Rowan West Campus, Urban Sprawl and Options for Smart Growth

West Campus Land Use Report

Executive Summary

Rowan University is poised to become the premier educational, cultural and economic hub of the South Jersey region in the 21st century. Over 500 acres of land located along Route 322 and adjacent to Route 55 are under acquisition. However, the success of Rowan's expansion will be largely determined by where and how it expands. This report summarizes a planning review of the Rowan West Campus focusing specifically on the proposed Rowan Technology Center. The report focuses on the land planning, building siting and environmental implications of the proposed plan. The analysis grades the proposed plan for specific measures of urban sprawl and provides 3 alternate suggested options that would better accomplish the goals of smart growth. The smart growth grading is as follows

South Jersey Technology Center Options	Smart Growth Grade
Proposed Plan Wallace, Roberts and Todd	F
Alternate #1 clustered tech village adjacent to proposed site	D
Alternate #2 clustered tech village on south side West Campus	C-
Alternate #3 brownfield redevelopment adjacent to Main Campus and downtown Glassboro	A

The conclusion of this report is that the plans, as proposed, have significant flaws in plan concept and design that will result in unnecessary negative impacts. Financial cost increases, poor land use design and functionality, excessive traffic congestion, unwarranted watershed impact and unforeseen negative impacts on the academic functionality of the university are impending problems to this plan, all of which can be mitigated at this stage by good land planning design. The proposed Rowan Technology Center plan by Wallace, Roberts and Todd dated September 18, 2003 represents a design layout that is inconsistent with many of the guiding principles of the Rowan Master Planning Committee. The draft plan embodies many of the negative characteristics of urban sprawl and misses a significant opportunity to demonstrate smart growth development, densification of the existing campus and redevelopment in conjunction with our Glassboro college town.

Introduction

On first review, the concept of creating a wide-open new campus on farmlands west of Glassboro appears to provide the necessary space for Rowan to expand. However, the West Campus Master Plan design and the siting of buildings will also have a direct effect the integrity of the main Glassboro campus and the surrounding communities. Moving Rowan's sporting facilities to the West Campus location is a logical move which provides plenty of room for practice fields, open space and excellent accessibility to Route 55 for sporting events while freeing up land on Rowan's main Glassboro campus for potential densification. However, the other components of the West Campus plan including academic buildings, residence halls and the Technology Center will likely impose a number of problematic impacts and need to be very carefully considered in light of their potential to create many undesirable characteristics of urban sprawl. As a university, we may be on the verge of creating a regrettable pattern of growth that negatively affects the ability of Rowan to successfully carry out its mission. At present, we have the ripe opportunity to create smart growth closer to the main campus, take a major role in the revitalization of downtown Glassboro, and stretch our development budget to provide many more student and university facilities and services at a lower capital cost and provide for lower future operations and maintenance costs.

What is Urban Sprawl

Urban sprawl is development that occurs in a dispersed pattern with little coordination between different land uses. Urban sprawl is wasteful of land, creates unnecessary traffic congestions and imposes significant environmental impacts including the loss of farmland, loss of wildlife habitat, loss of scenic landscapes, results in increased taxes and a host of other negative consequences with which most New Jersey residents are familiar (Burchell et al. 1999). Urban sprawl also has negative consequences for the older towns and communities that are “abandoned for the new mansion in the countryside” leaving behind municipalities struggling to maintain a viable economy. This has led to a landscape of upscale mansions in former farm fields, neon strip malls, traffic jams, lost community cohesion, disenfranchised older communities and derelict city centers. These elements are the reality of New Jersey's battle with urban sprawl.

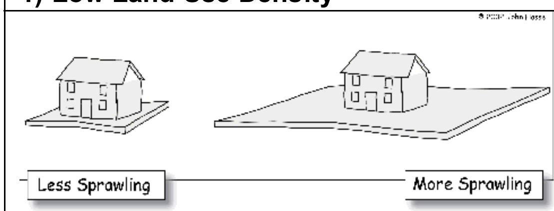
Smart Growth

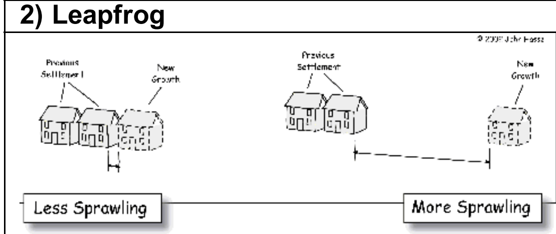
Smart Growth is a planning approach that strives to make a more efficient, high quality, environmentally and socially responsible built environment. Smart Growth embraces the concept of revitalizing and rebuilding existing towns and urban communities while preserving substantial tracts of open space. The most basic tenants of Smart Growth are <u>*responsible and integrated community design and efficient utilization of land*</u>. Unfortunately, Rowan plans for West Campus expansion miss the opportunity for smart growth development while embodying many characteristics of sprawl.

