**JMB TRANSPORTATION ENGINEERING, INC.**
TRAFFIC/TRANSPORTATION ENGINEERING & PLANNING SERVICES

# TRAFFIC IMPACT STATEMENT

For

## Esperanza Place RPUD - Amendment

**(Immokalee Drive, Collier County, Florida)**

**February 28, 2018**

*County TIS Review Fees*
*TIS Methodology Review Fee = $500.00*
*TIS (Small-Scale Study) Review Fee = $0.00*

**Prepared by:**
**JMB TRANSPORTATION ENGINEERING, INC.**
4711 7TH AVENUE SW
NAPLES, FLORIDA 34119

CERTIFICATE OF AUTHORIZATION NO. 27830

(PROJECT NO. 170515)

James M. Banks

Digitally signed by James M. Banks
Date: 2018.02.28 14:57:08 -05'00'

JAMES M. BANKS LICENSE No 43860 STATE OF FLORIDA PROFESSIONAL ENGINEER

2-28-2018

JAMES M. BANKS, P.E. — DATE
FLORIDA REG. NO. 43860

# TABLE OF CONTENTS


| | |
|---|---|
| **Conclusions** | **2** |
| **Purpose of Report** | **2** |
| **Methodology** | **2** |
| **Scope of Project** | **3** |
| **Table A - Approved Land Uses vs. Proposed Land Uses** | **3** |
| **Master Concept Plan** | **3.1** |
| **Project Generated Traffic** | **4** |
| **Table B - Net New Trips Generated** | **4** |
| **Table 1A - Trip Generation Computations (Existing Land Uses)** | **4.1** |
| **Table 1B - Trip Generation Computations (Proposed Land Uses)** | **4.2** |

**Conclusions**

The report concludes that the proposed amendment to Esperanza Place RPUD will not result in more site-generated trips than already allowed under the current PUD land use plan. As proposed, the maximum number of residential dwelling units that could be constructed will be 159 and 45 group housing units versus the previously approved development of 262 residential dwelling units. If approved and if developed to the most intense alternative development scenario, the project will generate fewer trips than the currently allowed land uses.

Therefore, it can be concluded that the proposed amendment to the RPUD to allow the option of constructing 159 dwelling units and 45 group housing units at a maximum intensity of no more than 111 single-family dwelling units and no less than 48 multi-family dwelling units and no more than 45 group housing units will result in less off-site impacts. Furthermore, any other possible development scenario (if the amendment is approved) would be less intense, and therefore, the site generated trips would be less than that already allowed. For example, if more than 48 multi-family units were constructed (i.e., 48 + X) and conversely less single-family were constructed (111 - X) and 45 group housing units, then the results would be less trips than that estimated for the more intense option of 111 single-family dwelling units and no less than 48 multi-family dwelling units and 45 group housing units, and will also generate fewer trips than the previously approved 262 units.

**Purpose of Report**

This report was prepared for the purpose of determining the net results of amending the Esperanza Place RPUD to allow the option of constructing no more than 159 dwelling units and 45 group housing units, which is 58 fewer units than the currently allowed 262 units. More specifically, no more than 111 single-family dwelling units and no less than 48 multi-family dwelling units or any combination of the two land uses will be constructed, but not to exceed a total of 159 units and no more than 45 group housing units. If the amendment is approved, then the proposed land uses would displace the potential to construct 262 dwelling units (i.e., 86 single-family units and 176 multi-family units).

**Methodology**

On January 5, 2018, a Traffic Impact Statement (TIS) Methodology Report was submitted to the office of Collier County Transportation Planning Department. *The $500.00 methodology meeting fee will be paid at the time of submitting the zoning application.*

SITE DATA:

TRACT A: 15.83± ACRE (50.05% OF ACREAGE)
TRACT B: 13.80± ACRES (43.63% OF ACREAGE)
TRACT C: 2.00± ACRES (6.32% OF ACREAGE)

TOTAL SITE AREA = 31.63± ACRES

REQUIRED PRESERVE AREA:

