13.04 - 742.41	66.72

Data Plot and Equation



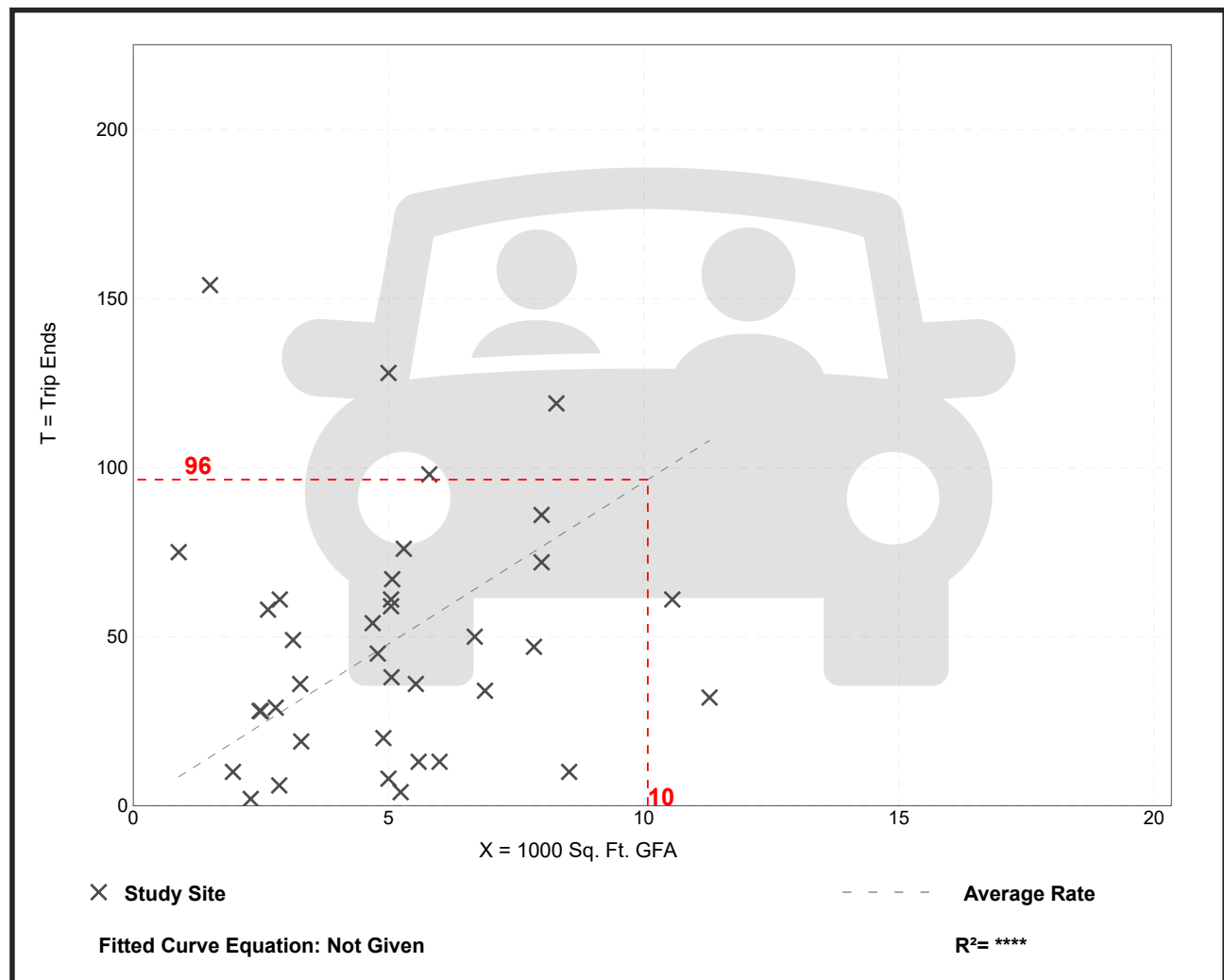
High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 37
 Avg. 1000 Sq. Ft. GFA: 5
 Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

Data Plot and Equation



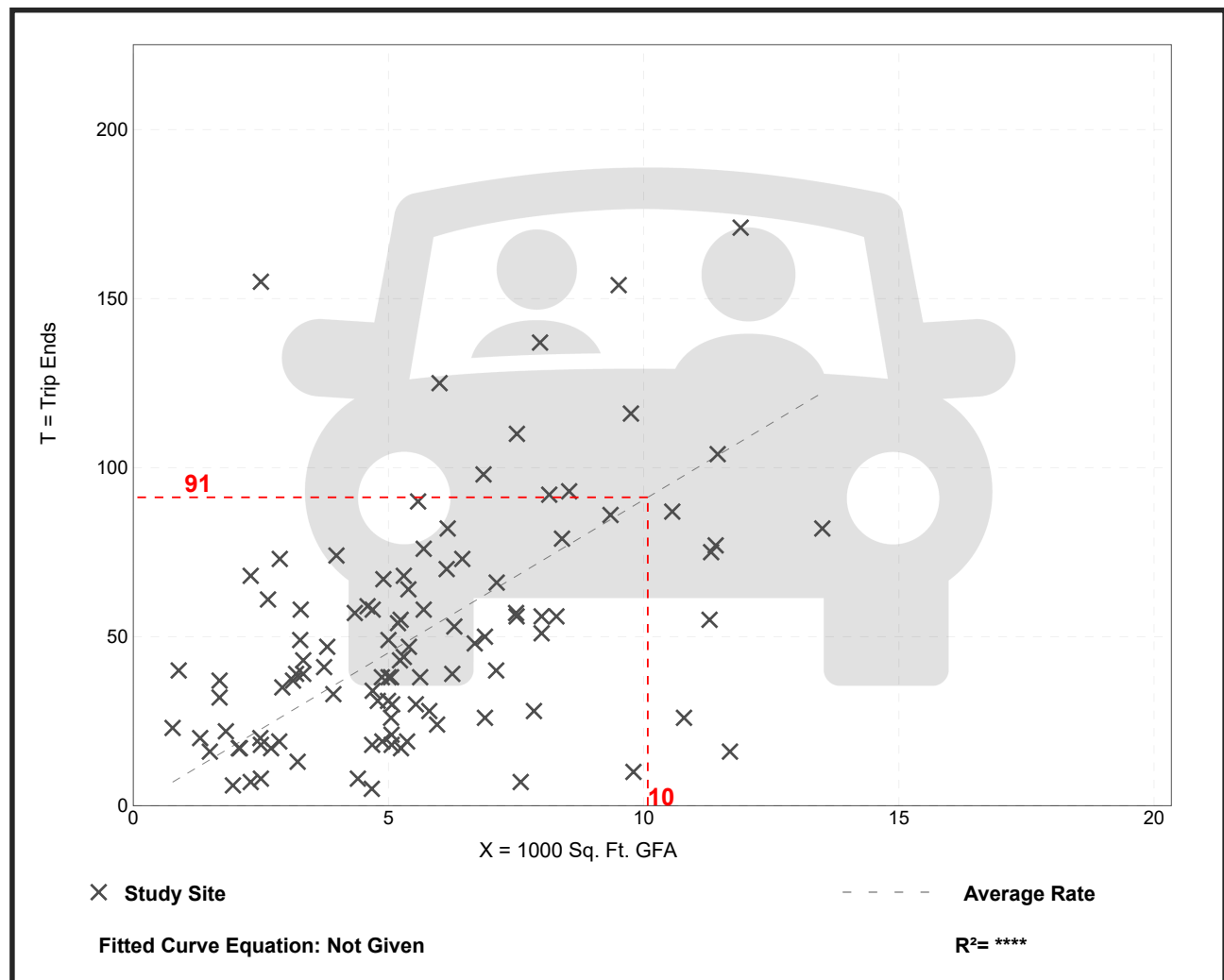
High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 104
 Avg. 1000 Sq. Ft. GFA: 6
 Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



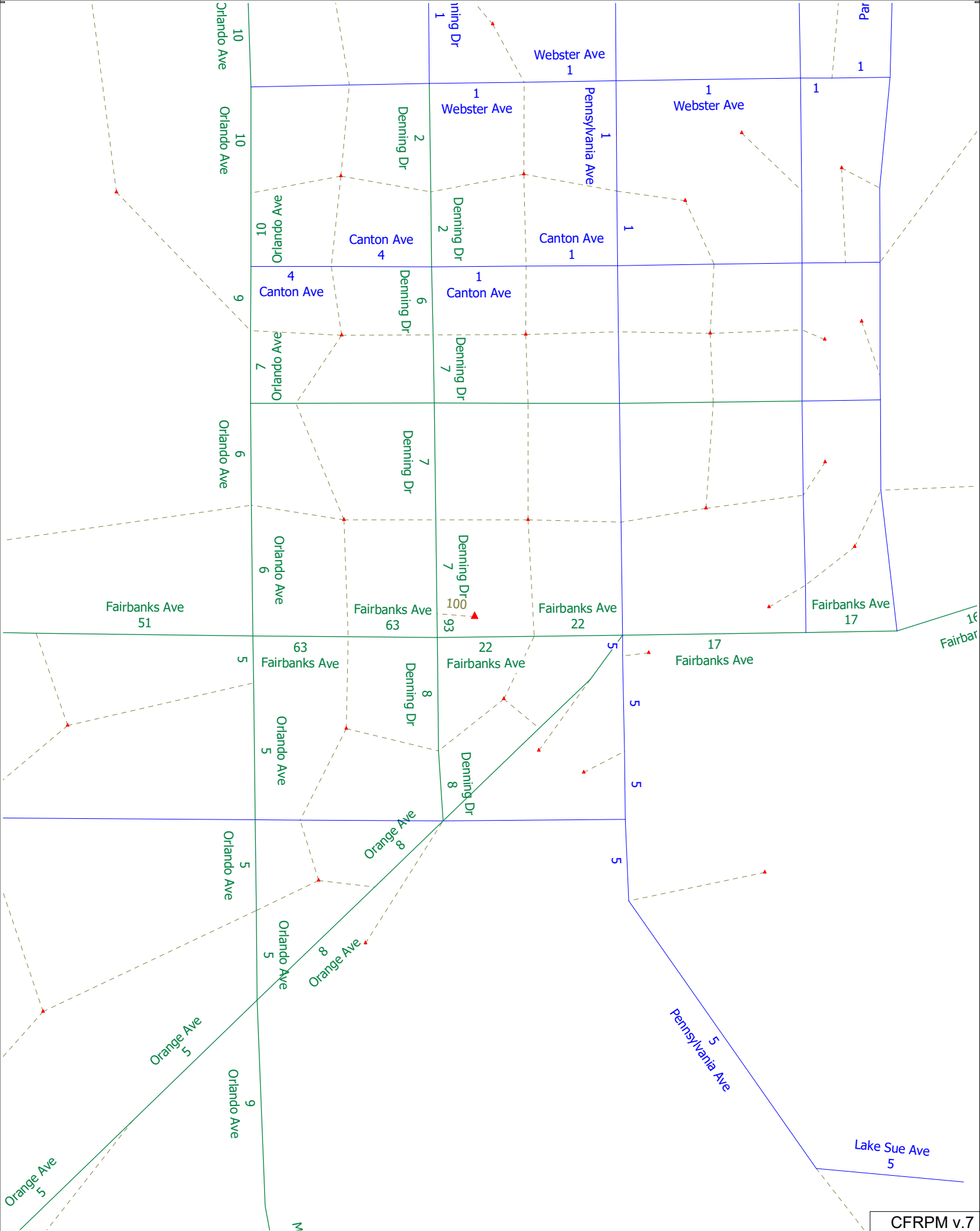
Vehicle Pass-By Rates by Land Use

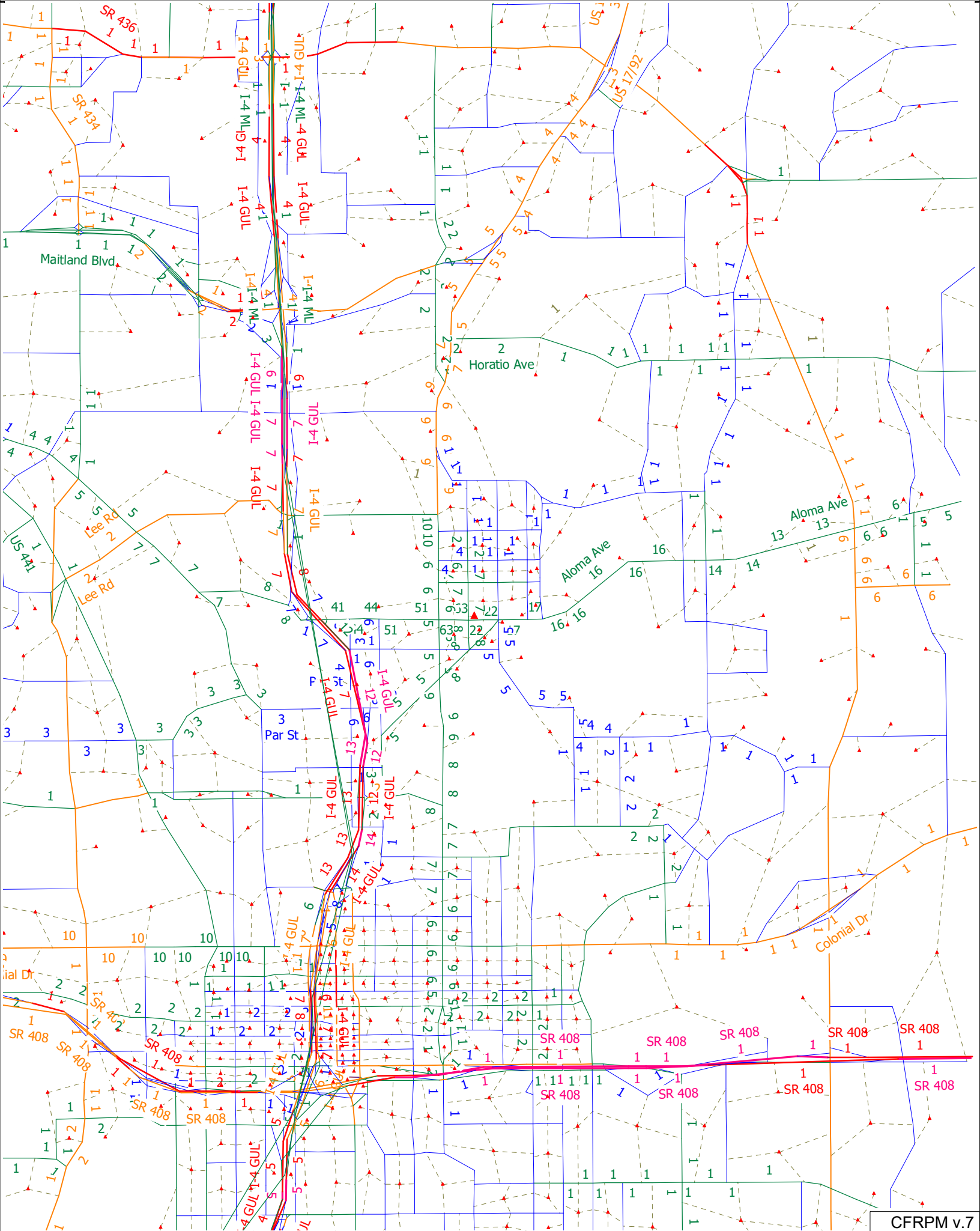
Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	932								
Land Use	High-Turnover (Sit-Down) Restaurant								
Setting	General Urban/Suburban								
Time Period	Weekday PM Peak Period								
# Data Sites	12								
Average Pass-By Rate	43%								
	Pass-By Characteristics for Individual Sites								
GFA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
2.9	Kentucky	1993	41	37	27	36	63	3935	2
3.1	Kentucky	1993	21	38	29	33	62	2580	2
4.6	Florida	1992	276	63	—	—	37	—	30
5	Florida	1992	65	58	—	—	42	—	30
5.3	Kentucky	1993	24	50	37	13	50	1615	2
5.7	Florida	1994	308	57	—	—	43	—	30
5.8	Florida	1992	150	32	—	—	68	—	30
6.2	Florida	1995	521	46	43	11	54	—	30
7.1	Indiana	1993	—	23	23	54	77	1565	2
8	Florida	1995	664	40	39	21	60	—	30
11	Florida	1996	267	38	43	19	62	—	30
12	Florida	1996	317	29	51	20	71	—	30

