Maintenance of Paved & Unpaved Roads in Alachua County

Written by: Wm. David Cerlanek
            Christopher M. Zeigler
            Sylvia E. Torres

August 23, 2006
EXECUTIVE SUMMARY

This report is a synthesis of research performed by staff comparing the benefits and liabilities of paved and unpaved roads in Alachua County, discussing such issues as environmental impacts, public health, safety, quality of life, and maintenance. Research of local files indicates that throughout the 1970’s and 80’s Alachua County had a road improvement and right-of-way acquisition program. This program continued through the 1990’s until the present even though it was no longer funded after 1989.

Alachua County currently has 239 miles of unpaved roads. Commissioners, citizens and staff have raised health, safety, quality of life, maintenance and localized environmental issues regarding these roads. There exist surface treatments, alternative to traditional paving (e.g. sand seal, chip seal, open-graded cold pave asphalt and hot mix asphalt), which can address many of these issues.

Other Florida counties have addressed these issues by instituting unpaved road treatment programs. These programs differ in the kinds of treatments that they apply, the funding sources they employ, and the methodology they use for prioritization.

Not all County-maintained roads are appropriate for alternative surface treatments. Prioritization of unpaved roads in Alachua County should consider factors such as traffic volumes, public health, life-cycle cost, environmental impacts, roadway functional classifications, available right-of-way, and citizen interest.

Five local roads are good representative examples of unpaved roads that could benefit from alternative surface treatments: NW 227th Drive, SW 95th Avenue, NW 46th Avenue, and SW 79th Avenue. These roads have been brought to the attention of Commissioners and staff and meet some of the factors listed above.

After this review of unpaved roads issues in Alachua County, staff recommends that the County Commissioners revise their current policy to allow the Public Works Department to apply these alternative surface treatments on selected unpaved roads to promote the health, safety and quality of life of our residents as well as lower the overall maintenance costs of unpaved roads. The roads selected for treatment should be ranked based on a methodology that includes, but is not limited to: life-cycle cost, safety, environment, traffic volumes, public health, roadway functional classification, available right-of-way, and citizen interest.
**TABLE OF CONTENTS**

I. Introduction ................................................................. 4

II. History of Road Improvements & Right-of-way Acquisition ................. 4

III. Current Issues ............................................................ 5
     - Public Health ......................................................... 5
     - Safety .............................................................. 6
     - Quality of Life .................................................... 6
     - Maintenance ......................................................... 7
     - Localized Environmental Impacts ................................. 7

IV. Alternative Surface Treatments ............................................ 8
    - Sand Seal ............................................................ 8
    - Chip Seal ........................................................... 8
    - Open-graded Cold Pave Asphalt .................................. 8
    - Hot Mix Asphalt ................................................... 9

V. Other Florida County Road Surface Treatment Programs .................... 9

VI. Methodology for Prioritizing Surface Treatment Projects .................. 10

VII. Representative Local Road Examples .................................... 10

VIII. Conclusions and Recommendations ...................................... 12

     Appendix A: Right-of-Way Acquisition Letters .......................... 14

Appendix B: Letters from Residence .......................................... 23

Appendix C: Surface Treatment Cost Analysis .................................. 30
I. Introduction

The subject of County-maintained unpaved roads has been a topic for discussion for many years. Through the years, Commissioners, citizens and staff have expressed concerns about specific issues relating to unpaved roads. This report is a synthesis of research performed by staff comparing the benefits and liabilities of paved and unpaved roads in Alachua County. Issues discussed include public health, safety, quality of life, maintenance and localized environmental impacts. This report details:

- a brief history of road improvements and right-of-way acquisition,
- a review of the effects of graded roads on health, safety, maintenance and localized environmental impacts,
- a discussion regarding some possible alternative surface treatments that may be employed,
- a review of some other Florida counties’ unpaved road improvement programs,
- an overview of important characteristics of an effective methodology for prioritizing roads for improvement,
- representative local road example, and
- staff conclusions and recommendation.

II. History of Road Improvements & Right-of-way Acquisition

Through the 1960’s and 70’s, Alachua County developed transportation needs lists as part of the transportation improvement program. These needs lists contained a dirt road paving element. Most years there was a finite amount of money that funded this element of the program. As is often the case, there were more needs than funding, thus a prioritization methodology was established to determine which dirt roads would be allocated resources for paving.

Collector and local unpaved roads were prioritized according to some key criteria: traffic counts, safety, maintenance requirements, land access, continuity, citizen interest and right-of-way. Roads with high traffic counts had priority over roads with low traffic counts. Roads that had a high accident rate or a potential for accidents had priority over roads with a low accident rate or potential. Roads with a high pre-paving maintenance costs had priority over roads with low maintenance costs. Roads with greater access to adjacent lands had priority over roads with lesser access.¹ Roads that connected two paved roads or extended into areas of known growth had priority over roads that did not connect or extend into areas of known growth. Roads that had a high degree of citizen interests for paving had priority over roads with little citizen interest. Roads of which the right-of-way has been held by the County for a long time had priority over roads of which the right-of-way had been held for a short time.

Before a road could be considered for future paving (placed on the prioritization list), the County must first have acquired substantially all of the right-of-way needed for the paving project. Right-of-way was acquired through donation from abutting property owners. It was generally understood that any loss of value to the property owner in

¹ Measured in number of driveways per mile.
donating the land was off-set by the increased value to the remaining property by the improvement of the road. The money available for paving the road would go further if no funds were required for right-of-way acquisition.

County Public Works employees approached owners of property abutting dirt roads with letters explaining possible future road improvements and an executable deed for signing over a portion of their property to the County. In return for that donation, the County agreed to move back or replace fences, shrubbery and mailboxes, to improve the road, and to place the road on the annual transportation improvement program paving list if substantially all of their neighbors also donated right-of-way.

Into the 1980’s and 90’s, the annual transportation improvement needs list continued to be made despite the complete lack of funding for the paving element. Solicitation of right-of-way continued, as well, for the purposes of improving, not paving, dirt roads. Improvements included widening and reshaping the roads and adding limerock and drainage conveyances. In exchange for these donations, County Public Works personnel moved back or replaced fences, shrubbery and mailboxes, and improved the roads. The roads were then placed on the County road network and are currently being maintained by the County through grading, reshaping and adding limerock.

