

Dispatch Consolidation Feasibility Study and Plan

**GLENCOE, KENILWORTH, NORTHFIELD,
WINNETKA, ILLINOIS**

matrix 
consulting group

August, 2016

TABLE OF CONTENTS

	Page
1. INTRODUCTION AND EXECUTIVE SUMMARY	1
2. GUIDELINES FOR CONSOLIDATION OPTIONS	10
3. PSAP OPERATIONAL ANALYSIS	20
4. CONSOLIDATION FEASIBILITY ANALYSIS	34
5. ANCILLARY SUPPORT SERVICE REQUIREMENTS	56
6. KEY TRANSITIONAL REQUIREMENTS FOR CONSOLIDATION	65
APPENDIX A – 7-YEAR GLENVIEW CONSOLIDATION PROPOSALS	75
APPENDIX B – PROFILE OF AGENCY PSAPS	80

1. Introduction and Executive Summary

This chapter provides an introduction to our study, an executive summary, and table of recommendations.

1. INTRODUCTION

The Matrix Consulting Group was retained by the villages of Glencoe, Kenilworth, Northfield and Winnetka (GKNW) to conduct a 911 dispatch consolidation feasibility study for the four villages. This report provides our evaluation, analysis, findings, conclusions, recommendations and plans for consolidation to comply with the state mandate deadline of July 1, 2016 for plan submission and implementation by July 1, 2017. The report focuses on a wide range of issues including consolidation staffing, workload allocation, options for completing ancillary workloads, customer service support, operational and capital cost requirements, and other important topics. To develop this analysis, the Matrix Consulting Group (MCG) conducted a variety of interviews, collected detailed data, toured village dispatch centers, obtained information from the village of Glenview regarding contract-for-service consolidation options, and remained in regular contact with the project's Steering Committee composed of the villages' managers and police/public safety chiefs.

This introduction and executive summary provide a synopsis of the scope of work and overall context for the study, the methodologies used in evaluating dispatch services, and a summary of the recommendations made.

2. EXECUTIVE SUMMARY

To help frame decision-making for alternative approaches to dispatch service delivery, these *Four Framing Elements* are critical to understanding, and were instrumental in developing, the analysis, findings, conclusions and recommendations contained within this report.

- **It is crucial to minimize delays in public safety service response for effective service delivery to the community.** The impact in delivering timely public safety personnel and apparatus to a call for service scene can be critical. It should be considered an imperative service delivery goal, particularly with respect to the highest priority requests for service. The role of dispatch in response time is essential to this effort. Call processing and dispatching capabilities, as well as minimizing call transfers among agencies, are vital to facilitating rapid response times.
- **Highly-trained professional dispatchers employing consistent protocols are ideal for enhancing effective public safety service delivery.** Those that make a full-time profession of providing public safety dispatch services are typically the most well-trained and thus reliable dispatcher staff. There are assignment approaches in effect throughout the country which use part-time dispatcher positions, sworn staff on temporary assignment, job-sharing, and staff performing multiple assignments at a single duty station (i.e., concurrently dispatching fire, medical, EMS, and call-taking). While these models work, and by necessity must be used all of the time or part of the time in some (particularly smaller) locales, the ideal is to deploy a fully-trained dispatcher professional able to focus on a few key 911 service delivery tasks.
- **In an era of government fiscal constraint, taxpayers deserve highly effective dispatch services at the most reasonable cost.** Performing effective dispatch services at the most reasonable cost should be considered a vital priority. This requires careful balancing of operating costs against service level requirements, and also requires some of the most difficult financial decisions in a dispatch organization.
- **Operational changes resulting from alternative dispatch delivery initiatives should have a net operational benefit to overall public safety services.** Changes in dispatch service delivery should have an overall benefit to public safety service delivery. Dispatch operational changes that result in any perceived or actual service deterioration should have a counterbalancing enhancement in service and/or cost such that there is an overall positive impact to public safety

service recipients. Determining “net” benefit is not only a quantitative effort but a qualitative effort. Agencies and customers with unique needs will judge these benefits differently. Nevertheless, it is important to attempt to articulate the “net benefit” to public safety services from any operational or organizational change in 911 communications.

In addition to these *Four Framing Elements*, the leadership of the four villages provided important guiding principles that established a foundation for consolidated service delivery options. These are contained in the body of the report but include such framing requirements as the continuation of a police field services relationship with Wilmette and the continued use of RED Center for Fire/EMS dispatch services for Winnetka/Kenilworth and Northfield.

Based on all these principles, the Matrix Consulting Group has provided consolidation options that reflect implementable and achievable alternatives that will ensure efficient and effective public safety service delivery.

(1) Key Findings and Conclusions

The following table compares the two primary consolidation options that provide the most reasonable and cost-effective opportunities for success based on the *Four Framing Elements* and Project Steering Committee guiding principles. Based on a variety of analysis and feedback, 911 dispatch consolidation options were narrowed to a combined Glencoe, Kenilworth, Northfield, Winnetka dispatch center (GKNW Center) or a contract-for-service consolidation approach with the Glenview Public Safety Answering Point (Glenview Center).

Table #1 – Comparing Two Options’ First-Year Consolidation Costs and Operational Considerations

	GKNW Center All Police and Glencoe Fire	Glenview Center Contract-for-Service All Police and Glencoe Fire
Cost-related Information		
Present Internal Dispatch Services Budget for GKNW	\$2,341,813	
Est. 1 st Year Dispatch Center Operational Cost	\$1,588,931	\$1,221,618
Addition of Four Administrative Support Staff to Villages	\$300,000	\$300,000
Est. First Year Internal Operational Cost to Provide Service	\$1,888,931	\$1,521,618
Est. One-time Start-up Capital Costs for Center	\$766,000	\$750,000
Est. 1 st Year Loaded Cost for Internal Operations	\$2,654,931	\$2,271,618
Operational Considerations (e.g. Four Framing Elements)		
Does the option include Wilmette as a PD Radio Partner?	✓	✓
Which option minimizes delays in public safety response?	✓	✓
Which option employs professional dispatchers?	✓	✓
Which option offers effective dispatch at most reasonable cost?		✓
Which option offers greatest net benefit to public safety?		✓
Which option best serves to strengthen GKNW relationships?	✓	✓
Which option best minimizes implementation complications?		✓

The costs above represent the first-year cost calculations of the consolidation options that would be implemented over the longer-term. Glenview has provided a seven-year cost escalation of 3.7% to 4.5% annually over the life of the contract (see Appendix A). It can be assumed that a GKNW Center would have similar annual increases. Note that first-year start-up capital costs disappear in the second year and thereafter.

- There are operational nuances to the above information in Table 1 that are important for context:
 - Total Fire/EMS Computer-aided Dispatch (CAD) workload for all four villages represents approximately 6.5% of all CAD incident work (1.5% for Glencoe, 5% for Winnetka / Kenilworth and Northfield). Dispatcher

staffing is therefore the same irrespective of the GKNW Center dispatching police-only or dispatching the villages' police and Fire/EMS, as the modest amount of additional Fire/EMS work does not justify additional positions. There is an approximate \$5,000 operational savings in training if GKNW dispatches police-only. Capital cost changes are difficult to quantify in a police-only dispatch environment, but likely nominal as illustrated below.

- The Glenview Center contract-for-service is “absorbing” Glencoe Fire/EMS work in its staffing model options. As such, the dispatch operational cost of a police-only service is identical. There would be a one-time start-up capital cost savings for Glencoe of \$80,000 for Fire/EMS-related capital costs if Glenview dispatched police only. This would require that Glencoe go to RED Center at a capital cost estimate of \$50,000 and an annual operational cost of \$79,000 (figures provided by RED Center).
- The four villages will need to hire Administrative Support positions to perform many of the functions currently undertaken by the villages' dispatchers. Workload suggests one (1) position at each village would be satisfactory to complete this work at an estimated annual cost for each position of \$75,000 for salary and benefits. This totals \$300,000 per year to the villages.
- There are modest additional recurring communications and other costs linked to dispatch-related service provision that are somewhat different for each village dependent upon its unique public safety operation. These would be incurred by each village regardless of the consolidation option chosen. Examples of these encumbered costs include:
 - Mobile Data Terminals (MDT) equipment and connectivity
 - Mobile and portable radio equipment
 - Radio connectivity (currently NORCOM phone line charges)
 - NORCOM assessment fees
 - Legacy Computer-aided Dispatch (CAD) connectivity
 - Video security connectivity and maintenance
 - Administrative phone line charges
 - Phone call recorders

A portion of these recurring costs, estimated from \$200,000 to \$300,000 for all villages, may be absorbed by equivalent services/technologies provided by Glenview, but this would have to be addressed in an implementation phase.

- Information summarized in Table 1 above, and discussed in detail throughout this report, indicates that GKNW should pursue the most cost-effective consolidated dispatch service approach which is the Glenview Center’s Contract-for-Service option listed above. As Glenview relies on its multi-agency partners to devise its own cost model, the villages’ leadership reached consensus on a cost allocation model as summarized in Table 2 below. The model incorporates the following elements:
 - 20% of the operational costs are designated as fixed (e.g., equal sharing of a supervisor) and are equally shared among the four villages.
 - 40% of the operational costs are based on each village’s proportional population.
 - 40% of the operational costs are based on each village’s proportional contribution to key call for service and event-based workload drivers that are common to each village.¹

Table #2 – Four Villages’ First-Year Operational Cost Sharing Based Upon Consensus Model (Glenview Model)

Community	% of Operational Costs	Dispatch Cost (Paid to Glenview)	Present Internal Dispatch Services Budget	Difference (Savings)
Village of Glencoe	28%	\$346,144	\$657,832	\$311,688
Village of Kenilworth	13%	\$160,308	\$337,029	\$176,721
Village of Northfield	25%	\$305,650	\$675,040	\$369,390
Village of Winnetka	34%	\$409,516	\$671,912	\$262,396
TOTAL:	100%	\$1,221,618	\$2,341,813	\$1,120,195

The costs in Table 2 do not include those expenses related to the addition of Administrative Support positions and the first-year start-up capital costs.

- For start-up **capital costs**, an equally shared capital cost allocation strategy is probably the least difficult to implement, barring any unique circumstances such as Glencoe’s Fire/EMS capital contribution. Each village would contribute \$167,500 in the recommended capital cost allocation approach, with Glencoe covering the approximate additional \$80,000 for Fire/EMS capital.

¹ Calls for service include traffic accidents and police alarms; events include Part I crimes, Part II crimes, and traffic stops conducted.

Table #3 – First-year Capital and Operational Cost Comparison (Glenview Model)

Cost Type	Cost
Village of Glencoe Capital	\$247,500
Village of Kenilworth Capital	\$167,500
Village of Northfield Capital	\$167,500
Village of Winnetka Capital	\$167,500
Sub-Total Capital	\$750,000
Four Villages Admin Support	\$300,000
Four Villages Glenview Contract	\$1,221,618
Sub-Total Operations	\$1,521,618
TOTAL First-year Capital and Operations	\$2,271,618
Difference from Current Internal Dispatch (Savings)	\$70,195

As demonstrated by the information in Table 3, first-year dispatch-related costs for the Glenview model still offer a modest savings even after an accounting of one-time capital costs, expenses incurred for administrative support, and the on-going recurring expenses for internal communications (e.g., radios, MDTs) and related items. Dispatch savings beginning in year two and thereafter will be several hundred thousand per year for the villages.

- Individually, the four villages are appropriately staffed to conduct core dispatch workload and ancillary administrative and records workload. There are, however, opportunities for economies-of-scale in a consolidated dispatch center as demonstrated above.
- Various modifications, many minor, to how public safety and customer service is now performed will have to occur. This includes providing an audio/visual kiosk for after-hours to customers that wish to contact the police department/dispatch (as 24/7 front desk service is no longer practical). Only a small proportion of lobby visitations will need to use this system, as most customer visits are conducted during business hours when Administrative Support positions will be available.
- Regardless of the state mandate for consolidation, there are substantive benefits to public safety services as a consequence of moving away from the single-dispatcher deployments that the four villages now rely upon.
- In the event the villages choose to implement the GKNW Consolidated Dispatch Center as summarized in Table 1, the modeled dispatcher staffing level

requirements for a GKNW Center is 10 full-time and 3 part-time staff. Currently, the four villages employ 16 full-time and 10 part-time staff to cover the centers. The GKNW Center model should also include two (2) lead dispatcher positions, which are part of the 10 dispatchers, as well as one (1) supervisor position.

- Regardless of the selected dispatch service delivery approach, the villages need to establish a Project Transition Team to implement the plan. This team should report quarterly to the villages’ Boards beginning September, 2016.

(2) Summary of Recommendations

The following table provides a list of the recommendations in this report. The chapters in this report should be reviewed for a detailed discussion and analysis of each issue and the background behind each recommendation.

Based on the Four Framing Elements that include operational and cost-related analysis impacting public safety service delivery, pursue a contract-for-service consolidated option (#1) with the Glenview PSAP. This is a 7-year fixed price contract beginning at \$1.22 million annually that consolidates all GKNW Police and Wilmette on a NORCOM radio channel and dispatches Glencoe Fire/EMS with its East Shore partners. Estimated capital start-up costs do not exceed \$750,000.
Develop Administrative Support job classifications and hire one (1) position at each of the four villages. These positions will complete ancillary workloads currently performed by dispatch staff. Based on various work such as front counter support, telephone calls, etc., schedule the staff from 8am to 5pm (1-hour meal). The estimated annual cost for each position is \$75,000 in salary and benefits or \$300,000 to the four villages.
Design a police entry Kiosk to provide audio/visual customer service for “walk-in traffic” during non-business hours. Glenview Dispatch would facilitate service. Glenview will maintain the system but initial capital investment is approximately \$10,000 per village.
Develop a plan with adjoining public safety partners, with strong consideration for Glenview, to handle prisoner processing and/or housing based on the unique needs of each village. Because of the Glenview service contract for dispatch, and the very minimal annual incarcerations from the four villages, Glenview might be approached to provide this service without further compensation.
Implement the devised charge-back model for the four villages and memorialize in an inter-agency agreement.
Revisit the cost allocation model for potential data update every four years.
Equally share among GKNW the start-up police-related capital costs estimated at \$167,500 per village. Glencoe would incur an additional \$80,000 capital cost for Fire/EMS.
In the event the villages choose a GKNW Center, based on APCO-related staff modeling and other analysis for the Center, the staffing plan would be composed of 8 full-time dispatcher positions, two (2) lead dispatcher positions, three (3) part-time dispatchers and one (1) supervisor.

GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan

Based on analysis for a GKNW Center, the Winnetka PD dispatch location would serve as the primary site for a four-village consolidated dispatch operation if this option is selected.

Develop a project transition team to devise and execute a Project Implementation Plan for dispatch consolidation. This would be done in concert with Glenview.

Identify a project manager from one of these agencies to serve on the consolidation transition project and task with executing a formal implementation plan consistent with Project Management Body of Knowledge PMBOK principles.

Report project progress to the villages' Boards on a quarterly basis beginning September 2016 and monthly beginning April 2017.

2. Guidelines for Consolidation Options

This chapter of the study provides an overview of relevant information with respect to the various guidelines that will lay a foundation for and frame Glencoe, Kenilworth, Northfield and Winnetka (hereafter GKNW) PSAP consolidation options.