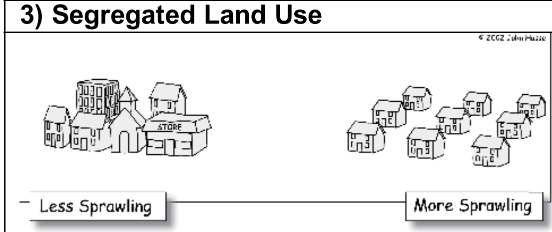
West Campus Sprawl Report Card

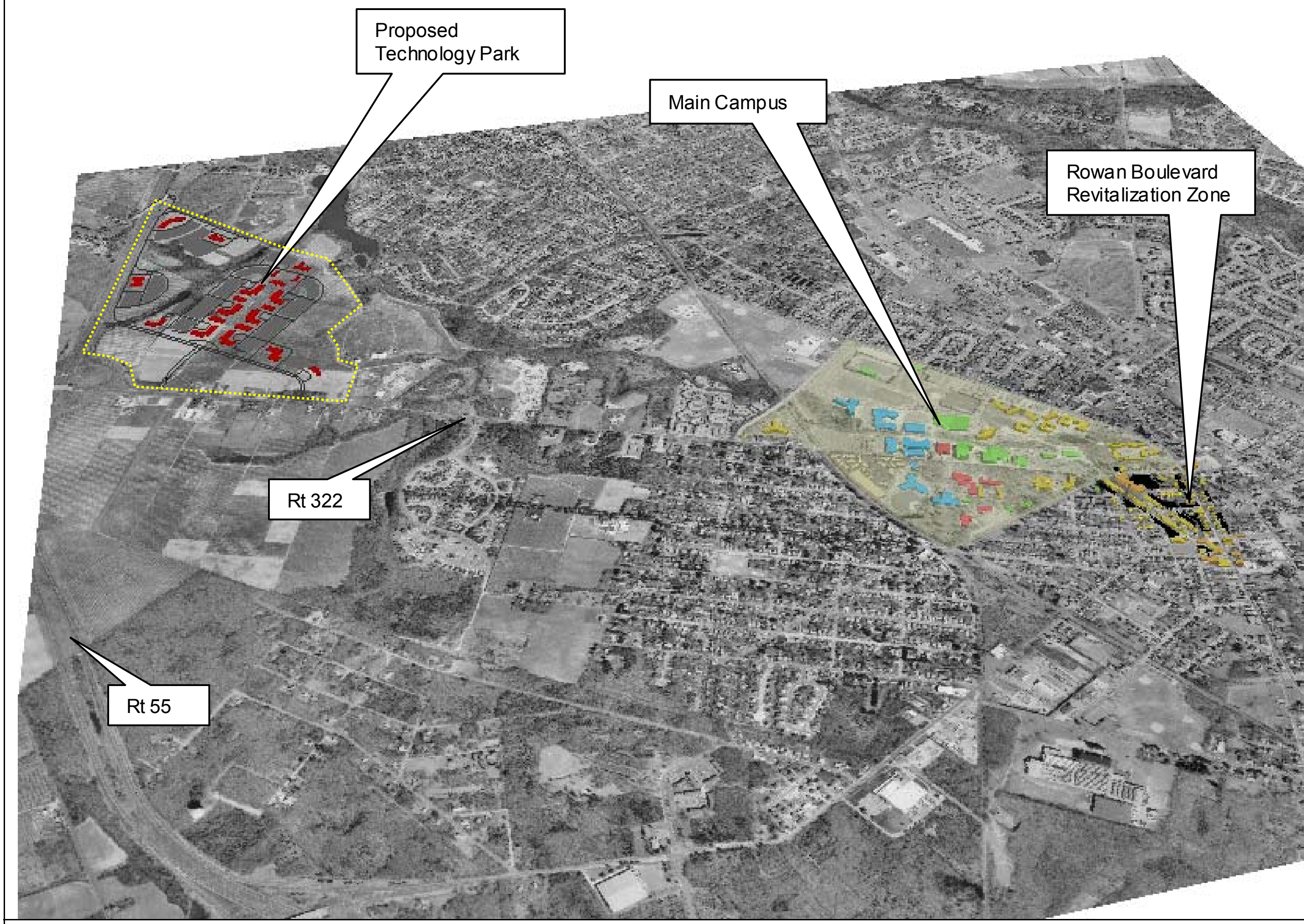
All new development is not sprawl. Sprawl is a specific pattern of development that is particularly wasteful, damaging or dysfunctional in its design and location. The following indicators provide a means for gauging the degree to which new development at Rowan contributes to sprawl.