III. Current Issues

The current policy established by the Board of County Commissioners as stated in the Alachua County Guiding Vision:

“The County will not encourage… the paving of dirt streets within the proposed rural reserve areas outside the Urban Cluster. Where dirt streets are paved within the urban cluster, assessment policies should mandate that local residents will bear a proportionate share of the cost.”

In accordance with this policy, Alachua County has not paved a graded road within the last decade, with the exception of NE 132nd Avenue and Westend Estates, which were funded through Special Assessment Districts.

The Public Works Department currently maintains 239 miles of unpaved roads within the unincorporated areas of Alachua County. Most of these roads are classified as local roadways but some are classified as collectors and can carry over 1000 vehicles per day. These unpaved roads create environmental, health, safety and maintenance issues for Alachua County.

Public Health

Another problem created by unpaved roads is the health issues associated with particulate matter. The Environmental Protection Agency associates certain detrimental health conditions with exposure to particulate matter. Studies have shown that children

---

2 Alachua County Board of County Commissioners Guiding Vision, FY 05-06.
and infants are most susceptible to the negative health effect of air pollutants.\textsuperscript{4} People with pre-existing health conditions may also be vulnerable to particulate matter.\textsuperscript{5}

Safety

Unpaved roads are typically considered less safe for motorists than paved roads. One national study showed that 2.3 times more people are killed per vehicle mile of travel on unpaved roads than on paved roads.\textsuperscript{6} These crashes are associated with loss in visibility due to dust and loss of traction due to loose materials.\textsuperscript{7} An analysis of crashes on paved and unpaved roads in Alachua County showed similar results to the national study.

Quality of Life

Residents that live along these unpaved roads frequently express how these roads affect their quality of life. Residents on NW 46\textsuperscript{th} Avenue complained that their vehicles “shimmy due to the potholes knocking the alignment out of kilter”\textsuperscript{8} increasing vehicle maintenance costs. On NW 227\textsuperscript{th} Drive, residents complain that the dust “bellows up in a stifling cloud covering everything along the roadway.”\textsuperscript{9} Residents contend that the dust prevents one from being able “to see thru [sic] it to safely judge the distance and movement of any vehicle you may be following”\textsuperscript{10} and, in one instance on NW 227\textsuperscript{th} Drive, “it was reported that the school bus driver had difficulty driving.”\textsuperscript{11} Stories from the Gainesville Sun cite problems such as “the road rides like a washboard” and “crater-sized potholes turn to ponds with oozing quicksand-like bottoms.”\textsuperscript{12} Some residents “fear that emergency vehicles won’t be able to reach them.”\textsuperscript{13} Ultimately, these residents are concerned about the traffic hazards, health issues and wear on their vehicles. “Were [sic] not asking for the world, just a chance to spend our remaining


\textsuperscript{5} E.g. O’Neill MS, Veves, “Diabetes enhances vulnerability to particulate air pollution-associated impairment in vascular reactivity and endothelial function,” June 7, 2005;111(22):2913-20.


\textsuperscript{8} McCashin, Robert, Letter to the County Commission, April 29, 2003.

\textsuperscript{9} Cox, David M., Letter to Edwin Culpepper, County Engineer, October 20, 1997.

\textsuperscript{10} McCashin, Robert, Letter to County Commission, October 16, 2001.

\textsuperscript{11} Cox, David M., Letter to Edwin Culpepper, County Engineer, October 20, 1997.


years being able to sit out on our porches at nite [sic] and smell the air and not be covered in dust.14

Maintenance

In order to reduce the negative impacts of unpaved roads, the Alachua County Public Works Department performs regular maintenance. This maintenance includes grading roads on at least a monthly basis, adding additional limerock when needed and applying dust control on sections of qualifying roads on a quarterly basis. In accordance with Department operating procedure, the current dust control program requires that a resident live within 50 feet of the graded road and provide documentation of a medical problem that is exacerbated by dust.15 The portion of road directly in front of qualifying applicants’ residence is treated with the dust control product. However, in order to be most effective, the dust control needs to be applied along the entire roadway at a greater frequency than currently. The Public Works Department currently spends $2,000 - $6,000 per year to maintain a mile of unpaved road. These costs vary based on the traffic volumes and increase significantly when the volumes exceed 500 vehicles per day.

Local Environment

Unpaved roads are very susceptible to washouts during heavy rainfall events causing erosion and sedimentation control problems. When a road washes out, the material is sent downstream and can be deposited on privately owned property, environmentally sensitive lands or in natural waterways.

IV. Alternative Surface Treatments

There are several alternative surface treatments that can be applied on most of the existing unpaved roads in Alachua County. These surface treatments include sand seal, chip seal, open-graded cold pave asphalt and hot-mix asphalt. All of these solutions would provide greater relief from the problems addressed in the last section at similar life-cycle costs. It is important to note that these treatments do not meet current regulatory requirements for a paved road as required by the Alachua County Land Development Code;16 therefore, further improvements would be required for any future development to take place.

Sand Seal

Sand seal consists of the application of sand on top of liquid asphalt emulsion. The sand seal would be applied in two layers creating an overall thickness of about ¼"-½". This treatment provides a more stable surface that would be more resistant to potholes and rutting; however, it can only carry a maximum daily volume of 1000

vehicles per day. Construction can be performed by Public Works road crews at an initial cost of approximately $21,000 per mile and the surface would last about five years. Factoring in the routine maintenance, the annual life-cycle cost is $2,800 per mile.

Chip Seal

Chip seal involves the application of ½” granite aggregate on top of liquid asphalt emulsion and is applied in two layers for a total thickness of ¾” – 1”. This surface treatment provides a hard and smooth surface that can serve approximately 3000 vehicles per day for a period of 10-15 years. Like the sand seal, the chip seal can be constructed by Alachua County road crews to reduce construction costs. Initial construction would cost about $53,000 per mile. As a result, the annual life cycle cost is $4,300 per mile including maintenance.