APPENDIX E

Model Output





APPENDIX F

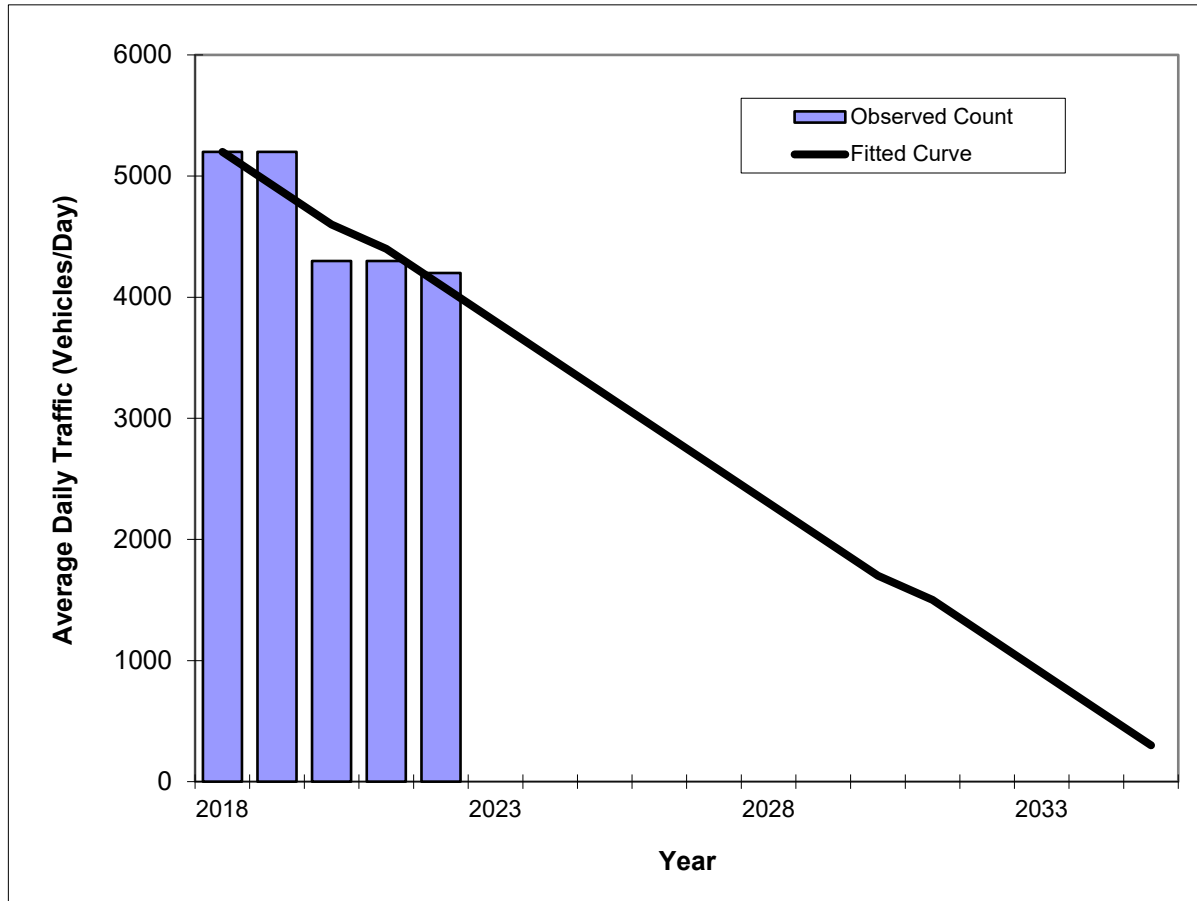
Trends Analysis Worksheets

Traffic Trends - V03.a

DENNING DR --

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8038
Highway:	DENNING DR



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2018	5200	5200
2019	5200	4900
2020	4300	4600
2021	4300	4400
2022	4200	4100
2025 Opening Year Trend		
2025	N/A	3200
2027 Mid-Year Trend		
2027	N/A	2600
2029 Design Year Trend		
2029	N/A	2000
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	-290
Trend R-squared:	79.94%
Trend Annual Historic Growth Rate:	-5.29%
Trend Growth Rate (2022 to Design Year):	-7.32%
Printed:	22-May-23
Straight Line Growth Option	

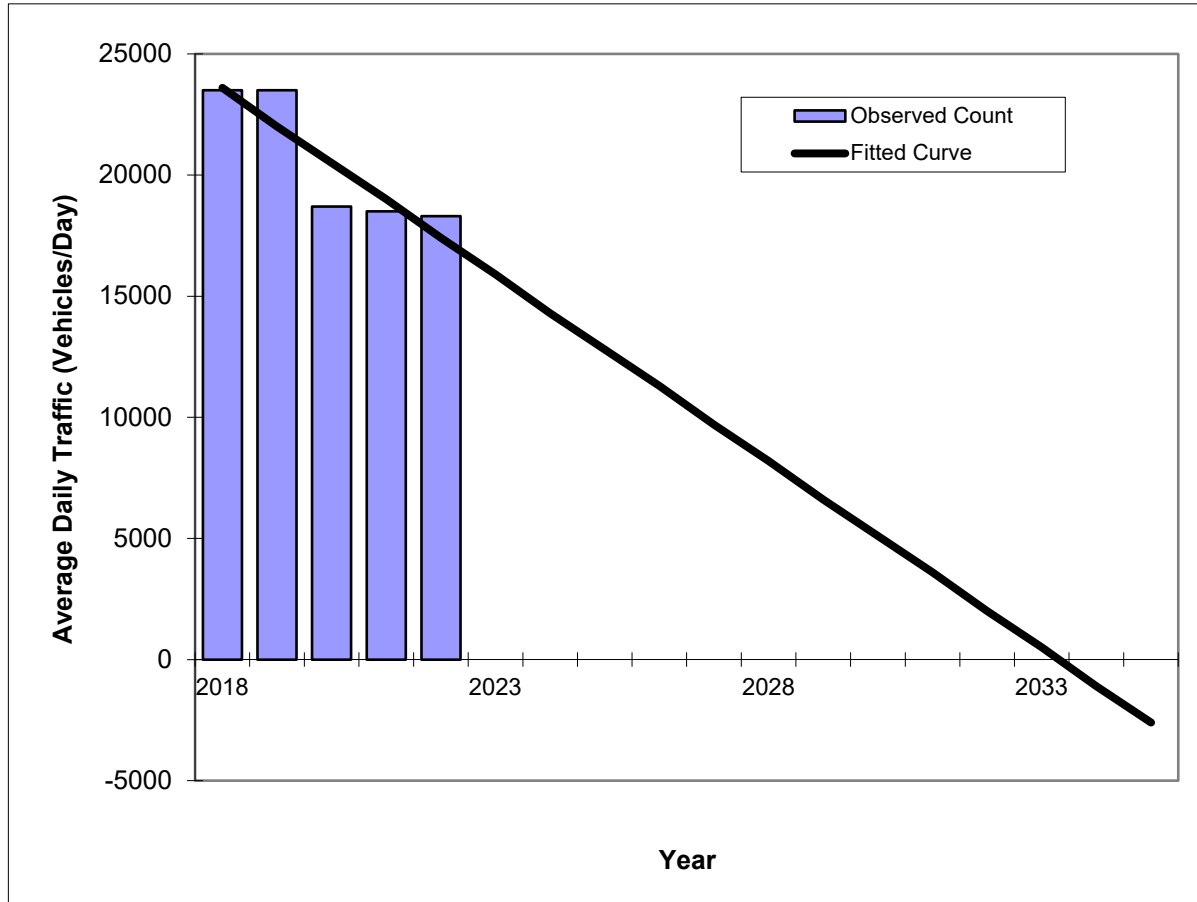
*Axle-Adjusted

Traffic Trends - V03.a

SR 426 --

FIN#	1234
Location	1

County:	Orange (75)
Station #:	5072
Highway:	SR 426



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2018	23500	23600
2019	23500	22000
2020	18700	20500
2021	18500	19000
2022	18300	17400
2025 Opening Year Trend		
2025	N/A	12800
2027 Mid-Year Trend		
2027	N/A	9700
2029 Design Year Trend		
2029	N/A	6600
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	-1,540
Trend R-squared:	78.84%
Trend Annual Historic Growth Rate:	-6.57%
Trend Growth Rate (2022 to Design Year):	-8.87%
Printed:	22-May-23
Straight Line Growth Option	

*Axle-Adjusted

APPENDIX G

Background Intersection Capacity Analysis Worksheets

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Bkgd AM
04/03/2024

												
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	828	51	1	524	844	21	32	95	24	13	52	15
Future Volume (vph)	828	51	1	524	844	21	32	95	24	13	52	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.97	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991				0.996			0.978			0.975	
Flt Protected				0.950				0.990			0.992	
Satd. Flow (prot)	3479	0	0	3502	3557	0	0	1806	0	0	1791	0
Flt Permitted				0.306				0.916			0.935	
Satd. Flow (perm)	3479	0	0	1128	3557	0	0	1671	0	0	1688	0
Right Turn on Red					Yes			Yes				
Satd. Flow (RTOR)					3			5				
Link Speed (mph)	35				35			25			25	
Link Distance (ft)	1331				543			770			658	
Travel Time (s)	25.9				10.6			21.0			17.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	0%	0%	0%	1%	5%	3%	2%	0%	0%	4%	0%
Adj. Flow (vph)	881	54	1	557	898	22	34	101	26	14	55	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	935	0	0	558	920	0	0	161	0	0	85	0
Turn Type	NA		custom	custom	NA		Perm	NA		Perm	NA	
Protected Phases	1				6			4			8	
Permitted Phases			2	2			4			8		
Detector Phase	1		2	2	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	8.0		8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	24.2		26.1	26.1	23.7		25.9	25.9		25.9	25.9	
Total Split (s)	80.0		55.0	55.0	135.0		45.0	45.0		45.0	45.0	
Total Split (%)	44.4%		30.6%	30.6%	75.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	73.8		46.9	46.9	129.3		37.1	37.1		37.1	37.1	
Yellow Time (s)	4.1		3.7	3.7	3.7		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.1		4.4	4.4	2.0		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0			0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2			8.1	5.7			7.9			7.9	
Lead/Lag	Lead		Lag	Lag								
Lead-Lag Optimize?	Yes		Yes	Yes								
Vehicle Extension (s)	5.0		5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	None		C-Max	C-Max	Max		Max	Max		Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0		0	0		0	0	
Act Effect Green (s)	61.6			59.1	129.3			37.1			37.1	
Actuated g/C Ratio	0.34			0.33	0.72			0.21			0.21	
v/c Ratio	0.79			1.51	0.36			0.46			0.24	
Control Delay	61.3			282.3	10.1			65.7			62.0	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	61.3			282.3	10.1			65.7			62.0	
LOS	E			F	B			E			E	
Approach Delay	61.3				112.8			65.7			62.0	

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Bkgd AM
04/03/2024



Lane Group	NER	NER2
Lane Configurations	FF	
Traffic Volume (vph)	404	11
Future Volume (vph)	404	11
Ideal Flow (vphpl)	1900	1900
Lane Util. Factor	0.88	1.00
Frt	0.850	
Flt Protected		
Satd. Flow (prot)	2815	0
Flt Permitted		
Satd. Flow (perm)	2815	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	67	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.94	0.94
Heavy Vehicles (%)	1%	0%
Adj. Flow (vph)	430	12
Shared Lane Traffic (%)		
Lane Group Flow (vph)	442	0
Turn Type	Perm	
Protected Phases		
Permitted Phases	2	
Detector Phase	2	
Switch Phase		
Minimum Initial (s)	8.0	
Minimum Split (s)	26.1	
Total Split (s)	55.0	
Total Split (%)	30.6%	
Maximum Green (s)	46.9	
Yellow Time (s)	3.7	
All-Red Time (s)	4.4	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.1	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	C-Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	59.1	
Actuated g/C Ratio	0.33	
v/c Ratio	0.46	
Control Delay	43.0	
Queue Delay	0.0	
Total Delay	43.0	
LOS	D	
Approach Delay		

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Bkgd AM
04/03/2024

	→	↘	↙	↖	←	↗	↘	↑	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E				F			E			E	
Queue Length 50th (ft)	550			~469	202			164			85	
Queue Length 95th (ft)	664			#636	235			247			143	
Internal Link Dist (ft)	1251				463			690			578	
Turn Bay Length (ft)												
Base Capacity (vph)	1426			370	2555			348			347	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.66			1.51	0.36			0.46			0.24	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 91 (51%), Referenced to phase 2:WBL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 83.5

