UT MARTIN

CAMPUS MASTER PLAN UPDATE

December 2010

Prepared For:

The University of Tennessee

Prepared By:

University of Tennessee at Martin

2010 Master Plan Update Summary and Recommendations

The University of Tennessee retained the planning and architectural firm of Centric Architecture to meet with University representatives and update the Master Plans previously prepared by this firm. This 2010 Master Plan update focuses on site improvements. Included are pedestrian and vehicular improvements to University Street and Mt. Pelia Road and design solutions for relocating internal parking and creating a new campus quadrangle. In addition, campus-wide guidelines for furniture, screening, site pavement and landscaping are included.

Today the University of Tennessee Martin campus fulltime enrollment is approximately 6720 FTE students, an increase from 5,300 FTE students in 2003. Since 2003 Master Plan update, land parcels have been acquired and buildings have been constructed and renovated. However, many of the 2003 Master Plan assumptions, objectives and conclusions remain valid.

Goals and Objectives

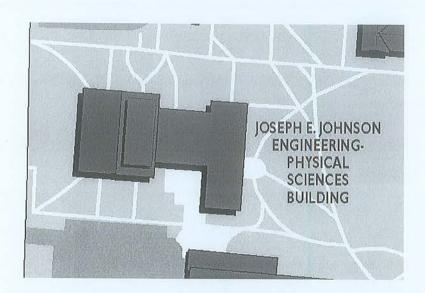
The Master Plan must respond to the policy directions set by the University and the changing needs of the students and faculty in this educational environment. A major goal of this master plan update is to provide UTM with a blueprint for rational expansion of the campus while preserving and renewing existing facilities and reinforcing the positive aspects of the campus. Particular goals are as follows:

- Define current and future facility needs, including renovations, expansions and new buildings that enhance the quality academic programs and support campus community life issues.
- Support UTM's mission of enhancing the educational, cultural and economic life in the region and serving as a focal point for a range of programs and services.
- Provide an overall impression of quality in all aspects of the campus, allowing UTM to recruit and retain the highest quality students and faculty.
- Provide a variety of options for housing to attract and maintain students while supporting and promoting a sense of community interaction on campus.

2010 Master Plan Recommendations

Specific building/renovation projects, adjacent land purchases and site improvements that have been identified as follows:

 The Joseph E. Johnson Engineering/Physical Sciences Building should expect to expand by approximately 30,000 sf. This expansion will accommodate future laboratory space and is based on the College of Engineering growth projections from 240 to 360 students.

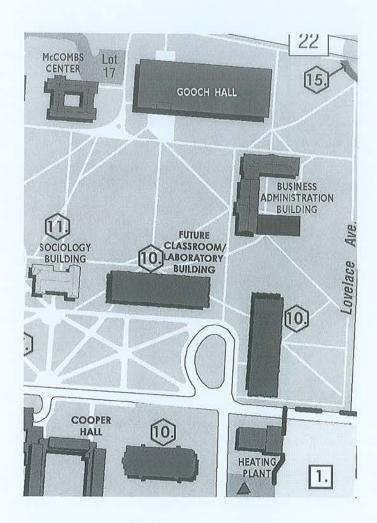


• Additional Student Housing is required for future University growth. The Master Plan proposes that existing Y Dorms, Ellington and Browning, accommodating 936 students, be removed. This site will be expanded with a variety of new apartment style housing units similar to units recently constructed. Buildings A-H will house approximately 675 students and the future housing (excluding sorority and fraternity cluster) is proposed to accommodate approximately 1212 students for a total of 1887 housing beds in this complex. University Courts and Grove Apartments are reaching a point of replacement and should be considered as sites for additional future housing.

As demand for housing increases, existing parking lots 19, 7, 9 and 10 will serve as a site for constructing these additional units. New and displaced parking will be located on Future Land Acquisition Parcel 2. A new east-west access road is proposed to the south of Future Land Acquisition Parcel 2.

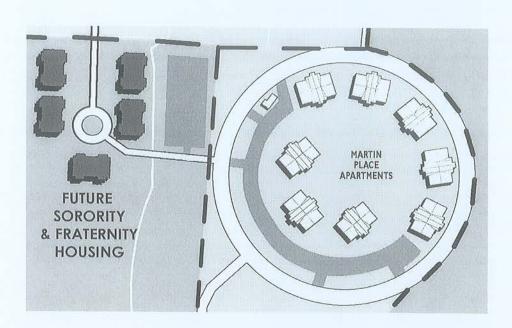
 Additional Food Service Facilities will be required as the University increases student headcount. These facilities are planned to be placed within or adjacent to future student housing.

- New Classroom/Laboratory Buildings will be required to support future growth.
 The master plan has strategically located these new buildings on the eastern
 edge of the campus to reinforce the existing historic quadrangle and help define
 the boundaries of the new quadrangle. Growth in student enrollment is expected
 to continue. At 8,000 FTE, the University will need an additional 120,000 SF of
 Classroom, Laboratory and Office space to meet THEC formula requirements.
- The Business Administration Building is planned to receive an addition of approximately 10,000 SF to support the College of Business and Global Affairs programs.



- The Sociology Building is a candidate for renovation and code upgrade to support its long term use as classroom and faculty building.
- The Communications Building is small, is in need of repair and is slated for removal. In its place, a new Classroom/Laboratory building is planned.

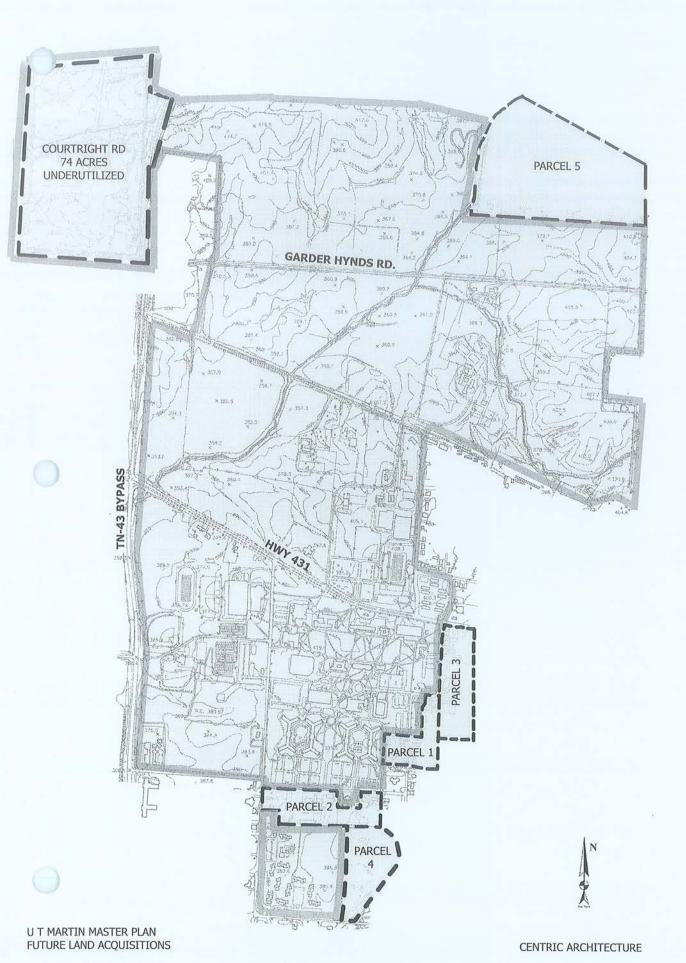
 Sororities and Fraternities may consider constructing future housing and/or meeting facilities in building sites adjacent to Martin Place Apartments. At present, the sororities and fraternities are decentralized on the edges of the campus, some along University Street toward Martin downtown. Consolidating the Greek facilities would add to the University's sense of Community.



• Land Acquisition of parcels 1, 2 and 3 would allow for future building footprints, enhance the campus edges, and offer strategic locations for new and displaced parking. If Parcel 4 were acquired, the University would realize an additional 384 beds in apartment style student housing. We have reviewed the potential disposition of approximately seventy-four (74) acres on Courtright Road that the University currently owns. This property is not contiguous to University property (separated by Martin Bypass) and is presently under utilized. In our opinion, the disposal of this property will have minimal negative impact to the long-range growth of the campus. Conversely, proceeds from the disposal of these 74 acres would allow the University to acquire parcel 5, a parcel contiguous to UTM agricultural property. Parcel 5 would support the University's Agriculture program over the long-term.

The University should maintain ownership and control to the land now occupied by the Mental Health Center at the intersection of Hannings Lane and Martin Bypass. In the future, a gateway entry appropriately designed with signage, landscaping and lighting could serve as a major alternative access to and through the campus from Martin Bypass.

December 2010



- Clement Hall remains a surge space utilized during campus building renovations. It continues to serve numerous campus activities and is used as storage for various campus entities. Clement is not ADA accessible.
- Ceremonial Gateways are proposed at the main entrances to the campus at the intersections of University Street/Lovelace Avenue and University Street/Mt. Pelia Road, Martin Bypass/Hanning Lane and Martin Bypass/University Street.
- Improvements are proposed at the University's western entrance to the campus at University Street and Martin Bypass. The University's rural setting could be enhanced by restoring forest and water presence into the campus and by softening the steel pillars of the existing digital signage through the use of masonry and landscaping. These additions will help to strengthen this major entry into the campus.
- Pedestrian/Vehicular Safety Improvements, proposed along University Street, include new signage and crosswalk improvements for the short-term and new traffic signalization for long-term. Along Mt Pelia Road, safety improvements include signage and a raised pedestrian crosswalk for the short-term and of closing a portion of Mt. Pelia Road as a potential long term consideration.
- Campus Visual Improvements include new landscaping buffers and canopies along University Avenue in support of the proposed Pedestrian/vehicular safety improvements. In the center of the campus, beginning at the future academic building and ending at the existing Library, a new pedestrian quadrangle is planned with plazas and nodes supporting student activities. Low maintenance attractive plant material supporting sustainable landscape practices are to be incorporated in this new quadrangle.

See Attached Transportation Master Plan and Campus Landscape Design Guidelines Reports.

University of Tennessee Martin

Business College SF Analysis

04/16/2010

			its	equiremen	Classroom R			
	Actual sf	NASF/CR	NASF/Sta	THEC classrooms stations criteria 60% util	UTM Hrs schedule per wk *	UTM avg enrollment	THEC Class size criteria	UTM Class rm #
2	632	630	21	30	37	18	15-20	220
1 3	1,081	720	18	40	48	25	21-26	33
1 -2	621	900	18	50	45	32	27-32	16
6 2	1116	900	18	45	45	29	27-32	207
7	1167	1,080	18	48	48	35	33-47	36
6 -1	966	1,080	18	42	42	33	33-47	135
0 -2	850	1,080	18	39	39	37	33-47	201
1 -1	901	1,080	18	42	42	33	33-47	203
4 -1	7334	7470	signable sf	Total CR net as				

^{*30} hr/wk day & 17 hr/wk evening = 47hr/week max

Laboratory Requirements							
Labs rm #	avg enrollment	Hrs schedule per wk *	80% util	NASF/Sta	NASF/CR	Actual sf	
25	14	12	28	40	1,120	1070	
227	21	34*	28	40	1,120	1383	

THEC recommended service areas 30% NASF		672
Existing Lab s service areas		317
	short	-355

^{*}THEC recommends 20 hr/week

Information utilized based on average use of spaces for one week.

Classrooms should be scheduled 30 hours/week day and 17 hours per week evening.

Classroom Average seat utilization is 60%

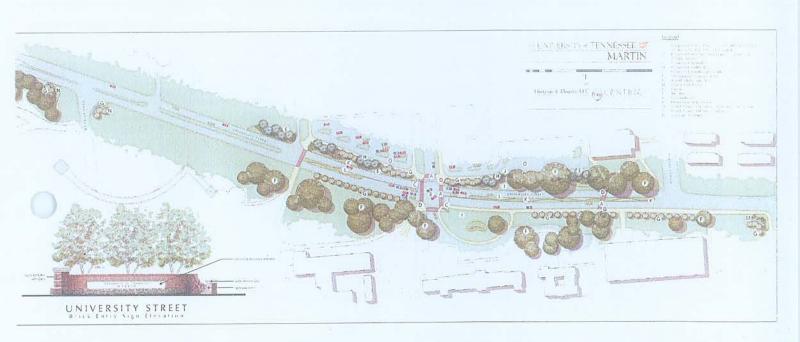
Labs should be scheduled 20 hours per week with 80% utilization

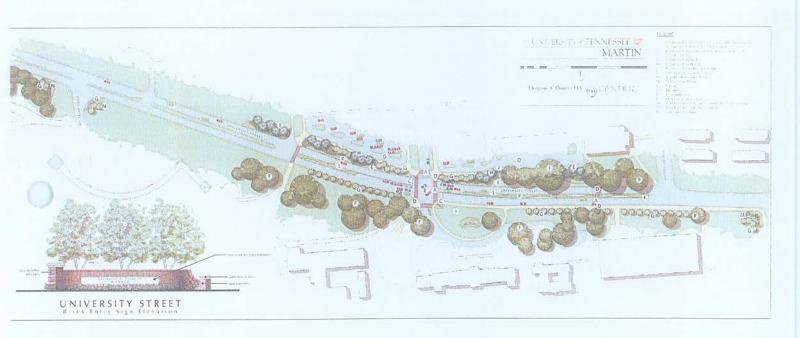
University of Tennessee Martin Business College SF Analysis 04/16/2010

	Offic	e Requiren	nents		
Personnel category	Total FTE	THEC NASF/FTE	THEC Total NASF	Existing work sta	Existing NASF
Staff:Exec/A dmin	3.500	120	420		
Faculty - 9 month	1.000	100	100		
Faculty - 12 month	0.770	100	77		
Faculty - 9 month	44.000	100	4400		
Dean - 12 month	1.000	180	180		
Assoc Dean/Dept chair -12 month	1.000	150	150		
Professor, Assoc, Asst - 12 month	1.000	150	150		
Special Appointment	1.300	100	130		
Staff:Hourly Input	1.000	100	100		
Staff:Hourly Input	7.075	100	707.5		
Staff:Hourly NoInput	1.850	100	185	2	
Staff: Professional	1.000	130	130		
Student: Hourly Input	8.800	60	528		
GradStu: Salary12mth	0.300	60	18		
	73.6		7275.5	74	8940 .

	existing wk stations	existing NASF
staff/clerical/	13	1,405
faculty	55	6,190
subtotal	68	7,595

office service	660
conf, storage, lounge	1047





THE UNIVERSITY of TENNESSEE MARTIN

Campus Design Guidelines

27 June 2008

Prepared By: Hodgson & Douglas LLC HD Project # 07-1360

for

Centric Architecture

Table of Contents

Chapter	Page
1.0 Introduction	4
1.1 Site Furniture	5
1.2 Screening	6
1.3 Site Pavement	7
1.4 Landscaping	8

1.0 Introduction

The purpose of these guidelines is to provide consistency for the campus. These standards will assist in unifying the campus and help to create a ore attractive visual environment. These standards should be applied to the existing campus as well as future development. Presently the U.T. Martin Campus consists of varied architectural styles and character that reflect different time periods of construction and tastes. Over the years, varied site improvements and site furnishings have been incorporated into new construction projects. This has resulted in somewhat of a "hodge-podge" campus look lacking in consistency and visual attractiveness. The creation of consistent design guidelines will create a unified and organized look for the campus. They can strengthen the campus identity and sense of place.

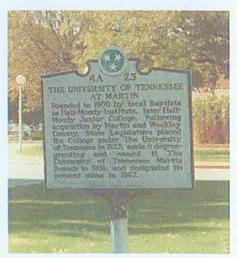
Often, prospective students form an opinion about a campus within the first 15 minutes of being there. Experiencing a cohesive and attractive campus could go a long way in attracting students in the future.

Every effort should be made to verify that new improvements are compliant with sustainable guidelines and ADA requirements. Site improvements should be reasonable to maintain by campus personnel. Security should always be considered when incorporating site improvements.



















1.1 Site Furnishings

Benches

Place on edges of walks, at plazas and gathering points, to enhance interaction.

Standard bench

"Gretchen's Bench" with back and looped arm rests. As manufactured by Landscape Forms. Specify "polysite" (molded from 100% high density polyethylene, derived from post-consumer milk containers), use standard brown color. Benches to be permanently installed to meet manufacturer's standards

Tables and Chairs

Locate on terrace outside of Dining Hall and other student gathering locations. Tables and chairs should be movable to create opportunities for impromptu gathering and seating. Chairs could be stacked and secured at night with cable lock.

Chairs:

"Catena" (Landscape Forms) with powder-coat finish and are stackable.

Tables:

"Catena" (Landscape Forms) powder-coat color to match chairs, quad support.

Seat Walls

Where appropriate, seat walls should be provided in plazas or connected to buildings. They should be approximately 24" in height and 18"-24" wide to provide comfortable seating for campus users. Seat walls should be constructed of brick or stone to match adjacent architecture.

Bicycle Racks

Locate in visually apparent (security) but unobtrusive locations at building entrances. Bicycles should not impede pedestrian or vehicular traffic.

Standard Rack:

"Loop Bike Rack" (Recreation Creations, Inc.) Install per manufacturer's recommendations in black color.

Litter Receptacles

Locate at building entrances, pedestrian gathering points around campus, intersections of walks, and outdoor recreation areas.

Standard Receptacle:

"Gretchen's Litter Receptacle" (Landscape Forms) – side opening (with top) to match benches. Specify "polysite"; include liner. Receptacles are to be attached to pavement, per manufacturer's recommendations.

1.2 Screening

Screening should be used to block unsightly views of adjacent uses such as utility equipment, garbage dumpsters, service areas or parking lots. Care lould be taken, particularly in parking lots, not to block views where pedestrians circulate that could result in security problems.

Where space is available, and the site is appropriate, evergreen plant materials should be utilized, which can provide an attractive and visually pleasing screen. Plant materials should be selected that will require a minimum of maintenance, pruning, etc. Size of plant material installed should be adequate to provide immediate screening. Lists of plant materials are included in the landscape section.

Where space is more restrictive or a denser screen is required to block noise, solid masonry screening should be used. These walls should be constructed of brick or stone masonry to complement adjacent buildings.

Where appropriate, wood fences may be incorporated (such as dumpster screening). These may be used in conjunction with brick piers to offer visual and architectural consistency.

Walls should be created tall enough to screen objectionable views. Metal or chain-link fencing should be avoided, as they are not as attractive or durable.



















1.3 Site Pavement

An important component in creating a cohesive campus is the selection of walk and drive pavement. Important considerations include maintenance, safety, security, and durability. Every new or renovated project should comply with these guidelines.

Walks

Campus walkways should be constructed of broomswept concrete. They shall be 4" thick for exclusive pedestrian circulation and 6" thick in places where vehicles also will make use of the walks. Scoring joints shall appear 10' o.c. maximum with expansion joints used every 30' o.c. maximum. All walks shall be cross-sloped 1%. Walks should not exceed a lengthwise slope grade greater than 5%. Walks that exceed 5% grade shall be considered ramps and treated in a manner to comply with all currant ADA guidelines. Outside edges of all walks shall be carefully backfilled to level of walk. Scoring of walks shall be provided in a manner to avoid sharp or narrow points that could break off.

Drives

Many drives (particularly in the middle of the campus) that double as pedestrian walks may be poured in concrete as indicated above. This signals the fact that the drive will be used primarily by pedestrians, but could accommodate service, maintenance and emergency vehicles. This approach emphasizes the fact that campus should be primarily pedestrian. Removable steel bollards can also be used at the entrances to such pedestrian vehicular drive/walks. These can be locked and removed as needed to allow vehicles to make use of the drives.

Other cases where drives will serve exclusively for vehicles should be paved in asphalt with concrete curbs or curb and gutter. Pavement thickness shall accommodate large trucks as needed. Where there is pedestrian traffic adjacent to the drive, a separate concrete walk shall be provided. Drives should be constructed with driving lanes at approximately 11' in width. Where pedestrian crosswalks are needed, they should be constructed of concrete pavers or stamped asphalt. The difference in color and texture can prove to be traffic calming and ease pedestrian crossing.

Plazas

Plazas located in front of major buildings, at key walk intersections or outdoor gathering areas may be paved in brick or natural stone to complement the concrete walks found throughout the campus. This change of material to a "richer" pavement fabric suggests to the pedestrian that they are coming to a special or unique place. The pavement selections for these plazas should match or compliment the material of adjacent buildings. Plazas should include seat walls or benches for pedestrian gathering and seating. The special paving (brick or stone) are more costly than the concrete walks, but their use signals that these are important spaces. Limited use to smaller areas can control costs.

1.4 Landscaping

One of the most unique and distinctive characteristics of the U.T. Martin impus is the beautiful grove of mature trees that exist in the historic dadrangle. Because of their size, good health and age, these plantings have come to represent the very character and image of the University. Promotional literature often includes images from this space. Future campus landscape plantings should be established to reinforce open spaces, define views, screen unattractive views and create a comfortable, shady, user friendly natural environment. Placement of trees and plantings within parking lots on certain sides of buildings can reduce heat-island effects, and can actually help conserve heating and cooling costs. As new buildings, parking and walks are constructed, they remain static, but it is the landscaping that constantly changes and evolves as it grows. This changing landscape can define the image of a campus.

Every effort should be made to care for existing plantings by careful pruning and deep root fertilization if needed to prolong their healthy life. Great care should be taken to prevent new construction from entering the dripline zone of existing plantings. If it occurs, a licensed arborist should provide required limb and/or root pruning, followed by a careful program of fertilization and supplemental watering.

Plans should consistently be underway to provide the next generation of campus trees and landscaping, as existing trees move into decline, they will need to be replaced. Following is a description of each type of campus planting. Specific plant material recommendations follow.









Shade Tree - Pin Oak



Shade Tree - White Oak



Shade Tree - River Birch

Trees

Trees should be selected that are either native or indigenous to the area. Exotic trees that might not thrive or appear "foreign" to the campus should be avoided. Most lawn areas should include scattered plantings of trees to create a natural look which characterizes the existing campus. A licensed Landscape Architect should be consulted to insure that trees aren't planted too close together and create root zone competition. Trees should be selected based on their potential for longevity and healthy limb structure. Weak structured trees such as Bradford Pears or Silver Maples should be avoided. New plantings should avoid "mono-cultures" of a single species. This can prove to be problematic if disease or pests are found to attack a specific species. Rows of trees can be planted if that is the desired effect. This is often helpful in creating a focal point. Large deciduous trees should be selected with spreading canopies, and varied Fall leaf color.

Evergreen trees should be planted to provide screening as indicated above. They should be planted in an interspersed manner with shade trees, reflective of the historic quadrangle. Care should be taken to locate evergreens in spaces with adequate room to grow, and not be crowded. Where groupings are used, varied species should be incorporated. Evergreens should not generally be sheared, rather they should be allowed to have a natural growth habit. This will result in a more pleasing look and reduce maintenance requirements.

Small flowering trees should be planted as understory trees under large shade trees. They should be used to emphasize building entrances, campus entrances, pedestrian intersections and plazas. They can also be effective for planting under overhead utility lines. Native trees should be used whenever possible as they will fit in and grow well in the local environment. Groupings of a similar species can create an attractive look.

Shrubs

Shrubs should be planted in large groupings, creating a layering effect, with the larger shrubs in the rear. Where possible, groups of evergreen rubs should be planted as a backdrop to deciduous flowering shrubs. Preferred locations are at building and campus entrances and at pedestrian plazas. Large evergreen shrubs can provide an effective screening. Sheering of the shrubs should be avoided, rather selective pruning should occur to preserve a soft and natural shape. Avoid circling buildings with foundation shrub plantings, rather plant small groupings of shrubs for a more pleasing effect at entrances and corners.

Groundcover

Groundcover plantings should be used primarily in areas with extensive shade where grass is difficult to grow. Large mulch areas can be created in the shaded areas and filled with groundcover for ease of maintenance. Low maintenance groundcover are preferred to planting such as English Ivy or Dwarf Wintergreen that require constant pruning. Groundcovers can effectively be used on slopes that exceed a gradient of 3:1 where lawn mowing can be difficult. Small areas that are impractical for turf are suited for groundcover.

Annuals/Perennials

Due to yearly expense, annuals should be limited to building entrances, trance signs or gardens in plazas. As an alternative, perennials can be sed to provide color and interest, and of course the blooms will reappear yearly.

It is recommended that trees be planted in the dormant season between Nov. 30 and April 1. It will be critical to provide careful maintenance for all newly installed plantings including watering.



Large Shrub - Star Magnolia



Evergreen Shrub - Inkberry



Ornamental Grass - Gulf Muhly







Shade Tree - Fruitless Sweetgum

Parking Lot Planting

All proposed and existing parking lots should be properly screened from the perimeter. Ideal screen height will be about 36" which screens the unattractive grills of cars, while still allowing clear visibility for the pedestrian. Parking lots should be broken up by incorporating islands with trees both for the environmental cooling effect and to visually break up the expanse of pavement. Islands should be planted with shade trees for maximum canopy and shade interest. The ends of the parking lots should be screened with landscape islands. Care should be taken to plant small flowering trees under overhead utility lines.

Plant Material List

Following is a list of recommended plantings to be used on the U.T. Martin Campus. Both existing and proposed trees should be identified with spring mounted tree labels. By using a variety of plants, a campus arboretum could be established and would prove useful as a training tool for classes.

Deciduous Canopy Trees

Acer rubrum species Acer saccharum species Aesculus spp. Betula nigra Carya ovata 'Shagbark Hickory' Fagus grandifolia Fraxinus americana Fraxinus pennsylvanica Ginkgo biloba Gymnocladus dioicus Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminate Nyssa sylvatica Platanus acerifolia Ouercus acutissima Ouercus alba Quercus coccinea Quercus falcata Quercus lyrata Quercus macrocarpa Quercus michauxii Quercus muehlenbergii Quercus nigra Quercus nuttalli Quercus pagoda Quercus palustris Quercus phellos Quercus prinus Quercus rubra Quercus shumardii Quercus stellata Ouercus velutina

Sassafras albidum

Red maple Sugar Maple Buckeye River Birch Shagbark Hickory American Beech White Ash Green Ash Ginkgo Tree Kentucky Coffeetree Sweetgum Tulip Tree Cucumber Tree Blackgum London Planetree Sawtooth Oak White Oak Scarlet Oak Southern Red Oak Overcup Oak Bur Oak Swamp Chestnut Oak Chinkapin Oak Water Oak Nuttall Oak Cherrybark Oak Pin Oak Willow Oak Chestnut Oak Northern Red Oak Shumard Oak Post Oak Black Oak Sassafras

Deciduous Canopy Trees (cont.)

Taxodium distichum
Tilia americana
lia cordata
Ulmus parvifolia 'Emer II'
Ulmus parvifolia
Ulmus americana
Ulmus parvifolia
Zelkova serrata

Bald Cypress
American Linden
Littleleaf Linden
Allee Elm
Bosque Elm
Princeton Elm
Chinese/Lacebark Elm
Japanese Zelkova

Deciduous Understory Trees

Acer buergeranum Acer ginnala Acer palmatum Acer pensylvanicum Acer spicatum Aesculus pavia Amelanchier arborea Bumelia lyciodides Carpinus betulus Carpinus caroliniana Cercis canadensis Chionanthus virginicus Cladrastis kentukea Cornus florida Cornus kousa Crataegus phaenopyrum ataegus viridis 'Winter King' ranklinia alatamaha Halesia carolina Hamamelis virginiana Koelreuteria paniculata Magnolia x soulangiana Magnolia stellata Malus species Oxydendron arboretum Prunus 'Okame' Prunus x yedoensis Styrax spp.

