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A Model of Segmenting a High-Cost Crime Prevention Through Environmental Design Initiative

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A Model of Segmenting a High-Cost Crime Prevention Through Environment Design Initiative

Paul Adams

Capstone Document Submitted in Partial Fulfillment of the Requirements for the Degree of Doctorate of Interdisciplinary Leadership

Governors State University

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Abstract

This project aimed to create a working model worthy to include within Schneider, Walker, and Sprague’s (2000) description of a five-stage process of parceling out high-cost Crime Prevention Through Environmental Design (CPTED) initiatives. In 2002, the Department of Education and Department of Justice sponsored Schneider as the lead author for introducing and promoting CPTED initiatives for the first time in schools. This project’s funding mechanism was created to help assist with the procurement of a highly priced CPTED initiative (key-less card system) for Suburban College.

Suburban College had faced a reoccurring pattern of theft from its classrooms and common areas. The main campus site was designed as an open campus with long hallways and recessed doorways. The inability to monitor all the room entry points had been noted as a significant contributor leading to theft. Suburban College decided to investigate the costs associated with investing in a key-less card system. The initial itemized list of materials was estimated at two million dollars. Suburban College did not have the ability on its own to fund such a project at this time due to budget constraints. By applying Schneider et al.’s (2000) five-stage process for funding high-cost CPTED initiatives, Suburban College (through the researcher) created another possible avenue for procuring a key-less card system. The focal point of this process consisted of creating a funding mechanism to pay for the procurement of the system through non-matching government and private grants, in-kind gifts, and corporate sponsorship.

Keywords: CPTED, segment, funding, environmental criminology, PBS, SCLE, schools, strategic planning, & access control.
Acknowledgements

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A special thank you to... My committee Dr. Stephan Wagner, Dr. Jane Rhoades Hudak, and Dr. James “Chip” Coldren for all of your guidance in helping to shape my capstone research project. My editor who helped present my ideas in a clear format for readers. My Project Sponsor for the support and opportunity to conduct this project. My Chief for allowing me to assume a leadership role. The various Suburban College stakeholders for their participation. Finally, thank you to all the members of Security Company who donated their time and efforts towards this capstone research project.
Introduction

This project aimed to provide school officials with a model for understanding how high-cost Crime Prevention Through Environmental Design (CPTED) initiatives can be implemented and paid over time. The model in this project is referred to as a funding mechanism. The funding mechanism was designed to attach a valued cost associated with the procurement of a segmented portion of the overall CPTED initiative. Segmented CPTED initiatives have the ability to work as standalone features until other segments can be afforded. Each segment was designed to be seamlessly implemented into an overall system. Within the confines of this project, procurement of goods would only be considered through the use of non-matching government and private grants, in-kind gifts, and corporate sponsorship. Parnaby (2007) states that the use of government and/or private grants to pay for CPTED initiatives may increase the likelihood of school officials' willingness to engage in such initiatives. The use of grants could be feasible because the DOE (2014) mandated schools to address the overall aspect of behavioral and safety issues found for all students across the country. Additionally, Horner et al. (2004) alluded to schools being challenged to document what measures they are taking to stay compliant with behavioral and safety mandates.

Crime Prevention Through Environmental Design (CPTED) is a research-based concept for creating or enhancing public safety by the manipulation of the physical environment (Atlas, 2008; Letch et al., 2011; Schneider, 2002; Strang, 2012). The CPTED concept includes a triad of principles; territory, access control, and surveillance (Atlas, 2002; Crowe, 2000; Schneider, 2002). CPTED primarily focuses on the manipulation of place (environment) to eliminate deviant behaviors creating social

The State of Florida passed the Safe Neighborhoods Program in 1987. The program provided planning grants for communities to use CPTED strategies (Plaster & Carter, 1993). Ohio followed in 1997 by establishing the Ohio School Facilities Commission (OSFC). The OSFC incorporated CPTED strategies with all school construction (OSFC, 2008). The OSFC centered CPTED initiatives in conjunction with Student-Centered Learning Environments (SCLE) research to create the best educational environment possible for students (OSDM, 2015). The success of OSFC parlayed into a merger with the Ohio State Architect’s Office; forming the Ohio Facilities Construction Commission (OFCC) in 2012. The OFCC applied CPTED strategies in all state facilities.

**Background of the Problem**

A portion of the safety and behavioral problems found within K-12 and higher education school environments has been attributed to the lack of foresight by school officials in the planning stages of school construction. Researchers Leiringer and Cardellino (2011), Sanoff (2001), and Wheeler and Malekzadeh (2015) have all called for a renewed effort in improving schools’ physical environments to enhance student achievement through the Student Centered Learning Environments approach. The problem stopping schools from making significant changes to their environmental
designs can be found in the multitude of building conditions needing to be addressed and the staggering financial crisis hindering the ability of U.S. schools to fund such changes (GAO, 1996; Norcross, 2015). The building conditions refer to deteriorating infrastructures, building codes and mandates associated with school construction. Additionally, the DOE mandated school officials to prepare for acts of terror and organize efforts to improve the schools’ social climate (DOE, 2013; DOE, 2014).

In the past, school officials relied on trending fixes through the use of gross security measures such as installing spiked fences, metal detectors, and emergency alert systems; hiring armed security guards, and imposing student searches (bags, lockers, and desks) (Egendorf, 2002; Schneider, 2002). These gross security measures were viewed not as an ideal solution, but acceptable by school officials and administrators in reducing exposure to hazards (Garret, 2001). CPTED strategies provided school officials with an alternative to simple fixes and provided school officials with a guideline for how to properly strategically plan for environmental design. Connell (1995) and Crowe (2000) all promoted the use of assessments to analyze the success of past and current initiatives. For example, Crowe (2000) concluded if negative results were evident, then the search for alternative actions would be legitimatized.

This project consisted of Suburban College identifying reoccurring risks and searching for an application of CPTED strategies, which would provide the greatest return on security investment (ROSI). A risk analysis revealed a reoccurring pattern of loss, due to theft. The risk analysis was comprised of an internal review of thefts reported to the Campus Police Department. Police records were used to obtain and calculate yearly losses due to theft over a two year time period. Location and value of
losses by theft were provided (See Appendix C). The researcher did not participate or observe any police records used in the risk analysis to protect the identity of victims. All information obtained was performed by the Campus Police Department’s Clerk.

Suburban College Strategic Committee formulated several rationales about the reoccurring loss: “The building is large and has a vast amount of classroom doors; keys for doors have gone unaccounted for over the years; staff have tendencies of not locking doors when leaving the room unattended; each individual entering the college is not monitored for the duration of their visit; the vast amount of entrances and exits; and Campus Police cannot monitor all the multiple points of accessibility at every moment” (Suburban College Strategic Committee, personal communication, August 2014). In the past, Suburban College approached the security problem with a heavy reliance on surveillance cameras and security staffing to compensate for the lack of access control. Schneider (2002) in his research found that schools would have to rely on similar measures in the absence of access control. An issue Suburban College was experiencing consisted of the lack of coverage by its surveillance cameras. Thefts were primarily discovered to exist in these dead areas of coverage by surveillance cameras. Additionally, the dead areas of coverage outnumbered the amount of security personnel staffed creating areas of zero surveillance. In an attempt to change the repetitive nature of theft, an access control initiative (key-less entry system) was decided upon to limit who may gain entry to various sites within the campus.

The implementation of a key-less card system would alleviate security personnel patrols of dead areas. This would allow for additional concentration by security personnel to patrol common areas to help deter crime. The rational for this method of
reasoning was constituted by Bier’s (2007) analysis of Game theory. Crime occurs where the least amount of risk is experienced by the offender. Theft was observed primarily in classrooms and common areas. If opportunities to commit crimes are eliminated in classrooms, then offenders would turn to common areas to commit theft. Through effective planning and implementation of technology, Suburban College Police Department would become more capable of providing safety within an open campus setting.

CPTED history has shown a breakdown in willingness by decision makers to engage in large scale projects when expendable capital resources are limited (Parnaby, 2007). This breakdown may become problematic for schools officials, considering that most of the current schools in the U.S. are considered outdated due to ADA accessibility, building design, and technology (GAO, 1996). CPTED initiatives vary in cost due to the initiative’s size and nature, while costing more for retrofitting compared to new construction (Atlas, 2002; Crowe, 2000; Parnaby, 2007; Schneider, 2002; Walsh, 1999).

With a high percentage of schools falling into financial despair, it became evident how the high-costs of CPTED initiatives may produce a reluctance to engage in such projects.

The Purpose of the Project

CPTED initiatives can be implemented within any budget and may be carried out by staging the process out over several steps, to make large projects more feasible (Crowe, 2000; Parnaby, 2007; Schneider et al., 2000; Walsh, 1999). The purpose of this project was to create a working model for CPTED implementation based on Schneider et al.’s (2000) five staged process for parceling out a project over a ten to twenty year period while at the same time pursuing non-matching government and private grants, in-
kind gifts, and corporate sponsorship. The intention of the project is to give school officials a model in which may actualize the ability to fund their endeavors. A funding mechanism was created to provide an example of how to segment a CPTED initiative. The itemization of the materials and services defined by the funding mechanism established the minimal amounts needed for various grant procurements.

Suburban College was selected as the site of the project due to the researcher's insider status as an employed police officer (nine years) of the college. Additionally, Suburban College has experienced crippling effects of the State of Illinois' economic downturn and the inability of the schools' officials to take on high-cost CPTED initiatives (Norcross, 2015). The funding mechanism proposed in this research project articulated the creation of a multi-staged implementation process for funding a key-less card entry system through the use of non-matching government and private grants, in-kind gifts, and corporate sponsorship. The project was divided into several standalone segments to provide multiple options, dependent on grant procurement size, allowing the project to be completed in multiple phases over time.

Objectives

The objectives of this project were to: (1) design an applicable model of the segmenting process associated with paying for high-cost CPTED initiatives, and (2) to provide a method of obtaining a new security measure for an economically challenged school.

Limitations

The funding mechanism represented a method to fund a standalone model of first generation CPTED initiatives. This project did not address funding second generation
CPTED initiatives, which would have provided a more holistic approach to establishing social cohesion (Atlas, 2008; Letch et al., 2011). First generation CPTED initiatives consist of physical constructs which establish territory to minimize criminal activity. Second generation initiatives include the first generation’s physical constructs with an accompanied social construct. A social construct consists of defining a space in how it will be used and organizing events in the space to make sure the environment is used as intended. This project’s second generation CPTED initiatives would have accompanied the implementation of access control with mutually supported social events, joint meetings, discussions, and awareness programs to enhance the results of the ROSI.

Suburban College’s building design is unique to this project; other schools will have to adapt the funding mechanism to their physical constructs. Funding resources will be limited to the use of non-matching government and private grants, in-kind gifts, and corporate sponsorship. By using external capital, schools will be able to replicate this project regardless of their financial state. Colleges are eligible to obtain additional grants through their police departments; these opportunities are not available to K-12 schools. K-12 schools are recommended to pursue PBS and SCLE grants. The use of government grants may also limit the ability of this project in foreign countries; where government grant writing is not available or has different processes. In this scenario, the researcher recommends using in-kind gifts and corporate sponsorship.

The process of a Request for Information (RFI) was not publicized. The researcher recruited a highly regarded local security agency to participate within the construct of this capstone project. The researcher had no previous relations with the security agency before this capstone project. The company agreed to provide a free
estimated proposal of services and materials, with an understanding no special considerations would be given if this project goes out for a Request for Proposal (RFP). The quote for services obtained from the partnered security agency identified an itemized list of services and materials but failed to give direct pricing. Rather a generalized total was given and the funding mechanism was configured from this figure. For a more precise evaluation, an RFP was recommended because the most precise evaluation would come from a winning RFP bid. The generalization of this process prevented the researcher from creating a model including a full breakdown of each segments' cost configuration. However, several factors can mitigate a direct application of the researcher’s configuration breakdown: buildings are unique to the application of CPTED initiatives; initiatives may vary between surveillance and/or access control; application of first and/or second generation CPTED; and the multitude of varying initiatives found within each of the mentioned applications.

Global Usage

The International CPTED Association (ICA) has members from thirty-five different countries incorporating CPTED strategies into various strategic planning processes (Crowe, 2000; Schneider, 2002). According to Crowe (2000), foreign countries applied CPTED usage to the following sectors in both new and re-development projects: public venues, schools, commercial, industrial, housing, and transportation. The project’s results may provide a parallel framework applicable to the procurement of funds related to CPTED school improvement projects in foreign countries.

Significance of the Study
Today’s offenders are taking advantage of yesteryear’s systems; many schools today were not designed with current security issues in mind (Schneider, 2002). The DOE (2003; 2013; 2014) first suggested and then later required documentation showing that school officials expand their efforts related to safety and positive learning environments. School officials are currently attempting to handle multiple variables of victimization (physical, human, and financial assets) along with litigation if they fail to provide the necessary safety. Archbold (2005) found that government agencies will take action to prevent risk to reduce organizational loss, liability claims, and litigation. The funding mechanism construct was designed to provide a model which may lead to a greater willingness for school officials to engage in CPTED initiatives. CPTED initiatives provide a venue for school officials to increase safety, address student behaviors, and retrofit the physical environment during tough economic times. Other positive externalities could include a reduction in loss, an increase in revenue, greater social cohesion, feelings of a safer/less intrusive environment, higher enrollment, additional uses of the smart card technology, and possibly reducing the need for increases in taxation and school fees.

Summary and Organization of the Study

This capstone project is organized into five chapters, references, and appendices. Chapter I presents the introduction of the project. In Chapter II, the researcher discusses the literature reviewed for the project. In Chapter III, the researcher explains the format for the strategic plan. The results for the funding mechanism are presented in Chapter IV. In Chapter V, the researcher presents a summary of the project, providing conclusions, suggested implications for practice, and recommendations for further study.
Chapter II

The literature review focused on the association between educational research and the need for CPTED initiatives in the school environment. Subcategories of the history of environmental criminology and risk management/return on security investments (ROSI) delineated the rationale for what type of CPTED initiatives to engage in. Positive Behavioral System (PBS) and Student Centered Learning Environments (SCLE) research addressed the need for an initiative in both physical and social environments of schools. Strategic planning outlined a project manager’s role in using best practice methods to implement successfully a new initiative. The application of this project may help serve as a guide for university leaders, K-12 school officials, public safety officials and contractors, and researchers in the field of education to obtain a high-cost CPTED initiative, using incremental procurement of grants and/or gifts over a duration of time (Crowe, 2000; Schneider et al., 2000). The roots of this project are founded on the theory and research of environmental criminology. Environmental criminology establishes a link between disorder found in a physical environment and its correlation with crime.

Environmental Criminology

Environmental criminology has been defined as a group of theories that explore the relationship between a crime and the environment in which it occurred (Wortley and Mazerolle, 2013). Modern CPTED theories and approaches can be traced to four iconic theory models formulated within: The Death and Life of Great American Cities (Jacobs, 1961), Crime Prevention through Environmental Design (Jefferies, 1971), Defensible Space (Newman, 1972), and The Broken Windows Theory (Wilson & Kelling, 1982). All four theories posed that individuals or groups will be more likely to commit crimes
when environmental or situational factors provide a socially opportunistic setting. For example:

<table>
<thead>
<tr>
<th>Jacobs</th>
<th>Jeffery</th>
<th>Newman</th>
<th>Wilson &amp; Kelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gentrification leads to displacement. Vagrants without ownership are likely to engage in deviant behavior.</td>
<td>Students learn from punishments and reinforcements in the environment. Positive reinforcement and manipulation of environment can bring upon changes to deviant behavior.</td>
<td>Residential housing crime would be reduced if tenants would perceive an identification of ownership. Ownership would lead to a territorial boundary for where not to commit crime.</td>
<td>Abandoned property (vehicle) created an opportunity for crime because of the lack of ownership.</td>
</tr>
</tbody>
</table>

**Lack of Foresight.** Jane Jacobs’ critique of urban planning in *The Death and Life of a Great American Cities* served as the foundation of modern CPTED theory (Andresen & Malleson, 2010; Cozins & Love, 2015; Crowe, 2000; Walsh, 1999). Jacobs’ (1961) work focused on the relationship between urban design and the possibility of misfortunes to come from poor foresight in planning. One critique of Jacobs (1961) described how city planners that did not account for the displacement associated with gentrification lead to an increase in crime. This process came from urban development of cities as being centrally commercial, with a continuation of displacement and growth of residential surroundings from the growing apex of the downtown area. The notion of bad urban planning policy leading to crime gave way to the theory that environmental design may be applied as a method of crime prevention (Crowe, 2000).

**Coining of CPTED.** Jeffery’s work was based on Jacobs’ findings. Jeffery is credited with first coining the term Crime Prevention Through Environmental Design. Jeffery (1971) sought to promote CPTED as a multidisciplinary approach covering how
social, behavioral, political, psychological, and biological explanations can combine with environmental design to create causal connections to crime. Andresen and Malleson (2010) described Jeffery’s theory as being complex and required long-term research. Newman’s narrower architectural approach found within Defensible Space proved to be the more popular and enduring choice by urban planners (Andresen & Malleson, 2010; Cozens & Love, 2015; Crowe, 2000; Schneider et al., 2000; Wortley & Mazerolle, 2013). Jeffery (1976) later credited Oscar Newman’s Defensible Space as the preferred theoretical approach for CPTED.

Defensible Space. Newman’s Defensible Space (1972, 1973) represented a research project detailing the environmental design of public housing and the causal effects on social responsibility and crime. Newman’s (1972) research found that residents did not take care of their dwellings because residents did not take ownership and accountability for their respective homes. Newman’s later research related to finding a link establishing a relationship between individuals and their environment.

Walsh (1999) categorized Newman as using the basics of modern day CPTED design to help establish a link between territory and decreasing crime. The basics of CPTED design included territory combined with natural surveillance and access control. Territory, natural surveillance, and access control form the triad of principles within CPTED research. Territoriality was defined as the recognition of ownership (and ‘guardianship’?) of the environment and an understanding of who belongs (Crowe, 2000). Natural surveillance was defined as the ability to see and deter actions within the environment (Crowe, 2000). Access control was defined as the ability to grant and limit access to the environment.
**Broken Windows theory.** The Broken Windows theory posited that if one item breaks it must be fixed before more items break, and failure to fix things produces a state of acceptance of a decaying environment (Wilson and Kelling, 1982). The greater the acceptance of the decaying environment, the greater the likelihood of individuals not adhering to social norms, thus creating the conditions for crime within the decaying environment.

Zambardo and Ebbesen (1970) created an experiment which led to development of the Broken Windows theory. Zambardo and Ebbesen left an automobile abandoned on the street in two different economically varied towns. In the deprived neighborhood, the vehicle was broken into by a family fairly quickly. In the affluent neighborhood, the vehicle sat untouched for over a week before Zambardo himself smashed a window of the vehicle to promote a possible action. Soon after, well-dressed individuals started to steal from the vehicle.

Wilson and Kelling (2006) admitted their theory as being speculative based on a 25-year review of their work. They rationalized the ethical concerns related to victimization of human subjects as a reason for the lack of control groups in research on Broken Windows. The inability to have research controls provided those opposed to their theory a reason to discredit any direct correlation between disorder and crime (Sampson & Raudenbush, 1999). However this did not stop the cities of Boston and New York from the application of their work; yielding a decline in crime and increase social order.

**Environmental Criminology Summary.** The collective work of Jacobs, Jeffries, Newman, Wilson, and Kelling have established a justification for why environmental factors must be considered as part of risk management and planning during policy
development. Jacobs’ critique to initial urban planning may be applied to this project, as strategic planning is a main component of a retrofitting process. Newman’s *Defensible Space* was predicated on ownership being transferred to a social state of the occupants of the environment and this project will not call for students to upkeep Suburban College. Suburban College is considered state property and does not possess on campus dwellings for students. The aspect of transfer of responsibility for students is unlikely to formulate. The Broken Window theory implied that disorder exists within the physical environment. The college was not considered dilapidated because upkeep is regarded as a norm. CPTED was chosen as the environmental criminology theory of choice, because of its applicability to an existing structure and its planning process.

Newman (1972) understood the limitations to his research because it was primarily funded by the Department of Housing and Urban Development (HUD). Defensible space was originally implemented on a large scale basis when housing resources were abundant. Crowe (2000) later indicated that federal budget cuts in the 1980’s served as a test for future CPTED practitioners in how to implement its methods during a financial crisis or moment of burden. This project aims to use the past experiences of budget constraints with housing and apply them to the current situation between school environments and funding.

