I. REPORT OBJECTIVE

This Assessment Methodology Report details the basis of the benefit allocation and assessment methodology to support the implementation of a pavement management plan consisting of a continuous process for maintaining high quality City Streets. The City has identified Street Paving Improvements in the City's Street Improvement Fund within its five-year Capital Improvement Plan. Those lands within the Assessment Area of the City of New Port Richey (City) are generally described as properties which are currently included or may in the future be included within the corporate boundaries of the City. The objective of this Report is to:

1. Identify the City's Capital Improvement Program ("CIP") needs for a continuous program that will preserve the existing City investment in paved streets and other functioning right of ways. The program will be deployed in a cyclical manner through an ongoing program of resurfacing and improvements appropriate for the sustainability of the transportation system within the City that is owned and or maintained by the City of New Port Richey. An annual budget will be recommended.

2. Determine a fair and equitable method of spreading the associated costs to the benefiting properties within the Citywide Assessment Area and ultimately to the individual real property parcels therein; and

3. Calculate and recommend the appropriate fee to be placed on an annual non-ad valorem assessment on the assessable lands within the City.

The basis of benefit received by properties within the City relates directly to the findings of the Roadway Needs Assessment Report (Engineer's Report), prepared by Genesis and issued in December of 2014. The Introduction Section of the report (attached as Exhibit A) states at the outset that; "High quality transportation systems are essential to a thriving community". The Engineer's Report identified the general condition of approximately 70 miles of paved roadways that are owned and maintained by the City. The methodology employed was based on the Pavement Surface Evaluation and Rating (PASER) system developed by the Transformation Information System of the University of Wisconsin - Madison. The PASER system focuses on the surface condition of roads using photographic standards as benchmarks for a ten point scale. The prevailing logic of Pavement Management (Street Paving Improvement) is to restore road surfaces before the ride quality drops below a good quality rating in order to reap the benefits of a consistently high quality pavement condition. The justification for the increased scheduling of periodic pavement restoration is not just for vehicle ride quality, but also to avoid the rapid decline that occurs as roads begin to drop from good to fair condition and the resulting high cost of rehabilitation maintenance which can cost up to 10 times the cost of preventative maintenance. Therefore, benefits will be derived from the use and enjoyment of a well maintained road network. Additionally, property owners will benefit economically from expected maintenance cost savings and through the sustainability of private property values attributable to the curb appeal of a quality street system.

It is the City's CIP that will establish the Pavement Management schedule for maintenance of the public transportation infrastructure that will be deployed systematically within the Assessment Area. All property owners within the City will have the ability to utilize and benefit from the streets and multi-modal corridors developed, constructed and maintained by

the City. The main objective of this Report is to establish a basis on which to quantify and allocate the special benefit provided by the Pavement Management component of the CIP to the various benefiting parcels of real property within the City

The City does not anticipate the issuance of Bonds or indebtedness to finance the Pavement Management portion of the CIP which will be scheduled in a rotating fashion in the most efficient manner practicable while prioritizing streets whose condition has dropped below a good rating.

In summary, this Methodology Report will determine the benefit of maintaining the City's network of streets that inures to the properties within the City, the recommended method of apportionment of the benefits and the resulting non-ad valorem assessments to be levied on an annual basis. The assessments will provide the financial support required for the City to perform a pavement management program that will result in improved driving surfaces and provide for the periodic pavement restoration of all streets and transportation corridors controlled by the City.

II. HISTORICAL CITY PAVEMENT ASSESSMENTS OVERVIEW

The City has historically maintained its residential streets by completing projects using a combination of City funds. Accumulated funds collected from multiple years' Gas Tax proceeds have been combined with collections from special assessments which have been applied at various levels against benefiting properties based on the front footage owned along the streets being repaved or reconstructed. Over the past 30 years, there have been 12 street paving projects using this method. Streets that are considered major arterials such as Main Street/Nebraska, portions of Grand Boulevard, Madison, Congress, Gulf, Adams, Marine Parkway and Cecelia were fully funded by the City in many cases. Recently, Pasco County conveyed the newly paved Plathe Road and the southern section of Grand Boulevard to the City along with the future maintenance responsibility.