EXISTING NATIVE VEGETATION X 0.25 = PRESERVE AMOUNT
UPLAND: 0.52 ACRES X 0.25 = 0.13 ACRES
WETLAND: 0.73 ACRES X 0.25 = 0.18 ACRES
TOTAL = 0.31 ACRES

DENSITY CALCULATIONS:

TRACT A: 176 DWELLING UNITS
TRACT B: 85 DWELLING UNITS
TRACT C: 1 UNIT

262 DWELLING UNITS / 31.63± ACRES = 8.28± UNITS PER ACRE

NOTES:

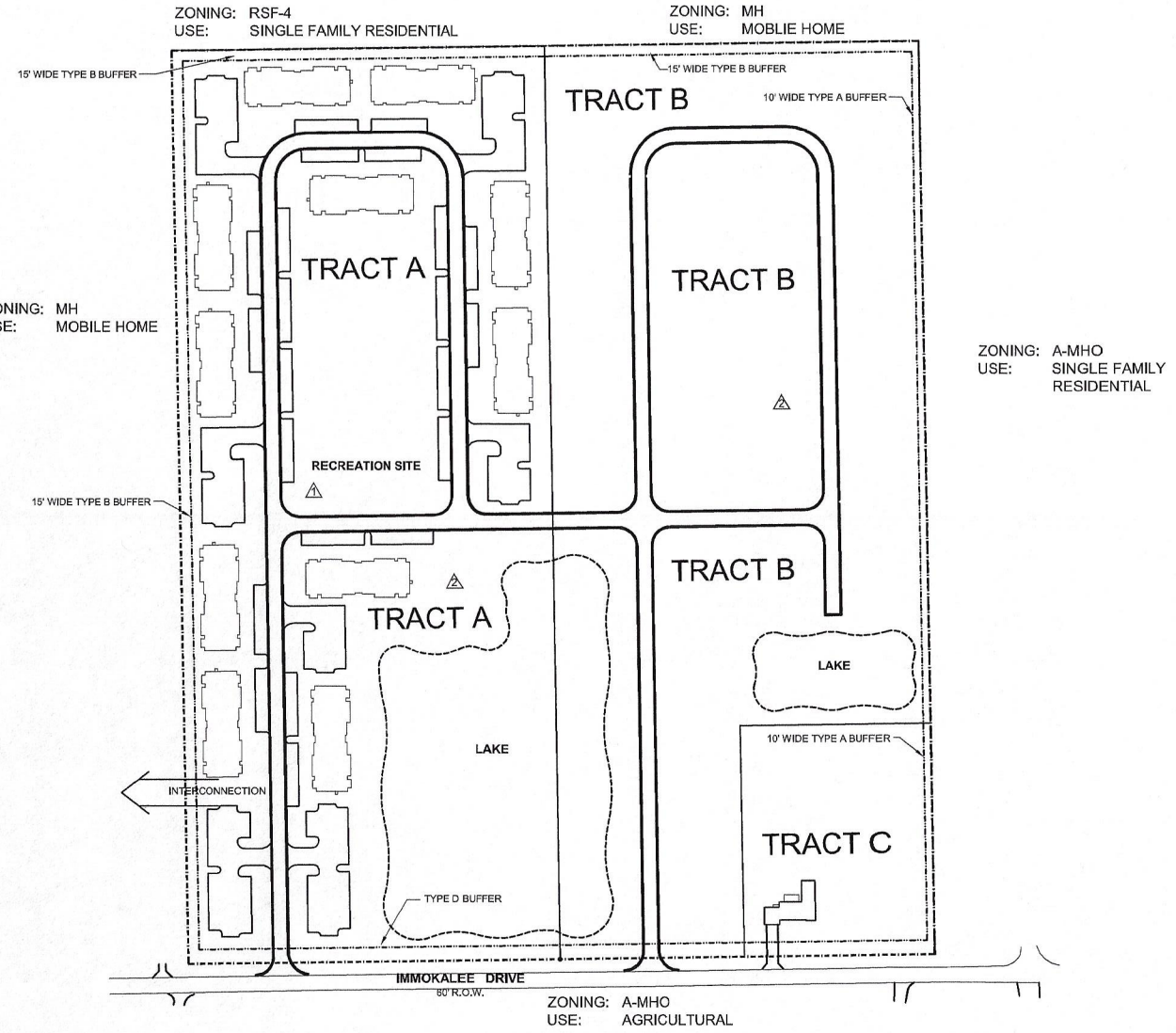
1. THIS PLAN IS CONCEPTUAL IN NATURE AND IS SUBJECT TO MINOR MODIFICATION DUE TO AGENCY PERMITTING REQUIREMENTS.