Intersection LOS: F

Intersection Capacity Utilization 91.4%

ICU Level of Service F

Analysis Period (min) 15

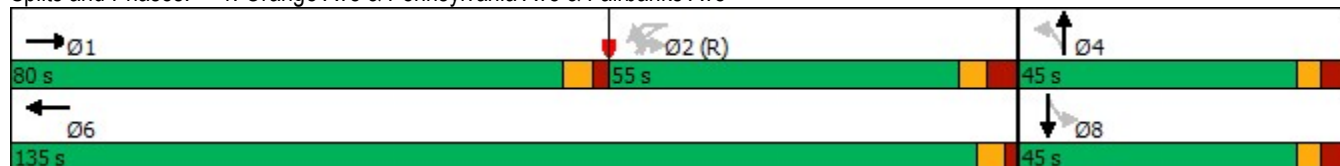
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Orange Ave & Pennsylvania Ave & Fairbanks Ave





Lane Group	NER	NER2
Approach LOS		
Queue Length 50th (ft)	199	
Queue Length 95th (ft)	284	
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)	969	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.46	
Intersection Summary		

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Bkgd PM
04/03/2024

												
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	740	51	3	487	753	20	33	105	19	21	119	25
Future Volume (vph)	740	51	3	487	753	20	33	105	19	21	119	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.97	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.990				0.996			0.983			0.979	
Flt Protected				0.950				0.990			0.994	
Satd. Flow (prot)	3574	0	0	3502	3561	0	0	1849	0	0	1849	0
Flt Permitted				0.344				0.878			0.941	
Satd. Flow (perm)	3574	0	0	1268	3561	0	0	1640	0	0	1750	0
Right Turn on Red					Yes			Yes				
Satd. Flow (RTOR)					3			3				
Link Speed (mph)	35				35			25			25	
Link Distance (ft)	1331				543			770			658	
Travel Time (s)	25.9				10.6			21.0			17.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	763	53	3	502	776	21	34	108	20	22	123	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	816	0	0	505	797	0	0	162	0	0	171	0
Turn Type	NA		custom	custom	NA		Perm	NA		Perm	NA	
Protected Phases	1				6			4			8	
Permitted Phases			2	2			4			8		
Detector Phase	1		2	2	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	8.0		8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	24.2		26.1	26.1	23.7		25.9	25.9		25.9	25.9	
Total Split (s)	78.0		76.0	76.0	154.0		66.0	66.0		66.0	66.0	
Total Split (%)	35.5%		34.5%	34.5%	70.0%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	71.8		67.9	67.9	148.3		58.1	58.1		58.1	58.1	
Yellow Time (s)	4.1		3.7	3.7	3.7		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.1		4.4	4.4	2.0		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0			0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2			8.1	5.7			7.9			7.9	
Lead/Lag	Lead		Lag	Lag								
Lead-Lag Optimize?	Yes		Yes	Yes								
Vehicle Extension (s)	5.0		5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	None		C-Max	C-Max	Max		Max	Max		Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0		0	0		0	0	
Act Effect Green (s)	61.5			78.2	148.3			58.1			58.1	
Actuated g/C Ratio	0.28			0.36	0.67			0.26			0.26	
v/c Ratio	0.82			1.12	0.33			0.37			0.37	
Control Delay	81.0			140.0	15.4			67.8			68.9	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	81.0			140.0	15.4			67.8			68.9	
LOS	F			F	B			E			E	
Approach Delay	81.0				63.7			67.8			68.9	

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Bkgd PM
04/03/2024



Lane Group	NER	NER2
Lane Configurations	FF	
Traffic Volume (vph)	666	19
Future Volume (vph)	666	19
Ideal Flow (vphpl)	1900	1900
Lane Util. Factor	0.88	1.00
Frt	0.850	
Flt Protected		
Satd. Flow (prot)	2842	0
Flt Permitted		
Satd. Flow (perm)	2842	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	55	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.97	0.97
Heavy Vehicles (%)	0%	0%
Adj. Flow (vph)	687	20
Shared Lane Traffic (%)		
Lane Group Flow (vph)	707	0
Turn Type	Perm	
Protected Phases		
Permitted Phases	2	
Detector Phase	2	
Switch Phase		
Minimum Initial (s)	8.0	
Minimum Split (s)	26.1	
Total Split (s)	76.0	
Total Split (%)	34.5%	
Maximum Green (s)	67.9	
Yellow Time (s)	3.7	
All-Red Time (s)	4.4	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.1	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	C-Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	78.2	
Actuated g/C Ratio	0.36	
v/c Ratio	0.68	
Control Delay	60.1	
Queue Delay	0.0	
Total Delay	60.1	
LOS	E	
Approach Delay		

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Bkgd PM
04/03/2024

	→	↘	↙	↔	←	↗	↖	↑	↘	↙	↓	↘
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	F				E			E			E	
Queue Length 50th (ft)	590			~431	245			191			205	
Queue Length 95th (ft)	631			#608	282			274			290	
Internal Link Dist (ft)	1251				463			690			578	
Turn Bay Length (ft)												
Base Capacity (vph)	1166			450	2401			435			462	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.70			1.12	0.33			0.37			0.37	

Intersection Summary

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 162 (74%), Referenced to phase 2:WBL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.12

Intersection Signal Delay: 67.9

Intersection LOS: E

Intersection Capacity Utilization 99.0%

ICU Level of Service F

Analysis Period (min) 15

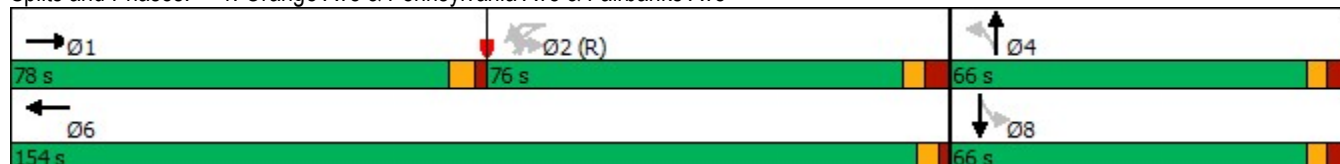
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Orange Ave & Pennsylvania Ave & Fairbanks Ave





Lane Group	NER	NER2
Approach LOS		
Queue Length 50th (ft)	463	
Queue Length 95th (ft)	590	
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)	1045	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.68	
Intersection Summary		

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Bkgd AM
04/03/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	926	22	13	790	94	15	104	8	34	128	41
Future Volume (vph)	91	926	22	13	790	94	15	104	8	34	128	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	190		0	185		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.984			0.989			0.964	
Flt Protected		0.996			0.999		0.950			0.950		
Satd. Flow (prot)	0	3518	0	0	3484	0	1805	1845	0	1656	1805	0
Flt Permitted		0.675			0.924		0.354			0.433		
Satd. Flow (perm)	0	2384	0	0	3222	0	673	1845	0	755	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			13			2			8	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1314			1331			1173			1331	
Travel Time (s)		25.6			25.9			32.0			36.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	5%	0%	2%	1%	0%	0%	25%	9%	1%	3%
Adj. Flow (vph)	100	1018	24	14	868	103	16	114	9	37	141	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1142	0	0	985	0	16	123	0	37	186	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2			6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0		15.0	15.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	24.0		24.0	24.0		10.4	23.4		10.4	23.4	
Total Split (s)	15.0	130.0		115.0	115.0		15.0	35.0		15.0	35.0	
Total Split (%)	8.3%	72.2%		63.9%	63.9%		8.3%	19.4%		8.3%	19.4%	
Maximum Green (s)	9.0	124.0		109.0	109.0		9.6	29.6		9.6	29.6	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		5.4	5.4		5.4	5.4	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		Min	Min		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)		136.3			136.3		26.5	20.8		30.3	24.6	
Actuated g/C Ratio		0.76			0.76		0.15	0.12		0.17	0.14	
v/c Ratio		0.63			0.40		0.11	0.57		0.22	0.74	
Control Delay		11.4			9.8		57.3	83.7		60.4	88.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 5

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Bkgd AM
04/03/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		11.4			9.8		57.3	83.7		60.4	88.0	
LOS		B			A		E	F		E	F	
Approach Delay		11.4			9.8			80.7			83.4	
Approach LOS		B			A			F			F	
Queue Length 50th (ft)		132			90		16	138		37	208	
Queue Length 95th (ft)		m716			499		38	204		70	289	
Internal Link Dist (ft)		1234			1251			1093			1251	
Turn Bay Length (ft)							190			185		
Base Capacity (vph)		1805			2442		166	305		176	305	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.63			0.40		0.10	0.40		0.21	0.61	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 82 (46%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 21.1

Intersection LOS: C

Intersection Capacity Utilization 81.1%

ICU Level of Service D

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Denning Dr & Fairbanks Ave

											
Ø2 (R)									Ø3	Ø4	
130 s									15 s	35 s	
											
Ø5	Ø6								Ø7	Ø8	
15 s	115 s								15 s	35 s	

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Bkgd PM
04/03/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	844	27	18	771	107	36	207	16	82	199	55
Future Volume (vph)	106	844	27	18	771	107	36	207	16	82	199	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	190		0	185		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.982			0.989			0.967	
Flt Protected		0.995			0.999		0.950			0.950		
Satd. Flow (prot)	0	3578	0	0	3511	0	1703	1879	0	1805	1821	0
Flt Permitted		0.656			0.919		0.342			0.300		
Satd. Flow (perm)	0	2359	0	0	3230	0	613	1879	0	570	1821	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			18			3			11	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1314			1331			1173			1331	
Travel Time (s)		25.6			25.9			32.0			36.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	6%	0%	0%	0%	0%	4%
Adj. Flow (vph)	113	898	29	19	820	114	38	220	17	87	212	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1040	0	0	953	0	38	237	0	87	271	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2			6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	10.0	15.0		15.0	15.0		4.0	10.0		4.0	5.0	
Minimum Split (s)	16.0	24.0		24.0	24.0		10.4	23.4		10.4	23.4	
Total Split (s)	16.0	72.0		57.0	57.0		15.0	23.0		15.0	23.0	
Total Split (%)	14.4%	64.9%		51.4%	51.4%		13.5%	20.7%		13.5%	20.7%	
Maximum Green (s)	10.0	66.0		51.0	51.0		9.6	17.6		9.6	17.6	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		5.4	5.4		5.4	5.4	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		Min	Min		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)		69.9			69.9		24.2	18.0		27.2	21.5	
Actuated g/C Ratio		0.63			0.63		0.22	0.16		0.25	0.19	
v/c Ratio		0.70			0.47		0.19	0.77		0.37	0.75	
Control Delay		17.8			12.2		30.6	61.9		34.2	55.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 5

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Bkgd PM
04/03/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		17.8			12.2		30.6	61.9		34.2	55.2	
LOS		B			B		C	E		C	E	
Approach Delay		17.8			12.2			57.6			50.1	
Approach LOS		B			B			E			D	
Queue Length 50th (ft)		278			198		19	156		44	173	
Queue Length 95th (ft)		342			233		46	#286		86	#342	
Internal Link Dist (ft)		1234			1251			1093			1251	
Turn Bay Length (ft)							190			185		
Base Capacity (vph)		1500			2040		235	312		247	364	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.69			0.47		0.16	0.76		0.35	0.74	

Intersection Summary

Area Type: Other

Cycle Length: 111

Actuated Cycle Length: 111

Offset: 20 (18%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 24.4

Intersection LOS: C

Intersection Capacity Utilization 88.7%

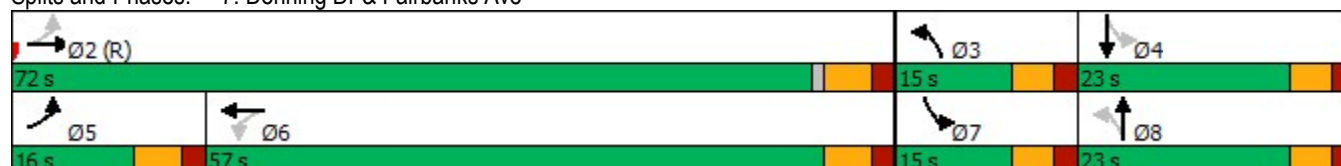
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Denning Dr & Fairbanks Ave



Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Bkgd AM
04/03/2024

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	75	921	186	1	137	820	45	7	285	871	109	122
Future Volume (vph)	75	921	186	1	137	820	45	7	285	871	109	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		0		375		0		175		0	175
Storage Lanes	1		0		1		0		1		0	1
Taper Length (ft)	25				25				25			25
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Frt		0.975				0.992				0.983		
Flt Protected	0.950				0.950				0.950			0.950
Satd. Flow (prot)	1687	3485	0	0	1770	3544	0	0	1754	3479	0	1805
Flt Permitted	0.950				0.950				0.950			0.950
Satd. Flow (perm)	1687	3485	0	0	1770	3544	0	0	1754	3479	0	1805
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)		15				3				8		
Link Speed (mph)		35				35				35		
Link Distance (ft)		1558				1314				1656		
Travel Time (s)		30.4				25.6				32.3		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	1%	1%	0%	2%	1%	2%	0%	3%	2%	2%	0%
Adj. Flow (vph)	81	990	200	1	147	882	48	8	306	937	117	131
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	1190	0	0	148	930	0	0	314	1054	0	131
Turn Type	Prot	NA		Prot	Prot	NA		Prot	Prot	NA		Prot
Protected Phases	3	8		7	7	4		1	1	6		5
Permitted Phases												
Detector Phase	3	8		7	7	4		1	1	6		5
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	5.0	7.0		5.0	5.0	15.0		5.0
Minimum Split (s)	11.0	24.0		11.2	11.2	24.6		11.0	11.0	24.0		11.0
Total Split (s)	38.0	70.0		20.0	20.0	52.0		25.0	25.0	70.0		20.0
Total Split (%)	21.1%	38.9%		11.1%	11.1%	28.9%		13.9%	13.9%	38.9%		11.1%
Maximum Green (s)	32.0	64.0		13.8	13.8	45.4		19.0	19.0	64.0		14.0
Yellow Time (s)	4.0	4.0		4.1	4.1	4.1		4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		2.1	2.1	2.5		2.0	2.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0			6.2	6.6			6.0	6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	4.0		3.0
Recall Mode	None	None		None	None	None		None	None	C-Min		None
Walk Time (s)		7.0				7.0				7.0		
Flash Dont Walk (s)		11.0				11.0				11.0		
Pedestrian Calls (#/hr)		0				0				0		
Act Effct Green (s)	14.0	63.5			16.8	65.9			19.5	61.3		14.2
Actuated g/C Ratio	0.08	0.35			0.09	0.37			0.11	0.34		0.08
v/c Ratio	0.62	0.96			0.90	0.72			1.65	0.89		0.92
Control Delay	99.7	73.5			132.6	53.1			360.4	65.4		136.4
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0		0.0