For the last 12 street paving projects, assessments were levied and liens recorded with payback terms of ten years to include interest and direct billed by the City. Assessments were levied with construction costs supplemented by various degrees of City financial assistance against property owners who were immediately adjacent to the improvements based on front footage. This direct benefit method has been problematic in two ways. First, the variance among property owners in the length of front footage adjacent to the pavement installed often resulted in perceptions that the distribution of costs under that method was not equitable. Second, property owners share their public streets with other vehicles and some streets incur more through traffic and as such those streets may deteriorate at a faster rate. While the City made adjustments for assessments on collector roads and arterial roads, the resulting net charges to property owners over the past 30 years lack consistency. The use of limited resources to finance the street improvements and the cumbersome steps involved in forwarding paving projects have resulted in a decline in the quality of the overall street network and the need to change the City's process to protect the assets and provide a better product.

III. PROPOSED PAVEMENT MANAGEMENT PLAN IMPROVEMENTS

A report issued in 2013 by IMS Infrastructure Management Services for the City of Dunwoody, GA addressed the importance and purpose of pavement management systems as follows;

Agencies implement pavement management systems for a variety of reasons:

- The agency desires to use analytical tools and technologies to more effectively manage their assets. This need often comes to the forefront due to rapidly increased costs and rapidly deteriorating pavements.
- In some cases a pavement management system is required in order to qualify for various types of funding.
- The Governmental Accounting Standards Board (GASB) Statement 34 now requires agencies that collect taxes for the purpose of managing a long-term, fixed infrastructure assets to either:
  - Option #1 *(Standard Method)* - Implement financial-accounting controls to effectively depreciate and plan for replacement of fixed assets, or,
  - Option #2 *(Modified Method)* - Implement an asset management system that provides a mechanism to gauge and budget for the long-term rehabilitation/maintenance of an asset.

The study completed on the City's roadway network may be used as the basis for achieving their GASB 34 compliance. In the case of Option #1, this study may be used as the basis for the inventory and valuation of the roadway network. For Option #2, once implemented the study recommendations may form the core of the GASB 34 compliance.

For New Port Richey, the Roadway Needs Assessment Report identified nearly 75 miles of roadway in the City and completed a surface inspection of every roadway. The report identified 5 phases of capital improvements to be completed over a five year period which include only a portion of the street network of the City. The costs associated with the capital improvements are derived from the Engineer's Report and are estimated to include both pavement overlay to refurbish road surfaces and in cases where multiple layers have accumulated to an excess thickness or patching and other defects call for milling, the additional process to remove and replace surface materials. These costs have been projected based on current material pricing and the frequency of repaving has been targeted based on an average cycle of twenty years. It is not anticipated that the assessment will generate 100% of the street improvement costs as the City will continue to rely on other revenue sources such as local option gas taxes to supplement the assessment revenues. The Engineer has estimated that an annual allocation of approximately $1,700,000 is a reasonable estimate of the cost to implement a resurface replacement program (the program) using a 20 year cycle to maintain the street network. In recognition that the original local option gas tax distribution to the City allows for street maintenance, the budgeted approximate $425,000 contribution from those funds has been recommended to be applied to the program to lower the annual non-ad valorem assessments to benefiting properties. The reduced annual assessments would total $1,275,000 if the full amount of the original gas tax allocation were to be allocated to the program. A reduced annual assessment will also serve to assure that the benefits assessed do not exceed the benefits received to individual properties within the City. Benefits will also accrue to local school and governmental or public purpose facilities for which the City Council will need to consider the appropriateness of assessing those properties.

V. ALLOCATION METHODOLOGY

The program costs and underlying benefit of a well paved road network provide two distinct types of benefits to the property owners within the City. The first benefit is the positive effect that a well maintained road system has on the value of all real estate parcels that exist within the City. The second benefit of a well maintained road system is in the actual provision of satisfactory trips that occur as a result of the active use of the system by the various types of real properties within the City. The existence of a well paved road network improves the value of all properties within the City irrespective of the frequency of use of the property whether vacant or fully developed. According to F.S. 170.02, the methodology by which valid special assessments are allocated to specifically benefited property must be determined and adopted by the governing body of the City. This authority alone gives the City latitude in determining how special assessments will be allocated to specifically benefited properties. The benefit and assessment allocation rationale recommended in this report is detailed below and provides a mechanism by which the costs, based on a determination of the estimated level of benefit conferred by the program are apportioned to the assessable lands within the City for levy and collection. The recommended assessment allocation methodology includes two components which separately address the two distinct benefits outlined above to be allocated to each property within the City. This method of benefit allocation is based on the benefit received from infrastructure improvements relative to the property's use and size in comparison to other properties within the City.