The chapter includes:

- A discussion of the “Four Framing Elements” which should guide decision-making surrounding PSAP consolidation options.
- A discussion of the four villages’ guiding principles also framing consolidated options.
- A brief history of other consolidation initiatives impacting some or all of the four villages and their relevance to the current study.
- A discussion of the specific GKNW issues impacting potential consolidation opportunities.

This information provides a foundation for additional analysis in subsequent chapters.

1. DISPATCH CONSOLIDATION OPPORTUNITIES SHOULD BE SCRUTINIZED UNDER THE ‘FOUR FRAMING ELEMENTS.’

There can be little argument among service providers that an ultimate goal is to deliver *the most productive level of service to the consumer*. This essentially translates into the most effective (i.e., quality) level of service that can be provided in the most cost-efficient manner. And while cost is quantifiable, effectiveness elements have important quantitative and qualitative characteristics. As a consequence, agreeing upon what is “most productive” is often arguable, as service providers’ interpretation of quality can differ, let alone *what types of services should be offered*. There are some fundamental frameworks upon which nearly all public safety service delivery

professionals can agree. As such, the Matrix Consulting Group has adopted these 'Four Framing Elements' to help guide decision-making with respect to dispatch operations and consolidation opportunities.

(1) It is Crucial to Minimize Delays in Public Safety Service Response for Effective Service Delivery to the Community.

In the provision of emergency public safety service, seconds can make a difference. From Priority 1 call types such as an officer down, a baby-not-breathing or a structure fire, the reduction in response time (from E911 call receipt to unit(s) on-scene) should be a vital goal of all public safety service providers. According to the state of Maine Public Utilities Commission:

The Commission considers the single most important reason for consolidation is to improve emergency communication services resulting in improved public safety. For example, reducing call transfers between PSAPs and dispatch-only facilities improves response times and reduces the potential for human or technology errors in handling emergency calls. Comments the Commission received from regions that already have combined PSAP call taking and dispatch centers noted that unified PSAP and dispatch is crucial to the overall efficiency and accuracy in emergency communications and response and that it can improve the quality of emergency communications not degrade it as some fear.²

With respect to law enforcement, while there is various contradictory evidence with respect to overall response time having a significant impact on crime suppression/apprehension, there is general consensus that reduced response time targets for priority 1 and Code 3 (lights and siren) calls is highly desirable. Moreover, there is a wealth of research supporting the benefits of reduced response times in the fire and EMS service areas. The ultimate endpoint of various public safety research is

² Public Safety Answering Point Reconfiguration Plan, Maine PUC, 11/1/10, page 2.

to minimize response times to enhance service delivery, and to that end, dispatch service providers play a vital role in contributing to response time reductions.

(2) Highly-Trained Professional Dispatchers Employing Consistent Protocols are Ideal to Effective Public Safety Service Delivery.

Professionalizing public safety dispatch is becoming more commonplace throughout the nation given the benefits derived by the communities being served. The state of Pennsylvania Emergency Management Agency mandates through Chapter 120c dispatcher certification and training to be conducted by the Pennsylvania State Police. Texas, Kentucky, Florida, Utah and Georgia all have similar dispatcher certification requirements. Twenty-four states have moderate to strict legislative requirements related to Emergency Medical Dispatch operations. Finally, the National Academies of Emergency Dispatch (NAED)³ and APCO strongly advocate formal training and certification in their respective organizations. Clearly, there is widespread recognition that well-trained dispatcher personnel are central to effective public safety service delivery. And indeed, the benefits of specially trained public safety dispatchers are being recognized as shown by the following abstract from 9-1-1 Magazine:

Most agencies now have Communications Training Officers (CTOs), whereas just 20 years ago most trainees were assigned to a senior dispatcher or an unknowing dispatcher who was just working at the moment a trainee walked in the door. Within a day or two, it was time to solo. CTOs have been a great addition to our profession (and) they should also be somehow compensated for that additional responsibility and pressure, just as patrol Field Training Offices are compensated for this vital responsibility. In the early 1990s, the California fire service developed another specialty position that has since blossomed nationally. Based on the Incident Command System (ICS) "Radio Operator" position, it was modified into a local-agency based, rapid-deployment function called the Incident Dispatch Team (IDT). It was discovered that by using a specially trained dispatcher at a fire scene command post, it enhanced field

³ http://www.emergencydispatch.org/cert_home.php?a=cert

communications, unified command, responder safety, and resource management. By handling a myriad of responsibilities, it freed the Incident Commander to concentrate on the handling of the event while its IDT or specialized dispatcher handled vital tasks and resource tracking. Shortly after the rise of fire department IDTs, a now-retired FBI agent, realized that using professional communicators at hostage stand-offs, SWAT call outs, and other law enforcement events was a great tactical benefit. This training also started in California. This idea has gone nation-wide.⁴

There are assignment approaches in effect throughout the country which use sworn staff on temporary assignment, job-sharing, part-time dispatchers' positions, and staff performing multiple assignments at a single duty station (i.e., concurrently dispatching fire, medical, EMS, and call-taking). While these models work, and by necessity must be used all of the time or part of the time in some (particularly smaller) locales, the ideal is to deploy a fully-trained, experienced dispatcher professional able to focus on a few key and repetitive 911 service delivery tasks.

In summary, strong evidence exists that the deployment of professional dispatcher positions in a public safety environment is an essential service delivery approach for the most effective dispatch operations. This is demonstrated through training, experience, repetition of tasks, consistent application of common policies and procedures, certifications, and as-needed specializations to serve the public.

(3) In an Era of Government Fiscal Constraint, Taxpayers Deserve Highly Effective Dispatch Services at the Most Reasonable Cost.

In large part as a consequence of the "Great Recession," provision of government services at the most reasonable cost is particularly important. Nearly all states and local governments have faced significant budget reductions, many have initiated personnel reductions and other dramatic cost saving measures, and as a result there are very few, if any, public sector service delivery functions that are safe from

⁴ May 2004 article, 9-1-1 Magazine

potential service delivery impacts. These circumstances emphasize the need to provide services at the most efficient levels. According to a review of the Illinois State Legislature's intent with respect to PSAP consolidation:

The Act is premised on the conclusion that there are too many independent and diverse emergency telephone systems in the state to successfully implement a “next generation” NG911 solution. The Advisory Board has also concluded that consolidation of these systems would lead to greater interoperability and significant long-term cost savings at both the state and local levels (emphasis added). As a result, a primary goal of the Act is to reduce the number of ETSBs that the state distributes funds to, as well as the number of Public Safety Answering Points (PSAPs) that the state regulates.⁵

Monies saved from efficient dispatch operations could be expended in other public safety or government service areas. Regional dispatch services should therefore be collectively delivered at the most reasonable overall costs that will ensure cost-effective service delivery. It is not surprising that one of the catalysts for dispatch consolidation throughout the nation is cost containment.

(4) Operational Changes from any Consolidation or Alternative Dispatch Delivery Initiative Should Have a Net Operational Benefit to Overall Public Safety Services.

Perhaps the most difficult and fourth cornerstone of the ‘Four Framing Elements’ is evaluating the impact of operational alternatives on public safety operations in general, not just those associated with dispatch-based operations. There are particular reasons the most common dispatch model is one of localized dispatch services—the primary fact that such services provide important real or perceived benefit to the local community which they serve. Throughout the nation dispatch personnel provide widely different service types. These range from advanced and tactically based dispatch

⁵ Consolidation of Illinois 911 Authorities Pursuant to Public Act 99-0006; Illinois Government and Municipal Practice; 3/2016; pg1.

services in an incident command situation to staffing a front desk and performing face-to-face customer service in a rural setting as one of several “dispatch-related” job responsibilities. The analysis of this “net change” in overall public safety service is both quantitative and qualitative, but is no less important than other considerations noted previously. As such, it must be weighed equally, recognizing however, that there are three other framing elements that come into play when evaluating alternative dispatch service delivery options.

2. GUIDANCE RECEIVED OVER THE COURSE OF THE STUDY HAS FRAMED THE CONSOLIDATION OPTIONS TO BE EXPLORED.

Our analysis, based on a variety of information collected over the course of the GKNW project, is founded on the premise that there are a few viable consolidation options to fully explore. While various other consolidation options might be feasible, the Matrix Consulting Group and Project Steering Committee⁶ collectively determined over the course of the engagement that the options discussed below offer the greatest overall advantages and potential for success. Options identified in the following subsections serve to limit the consolidation opportunities explored in this report.

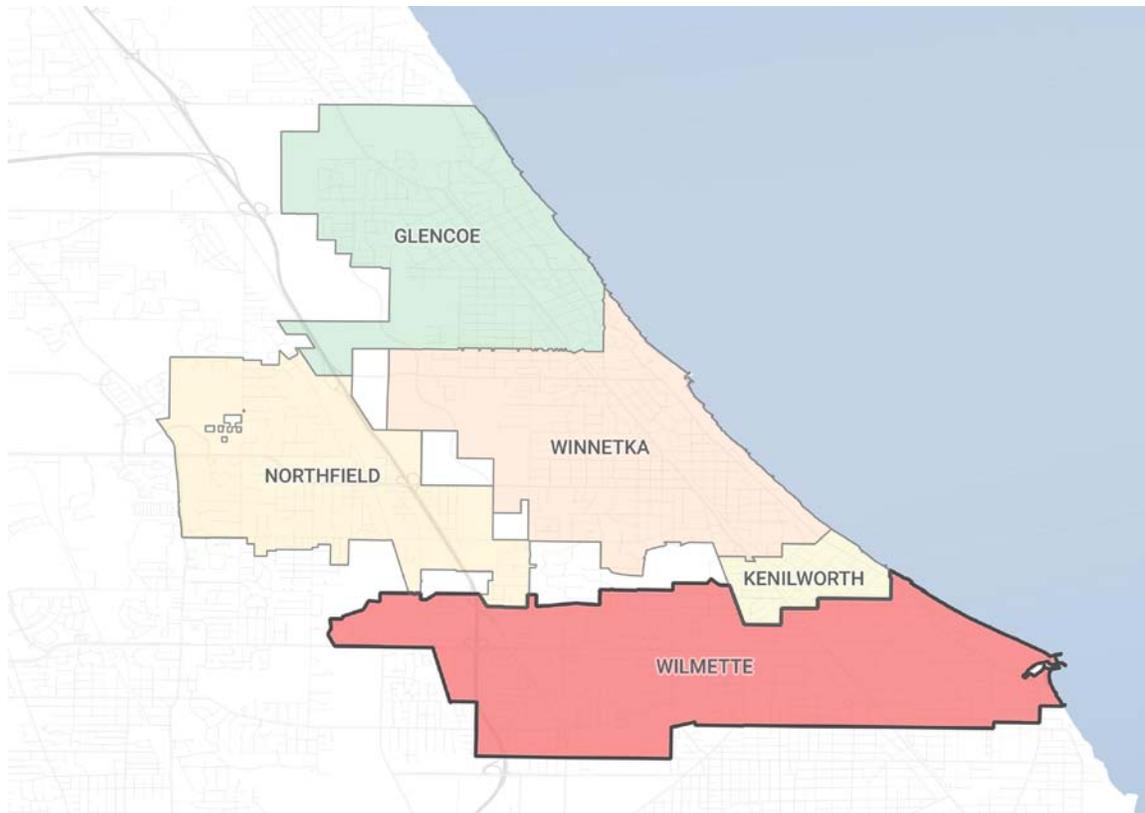
(1) The Four Villages Provided Guiding Principles to Help Frame Consolidation Options They Wished to Explore.

The Project Steering Committee members, composed of the village managers and village police/public safety chiefs, provided guiding principles beyond the Four Framing Elements that they wished strongly considered during the consolidation feasibility study. These principles included the following:

- **Include Wilmette as a Public Safety Field Services Partner.** Currently the four villages and the village of Wilmette share a police radio channel and are thus

⁶ The Project Steering Committee was composed of the four Village Managers and four police chiefs or public safety department heads.

capable of easily sharing information and, as necessary, community policing and other resource allocation strategies as circumstances dictate. Additionally, Wilmette, Kenilworth and Winnetka share a CAD system and associated dispatch information. There is a long-standing public safety relationship with Wilmette to GKNW, not the least of which is that coastal proximity of Wilmette to the four villages, as shown below, facilitates various cooperative efforts. As such, the inclusion of Wilmette, to the degree practical, in a consolidation scenario is strongly desired.



- **Initial Consolidation Solution Should Focus on Addressing Police Service Delivery and Glencoe Public Safety.** Because the villages of Winnetka, Kenilworth and Northfield have pre-existing dispatch agreements with RED Center, initial consolidation solutions should focus on police services and Glencoe's public safety services (police, Fire/EMS) to meet the intent of the Legislative directive for consolidation. Because of the complexities associated with consolidation in a limited time frame (by July 1, 2017), consolidation scenarios that unnecessarily impact the way in which public safety field services are presently served should be avoided.
- **Consolidation Scenarios Should Serve to Strengthen the Relationships of the Four Villages.** A consolidation effort can have dramatic impact on the participants and the way they delivery public safety services. Consequently, the

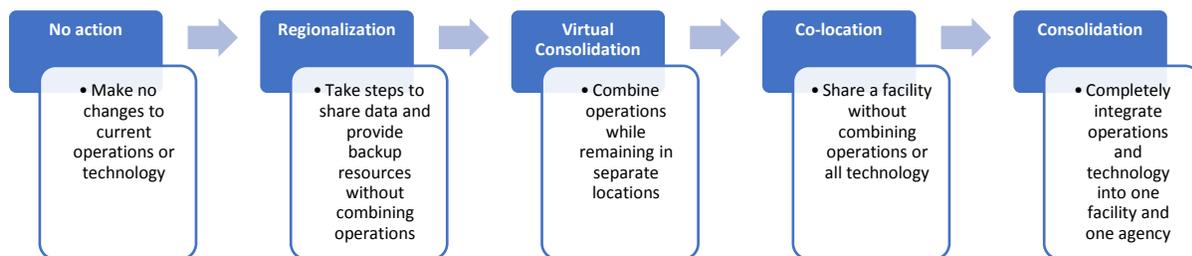
key elements of dispatch consolidation should serve to strengthen current relationships rather than create potential areas of contention.

- **Consolidation Scenarios Should Attempt to Minimize Implementation Complications.** Because of the aforementioned deadline for consolidation, options should be explored that minimize potential complications to completing a successful consolidation initiative in the near term.

Given the Four Framing Elements and the above guiding principles as directed by GKNW, the following additional points are offered.

(2) The Four Villages Will Collectively Explore Full Consolidation Opportunities as Opposed to Other Kinds of Consolidation Possibilities.

Consolidation options can be categorized as falling along a broad spectrum of possible opportunities, each carrying its own set of risks and rewards. This spectrum is generally differentiated into five areas as shown in the graphic below.