Trident Maple Amur Maple Japanese Maple Striped Maple Mountain Maple Red Buckeye Serviceberry Buckthorn Bumelia European hornbeam Hornbeam Eastern Redbud Fringetree Yellowwood Flowering Dogwood Kousa Dogwood Washington Hawthorne Winter King Hawthorne Franklin Tree Carolina Silverbell Witch Hazel Golden Raintree Saucer Magnolia Star Magnolia Crabapple Sourwood Okame Cherry Yoshino Cherry Snowbell



Shade Tree - Red Maple



Flowering Tree - Serviceberry



Flowering Tree - Cherry



Evergreen Tree - Cryptomeria



Evergreen Shrub - Otto Luyken Laurel

Street Trees

Acer rubrum species
Acer saccharum species
Liquidambar styraciflua 'Rotundiloba'
Platanus acerifolia
Quercus phellos
Tilia cordata
Ulmus parvifolia

Red maple Sugar Maple Fruitless Sweetgum London Planetree Willow Oak Littleleaf Linden Bosque Elm

Evergreen Canopy Trees

Cryptomeria japonica Juniperus virginiana Magnolia grandiflora Pinus nigra Pinus strobus Pinus thunbergii Pinus virginiana Japanese Cryptomeria Eastern Red Cedar Southern Magnolia Austrian Pine White Pine Japanese Black Pine Virginia Pine

Evergreen Understory Trees

Ilex opaca species
Ilex latifolia
Ilex x 'Nellie R. Stevens'
Ilex x attenuata 'Fosteri'
Ilex x attenuate
Magnolia virginiana
Prunus caroliniana

American Holly Lusterleaf holly Nellie R. Stevens Holly Foster Holly Savannah Holly Sweetbay Cherry Laurel

Evergreen Shrubs

Buxus sempervirens
Prunus laurocerasus 'Magnolifolia'
Prunus laurocerasus 'Otto Luyken'
Prunus laurocerasus 'Zabel'
Prunus laurocerasus 'Schipkaensis'
Taxus x media 'Densiformis'
Taxus x media 'Hicksii'
Viburnum rhytidophyllum
Viburnum rhytidophyllum

Boxwood English Laurel Otto Luyken Laurel Zabel Laurel Schip Laurel Densiformis Yew Hicks Yew Leatherleaf Viburnum Willowood Viburnum

Flowering Shrubs

Chaenomeles speciosa Hydrangea quercifolia /drangea species Jasminum rudeflorium Spiraea

Viburnum plicatum var. tomentosum

Flowering Quince Oakleaf Hydrangea Hydrangea Winter Jasmine Spirea Doublefile Viburnum

Groundcovers

Hedera helix Hypericum calycinum Liriope muscarii Ophiopogon japonicus Pachysandra terminalis Vinca minor Vinca major English Ivy St. John's Wart 'Big Blue' Lily Turf Mondo Grass Pachysandra Periwinkle Periwinkle



Flowering Shrub - Doublefile Viburnum



Groundcover - Leriope



TRANSPORTATION MASTER PLAN

UT MARTIN MASTER PLAN MARTIN, TENNESSEE

PREPARED FOR: CENTRIC ARCHITECTURE



214 CENTERVIEW DRIVE, SUITE 240 BRENTWOOD, TN 37027

JUNE 2008

TRANSPORTATION MASTER PLAN UT MARTIN MASTER PLAN MARTIN, TENNESSEE

PREPARED FOR: CENTRIC ARCHITECTURE

PREPARED BY: RPM TRANSPORTATION CONSULTANTS, LLC

214 Centerview Drive, Suite 240
Brentwood, TN 37027
615.370.8410 office 615.370.8455 fax
www.rpmtraffic.net

TABLE OF CONTENTS

EX	ECUTIVE SUMMARY	j
1.	INTRODUCTION	1
2.	PROJECT DESCRIPTION	2
3.	EXISTING SETTING	4
4.	BACKGROUND TRAFFIC VOLUMES	. 12
5.	IMPACTS	. 15
6	CONCLUSIONS AND RECOMMENDATIONS	.22

LIST OF FIGURES

Figure 1.	Location of the Study Area	3
Figure 2.	Existing Laneage	6
Figure 3.	Existing Peak Hour Traffic Volumes	8
Figure 4.	Background Peak Hour Traffic Volumes	3
Figure 5.	Distribution of New Student Traffic1	7
Figure 6.	Assignment of New Student Traffic	8
Figure 7.	Total Projected Peak Hour Traffic Volumes20	0
Figure 8.	University Street Corridor, Near Term Recommendations20	6
Figure 9.	University Street Corridor, Long Term Recommendations2	7
Figure 10	Mt. Pelia Road Corridor, Near Term Recommendations2	8
Figure 11	. Mt. Pelia Road Corridor, Long Term Recommendations	9

LIST OF TABLES

TABLE 1 – Descriptions of Level of Service for Signalized Intersections	9
TABLE 2 – Descriptions of Level of Service for Unsignalized Intersections 1	0
TABLE 3 – Peak Hour Levels of Service (Existing Conditions)1	1
TABLE 4 – Peak Hour Levels of Service (Background Conditions)1	4
TABLE 5 – Trip Generation for the Proposed Master Plan1	5
TABLE 6 – Peak Hour Levels of Service (Projected Conditions)2	1

1. INTRODUCTION

The purpose of this study is to analyze the traffic and pedestrian impacts of the proposed Master Plan for the University of Tennessee campus in Martin, Tennessee (UT Martin). The Master Plan has a 10 year planning horizon. This study was prepared in order to address access and pedestrian needs for the campus and to evaluate the traffic impacts of the assumed campus growth.

In this study, the operating characteristics of the intersections in the vicinity of the project site are evaluated. The expected trips generated by the assumed campus growth are estimated and distributed to the roadway network. The intersections are then re-evaluated to determine the anticipated traffic impacts of the growth. Finally, recommendations are presented, including roadway, pedestrian, parking, and/or traffic control improvements that are needed to accommodate the expected traffic growth.

2. PROJECT DESCRIPTION

The location of the UT Martin campus is shown in Figure 1. UT Martin is generally bounded by Volunteer Drive to the north, Hannings Lane to the south, Lovelace and Moody Avenues to the east, and Martin Bypass to the west. Two major streets also transect the campus; University Street runs east-west and Mt. Pelia Road runs north-south through the campus. Because these streets define the most intensive traffic and pedestrian activity, the limits of this study are defined as University Street to the north, Hannings Lane to the south, Lovelace and Moody Avenues to the east, and Mt. Pelia Road to the west. Other property in the vicinity of the campus is a mixture of residential, commercial, and agricultural land uses. Small retail stores and service businesses exist along University Street and residential uses adjoin the eastern side of campus.

In general, the primary traffic impacts of planning for most campuses result from expected increases in student enrollment. For the UT Martin Master Plan, assumed enrollment increases are modest. In Fall 2007, enrollment of UT Martin was 7,173 total students with a full-time equivalent (FTE) enrollment of 6,108 students. Based on information provided by Centric Architecture, an average annual enrollment increase of approximately 1% was assumed for the purposes of this study. The assumed growth was 690 new students for a total enrollment of 7,863 by 2018.



3. EXISTING SETTING

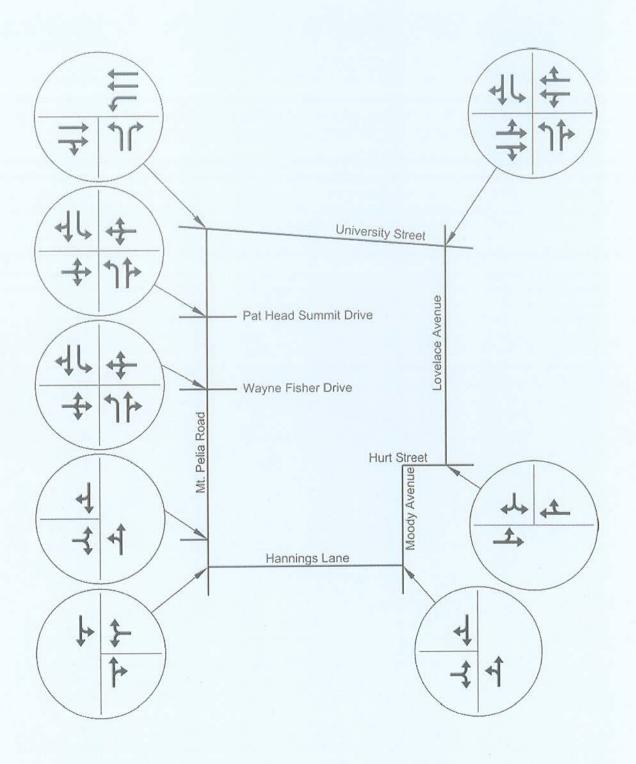
3.1 Regional and Local Access

Regional and local access to the campus is provided by University Street, Hannings Lane, Lovelace Avenue, Moody Avenue, and Mt. Pelia Road. Two additional local streets that, for the purposes of this study, primarily serve as driveways of major parking lots are Pat Head Summitt Drive and Wayne Fisher Drive. Descriptions of these roadways are as follows:

- University Street generally travels in an east-west direction. University Street is designated as State Route 431 and provides a connection between Union City, Tennessee and Martin, Tennessee. Near the project site, University Street provides two travel lanes in each direction divided by a grass median. Sidewalks are provided on the south side of University Street. The posted speed limit is 30 mph. University Street forms the northern boundary of the UT Martin study area.
- Hannings Lane generally travels in an east-west direction and provides a connection between State Route 43, to the west, and Moody Avenue, to the east. Hannings Lane consists of one travel lane in each direction with approximately 30 feet of pavement. There are no sidewalks on Hannings Lane and the posted speed limit is 30 mph. Hannings Lane forms the southern boundary of the UT Martin study area.
- Lovelace Avenue travels in a north-south direction, extending from Hurt Street to Oxford Street. Lovelace Avenue consists of one 11 foot travel lane in each direction. North of St. Charles Street, Lovelace Avenue has ten foot sidewalks and angled parking on the west side of the street. South of St. Charles Street, there are six foot sidewalks on the west side of the street and parallel parking on both sides of the street. There is no posted speed limit on Lovelace Avenue. Lovelace Avenue forms part of the eastern boundary of the UT Martin study area.
- Moody Avenue travels in a north-south direction, extending from Raven Street to Hurt Street where it terminates. Moody Avenue consists of one travel lane in each direction with approximately 25 feet of pavement. Moody Avenue has four foot sidewalks on the east side of the street between Hurt Street and Lee Street. There is no posted speed limit on Moody Avenue. Moody Avenue forms part of the eastern boundary of the UT Martin study area.
- Mt. Pelia Road in the study area travels in a north-south direction through the center of the UT Martin campus. Mt. Pelia Road extends south from University Street to Peach Street where it turns to the west and eventually becomes State Route 216. Mt. Pelia Road consists of one travel lane in each direction with approximately 21 feet of pavement south of Wayne Fisher Drive. North of Wayne Fisher Drive, Mt. Pelia Road consists of one travel lane in each

- direction and left turn lanes with approximately 35 feet of pavement. North of Pat Head Summit Drive, six foot sidewalks are provided on the west side of the street. The posted speed limit is 30 mph.
- Pat Head Summitt Drive travels in an east-west direction and primarily serves as a driveway to a major parking lot as well as athletic-related areas. Pat Head Summit Drive includes one 10.5 foot travel lane in each direction. Four foot sidewalks are included on the north side of the street. The posted speed limit is 20 mph.
- Wayne Fisher Drive travels in an east-west direction and primarily serves as a
 driveway to a major parking lot and as a service entrance for this part of
 campus.

Figure 2 shows the existing lane configurations for the intersections within the study area.



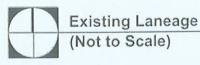


Figure 2.

3.2 Existing Traffic Operations

To provide data for the traffic impact analysis, manual traffic and pedestrian counts were conducted at the following intersections:

- University Street and Lovelace Avenue
- Lovelace Avenue and Hurt Street
- Moody Avenue and Hannings Lane
- Hannings Lane (east) and Mt. Pelia Road
- Hannings Lane (west) and Mt. Pelia Road
- Mt. Pelia Road and Wayne Fisher Drive
- Mt. Pelia Road and Pat Head Summitt Drive
- Mt. Pelia Road and University Street

Specifically, the traffic counts were conducted from 7:00-10:00 AM and 3:00-6:00 PM on a typical weekday for the purposes of this study. Additional pedestrian counts were also performed at marked crosswalks along Mt. Pelia Road and along University Street within the study area. From the counts obtained, it was determined that the peak hours of traffic flow at the intersections occur from 9:00 – 10:00 AM and 4:45 - 5:45 PM. The existing peak hour turning movement volumes and pedestrian crossing counts for the study area are presented in Figure 3. A detailed summary of the turning movement counts are included in Appendix A.

To determine the current operation of the intersections, capacity analyses were performed for the AM and PM peak hours. The capacity calculations were performed according to the methods outlined in the *Highway Capacity Manual*, TRB 2000.

The capacity analyses result in the determination of a Level of Service (LOS) for an intersection. The LOS is a concept used to describe how well an intersection or roadway operates. LOS A is the best, while LOS F is the worst. The descriptions of LOS for signalized intersections are presented in Table 1, the descriptions of LOS for unsignalized intersections are presented in Table 2.

The results of the capacity analyses for the existing conditions at the intersections studied are presented in Table 3. As shown in Table 3, the signalized intersections and the critical turning movements at the unsignalized intersections operate with a LOS C or better during both peak hours. Appendix B contains the capacity analysis worksheets.

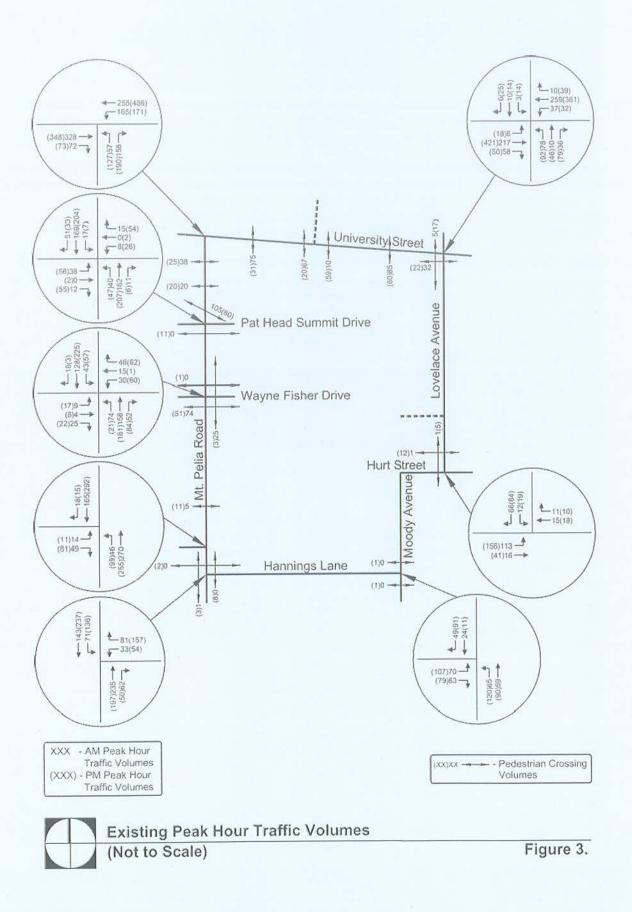


TABLE 1

DESCRIPTIONS OF LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service	Description	Control Delay per Vehicle (sec/veh)
Α	Operations with very low delay. This occurs when progression is extremely favorable. Most vehicles do not stop at all.	≤ 10
В	Operations with stable flows. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	>10 and ≤ 20
С	Operations with stable flow. Occurs with fair progression and/or longer cycle lengths. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	>20 and ≤ 35
D	Approaching unstable flow. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop.	>35 and <u>≤</u> 55
Е	Unstable flow. This is considered to be the limit for acceptable delay. These high delays generally indicate poor progression, long cycle lengths, and high V/C ratios.	>55 and <u><</u> 80
F	Unacceptable delay. This condition often occurs with oversaturation or with high V/C ratios. Poor progression and long cycle lengths may also cause such delay levels.	>80.0

Source: Highway Capacity Manual, TRB 2000

TABLE 2

DESCRIPTIONS OF LEVEL OF SERVICE FOR UNSIGNALIZED INTERSECTIONS

Level of Service	Control Delay (sec/veh)	Description
А	≤ 10.0	Little or no delay
В	>10 and <u><</u> 15	Short traffic delay
С	>15 and <u><</u> 25	Average traffic delay
D	>25 and <u><</u> 35	Long traffic delay
Е	>35 and <u><</u> 50	Very long traffic delay
F	> 50.0	Extreme traffic delay

Source: Highway Capacity Manual, TRB 2000

TABLE 3

PEAK HOUR LEVELS OF SERVICE EXISTING CONDITIONS

			LEVEL OF	SERVI	CE
INTERSECTION	TURNING	AM PE	EAK HOUR	Pelay (see 19.2 A	AK HOUR
INTERSECTION	MOVEMENT	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
University Street and Lovelace Avenue	Overall Intersection	А	9.2	А	9.9
Lovelace Avenue and	Eastbound Through/Right Turns	А	7.4	А	7.5
Hurt Street	Southbound Left/ Right Turns	А	9.1	А	9.6
Moody Avenue and	Northbound Left Turns	А	7.5	А	7.7
Hannings Lane	Eastbound Left and Right Turns	В	10.3	В	12.8
Hannings Lane (east)	Southbound Left Turns	А	8.1	А	8.1
and Mt. Pelia Road	Westbound Left and Right Turns	В	12.3	С	15.7
Hannings Lane (west)	Northbound Left Turns	А	7.7	А	8.2
and Mt. Pelia Road	Eastbound Left and Right Turns	В	10.6	В	12.0
	Northbound Left Turns	А	7.7	А	7.8
Mt. Pelia Road and	Southbound Left Turns	Α	7.8	А	8.0
Wayne Fisher Drive	Eastbound Left/Through/Right	В	13.8	С	15.7
	Westbound Left/Through/Right	В	11.8	В	14.0
	Northbound Left Turns	А	7.8	А	7.9
Mt. Pelia Road and	Southbound Left Turns	А	7.6	А	7.7
Pat Head Summitt Drive	Eastbound Left/Through/Right	В	10.7	В	12.5
	Westbound Left/Through/Right	В	13.2	В	14.9
Mt. Pelia Road and University Street	Overall Intersection	В	12.7	В	12.3

Note: For two-way stop unsignalized intersections, a LOS is presented for each critical turning movement. For all-way stop and signalized intersections, an overall LOS is presented.

4. BACKGROUND TRAFFIC VOLUMES

4.1 Establishing Background Volumes

As previously stated, the master plan is expected to be completed over the next 10 years. In order to account for traffic growth prior to the completion of the master plan, background traffic volumes were established. Average Daily Traffic (ADT) volumes obtained from the Tennessee Department of Transportation (TDOT) indicate that the traffic volumes in the vicinity of the project site have fluctuated very little in the past several years. However, to conservatively account for traffic growth that might occur aside from campus growth, the existing traffic volumes were increased by five percent over the ten year planning horizon. The ADT volumes obtained from area TDOT count stations are included in Appendix A.

The background peak hour traffic volumes are shown in Figure 4. These are the traffic volumes expected in the study area by the year 2018, even if the enrollment of UT Martin remained at current levels.

4.2 Background Traffic Operations

To determine the operation of the intersections studied under background conditions, capacity analyses were performed for the AM and PM peak hours. For the background analyses conducted, it was assumed that all intersections will keep the existing roadway geometry and traffic control.

The results of the capacity analyses for the 2018 background conditions at the study intersections are presented in Table 4. As shown in Table 4, the signalized intersections and the critical turning movements at the unsignalized intersections continue to operate with a LOS C or better during both peak hours. Appendix B contains the capacity analysis worksheets.

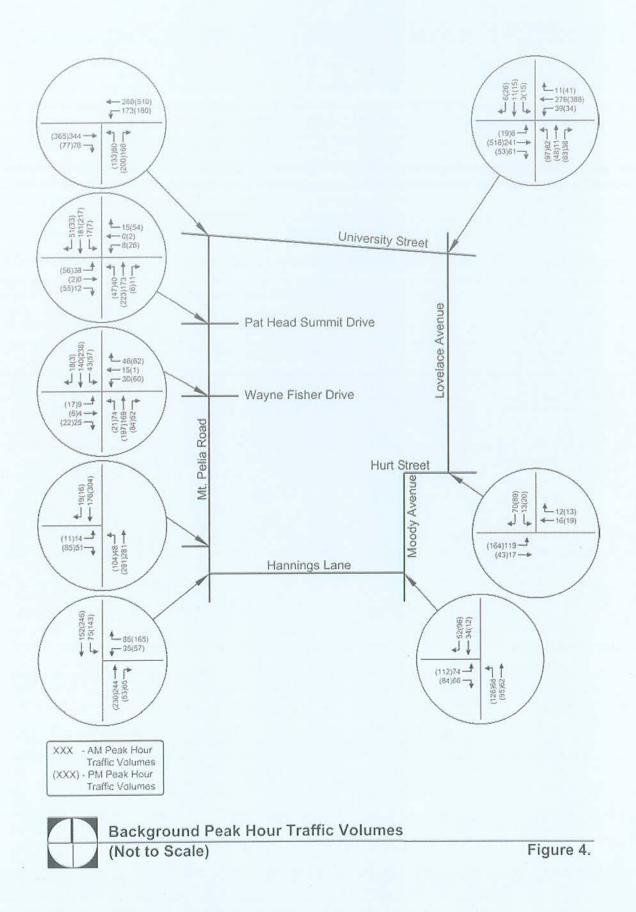


TABLE 4

PEAK HOUR LEVELS OF SERVICE BACKGROUND CONDITIONS

			LEVEL OF	SERVI	CE
INTERSECTION	TURNING	AM PE	EAK HOUR	R PM PEAK I LOS CS B A A A B A C A B A C A B A C B A C B A C B A C B C B C C B C C C C C C	AK HOUR
INTERSECTION	MOVEMENT	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
University Street and Lovelace Avenue	Overall Intersection	А	9.3	В	10.1
Lovelace Avenue and	Eastbound Through/Right Turns	А	7.5	А	7.6
Hurt Street	Southbound Left/ Right Turns	А	9.1	А	9.7
Moody Avenue and	Northbound Left Turns	А	7.5	Α	7.7
Hannings Lane	Eastbound Left and Right Turns	В	10.6	В	13.3
Hannings Lane (east)	Southbound Left Turns	А	8.1	А	8.3
and Mt. Pelia Road	Westbound Left and Right Turns	В	12.7	С	17.5
Hannings Lane (west)	Northbound Left Turns	А	7.7	А	8.3
and Mt. Pelia Road	Eastbound Left and Right Turns	В	10.7	В	12.3
	Northbound Left Turns	А	7.7	А	7.8
Mt. Pelia Road and	Southbound Left Turns	А	7.8	А	8.0
Wayne Fisher Drive	Eastbound Left/Through/Right	В	14.2	С	16.3
	Westbound Left/Through/Right	В	12.0	В	14.4
	Northbound Left Turns	А	7.8	А	7.9
Mt. Pelia Road and	Southbound Left Turns	А	7.6	А	7.7
Pat Head Summitt Drive	Eastbound Left/Through/Right	В	10.9	В	12.8
	Westbound Left/Through/Right	В	13.6	С	15.4
Mt. Pelia Road and University Street	Overall Intersection	В	12.8	В	12.4

Note: For two-way stop unsignalized intersections, a LOS is presented for each critical turning movement. For all-way stop and signalized intersections, an overall LOS is presented.

5. IMPACTS

5.1 Trip Generation

A traffic generation process was used to estimate the amount of traffic expected to be generated by the campus growth reflected in the master plan. As mentioned previously, it is expected that the UT Martin enrollment will increase by approximately 690 students to a total of 7,863 students between 2008 and 2018. It is assumed that this growth will be consistent through the 10 year planning horizon. Factors for the trip generation were taken from *Trip Generation*, Seventh Edition, which is a publication of the Institute of Transportation Engineers (ITE). Trip generation calculations are provided in Appendix C.

The assumed campus enrollment increases are expected to generate a total of approximately 1,547 additional trips per day by 2018. The AM and PM peak hour trip generations for the total master plan will each equal approximately 137 trips.

On university campuses, large parking areas are typically the destination for the majority of vehicular trips. Internal trips between buildings are primarily made on foot or by bicycle. As a result, the existing traffic counts and the existing parking locations were used to distribute the trips that will be generated by the new students.

Table 5 shows the daily, AM, and PM peak hour trip generation for the assumed enrollment increase.

TABLE 5

TRIP GENERATION FOR THE PROPOSED UT MARTIN MASTER PLAN

			GE	D TRAFFI	С		
LAND USE	Size	DAILY	AM PEA	K HR.	PM PEAK HE		
		TRAFFIC	ENTER	EXIT	ENTER	EXIT	
College/ University	690 student increase	1,547	110	27	41	96	

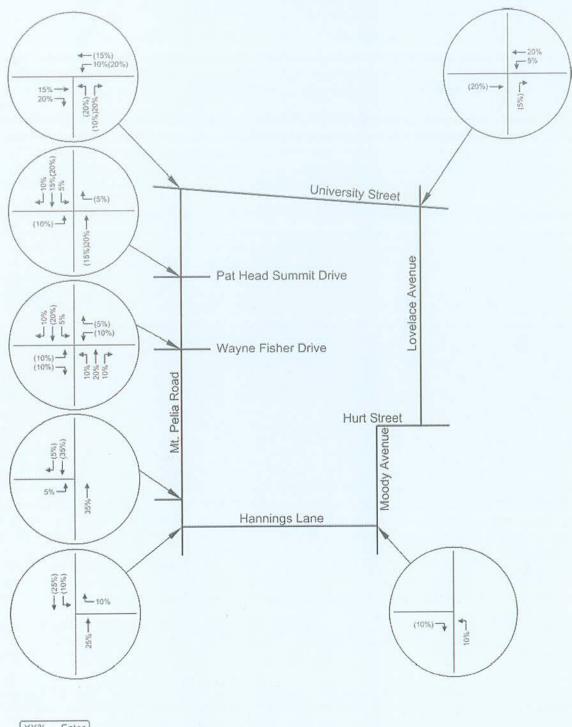
Note: The numbers above are based on the trip generation of new student enrollment and associated faculty and staff increases.

Source: Trip Generation, Seventh Edition

5.2 Trip Distribution and Traffic Assignment

The new trips that will be generated by the campus improvements were added to the roadway system using the general directional distribution shown in Figure 5. This distribution is based primarily on the existing travel patterns in the area as well as locations of major parking areas. As shown by Figure 5, it was assumed that approximately 40% of the new traffic will be oriented west of the site along University Street and Hannings Lane. Approximately 25% is expected to be oriented east of the campus along University Street and approximately 35% is expected to be oriented south of the campus along Mt. Pelia Road and Moody Avenue.

A traffic assignment based on the traffic generation and trip distribution is presented as Figure 6.