Open-graded Cold Pave Asphalt

Open-graded cold pave asphalt is a mixture of coarse mineral aggregate blended at air temperature with an asphalt emulsion applied in a 2-inch layer. This type of surface treatment can serve up to 5,000 vehicles per day for a period of 15 to 20 years. This process is completed by contract. The initial construction cost is approximately $93,000 per mile and, including maintenance, this treatment results in an annual life cycle cost of $ 6,200 per mile.

Hot Mix Asphalt

Hot mix asphalt is a mixture of hot mineral aggregate blended with a hot asphalt emulsion applied in a 1 ¼ -inch layer. This type of surface treatment can serve up to 10,000 vehicles per day for a period of 15 to 20 years. This surface treatment is the most durable solution; however, it would require the construction of additional stormwater improvements to handle the runoff. Construction can either be completed by County crews or contractors. The initial construction cost is approximately $82,000 per mile resulting in a life-cycle cost of $ 4,700 per mile including maintenance.

V. Other Florida County Road Surface Treatment Programs

Staff researched some other Florida county graded road surface treatment programs. Information was obtained from nine counties that have unpaved road improvement programs: Escambia, Jackson, Hillsborough, Okaloosa, Seminole, Bay, Leon, St. Johns and Martin.

The county programs differ as to the types of materials that they use for treatment, the funding sources that they employ and their prioritization methodology. Jackson, Hillsborough, and St. Johns Counties, by way of example, pave their dirt roads up to county standards. Bay County gives the land owners along the road the choice of whether to use county-standard paving or open-graded cold pave asphalt. Okaloosa and Leon Counties employ cold pave asphalt to stabilize dirt roads in their counties.
Escambia County has employed a variety of treatments including cold pave and hot mix asphalt.

The majority of the counties surveyed choose to employ public funds to improve dirt roads. Hillsborough, Seminole, Leon, and St. Johns Counties fund substantially all of their projects through general fund revenues. Jackson County has set aside $1,000,000 for paving dirt roads and is soliciting funds from the state for help with the remaining costs of the program. Okaloosa County funds its cold mix program through gas taxes while Escambia County funds its program through a one cent local option sales tax.

Bay County, on the other hand, splits the cost of improving unpaved roads with its citizens, 60% / 40% respectfully. The citizens along Bay County dirt roads are given a choice whether to pave their road at a cost of $100-125 per linear foot or to cold pave their road at a cost of $35-45 per linear foot. Finally, Martin County employs special assessment districts for paving private and public dirt roads and bringing them onto the Martin County Roadway Maintenance System.\textsuperscript{17}

These counties also prioritize the projects in different ways. For example, Bay and Martin Counties prioritize the projects on a first-come first serve basis so long as the roads meet all engineering requirements. This is because the paving project is citizen-driven and is paid partially or entirely by the citizens. Seminole and St. John’s Counties follow an informal methodology and prioritize the paving projects based on maintenance costs; paving roads with the highest maintenance costs first. Leon County prioritizes roads based on historical complaints, roadway classification and environmental factors. Okaloosa County conducts an informal road condition assessment that considers traffic volumes, frequency of repair and number of stream crossings. They are currently working on a more formal road condition assessment procedure that will be conducted by a consultant. Future dirt road paving priorities will be determined from this formal assessment. Finally, Jackson and Escambia Counties utilizes the most detailed methodology of those counties surveyed, taking into account traffic volumes, connections to major roadways, number of residents with direct access, school bus route and right-of-way width.

\textbf{VI. Methodology for Prioritizing Surface Treatment Projects}

Not all County-maintained unpaved roads require an alternative surface treatment. In order to determine those roads that would be likely candidates and prioritize them for inclusion in the County’s Transportation Improvement Program, a methodology must be established. The prioritization methodology should be based on the County Commission’s Guiding Vision Statement and the Comprehensive Plan. The methodology should also consider such important characteristics as traffic volumes, public health, life-cycle cost, safety, environment, roadway functional classification, available right-of-way, and citizen interest.

\textbf{Traffic volumes} – Graded limerock roads become maintenance problems once the vehicular traffic volumes approach 500 trips per day. Any further linear increase in traffic volumes beyond 500 trips results in an exponential increase in personnel,

\textsuperscript{17} Martin County has very few miles of unpaved roads (31 miles) on its Roadway Maintenance System. Martin County staff reports that the unpaved roads on the County system serve a very small segment of their population.
equipment, and material costs associated with the maintenance of the roadway. Priority should be given to those roads with higher traffic volumes.

**Public health** – Studies show that particulate matter from dusty roads may be a contributing factor to certain health conditions. Calculations of traffic volumes correlate with public health effects because the amount of particulate matter produced by vehicular travel is directly related to the number of vehicle trips on the roadway. The traffic volumes factor should be weighted to reflect its effect on public health.

**Life-cycle cost** – Any surface treatment considered must provide a reduction in overall life-cycle cost. Projects with lower life-cycle cost should be given higher priority.

**Safety** – Visibility and friction on graded roads have been shown to have an effect on crash rates and fatalities. Those roads having higher crash rates should be given priority.

**Environment** – Erosion and sedimentation from limerock roads have the potential to affect environmentally sensitive area located adjacent to the roadway. Roads that are located near sensitive areas where erosion and sedimentation is the primary environmental concern should be given priority for alternative surface treatments.

**Roadway functional classification** – The County currently maintains 27 miles of unpaved roads that are classified as “Collectors.” These roads should be prioritized ahead of those classified as “Local” since collectors serve a greater population size.

**Available right-of-way** – Priority should be given to those roads where the necessary right-of-way for the improvement has been donated to the County.

**Citizen interest** – As with any improvement, it is important to weigh the desires of the citizens into the decision-making process. Priority should be given to those roadway projects that have citizen support.

### VII. Representative Local Road Examples

This report has, thus far, discussed the impacts of unpaved roads, outlined the costs and benefits of four alternative surface treatments, discussed efforts by other counties to pave dirt roads and outlined a possible methodology for determining which roads should receive priority for an alternative surface treatment. The following examples are five typical local unpaved roads that could benefit from surface treatment.