The allocation of benefits and assessments associated with the street maintenance program are demonstrated on Table 2.

EQUIVALENT ASSESSMENT UNITS (EAU) ALLOCATION:

The Equivalent Assessment Unit Allocation addresses the value enhancement type of benefit described in this report. The attached letter from the Pasco County Property Appraiser to the County Attorney (Exhibit B) included a calculation of the value enhancement to real estate for a newly paved surface (a well maintained road) as opposed to real estate where the road network was not as well maintained. Based on the analysis performed by the Property Appraiser's office, the value enhancement to a single family residence resulting from newly repaved roads in 2002 was $5,000 to $6,000. All assessable land within the city has been evaluated based on the parcel sizes for the various classes of properties within the City. The EAU assessment component has been assigned 50% of the total costs to be assessed annually. This portion of the assessment covers all properties regardless of the state of development on the property. Vacant lots are assessed equally to developed lots as all properties enjoy the benefits of value enhancement. The average lot size for a single family residence in the City if approximately .185 acres. One EAU is .185 acres.

EQUIVALENT RESIDENTIAL UNITS (ERU) ALLOCATION:

The remaining 50% of the total costs to be allocated are assessed based on the frequency of usage attributed to each class of property. To determine the level of relative benefit among properties based on the intensity of use of the City's road

network, this report has relied on the best available data specific to transportation. Average trip generation tables were utilized to establish "equivalent" units of measurement by product type to compare dissimilar development product types. This is accomplished through determining an estimate of the relationship between the product types, based on the transportation activity that is generated by each property class (product type) within the City's transportation network. A discount is applied to commercial properties in recognition of the location of a majority of commercial properties on major arterial roads which are not maintained by the City. As with U.S. Highway 19 and with other commercial arterial roads however, the City anticipates making investments in the transportation network along those corridors to include multi-modal trails and other safety improvements. More importantly however, the City's street network is impacted by the trips generated by commercial activities and the street improvement and maintenance program is intended to address the needs of the system at large and distribute those costs among all properties within the City fairly. The use of equivalent residential assessment unit methodologies is well established throughout the State as a fair and reasonable proxy for estimating the benefit received by properties within an assessment area. This methodology uses the number of daily trips generated by a single family residence to establish a single ERU and assigns ERUs to other classes of properties based on the ratio of adjusted daily trip counts to those of a single family residence. These calculations were developed by the City's Engineering consultant subsequent to their completion of the Engineer's Report. A single family residential unit is assigned 9.52 average daily trips.

Therefore, with the calculated annual assessment amount estimated to be $1,275,000, one half of the assessment or $637,000 is recommended to be generated by an assessment of $36.26 for a single Equivalent Residential Unit (ERU). This ERU assessment is to be leveled on single family residential properties equally with some concessions for non-traditional product types or underdeveloped residential parcels. Vacant lots are not assessed for this portion of the methodology. Commercial, Industrial and other product types are assigned unique ERUs based on the size and intensity of use of those parcels.

VI. DETERMINATION OF THE ASSESSMENT

While the City has asserted that its Home Rule powers, pursuant to State Statutes 125.01 and 166.021, provide the legal basis for the non-ad valorem assessment program for street improvement and maintenance, there is other supplemental statutory authority which this report also considers in the development of the methodology. Florida Statute Chapter 197.3631 provides the non-ad valorem option for the collection of the assessments subject to the agreement of the County Property Appraiser and the County Tax Collector and Chapter 197.3632 establishes the need to provide timely notices and to hold a public hearing.

The logic for "special assessments" that is encased in Chapter 170 of the Florida Statutes is also embraced in the application of the methodology with the caveat that the imposition of the assessments on a "city wide basis" is not considered in this analysis to conflict with the broad concept of 'special benefit'. While past assessments have been

levied of the basis of linking improvements directly to adjacent properties on the basis of front footage, this assessment is being made once again on the benefit of the overall system of transportation improvements owned and/or maintained by the City.