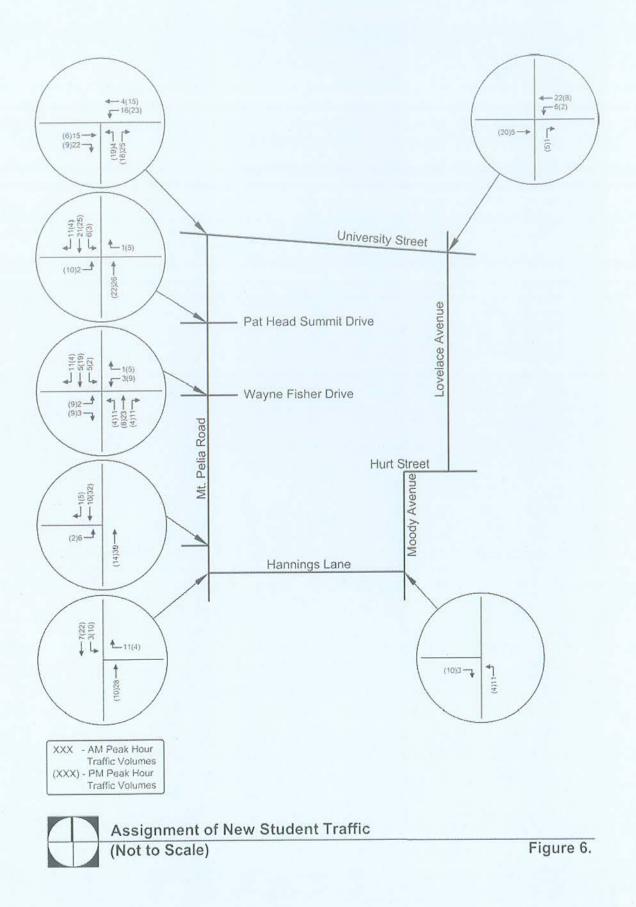


XX% - Enter (XX%) - Exit



Distribution of New Student Traffic (Not to Scale)

Figure 5.



5.3 Capacity / Level of Service Analyses

The new student generated traffic volumes were added to the background peak hour traffic volumes in order to obtain the total projected traffic volumes for the intersections within the study area. Figure 7 presents the total projected AM and PM peak hour traffic volumes expected at the completion of the master plan.

Capacity analyses were performed in order to determine the impact of the growth on the study intersections. Also, these capacity analyses were used to evaluate the need for roadway and traffic control improvements at the intersections studied. For the analyses conducted, it was assumed that the intersections will keep the existing geometry and traffic control. However, signal timings were optimized.

The results of the capacity analyses for the projected conditions at the study intersections are presented in Table 6. As shown in Table 6, the signalized intersections and the critical turning movements at the unsignalized intersections operate with a LOS C or better during both peak hours. Appendix B contains the capacity analysis worksheets.

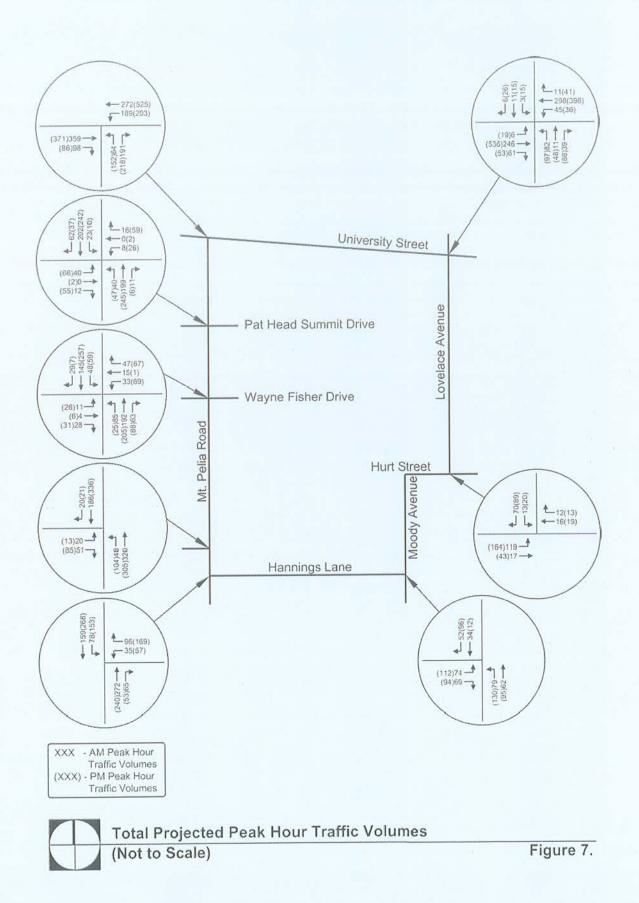


TABLE 6

PEAK HOUR LEVELS OF SERVICE PROJECTED CONDITIONS

			LEVEL OF	SERVI	CE
INTERSECTION	TURNING	LOS	AK HOUR		
INTERSECTION	MOVEMENT	LOS		LOS	Delay (sec/veh)
University Street and Lovelace Avenue	Overall Intersection	А	9.3	В	10.2
Lovelace Avenue and	Eastbound Through/Right Turns	А	7.5	А	7.6
Hurt Street	Southbound Left/ Right Turns	Α	9.1	А	9.7
Moody Avenue and	Northbound Left Turns	A	7.5	А	7.7
Hannings Lane	Eastbound Left and Right Turns	В	10.8	В	13.4
Hannings Lane (east)	Southbound Left Turns	А	8.2	А	8.3
and Mt. Pelia Road	Westbound Left and Right Turns	В	13.2	С	18.9
Hannings Lane (west)	Northbound Left Turns	А	7.8	А	8.4
and Mt. Pelia Road	Eastbound Left and Right Turns	В	11.4	В	13.0
	Northbound Left Turns	А	7.8	Α	7.9
Mt. Pelia Road and	Southbound Left Turns	А	7.9	Α	8.0
Wayne Fisher Drive	Eastbound Left/Through/Right	С	15.8	С	18.7
	Westbound Left/Through/Right	В	12.8	С	15.8
	Northbound Left Turns	А	7.9	Α	8.0
Mt. Pelia Road and	Southbound Left Turns	А	7.7	А	7.8
Pat Head Summitt Drive	Eastbound Left/Through/Right	В	11.3	В	13.4
	Westbound Left/Through/Right	В	14.8	С	17.8
Mt. Pelia Road and University Street	Overall Intersection	В	13.1	В	12.6

Note: For two-way stop unsignalized intersections, a LOS is presented for each critical turning movement. For all-way stop and signalized intersections, an overall LOS is presented.

6. CONCLUSIONS AND RECOMMENDATIONS

Overall, traffic operations on the UT Martin campus are good. Analyses have shown that the roadway network will operate with acceptable levels of service through the 10-year planning horizon without any additional roadway or intersection capacity. Even if enrollment growth is heavier than expected during this period, no traffic capacity problems are expected.

Pedestrian activity on campus, while heavy, is well-managed and drivers are generally aware and respectful of pedestrian crossings. Two areas of significant pedestrian activity exist, and these are the focus of improvement recommendations in this study. These are the University Street corridor and the Mt. Pelia Road corridor. To aid in the programming and funding of pedestrian-related improvements at UT Martin, recommendations are presented as near term and long term solutions.

6.1 University Street Corridor, Near Term Recommendations

Near term recommendations for the University Street corridor focus on signing and marking improvements. Currently, drivers are alerted to the presence of the four crosswalks between Dewberry Lane and Moody Avenue by crosswalk warning signs (MUTCD W11A-2¹) supplemented by continuously flashing incandescent warning beacons. These signs are well-placed and highly visible, although the signs should be replaced with the current pedestrian crossing warning sign (W11-2) and supplemented with the downward arrow plate (W16-7p) on signs at actual crosswalk locations. From the motorist perspective, roadway conditions in this corridor remain constant whether a pedestrian is actually present in the crosswalk or not. This is because the flashing beacon operates continuously, whether a pedestrian is present or not.

Major near term recommendations are based on findings of recent pedestrian research:

- Pedestrian safety can be enhanced by an active warning beacon that flashes only when a pedestrian is present and not at other times.
- Where pedestrian-activated warning beacons are present, a low percentage
 of pedestrians will use the pushbuttons provided. Futhermore, pedestrians
 who do use the pushbuttons may erroneously assume that the pushbutton
 grants them risk-free right-of-way for crossing.
- Compliance with existing laws for motorists to yield to pedestrians in a crosswalk can be enhanced by reminding drivers of the law at the crosswalk location.

¹ Manual on Uniform Traffic Control Devices. Sign W11-A2 was found in the 1988 edition. In the 2000 edition, use of this sign was discontinued. The current application of a crossing warning is sign W11-2 supplemented with a downward arrow plate (W16-7p).



Near term recommendations for the University Street corridor are as follows:

 Update existing crosswalk warning signs with new MUTCD-compliant signs (W11-2 and supplemented with W16-7p as appropriate). Supplement these signs with pedestrian-actuated LED warning beacons.

• Install passive detection devices for pedestrian actuation using a light beam trip system. This is a pair of bollards on either side of the sidewalk leading to the crosswalk that is wired for pedestrian detection. When a pedestrian passes between the bollards, the light beam is tripped and the warning lights are activated.

Install "State Law" crosswalk signs (R1-6) in the median of University

Street.

• Replace existing stop bars on either side of the marked crosswalks with yield lines (as per MUTCD Section 3B.16). These lines should be located approximately 40 feet in advance of the crosswalks. Having traffic yield further from the crosswalk allows pedestrians to be more visible to motorists in both traffic lanes. The application of yield lines must also include posting sign R1-5 at the location of the yield line.

Near term recommendations for the University Street corridor are shown in Figure 8.

6.2 University Street Corridor, Long Term Recommendations

Long term improvement of this corridor centers on providing a centralized crossing location having full traffic control, instead of just a warning. To do this, a new traffic signal is recommended within this segment of University Street. To provide a secondary benefit to campus traffic, the intersection of the University Street parking lot driveway and University Street should be signalized.

Long term recommendations for the University Street corridor are as follows:

- Install a new traffic signal at the intersection of University Street and the
 driveway to the University Street parking lot. This signal should include
 standard pedestrian pushbuttons and countdown signals. Furthermore, an
 innovative signal wiring plan should be designed to allow the light beam trip
 to continue to operate as an equivalent to the pushbutton at the
 intersection.
- Relocate the driveway to the Administration Building approximately 290 feet west to create a fourth leg of the proposed signalized intersection. This will provide better access to visitors and parking at the Administration Building. The existing Administration Building driveway should be closed once relocated.
- Allow traffic to exit the University Street parking lot at this intersection by allowing southbound traffic on the driveway. This will require some widening of the driveway. The parking lot driveway should contain three

lanes, each at least 11 feet wide. One lane would be used for entering traffic and two lanes would be used for exiting traffic (one southbound shared left turn/through lane and one southbound right turn lane).

 Construct one eastbound and one westbound left turn lane on University Street in the median at this intersection. The eastbound left turn lane should be at least 200 feet long and the westbound left turn lane should be at least 100 feet long. Tapers for these lanes should be designed in accordance with AASHTO guidelines.

It should be noted that signal installation must be predicated by a documented meeting of MUTCD signal warrants and obtaining a TDOT permit. The City of Martin must also be agreeable to future maintenance of the signal as a City asset. Also, it would be beneficial to interconnect the University Street signals at Moody Avenue (existing), University Street parking lot (proposed), and Mt. Pelia Road (existing) for coordinated traffic operation. Long term recommendations for the University Street corridor are shown in Figure 9.

6.3 Mt. Pelia Road Corridor, Near Term Recommendations

The other campus corridor where pedestrian improvements should be made is the Mt. Pelia Road corridor from University Street to Hannings Lane. Although traffic is not as heavy and the crossings are shorter than on the University Street corridor, higher pedestrian crossing numbers exist due to concentrations of pedestrians at the intersections of Mt. Pelia Road and Pat Head Summitt Drive and Mt. Pelia Road and Wayne Fisher Drive.

Near term recommendations for the Mt. Pelia Road corridor focus on calming all traffic using this street and possibly deterring traffic not bound for the campus from using the street. Near term recommendations are as follows:

- Install a combination of speed humps and raised crosswalks at approximately 300 foot intervals from Skyhawk Fieldhouse to south of the Tennis House. These should be signed and marked appropriately (refer to MUTCD Figures 3B-29 and 30).
- Update existing crosswalk warning signs with new MUTCD-compliant signs (W11-2 and supplemented with W16-7p as appropriate).

Near term recommendations for the Mt. Pelia Road corridor are shown in Figure 10.

6.4 Mt. Pelia Road Corridor, Long Term Recommendations

In the long term, and as the UT Martin campus expands westward, consideration should be given to the closure of Mt. Pelia Road to traffic going through this side of campus. Current plans are for a new student recreational

facility to be constructed on currently vacant land south of the Tennis House on the west side of Mt. Pelia Road. This, along with the continued construction of new student housing east of Mt. Pelia Road will promote additional high volumes of pedestrian crossings of Mt. Pelia Road just north of Hannings Lane. Closing Mt. Pelia Road as a through street will allow a continuous pedestrian and recreation-oriented area to be established in this southwest part of campus.

It is recommended that Mt. Pelia Road be closed from the proposed new student recreation/wellness facility driveway to Hannings Lane. Based on traffic counts, it is estimated that less than 300 vehicles during the peak hour use Mt. Pelia Road as a through street. This is a manageable amount of traffic to be diverted to other north-south routes such as Elm Street or the Martin Bypass. Many campuses have used a temporary closure method (using removable bollards, gates, etc.) to evaluate the effect of a street closure on other campus streets before permanently closing the street.

One additional improvement recommended as part of the master plan is to improve the offset intersections of Mt. Pelia Road and Hannings Lane. This should be done by realigning the westbound approach of Hannings Lane to the eastbound approach.

Long term recommendations for the Mt. Pelia Road corridor are shown in Figure 11.

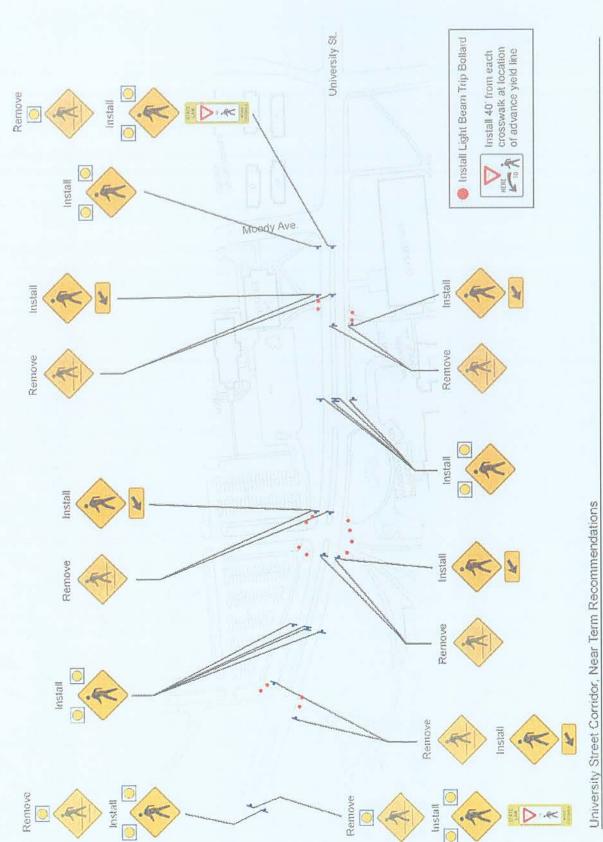
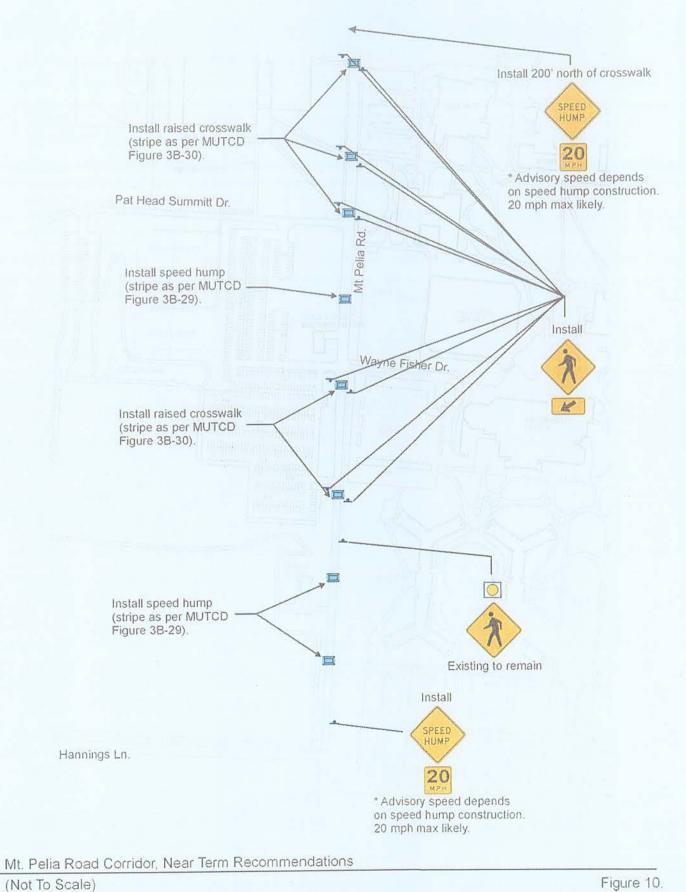


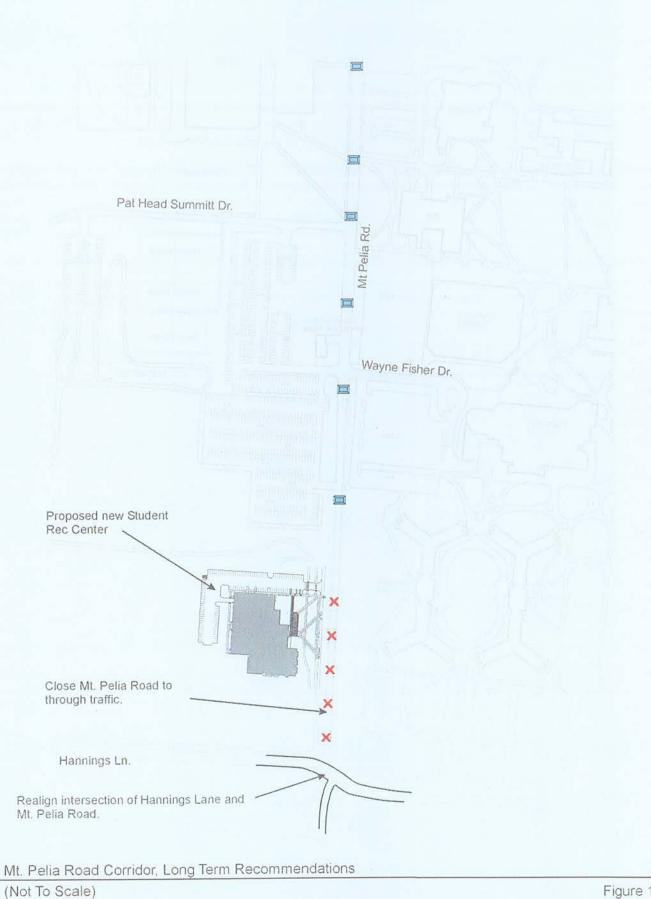
Figure 9.

University Street Corridor, Long Term Recommendations (Not To Scale)



Transportation Consultants, LLC

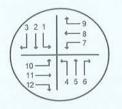
Figure 10.



Transportation Consultants LLC

Figure 11.

APPENDIX A DETAILED TURNING MOVEMENT COUNTS





INTERSECTION TRAFFIC VOLUME COUNTS

LOCATION: University Street(Hwy. 431) at Mt. Pelia Road

DATE: 3/26/08

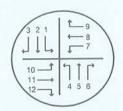
RECORDER: Traffic Data

NOTES:

		S/B			N/B			W/B	-	AL CONTRACTOR OF THE PARTY OF T		E/B	
LOCATION				Mt	. Pelia R	oad	Un	iversity Stre	eet	Uni	versity Str	eet	
TIME	1	2	3	4	5	6	7	8	9	10	11	12	
7:00-7:15				3		20	14	36			37	12	
7:15-7:30				3		20	24	35			59	17	
7:30-7:45				4		17	47	67			70	31	
7:45-8:00				4		40	78	45			104	37	
8:00-8:15				7		27	37	44			75	13	
8:15-8:30				3		25	18	42			62	14	
8:30-8:45				5		21	26	35			36	17	
8:45-9:00				5		22	28	71			39	7	
9:00-9:15				13		36	30	52			80	18	
9:15-9:30				17		48	64	68			105	28	
9:30-9:45				14		44	35	68			78	12	
9:45-10:00				13		30	36	67			65	14	
10:00-10:15				-10									
10:15-10:30													
10:30-10:45		-											
10:30-10:45													
11:00-11:15													
11:15-11:30													
11:30-11:45		-											
11:45-12:00						1	_					_	
12:00-12:15						-						_	
12:15-12:30						+							
12:30-12:45													
12:45-1:00						-	_						
1:00-1:15						-						_	
1:15-1:30										_			
1:30-1:45												_	
1:45-2:00						-							
2:00-2:15										_			
2:15-2:30										_			
2:30-2:45										-			
2:45-3:00										_			
3:00-3:15				50		57	41	109			64	12	
3:15-3:30				18		51	41	119			89	8	
3:30-3:45				17		36	39	90			75	14	
3:45-4:00				15		38	40	131			82	16	
4:00-4:15				25		46	28	114	Ť.		85	6	
4:15-4:30				25		46	42	99			76	15	
4:30-4:45				23		60	46	90			74	23	
4:45-5:00				25		43	32	111			90	18	
5:00-5:15				49		51	60	144			84	12	
5:15-5:30				31		58	27	117			97	18	
5:30-5:45				22		38	52	114			77	25	
5:45-6:00				15		23	39	79			85	25	
6:00-6:15													
6:15-6:30													
6:30-6:45													
6:45-7:00													
TOTAL		1		406		897	924	1,947		1	1,788	412	
AM PK HR		1		57		158	165	255			328	72	
MID PK HR													
PM PK HR				127		190	171	486			348	73	

333 659 930 1,252 1,223 1,200 1,245 1,338 1,383 1,395 1,342 942 594 266

9:00 AM - 10:00 AM 4:45 PM - 5:45 PM





INTERSECTION TRAFFIC VOLUME COUNTS

LOCATION: Mt. Pelia Road at Pat Head Summit Drive

DATE: 3/26/08

RECORDER: Traffic Data

LOCATION	N/I+	S/B Pelia Roa	ad.	8/66	N/B . Pelia Roa	d	Pat He	W/B ad Summit	Drive	Pat Head Summi		nit Drive	
LOCATION			3	4	5	6	7	8	9	10	11	12	
TIME	1	2	5		15	2	-	0	3	3		1	
7:00-7:15	7	17		1	-	2			- 3	4		1	
7:15-7:30	15	18	4	5	20				2	4		3	
7:30-7:45	20	35	14	6	21	10	1		2	7		5	
7:45-8:00	14	50	30	22	55		2		1	8		4	
8:00-8:15	9	19	14	12	33	4	4		2	4		6	
8:15-8:30	6	22	5	7	25	2	-	4	- 4	6		1	
8:30-8:45	4	28	4	5	20	5	1	1	3	1		4	
8:45-9:00	4	22	6	7	25	4	3		3	14		5	
9:00-9:15	1	31	9	14	35	1	2					3	
9:15-9:30	10	50	27	18	59	6	4		6	10		3	
9:30-9:45	3	34	8	4	44	2	2		3	10			
9:45-10:00	3	31	7	4	34	2			3	4		-1	
10:00-10:15													
10:15-10:30													
10:30-10:45													
10:45-11:00													
11:00-11:15													
11:15-11:30													
11:30-11:45													
11:45-12:00													
12:00-12:15													
12:15-12:30	-												
12:30-12:45												-	
12:45-1:00													
1:00-1:15													
1:15-1:30													
1:30-1:45												_	
1:45-2:00													
2:00-2:15													
2:15-2:30													
2:30-2:45													
2:45-3:00													
3:00-3:15		41	9	8	78				2	17		6	
3:15-3:30	2	40	5	9	60		2		5	13		13	
3:30-3:45	3	43	7	2	39	1	1	1	5	3		3	
3:45-4:00	6	48	2	5	37	1	6		8	5		5	
4:00-4:15		38	3	1	55	3	4		9	8		3	
4:15-4:30	4	45	8	9	58	1	3		7	14		12	
4:30-4:45	1	50	14	13	50		3		11	15		8	
4:45-5:00	2	37	8	9	50	2	7	1	15	12		7	
5:00-5:15		56	15	18	62	1	9		18	14		11	
5:15-5:30	1	41	5	8	54	2	6	1	16	16		16	
5:30-5:45	4	56	5	12	52	1	4		5	14	2	21	
5:45-6:00	4	46	8	8	37	2	3		1	6		12	
6:00-6:15													
6:15-6:30													
6:30-6:45													
6:45-7:00													
TOTAL	123	898	222	207	1,018	58	63	4	130	212	2	15	
AM PK HR	17	146	51	40	172	11	8		15	38		12	
MID PK HR			-										
PM PK HR	7	190	33	47	218	6	26	2	54	56	2	55	





INTERSECTION TRAFFIC VOLUME COUNTS

LOCATION: Mt. Pelia Road at W. Fisher Drive

DATE: 3/26/08

RECORDER: Traffic Data

		S/B			N/B			W/B		E/B			
LOCATION	Mt	. Pelia Ro	ad	Mt	. Pelia Ro	ad	W.	. Fisher Dri	ve	W.	Fisher Dr	ASSESSMENT OF THE PARTY OF THE	
TIME	1	2	3	4	5	6	7	8	9	10	11	12	
7:00-7:15	5	16		2	17	5		1	2				
7:15-7:30	7	14		2	22	10	1		3				
7:30-7:45	24	20	1	11	42	48	3		2				
7:45-8:00	18	24	6	29	69	41	4	1	7	2			
8:00-8:15	12	18	2	5	40	13	1		3				
8:15-8:30	7	24	1	1	25	5	2		3	1			
8:30-8:45	5	13	4	2	28	8	4	1	2	1	1	7	
8:45-9:00	11	15	3	8	30	9	6		4	1	2	9	
9:00-9:15	10	32	4	17	40	19	3	4	14	5	2	10	
9:15-9:30	12	16	13	42	58	17	9	5	19	1		6	
9:30-9:45	9	32	1	4	26	6	12	2	5	3		9	
9:45-10:00	12	25		11	30	10	6	4	8		2		
10:00-10:15	1,64				15/2	13.30							
10:15-10:30													
10:30-10:45													
10:45-11:00		-											
11:00-11:15													
11:15-11:30													
11:30-11:45	-	_											
11:45-12:00													
			_										
12:00-12:15													
12:15-12:30													
12:30-12:45													
12:45-1:00	-			_									
1:00-1:15													
1:15-1:30	_												
1:30-1:45	-		-					_					
1:45-2:00		0											
2:00-2:15									-	v			
2:15-2:30				_					-				
2:30-2:45													
2:45-3:00		-			20	40	22		10	10	3	2	
3:00-3:15	10	31	4	4	39	15	22		19	10 3	1	4	
3:15-3:30	14	38	1	2	42	13	13		7	2	1	4	
3:30-3:45	12	38		6	32	15	13	0					
3:45-4:00	8	45	1	6	27	12	18	2	14	6	1	8 5	
4:00-4:15	4	43	2	3	37	7	13	1	15	8	2	13	
4:15-4:30	10	52		6	49	7	21	740	18	6	2	-	
4:30-4:45	12	42	3	2	40	11	13	1	7	7		11	
4:45-5:00	10	44		9	47	16	14		13	12		4	
5:00-5:15	13	70	1	4	49	22	23		20	3	2	10	
5:15-5:30	10	50		2	44	14	9		13	1	1	2	
5:30-5:45	24	57	2	6	51	12	14	1	16	1	3	6	
5:45-6:00	20	36	2	10	35	18	16	1	9	1	1	7	
6:00-6:15												_	
6:15-6:30													
6:30-6:45													
6:45-7:00													
TOTAL	279	795	51	194	919	353	240	24	238	74	24	117	
AM PK HR	43	105	18	74	154	52	30	15	46	9	4	25	
MID PK HR													
PM PK HR	57	221	3	21	191	64	60	1	62	17	6	22	