Rowan West Campus Sprawl Report Card

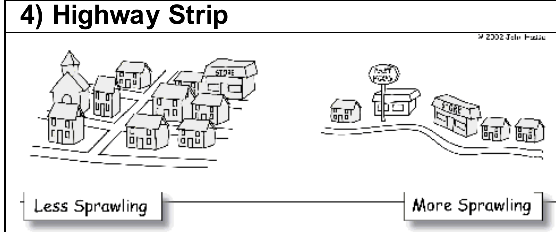
1) Low Land Use Density	Description	Significance/Impact	Grade
	The wasteful consumption of land.	West Campus plans consist of single story buildings and large parking lots spread out over a land area much greater than many other technology centers. 150 acres of land is unjustifiable.	F

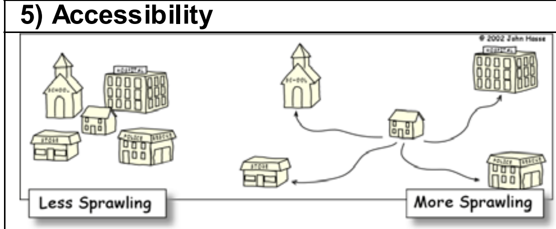
2) Leapfrog	Description	Significance/Impact	Grade
	Development that jumps out into rural open space, fragmenting farmlands while creating isolated non-contiguous development patterns.	New buildings on West Campus will leapfrog away from the main campus and the town of Glassboro. This will have many negative consequences for the users of the new buildings and lost users of Glassboro businesses.	F

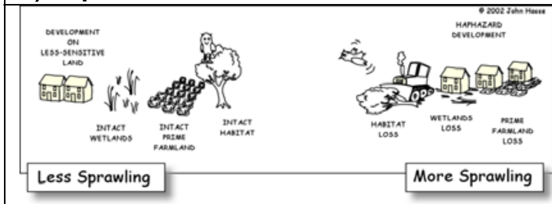
3) Segregated Land Use	Description	Significance/Impact	Grade
	Development that does not have a functional mix of residential, commercial and other land uses within a walkable distance.	New buildings on West Campus will be segregated and isolated from the commercial and residential neighborhoods of local towns as well as the main campus. The West Campus land use plan is poorly coordinated with surrounding land uses.	D-

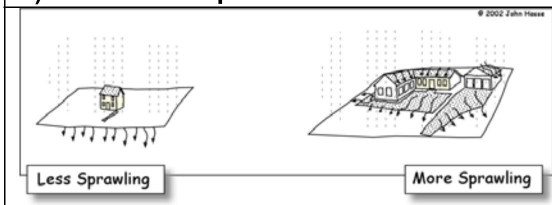


The Rowan Technology Center is located on 140 acres approximately 2 miles from the main campus. A geospatial analysis of the Tech center utilizing GIS demonstrates it poor performance for characteristics of urban sprawl.

4) Highway Strip	Description	Significance/Impact	Grade
	Development that occurs along highway corridors that are only accessible by automobile. Often the most aesthetically unpleasing characteristic of sprawl.	The West Campus will be flanked and split by highways that will prevent viable non-automobile access. The physical design of the technology center imposes many characteristics of a 1950's industrial park	**D-**

5) Accessibility	Description	Significance/Impact	Grade
	The ability for new buildings to have accessibility to important common destinations. Multiple types of accessibility (walking, bike, car, public transit) are ideal.	The West Campus has poor accessibility to the main campus, restaurants, police and fire/rescue, local residential neighborhoods, etc. The design and location discourages all but car transportation. Impending traffic will exacerbate inaccessibility	**F**