There are three main requirements for valid special assessments under Chapter 170. The first requirement demands that the improvements to benefited properties, for which special assessments are levied, be implemented for an approved and assessable purpose (F.S. 170.01); As a second requirement, special assessments can only be levied on those properties specially benefiting from the improvements (F.S. 170.01). Thirdly, the special assessments allocated to each benefited property cannot exceed the proportional benefit to each parcel (F.S. 170.02).

The City's Street Improvement CIP contains a "system of improvements" including the funding, construction and/or acquisition of roadway improvements all of which are considered to be for an approved and assessable purpose (F.S. 170.01) which satisfies the first requirement for a valid special assessment, as described above. Additionally, the improvements will result in all properties within the Assessment Area receiving a direct and specific benefit, thereby making those properties legally subject to assessments (F.S. 170.01), which satisfies the second requirement, above. Finally, the specific benefit to the properties is equal to or exceeds the cost of the assessments levied on the benefited properties (F.S. 170.02), which satisfies the third requirement, above.

The first requirement for determining the validity a special assessment is plainly demonstrable; eligible improvements are found within the list provided in F.S. 170.01. However, the second and third requirements for a valid special assessment require a more analytical examination. As required by F.S. 170.02, and described in the preceding section entitled "Allocation Methodology," this approach involves identifying and assigning value to specific benefits being conferred upon the various benefitting properties, while confirming the value of these benefits exceed the cost of providing the improvements. These special benefits include, but are not limited to, the added use of the property, added enjoyment of the property and the probability of increased marketability and value of the property.

The determination has been made that the duty to pay the non-ad valorem special assessments is valid based on the special benefits imparted upon the property. These benefits are derived from the resurface and replacement program which will result from the improvements in quality of the transportation system and the value enhancement that will result in a citywide high quality maintenance program.

Property within the City that currently is not, or upon future development, will not be subject to the special assessments include publicly owned (State/County/City/CDD) tax-exempt parcels such as: lift stations, road rights-of-way, waterway management systems, common areas, and certain lands/amenities owned by HOA(s). To the extent it is later determined that a property no longer qualifies for an exemption, assessments will be apportioned and levied based on calculated EAU and ERU factors as established in this report.

Because the City still has undeveloped parcels which may cause the total number of ERUs to vary as time passes, the annual assessment charge for an ERU should be reviewed every 5 years to determine if the level should be adjusted. In addition, fluctuations in material costs as well as changes in best practices should be factored into updates of the assessment methodology. Finally, lands that may become annexed into the City will become assessable upon the annexation.

Exhibit A

I INTRODUCTION

High quality transportation systems are essential to a thriving community. Suburban roadways allow residents to participate in commerce as well as facilitating the transportation of goods to local markets. Roadways are integrated into the fabric of America and their maintenance has become a significant responsibility of local government. In response to this obligation, the engineering community has developed pavement management systems to assist decision makers in finding optimum strategies for providing, evaluating, and maintaining pavements in a serviceable condition over a period of time.

The purpose of this Roadway Needs Assessment Report is to identify the general condition of the approximately 70 miles of paved roadways owned and maintained by the City of New Port Richey (City). The 5.2 miles of right-of-way without paved roads were omitted from this study. As indicated in the project Task Order, limitations in both schedule and budget mandated that the assessment be based on visual observations and is not an exhaustive analysis utilizing field measurements and empirical data collection.

It is understood that the City will utilize this report for:

- Updating the Geographic Information System (GIS) database
- Making decisions regarding funding / assessing roadway improvements
- Prioritizing roadway maintenance / improvement projects

II METHODOLOGY

Figure 1 - Typical Roadway Grade 8 (Grand Blvd.)

The methodology employed for this evaluation was based on the Pavement Surface Evaluation and Rating (PASER) system developed by the Transportation Information System of the University of Wisconsin – Madison. The PASER system was developed as an alternative to empirical data intensive models to provide local agencies a simplified rating system focused on surface condition with which to evaluate their roads. PASER uses visual inspection to evaluate pavement surface conditions and rates the condition on a ten-point scale. The PASER manual provides photographic standards that serve as guides to identify both the distresses as well as the numerical rating (ten-point scale). A copy of the PASER manual is provided in **Appendix A.**

There are four major categories of common asphalt pavement surface distress:

- Surface Defects – Raveling, Flushing, Polishing
- Surface Deformation – Rutting, Distortion (rippling & shoving), Settling
- Cracks – Transverse, Reflection, Slippage, Longitudinal, Block, and Alligator
- Patches and Potholes

Figure 2 - Typical roadway grade 2 (Queens Ln.)