INTERSECTION TRAFFIC VOLUME COUNTS

LOCATION: Mt. Pelia at Hannings Lane Eastbound

DATE: 3/26/08

RECORDER: Traffic Data

LOCATION		S/B			N/B							
TIME	1	2	3	4	5	6	7	8	9	10	11	12
7:00-7:15		15	1	12	32					2		9
7:15-7:30		15		3	36							11
7:30-7:45		14	2	7	80					3		-11
7:45-8:00		39	7	10	156					6		15
8:00-8:15		14	3	8	71					1		7
8:15-8:30		18	1	8	41					1		9
8:30-8:45		22	3	9	40		_			1		9
8:45-9:00		24	2	11	50					4		5
9:00-9:15		34	3	19	83					3		11
9:15-9:30		42	5	10	132					5		13
9:30-9:45		43	7	4	50					3		8
9:45-10:00		41	3	13	60					3		17
		41	3	10	00							
10:00-10:15			-									
10:15-10:30												
10:30-10:45												
10:45-11:00												
11:00-11:15												
11:15-11:30			-							-		
11:30-11:45		-										
11:45-12:00												
12:00-12:15		-		_								
12:15-12:30				_								
12:30-12:45		-			-		_					
12:45-1:00										_		
1:00-1:15		-								_		
1:15-1:30										_		
1:30-1:45										-		
1:45-2:00									-	_		
2:00-2:15												
2:15-2:30										-		
2:30-2:45									-			
2:45-3:00							-		-	2		21
3:00-3:15		69	8	18	80		_			2		21
3:15-3:30		58	8	19	71					4		15
3:30-3:45		51	3	37	83					4		14
3:45-4:00		72	7	22	66					1 7		15
4:00-4:15		60	4	18	53					7		18
4:15-4:30		81	3	16	67					3		18
4:30-4:45		66	9	18	65					5		27
4:45-5:00		63	1	22	75					4		22
5:00-5:15		94	7	22	95				-	4		22
5:15-5:30		68	2	34	100					-		20
5:30-5:45		74	5	21	77					3		17
5:45-6:00		59	2	22	82					2		20
6:00-6:15										-		
6:15-6:30										-		
6:30-6:45												
6:45-7:00									-			
TOTAL		1,136	96	383	1,745					71		35
AM PK HR		160	18	46	325					14		49
MID PK HR												
PM PK HR		299	15	99	347					11		8





INTERSECTION TRAFFIC VOLUME COUNTS

LOCATION: Mt. Pelia Road at Hannings Lane Westbound

DATE: 3/26/08

RECORDER: Traffic Data

LOCATION	Mit	S/B . Pelia Roa	ad	M	N/B It. Pelia Roa	nd	Ha	W/B innings La	ne		E/B	
TIME	1	2	3	4	5	6	7	8	9	10	11	12
7:00-7:15	8	16	- 3		26	7	7	-	8	-10		1.2
7:15-7:30	16	10			32	11	6		4			
7:30-7:45	12	13	-		70	19	10		13			-
7:45-8:00	16	30	-	_	132	32	4		30			
	11	12			55	12	5		17			
8:00-8:15	9	18			34	8	7		8			fi -
8:15-8:30 8:30-8:45	11	20		_	27	5	7		14			-
8:45-9:00	12	17			46	12	8		8			
	14	31		-	62	17	9		24			
9:00-9:15	19	36	-		109	24	7		28			
9:15-9:30	16	35			42	8	11		11		7	-
9:30-9:45		36			45	13	6		18			
9:45-10:00	22	36			43	13	0		10		1	
10:00-10:15												
10:15-10:30							- 4					
10:30-10:45									-			
10:45-11:00												
11:00-11:15					1		-					
11:15-11:30						_						
11:30-11:45					-		-		-			
11:45-12:00												
12:00-12:15									-			
12:15-12:30						_	202	-				
12:30-12:45										_		
12:45-1:00							-					
1:00-1:15												
1:15-1:30									-			_
1:30-1:45				_								
1:45-2:00				_					+			
2:00-2:15												
2:15-2:30											-	-
2:30-2:45				_								
2:45-3:00						22			40	_		-
3:00-3:15	28	62			40	16	21		42	_		
3:15-3:30	27	46			45	16	12		30	_		
3:30-3:45	20	45			36	11	14		51	_		-
3:45-4:00	30	57			36	18	24		31			
4:00-4:15	28	50			34	18	23		26			
4:15-4:30	37	62			40	8	12		30			
4:30-4:45	36	57			31	16	15		39			
4:45-5:00	37	48			41	17	15		38		-	
5:00-5:15	33	83			58	14	17		41			
5:15-5:30	32	56			52	7	18		48			
5:30-5:45	34	57			51	12	4		29			
5;45-6:00	31	48			46	11	13		38			
6:00-6:15					,							
6:15-6:30												
6:30-6:45												
6:45-7:00												_
TOTAL	539	945			1,190	332	275		626			
AM PK HR	71	138			258	62	33		81			
MID PK HR												
PM PK HR	138	244			182	54	65		166			





INTERSECTION TRAFFIC VOLUME COUNTS

LOCATION: Hannings Lane at Moody Avenue

DATE: 3/26/08

RECORDER: Traffic Data

NOTES:

		S/B			N/B			W/B			E/B Hannings Lane	
LOCATION	N	loody Lan	e	٨	loody Lan	e				Ha		
TIME	1	2	3	4	5	6	7	8	9	10	11	12
7:00-7:15		2	5	4	1					9		2
7:15-7:30		1	13		7					16		1
7:30-7:45		1	11	7	9					26		1
7:45-8:00		3	11	11	18					35		1
8:00-8:15		3	9	2	7					12		5
8:15-8:30		2	5	4	6					8		3
8:30-8:45		2	8	6	4					9		2
8:45-9:00		2	8	1	8					22		3
9:00-9:15		3	15	11	10					15		
9:15-9:30		2	15	8	25					27		8
9:30-9:45		6	11	7	5					12		6
9:45-10:00		2	8	1	10					16		3
10:00-10:15	-		0		10					10		3
10:15-10:30	_									_		
										_		
10:30-10:45												
10:45-11:00												
11:00-11:15							_					
11:15-11:30												
11:30-11:45												
11:45-12:00												
12:00-12:15												
12:15-12:30												
12:30-12:45												
12:45-1:00												
1:00-1:15												
1:15-1:30												
1:30-1:45												
1:45-2:00												
2:00-2:15												
2:15-2:30												
2:30-2:45												
2:45-3:00												
3:00-3:15		17	21	5	10					27		9
3:15-3:30		3	25	5	8					27		12
3:30-3:45		6	14	2	6					24		12
3:45-4:00		6	25	8	10					32		1
4:00-4:15		3	24	6	2					26		10
4:15-4:30		6	19	6	3					22		12
4:30-4:45		8	20	4	-1					35		21
4:45-5:00		15	27	- 5	8					26		16
5:00-5:15		22	30	6	10					37		8
5:15-5:30		10	24	7	14					21		7
5:30-5:45		7	10	10	6					23		9
5:45-6:00		5	25	7	6					27		10
6:00-6:15												
6:15-6:30												
6:30-6:45												
6:45-7:00												
TOTAL		137	383	133	194					534		16
AM PK HR		13	49	27	48					76		17
MID PK HR												
PM PK HR		55	101	22	33					119		52

UT Martin Master Plan Appendix Page7





INTERSECTION TRAFFIC VOLUME COUNTS

LOCATION: Loveless Avenue at Hurt Street

DATE: 3/26/08

RECORDER: Traffic Data

LOCATION	Lou	S/B		N/B		W/B			E/B			
LOCATION	Loveless Avenue					Hurt Street			Hurt Street			
TIME	1	2	3	4	5	6	7	8	9	10	11	12
7:00-7:15	1		5					2		4	1	
7:15-7:30			24					8		5		_
7:30-7:45			23					10	3	14	2	
7:45-8:00	2		25					13	11	28	3	
8:00-8:15	1		11					3	3	12	3	
8:15-8:30	2		11					3		15	1	
8:30-8:45	1		7					3	2	4	4	
8:45-9:00	3		15					1	2	23	- 1	
9:00-9:15	6		16					5	5	22	3	
9:15-9:30	3		25					7	6	56	7	
9:30-9:45	2		20					1	3	22	5	
9:45-10:00	1		11					2	2	13	1	
10:00-10:15												
10:15-10:30												
10:30-10:45												
10:45-11:00												
11:00-11:15												
11:15-11:30												
11:30-11:45												
11:45-12:00												
12:00-12:15												
12:15-12:30												
12:30-12:45												
12:45-1:00												
1:00-1:15												
1:15-1:30												
1:30-1:45												
1:45-2:00												
2:00-2:15												
2:15-2:30												
2:30-2:45		-										
2:45-3:00												
3:00-3:15	2		24					4	4	23	11	
3:15-3:30	5		26					3	8	18	4	
3:30-3:45	6	-	31					7	2	39	7	-
3:45-4:00	6		49					10	3	36	14	
4:00-4:15	5		22					10	1	32	7	-
4:15-4:30	5		17				-	3	2	26	11	
4:30-4:45	5		24					2	4	33	6	
4:45-5:00	5		19					4		32	4	
5:00-5:15	5		28					3	3	67	24	
5:15-5:30	7	-	22					3	6	31	9	
5:30-5:45	2		20					8	1	26	4	
5:45-6:00	5		23					6	3	14	4	
6:00-6:15	3		23					0	3	14	4	
6:15-6:30												
6:30-6:45												
											-	
6:45-7:00	80		400					121	74	595	120	
TOTAL			498 76					14	16	Contractor Contractor	136	
AM PK HR	14		76					14	10	123	16	
MID PK HR PM PK HR	22		128					30	14	125	32	





INTERSECTION TRAFFIC VOLUME COUNTS

LOCATION: Loveless Avenue at University Street

DATE: 3/26/08

RECORDER: Traffic Data

		S/B		N/B			W/B				E/B		
LOCATION	Lo	Loveless Avenue			Loveless Avenue			University Street			University Street		
TIME	1	2	3	4	5	6	7	8	9	10	11	12	
7:00-7:15		2	1	2		3	3	34	1	1	39	9	
7:15-7:30	1	2		3		1	14	64	2		59	13	
7:30-7:45	- 1	5		7	2	3	27	121	1		30	22	
7:45-8:00	2	10	3	8	3	5	15	95	1		41	26	
8:00-8:15	1	3	1	4	1	6	3	60	1		31	14	
8:15-8:30	2	3	1	3		3	5	66	1		45	16	
8:30-8:45	3	7	3	8	1	4	20	86	2	1	39	15	
8:45-9:00	1	8	3	18	6	8	13	73			57	29	
9:00-9:15	1	2	1	12	1	3	8	51	3	3	43	10	
9:15-9:30	1	1	1	12	2	4	6	53	2	1	49	13	
9:30-9:45		1	3	24	4	9	16	80	2		52	18	
9:45-10:00	1	6	1	30	3	20	7	75	3	2	73	17	
10:00-10:15										-	10	17	
10:15-10:30													
10:30-10:45													
10:45-11:00										1		1	
11:00-11:15										1			
11:15-11:30							1			1			
11:30-11:45							1	-	-	-	-	-	
11:45-12:00				1			_	+					
12:00-12:15							1						
12:15-12:30							1			-			
12:30-12:45					-								
12:45-1:00					-	+	_	_	_				
1:00-1:15						_							
1:15-1:30				_						_	-	-	
1:30-1:45						-				-			
1:45-2:00		7:					_			-			
2:00-2:15					-								
2:15-2:30										-			
2:30-2:45		_		_	-		_						
2:45-3:00													
3:00-3:15	2		-	40	-	- 0.6							
3:15-3:30	2	4	5	16	5	24	11	84	3	2	95	13	
3:30-3:45	5	- 8 - 5	5	19	2	20	13	97	5	6	94	16	
			6	17	7	11	12	77		3	84	16	
3:45-4:00	2	8	6	22	3	23	13	92	7	4	100	20	
4:00-4:15 4:15-4:30	4	3	4	18	3	15	6	85	3	2	107	12	
	5	4	5	17	3	17	3	74	6	2	90	18	
4:30-4:45	4	7	1	25	6	16	4	83	3		92	10	
4:45-5:00	2		6	25	6	15	10	83	5	2	96	14	
5:00-5:15	6	6	4	35	10	25	10	100	15	5	135	19	
5:15-5:30	4	5	6	15	29	22	6	94	14	5	97	12	
5:30-5:45	2	3	9	17	1	17	6	84	5	6	93	5	
5:45-6:00	5	7	2	11	7	12	10	94	8	1	70	15	
6:00-6:15					h								
6:15-6:30													
6:30-6:45													
6:45-7:00													
TOTAL	57	110	77	368	105	286	241	1,905	93	46	1,711	372	
AM PK HR	3	10	6	78	10	36	37	259	10	6	217	58	
MID PK HR													
PM PK HR	16	18	17	100	51	78	30	360	37	12	420	55	

TDOT Counts UT Martin Master Plan

Station 93 - University St, east of campus

Year	AADT	Annual Change	Average		
2007	10379	-9%			
2006	11416	7%			
2005	10669	-8%			
2004	11620	8%			
2003	10806	-5%	-2%	5 year Avg.	
2002	11427	3%			
2001	11067	2%			
2000	10848	-5%			
1999	11475	-12%			
1998	13113	27%	1%	10 year Avg	
1997	10292				

UT Martin Master Plan Appendix Page10

TDOT Counts UT Martin Master Plan

Station 148 - Mt Pelia Rd, south of University St

Year	AADT	Annual Change	Average				
2007	6056	-13%					
2006	6977	7%					
2005	6496	1%					
2004	6452	8%					
2003	5981	-1%	0%	5 year Avg.			
2002	6028	1%					
2001	5982	-2%	10				
2000	6095	4%					
1999	5870	-12%					
1998	6692	31%	2%	10 year Avg			
1997	5120						

TDOT Counts UT Martin Master Plan

Station 139 - Hannings Ln, east of Mt Pelia Rd

Year	AADT	Annual Change	Average			
2007	4887	-12%				
2006	5558	3%				
2005	5396	3%				
2004	5239	3%				
2003	5086	-8%	-2%	5 year Avg.		
2002	5538	-7%				
2001	5934	6%		Ti and the second		
2000	5593	-5%				
1999	5861	-17%				
1998	7055	0%	-3%	10 year Avg		
1997	7055					

APPENDIX B
CAPACITY ANALYSES



UT Martin Master Plan Appendix Page14

				S	HORT	REPO	ORT						
General Info	rmation					Site I	nformat	ion					
Analyst Agency or Co Date Perform Time Period	JH o. <i>RPM</i> ned 4/23/2008 <i>AM PEAK</i>					Area Juriso	ection Type liction sis Year	LOV All o MAI	VERSITY ELACE other area RTIN 8				
Volume and	Timing Input												
			EB	_		WB			NB			SB	
		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of La	anes	0	2	0	0	2	0	1	1	0	1	1	0
Lane Group			LTR			LTR		L	TR		L	TR	-
Volume (vph)		6	217	58	37	259	10	78	10	36	3	10	6
% Heavy Vel	hicles	0	0	0	0	0	0	0	0	0	0	0	0
PHF		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Act		A	A	A	A	Α	A	Α	A	A	A	Α	A
Startup Lost	Time		2.0			2.0		2.0	2.0		2.0	2.0	
Extension of	Effective Gree	en	2.0			2.0		2.0	2.0		2.0	2.0	
Arrival Type			3			3		3	3		3	3	
Unit Extension	on		3.0			3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RT	OR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width			12.0			12.0		12.0	12.0		12.0	12.0	
Parking/Grad	de/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour										-			
Bus Stops/Ho			0	_		0		0	0		0	0	
South Mediculars Income	destrian Time		3.2			3.2			3.2			3.2	
Phasing	EW Perm G = 30.0	02 G =	G	03	G =	04	S = 2		06 G =	G	07	G =	08
Timing	Y = 4	Y =	Y		Y =		Y = 4		Y =	Y		Y =	
Duration of A	nalysis (hrs) =								Cycle Le	ngth C	= 60.0		
Lane Grou	up Capacity	, Contr	ol Del	ay, an	d LOS	Deter	minati	on					
			EB			WB			NB			SB	
Adjusted Flov	w Rate		312			340		87	51		3	18	
Lane Group	Capacity		1663			1608		520	615		504	656	
v/c Ratio			0.19			0.21		0.17	0.08		0.01	0.03	
Green Ratio			0.50			0.50		0.37	0.37		0.37	0.37	
Uniform Dela	ay d ₁		8.3			8.4		12.8	12.4		12.1	12.2	
Delay Factor	k	74	0.11			0.11		0.11	0.11		0.11	0.11	
Incremental I	Delay d ₂		0.1			0.1		0.2	0.1		0.0	0.0	
PF Factor			1.000			1.000		1.000	1.000		1.000	1.000	
Control Delay	у		8.3			8.5		13.0	12.5		12.1	12.2	
Lane Group I			A			Α		В	В		В	В	
Approach De			8.3			8.5			12.8			12.2	
Approach LC			А		T	A			В			В	
Intersection I	10.00	\top	9.2			6//2	Interse	ction L	os			Α	
The state of the s	University of Florid	a. All Rights	\$5000 C			H	CS+ TM Version 5.21 Generated: 5/13/2008				1:06		

				S	HORT	REPO							
General Inf	ormation					Site I	nformat	THE REAL PROPERTY.	/FDOITS	/ / / / /			
Analyst Agency or C Date Perfori Time Period	med 4/23/2008					Area Jurisd		LOVI All of MAR)		
Volume and	d Timing Input												
		17	EB	Lpz	1.7	WB	Lot	LT	NB	ГОТ	1.7	SB	RT
Ni sahas of I		LT 0	TH 2	RT 0	LT 0	TH 2	RT 0	LT 1	TH 1	RT 0	LT 1	1	0
Number of L		- 0	LTR	0	0	LTR	10	L	TR		L	TR	
Lane Group		18	421	50	32	361	39	92	46	79	14	14	25
Volume (vpl		0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Ve	enicies	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90
PHF	-	-	-	A	A	A	A	A	A	A	A	A	A
	t Time	A	2.0	A	A	2.0	A	2.0	2.0	7	2.0	2.0	
Startup Lost	f Effective Gree	on.	2.0		-	2.0		2.0	2.0		2.0	2.0	
	The state of the s	en		-	-	3		3	3	-	3	3	
Arrival Type		+	3	-	-	3.0		3.0	3.0		3.0	3.0	+
Unit Extensi			3.0			-	0	0	0	0	0	0	0
	TOR Volume	0	0	0	0	12.0	0	12.0	12.0	0	12.0	12.0	10
Lane Width	- d - (Deutsia a	N	12.0	N	I N	0	N	N N	0	N	N	0	N
Parking/Gra Parking/Hou		10	0	10	110	10	14	10	1	7.0	- 14	-	1
Bus Stops/F		_	0			0		0	0		0	0	
	edestrian Time		3.2			3.2			3.2			3.2	
Phasing	EW Perm	02	T	03		04	NS P	erm	06		07		08
Timing	G = 30.0	G =	G		G =		G = 2	NAME OF TAXABLE PARTY.	G =		G =	G =	
	Y = 4	Y =	Υ:		Y =		Y = 4		/ =		Y = C = 60.0	Y =	
	Analysis (hrs)		ol Dol	av. an	4108	Dotor	minati		Sycie Le	ngui	C = 00.0		
Lane Gro	oup Capacity	/, Conti	EB	ay, an	I LOS	WB			NB	_		SB	
A -1541 E1	Dete	_	544		+	480	T	102	139	T	16	44	
Adjusted Flo			1662	-	+	1599		-		-			
Lane Group	Capacity		.002			100000000		507	631		466	630	-
v/c Ratio			0.33			0.30		0.20	0.22		0.03	0.07	
Green Ratio	0		0.50			0.50		0.37	0.37		0.37	0.37	
Uniform De	lay d ₁		9.0			8.8		13.0	13.1		12.2	12.3	
Delay Facto	or k		0.11			0.11		0.11	0.11		0.11	0.11	
Incrementa	N. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		0.1			0.1		0.2	0.2		0.0	0.0	
PF Factor			1.000			1.000)	1.000	1.000		1.000	1.000	
Control Del	ay		9.1			8.9		13.2	13.3		12.2	12.4	
	ne Group LOS A			A		В	В		В	В			
Lane Group	and the same of th		9.1			8.9			13.2			12.3	
	Delay		9.1										
Lane Group Approach D		-	9.1 A			Α			В			В	

Appendix Page16

General Information	1		Site In	forma	ation			
					40011	LOVELAG	CE AVE AN	ID HUR
Analyst	JH		Intersed	ction		ST		MT12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Agency/Co.	RPM		Jurisdic	ction		MARTIN		
Date Performed Analysis Time Period	4/23/2008 AM PEAK		— Analysi	s Year		2008		
Analysis Time Period	AMPEAN							
Project Description UT	MARTIN MAS	TER PLAN						
East/West Street: HUR7			The second second second second	Name and Address of the Owner, where the Owner, which is the Owne	reet: LOVEL	ACE AVE		
ntersection Orientation:			Study P	eriod (l	nrs): 0.25			
/ehicle Volumes an	d Adjustme							
Major Street		Eastbound	- Control			Westbou	nd	
Movement	1	2	3		4	5		6
	L	T	R		L	T	_	R 11
/olume (veh/h)	113	16	0.00		0.00	0.90		0.90
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90			
Hourly Flow Rate, HFR veh/h)	125	17	0		0	16		12
Percent Heavy Vehicles	0				0	-		
Median Type				Undivi	ded			
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0				0		
Minor Street		Northbound				Southbou	ınd	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
/olume (veh/h)					12			66
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0		13	0		73
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0		2		0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, a	nd Level of Se	rvice						
Approach	Eastbound	Westbound	N	Vorthbo	und	S	outhbound	
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	125						86	
C (m) (veh/h)	1599						969	
v/c	0.08						0.09	
95% queue length	0.25						0.29	
	7.4						9.1	
Control Delay (s/veh)							A	
LOS	Α					+	9.1	
Approach Delay (s/veh)					-			
Approach LOS							A	

UT Martin Master Plan Appendix Page17

General Information	1		Site Ir	nforma	ation			
			- Intorna	ation			CE AVE A	ND HUR
Analyst	JH RPM		Interse	Ction		ST		
Agency/Co.			Jurisdic	ction		MARTIN		
Date Performed	4/23/2008		Analys	is Year		2008		
Analysis Time Period	PM PEAK							
Project Description UT	MARTIN MAST	TER PLAN						
East/West Street: HUR7				-	reet: LOVE	LACE AVE		
ntersection Orientation:	East-West		Study F	Period (I	hrs): 0.25			
Vehicle Volumes an	d Adjustme					3.0000000000000000000000000000000000000	10.00	
Vlajor Street		Eastbound	_			Westbou	nd	-
Movement	1	2	3		4	5		6
	L	Т	R		L	Т		R
Volume (veh/h)	156	41				18		10
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	173	45	0		0	20		11
Percent Heavy Vehicles	0	7227			0			(400)
Median Type				Undivi	ided			
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0				0		
Minor Street		Northbound				Southbou	ınd	
Movement	7	8	9		10	11		12
	L	T	R		L	Т		R
Volume (veh/h)					19			84
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0		21	0		93
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration						LŖ		
Delay, Queue Length, a	nd Level of Se	rvice						
Approach	Eastbound	Westbound		Northbo	und	5	outhboun	d
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	173						114	
A.O. \$ (2.5) - \$ (2.5)(1.5)	1595						893	
C (m) (veh/h)	0.11						0.13	
v/c					-		0.13	1
95% queue length	0.36						1,000,000	+
Control Delay (s/veh)	7.5						9.6	-
LOS	Α						A	
Approach Delay (s/veh)	-	-					9.6	
Approach LOS							A	

HCS+TM Version 5.21

Generated: 5/13/2008 12:43 PM

General Information			Site In	format	tion			
Analyst	JH		Intersed	ction		HANNING MOODY		D
Agency/Co.	RPM		Jurisdic	tion		MARTIN	412	_
Date Performed	4/23/2008		Analysi	A COSTA		IVIARTIN		
Analysis Time Period	AM PEAK		Analysi	s real				
Duningt Depositation 11T	MADTINI MACTI	ED DLAM		_				
Project Description UT East/West Street: HANN		RPLAN	Morth/S	outh Stre	eet: MOOD	VAVE		
ntersection Orientation:	no abdeleticate data discultiva para di terrativa di la constitución de la constinación de la constitución de la constitución de la constitución d				rs): 0.25	TAVE		
/ehicle Volumes an		te	jetas) ;					
Major Street	la Aujusunen	Northbound				Southbou	ınd	
Movement	1	2	3		4	5	iii d	6
novement	L	T	R		Ĺ	T		R
/olume (veh/h)	65	59				24		49
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
lourly Flow Rate, HFR veh/h)	72	65	0		0	26		54
Percent Heavy Vehicles	0	-	_		0			20 mm
Median Type				Undivid	ed			
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0				0		
Minor Street	T	Eastbound				Westbou	nd	
Movement	7	8	9		10	11		12
	L	Т	R		L	T		R
/olume (veh/h)	70		63					
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	77	0	70		0	0		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
anes	0	0	0		0	0		0
Configuration		LR						
Delay, Queue Length, a	nd Level of Serv	/ice						
Approach	Northbound	Southbound	V	Vestbou	nd		Eastbound	
Movement	1	4	7	8	9	10	11	12
_ane Configuration	LT						LR	
/ (veh/h)	72						147	
	1531				+		821	
C (m) (veh/h)					_	1	0.18	
I/C	0.05				-			1
95% queue length	0.15				+	+	0.65	-
Control Delay (s/veh)	7.5				_		10.3	-
LOS	Α						В	
Approach Delay (s/veh)							10.3	
Approach LOS	22	122					В	