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 7

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Bkgd AM
04/03/2024



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	724	74
Future Volume (vph)	724	74
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		125
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1568
Flt Permitted		
Satd. Flow (perm)	3539	1568
Right Turn on Red		Yes
Satd. Flow (RTOR)		132
Link Speed (mph)	35	
Link Distance (ft)	1093	
Travel Time (s)	21.3	
Peak Hour Factor	0.93	0.93
Heavy Vehicles (%)	2%	3%
Adj. Flow (vph)	778	80
Shared Lane Traffic (%)		
Lane Group Flow (vph)	778	80
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		
Minimum Initial (s)	15.0	15.0
Minimum Split (s)	24.0	24.0
Total Split (s)	65.0	65.0
Total Split (%)	36.1%	36.1%
Maximum Green (s)	59.0	59.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	6.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Recall Mode	C-Min	C-Min
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	56.0	56.0
Actuated g/C Ratio	0.31	0.31
v/c Ratio	0.71	0.14
Control Delay	58.4	0.5
Queue Delay	0.0	0.0

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Bkgd AM
04/03/2024

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Total Delay	99.7	73.5			132.6	53.1			360.4	65.4		136.4
LOS	F	E			F	D			F	E		F
Approach Delay		75.2				64.0				133.1		
Approach LOS		E				E				F		
Queue Length 50th (ft)	95	716			~189	520			~541	603		157
Queue Length 95th (ft)	154	#863			#361	588			#752	698		#303
Internal Link Dist (ft)		1478				1234				1576		
Turn Bay Length (ft)	550				375				175			175
Base Capacity (vph)	299	1248			164	1298			190	1242		142
Starvation Cap Reductn	0	0			0	0			0	0		0
Spillback Cap Reductn	0	0			0	0			0	0		0
Storage Cap Reductn	0	0			0	0			0	0		0
Reduced v/c Ratio	0.27	0.95			0.90	0.72			1.65	0.85		0.92

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 149 (83%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.65

Intersection Signal Delay: 87.1

Intersection LOS: F

Intersection Capacity Utilization 95.4%

ICU Level of Service F

Analysis Period (min) 15

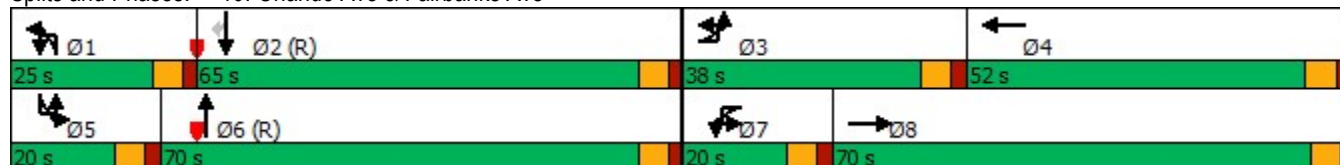
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Orlando Ave & Fairbanks Ave





Lane Group	SBT	SBR
Total Delay	58.4	0.5
LOS	E	A
Approach Delay	64.0	
Approach LOS	E	
Queue Length 50th (ft)	418	0
Queue Length 95th (ft)	495	0
Internal Link Dist (ft)	1013	
Turn Bay Length (ft)		125
Base Capacity (vph)	1160	602
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.67	0.13
Intersection Summary		

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Bkgd PM
04/03/2024

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	1	114	1026	280	157	1189	43	5	324	722	131	1
Future Volume (vph)	1	114	1026	280	157	1189	43	5	324	722	131	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		550		0	375		0		175		0	
Storage Lanes		1		0	1		0		1		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	0.95	1.00	0.95	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.968			0.995				0.977		
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	1787	3494	0	1787	3592	0	0	1787	3492	0	0
Flt Permitted		0.950			0.950				0.950			
Satd. Flow (perm)	0	1787	3494	0	1787	3592	0	0	1787	3492	0	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)			16			2				11		
Link Speed (mph)			35			35				35		
Link Distance (ft)			1558			1314				1656		
Travel Time (s)			30.4			25.6				32.3		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	1%	1%	1%	0%
Adj. Flow (vph)	1	119	1069	292	164	1239	45	5	338	752	136	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	120	1361	0	164	1284	0	0	343	888	0	0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	Prot	NA		Prot
Protected Phases	3	3	8		7	4		1	1	6		5
Permitted Phases												
Detector Phase	3	3	8		7	4		1	1	6		5
Switch Phase												
Minimum Initial (s)	5.0	5.0	7.0		5.0	7.0		5.0	5.0	15.0		5.0
Minimum Split (s)	11.0	11.0	24.0		11.2	24.6		11.0	11.0	24.0		11.0
Total Split (s)	43.0	43.0	75.0		25.0	57.0		30.0	30.0	92.0		28.0
Total Split (%)	19.5%	19.5%	34.1%		11.4%	25.9%		13.6%	13.6%	41.8%		12.7%
Maximum Green (s)	37.0	37.0	69.0		18.8	50.4		24.0	24.0	86.0		22.0
Yellow Time (s)	4.0	4.0	4.0		4.1	4.1		4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	2.0		2.1	2.5		2.0	2.0	2.0		2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0			0.0	0.0		
Total Lost Time (s)		6.0	6.0		6.2	6.6			6.0	6.0		
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	4.0		3.0
Recall Mode	None	None	None		None	None		None	None	C-Min		None
Walk Time (s)			7.0			7.0				7.0		
Flash Dont Walk (s)			11.0			11.0				11.0		
Pedestrian Calls (#/hr)			0			0				0		
Act Effct Green (s)		20.1	78.6		30.0	88.0			24.8	70.3		
Actuated g/C Ratio		0.09	0.36		0.14	0.40			0.11	0.32		
v/c Ratio		0.74	1.08		0.67	0.89			1.72	0.79		
Control Delay		122.0	112.7		105.1	69.3			389.1	72.8		
Queue Delay		0.0	0.0		0.0	0.0			0.0	0.0		

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 7

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Bkgd PM
04/03/2024



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	93	720	86
Future Volume (vph)	93	720	86
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	175		125
Storage Lanes	1		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	1805	3574	1615
Flt Permitted	0.950		
Satd. Flow (perm)	1805	3574	1615
Right Turn on Red			Yes
Satd. Flow (RTOR)			108
Link Speed (mph)		35	
Link Distance (ft)		1093	
Travel Time (s)		21.3	
Peak Hour Factor	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	0%
Adj. Flow (vph)	97	750	90
Shared Lane Traffic (%)			
Lane Group Flow (vph)	98	750	90
Turn Type	Prot	NA	Perm
Protected Phases	5	2	
Permitted Phases			2
Detector Phase	5	2	2
Switch Phase			
Minimum Initial (s)	5.0	15.0	15.0
Minimum Split (s)	11.0	24.0	24.0
Total Split (s)	28.0	90.0	90.0
Total Split (%)	12.7%	40.9%	40.9%
Maximum Green (s)	22.0	84.0	84.0
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	4.0	4.0
Recall Mode	None	C-Min	C-Min
Walk Time (s)		7.0	7.0
Flash Dont Walk (s)		11.0	11.0
Pedestrian Calls (#/hr)		0	0
Act Effct Green (s)	17.0	62.5	62.5
Actuated g/C Ratio	0.08	0.28	0.28
v/c Ratio	0.71	0.74	0.17
Control Delay	124.5	75.4	4.3
Queue Delay	0.0	0.0	0.0

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 8

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Bkgd PM
04/03/2024

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Total Delay		122.0	112.7		105.1	69.3			389.1	72.8		
LOS		F	F		F	E			F	E		
Approach Delay			113.5			73.3				160.9		
Approach LOS			F			E				F		
Queue Length 50th (ft)		173	~1143		231	914			~737	621		
Queue Length 95th (ft)		250	#1404		#333	#1275			#965	670		
Internal Link Dist (ft)			1478			1234				1576		
Turn Bay Length (ft)		550			375				175			
Base Capacity (vph)		300	1257		243	1438			200	1371		
Starvation Cap Reductn		0	0		0	0			0	0		
Spillback Cap Reductn		0	0		0	0			0	0		
Storage Cap Reductn		0	0		0	0			0	0		
Reduced v/c Ratio		0.40	1.08		0.67	0.89			1.72	0.65		

Intersection Summary

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 29 (13%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.72

Intersection Signal Delay: 106.2

Intersection LOS: F

Intersection Capacity Utilization 104.3%

ICU Level of Service G

Analysis Period (min) 15

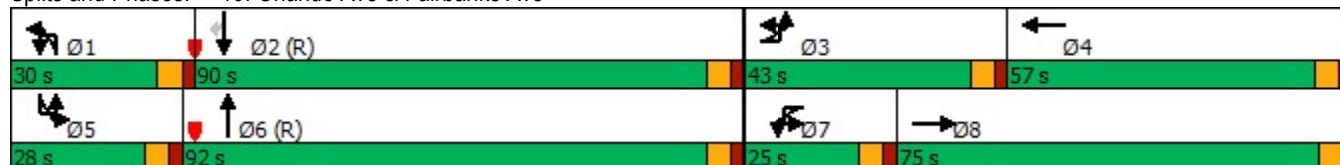
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Orlando Ave & Fairbanks Ave





Lane Group	SBL	SBT	SBR
Total Delay	124.5	75.4	4.3
LOS	F	E	A
Approach Delay	73.7		
Approach LOS	E		
Queue Length 50th (ft)	142	524	0
Queue Length 95th (ft)	215	555	29
Internal Link Dist (ft)	1013		
Turn Bay Length (ft)	175		125
Base Capacity (vph)	180	1364	683
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.54	0.55	0.13
Intersection Summary			

APPENDIX H

Projected Intersection Capacity Analysis Worksheets

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Projected A.M.
04/15/2024

												
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	833	53	1	524	851	21	34	95	24	13	52	15
Future Volume (vph)	833	53	1	524	851	21	34	95	24	13	52	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.97	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991				0.996			0.978			0.975	
Flt Protected				0.950				0.989			0.992	
Satd. Flow (prot)	3479	0	0	3502	3557	0	0	1803	0	0	1791	0
Flt Permitted				0.304				0.913			0.936	
Satd. Flow (perm)	3479	0	0	1121	3557	0	0	1665	0	0	1690	0
Right Turn on Red					Yes			Yes				
Satd. Flow (RTOR)					3			5				
Link Speed (mph)	35				35			25			25	
Link Distance (ft)	643				543			770			658	
Travel Time (s)	12.5				10.6			21.0			17.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	0%	0%	0%	1%	5%	3%	2%	0%	0%	4%	0%
Adj. Flow (vph)	886	56	1	557	905	22	36	101	26	14	55	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	942	0	0	558	927	0	0	163	0	0	85	0
Turn Type	NA		custom	custom	NA		Perm	NA		Perm	NA	
Protected Phases	1				6			4			8	
Permitted Phases			2	2			4			8		
Detector Phase	1		2	2	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	8.0		8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	24.2		26.1	26.1	23.7		25.9	25.9		25.9	25.9	
Total Split (s)	80.0		55.0	55.0	135.0		45.0	45.0		45.0	45.0	
Total Split (%)	44.4%		30.6%	30.6%	75.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	73.8		46.9	46.9	129.3		37.1	37.1		37.1	37.1	
Yellow Time (s)	4.1		3.7	3.7	3.7		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.1		4.4	4.4	2.0		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0			0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2			8.1	5.7			7.9			7.9	
Lead/Lag	Lead		Lag	Lag								
Lead-Lag Optimize?	Yes		Yes	Yes								
Vehicle Extension (s)	5.0		5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	None		C-Max	C-Max	Max		Max	Max		Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0		0	0		0	0	
Act Effect Green (s)	62.1			58.6	129.3			37.1			37.1	
Actuated g/C Ratio	0.34			0.33	0.72			0.21			0.21	
v/c Ratio	0.79			1.53	0.36			0.47			0.24	
Control Delay	57.6			291.8	10.1			66.0			62.0	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	57.6			291.8	10.1			66.0			62.0	
LOS	E			F	B			E			E	
Approach Delay	57.6				115.9			66.0			62.0	

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Projected A.M.
04/15/2024



Lane Group	NER	NER2
Lane Configurations	FF	
Traffic Volume (vph)	404	11
Future Volume (vph)	404	11
Ideal Flow (vphpl)	1900	1900
Lane Util. Factor	0.88	1.00
Frt	0.850	
Flt Protected		
Satd. Flow (prot)	2815	0
Flt Permitted		
Satd. Flow (perm)	2815	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	67	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.94	0.94
Heavy Vehicles (%)	1%	0%
Adj. Flow (vph)	430	12
Shared Lane Traffic (%)		
Lane Group Flow (vph)	442	0
Turn Type	Perm	
Protected Phases		
Permitted Phases	2	
Detector Phase	2	
Switch Phase		
Minimum Initial (s)	8.0	
Minimum Split (s)	26.1	
Total Split (s)	55.0	
Total Split (%)	30.6%	
Maximum Green (s)	46.9	
Yellow Time (s)	3.7	
All-Red Time (s)	4.4	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.1	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	C-Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	58.6	
Actuated g/C Ratio	0.33	
v/c Ratio	0.46	
Control Delay	43.5	
Queue Delay	0.0	
Total Delay	43.5	
LOS	D	
Approach Delay		

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Projected A.M.
04/15/2024

	→	↘	↙	↔	←	↗	↖	↑	↘	↙	↓	↘
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E				F			E			E	
Queue Length 50th (ft)	526			~474	204			166			85	
Queue Length 95th (ft)	560			#640	238			249			143	
Internal Link Dist (ft)	563				463			690			578	
Turn Bay Length (ft)												
Base Capacity (vph)	1426			364	2555			347			348	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.66			1.53	0.36			0.47			0.24	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 91 (51%), Referenced to phase 2:WBL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.53

Intersection Signal Delay: 84.0

Intersection LOS: F

Intersection Capacity Utilization 92.0%

ICU Level of Service F

Analysis Period (min) 15

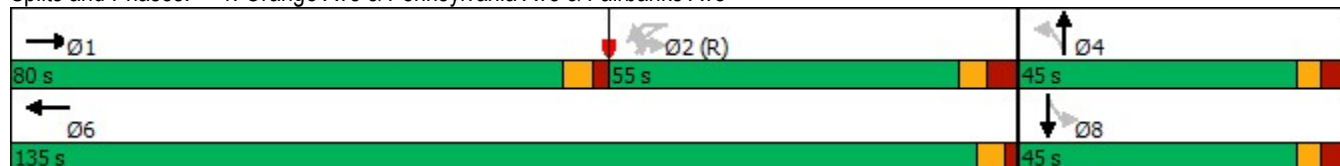
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Orange Ave & Pennsylvania Ave & Fairbanks Ave





