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November 13, 2009

Amee Bailey  
Polk County Long Range Planning Division  
330 W. Church St.  
P.O. Box 9005, Drawer TS05  
Bartow, FL 33831-9005

**Re: Polk County DCA No. 09-2, CPA 09B-4  
DCA ORC Report Responses for DCA Compliance Review  
Final Response (11/13/09)**

Dear Ms. Bailey:

Please see below responses regarding the Mims Alifia, LLC, Project #54056.

**B. MAP AMENDMENT CPA 09B-04**

The amendment will change 314 acres from phosphate Mining (0.75 FAR) to Industrial use (FAR 0.50 in the RDA) for 300 acres, and Business Park Use for 14.4 acres (FAR 0.35). The Department has identified the following objections to the amendment:

**3. Urban Sprawl and Energy Efficient Land Use Patterns**

The amendment could potentially allow more than 7 million square feet of Business Park Center (BPC) and Industrial development within an area that the comprehensive plan has designated as a Rural Development Area. The site is surrounded entirely by lands designated for phosphate mining or agriculture. The BPC land use would allow residential development at a density of up to 15 units/acre on 14.4 acres of the site and could allow as many as 216 residential units. The site is located more than three miles south of the City of Mulberry and is located roughly in the middle of an expanse of land formally mined for phosphate in the Southwestern corner of the County. While the area has already been mined and may eventually transition to some other type of land use, it has not been demonstrated that the proposed land use designation is appropriate for this site at this time.

The amendment does not discourage the proliferation of urban sprawl for various reasons. The amendment would allow urban development to occur in a rural area at a substantial distance from the nearest urban area while failing to adequately protect and conserve natural resources, promotes development in a linear pattern along State Road 37 and Old Highway 37, and fails to provide a clear separation between rural and urban land uses. Also, the area is currently not served by any public water and sewer, and the County does not have plans to serve the site in the near future. The amendment leap-frogs into the rural area and will allow development to occur in a sprawling energy inefficient pattern that will result in greater dependence on automobile use that will not reduce greenhouse gas emissions as required by state law.

### GENERAL INFORMATION

The applicant has decided to remove the BPC parcels and BPC request from the application, with only the 300 acres of the Industrial parcels included. All residential concerns are no longer applicable.

This project is located in an area of the County that is in transition and is subject to change over time due to the existing land use and development activity. Several properties near this site are designated as IND or BPC and an adjoining 50-acre site has recently been assigned Industrial land use. The presence of wetlands and other undevelopable lands within this region give the appearance of "leap-frog" development, yet taking into account only the developable lands indicate otherwise. See Figure 1 labeled, "Surrounding Development Map", showing undevelopable land, existing developed sites, the project site and available developable land.

### SURROUNDING PHOSPHATE (PM) STATUS

The vast majority of the surrounding parcels in this area of the County are currently designated as PM FLUM element. While the applicant recognizes that some of the PM FLUM parcels have been mined and reclaimed and is suitable for transition to other land uses, the majority of the PM FLUM parcels are not suitable for transition to other land uses. The majority of the PM FLUM parcels surrounding the application area should be considered the same as heavy industrial use due to the existing gypsum stacks, the need for future gypsum stack locations, existing chemical plants, water storage and treatment areas, pollution abatement areas, non-mandatory mining, and waste clay disposal areas. The attached Figure 2 "Mandatory Phosphate Mines Reclamation Status", published by the FDEP Bureau of Mining and Minerals Regulation shows the location of 12 gypsum stacks surrounding the application parcels. These 12 locations are all currently zoned PM and currently have or previously had major chemical manufacturing facilities attached to them.

The New Wales Chemical Plant located three miles west of the application parcels is a good example of the current heavy industrial nature of the surrounding PM land uses. This complex covers over 3,600 acres, all zoned PM. The only foreseeable changes to the current land use are expansions of gypsum disposal areas and water storage areas.