The first representative example is NW 227th Drive. This road is three miles long and connects NW CR 236 to Old Bellamy Road in High Springs. Approximately 55 residents live along this roadway. As a result of the connectivity of this road and the relatively high local population, the volume on this roadway exceeds 500 vehicles per day. NW 227th Drive also borders O’Leno State Park which is an environmentally sensitive area. Citizens have expressed their interest in having the road paved by donating sufficient right-of-way in the 1980’s and 1990’s and attempting on more than one occasion to form a special assessment district for the purpose of paving the road. These residents often comment about the excessive dust and washboarding. As such, this road meets all of the factors described in the above methodology which would make it a good candidate for an alternative surface treatment.

The County grades NW 227th Drive on a two-week cycle and applies dust control on a quarterly basis to approximately 800 feet of roadway. Average annual costs for maintenance of this roadway total $5,400 per mile. If, for example, a chip-seal surface treatment were applied, the average annual life-cycle cost for this road would be $4,300.
per mile, resulting in a savings of approximately $28,000 over the life of the surface treatment. The chip seal would also provide a greater level of service by controlling dust and providing a smoother driving surface. Sand seal may appear, on first blush, to save even more money than chip seal applied to this road but, due to the amount of traffic on the road, a sand seal treatment would most likely suffer premature failure and require additional maintenance.

The second representative example road is SW 95th Avenue. This road has a total length of two miles and the right-of-way has been acquired for the full length. Local citizens have expressed concerns about the excessive dust. This road does not provide connectivity to other major roads and serves less that 1000 trips per day.

The County grades SW 95th Avenue once a month and applies dust control on a quarterly basis to an 800 foot segment of the roadway. The overall annual maintenance cost is $3,800. A sand seal treatment could be applied to this roadway at an annual life-cycle cost of $2,800, resulting in an overall maintenance cost reduction of $7,000 over the life of the treatment. This treatment would also provide a higher level of service by controlling dust.

The third representative example roadway is NW 46th Avenue. This road provides access to approximately 65 residents, Santa Fe Community College researchers. NW 46th Avenue serves moderate traffic volumes, including larger vehicles (trucks & school buses). The residents along this roadway have long complained about the dust creating significant health and safety problems. Local citizens have expressed an interest in paving this road, donating right-of-way. The unpaved portion of this road does not provide connectivity to other major roads.

The County grades NW 46th Avenue once a month and applies dust control on a quarterly basis to approximately 600 feet of roadway, with a total maintenance cost of $5,600 per year. However, from the comments received by the residents, it appears that this is not effective enough. This roadway could be treated with a chip-seal application with an annual life-cycle cost of $4,300 per mile. This chip-seal treatment is the most durable surface treatment that will still lower the maintenance cost over the life cycle of the treatment. An application of chip-seal treatment on NW 46th Avenue would result in an annual savings of $1,300 per mile and would address the many concerns of these residents.

The fourth representative example roadway is SW 79th Avenue. SW 79th Avenue is a local graded road that is one mile long. The County receives numerous complaints from the residents along this roadway in relation to the amount of dust which creates sight safety and health issues. This road does not provide connectivity to other major roadways. All of the necessary right-of-way for SW 79th Avenue is currently owned by the County.

The County grades SW 79th Avenue once a month and applies dust control on a quarterly basis to approximately 250 feet of roadway. This maintenance regimen costs $4,100 per mile, annually. As a result, this road would be an ideal candidate for a sand seal of surface treatment which would cost $2,800 per mile for a savings of $1,300 per year. Alternatively, a chip seal treatment could be applied. This treatment would result in slightly increased cost of $200 per year but would substantially increase the level of service.

The final representative example roadway is SW 85th Avenue. SW 85th Avenue is a collector graded road that runs about 1.8 miles between Williston Road and SW 75th
Street. All of the necessary right-of-way for SW 85th Avenue is currently owned by the County. Though there is only negligible citizen interest in paving this road, there is much county-wide interest in that the road plays a role in the future traffic circulation map.

The County grades SW 85th Avenue once a month. This maintenance regimen costs $4,200 per mile, annually. Due to the connectivity issues, this road would be an ideal candidate for hot mix asphalt costing about $8,400 for the entire road per year. Though this is not a life-cycle cost saving choice, this type of surface treatment will greatly increase safety and traffic capacity for this collector, cut-through road.

Of course, not all of the graded roads in Alachua County would benefit from an alternative surface treatment. The roads that are not candidates for surface treatment are very short in length, serve very few residents, have minimal maintenance costs and meet very few, if any, of the factors in the proposed methodology.

VIII. Conclusions and Recommendations

There has been a long history of right-of-way acquisition in Alachua County that dates back to at least the 1960’s. In most cases, the written record reflects that the County’s intent was to improve the roadway by widening the driveway surface, adding materials and improving drainage systems for the purposes of paving the road at some time in the future when the need arose and funds became available. Unfortunately, these funds never became available because priorities were shifted away from paving graded roads. Subsequently, the County adopted the current policy of funding the paving of graded roads solely through Special Assessment Districts.

Currently, the County continues to maintain 239 miles of graded roads at the cost of $2,000 - $6,000 per mile. These roads are graded and maintained every two to four weeks and dust control is applied in key areas on a quarterly basis; however, this maintenance regimen is still ineffective as potholes, washboarding and dust create health, safety and quality of life issues for the residents. Washouts after heavy rainfall events can block emergency vehicle access and create sedimentation control problems. By comparison, the surface treatments discussed in this report can prevent the distribution of particulate matter into the surrounding environment, reduce the likelihood of washouts and provide a smooth, safe and durable driving surface. The annual life cycle cost of these treatments is $2,800 – $6,200. Proper selection and use of these treatments can result in an annual maintenance cost savings to the County of approximately $2,000 per mile while increasing the overall level of service provided to the citizens.