HCS+TM Version 5.21

Generated: 5/13/2008 12:38 PM

General Information	า		Site In	forma	tion			
Analyst	JH		Intersec	and the latest designation of the latest des		1		
Agency/Co.	RPM		Jurisdic			MARTIN		
Date Performed	4/23/2008	3	Analysi			2008		
Analysis Time Period	PM PEAK		- I wilding of	0 1 001				
	MARTIN MAS							
East/West Street: HANI		The state of the s	North/S	outh Str	eet: MOOL	YAVE		
ntersection Orientation:					rs): 0.25			
Vehicle Volumes ar	nd Adjustme	nts						
Wajor Street	la / tajaoano	Northbound		T		Southbou	ind	
Movement	1	2	3		4	5		6
	L	Т	R		L	Т		R
/olume (veh/h)	120	90				11		91
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	133	100	0		0	12		101
Percent Heavy Vehicles	0		-		0			
Median Type				Undivid	led			
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0				0		
Viinor Street		Eastbound				Westbou	nd	
Movement	7	8	9		10	11		12
	L	T	R		L	Т		R
Volume (veh/h)	107		79					
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	118	0	87		0	0		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration		LR						
Delay, Queue Length, a	and Level of Se	rvice						
Approach	Northbound	Southbound	٧	Vestbou	nd	E	Eastbound	
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	133						205	
C (m) (veh/h)	1489						668	
v/c	0.09				+		0.31	
	100000000000000000000000000000000000000					+	1.30	
95% queue length	0.29							+
Control Delay (s/veh)	7.7				+		12.8	
LOS	Α						В	
Approach Delay (s/veh)							12.8	
Approach LOS							В	

HCS+TM Version 5.21

Generated: 5/13/2008 12:39 PM

General Information	V.		Sito In	formati	on			
General Information			Site in	normau	OII	MT DELL	A AND HA	MAIMINGS
Analyst	JH		Interse	ction		LN EAST		AMMINGS
Agency/Co.	RPM		Jurisdic	ction		MARTIN		
Date Performed	4/23/2008		Analysi	THE RESIDENCE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN		2008		
Analysis Time Period	AM PEAK	1						
Project Description UT	MARTIN MAST	ER PLAN						
East/West Street: HANN			North/S	outh Stree	et: MT PE	LIA RD		
ntersection Orientation:			Study P	eriod (hrs): 0.25			
Vehicle Volumes an	d Adjustme	nts						
Wajor Street		Northbound				Southboo	und	
Movement	1	2	3		4	5		6
	L	T	R		L	T		R
/olume (veh/h)		235	62		71	143		
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	0	261	68		78	158		0
Percent Heavy Vehicles	0		()440)		0			:
Median Type				Undivide	d	_		
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration			TR		LT			
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	ınd	HE .
Movement	7	8	9		10	11		12
	L	T	R		L	T		R
Volume (veh/h)					33			81
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0		36	0		90
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0	1			0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, a	nd Level of Se	rvice						
Approach	Northbound	Southbound	1	Westboun	d		Eastboun	d
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)	1	78		126				
C (m) (veh/h)		1242		620				
v/c		0.06		0.20			1	
VV. V.		0.20		0.76			1	
95% queue length				12.3				
Control Delay (s/veh)		8.1			-		_	+
LOS		Α		B 10.0	1	+		
Approach Delay (s/veh)				12.3		-		
Approach LOS				В				

HCS+TM Version 5.21

Generated: 5/13/2008 12:50 PM

Seneral Information	19		Site Ir	nformati	on			
Analyst	JH		Interse	ction		MT PELI	A AND HA	ANNINGS
Agency/Co.	RPM		Jurisdie	ction		MARTIN		
Date Performed	4/23/2008		Analys			2008		
Analysis Time Period	PM PEAK							
Project Description UT	MARTIN MAST	TER PLAN						
ast/West Street: HANN		AST		THE RESERVE OF THE PERSON NAMED IN	et: <i>MT PE</i>	LIA RD		
ntersection Orientation:	North-South		Study F	Period (hrs	s): 0.25			
/ehicle Volumes an	d Adjustme	nts						
/lajor Street		Northbound				Southbo	und	
Novement	1	2	3		4	5		6
	L	T	R		L	T		R
/olume (veh/h)		197	50		136	237	_	0.90
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		
lourly Flow Rate, HFR veh/h)	0	218	55		151	263		0
Percent Heavy Vehicles	0	Tem.			0	-		
Median Type				Undivide	d			
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration			TR		LT			
Jpstream Signal		0				0		
/linor Street		Eastbound				Westbo	und	
Novement	7	8	9		10	11		12
	L	T	R		L	T		R
/olume (veh/h)					54			157
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90	_	0.90
Hourly Flow Rate, HFR veh/h)	0	0	0		60	0		174
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
anes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, a	nd Level of Se	rvice						
Approach	Northbound	Southbound	West of the second	Westboun	id		Eastboun	d
Movement	1	4	7	8	9	10	11	12
ane Configuration		LT		LR				
(veh/h)		151		234				
C (m) (veh/h)		1302		569				
//c		0.12		0.41				
95% queue length		0.39		2.00				
Control Delay (s/veh)		8.1		15.7				
LOS		A		C				
				15.7				
Approach Delay (s/veh)				C		-		

HCS+TM Version 5.21

Generated: 5/13/2008 2:41 PM

General Information			Site In	forma	tion			
General information			Site in	IIOIIIIa	LIOIT	MT PELIA	AND HA	NININICS
Analyst	JH		Intersed	ction		LN WEST		IVIVIIVGS
Agency/Co.	RPM		Jurisdic	ction		MARTIN		
Date Performed	4/23/2008		Analysi			2008		
Analysis Time Period	AM PEAK			0 1001				
Project Description UT	MARTIN MASTE	ER PLAN						
East/West Street: HANN			North/S	outh Stre	eet: MTPE	LIA RD		
ntersection Orientation:					rs): 0.25			
Vehicle Volumes an		te						
Major Street	Aujustinen	Northbound				Southbou	nd	
Movement	1	2	3		4	5		6
viovement		T	R		L	Т		R
Volume (veh/h)	46	270				165		18
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR	51	300	0		0	183		20
(veh/h)		300	U		1000			11155411
Percent Heavy Vehicles	0	-			0			7.7
Median Type				Undivid	ed		-	7.2
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	nd	
Vovement	7	8	9		10	11		12
	L	T	R		L	T		R
Volume (veh/h)	14		49					
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	15	0	54		0	0		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration		LR						
Delay, Queue Length, a	nd Level of Sen							
Approach	Northbound	Southbound	\	Vestbou	nd		Eastbound	
Movement	1	4	7	8	9	10	11	12
	LT	7		-		1	LR	1.2
Lane Configuration					+	+	69	
v (veh/h)	51				+	+	2010	+
C (m) (veh/h)	1381				_	-	716	
v/c	0.04					-	0.10	
95% queue length	0.11						0.32	
Control Delay (s/veh)	7.7						10.6	
LOS	А						В	
Approach Delay (s/veh)		344					10.6	
Approach LOS							В	

HCS+TM Version 5.21

Generated: 5/13/2008 2:45 PM

General Information	1		Site Ir	nform	ation			
Analysis	JH		Interse	otion			A AND HA	NNINGS
Analyst	RPM		Interse	CHOH		LN WES	Γ	
Agency/Co. Date Performed	4/23/2008		Jurisdie	ction		MARTIN		
Analysis Time Period	PM PEAK		Analys	is Year		2008		
Analysis Time Period	PWFLAN							
Project Description UT								
East/West Street: HANI		EST			treet: MT PE	ELIA RD		
ntersection Orientation:	North-South		Study F	Period (hrs): 0.25			
Vehicle Volumes ar	nd Adjustme	nts						
Major Street		Northbound				Southbou	ınd	
Movement	1	2	3		4	5		6
	L	T	R	_	L	T		R
/olume (veh/h)	99	255			0.00	292	-	15
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	110	283	0		0	324		16
Percent Heavy Vehicles	0	-			0			de se
Median Type				Undiv	ided	_		West .
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	nd	
Movement	7	8	9		10	11		12
	L	T	R		L	Т		R
/olume (veh/h)	11		81					
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	12	0	90		0	0		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized	1		0					0
anes	0	0	0		0	0		0
Configuration		LR						
Delay, Queue Length, a	nd Level of Se							
Approach	Northbound	Southbound	1	Westbo	und		Eastbound	1
Movement	1	4	7	8	9	10	11	12
	LT	7				10	LR	12
_ane Configuration					_		102	
/ (veh/h)	110				-			-
C (m) (veh/h)	1230			_	-		619	-
ı/c	0.09						0.16	
95% queue length	0.29						0.59	
Control Delay (s/veh)	8.2						12.0	
_OS	Α						В	
Approach Delay (s/veh)			02				12.0	
Approach LOS						1	В	

HCS+TM Version 5.21

Generated: 5/13/2008 2:48 PM

General Information	1		Site Ir	nformati	on			
					011	MT PELL	A AND WA	AYNE
Analyst	JH		Interse	ction		FISHER	J. C. M. C. T. C. A. C.	3,103,500
Agency/Co.	RPM		Jurisdio	ction		MARTIN		
Date Performed	4/23/2008		Analys	is Year		2008		
Analysis Time Period	AM PEAK							
Project Description UT	MARTIN MAST	TER PLAN						
East/West Street: WAY			North/S	outh Stree	et: MTPE	LIA RD		
ntersection Orientation:	North-South	I	Study F	Period (hrs): 0.25			
/ehicle Volumes an	d Adjustme	nts						
//ajor Street		Northbound				Southbou	ınd	
Movement	1	2	3		4	5		6
	L	T	R		L	T		R
/olume (veh/h)	74	158	52		43	128		18
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	82	175	57		47	142		20
Percent Heavy Vehicles	0	1 2-2			0			(440
Median Type				Undivide	d	1		
RT Channelized			0					0
anes	1	1	0		1	1		0
Configuration	L		TR		L			TR
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	ınd	-
Movement	7	8	9		10	11		12
	E	Т	R		L	T		R
/olume (veh/h)	9	4	25		30	15		46
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	10	4	27		33	16		51
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration		LTR				LTR		
Delay, Queue Length, a	nd Level of Se	rvice						
Approach	Northbound	Southbound		Westboun	d		Eastbound	1
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR		100-100	LTR	
/ (veh/h)	82	47		100	1	1	41	
	1429	1348		508	1		572	
C (m) (veh/h)		0.03		0.20			0.07	+
//c	0.06				1		-	
95% queue length	0.18	0.11		0.72		1	0.23	
Control Delay (s/veh)	7.7	7.8		13.8	1		11.8	-
LOS	Α	Α		В			В	
Approach Delay (s/veh)		V <u>22</u>		13.8			11.8	
Approach LOS				В			В	

HCS+TM Version 5.21

Generated: 5/13/2008 2:50 PM

General Information	1		Site In	formation	on			
						MT PELI	A AND WA	YNE
Analyst	JH RPM		Interse			FISHER		
Agency/Co. Date Performed	4/23/2008	1	- Jurisdio	THE PROPERTY OF THE PARTY OF TH		MARTIN		
Analysis Time Period	PM PEAK		Analysi	is Year		2008		
Project Description UT			Fr			114.00		
East/West Street: WAY	The same of the sa	¥		outh Stree		LIA RD		
ntersection Orientation:			Study P	Period (hrs)). 0.25			
Vehicle Volumes ar	id Adjustme					0 111		
Major Street		Northbound	1 0	_	4	Southbou	and I	C
Movement	1 L	2 T	3 R	_	4 L	5 T	_	6 R
Volume (veh/h)	21	181	84	_	57	225	_	3
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR	-	1				250		3
(veh/h)	23	201	93		63	250		3
Percent Heavy Vehicles	0		223		0			
Median Type				Undivided	d			
RT Channelized			0					0
anes	1	1	0		1	1		0
Configuration	L		TR		L			TR
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	ınd	
Movement	7	8	9		10	11		12
	L	T	R		L	T		R
Volume (veh/h)	17	6	22		60	1		62
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	18	6	24		66	1		68
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0	1 1	
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration		LTR				LTR		
Delay, Queue Length, a	nd Level of Se	rvice						
Approach	Northbound	Southbound	1	Vestbound	i		Eastbound	
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	23	63		135			48	
C (m) (veh/h)	1324	1279		469	1		448	
v/c	0.02	0.05		0.29			0.11	
1900 C	0.02	0.16		1.18	1	+	0.36	1
95% queue length				15.7		_		-
Control Delay (s/veh)	7.8	8.0			+	-	14.0	
LOS	Α	Α		C			B	
Approach Delay (s/veh)				15.7			14.0	

HCS+TM Version 5.21

Generated: 5/13/2008 2:51 PM

General Information	1		Site In	formation	on			
Analyst	JH		Intersed	tion		MT PELIA SUMMIT	A AND PA	T
Agency/Co.	RPM		Jurisdic	tion		MARTIN		
Date Performed	4/23/2008		Analysis	independent of		2008		
Analysis Time Period	AM PEAK			o rour				
Project Description UT	MARTIN MAS	TER PLAN					11	
East/West Street: PAT I			North/Sc	outh Stree	t: MTPE	LIA RD		
ntersection Orientation:	NAMES OF TAXABLE PARTY OF TAXABLE PARTY.		THE RESIDENCE OF THE PERSON NAMED IN COLUMN	eriod (hrs)				
/ehicle Volumes an	d Adjustme	nts			77			
Major Street		Northbound				Southbou	ınd	
Movement	1	2	3		4	5		6
	L	T	R		L	T		R
/olume (veh/h)	40	162	11		17	169		51
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	44	180	12		18	187		56
Percent Heavy Vehicles	0	-			0			144
Median Type				Undivide	d	_		
RT Channelized			0					0
anes	1	1	0		1	1		0
Configuration	L		TR		L			TR
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	nd	
Movement	7	8	9	F) 11	10	11		12
	L	T	R		L	T		R
/olume (veh/h)	38	0	12		8	0		15
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	42	0	13		8	0		16
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0	i.				0
Lanes	0	1	0		0	1		0
Configuration		LTR				LTR		
Delay, Queue Length, a	ind Level of Se						- 70	
Approach	Northbound	Southbound	V	Vestbound	d		Eastbound	1
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
	44	18		24			55	
v (veh/h)	274.04	1394		651	+		492	
C (m) (veh/h)	1335			0.04	1		0.11	
v/c	0.03	0.01			-	+		-
95% queue length	0.10	0.04		0.11	-	-	0.38	
Control Delay (s/veh)	7.8	7.6		10.7			13.2	
LOS	Α	Α		В			В	
Approach Delay (s/veh)				10.7			13.2	
Approach LOS	22			В			В	

HCS+TM Version 5.21

Generated: 5/13/2008 12:54 PM

0		O-WAY STOP						
General Information	n		Site II	nforma	tion			
Analyst	JH		Interse	ection		MT PELI.	A AND PA	T
Agency/Co.	RPM		Jurisdi	ction		MARTIN		
Date Performed	4/23/2008		1	is Year		2008		
Analysis Time Period	PM PEAK			1001				
Project Description U7	MARTIN MAS	TER PLAN	1					
East/West Street: PAT			North/S	South Str	eet: MT PE	LIA RD		
Intersection Orientation:	North-South		Study F	Period (h	rs): 0.25			
Vehicle Volumes ar	nd Adiustme	nts						
Major Street		Northbound				Southboo	und	
Movement	1	2	3		4	5		6
	L	T	R		L	Т		R
Volume (veh/h)	47	207	6		7	204		33
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	52	230	6		7	226		36
Percent Heavy Vehicles	0				0			77.
Median Type		_		Undivid	ded		T	20
RT Channelized			0					0
Lanes	1	1	0		1	1		0
Configuration	L		TR		L			TR
Upstream Signal		0				0		
Minor Street		Eastbound				Westbou	ınd	
Movement	7	8	9		10	11	0	12
	L	T	R		L	Т		R
Volume (veh/h)	56	2	55	_	26	2		54
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90	_	0.90
Hourly Flow Rate, HFR (veh/h)	62	2	61		28	2		60
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration		LTR				LTR		
Delay, Queue Length, a	and Level of Se	rvice						
Approach	Northbound	Southbound		Westbou	ınd		Eastbound	
Movement	111	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	52	7		90			125	
C (m) (veh/h)	1314	1343		570			489	
v/c	0.04	0.01		0.16			0.26	
95% queue length	0.12	0.02		0.56			1.01	
Control Delay (s/veh)	7.9	7.7		12.5			14.9	
LOS	A.	A		B			В	
	00.00			12.5			14.9	
Approach Delay (s/veh)				B			B	
Approach LOS	77			CS+TM Ve			rated: 5/13/20	Delicines Accessed

HCS+TM Version 5.21

Generated: 5/13/2008 12:54 PM

General Info	ormation		-		31	IORT	-	formation	on					_
Analyst Agency or C	JH o. RPM ned 4/23/2008						Interse Area T Jurisdi	ction	UNIVE PELIA	er areas		T		
Volume and	l Timing Input													
				EB	1	1.77	WB	Lor	1.7	NB	Lor	1.7	SB	LDT
Number of L	onco	\dashv	LT	TH 2	RT 0	LT 1	TH 2	RT	LT 1	TH	RT 1	LT	TH	RT
	anes	-		TR	-	L	T	+	L	+	R			
Lane Group	.\	-		328	72	165	255	+	57	+	158			
Volume (vph		-	_	0	0	0	0	+	0	+	0	+		-
% Heavy Ve PHF	nicies			0.90	0.90	0.90	0.90	+	0.90		0.90	+		
	tuoted (D/A)	-		0.90 A	A	A	A	-	A		A	+		
Pretimed/Ac Startup Lost		-		2.0	A	2.0	2.0		2.0		2.0			
	Effective Gree	n l		2.0		2.0	2.0		2.0		2.0	+		
Arrival Type	Ellective Gree	511		3		3	3		3		3		1	
Unit Extensi	20			3.0	+	3.0	3.0		3.0	+-	3.0		+	
			0	0	0	0	0	+	0	0	16		_	
Ped/Bike/RT Lane Width	OR volume	-	U	12.0	0	12.0	12.0		12.0	+	12.0			
Parking/Gra	de/Parking	\dashv	N	0	N	N N	0	N	N	0	N N		1	
Parking/Hou						<u> </u>	Ť	1						
Bus Stops/H				0		0	0		0		0			
CONTRACTOR OF THE CONTRACTOR	destrian Time			3.2			3.2			3.2				
Phasing	WB Only	_	V Perm		03	04	4	NB On		06		07	0	8
Timing	G = 10.0	G =	= 18.0	G		G = Y =		G = 20 $Y = 4$.0 G		G =		G = Y =	-
	Y = 4 Analysis (hrs) =			Y		γ =		1 - 4		cle Len		60.0	11-	
	up Capacity			l Del	av. and	LOS	Deterr	ninatio			0			
Edito Sto	ale calearit	1	01101	EB	,		WB			NB			SB	
Adjusted Flo	w Rate			444		183	283		63		158			
Lane Group				1056	4	548	1930		602		538			
v/c Ratio				0.42		0.33	0.15		0.10		0.29			
Green Ratio				0.30		0.53	0.53		0.33		0.33			
Uniform Del				16.8		7.7	7.1		13.8		14.8			
Delay Facto				0.11		0.11	0.11		0.11		0.11			
Incremental				0.3		0.4	0.0		0.1		0.3			
PF Factor				1.000		1.000	1.000		1.000		1.000			
Control Dela	av			17.1		8.0	7.1		13.9		15.1			
Lane Group	7			В		A	A		В		В			
Approach D				17.1			7.5			14.7				_
				В			A			В				
Approach Lo							50.5			10000				

General Info	ormation	_			31	IORT I	A STATE OF THE PARTY OF THE PAR	formatio	on					
Analyst Agency or C	JH o. RPM ned 4/23/2008						Interse Area T Jurisdi	ction	UNIV	her areas		Л Т		
Volume and	Timing Input													
				EB			WB			NB			SB	1
2017 17 7212	To the	-	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	R
Number of L	anes	-		2	0	1	2	-	1	-	1	-	+	-
Lane Group	20	-		TR	-	L	T	-	L	+	R	-	+	
Volume (vph		_		348	73	171	486	-	127	+	190		-	-
% Heavy Ve	hicles	4		0	0	0	0	-	0	+	0		-	-
PHF		_		0.90	0.90	0.90	0.90	-	0.90		0.90)	-	-
Pretimed/Act				Α	A	A	A		A	-	A		-	-
Startup Lost	Time			2.0		2.0	2.0		2.0		2.0			_
Extension of	Effective Gree	en		2.0		2.0	2.0		2.0		2.0			
Arrival Type				3		3	3		3		3			
Unit Extension	on			3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RT	OR Volume		0	0	0	0	0		0	0	19			
Lane Width				12.0		12.0	12.0		12.0		12.0)		
Parking/Grad	de/Parking		N	0	N	N	0	N	N	0	N			
Parking/Hou	ır										-		-	_
Bus Stops/H	lour			0		0	0		0		0		-	_
Minimum Pe	destrian Time			3.2			3.2			3.2			1	
Phasing	WB Only		V Perm		03	G =	1	MB On $G = 20$		06	G	07	G =)8
Timing	G = 10.0 $Y = 4$	Y =	18.0	G =		Y =		Y = 4		=	Y		Y =	
Duration of A	Analysis (hrs)	_			N	1 12 22			C	ycle Ler		-		
	up Capacity			ol Dela	ay, and	LOS	Deterr	ninatio	n					
				EB			WB			NB			SB	
Adjusted Flo	w Rate			468		190	540		141		190			
Lane Group	200			1057		536	1930		602		538			
v/c Ratio				0.44		0.35	0.28		0.23		0.35			
Green Ratio				0.30		0.53	0.53		0.33		0.33			
Uniform Del				17.0		7.8	7.7		14.5		15.1			
Delay Facto				0.11		0.11	0.11		0.11		0.11			
Incremental				0.3		0.4	0.1		0.2		0.4			
PF Factor				1.000		1.000	1.000		1.000		1.000			
Control Dela	av			17.2		8.2	7.8		14.7		15.5			
Lane Group	water and the same			В		A	Α		В		В			
		\dashv		17.2		1.50	7.9			15.2				
	olav			11.6						20.000				
Approach D		\dashv		В		1	Α			В				

BACKGROUND CONDITIONS

UT Martin Master Plan Appendix Page31

General Info	ormation		_		S	HORT	REPO	ORT nformat	ion		_				
Analyst Agency or C	JH co. RPM med 4/23/2008						Inters Area	ection	UNI LOV All o MAF			ID			
Volume and	d Timing Input														
			- Commentered	В			WB	I 5=	1.7	NB	1 6		17	SB	LDT
Ni b a a a f I		LT 0	2	H	RT 0	LT 0	TH 2	RT 0	LT 1	TH 1	0	T5	LT 1	TH 1	RT 0
Number of L		0	LT	_	0	0	LTR	10	L	TR	H		L	TR	1
Lane Group		6	24	_	61	39	276	11	82	11	38	8	3	11	6
Volume (vph		0	0	_	0	0	0	0	0	0	0		0	0	0
% Heavy Ve	enicies	0.90	0.9	_	0.90	0.90	0.90	0.90	0.90	0.90	0.9		0.90	0.90	0.90
	treated (D/A)	_	-					A	0.90 A	A	D.S		A	A	A
Pretimed/Ac		A	A	_	A	Α	A 2.0	I A	2.0	2.0	1		2.0	2.0	A
Startup Lost		n l	2.0				2.0	-	2.0	2.0	-	_	2.0	2.0	-
	f Effective Gree	211	3				3		3	3	-		3	3	-
Arrival Type			3.0				3.0		3.0	3.0	-		3.0	3.0	-
Unit Extensi			0		0	0	0	0	0	0	0		0	0	0
	FOR Volume	0	12		0	0	12.0	0	12.0	12.0	+		12.0	12.0	0
Lane Width Parking/Gra	do/Parking	N	0	0.4 (200)	N	N	0	N	N	0	1	1	N	0	N
Parking/Hou		70	+	_	7.0	7.0		1 70	1,4		1		7.0		1.0
Bus Stops/F			0)			0		0	0	\vdash		0	0	
INDECOMPANDA STATE	edestrian Time		3				3.2			3.2				3.2	
Phasing	EW Perm	02			03		04	NS Pe		06			07		08
Timing	G = 30.0	G =	=	G =		G =		G = 2		G = Y =		G =		G =	
	Y = 4 Analysis (hrs) =	Y =	-	Y =		Y =	_	Y = 4		Y = Cycle Le	nath	-	- CONTRACTOR OF	Υ =	
	up Capacity		ol L)ela	v and	11.05	Deter	minati		oyolo Lo	i i gu		00.0		
Lanc Oro	up oupdoits	1		EB	.,,		WB		Ī	NB				SB	
Adjusted Flo	ow Rate			43			362	1	91	54	T		3	19	Г
Lane Group			_	665			1600		519	615			503	658	
v/c Ratio			0.2	21			0.23		0.18	0.09			0.01	0.03	
Green Ratio)		0.3	50			0.50		0.37	0.37	İ		0.37	0.37	
Uniform Del			8.	.4			8.5		12.9	12.4			12.1	12.2	
Delay Facto			-	11		1	0.11		0.11	0.11	T		0.11	0.11	
Incremental			_	0.1			0.1		0.2	0.1	T		0.0	0.0	
PF Factor	1 . T. Z		_	000	1		1.000		1.000	3755550			1.000	1.000	
Control Dela	ay		-	3.4			8.5		13.0	12.5			12.1	12.2	
Lane Group	V-C-VC-R			4			A		В	В			В	В	
				3.4			8.5			12.8			100	12.2	
Approach D				38757		+			-	70.00	_			SECTION AND ADDRESS.	
Approach D Approach L			10	A			A			В				B	

				S	HORT	REPO	-						
General Inf	formation					Site I	nformat	Name and Post Of the Owner, where the Post Of the Owner, where the Owner, which the Owner,	/EDOLES	/ / / / /	D		
Analyst Agency or 0 Date Perfor Time Period	med 4/23/2008					Area Juriso	ection Type liction sis Year	LOV All o MAR			,		
Volume an	d Timing Input	<u> </u>											
			EB			WB			NB			SB	1
	9100000	LT	TH	RT	LT	TH	RT	LT	TH	R		TH	RT
Number of I		0	2	0	0	2	0	1	1	0	1	1	0
Lane Group			LTR	-	-	LTR		L	TR	-	L	TR	00
Volume (vp		19	516	53	34	388	41	97	48	83	_	15	26
% Heavy V	ehicles	0	0	0	0	0	0	0	0	0	0	0	0
PHF		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.9		0.90	0.90
Pretimed/A	ctuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Los	t Time		2.0			2.0		2.0	2.0		2.0	2.0	
Extension of	of Effective Gree	en	2.0			2.0		2.0	2.0		2.0	2.0	
Arrival Type	Э		3			3		3	3		3	3	
Unit Extens	ion		3.0			3.0		3.0	3.0		3.0	3.0	
Ped/Bike/R	TOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width			12.0			12.0		12.0	12.0		12.0	12.0	
Parking/Gra	ade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Ho	ur												<u> </u>
Bus Stops/l			0			0		0	0	_	0	0	_
	edestrian Time		3.2			3.2			3.2			3.2	
Phasing	EW Perm	02	G	03	G =	04	S = 2		06 G =		07 G =	G =	80
Timing	G = 30.0 $Y = 4$	G = Y =	Y :		Y =	_	Y = 4		y =		Y =	Y =	
Duration of	Analysis (hrs) =										C = 60.0		
	oup Capacity		ol Dela	ay, an	d LOS	Deter	minati	on					
			EB			WB			NB			SB	
Adjusted FI	ow Rate		653	V		515		108	145		17	46	
Lane Group			1667			1580		506	630		463	631	
v/c Ratio			0.39			0.33		0.21	0.23		0.04	0.07	
Green Ratio	o		0.50			0.50		0.37	0.37		0.37	0.37	
Uniform De	elay d ₁		9.3			9.0		13.1	13.1		12.2	12.4	
Delay Facto	or k		0.11			0.11		0.11	0.11		0.11	0.11	
Incrementa	THE STATE OF THE S		0.2			0.1		0.2	0.2		0.0	0.0	
PF Factor	- 4		1.000			1.000		1.000	1.000		1.000	1.000	
Control Del	lay		9.5			9.1		13.3	13.3		12.2	12.4	
	70. 5000		A			A		В	В		В	В	
Lane Groun	Cachine (California)					9.1			13.3			12.4	
Lane Group	Delay		9.5			0.000			1,000,000				
Approach D Approach L			9.5 A		+	A			В			В	