The Mosaic-Farmland Chemical Plant and the CF Industries Chemical Plant located three miles to the east of the application parcels are both within PM FLUM areas. Together these two plants and the associated gypsum stacks, water storage and treatment areas, and lands reserved for future gypsum stack expansion cover more than 6,200 acres of PM FLUM area. The heavy investment in constructing, operating, and maintaining these chemical plant complexes would preclude a transition of these areas into other FLUM land uses.

The application parcels are located near the geographic center of the 12 gypsum stacks noted on the FDEP map. At one time there were also several beneficiation plants that refined raw phosphate ore and shipped it to the 12 surrounding chemical plants. These beneficiation plants and mines included the Achen Mine, Bonnie Mine, Holmes Mine, and American Agricultural Chemical Mine segregated out the clays, sands, and non-useable materials and shipped ore to the various chemical plants by a rail system. The beneficiation plants shut down as the ore was depleted but the rail, roadway, and electrical transmission system established to serve the mines and plants remains in place. This application takes advantage of those public utilities and infrastructure that were constructed to support that portion of the phosphate mining, which has moved south.

The chemical processing portion of the phosphate industry continues to be located in and around the application area. The IND and BPC FLUM parcels located adjacent to the application area have many businesses located on them that serve the chemical plants and mining operations located in south Polk County and the surrounding Counties. These businesses include Southeast Construction, Scrappy Thomas, Kovacs Brothers, Roseman Electric, and Ring Power Corporation. These businesses located into this area to serve the clients in this area.

#### LINEAR PATTERN / LEAP-FROG RESPONSE

Because State Road 37, Old Highway 37, and the existing 2.8 miles of railroad track along the property run parallel in this area, the lands between the roads are inherently linear. Also, the topography in the general area will dictate linear development along the roadways, with undevelopable lands along the east and west sides. These existing site features are not a result of poor "linear planning" but proper design that utilizes all of the

available developable upland, so that there would be no enclaves created within the project boundary.

As noted previously (due to the existing gypsum stack and chemical plant complexes), taking into account the unsuitable areas and the available areas, which have already been developed, there is very little developable land between the application parcels and the City of Mulberry. Nor are there much developable land between the application parcels and the large chemical complexes to the east and west. Therefore, the application parcels are more of an infill of existing developable land than sprawling or “leap-frogging” over any developable land areas.

#### PREMATURE DEVELOPMENT RESPONSE

There are no mathematical equations or guides within the county’s Comprehensive Plan or the LDC to calculate at what stage an Industrial development is determined to be premature or not; however, there is one section in the County’s LDC pertaining to Suburban Planned Developments that contains a timing guide to evaluate if the proposed SPD district’s development is premature. It states that such timing shall not be considered premature where the existing development of the surrounding area is sixty percent (60%) developed (of developable area) within a two-mile radius for parcels containing 100 or more acres. We applied the above concept to the following calculation, which resulted in the attached Figure 1 labeled “Surrounding Development Map”. In creating the map, the categories listed on the legend are explained in detail below.

Gyp Stack, Chemical Plant, & Monitoring – This includes gyp stacks, chemical plants, water recirculation storage discharge areas, closed gyp stacks and the mobil electro-phos elemental phosphorous plant north of Pebbledale Road.

Not Suitable (Mining Issues) – This includes mined out areas of the north prong floodplain, non-mandatory mined out areas, clay settling areas that will not be reclaimed in the next 20 years, reclaimed areas that are predominantly wetlands and reclaimed settling areas.

FEMA Flood Zone A - Shown on the map are those areas that are entirely FEMA floodplain with no mining ISSUES. These areas have substantial

NWI wetlands on them as well. In any case, this only represents 2% of the Total Land.

Total land (2 mile radius)	=	28.7 square miles
Non-developable area	=	<u>15.0 square miles</u>
Developable area	=	13.7 square miles
Developed land	=	8.5 square miles

Developed land (8.5) / Developable area (13.7) = 62 % Developed

SPD criteria is 60% developed. By this criteria, the project would NOT be considered premature.

### SEPARATION OF USES

Parcels originally requested BPC designation by applicant are located between the IND parcels and adjoining neighborhoods, and have been removed from the request. These buffering parcels provide a distinct separation between the uses.