Therefore, staff recommends that the Alachua County Board of County Commissioners revise the current policy to allow the Public Works Department to apply these alternative surface treatments on selected graded roads to promote the health, safety and quality of life of our residents. The roads selected for treatment should be ranked based on a methodology that includes, but is not limited to: life-cycle cost, safety, environment, traffic volumes, public health, roadway functional classification, available right-of-way, and citizen interest.
Appendix A

Right-of-way Acquisition Letters
August 13, 1963

A copy of this form letter was attached to each of the right of way deeds sent to the property owners on NW-36.

Dear

We are enclosing a deed for right of way on the above referenced road. We understand that the majority of the residents desire that the road be substantially improved as a county graded road.

The Board of County Commissioners has authorized the improvements provided the necessary right of way can be obtained by donation. The county will move the existing fences to the new right of way where the fences can be moved economically and satisfactorily. If the fences are of such condition that they cannot be moved, the county will furnish the necessary labor to rebuild the fences provided the property owners furnish the wire and posts.

The deed must be signed in the presence of two witnesses and before a notary public. The improvements will be started as soon as all of the deeds are received and the project comes up on our work schedule.

Yours very truly,

R. J. Miller
County Engineer

RJN: gac
Enc.
March 2, 1965

Mr. Sam Kelly
Loncala Phosphate Company
High Springs, Florida

Dear Mr. Kelly:

Proposed County Road NN-36

The Board of County Commissioners has agreed to construct a county graded road beginning at US 41 and running westerly along the south line of Sections 16, 17 and 18, T9S, R19E provided the property owners donate the required right of way necessary for road construction. Mrs. Arthur McGehee has discussed the road with you, and we have been advised by Mrs. McGehee that your firm is willing to donate the right of way provided the county will install a fence along the right of way line across your property and provide you with an approximate completion date for the construction of the road.

All of the right of way deeds on the road have been received by the County Road Department with the exception of the deed from Loncala Phosphate Company. If Loncala will donate the required right of way, Alachua County will erect a four-strand barbed wire fence across your property abutting the proposed road.

It is very difficult for us to give an exact date for completion of a project, because we have to maintain approximately 800 miles of existing roads. However, it is the intention of the Board to construct the road, if the right of way is available, as soon as it can be scheduled in our work program. We believe we could have the road completed within a year from this date, but weather conditions and existing road construction in progress could prevent this from becoming an accomplished fact.
October 2, 1980

Theodore H. Lavit and Economics and Education Institute, Inc.
One Court Square
Lebanon, Kentucky, 40033

Dear Sirs,

The Alachua County Engineering Department is planning a road improvement project for Southwest 19th Avenue in Gainesville, Fla. The project will involve acquiring a 60.00 foot right-of-way, clearing and grading, and finally paving with asphalt. It will extend from Southwest 34th Street to the West Boundary of your property.

Enclosed is a map with our additional right-of-way requirements identified in green and labeled as Parcel # 5. Also we have enclosed a Warranty Deed, covering the area colored in green only which conveys that parcel to Alachua County. This deed was reviewed and approved by Alachua County's Legal Staff.

The County has a policy of acquiring right-of-way by donation which allows us to place considerably more money into actual construction. We trust that you can realize the advantages of donating the right-of-way for this road improvement project.

Please direct any questions to Joe McKenzie at (904) 372-8110.

Sincerely yours,

[Signature]

Edwin E. Culpepper, P.E.
James Woodrow and Brenda Louise Sullivan
7117 SW Archer Road, #2802
Gainesville, Florida 32602

Ref: County Road SE-10

Dear Mr. and Mrs. Sullivan:

The Alachua County Public Works Department, with the cooperation of Marion County, desires to improve the roadway and drainage facilities along Alachua County Road SE 10 between I-75 and US 441. These improvements, however, cannot be accomplished within the existing right-of-way width in several locations. The minimum required width needed for the improvements is one hundred feet or fifty feet each side of the proposed road centerline. Your property lies adjacent to the roadway in a location with less than the above mentioned minimum width. Although your property lies within Marion County, the Alachua County Public Works Department is coordinating all right-of-way efforts on this project.

We request that you donate to Marion County the portion of your property indicated in red on the attached map. This area represents the fifty-foot minimum right-of-way width needed for our proposed improvements. Enclosed is a right-of-way deed covering that portion needed and for your convenience attached to the deed is instructions for executing the deed. Please return the deed in the enclosed self addressed envelope.

In return for your donation, the County will relocate your fence and any gates back to the new right-of-way line, relocate any driveway drainage culverts and relocate any moveable shrubs you may have within the donated area.

We look forward to hearing from you in the near future concerning this most important project. Should you have any questions, please contact Mr. Tom Holmes, or Mr. Pete Coon of this office.

Sincerely,

Edwin E. Culpepper, P.E.

Enclosures
May 7, 1985

Mr. Ernest Denton
Rt. 2, Box 708
Micanopy, Florida 32667

Dear Mr. Denton:

Alachua County is presently trying to acquire the remaining right-of-way on County Road SE 10, also known as County Line Road. When all right-of-way has been acquired, the County will proceed to clear, grade, and stabilize this roadway and prepare it for future paving when funds become available.

The County has obtained right-of-way along much of SE 31 which runs North from County Road SE 10 into Micanopy, but, there still remains a small portion of right-of-way left to be acquired. Improvements to this road will be programmed based on available funds. A proposal from property owners for a joint venture on the roadway improvements may be considered favorable and could advance the project in priority. However, the Board of County Commissioners would be the deciding factor for this type of arrangement.

If you have further need of assistance or information, please contact Mr. Pete Coon of this office.

Sincerely,

Aage G. Schroder, P.E.
Acting Public Works Director

AGS:pc
May 6, 1988

Sherry Denney
P. O. Box 358
Newberry, FL 32669

Dear Ms. Denney:

Re: County Road NW 36

Thank you for your recent letter inquiring about County Road NW 36.

You are correct in that Alachua County has had the right-of-way to this road for many years. What we have not had is the necessary funds to pave this road and many others of the approximately 300 miles of dirt roads that we have on the County Road System. County Road NW 36 is ranked #13 out of a list of 28 eligible functionally classified local roads for paving. This list is attached for your information.