Appendix Page33

General Information	•		Site In	form	ation			
General information	1		Site ii	попп	ation	LOVELA	CE AVE A	ND HIIR
Analyst	JH		Interse	ction		ST	OL AVL A	WD HOIN
Agency/Co.	RPM		Jurisdio	ction		MARTIN		
Date Performed	4/23/200		Analysi	NAME AND ADDRESS OF THE OWNER, WHEN PERSONS ADDRESS		2018		
Analysis Time Period	AM PEA	K		io roui				
Project Description UT	MARTIN MAS	STER PLAN - BAC	KGROUND)				
East/West Street: HUR	TST		North/S	outh S	treet: LOVE	LACE AVE		
ntersection Orientation:	East-West		Study P	eriod (hrs): 0.25			
Vehicle Volumes ar	nd Adjustme							
Vlajor Street		Eastbound				Westbou	ınd	
Movement	1	2	3		4	5		6
	L	T	R		L	T		R
/olume (veh/h)	119	17				16		12
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	132	18	0		0	17		13
Percent Heavy Vehicles	0	-			0			
Median Type				Undiv	ided			
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0				0		
Minor Street	Ì	Northbound				Southboo	und	
Movement	7	8	9		10	11		12
viovernone	1	T	R		L	Т		R
/olume (veh/h)					13			70
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR	0	0	0		14	0		77
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
anes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, a	and Level of S	ervice				,		
Approach	Eastbound	Westbound	1	Northbo	ound		Southboun	d
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	132						91	
C (m) (veh/h)	1596						959	
v/c	0.08						0.09	
95% queue length	0.27						0.31	
Control Delay (s/veh)	7.5						9.1	
LOS	A.						A	
Approach Delay (s/veh)							9.1	-
The state of the s						+	A	
Approach LOS				o.TM v				008 12:42

HCS+TM Version 5.21

Generated: 5/13/2008 12:42 PM

Analyst Agency/Co. Date Performed Analysis Time Period Project Description UT M. East/West Street: HURT S Intersection Orientation: E Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	ST East-West	TER PLAN - BACK	Intersed Jurisdid Analysi (GROUND North/S Study P	ction is Year	et: <i>LOVEL</i>	ST MARTIN 2018		6 R 13
Agency/Co. Date Performed Analysis Time Period Project Description UT M. East/West Street: HURT S Intersection Orientation: E Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	RPM 4/23/2008 PM PEAK MARTIN MAST East-West Adjustme 1 L 164 0.90 182 0	nts Eastbound 2 T 43 0.90 47	Jurisdic Analysi (GROUND North/S Study P	ction is Year outh Stre	s): 0.25 4 L	MARTIN 2018 ACE AVE Westbour 5 T 19		R
Date Performed Analysis Time Period Project Description UT M. East/West Street: HURT S Intersection Orientation: E Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	4/23/2008 PM PEAK MARTIN MAST East-West Adjustme 1 L 164 0.90 182 0	nts Eastbound 2 T 43 0.90 47	Analysi KGROUND North/S Study P 3 R 0.90	s Year outh Stre	s): 0.25 4 L	Westbour 5 T 19		R
Analysis Time Period Project Description UT M. East/West Street: HURT S Intersection Orientation: E Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR Iveh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	PM PEAK MARTIN MAST ST East-West Adjustme 1 L 164 0.90 182 0	nts Eastbound 2 T 43 0.90 47	Study P	outh Stre	s): 0.25 4 L	Westbour 5 T 19		R
Project Description UT M. East/West Street: HURT S Intersection Orientation: E Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	AARTIN MASS ST East-West Adjustme 1 L 164 0.90 182 0	nts Eastbound 2 T 43 0.90 47	North/S Study P 3 R 0.90	outh Stre	s): 0.25 4 L	Westbour 5 T 19		R
East/West Street: HURT S Intersection Orientation: E Vehicle Volumes and Vehicle Volumes and Vehicle Volumes and Vehicle Volume (Veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR Veh/h) Percent Heavy Vehicles Vehicl	Adjustme Adjustme 1 L 164 0.90 182 0	Eastbound 2 T 43 0.90 47	North/S Study P 3 R 0.90	outh Stre	s): 0.25 4 L	Westbour 5 T 19		R
Mehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	1 L 164 0.90 182 0	Eastbound 2	Study P 3 R 0.90	CHESTON SHOWS AND ADDRESS.	s): 0.25 4 L	Westbour 5 T 19		R
Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	1 L 164 0.90 182 0	Eastbound 2	3 R 0.90	Period (hrs	4 L	5 T 19		R
Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	1 L 164 0.90 182	Eastbound 2	0.90 0		L	5 T 19		R
Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	164 0.90 182 0	2 T 43 0.90 47	0.90 0		L	5 T 19		R
Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	164 0.90 182 0	T 43 0.90 47	0.90 0		L	T 19		R
Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	164 0.90 182 0	43 0.90 47	0.90			19		
Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	0.90 182 0	0.90 47	0		0.90	The second second second		12
Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	182 0	47	0		0.90	0.90		and the same of th
Veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement	0					0.00		0.90
Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement			1		0	21		14
RT Channelized _anes Configuration Upstream Signal Winor Street Movement	0				0			
Lanes Configuration Upstream Signal Minor Street Movement	0			Undivide	ed			
Configuration Upstream Signal Minor Street Movement	0		0					0
Upstream Signal Minor Street Movement	U	1	0		0	1		0
Minor Street Movement	LT							TR
Movement		0				0		
Movement		Northbound				Southbou	ind	
	7	8	9		10	11		12
	L	T	R		L	Т		R
Volume (veh/h)					20			89
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0		22	0		98
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, and	t Lovel of Se	rvice						
	Eastbound	Westbound	N	Northbour	nd	I s	Southbound	1
Movement	1	4	7	8	9	10	11	12
VICTOR STATE OF THE STATE OF TH	LT	7	-	0		10	LR	12
Lane Configuration							120	+
v (veh/h)	182				-		V20172	+
C (m) (veh/h)	1589						883	-
v/c	0.11						0.14	1
95% queue length	0.39						0.47	
Control Delay (s/veh)	7.6						9.7	
LOS	Α						A	
Approach Delay (s/veh)							9.7	
Approach LOS						60	Α	

HCS+TM Version 5.21

Generated: 5/13/2008 12:43 PM

Date Performed Analysis Time Period Project Description UT MAR East/West Street: HANNINGS Intersection Orientation: Nort Vehicle Volumes and Ac Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	S LANE th-South djustmen 1 L 68 0.90 75 0 LT	Northbound 2	North/South Study Period 3 R 0.90 0		MOODY / 2018	und	6 R 52 0.90 57 0 0 TR
Agency/Co. Date Performed Analysis Time Period Project Description UT MAR East/West Street: HANNINGS Intersection Orientation: North Vehicle Volumes and Act Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	4/23/2008 AM PEAK RTIN MASTE S LANE th-South djustmen 1 L 68 0.90 75 0 0 LT	ts Northbound 2 T 62 0.90 68 1 0 Eastbound 8 T	Analysis Ye KGROUND North/South Study Perior	Street: MOC d (hrs): 0.25	2018 2018	und	R 52 0.90 57 0 0 TR
Date Performed Analysis Time Period Project Description UT MAR East/West Street: HANNINGS Intersection Orientation: North Vehicle Volumes and Act Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR Intersection Orientation: North Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR Intersection Orientation Peak-Hour Factor, PHF Hourly Flow Rate, HFR Intersection Orientation Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	AM PEAK RTIN MASTE S LANE th-South djustmen 1 L 68 0.90 75 0 LT	ts Northbound 2 T 62 0.90 68 1 0 Eastbound 8 T	Analysis Ye KGROUND North/South Study Perior	Street: MOC d (hrs): 0.25	Southbou 5 T 34 0.90 37 1 0 Westbou 11		R 52 0.90 57 0 0 TR
Project Description UT MAREAST/West Street: HANNINGS Intersection Orientation: North Vehicle Volumes and Act Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	RTIN MASTE S LANE th-South djustmen 1 L 68 0.90 75 0 LT	ts Northbound 2 T 62 0.90 68 1 0 Eastbound 8 T	GROUND North/South Study Period 3	Street: MOC d (hrs): 0.25	Southbou 5 T 34 0.90 37 1 0 Westbou 11		R 52 0.90 57 0 0 TR
ast/West Street: HANNINGS Intersection Orientation: North /ehicle Volumes and Act //ajor Street //olume (veh/h) //eak-Hour Factor, PHF //oluny Flow Rate, HFR /veh/h) //ercent Heavy Vehicles //oliguration	S LANE th-South djustmen 1 L 68 0.90 75 0 LT	ts Northbound 2 T 62 0.90 68 1 0 Eastbound 8 T	North/South Study Period 3 R 0.90 0 Und 0 0 R	0.90 0 0 0 0 0 0 0 0 10 10	Southbou 5 T 34 0.90 37 1 0 Westbou		R 52 0.90 57 0 0 TR
ast/West Street: HANNINGS Intersection Orientation: North /ehicle Volumes and Act //ajor Street //olume (veh/h) //eak-Hour Factor, PHF //oluny Flow Rate, HFR /veh/h) //ercent Heavy Vehicles //oliguration	S LANE th-South djustmen 1 L 68 0.90 75 0 LT	ts Northbound 2 T 62 0.90 68 1 0 Eastbound 8 T	North/South Study Period 3 R 0.90 0 Und 0 0 R	0.90 0 0 0 0 0 0 0 0 10 10	Southbou 5 T 34 0.90 37 1 0 Westbou		R 52 0.90 57 0 0 TR
Achicle Volumes and Achiajor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	th-South djustmen 1 L 68 0.90 75 0 LT 7 L 74	Northbound 2	3 R 0.90 0 Und 0 0 9 R	0.90 0 0 0 0 0 0 0 0 10 10	Southbou 5 T 34 0.90 37 1 0 Westbou		R 52 0.90 57 0 0 TR
/ehicle Volumes and Adajor Street Movement /olume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement /olume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	1 L 68 0.90 75 0 LT	Northbound 2	0.90 0 0 Und 0 0	0.90 0 0 divided	5 T 34 0.90 37 		R 52 0.90 57 0 0 TR
Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	1 L 68 0.90 75 0 0 LT	Northbound 2	0.90 0 0 0 0 0 0	0.90 0 0 livided 0	5 T 34 0.90 37 		R 52 0.90 57 0 0 TR
Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	L 68 0.90 75 0 0 LT	2 T 62 0.90 68 1 0 Eastbound 8 T	0.90 0 0 0 0 0 0	0.90 0 0 livided 0	5 T 34 0.90 37 		R 52 0.90 57 0 0 TR
Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	L 68 0.90 75 0 0 LT	T 62 0.90 68 1 0 Eastbound 8 T	0.90 0 0 0 0 0 0	0.90 0 0 livided 0	T 34 0.90 37 1 0 Westbou		R 52 0.90 57 0 0 TR
Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	68 0.90 75 0 0 LT	62 0.90 68 1 0 Eastbound 8 T	0.90 0 Und 0 0	0.90 0 0 divided 0	34 0.90 37 1 0 Westbou		52 0.90 57 0 0 TR
Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	0.90 75 0 0 LT	0.90 68 1 0 Eastbound 8 T	0	0 0 livided 0	0.90 37 1 0 Westbou		0.90 57 0 0 TR
Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	75 0 0 LT 7 L	68 1 0 Eastbound 8 T	0	0 0 livided 0	37 1 0 Westbou		57 0 0 TR
Percent Heavy Vehicles Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	0 LT 7 L 74	1 0 Eastbound 8 T	9 R	livided 0	0 Westbou	nd	0 0 TR
Median Type RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	7 L 74	0 Eastbound 8 T	9 R	0	0 Westbou	nd	0 TR
RT Channelized Lanes Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	7 L 74	0 Eastbound 8 T	9 R	10	0 Westbou	nd	0 TR
Annes Configuration Upstream Signal Winor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	7 L 74	0 Eastbound 8 T	9 R	10	0 Westbou	nd	TR
Configuration Upstream Signal Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	7 L 74	0 Eastbound 8 T	9 R	10	0 Westbou	nd	TR
Jpstream Signal Minor Street Movement /olume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	7 L 74	Eastbound 8	R		Westbou 11	nd	
Minor Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	L 74	Eastbound 8	R		11	nd	12
Movement /olume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	L 74	8 T	R		11		12
Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	L 74	Т	R		The second secon		
Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	74			-			R
Peak-Hour Factor, PHF Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes					Ti Ti		0.5
Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	0.90	0.90	0.90	0.90	0.90		0.90
Percent Heavy Vehicles Percent Grade (%) Flared Approach Storage RT Channelized Lanes	82	0	73	0	0		0
Percent Grade (%) Flared Approach Storage RT Channelized Lanes	0	0	0	0	0		0
Storage RT Channelized Lanes		0			0		
Storage RT Channelized _anes		l N			I N		
RT Channelized _anes		0			0		
_anes		100	0				0
	0	0	0	0	0		0
Configuration		LR	Ť				-
	aval of Com						
Delay, Queue Length, and Le	thbound	Southbound	Most	bound		Eastbound	
			7			11	12
Movement	1	4	1	8 9	10		12
	LT					LR	
/ (veh/h)	75					155	-
C (m) (veh/h) 1	1513					798	
ı/c (0.05					0.19	
95% queue length (0.16					0.72	
	7.5					10.6	
LOS	A					В	
	7.1					10.6	
Approach Delay (s/veh) Approach LOS	221					B	

HCS+TM Version 5.21

Generated: 5/13/2008 12:37 PM

General Information	1		Site In	nforma	ation			
Analyst	JH		Interse	ction		HANNING	GS LN AN	D
Agency/Co.	RPM		Jurisdio	ction		MARTIN	AVL	
Date Performed	4/23/2008		Analysi	PROPERTY OF		WATERIN		
Analysis Time Period	PM PEAK		Milalysi	is i cai				
Project Description UT	MARTIN MAST	ER PLAN - BACK	GROUND)				
East/West Street: HANI		LICI LAW BAOI	North/S	outh St	reet: MOOD	Y AVE		
ntersection Orientation:					nrs): 0.25			
/ehicle Volumes ar	d Adjustmer	nts						
Major Street	la riajaoanio.	Northbound				Southbou	und	
Movement	1	2	3		4	5		6
	L	T	R		L	T		R
/olume (veh/h)	126	95				12		96
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	140	105	0		0	13		106
Percent Heavy Vehicles	0				0			((***)
Median Type				Undivi	ded			
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	ınd	
Movement	7	8	9		10	11		12
	L	T	R		L	T		R
/olume (veh/h)	112		84					
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	124	0	93		0	0		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration		LR						
Delay, Queue Length, a	nd Level of Ser	vice						
Approach	Northbound	Southbound		Vestbo	und		Eastbound	l
Vovement	1	4	7	8	9	10	11	12
_ane Configuration	LT			/65A		30761	LR	
v (veh/h)	140						217	
	1482						652	
C (m) (veh/h)							0.33	
//c	0.09					+		-
95% queue length	0.31						1.46	-
Control Delay (s/veh)	7.7					+	13.3	-
LOS	Α						В	
Approach Delay (s/veh)	221						13.3	
Approach LOS							В	

HCS+TM Version 5.21

Generated: 5/13/2008 12:39 PM

General Information	15		Site In	formati	on			
Jeneral Information			Oite iii	TOTTIALI	011	MT PELI	A AND HA	NNINGS
Analyst	JH		Intersed	ction		LN EAST		1747411400
Agency/Co.	RPM		Jurisdic	ction		MARTIN		
Date Performed	4/23/2008		Analysi	erelander Marian		2018		
Analysis Time Period	AM PEAK							
Project Description UT	MARTIN MAST	ER PLAN - BACH	KGROUND					
East/West Street: HANN	IINGS LANE EA	AST	North/S	outh Stree	et: MT PE	LIA RD		
ntersection Orientation:	North-South		Study P	eriod (hrs)): 0.25			
/ehicle Volumes an	d Adjustme	nts						
Major Street	T	Northbound				Southboo	und	
Movement	1	2	3		4	5		6
	L	T	R		L	T		R
/olume (veh/h)		244	65		75	152		
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	0	271	72		83	168		0
Percent Heavy Vehicles	0				0			***
Median Type				Undivide	d	_		
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration			TR		LT			
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	ınd	
Movement	7	8	9		10	11		12
	L	T	R		L	Т		R
/olume (veh/h)					35			85
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	0	0	0		38	0		94
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0	-2111	
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
anes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, a	nd Level of Se	rvice						
Approach	Northbound	Southbound	1	Vestbound	d		Eastboun	d
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR		1		
		83		132	1		1	1
/ (veh/h)				601	1		1	+
C (m) (veh/h)		1227		7,000,000,000	1		_	+
v/c		0.07		0.22			-	+
95% queue length		0.22		0.83	1			
Control Delay (s/veh)		8.1		12.7				
LOS		Α		В				
Approach Delay (s/veh)	-	44		12.7				
Approach LOS				В				

HCS+TM Version 5.21

Generated: 5/13/2008 12:50 PM

General Information	4		Site In	formati	ion			
Analyst	JH		Intersed	ction		MT PELI LN EAST	A AND HA	NNINGS
Agency/Co.	RPM		Jurisdic	ction		MARTIN		
Date Performed	4/23/2008		Analysi			2018		
Analysis Time Period	PM PEAK			0 1 0 0.1				
Project Description UT	MARTIN MAST	ER PLAN - BACK	GROUND					
East/West Street: HANN					et: MT PE	LIA RD		
ntersection Orientation:			Study P	eriod (hrs	s): 0.25			
/ehicle Volumes an	W 10 100 100 100 100 100 100 100 100 100	nts						
Major Street	T Aujustinoi	Northbound				Southboo	und	
Movement	1	2	3		4	5		6
NOVOINOIL	L	Т	R		L	Т		R
/olume (veh/h)		230	53		143	246		
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	0	255	58		158	273		0
Percent Heavy Vehicles	0	()	100		0			V-22-2
Median Type				Undivide	ed			
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration			TR		LT			
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	ınd	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
/olume (veh/h)					57			165
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0		63	0		183
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
anes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, a	nd Level of Se	rvice						
Approach	Northbound	Southbound	1	Westbour	nd		Eastboun	d
Movement	1	4	7	8	9	10	11	12
and the second s	L.	LT		LR				1
Lane Configuration		158		246	+			
v (veh/h)		***************************************		-5000087.5	+		+	
C (m) (veh/h)		1259		530	-	-		-
v/c		0.13		0.46		-		+
95% queue length		0.43		2.43	-			-
Control Delay (s/veh)		8.3		17.5				
LOS		Α		C				
Approach Delay (s/veh)				17.5				
Approach LOS				С				

HCS+TM Version 5.21

Generated: 5/13/2008 12:51 PM

General Information	1		Site Information								
Analyst	JH		Interse	ction		MT PELIA AND HANNING LN WEST					
Agency/Co.	RPM		Jurisdio	ction		MARTIN					
Date Performed	4/23/2008		Analysi	And District		2018					
Analysis Time Period	AM PEAK	(
Project Description UT	MARTIN MAS	TER PLAN - BACK	KGROUND								
East/West Street: HANN					eet: MT PE	LIA RD					
ntersection Orientation:			Study P	eriod (hi	rs): 0.25						
/ehicle Volumes an		nts									
//ajor Street	- La reajaouno	Northbound				Southbou	nd				
Movement	1	2	3		4	5		6			
	L	T	R		L	T		R			
/olume (veh/h)	48	281	1			176		19			
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90			
lourly Flow Rate, HFR veh/h)	53	312	0		0	195		21			
Percent Heavy Vehicles	0	-			0						
Median Type				Undivid	led						
RT Channelized			0					0			
anes	0	1	0		0	1		0			
Configuration	LT							TR			
Jpstream Signal		0				0					
Minor Street	1	Eastbound				Westbou	nd				
Movement	7	8	9		10	11		12			
and the second of the second o	L	T	R		L	Т		R			
/olume (veh/h)	14		51								
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90			
Hourly Flow Rate, HFR veh/h)	15	0	56		0	0		0			
Percent Heavy Vehicles	0	0	0		0	0		0			
Percent Grade (%)		0				0					
Flared Approach		N				N					
Storage		0				0					
RT Channelized			0					0			
anes	0	0	0		0	0		0			
Configuration		LR									
Delay, Queue Length, a	and Level of Se		-								
Approach	Northbound	Southbound	1	Westbou	nd		Eastbound				
	1	4	7	8	9	10	11	12			
Movement			,	0	3	10	LR	12.			
_ane Configuration	LT				-	_		+			
/ (veh/h)	53				-	_	71	-			
C (m) (veh/h)	1366						701	-			
v/c	0.04						0.10	-			
95% queue length	0.12						0.34				
Control Delay (s/veh)	7.7						10.7				
LOS	Α						В				
							10.7				
Approach Delay (s/veh)		(377)					10.7				

HCS+TM Version 5.21

Generated: 5/13/2008 2:44 PM

General Information	1		Site In	nforma	ition					
Ánalyst	JH		Intersed	ction		MT PELIA AND HANNING LN WEST				
Agency/Co.	RPM		Jurisdio	ction		MARTIN				
Date Performed	4/23/2008		Analysi			2018				
Analysis Time Period	PM PEAK									
Project Description UT	MARTIN MAST	ER PLAN - BACI	GROUND							
East/West Street: HANI					reet: MT PE	LIA RD				
ntersection Orientation:	North-South		Study P	eriod (h	rs): 0.25					
/ehicle Volumes an	ıd Adjustmei	nts								
//ajor Street	1	Northbound				Southbou	nd			
Movement	1	2	3		4	5		6		
	L	T	R		L	T		R		
/olume (veh/h)	104	291				304		16		
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90	_	0.90		
lourly Flow Rate, HFR veh/h)	115	323	0		0	337		17		
Percent Heavy Vehicles	0		1777		0			7		
Median Type				Undivi	ded	_				
RT Channelized			0					0		
anes	0	1	0		0	1		0		
Configuration	LT							TR		
Jpstream Signal		0				0				
/linor Street		Eastbound				Westbou	nd			
Novement	7	8	9		10	11		12		
	L	T	R		L	Т		R		
/olume (veh/h)	11		85							
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90		
lourly Flow Rate, HFR veh/h)	12	0	94		0	0		0		
Percent Heavy Vehicles	0	0	0		0	0		0		
Percent Grade (%)		0				0				
lared Approach		N				N				
Storage		0				0				
RT Channelized			0					0		
anes	0	0	0		0	0		0		
Configuration		LR								
Delay, Queue Length, a	nd Level of Sei	rvice								
Approach	Northbound	Southbound	V	Nestbo	und	1	Eastbound			
Movement	1	4	7	8	9	10	11	12		
ane Configuration	LT						LR			
	115						106			
(veh/h)	1216				+		601	1		
C (m) (veh/h)							0.18			
//c	0.09				+	+	5,000,000,000,000	-		
95% queue length	0.31					-	0.64			
Control Delay (s/veh)	8.3						12.3			
_OS	Α						В			
Approach Delay (s/veh)							12.3			
Approach LOS		1221					В			

HCS+TM Version 5.21

Generated: 5/13/2008 2:47 PM

General Information	1		Site Ir	nformatio						
Analyst	JH		Interse	ction		MT PELIA AND WAYNE FISHER				
Agency/Co.	RPM		Jurisdi	ction		MARTIN				
Date Performed	4/23/2008		-	is Year		2008				
Analysis Time Period	AM PEAK		Milalys	is i cai		2000				
Project Description UT	MARTIN MAS	TER PLAN - BAC	KGROUNE)						
ast/West Street: WAY				South Stree	t: MT PE	LIA RD				
ntersection Orientation:			10000	Period (hrs)						
/ehicle Volumes an		nts								
//ajor Street	- rajaoano	Northbound				Southbou	ınd			
Movement	1	2	3		4	5		6		
parts and Table 1975 of the	L	T	R		L	T		R		
/olume (veh/h)	74	169	52		43	140		18		
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90		
lourly Flow Rate, HFR veh/h)	82	187	57		47	155		20		
Percent Heavy Vehicles	0	(44.40)			0					
/ledian Type				Undivided	1					
RT Channelized			0					0		
anes.	1	1	0		1	1		0		
Configuration	L		TR		L			TR		
Jpstream Signal		0				0				
/linor Street		Eastbound				Westbou	nd	1917-00-11		
Movement	7	8	9		10	11		12		
	L	T	R		L	Т		R		
/olume (veh/h)	9	4	25		30	15		46		
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90	_	0.90		
lourly Flow Rate, HFR veh/h)	10	4	27		33	16		51		
Percent Heavy Vehicles	0	0	0		0	0		0		
Percent Grade (%)		0	_			0				
Flared Approach		N				N				
Storage		0				0				
RT Channelized			0					0		
anes	0	1	0		0	1		0		
Configuration		LTR				LTR				
Delay, Queue Length, a										
Approach	Northbound	Southbound		Westbound			Eastbound			
Movement	1	4	7	8	9	10	11	12		
ane Configuration	L	L		LTR			LTR			
(veh/h)	82	47		100			41			
C (m) (veh/h)	1414	1334		492			555			
ı/c	0.06	0.04		0.20			0.07			
95% queue length	0.18	0.11		0.75			0.24			
Control Delay (s/veh)	7.7	7.8		14.2			12.0			
OS	A	A.		В			В			
Approach Delay (s/veh)			14.2			12.0 B				