**School Environment**

The call to promote a safe school climate, environmental conditions of existing schools, and the growing budget deficits schools are facing have impacted the school similar to Jacobs’ (1961) findings regarding housing. Schneider et al. (2000) and Crowe (2000) both noted the original designs for schools did not predict the current state of
safety needs. Arnie Duncan (former U.S. Secretary of Education) has called for a safer school environment (DOE, 2014). However, funding woes have created a budget crisis for building repairs and retrofits (Hanushek & Rivkin, 2003; Kennedy, 1999; Norcross, 2015). DOE's (2013) strategic plan outline (generalized) and the risk management (individualized) sections combine to give a holistic approach for creating an emergency operation plan. These sections hold significance as they help to identify which CPTED initiatives may be relevant in helping schools as risks are identified.

**Positive Behavior System**

Positive Behavioral System (PBS) was a federal initiative to address the overall aspect of behavioral and safety issues found within special education and has now been broadened to include all students across the country (DOE, 2014). Locally, in 2015, Illinois adopted Response to Intervention (RTI) as part of their effort in complying with PBS initiatives. One of the main objectives of PBS is to create a positive learning environment to enhance social accountability and behavior amongst students. The stated objective coincides with CPTED's main objective of creating a positive environment and enhancing social cohesion to mitigate negative behavior. Because of the similarity in objectives and goals between PBS and CPTED, they now have become researcher topics tied together (DOE, 2014). The new linkage has allowed CPTED researchers the ability to apply for PBS research grant money.

PBS research data has examined severe types of deviant behaviors found in schools. These behaviors included theft, trespassing, fighting, vandalizing, drug use, sexual activity, bullying, and possession of weapons on school grounds. The various categories of behavior held significant value because they could be transmitted towards
risk management assessments and plans of action within CPTED planning. The United States Department of Education (DOE), General Accounting Office (GAO), Center for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS), Department of Justice (DOJ), Homeland Security, Federal Bureau of Investigation (FBI), National Center for Education Statistics (NCES), Bureau of Justice Statistics (BJS), Office of Justice Programs (OJP), and the Federal Emergency Management Agency (FEMA) have all provided research on school environmental conditions, which have been disseminated in the form of various guides.

**PBS guide.** DOE's (2014) *Guiding Principles - A Resource Guide for Improving School Climate and Discipline* resource guide serves as the most current example of how to engage in PBS. The first action step mandates schools to create a positive school climate. The main directive includes PBS being entrenched in research-based initiatives. Student Centered Learning Environments (SCLE) and CPTED are currently accepted research-based initiatives.

**PBS research.** One of the educational research areas related to this project was represented by Horner et al. (2004) when they developed a school-wide-evaluation program for schools to evaluate their current efforts with PBS. Horner et al. (2004) identified that K-12 schools are being requested to document what initiatives they have engaged in to create a positive school environment. In the past, PBS was related to special education. With the new mandate for PBS being applied to all students, school officials are experimenting to determine what works. Horner's et al. (2004) research exemplified an assessment that may help evaluate PBS initiatives.
**Student Centered Learning Environments research.** PBS research explored the correlation between the climate produced by the physical environment and student behavior (DOE, 2014). SCLE research spawned from PBS’s ideology and studied the causal links between the environment and student performance. SCLE Researchers Leiringer and Cardellino (2011), Sanoff (2001), and Wheeler and Malekzadeh (2015) each concluded schools should construct their physical environment to promote motivation, self-expression, and self-reflection while promoting a safe and defined space for student use. SCLE research has served as a bridge linking environmental design to student academic achievement. The linkage of environment design and student academic achievement opened CPTED to another realm of school achievement research grants.

**Funding for school buildings**

Originally CPTED initiatives would be funded through building and grounds budgets. Schools’ building and ground budgets are based on the current state of upkeep, new initiatives, and available capital improvement assets. The GAO (1996) detailed the costs of federally mandated building repairs needed by schools for upkeep, and Norcross (2015) provided a detailed account of what each state’s fiscal outlook consisted of. The GAO (1996) and Norcross’s (2015) research formulated a reasonable account for why school officials may express an unwillingness to engage in any high-cost initiative because of the current experience with the lack of capital improvement funding.

**Building research.** In 1996, the GAO detailed the financial crisis of each state school system. The GAO identified how much it would cost each State to upgrade their facilities to current standards. The GAO also identified the responsibility each state holds in funding school buildings. This project was located in the State of Illinois where the
State does not provide funding for school buildings. Illinois school districts are responsible for finding their funding for construction and renovations through federal grants, private contributions, fundraisers, municipal bonds, and property tax levies. The GAO (1996) calculated the mean amount of funds needed by a typical school in Illinois to fund federally mandated repairs over a three-year period: “asbestos abatement $10,000; accessibility for the disabled $40,000; and all other federal mandates $50,000” (p. 79). The mean values suggest that schools in Illinois would have to earmark $100,000 over a three-year period. These figures are significant because they represent money the schools have to account for. Averaged out it is only $33,000 per year, but the State of Illinois does not fund building renovations. The $33,000 would be paid out of a school’s capital improvement budget. These types of mandates impose what school officials must spend their capital on and reduce the opportunity for any locally driven desires of schools.

Funding research. Norcross (2015) assembled a list categorizing all fifty states in sequential order based upon various state funding conditions. Each state was ranked by their financial condition compiled from the fiscal year 2013 data. The data revealed that Illinois and New Jersey were tied for the worst financial crisis within the United States. Norcross (2015) identified Illinois’s $275 billion in pension debt as its major contributor to such a low ranking, with an additional $34 billion in other unfunded obligations. Illinois debt is significant to this project, as it denotes the state’s lack of ability to pay its debts and fund future initiatives.

Most schools in Illinois are faced with the inability to fund building construction initiatives due to their lack of available capital. With most schools in Illinois facing the
same financial crisis, schools will have to find creative ways to fund new initiatives (Parnaby, 2007; Schneider, 2002). This project alluded to the use of PBS and SCLE grant funding as an additional source of capital to procure for CPTED initiatives.

Emergency Operation Plans

The DOE and other U.S. federal agencies have identified, in various reports, the need of enhanced protection within schools. One of the most up-to-date guides developed for school emergency plans is the Guide for Developing High-Quality School Emergency Operations Plans (DOE, 2013). This guide currently serves as the standard for all schools developing an emergency operations plan. Additionally, a key research project was conducted in 2005 by the CDC and HHS, the “Youth Risk Behavior Surveillance” (YRBS) research project (Eaton, Kann, Kinchen, Ross, Hawkins, Harris, & Lim, 2006). YRBS has given school officials, researchers, and practitioners an outline for developing data necessary for identifying risk in emergency operation plans.

Emergency Operations guide. The call for safety in a positive school environment has been further echoed in the Guide for Developing High-Quality School Emergency Operations Plans (DOE, 2013). The guide follows a detailed six-step outline for school officials to develop an emergency operation plan. The following chart by the DOE (2013) illustrates the outline (p.5):

Table 1

Outline of Emergency Planning
The Guide for Developing High-Quality School Emergency Operations Plans expanded upon what to do at each step and served as the standard for creating a strategic plan. It should be noted, CPTED initiatives serve as a component of a safe school environment and should not be considered as a substitute for developing an emergency plan.

**Emergency Operations research.** School crime and victimization surveys have provided detailed accounts of deviant behaviors occurring in schools. Studies like the 2005 YRBS organized serious school behaviors into a macro level data for schools to self-compare. Additionally, schools may copy studies like YRBS to calculate micro level data within their school. The “Indicators of School Crime and Safety” report is a culmination of all K-12 school mandated reporting, combined with all other major and significant surveys and reports. This report serves as the best source for national trends in school crime and safety.

**Macro to micro.** The 2005 YRBS report generated macro data from around the country to show trends in risk from K-12 school children. The YRBS conducted research associated with deviant behaviors and schools, by sending an 87 item questionnaire to varying schools across the country (Eaton et al., 2006). The data was categorized by
demographics, frequency, and location. The following headings represented the types of risks analyzed by the 2005 YRBS in schools: rape; carried a weapon; threatened or injured with a weapon; physical fight; theft, stolen, or damaged property; use of tobacco, alcohol, or drug use; and suicide. The 2005 YRBS further categorized which sex, race/ethnicity, and grades of students were most affected by each of the risks.

The data sets provided in YRBS research may allow for a school official to reflect upon their environment. Future research modeling of YRBS is encouraged to duplicate the gathering of microdata associated with their school’s demographics. Other sources to gather data may include the use of the FBI’s Uniform Crime Report (UCR), higher education administration, campus police departments, high school resource officers, and high school deans.

*Culmination of student behavior surveys.* The “Indicators of School Crime and Safety” report was started in 1999 by a congressional mandate to begin gathering all school crime and safety data into one report. The sources used to create the report included: national surveys of students, teachers, and principals; study of violent deaths in schools (DOE & CDC); National Crime Victimization Survey and School Crime (BJS & NCES); and YRBS (CDC). UCR was not included because it doesn’t relate directly to school crime research. Indicators of School and Crime Safety researchers continued to gather information from the various sources to analyze trends in school crime and safety over time. The 2011 “Indicators of School Crime and Safety” report represented the fourteenth report in the series by the NCES, DOE, BJS, OJP, and DOJ. The report also serves as the leading authority for all school officials, researchers, and practitioners needing to find aggregated data on school crime and safety, because it links the various
government reports into one source. Robers, Zhang, Truman, and Snyder (2012) conducted the research for compiling and analyzing the indicators used within the report. Robers et al. (2012) combined all data sets to form the following 21 indicators:

Table 2

21 Indicators of School Issues

1. Violent Deaths at School and Away From School
2. Incidence of Victimization at School and Away From School
3. Prevalence of Victimization at School
4. Threats and Injuries With Weapons on School Property
5. Teachers Threatened With Injury or Physically Attacked by Students
6. Violent and Other Crime Incidents at Public Schools, and Those Reported to the Police
7. Discipline Problems Reported by Public Schools
8. Students' Reports of Gangs at School
9. Students' Reports of Drug Availability on School Property
10. Students' Reports of Being Called Hate-Related Words and Seeing Hate-Related Graffiti
11. Bullying at School and Cyber-Bullying Anywhere
12. Teachers' Reports on School Conditions
13. Physical Fights on School Property and Anywhere
14. Students Carrying Weapons on School Property and Anywhere
15. Students' Use of Alcohol on School Property and Anywhere
16. Students' Use of Marijuana on School Property and Anywhere
17. Students' Perceptions of Personal Safety at School and Away From School
18. Students' Reports of Avoiding School Activities or Specific Places in School
19. Serious Disciplinary Actions Taken by Public Schools
20. Safety and Security Measures Taken by Public Schools
21. Students' Reports of Safety and Security Measures Observed at School

Comprehensive reports are needed to formulate a true understanding of the criminal environment effectively and must be subjected to change as new indicators become relevant (Brantingham & Brantingham, 1991; Robers et al., 2012). School officials should recognize the Indicators of School Crime and Safety report as a research tool to compare identified data.

Risk Management
The type of data yielded from 2005 YRBS and similar research can be provided for risk analysis as part of the first stages of a risk assessment. Risk management is a process to identify and plan to limit potential risks that may cause a loss (Archbold, 2005). Schools regardless of public, private, and grade level are already accustomed to performing assessments. Typical assessments performed within schools include; student performance, school environment, curriculum, and teacher evaluations. School officials have had to apply their prior knowledge to assessments to identifying the potential and probability of harm and injury (Erickson, 2006). Effective risk management research should identify direct threats, provided effective measures, and state the costs of emergency operation plans.

_R.M. research._ The following research presented an insight in asset identification and protection, perspective changes when a school becomes a crisis center, and return on security investments. The risk management research pertained to a general crisis and was moderated into viewpoints for school officials to consider and incorporate into educational planning. The research topics chosen and explored represent a collective of aggregated findings and assume a commonly accepted form of response and planning to a crisis. Future practitioners and researchers should adhere to the research findings as a likelihood of what to expect from a crisis planning.

Choosing what to protect. Bier (2007) used the “Game Theory” model to exemplify the relationship between an offender and risk. This project outlined dead zones in surveillance to highlight low risk for offenders to get caught committing theft. By securing dead zone areas through access control, offenders will seek out new areas of opportunities with lower risk of getting caught. Bier’s research may be applied to
planning stages of CPTED initiatives to avoid Jacobs’ (1961) described pitfalls of planning. Bier’s use of the game theory model allows planners to play the “what if” game. In “what if” scenarios, planners are foreshadowing the outcomes of the measures they put in place. Bier (2007) warned that people tend to be attracted to areas with significant investments. The warning was meant to include individuals seeking to commit criminal activity based on the resources to take. This very conundrum can be applied directly to schools. For example, if a school becomes or is a great school: enrollment should increase; more students, faculty, staff, and visitors will be coming to the school; which will create a greater potential for both victimization and offenders.

The efforts put forth by school officials can produce negative externalities for the community. Bier (2007) described negative externality between different assets. When resources are invested more in protection for one asset versus another, the least invested asset will most likely be attacked. For example, if school consequences and security deter children from fighting on campus during school hours; then students will find alternative places to fight (bus stops, neighborhood parks, and at local businesses). Bier’s research provided a multitude of scenarios for review and should be recommended for further study in the application towards schools.

**Disaster planning.** Auf der Heide’s (2006) research on evidence-based disaster planning may provide school officials with a greater insight regarding what to expect during a crisis. Auf der Heide’s (2006) and Bier’s (2007) research are similar in that they promote foreshadowing as an aspect of planning. However, Auf der Heide’s research differs as it exemplified the period in which an act of violence or threat has occurred. Auf der Heide (2006) suggested that planners consider the assumptions under which
disaster planning has been based. Auf Der Heide (2006) research described the differences between a planned response and a multitude of variables created by chaos impacting a deviation from a planned response. An example of this may be an established command center location may need to be relocated due to downed power lines caused by a tornado. A response team must be ready to improvise from a plan during a crisis.

School officials should account for the following scenarios with the understanding that a crisis will involve a community response; training and planning will need to take place with extended partnerships from the community (Heide, 2006; Erickson, 2006; Lutterbeck, 2004; Waugh & Streib, 2006; Wise & Nader, 2002). Once stakeholders and possibilities are acknowledged and accounted for, strategic planning may proceed.

*Return on security investment.* When opting for which strategic plan to move forward with, an ROSI should be performed (Crowe, 2000; Zahm, 2007). Sonnenreich, Albanese, and Stout (2006) created a quantitative model calculating the costs of different security initiatives:

Table 3

*ROSI equations*

\[
ROSI = \frac{(\text{Risk Exposure} \times \% \text{ Risk Mitigated}) - \text{Solution Cost}}{\text{Solution Cost}} \quad \text{(pg. 56).}
\]

They proposed that a security investment is like all other investment decisions and must be financially justified. Sonnenreich et al. (2006) suggested you must first quantify your risk exposures. For school officials, this can be taken from data similar to categories found in 2005 YRBS. After choosing a specific event, school officials would
begin to calculate their risk exposure. Sonnenreich et al. (2006) used the following formula to calculate risk exposure: \( \text{Risk Exposure} = \text{Annual Loss Exposure} = \text{Single Loss Exposure} \times \text{Annual Rate of Occurrence} \) (p. 57)

If a child is tardy to class; what would the total cost of that tardiness be? Examples of costs associated with a single tardy event could include the pay associated to salaries for tutoring, manifest determination meetings, remedial plans, detentions, in-school reassignment, and alternative school settings. An estimated total would then be multiplied by the total yearly average of occurrences for that the school experiences to figure out the annual loss of exposure. School officials will have to use a quantified percentage of the money saved if a new security initiative was implemented.

Finally, Sonnenreich et al. (2006) described how to calculate the cost of a security initiative. The process of calculating the total cost entailed totaling all costs associated with the security measure; consultant fees, purchase price, installation, maintaining, replacements parts, training, upgrades, and usage. The total costs should be inserted into the ROSI equation for an answer associated with the security initiative being cost effective. Sonnenreich et al. (2006) suggested security initiatives are to be considered as a method to prevent loss and once initiated; there would be no way to determine an exact savings created by deterrence from the security initiative. An offender’s act of creating risk is subjective to an individual’s choice to engage (Bier, 2007). The ROSI equation is at best an estimate and does not figure in precise representation. Even at just an estimate, a ROSI evaluation may conclude if a security investment is monetarily worth engaging in (Sonnenreich et al., 2006). Additionally, a security initiative can be calculated to represent a cost-effective practice, based on multi-year annual savings return over time.
The worth ratio of a project would be represented by a minimal amount of years before a break-even point is actualized for new security initiatives.

*Program evaluation.* A round table was established in the mid-1990’s to provide the Committee on Evaluation a format to highlight the importance of evaluating initiatives (Connell, 1995). Connell, Schorr, and Weiss served as chairs and Kubisch as the director of the round table. They set to identify key conceptual building blocks of initiatives and which measures most effectively accentuate the theory of change. Weiss promoted a project leader to have a clear vision, mission statements, goals, and objectives grounded in theory to guide the overall structure and specific components of an initiative. Assessments would then be evaluated for whether the various theories held course by assessing the progress and impact of the methods applied (Connell, 1995). The theories deemed successful in application, may then be seen as key building blocks for which to apply to future initiatives. The application of the theory of change is a universal assessment tool that can be applied throughout a variety of researched based initiatives and should evaluate the final product of projects of this nature.

**School Environment Summary**

It has been suggested today’s issues were established many years ago through the failure of foresight by school planners (Crowe, 2000; Schneider, 2008). It has been recommended an evaluation of these initiatives of are needed to avoid making the same mistakes (Connell, 1995, Crowe, 2000; Erickson, 2006; Jacobs, 1961). The school environment now consists of decaying buildings, lack of funds, and new risk behaviors. SCLE studies similar to Leiringer and Cardellino (2011), Sanoff (2001), and Wheeler and Malekzadeh (2015) call for improving the physical environment as a necessity for
improving student achievement. Additionally, school officials must now address acts of
terror and changes through PBS to address the social climate within schools (DOE, 2013;
DOE, 2014). The combinations of these issues have formed a niche which CPTED has
begun to fill because CPTED initiatives have been accepted as an approved measure
under PBS. This relates to CPTED initiative being open to both PBS and SCLE school
grants. Additionally, CPTED initiatives address social cohesion, crime prevention, and
modification to environmental design. The use of CPTED may provide a consolidated
effort under one initiative.

**Crime Prevention Through Environmental Design**

This section will explore the modern-day practice of CPTED and its application to
schools. The review covered; a historical account of some key figures who promoted the
use of CPTED in schools, followed by a discussion of the historical first use and
development of CPTED by the states of Florida and Ohio, and exemplified research
projects advancing the global growth and usage of CPTED applications.

**School promoters**

PBS initiatives focused on a school’s administration and faculty finding
programing and incentives in order to change students’ deviant behaviors. CPTED
concepts are designed and implemented based on what the environment can do to alter
deviant behaviors as a central vision. Applying the central vision, the following CPTED
researchers have lead the effort to promote the application of CPTED in schools.

Brantingham and Brantingham (1991) theorized regarding the elements of crime
and promoted the use of varying levels of data to identify trends. Crowe (1991; 2000)
defined modern day CPTED and later focused on advancing the CPTED theory into other
aspects of project planning, such as downtown streets and pedestrian areas, parking lots and structures, office and industrial structures, hallways and classrooms, malls and shopping centers, convenience stores and branch banks, commercial, residential and school environments, and convention centers and stadiums. Randal Atlas (2002; 2008) followed in Crowe’s steps and has now prevailed as the leading authority in U.S. led CPTED. Atlas (2008) used his knowledge as an architect and criminologist to spread the use of second generation CPTED. Schneider (1998; 2000; 2001; 2002; 2008) focused on the advancement of CPTED initiatives in schools. Schneider’s (2002) research was funded by DOE and DOJ to produce a guide to help school officials navigate a way to ensure quality school facilities provide a safe environment. CPTED practitioners have generally accepted Schneider as the leading authority in school CPTED measures.

**Brantingham and Brantingham.** These former students of Jeffery’s expanded upon several of Jeffery’s original concepts of CPTED. Brantingham and Brantingham (1991) stated when a crime occurs there must be four elements present: A law, an offender, a target, and a place. CPTED initiatives are primarily focused on the manipulation of place (environment) to eliminate the opportunity for deviant behaviors (Brantingham and Brantingham, 1991). When dealing with a multitude of individuals (student body, family members, individuals attending an event, students from other schools, contractors, and service providers) numerous amounts of variables are produced, where a location (school) can better serve as a controlled variable (Brantingham & Brantingham, 1991). Brantingham and Brantingham (1991) identified three types or levels of analysis that should be used while deciding initial research: macro, meso, and micro analysis. For schools, this would consist of the following: Macro-analysis would be considered the
evaluation of all the schools in the state; Meso-analysis, schools within a school district or neighboring school district; and Micro-analysis consists of an individual school. The use of all three data sets allowed for practitioner/researchers to gain comparable data to look for indicators of patterns noteworthy of addressing.