I would like to see this road paved along with many others in Alachua County; however, we must consider all of our needs and rank them according to the greatest need. Quite frankly, unless there is a change in funding priorities by the Board of County Commissioners or unless there is some additional revenue from gas taxes, sales taxes, utility taxes, or some other form of revenue, it is my opinion that it will be many, many years before this road is paved. It is not in the current 5-year Transportation Improvement Program for paving, and I do not anticipate that it will be within the next 5-year Transportation Improvement Program.

I appreciate your interest, and if I can answer any further questions for you, please write or call.

Sincerely,

Edwin E. Culpepper, P.E.

Enclosure
PETITION

We, the undersigned, hereby petition the Alachua County Commission to improve County Road NW 11 from County Road 236 to County Road NW 12-E, which abuts our property.

We further agree by our signature to donate the necessary right-of-way totaling 40 feet in width to Alachua County at no cost, with the understanding that the improvement schedule will be governed by established priority and as funds become available.

All fences and gates will be relocated to the new right-of-way line by Alachua County. If the fences cannot be relocated, new fences and gates will be installed by Alachua County at no cost to the property owners.

We understand that this road will not be placed on the priority list until all right-of-way have been donated as required for the project.

* The road to be established 40' on either side of the center of the present road.

Marguerite Linch
Florida Conference Association

Loretta Downs
Loretta Downs

Roberta Peterson
Robert Peterson

J.E. Richardson
Loretta Downs

R.E. Summers
Frances Brown

J.E. McEach
Susan Taylor

same as above
same as above

Phyllis Smarts
Alice Marshall

Elizabeth Wing

J.N. Peagin, Jr.
Ann Hill

Rebecca Sapp
Appendix B
Letters from Residents
TO: ALACHUA COUNTY COMMISSIONERS
ENVIROMENTAL PROTECTION AGENCY

DEAR PEOPLE,

WE ARE THE RESIDENTS OF N. W. 46 TH AVENUE NORTH OF NEWBERRY, OFF RTE. 27-41. THIS IS A WIDENED LIME ROCK, NOT SAND, ROAD THAT IS THREE MILES LONG AND IS TWICE AS WIDE AS MOST SAND DIRT ROADS.

THE REASON THAT IT IS TWICE THE SIZE IS DUE TO A DEAL BETWEEN THE COMMISSIONERS OF YORE AND THE FARMERS WHO OWNED THE LAND ADJACENT TO THE NARROWER ROAD. PER THE AGREEMENT, FOR THE DONATION OF THE LAND RUNNING ALONG SIDE OF THE PRESENT ROAD AT THAT TIME, ( APPROXAMATLY 1963 TO 65 ERA ) THAT AT SOMETIME IN THE NEXT 15 YEARS, 46 TH AVE. WOULD BE PAVED AS 46TH AVE S.W. WAS FROM 27-41 TO 337

NOW WE KNOW THAT YOU WERE NOT THE PERSONS IN OFFICE AT THAT TIME IN LIFE, BUT THE COUNTY IS NOW AT LEAST 20 YEARS OR MORE OVER THEIR PROMISED TIME TO ACCOMPLISH THEIR COMMITMENT TO US THE PEOPLE OF 46 TH AVE....

WE HAVE BEEN LIVING AND BREATHING IN THIS DUST FOR A LONGER PERIOD OF TIME THAN AGREED TO. MOST RESIDENTS OF THIS STREET ARE OF THE RETIRED TYPE, LIVING FOR THE CHANCE TO RELAX THEIR LAST YEARS ON A DIRT, DUST FREE STREET, HOWEVER DUE TO THE CEMENT PLANT AND YOUR FIGHTING, THE ROAD HASNT BEEN DONE AND ALL THE TAXES FOR ROADS AND PROPERTY ARE GOING TO THE LAWYERS AND GAINSVILLE PROJECTS. THE RAILROAD DID THEIR STUDY OF THE TRAFFIC ON THIS ROAD AND SAID IT WARRANTED A CROSSING SIGNAL WHICH WAS INSTALLED A LONG TIME AGO.... WERE NOT ASKING FOR THE WORLD, JUST A CHANCE TO SPEND OUR REMAINING YEARS BEING ABLE TO SIT OUT ON OUR PORCHES AT NITE AND SMELL THE AIR AND NOT BE COVERED IN DUST,... IN SHORT ALL WE ASK AND WANT IS TO BE TREATED IN THIS MANNER AS YOU WOULD WANT TO BE TREATED IF WE HERE ON 46 TH AVE, WERE IN YOUR SHOES AND YOU WERE IN OURS.... IS THIS TO MUCH TO ASK ????????

WE NOW ALSO HAVE THE NEW FLA. BAT CAVE AT THE END OR THE
ROAD BRINGING MORE TRAFFIC DOWN OUR ROAD THAN WE ALREADY HAVE ... THIS BELONG TO THE STATE OF FLA. COLLAGE FOR STUDY PURPOSES.....

THAT ALONG WITH THE BUSSES, GARBAGE TRUCKS, ELECTRIC PEOPLE READING THE METERS, TV, CABLE, UPS, AND ALL THE OTHER NUMEROUS TRADES. HOWEVER NO POLICE CARS, EXCEPT THE TWO WHO LIVE DOWN HERE ON OUR ROAD....

IN CLOSING WE WOULD LIKE TO SAY THAT WE ARE NOT ASKING FOR THE WORLD AND ALL ITS SPLENDORS, JUST THE SAME THING YOU WOULD WANT IF WE WERE IN YOUR POSITION AND FOR SOME FREAK NATURE OF FATE YOU LIVED DOWN THIS STREET INSTEAD OF WHERE YOU ARE BECAUSE OF THE POSITION YOUR IN, HERE IN THIS LIFE....

NOT EVERY ONE CAN BE IN OFFICE, PLEASE HANDLE YOUR POSITION AS YOU WOULD WANT ME TO DO IF I WERE THERE..