All dispatch models noted above have operated successfully and as a consequence there is no single answer with respect to public safety dispatch operations. The unique factors of every service area—whether political, financial, technical, topographical, community expectation, or other myriad variables—largely influence which models will be most successful. Because of the circumstances and language surrounding legislative directive PA 99-0006, there does not appear to be flexibility with respect to consolidation opportunities other than “Full Consolidation” as reflected to the right of the above chart. As such, GKNW have limited options with

respect to the type of consolidation they can explore. Therefore, full consolidation opportunities are the only consolidation initiatives reviewed in this study. This full consolidation is restricted to the four villages of Glencoe, Kenilworth, Northfield and Winnetka which collectively exceed the 25,000 population benchmark established by the legislation. No other potential consolidation partner agencies are explored in this study, although contracting for service is reviewed and discussed in a following section.

(3) The Four Villages Will Examine in Their Full Consolidation Model the Different Possibilities Associated with Dispatching Police, Fire and Emergency Medical Services.

A complicating factor in this assessment is that Glencoe is a “full-service” 911 operation dispatching its own police, fire and emergency medical response, while the villages of Kenilworth, Northfield and Winnetka rely on RED Center⁷, as a secondary PSAP, to dispatch fire and emergency medical services. As part of this study, opportunities will be examined for a consolidated villages’ 911 operation to dispatch all villages police services including Glencoe Fire/EMS, or to dispatch Glencoe Fire/EMS under a different dispatch services model (e.g., using RED Center as the other three villages currently do).

(4) The Four Villages Will Explore a Contract-for-Service Relationship with Glenview.

There are a variety of contract-for-service opportunities that could pursue for 911 dispatch services that would meet the intention of the legislature’s consolidation efforts. Organizations such as Northwest Dispatch, Deerfield and Northbrook were considered potential contract-for-service partners. Given a variety of factors such as proximity, prior consolidation success rates, and other considerations, the Village of Glenview was

⁷ http://www.mabas3.org/red_center.html

determined to be the most practical PSAP for potential contract-for-service consolidation and was selected as the agency for further study regarding consolidation opportunities. While Wilmette was initially discussed as a potential dispatch service partner given the current public safety relationships among the villages, it was determined that Wilmette has not demonstrated the same consolidation success as Glenview. As such, a consolidation with Wilmette would be potentially complicated and increase risk in completing timely dispatch consolidation. This additional risk is contrary to the stated GKNW guiding principles.

3. PRIOR CONSOLIDATION STUDIES INVOLVING THE VILLAGES HAVE INFORMATION THAT CAN PROVIDE IMPORTANT GUIDANCE TO THE CURRENT INITIATIVE.

During the course of the engagement, research was conducted on other consolidation studies involving some or all of the villages that may have relevance to this engagement. Three studies were reviewed and are referenced herein:

- A 2011 Public Safety Dispatch Center Consolidation Feasibility Study performed for the villages of Kenilworth, Northfield and Winnetka by *Elert & Associates (E&A)*.
- A 2006 Assessment of Fire/EMS and Police Dispatch Options performed for the village of Glenview by the *Matrix Consulting Group*.
- A 2013 911/Dispatch Consolidation Feasibility Study performed for the villages of Highland Park, Lake Bluff, and Lake Forest by the *Matrix Consulting Group*. This study also involved the village of Glenview as a potential 911 service provider.

Where appropriate, these reviewed studies will be referenced in this report to further augment findings, conclusions and recommendations.

3. PSAP Operational Analysis

This chapter of the study provides an analysis of the independent operations of Glencoe, Kenilworth, Northfield and Winnetka's Public Safety Answering Points (PSAPs). This data also will influence the consolidated initiatives to be examined in further detail in the next chapter. For descriptive and various workload information regarding the individual dispatch centers for each village, please consult the Profile in Appendix B.

1. EFFECTIVE DISPATCH OPERATIONS ARE PREDICATED ON PROPER STAFFING LEVELS. STAFFING MODELS USE NUMEROUS VARIABLES TO DRIVE OVERALL DISPATCHER STAFFING REQUIREMENTS.

Developing an appropriate staffing model for a dispatch operation is not only critical to ensuring effective service to callers, but for those public safety agencies being serviced. To operate in the most efficient and effective manner possible, it is important to right-size the dispatch operation's staffing levels. Our project team has conducted an analysis of the dispatcher⁸ staffing needs of the four villages through a model-based approach, using data obtained from the project participants. Our team has reviewed and used a variety of dispatcher staffing models over the last several years. Indeed, as new information becomes available, these models are further modified to enhance their ability to assess the necessary staffing in a dispatch environment. With respect to this engagement, a new staff modeling tool was created to help capture administrative workloads performed by dispatcher staff. This is further discussed later in the report.

⁸ While the villages and other organizations use different terminology to define these positions, such as Telecommunicator, Communications Officer, etc., the term dispatcher will be used throughout this report for continuity.

Development of a staffing model begins with understanding and, as data are available, calculating several variables. The sub-section below deals with staff availability—a critical factor in all staffing models.

(1) Net Dispatcher Availability Information.

While one Full-time Equivalent (FTE) staff position is scheduled to work 2,080 hours per year in most professions, this is not always the case, particularly in public safety professions that have “exotic” schedules to meet service level demands. These often include 12-hour shift schedules where staff are scheduled to work 2,190 hours per year. While Glencoe and Kenilworth operate on some modified schedules where 12-hour deployments occur, staff are not scheduled for 2,190 hours per year.

A critical workload element to determine staffing requirements is the amount of annual time available for dispatch personnel to perform their work. This is defined as net availability and it is the number of hours that a dispatcher is available to perform his key dispatcher roles and responsibilities after the impact of leave/unavailable time has been subtracted from his gross annual scheduled hours of work. Leave includes sick, vacation, compensatory time off, etc. Unavailable time is time lost to breaks and meals, training, and other scheduled workday interruptions. The addition of leave and unavailable time is subtracted from base annual work hours and results in net availability per year.

With respect to net availability in general, a desirable target is 70-75% or greater net availability for a typical 2,080 hour work year. While these are desirable targets, they can at times be difficult to achieve in practice given numerous variables. Leave and other unavailability factors are strongly influenced by a variety of things including

scheduled and unscheduled leave benefits that have been negotiated, the actual use of such benefits, the robustness of an annual training program, the seniority of a workforce, etc.

Data was provided by the four villages and analyzed. This review resulted in the following annual net availability for each village.

GKNW Calculated Dispatcher Net Availability

Community	Net Annual Hours Available	Percent of Total Yearly Hours Available
Village of Glencoe	1,580	76%
Village of Kenilworth	1,706	82%
Village of Northfield	1,747	84%
Village of Winnetka	1,814	87%

In sum, data suggest GKNW PSAPs manage operations such that net availability exceeds the 70%-75% benchmark. This is due to a variety of factors but is most substantively related to the inability of several villages' dispatch staff to be able to take breaks and meals away from their workstations on a regular basis. This is a common problem among small dispatch agencies and can potentially lead to a variety of operational issues. Consequently, in a consolidated dispatcher staffing model such meal/break time will always be accommodated.

(2) Turnover at Reporting PSAPs is Different and Turnover Characteristics can Impact Authorized Staffing Requirements.

For comparative purposes, dispatcher turnover nationally averages 17% to 19%⁹. Recent historical information from the four villages indicates virtually no turnover among dispatcher ranks. As such, calculating “over-hire” needs to ensure adequate dispatcher staff are always fielded is unnecessary in this staffing exercise.

⁹ <http://www.iaedjournal.org/content/turnover-factor>

2. DETAILS OF THE ANALYSIS OF STAFFING NEEDS RESULTING FROM GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA CORE DISPATCH WORKLOADS.

Our project team has conducted an analysis of the dispatcher staffing needs for the four villages through a model-based approach, using data obtained from the project participants. The methodology and process of these calculations is detailed in the following sections.

(1) Overview of the APCO Approach.

In order to accurately model the workload and staff resources of dispatch operations, a number of important factors must be considered. It is not sufficient to base the staffing needs of a 911 operation center on workload alone, as many key variables, such as average leave time and turnover rate as discussed above, are vastly different among agencies throughout the nation. In the last few years, the Association of Public Communication Officials (APCO) has published a staffing model as part of its Project RETAINS efforts, developed by the University of Denver Research Institute. In effect, the APCO project RETAINS model requires several discreet data elements based on actual workloads to be effective. These include:

- **Net (actual) Annual Staffing Availability** as shown earlier in this chapter.
- **Average Telephone Busy Time** (call duration in seconds), from phone or other records. This should ideally distinguish between law and fire E-9-1-1 calls and administrative calls for service.
- **Average Processing Time:** A combination of average radio time and average task completion time per incident. These numbers, as available, are calculated from agency Computer-aided Dispatch (CAD) data covering a period of one year. If these times are not calculable (due to either issues with the data, unknown variables, or other reasons) a normative value is used based on the experience of the project team in working with other similarly sized dispatch agencies.

- **Agent Occupancy Rate:** Even after accounting for the net availability of dispatchers, the resulting number still does not represent an accurate picture of their ability to complete workload. It would be impossible for a dispatcher to spend 100% of his available time going from call to call without a break – even if it was logistically feasible for this to be true, the resulting effect on burnout would be significant. Given these reasons, the agent occupancy rate, which is in effect a “total utilization rate”, is created as a target for the ideal percentage of time a dispatcher is actually completing work. Today, utilization targets are often set by agencies from around 50% to 65%.

In brief, the APCO project RETAINS staffing model is a generally good methodology with a few notable exceptions, but it is data intensive to the extent that many agencies do not possess the level of detail required to thoroughly complete the model. The Matrix Consulting Group, using the APCO model as a baseline, has made some slight revisions to the model and has developed some operational assumptions regarding particular types of work. These are discussed in the following sub-sections.

(2) Results of the APCO RETAINS Dispatcher Staffing Analysis.

Using the calculation process outlined in the sections above, dispatcher staffing needs based on core dispatch workload can be modeled. The subsequent table shows the various calculations involved in deriving a necessary dispatcher staffing level based exclusively on the magnitude of core dispatch workload. The model does not accommodate a variety of other workload factors such as the numerous ancillary or records/administrative work performed by dispatcher staff, workload fluctuations throughout the day/hour, and other variables. These are discussed and accommodated later in the report. The following bullets discuss the various assumptions and sources of data used to arrive at the table’s information.

In order to further clarify how the calculations have yielded these results, the outline below explains how each of the variables used was determined:

- **Average Processing Time for Computer-aided Dispatch (CAD) Incidents:** Reflects available data calculations, as well as a conservative estimate of the time required for dispatcher workload related to a CAD incident to be processed.

APCO, NENA and others have not provided any benchmarks with respect to this kind of processing time for CAD incident workload, suggesting an estimate be developed for such work. Consequently, developing a reasonable time estimate for Average Task Completion Time for every CAD incident is the only current approach beyond an industrial engineering exercise, which is beyond the scope of nearly all dispatch studies. Given our experience with a broad array of dispatch agencies, we believe that given the current operational environments in GKNW, an average of **2.5 minutes per incident** is a very reasonable estimate to capture incident “wrap-up” and related activities that include such things as keyboard entry, license and warrant runs, etc. Obviously some incidents will take longer and others shorter dependent upon the type of incident.

Secondly, the APCO-based model can use the actual amount of radio transmission transaction time as a primary workload driver to determine average radio time. Dispatchers are responsible for relaying information effectively via the radio and are usually multi-tasking (keyboard entry or console monitoring) while such “air time” is transacting. It is a primary responsibility of dispatcher staff. The total time associated with radio transactions is calculated to determine an average amount of time spent in this key task. With regard to the four villages, radio information was presented such that an average of 5.67 hours per day of radio-traffic “air time” was calculated for all users of the NORCOMM radio system.¹⁰

Based on our examination of the data, we developed an average radio-traffic air time of .96 minutes per CAD transaction for Kenilworth, Northfield and Winnetka and an average air time of 1.58 minutes for Glencoe given its additional Fire/EMS workloads.¹¹

- **Average Processing Time for Telephone Calls:** Some telephone systems easily capture time spent on telephone lines, others do not. Data provided to the project team regarding telephone transaction time was only available in part, as some villages did not have this information. Nevertheless, sufficient information was available to calculate that an average telephone call took 116 seconds. This timeframe is consistent with telephone information from a *National Fire*

¹⁰ The village of Wilmette is also on the radio system and its radio time is ultimately abstracted from the GKNW model for staffing estimate purposes.

¹¹ It should be noted here that like many models, there are inherent weaknesses. One of the shortcomings of linking radio transaction information to CAD incidents is that given different CAD recording approaches among different dispatch agencies, those PSAPs that record more CAD incidents receive more radio-time credit than counterparts with fewer CAD incidents. Unfortunately on shared radio channels (as is with GKNW), there is no way to effectively determine which agency is “actually doing the talking.” Thus, this modeling serves as a workload distribution approach, linking CAD incidents to radio-time. While this approach has inherent weaknesses in developing a staff model for individual agencies in a cooperative, the weakness is mitigated when looking at all PSAPs collectively (as is done in a consolidation exercise).

Protection Association (NFPA) study citing 92 seconds is the most relevant average for emergency response. The total time spent on telephone work by each agency was linked to CAD transactions. Because telephone traffic is different for each agency, the estimated telephone transaction time linked to each CAD incident is different. Despite this, the model accurately reflects time spent on telephone calls, as both time spent and number of telephone transactions for each village are available and can be converted to CAD workloads.

- **Time Investment per CAD Incident:** The time investment per CAD incident is related to the sum of the above two bullets for each agency.
- **Total CAD Incidents:** Reflects data provided from each PSAP for 2015. These CAD incident records were validated in an interim deliverable.
- **Annual Workload Hours:** Workload hours are the result of the Time Investment per CAD Incident and Total CAD incidents data. It is a multiplication of these two variables resulting in an estimated annual workload for dispatchers related to CAD incidents.
- **Net Annual Available Work Hours:** Reflects the average availability of each agency's dispatchers based upon the information provided earlier in this report.
- **Agent Occupancy Rate:** While utilization rates of 65% are occasionally used today, a rate of 50% was chosen, particularly since village dispatchers are regularly interrupted to perform ancillary work. This Agent Occupancy Rate of 50% is generally accepted by APCO.
- **Turnover Rate** – Given that turnover is not an issue at the four villages, this variable is not used.

Based on the information from all these variables, the APCO staffing model results are shown for each of the four village PSAPs below. As a reminder, these staffing estimates are based exclusively on the magnitude of core dispatch workload and do not include ancillary work performed by these staff (e.g., front desk assistance).

APCO Staffing Calculations Based on CAD Incident-related Workload

Category	Glencoe	Kenilworth	Northfield	Winnetka
Average Task Completion Time Per CAD Incident (in minutes)	2.5	2.5	2.5	2.5
Average Radio Time Per CAD Incident (in minutes)	1.58	.96	.96	.96
Average Processing Time (APT) for CAD Incident (in minutes)	4.08	3.46	3.46	3.46
Average Telephone Time Per Telephone Call (in minutes)	1.93	1.93	1.93	1.93
Average Telephone Time Extrapolated for a CAD Incident (min)	4.91	3.15	1.97	1.25
Time Investment Per CAD Incident (APT + Telephone Time)	8.99	6.61	5.43	4.71
Total CAD Incidents (2015 period)	17,571	9,253	21,976	23,046
Workload Hours Related to CAD Incidents (Hours)	2,633	1,019	1,990	1,808
Net Annual Available Work Hours	1,580	1,706	1,747	1,814
Agent Occupancy Rate (AOR)	50.0%	50.0%	50.0%	50.0%
True Annual Availability After AOR (Hours)	790	853	873.5	907
Full Time Equivalent Positions (FTE) Required to Complete Core Dispatch Workload	3.3	1.2	2.3	2.0
Existing Authorized Dispatcher Staffing Levels ¹²	5 F/T 2 P/T	3 F/T 2 P/T	4 F/T 2 P/T	4 F/T 4 P/T

¹² These staffing levels do not include supervisor or clerical/dispatch positions assigned to the villages.