6) Impact on Natural Resources	Description	Significance/Impact	Grade
	Development that unnecessarily consumes excessive amounts of important natural resources such as prime farmland, wildlife habitat and wetlands.	The West Campus will consume hundreds of acres of prime farmland, diminish ground water aquifer recharge, and impact wildlife habitat.	**D+**

7) Excessive Impervious Surface	Description	Significance/Impact	Grade
	Creation of impervious surface from buildings, roads and parking lots degrades water quality, increases flooding, diminishes ground water aquifer recharge.	The Technology Park as proposed consists of single story buildings surrounded by large parking areas. An estimated 2.8 million square feet of impervious surface will substantially degrade the Chestnut Branch watershed.	**F**

8) Explosive Growth Impacts	Description	Significance/Impact	Grade
	Rapid development often carries unforeseen negative impacts for local communities such as increased taxes, traffic and lost sense of community.	The West Campus will impose a dramatic change of built environment for the local communities, permanently affect traffic patterns and require additional services such as fire, police and rescue without contributing to the tax base.	**D**

West Campus Overall Assessment

While the general concept of the university expanding to meet future demand is necessary, the execution of that expansion on the West Campus as proposed is substantially problematic. By the very nature of its location on productive rural farmland leapfrogged away from the main campus, Rowan University will be creating a pattern of urban sprawl. This will have very real consequence for Rowan not only in the ideals that Rowan should be upholding to society but also in the day to day functioning of the university.

Consequences of a sprawling West Campus

- Students and faculty members will be split between campuses.
- Traffic on Route 322 will grow exponentially.
- Class scheduling will have to compensate for longer commuting times between classes.
- More economic resources will be spent because sprawl requires more grounds to be maintain, more security and/or police to service a larger area, more snow to remove etc.
- Environmental impact: lost farmland, lost aquifer recharge, lost habitat, increased impervious surface
- Loss of business for Glassboro
- Lost social and environmental credibility for the university image
- Potential lost economic support from a state that is struggling to figure out ways of avoiding sprawl and creating smart growth.

Smart Growth Grade
Proposed Plan – Wallace, Roberts and Todd
F

The pattern in which Rowan chooses to expand will have very real consequences in the way the university will function. Rowan can do better with its expansion and development than what is being proposed with the West Campus.

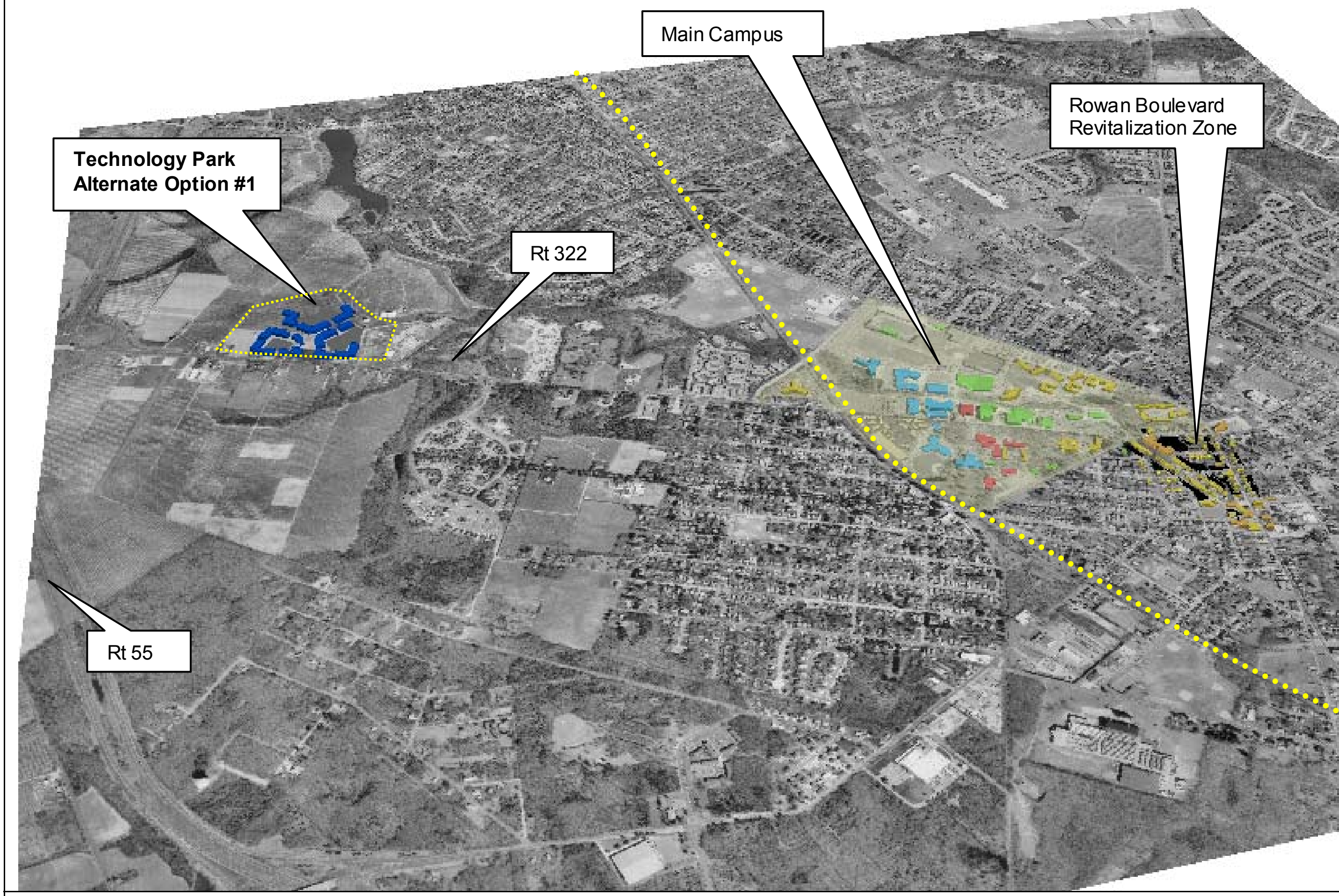
Alternate Plan Options for the Rowan Technology Center