III OBSERVATIONS

The field work was conducted over several days beginning in December 2014. The City was broken into a matrix that allowed the entire city to be depicted on a series of letter size aerial photographs (200 scale) that were provided to field personal in a binder with blank data entry forms to allow field observations to be manually recorded for each street segment evaluated. The field data sheets have been included in **Appendix G**.

As expected, very few roads were graded at the extreme ends of the continuum (either 'failed' or 'excellent'). Over 80% of the paved streets were rated between 6 and 8. Only 6% of the paved roadways within the City rated below 6. Although roadway segments were broken down to segments as small as a block, field personnel did note that there are several instances where a segment was punctuated by a relatively small strip that was completely inconsistent with the rating of the adjacent pavement. In these instances, the rating of the overall segment was based on the prevailing portion.

The Roadway Rating Map (**Appendix B**) was created to provide a graphical representation of the current pavement conditions. In order to simplify use of this map, the data was grouped using statistical break lines into four discrete groups. The first group includes the poorest rated roads (grades 1 – 4); the last group combines the highest rated segments (grades 8-10); the remaining segments are distributed throughout the remaining two groups.

IV PAVEMENT MANAGEMENT

Pavement management is the science of conducting periodic pavement restoration in order to maintain the driving surface in an acceptable condition. The service life of the asphaltic pavement is largely a function of the number of trips traveled (ESAL – Equivalent Single Axle Load), the Structural Number of the pavement section, and the impact of environmental factors like high ground water or frequent flooding. As the roadway segment ages the ride quality deteriorates at a faster and faster rate. The Federal Highway Administration (FHWA) graphic shown in Figure 3 depicts both this rate of deterioration as well as the life-cycle impact of frequent 'preventative' maintenance and less frequent 'rehabilitation' maintenance. The graphic in Figure 4 provides a generalized financial comparison between preventive and rehabilitative maintenance.

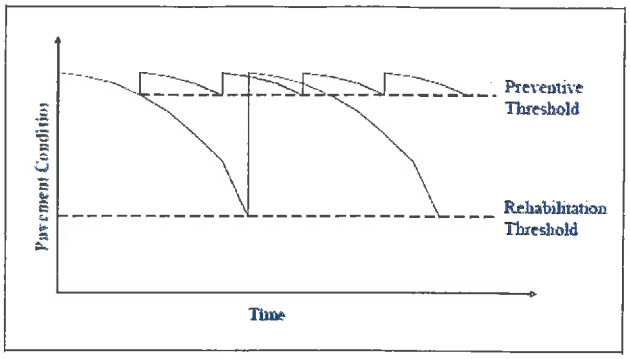

Figure 3 - Time vs. Ride Quality

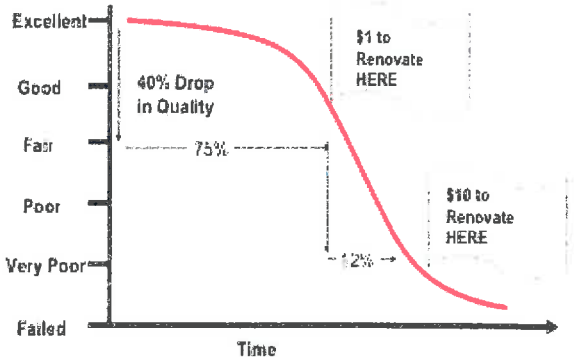

Figure 4 - Time vs. Maintenance Cost

V SIDEWALKS

While Genesis did not evaluate the existing sidewalk inventory as part of this task order, we had the opportunity to work with City staff to consolidate the data collected by the City. The GIS shape files provided by the City includes both location of existing sidewalk within the public roadway network as well as existing sidewalk width. This information was supplimented in April 2015 by City staff who evaluated the current condition of the sidewalk. Exhibits depicting both the extents and quality rating of the existing sidwalk network are included in **Appendix C**.

VI CONCLUSIONS / RECOMMENDATIONS

The City has a considerable inventory of roadways requiring deferred maintenance. Based on a projected annual maintenance budget of $1 million dollars, it will take several maintenance

cycles in order to service the City's entire roadway inventory. That being said, the quantity of poorly rated road segments is relatively small and can be addressed during the first few maintenance cycles.