### RAIL / GREENHOUSE GASES RESPONSE

A major asset regarding the location of this site is the existing rail access and stacking yards. This infrastructure is already in place and usable. Raw materials and products can be transported in or out via rail, which will reduce the need for truck transportation on the roadways, thereby reducing greenhouse gas emissions, not increasing them.

### OTHER

Natural resource protection and conservation issue responses are addressed under the "Site Suitability" Section.

Water and sewer issues responses are addressed under the "Public Facilities" Section.

#### 4. Need

The County has not demonstrated that it needs the additional business park, industrial, and residential uses in order to meet the projected needs of the County during the planning timeframe. According to the County Staff Report, the County is currently over allocated for Industrial and Business Park uses. Based on information provided with the amendment the County will require an additional 6,885 acres of Industrial and Business Park uses over the next 20 years to accommodate growth. The existing allocation of Business Park and Industrial uses within the County is already at 9,203 acres. Thus, a substantial over allocation of Business Park and Industrial uses already exists within the County. Also according information provided with the amendment, the County is also currently over allocated for most residential uses and has not justified the need for the additional 216 residential units associated with the BPC portion of the amendment. According to information provided in the amendment, the County is over allocated for Residential High (845 percent of its 20 year allocation), Residential Medium (1,247 percent) and Residential Low (211 percent). Thus, the County has failed to justify the need for the additional business center, industrial, and residential development proposed for this site.

#### SIGNIFICANCE OF ALLOCATION TABLE

The county's allocation of needs does not differentiate between BPC or IND land uses with rail access and without rail access. The county's methodology of determining need does not take into account that some Industrial needs require a lot of space and others are more compact. Extra available acreage should be acquired in advance to use for economic development purposes. Acreage needs are typically based on population only. Industrial facilities that export goods, especially those with rail access (such as this site) should not be based on population, but on proposed development use. Therefore, it is not a matter of having "too much" available Industrial land.

As presented in the County's EAR Report:

- 1) The county has a pro-active economic development program. In order to be more marketable to potential industrial prospects the County must have a variety of different industrial locations available. If Polk County cannot provide a site to adequately meet the needs of an industrial prospect, that business will go to another community this taking away potential new jobs for Polk County residents.
- 2) The amount of land needed for a particular industrial activity has a broad variance. One type of industrial activity may need 20 acres and employ 200 residents. Another industrial activity may need 200 acres but only employs

20 residents. Without more detailed analysis, a precise amount of industrial land cannot be determined, therefore flexibility is needed.

3) Polk County is very large. There are many different economic regions of the County. These regions vary by labor characteristics, resources, and market accessibility. Each one has different demands for industrial lands. The allocation model needs to allow flexibility so that there is ample variety of choice for a variety of potential industrial prospects in each different economic region.

**CALCULATION OF ALLOCATION TABLE**

Notwithstanding the above, the County previously listed the total number of acres of existing available BPC/IND at 9,203. This does not take into account FEMA acreages. Polk County reviewed the BPC/IND FLU lands throughout the county and determined the following area.

Future Land Use	Current Acreage	Un-Developed	Flood/NWI w/in Un-Developed	Remaining Un-Developed
BPC	11,311	5,192	1,885	3,307
IND	7,069	3,122	1,047	2,075
Combined Total	18,380	8,314	2,932	5,382

Based on current FLU, 2008 developed areas, 2000 FEMA Flood data, and current NWI

After accounting for both NWI wetlands and FEMA mapped floodplains, only 5,382 acres of BPC/IND are currently Remaining/Un-developed. Adding the applicant's 300 acres of IND request would increase the available to 5,682 acres.

$$\frac{5,682 \text{ Acres [Available]}}{6,885 \text{ Acres [Needs]}} = 82\% \text{ of Need}$$

We looked at splitting out the IND from the combined BPC/IND category. Assuming that the current area total of the combined uses is representative, we would have:

$$\frac{\text{Current IND}}{\text{Current Combined}} = \frac{7,069}{18,380} = 38\% \text{ Current}$$

Calculation of % Need:

6,885 of combined Need X 38% = 2,616 Acres of IND needed

Using the 2,075 acres of IND available and adding the 300 acres of IND requested equals 2,375 available IND.