Rowan's physical expansion can occur in a manner that avoids the negative consequences of sprawl. Rowan's main Glassboro campus has many characteristics and locational attributes that make it ideal for smart growth expansion. First, the initial concept of a West Campus was to move the sports fields in order to make room for continued growth on main campus. With the sports fields moved, many acres will become available to provide enough room for growth to accommodate more than a doubling of university population on the main campus, should that occur. Second, smart growth begins with the premise that redevelopment and revitalization of existing towns is superior to the unnecessary and wasteful development of open space. Glassboro is a town in vital need of redevelopment. There are acres of abandoned buildings and vacant lots within the town of Glassboro ripe for revitalization. Smart growth development concentrated in and around main campus will be far less costly, create a more dynamic atmosphere, build a local "college town" and sense of community, coordinate with Glassboro revitalization and create much less negative environmental impacts. If executed properly, Glassboro has the potential to become a thriving college town instead of the ghost town that it is today. West Campus, as proposed, will diminish Glassboro's potential as a college town because development will be occurring at a significant distance from the town center.

Densification of the main campus will result in a campus that is safer, more socially dynamic, academically enriching, aesthetically attractive, less costly to maintain (snow removal, landscaping, etc.) human scaled and overall more functional on many indicators of performance. The existing main campus should be developed to its fullest capacity <u>before</u> academic and residential buildings are placed in dispersed locations such as proposed for the West Campus.

Three Alternate Scenarios for the South Jersey Technology Park

Scenario #1*- Clustered Technology Village North West Campus (Adjacent to Proposed Site)*