HCS+TM Version 5.21

Generated: 5/13/2008 3:01 PM

General Information	1		Site Information								
Analyst	JH		Interse	ction		MT PELIA AND WAYNE FISHER					
Agency/Co.	RPM		Jurisdio	ction		MARTIN					
Date Performed	4/23/2008		Analys	A CONTRACTOR OF THE PARTY OF TH		2018					
Analysis Time Period	PM PEAK										
Project Description UT	MARTIN MAST	ER PLAN - BACH	KGROUND								
ast/West Street: WAY				outh Stree	t: MT PE	LIA RD					
ntersection Orientation:			Study F	eriod (hrs)	: 0.25						
/ehicle Volumes an	d Adjustme	nts									
/lajor Street		Northbound				Southboo	und				
Movement	1	2	3		4	5		6			
	L	T	R		L	T		R			
/olume (veh/h)	21	197	84		57	238		3			
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90			
lourly Flow Rate, HFR veh/h)	23	218	93		63	264		3			
Percent Heavy Vehicles	0		22		0			-			
/ledian Type				Undivided							
RT Channelized			0					0			
anes	1	1	0		1	1		0			
Configuration	L		TR		L			TR			
Jpstream Signal		0				0					
Ainor Street		Eastbound				Westbou	ınd				
Novement	7	8	9		10	11		12			
we are the control of	L	T	R		L	T		R			
/olume (veh/h)	17	6	22		60	1		62			
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90			
lourly Flow Rate, HFR veh/h)	18	6	24		66	1		68			
Percent Heavy Vehicles	0	0	0		0	0		0			
Percent Grade (%)		0				0					
lared Approach		N				N					
Storage		0				0					
RT Channelized			0					0			
anes	0	1	0		0	1		0			
Configuration		LTR				LTR					
Delay, Queue Length, a	nd Level of Se										
Approach	Northbound	Southbound	1	Westbound			Eastbound	1			
Movement	1	4	7	8	9	10	11	12			
	L	L		LTR		- A-VAI	LTR	1			
ane Configuration		63		135			48				
/ (veh/h)	23						431				
C (m) (veh/h)	1308	1261		452			10000000				
<i>II</i> C	0.02	0.05		0.30			0.11	-			
95% queue length	0.05	0.16		1.24			0.37				
Control Delay (s/veh)	7.8	8.0		16.3			14.4				
_OS	Α	Α		С			В				
Approach Delay (s/veh)		177		16.3			14.4				
Approach LOS				С		В					

HCS+TM Version 5.21

Generated: 5/13/2008 3:02 PM

General Information	1		Site Ir	nformati	on					
Analyst	JH		Interse	ction		MT PELIA AND PAT SUMMITT				
Agency/Co.	RPM		Jurisdio	ction		MARTIN				
Date Performed	4/23/2008		CONTRACTOR OF STREET,	is Year		2018				
Analysis Time Period	AM PEAK									
Project Description U7	MARTIN MAST	TER PLAN - BACK	KGROUND)						
East/West Street: PAT					et: MT PE	LIA RD				
ntersection Orientation:	North-South		Study F	Period (hrs): 0.25					
/ehicle Volumes ar	d Adjustme	nts								
Major Street		Northbound				Southbou	und			
Movement	1	2	3		4	5		6		
	L	T	R		L	T		R		
/olume (veh/h)	40	173	11		17	181		51		
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90		
Hourly Flow Rate, HFR veh/h)	44	192	12		18	201		56		
Percent Heavy Vehicles	0	-	-		0					
Median Type				Undivide	d					
RT Channelized			0					0		
anes	1	1	0		1	1		0		
Configuration	L		TR		L			TR		
Jpstream Signal		0				0				
Minor Street		Eastbound				Westbou	ınd			
Movement	7	8	9		10	11		12		
	L	T	R		L	T		R		
/olume (veh/h)	38	0	12		8	0		15		
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90		
Hourly Flow Rate, HFR (veh/h)	42	0	13		8	0		16		
Percent Heavy Vehicles	0	0	0		0	0		0		
Percent Grade (%)		0				0				
Flared Approach		N				N				
Storage		0				0				
RT Channelized			0					0		
anes	0	1	0		0	1		0		
Configuration		LTR				LTR				
Delay, Queue Length, a	nd Level of Se	rvice								
Approach	Northbound	Southbound		Westbound	d		Eastbound			
Movement	1	4	7	8	9	10	11	12		
_ane Configuration	L	L		LTR	1		LTR			
/ (veh/h)	44	18		24	1		55			
	1320	1380		634	1		473			
C (m) (veh/h)	70.00 Canada	A SECTION SECT		0.04	+		0.12			
//c	0.03	0.01		_	-	1	-	1		
95% queue length	0.10	0.04		0.12	-	-	0.39	-		
Control Delay (s/veh)	7.8	7.6		10.9			13.6	-		
LOS	Α	Α		В			В			
Approach Delay (s/veh)				10.9			13.6			
Approach LOS				В			В			

HCS+TM Version 5.21

Generated: 5/13/2008 12:53 PM

General Information	1		Site Information								
Analyst	JH		Interse			MT PELIA AND PAT					
Agency/Co.	RPM			250000000		SUMMIT	T				
Date Performed	4/23/2008		Jurisdi			MARTIN					
Analysis Time Period	PM PEAK		Analys	is Year		2018					
Project Description U7					. MT.DC	114.00					
ast/West Street: PAT		IDR		The second secon	et: MT PE	LIA RD					
ntersection Orientation:		72	Study F	Period (hrs). 0.25						
/ehicle Volumes ar	<u>nd Adjustme</u>					0 111					
/lajor Street		Northbound				Southbou	und	-			
Movement	1	2	3		4	5 T	_	6 R			
7 (- / 1 #)	L	T	R		7	217	_	33			
/olume (veh/h) Peak-Hour Factor, PHF	47	0.90	0.90		0.90	0.90		0.90			
Hourly Flow Rate, HFR	0.90	20000000				1					
veh/h)	52	247	6		7	241		36			
Percent Heavy Vehicles	0	1.00			0		1	-			
Median Type				Undivide	d						
RT Channelized			0					0			
anes	1	1	0		1	1		0			
Configuration	L		TR		L			TR			
Jpstream Signal		0				0					
Minor Street		Eastbound				Westbou	ınd				
Movement	7	8	9		10	11		12			
	L	Т	R		L	Т		R			
/olume (veh/h)	56	2	55		26	2		54			
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90			
Hourly Flow Rate, HFR veh/h)	62	2	61		28	2		60			
Percent Heavy Vehicles	0	0	0		0	0		0			
Percent Grade (%)		0				0					
Flared Approach		N				N	- 11/				
Storage		0				0					
RT Channelized			0					0			
anes	0	1	0		0	1		0			
Configuration		LTR				LTR					
Delay, Queue Length, a	and Level of Se										
Approach	Northbound	Southbound		Westboun	d		Eastbound	1			
Movement	1	4	7	8	9	10	11	12			
_ane Configuration	L	L		LTR		1	LTR	1			
	52	7		90		1	125	1			
(veh/h)		1324		549		1	469	1			
C (m) (veh/h)	1298		-			1		+			
//c	0.04	0.01		0.16		1	0.27	-			
95% queue length	0.13	0.02		0.58		1	1.06				
Control Delay (s/veh)	7.9	7.7		12.8			15.4				
LOS	Α	Α		В			С				
Approach Delay (s/veh)				12.8			15.4				
Approach LOS	-			В		С					

HCS+TM Version 5.21

Generated: 5/13/2008 12:54 PM

General Info	ormation	_	_	_	31	IORT		formation	nn .							
Analyst Agency or C	JH o. RPM ned 4/23/2008						Interse Area T Jurisdi	ection ype	UNIVERSITY AND MT PELIA All other areas MARTIN							
Volume and	Timing Input															
(6)				EB			WB			NB		SB				
	pacino	\dashv	LT	TH	RT	LT	TH	RT	LT	TH	RT 1	LT	TH	RT		
Number of L	anes	-		2	0	1	2	-	1	-	-	-	-	-		
Lane Group	×	-		TR	70	L	T	-	L	-	R	-	-			
Volume (vph		-		344	76	173	268	-	60	-	166	-	-			
% Heavy Ve	hicles	-		0	0	0	0	-	0	-	0	-				
PHF		_		0.90	0.90	0.90	0.90	_	0.90	-	0.90	-		-		
Pretimed/Act				Α	A	A	A		A	-	A	-				
Startup Lost		_		2.0		2.0	2.0		2.0		2.0	-	-			
	Effective Gree	en		2.0		2.0	2.0		2.0		2.0	-				
Arrival Type				3		3	3		3	-	3	-		_		
Unit Extension	on	_		3.0		3.0	3.0		3.0		3.0	_		_		
Ped/Bike/RT	OR Volume		0	0	0	0	0		0	0	17	_				
Lane Width		_		12.0		12.0	12.0	_	12.0		12.0	_	_			
-	arking/Grade/Parking arking/Hour		N	0	N	N	0	N	N	0	N	-		-		
Parking/Hour Bus Stops/Hour		-			-	1		_				-	-	-		
Bus Stops/Hour Minimum Pedestrian Time				0	-	0	0	-	0	3.2	0	-	-	<u> </u>		
		LEVA	/ D	3.2	03	1 04	3.2	NB On	lv I	06		07	1 0	0		
Phasing	WB Only G = 10.0		/ Perm : 18.0			G =	+	G = 20		- Individual to the last of th	G =	37	G =	0		
Timing	Y = 4	Y =		Y =		Y =		Y = 4	Y :	=	Y =					
	Analysis (hrs) :									cle Len	gth C =	60.0				
Lane Gro	up Capacity	/, C	ontro		y, and	LOS		ninatio	n							
		_		EB			WB			NB			SB			
Adjusted Flo	w Rate	_		466		192	298		67		166					
Lane Group	Capacity			1056		537	1930		602		538					
v/c Ratio				0.44		0.36	0.15		0.11		0.31					
Green Ratio				0.30		0.53	0.53		0.33		0.33					
Uniform Delay d ₁			16.9		7.8	7.1		13.8		14.9						
Delay Factor k			0.11		0.11	0.11		0.11		0.11						
Incremental Delay d ₂			0.3		0.4	0.0		0.1		0.3						
PF Factor			1.000		1.000	1.000		1.000		1.000						
Control Delay			17.2		8.2	7.2		13.9		15.2						
				В		Α	Α		В		В					
							7.6			14.8						
Approach De							Α			TAXABLE TAXABLE						
Approach I (OS	proach LOS B								B						

Appendix Page46

O I lodo	ati a m			_		SH	ORT I		RT formati	on			_				_
General Info Analyst Agency or Co Date Perform Time Period	JH							Interse Area T Jurisdi	ection ype	UNIVERSITY AND MT PELIA All other areas MARTIN							
Volume and	Timing Input						25										
	- Commission of the Commission				ЕВ			WB				NB	_			SB	Low
	oup (vph) / Vehicles d/Actuated (P/A) _ost Time on of Effective Green ype ension				H	RT	LT	TH	RT	L		TH	╀	RT	LT	TH	RT
	e (vph) vy Vehicles ed/Actuated (P/A) b Lost Time sion of Effective Green Type xtension ke/RTOR Volume Vidth g/Grade/Parking			2	_	0	1	2		1	_		╀	1	_	-	-
Lane Group		_		TI			L	T	-	L			Ł	R	_		-
Volume (vph				36		77	180	510		13	160		+	200	-		-
% Heavy Vel	hicles			0	_	0	0	0		0			+	0		-	-
PHF				0.9	90	0.90	0.90	0.90		0.9			10	0.90	-	-	-
Pretimed/Act	tuated (P/A)			Α		Α	A	Α		A			1	Α		-	
Startup Lost	Time			2.	0		2.0	2.0		2.			+	2.0		_	
Extension of	Effective Gree	en		2.	0		2.0	2.0		2.				2.0			_
Arrival Type				3	1		3	3		3			L	3		_	
Unit Extension	on			3.0			3.0	3.0		3.	0			3.0			
Ped/Bike/RT	OR Volume		0	C)	0	0	0		0		0		20			
Lane Width				12	2.0		12.0	12.0		12	2.0			12.0			
Parking/Grad	g/Grade/Parking N		N	0)	N	N	0	N	٨	I	0	L	N			
Parking/Hou													1				
Bus Stops/Hour			-)		0	0		()	0.000	1	0			-	
Minimum Pe	destrian Time			3.2				3.2			_	3.2	L				
Phasing	WB Only		N Perm			03		04 G =		nly 0.0	G =	06		G =)7	G =)8
Timing	G = 10.0 $Y = 4$		= 18.0 = 4		G = Y =		Y =			7.0	Y =			Y =	_	Y =	
Duration of A	Analysis (hrs) =	_	water particular and the same of the same								Сус	le Len	gth	C =	60.0		
	up Capacity			ol D	ela	y, and	LOS	Deteri	minatio	on							
					ΞВ			WB				NB				SB	
Adjusted Flo	w Rate			49	2		200	567		148			20	0			
Lane Group				10	57		525	1930		602			53	8			
			0.4	17		0.38	0.29		0.25			0.3	37				
v/c Ratio Green Ratio			0.3	30		0.53	0.53		0.33			0.3	3				
Green Ratio Uniform Delay d₁			17	_		7.9	7.7		14.5			15	2				
	Delay Factor k			0.1	_		0.11	0.11		0.11			0.1	1			
Incremental Delay d ₂			0	.3		0.5	0.1		0.2			0	4				
PF Factor			1.0	000		1.000	1.000		1.00	00		1.0	000				
Control Dela	Control Delay		17	7.4		8.3	7.8		14.	7		15	5.7				
Lane Group	,			A	A		В			Е							
Approach Do	27-340-20-3			17	7.4			8.0				15.3					
	Processor Control of the Control of				2.5			Α				В					
	pproach LOS B ntersection Delay 12.4				Intersection LOS B												

Appendix Page47

PROJECTED CONDITIONS

UT Martin Master Plan Appendix Page48

				S	HORT	REPO								
General Info	ormation		Site II	nformat	Total Control of the Control	/EDO/T		D.						
Analyst Agency or C Date Perforr Time Period	med 4/23/2008					Area Jurisd Analy	Гуре	LOV All o MAF			D			
Volume and	d Timing Input													
		1 707	EB	100	1 700	WB	Loz	1.7	NB	I n	r 1.T	SB	I DT	
Number of L	2000	LT 0	TI-	RT 0	LT 0	TH 2	RT 0	LT 1	TH 1	R [*]	T LT	TH 1	RT 0	
		-	LTR		10	LTR	0	L	TR	0	L	TR	+	
Lane Group		6	246	61	45	298	11	82	11	39		11	6	
Volume (vph		0	0	0	0	0	0	0	0	0	0	0	0	
% Heavy Ve	enicies		0.90		0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90	
PHF	1 -1 -1 (D/A)	0.90						A	A	0.90 A	A A	A	A	
	ctuated (P/A)	A	A 2.0	A	A	2.0	A	2.0	2.0	I A	2.0	2.0	A	
Startup Lost		20	2.0	+	+	100000		2.0	2.0		2.0	2.0		
	f Effective Gree	en	2.0		-	2.0		3	3	-	3	3	+	
Arrival Type		-	3	-	+	-		-			_	3.0	+-	
Unit Extensi	ASSESS TO THE RESIDENCE OF THE PARTY OF THE	-	3.0		-	3.0		3.0	3.0	-	3.0	_		
	FOR Volume	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Width	Parking/Grade/Parking		12.0	_	I N	12.0	N	12.0 N	12.0	N	12.0 N	12.0	N	
Parking/Grade/Parking Parking/Hour		N	0	N	10	0	1//	10	10	IV	10	10	10	
Parking/Hour Bus Stops/Hour		+	0	-	+	0		0	0		0	0		
Minimum Pedestrian Time			3.2			3.2			3.2			3.2		
Phasing			1	03	1	04	NS P	erm	06		07	1	08	
Timing	G = 30.0	G =	G =		G =	G =			G =		G =	G =		
	Y = 4	Y =	\ \\	Y = Y =		Y = 4			Y =	_	Y =	Y =		
	Analysis (hrs) =		nol D	lau an	4106	Dotor	minati		Cycle Le	ngtn	C = 00.0			
Lane Gro	up Capacity	/, Cont	roi De		d LUS	WB	IIIIIau	I	NB	_				
Autoria de Ele	Dete	_	348			393	1	91	55	T	3	SB 19	1	
Adjusted Flo		+	166	in the second	-	1584	+			+			+	
Lane Group Capacity		1,00				_	519	615	_	502	658	-		
v/c Ratio			0.2			0.25	_	0.18	0.09	╄	0.01	0.03	_	
Green Ratio			0.50)		0.50		0.37	0.37	_	0.37	0.37		
Uniform Delay d ₁			8.4	9		8.6		12.9	12.4		12.1	12.2		
Delay Factor k			0.1	1		0.11		0.11	0.11		0.11	0.11		
Incremental Delay d ₂			0.	1		0.1		0.2	0.1		0.0	0.0		
PF Factor			1.00	00		1.000		1.000	1.000		1.000	1.000		
Control Dela	Control Delay		8.4	1		8.6		13.0	12.5		12.1	12.2		
Lana Craun	ne Group LOS A				A		В	В		В	В			
Lane Group						0.6			12.8		12.2			
7 S 7 S 7 S 7 S 7 S 7 S 7 S 7 S 7 S 7 S	elay		Established Annual Control of the Co						12.0			12.2		
7 S 7 S 7 S 7 S 7 S 7 S 7 S 7 S 7 S 7 S	100 100 e		8.4 A		+	8.6 A			B			B		

				S	HORT	REPO	200000000000000000000000000000000000000								
General Inf	formation					Site I	nformat		/FD0:37	/ 44	10				
Analyst Agency or 0 Date Perfor Time Period	med 4/23/2008					Area Juriso	ection Type liction sis Year	LOV All o MAF			ID				
Volume an	d Timing Input								7.176						
		LT	EB	LDT	LT	WB	Lor	LT	NB TH	I p	T	LT	SB TH	RT	
Number of	lanes	LT 0	TH 2	RT 0	LT 0	TH 2	RT 0	1	1	0		1	1	0	
Lane Group	- Control Control		LTR		-	LTR		L	TR	<u> </u>		L	TR		
Volume (vp		19	536	53	36	396	41	97	48	88	3	15	15	26	
% Heavy V	N.1.200	0	0	0	0	0	0	0	0	0	-	0	0	0	
PHF	omoico	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.9	00 0	0.90	0.90	0.90	
	ctuated (P/A)	A	A	A	A	A	A	A	A	A	-	Α	A	A	
Startup Los		1	2.0			2.0		2.0	2.0		_	2.0	2.0		
	of Effective Green	1	2.0			2.0		2.0	2.0			2.0	2.0		
Arrival Type			3			3		3	3			3	3		
Unit Extens			3.0			3.0		3.0	3.0			3.0	3.0		
	TOR Volume	0	0	0	0	0	0	0	0	0		0	0	0	
Lane Width			12.0			12.0		12.0	12.0			12.0	12.0		
	ade/Parking	N	0	N	N	0	N	N	0	N	1	N	0	N	
Parking/Ho	ur														
Bus Stops/l	Hour		0			0		0	0			0	0		
Minimum P	edestrian Time		3.2			3.2		<u></u>	3.2				3.2		
Phasing	EW Perm	02 G =	G	03	G =	04	S = 2		06 G =	_	G =)7	G =	08	
Timing		Y =	Υ:		Y =		Y = 4		Y =		Y =		Y =		
Duration of	Analysis (hrs) =							(Cycle Le	ngth	C =	60.0			
Lane Gro	oup Capacity	Contr	ol Del	ay, an	d LOS	Deter	minati	on						1	
			EB			WB			NB				SB		
Adjusted FI	ow Rate		676			526		108	151	1		17	46		
Lane Group	Capacity		1668			1570		506	629		_	461	631		
v/c Ratio			0.41			0.34		0.21	0.24		C	0.04	0.07		
Green Ratio	0		0.50			0.50		0.37	0.37		C	0.37	0.37		
Uniform De	elay d ₁		9.4			9.0		13.1	13.2		1	2.2	12.4		
Delay Facto	or k		0.11			0.11		0.11	0.11		C	0.11	0.11		
Incrementa	l Delay d ₂		0.2			0.1		0.2	0.2			0.0	0.0		
PF Factor			1.000			1.000		1.000	1.000		1	.000	1.000		
Control Del	ay		9.6			9.1		13.3	13.4		1	2.2	12.4		
Lane Group	LOS		A			Α		В	В			В	В		
Approach [Delay		9.6			9.1			13.3				12.4		
			Α		В				В						
Approach L	OS		A						D	Intersection LOS B					

Appendix Page50

General Information			Site In	forma	tion			
A make at	JH		Intersed	otion			CE AVE A	ND HUR
Analyst Agency/Co.	RPM		Intersec	CHOIT		ST		
Date Performed	4/23/2008		Jurisdic			MARTIN		
Analysis Time Period	AM PEAK		— Analysi	s Year		2018		
Project Description UT		TER PLAN - PROI						
East/West Street: HUR7	AND DESCRIPTION OF THE PARTY OF				eet: LOVEL	ACE AVE		
ntersection Orientation:	East-West		Study P	eriod (h	rs): 0.25			
/ehicle Volumes an	d Adjustme	nts						
Najor Street		Eastbound				Westbou	nd	
Novement	1	2	3		4	5		6
	L	T	R		L	T		R
/olume (veh/h)	119	17				16		12
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	132	18	0		0	17		13
Percent Heavy Vehicles	0				0			
Median Type				Undivid	led			
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0				0		
Minor Street		Northbound				Southbou	und	
Movement	7	8	9		10	11		12
	L	T	R		L	Т		R
/olume (veh/h)					13			70
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0		14	0		77
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration	-					LR		
Delay, Queue Length, a	nd Lovel of Co	mico		_	***			
	Eastbound	Westbound	N	Northbou	ınd	1 9	Southboun	d
Approach		4	7	8	9	10	11	12
Movement	1	- 4	-	0	3	10	LR	12
_ane Configuration	LT					-		
/ (veh/h)	132					1	91	
C (m) (veh/h)	1596			U			959	
v/c	0.08						0.09	
95% queue length	0.27						0.31	
Control Delay (s/veh)	7.5						9.1	
LOS	Α						Α	
Approach Delay (s/veh)							9.1	
Approach Doidy (Sively)			9.1 A					

HCS+TM Version 5.21

Generated: 5/13/2008 12:43 PM

General Information	1		Site In	forma	tion			
General information				E SALESCOLINE IN SAL	tion	I OVELAC	CE AVE AI	VD HUR
Analyst	JH		Interse	ction		ST	LAVEA	ND HON
Agency/Co.	RPM		Jurisdio	ction		MARTIN		
Date Performed	4/23/2008		Analysi	MANUFACTURE OF THE PARTY OF THE		2018		
Analysis Time Period	PM PEAK	(
Project Description UT	MARTIN MAS	TER PLAN - PRO	POSED					
East/West Street: HUR	TST		North/S		reet: LOVEL	ACE AVE		
ntersection Orientation:	East-West		Study P	eriod (h	rs): 0.25			
Vehicle Volumes ar	nd Adjustme	nts						11
Major Street		Eastbound				Westbou	nd	
Movement	1	2	3		4	5		6
AND THE WORK	L	T	R		L	T		R
Volume (veh/h)	164	43	0.00		0.00	19		13
Peak-Hour Factor, PHF	0.90	0.90	0.90	-	0.90	0.90	_	0.90
Hourly Flow Rate, HFR veh/h)	182	47	0		0	21		14
Percent Heavy Vehicles	0				0			
Median Type				Undivid	ded			
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0				0		
Minor Street		Northbound				Southbou	ınd	
Movement	7	8	9		10	11		12
	L	T	R		L	Т		R
Volume (veh/h)					20			89
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	0.	0	0		22	0		98
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, a	and Level of Se	rvice						
Approach	Eastbound	Westbound	1	Vorthboo	und	S	outhbound	d
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	182						120	
C (m) (veh/h)	1589						883	
v/c	0.11						0.14	1
95% queue length	0.39						0.47	
the same of the sa	7.6				_		9.7	
Control Delay (s/veh)	A. C. C.		-			1	A.	1
LOS	A						9.7	
Approach Delay (s/veh)	227					+		
Approach LOS				5000	ersion 5.21		Α	

HCS+TM Version 5.21

General Information	1		Site Ir	nforma	ation			
Analyst	JH		Interse	ction			S LN AN	D
Agency/Co.	RPM			ST. T. ST. ST. ST.		MOODY	AVE	
Date Performed	4/23/2008		Jurisdie			MARTIN		
Analysis Time Period	AM PEAK		Analys	is Year		2018		
	MARTIN MAS	TER PLAN - PRO						
East/West Street:	N				reet: MOOD	DYAVE		
ntersection Orientation:			Study F	erioa (i	hrs): 0.25			
/ehicle Volumes ar	nd Adjustme		_ 31				10000	
//ajor Street	1	Northbound	1 .			Southbou	ind	0
Movement	1	2	3		4	5	_	6
	L	T	R		L	T 24		R
/olume (veh/h)	79	62	0.00	-+	0.90	0.90	_	52 0.90
Peak-Hour Factor, PHF Hourly Flow Rate, HFR	0.90	0.90	0.90	-	-	1000		1000
veh/h)	87	68	0		0	37		57
Percent Heavy Vehicles	0				0			***
Median Type				Undivi	ded			
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0				0		
/linor Street		Eastbound				Westbou	nd	
Novement	7	8	9		10	11		12
	L	T	R		L	Т		R
/olume (veh/h)	74		69					
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	82	0	76		0	0		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		I N				N		
Storage		0				0		
RT Channelized			0					0
anes	0	0	0	0.0	0	0		0
Configuration		LR						
Delay, Queue Length, a	and I evel of Se							
Approach	Northbound	Southbound	1	Westbo	und	1	Eastbound	
Movement	1	4	7	8	9	10	11	12
	LT	77	1.5	U	3	10	LR	12
ane Configuration	10 C 10 C					1		-
/ (veh/h)	87					+	158	-
C (m) (veh/h)	1513				-		781	
<i>Il</i> c	0.06						0.20	
95% queue length	0.18						0.75	
Control Delay (s/veh)	7.5					3	10.8	
LOS	А						В	
Approach Delay (s/veh)	722	22					10.8	
Approach LOS						1	В	

HCS+TM Version 5.21

Generated: 5/13/2008 12:38 PM

General Information	1		Site Ir	form	ation	ì				
Jeneral Information			Site ii	1101111	atioi		LIANNING	S LN AN	D	
Analyst	JH		Interse	ction			MOODY			
Agency/Co.	RPM		Jurisdie	ction			MARTIN	1 V lon		
Date Performed	4/23/2008		Analys		r		2018			
Analysis Time Period	PM PEAK		Villalys	10 1 001			2010			
Project Description U7	MARTIN MAS	TER PLAN - PRO	POSED							
East/West Street: HANI	VINGS LANE	LIVI LAW TIVO		South S	treet:	MOOD	YAVE			
ntersection Orientation:			Study F				O TO CALLY Stee			
/ehicle Volumes ar		nte	10.000		(-,,-)					
Major Street	T Aujusune	Northbound					Southbou	ınd		
Movement	1	2	3	-		4	5	T T	6	
novement		T	R			L	T	_	R	
/olume (veh/h)	130	95	IN			_	12		96	
Peak-Hour Factor, PHF	0.90	0.90	0.90		0	.90	0.90		0.90	
Hourly Flow Rate, HFR									14000000	
veh/h)	144	105	0			0	13		106	
Percent Heavy Vehicles	0					0				
Median Type				Undiv	rided					
RT Channelized			0						0	
anes	0	1	0			0	1		0	
Configuration	LT								TR	
Jpstream Signal		0					0			
//inor Street	1	Eastbound		T			Westbou	nd		
Movement	7	8	9			10	11	Tiu I	12	
novement		T	R			L	T		R	
/olume (veh/h)	112		94			_			13.	
Peak-Hour Factor, PHF	0.90	0.90	0.90		0	.90	0.90		0.90	
Hourly Flow Rate, HFR						. No.	1			
veh/h)	124	0	104			0	0		0	
Percent Heavy Vehicles	0	0	0			0	0		0	
Percent Grade (%)		0					0			
lared Approach		l N					N			
Storage		0					0		71 _ 10	
RT Channelized			0						0	
_anes	0	0	0			0	0		0	
_anes Configuration	+ -	LR					1			
	mallered -60-									
Delay, Queue Length, a				Westbo	ound.		1 ,	Eastbound		
Approach	Northbound	Southbound				0			_	
Movement	1	4	7	8		9	10	11	12	
ane Configuration	LT							LR		
(veh/h)	144							228		
C (m) (veh/h)	1482							656		
ı/c	0.10							0.35		
95% queue length	0.32							1.55		
Control Delay (s/veh)	7.7							13.4		
	A. A.				+			B		
OS							1	13.4		
Approach Delay (s/veh)					_					
Approach LOS	3 44 3						1	В		