Crowe. Timothy Crowe is often universally credited for the increase in the use of modern CPTED (Schneider et al., 2000). Crowe’s (1991) book became the first resource guide for CPTED practitioners and Crowe’s second edition (2000) book set out to guide practitioners on how to apply CPTED to small scale initiatives. Crowe is the former director of the American National Crime Prevention Institute (NCPI), where he developed and conducted numerous CPTED training programs for police and others (over 40,000 graduates). Crowe (2000) promoted CPTED and the ideology of attempting to alter the environment versus persuading perpetrators directly. Crowe was one of the first to promote this ideology in schools.

Atlas. Randal Atlas is known for his promotion of CPTED as a consultant and is for being both an architect and a criminologist. Atlas (2002) promoted the CPTED principles of access control, surveillance, territoriality boundary definition, and management and maintenance strategies for schools. Atlas’s work was focused on the ability to defend against external threats to both new and existing structures. Atlas (2002) mentioned the importance budgets may have on the impact of success in school structures. Atlas (2002) expanded upon the role of an architect as needing to understand the personal relationships between people and their environment in order to most efficiently design a building. With a deeper understanding of how people may interact, a more precise budget may be identified cutting waste in relation to cost.
In the example of retrofitting schools, Atlas (2002) posed several configuration issues regarding the old style of construction. Multiple buildings and open campus-style schools did not account for who or what would be brought into the school. Many of the schools' designs allotted privacy and blind areas. Monitoring of these types of areas were almost non-existent allowing for deviant behaviors to go unnoticed. Atlas (2002) described that when security first became an issue in schools, school officials began to retrofit their buildings in a fortress style. The fortress style or bunker mentality was the specific environment that SCLE research promoted to change in order to enhance student achievement. Atlas (2002) promoted CPTED as appropriate for redesigning the school environment by softening the aesthetic appeal while maintaining a security presence.

Atlas's work was consistent with other promoters of CPTED in schools, except for his regards to internal threats. Atlas (2002) initially credited policy/procedure strategies and management techniques as being a greater contributor to the success of CPTED than physical design. Atlas' views varied from other CPTED researchers; in his work, both procedures and management techniques and physical design played roles as equal contributors to the success of CPTED (Crowe, 2000; Letch et al., 2011; OSFC, 2008; Plaster & Carter, 1993; Schneider, 2002). Atlas (2008) later bolstered the importance of environment and internal factors within the advancement of second generation CPTED is his textbook *21st Century Security and CPTED: Designing for Critical Infrastructure Protection and Crime Prevention*. CPTED researchers generally have accepted Atlas's 2008 handbook as the next best resource since Crowe's 2000 book.

Atlas currently serves as a co-director for the International CPTED Association representing CPTED efforts in the U.S.
Schneider. One of Schneider's (2002) most accomplished works came from his contribution in writing *Ensuring Quality School Facilities and Security Technologies*. This was the fourth guide out of an eight-part series funded by the DOE and DOJ. The intention of these guides was to inform educators on creating cultures and climates of safety as an essential component of the prevention of violence in schools. Schneider (2002) directed educators and other members of the community to understand the relationships between school safety and school facilities through the use of CPTED. The publication of the guide was an instrumental breakthrough for the use of CPTED in schools; because the federal government supported CPTED as a validated violence prevention program. The significance of this is found in the guidelines of the 2002 No Child Left Behind (NCLB) act; schools are mandated to only use validated research-based prevention programs in-order-to reduce violence and illegal drugs (Schneider, 2002). The validation of CPTED in reducing violence and illegal drugs in schools, created another avenue for CPTED initiatives to apply for grant money.

Schneider (2002; 2008) acknowledged the understanding of how past failed facility planning helped lead to the creation of the 2002 guide and 2008 handbook. Schneider promoted in all of his writings the importance of the planning stages. Schneider et al. (2000) accounted for parceling out high-cost initiatives over time to ease the financial burden of a new CPTED initiative. Schneider did not describe or provide a model for how to parcel out a project over time. This project was created to fill this void, by creating a model and describing this process.

Initial school usage
As mentioned earlier, both the state of Florida (Plaster & Carter, 1993) and the Ohio School Facilities Commission (OSFC) (2008) adopted the use of CPTED early on. In Florida, the state adopted CPTED initiatives and then applied them to schools. In Ohio, the schools adopted CPTED with new building designs and then spread its usage to all new state facilities. Both states have provided multiple examples of how they can serve as a blueprint for future states developing CPTED initiatives.

In 1987, the Florida Legislature created the first program specifically centered in the use of CPTED. The Safe Neighborhoods Program organized planning and crime prevention based on CPTED principles (Plaster & Carter, 1993). Plaster and Carter's (1993) research consisted of a pilot program throughout Sarasota's various city departments using CPTED. Research funding was initiated by the Ringling School of Art and Design and supplemented by grants from the State of Florida. The pilot program sought to enhance the art school's campus and surrounding area. The Ringling School of Art and Design volunteered and promoted the pilot to fellow community stakeholders. The pilot program implemented the standard CPTED planning principles, which are now standardized in DOE (2013) strategic planning: strategies for emergency operation planning. The pilot program yielded positive results with the use of CPTED initiatives in the targeted crime areas.

The Ohio School Facilities Commission (OSFC) was established in 1997, to advance CPTED construction principles for new K-12 schools (OSFC, 2008). Since then, the OSFC has merged with Ohio State Architect's Office to form Ohio Facilities Construction Commission (OFCC) in 2013. The OFCC is now in charge of applying CPTED planning with all new state buildings. The OFCC produces a new updated
version of its Ohio School Design Model (OSDM) yearly. 2015 OSDM promoted the use of CPTED into the earliest stages of building design. The OSDM contains over 2000 pages of advisory guidelines in using CPTED for almost every type of building design used by schools. Building designs impacted the designed layouts of rooms, closets, parking lots, gyms, entrances, lunchrooms, and offices. The OFCC (2008) established the following as key planning questions for school officials to ask during planning:

"What risks and opportunities are posed in areas directly adjoining school property?; Can office staff observe approaching visitors before they reach the school entry?; Do staff members have the physical ability to stop visitors from entering?; Is the overall school climate pro-social?; and are there identifiable or predictable trouble spots or high-risk locations?" (p. 2).

The use of these key planning questions and the OSDM marks how Ohio procedurally designed new schools. SCLE are used as the guiding research in CPTED planning in Ohio. Each of the key planning questions must provide an answer that coincides with SCLE research. Because every decision takes into account SCLE, every CPTED initiative is centered on creating the best educational environment possible for the student (OSDM, 2015). Ohio efforts have directly linked CPTED in becoming an educational research based program, allowing CPTED access to SCLE grants. Even though the OSDM applies to new school facilities and new additions, the OSDM can also apply to retrofits (OSDM, 2015).

CPTED research

CPTED is a growing field of research. There are currently over 35 countries worldwide using CPTED. Each of the three following research projects resembled a
different scenario for applying CPTED by school officials. Letch et al. (2011) explored the use of CPTED on single events in Australia. The National Crime Prevention Council (2009) explored the gentrification process in ten U.S. impoverished cities. Strang (2012) explored the perception of safety by students and staff with a mixed methods study and then formulate a better method to planning through CPTED. The efforts of these three researchers may provide an increased perception of the abilities CPTED has to offer. A fourth research project served as the basis for this project. Parnaby (2007) researched the involvement of governance and finances in the decision-making process towards the procurement of CPTED initiatives. Parnaby (2007) described the decision making process as a direct correlation to willingness, which refers to willingness to spend capital on an initiative

1st and 2nd generation CPTED. Atlas's work (2008) concluded that when a defined space of an environment is used for a differently intended particular event it is hard to apply CPTED. Letch et al. (2011) constructed a research project to test Atlas's conclusion. The research project was conducted in Rottnest Island, Australia during an annual three-day event called Leavers. Rottnest Island is a community with a defined space that holds this annual event. The event mirrored the conclusion of Atlas because of the lack of resources devoted to this event by community stakeholders because of its short duration (Letch et al., 2011). The study was a qualitative design, which analyzed crime data from the Leaver events from past years compared to this project's year. Furthermore, the study interviewed stakeholders using a snow-ball sampling technique to confirm their comparison accounts.
Letch et al. (2011) applied CPTED to the social demands of year 12 students leaving after finishing their final exams. The researchers found the social demands as a “rite of passage” consisted of drugs, alcohol, and bad decision making as a student moves on to becoming an adult. The research project employed two different strategies, first was standalone first generation CPTED and the other consisted of applying second generation techniques of CPTED. First generation CPTED focuses on taking away the opportunity for crime. Second generation CPTED adds the element of changing an offender’s character or motivation. Letch et al. (2011) posed second generation CPTED as being a more reliable and holistic approach. The holistic approaches included; mutually supported social events, joint meetings and discussions, and awareness programs. Both approaches would be applied to the mentioned supports and observed for which factors provided results.

The results showed second generation CPTED produced a greater social cohesion than standalone strategies of first generation CPTED. The value of this led to two significant findings regarding social cohesion. First generation CPTED initiatives resulted in a low acceptance by Leavers. Some leavers accounted their negative behaviors as an indirect response to the heightened rules. This conclusion should serve as a warning of the negative effects CPTED strategies may have on social cohesion when students may protest their perceived constraints. Second generation CPTED initiatives intended to engage bad peer-group conduct with alternative activities. The involvement in planned alternative activities by bad peer-groups occupied the ability for negative behavior to be engaged in. Results of second generation CPTED revealed an enhanced effect on first generation CPTED’s three requirements for natural surveillance, natural
access control, and territorial reinforcements. Second generation CPTED did foster a state of social cohesion and increased threshold capacity of Rottnest Island (Letch et al., 2011).

Letch et al.’s (2011) research project has the potential to be applied to help reduce risk in U.S. senior high schools. Prom and end of the year school pranks resemble the Leavers event and may benefit from the use of both first generation and second generation CPTED measures’ abilities to curb individual/group behavior. Additionally, the application of both generations of CPTED may be useful for designated school space being used for alternative reasons.

**Schools involvement in communities.** The National Crime Prevention Council (NCPC) is a private, nonprofit, tax exempt [501(c)(3)] organization better known for the McGruff® “Take A Bite Out Of Crime®” public service advertising campaign. The NCPC is funded through a variety of government agencies, corporate and private foundations, and donations from private individuals. NCPC and the DOJ (2009) developed a Weed and Seed project to implement best practices in CPTED initiative in ten various cities across the United States: Dallas, TX; Manchester, NH; Montgomery, AL; North Charleston, SC; North Omaha, NE; Omaha, NE; Rome, NY; Schenectady, NY; and Troy, NY.

NCPC provided CPTED training and technical assistance service to stakeholders in each of the ten cities. NCPC (2009) noted each of the cities had the following characteristics; abandoned houses, faulty traffic flow, difficulty securing total surveillance, overgrowth of foliage, vacant lots, absentee landlords, complex and difficult-to-enforce laws and regulations, inadequate street lighting, drug dealing,
substance abuse, burglaries, violent assaults, and prostitution. Due to various design differences in each city; different CPTED initiatives were applied to each city’s relevant issues.

The Weed and Seed project produced several common results between the cities. Communities that engaged all community stakeholders experienced a higher buy-in rate by the community. Communities that engaged with police departments early on showed a higher success rate. Communities that engaged the CCDO regularly and throughout the process also showed a higher success rate. All communities using code enforcement strategies produced positive results in the gentrification process of their neighborhoods (NCPC, 2009).

These results symbolized the importance of planning as eluded to by Jacobs (1961). The more collaboration and buy-in among stakeholders appeared to inspire better results in adopting CPTED measures. The research suggested that the Weed and Seed program may be relevant to schools located in similar cities. School officials should become active stakeholders in their communities to help reduce external impacts on student achievement. CPTED may serve as an initiative to enhance the community around schools’ property. Further research should be applied to the impact of school investment towards community CPTED for causal effects in the school environment.

**Student involvement.** Strang used a mixed methodology design consisting of quantitative and qualitative research to explore the perceptions of safety found within a high school located in the Newfoundland and Labrador, Canada area. The quantitative data explored student and staff perception of safety and security. The results yielded students having a lower perception of feeling safe because of their lack of involvement in
the planning process. Student ideas called for a review within the disciplinary process for several different infractions. Students wanted school officials to provide more proactive and social support when dealing with school infractions versus a concentration on discipline. The data was later incorporated into developing a strategic plan based on CPTED principles to enhance safety and security within the school.

Strang (2012) identified a school safety plans should address climate and connection issues between perceptions of both staff and students. This conclusion was significant because it identified the need for students' involvement in the development of school safety plans. The results remained consistent with the commonly known planning principles found within CPTED of involving all stakeholders early during the planning process.

Willingness to engage. Parnaby (2007) researched the involvement of governance and finances in the decision-making process of civilians towards the procurement of CPTED initiatives. Finances were equated as being expendable capital and governance as the decision maker's willingness and/or ability to spend the funds. A qualitative research design was used to see how the availability of funding impacted governance over CPTED measures. Twenty-five CPTED practitioners were interviewed using semi-structured questions and a snow-ball sampling technique. Each of the interviews where recorded and transcribed verbatim.

Parnaby (2007) concluded that a higher projected cost correlated to a higher degree of unwillingness to engage in the procurement of services. The main reason for collapse in negotiations was contributed to the lack of capital resources. Clients simply did not have the expendable capital. The second reason for collapse in negotiations was
associated with a perceived lack of legitimacy of a ROSI. Some of the clients did not take the time to listen or understand a ROSI.

The findings related to willingness are significant regarding the premises of creating this project's funding mechanism. With most of the schools in the U.S. being outdated for today's needs, CPTED costs will typically be substantial for retrofits. One could conceive that the high-costs of CPTED initiatives may bring considerable resistance in the willingness to adopt such measures. The research project did reveal one positive relationship between grant availability and an increase in the client's willingness. It appeared if clients could fund a project through grants or donations, they were more likely to engage in a willingness to procure a CPTED initiative. The procurement of the non-matching government and private grants, in-kind gifts, and corporate sponsorship served as the basis to gain a greater likelihood of willingness of Suburban College to engage in this project.

CPTED summary

CPTED has gained acceptance as a comprehensive strategy that may be applied to schools (Schneider, 2002) regarding safety, security, and school climate. CPTED has become more than a standalone security measure. Current research provides evidence of CPTED's applicability to specific events (Letch et al., 2011) and its ability to garner social cohesion (Atlas, 2008; Letch et al., 2011; Schneider, 2002; Strang, 2012). CPTED initiatives are now being used to address both building structure and student development within one initiative (OSDM, 2015). CPTED has been declared an approved research method for student intervention under IDEA (2003). This has opened the door for CPTED initiatives in various school grant opportunities. Being open to the grant funding
opportunities is significant because of the increased willingness to engage in initiatives (Parnaby, 2007). The ability to fund projects is greatly significant because of the much-needed overhaul and funding crisis associated with existing schools (GAO, 1996; Norcross, 2015).

**Strategic Planning**

Strategic planning was used in completing Schneider et al.'s (2000) first two stages in establishing a funding mechanism. The first stage consisted of identifying a list of all materials and services needed. The second stage consisted of arranging for a rough cost estimate for the materials and services. This section of the literature review sets to examine the theoretical subsets in strategic planning, which define best practices in how leadership impacts strategic planning and successful implementation. Deciding who initiates, learning organization, stages of strategic planning, and communication represent the best practices used in this research project. The ideologies identified serve to gain a deeper understanding of what direct issues should be addressed when successfully developing a strategic plan. The significance of identifying a leader’s role in strategic planning provided a foundation to limit an initiative from failing by membership participation.

**Deciding who initiates**

The rapid rate of technological advancements and the impact it has on culture are important factors in decision making. A closer look at what is driving decisions becomes relevant because the source of change may decide which department within a school initiates a project. Hatcher (2002) poses the question, “is technology the force that shapes society or does society shape technology (p. 139)?” This question takes a closer
look at societal decision making. The following is an example of how different points of view may impact society with an implementation of a key-less card system: A police or safety department may hold the view point of initiating the technology in the name of safety; Informational Technology department may seek implementation because of a useful new source of technology. Both examples describe initiatives that may be engaged under different contexts. Hatcher (2002) described technology as being autonomous and ultimately decision making should remain ethical through acceptance of multiple viewpoints. However, Miller and Ahmad (2000) described how group leadership places question on who will be the executive decision maker within the collective and fears arise out of integrity over the loss of power through agency departmentalization. The battle over relevance and/or power between departments becomes an important factor in implementing new initiatives. Senge (2014) described a sense of stalemate during an initiative when two departments are unwilling to collaborate with one another. When one department may be deemed to be overreaching their authority; the other may form a sense of inertia by intentionally or unintentionally promoting the lack of participation for their own personal benefit (Champy & Nohria, 2001; Galpin, 1996)

Learning organization

Learning organization is the process of initiating change, sustaining momentum, and redesigning or redirecting the organization (Senge, 2014). In the case of power struggles, organizations should learn from past mistakes by identifying what causes failure and initiates change (Dutton, Dukerich, & Harquail, 1994; Geller, 1997; and Senge, 2014, Senge & Suzuki, 1994). One method of completing this process is through
conducting evaluations on the process of strategic planning (Connell, 1995; Heerkens, 2002; Hoisington & Vaneswaran, 2005). Evaluating the process will reveal a deeper understanding of the strategic planning stages and the impact relationships between stakeholders may have on the success or failure of an implementation (Bass, 2010; Connell, 1995). Understanding the mindset of stakeholders perceived roles can offer insight into what may motivate individuals.

If you don’t begin with the right foundation, it can be easy to send a wrong message by offending fellow members of the strategic planning committee (Carnegie, 2010, p. ix). That is why you need to be in the right mindset from the start of the project. Understanding roles from the start of the project can help put stakeholders into the right mindset (Bryson & Roering, 1988; Goleman, 2006; Rogers, 2003). Goleman (2006) promoted “Social Intelligence” as an important attribute in having the ability to understanding how other individuals’ mindsets may vary from your own interests. By understanding Goleman’s concept, acceptance of others’ ideology can lead to a more holistic vision of the project (Rogers, 2003). If participants become unwilling in nature, then Collins (2001) recommended a change must be made by replacing committee members. Collins (2001) and Heerkens (2002) both recommended the use of a project sponsor to help avoid unwilling participants. Heerkens (2002) described a sponsor as “typically being a representative of upper management who’s personally involved in the project” (p. 189). A project sponsor’s authority provides a power reinforcement for committee members to get on board with an initiative. Suburban College’s Vice President of Administration sanctioned this research project and served as the project manager.
Stages of strategic planning

Picking a project sponsor is a common first step in strategic planning (Bryson & Roering, 1988; Collins, 2001; Heerkens, 2002). This is typically followed by establishing a committee, team, or working group of stakeholders directly responsible for developing, implementing, and sustaining an initiative (Barksdale & Lund, 2006; Bryson, 2004; Erickson, 2006; Kemp, 1993). Once the committee is formed, they may begin on completing the first stage of strategic planning; create a clear vision of the outcome sought. The second stage consists of developing a mission statement. A mission statement is the guiding principles in which the committee will abide by during the process of the strategic plan. The third stage consists of establishing goals needed to be achieved in order to complete the vision. The final stage consists of establishing objectives for each of the stakeholders to complete.

Communication

In each of the four stages of strategic planning, communication by a project leader plays an integral component in proper development. The vision, mission statement, goals, and objectives are fostered through the guidance provided by the project manager. The explanations given on the role of communication in strategic planning provides guidance as best practice in implementing an initiative.

Vision. According to Senge (2010), if committee members have experienced a lifetime of visions that never came to fruition, they may not be willing to experience buy in towards a new initiative. A project leader will have to give committee members a purpose in order for them to accept a vision of a new initiative. The vision serves as the
motivation that takes a committee to a finished goal. Senge (2010) explained, committee members will be able to identify gaps in a vision and they should be encouraged to share their inputs to gain a higher level of membership. The higher level of membership will then turn into excitement and motivation towards participating in the initiative. Senge (2010) added, starting off with smaller objectives and goals may be beneficial to actualization and share achievement early on can be instrumental in completing an initiative over the long haul.