Lane Group	NER	NER2
Approach LOS		
Queue Length 50th (ft)	201	
Queue Length 95th (ft)	285	
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)	961	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.46	
Intersection Summary		

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Projected P.M.
04/15/2024

												
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	748	53	3	487	763	20	36	105	19	21	119	25
Future Volume (vph)	748	53	3	487	763	20	36	105	19	21	119	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.97	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.990				0.996			0.984			0.979	
Flt Protected				0.950				0.989			0.994	
Satd. Flow (prot)	3574	0	0	3502	3561	0	0	1849	0	0	1849	0
Flt Permitted				0.341				0.860			0.941	
Satd. Flow (perm)	3574	0	0	1257	3561	0	0	1608	0	0	1750	0
Right Turn on Red						Yes			Yes			
Satd. Flow (RTOR)					3			3				
Link Speed (mph)	35				35			25			25	
Link Distance (ft)	644				543			770			658	
Travel Time (s)	12.5				10.6			21.0			17.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	771	55	3	502	787	21	37	108	20	22	123	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	826	0	0	505	808	0	0	165	0	0	171	0
Turn Type	NA		custom	custom	NA		Perm	NA		Perm	NA	
Protected Phases	1				6			4			8	
Permitted Phases			2	2			4			8		
Detector Phase	1		2	2	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	8.0		8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	24.2		26.1	26.1	23.7		25.9	25.9		25.9	25.9	
Total Split (s)	78.0		76.0	76.0	154.0		66.0	66.0		66.0	66.0	
Total Split (%)	35.5%		34.5%	34.5%	70.0%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	71.8		67.9	67.9	148.3		58.1	58.1		58.1	58.1	
Yellow Time (s)	4.1		3.7	3.7	3.7		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.1		4.4	4.4	2.0		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0			0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2			8.1	5.7			7.9			7.9	
Lead/Lag	Lead		Lag	Lag								
Lead-Lag Optimize?	Yes		Yes	Yes								
Vehicle Extension (s)	5.0		5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	None		C-Max	C-Max	Max		Max	Max		Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0		0	0		0	0	
Act Effect Green (s)	62.4			77.3	148.3			58.1			58.1	
Actuated g/C Ratio	0.28			0.35	0.67			0.26			0.26	
v/c Ratio	0.81			1.15	0.34			0.39			0.37	
Control Delay	80.1			148.4	15.5			68.3			68.9	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	80.1			148.4	15.5			68.3			68.9	
LOS	F			F	B			E			E	
Approach Delay	80.1				66.6			68.3			68.9	

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Projected P.M.
04/15/2024



Lane Group	NER	NER2
Lane Configurations	FF	
Traffic Volume (vph)	666	19
Future Volume (vph)	666	19
Ideal Flow (vphpl)	1900	1900
Lane Util. Factor	0.88	1.00
Frt	0.850	
Flt Protected		
Satd. Flow (prot)	2842	0
Flt Permitted		
Satd. Flow (perm)	2842	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	55	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.97	0.97
Heavy Vehicles (%)	0%	0%
Adj. Flow (vph)	687	20
Shared Lane Traffic (%)		
Lane Group Flow (vph)	707	0
Turn Type	Perm	
Protected Phases		
Permitted Phases	2	
Detector Phase	2	
Switch Phase		
Minimum Initial (s)	8.0	
Minimum Split (s)	26.1	
Total Split (s)	76.0	
Total Split (%)	34.5%	
Maximum Green (s)	67.9	
Yellow Time (s)	3.7	
All-Red Time (s)	4.4	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.1	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	C-Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	77.3	
Actuated g/C Ratio	0.35	
v/c Ratio	0.68	
Control Delay	61.0	
Queue Delay	0.0	
Total Delay	61.0	
LOS	E	
Approach Delay		

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Projected P.M.
04/15/2024

	→	↘	↙	↔	←	↗	↖	↑	↘	↙	↓	↘
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	F				E			E			E	
Queue Length 50th (ft)	594			~440	250			195			205	
Queue Length 95th (ft)	639			#612	286			279			290	
Internal Link Dist (ft)	564				463			690			578	
Turn Bay Length (ft)												
Base Capacity (vph)	1166			441	2401			426			462	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.71			1.15	0.34			0.39			0.37	

Intersection Summary

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 162 (74%), Referenced to phase 2:WBL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay: 69.1

Intersection LOS: E

Intersection Capacity Utilization 100.0%

ICU Level of Service F

Analysis Period (min) 15

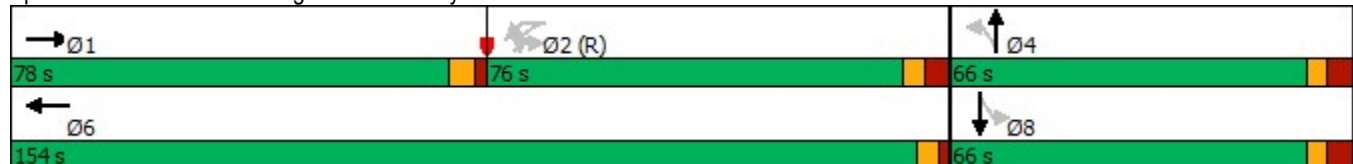
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Orange Ave & Pennsylvania Ave & Fairbanks Ave





Lane Group	NER	NER2
Approach LOS		
Queue Length 50th (ft)	467	
Queue Length 95th (ft)	591	
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)	1033	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.68	
Intersection Summary		

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Projected A.M.
04/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	913	22	14	803	94	15	107	8	50	128	46
Future Volume (vph)	130	913	22	14	803	94	15	107	8	50	128	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	190		0	185		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.985			0.989			0.960	
Flt Protected		0.994			0.999		0.950			0.950		
Satd. Flow (prot)	0	3514	0	0	3487	0	1805	1846	0	1656	1796	0
Flt Permitted		0.620			0.919		0.356			0.413		
Satd. Flow (perm)	0	2192	0	0	3208	0	676	1846	0	720	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			12			2			9	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1314			267			1173			161	
Travel Time (s)		25.6			5.2			32.0			4.4	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	5%	0%	2%	1%	0%	0%	25%	9%	1%	3%
Adj. Flow (vph)	143	1003	24	15	882	103	16	118	9	55	141	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1170	0	0	1000	0	16	127	0	55	192	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2			6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0		15.0	15.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	24.0		24.0	24.0		10.4	23.4		10.4	23.4	
Total Split (s)	15.0	130.0		115.0	115.0		15.0	35.0		15.0	35.0	
Total Split (%)	8.3%	72.2%		63.9%	63.9%		8.3%	19.4%		8.3%	19.4%	
Maximum Green (s)	9.0	124.0		109.0	109.0		9.6	29.6		9.6	29.6	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		5.4	5.4		5.4	5.4	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		Min	Min		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)		135.5			135.5		26.7	21.0		31.3	25.4	
Actuated g/C Ratio		0.75			0.75		0.15	0.12		0.17	0.14	
v/c Ratio		0.71			0.41		0.11	0.59		0.32	0.74	
Control Delay		15.2			9.4		56.8	84.2		63.3	87.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 5

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Projected A.M.
04/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		15.2			9.4		56.8	84.2		63.3	87.2	
LOS		B			A		E	F		E	F	
Approach Delay		15.2			9.4			81.1			81.9	
Approach LOS		B			A			F			F	
Queue Length 50th (ft)		134			215		16	144		55	214	
Queue Length 95th (ft)		m755			306		38	209		95	298	
Internal Link Dist (ft)		1234			187			1093			81	
Turn Bay Length (ft)							190			185		
Base Capacity (vph)		1651			2418		168	305		175	304	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.71			0.41		0.10	0.42		0.31	0.63	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 82 (46%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 23.1

Intersection LOS: C

Intersection Capacity Utilization 82.3%

ICU Level of Service E

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Denning Dr & Fairbanks Ave



Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Projected P.M.
04/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	829	27	20	791	107	36	212	16	104	200	62
Future Volume (vph)	157	829	27	20	791	107	36	212	16	104	200	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	190		0	185		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.982			0.990			0.965	
Flt Protected		0.992			0.999		0.950			0.950		
Satd. Flow (prot)	0	3567	0	0	3511	0	1703	1881	0	1805	1816	0
Flt Permitted		0.591			0.912		0.383			0.264		
Satd. Flow (perm)	0	2125	0	0	3205	0	687	1881	0	502	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			17			3			12	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1314			357			1173			181	
Travel Time (s)		25.6			7.0			32.0			4.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	6%	0%	0%	0%	0%	4%
Adj. Flow (vph)	167	882	29	21	841	114	38	226	17	111	213	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1078	0	0	976	0	38	243	0	111	279	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2			6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	10.0	15.0		15.0	15.0		4.0	10.0		4.0	5.0	
Minimum Split (s)	16.0	24.0		24.0	24.0		10.4	23.4		10.4	23.4	
Total Split (s)	16.0	72.0		57.0	57.0		15.0	23.0		15.0	23.0	
Total Split (%)	14.4%	64.9%		51.4%	51.4%		13.5%	20.7%		13.5%	20.7%	
Maximum Green (s)	10.0	66.0		51.0	51.0		9.6	17.6		9.6	17.6	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		5.4	5.4		5.4	5.4	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		Min	Min		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)		68.3			68.3		24.1	16.8		28.9	23.1	
Actuated g/C Ratio		0.62			0.62		0.22	0.15		0.26	0.21	
v/c Ratio		0.82			0.49		0.18	0.85		0.47	0.72	
Control Delay		23.9			12.9		30.7	71.4		36.8	52.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 5

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Projected P.M.
04/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		23.9			12.9		30.7	71.4		36.8	52.4	
LOS		C			B		C	E		D	D	
Approach Delay		23.9			12.9			65.9			48.0	
Approach LOS		C			B			E			D	
Queue Length 50th (ft)		303			191		20	167		60	186	
Queue Length 95th (ft)		417			242		46	#296		106	#355	
Internal Link Dist (ft)		1234			277			1093			101	
Turn Bay Length (ft)							190			185		
Base Capacity (vph)		1308			1978		251	300		243	387	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.82			0.49		0.15	0.81		0.46	0.72	

Intersection Summary

Area Type: Other

Cycle Length: 111

Actuated Cycle Length: 111

Offset: 20 (18%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 27.7

Intersection LOS: C

Intersection Capacity Utilization 91.1%

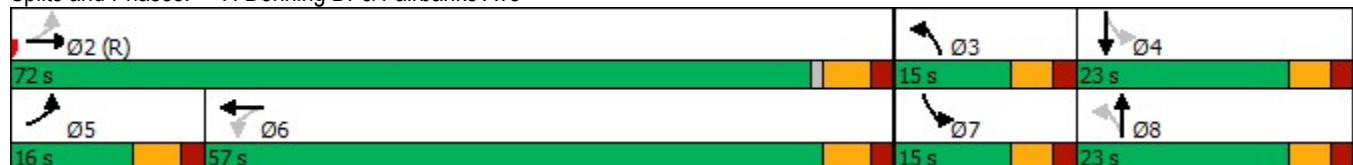
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Denning Dr & Fairbanks Ave



Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Projected A.M.
04/15/2024

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	75	942	186	1	139	837	47	7	285	871	111	125
Future Volume (vph)	75	942	186	1	139	837	47	7	285	871	111	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		0		375		0		175		0	175
Storage Lanes	1		0		1		0		1		0	1
Taper Length (ft)	25				25				25			25
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Frt		0.975				0.992				0.983		
Flt Protected	0.950				0.950				0.950			0.950
Satd. Flow (prot)	1687	3485	0	0	1770	3544	0	0	1754	3479	0	1805
Flt Permitted	0.950				0.950				0.950			0.950
Satd. Flow (perm)	1687	3485	0	0	1770	3544	0	0	1754	3479	0	1805
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)		14				3				8		
Link Speed (mph)		35				35				35		
Link Distance (ft)		1558				1314				1656		
Travel Time (s)		30.4				25.6				32.3		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	1%	1%	0%	2%	1%	2%	0%	3%	2%	2%	0%
Adj. Flow (vph)	81	1013	200	1	149	900	51	8	306	937	119	134
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	1213	0	0	150	951	0	0	314	1056	0	134
Turn Type	Prot	NA		Prot	Prot	NA		Prot	Prot	NA		Prot
Protected Phases	3	8		7	7	4		1	1	6		5
Permitted Phases												
Detector Phase	3	8		7	7	4		1	1	6		5
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	5.0	7.0		5.0	5.0	15.0		5.0
Minimum Split (s)	11.0	24.0		11.2	11.2	24.6		11.0	11.0	24.0		11.0
Total Split (s)	38.0	70.0		20.0	20.0	52.0		25.0	25.0	70.0		20.0
Total Split (%)	21.1%	38.9%		11.1%	11.1%	28.9%		13.9%	13.9%	38.9%		11.1%
Maximum Green (s)	32.0	64.0		13.8	13.8	45.4		19.0	19.0	64.0		14.0
Yellow Time (s)	4.0	4.0		4.1	4.1	4.1		4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		2.1	2.1	2.5		2.0	2.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0			6.2	6.6			6.0	6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	4.0		3.0
Recall Mode	None	None		None	None	None		None	None	C-Min		None
Walk Time (s)		7.0				7.0				7.0		
Flash Dont Walk (s)		11.0				11.0				11.0		
Pedestrian Calls (#/hr)		0				0				0		
Act Effct Green (s)	14.0	64.0			16.4	66.0			19.0	61.4		14.0
Actuated g/C Ratio	0.08	0.36			0.09	0.37			0.11	0.34		0.08
v/c Ratio	0.62	0.97			0.93	0.73			1.70	0.89		0.96
Control Delay	99.7	75.4			130.7	57.6			377.6	65.4		144.5
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0		0.0

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 7

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Projected A.M.
04/15/2024



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	724	74
Future Volume (vph)	724	74
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		125
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1568
Flt Permitted		
Satd. Flow (perm)	3539	1568
Right Turn on Red		Yes
Satd. Flow (RTOR)		132
Link Speed (mph)	35	
Link Distance (ft)	1093	
Travel Time (s)	21.3	
Peak Hour Factor	0.93	0.93
Heavy Vehicles (%)	2%	3%
Adj. Flow (vph)	778	80
Shared Lane Traffic (%)		
Lane Group Flow (vph)	778	80
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		
Minimum Initial (s)	15.0	15.0
Minimum Split (s)	24.0	24.0
Total Split (s)	65.0	65.0
Total Split (%)	36.1%	36.1%
Maximum Green (s)	59.0	59.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	6.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Recall Mode	C-Min	C-Min
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	56.4	56.4
Actuated g/C Ratio	0.31	0.31
v/c Ratio	0.70	0.14
Control Delay	58.0	0.5
Queue Delay	0.0	0.0