(3) Interpretation of the APCO RETAINS Dispatcher Staffing Analysis.

The core dispatch workload data suggest that CAD-related workload (incidents, telephones and radio processing) is modest at each of the four villages. There is insufficient core dispatcher workload at any village to justify 24/7 coverage based solely on this type of work. In agencies where CAD incident-based data suggest less than 24-hour/7-day coverage is necessary based on workload characteristics, those agencies typically rely on staffing one (1) fixed-post position irrespective of workload. This is a necessity for smaller public safety agencies performing dispatch operations and essentially reflects what is accomplished at the four villages. Briefly, for every fixed-post, 8,736 work hours need to be covered in a year,¹³ which requires from 4.5 to 5.5 Full-time Equivalent (FTE) staff for coverage purposes. As shown by the existing authorized staffing levels in the prior table, each village is deploying sufficient full and part-time staff to typically cover one fixed-post. There are some exceptions where more than one dispatch person is scheduled during a shift (though not necessarily deployed due to leave or other issues). These include:

- Glencoe will deploy staff from 7 am to 3 pm four days of the week.
- Winnetka will normally assign staff specifically to the Records functions if there is any overlap that would result in exceeding one assigned dispatcher position.

In sum, core dispatch workload, based on APCO modeling, cannot fully occupy the villages' dispatcher staff. The villages, however, use these staff in other roles to occupy their time. These ancillary duties are discussed below.

¹³ This is 24 hours x 7 days x 52 weeks per year.

3. STAFFING LEVEL IMPACTS ASSOCIATED WITH ANCILLARY WORK PERFORMED BY DISPATCHER STAFF.

In APCO-based dispatcher modeling exercises, particularly those related to exploring optional service delivery approaches, certain assumptions and clarifications need to be made. For example, in those instances where dispatchers perform duties above and beyond core dispatch workloads as described above, how is this work typically accounted for? In a number of smaller dispatch agencies throughout the country, dispatchers will perform a variety of ancillary duties that need to be accomplished and that will occupy work time. This is the situation for the four villages. An examination of the profile in Appendix B details the variety of additional duties and responsibilities performed by dispatcher staff, ranging from front desk customer support to a range of records-related responsibilities.

This ancillary workload is not captured in the previous staff APCO modeling, and reflects one of the limitations of APCO’s model. Since this additional work is not captured, the Matrix Consulting Group devised a self-reporting tool for all the villages’ dispatcher staff to record various administrative work by category. This exercise occurred in early spring of 2016 for over 5 weeks. The following table shows the summary of that exercise.

Annual Hours Devoted by Dispatchers to Ancillary Work Based on Self-Reporting

Community	Yearly Hrs	Est. FTE
Village of Glencoe	830	0.53
Village of Kenilworth	1,951	1.14
Village of Northfield	1,657	0.95
Village of Winnetka	1,459	0.80

The outcome of this self-reporting exercise shows that each village uses from one-half to one FTE’s worth of time to accomplish ancillary administrative/records work. In a consolidation initiative where work is generally dedicated to core dispatch duties, ancillary work will still have to be accomplished in some manner. This will be discussed later in the report. The impact on existing operations and staffing needs, however, is important to show for context. The hours dedicated to ancillary work is included in the staff modeling table below:

Village Dispatcher Staff Required to Complete All Workloads

Category	Glencoe	Kenilworth	Northfield	Winnetka
Workload Hours For Dispatch and Ancillary Work	3,463	2,970	3,647	3,267
Net Annual Available Work Hours	1,580	1,706	1,747	1,814
Agent Occupancy Rate (AOR)	50.00%	50.00%	50.00%	50.00%
True Annual Availability After AOR (Hours)	790	853	873.5	907
Full Time Equivalent Positions (FTE) Required to Complete Dispatch and Ancillary Work	4.4	3.5	4.2	3.6
Existing Authorized Dispatcher Staffing Levels	5 F/T 2 P/T	3 F/T 2 P/T	4 F/T 2 P/T	4 F/T 4 P/T

As shown above, the villages are generally occupying their dispatcher staff appropriately with core dispatch and a variety of ancillary workloads while still maintaining the appropriate 50% agent occupancy rate suggested. Reiterating, small dispatch agencies must staff at minimum one-fixed post on a 24/7 basis requiring anywhere from 4.5 to 5.5 FTEs. Assigning various workloads to these staff to ensure they are appropriately occupied is a key to operational efficiency and effectiveness. In sum, the four villages have accomplished this. In a consolidation initiative, ensuring core and ancillary work continues to be accomplished requires a different staffing and

work approach. The benefits and challenges associated with addressing workload under consolidation are discussed later in this report.

4. INTERNAL DISPATCH SERVICES PRESENTLY COST GKNW APPROXIMATELY \$2.34M ANNUALLY.

The four village PSAPs capture dispatch operational costs differently. Some costs are allocated to the broader public safety agency while others are specific to dispatch operations. Despite different village budgeting approaches, sufficient budgetary information is available to adequately capture dispatch operational costs for 2016 as summarized below:

2016 Village PSAP Developed Budgets

Community	Annual Budget
Village of Glencoe	\$657,832
Village of Kenilworth	\$337,029
Village of Northfield	\$675,040
Village of Winnetka	\$671,912
4 Village Internal PSAP Total:	\$2,341,813

As is typical of many municipal public safety budgets, the bulk of expenses are related to personnel costs, which for the four village PSAPs is 75% of total operating costs.

It should be noted that the above costs separate the contract-for-service dispatch services for the fire departments of Kenilworth, Northfield and Winnetka, that as previously noted, contract with RED Center dispatch for Fire/EMS services. Internal operational PSAP costs are approximately \$2.34M, whereas the contract costs for RED Center are an additional annual expense to the three villages' PSAPs of approximately \$223,000 per year, adjusted annually for these 911 services.

Of the \$2.34M costs shown, there are modest additional recurring communications and other costs linked to dispatch-related service provision that are somewhat different for each village dependent upon its unique public safety operation. These would be encumbered by each village, and are independent of the model of consolidation sought. Given the complexities of each village's potential recurring costs linked to the provision of dispatch-related services, quantification of these costs is beyond the scope of a feasibility report as they do not influence a consolidation decision. However, examples of these incurred costs include:

- Mobile Data Terminals (MDT) equipment and connectivity
- Mobile and portable radio equipment
- Radio connectivity (currently NORCOM phone line charges)
- NORCOM assessment fees
- Legacy Computer-aided Dispatch (CAD) connectivity
- Video security connectivity and maintenance
- Administrative phone line charges and phone call recorders

Consolidation of equipment or other assessments may result in economies-of-scale for the four villages but would be developed during an implementation phase.

5. FINDINGS AND CONCLUSIONS RELATED TO GKNW CURRENT DISPATCH OPERATIONS.

The following points summarize key findings and conclusions that will be considered during the forthcoming consolidation assessment.

- The four villages are effectively managing dispatcher staff time, including scheduled and unscheduled leave, such that net annual availability of dispatchers is within best-practice standards.

- The four villages do not have issues of dispatcher staff turnover, which often impacts 911 operations elsewhere in the nation.
- Small dispatch agencies such as GKNW, must staff at a minimum, one-fixed post on a 24/7 basis, regardless of workload. This requires anywhere from 4.5 to 5.5 Full-time Equivalent positions (FTEs).
- APCO workload modeling indicates that the four villages collectively have 8.8 FTEs worth of core dispatch service work. This staffing calculation is based on the unique CAD-related workloads and leave patterns of each PSAP.
- Self-reporting on ancillary work demonstrates that the four villages have 3.2 FTEs worth of workload dedicated to administrative/records-related work.
- Currently the four villages collectively deploy 16 full-time and 10 part-time dispatcher staff to perform these core and ancillary services.
- Individual village PSAPs have done an admirable job of devising dispatcher staffing plans, through the use of full-time, part-time and supporting staff, to perform the necessary and often unique duties and responsibilities associated with each agency. Each village has done a good job of matching dispatcher staff needs to core dispatch and ancillary workloads.
- As shown by the workload requirements compared to actual staffing deployment among all four villages, a consolidation effort will provide opportunities to manage these types of workloads differently, which will result in both benefits and challenges.
- The four villages' internal PSAP operational costs collectively are approximately \$2.34 million annually. Additional external 911 services are provided from RED Center at approximately \$223,000 annually.

The following chapter provides our analysis of the various consolidation options.

4. Consolidation Feasibility Analysis

This chapter of the study provides an analysis of consolidation opportunities premised on the consolidation guidelines and independent village PSAP operations discussed previously. A discussion of a consolidated GKNW dispatch option will be followed by a discussion of the Glenview consolidated option.

1. CORE WORKLOAD FOR A GKNW CONSOLIDATED DISPATCH CENTER RESULTS IN FEWER STAFF THAN EXISTING INDEPENDENT OPERATIONS.

The APCO staffing model presented in the prior chapter can be revisited to calculate staffing needs to accomplish core dispatch workloads in a consolidated dispatch center servicing GKNW. The following table shows the combined workload of the villages’ PSAPs and how this would be handled in a modeled consolidated PSAP.

Consolidated Four Villages – APCO Staffing Calculations based on CAD Incidents

Category	GKNW Consolidated Center
Average Task Completion Time Per CAD Incident (in minutes)	2.5
Average Radio Time Per CAD Incident (in minutes)	1.11
Average Processing Time (APT) for CAD Incident (in minutes)	3.61
Average Telephone Time Per Telephone Call (in minutes)	1.93
Average Telephone Time Extrapolated for a CAD Incident (min)	2.61
Time Investment Per CAD Incident (APT + Telephone Time)	6.22
Total CAD Incidents (2015 period)	71,846
Workload Hours Related to CAD Incidents (Hours)	7,448
Net Annual Available Work Hours	1,615.5
Agent Occupancy Rate (AOR)	50.0%
True Annual Availability After AOR (Hours)	808
Full Time Equivalent Positions (FTE) Required to Complete Core Dispatch Workload	9.2
Existing Authorized Dispatcher Staffing Levels for GKNW	16 F/T 10 P/T

The APCO staffing table shown above makes the following modeling assumptions.

- The above dispatch model is based on current 911 practices whereby Glencoe Fire/EMS is dispatched while the remaining three villages use RED Center. This model, however, would require all dispatchers to be Law Enforcement, Fire and Emergency Medical Dispatch certified to accommodate Glencoe.
- Scheduled and unscheduled leave, training, etc. are calculated as the average of all four villages. The time to process CAD, telephone and radio workload remains unchanged.
- Unlike current village practices, the above model assumes meals and breaks will always be taken. This is consistent with best practice.

As shown above, 9.2 dispatcher staff positions would need to be authorized to handle the workloads associated with all GKNW core dispatch work.

(1) A GKNW Center Should Authorize 10 Dispatcher Staff and Supporting Supervisor and Part-time Positions.

This baseline staffing level in the APCO table establishes the foundation for a GKNW consolidated dispatch center with some key staffing characteristics to include the following points:

- In order to facilitate staff deployments (and other options) based on core dispatch workloads, 10 full-time dispatcher staff positions should be authorized.
- This dispatcher staffing contingent would result in an operational model deploying two fixed-post dispatch positions and a minimum of two dispatchers scheduled 24/7 on either 8 or 12-hour shift programs.
- Approximately 2,600 leave hours annually will likely be covered by part-time staff to help ensure two dispatcher staffing levels on a 24/7 basis (irrespective of workload requirement). This could be accomplished by three (3) part-time dispatchers scheduled less than 1,000 hours per year.
- The modeled dispatcher staffing level requirements for a GKNW Center are 10 full-time and 3 part-time staff, compared to present four village PSAP operations of 16 full-time and 10 part-time staff.

- Direct supervision is provided by civilian staff at both the Northfield and Winnetka dispatch operations. In a consolidated dispatch operation of this size, such direct supervision is also warranted. As such, one (1) supervisor is strongly recommended in the GKNW Center. Notably, the 911 consolidated center would operate with six (6) fewer full-time dispatcher staff, up to seven (7) fewer part-time dispatcher staff, and one less supervisor position than current PSAP operations at the four villages.
- Because of the importance of supervision as well as opportunities for promotion, the GKNW Center should field two (2) lead dispatchers out of the 10 dispatch staff required. While this does not provide 24/7 supervision, as this would be fiscally imprudent, it does provide supervisory support on all three shifts for the majority of the time.

In summary, a GKNW Consolidated Dispatch Center would be staffed as follows:

GKNW Consolidated Dispatch Center Staffing Contingent

GKNW Center Job Title	Number of Positions
Supervisor	1
Lead Dispatcher	2
Dispatcher	8
Part-time Dispatcher	3
Total Staff Contingent (Personnel)	14

The number of full-time and part-time supervisory and line personnel assigned to the GKNW Center is notably less than staff currently assigned to the independent PSAP operations of the four villages. And while the ancillary workloads related to administrative / records functions still need to be addressed for the villages, this comparison demonstrates one of the significant economies-of-scale benefits associated with consolidated dispatch operations. Of additional note, this staffing contingent is comparable to the type of dispatcher staffing profile recommended in the three-village

Kenilworth, Northfield and Winnetka 'E&A Dispatch Center Consolidation Feasibility Study' completed in 2011.¹⁴

(2) The Recommended GKNW Center Staffing Contingent Offers Flexibility to Address Other Operational Approaches to Completing Core Dispatch and Ancillary Workload.

The developed staffing contingent for the GKNW Center has some level of flexibility to address the four villages' core dispatch and ancillary workloads in alternative fashions. This includes the following options:

- **The Consolidated Center Could Dispatch for Law Enforcement Only with No Adjustments to the Staffing Contingent.** Another option for the GKNW Consolidated Dispatch Center is to transfer Glencoe Fire/EMS calls to RED Center, resulting in the GKNW Center being focused on law enforcement services only. This would result in the following GKNW Center-related changes:
 - As Glencoe Fire/EMS workload represents approximately 1.5% of the villages' CAD incident-based workload, this would have no measureable impact on a consolidated center's staffing requirements.
 - Such an operation would not need Fire and EMD certified dispatchers, thereby saving the associated costs and the initial Fire/EMD training for some dispatchers that would be associated with this alternative. The training costs, however, are modest, with first year costs of approximately \$5,000 and refresher training at \$1,500 per annum.
 - Additional costs would be incurred by Glencoe in order for RED Center to provide Fire/EMS dispatch services. Based on discussions with RED Center, these are estimated at \$79,000 first-year operational costs and an additional \$50,000 one-time capital cost estimate¹⁵.
- **Under Current Operational Approaches the Consolidated Center Could Accomplish the Host Agency's Ancillary Workload.** Given that core dispatch workload requires 9.2 staff and 10 dispatch staff are recommended, there is

¹⁴ E&A Report, page 24: "The staffing requirements for a 24/7 two-position dispatch center would be 9.4 dispatchers and one manager contributing 20% of their time to dispatching. The staffing requirement may be filled by both full-time and part-time employees in multiple combinations. E&A recommends a minimum of seven full-time dispatchers and preferably eight, with two or three part-time dispatchers."