This gives a % of Need Ratio of:

$$\frac{2,375 \text{ Acres [ Available]}}{2,616 \text{ Acres [ Needed]}} = \underline{91\% \text{ of Need}}$$

So, using either a combined BPC/IND or a split IND only, would yield a % Need Ratio substantially below the 100% level, in the range of 80-90%.

#### RAIL ACCESS UNIQUE FEATURE

A unique feature of this site is that it has rail access and substantial rail stacking yards in place. While industrial sites may be near rail, very few of them actually have rail access. Figure 3, "Rail Access Determination Sites" was utilized to determine which industrial sites in the Southwest Polk County area had rail access and which did not. From the analysis, only 29% of the sites had existing or potential rail access (See Table 1).

We also reviewed the Polk County, Central Florida Development Council's website on Certified Sites to determine what percentage have rail access. Only 22% of the acreage listed for industrial sites are rail accessible (see Table 2).

From the analysis, it could be concluded that only 20-30% of industrial sites in Polk County are accessible by rail. Not only is rail access a unique feature of this site, adding the additional acreage will help satisfy the need in Polk County.



**5. Transportation**

Although the existing land use has a higher FAR than the proposed land use, the misleading in the surrounding land uses are general agricultural or mine reclamation use, and the proposed land use, with more than 7 million square feet of business park and industrial uses, will have significant transportation impacts. The amendment is not supported data and analysis which indicates that adequate roadway capacity is available to serve the project site. According to the County Staff report, the amendment will generate 1,344 additional peak hour trips, exceeding the remaining capacity of the roadway system for SR 37 and Old Highway 37 which have a combined capacity of 1,264 peak hour trips. The amendment will consume all of the available capacity on these facilities, and is likely to cause degradation and LOS failures on both roadways. The site is also in close proximity to a recent 44-acre industrial comprehensive plan amendment (CPA-09A-04) which was part of the County's previous amendment Cycle. The cumulative impacts of both amendments will be greater on the roadway network. The amendment does not identify its impacts on roadways and the planned improvements needed to address any identified roadway failures.

**TRAFFIC CAPACITY / GENERATION RESPONSE**

The original County's staff analysis and capacity figures quoted by DCA, assumed that the subject parcel did not have access to CR 640 due to the proximity of a rail over-pass. Upon a detailed review, we have determined that access to CR 640 is both practical and permissible.

CR 640 should be included in the available capacity is as follows:

<u>Roadway Segment</u>	<u>Direction</u>	<u>Available Capacity</u>
Old Highway 37	South	357
Old Highway 37	North	343
SR 37	South	261
SR 37	North	303
CR 640	East	137
CR 640	West	232
		<b><u>Total 1,633 PPHT Capacity</u></b>

The BPC request has been withdrawn, therefore the 300-acre Industrial property generates only industrial trips.

300 Ac. X 0.5 (FAR) = 150 Ac. X 8.84 PPHT/Ac = 1,326 PPHT Generated

The project would, therefore, not exceed the available capacity for the combined roadway segments.

In addition, all of the parcels included in this project have rail access. The ITE manual for industrial does not differentiate between rail service and non-rail service, therefore yielding a higher trip rate on average. In contrast, the subject property is all served by rail. This project, therefore, would generate measurably less trips than shown above.

#### ADJACENT PROPERTY RESPONSE

Although CPA 09A-04 could add trips to the roadway segments, it is inappropriate to limit the available roadway capacity with the assumption that CPA 09A-04 will actually be developed concurrent with this project. The same could theoretically apply to all parcels located along the road segments in question. A proper analysis would not speculatively include other parcels, which are not part of the application.

Notwithstanding the above, if the other project, CPA 09A-04, is included, the combined properties still would not exceed the available capacity.

Adjoining property = 189 PPHT

Subject property = 1,326 PPHT

Total = 1,515 PPHT < 1,633 PPHT of Available Capacity

The only significant improvements needed by the project would be at the project entrances. The developer normally pays for these improvements. No roadway improvements are planned, nor are needed by this project; as the subject project does not exceed roadway capacity.