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Projected A.M.
04/15/2024

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Total Delay	99.7	75.4			130.7	57.6			377.6	65.4		144.5
LOS	F	E			F	E			F	E		F
Approach Delay		76.9				67.5				136.9		
Approach LOS		E				E				F		
Queue Length 50th (ft)	95	738			~204	531			~541	604		161
Queue Length 95th (ft)	154	#893			#365	603			#752	700		#310
Internal Link Dist (ft)		1478				1234				1576		
Turn Bay Length (ft)	550				375				175			175
Base Capacity (vph)	299	1248			161	1300			185	1242		140
Starvation Cap Reductn	0	0			0	0			0	0		0
Spillback Cap Reductn	0	0			0	0			0	0		0
Storage Cap Reductn	0	0			0	0			0	0		0
Reduced v/c Ratio	0.27	0.97			0.93	0.73			1.70	0.85		0.96

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 149 (83%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.70

Intersection Signal Delay: 89.6

Intersection LOS: F

Intersection Capacity Utilization 96.1%

ICU Level of Service F

Analysis Period (min) 15

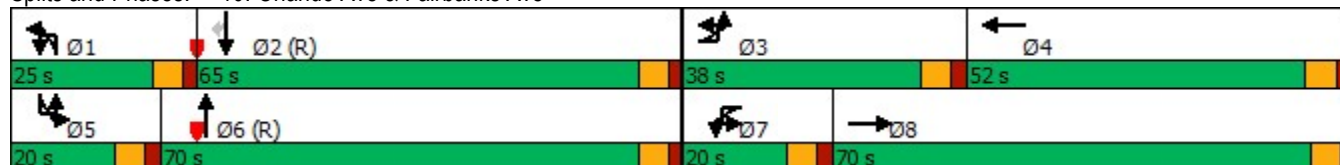
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Orlando Ave & Fairbanks Ave





Lane Group	SBT	SBR
Total Delay	58.0	0.5
LOS	E	A
Approach Delay	65.1	
Approach LOS	E	
Queue Length 50th (ft)	418	0
Queue Length 95th (ft)	495	0
Internal Link Dist (ft)	1013	
Turn Bay Length (ft)		125
Base Capacity (vph)	1160	602
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.67	0.13
Intersection Summary		

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Projected P.M.
04/15/2024

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	1	114	1056	280	159	1213	46	5	324	722	134	1
Future Volume (vph)	1	114	1056	280	159	1213	46	5	324	722	134	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		550		0	375		0		175		0	
Storage Lanes		1		0	1		0		1		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	0.95	1.00	0.95	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.969			0.995				0.976		
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	1787	3498	0	1787	3592	0	0	1787	3488	0	0
Flt Permitted		0.950			0.950				0.950			
Satd. Flow (perm)	0	1787	3498	0	1787	3592	0	0	1787	3488	0	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)			16			2				11		
Link Speed (mph)			35			35				35		
Link Distance (ft)			1558			1314				1656		
Travel Time (s)			30.4			25.6				32.3		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	1%	1%	1%	0%
Adj. Flow (vph)	1	119	1100	292	166	1264	48	5	338	752	140	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	120	1392	0	166	1312	0	0	343	892	0	0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	Prot	NA		Prot
Protected Phases	3	3	8		7	4		1	1	6		5
Permitted Phases												
Detector Phase	3	3	8		7	4		1	1	6		5
Switch Phase												
Minimum Initial (s)	5.0	5.0	7.0		5.0	7.0		5.0	5.0	15.0		5.0
Minimum Split (s)	11.0	11.0	24.0		11.2	24.6		11.0	11.0	24.0		11.0
Total Split (s)	43.0	43.0	75.0		25.0	57.0		30.0	30.0	92.0		28.0
Total Split (%)	19.5%	19.5%	34.1%		11.4%	25.9%		13.6%	13.6%	41.8%		12.7%
Maximum Green (s)	37.0	37.0	69.0		18.8	50.4		24.0	24.0	86.0		22.0
Yellow Time (s)	4.0	4.0	4.0		4.1	4.1		4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	2.0		2.1	2.5		2.0	2.0	2.0		2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0			0.0	0.0		
Total Lost Time (s)		6.0	6.0		6.2	6.6			6.0	6.0		
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	4.0		3.0
Recall Mode	None	None	None		None	None		None	None	C-Min		None
Walk Time (s)			7.0			7.0				7.0		
Flash Dont Walk (s)			11.0			11.0				11.0		
Pedestrian Calls (#/hr)			0			0				0		
Act Effct Green (s)		20.1	78.1		30.4	88.0			24.1	70.0		
Actuated g/C Ratio		0.09	0.36		0.14	0.40			0.11	0.32		
v/c Ratio		0.74	1.11		0.67	0.91			1.76	0.80		
Control Delay		122.0	122.6		104.2	71.0			408.1	73.4		
Queue Delay		0.0	0.0		0.0	0.0			0.0	0.0		

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 7

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Projected P.M.
04/15/2024

			
Lane Group	SBL	SBT	SBR
Lane Configurations		 	
Traffic Volume (vph)	96	720	86
Future Volume (vph)	96	720	86
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	175		125
Storage Lanes	1		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	1805	3574	1615
Flt Permitted	0.950		
Satd. Flow (perm)	1805	3574	1615
Right Turn on Red			Yes
Satd. Flow (RTOR)			108
Link Speed (mph)		35	
Link Distance (ft)		1093	
Travel Time (s)		21.3	
Peak Hour Factor	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	0%
Adj. Flow (vph)	100	750	90
Shared Lane Traffic (%)			
Lane Group Flow (vph)	101	750	90
Turn Type	Prot	NA	Perm
Protected Phases	5	2	
Permitted Phases			2
Detector Phase	5	2	2
Switch Phase			
Minimum Initial (s)	5.0	15.0	15.0
Minimum Split (s)	11.0	24.0	24.0
Total Split (s)	28.0	90.0	90.0
Total Split (%)	12.7%	40.9%	40.9%
Maximum Green (s)	22.0	84.0	84.0
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	4.0	4.0
Recall Mode	None	C-Min	C-Min
Walk Time (s)		7.0	7.0
Flash Dont Walk (s)		11.0	11.0
Pedestrian Calls (#/hr)		0	0
Act Effct Green (s)	17.2	63.2	63.2
Actuated g/C Ratio	0.08	0.29	0.29
v/c Ratio	0.72	0.73	0.17
Control Delay	125.2	74.6	4.2
Queue Delay	0.0	0.0	0.0

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 8

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Projected P.M.
04/15/2024

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Total Delay		122.0	122.6		104.2	71.0			408.1	73.4		
LOS		F	F		F	E			F	E		
Approach Delay			122.6			74.8				166.3		
Approach LOS			F			E				F		
Queue Length 50th (ft)		173	~1210		233	953			~737	622		
Queue Length 95th (ft)		250	#1452		#350	#1323			#965	673		
Internal Link Dist (ft)			1478			1234				1576		
Turn Bay Length (ft)		550			375				175			
Base Capacity (vph)		300	1252		246	1438			195	1370		
Starvation Cap Reductn		0	0		0	0			0	0		
Spillback Cap Reductn		0	0		0	0			0	0		
Storage Cap Reductn		0	0		0	0			0	0		
Reduced v/c Ratio		0.40	1.11		0.67	0.91			1.76	0.65		

Intersection Summary

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 29 (13%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.76

Intersection Signal Delay: 110.4

Intersection LOS: F

Intersection Capacity Utilization 105.2%

ICU Level of Service G

Analysis Period (min) 15

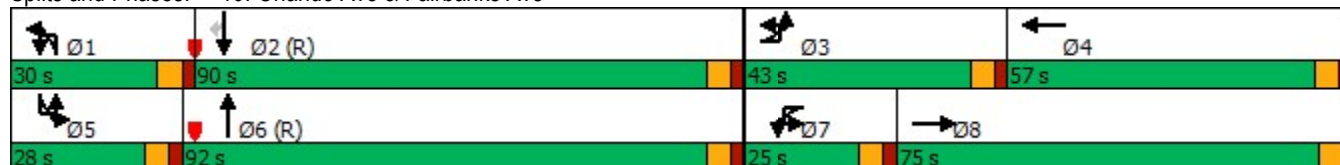
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Orlando Ave & Fairbanks Ave





Lane Group	SBL	SBT	SBR
Total Delay	125.2	74.6	4.2
LOS	F	E	A
Approach Delay	73.3		
Approach LOS	E		
Queue Length 50th (ft)	146	521	0
Queue Length 95th (ft)	220	554	29
Internal Link Dist (ft)	1013		
Turn Bay Length (ft)	175		125
Base Capacity (vph)	180	1364	683
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.56	0.55	0.13
Intersection Summary			

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	5	286	45	6	200
Future Vol, veh/h	24	5	286	45	6	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	5	311	49	7	217
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	567	336	0	0	360	0
Stage 1	336	-	-	-	-	-
Stage 2	231	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	485	706	-	-	1199	-
Stage 1	724	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	482	706	-	-	1199	-
Mov Cap-2 Maneuver	482	-	-	-	-	-
Stage 1	724	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.5	0		0.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 510		1199	-	
HCM Lane V/C Ratio	-	- 0.062		0.005	-	
HCM Control Delay (s)	-	- 12.5		8	0	
HCM Lane LOS	-	- B		A	A	
HCM 95th %tile Q(veh)	-	- 0.2		0	-	

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	8	413	63	9	331
Future Vol, veh/h	35	8	413	63	9	331
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	9	449	68	10	360
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	863	483	0	0	517	0
Stage 1	483	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	325	584	-	-	1049	-
Stage 1	620	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	321	584	-	-	1049	-
Mov Cap-2 Maneuver	321	-	-	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	16.9	0		0.2		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-		350	1049	
HCM Lane V/C Ratio	-	-		0.134	0.009	
HCM Control Delay (s)	-	-		16.9	8.5	
HCM Lane LOS	-	-		C	A	
HCM 95th %tile Q(veh)	-	-		0.5	0	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↗
Traffic Vol, veh/h	0	971	894	0	0	17
Future Vol, veh/h	0	971	894	0	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1055	972	0	0	18
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	486
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	527
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	527
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		12.1		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	527			
HCM Lane V/C Ratio	-	-	0.035			
HCM Control Delay (s)	-	-	12.1			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.1			

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↗
Traffic Vol, veh/h	0	949	895	0	0	23
Future Vol, veh/h	0	949	895	0	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1032	973	0	0	25
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	487
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	526
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	526
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		12.2		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	526			
HCM Lane V/C Ratio	-	-	0.048			
HCM Control Delay (s)	-	-	12.2			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.1			

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	21	29	36	0
Future Vol, veh/h	0	9	21	29	36	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	23	32	39	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	117	39	39	0	-	0
Stage 1	39	-	-	-	-	-
Stage 2	78	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	879	1033	1571	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	866	1033	1571	-	-	-
Mov Cap-2 Maneuver	866	-	-	-	-	-
Stage 1	968	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	3.1		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1571	-	1033	-	-	
HCM Lane V/C Ratio	0.015	-	0.009	-	-	
HCM Control Delay (s)	7.3	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	27	70	85	0
Future Vol, veh/h	0	13	27	70	85	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	29	76	92	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	226	92	92	0	-	0
Stage 1	92	-	-	-	-	-
Stage 2	134	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	762	965	1503	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	747	965	1503	-	-	-
Mov Cap-2 Maneuver	747	-	-	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	2.1		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1503	-	965	-	-	
HCM Lane V/C Ratio	0.02	-	0.015	-	-	
HCM Control Delay (s)	7.4	0	8.8	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0	-	-	

Optimized

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Proj. A.M. - Optimized
04/15/2024

												
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	833	53	1	524	851	21	34	95	24	13	52	15
Future Volume (vph)	833	53	1	524	851	21	34	95	24	13	52	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.97	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991				0.996			0.978			0.975	
Flt Protected				0.950				0.989			0.992	
Satd. Flow (prot)	3479	0	0	3502	3557	0	0	1803	0	0	1791	0
Flt Permitted				0.304				0.862			0.771	
Satd. Flow (perm)	3479	0	0	1121	3557	0	0	1572	0	0	1392	0
Right Turn on Red					Yes			Yes				
Satd. Flow (RTOR)					5			4				
Link Speed (mph)	35				35			25			25	
Link Distance (ft)	643				543			770			658	
Travel Time (s)	12.5				10.6			21.0			17.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	0%	0%	0%	1%	5%	3%	2%	0%	0%	4%	0%
Adj. Flow (vph)	886	56	1	557	905	22	36	101	26	14	55	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	942	0	0	558	927	0	0	163	0	0	85	0
Turn Type	NA		custom	custom	NA		Perm	NA		Perm	NA	
Protected Phases	1				6			4			8	
Permitted Phases			2	2			4			8		
Detector Phase	1		2	2	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	8.0		8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	24.2		26.1	26.1	23.7		25.9	25.9		25.9	25.9	
Total Split (s)	54.0		99.8	99.8	153.8		26.2	26.2		26.2	26.2	
Total Split (%)	30.0%		55.4%	55.4%	85.4%		14.6%	14.6%		14.6%	14.6%	
Maximum Green (s)	47.8		91.7	91.7	148.1		18.3	18.3		18.3	18.3	
Yellow Time (s)	4.1		3.7	3.7	3.7		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.1		4.4	4.4	2.0		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0			0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2			8.1	5.7			7.9			7.9	
Lead/Lag	Lead		Lag	Lag								
Lead-Lag Optimize?	Yes		Yes	Yes								
Vehicle Extension (s)	5.0		5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	None		C-Max	C-Max	Max		Max	Max		Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0		0	0		0	0	
Act Effect Green (s)	47.8			91.7	148.1			18.3			18.3	
Actuated g/C Ratio	0.27			0.51	0.82			0.10			0.10	
v/c Ratio	1.02			0.98	0.32			1.00			0.60	
Control Delay	98.4			75.0	4.1			146.0			95.9	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	98.4			75.0	4.1			146.0			95.9	
LOS	F			E	A			F			F	
Approach Delay	98.4				30.8			146.0			95.9	

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Proj. A.M. - Optimized
04/15/2024