2. ALL ACREAGES ARE APPROXIMATE AND SUBJECT TO MODIFICATION AT THE TIME OF SDP OR PLAT APPROVAL.

DEVIATIONS:

⚠1 From Section 5.05.08 which requires non-residential components of any PUD to meet architectural design standards to allow the non-residential component of Tract A to be exempt from these standards.

⚠2 From Section 3.05.07 which requires on-site preservation of 25 percent of the native vegetation on the site to allow off-site preservation or payment toward the Conservation Collier Trust Fund, in accordance with Committment III.B, described in Exhibit F of this PUD.




NORTH

SCALE IN FEET
0' 125' 250' 500'

| Revision | Date | Description | By |
|---|---|---|---|
| 1 | 01-08 | Respond To County Comments | MML |
| 2 | 04-08 | Respond To County Comments | MML |
| 3 | 05-08 | Respond To County Comments | MML |

DESIGNED BY: QGMA
DRAWN BY: MML
APPROVED: HKW
JOB CODE: FNPSP
SCALE: 1" = 250'


Q. GRADY MINOR & ASSOCIATES, P.A.
CIVIL ENGINEERS ▪ LAND SURVEYORS ▪ PLANNERS ▪ LANDSCAPE ARCHITECTS
BONITA SPRINGS (239) 947-1144 ▪ FORT MYERS (239) 690-4380 ▪ NORTH PORT (941) 426-5858
ENGINEERING CERT. OF AUTH. EB 0005 31 SURVEYING CERT. OF AUTH. LB 0005151 LANDSCAPE ARCH. BUSINESS LY 26000266
WWW.GRADYMINOR.COM