THANK YOU SINCERELY,

THE 46TH STREET ROAD COMMITTEE

BOB MC CASHIN, COMMITTEE MEMBER

Mr. Robert McCashin
27007 NW 46th Ave
Newberry, FL 32669-2430

352-472-7780
Mr. Edwin E. Culpepper  
Director/County Engineer  
P.O. Box 1188  
Gainesville, FL 32602 - 1188

Dear Mr. Culpepper:

RE: N.W. 227 Drive

I'm writing to advise you of the pathetic condition of this unpaved roadway in north unincorporated Alachua County. According to my record, during the period 1/1/97 thru 10/16/97 a grader has been on the road forty-one (41) times. The road surface has been scraped down to hard rock with potholes and soft sand spots in other places. High dirt embankments exist where graded material has been piled. In dry weather the sand bellowes up in a stifling cloud covering everything along the roadway as vehicles pass. Last week it was reported that the school bus driver had difficulty driving on this roadway. With the wear on our vehicles, the traffic hazards, and health concerns due to the road condition, it doesn't seem to be an unreasonable request to have significant work done on this roadway before a fatality occurs.

Efforts to obtain the right-of-way in order to pave this road date back to 1983 (14 years). On August 28, 1989 a public meeting was scheduled for the property owners to review the right-of-way needs. In February, 1996 you and J.W. Coleman discussed efforts to contact property owners to acquire the remaining ROW. With the help of Mr. R.W. Wigglesworth I was able to acquire additional ROW donations. At present, to my knowledge, five (5) property owners refuse to sign.

With this roadway now at a critical stage and past maintenance efforts no longer effective, rather than to continue to incur costs with marginal results, it seems other options should be explored. I'm certain creative solutions can be found. The courtesy of your reply will be appreciated.

Sincerely,

David M. Cox

R.W. Wigglesworth
DEAR PEOPLE

DON’T YOU THINK ITS ABOUT TIME YOU GET YOUR HEADS OUT OF THE PERVERBIAL AND GET WITH WHAT YOU WERE ELECTED FOR.... TOWORK FOR THE BEST FOR ALL PEOPLE IN YOUR COUNTY AND NOT JUST THE BIG TOWN INTERESTS.... FIRST OF ALL YOU SPEND MONEY LIKE A RICH MILLIONARE KID AND THEN WORRY HOW YOU WILL PAY FOR IT.......SECOND YOU ONLY GO WITH THE CITY FORGETTING THAT THE PEOPLE WHO LIVE OUT OF THE CITY WOULD LIKE TO HAVE A FEW GOODIES TOO—LIKE PAVED ROADS THAT CREATE MORE DIRT AND DUST THAN THE CEMENT PLANT THAT YOU HAVE SPEND ENOUGH MONEY ON FOR LAWYERS TO PAVE HALF OF THE COUNTY DIRT ROADS .... IT'S PRETTY BAD WHEN WE HERE IN THE BOONIES AS YOU CALL IT PAY OUR TAXES AND GASOLINE TAXES AND CANT GET NIL FROM YOU AS YOU ARE SPENDING IT ON COURT HOUSES,, HOG CREEKS,, AND YES BICYCLE PATHS FROM ONE END OF THE COUNTY TO THE OTHER

WE ALL LIVE IN THIS COUNTY , THE HIGHEST TAXED ONE IN THE STATE YET YOU ONLY SEE OUT OF ONE EYE THE CITY FREE BUS SERVICE FOR THE GNV. PEOPLE WORKERS WITH THE MONEY FROM THE COUNTY -------BIKE PATH FOR THOSE WHO PAY NO LICENSE FEES AT ALL---- YET MY KIDS DOG HAS TO HAVE ONE AND OH YES EVEN A 3.00 FEE FOR HIS FERRET, BUT NOTHING FOR A BIKER WHO WANTS THE WHOLE ROAD AS IT IS ---THEY BITCH THAT AN 8 FOOT WIDE PATH ISN'T WIDE ENOUGH ... TELL THEM TO DRIVE A CAR ON THE SAME 8 FEET ON 94 TH AVE. WITH BIG TRUCKS.COMMING AT YOU AT 55 MILES PER HOUR

SO IN CLOSING -NO. 1 WONT ANSWER THIS LETTER—NO. 2 —YOU WONT DO ANYTHING WITH THE 40 FOOT WIDE ROAD AT N.W. 46 TH AVE NORTH OF NEWBERRY THO IT HAS MORE TRAFFIC ON IT THAN A LOT OF MAJOR ROADS- PUT IN A COUNTER IF YOU DON'T THINK IM RIGHT —THE RAILROAD PUT IN ELECTRIC GATES BECAUSE THEY CHECKED AND FOUND OUT THERE WAS ENOUGH TO WARRANT THE GATES-----THE LAND THAT 46 TH AVE IS ON WAS DONATED TO THE COUNTY IN THE SIXTYS AS AN AGREEMENT TO PAVE IT WITHIN 15 YEARS--ITS NOW 35 YEARS AND YOU AND YOUR PREDECESSORS STILL HAVN'T HONORED YOUR COMMITMENT . ISN'T IT ABOUT TIME ?????
MAYBE ITS LIKE THE SOCIAL SECURITY SYSTEM AND THE SENATORS ----
MOVE YOU RICHER PEOPLE OUT HERE IN THE OUTSKIRTS, ON A DIRT ROAD AND SEE HOW LONG IT WOULD TAKE FOR YOU TO PAVE IT--------WE ARE TIRED OF BREATHING DIRT AND DUST EVERY DAY AND NOT BEING ABLE TO SEE THE CAR IN FRONT OF YOU OR MAYBE THE SCHOOL BUS WITH YOUR LITTLE ONE ON IT, STOPPED AND HIT FROM BEHIND BECAUSE OF THE POOR TO NONE VISIBILITY CREATED BY THIS CONDITION--------GUESS IT WILL TAKE A DEATH OF A LITTLE ONE PLAYING BEFORE YOU WILL FIX THE ROADS INSTEAD OF PUTTING PLASTIC ALLIGATORS AND ROUND OUTS AND ANY OTHER HAIR BRAIN IDEAS YOU GET TO SPEND WHAT YOU DON’T HAVE ON--------

WILL WAIT TO HEAR YOUR ANSWERS TO THE ABOVE –BUT FOR THE LIFE OF ME I CAN’T FIGURE OUT WHAT YOU COULD SAY TO WARRANT PLASTIC FIGURES, BIKE PATHS ETC. OVER THE HEALTH AND WELL FARE OF THE VERY PEOPLE WHO PUT YOU IN THAT OFFICE THINKING YOU WOULD WORK FOR ALL THE PEOPLE AND NOT JUST THE RICH., THE CITY., AND COLLEGE PEOPLE WHO ARE HERE FOR 4 YRS AND ARE GONE, OVER THE PEOPLE WHO BOUGHT LAND SETTLED DOWN HERE IN ALACHUA COUNTY AND PAID ALL THE IMPACT TAXES, GAS TAXES, AND PROPERTY TAXES TO GET NOTHING IN RETURN.