Lane Group	NER	NER2
Lane Configurations	FF	
Traffic Volume (vph)	404	11
Future Volume (vph)	404	11
Ideal Flow (vphpl)	1900	1900
Lane Util. Factor	0.88	1.00
Frt	0.850	
Flt Protected		
Satd. Flow (prot)	2815	0
Flt Permitted		
Satd. Flow (perm)	2815	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	67	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.94	0.94
Heavy Vehicles (%)	1%	0%
Adj. Flow (vph)	430	12
Shared Lane Traffic (%)		
Lane Group Flow (vph)	442	0
Turn Type	Perm	
Protected Phases		
Permitted Phases	2	
Detector Phase	2	
Switch Phase		
Minimum Initial (s)	8.0	
Minimum Split (s)	26.1	
Total Split (s)	99.8	
Total Split (%)	55.4%	
Maximum Green (s)	91.7	
Yellow Time (s)	3.7	
All-Red Time (s)	4.4	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.1	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	C-Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	91.7	
Actuated g/C Ratio	0.51	
v/c Ratio	0.30	
Control Delay	22.0	
Queue Delay	0.0	
Total Delay	22.0	
LOS	C	
Approach Delay		

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 2

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Proj. A.M. - Optimized
04/15/2024

	→	↘	↙	↔	←	↗	↖	↑	↘	↙	↓	↘
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	F				C			F			F	
Queue Length 50th (ft)	~617			327	117			192			98	
Queue Length 95th (ft)	#757			#470	137			#362			166	
Internal Link Dist (ft)	563				463			690			578	
Turn Bay Length (ft)												
Base Capacity (vph)	923			571	2927			163			141	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	1.02			0.98	0.32			1.00			0.60	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 91 (51%), Referenced to phase 2:WBL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 57.8

Intersection LOS: E

Intersection Capacity Utilization 92.0%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

→ Ø1	↘ Ø2 (R)	↑ Ø4
54 s	99.8 s	26.2 s
← Ø6		↓ Ø8
153.8 s		26.2 s



Lane Group	NER	NER2
Approach LOS		
Queue Length 50th (ft)	142	
Queue Length 95th (ft)	186	
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)	1466	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.30	
Intersection Summary		

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Proj. P.M. - Optimized
04/15/2024

												
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	748	53	3	487	763	20	36	105	19	21	119	25
Future Volume (vph)	748	53	3	487	763	20	36	105	19	21	119	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.97	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.990				0.996			0.984			0.979	
Flt Protected				0.950				0.989			0.994	
Satd. Flow (prot)	3574	0	0	3502	3561	0	0	1849	0	0	1849	0
Flt Permitted				0.341				0.708			0.881	
Satd. Flow (perm)	3574	0	0	1257	3561	0	0	1324	0	0	1639	0
Right Turn on Red						Yes			Yes			
Satd. Flow (RTOR)					4			3				
Link Speed (mph)	35				35			25			25	
Link Distance (ft)	644				543			770			658	
Travel Time (s)	12.5				10.6			21.0			17.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	771	55	3	502	787	21	37	108	20	22	123	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	826	0	0	505	808	0	0	165	0	0	171	0
Turn Type	NA		custom	custom	NA		Perm	NA		Perm	NA	
Protected Phases	1				6			4			8	
Permitted Phases			2	2			4			8		
Detector Phase	1		2	2	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	8.0		8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	24.2		26.1	26.1	23.7		25.9	25.9		25.9	25.9	
Total Split (s)	62.0		115.0	115.0	177.0		43.0	43.0		43.0	43.0	
Total Split (%)	28.2%		52.3%	52.3%	80.5%		19.5%	19.5%		19.5%	19.5%	
Maximum Green (s)	55.8		106.9	106.9	171.3		35.1	35.1		35.1	35.1	
Yellow Time (s)	4.1		3.7	3.7	3.7		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.1		4.4	4.4	2.0		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0			0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2			8.1	5.7			7.9			7.9	
Lead/Lag	Lead		Lag	Lag								
Lead-Lag Optimize?	Yes		Yes	Yes								
Vehicle Extension (s)	5.0		5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	None		C-Max	C-Max	Max		Max	Max		Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0		0	0		0	0	
Act Effect Green (s)	55.2			107.5	171.3			35.1			35.1	
Actuated g/C Ratio	0.25			0.49	0.78			0.16			0.16	
v/c Ratio	0.92			0.82	0.29			0.77			0.66	
Control Delay	96.0			61.3	7.2			110.4			99.7	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	96.0			61.3	7.2			110.4			99.7	
LOS	F			E	A			F			F	
Approach Delay	96.0				28.0			110.4			99.7	

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Proj. P.M. - Optimized
04/15/2024



Lane Group	NER	NER2
Lane Configurations	FF	
Traffic Volume (vph)	666	19
Future Volume (vph)	666	19
Ideal Flow (vphpl)	1900	1900
Lane Util. Factor	0.88	1.00
Frt	0.850	
Flt Protected		
Satd. Flow (prot)	2842	0
Flt Permitted		
Satd. Flow (perm)	2842	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	55	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.97	0.97
Heavy Vehicles (%)	0%	0%
Adj. Flow (vph)	687	20
Shared Lane Traffic (%)		
Lane Group Flow (vph)	707	0
Turn Type	Perm	
Protected Phases		
Permitted Phases	2	
Detector Phase	2	
Switch Phase		
Minimum Initial (s)	8.0	
Minimum Split (s)	26.1	
Total Split (s)	115.0	
Total Split (%)	52.3%	
Maximum Green (s)	106.9	
Yellow Time (s)	3.7	
All-Red Time (s)	4.4	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	8.1	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	5.0	
Recall Mode	C-Max	
Walk Time (s)	7.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	107.5	
Actuated g/C Ratio	0.49	
v/c Ratio	0.50	
Control Delay	36.3	
Queue Delay	0.0	
Total Delay	36.3	
LOS	D	
Approach Delay		

Lanes, Volumes, Timings
1: Orange Ave & Pennsylvania Ave & Fairbanks Ave

Proj. P.M. - Optimized
04/15/2024

	→	↘	↙	↔	←	↗	↖	↑	↘	↙	↓	↘
Lane Group	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	F				C			F			F	
Queue Length 50th (ft)	621			323	162			230			237	
Queue Length 95th (ft)	#720			426	186			#351			336	
Internal Link Dist (ft)	564				463			690			578	
Turn Bay Length (ft)												
Base Capacity (vph)	906			614	2773			213			261	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.91			0.82	0.29			0.77			0.66	

Intersection Summary

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 162 (74%), Referenced to phase 2:WBL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 55.6

Intersection LOS: E

Intersection Capacity Utilization 100.0%

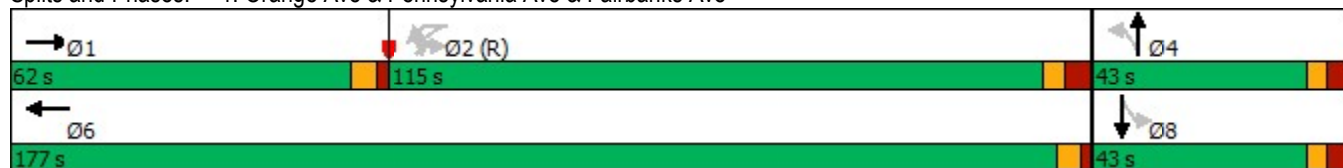
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Orange Ave & Pennsylvania Ave & Fairbanks Ave





Lane Group	NER	NER2
Approach LOS		
Queue Length 50th (ft)	364	
Queue Length 95th (ft)	433	
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)	1417	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.50	
Intersection Summary		

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Proj. A.M. - Optimized
04/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	913	22	14	803	94	15	107	8	50	128	46
Future Volume (vph)	130	913	22	14	803	94	15	107	8	50	128	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	190		0	185		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.985			0.989			0.960	
Flt Protected		0.994			0.999		0.950			0.950		
Satd. Flow (prot)	0	3514	0	0	3487	0	1805	1846	0	1656	1796	0
Flt Permitted		0.621			0.919		0.359			0.394		
Satd. Flow (perm)	0	2195	0	0	3208	0	682	1846	0	687	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			14			2			9	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1314			267			1173			161	
Travel Time (s)		25.6			5.2			32.0			4.4	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	5%	0%	2%	1%	0%	0%	25%	9%	1%	3%
Adj. Flow (vph)	143	1003	24	15	882	103	16	118	9	55	141	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1170	0	0	1000	0	16	127	0	55	192	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2			6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	15.0		15.0	15.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	24.0		24.0	24.0		10.4	23.4		10.4	23.4	
Total Split (s)	11.0	134.6		123.6	123.6		10.4	33.4		12.0	35.0	
Total Split (%)	6.1%	74.8%		68.7%	68.7%		5.8%	18.6%		6.7%	19.4%	
Maximum Green (s)	5.0	128.6		117.6	117.6		5.0	28.0		6.6	29.6	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		5.4	5.4		5.4	5.4	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		Min	Min		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)		136.4			136.4		25.3	20.3		30.9	25.1	
Actuated g/C Ratio		0.76			0.76		0.14	0.11		0.17	0.14	
v/c Ratio		0.70			0.41		0.12	0.61		0.33	0.74	
Control Delay		15.1			8.9		58.7	86.5		65.5	88.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 5

Lanes, Volumes, Timings
7: Denning Dr & Fairbanks Ave

Proj. A.M. - Optimized
04/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		15.1			8.9		58.7	86.5		65.5	88.1	
LOS		B			A		E	F		E	F	
Approach Delay		15.1			8.9			83.4			83.1	
Approach LOS		B			A			F			F	
Queue Length 50th (ft)		205			215		16	144		55	214	
Queue Length 95th (ft)		m727			277		39	211		98	301	
Internal Link Dist (ft)		1234			187			1093			81	
Turn Bay Length (ft)							190			185		
Base Capacity (vph)		1664			2434		134	288		165	302	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.70			0.41		0.12	0.44		0.33	0.64	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 82 (46%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 23.1

Intersection LOS: C

Intersection Capacity Utilization 82.3%

ICU Level of Service E

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Denning Dr & Fairbanks Ave



Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Proj. A.M. - Optimized
04/15/2024

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	75	942	186	1	139	837	47	7	285	871	111	125
Future Volume (vph)	75	942	186	1	139	837	47	7	285	871	111	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		0		375		0		175		0	175
Storage Lanes	1		0		1		0		1		0	1
Taper Length (ft)	25				25				25			25
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Frt		0.975				0.992				0.983		
Flt Protected	0.950				0.950				0.950			0.950
Satd. Flow (prot)	1687	3485	0	0	1770	3544	0	0	1754	3479	0	1805
Flt Permitted	0.950				0.950				0.950			0.950
Satd. Flow (perm)	1687	3485	0	0	1770	3544	0	0	1754	3479	0	1805
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)		14				3				8		
Link Speed (mph)		35				35				35		
Link Distance (ft)		1558				1314				1656		
Travel Time (s)		30.4				25.6				32.3		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	1%	1%	0%	2%	1%	2%	0%	3%	2%	2%	0%
Adj. Flow (vph)	81	1013	200	1	149	900	51	8	306	937	119	134
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	1213	0	0	150	951	0	0	314	1056	0	134
Turn Type	Prot	NA		Prot	Prot	NA		Prot	Prot	NA		Prot
Protected Phases	3	8		7	7	4		1	1	6		5
Permitted Phases												
Detector Phase	3	8		7	7	4		1	1	6		5
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	5.0	7.0		5.0	5.0	15.0		5.0
Minimum Split (s)	11.0	24.0		11.2	11.2	24.6		11.0	11.0	24.0		11.0
Total Split (s)	22.0	67.0		23.0	23.0	68.0		39.0	39.0	70.0		20.0
Total Split (%)	12.2%	37.2%		12.8%	12.8%	37.8%		21.7%	21.7%	38.9%		11.1%
Maximum Green (s)	16.0	61.0		16.8	16.8	61.4		33.0	33.0	64.0		14.0
Yellow Time (s)	4.0	4.0		4.1	4.1	4.1		4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		2.1	2.1	2.5		2.0	2.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0			6.2	6.6			6.0	6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	4.0		3.0
Recall Mode	None	None		None	None	None		None	None	C-Min		None
Walk Time (s)		7.0				7.0				7.0		
Flash Dont Walk (s)		11.0				11.0				11.0		
Pedestrian Calls (#/hr)		0				0				0		
Act Effct Green (s)	13.3	62.2			16.7	65.2			33.0	63.0		14.0
Actuated g/C Ratio	0.07	0.35			0.09	0.36			0.18	0.35		0.08
v/c Ratio	0.65	1.00			0.91	0.74			0.98	0.86		0.96
Control Delay	104.7	82.9			131.4	55.8			116.2	62.6		144.9
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0		0.0

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 7

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Proj. A.M. - Optimized
04/15/2024



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	724	74
Future Volume (vph)	724	74
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		125
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1568
Flt Permitted		
Satd. Flow (perm)	3539	1568
Right Turn on Red		Yes
Satd. Flow (RTOR)		131
Link Speed (mph)	35	
Link Distance (ft)	1093	
Travel Time (s)	21.3	
Peak Hour Factor	0.93	0.93
Heavy Vehicles (%)	2%	3%
Adj. Flow (vph)	778	80
Shared Lane Traffic (%)		
Lane Group Flow (vph)	778	80
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		
Minimum Initial (s)	15.0	15.0
Minimum Split (s)	24.0	24.0
Total Split (s)	51.0	51.0
Total Split (%)	28.3%	28.3%
Maximum Green (s)	45.0	45.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	6.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Recall Mode	C-Min	C-Min
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	44.0	44.0
Actuated g/C Ratio	0.24	0.24
v/c Ratio	0.90	0.17
Control Delay	80.0	0.7
Queue Delay	0.0	0.0

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 8

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Proj. A.M. - Optimized
04/15/2024

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Total Delay	104.7	82.9			131.4	55.8			116.2	62.6		144.9
LOS	F	F			F	E			F	E		F
Approach Delay		84.3				66.1				74.9		
Approach LOS		F				E				E		
Queue Length 50th (ft)	95	~789			182	531			375	604		161
Queue Length 95th (ft)	157	#931			#328	673			#585	700		#310
Internal Link Dist (ft)		1478				1234				1576		
Turn Bay Length (ft)	550				375				175			175
Base Capacity (vph)	149	1212			165	1285			321	1242		140
Starvation Cap Reductn	0	0			0	0			0	0		0
Spillback Cap Reductn	0	0			0	0			0	0		0
Storage Cap Reductn	0	0			0	0			0	0		0
Reduced v/c Ratio	0.54	1.00			0.91	0.74			0.98	0.85		0.96

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 149 (83%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 77.0

Intersection LOS: E

Intersection Capacity Utilization 96.1%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Orlando Ave & Fairbanks Ave

 Ø1	 Ø2 (R)	 Ø3	 Ø4
39 s	51 s	22 s	68 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
20 s	70 s	23 s	67 s