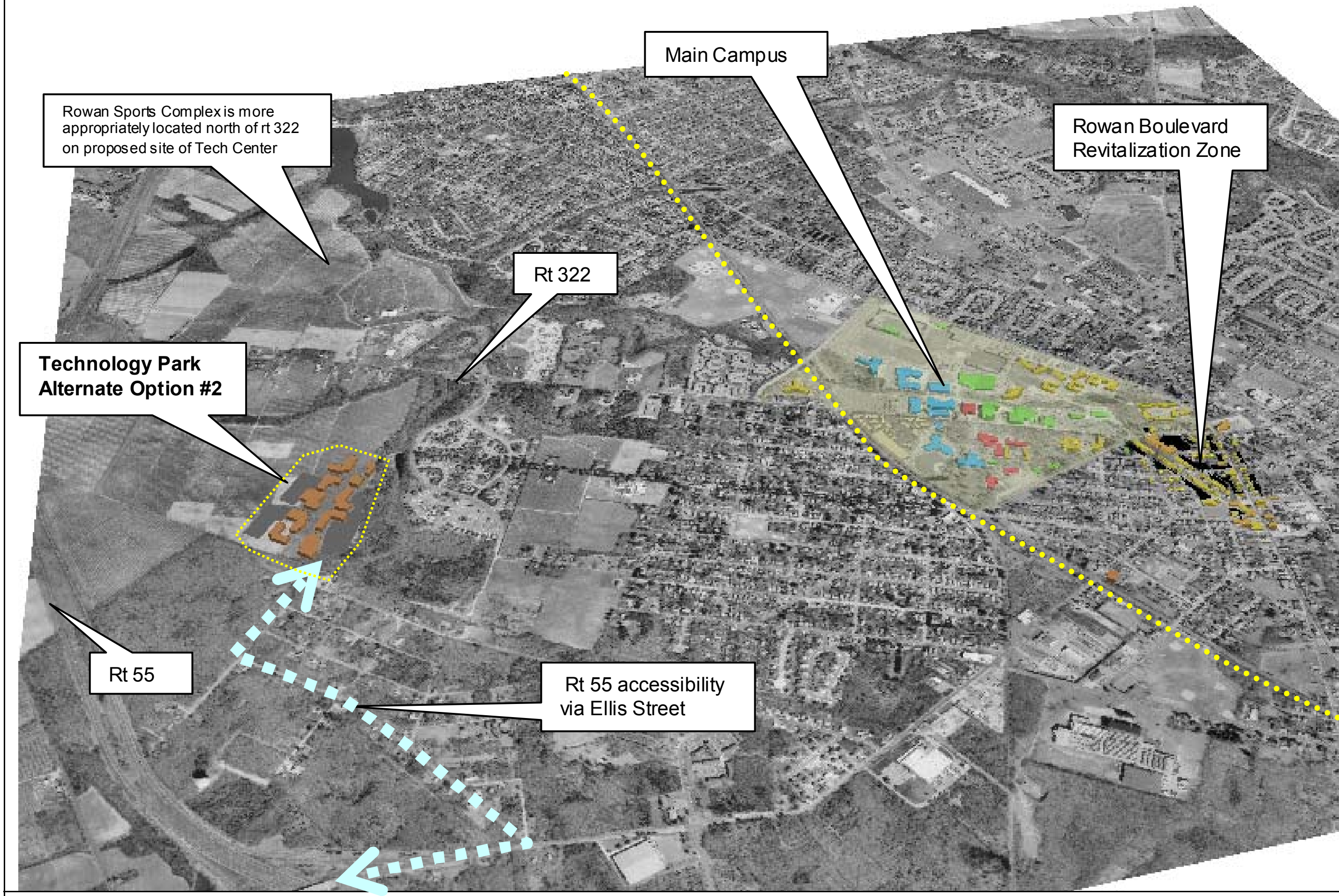


Alternate option #1- Clustered Technology Village (approximately 25ac) North West Campus (Adjacent to Proposed Site)

Alternate option #3- Clustered Technology Village North West Campus (Adjacent to Proposed Site)	
Advantages	Disadvantages
• 2/3 less land-consumptive than original plan • least radical departure from original plan • within sewer district (Mantua) • land already controlled by Rowan • close to Rt 55 • more visible to Rt 322 than original plan • potential for future brownfield redevelopment of Lipari landfill as an extension	• traffic problems • poor accessibility to emergency services (over 5 miles). • poor land use coordination with adjacent communities • isolated location • reliant on Rt 322 • not walkable to main campus • not walkable to downtown (restaurants, shops, hotel, ect • not walkable to future light rail • missed opportunity for downtown revitalization • consumes open space (although less than original plan)

Smart Growth Grade
Alternate option #1 *Cluster Tech Village North West Campus*
D