¹⁵ According to RED Center this does not include annual fees associated with T1 lines, which are paid directly by Glencoe.

sufficient capacity among staff to perform the host agency's ancillary administrative / records workload discussed previously. This alternative would be possible under a scenario where Glencoe Fire/EMS is dispatched internally or eliminated as a responsibility; this option would not be possible if the GKNW Center provided all four villages' law enforcement, fire and EMD dispatch. Importantly, this ancillary workload performed by staff would require a cost allocation model to indicate that such additional services provided to the host agency are appropriately charged.

In summary, the developed GKNW consolidated dispatch center has a recommended staffing contingent with some flexibility to approach core dispatch and ancillary workloads differently. This is discussed in further detail in a subsequent section.

2. THE LOCATION FOR A GKNW CONSOLIDATED DISPATCH CENTER SHOULD BE AT THE WINNETKA PSAP FACILITY.

The project team's tour of the four villages' facilities, interviews with staff and our review of various PSAP features leads to our conclusion that the Winnetka facility offers the greatest advantages for a four village consolidated PSAP. The Winnetka PD PSAP facility can presently deploy three (3) dispatch stations, has room for expansion, has adequate parking, already shares some technology with Kenilworth, is a centralized site for various primary and back-up infrastructure jointly owned by the four villages (such as the control point for the 24B regional NORCOM radio network repeater) and is the most ergonomically modernized locale as pictured below:



Of additional note, this location was also recommended in the three-village Kenilworth, Northfield and Winnetka ‘E&A Dispatch Center Consolidation Feasibility Study’ completed in 2011.¹⁶

3. ESTIMATED FIRST-YEAR INTERNAL OPERATIONAL COSTS FOR A GKNW CONSOLIDATED DISPATCH CENTER ARE \$1.59 MILLION, PLUS \$300 THOUSAND FOR ADMINISTRATIVE SUPPORT SERVICES.

Based on the APCO staffing model discussed previously, and situating a GKNW Consolidated Center at the existing Winnetka PD PSAP, the project team calculated the overall estimated operational costs at \$1.59 million for the first year’s operation. The assumptions driving this pro-forma budget exercise are noted as follows:

- The personnel costs are based on the top-step salary for Winnetka dispatch personnel and the calculated benefit rate of 57.1%. Given the tenure of the four villages’ dispatch staff, calculating at the top-step is not unreasonable.

¹⁶ E&A Report, page 23: “Dispatch Center Location Recommendation – The dispatch center should be located at the Winnetka Police Department. Winnetka has more space available for remodeling and accommodating more dispatchers.”

- Lead dispatch staff are calculated with a +10% salary differentiation from first-line dispatch staff. The supervisor position is calculated at +20% salary differentiation from first-line dispatch staff.
- Approximately 2,600 hours per annum of coverage from part-time dispatcher staff are budgeted at the mid-range hourly salary of approximately \$22.50.
- Overtime is calculated at 5% over and above salary costs.
- Other operational costs (materials, supplies, contract services, etc.) are fixed or variable dependent upon consolidation, and dependent on the type of other operational cost incurred. The project team reviewed these costs for the four village PSAPs and developed a consolidated budget which represents 15% of the total budget.
- Four additional Administrative Support positions will be required to replace dispatchers' work efforts at the villages at an estimated total cost of \$300,000 and as detailed subsequently in this report.

The following table reflects a pro-forma first-year operational budget, by major expense category, for the GKNW Center.

GKNW Internal Consolidated Dispatch Center Pro-Forma Operational Budget

Budget Category	Est. Cost
PERSONNEL COSTS	
Salaries	\$862,330
Benefits	\$492,391
Part-time Compensation	\$59,235
Overtime	\$43,116
OTHER OPERATIONAL COSTS	
Service contracts (e.g. CAD maintenance)	\$90,300
First-year Fire/EMD Training	\$5,000
Other 911-related	\$19,360
15% Other Operational Contingency	\$17,199
Sub-Total Dispatch Personnel and Operational Costs:	\$1,588,931
Sub-Total: Administrative Support Positions:	\$300,000
TOTAL Internal Dispatch Costs:	\$1,888,931

In conclusion, the GKNW Center as developed, offers a notable operational savings compared to the annual \$2.34 million budget of the four independent village dispatch operations.

There are modest additional dispatch-related communications costs linked to dispatch service provision, as discussed elsewhere in this report, that are recurring and somewhat different for each village dependent upon its unique public safety operation. These would be incurred independently by each village regardless of the consolidation option chosen and are not included in those pro-forma costs above. The following sections describe details associated with contract-for-service consolidation opportunities with the village of Glenview.

4. ESTIMATED FIRST-YEAR OPERATIONAL COSTS FOR GLENVIEW CONTRACT-FOR-SERVICE CONSOLIDATION IS \$1.22 MILLION, PLUS \$300 THOUSAND FOR ADMINISTRATIVE SUPPORT SERVICES.

The village of Glenview currently services nine (9) different municipalities with a variety of public safety dispatch services; four of these villages receive full Law Enforcement, Fire and Emergency Medical dispatch¹⁷. The Matrix Consulting Group has completed studies previously involving the Glenview PSAP: a 2013 study whereby one consolidation option was that Glenview would provide services to the villages of Highland Park, Lake Forest and Lake Bluff (this was chosen), and a 2006 Glenview consolidation feasibility study that recommended as first choice the consolidation of dispatch services with Winnetka and Wilmette (not implemented). In sum, Glenview has been a potential / actual partner-of-choice in dispatch service delivery for a decade. As such, in consultation with the Project Steering Committee, Glenview was perceived

¹⁷ http://glenview.il.us/Pages/Emergency_Dispatch.aspx

as the most viable contract-for-service consolidation partner in the region. Consequently, Glenview was contacted and subsequently offered a variety of operational service models to provide dispatch for the four villages. Based upon on-going discussions with Glenview and the Project Steering Committee, two dispatch service delivery models were detailed and are described below.

(1) Glenview Has Offered Two Different Service Models to Provide Services to Glencoe, Kenilworth, Northfield and Winnetka. Derivatives of These Models are Also Possible Dependent Upon GKNW Needs.

The following bullet points summarize the dispatch operational models provided by Glenview in order to provide 911 dispatch services to GKNW. These descriptions are followed by a cost-table summarizing key cost and operational characteristics associated with the variety of 911 dispatch operational models discussed in this report.

- **Option #1 – Consolidate All GKNW Police and Glencoe Fire on NORCOM Radio Channels and use RED Center.** This dispatch model nearly duplicates the method by which GKNW now independently dispatch services, with RED Center dispatching Fire/EMS for Kenilworth, Northfield and Winnetka, as well as Wilmette, on a shared police radio channel. First year operational costs are \$1.22 Million.

Key Findings: This operational model is significantly less than the calculated costs of a GKNW Center providing the same service. There are start-up capital costs however, detailed later, that are similar to a GKNW Center. Radio partners for police include GKNW and Wilmette and Fire/EMS partners for Glencoe include a shared channel with Highland Park, Lake Forest, and Lake Bluff FD's. Note that beyond these operational costs there is \$300,000 in Administrative Support to the four villages, plus Kenilworth, Northfield and Winnetka would incur approximately \$223,000 annually in RED Center Fire/EMS dispatch fees.

- **Option #2 – Consolidate All GKNW Police on NORCOM Radio Channels. All GKNW villages would Use RED Center for Fire/EMS.** This dispatch model would dispatch police services as described in Option #1 but Glenview would provide no Fire/EMS services to GKNW. The four villages would use RED Center for their Fire/EMS dispatch services delivery. First year operational costs are \$1.22 Million.

Key Findings: There are no operational cost differences between Option #1 and Option #2, as staffing levels at Glenview are not impacted based upon the inclusion or exclusion of Glencoe Fire/EMS. This operational model is significantly less than the calculated costs of a GKNW Center providing services in the same fashion. There are start-up capital costs however, detailed later. Radio partners for police include GKNW and Wilmette. All villages would use RED Center for Fire/EMS service delivery. Note that beyond these operational costs there is \$300,000 in Administrative Support to the four villages, plus Glencoe, Kenilworth, Northfield and Winnetka would incur approximately \$302,000 annually in RED Center dispatch fees.

The following exhibit summarizes the totality of budgetary information presented thus far with respect to the different operational approaches to providing dispatch services and dispatch-related operations for GKNW.

First-Year Operational Costs for All Dispatch-Related Services – Various Models and Radio Partners

PSAP Operational Type	Est. First Year Dispatch Center Operational Cost	Est. Annual Cost for Admn Support Positions Replacing Dispatchers	Est. First Year Internal Operational Costs for 911 Dispatch	Est. RED Center Contract Dispatch Costs	Full Operational Costs for Providing Dispatch and Admn Support	Wilmette is a Police Radio Partner	RED Center is a Radio Partner for KNW	RED Center is a Radio Partner for GKNW
Current Four Village PSAP Operations (terminates 7/2017)	\$2,341,813	-	\$2,341,813	\$223,000	\$2,564,813	✓	✓	
GKNW Center Police and Glencoe Fire	\$1,588,931	\$300,000	\$1,888,931	\$223,000	\$2,111,931	✓	✓	
GKNW Center Police Only	\$1,583,931	\$300,000	\$1,883,931	\$302,000	\$2,185,931	✓		✓
Glenview Center OPTION #1: Dispatch GKNW Police & Glencoe Fire	\$1,221,618	\$300,000	\$1,521,618	\$223,000	\$1,744,618	✓	✓	
Glenview Center OPTION #2: Dispatch GKNW Police Only; RED Center for Fire/EMS	\$1,221,618	\$300,000	\$1,521,618	\$302,000	\$1,823,618	✓		✓

5. **START-UP CAPITAL COSTS FOR THE GKNW CENTER ARE ESTIMATED AT \$766K; ESTIMATED START-UP CAPITAL COSTS FOR THE GLENVIEW MODELS RANGE FROM \$670K TO \$750K DEPENDENT UPON OPTIONS CHOSEN.**

While the on-going annual operational costs for various consolidation models are a significant factor in determining the most feasible consolidation alternative, initial capital investments are also an important consideration, particularly if they are significantly different dependent upon the consolidation option chosen. Interestingly, the capital investment for the various GKNW consolidation options explored is similar, and thus should not be considered a major determinant in selecting the most appropriate consolidation model. These capital costs and their impact on first-year dispatch budgets are summarized in the following table.

First-Year Capital and Internal Costs for 911 Dispatch Services

PSAP Operational Type	Est. Start-up Capital Costs	Est. First Year 911 Internal Dispatch Operational Costs¹⁸	Est. First Year Costs to Establish a Dispatch Center
Current Four Village PSAP Operations (terminates 7/2017)	Not Applicable	\$2,341,813	\$2,341,813
GKNW Center Police and Glencoe Fire	\$766,000	\$1,888,931	\$2,654,931
GKNW Center Police Only	\$766,000	\$1,883,931	\$2,649,931
Glenview Center OPTION #1: Dispatch GKNW Police & Glencoe Fire	\$750,000	\$1,521,618	\$2,271,618
Glenview Center OPTION #2: Dispatch GKNW Police Only; RED Center for Fire/EMS	\$670,000	\$1,521,618	\$2,191,618

Capital costs for the various consolidation options are based on the Matrix Consulting Group’s review of various data provided and Glenview’s submission of information. The previously mentioned 2011 E&A report provided detailed transaction

¹⁸ These exclude RED Center costs incurred by each of the four villages.

information on capital / transitional start-up costs for a GKNW Center based on its firm's technological expertise. Our project team reviewed these entries in the context of additional information and adding Glencoe as a fourth consolidation partner. While our audit indicates agreement with most entries, we believe the start-up capital and transition costs are over-emphasized by approximately 35% and believe that start-up for the GKNW Center can be accomplished for approximately \$766,000¹⁹ instead of the \$1.19 million stipulated in that report.

Capital costs for Glenview are estimated at a maximum \$750,000 to include the Glencoe Fire/EMS operation. This entails one fully equipped position (phone, radio console and desk), connectivity (fiber and microwave), New World licensing purchase, implementation and data conversion, basic Fire station alerting for Glencoe, remote connectivity/control of existing Net 24B for police in north and south dispatch centers, upgrade of existing Glencoe fire radio infrastructure to a repeated channel, connectivity and backup to existing Glencoe fire frequency, and capital equipment and redundancy buy-in. This capital cost does not include data conversion of CAD data from Glencoe and Northfield (who do not presently use New World) estimated at \$15,000 per agency based on discussion with Glenview.

6. EVALUATING THE CONSOLIDATED DISPATCH OPTIONS IN THE CONTEXT OF THE FOUR FRAMING ELEMENTS.

As noted earlier in this report, dispatch operational alternatives should be scrutinized in the context of the "Four Framing Elements" briefly summarized below:

- **It is crucial to minimize delays in public safety service response for effective service delivery to the community.** The impact in delivering

¹⁹Page 37-40. E&A estimated \$1.19 Million for such costs. We eliminated various costs that we believed unnecessary such as additional consulting implementation services (\$72,000); interim manager (\$60,000); new recording system (\$67,000), and Winnetka PSAP facility improvements (\$203,000).

timely public safety personnel and apparatus to a call for service scene can be critical. It should be considered an imperative service delivery goal, particularly with respect to the highest priority requests for service. The role of dispatch in response time is essential to this effort. Call processing and dispatching capabilities, as well as minimization of call transfers among agencies, are vital to facilitating rapid response times.

- **Highly-trained professional dispatchers employing consistent protocols are ideal for enhancing effective public safety service delivery.** Those that make a full-time profession of providing public safety dispatch services are typically the most well-trained, and thus reliable, dispatcher staff. There are assignment approaches in effect throughout the country which use part-time dispatcher positions, sworn staff on temporary assignment, job-sharing, and staff performing multiple assignments at a single duty station (i.e., concurrently dispatching fire, medical, EMS, and call-taking). While these models work, and by necessity must be used all of the time or part of the time in some (particularly smaller) locales, the ideal is to deploy a fully-trained dispatcher professional able to focus on a few key 911 service delivery tasks.
- **In an era of government fiscal constraint, taxpayers deserve highly effective dispatch services at the most reasonable cost.** Performing effective dispatch services at the most reasonable cost should be considered a vital priority. This requires careful balancing of operating costs against service level requirements, and also requires some of the most difficult financial decisions in a dispatch organization.
- **Operational changes resulting from alternative dispatch delivery initiatives should have a net operational benefit to overall public safety services.** Changes in dispatch service delivery should have an overall benefit to public safety service delivery. Dispatch operational changes that result in any perceived or actual service deterioration should have a counterbalancing enhancement in service and/or cost such that there is an overall positive impact to public safety service recipients. Determining “net” benefit is not only a quantitative effort but a qualitative effort. Agencies and customers with unique needs will judge these benefits differently. Nevertheless, it is important to attempt to articulate the “net benefit” to public safety services from any operational or organizational change in 911 communications.