Mission Statement. Committee members will vary in abilities and it is up to the project leader to know how to engage members to maximize efforts. A mission statement provides the framework in which all parties will adhere to throughout the strategic planning process. One method in developing a mission statement may be found within Hersey and Blanchard’s (2010) interpretation of Life Cycle theory of leadership. The primary objective with initiating structure is setting expectations for completing a task by creating guidelines in how committee members will engage one another and their objectives.

Hersey and Blanchard (2010) used the Managerial Grid and Parent-Child example to illustrate successful leadership engagement. In this process, the Parent-Child example exemplifies a life story for which leaders can relate to help understand the Managerial Grid construct with engaging employees. The Managerial Grid consists of four main phases where a child becomes an adult. In the beginning, the leader serves as the parent, while the committee member starts as a child. In the beginning a parent must provide the initial structure for the child that doesn’t have the cognitive ability to understand. As the child matures, they begin to take on responsibilities with the parent still providing
structure. The child will eventually seek independence from the parent accepting more responsibility while engaging fellow committee members. In the final stage, a child moves out and takes complete responsibility for their life. A leader will need to identify which members are at what various stages in order to help provide support to individuals when needed.

**Objective.** A project manager may create situational turning points, where a decision impacts achievement of an objective or goal (Maak & Pless, 2006). A project manager should assign teams within a committee to form an interdependency between members. Stagl, Salas, and Burke (2007) identified interdependency as a venue for team members to share positive individual attributes to form the most capable team in completing an objective. When assigning objectives, the project sponsor should make a presence to limit the amount of decision-making and questioning by committee members from the onset of implementation (Heerkens, 2002; Hersey & Blanchard, 2010; Stagl et al., 2007). Hersey and Blanchard (2010) explained, when group dynamics mature with understanding, power should shift from project manager to committee members. A project manager’s role would then be to nurture group dynamics through the completion of the vision (Hersey & Blanchard, 2010; Maak & Pless, 2006).

**Strategic planning summary**

The best methods identified in the literature review served to provide a foundation of basic knowledge of future power struggles, learning organizations, and the importance of communication in planning for future project leaders. Strategic planning is not limited to the mentioned best practices, but they serve as relevant topics for this project. Chapter III outlined the strategic planning used in this project.
Chapter II Summary

In this chapter, the researcher reviewed literature pertinent to the evolution of environmental criminology, current conditions of the school environment, risk management, program evaluation, the advancement of modern CPTED in schools, and roles of a leader in strategic planning. In Chapter III, the researcher explains the format for the strategic plan. The results for the funding mechanism are presented in Chapter IV. In Chapter V, the researcher presents a summary of the project, provided conclusions, and suggested implications for practice and made recommendations for further study.

Chapter III

This chapter explains the rationale for the project, the origins of the methodology which drives the project, outline of the strategic plan, and the steps completed leading to the creation of the funding mechanism. The strategic plan highlights a road map of the process and communications by the researcher in developing the funding mechanism. These steps taken should be the focus for replication in creating a funding mechanism.

Rationale for Project

The lack of a practical model demonstrating how to segment a high-cost CPTED initiative was recognized by the researcher. This project created a working model worthy to include within Schneider et al.'s (2000) description of a five-stage process of parceling out high-cost CPTED initiatives. The project’s funding mechanism was also created to formulate a payment method for the procurement of a highly priced CPTED initiative (key-less card system) for Suburban College. The method used by the researcher denoted the creation of a multi-staged implementation process for funding a key-less card entry system through the use of non-matching government and private grants, in-kind gifts, and
corporate sponsorship. The project was divided into subsections to provide multiple options, dependent on grant procurement size, allowing the project to be completed in several phases and years.

Methodology

The origins of this project were derived from Schneider's et al. (2000) outline for retrofitting schools with CPTED initiatives. Schneider’s et al. (2000) noted a five-step process for strategic planning in times of limited capital. The first step included an analysis of school issues with an itemized list of all materials and services needed. The materials are listed below. The second stage consisted of arranging for a rough cost estimate for the materials and services. This was done through the collaboration of a local business. The figures for the rough cost estimate may be found within the funding mechanism located in Chapter IV. The third stage consisted of establishing a strategic plan by; parceling out improvements over a period of ten to twenty years while pursuing non-matching government and private grants, in-kind gifts, and corporate sponsorship. The strategic plan was designed for a five year period and is located in Chapter III. The fourth stage promoted applying the early initiatives to areas deemed most needed. The strategic plan outlined the third and fourth-floor classrooms as the immediate focus area for initial plan stages and is located in Chapter III. The final stage is maintaining the justification of the plan and seeing it through the course of the strategic plan. The strategic plan outlined the process used to oversee the implementation and governance of the new initiative.

Schneider has become the lead authority with school CPTED initiatives in the United States and did not include a working model of the five stage process in parceling
out a CPTED initiative within numerous written guides (Schneider, 2000; 2001; 2002; 2008). This project created a funding mechanism to model the funding process of stage three; parceling out a project over a five-year period, while pursuing non-matching government and private grants, in-kind gifts, and corporate sponsorship. The intention of the project is to give school officials, practitioners and/or researchers a model in which they may actualize the ability to fund and develop their endeavors when lacking funds.

**Strategic Plan**

A strategic plan was created to outline the process of procurement for a key-less card system. The initial stages of the strategic plan served to identify the costs related to materials and services needed to implement the initiative. The project’s significance was found in the development of a funding mechanism by segmenting fully operable subsections of the overall system. The results carried over an outlined process for the grant writing stage of the strategic plan.

**Unique Value Proposition**

The Suburban College Police Department has the micro-data needed to identify locations of risk. The separation of school and police department allows for both entities to be eligible for a wider variety of government grants (law enforcement and educational grants) to be used on campus grounds. Additionally, the researcher served as the lead member of the strategic planning team as both a student researcher and an employee (police officer) of Suburban College. The researcher’s background as an employee enhanced their understanding of the current environmental and social conditions in which strategic planning would address. The insider status allowed for quickly establishing access to stakeholders, materials, and information needed for this project.
Funding

The creation of this project did not impose any additional costs to Suburban College or the researcher outside of normal work obligations. The project was constructed with the implication to use non-matching government and private grants, in-kind gifts, and corporate sponsorship for the procurement of a key-less card system upon the approval of using the funding mechanism.

Suburban College may only proceed with the purchase of a key-less entry system by 100% funding from non-matching government and private grants, in-kind gifts, and corporate sponsorship. The project was divided into subsections for the possibility of using multiple grants for completion. Upon completion of installation, Suburban College’s IT department was to absorb the system under their umbrella of responsibility (maintenance).

Strategic Priorities

The Suburban College’s project included two phases. The first phase addressed; the creation of a strategic plan, identification of stakeholders, ROSI, identification of materials and services, obtain proposal, the creation of a funding mechanism, and the implementation process. The second phase consisted of continuing with the strategic plan for the prioritization of secondary doors. The actualization of costs was intentionally delayed, as technology depreciates over time and figures will be skewed. Suburban College estimated a high-side figure of one million dollars to complete the second phase. For the purpose of this project, only the first phase was used in the development of the funding mechanism. An outline of the strategic plan, identification of stakeholders, ROSI, and an identification of services and materials are provided in
Chapter III. The funding mechanism will be detailed in Chapter IV. More specifically, the funding mechanism addressed the costs generated by the RFI for third and fourth-floor sections of the building.

Table 4

Outline of Strategic Plan

Phase 1

1. Formulate strategic plan committee and identify stakeholders
2. Inspection of site
3. Research theft
   a. Compile data
   b. Preform ROSI
4. Identification of materials and services
5. Obtain proposal
6. Create
   a. Vision
   b. Mission statement
   c. Goals
   d. Objectives
   e. Funding Method
7. Project Sponsor
   a. Review proposal
   b. Review capstone
   c. Board approval of project
8. Request for Proposal RFP
   a. Obtain a minimum of three qualified bids
   b. Review of Bids
   c. Board Approval of winning bid
9. Secure funding through non-matching government and private grants, in-kind gifts, and corporate sponsorship
   a. Third-floor classroom doors
      i. 3100 and 3200 north hallway
      ii. 3100 and 3200 south hallway
iii. 3300 and 3400 north hallway
iv. 3300 and 3400 south hallway

b. Fourth-floor classroom doors
   i. 4100 and 4200 north hallway
   ii. 4100 and 4200 south hallway
   iii. 4300 and 4400 north hallway
   iv. 4300 and 4400 south hallway

10. Installation of product
11. Training of new technology
12. Implementation of new technology

Phase 2

1. Secure funding through non-matching government and private grants, in-kind gifts, and corporate sponsorship
   a. Interior
      i. first and second-floor
      ii. Building entrances
   b. Exterior
      i. Gymnasium
      ii. Parking gates
      iii. Garage Athletics storage

2. Installation of product
3. Training of new technology
4. Implementation of new technology

Roles and Responsibilities. Stakeholders are identified in this section. For purposes of this capstone project, stakeholders only had to participate in the creation of a vision and answering specific questions related to their area of expertise by Security Company. The researcher assumed the role of primary contact with Security Company, per Project Sponsor. Primary roles and responsibilities for stakeholders will not be actualized until final approval from Suburban College’s Board of Trustees to move forward with this initiative.

The following leaders will be assigned the stated roles. Suburban College Police Chief will be responsible for security access approval and facilitating investigations. The
Facilities Improvement Technology Leader will be responsible for coordinating new and existing technology. The Facilities Modernization Team Leader will organize new initiatives related to updating facilities. The Facilities Sustainability Team Leader will coordinate collaborative efforts to make sure all parties provide input for the initiative. The Internal Review Process Team Leader will guide the final review before submission to the Suburban College’s Board of Trustees. The Student Advising Team Leader will represent student concerns and suggestions related to student stakeholders’ safety and privacy. The Community/Business Partnership Team Leader will relay RFI and RFP opportunities to the community and facilitate the pairing of outside collaborative efforts. The Grant Writer will be responsible for security of the grants and gifts. The leadership team will represent the organizational efforts in promoting the Suburban College’s new initiative by; effective collaboration among all stakeholders, securing funding from diverse sources, and building positive relationships throughout the college’s community.

Risk of Security Investment. Sonnenreich et al. (2006) outlined the method for establishing a ROSI. Using data from Appendix C, the research calculated the total ROSI for Suburban College’s investment. The first step established calculating the risk exposure. Suburban College’s theft data was applied to the following equation: Risk Exposure = Annual Loss Exposure = Single Loss Exposure * Annual Rate of Occurrence.

Table 5

<table>
<thead>
<tr>
<th>Years, Total, &amp; Average</th>
<th>Amount of loss in dollars</th>
<th>Theft occurrences with loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>$10,863.88</td>
<td>25</td>
</tr>
<tr>
<td>2014</td>
<td>$15,847.31</td>
<td>29</td>
</tr>
<tr>
<td>Year</td>
<td>Loss</td>
<td>Risk Exposure</td>
</tr>
<tr>
<td>--------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td>2013</td>
<td>$15,989.22</td>
<td>37</td>
</tr>
<tr>
<td>2012</td>
<td>$18,1812.00</td>
<td>39</td>
</tr>
<tr>
<td>2011</td>
<td>$42,866.15</td>
<td>45</td>
</tr>
<tr>
<td>5 year total</td>
<td>$104,378.56</td>
<td>173</td>
</tr>
<tr>
<td>5 year average</td>
<td>$20,875.71</td>
<td>34.6</td>
</tr>
</tbody>
</table>

*Risk exposure.* The researcher divided the average annual loss by the annual average occurrence of theft to produce an average cost of incident per theft of $603.34 ($20,875.71 / 34.6 = $603.34). The overall Annual Loss of Exposure used was $20,875.71. This total included loss experienced by both the college and the public at the location of Suburban College. This amount was plugged in table #3 ROSI equation.

*Solution cost.* Suburban College established training in the use of smart cards would entail directions given in a school-wide email for staff. Students will be instructed upon receiving their cards. Staff will be able to ask additional questions at the time of receiving their cards. The cost of training was estimated to be negated due to ease and time spent in training. Upkeep costs were not factored at this time because replacement parts could be factored into future segment procurement. The estimated cost of solution was calculated by: adding the amount of revenue needed to fund the monitoring service fee of the system and the cost of employing an internal employee (technician) to oversee usage of the system; then subtracting the salaries for the four employees (part-time security personnel salary) no longer needed by the replacement of technology. The following is the represented equation: $20,000 (annual monitoring service fee) + $35,000 (technician annual salary) − 55,219.20 (4 security salaries) = -219.20.

Table 6

*Risk of Security Investment Equation*
\[
ROS1 = \frac{(\text{Risk Exposure } \times \% \text{ Risk Mitigated}) - \text{Solution Cost}}{\text{Solution Cost}}
\]

\[
ROS1 = \frac{(20,875.71 \times \% \text{ Risk Mitigated}) - 219.2}{-219.2}
\]

The equation at this time cannot be completed because the percent of risk mitigated cannot be determined. The total solution cost equated to a cost savings for Suburban College of $219.20. The solution cost can be further manipulated in the favor of Suburban College by subtracting the cost associated with police paid hours handling cases and charging of fees associated with student identification cards. An estimated police salary of $19 per hour (didn’t factor for overtime or holiday pay), 34.6 cases of theft per year, and a half hour per case was used to equate the possible money to be saved by reduction in cases (hourly salary / time to do report * rate of occurrence = money that can be saved). If all theft was eliminated by the initiative, an additional savings of $328 could be realized ($19 / 2 \times 34.6 = 328). Smart cards will also serve as the students' identification card. Suburban College will have the ability to offset and manipulate the cost of initial and replacement cards for students as deemed necessary. Any money gained from student fees can be applied to the cost of Suburban College’s staff identification cards.

Appendix C accounted for identifying whether the victim was Suburban College or a member of the public. The risk exposure to the college was calculated at 26 occurrences over the past five years totaling $43,328.66 and averaging $8,665.73 loss per year. The combination of Suburban College and the public’s loss were used in the equation because of Suburban College’s responsibility to provide safety to the people it serves.
Theft summary. Suburban College had faced a reoccurring pattern of theft from its classrooms and common areas. The main campus site was designed as an open campus with long hallways and recessed doorways. The inability to monitor all the room entry points had been noted as a significant contributor leading to theft. Additional reasoning included: the building is large and has a vast amount of classroom doors; keys for doors have gone unaccounted for over the years; staff have tendencies of not locking doors when leaving the room unattended; each individual entering the college is not monitored for the duration of their visit; the vast amount of entrances and exits; and Campus Police cannot monitor all the multiple points of accessibility at every moment. Compounding the issue, thefts were primarily discovered to exist in these dead areas of coverage by surveillance cameras. Additionally, the dead areas of coverage outnumbered the amount of security personnel staffed creating areas of zero surveillance. In an attempt to change the repetitive nature of theft, an access control initiative (key-less entry system) was decided upon to limit who may gain entry to various sites within the campus. Investing in this type of initiative to change the social ecology found within Suburban College, represents Schneider et al.'s (2000) fifth step of taking action to improve social ecology.

Identification of materials and services. A key-less card system is a system in which an individual uses an assigned card to gain access. Suburban College will be able to use this system for a multitude of benefits. The card will be issued to all Suburban College staff and students as an identification card. The card can grant access to doors, parking lots, printers, and computers. Additionally, the card may be used as a debit card on campus and scanned to retrieve student records. Suburban College will have the
ability to code instantly who has access to specific locations, times, and dates. Each occurrence of the card being used is recorded. Cards can instantly be canceled if lost or stolen. Suburban College will also be able to see and track where each person carrying a card is located in the school building. The ability to monitor the locations of students can be useful during a crisis for rescue purposes. Additionally, during a crisis Suburban College will have the ability to lock doors remotely and generate access throughout the building as needed. The mentioned benefits make up the total vision of this project. The vision was created through the process of identifying wanted serves by Suburban College stakeholders.

*Inspections by Security Company.* The researcher established four site visits with Security Company. The site visits were a necessary component in creating a road map model of Schneider et al.'s (2000) five step process for parceling out a project over time (see Appendix G). The first two steps of Schneider et al.'s (2000) five step process, site inspection and estimating a cost for an initiative, were completed through this process. Additionally, step four of Schneider et al.'s (2000) five step process was completed as stakeholders had to decide which doors would receive priority first. The proposal then gave the researcher an estimated total to formulate Schneider et al.’s (2000) fourth step by creating a funding mechanism in how to pay for the initiative (see Chapter IV).

Visit one. The first site visit was conducted as a meet and greet. This visit allowed for small talk to establish an overview of what Suburban College was envisioning. Security Company created their own vision of services and materials they may be able to offer to Suburban College.

Visit two. This visit was between Suburban College’s stakeholders and Security
Security Company began this meeting by a formal presentation of their services and materials that could be provided for Suburban College. Stakeholders engaged openly in detailing what services and materials they would desire. This kept in line with Schneider et al.'s (2000) description of not letting the cost of items factor into decision making. This process led to creating a shared vision between all parties of what a final product may look like. Security Company was able to inspect Suburban College with stakeholders. This inspection allowed Security Company a chance to ask initial structural questions pertaining to Suburban College's facility.

Visit three. Leading to this visit, the researcher met with Project Sponsor and the Director of Physical Plant to establish a priority of installation. This represented Schneider et al.'s (2000) fourth step in deciding a priority of needs for which areas receive an initiative first. The third and fourth floor classrooms were identified as priority for first phase of initiative. The researcher provided Security Company with building plans for the third and fourth floors prior to the visit. The plans included markings for which doors Suburban College selected for product installation. Security Company wanted to make a visual inspection of each of the doors prior to bringing out their sub-contractors (locksmith and electricians) and technology support staff. This site visit allowed Security Company to locate where access readers would be placed (See Figures 1 & 2).

Visit four. Security Company conducted their final site assessment with sub-contractors and technology support staff. Security Company conducted a door-by-door inspection. Security Company generated an itemized list of all materials and services needed to complete a full installation of their products.
Proposal. The finalized proposal was created from this site visit and presented at a later date. The proposal from the site visits had an estimated proposal cost attached to the list of services and materials. The obtaining of an estimated cost of the initiative completed the second step in Schneider et al.'s (2000) five step process. The estimate was later used in this project to complete a funding mechanism completing step three of Schneider et al.'s (2000) five step process.

Services and materials. Suburban College developed a list of complete services and materials for the first phase. The services and items were not listed by segment because it was intended for the reader to see the scope as a whole. This was how the strategic team experienced the initial informational gathering sessions before the project was segmented. The information was actualized from the site visits with Security Company and stakeholders with specified service and materials, but a generalized overall total of costs. A more precise itemization will be provided from a winning RFP bid. The price per segment was established in the funding mechanism to account for all services and materials. The first phase accounted for the third and fourth floors. The services included; scope of the work needed to be done to complete the first phase, electric professional services, and work to be provided by the college.

The scope of the work centered on the installation of the access control hardware and software. The first step would be to convert all existing access control systems over to the new Andover Continuum. Next, furnish and install all twenty Andover ACX access control panels to manage the card reader doors. Next, furnish and install one hundred forty-eight new IClass readers and connect the card reader doors to the new Andover system. Next, furnish and install locking hardware for all classroom doors
(148). Next, replace request to exit motion detectors (Rex) with new devices. Next, add one hundred forty-eight new door contacts and connect those new door contacts to the new system. Finally, install thirty-two new enclosures with tamper switches to house the new access control equipment based on the maps provided.

Electric professional services were needed for project management, engineering, and coordination. Electric professional services assisted with technical on-site labor for terminations and system start-up. Electric professional services will assist with programming and commissioning the new access control devices and controllers. This would be followed by testing the new system for functionality and providing an engineered as-built drawing package upon project completion.

An electrical contractor will provide installation of cabling to one hundred forty-eight doors for card access. Each door will require installation of wiremold and flex. Then terminate card access equipment at each door. Electrical contractors will need to install one hundred conduit sleeves through all classroom walls for cabling route and thirty-two panels with power, Ethernet, and wiremold or conduit for cabling.

Suburban College accepted responsibility for some services during installations. Suburban College will be responsible for providing fire drops for any door that requires fail-safe options and UPS circuits for the new access controllers. Suburban college will decommission the existing access control system and remove all equipment that is no longer required.

Table 7

<table>
<thead>
<tr>
<th>Schedule of Equipment - Classroom Access Control:</th>
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<tbody>
<tr>
<td>Quantity</td>
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<td>Quantity</td>
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<td>20</td>
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<td>148</td>
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<tr>
<td>32</td>
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<tr>
<td>Lot</td>
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</table>

**Timeline**

This capstone research project set a timeline for Suburban College to enact this initiative upon Suburban College's Board of Trustees moving forward with this project. Stakeholders will meet formally once a month to collaborate and discuss progress during beginning stages of implementation. A minutes report will be generated for Suburban College's administration to review.