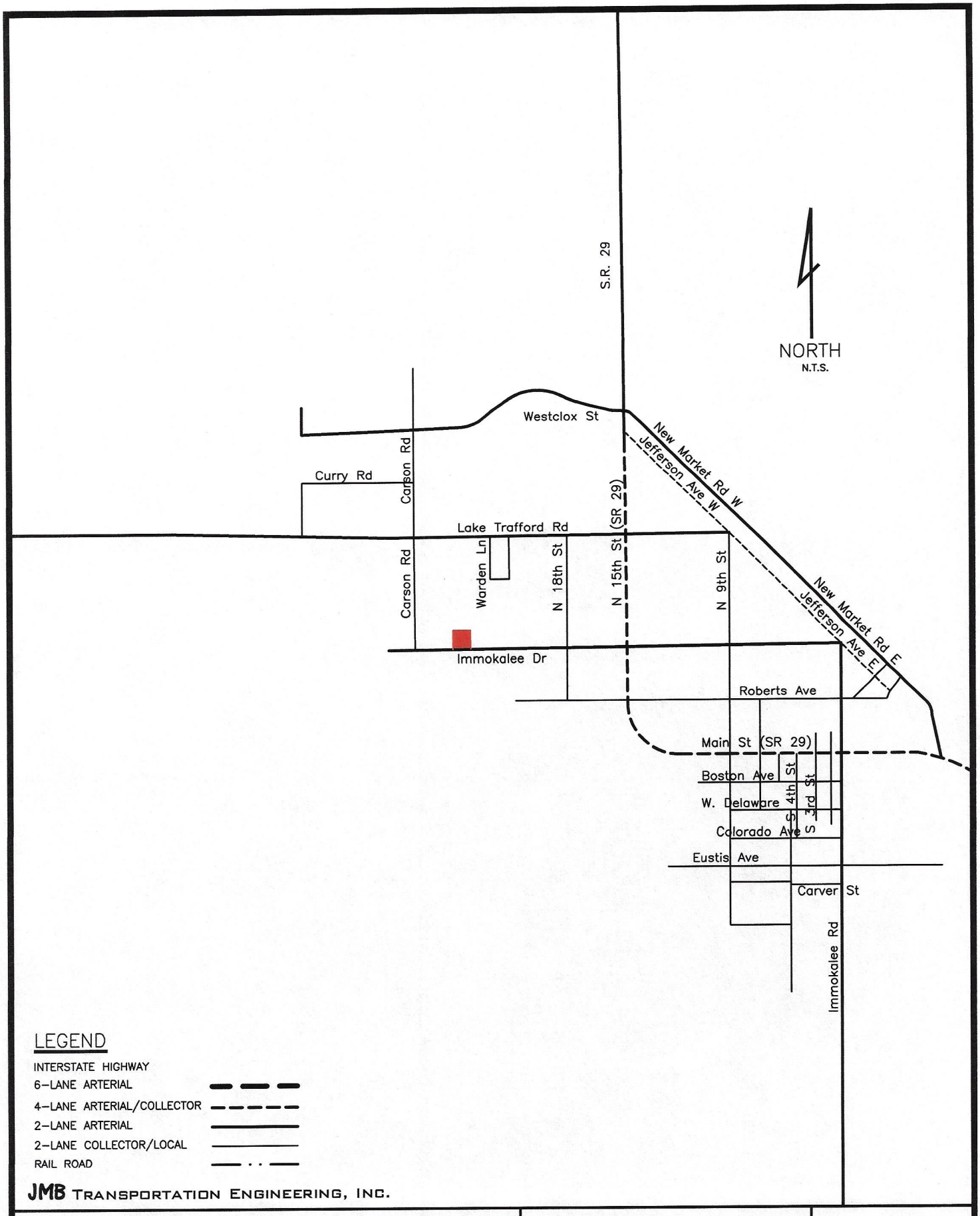

# ESPERANZA PLACE RPUD

EXHIBIT C
MASTER PLAN

COUNTY: COLLIER
SUBMITTAL: ZONING
DATE: OCTOBER 2007
FILE NAME: FNPSP MCP 3
SHEET 1 OF 1

2.1

G:\PROJ - PLANNING DWGS\FNPSP\DWG\FNPSP MCP 3.DWG 5/16/2008 2:45 PM




JMB TRANSPORTATION ENGINEERING, INC.

| | | |
|---|---|---|
| **Esperanza Place RPUD**<br>February 28, 2018 | **Project Location & Roadway Classification** | **FIGURE 1** |

**Scope of Project**

Esperanza Place is an approved RPUD that currently allows for the construction of 86 single-family units and 176 multi-family units (total 262 units). To date, 48 multi-family and 4 single-family units have been constructed. The site is located on the north side of Immokalee Drive and approximately 3/4 of a mile west of State Road 29. The project has two points of access on Immokalee Road.

It is being proposed to amend the RPUD to allow for the construction of no more than 111 single-family units and no less than 48 multi-family units, or any combination of the two land uses, but the total number of units cannot exceed 159 units. In addition, the amendment proposes to allow up to 45 group housing units Table A provides a summary of the existing and use entitlements vs. the proposed land uses.

**Table A**
**Approved Land Uses vs. Proposed Land Uses**

| | **Approved Land Use** | **Proposed Land Use** |
|---|---|---|
| Multi-Family | 176 Units<br>(*48 constructed*) | 48 to 155 Units<br>(*48 constructed*) |
| Single-Family | 86 Units<br>(*4 constructed*) | 4 to 111<br>(*4 constructed*) |
| Group Housing | None | No more than 45 |
| **Totals** | **Max = 262 Units**<br>*(176 m-f + 86 s-f)* | **Max = 204 Units**<br>*(48 to 155 m-f + 4 to 111 s-f + 45 group housing units))* |

**Project Generated Traffic**

Traffic that can be expected to be generated by the project was estimated based upon the guidelines established by the Institute of Transportation Engineers, Trip Generation Manual, 10th Edition. That is, historical traffic data collected at similar land uses was relied upon in estimating the project's traffic. It was concluded that land use codes "Single-Family Detached Housing" (LUC 210) and "Multi-Family (Low Rise)" (LUC 220) were most appropriate in estimating the existing land use trips (see Table 1A) as well as the proposed land use trips (see Table 1B).