With multiple roadway segments competing for the same maintenance dollar, developing a methodology for prioritizing this maintenance is an important prerequisite to implementing any rehabilitative effort. While the simplest alternative would be to rank the roadways from worst to best, this methodology yields a very low return on investment. Case in point – the City has over five miles of unpaved alleys that were rated zero. Improving these facilities will require full roadway construction that is very expensive and would only benefit a small number of residents.

Alternatively, the list should prioritize roads with higher average daily traffic because it will benefit the greatest number of residents and the number of trips (ESAL) is one of the variables impacting pavement condition. As shown in Figure 4, the active roadways on the steep portion of the curve are degrading at a faster rate than segments at either end of the curve. Therefore, spending money to repair higher volume roads in the 'preventative threshold' is more beneficial to the citizenry than allowing these roads to slip beyond the 'rehabilitation' threshold because funding was directed toward more expensive rehabilitation projects serving a small number of residents.

A) RECOMMENDED ANNUAL MAINTENANCE PLAN

It should be noted, that ongoing small scale pavement repair is a necessary part of every municipalities annual maintenance budget. This work typically includes patching potholes and other similar critical maintenance activities. Many local highway agencies include crack sealing as part of their preventative maintenance program. Cracks up to ¾" wide are either cleaned, sawn, or routed and then sealed to prevent moisture from infiltrating the pavement structure. A successful maintenance program utilizes a multi-pronged approach that begins with repairs that directly improve the ride quality for the motoring public and ends with preventative maintenance that extends the operating life of the roadway system.

B) RECOMMENDED 5 YEAR MAINTENANCE PLAN

Genesis contacted local paving contractors to obtain current unit pricing estimates and developed an Opinion of Probable Construction Cost for a square yard of pavement based on a series of factors that include pavement condition rating, as well as the need for milling. The unit cost estimate for very poorly rated roads include significant removal and replacement of base / asphalt while the cost of more highly rated roadway segments include only small quantities of patching, leveling, and a 1.5-inch thick overlay. The spreadsheet showing these calculations is included in **Appendix D** for your review.

It should be noted that the unit cost value was developed using the best available information in a very dynamic market and is not a substitute for hard bids of detailed construction drawings. In order to account for anticipated inflation that may occur between the drafting of this report and the actual construction, Genesis consulted the FDOT Transportation Costs Reports (**Appendix D**) and applied 'Inflation Factors' to the future year maintenance plan budgets.

The following suggested maintenance plan is based primarily on roadway condition, but also considers:

- Prioritizing projects near the Preventative Threshold with high traffic volume.
- Addressing similarly rated roadways in close geographic proximity to minimize costs associated with project mobilization.
- Extending project limits to a 'logical terminus' even though segments within the project may be ranked differently.
- Balancing anticipated maintenance cost and projected maintenance budget (i.e. blending large segments and small segments to balance the budget)

The associated costs anticipated for each segment as well as graphical exhibits showing each work cycle can be found in **Appendix E**.

CYCLE ONE

SEGMENT	NAME	RATING	LENGTH (FT)
1	Congress (Massachusetts to Louisiana)	3,5,6	5,900
2	Orchid Lake (Congress to Gabriel)	3,6	1,900
3	Evies Way	4	415
4	Francine Drive	4	310
5	Rutillio Court	4	650
6	Ferguson Court	4,5	260
7	Grant Ave.	2	340
8	Drinkard Drive	5	550
9	Senate Lane	4	430

CYCLE TWO

SEGMENT	NAME	RATING	LENGTH (FT)
1	Adams (Tennessee Ave. to Louisiana Ave.)	3	575
2	Dailey Lane	5	750
3	Crest Drive (Water to Grand)	5	480
4	Char Lane	5	1,210
5	Gulf Drive (US 19 to Grand)	7	2,500
6	Gulf Drive (Charlotte to Van Doren Ave.)	5	350
7	Tennessee Ave. (Grand to Monroe)	3,5	1,800
8	Executive Drive	5	1,040
9	Main Street (Southtown to US 19)	5	885
10	Lincoln Street (Montana to Missouri)	6	450
11	Azalea Drive (Marine Pkwy. To Foster Blvd.)	4,6,7	1,825

CYCLE THREE

SEGMENT	NAME	RATING	LENGTH (FT)
1	Wyoming Ave. (Rio to Van Buren)	5,6	4,300
2	Main Street (Grand Blvd. to Harrison St.)	6	3,225