The following sections discuss the various consolidation options in the context of these Four Framing Elements.

(1) Minimizing Public Safety Service Response.

Any 911 dispatch operation that transfers calls to another dispatch center is, by necessity, extending the time required before any public safety units can be on-scene. In some instances this is unavoidable, particularly with the expanded use of cell-phones, as despite modern technologies, cell phones will be routed to the incorrect PSAP given geographic layouts of cell towers, etc. Nevertheless, minimizing 911 call transfers between agencies and ensuring that calls are answered and dispatched consistent with best-practice helps reduce the overall dispatcher response time to citizens.

Currently Kenilworth, Northfield and Winnetka are using the Fire/EMD 911 dispatch services of RED Center. Calls are rerouted from village PSAPs to RED Center when these calls come in. Despite the professionalism and capabilities of RED Center, and its self-reported statistic of a call transfer occurring in an average of four seconds²⁰, this technology transaction does not include the additional time it takes for the original dispatcher to interrogate the caller to determine call type, nor the validation of information required by the second dispatcher. This example illustrates why secondary PSAP operations are undergoing increased scrutiny nationally—their operation incorporates an unavoidable dispatch response delay that must be overcome by enhanced field service response times that are often difficult to quantify.

The village of Glencoe, during the course of this study, believed a consolidated dispatch operational model must include fully internal Law Enforcement, Fire, and

²⁰ http://www.mabas3.org/red_center.html “Those calls requiring fire department or EMS responses are immediately transferred to the secondary (RED Center) PSAP. This transfer process happens in approximately four seconds.

Emergency Medical Services capabilities. This is particularly relevant for Glencoe, which operates as a public safety agency whereby most fire and police personnel are fully cross-trained in both public safety capacities. Glencoe does, however, suggest that it is flexible with respect to dispatch models as long as a) its police radio network includes Wilmette as a public safety partner and b) it has relevant Fire/EMS public safety partners on its fire radio network.

In sum, consolidation options for consideration should focus on providing full 911 dispatch capabilities that minimize call transfers and the associated response delays.

(2) Deployment of Professional Dispatcher staff.

Any consolidation option will require the deployment of fully cross-trained Law Enforcement, Fire and Emergency Medical Dispatch staff unless the four villages pursue a law enforcement-only dispatch solution (with all villages contracting with RED Center for Fire/EMS). This will require the GKNW Center at Winnetka or the Glenview PSAP to field these fully cross-trained dispatch staff capable of professionally handling law, fire and medical calls for service.

Kenilworth, Northfield and Winnetka dispatchers, some of which may be part of the consolidated center, have not been trained in Fire/EMD dispatch services as there has been no need. Currently among the four villages, only Glencoe dispatchers are fully cross-trained to provide these services. As such, any GKNW Center will require the incorporation of Glencoe dispatch staff into the consolidation model, and/or certified Fire/EMD training must occur, for all GKNW dispatchers prior to the go-live date of July 1, 2017.

Currently all Glenview dispatchers are fully cross-trained in all public safety protocols and are certified to dispatch Police, Fire and Emergency Medical services. As such, they are immediately capable of professionally dispatching all public safety service types, while some/all of the GKNW Center staff would require Fire/EMS training and would not yet have much practical experience at start-up. While it is clear that all four villages have professional dispatchers capable of providing a variety of dispatch services, there is insufficient experience presently among all four villages to staff a consolidated GKNW center without additional Fire/EMS training. It is undoubtable that the GKNW Consolidated Dispatch staff could field fully cross-trained personnel given the existing professionalism among village dispatchers. Nevertheless, this would take time, and in the overall context of providing professional Law Enforcement, Fire and Emergency Medical Services, the Glenview PSAP is immediately prepared to offer such services.

RED Center is prepared to offer Fire/EMS dispatch services to Glencoe, and has professional dispatchers to readily accomplish this. Yet, in the context of all *Four Framing Elements* and the guiding principles, other consolidation options exist that are overall more beneficial than transitioning Glencoe, as discussed subsequently.

(3) Service Costs to the Taxpayers.

Exhibit II and the capital costs table provided previously show that the various consolidation option annual operating costs range from \$1.52 to \$1.89 million annually (excluding RED Center), while capital start-up costs range from \$670,000 to \$766,000 in one-time expenditures. Importantly, these costs can be juxtaposed against the

villages' current independent and internal PSAP operational costs of \$2.34 million annually. Potential costs savings compared to existing operations can be significant.

The least expensive GKNW Center operating model is calculated at \$1.59 million annually, plus \$300,000 in Administrative Support costs. Both Glenview dispatch operational models offered are several hundred thousand less per year than a consolidated GKNW model. Regardless of capital start-up and transition cost amounts, when compared to existing independent four-village PSAP operational costs these expenditures will be recouped almost immediately irrespective of the consolidation operational model chosen. Whereas pay-back calculations for capital and transition costs are important in feasibility studies where the outcome is voluntary, these initial expenses are less important for overall decision-making in a mandated environment as long as such costs are essentially equivalent over the short to mid-term. Since GKNW must consolidate, and must incur these start-up costs in the nearer term, the long-term viewpoint suggests emphasizing operational cost comparisons to determine desirable service approaches.

Glenview Consolidated Option #1 whereby the villages consolidate all GKNW police with Wilmette on a NORCOM radio channel; dispatch Glencoe Fire/EMS on a shared radio channel with Highland Park, Lake Forest, and Lake Bluff FD's; and where Winnetka/Kenilworth and Northfield are dispatched by RED Center, is approximately \$367,000 less per annum in operational costs than an equivalent GKNW Center. This potential savings is substantive to the four villages' taxpayers and should be strongly considered barring public safety operational issues that may arise as a consequence of

pursuing a contract-for-service model. This is discussed further in the concluding and fourth Framing Element below.

(4) Net Operational Benefit to Public Safety Services Overall.

The consolidation options discussed result in opportunities for the villages' public safety partners to operate differently. This can result in perceived advantages and disadvantages to the public safety service providers.

Where the perception of local control associated with an in-house GKNW Center can be perceived as advantageous, and does offer some potential benefits related to the direct oversight of a dispatch agency, these advantages can typically be mitigated by a well-crafted performance contract and a responsive public safety dispatch contractor. Glenview has demonstrated well its customer-service philosophy with other clientele, and consequently "local control," particularly at additional financial costs, does not benefit public safety services overall. Furthermore and importantly, there are several potential implementation complications that need to be addressed in a consolidation effort. As such, turning over implementation to a partner that has performed such consolidation services before (as opposed to performing this initiative in-house) is of significant qualitative benefit and has the opportunity to further minimize any short-term impact on public safety due to the transition. This is particularly important with respect to a pending legislative deadline for consolidation implementation.

While legislative directive has precipitated consolidation for GKNW, this does not override the public safety benefits associated with larger dispatch centers resulting from consolidation. One of the important issues that has driven dispatch consolidation initiatives throughout the nation is the recognition that smaller dispatch agencies

composed of only a few personnel have the potential for several operational risks that can ultimately impact public safety services. Dispatch operations that field only one staff member at certain times of the day can face many challenges that their larger PSAP counterparts do not experience. These include:

- A reduced ability to handle multiple concurrent public safety incidents. This is particularly problematic when these incidents are calls for service of the highest priority.
- Increased physical fatigue levels as a consequence of multiple factors, to include limited if any meal and break relief, excessive overtime in the case of long term colleague absenteeism or vacancies, and similar factors.
- Increased emotional and mental fatigue as a result of frequently working alone. There is a variety of research related to the additional risks of working solo. One international research study by the *National Research and Development Institute for Labor Protection* indicated:

The effects of the risk factors in isolation work conditions are mainly psychological to include “psycho-affective” reactions from absence of human presence resulting in decreasing vigilance levels, lack of usefulness feelings, etc. as well as “cognitive” reactions whereby operators in critical conditions could miss some information necessary to optimal intervention.²¹

In sum, the operation of a single-dispatcher PSAP fundamentally carries additional risks compared to its multi-personnel counterparts. According to an article in an *IMSA* periodical, “Having only one dispatcher on duty is risky. It may be a fiscal requirement, but it is nonetheless risky and every reasonable step should be taken to avoid it.”²² Indeed, according to the *National Fire Protection Association* (NFPA) Standard 1221, “Communication centers that provide emergency medical dispatching (EMD) protocols shall have TWO telecommunicators on at ALL times.” This further illustrates the importance of having more than one dispatch staff deployed. In closing,

²¹ Working in Isolation – Risk Factors and Effects on Mental Health State. Ergonomic Department National Research and Development Institute for Labor Protection, page 3.

²² Dispatch Column, *IMSA Journal* Feature Article, September/October 2003, page 3.

regardless of the consolidation option chosen by GKNW, a consolidated operation should be considered a net benefit to public safety services overall when compared to the independent PSAP operations and associated costs now experienced.

6. FINDINGS, CONCLUSIONS AND RECOMMENDATIONS RELATED TO THE CONSOLIDATION OPTIONS.

The following points summarize key findings and conclusions in this chapter.

- The APCO modeled dispatcher staffing level requirements for a GKNW Center are 10 full-time and 3 part-time staff compared to present four village PSAP operations of 16 full-time and 10 part-time staff. The GKNW Center should field two (2) lead dispatchers of the 10 dispatch staff required as well as one (1) supervisor position.
- The developed GKNW Consolidated Dispatch Center has a recommended staffing contingent with some flexibility to approach core dispatch and ancillary workloads differently, dependent upon the needs of the villages.
- Our facilities review for a GKNW Center suggest the Winnetka PD dispatch location would serve as the primary site for a four-village consolidated dispatch operation if this option (as opposed to a Glenview option) is selected.
- Based on the APCO staffing model discussed previously and situating a GKNW Center at the existing Winnetka PD PSAP, the project team calculated the overall estimated operational costs at \$1.59 million for the first year's operation. This **excludes** costs associated with RED Center dispatching Winnetka/Kenilworth and Northfield while Glencoe Fire/EMS would be dispatched internally.
- The various options provided by the Glenview PSAP to provide consolidated contract-for-service 911 dispatch is \$1.22 million for first year operating costs irrespective of whether it dispatches Glencoe Fire/EMS in addition to the four villages' police dispatch services. This cost **excludes** the additional \$223,000 for RED Center dispatch services to Winnetka/Kenilworth and Northfield.
- Start-up capital costs for any consolidation alternative are in the range from \$670 to \$766 thousand. As such, the initial capital costs should not be considered a major determinant in choosing the appropriate dispatch consolidation option.
- Dispatch costs noted previously for the various options do not include \$300,000 in annual costs associated with the Administrative Support services discussed in the following chapter.

- The “Four Framing Elements” noted previously, underpinned by the guiding principles provided by the Project Steering Committee, suggest that overall public safety would benefit by pursuing a contract-for-service arrangement with Glenview whereby all police and Glencoe Fire/EMD are dispatched by this agency.
- Regardless of the mandate for consolidation, there are substantive benefits to public safety services as a consequence of moving away from the single-dispatcher deployments upon which the four villages now rely.

Based on the totality of analysis provided in this chapter, the following is recommended.

Recommendations:

Based on APCO-related staff modeling and other analysis for a GKNW Center, the staffing plan would be composed of 8 full-time dispatcher positions, two (2) lead dispatcher positions, three (3) part-time dispatchers and one (1) supervisor.

Based on analysis for a GKNW Center, the Winnetka PD dispatch location would serve as the primary site for a four-village consolidated dispatch operation if this option is selected.

Based on the Four Framing Elements that include operational and cost-related analysis impacting public safety service delivery, pursue a contract-for-service consolidated option (#1) with the Glenview PSAP. This is a 7-year fixed price contract beginning at \$1.22 Million annually that consolidates all GKNW Police and Wilmette on a NORCOM radio channel and dispatches Glencoe Fire/EMS with its East Shore partners. Estimated capital start-up costs do not exceed \$750,000.

5. Ancillary Support Service Requirements

The following is a discussion of our analysis associated with the provision of ancillary administrative and records support services that can no longer be provided in a consolidated dispatch environment.

1. A VARIETY OF WORKLOAD APPROACHES WILL NEED TO BE CHANGED AS A RESULT OF CONSOLIDATION.

Ancillary duties performed by village dispatchers represent an important component of public safety work that needs to be accomplished in some manner. This list is rather extensive, and is included as part of the Profile in Appendix B. As a consequence of consolidation, a variety of duties will need to be shifted to other personnel or handled differently. This can impact service levels that are provided by the villages in some instances but this is unavoidable in any consolidation environment. At issue is how to address key duties, responsibilities and services that are presently performed.

(1) Self-Reporting of Dispatcher Ancillary Workload Indicates it is Substantive but Not Severe.

According to the previously referenced 2011 K&A report, 3.5 FTEs would need to be available to handle the ancillary workload of the three villages (Kenilworth, Northfield and Winnetka). The firm's interviews conducted at that time revealed 10% to 90% of a dispatcher's time was the estimated effort to perform such duties.²³ Because of the importance of resolving this ancillary workload, as consolidation will occur, a self-reporting exercise for this administrative work was developed by our project team and was populated by the villages' dispatch staff for approximately five weeks in April 2016.

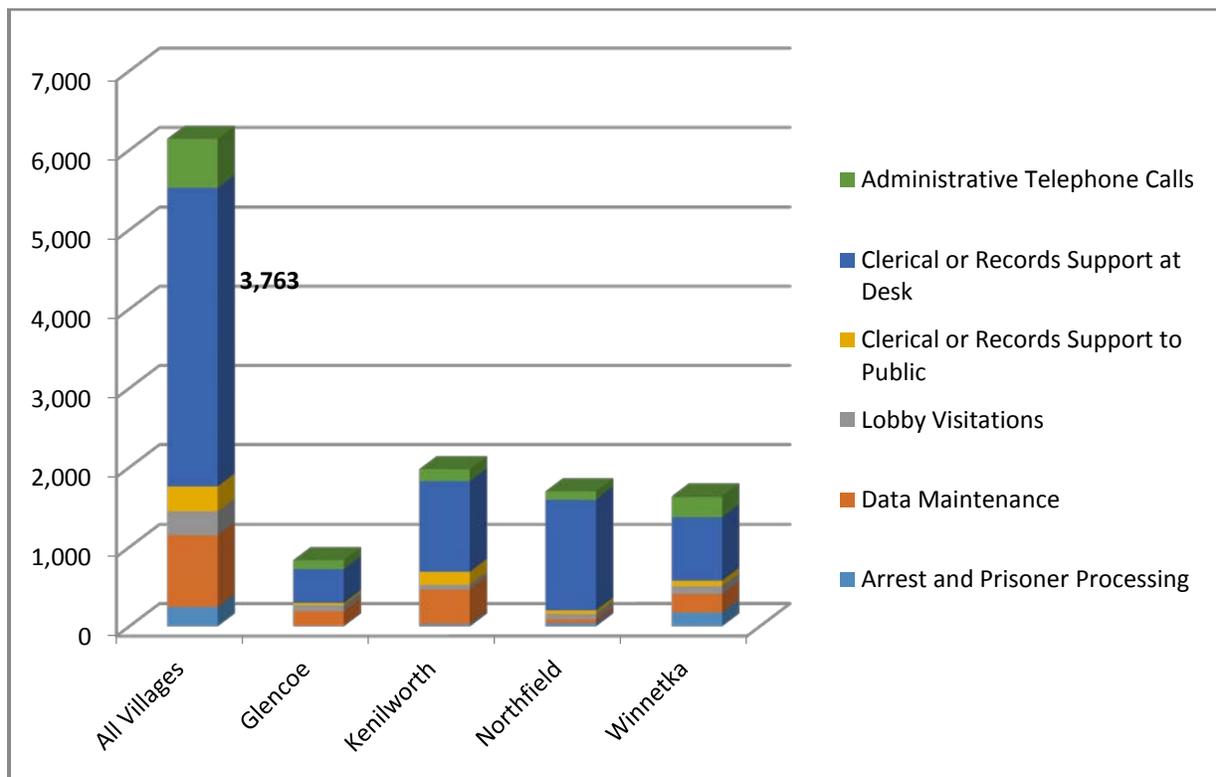
²³ 2011 K&A Consolidation Feasibility Study, page 24.