**Short-term.** The first action will be to advertise the acceptance of bids for an RFP. Upon successful acceptance of a winning bid, the grant writers will begin their process of grant procurement. This will be followed by installation of key-less card entry system over the next five years. Development of security protocols will be established after a bid has been accepted. Implementation of security protocols will be initiated with training upon installation. The Information Technology department will absorb upkeep...
and maintenance responsibilities. A collaboration between Campus Police and the Information Technology department will control access to systems use.

**Long-term.** Smart card technology will be incorporated into multiple facets of school technology (identification, debit card, and printer services). The second phase of this project will have a funding mechanism created; upon procurement of half the funds needed to complete phase one. A minimum of one update meeting will be held quarterly to inform stakeholders of the overall progress of the strategic plan.

**Chapter III Summary**

In this chapter, the researcher identified Schneider's et al. (2000) five step implementation process in parceling high-cost CPTED initiatives over time. This project used Suburban College’s strategic plan as a model for school officials, practitioners, and researchers to understand how to implement CPTED measures over time. The scope of work presented in this chapter outlined the use of Schneider et al.’s (2000) five steps in parceling out an initiative. Step one was completed through having an outside company perform a site inspection, conducted by Security Company. Step two, a rough estimate of the initiative was acquired from the proposal given by Security Company. Step three will be parcelled out over a period of time through the funding mechanism. Step four, identifying an area of focus to start with an initiative was completed upon review of theft data. Step five, identification of reducing theft was identified as the form of social ecology to address.

A local company donated their time and efforts to help assist with the actualization of completing the steps outlined by Schneider et al. (2000). There was no promise of purchase or special consideration to be given by participating in this capstone
research project. The RFP process was identified to have a more accurate account for an itemization of goods and services. This process may not legally occur until approval from Suburban College's Board of Trustees is granted. Since the nature of this capstone research project is exploratory, an RFP was deemed unnecessary at this point for Suburban College.

In this Chapter, the researcher explained the format for the strategic plan and its significance in formulating the funding mechanism. The results from the cost actualization were used to create the funding mechanism in Chapter IV. In Chapter V, the researcher presented a summary of the project, provided conclusions, suggested implications for practice and made recommendations for further study.

Chapter IV

In this chapter, the researcher formulates the funding mechanism. First, the overall initiative figures were identified. Next, each segment was assessed a value for the ability to work as a standalone initiative. The values and itemized lists were then compiled for the grant writers and community outreach staff. The grant writers will prepare their grant proposals for the first grant procurements. Community outreach staff will attempt to solicit the community for in-kind gifts and corporate sponsorship.

Cost of CPTED Initiative

The valuation was formulated by the RFI process. The valuation from the RFI process did not reveal itemized pricing but rather an overall evaluation for each of the two phases. The actualization of costs equated to approximately two million dollars for the total project. Phase one of the project was estimated to cost Suburban College $850,000 and Phase two approximately one million dollars. Segments were calculated by
dividing $850,000 by 148 (total of doors) equaling a per-door price of $5743. The $5743 figure was then multiplied by the number of doors in each segment. All breakdown figures of the segmented sections were related in approximations to the nearest dollar. Segments were valued at a projected high-end cost for labor and materials basis, to account for issues that may arise.

**Funding Mechanism**

The funding mechanism was constructed by producing the smallest segmentation possible to act as a fully operable system. Each segment had the capability to augment further the abilities of the system. Main components of each working segment included one access controller per 5-13 doors. The access controllers’ positions were planned for the ability to control one-half of each main hallway. The locations provided the best scenario to maximize the amount of doors covered by the range of the access controllers. Additionally, individual locations were dependent on the location of server closets located in each portion of the given hallway. The following is a breakdown of the total implementation costs per half hallway:

**Table 8**

**Funding Mechanism**

<table>
<thead>
<tr>
<th>3rd floor south hallways by cost</th>
<th>3rd floor north hallways by cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>3100 $45,946</td>
<td>3100 $45,946</td>
</tr>
<tr>
<td>3200 $40,203</td>
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<td>3400 $40,203</td>
<td>3400 $20,716</td>
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<tr>
<td>4th floor south hallways by cost</td>
<td>4th floor north hallways by cost</td>
</tr>
<tr>
<td>4100 $63,176</td>
<td>4100 $45,946</td>
</tr>
<tr>
<td>4200 $68,919</td>
<td>4200 $28,716</td>
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<td>4300 $74,662</td>
</tr>
<tr>
<td>4400 $68,919</td>
<td>4400 $51,689</td>
</tr>
</tbody>
</table>
Grant Writing

The segmentation values will be used for the next phase of the overall strategic plan, grant writing. The grant writer will be able to prepare grant proposals based on the total award maximums found within each prospective grant. The title and purpose of the grant will remain the same for each proposal with the dollar amounts varying. The project created a template for grant writers to follow simplifying and expediting the process in writing the proposals.

Community Outreach

In-kind gifts and corporate sponsorship will serve to supplement or replace grants for procurement of goods. Community outreach staff will attempt to procure in-kind gifts from alumni and various community members. The community outreach staff will also attempt to contact various corporations for sponsorship of the key-less card system.

Chapter IV Summary

In this chapter, the researcher presents the funding mechanism and established guidelines for a segment. The funding mechanism was intended to provide school officials, practitioners, and/or researchers with a guide to segment a CPTED initiative. Key capabilities of the funding mechanism included; implementation over time, segments contribute to immediate usage, and a seamless augmentation towards the system as a whole. Eight segments per floor and sixteen totals segments were calculated for the first phase. The costs associated with each segment was then recommended for approval to the Suburban College’s Board of Trustees. In Chapter V, the researcher presented a summary of the project, provided conclusions, suggested implications for practice and made recommendations for further study.
Chapter V

A funding mechanism was created to help assist with the procurement of a high priced CPTED initiative (key-less card system) for Suburban College. Suburban College had faced a reoccurring theme of theft from its vast and various rooms. The building was designed as an open campus with long hallways and recessed doorways. The inability to monitor all the room entry points had been noted as a significant contributor leading to theft. Suburban College allowed the researcher to engage in this process in an attempt to minimize the occurrence of theft. An initial itemized list of materials was identified and evaluated through an RFI process for approximately two million dollars.

The researcher applied Schneider's et al. (2000) five staged process for parceling out a high-cost CPTED initiative to Suburban College's initiative. The strategy consisted of segmenting the Suburban College's initiative into several standalone fully operable subunits. Eight segments per floor and sixteen totals segments were calculated for the first phase. Suburban College will have the capability to augment seamlessly each of the sixteen phases of the key-less card system as future segments are added. The funding mechanism also produced a template for grant writers to apply to the proposal writing process.

Evaluation of Theory

Weiss (1972) and Connell (1995) set out to establish the importance of evaluating the theory within research. They posed, evaluating the theory behind a project can strengthen the validity of the research. The researcher reflected upon several theoretical ideas used within this project for review within the conclusion; Schneider et al.'s (2000) five step process, Parnaby's (2007) costs relate to willingness, Collins (2001) and

The researcher found Schneider et al.’s (2000) five step process for parceling out a high-cost initiative over time did work in helping to create a funding mechanism. The researcher noted the steps were not realized in sequential order. Steps four (identify a primary area for implementation of initiative) and five (identify initiative for a change in social ecology) were actualized before steps 2 (estimated the initiative’s cost) and 3 (establish funding for initiative). Step 2 was achieved when Suburban College received Security Company’s proposal. Step 3 was then able to be created upon completion of step 2.

At the onset of the project, Suburban College concluded it would not seek out this initiative while it was self-funded. Parnaby (2007) concluded that a higher projected cost correlated to a higher degree of unwillingness to engage in the procurement of services. When the researcher explained to Project Sponsor the possibility of getting the initiative paid for through 100% outside funding; Project Sponsor permitted the researcher to engage in this capstone research project. The researcher warns outside funding may not have been the lone factor for the increase in willingness. The researcher’s insider status may have played a role in gaining willingness to conduct this capstone research project.

Collins (2001) and Heerkens (2002) both recommended the use of a project sponsor to help avoid unwilling participants. The researcher did not encounter any unwilling participants. The researcher did find it helpful having a project sponsor. The mere mention of the project initiative and the sponsor’s name appeared to get a surprised
reaction from most stakeholders. The researcher interpreted the surprise due to lack of regular involvement with Suburban College strategic planning by the Campus Police Department. It is common practice for these initiatives to be implemented through the Informational Technology Department. In the 2014-2019 Suburban College Strategic Plan, the Campus Police Department was never mentioned (see Appendix E & F). The researcher interpreted the support from using a project sponsor helped to avoid power struggle and a sense of inertia from stakeholders.

The researcher interpreted the inclusion of stakeholders at an early stage allowed for early buy-in to establishing a willingness. The researcher did this by following Senge's (2010) inclusion of stakeholders for creating the capstone research project's vision. Each stakeholder was allowed by the researcher to provide their input for what aspects of the initiative they would like to utilize. With an increase in involvement by stakeholders, gaps in the initial vision created by the researcher were able to be filled. The vision consisted of the final product for procurement. Partial ownership of the project appeared to of been successfully transferred to the stakeholders after this process. The researcher recognized the importance of transferring power to stakeholders, when ready, from Hersey and Blanchard's (2010) interpretation of life cycle theory.

Conclusion

This project's objectives were to design an applicable model of the segmenting process associated with high-cost CPTED initiatives and to provide a method of obtaining a new security measure for an economically challenged school. The funding mechanism was created in fulfillment of using all five steps from Schneider et al. (2000). The design highlighted the following features for replication; inspection of site, estimated
cost of service/goods, decision of funding source, priority of services implementation, and identification of social aspect for change. Additionally the funding mechanism identified a model for; implementation over time, segments contributing for immediate usage, and a seamless augmentation towards a system as a whole. The mentioned features combined to provide a method for obtaining a new security measure for an economically challenged school, completing the second objective. The second objective has led to a decision by the Project Sponsor to include a key-less card system into the next building management plan. The inclusion into the building management plan is significant, as it is a procedural mandate for receiving grant funding. Upon the completion of the Suburban College Building Management Plan, the college may begin to seek funding under the guidelines of this capstone research project to fund the initiative.

Implications

CPTED history has shown a breakdown in willingness to engage in large scale projects while expendable capital resources are limited. The findings related to willingness in Parnaby's (2007) research are significant towards the premises of creating this projects funding mechanism. With most of the schools in the U.S. being outdated for today's needs, CPTED costs will typically be substantial for retrofits. One could conceive, the high-costs of CPTED initiatives may bring considerable resistance in willingness to adopt such measures. This research project revealed a willingness on the behalf of Suburban College to engage in the process of informational seeking because of the zero cost aspect. The principle use of funding this initiative through grants, in-kind gifts, and corporate sponsorship has generated an opportunity for a proposal being
presented to Suburban College’s Board of Trustees. The opportunity is significant because Suburban College identified a key-less card system as a dead subject prior to the researcher’s approach. Additionally, the segmentation process of standalone features provided an opportunity for school officials to actualize the benefits early on of the CPTED initiative. The use of this model in CPTED guides and books may help to provide a more detailed example leading to a greater willingness for school officials to engage.

Recommendations

The researcher recommended this project may be applied to all K-12 and higher education schools, including private and public. Universities and colleges will have the added benefit of obtaining grants offered specifically to law enforcement agencies located within their facilities. K-12 schools should explore PBS and SCLE grant opportunities as they become available. For all schools; the United States Department of Education (DOE), General Accounting Office (GAO), Center for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS), Department of Justice (DOJ), Homeland Security, Federal Bureau of Investigation (FBI), National Center for Education Statistics (NCES), Bureau of Justice Statistics (BJS), Office of Justice Programs (OJP), and the Federal Emergency Management Agency (FEMA) are all agencies sponsoring research programs associated with environmental factors impacting schools. The multitude of opportunities mentioned for grant procurement through research offers an alternative structure for schools to obtain grants minimalizing a ROSI.
This project addressed Schneider’s et al. (2000) lack of a model within the CPTED guides for segmenting out a high-cost CPTED initiative over time. The researcher recommended additional research should extend the funding mechanism into the grant writing and community outreach process for detailing the entire strategic plan model. Additionally, the researcher recommended replacing this model’s cost evaluation with the more precise figures from the winning RFP bid’s itemization. Lastly, other first and second generation CPTED initiatives should be applied to both surveillance and access control initiatives by using the funding mechanism for future projects.

The researcher recommends establishing a project sponsor from the onset of an initiative to avoid power struggles. After establishing a project sponsor, engage stakeholders early for their viewpoints. This process should help lead to forming a shared vision by all stakeholders. The project manager would then acknowledge contributions by stakeholders; to transfer ownership of the initiative to all members of the organization. The transfer of ownership helps to avoid inertia by disgruntled stakeholders.
Reference


Horner, R. H., Todd, A. W., Lewis-Palmer, T., Irvin, L. K., Sugai, G., & Boland, J. B. (2004). The school-wide evaluation tool (SET) a research instrument for assessing
school-wide positive behavior support. *Journal of Positive Behavior Interventions, 6*(1), 3-12.


Figure 1

Third Floor
Figure 2

Fourth Floor
Appendix B

RFI

January 16, 2015

Mr. Paul Adams
Public Safety

Re: Budgetary Andover Access Control/IClass installation

Dear Paul:

Thank you for your continued commitment to and for allowing us to propose a Budgetary Andover Continuum Access Control Installation for This proposal is based on two site visits with This proposal is based on two site visits with

Scope of Work: Access Control

- Convert the existing access control system to Andover Continuum.
- Furnish and install twenty (20) Andover ACX access control panels to manage the card reader doors.
  - Furnish and install one hundred forty eight (148) new IClass readers and connect the card reader doors to the new Andover system.
- Furnish and install locking hardware for all Classroom doors (148)
- Replace Request to exit motion detectors (Ren) with new devices.
- Add one hundred forty eighty (148) new door contacts and connect those new door contacts to the new system.
- Install thirty-two (32) new enclosures with tamper switches to house the new access control equipment based on the maps provided.

In addition, provide the following Electric professional services:

- Project management, engineering and coordination.
- Technical on-site labor for terminations and system start-up.
- Programming and commissioning the new access control devices and controllers.
- Testing the new system for functionality.
- Providing an engineered as-built drawing package upon project completion.

Electrical Contractor will provide the following

Installation of cabling to one hundred forty-eight (148) doors for card access.
- Install wiremold and flex at each door.
- Terminate card access equipment at doors.
- Install one hundred (100) conduit sleeves through all classroom walls for cabling route.
- Install sixteen (16) panels with power, Ethernet, and wiremold or conduit for cabling.

Work not provided by

- Provide Fire Drop for any door that requires fail safe operation.
- Provide UPS circuits for the new access controllers.
- Decommission the existing access control system and remove all equipment that is no longer required.
Schedule of Equipment: Class Room Access Control

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>20</td>
<td>Andover ACX Access Controller</td>
</tr>
<tr>
<td>2</td>
<td>Dell Workstation with Continuum License Key</td>
</tr>
<tr>
<td>1</td>
<td>PowerEdge R320, Intel® Xeon® E-24XX v2 Server</td>
</tr>
<tr>
<td>148</td>
<td>IClass Readers</td>
</tr>
<tr>
<td>4</td>
<td>Andover XPB04 Expansion Modules</td>
</tr>
<tr>
<td>148</td>
<td>REX PIR Motion Detectors</td>
</tr>
<tr>
<td>148</td>
<td>Door Strikes</td>
</tr>
<tr>
<td>148</td>
<td>Door Closures</td>
</tr>
<tr>
<td>148</td>
<td>Door Contacts</td>
</tr>
<tr>
<td>32</td>
<td>Enclosures with tamper switch</td>
</tr>
<tr>
<td>Lot</td>
<td>Batteries, transformers, Power Supplies, Wire</td>
</tr>
</tbody>
</table>

**Exclusions and Clarifications**
- shall provide static IP addresses and network drops for each Andover ACX controller.
- Demolition/Removal of existing access control system by others.
- Patching and painting by others.
- Work is to be completed during normal working hours; no overtime work is included in this proposal.
- All new equipment provided in this proposal is covered by a one (1) year warranty. All warranty service work will be performed during normal business hours.
- Remote connectivity using VPN will be utilized for initial programming and ongoing service.
- After-hour service work will be billed separately at a premium on a Time & Material basis.
- Proposal is subject to terms and conditions which are attached.

**Complete Access Control Systems Upgrade for**

**Total Investment**..........................................................$ 850,000.00

Paul, we sincerely appreciate this business opportunity and look forward to working with you.

Best regards,

[Signature]

Account Representative
### Appendix C

**Suburban College Theft Data 2011-2015**

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<td>785</td>
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Cas C Amou Locati

2014
Rep
ort

14-  p  50  parking lot

06

14-  p  20  bus
stop

07

14-  p  187  gym

16

14-  p  160  315
1

20

14-  p  100  cafe
teria

21

14-  p  885  1st floor art
gallery

22

14-  p  7.5  234
5

25

14-  p  200  gym

31

14-  c  650  libr
ary

35

14-  p  1250  gym

39
14- p  60  315
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14- p  661.0  221
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14- p  42  325
60  6
14- c  100  1-275
63
14- p  5  423
74  6
14- c  1752.  322
75  8
14- p  300  parking lot
106
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112
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117
14- p  500  1st floor
130
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2013

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Appendix D

Correspondences with Security Company

To:
Subject: Re: Security Card Access Discussion Meeting

Hope all is well,

What time will you arrive on Thursday?

From: """"""
To: """"
Cc: """
Subject: Security Card Access Discussion Meeting

Thank you for your time on the phone this morning. Attached is my v-card information.

At your convenience please provide me the address, building name, and room number where the meeting will take place at South Suburban.

My team and I look forward to meeting you on the 29th.

Please let me know if you have any questions.

Thank you,

[Contact Information]

This email has been scanned by the Symantec Email Security.cloud service.

Continuum Meeting Follow Up

From:
Wed, Jun 11, 2014 06:46 PM
Subject: Cont
To:
Cc:
and I wanted to thank you and your teams time to meet with us about the Continuum security system. It's been about two weeks and we wanted to find out what your team thought about the Continuum security system.

We have a few follow up items that we wanted to schedule with you.

1. Setting up a tour for you and your team to visit
2. Setup a meeting to begin laying out a 5 year roadmap for security in your building.
3. Setup a meeting to discuss the security layout design on the

Please let me know how we can help. We look forward to hearing back from you and assisting you with all your security needs.

Thank you again,

Security Site Manager/PM
Phone
Email
Address:

RE: update

From: Mon, Jul 28, 2014 01:25 PM
Subject: RE: update
To: Paul,

Thank you for the update. We look forward to working with you if the decision is to move forward.

Please let me know if you have any questions.

Thank you,

From: Saturday, July 26, 2014 2:13 PM
Sent: To: Subject: update

I will be scheduling a meeting with the Vice President over these affairs. He holds the authority in deciding on moving forward. I am hoping he can see me on Wednesday. I will keep you up to date when I hear from him.

Paul
RE: update

From: [Redacted]  
Sent: Tuesday, August 05, 2014 9:20 PM  
To: [Redacted]  
Subject: Re: update

I had my meeting with administration today and received the go ahead for the next steps. What will you need next? I was told, I have to be the contact person for the project. We have active shooter training this week, should free up next week.

From: [Redacted]  
To: [Redacted]  
Sent: Monday, July 28, 2014 8:25:21 AM  
Subject: RE: update

Paul,

Thank you for the update. We look forward to working with you if the decision is to move forward.

Please let me know if you have any questions.

Thank you,
RE: 3rd and 4th Floor Walkthrough

From: [redacted]  
Subject: RE: 3rd and 4th Floor Walkthrough  
To: [redacted]  
Cc: [redacted]  

Sun, Sep 14, 2014 01:06 PM

Paul,

Attached are the marked up drawings from the discussion and walkthrough we did onsite. The drawings reflect all the doors that should get card access.

Please confirm these drawings are correct and let me know if anything needs to be added or removed.

Once the drawing is confirmed, I would like to setup a walkthrough on Oct 13th with are subcontractors. We will be bringing in are locksmith and electrical subs for the walkthrough.

We will need to walk every door and confirm controller locations for the subs to price this correctly.

Please let me know if you have any questions.