## **6. Public Facilities**

The amendment is not supported by data and analysis which indicates that adequate sewer and water capacity are available to serve the project site. The amendment site is located in an area which has been designated in the County Comprehensive Plan as a Rural Development Area (RDA); RDAs generally are not serviced by sewer and water. Any development that occurs as a result of this amendment would be dependent on individual well and septic systems. According to information in the amendment, centralized sewer is not available, or planned for this area in the near future. The site is also located within the Southern Water Use Caution Area and due to increased demands for potable water throughout the County, and lack of growth in the southwest region, the County has no plans to increase potable water or wastewater capacity in the area. Thus, the amendment is not supported by a demonstration of adequate water supplies as well as water and sewer facilities to serve the site.

### **CENTRAL SEWER / SEPTIC TANK IN RDA**

The site is located in the Rural Development Area (RDA). Properties located in the RDA are not required to connect to centralized sewer or potable water. Central sewer is not planned for this area, but potable water is available.

Per Policy 2.108-A3: Land Use Categories: (c) Industrial is a land use category that is permitted within RDA. Clearly, the Comprehensive Plan envisions Industrial projects being constructed without centralized sewer, and therefore being served by private septic systems.

Reinforcing this, POLICY 2.113-A4: DEVELOPMENT CRITERIA: (d) The maximum floor area ratio for non-commercial uses within an Industrial area shall not exceed ... 0.50 in the RDA, unless developed as a Planned Development.

AND (f) Where centralized water or wastewater services are not available, the maximum impervious surface ratio shall be reduced to afford better protection and function of well and septic tank systems.

The Comprehensive Plan not only envisions septic tank usage for Industrial sites, it lists specific reductions in construction intensity to provide stronger environmental protection when septic tanks are proposed.

### **WATER-SEWER CAPACITY / GENERATION RESPONSE**

WATER

Polk County Utilities has a twelve-inch potable water main along the east side of Old Hwy. 37 and adjacent to our site. The nearest water facility is the Bradley Junction Public Water System.

The PC staff report lists the required water use at 1,568,160 gallons per day (gpd). This was arrived at using one specified Industrial type use – Warehouse. The County has broader, more generalized Industrial categories listed on the “Flow Determination Sheet” that would more accurately predict the water demands for the project.

The sheet lists two categories. 1) “ Factory and Industrial Facility”-without showers and without industrial waste, which has a flow of 25 gpd per person; and 2) “Light Industrial” without industrial waste, which has a flow of 15 gpd per person. Averaging the two, gives 20 gpd per person.

A more accurate calculation of the water/sewer needs for the project would utilize these two categories as follows:

Industrial at 300 +/- acres.

Permitted density equals a FAR of 0.5. Or  $0.5 \times 300 \text{ ac} = 150 \text{ ac}$  or 6,534,000 sf.

Estimating the number of Employees per 1000 s.f. of Industrial using similar recently constructed Industrial / rail access sites in Polk County:

<u>Project Name</u>	<u>Bldg. sf</u>	<u># of Employees</u>
Aldi Foods	500,000 sf	80 employees
Cellynne	300,000 sf	200 employees
Griffin Fertilizer Plant	<u>42,000 sf</u>	<u>20 employees</u>
Total	842,000 sf	300 employees

Average equals 0.36 employees per 1,000 sf

Proposed Site:

$6,534,000 \text{ sf} \times 0.36 \text{ emp} / 1000 \text{ sf} = 2,352 \text{ employees.}$

Water Need:

2,352 employees x 20 gpd per employee = 47,040 gpd.

Therefore, at build-out the project could require 47,040 gpd. (Build-out is estimated to take 15 years)

The project could require 47,040 gpd / 15 yrs. or 3,136 gpd per year.

For 5 years that equals a total of 15,680 gpd.

Currently the Bradley Junction Public Water system has 36,000 gpd of uncommitted capacity, operating at 68%, based on the Polk County Capacity Fact Sheet dated 4-1-2009; therefore there are sufficient capacity to serve this project for the initial build-out period.