While the ancillary workload functions noted in Appendix B are lengthy, for purposes of self-reporting they were merged into six categories, summarized as follows.

- Arrest and Prisoner Processing
- Data Maintenance
- Lobby Visitations
- Clerical or Records Support to Public
- Clerical or Records Support at Desk
- Administrative Telephone Calls

The following chart summarizes workload data collectively and by village by these categories.

Annualized Ancillary Workload for the Four Villages – By Work Category



Based on the data displayed above, the following points are noted.

- Clerical or records support performed at the desk represents the bulk of duties performed. In total, nearly 3,800 hours are dedicated by the four villages to these tasks, representing 61% of the workload. It is the highest workload category for each of the four villages, particularly for Northfield and Kenilworth.
- Data maintenance tasks represent the second area of notable activity, with the villages spending 15% of total ancillary time dedicated to these tasks. While some of these entry tasks would be re-located to the consolidated operation, other would not, and would have to be performed internally.
- Interestingly, the handling of administrative telephone calls only represented 10% of ancillary workload among the four villages. While numerous (based on other telephone data discussed earlier in the report) these transactions are often done quickly.
- Lobby visitations and records support to the public combined for only 10% of administrative workload. Oddly, Kenilworth had significantly more of this activity compared to its counterpart villages.
- Arrest and prisoner-related workload was minimal for the four villages; however, Winnetka's workload in this area was nearly triple that of the other three villages combined. Nevertheless, the total workload for all villages in this area is estimated at approximately 250 hours per year.

Based on the data above, approximately 6,100 hours per annum are dedicated to ancillary administrative and records work. There are various possible approaches to performing this workload or addressing the work in a different fashion. The following section describes these alternatives.

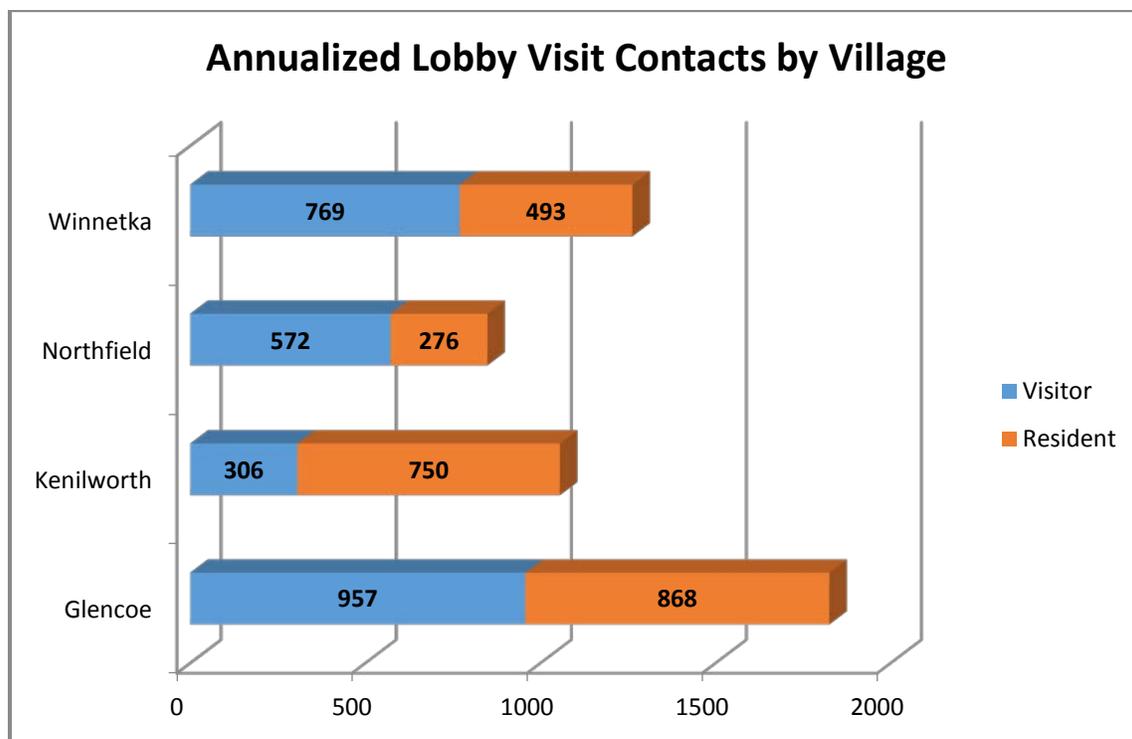
(2) Clerical, Records Support and Important Data Maintenance Functions Must be Performed by Newly Hired Staff.

Given the magnitude of work related to clerical and records functions performed at the dispatchers' desk or in support of the public, as well as the duties and responsibilities associated with data maintenance, new staff will need to be hired to complete these duties and responsibilities. This work represents approximately 80% of the dispatchers' total ancillary work and must be performed. As such, a records clerk job classification at each village is appropriate to handle this workload. In comparison

to other duty requirements, these two major responsibilities would occupy the bulk of records clerk time.

(3) Lobby Visitations Can be Handled by Newly Hired Clerical Staff During Normal Business Hours with Kiosks Deployed for Customer Service Purposes During Off-hours.

Lobby visits to the four villages do not take significant overall time, but do occur with regularity. The following graph shows the annualized number of lobby visits by village.



The data shows that for Winnetka, Northfield and Glencoe, visitor lobby visits exceed those of village residents. Conversely, residents of Kenilworth visit the police department in person proportionally more often than visitors. With respect to personal contact, fortunately these occurrences normally take place during business hours, with 83% of lobby visits occurring from 8 am to 5pm daily. These visits could be accommodated by the newly hired clerical staff during these time periods.

For the approximately one-in-five lobby visitors that currently are served by village dispatch personnel during non-business hours, as village lobbies are presently open 24/7, service could be accomplished by a kiosk system whereby the consolidated dispatch center (i.e., Glenview) would respond to a two-way audio-visual communication initiated by the customer at the entrance to the police department. Dispatch personnel would directly assist the customer or deploy a police officer to the police department's entrance to address the need. This system is currently in place in a variety of locales throughout the nation including current Glenview customers of Lake Forest and Lake Bluff. As part of its service offerings Glenview has offered to maintain these systems, but the initial capital investment of approximately \$10,000 is not included.

(4) Seven-digit Administrative Calls can be Handled in a Variety of Ways.

While Glenview will respond to these seven-digit calls after normal business hours, it can also field these calls for an additional cost beyond its currently proposed models. Further, these calls do not take a significant amount of ancillary workload time as noted previously, and as such could typically be answered by the newly hired records clerk staff in each village during normal business hours. In the event of heavy telephone traffic, the villages could collectively or individually hire a telephone answering service to respond to initial inquiries. This could also be expanded to include the possibility of separate but companion 311 telephone lines for all villages.²⁴ Telephone answering services' average cost for service is \$0.90 per minute. Based on after-hours telephone lines being handled by Glenview and business hour lines often

²⁴ http://icma.org/en/results/sustainable_communities/projects/311

being handled by newly hired staff, overflow costs for a telephone answering service would be minimal.

(5) Jail Monitoring and Prisoner Housing Will Require a Different Approach to Service.

While arrest, prisoner processing and housing activities represent the smallest portion of ancillary workload—less than 250 hours annually—there are important issues to resolve. Prisoners in custody require checking, at a minimum, every 30 minutes, and while they can be monitored remotely via camera the majority of time, this prisoner-check activity must occur in-person as prisoners cannot be left alone unsupervised. In the absence of 24/7 dispatch staff, the only other available staff would be police officers; performing this prisoner-check activity twice per hour would not be a cost-effective use of an officer's time. Consequently, monitoring and housing of prisoners needs to be revised at the four villages. Fortunately, this is not a significant amount of time, as most arrestees are processed and released as opposed to being temporarily housed. This arrestee (booking) processing will not change at the villages irrespective of the dispatch approach implemented.

An arrangement could be made with Glenview PD, or another local village, to temporarily house GKNW prisoners. Each village has unique circumstances with respect to prisoner housing requirements and these should be addressed by each village accordingly. For example, Glencoe, given its public safety department status and cross-trained police/firefighters, may be able to operate without any change given that its on-station firefighters could perform jail monitoring/checks. Despite this, other villages will require transport of the prisoner from Kenilworth, Northfield and Winnetka to Glenview (or an alternate) for prisoner housing. This process would take officers out of

service an additional amount of time for transport, and for small department's this becomes problematic. Consequently, additional protocols should be established to ensure police coverage is available to the "vacated village" (if this actually occurs) in those rare occasions when officers are occupied managing prisoners. This would require reliance on other public safety partners in adjoining agencies.

It is assumed that given the minimal number of prisoners housed per year by the four villages, this service would be available without further compensation from Glenview, particularly given the contract-for-service arrangement in place for dispatch. The Glenview PSAP has already confirmed camera monitoring of these prisoners is part of the existing offers for service.

(6) Hire One (1) Administrative Support at Each Village to Undertake the Noted Ancillary Administrative and Records Tasks.

Based on the aforementioned methods for processing various ancillary work, the follow table estimates the required Administrative Support FTEs to complete this work.

Newly Hired Administrative Support Staff Needed at Each Village to Complete Prior Dispatcher Ancillary Work

Community	Yearly Hrs	Est. FTE
Village of Glencoe	830	0.53
Village of Kenilworth	1,951	1.14
Village of Northfield	1,657	0.95
Village of Winnetka	1,459	0.80

The data suggest that one (1) Administrative Support position at each village would be needed to process the aforementioned ancillary workloads previously performed by dispatch staff. While the Village of Glencoe might be able to proceed with

a half-time position, this is not recommended given the potential vagaries associated with a self-reporting exercise.

Estimated cost for salary and benefits for each Administrative Support is \$75,000 per year.

2. FINDINGS, CONCLUSIONS AND RECOMMENDATIONS RELATED TO THE ANCILLARY WORK.

The following points summarize key findings and conclusions in this chapter.

- There are approximately 6,100 hours per annum dedicated to ancillary administrative and records work among dispatchers deployed to the four villages. As a result of consolidation, different approaches to performing this workload need to be devised.
- The four villages will need to hire Administrative Support positions, and use or create appropriate job classifications, to perform many of the functions currently undertaken by dispatchers. Workload suggests that one (1) position at each village would be satisfactory to complete this work.
- A few modifications to how public safety and customer service is now performed will have to occur. This includes providing an audio/visual kiosk for after-hours use by customers that wish to contact the police department/dispatch (as 24/7 front desk service is no longer practical). Only a small proportion of lobby visitations will need to use this system as most customer visits are conducted during business hours when Administrative Support positions will be available.
- Prisoner processing and housing will need to be handled differently by most of the villages. While this will require additional transport time, it is very infrequent. Only 250 hours per year is dedicated by dispatchers to processing/overseeing prisoners in the four villages.

Based on the totality of analysis provided in this chapter, the following is recommended.

Recommendations:

Develop Administrative Support job classifications and hire one (1) position at each of the four villages. These positions will complete ancillary workloads currently performed by dispatch staff. Based on various work such as front counter support, telephone calls, etc., schedule the staff from 8am to 5pm (1-hour

meal). The estimated annual cost for each position is \$75,000 in salary and benefits or \$300,000 to the four villages.

Design a police-entry Kiosk to provide audio/visual customer service for “walk-in traffic” during non-business hours. Glenview Dispatch will facilitate service. Glenview will maintain the system but initial capital investment is approximately \$10,000 per village.

Develop a plan with adjoining public safety partners, with strong consideration for Glenview, to handle prisoner processing and/or housing based on the unique needs of each village. Because of the Glenview service contract for dispatch, and the very minimal annual incarcerations from the four villages, Glenview might be approached to provide this service without further compensation.

6. Key Transitional Requirements for Consolidation

The following is a discussion of key transitional issues and associated requirements for consideration when moving to the consolidation model. Emphasis will be placed on the recommended Glenview contract-for-service dispatch model, although issues of importance will be discussed that are applicable to any consolidation model selected. These issues should be “checked off” during any formal implementation plan to ensure potential consolidation impediments are addressed proactively.

1. DEVELOPING AN EQUITABLE COST DISTRIBUTION MODEL FOR THE FOUR VILLAGES.

The Glenview contract-for-service model is a fixed price contract for all four villages. Glenview has a willingness to develop a consolidated contract with all four villages or alternately individual contracts with each village with re-opener language if one village leaves Glenview service. Regardless of the contract type, Glenview relies on the four villages to reach internal agreement on how those costs will be allocated among the villages. The project team has noted several cost apportionment models throughout the country that include a wide variety of variables that ultimately result in defensible cost allocations to the participating agencies. The four villages examined many of these variables to arrive at consensus on a fair-share cost allocation model discussed below.

(1) The Villages Reached Consensus on a Cost Allocation Model Incorporating Various Metrics.

Based on village leadership discussions over the course of this engagement, the members examined a variety of models and devised a method that all villages believe fairly shares operational costs. The model evaluated five years of representative

workload variables as well as current population to develop a fair-share cost allocation model to be used on a move-forward basis. The model incorporates the following elements:

- 20% of the operational costs are designated as fixed (e.g., the equal sharing of a supervisor) and are equally shared among the four villages.
- 40% of the operational costs are based on each village’s proportional population.
- 40% of the operational costs are based on each village’s proportional contribution to key call for service and event-based workload drivers that are common to each village.²⁵

The distribution of these variables using the methodology above results in the following cost allocation model for the four villages:

Four Villages’ First-Year Operational Cost Sharing Based Upon Consensus Model

Community	% of Operational Costs	Dispatch Cost (Paid to Glenview)	Present Internal Dispatch Services Budget	Difference (Savings)
Village of Glencoe	28%	\$346,144	\$657,832	\$311,688
Village of Kenilworth	13%	\$160,308	\$337,029	\$176,721
Village of Northfield	25%	\$305,650	\$675,040	\$369,390
Village of Winnetka	34%	\$409,516	\$671,912	\$262,396
TOTAL:	100%	\$1,221,618	\$2,341,813	\$1,120,195

The above table demonstrates an operational savings for every village with respect to dispatch operations, some more significant than others. Importantly, the model has been developed such that the percentage of operational costs allocated to each village will remain fixed for the foreseeable future, thereby resulting in an ability to accurately forecast dispatch operational budgets annually.