Thank you,

From: [redacted]  
Sent: Friday, September 05, 2014 7:36 PM  
To: [redacted]  
Subject: RE: 3rd and 4th Floor Walkthrough  

I will be there waiting. Here are the floor plans for the walk through.

From: [redacted]  
To: [redacted]  
Sent: Thursday, August 14, 2014 7:23:01 AM  
Subject: RE: 3rd and 4th Floor Walkthrough  

We will meet by the NE entrance doors at 3:30pm.

This walkthrough is to do the following:
1. Review the drawings and markup which doors require card access on each floor.
2. Figure out locations for the card access controllers on each floor.
3. Discussion of the next walkthrough with are subcontractors so we can provide a price for these two floors.

Thank you
Access Proposal for College

From: [Redacted]
Subject: Access Proposal for College
To: [Redacted]

Paul,
Hope all is well and hope you have great holidays.

Your budgetary proposal is complete and I was wondering when you have time to review the findings. I also wanted to discuss some additional options that could also work into your proposal.
When you have a minute let me know when your would be able to sit down and discuss the plan.
Thanks

Buildings Business | Security Account Executive
Phone: [Redacted]
Email: [Redacted]
Appendix E

Suburban College's Strategic Planning Retreat Report

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Submitted by:

April 8, 2014
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Part I: Introduction and Summary of Consensus Strategic Directions

A. Introduction

Like many community colleges around the country, College is operating in a rapidly-evolving, increasingly complex, and ever more challenging environment. Over the last several decades, we have seen massive shifts in the global economy; a growing transition toward knowledge-and service-based industry sectors; and increasing economic and workforce competition regionally, nationally, and internationally – placing new expectations and stresses on educational institutions, educators, and students. The recent economic recession, from which the U.S. is still recovering, compounds these dynamics. At the same time, the nation’s community colleges have increasingly been called upon to “be all things to all people”: To provide the gateway to four-year degrees; to develop skilled workforces; and to serve increasing numbers of students and more diverse kinds of students, from recent high school graduates to mature workers re-training for new careers, and including increasing numbers of students that face English language barriers and are economically and/or educationally disadvantaged. Adding to the challenge, while demands upon educational institutions have been increasing, funding has remained stagnant or has decreased, requiring that community colleges pursue creative new approaches to partnership, collaboration, and resource-leveraging.

Increasing the complexity of these challenges are sobering trends related to students’ college readiness, college completion, and credential attainment. Increasing numbers of high school graduates arrive at college unprepared to perform college-level work; several national studies indicate that only about 25% of high school graduates intending to go to college are indeed “college-ready” in the areas of English, reading, math, and science. This gap in students’ college readiness obviously has significant implications for developmental (remedial) education, and, ultimately, college completion and credential attainment. Studies indicate that about 60% of community college students take at least one developmental education course, and students can get “stuck” in developmental education courses for three years or more before being ready to enroll in credit-bearing courses that count toward attainment of post-secondary credentials. This trend can exhaust students’ financial resources, limit their earning and advancement power in the labor market, and, ultimately, discourage them from staying in college through attaining their credential. Indeed, “[f]ewer than half (46%) of students who enter community colleges with the goal of earning a degree or certificate have attained that goal, transferred to a baccalaureate institution, or are still enrolled six years later.”


This scenario is, without question, daunting – particularly given projections that by 2018, approximately 65% of all jobs in the U.S. will require a post-secondary certificate or degree. But this significant challenge simultaneously offers community colleges a tremendous opportunity:

"The American dream is at risk. Because a highly educated population is fundamental to economic growth and a vibrant democracy, community colleges can help reclaim that dream. But stepping up to this challenge will require dramatic redesign of these institutions, their mission, and, most critically, their students' educational experiences."

"Reclaiming the American Dream: Community Colleges and the Nation's Future, A Report from the 21st-Century Commission on the Future of Community Colleges, American Association of Community Colleges, April 2012

chosen to seize this opportunity as it began the process for developing the college’s new strategic plan, pursuing a fundamentally different approach that looked outside of the college’s walls to actively engage diverse stakeholders in the community – as well as internal college personnel and students – to provide input to strategic plan priorities and development. This planning approach was intentionally inclusive and transparent, market-focused, and data-driven, and was designed to engage internal and external college communities not just as stakeholders, but as true “stockholders” in it. It included conducting an online survey to gather input on performance and desired future strategic directions from internal and external college stakeholders; conducting economic and workforce data and program gap and surplus analyses; and developing and distributing an environmental scan report (released in February 2014) that synthesized stakeholder survey findings and economic and workforce data and program gap and surplus analysis findings. Before convened approximately 100 internal and external college stakeholders in a strategic planning retreat, held February 12-13, 2014, to gather input, discuss critical needs and opportunities, and craft a set of strategic directions to provide the foundation for the college’s new strategic plan.

The strategic planning process is guided by a dual focus upon supporting student success and advancing community prosperity. It is intentionally aligned to the American Association of Community College’s (AACC) 21st-Century Commission on the Future of Community Colleges’ 2012 report, Reclaiming the American Dream: Community Colleges and the Nation’s Future, which includes recommendations for reimagining the community college, known as “The Three Rs”:

1. Redesign students’ educational experiences;
2. Reinvent institutional roles; and
3. Reset the system.

Within the broader AACC 21st-Century Commission framework of recommendations, drilled down into three areas of focus most relevant to the college’s particular vision, opportunities, and priorities:
1. Increasing students’ readiness to undertake college-level work, for example:
   a. Expanding partnerships and alignment with the K-12 education system;
   b. Enhancing foundational and basic skill attainment;
   c. Pursuing innovations in “bridge” and developmental education; and
   d. Providing targeted interventions for at-risk students.

2. Improving completion rates, whether the completion is marked by attainment of an
   occupational certification(s) or a degree, for example:
   a. Improving student supports;
   b. Enhancing access and flexibility;
   c. Clarifying and streamlining educational and career pathways;
   d. Reducing achievement gaps among different student populations; and
   e. Accelerating certificate and degree attainment.

3. Closing skill gaps in the community; that is, aligning graduates’ learning and credentials with
   industry and occupational demand, for example:
   a. Aligning programming and services to target industry and employer needs;
   b. Aligning educational output (number of students and credentials) to regional demand;
   c. Building coherent educational
      and career pathways in targeted
      industries; and
   d. Contextualizing learning.

Woven throughout all three elements of planning focus were themes related to advocacy roles, its institutional accountability, and its policies and investments.

Taken together, the three key framework elements – college readiness, college completion, and closing skill gaps – combined with the overarching themes of advocacy, accountability, and policy and investment, drove strategic planning process, provided the structure for the February 2014 retreat, and will guide the college’s development of its new strategic plan.

B. Summary of Consensus Strategic Directions
During the February 2014 strategic planning retreat, participants developed, refined, and came to consensus on the following five strategic directions. We will use these strategic directions to form the basis for development of goals, strategies, activities, and performance metrics in the college’s new
strategic plan. Please see Part III for further detail on the planning retreat themes and discussions that informed development of these priority strategic directions.

### Enhancing College Readiness, Student Success, and College Completion

#### Strategic Direction #1:
Shorten remediation time and accelerate transition to college-level coursework: Reduce the time it takes students to advance from developmental education to college-level courses by \( X \) amount/percentage\(^4\) over the next five (5) years.

#### Strategic Direction #2:
Students of today and tomorrow will enter where they are, and the college will engage them in an individualized, student-centered process to ensure student success and completion that is based upon demonstrated best-practice models and is rigorously measured through outcomes assessment.

### Closing Skill Gaps

#### Strategic Direction #3:
Enhance collaboration with all K-12 stakeholders (district staff, guidance counselors, parents, students, etc.) to raise awareness about career opportunities at the certificate/associate degree level.

#### Strategic Direction #4:
In collaboration with regional partners, engage employers in targeted industry sectors in sustained relationships to identify, develop, and fill career pathways marked by relevant, workforce-driven certificates and degrees.

#### Strategic Direction #5:
Design and implement a competency-based, vs. program/course-based, approach to curriculum and credential design and development.\(^4\)

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\(^4\) At the planning retreat, participants determined that the target reduction amount should not be defined until relevant baseline data has been reviewed and analyzed.

\(^4\) During the planning retreat, it was decided that we would later determine whether this strategic direction should remain as a stand-alone or be incorporated as a strategy under either Strategic Direction #2 or Strategic Direction #4. In addition, some retreat participants noted that there may be internal college policy barriers related to expanding the use of prior learning assessment. It was decided that we will explore this issue further in order to resolve any barriers that may exist.
Part II: Agenda and Process for the Strategic Planning Retreat

As noted previously, the strategic planning framework, combined with its focus upon engaging external college stakeholders in the planning process, informed the agenda for the two-day retreat:

**Day 1 – Wednesday, February 12, 2014**

- 8:00 AM – 8:15 AM  President’s Welcome and Charge
- 8:15 AM – 8:45 AM  Keynote Address
- 8:45 AM – 9:15 AM  Setting the Context for Strategic Planning
- 9:15 AM – 12:30 PM  Three Discussion Panels Aligned to Planning Framework:
  - Increasing College Readiness
  - Improving College Completion Rates
  - Closing Skill Gaps
- 2:00 – 4:00 PM  Three Break-Out Groups Aligned to Planning Framework:
  - Increasing College Readiness
  - Improving College Completion Rates
  - Closing the Skills Gap
- 4:00 – 4:30 PM  In-Process Review and Break-Out Group Report-Outs

**Day 2 – Thursday, February 13, 2014**

- 8:30 – 10:30 AM  Three Break-Out Groups (continued)
- 10:45 AM – 12:00 PM  Break-Out Group Report-Outs and Discussion
- 1:00 – 2:30 PM  Gaining Consensus on Strategic Directions
- 2:30 – 3:00 PM  Closing Remarks and Next Steps

Through lunch on Day 1, planning retreat attendees included approximately 50 internal personnel and students and approximately 50 external community partner representatives. On the morning of Day 1, the Welcome, Keynote Address, and Setting the Context segments oriented all attendees to a new strategic planning approach; the relationship of the plan development effort to the AACC 21st Century Commission’s recommendations; and the national and global education, workforce, and economic dynamics driving the need for community college innovation. Following these segments, speakers on three moderated panels presented and discussed key issues, themes, and needs related to the three main planning framework elements (panelists were external to ). Please see the Appendix for the detailed retreat agenda, which includes presenter information for each discussion panel.
Following lunch on Day 1, external retreat participants were excused. On the afternoon of Day 1 and the morning of Day 2, internal participants reconvened in break-out groups aligned to the three planning framework elements to:

1. Discuss the key themes and "take-aways" they gleaned from the Day 1 morning sessions and panels within their particular area of focus;
2. Conduct an analysis of strengths, weaknesses, opportunities, and threats relative to their respective area of focus; and
3. Craft and refine three to five recommended strategic directions the college should embark on within their planning element, in order to address the needs, challenges, and opportunities raised during the Day 1 morning sessions and panels.

Following the break-out group sessions, planning groups reported out to the full group on recommended strategic directions within their particular areas of focus. The full group then participated in an exercise to come to consensus on a set of strategic directions that would serve as the foundation for the development of a new strategic plan. The group came to agreement on five priority strategic directions, discussed in Part IV.
Part III: Retreat Output – Keynote Address, Discussion Panels, and Break-Out Group Discussions

This section of the report includes:

1. Highlights from the retreat Keynote Address;
2. A summary of each discussion panel’s ideas and perspectives; and
3. A summary of each break-out group’s discussion.

Output from the panel discussions and break-out group sessions are presented under each relevant planning framework element (readiness, completion, or skill gaps). However, please recognize that there are certainly overlaps and cross-connects among the three areas, and that in several cases, the consensus strategic directions, discussed in more detail in Part IV, “touch” more than one planning framework element.

A. Keynote Address Highlights:

- High school and hard work no longer provide entry to the middle class; technology, globalization, and complex markets have made lower-skill, middle-class jobs obsolete. Education is the antidote to inequality, which is at the highest levels since the Great Depression.
- Illinois is a member of the Alliance of States under the Complete College America initiative. The state has made a commitment that by 2025, 60% of the adult population will have a post-secondary credential (the “60 by ‘25” goal). (See also the Illinois Public Agenda for College and Career Success.) Barriers to achieving this goal:
  - The number of individuals graduating from high school in Illinois is declining.
  - Outmigration of high school graduates (49th in nation).
  - Increasing level of poverty and declining state-based financial aid; nearly 50% of students in Illinois public schools are low-income.
  - Students are accumulating debt, but no degree: Only 5% graduate in two years, and only 12% graduate in three years.
  - Credit requirements for degrees have “ballooned”: Norm is 60 credits, but average is now 78.8.
- Student success strategies (see Complete College America):
  - Remedial education: College begins and ends with remediation. Assessment and placement testing are key obstacles to success. Use multiple measures and a testing score range (rather than a single score cut-off). Provide integrated student supports and corequisite, rather than prerequisite, remedial education. See Core Principles for Transforming Remedial Education.
  - College completion: Time is the enemy of college completion. Support students in going “all in” by attending full-time and taking 15 credit hours per semester. Borrowing more
money in the short term to attend full-time saves money in the long run. Attending full-time has been shown to support completion even for lower-performing students.

- Guided academic pathways to college completion: Too much choice – especially uninformed choice – leads to paralysis. Too much freedom in choosing courses leads to increased student debt and lower completion rates. Eliminate the “undecided” option; instead have all students enter broad, exploratory “meta majors” that serve as “on-ramps.” Provide academic maps for each semester and offer block scheduling and cohort-based classes, which also support full-time enrollment.

- Pursue high-impact education strategies: First-year seminars, learning communities, undergraduate research opportunities, and internships all enhance likelihood of completion (and have significant impacts for at-risk students in particular).

- Engage adults with some college but no degree: Incentivize this population to return to school. Waive fees and offer one-stop advising, guidance, and counseling, as well as more online courses. Use prior learning assessment (focus on competencies vs. “seat time”). Resources: Kentucky KnowHow2Go, Illinois Student Assistance Commission, Complete the Degree Chicago, LearningCounts, Council for Adult and Experiential Learning Prior Learning Assessment.

B. Increasing College Readiness

1. Discussion Panel Themes

- There needs to be co-ownership of the remediation challenge. Elementary, secondary, and post-secondary education must all own and work together to address the challenge.

- Better connections/exchange and articulation between K-12 and community colleges: Students need to understand what college is like before they get there. Don’t wait until high school; partnerships are needed at the elementary school level.

- Need proactive assessment and intervention; don’t wait until students are failing to address readiness challenges.

- Focus on career readiness as well as college readiness, and articulate defined academic and career pathways for students at a younger age. More contextualized learning opportunities (school + work/internships/experiential learning) to help prepare students for college and beyond.

- Employer engagement and parental engagement are critical to the readiness discussion.

- Focus on modularized, stackable bridge programming to help address readiness and foundational skill gaps – see the L-BEST model.

2. Break-Out Group Discussion Themes

**Major Themes**

- Decisions around developmental education must be data-driven
- Incorporate curriculum design models that are based on outcomes assessment results and best practice models from developmental education research
- Desired outcomes: Ability to make informed decisions, targeted support and effective redesign

- Need to rigorously assess the degree to which current developmental education design at is effective and successful and make adjustments accordingly
  - Must define college readiness and align with college-level coursework
  - Necessary remediation should be made more effective through curriculum redesign
  - Desired outcomes: Changes in pedagogical strategies, new developmental education models (corequisite courses, modular/stackable courses, community/Adult Education, etc.), embedded support, reduced remedial course offerings, reduced time to completion, increased student success

- Create interdisciplinary/blended models between student and academic services
  - Redesign OCS (first semester/first year experience course) to offer renewed focus on student learning outcomes related to critical, analytical, problem-solving, study, and social/life skills and academic planning and completion
  - Desired outcomes: Better-prepared students

- Increase the number of students who complete developmental education in less time and transition to credit and other career pathways
  - Evaluate and expedite the intake process to improve efficiency and effectiveness
  - Desired outcomes: Students move through pathways more quickly, better placement

- Strengthen partnerships to address readiness/remediation challenges
  - Strengthen partnerships among K-12, community education, and academic services for the purpose of developing college-ready skills
  - Desired outcomes: Increase in the number of students who are college-ready upon entry
### SWOT Analysis

#### SWOT Analysis: College Readiness

<table>
<thead>
<tr>
<th>Internal Origin (attributes of the organization)</th>
<th>HELPFUL to Achieving Objectives</th>
<th>HARMFUL to Achieving Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>1. Have great framework to collect outcomes assessment</td>
<td>1. No current database</td>
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<tr>
<td></td>
<td>2. Supplemental academic/support services are strong</td>
<td>2. Large percentage of students are unsuccessful in the current model</td>
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<td></td>
<td>3. Existing model for pairing developmental education with college-level and contextualized curriculum</td>
<td>3. Current offerings are not as effective as desired</td>
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<td></td>
<td>4. Existing 1c.h. model</td>
<td>4. Limited funding and instructors</td>
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<td></td>
<td>5. Existing models for transition/bridge/dual credit</td>
<td>5. Better intake placement needed</td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td>1. Build upon existing developmental education/college level design</td>
<td>1. Internal resistance</td>
</tr>
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<td></td>
<td>2. Exploration of new and re-tooling of existing curriculum models</td>
<td>2. State-level mandates related to Intermediate Algebra</td>
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<td></td>
<td>3. Expand model to English (college-level)</td>
<td>3. Decline in enrollment in upper-level classes</td>
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<td></td>
<td>4. Increase credit hours/full load opportunity for students in need of remediation</td>
<td>4. Student resistance</td>
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<td></td>
<td>5. Implement placement activities that include self-paced remediation</td>
<td>5. Students won’t buy into the design/won’t do it</td>
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<td></td>
<td>6. Make the overview provided in orientation mandatory</td>
<td>6. No funding to support professional development discussions (K-12 teachers and faculty)</td>
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<td>8. Parental/family engagement around readiness issues</td>
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<td></td>
<td>9. Strategic scheduling of developmental education courses</td>
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<td></td>
<td>10. Engage at the K-8 and 9-12 levels – counselors engage with the schools</td>
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<table>
<thead>
<tr>
<th>External Origin (attributes of the environment)</th>
<th>Threats</th>
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</thead>
<tbody>
<tr>
<td><strong>Weaknesses</strong></td>
<td>1. No current database</td>
</tr>
<tr>
<td></td>
<td>2. Large percentage of students are unsuccessful in the current model</td>
</tr>
<tr>
<td></td>
<td>3. Current offerings are not as effective as desired</td>
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<td></td>
<td>4. Limited funding and instructors</td>
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<td></td>
<td>5. Better intake placement needed</td>
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<td></td>
<td>6. Students remain under-prepared (lack of early testing and test prep)</td>
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<td></td>
<td>7. Muddled communication between feeder districts, as well among departments/areas in-house</td>
</tr>
</tbody>
</table>
C. Improving College Completion Rates

1. Discussion Panel Themes

- All college personnel must rally around the completion message: Focus on full-time attendance, student success, and college completion – “agree to degree” message. Engage faculty as student mentors, particularly for at-risk students.
- Advising/coaching is critical: Students don’t do “optional.” Must map coherent and clear pathways for students. Map entire programs from start to credential, rather than semester-by-semester course selection. “Meta majors” and block scheduling are important components. Less “optionality.”
- Focus on helping students “learn how to learn.”
- Needs to be a convener related to the completion barriers students face, e.g. poverty, race/ethnicity disparities, income and education disadvantages, etc. has a social contract with the community to explore and address these issues.
- Accelerate transition to credit-bearing courses through “early start” programs, supplemental education, and corequisite developmental education.
- Don’t focus on courses; focus on competency-based, “plug-and-play” modules.
- Look at attendance patterns. Students are “college-hopping” and acquiring too many credits but still not getting to certificates/degrees more quickly.
- Implement a consortium model: Combine resources with other area institutions and share existing courses among institutions to create/tailor programs at no new cost. Helps to address capacity and enrollment challenges.
- Create learning communities, particularly for at-risk students. Engage students to help their peers with navigation and problem-solving.
- Online learning is not appropriate for all students, particularly new/less experienced students. Face-to-face teaching/learning may be more effective with certain cohorts; be strategic in how online learning is leveraged.
- Consider conducting regular student surveys in which results are published and the college has to respond publicly [Illinois Institute of Technology Model]. Identify and respond to what students feel is holding them back.
- Advance completion by using prior learning assessment, particularly for students with prior educational/work experience.