Scenario #2*- Clustered Technology Village on South Side of West Campus*

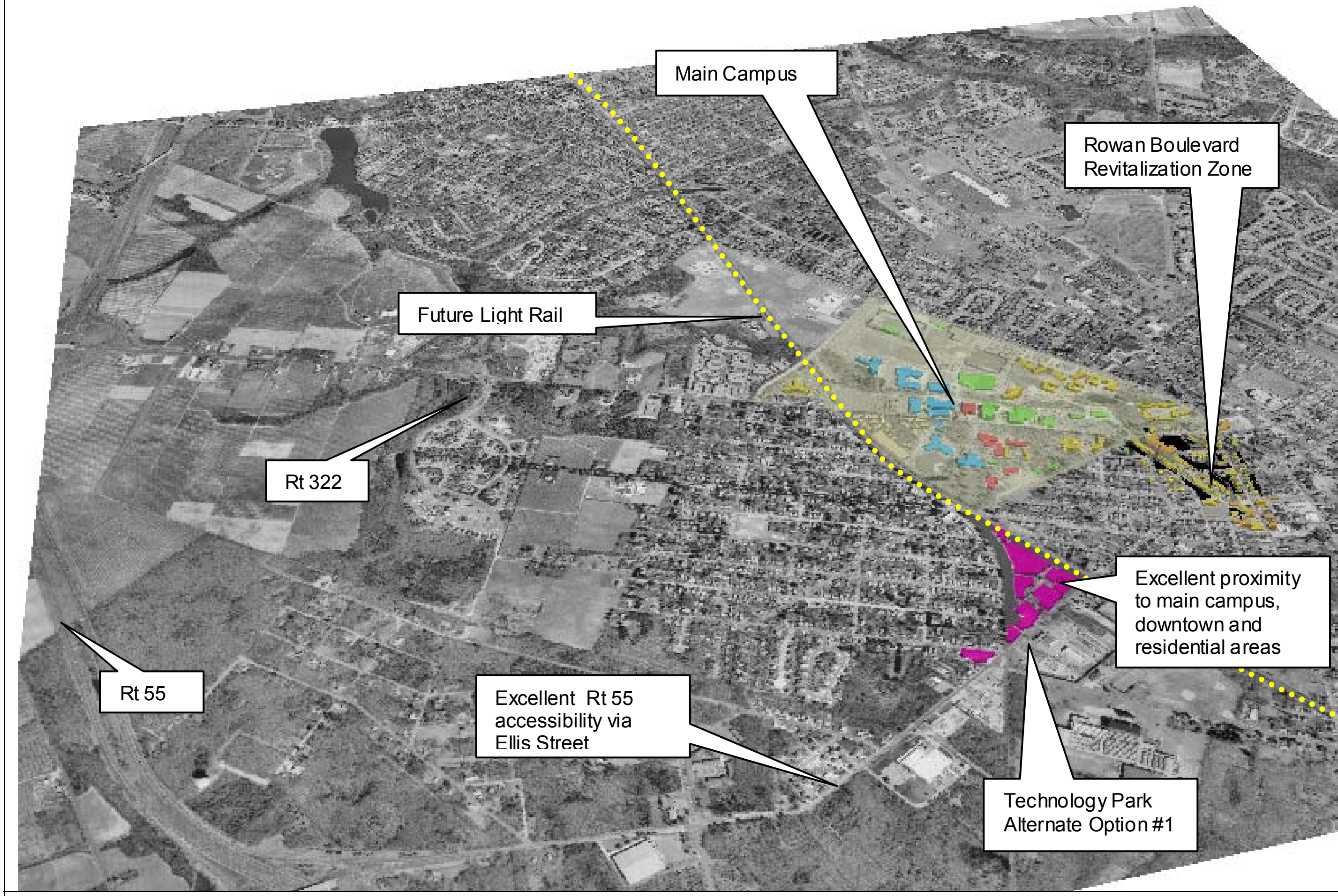


Alternate option #2- Clustered Technology Village on South Side of West Campus

Alternate option #2- Clustered Technology Village on South Side of West Campus	
Advantages	Disadvantages
• The main advantage of this option is the ability to locate sports fields and arena on the north side adjacent to the existing open space infrastructure of Pitman and Glassboro • better coordination of land use (adjacent to Glassboro industrial zone, Glassboro residential and future commercial). • less land consumptive than proposed plan • sewer service available • land already controlled by Rowan • alternate access to Rt 55 via Ellis Street • contiguous development (non-leapfrog) • accessibility to main campus via non-route 322 corridor (safer)	• not walkable to main campus • not walkable to downtown (restaurants, shops, hotel, ect • not walkable to future light rail • poor visibility • missed opportunity for downtown revitalization • consumes open space (although less than original plan).