SINCERELY

ROBERT MCCASHIN

27607 N W 46 TH AVE. NEWBERRY FLA. 32669

MEMBER OF THE ROAD COMMITTEE

1-352-472-7730

Plz Give This Some Thought

The Cyclists Are Using And Demanding Equal Parts Of The Roads -- If You Issued Licenses For 10th Per Cycle Per Year This Could Be Used To Fix, Dirty Dusty Poor Visibility Roads - Starting With 46 Ave North Or Newberry Off By 27-41 - Come See What We Reclaim Cement Plants Can’t Compete With Our Dust
WELL HERE WE ARE AGAIN READY TO MOVE THE DUST ACROSS 46
TH AVE AND FILL THE HOLES INSTEAD OF CUTTING THE HOLES OUT OF THE
ROAD AND MAKE THE SURFACE LAST A LITTLE LONGER THAN YOU JUST
GETTING TO YOUR PARKING SPOT AND YOUR CAR!!!!

IT SURE IS A SORRY JOB BEING DONE OUT HERE WHEN THE HOLES
BLOW OUT THE DUST IN 3-4 DAYS AND WE HAVE TO DRIVE UP AND DOWN THE
NEXT 25 DAYS GOING INTO EVERY POT HOLE ON THE ROAD CAUSE THE JOB
WASNT DONE RIGHT FOR ONCE AND FOR ALL.

LETS SPEND A LITTLE MORE TIME ON THIS PROJECT THIS TIME AND
DO IT RIGHT SO THAT OUR CARS DRIVE ON THE PAVED ROADS LIKE YOURS AND
NOT SHIMMY DUE TO THE POT HOLES KNOCKING THE ALIGNMENT OUT OF
KILTER -------YOU SHOULD HAVE TO DRIVE UP AND DOWN THIS ROAD EVERY
DAY , TRY PARKING THE GRADER AT THE END OF 46 TH AVE. FOR A MONTH OR
TWO AND COME DOWN HERE IN YOUR CAR TO GET IT EVERY DAY ------BET THE
ROAD WOULD GET A LOT MORE ATTENTION THAT ITS GETTING NOW----WITH
THE TRAFFIC THAT IS ON THIS ROAD WE SHOULD BE GRADED AT LEAST TWICE A
MONTH------AFTER ALL WE HAVE 4 TIMES THE TRAFFIC ON THIS ROAD THAT THEY
HAVE ON 94TH AVE-62 ND AVE AND A DOZEN OTHER ROADS THAT DUE TO OUR
POOR COMMISSIONERS SPENDING HABITS HAVE SPENT MORE FOR GNV. AND TO
HELL WITH THE REST OF THE COUNTY—SURE SUCKS PEOPLE HAVE TO LIVE IN
THESE CONDITIONS AND PAY THE HIGHEST TAXES IN THE STATE------THESE ARE
NOT ELECTED OFFICIALS FOR THE PEOPLE, BUT FOR THEIR OWN INTERESTS..
SORRY TO SAY .

SO LETS GET SOMETHING FOR THE PEOPLE , WHO JUST BECAUSE
THEY LIVE IN THE OUTSKIRTS OF GAINESVILLE, GET MOVED TO THE BOTTOM
OF THE FIX IT LIST , TO SUCK UP TO THE RICHER PEOPLE WHO LIVE LIKE
HUMAN BEINGS AND TO HELL WITH THOSE IN THE STICKS SO TO SPEAK BUT BE
SURE TO GET THEIR TAXES SO THE RICH CAN LIVE COMFORTABLE.

COMMITTEE

AS ALWAYS THE 46 TH ROAD
Appendix C
Surface Treatment Cost Analysis
<table>
<thead>
<tr>
<th>Surface Treatment</th>
<th>Vehicular Capacity (ADT)</th>
<th>Life Expectancy</th>
<th>Initial Construction Cost (per mile)</th>
<th>Routine Maintenance Cost (per mile)</th>
<th>Routine Maintenance Frequency</th>
<th>Life-Cycle Annual Cost (per mile)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limerock Only</td>
<td>500</td>
<td>N/A</td>
<td>N/A</td>
<td>$75</td>
<td>2-4 weeks</td>
<td>$1,950</td>
</tr>
<tr>
<td>Dust Control</td>
<td>750</td>
<td>2 months</td>
<td>N/A</td>
<td>$5000</td>
<td>2 months</td>
<td>$30,000</td>
</tr>
<tr>
<td>Sand Seal</td>
<td>1000</td>
<td>5 to 10 years</td>
<td>$20,910</td>
<td>$300</td>
<td>2 years</td>
<td>$2,808</td>
</tr>
<tr>
<td>Chip Seal</td>
<td>2500</td>
<td>10 to 15 years</td>
<td>$53,140</td>
<td>$300</td>
<td>5 years</td>
<td>$4,256</td>
</tr>
<tr>
<td>Open-graded Cold Pave</td>
<td>3000</td>
<td>20 years</td>
<td>$92,990</td>
<td>$300</td>
<td>10 years</td>
<td>$6,201</td>
</tr>
<tr>
<td>Hot mix Asphalt</td>
<td>10000</td>
<td>20 years</td>
<td>$81,990</td>
<td>$300</td>
<td>10 years</td>
<td>$4,686</td>
</tr>
</tbody>
</table>