2. Break-Out Group Discussion Themes

**Major Themes**

- Define success metrics for college completion
- Optimize admission, enrollment, assessment, testing, counseling, and registration process/experience for new students (improve/streamline the process for “on-boarding”)
- Start with individualized, student-focused/student centered assessment
- "One size" does not fit all students; must be respectful of and responsive to students' individual needs
- Encourage full-time enrollment for all students at the beginning of their college careers
- Student restrictions and wait lists are hindering completion
- Mandate "intrusive" advising/counseling throughout students' entire time at require all students to participate in counseling to complete; assign counselors that stay with students for the duration of their time at
- Create clear and defined academic/career pathways and course selection maps for students
- Need for stackable credentials leading to degrees in all departments
- Shorten the amount of time students spend in remediation (adopt best practice models)
- Implement cohorts/learning communities for student success
- Block scheduling: Offer courses at the same time across semesters and curriculums to improve retention
- Provide students practical opportunities to apply workforce skills
- Increase online educational offerings and the technology to support online learning
- Partner with other institutions to offer courses that may not be able to offer itself
- Offer transitions from non-credit to credit/offer credit based on experience
- Partner with high schools and four-year schools to support academic success across the continuum
- Institute proactive "retention alerts" earlier in the process (identifying and assisting at-risk students earlier)
- Apply the GECC stamp to transcripts when students complete the General Education core
- Use supplemental supports (academic software) for student learning outcomes
- Conduct exit interviews to understand why students leave
### SWOT Analysis

#### SWOT Analysis: College Completion

<table>
<thead>
<tr>
<th><strong>Internal Origin</strong> (attributes of the organization)</th>
<th><strong>HELPFUL to Achieving Objectives</strong></th>
<th><strong>HARMFUL to Achieving Objectives</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Number of career and academic offerings (choice)</td>
<td>1. Not updating career and academic offerings for relevancy</td>
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<tr>
<td>2. Affordability</td>
<td>2. Safety/threat issues (perception in the community, faculty/student perception, communication regarding safety/threat issues)</td>
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<tr>
<td>3. Experience – we know what we’re doing</td>
<td>3. Lack of identified shared resources for transfer and matriculation</td>
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<tr>
<td>4. Ration of full-time faculty to adjunct faculty</td>
<td>4. Not perceived as an excellent academic institution</td>
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<tr>
<td>5. Institutional supports for student success</td>
<td>5. Viewed more as high school than college</td>
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<tr>
<td>6. Student services and programming</td>
<td>6. Not offering courses on Saturdays (Fridays)</td>
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<tr>
<td>7. Student life opportunities</td>
<td>7. Cancelled classes interfering with degree completion</td>
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<tr>
<td>8. Availability of administration to assist in resolving issues</td>
<td>8. Inconsistent phone communications with students regarding class cancellations</td>
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<td>9. Accessibility of scheduling courses for students</td>
<td>9. Lack of class alternatives for working and advanced students</td>
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<tr>
<td>11. Availability of scholarships and Foundation as additional financial supports</td>
<td>11. Scheduling not offered with student completion in mind</td>
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<tr>
<td>12. Enhanced student access and communication through the student portal</td>
<td>12. Lack of direct student support in online courses</td>
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<tr>
<td>13. Good technology and technology support</td>
<td>13. Assumption that everybody knows and understands technology</td>
<td></td>
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<tr>
<td>14. Services for students with disabilities</td>
<td></td>
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<tr>
<td>15. Class size</td>
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<tr>
<th><strong>External Origin</strong> (attributes of the environment)</th>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Scheduling</td>
<td>1. Declining high school graduates</td>
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<tr>
<td>2. Remove barriers in the student portal</td>
<td>2. Resistance to change</td>
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<tr>
<td>3. Advertising student programs and opportunities</td>
<td>3. Lower growth rates in the community</td>
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<tr>
<td>4. Improving customer service</td>
<td>4. General economic decline in Chicago Southland</td>
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<tr>
<td>5. We can all be advisors for certificate and degree completion</td>
<td>5. Ill-prepared students</td>
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<tr>
<td>6. Identify our constituents</td>
<td>6. Lots of competition for students</td>
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<td>7. Develop more pipelines/pathways for</td>
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<td>8. Eliminate unnecessary restrictions</td>
<td>7. Age of our facility</td>
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<tr>
<td>9. Streamline developmental progression for students</td>
<td>8. Negative aesthetics</td>
<td></td>
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<tr>
<td>10. Adopt proven best practices, e.g. Complete College America.org</td>
<td>9. Age of our students</td>
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<tr>
<td>11. “Umbrella-ing” college programs so students acquire flexible skills</td>
<td>10. Decrease in eligible residents</td>
<td></td>
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<tr>
<td>12. Award as much eligible credit as possible</td>
<td>11. Decisions based upon reaction, not proactive based upon data</td>
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<tr>
<td>13. Award prior learning/competency-based credit (see LearningCounts.org)</td>
<td>12. Decrease in funding</td>
<td></td>
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<tr>
<td>14. Provide incentives for completers (see CompletetheDegree.org, KnowHow2GoKY.org)</td>
<td>13. Biggest feeder high school district has a number of issues</td>
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<tr>
<td>15. Use data to drive decisions</td>
<td>14. Switching to a four-year institution</td>
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<tr>
<td>16. Use of universal design</td>
<td>15. Over-saturation of students for certain careers</td>
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<td></td>
<td>16. Lack of student housing (homelessness)</td>
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<td>17. Lack of more targeted advertising</td>
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<td>18. Lack of reinforced notion that college is expected</td>
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<td></td>
<td>19. Need for continuing planned faculty and staff development</td>
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D. Closing Skill Gaps

1. Discussion Panel Themes

- There is a vacuum of data and dialogue around skill gap issues. Colleges should take a leadership role and convene employers, other colleges, economic development, and workforce development to better understand skill gaps in the region. Public/private partnerships with a regional focus are critical.
- Must understand what the key industry sectors are, what their workforce needs are, and how we should re-tool/adjust to better meet those needs.
- It was noted that while employers must be at the table, they don’t trust us yet. Employer relationship-building and ongoing engagement must be formalized. We must build the business case/return on investment for employers to work with us beyond just serving on program Advisory Committees and Workforce Investment Boards.
- Soft skills (customer service, work ethic, attitude, communication, time management, and team player skills) have been identified as a significant gap. Use capstone projects and internships to build students’ skills in these areas.
- Consider offering cross-training and credentialing in multiple industry sectors (e.g. healthcare and information technology).
Must focus on building career pathways. For example, ADN nurses must transition to BSN programs (and beyond) in order to meet regional workforce needs and be competitive in the marketplace.

- Consider granting some level of credit for industry certifications to help students advance in career pathways.

Manufacturing is important to the region; new opportunities with re-shoring/on-shoring is a key partner in the Calumet Green Manufacturing Partnership.

- Noted challenge: Potential academic faculty resistance to a focus on careers.
- See report on STEM Careers in Illinois.

2. Break-Out Group Discussion Themes

Major Themes

- Employer engagement priorities:
  - Identifying skill and credential needs by industry (workforce needs analysis – at the regional level and at scale)
  - Validating industry/workforce data
  - Building internship/apprenticeship/contextual learning partnerships
  - Validating training/graduate demand and surplus areas
  - Mapping career pathways
  - Addressing students’ soft skill gaps

- Existing Advisory Boards are not working – need to revamp Advisory Board experiences to make it more valuable for employers and also find other ways to build sustainable, ongoing relationships

- Building more short-term, stackable, modular, and responsive training and programs, including granting credit for industry certifications (competency-based credit and credentialing, prior learning assessment)

- Work better with outside organizations that are partnering with industry (in healthcare, manufacturing, criminal justice, law, etc.)

- Lack of communication between Advisory Boards/industry and student counseling/advising

- Must assess where we are over- and under-producing graduates and align programs and advising accordingly

- Need more collaboration with K-12 partners, including the expansion of dual credit

- Explore opportunities to blend programs, e.g. phlebotomy and EKG

- Improve collaboration and articulation between credit and non-credit

- The can serve as the "R&D" arm for Testing programs in non-credit before they transition to credit
### SWOT Analysis

#### SWOT Analysis: Skill Gaps

<table>
<thead>
<tr>
<th>Internal Origin (attributes of the organization)</th>
<th>HELPFUL to Achieving Objectives</th>
<th>HARMFUL to Achieving Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td></td>
<td><strong>Weaknesses</strong></td>
</tr>
<tr>
<td>1. Good community reputation</td>
<td></td>
<td>1. Credit/non-credit communication and collaboration</td>
</tr>
<tr>
<td>2. Working with the community</td>
<td></td>
<td>2. Perception (poor)</td>
</tr>
<tr>
<td>3. Smaller class size</td>
<td></td>
<td>3. Internship, apprenticeship, and service/applied learning is weak</td>
</tr>
<tr>
<td>4. Qualified instructors with real-world experience</td>
<td></td>
<td>4. Advising/counseling is not connected to labor market information, industry/occupational trends, etc.</td>
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<tr>
<td>5. Student services</td>
<td></td>
<td>5. Internal communication and collaboration</td>
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<td>6. Curriculum resources</td>
<td></td>
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<td>7. Professional contacts</td>
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<tr>
<td>8. Affordable, cost-effective education</td>
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<tr>
<td>9. Staff reputation</td>
<td></td>
<td></td>
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<tr>
<td>10. Rebound program</td>
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<table>
<thead>
<tr>
<th>External Origin (attributes of the environment)</th>
<th>Opportunities</th>
<th>Threats</th>
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</thead>
<tbody>
<tr>
<td><strong>Opportunities</strong></td>
<td></td>
<td><strong>Threats</strong></td>
</tr>
<tr>
<td>1. Expand and capitalize on the BCI model</td>
<td></td>
<td>1. Lack of service learning and clinical opportunities – need to build industry/employer relationships</td>
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<tr>
<td>2. Market quality of instruction/instructors, curriculum/programs</td>
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<td>2. For-profit and other college competition – need to differentiate</td>
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<tr>
<td>3. Get more involved with professional and industry organizations outside of the college</td>
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<td>3. Loss of funding</td>
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<tr>
<td>4. General marketing/outreach</td>
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<td>4. Increased high school drop-out rates</td>
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<tr>
<td>5. Increase in high-performing (AP) students</td>
<td></td>
<td>5. Loss of students due to lack of internal communication, poor customer service</td>
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<tr>
<td>6. Get creative with partnerships and resource alignment and leveraging</td>
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</tbody>
</table>
Part IV: Consensus Strategic Directions

On Day 2 of the strategic planning retreat, each of the three planning sub-groups (increasing college readiness, improving college completion rates, and closing skill gaps) presented recommended strategic directions within its area of focus for inclusion in the eventual strategic plan. The full planning group then participated in a consensus-building exercise to refine and align strategic directions across all three planning areas. The group came to agreement upon the following five (5) draft recommended strategic directions. Under several of the strategic directions are supporting notes, ideas, and/or potential strategies and tactics discussed during the planning retreat.

A. Enhancing College Readiness, Student Success, and College Completion

1. Shorten remediation time and accelerate transition to college-level coursework: Reduce the time it takes students to advance from developmental education to college-level courses by X amount/percentage over the next five (5) years.

   - Discussion notes and potential strategies/tactics:
     - Pursue faculty development as part of this process.
     - Strengthen partnerships with K-12 schools to address remediation and high school-to-college transition needs earlier (e.g. early assessment testing while students are still in high school, alignment between Common Core and college curriculum, etc.).
     - Enhance assessment and test preparation efforts, and make better use of available remediation tools (e.g. online tools) prior to testing students. Give students the opportunity to “brush up” during and prior to taking placement tests.
     - Make orientation mandatory rather than optional, and conduct orientation prior to placement testing.
     - Expand the OCS course model and have more students take OCS at the right time. Focus on building “student skills” and helping students “learn how to learn.”
     - Examine the current remediation model and determine what is and isn’t effective, based upon data. Research and adopt alternate remediation models that have been proven to work. For example, these may include corequisite courses; modular models rather than full, semester-long remedial courses; targeted/more focused up-skilling based upon specific skill deficits; and enhanced embedded student supports in developmental education.
     - Analyze data to ensure that developmental education courses are in fact preparing students for college-level coursework. Better focus and align developmental education courses to later college-level course content and requirements.

5 Please note that the may ultimate decide to subsume Strategic Direction #5 as a strategy under another strategic direction, or retain as a discrete, stand-alone strategic direction.

6 Retreat participants determined that the target reduction amount should not be defined until relevant baseline data has been reviewed and analyzed.
2. Meet students where they are and use data and student supports to ensure timely completion:
Students of today and tomorrow will enter where they are, and the college will engage them in an individualized, student-centered process to ensure student success and completion that is based upon demonstrated best-practice models and is rigorously measured through outcomes assessment.

- Suggested goal: Increase completers by 25% over the next five (5) years.
- Discussion notes and potential strategies/tactics:
  - Include a dual focus on high-touch skill development supports as well as lower-touch, high-tech supports.
  - Focus on both individual student needs and the needs of various student cohort groups.
  - Incorporate intrusive advising and block scheduling to support students continuously until completion.

B. Closing Skill Gaps

3. Build meaningful engagement with all K-12 stakeholders:
Enhance collaboration with all K-12 stakeholders (district staff, guidance counselors, parents, students, etc.) to raise awareness about career opportunities at the certificate/associate degree level.

- Discussion notes and potential strategies/tactics:
  - Expand engagement with junior and high school students through efforts such as dual-credit programs, career exploration workshops for secondary students, etc.

4. Develop regional industry sector and career pathways partnerships:
In collaboration with regional partners, engage employers in targeted industry sectors in sustained relationships to identify, develop, and fill career pathways marked by relevant, workforce-driven certificates and degrees.

- Suggested goal: Increase completers by 25% over the next five (5) years.  
- Discussion notes and potential strategies/tactics:
  - Conduct workforce needs assessment for employers in targeted industries.
  - Conduct supply/demand analysis and align programs and curriculum, academic advising, and career counseling accordingly.
  - Enhance the availability and use of internships, apprenticeships, service learning, and contextualized learning.
  - Implement strategies to enhance the engagement level and functioning of Advisory Boards.

If wishes to keep this completion goal or something similar to it, it may want to consider connecting the goal specifically to completions in programs of study that align to the identified workforce needs of targeted industry sectors. Alternatively, the college may wish to develop different goals related to efforts to address skill gaps.
Expand the resource base for skills training through enhanced partnerships with other organizations and the pursuit of Federal grant funding and other funding (e.g. foundation funding).

5. Implement competency-based approaches:
Design and implement a competency-based, vs. program/course-based, approach to curriculum and credential design and development.\(^6\)

- **Discussion notes and potential strategies/tactics:**
  - Example strategies may include expanded use of prior learning assessment for awarding credit; increased modularization/"chunking" of programs and courses and related development of stackable credentials awarded at shorter intervals; and development of more blended programs that integrate complementary skill sets across connected sectors and disciplines.

\(^6\) During the planning retreat, it was decided that would later determine whether this strategic direction should remain as a stand-alone or be incorporated as a strategy under either Strategic Direction #2 or Strategic Direction #4. In addition, some retreat participants noted that there may be internal college policy barriers related to expanding the use of prior learning assessment. It was decided that will explore this issue further in order to resolve any barriers that may exist.
Part V: Recommendations for Moving Forward in the Planning Process

In this section, we describe a potential process for follow in developing its new strategic plan and tracking plan implementation process. We also offer a template for a potential strategic plan outline.

A. Strategic Plan Development Process

The following discussion is intended to provide with a potential process "road map" for developing the college's new strategic plan. The process includes key steps that may wish to pursue in developing the critical elements of its new plan.

It is important to note that this process reflects a focus upon collaborative and inclusive plan content development, undertaken by a diverse group of college stakeholders. While assigning a smaller number of individuals to author the plan would very likely be less labor- and time-intensive, our experience has shown that a more collective approach to plan development fosters understanding, investment, and buy-in among the departments and personnel that will ultimately be charged with implementing the plan.

It is also important to highlight at the outset our recommendation that first present the overarching strategic directions, as well as the strategic goals associated with each strategic direction, to the Board of Trustees, and then devote additional time to Strategic Plan Goal Team-based development of the more tactical and operational action steps that will support each strategic goal. In this model, will obtain the Board's required approval and endorsement of the strategic directions and set of strategic goals – the core components of the strategic plan and presumably those of most interest to the Board – and will then spend further time crafting the more detailed and implementation-focused aspects of the plan. Again, it is our experience that a team-based approach to the development of action steps and related elements for each strategic goal delivers the best results in terms of support for implementation.
| 1. | President’s Executive Team (for example, the Strategic Planning Steering and Core Teams) reviews and edits, as necessary, the strategic directions and develops initial strategic goals under each strategic direction |
| 2. | President circulates updated strategic directions and goals to all college faculty and staff for input and buy-in |
| 3. | President emails all college faculty and staff to ask for volunteers to work on Strategic Plan Goal Teams (one team per each strategic goal)  
  - Ask for volunteers’ top two Goal Team choices (note that it will likely be impossible to provide the top team choice to all volunteers) |
| 4. | President’s Executive Team reviews and finalizes the high-level plan (i.e. strategic directions and strategic goals; operational action steps will be crafted later by Goal Team members, as described below) |
| 5. | President presents the high-level strategic plan (strategic directions and strategic goals) to the Board of Trustees for approval |
| 6. | President and Executive Team identify “Goal Leaders” for each strategic goal  
  - Goal Leaders are preferably selected from the volunteer list. However, if there is someone who would lead the goal best, they should be asked to serve. |
| 7. | President personally invites Goal Leaders to serve  
  - Goal Leaders should come from the faculty/administrator level  
  - Faculty and Administrators should be encouraged to serve as Co-Leaders of Goal Teams  
  - Goal Leader should not be responsible for the department under which the goal most generally fits (i.e. goal for business partnerships should not be led by the Vice President for Workforce Development). This ensures maximum “fresh” thinking. |
| 8. | President calls a meeting with Goal Leaders to provide them their charge |
| 9. | Goal Team members are selected from the college faculty and staff who volunteered in response the President’s volunteer invitation email (Goal Leaders can help with the Team member selection or Team member selection can be facilitated ahead of time)  
  - Goal Team members should be selected from various departments and positions throughout the college |
| 10. | Goal Team members are invited to serve |
| 11. | President sends an all-college memo announcing Goal Leaders and Goal Team members |
| 12. | Goal Leaders coordinate a kick-off meeting for all Goal Team members  
  - The President should try to attend this first meeting of the Teams  
  - Goal Leaders will set meeting schedule with their Team members; Teams should meet at least monthly and possibly twice-monthly, with ongoing work and coordination in between regular meetings |
| 13. | Goal Teams develop the action steps, timeframes, “owners” (i.e. individuals and departments/divisions primarily responsible for each action step), desired outcomes, and needed resources for each strategic goal |
| 14. | Goal Leaders and Goal Teams continue and complete development of action steps, timeframes, etc. for each strategic goal |
| 15. | President may choose to share the drafted plan with both internal and external stakeholders for their review and feedback |
| 16. | Plan is finalized and presented to the Board of Trustees for adoption |
Additional comments regarding strategic plan implementation:

- The President should meet quarterly with Goal Leaders through the strategic plan life cycle to assess progress and celebrate successes
  - Goal Teams should update the President quarterly, via a written report, regarding plan implementation progress
- The President should share regular (e.g. quarterly, once a semester, etc.) updates about plan implementation status with the full college community, with a particular focus on celebrating achievements and successes. The college may also wish to provide regular plan implementation updates to the external community, via regular reports, an online progress dashboard, etc.
- Action steps for each strategic goal may evolve over time; they should be updated throughout the plan life cycle

B. Strategic Plan Outline Template

The following outline is intended to provide with a high-level framework for the college’s development of its new strategic plan content. The plan outline includes four main components:

1. An introductory section, which discusses vision, mission, and values; describes the process the college pursued in crafting its new plan; and outlines the college’s strategic directions as well as the strategic goals that correspond to each strategic direction;
2. A plan matrix and accompanying narrative that discusses the college’s strategic directions and associated strategic goals, as well as the action steps, timeframes, parties primarily responsible for implementation of each strategic goal, etc.;
3. A section for discussion of how the college will track progress against the plan, connect plan implementation to other areas of institutional performance assessment, and report on plan implementation progress to both internal and external stakeholders; and
4. An appendix that lists the Strategic Goal Leaders and Strategic Goal Team members for each strategic goal in the plan.
Potential Plan Outline

I. Introduction

A. Vision, Mission, and Values

B. Overview of the Plan Development Process: Summary of approach and activities in developing the new strategic plan, including the focus on engaging external stakeholders in community-centered planning. This section should include a compelling discussion about the college's innovative approach to strategic planning and its goals for Institutional transformation and community impact.