In order to determine the project's net new trips for the alternative development scenario, the estimated trips for the currently allowed land uses were subtracted from the estimated total trips for the alternate scenario.

*That is,*
*Alternate Development Trips less Allowed Development Trips = Net New Trips*

Table 1A provides a detail of the estimated total trips for the existing land uses, and Table 1B provides the total trips for the alternate development scenario. Table B summarizes the results.

**Table B**
**Net New Trips Generated**

| | Daily (ADT) | AM Peak Hour (vph) | PM Peak Hour (vph) |
|---|---|---|---|
| Existing Land Use Trips *(Refer to Table 1A)* | 2,195 | 148 | 186 |
| Proposed Land Use Trips *(Refer to Table 1B)* | 1,807 | 129 | 168 |
| **Net New Trips** | **Less 388** | **Less 19** | **Less 18** |

The report concludes that the most intense alternate development scenario will result in less site-generated trips than the currently allowed land uses. Therefore, it can be concluded that the proposed amendment to the RPUD to allow the option of constructing up to 111 single-family dwelling units and no less than 48 multi-family dwelling units or any combination of the two land uses but not to exceed 159 units and 45 group housing units will result in less off-site impacts. Any other alternate development scenario that is possible (if the PUD amendment is approved) would be less intense than that described above in Table A, and therefore, the site generated trips would be less than that already allowed.

**TABLE 1A**

TRIP GENERATION COMPUTATIONS

Esperanza Place RPUD

## Previously Approved Land Uses

| Land Use Code | Land Use Description | Build Schedule |
|---|---|---|
| **210** | **Single-Family Detached Housing** | 86 Units |
| **220** | **Multi-Family (Low Rise)** | 176 Units |

| Land Use Code | Trip Period | Trip Generation Equation | Total Trips | Trips Enter/Exit |
|---|---|---|---|---|
| **LUC 210** | Daily Traffic (ADT) = | Ln(T) = 0.92Ln(X)+2.71 = | **905 ADT** | |
| | AM Peak Hour (vph) = | T = 0.71(X)+ 4.80 = 25% Enter/ 75% Exit = | **66 vph** | 17 / 49 vph |
| | PM Peak Hour (vph) = | Ln(T) = 0.96Ln(X)+0.20 = 63% Enter/ 37% Exit = | **88 vph** | 55 / 33 vph |
| ********** | | | | |
| **LUC 220** | Daily Traffic (ADT) = | T = 7.56(X) - 40.86 = | **1,290 ADT** | |
| | AM Peak Hour (vph) = | Ln(T) = 0.95Ln(X)-0.51 = 23% Enter/ 77% Exit = | **82 vph** | 19 / 63 vph |
| | PM Peak Hour (vph) = | Ln(T) = 0.89Ln(X)-0.02 = 63% Enter/ 37% Exit = | **98 vph** | 62 / 36 vph |
| ********** | | | | |
| **Totals** | | Daily Traffic (ADT) = | **2,195 ADT** | |
| | | AM Peak Hour (vph) = | **148 vph** | **36 / 112** vph |
| | | PM Peak Hour (vph) = | **186 vph** | **117 / 69** vph |