HCS+TM Version 5.21

Generated: 5/13/2008 12:39 PM

General Information			Sito I	nformati	on			
General Information			Site ii	поппац	OII	IMT DELL	A AND HA	ANNING
Analyst	JH		Interse	ction		LN EAST		AIVIVIIVG
Agency/Co.	RPM		Jurisdi	ction		MARTIN		
Date Performed	4/23/2008			is Year		2018		
Analysis Time Period	AM PEAR							
Project Description UT	MARTIN MAS	TER PLAN - PRO	POSED					
East/West Street: HANN				outh Stree	et: MT PE	LIA RD		
ntersection Orientation:	North-South	V-V-V-V-V-V-V-V-V-V-V-V-V-V-V-V-V-V-V-	Study F	Period (hrs): 0.25			
Vehicle Volumes an	d Adjustme	nts						
Major Street	T	Northbound				Southbo	und	
Movement	1	2	3		4	5		6
	L	T	R		L	T		R
/olume (veh/h)		272	65		78	159		
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	0	302	72		86	176		0
Percent Heavy Vehicles	0	-			0			
Median Type				Undivide	d	_		Ne.
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration			TR		LT			
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	ınd	
Movement	7	8	9		10	11		12
	L	T	R		L	T		R
/olume (veh/h)		-			35	0.00		96 0.90
Peak-Hour Factor, PHF	0.90	0.90	0.90	_	0.90	0.90	0.90 0	
Hourly Flow Rate, HFR (veh/h)	0	0	0		38			106
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
anes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, ar	nd Level of Se	rvice						
Approach	Northbound	Southbound	١	Westbound	d		Eastboun	d
Movement	1	4	7	8	9	10	11	12
ane Configuration		LT		LR				
/ (veh/h)		86		144				
C (m) (veh/h)		1196		581			1	
//c		0.07		0.25				
95% queue length		0.23		0.97	1		1	+
		8.2		13.2			1	1
Control Delay (s/veh)				B		+	1	
LOS		Α			1		1	
Approach Delay (s/veh)	77		13.2					

HCS+TM Version 5.21

Generated: 5/13/2008 2:43 PM

Ast/West Street: HANN Intersection Orientation: /ehicle Volumes and //ajor Street //ovement //olume (veh/h) Peak-Hour Factor, PHF	IINGS LANE EA North-South	TER PLAN - PRO AST	POSED North/S	ction is Year South Stre		MT PELIA LN EAST MARTIN 2018	AND HA	NNINGS				
Date Performed Analysis Time Period Project Description UT East/West Street: HANN Intersection Orientation: Pehicle Volumes and Major Street Movement Peak-Hour Factor, PHF	4/23/2008 PM PEAK MARTIN MAST IINGS LANE EX North-South d Adjustment	TER PLAN - PRO AST nts Northbound	Analys POSED North/S	is Year South Stre		MARTIN 2018						
Analysis Time Period Project Description UT East/West Street: HANN Intersection Orientation: Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF	PM PEAK MARTIN MAST IINGS LANE EX North-South d Adjustment	TER PLAN - PRO AST nts Northbound	Analys POSED North/S	is Year South Stre		2018						
Project Description UT. East/West Street: HANN Intersection Orientation: Pehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF	MARTIN MAST IINGS LANE EX North-South d Adjustme	TER PLAN - PRO AST nts Northbound	POSED North/S	South Stre								
Ast/West Street: HANN Intersection Orientation: /ehicle Volumes and //ajor Street //ovement //olume (veh/h) Peak-Hour Factor, PHF	IINGS LANE E/ North-South d Adjustme	nts Northbound	North/S			ELIA DD						
Ast/West Street: HANN Intersection Orientation: /ehicle Volumes and //ajor Street //ovement //olume (veh/h) Peak-Hour Factor, PHF	IINGS LANE E/ North-South d Adjustme	nts Northbound	North/S			ELIA DO						
ntersection Orientation: /ehicle Volumes and /lajor Street /lovement /olume (veh/h) Peak-Hour Factor, PHF	North-South d Adjustme	nts Northbound	Study F	Period (hr	North/South Street: MT PELIA RD							
Major Street Movement /olume (veh/h) Peak-Hour Factor, PHF	1	Northbound		Study Period (hrs): 0.25								
Major Street Movement /olume (veh/h) Peak-Hour Factor, PHF	1	Northbound										
/olume (veh/h) Peak-Hour Factor, PHF						Southboun	d					
/olume (veh/h) Peak-Hour Factor, PHF	L		3		4	5		6				
Peak-Hour Factor, PHF		T	R		L	T		R				
		240	53		153	268						
	0.90	0.90	0.90		0.90	0.90		0.90				
lourly Flow Rate, HFR veh/h)	0	266	58		170	297		0				
Percent Heavy Vehicles	0				0							
/ledian Type				Undivide	ed							
RT Channelized			0					0				
anes	0	1	0		0	1		0				
Configuration			TR		LT							
Jpstream Signal		0				0						
/linor Street		Eastbound				Westbound	t					
Novement	7	8	9		10	11		12				
	L	T	R		L	T		R				
/olume (veh/h)					57			169				
eak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90				
lourly Flow Rate, HFR veh/h)	0	0	0		63	0		187				
Percent Heavy Vehicles	0	0	0		0	0		0				
Percent Grade (%)		0				0						
Flared Approach		N				N						
Storage		0				0						
RT Channelized			0					0				
anes	0	0	0		0	0		0				
Configuration						LR						
Delay, Queue Length, ar	nd Level of Se	rvice										
Approach	Northbound	Southbound		Westbour	nd	T Ea	stbound					
Movement	1	4	7	8	9	10	11	12				
ane Configuration		LT		LR				1				
		170		250		1		+				
(veh/h)		-		505				1				
C (m) (veh/h)		1247			+			+				
r/c		0.14		0.50	-							
95% queue length		0.47		2.71								
Control Delay (s/veh)		8.3		18.9								
os		Α		С								
Approach Delay (s/veh)	(**			18.9								

HCS+TM Version 5.21

Generated: 5/13/2008 12:51 PM

General Information	n		Site In	formation				
			Site iii	normation	MT DELL	A AND HA	NAUNIC	
Analyst	JH		Intersed	ction	LN WES		MINING	
Agency/Co.	RPM		Jurisdic	rtion	MARTIN			
Date Performed	4/23/2008		Analysi	The state of the s	2018			
Analysis Time Period	AM PEAR	(Villalysi	3 1 Gai	2010			
Project Description U7	MARTIN MAS	TER PLAN - PRO	POSED					
East/West Street: HAN			THE RESIDENCE OF THE PERSON NAMED IN COLUMN 1	outh Street: MT F	FLIA RD			
ntersection Orientation:	The second secon		- Indicate Designation of the Control of the Contro	eriod (hrs): 0.25	LLIAND			
		nto	jotady i	0.20				
Vehicle Volumes ar	ia Aajustine	The second secon			Southbound			
Wajor Street Movement	+ 4	Northbound	1 2	4		ina	0	
viovement	1	2 T	3 R	4	5 T		6	
(aluma (vah/h)	L		R	L			R	
/olume (veh/h) Peak-Hour Factor, PHF	0.90	320 0.90	0.90	0.90	186 0.90		20 0.90	
Hourly Flow Rate, HFR								
veh/h)	53	355	0	0	206		22	
Percent Heavy Vehicles	0		-	0	-		-	
Median Type				Undivided			3000	
RT Channelized			0		1		0	
anes	0	1	0	0	1		0	
Configuration	LT		-	0	- '	_	TR	
Jpstream Signal	LI	0	1		0		111	
	1					201	_	
Minor Street	7	Eastbound	9	10	Westbou	na	12	
Movement		8	_	10	11	_		
	L	T	R	L	T	_	R	
/olume (veh/h)	20	0.00	51	0.00	0.00	_	0.00	
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	_	0.90	
Hourly Flow Rate, HFR veh/h)	22	0	56	0	0		0	
Percent Heavy Vehicles	0	0	0	0	0		0	
Percent Grade (%)		0			0			
Flared Approach		T N	T	_	I N	1		
		0	+			-		
Storage	-	0			0			
RT Channelized			0				0	
anes	0	0	0	0	0		0	
Configuration		LR						
Delay, Queue Length, a	nd Level of Se	rvice						
Approach	Northbound	Southbound	V	Vestbound	1	Eastbound		
Movement	1	4	7	8 9	10	11	12	
ane Configuration	LT					LR		
(veh/h)	53					78		
(veri/ii) C (m) (veh/h)	1352					639	1	
							+	
//c	0.04					0.12	-	
5% queue length	0.12					0.41	-	
Control Delay (s/veh)	7.8					11.4		
OS	Α					В		
Approach Delay (s/veh)	-	-				11.4		
Approach LOS		**				В		

HCS+TM Version 5.21

Generated: 5/13/2008 2:46 PM

General Information	n		Site Ir	nforma	ation				
Analyst	JH		Interse	ction			A AND HA	NNINGS	
Agency/Co.	RPM					LN WES			
Date Performed	4/23/2008		- Jurisdi			MARTIN			
Analysis Time Period	PM PEAK		Analys	is Year				_	
Project Description UT East/West Street: HAN	MARTIN MASTE			Cauth Ct	reet: MT PE	ELIA DO			
ntersection Orientation:	ALL PROFESSIONAL PROPERTY OF THE PARTY OF TH	:51			nrs): 0.25	LIA RU	_		
	V 9 32	4	Joludy 1	enou (i	113). 0.23				
/ehicle Volumes ar	na Aajustmen					Southbou	the arred		
Major Street	1	Northbound 2	3	_	4	5 Southbot	ina	6	
Movement		T	R		L	T		R	
/olume (veh/h)	104	305	11		<u> </u>	336		21	
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90	
Hourly Flow Rate, HFR veh/h)	115	338	0		0	373		23	
Percent Heavy Vehicles	0				0				
Median Type				Undivi	ded				
RT Channelized			0					0	
anes	0	1	0		0	1		0	
Configuration	LT							TR	
Jpstream Signal		0				0			
/linor Street		Eastbound				Westbou	ınd		
Movement	7	8	9		10	11		12	
	L	T	R		L	T		R	
/olume (veh/h)	13		85						
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90	
Hourly Flow Rate, HFR veh/h)	14	0	94		0	0		0	
Percent Heavy Vehicles	0	0	0		0	0		0	
Percent Grade (%)		0				0			
Flared Approach		N				N			
Storage		0				0			
RT Channelized			0					0	
anes	0	0	0		0	0		0	
Configuration		LR							
Delay, Queue Length, a	and Level of Serv	/ice							
Approach	Northbound	Southbound		Westbo	und		Eastbound		
Movement	1	4	7	8	9	10	11	12	
ane Configuration	LT						LR		
(veh/h)	115						108		
C (m) (veh/h)	1174						556		
//c	0.10						0.19		
	0.70				_		0.71		
95% queue length					-	1	13.0		
Control Delay (s/veh)	8.4				+		13.0 B		
_OS	Α						1775		
Approach Delay (s/veh)							13.0		
Approach LOS							В		

HCS+TM Version 5.21

Generated: 5/13/2008 2:49 PM

General Information	1		Site Ir	nformati	on			
Analyst	JH		Interse	ction			A AND WA	YNE
Agency/Co.	RPM			enren.		FISHER		
Date Performed	4/23/2008	2	- Jurisdie	CHARLES CO.		MARTIN		
Analysis Time Period	AM PEAK		Analys	is Year		2008		

Project Description U7								
East/West Street: WAY		?	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	William Park the Company of the Comp	et: MT PE	LIA RD		
ntersection Orientation:	North-South		Study F	Period (hrs): 0.25			
Vehicle Volumes ar	nd Adjustme	nts						
Wajor Street		Northbound				Southboo	und	
Movement	1.	2	3		4	5		6
	L	T	R		L	T		R
Volume (veh/h)	85	192	63		48	145		29
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	94	213	70		53	161		32
Percent Heavy Vehicles	0				0			120
Median Type				Undivide	d		-	
RT Channelized			0					0
Lanes	1	1	0		1	1		0
Configuration	L		TR		L			TR
Jpstream Signal		0				0		
Minor Street	1	Eastbound				Westbou	ınd	
Movement	7	8	9		10	11		12
	L	T	R		E,	T		R
Volume (veh/h)	11	4	28		33	15		47
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	12	4	31		36	16		52
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		I N				I N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration	1	LTR				LTR		
Delay, Queue Length, a	nd level of Co							
	Northbound	Southbound	Ň	Vestbound	4	T	Eastbound	
Approach	A COMPLETE LINE OF THE PARTY OF		7	8	9	10	11	12
Movement	1	4	- 1		9	10	100000000000000000000000000000000000000	12
Lane Configuration	L	L		LTR			LTR	-
v (veh/h)	94	53		104			47	
C (m) (veh/h)	1392	1291		437			506	
v/c	0.07	0.04		0.24			0.09	
95% queue length	0.22	0.13		0.92			0.31	
Control Delay (s/veh)	7.8	7.9		15.8			12.8	
LOS	А	А		С			В	
Approach Delay (s/veh)				15.8				
Approach Delay (Siven)	5.70	200		C		12.8 B		

HCS+TM Version 5.21

Generated: 5/13/2008 12:46 PM

General Information	1		Site Ir	nformati	on			
Analyst	JН		Interse	ction		MT PELI/ FISHER	A AND WA	YNE
Agency/Co.	RPM		Jurisdi	ction		MARTIN		
Date Performed	4/23/2008	3		is Year		2018		
Analysis Time Period	PM PEAK	(Allalys	is i cai		2010		
Project Description UT	MARTINI MAS	TER PLAN - PRO	POSED					
East/West Street: WAY				South Stree	et: MT PE	I IA RD		
ntersection Orientation:				Period (hrs				
Vehicle Volumes ar		nto	10.000		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Vajor Street	la Aujustine	Northbound				Southbound		
Movement	1	2	3		4	5	ind	6
viovement	Ĺ	Ť	R		L	T		R
Volume (veh/h)	25	205	88		59	257		7
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	27	227	97		65	285		7
Percent Heavy Vehicles	0				0			***
Median Type				Undivide	d			
RT Channelized			0		_ 7 _ 5			0
anes	1	1	0		1	1		0
Configuration	L		TR		L			TR
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	nd	
Movement	7	8	9		10	11		12
	L	T	R		L	Т		R
Volume (veh/h)	26	6	31		69	1		67
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90	90 0.	
Hourly Flow Rate, HFR (veh/h)	28	6	34		76	1		74
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration		LTR				LTR		
Delay, Queue Length, a	nd Level of Se			-				
Approach	Northbound	Southbound		Westbound	d		Eastbound	
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR	<u> </u>	1,5	LTR	1
		65		151			68	+
v (veh/h)	27	Charles I			-	-		+
C (m) (veh/h)	1281	1247		412			400	-
v/c	0.02	0.05		0.37	-		0.17	-
95% queue length	0.06	0.16		1.65	1		0.61	
Control Delay (s/veh)	7.9	8.0		18.7			15.8	
LOS	Α	Α		С			С	
Approach Delay (s/veh)				18.7			15.8	
Approach LOS				С		C		

HCS+TM Version 5.21

Generated: 5/13/2008 12:47 PM

General Information	1		Site Ir	nformati	ion			
Analyst	JН		Interse				A AND PA	T
Agency/Co.	RPM					SUMMIT	T	
Date Performed	4/23/2008		- Jurisdi	ALC: NAME OF TAXABLE PARTY.		MARTIN		
Analysis Time Period	AM PEAK		Analys	is Year		2018		
Project Description U7								
East/West Street: PAT	THE RESIDENCE OF THE PARTY OF T	TDR	and the second and the second and	Committee of the Commit	et: MT PE	LIA RD		
ntersection Orientation:	North-South		Study F	Period (hrs	s): 0.25			
Vehicle Volumes ar	nd Adjustme	nts	- 0					
Vlajor Street		Northbound				Southbou	und	
Movement	1	2	3		4	5		6
	L	T	R		L	T		R
/olume (veh/h)	40	199	11		23	202		62
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	44	221	12		25	224	4 68	
Percent Heavy Vehicles	0		777		0	-		
Median Type				Undivide	ed			
RT Channelized			0					0
anes	1	1	0		1	1		0
Configuration	L		TR		L			TR
Jpstream Signal		0				0		
Minor Street		Eastbound				Westbou	ınd	
Movement	7	8	9		10	11		12
Manage of the Control	L	T	R		L	T		R
/olume (veh/h)	40	0	12		8	0		16
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR veh/h)	44	0	13		8	0		17
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		l N				I N		
Storage		0				0		
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	<u> </u>	LTR				LTR		
Delay, Queue Length, a	nd Lavel of So							
Approach	Northbound	Southbound	,	Westboun	d	T	Eastbound	
			7	8	9	10	11	12
Movement	1	4	1		9	10		12
ane Configuration	L	L		LTR	-	-	LTR	-
/ (veh/h)	44	25		25	-		57	
C (m) (veh/h)	1281	1346		594			423	
ı/c	0.03	0.02		0.04			0.13	
95% queue length	0.11	0.06		0.13			0.46	
Control Delay (s/veh)	7.9	7.7		11.3			14.8	
_OS	А	А		В			В	
Approach Delay (s/veh)				11.3			14.8	
		The state of the s						
Approach LOS	7		_	В			В	

HCS+TM Version 5.21

Generated: 5/13/2008 12:54 PM

General Information	1		Site Ir	Site Information										
Analyst	JH		Interse	ction		MT PELIA AND PAT SUMMITT								
Agency/Co.	RPM		Jurisdio	ction		MARTIN								
Date Performed	4/23/2008		Analys			2018								
Analysis Time Period	PM PEAK													
Project Description UT	MARTIN MAS	TER PLAN - PRO	POSED											
ast/West Street: PAT I				outh Stree	et: MTPE	LIA RD								
ntersection Orientation:			Study F	eriod (hrs): 0.25									
/ehicle Volumes an	d Adjustme	nts												
/lajor Street	1	Northbound				Southbound								
Movement	1	2	3		4	5		6						
	L	Т	R		L	Т		R						
/olume (veh/h)	47	245	- Contract		10	242		37						
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90						
lourly Flow Rate, HFR veh/h)	52	272	6		11	268		41						
Percent Heavy Vehicles	0	(**)			0									
Median Type				Undivide	d	-								
RT Channelized			0					0						
anes	1	1	0		1	1		0						
Configuration	L		TR		L			TR						
Jpstream Signal		0				0								
Minor Street		Eastbound				Westbou	nd							
Movement	7	8	9		10	11		12						
	L	Т	R		L	Т		R						
/olume (veh/h)	66	2	55		26	2		59						
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90						
Hourly Flow Rate, HFR veh/h)	73	2	61		28	2		65						
Percent Heavy Vehicles	0	0	0		0	0		0						
Percent Grade (%)		0				0								
Flared Approach		N				N								
Storage		0				0								
RT Channelized								0						
anes	0	1	0		0	1		0						
Configuration		LTR				LTR								
Delay, Queue Length, a	nd Level of Se	rvice												
Approach	Northbound	Southbound	1	Westboun	d		Eastbound	stbound						
Movement	1	4	7	8	9	10	11	12						
ane Configuration	L	L LTR		LTR			LTR							
/ (veh/h)	52	11 95				136								
C (m) (veh/h)	1263	1296		521		416								
//c	0.04	0.01		0.18		0.33								
	0.13	0.03		0.66			1.40							
95% queue length				13.4	-	+	17.8							
Control Delay (s/veh)	8.0	7.8			+									
OS	Α	Α		B			C							
Approach Delay (s/veh)				13.4		17.8								
Approach LOS				В		С								

HCS+TM Version 5.21

Generated: 5/13/2008 12:55 PM

						SH	IORT	REP	OR	Т				Ī					
General Info	ormation							Site	Info	rmatio	n								
Analyst JH Agency or Co. RPM Date Performed 4/23/2008 Time Period AM PEAK								Area	rsect a Typ sdict lysis	oe .	UNIVERSITY AND MT PELIA All other areas MARTIN 2018								
Volume and	Timing Inpu	t																	
				E	-			WB					NB				SB	Loz	
200 120 1210		_	LT	Th	1	RT	LT	1	ГН	RT	1	T	TH	H	RT	LT	TH	RT	
Number of L	NOVA PROF	_				0	1	2			1			1		_	-	-	
Lane Group		_		TR			L	T			L		_	R		_	-	-	
Volume (vph	.0.	_		359	-	98	189	272			64			191			-		
% Heavy Ve	hicles	_		0 0			0	0			0			0		_	-	-	
PHF				0.90 0.90		0.90	0.90			0.90			0.90			_	-		
Pretimed/Actuated (P/A)				-		Α	Α	A			Α			A			-	-	
Startup Lost Time				2.0			2.0	2.0			2.			2.0					
Extension of Effective Green				2.0			2.0	2.0			2.0			2.0				_	
Arrival Type				3			3	3			3			3				_	
Unit Extension				3.0			3.0	3.0			3.0			3.0					
Ped/Bike/RTOR Volume			0	0		0	0	0			0		0	19					
Lane Width				12.0			12.0	12.0			12.0			12.0					
Parking/Grade/Parking			N	0	_	N	N	(0	N	1	V	0	L	N				
Parking/Hour					-			+		_	╀	•		╀	0		-		
Bus Stops/Hour				0	\rightarrow		0	_	0		-	0	2.0	H	0		-		
Minimum Pedestrian Time			/ D = ===	3.2	_	22	-		.2	ND On	v		3.2			07 0		ıΩ	
Phasing	WB Only G = 10.0	-	V Perm 03 = 18.0 G =			04 NB On G = G = 20.								The second secon					
Timing $Y = 4$ $Y =$				Y =			Y = Y = 4			Y = Y =					Y =				
	Analysis (hrs)											Сус	le Leng	gth	C =	60.0			
Lane Gro	up Capacit	y, C	ontro	ol De	elay	, and	LOS			inatio	n								
				EB			WB				NB						SB		
Adjusted Flo	ow Rate			508			210	302			71			191					
Lane Group	Capacity			1050			518	1930			602			538					
v/c Ratio				0.48	3		0.41	0.16	6		0.12	2		0.3	36				
Green Ratio)			0.30			0.53	0.53	3		0.33			0.33					
Uniform Delay d ₁				17.2			8.0	7.1			13.9			15.1					
Delay Factor k				0.11			0.11	0.11			0.11	1	1	0.11					
Incremental Delay d ₂				0.4			0.5	0.0			0.1			0.4					
PF Factor				1.000			1.000	1.00	00		1.000			1.000		- 1			
Control Delay				17.5			8.5	7.2			14.0			15.5					
Lane Group LOS			В			Α	A			В			Е	3					
				17.5				7.7					15.1						
				В				А					В						
SOLUMNO SERVICE IN									_	ntersec	tion	LOS					В		
Approach L	Approach Delay Approach LOS Intersection Delay			B 13.1				tion		В		Gen	erated:	B 5/13/2008					

HCS+TM Version 5.21

Generated: 5/13/2008 1:11 PM

General Info	ormation	_		-	_	51	IORT		nformati	on		_					
Analyst JH Agency or Co. RPM Date Performed 4/23/2008 Time Period PM PEAK									ection Type iction sis Year	UNIVERSITY AND MT PELIA All other areas MARTIN 2018							
Volume and	Timing Inpu	t															
	ЕВ						WB			NB	_		SB				
Number of Lanes			LT	TH 2		RT	LT	TH	RT	LT 1	TH	+	RT 1	LT	TH	RT	
	anes			\vdash	_	0	1	2	-	-	_	+	R	-	-		
Lane Group		_		TR		00	L	T		L	_	+		-	-	-	
Volume (vph	-			371		86	203	525	_	152		+	218			-	
% Heavy Ve	hicles			0		0	0	0	_	0		+	0	-	-	-	
PHF	7 72 75 7			0.90		0.90	0.90	0.90		0.90	<u>'</u>	+	0.90	-	-	-	
Pretimed/Ac				A		Α	A	A		A		+	A	-	-	-	
Startup Lost Time				2.0			2.0	2.0	_	2.0		+	2.0		-		
Extension of Effective Green				2.0			2.0	2.0		2.0		+	2.0			-	
Arrival Type				3			3	3		3		+	3	-	-	-	
Unit Extension				3.0			3.0	3.0		3.0		+	3.0			<u> </u>	
Ped/Bike/RTOR Volume			0	0		0	0	0		0	0	4	22			-	
Lane Width				1	2.0		12.0	12.0		12.0	_	+	12.0			_	
Parking/Grade/Parking			N		0	N	N	0	N	N	0	+	N			-	
Parking/Hour			L	120			+-		-	_	+	•			-		
Bus Stops/Hour				-	0		0	0	_	0		+	0	_	-	-	
Minimum Pedestrian Time					.2			3.2			3.2	J	1 0				
Phasing	WB Only G = 10.0		W Perm = 18.0 G =			03	G =	4	MB Or		06 G =	_	G =	07 08 G =		18	
Timing $Y = 4$ $Y = 4$			Y =			Y =		Y = 4		Y = Y =			Y =				
Duration of A	Analysis (hrs)									j	Cycle Lei	ngth	C =	60.0			
Lane Gro	up Capacit	y, C	ontro	ol E	Dela	y, and	LOSI	Deter	minatio	n							
					EB			WB			NB			SB			
Adjusted Flo	w Rate			508			226	583		169		21					
Lane Group	Capacity			1055			518	1930		602		538					
v/c Ratio				0.48			0.44	0.30		0.28		0.41					
Green Ratio				0.30			0.53	0.53		0.33		0.3	33				
Uniform Delay d₁				17.2			8.1	7.8		14.7		15	.4				
Delay Factor k				0.11			0.11	0.11		0.11		0.	11				
Incremental Delay d ₂			0.3			0.6	0.1		0.3		0	.5					
PF Factor			1.000			1.000	1.000		1.000		1.0						
Control Delay			17.5			8.7	7.9		15.0		13	5.9					
Lane Group LOS			В			A	A		В			3					
Lane Group				17.5				8.1			15.5						
	C/			1	7.5		1	8.1			10.0						
Approach Do	elay			_	7.5 B		-	8.1 A			B		\dashv				

Appendix Page64

APPENDIX C TRIP GENERATION CALCULATIONS

TRIP GENERATION - UT Martin Master Plan

College/University - 650 new students

Use ITE Land Use Code 550 and associated trip generation rates for 24-hour total trips and peak hour trips.

Average Daily Traffic

A.M. Peak Hour - Use the average rate equation for AM Peak Hour of the Adjacent Street (between 7:00 AM and 9:00 AM)

Enter =
$$0.80 (137) = 110$$

Exit = $0.20 (137) = 27$

P.M. Peak Hour - Use the average rate equation for PM Peak Hour of the Adjacent Street (between 4:00 PM and 6:00 PM)

$$T = 0.21 (X)$$

 $T = 0.21 (650)$
 $T = 137$