1. Early Plan Development Activities: The college's activities early in the planning process

2. Environmental Scan: Stakeholder Survey and Economic and Workforce Data and Program Gap/Surplus Analysis: Soliciting input from internal and external stakeholders and using data to understand the regional "landscape" and help drive planning

3. Strategic Planning Retreat – February 2014: Engaging internal and external stakeholders in discussion; developing strategic directions in the areas of college readiness, college completion, and closing skill gaps

4. Post-Retreat Plan Development Activities. Plan development activities since the February 2014 planning retreat

C. Summary of Strategic Directions and Associated Strategic Goals: Note that five strategic directions in the areas of college readiness, college completion, and closing skill gaps were developed by consensus during the February 2014 planning retreat. Following the initial development of strategic directions, the college then crafted strategic goals that align to each strategic direction. Strategic directions and associated goals are summarized here, and discussed in fuller detail in Part II of the plan.

II. Strategic Directions, Goals, and Implementation Plans

Under each strategic direction, list and discuss associated strategic goals, as well as action steps, responsible parties, timeframes/milestones, needed resources/partners, and desired outcomes for each strategic goal.
III. Accountability and Transparency in Plan Implementation

This section should include a discussion of how intends to track progress against plan goals and action steps; connect implementation of plan priorities to other areas of institutional performance management (e.g. employee performance evaluation); and report on plan implementation progress to both internal and external stakeholders.

IV. Appendix: Strategic Goal Leaders and Strategic Goal Team Members

This section is designed to recognize the Goal Team Leaders and Goal Team Members that served in developing plan content, and that are serving as champions for ongoing plan implementation.
Part VI: Appendix - Detailed Strategic Planning Retreat Agenda

Strategic Planning Retreat Objectives

The guiding vision for the college's strategic planning process is a commitment to supporting student success and advancing community prosperity. The overarching objective of the strategic planning retreat is to obtain broad and deep input from internal and external college stakeholders to inform the development of the college's new strategic plan and its future investments and activities. Retreat participants will collaborate in the development of recommended directions for the strategic plan in the following areas:

- Increasing college readiness;
- Improving college completion rates; and
- Closing skill gaps.

Supporting areas of focus for the retreat include the college's roles in advocacy, accountability, and policy and investment.

Day 1: Wednesday, February 12, 2014

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>7:00 - 8:00</td>
<td>Hot Breakfast Buffet</td>
</tr>
<tr>
<td>8:00 - 8:15</td>
<td>President's Welcome and Charge: College</td>
</tr>
<tr>
<td>8:15 - 8:45</td>
<td>Keynote Address:</td>
</tr>
<tr>
<td>8:45 - 9:15</td>
<td>Setting the Context for Strategic Planning:</td>
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<tr>
<td>9:15 - 10:15</td>
<td>Discussion Panel #1: Increasing College Readiness</td>
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<tr>
<td>10:15 - 10:30</td>
<td>Break</td>
</tr>
<tr>
<td>10:30 - 11:30</td>
<td>Discussion Panel #2: Improving College Completion Rates</td>
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### Day 1: Wednesday, February 12, 2014

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>11:30</td>
<td>Discussion Panel #3: Closing Skill Gaps</td>
</tr>
<tr>
<td>12:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:30</td>
<td>Orientation to Break-Out Group Process and Outcomes</td>
</tr>
<tr>
<td>2:00</td>
<td>Break-Out Group Discussions:</td>
</tr>
<tr>
<td></td>
<td>• Increasing College Readiness</td>
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<tr>
<td></td>
<td>• Improving College Completion Rates</td>
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<tr>
<td></td>
<td>• Closing Skill Gaps</td>
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<tr>
<td>4:00</td>
<td>&quot;In-Process&quot; Review and Break-Out Group Report-Outs</td>
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<td>4:30</td>
<td>Adjourn</td>
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</table>

### Day 2: Thursday, February 13, 2014

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>7:00</td>
<td>Continental Breakfast</td>
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<tr>
<td>8:00</td>
<td>Welcome Back and Review of Day 2 Outcomes</td>
</tr>
<tr>
<td>8:30</td>
<td>Break-Out Group Discussions (continued)</td>
</tr>
<tr>
<td>10:30</td>
<td>Break</td>
</tr>
<tr>
<td>10:45</td>
<td>Break-Out Group Report-Outs and Discussion</td>
</tr>
<tr>
<td>12:00</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:00</td>
<td>Gaining Consensus on Priority Strategic Directions</td>
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<tr>
<td>2:45</td>
<td>President’s Closing Remarks</td>
</tr>
<tr>
<td>3:00</td>
<td>Adjourn</td>
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</table>
Appendix F

Suburban College's Board Approved Strategic Plan 2014-2019

Strategic Plan
2014-2019
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A message from President

Dear [Community):

It is with pride and gratitude that I present the strategic Plan 2014-2019.

The strategic directions and goals outlined in this plan draw upon the collective wisdom, experience, passion, and hopes of many dedicated members in our college community.

The plan has a dual focus: supporting student success and advancing community prosperity. The plan is comprehensive, forward thinking, and aligns with the American Association of Community College's 21st Century Commission on the Future of Community College's 2012 report, *Reclaiming the American Dream: Community Colleges and the Nation's Future*.

The plan is the culmination of a campus wide effort that actively engaged community educational and business leaders, faculty, staff, and students.

I purposely chose a broad, collaborative, and community-based strategic planning process. The values of openness, inclusiveness and transparency guided the entire planning process.

The college examined the three areas most relevant to the college's mission, vision, values, opportunities, and priorities:

1. Increasing students' readiness to undertake college-level work.

2. Improving completion rates.

3. Closing skill gaps; aligning graduates' learning and credentials with industrial and occupational demands.

I invite you and others within our community to continue engaging and contributing to the exciting, necessary, and demanding work before us. I am confident that through our collective efforts and combined expertise, the college and our community will achieve the goals and priorities identified in the plan.

President
Strategic Planning Process Background

This document captures the essence of [Redacted] College's strategic plan. [Redacted] strategic plan will provide focus, guidance, and direction for the next five years. The strategic plan includes the college's mission and vision statements, core values, four strategic priorities and directions, and a strategic planning monitoring process.

[Redacted] College chose a broad, collaborative, and community-based strategic planning process. [Redacted] College looked beyond the campus to engage diverse stakeholders, as well as, college personnel and students to provide input to strategic plan priorities and development. This planning was inclusive and transparent, market-focused, and data-driven. The efforts included: an online survey regarding [Redacted] performance and desired directions from internal and external stakeholders; the gathering of economic and workforce data and program gap and surplus analysis; and developing and distributing an environmental scan report (released in February 2014) that synthesized stakeholder survey findings, economic and workforce data, and program gap and surplus findings. [Redacted] then convened approximately 100 internal and external stakeholders in a strategic planning retreat, held February 12-13, 2014, to gather input, discuss critical needs and opportunities, and craft directions for the college's strategic plan.


Within the broader AACC 21st-Century Commission framework of recommendations, [Redacted] examined three areas most relevant to the college's vision, opportunities, and priorities:

1. Increasing students' readiness to undertake college-level work.

2. Improving completion rates.

3. Closing skill gaps; aligning graduates' learning and credentials with industrial and occupational demand.

Woven throughout all three elements of planning were themes related to [Redacted] advocacy role, its institutional accountability, and its policies and investments.

Taken together, the three framework elements - college readiness, college completion, and closing skill gaps - combined with advocacy, accountability, and policy and investment, drove [Redacted] strategic planning, structured the February 2014 retreat, and guided the college's development of the plan.

During the February 2014 retreat, participants developed, refined, and came to consensus on specific strategic directions. These directions are the basis for the goals, strategies, activities, and performance metrics in the college's strategic plan.
Mission And Vision

Our Mission

The mission of College is to Serve our Students and the Community through lifelong learning.

Our Vision

College is a welcoming, attractive, efficient, safe, transparent, and financially secure institution that fosters creative communication and synergy within the campus community and between that community and its partners.

Through innovative teaching, integration of technology, modeling sustainable practices that value the environment, cultivation of external partnerships and a culture of assessment will play a pivotal role in transforming the lives of its diverse student population.
College's mission and vision are supported by the following values:

Core Values

Service
We serve our students, partners, and the community.

Student-Centered Environment
We are dedicated to student achievement and promote innovative strategies and initiatives to maximize our students' opportunity for success.

Community
We value our partners in business, industry, government, school districts, and fellow educators.

Collaboration
We value collaboration among employees and constituents.

Accessibility
We offer accessible, affordable programs to a diverse community of learners.

Respect
We admire differences and treat others with civility. We respect the rights, differences, and dignity of others.

Excellence
We support excellence in teaching, learning, and all supportive services.

Sustainability
We will be recognized for our commitment to sustainability, education and training, and the implementation of green initiatives and practices.
Strategic Planning Management and Accountability Structure

Individuals will assume various roles to ensure progress and accountability for all aspects of the strategic plan. The roles and functions of the positions are described below:

**Strategic Directions Leaders (SDL):** SDL will provide executive leadership and oversight for all activities supporting a strategic direction. SDL will identify resources and staff to ensure that the college supports each strategic direction. SDL are Steering Committee Members.

- Strategic Direction Leader 1
- Strategic Direction Leader 2
- Strategic Direction Leader 3
- Strategic Direction Leader 4

**Strategic Goal Leaders (SGL):** SGL will provide leadership and oversight on all initiatives identified within a goal. SGL will monitor progress and coordinate efforts across strategy teams. SGL will design and implement accountability plans to ensure progress is made on goals identified in the strategic plan. All accountability plans will identify timelines and measurable outcomes. SGL are co-led by an administrator and a faculty member.

- Developmental Education Leaders
- Academic Pathways Leaders
- Completers Leaders
- Stackable Degrees Leaders
- Student Advising Leaders
- Testing and Placement Leaders
- College Readiness Leaders
- Career Readiness Leaders
- Industry/Education Connection Leaders
- Innovation Leaders
- Grant Leaders
- Facilities Improvement Leaders
Strategy Team Leaders (STL): STL are responsible for leading strategy teams. Strategy teams will develop and implement action plans. All action plans will identify specific goals, timelines, and measurable outcomes. Strategy teams are led by a faculty member and/or appropriate staff.

- Math Remediation Team Leader
- English Remediation Team Leader
- Reading Remediation Team Leader
- Student Orientation Team Leader
- Student Advising Team Leader
- Career Readiness Certification Team Leader
- Employability Skills Team Leader
- College Readiness High School Transition Team Leader
- Adult Education Transition Team Leader
- Service Learning Team Leader
- Internship/Clinical/Apprenticeship Team Leader
- Financial Aid Team Leader
- Community/Business Partnership Team Leader
- Articulation Agreement Leader
- Internal Review Process Team Leader
- Facilities Sustainability Team Leader
- Facilities Technology Improvement Team Leader
- Facilities Modernization Team Leader
2014-2019 Strategic Plan and Directions*

(*The development of Strategic Directions incorporated the framework recommended by the American Association of Community Colleges (AACC)’s report “Reclaiming the American Dream: Community Colleges and the Nation’s Future, A Report from the 21st Century Commission on the Future of Community Colleges).

Strategic Direction #1 (College Readiness)

College will shorten remediation time and accelerate transition to college-level coursework.

Goals:

CR 1.1: Develop and implement a plan to identify, assess, and place students in developmental education.

CR 1.2: Investigate and potentially incorporate multiple measures for diagnostic assessment.

CR 1.3: Accelerate developmental education completion.

CR 1.4: Increase success in developmental course/sequence.

CR 1.5: Develop and implement a system to track student progression through the developmental curriculum.
Strategic Direction # 2 (Student Success and Completion)

College will engage students individually to ensure success and completion based upon best-practice models and rigorously measured through outcomes assessment.

Goals:

SSC 2.1: Provide credit courses and associate degree programs for an academically prepared student body to assist them in preparing for effective transfer to baccalaureate programs or placement directly into the job market. The college will be accountable for the quality of academic programs and utilization of assessment data for effective instructional changes.

SSC 2.2: Provide high quality, accessible and affordable credit courses and associate degree and certificate programs for a diverse academically prepared student body to assist them in preparing for occupations that require career education beyond high school level.

SSC 2.3: Design and implement programs that develop student leadership, ethical decision-making, and international cultural understanding.

SSC 2.4: Provide student orientation and create opportunities for students to develop skills for college success.

SSC 2.5: Provide early and continuous educational pathway advising, ensuring that all students enter a pathway as early as possible.

SSC 2.6: Engage students in all aspects of their college experience.

SSC 2.7: Integrate advising into every student's ongoing educational experience.

SSC 2.8: Leverage technology to monitor student progress and intervene when appropriate with intrusive support.
2.9: Celebrate student success milestones.
2.10: Incorporate hands-on learning through apprenticeships, internships, clinical placements, fieldwork, service learning, etc.
2.11: Streamline automatic graduation when students meet requirements.
2.12: Establish reverse transfer processes that apply university credits towards associate degrees that can be awarded after transfer.
2.13: Align credentials with business and industry partners.
2.14: Establish stackable credentials.
2.15: Design and implement a competency-based vs. program/course based approach to curriculum and credential design and development.
2.16: Develop and implement a plan to review and examine internal processes that may improve or impede student completion and success.
2.17: Develop a process to allocate and/or reallocate resources based on the college's strategic plan directives and goals.
2.18: Develop a grant initiatives plan to secure support from government and private sources to meet the funding requirements and partnership needs of the strategic plan activities.
2.19: Develop a process to modernize all classrooms, labs, and other areas utilized by students, faculty, and staff as set forth by the college's master facilities plan.
2.20: Develop a plan to access and improve technology support systems that advance student learning.
2.21: Provide an attractive, safe, healthy, and welcoming learning environment for all students.

Strategic Direction # 3 (Educational Pathways)
College will enhance collaboration with all K-12 stakeholders (district staff, guidance counselors, parents, students, etc.) to raise awareness about career opportunities at the certificate/associate degree level.

Goals:

EP 3.1: Create early educational pathway assessments.
EP 3.2: Work with K-12 systems to align high school and college curriculum.
EP 3.3: Develop educational pathways/dual enrollment programs for high school students and pathways for adults.
EP 3.4: Assist high school students and prospective adult students in obtaining financial aid and developing college success skills.
EP 3.5: Communicate specific expectations for college and career readiness to middle and high school counselors, students and parents/guardians. Work with K-12 systems to create seamless pathways with aligned standards and curricula.
Community Engagement

1. Community Forum 2014

   A. Keynote Address

   B. Panel Presenters

   1. Discussion Panel #1: Increasing College Readiness

   2. Discussion Panel #2: Improving College Completion
Appendix G

Road Map Timeline

2007-2015

Researcher routinely used multiple keys (over 30 keys) during patrol. Keys were not reliable due to replication of keys over decades. Keys caused a loud jangling sound from normal movement during foot patrol. Researcher observed calls for theft occurring in locations outside of video surveillance cameras range.

2013-2015

Fellow officers and researcher experienced keys to be problematic during active shooter trainings. The loud jangling of keys gave away element of surprise. Too much time spent in the kill zone of a door way while unlocking doors was observed. Finding the right key during a crisis situation proved to be problematic. Not all responding police officers are issued keys.

October 2013

Met with Suburban College Dean that recently initiated a prior small grant for procurement of key-less access system. Project acquired some units, but was not intended or implemented school wide. Dean informed the researcher of which stakeholders’ inclusion would be needed to engage in this project. Dean abruptly parted ways with the College encouraging researcher to pursue this project.

November 2013

Researcher approached Chief of Police asking permission to conduct exploratory research and possible procurement of a key-less card system. Permission granted referred to Vice
President of Administration for further approval. Met with Vice President of
Administration to ask for permission to conduct exploratory research and possible
procurement of a key-less card system. Was notified college wanted to pursue the
initiative in the past, but did not have the funds. The Vice President of Administration
stated the college will not pay for initiative, but if the researcher could find funding they
would listen. Vice President of Administration agreed to become researcher’s Project
Sponsor.

December 2013

Researcher began research into alternative local security companies offering services for
key-less card systems. The current system obtained was primitive in nature compared to
current market systems which featured upgradeable and programmable features.

February 2014

Researcher contacted Security Company by phone explaining research project ambitions.
Research Company accepted to participate in the opportunity.

March 2014

Established a first site visit date in April to meet in person and conduct an initial
assessment of the physical layout of the building (via phone).

April 2014


First site visit with Security Company. Initial observational report to gain a deeper
understanding of the layout and possible needs of the College. This visit gave Security
Company a format to present their products at the first all stakeholders informational and
product selection meeting. Suburban College Police Department Clerk recalled theft data for review by researcher.

May 2014

First formal phone conversation between IT Director, Researcher, and Security Company (discussion of expectations for upcoming meeting).

Schneider et al.'s (2000) first step with identifying products and created vision.

Second site visit. Stakeholder meeting with a presentation of products by Security Company. Strategic planning vision was created by all stakeholders. Security Company conducted second site review with stakeholder team.

June 2014

Correspondence from Security Company thanking for opportunity to present their products and help with the research project. Researcher replied that a meeting with the Project Sponsor did not take place yet, follow up next month.

July 2014

Researcher and Project Sponsor had a project update meeting. Security Company would be making a third visit with their sub-contracted locksmith and electrician services, along with technology support staff to formulate itemized list of products based from the created Stakeholders’ vision. Researcher was identified to be the main contact person for the project.

August 2014

Correspondences between Researcher and Security Company.
Project was approved to move forward with third site visit. Security Company requested
meeting at their facility for preparation of third visit.

Schneider et al.'s (2000) fourth step deciding priority of need for which areas receive
initiative first.

Schneider et al.'s (2000) fifth step of taking steps to improve social ecology.

Meeting between Researcher, Project Sponsor, and Director of Physical Plant to establish
a priority of installation. Areas of theft and vulnerability were discussed at the meeting.
Third and Fourth floor classrooms identified as priority for first phase of initiative
procurement. These two locations represent the largest areas where a gap in video
surveillance exist. The initiative may help to contribute to a decrease in theft within
Suburban College. Security patrols would then be able to focus on common areas, where
theft also heavily occurs. Security Company was granted access and a copy of building
plans for the third and fourth floors.

Meeting took place at Security Company facility establishing access needs for sub-
contracted locksmith and electrician services, along with technology support staff. Final
review of types of products and services requested by Suburban College.

**September 2014**

Schneider et al.'s (2000) first step inspecting site.

Third site visit. Security Company conducted a visual inspection of locations depicted on
building plans to install readers and access control.

Correspondence between Researcher and Security finalizing location of doors to obtain
readers and setting date for fourth site visit.
October 2014

Schneider et al.'s (2000) first step inspecting site.

Fourth site visit. Security Company conducted an extensive review of Suburban College's building infrastructure. Security Company visually inspected every door to obtain a reader and closet that would be used to house access controls.

January 2015

Schneider et al.'s (2000) second step acquiring a rough estimate of cost for an initiative.

Meeting at Security Company's facility to review completed proposal. A review of products was conducted with the valuated estimated cost of project revealed by Security Company.

February 2015

Researcher met with Project Sponsor to discuss the proposal. Project Sponsor reinforced that Suburban College's lacked the funding to proceed with the initiative on its own.

Researcher reviewed plans with Project Sponsor to continue forward with the project by developing a funding mechanism. The use of non-matching government and private grants, in-kind gifts, and corporate sponsorship would be used to fund the procurement of the key-less card system. The Project Sponsor agreed to review the completed version of this capstone to evaluate, whether or not, the project will be presented to Suburban College's Board of Trustees for continuation. The capstone document would serve as the main component of the presentation. Permission to move forward by Suburban College's Board of Trustees would result in the publication of a Request for Proposal.

September 2015
Phone conference with David M. Rhea, Ph.D. of Governor State University’s Institutional Review Board. The capstone research project was deemed as a self-improvement (self-improvement for Suburban College) study project and did not need approval.

February 2016

Suburban College Police Department Clerk updated theft data for review by researcher.

March 2016

Schneider et al.’s (2000) third step establish a fiscal plan over a five year plan.

Funding mechanism was finalized.

Schneider et al.’s (2000) fifth step formulate adjustment to social ecology per adaption of initiative.

Capstone includes new patrol procedures for common areas and adjustment to students and staff using smart card technology.

Successful defense of capstone research project (continge of revisions).

April 2016

Project Sponsor decided to move forward with including key-less entry system into Suburban College Building Management Plan.

Revisions made and capstone submitted.