**TABLE 1B**

TRIP GENERATION COMPUTATIONS

Esperanza Place RPUD

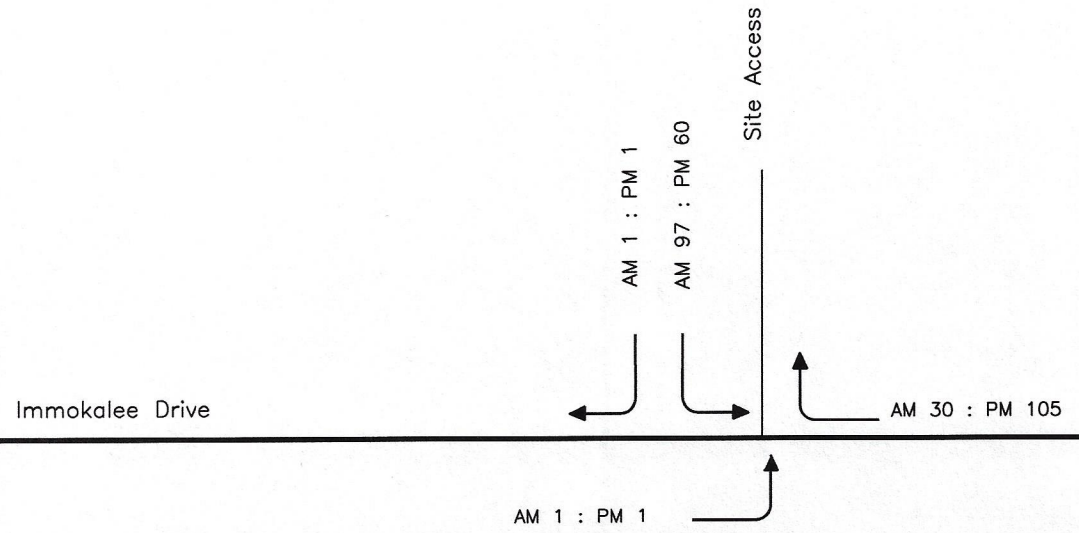
## Proposed Land Uses

| Land Use Code | Land Use Description | Build Schedule |
|---|---|---|
| **210** | **Single-Family Detached Housing** | 111 Units |
| **220** | **Multi-Family (Low Rise)** | 93 Units |

| Land Use Code | Trip Period | Trip Generation Equation | Total Trips | Trips Enter/Exit |
|---|---|---|---|---|
| **LUC 210** | Daily Traffic (ADT) = | Ln(T) = 0.92Ln(X)+2.71 = | **1,145 ADT** | |
| | AM Peak Hour (vph) = | T = 0.71(X)+ 4.80 = | **84 vph** | 21 / 63 vph |
| | | 25% Enter/ 75% Exit = | | |
| | PM Peak Hour (vph) = | Ln(T) = 0.96Ln(X)+0.20 = | **112 vph** | 71 / 41 vph |
| | | 63% Enter/ 37% Exit = | | |
| ********** | | | | |
| **LUC 220** | Daily Traffic (ADT) = | T = 7.56(X) - 40.86 = | **662 ADT** | |
| | AM Peak Hour (vph) = | Ln(T) = 0.95Ln(X)-0.51 = | **45 vph** | 10 / 35 vph |
| | | 23% Enter/ 77% Exit = | | |
| | PM Peak Hour (vph) = | Ln(T) = 0.89Ln(X)-0.02 = | **55 vph** | 35 / 20 vph |
| | | 63% Enter/ 37% Exit = | | |
| ********** | | | | |
| | **Totals** | Daily Traffic (ADT) = | **1,807 ADT** | |
| | | AM Peak Hour (vph) = | **129 vph** | 31 / 98 vph |
| | | PM Peak Hour (vph) = | **168 vph** | 106 / 61 vph |

| Project-Generated Trips |
| --- |
| AM Peak Hour = 31 enter/ 98 exit |
| PM Peak Hour = 106 enter/ 61 exit |

NORTH
N.T.S.




LEGEND

AM 00 : PM 00 ⟶ AM : PM Weekday Peak Hour Project Traffic

JMB TRANSPORTATION ENGINEERING, INC.

| Esperanza Place RPUD<br>February 28, 2018 | PROJECT-GENERATED TRAFFIC ASSIGNMENT | FIGURE 2 |
| --- | --- | --- |