CYCLE FOUR

SEGMENT	NAME	RATING	LENGTH (FT)
1	Grand Blvd. (Mass. Ave. to Virginia Ave.)	6	1,875
2	Main Street (River Rd. to Grand Blvd.)	5,6	1,425
3	Louisiana Ave (Rio to Grand)	5	1,250
4	Rio (Illinois to Louisiana)	5,7	1,475
5	Riverview Drive (Rio/Louisiana to Grand)	5	1,475
6	Oakridge Ave. (Riverview to Grand)	6	750
7	Madison Street (Nebraska to Louisiana)	6,7	2,750

CYCLE FIVE

SEGMENT	NAME	RATING	LENGTH (FT)
1	Main Street (US 19 to River Rd.)	6	1,050
2	Massachusetts (Grand to Davis St.)	6	3,560
4	Kentucky Ave. (Forest Ave. to Davis St.)	6	1,350
5	Kentucky Ave. (Congress to Hills Dr.)	6,7	975
6	Kentucky Ave. (Hills Dr. to Hills Dr.)	7	925
7	William Tell Dr.	6	575

Exhibit B

Mike Wells
Pasco County Property Appraiser

14236 6th Street, Ste. 101, Dade City, FL 33523
Phone: (352) 521-4433 (Dade City)
(813) 929-1260 (Land O' Lakes)
(727) 847-8151 (New Port Richey)
Fax: (352) 521-4411/(813) 929-1284/(727) 847-8013
Please reply to: Post Office Box 401, Dade City, FL 33526-0401

February 20, 2002

Mr. Robert Sumner
Pasco County Attorney
7530 Little Road
New Port Richey, FL 34654-5598

Dear Mr. Sumner:

You asked if it would be possible to quantify the effects that paving may have on property values. This question was extended to include those properties that while not actually fronting on newly paved surfaces may benefit due to ingress and egress patterns. In trying to answer your questions, the entire county paving and repaving projects for 1999, 2000, and 2001 were requested. In reviewing the information received, it became apparent that the amount of actual work was limited and thusly the amount of actual market determined data was limited. However even with the limitations, a multiple regression analysis was conducted and the outline and results follow:

Neighborhood 1:

Basic model employed:

SP = k + AMS + TS + AYS + Dummy Paved

Where:

SP	=	Sale price as indicated by purchased documentary stamps on recorded deeds
K	=	Constant returned by model
AMS	=	Age of sale in months
TS	=	Total adjusted area of structure
AYS	=	Age of structure in years
Dummy Paved	=	Was road surface that property fronts paved or resurfaced 1 = yes, 0 = no

In this neighborhood there were only parcels that enjoyed the repaving and those that did not. The secondary benefit from ingress or egress while not fronting on a resurfaced street did not exist. The indicated benefit was is $5,653 per home or about 3.9 percent of market value.

Neighborhood 2:
Basic model employed:

SP = k + AMS + TS + AYS + Dummy Paved + Dummy TS
Where:

SP	=	Sale price as indicated by purchased documentary stamps on recorded deeds
K	=	Constant returned by model
AMS	=	Age of sale in months
TS	=	Total adjusted area of structure
AYS	=	Age of structure in years
Dummy Paved	=	Was road surface that property fronts paved or resurfaced 1 = yes, 0 = no
Dummy TS	=	Was road work completed prior to the sale date 1 = yes, 0 = no

In this neighborhood there were both parcels that enjoyed repaving frontage and those used repaved ingress and egress. Interestingly when the parcel fronted on resurfaced road and the paving work was complete at the time of sale (a condition that is analogous to having resurfaced frontage in neighborhood 1), the value enhancement was $5,874 or 15 percent. The value enhancement of non-frontage but ingress and egress benefit is $1,569 or about 26 percent of the total benefit.

This analysis, while in my opinion statistically sound, relies on two neighborhoods to measure the effects of paving on value. Still, a reasonable mind should conclude that $5,000 to $6,000 is reasonable price to pay for a well-paved road. Likewise, it is reasonable to conclude that passage on a paved road increases value at a lesser rate than paved road frontage, making the $1,500 seem reasonable.

If you have any questions please feel free to contact me.

Sincerely,

Wade Barber
Chief Deputy Property Appraiser

WB/caa