Lane Group	SBT	SBR
Total Delay	80.0	0.7
LOS	E	A
Approach Delay	82.4	
Approach LOS	F	
Queue Length 50th (ft)	470	0
Queue Length 95th (ft)	#556	0
Internal Link Dist (ft)	1013	
Turn Bay Length (ft)		125
Base Capacity (vph)	884	490
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.88	0.16
Intersection Summary		

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Proj. P.M. - Optimized
04/15/2024

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	1	114	1056	280	159	1213	46	5	324	722	134	1
Future Volume (vph)	1	114	1056	280	159	1213	46	5	324	722	134	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		550		0	375		0		175		0	
Storage Lanes		1		0	1		0		1		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	0.95	1.00	0.95	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.969			0.995				0.976		
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	1787	3498	0	1787	3592	0	0	1787	3488	0	0
Flt Permitted		0.950			0.950				0.950			
Satd. Flow (perm)	0	1787	3498	0	1787	3592	0	0	1787	3488	0	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)			17			2				11		
Link Speed (mph)			35			35				35		
Link Distance (ft)			1558			1314				1656		
Travel Time (s)			30.4			25.6				32.3		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	1%	1%	1%	0%
Adj. Flow (vph)	1	119	1100	292	166	1264	48	5	338	752	140	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	120	1392	0	166	1312	0	0	343	892	0	0
Turn Type	Prot	Prot	NA		Prot	NA		Prot	Prot	NA		Prot
Protected Phases	3	3	8		7	4		1	1	6		5
Permitted Phases												
Detector Phase	3	3	8		7	4		1	1	6		5
Switch Phase												
Minimum Initial (s)	5.0	5.0	7.0		5.0	7.0		5.0	5.0	15.0		5.0
Minimum Split (s)	11.0	11.0	24.0		11.2	24.6		11.0	11.0	24.0		11.0
Total Split (s)	24.0	24.0	89.0		27.3	92.3		47.0	47.0	81.7		22.0
Total Split (%)	10.9%	10.9%	40.5%		12.4%	42.0%		21.4%	21.4%	37.1%		10.0%
Maximum Green (s)	18.0	18.0	83.0		21.1	85.7		41.0	41.0	75.7		16.0
Yellow Time (s)	4.0	4.0	4.0		4.1	4.1		4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	2.0		2.1	2.5		2.0	2.0	2.0		2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0			0.0	0.0		
Total Lost Time (s)		6.0	6.0		6.2	6.6			6.0	6.0		
Lead/Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	4.0		3.0
Recall Mode	None	None	None		None	None		None	None	C-Min		None
Walk Time (s)			7.0			7.0				7.0		
Flash Dont Walk (s)			11.0			11.0				11.0		
Pedestrian Calls (#/hr)			0			0				0		
Act Effct Green (s)		17.3	83.5		21.5	87.3			41.0	75.7		
Actuated g/C Ratio		0.08	0.38		0.10	0.40			0.19	0.34		
v/c Ratio		0.86	1.04		0.95	0.92			1.03	0.74		
Control Delay		143.1	99.3		150.5	74.0			140.4	67.1		
Queue Delay		0.0	0.0		0.0	0.0			0.0	0.0		

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 7

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Proj. P.M. - Optimized
04/15/2024

			
Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	96	720	86
Future Volume (vph)	96	720	86
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	175		125
Storage Lanes	1		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	1805	3574	1615
Flt Permitted	0.950		
Satd. Flow (perm)	1805	3574	1615
Right Turn on Red			Yes
Satd. Flow (RTOR)			107
Link Speed (mph)		35	
Link Distance (ft)		1093	
Travel Time (s)		21.3	
Peak Hour Factor	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	0%
Adj. Flow (vph)	100	750	90
Shared Lane Traffic (%)			
Lane Group Flow (vph)	101	750	90
Turn Type	Prot	NA	Perm
Protected Phases	5	2	
Permitted Phases			2
Detector Phase	5	2	2
Switch Phase			
Minimum Initial (s)	5.0	15.0	15.0
Minimum Split (s)	11.0	24.0	24.0
Total Split (s)	22.0	56.7	56.7
Total Split (%)	10.0%	25.8%	25.8%
Maximum Green (s)	16.0	50.7	50.7
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	4.0	4.0
Recall Mode	None	C-Min	C-Min
Walk Time (s)		7.0	7.0
Flash Dont Walk (s)		11.0	11.0
Pedestrian Calls (#/hr)		0	0
Act Effct Green (s)	15.1	49.8	49.8
Actuated g/C Ratio	0.07	0.23	0.23
v/c Ratio	0.81	0.93	0.20
Control Delay	141.7	100.9	6.2
Queue Delay	0.0	0.0	0.0

Scenario 1 11:23 am 05/30/2023 Baseline

Synchro 11 Report
Page 8

Lanes, Volumes, Timings
10: Orlando Ave & Fairbanks Ave

Proj. P.M. - Optimized
04/15/2024

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Total Delay		143.1	99.3		150.5	74.0			140.4	67.1		
LOS		F	F		F	E			F	E		
Approach Delay			102.8			82.6				87.5		
Approach LOS			F			F				F		
Queue Length 50th (ft)		175	~1140		245	967			~530	597		
Queue Length 95th (ft)		#303	#1274		#424	1071			#758	683		
Internal Link Dist (ft)			1478			1234				1576		
Turn Bay Length (ft)		550			375				175			
Base Capacity (vph)		146	1337		175	1427			333	1208		
Starvation Cap Reductn		0	0		0	0			0	0		
Spillback Cap Reductn		0	0		0	0			0	0		
Storage Cap Reductn		0	0		0	0			0	0		
Reduced v/c Ratio		0.82	1.04		0.95	0.92			1.03	0.74		

Intersection Summary

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 29 (13%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 92.2

Intersection LOS: F

Intersection Capacity Utilization 105.2%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Orlando Ave & Fairbanks Ave

 Ø1	 Ø2 (R)	 Ø3	 Ø4
47 s	56.7 s	24 s	92.3 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
22 s	81.7 s	27.3 s	89 s



Lane Group	SBL	SBT	SBR
Total Delay	141.7	100.9	6.2
LOS	F	F	A
Approach Delay	96.2		
Approach LOS	F		
Queue Length 50th (ft)	147	566	0
Queue Length 95th (ft)	#256	#674	36
Internal Link Dist (ft)	1013		
Turn Bay Length (ft)	175		125
Base Capacity (vph)	131	823	454
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.77	0.91	0.20
Intersection Summary			



Planning & Zoning Board

agenda item 4.d

item type

Public Hearings (Public participation and comment on these matters must be in person.)

meeting date

August 6, 2024

prepared by

Allison McGillis, Director of Planning and Zoning

approved by

Allison McGillis, Director of Planning and Zoning

subject

RZ #24-04/ZTA #24-06. Request of the City of Winter Park for:

- An Ordinance to amend the existing Multi-family (high density R-4) District zoning to Public, Quasi-Public (PQP) District zoning on the former Winter Park Library property at 460 E. New England Avenue in conformance with the existing Comprehensive Plan Future Land Use designation of Institutional.
- An Ordinance amending the Public, Quasi-Public (PQP) zoning district to establish a new Permitted Use for "performance art venues together with ancillary gallery, educational, rehearsal, recording studios and offices to support the like, within a city-owned building".

motion | recommendation

Staff recommendation is for approval of the Ordinances as presented.

Motion to approve the Ordinances as presented.

background

The City Commission has approved an agreement to lease the former Winter Park Library property at 460 E. New England Avenue to the Blue Bamboo Center for the Arts. Currently, the property is designated as Institutional on the Comprehensive Plan future land use map, while its zoning classification is Multi-family (R-4) district.

For Blue Bamboo to utilize the property and building as outlined in the lease agreement, the existing R-4 zoning—designated for residential use—must be changed, as it does not permit the intended use either by right or through a conditional use permit. During the second reading of the lease agreement, city staff engaged in a discussion with the Commission to determine the best path forward for the necessary zoning changes. The Commission directed staff to rezone the property to Public and Quasi-Public (PQP) zoning, aligning it with the future land use designation and establishing a new permitted use category that accommodates Blue

Bamboo's proposed activities. This new permitted use will encompass "performance art venues, along with ancillary gallery space, educational facilities, rehearsal and recording studios, and offices to support these functions within a city-owned building."

The rezoning Ordinances does contain a reverter clause so that if the Blue Bamboo lease ends and there is no assignment of the lease or new lease to another similar third-party user, then the zoning will revert back to the R-4 designation.

alternatives | other considerations

fiscal impact

attachments

1. Ord. PQP Zoning _WP Library_460 E. New England
2. Ordinance_ PQP Permitted Uses Addition

ORDINANCE XXXX-24

AN ORDINANCE OF THE CITY OF WINTER PARK, FLORIDA AMENDING CHAPTER 58, "LAND DEVELOPMENT CODE", ARTICLE III, "ZONING" AND THE OFFICIAL ZONING MAP SO AS TO CHANGE FROM MULTI-FAMILY (HIGH DENSITY R-4) DISTRICT ZONING TO PUBLIC AND QUASI-PUBLIC (PQP) DISTRICT ZONING ON THE FORMER WINTER PARK LIBRARY PROPERTY AT 460 E. NEW ENGLND AVENUE, MORE PARTICULARLY DESCRIBED HEREIN.

WHEREAS, the City Commission intends to establish a municipal zoning designation on this property in compliance with the establishment of a similar Comprehensive Plan future land use designation for said property, in order to permit the transition in usage of the former Winter Park Library to the cultural usage by the Blue Bamboo Center for the Arts, limited to the period of time the property is being used by that entity; and

WHEREAS, on August 6, 2024, the Planning and Zoning Board held a public hearing on the rezoning set forth herein and made a recommendation to the City Commission regarding such rezoning, and

WHEREAS, the City Commission finds that the zoning set forth herein is consistent with the Comprehensive Plan and land development regulations for the uses intended, and

WHEREAS, the establishment of municipal zoning meets the criteria established by Chapter 166, Florida Statutes and pursuant to and in compliance with law, notice has been given to Orange County and to the public by publication in a newspaper of general circulation to notify the public of this proposed Ordinance and of public hearings to be held.

NOW THEREFORE BE IT ENACTED BY THE CITY COMMISSION OF THE CITY OF WINTER PARK, FLORIDA, AS FOLLOWS:

SECTION 1. That Chapter 58 "Land Development Code", Article III, "Zoning" and the Official Zoning Map is hereby amended so as to change the existing zoning designation of Multi-Family (High Density R-4) district zoning to Public and Quasi-Public (PQP) district zoning on the former Winter Park Library property at 460 E. New England Avenue, more particularly identified with Orange County Parcel ID# 05-22-30-9400-60-010 in the Public Records of Orange County, Florida.

SECTION 2. This Ordinance shall only be effective for the term of the lease of the subject property to the Blue Bamboo Center for the Arts and any other period of time as the City Commission may assign such lease or shall lease to another third party via adoption of such Ordinance as may be required. However, if such third-party usage of this property is discontinued for any reason, including expiration or termination of a lease, then this Ordinance shall become null and void and the zoning designation applicable to this property shall revert back to a Multi-Family (High Density R-4) district zoning designation.

SECTION 3. This Ordinance shall become effective immediately upon passage and adoption by the City Commission.

ADOPTED at a regular meeting of the City Commission of the City of Winter Park, Florida, held in City Hall, Winter Park, on this _____ day of _____, 2024.

Mayor Sheila DeCiccio

Attest:

Rene Cranis, City Clerk

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF WINTER PARK, FLORIDA AMENDING CHAPTER 58, "LAND DEVELOPMENT CODE", ARTICLE III, "ZONING" SECTION 58-79 "PUBLIC AND QUASI-PUBLIC (PQP) DISTRICT", TO ADD A NEW PERMITTED USE FOR PERFORMANCE ART VENUES TOGETHER WITH ANCILLARY GALLERY, EDUCATIONAL, REHEARSAL, RECORDING STUDIOS AND OFFICES TO SUPPORT THE LIKE, WITHIN A CITY-OWNED BUILDING, PROVIDING FOR CODIFICATION, SEVERABILITY, CONFLICTS AND AN EFFECTIVE DATE.

WHEREAS, the City Commission of the City of Winter Park deems it necessary for the general welfare of the City to amend the City of Winter Park Land Development Code as set forth in this Ordinance;

WHEREAS, the City Commission hereby finds that this Ordinance serves a legitimate government purpose and is in the best interests of the public health, safety, and welfare of the citizens of Winter Park, Florida;

WHEREAS, the City Commission hereby finds that the land development regulations adopted herein are consistent with the Comprehensive Plan;

NOW THEREFORE, BE IT ENACTED by the City Commission of the City of Winter Park, Florida, after due notice and public hearing, that:

SECTION 1. That Chapter 58 "Land Development Code", Article III, "Zoning" of the Code of Ordinances, Section 58-79 "Public and Quasi-Public (PQP)" is hereby amended as shown below (underlined language are additions; ~~stricken through~~ language are deletions; subsections not included are not being modified):

Sec. 58-79. Public and Quasi-Public (PQP) district.

(b) *Permitted uses.* The following buildings or uses and additions thereto are permitted uses:

(8) Performance art venues together with ancillary gallery, educational, rehearsal, recording studios and offices to support the like, within a city-owned building.

SECTION 2. CODIFICATION. Section 1 of this Ordinance shall be incorporated into the City of Winter Park Code of Ordinances.

SECTION 3. SEVERABILITY. The divisions, sections, subsections, paragraphs, sentences, clauses and phrases of this Ordinance are severable, and if any phrase, clause, sentence, paragraph, subsection, section, or division of this Ordinance shall be declared invalid, unconstitutional or unenforceable by the valid judgment or decree of a court of competent jurisdiction, such invalidity, unconstitutionality or unenforceability shall not affect any of the remaining phrases, clauses, sentences, paragraphs, subsections,

sections, and divisions of this Ordinance. The City Clerk is given liberal authority to ensure proper codification of this Ordinance, including the right to correct scrivener's errors.

SECTION 4. CONFLICTS. In the event of a conflict between this Ordinance and any other ordinance of the City of Winter Park, this Ordinance shall control to the extent of such conflict.

SECTION 5. EFFECTIVE DATE. This Ordinance shall take effect immediately upon its passage and in accordance with Florida law.

ADOPTED at a regular meeting of the City Commission of the City of Winter Park, Florida held in City Hall, Winter Park, on this ____ day of _____, 2024.

By: _____
Mayor Sheila DeCiccio

ATTEST:

By: _____
Rene Cranis, City Clerk