CENTRALIZED SEWER

Based on the more accurate calculated water demand numbers above, the sewer generation flows could be:

15,680 gpd X 80% = 12,544 gpd.

The design, permitting and construction of individual septic systems, each having only a small portion of the 12,544 gpd, would be possible on this site.

Each industrial facility would be responsible to design and permit their required septic systems accordingly.

## **7. Site Suitability**

The proposed amendment will intensify development on the site which may be incompatible with the environmentally sensitive nature of the site. According to information supplied with the amendment, the site contains man made wetlands which were created as part of the reclamation design for the site. The North Prong Alafia River also runs adjacent to the site. The property owner and County have not conducted a detailed analysis of the site to determine the presence of threatened and endangered species. According to the staff analysis, more than seven biodiversity hotspots have been identified on site. The Florida Fish and Wildlife Conservation Commission has established that there are 11 occurring or potentially occurring listed wildlife species associated with the site. The amendment also indicates that an eagle's nest is known to exist on parcel 1 of the site. Because the County has no plans to service the area with sanitary sewer in the near future, development will be dependent on the use individual on-site septic systems. This may cause degradation of the aquifer and nearby surface waters. Thus it has not been demonstrated that the subject site is suitable for the proposed use. State law requires that land uses be appropriately coordinated with the environmental conditions of the site.

Recent field surveys of the northern parcel, showed that most of the area mapped as "priority wetland" was not. Much of the eastern portion of the site was a pine-palmetto land cover vegetation association and much of the southern portion was cogon, Bermuda grass and smut grass, which are all upland species. There were a few small wetlands in the parcel, a small one near the center of the tract and one along the northern property boundary. Neither appeared to be a quality wetland. Along the southern property boundary there was an area that may be a wetland, but contained nuisance species such as both primrose willow and Mexican primrose willow.

Discussions with FWC staff responsible for generating the comments to DCA, indicated that the "priority wetlands" mapping is conceptual and that field staff had not field truthed the land use cover forms to determine the accuracy of the mapping.

The existing mapped wetlands and floodplains on the surrounding properties seem to be a by-product of the previous phosphate mining activities; they do not appear to be "natural" resources, but man-made clay settling areas. Should it be necessary, the extent of these wetlands can be delineated at a later date prior to Site Plan Review.

The applicant will design the project accordingly, abiding by all jurisdictional regulations and following current permitting requirements as stated in the county's Land Development Code.

Recommendation for objections 2-6

The proposed land use change for Amendment CPA 09B-04 is premature at this time and lacks the planning necessary to help create a viable and compact community. In view of this, the Department recommends that the County not adopt this amendments until such time as adequate public facilities are either in place, or planned to be place so as to prevent leap frog development in rural areas, and the degradation of environmental resources through habitat encroachment and proliferation of onsite sewage disposal systems. Also, the Department supports the County efforts to conduct a selected area study for former phosphate land, which comprises approximately 200,000 acres in the lower southeastern portion of the County. This effort will help determine the best use of the area as a whole, which is preferable to a series of future unplanned and uncoordinated piecemeal amendments to the comprehensive plan.

**Per our analysis, the proposed request is not premature and would create a viable and compact community given the area demographics. Public facilities are not required in this RDA area, nor would it be feasible for the county to run sewer to the site, however adequate water capacity is available.**

**Existing development of actual developable lands in this area are above the 60% thresh-hold and the project site does not "leap-frog" any significant amount of developable land as demonstrated per the urban sprawl analysis.**

**Habitats or environmental resources, if any on-site, will be protected per code.**

**The applicant supports the county's selected area study, however, development within such area is not prohibited, nor halting development due to an ongoing study per previous similar situations is encouraged by the County Commission.**

Should you require additional information or if we may be of further assistance, please do not hesitate to contact our office.

Sincerely,  
DAVID C. CARTER CONSULTING ENGINEERS, LLC



Tracy L. Garcia  
Project Manager

Cc: Client / Team / File