Smart Growth Grade
Alternate option #2 *Cluster Tech Village South West Campus*
C-

Scenario #3*- The South Jersey Technology Center as Glassboro brownfields redevelopment*



Alternate option #1- The South Jersey Technology Center as Glassboro brownfields redevelopment

Alternate option #1- The South Jersey Technology Center as Glassboro brownfields redevelopment

Advantages	Disadvantages
• revitalizes Glassboro urban decay • walking accessibility to main campus • walking accessibility to residential areas • walking accessibility to shops, restaurants, future hotel, etc. • enhances dynamism of Rowan's main campus • walking accessibility to Rowan Library • excellent accessibility to emergency services • excellent public transit potential (light rail on Conrail tracks) • excellent Rt 55 access via Ellis street (avoids 322 traffic) • the most environmentally responsible option • the most cost efficient • utilizes existing infrastructure • socially responsible development • qualifies for Smart Growth funding • excellent PR for the University image	• some land will need to be acquired • loss of taxes for university held land (although all buildings of a technology center need not be tax exempt). • added time needed for redesign **Smart Growth Grade** Alternate option #1 *Glassboro brownfields redevelopment* **A**

The Rowan Technology Center would be far better served (and would far better serve South Jersey) by locating within the town of Glassboro (Alternate Option #3), adjacent to the Main Campus, within proximity to the downtown revitalization area where infrastructure already exists. There are numerous decaying industrial buildings and undeveloped parcels within Glassboro's industrial sector that would make excellent redevelopment sites for a technology center and related businesses. The existing rail lines hold promise to become a light rail connection to Camden, Philadelphia and NYC. By densifying and expanding its Main Campus in coordination with Glassboro's own downtown and industrial revitalization, Rowan would be the premier example of how a university can grow in a sustainable and responsible manner through coordination with its local community, by following the principles of Smart Growth and brownfields redevelopment.

What about the West Campus Lands?

Smart Growth in not just about efficient development but also requires substantial amounts of preserved open space. Substantial amounts of land on Rowan West Campus should be set aside as open space and ultra-long-term Rowan growth. State open space funds could be used to permanently preserve much of these land holdings while recouping the expenditures of land purchase. Alternately, the lands could be sold at a profit and reinvested in main campus downtown focused development.

If the Rowan Technology Center is built in the proposed location with the proposed plan, it will be creating many problems associated to sprawl. The plan will be locking Rowan University into a land use plan that will be far more costly and problematic to maintain, as well as more difficult and costly to undo down the line. However, if the Tech Center moves forward at the current location, the plan has the potential to at least be substantially redesigned following the principles of Smart Growth to perform more efficiently, less costly and less environmentally damaging. While such a redesign would still not truly be Smart Growth due to its disregard for revitalizing available land and its leapfrogging into farmland, it would be smarter growth than what is currently proposed. Rather than single story warehouse type buildings spread out across hundreds of acres, the technology park could be designed as a high-tech green village on 20-30 acres. Buildings could be much closer together and consist of multiple-story, energy efficient examples of green building design. The entire West Campus Master Plan should coordinate and integrate in a far better manner with the surrounding communities and the environment.

Conclusion

Rowan is not unique in its attempt to expand by creating urban sprawl. Our entire society lives by a mythology that bigger is better whether it is the mansion in the cornfield or the sprawling technology park 2 miles from campus in the peach orchard. By chasing the mythology of "bigger means better" and following NJ’s out-dated rules for development, what we will get is a landscape of monotonous urban sprawl and all the negative consequences that come along with it. Rowan's success is sure to be negatively impacted by such an inferior design. As proposed, the Rowan Technology Center disregards current planning principles and practice, and is poorly conceived as a means of achieving the good campus planning expansion goals.

Nevertheless, Rowan can break the myth that bigger is automatically better. Better is better. Rowan can dispel the belief that destroying the farm field while leaving the old factory to rot is progress. Rowan can realize its ambition for becoming the flagship academic institution and the model for sustainability in South Jersey by taking advantage of the excellent location and tremendous potentials that already exist in proximity to its Main Campus. Rowan can become a national trendsetter for university Smart Growth. This could be utilized to promote the University image and to recruit students and faculty that want to be participants of responsible and integrated campus progress and who want to live in a high quality community that they helped to create.

As a public university with social responsibilities to educated and advance society, it is imperative to reverse the trends of sprawl and to instead create sustainable patterns of development, that maintain the highest ecological and social integrity and for which future generation will be grateful. This is a challenge that Rowan can meet. We should take pause and reconsider our West Campus expansion. The 3 alternate options proposed in this report are but a starting ground for such a discussion. Rowan University should make every effort to avoid creating a pattern of urban sprawl, champion the Smart Growth development of its Main Campus, lead the revitalization of its own mother city, and create a new Rowan Community that increases the quality of life for all of its students, professors, administrators and local residents.