²⁵ Calls for service include traffic accidents and police alarms; events include Part I crimes, Part II crimes, and traffic stops conducted.

(2) Start-up Capital Costs Benefit All Villages and Should be Equally Shared.

With respect to the distribution of shared start-up capital costs, this will need to be fully addressed during the implementation phase of the engagement among the four villages. There are a variety of “fair share” models discussed previously that could accommodate the villages. However, no model will address some key issues that could become problematic such as Kenilworth and Winnetka already having New World CAD and thus potentially being eligible for a CAD capital-cost credit whereas Northfield and Glencoe would not be eligible for such credit. Additionally, approximately \$80,000 is related exclusively to Glencoe Fire/EMS dispatch and as such should be handled accordingly. Irrespective of these kinds of issues, it can be argued that the capital investment to make consolidation work equally benefits every village, as the infrastructure and technologies will be used by GKNW. To that end, an equally shared capital cost allocation strategy is probably the least difficult to implement, barring any unique circumstances such as Glencoe’s Fire/EMS capital contribution. Since the initial capital investment for police is \$670,000 and not exorbitant, each village contributing \$167,500 is the recommended capital cost allocation approach, with Glencoe covering the approximate additional \$80,000 for Fire/EMS capital.

Recommendations:

Implement the devised charge-back model for the four villages and memorialize it in an inter-agency agreement.

Revisit the cost allocation model for potential data update every four years.

Equally share among GKNW the start-up police-related capital costs estimated at \$167,500 per village. Glencoe would incur an additional \$80,000 capital cost for Fire/EMS.

3. ADDRESS OTHER CUSTOMER SERVICE AND INTERNAL OPERATIONS GAPS THAT MAY OCCUR UPON CONSOLIDATION.

While this report has outlined in separate sections various key service areas that will require resolution upon consolidation (e.g., prisoner management), there will be dozens of small service delivery and operational issues that will need to be resolved in cooperation with Glenview, the newly hired Administrative Support positions, Wilmette, the villages' public safety departments, and the community. Some of these gaps include the following:

- **Determine Responsibility for Infrequent Customer Service Efforts.** As noted previously, Appendix B contains a detailed listing of current ancillary duties performed by the various villages' PSAPs. While the large majority of these will be accomplished by the consolidated dispatch center or the newly hired Administrative Support positions, there are some instances in which a particular customer service effort will need a different approach or staff with additional training. This includes such things as an assigned custodian of private property keys; child safety seat technician; or fingerprinting of school employees.
- **Privatize Alarm Monitoring with a Central Monitoring Station (CMS) Company.** Glenview does not offer direct alarm monitoring service, instead relying on the more common use of a CMS service that processes security alarms and makes the decision to contact responsible parties and/or forward the alarm to the emergency authorities (PSAP). These arrangements will need to be made with the community and various CMS vendors²⁶ prior to "go-live."
- **Consider Key Personnel Issues Regardless of the Consolidation Option Selected.** A variety of issues surrounding existing dispatch personnel at the villages will need to be resolved irrespective of the consolidation solution adopted. This includes such factors as development of dispatcher severance packages, determination of hiring protocols for the new dispatch agency among existing villages' dispatch staff²⁷, and other issues that remain undefined until execution of the consolidation alternative.
- **Re-allocate Minor Costs for Various Services/Technologies from PSAP Budgets to Broader Public Safety Budgets.** Various smaller and detailed line item budgets that reflect service and/or technology currently within PSAP

²⁶ http://www.cepro.com/article/diy_vs_professional_monitored_home_security_how_law_enforcement_911# is an informative website describing the roles and responsibilities associated with alarm service approaches.

²⁷ For Example, Glenview guarantees all four villages' dispatchers will receive an interview for a possible job position, but provides no other guarantees with respect to employment.

budgets will need to be addressed, and if retained, transitioned to the villages' broader public safety budgets. Examples include weather warning alert siren maintenance, electronic door lock maintenance, Mobile Data Terminal maintenance, non-emergency line recorders maintenance, etc.

- **Develop an Oversight Committee.** In the project team's experience, one of the primary reasons for the failure of many consolidation efforts, both pre and post-consolidation, is the inability for parties participating in consolidation to reach consensus. Governance or oversight models need to be perceived as equitable among all participating agencies in a consolidation scenario. While the recommended Glenview consolidation is a contract-for-service model that does not have governing oversight, the four villages are nevertheless bound collectively by an Intergovernmental Agreement with Glenview. As such, an oversight body to collectively address contract issues, service issues, etc., must be formed. It is recommended that the four Village Managers, or their designees, serve on an oversight committee and meet quarterly, or more often if required. The oversight committee may wish to include a fifth party advisor that would participate in decision-making in the event of split 2-2 decisions. Executives from the Cook County Emergency Telephone System Board, or others, could be solicited to participate.

In sum, a variety of smaller customer service and internal operations will need to be addressed and finalized prior to consolidation. Ultimately these should be included in a transition plan as described below; however, the four villages will need to be adaptable with respect to problem resolution as unforeseen circumstances constantly arise in any major project initiative.

4. DEVELOP A TRANSITION TEAM TO WORK ON GLENVIEW'S AND AN INTERNAL VILLAGES' IMPLEMENTATION PLAN.

In order to address multiple issues associated with a successful conversion to a consolidated model, the development of a formal project transition team and implementation plan must be devised in an endeavor of this scope, to ensure potential pitfalls are addressed proactively. An illustrative transition plan has been provided by Glenview and is included in Appendix A. However, transition planning should go beyond this effort for the four villages.

(1) Develop a Project Implementation Plan to Facilitate Successful Transition.

A project plan is the outcome of project management techniques consistent with best management practices. Project management is defined by the Project Management Institute as, “the application of knowledge, skills, tools, and techniques to a broad range of activities in order to meet the requirements of a particular project.” Key project management elements are abstracted from the Project Management Body of Knowledge (PMBOK) standards sponsored by the *Project Management Institute (PMI)*—the preeminent organization for project management best practices. Based upon the overarching philosophy of these techniques, the project team believes several project management principles should be applied to the consolidation initiative and development of a formal project implementation plan. The implementation plan should include the following eight areas that comprise the core principles of the project management process:

- Preparation of a project (transition) budget;
- Definition of the project, including its scope, staff resources required, project costs, and project priority;
- Establishment of plans and schedules for each key phase to determine what tasks are to be performed internally and by private contractors (as applicable), as well as the start, end and milestone dates;
- Monitoring and regularly reporting the progress against each element of the schedule for each phase;
- Maintenance of the financial control systems necessary to ensure timely reports on current expenditures of funds for each phase of the plan;
- Development of a system to alert top management to cost, schedule, legal and other difficulties, and unusual circumstances encountered during the course of the project;

- Management of the staff and consulting resources involved in the project in order to adjust to changes in priorities and project mixes as well as to enable completion of the project on schedule and within budget; and
- Management and coordination of the interfaces needed to complete the project.

The U.S. Department of Transportation discusses the need for transition planning, in-depth, in its own Transition Plan document for NG911 (next generation services), stating articulately the need for transition planning, “To facilitate the migration to the NG911 system, it is critical to understand and assess transition issues and identify potential options to resolve or address these issues. Without a clear understanding of the potential challenges and options to overcome the obstacles, the deployment of NG911 may extend over an inordinate length of time.”²⁸ This philosophy is true for all major initiatives, whether federal, state, local government or private enterprise.

In conclusion, the development of a formal project implementation plan coinciding with effective project management will minimize the risk of any service delivery impacts resulting from the transition. As such, it should be considered a vital first step in a consolidation process.

(2) Develop a Project Transition Team to Facilitate the Implementation Plan.

A project transition team should be assembled and tasked with developing a project implementation plan in concert with Glenview. The team should be composed of existing PSAP, police, fire and technical staff from the four villages, with at least one representative from each community. The project transition team should be composed of no more than nine (9) members and preferably seven (7) members. Beginning July 1, 2016 the team would meet monthly until March 1, 2017; would meet bi-weekly from

²⁸ http://www.its.dot.gov/ng911/pdf/NG911_Transition_PlanFinal.pdf, page 1.

March 1, 2017 to April 30, 2017; and then meet weekly from May 1, 2017 until “go-live” implementation on July 1, 2017 (or sooner dependent upon the plan). The intention of the meeting would be to ensure the core principles of project management are appropriately executed, as well as to address, in cooperation with Glenview, the variety of issues that will arise during consolidation implementation. Members of the project transition team should report quarterly to the villages’ Boards beginning September 1, 2016 and monthly beginning April 1, 2017.

5. FUTURE ISSUES REGARDING DISPATCH OPERATIONS WILL IMPACT THE VILLAGES IN THE MID-TERM.

The following issues are provided for consideration in the future.

(1) Existing Radio Systems Will Need to be Phased-out by 2021.

The portable and mobile radio assets in the four villages’ public safety operations reflect a diversified set of equipment with different useful life remaining, model types, ownership and re-programming capabilities. Overall, there are approximately 350 mobile and portable radios deployed in a primary or back-up capacity in the villages. These are currently on the NORCOM 24B Regional Repeater. By order of the Federal Communications Commission (FCC), all public safety agencies on UHF analog (including Glenview Police and all the NORCOM agencies) must vacate their frequencies by calendar 2021. This will require a transition to radio frequencies such as Glenview’s STARCOM system or an equivalent system at Cook County. As such, these radio assets will need to be replaced within the next four years based on federal directive and useful life parameters.

The costs of these radio assets are expensive, estimated at \$1.65 million in initial capital costs. Some of these existing radio assets can be re-programmed to the

STARCOM network in the near term, and all of these assets can be purchased on a four-year 0% financing option now, based on present Motorola terms and conditions. These fees do not include estimated site-development costs of \$150,000 and monthly fees per radio ranging from \$18-\$36.

At issue is when such assets will be purchased and these additional costs incurred. Glenview can accommodate transition to the STARCOM network now; however as noted, Glenview has indicated a willingness to temporarily accommodate existing NORCOM police frequencies. While these capital cost investments can be delayed in the near-term, as the dispatch operation can remain on the NORCOM radio network, this delay is relatively brief, as the radios must be resolved by 2021 irrespective of how 911 dispatch is operated.

(2) National Consolidation Initiatives are Heading Toward Reduction of Secondary Public Safety Answering Point (PSAP) Operations.

RED Center has a strong reputation for professionalism, and many Fire Chiefs and other fire professionals strongly support fully dedicated (as opposed to “shared”) dispatchers deployed exclusively to fire and emergency medical dispatch services. Despite this, the service delays possible when incorporating a secondary PSAP, such as RED Center, are real. Various initiatives are underway throughout the United States to limit or eliminate secondary PSAP operations, given the delays that are experienced transferring 911 calls. For example, the Utah State Legislature recently defined a “PSAP” in such a way that secondary PSAPs are no longer eligible for a variety of State funds. This is indicative of the types of initiatives the Matrix Consulting Group foresees in the future, and as such, GKNW should periodically evaluate its options with respect to the continued use of RED Center as a Fire/EMS service provider. This will require

conversations among village fire and law enforcement professionals, as well as further analysis of the overall value of the annual expense (currently \$223,000) compared to cost-neutral alternatives.

The following recommendations are made with respect to transition planning.

Recommendation: Develop a project transition team of professional public safety staff from Glencoe, Kenilworth, Northfield and Winnetka to devise and execute a Project Implementation Plan for dispatch consolidation. This would be done in concert with Glenview.

Recommendation: Identify a project manager from one of these agencies that serves on the consolidation transition project and task with executing a formal implementation plan consistent with Project Management Body of Knowledge (PMBOK) principles.

Recommendation: Report project progress to the villages' Boards on a quarterly basis beginning September 2016 and monthly beginning April 2017.

APPENDIX A – 7-YEAR GLENVIEW CONSOLIDATION PROPOSALS AND ILLUSTRATIVE TRANSITION PLAN

DRAFTED PROPOSAL

GLENVIEW PUBLIC SAFETY DISPATCH CENTER
 For Glencoe, Kenilworth, Northfield and Winnetka
 June 2, 2016

OPTION #1

Glenview STARCOM Fire channel or shared channel with Highland Park, Lake Forest, and Lake Bluff FD's. Hire 5 Telecommunicators and 1 Supervisor.

TOTAL OPERATING COSTS						
Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	Year 6 2022	Year 7 2023
\$1,221,618	\$1,266,708	\$1,320,232	\$1,375,689	\$1,434,793	\$1,499,460	\$1,566,152

**Note: Municipalities keep all 9-1-1 surcharge monies*

CAPITAL COST ESTIMATE: \$725,000 - \$750,000

For one fully equipped position (phone, radio and desk), connectivity (fiber and microwave), New World purchase, implementation and data conversion, basic Fire station alerting for Glencoe, remote connectivity/control of existing Net 24B for police in north and south dispatch centers, upgrade existing Glencoe fire radio infrastructure to a repeated channel, connectivity and backup to existing Glencoe fire frequency, and capital equipment and redundancy buy-in.

- 1. All Police and Glencoe Fire:** Consolidate Police (Glencoe, Kenilworth, Northfield and Winnetka) onto its own separate channel (shared with Wilmette PD) AND consolidate Glencoe Fire onto

OPTION #2

- 2. All Police:** Consolidate Police (Glencoe, Kenilworth, Northfield and Winnetka) onto its own separate channel (shared with Wilmette PD). Hire 5 Telecommunicators and 1 Supervisor.

TOTAL OPERATING COSTS						
Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	Year 6 2022	Year 7 2023
\$1,221,618	\$1,266,708	\$1,320,232	\$1,375,689	\$1,434,793	\$1,499,460	\$1,566,152

**Note: Municipalities keep all 9-1-1 surcharge monies*

CAPITAL COST ESTIMATE: \$640,000 - \$670,000

For one fully equipped position (phone, radio and desk), connectivity (fiber and microwave), New World purchase, implementation and data conversion, remote connectivity/control of existing Net 24b for police, and capital equipment and redundancy buy-in.

Radio Infrastructure Information:

- Proposed capital cost estimates include these modifications to the existing Glencoe fire frequency
 - Modify simplex radio to repeated, allowing it to be combined with the existing Highland Park, Lake Forest, and Lake Bluff frequencies and radio network
 - FCC Licensing and coordination
 - Backup transmitter and connectivity for fire should main Glencoe fire transmitter fail
 - All equipment will come with warranty, but future maintenance costs related to the fire frequency after modification is the responsibility of the fire department
 - Radio frequency modifications are budgetary estimates based upon no interference issues and successful coordination of the frequency modifications through the FCC
 - Should Glencoe fire select the STARCOM solution they could be patched into the north agencies frequency or share the Glenview STARCOM talk group reducing the proposed capital cost estimate
- All microwave costs are budgetary estimates bases upon the ability to leverage existing radio towers, should any towers need to be added or modified these costs could increase
- To eliminate the reoccurring and quickly rising costs of phone lines needed to connect the two dispatch centers into the radio infrastructure we are proposing the use of microwave and fiber connectivity
- Proposed capital cost estimates include connecting to the existing Net 24b police frequency main and backup
- ***The capital cost estimates do not include the costs for agencies to transition mobile and portable radios to STARCOM or the monthly subscriber fees once transitioned***

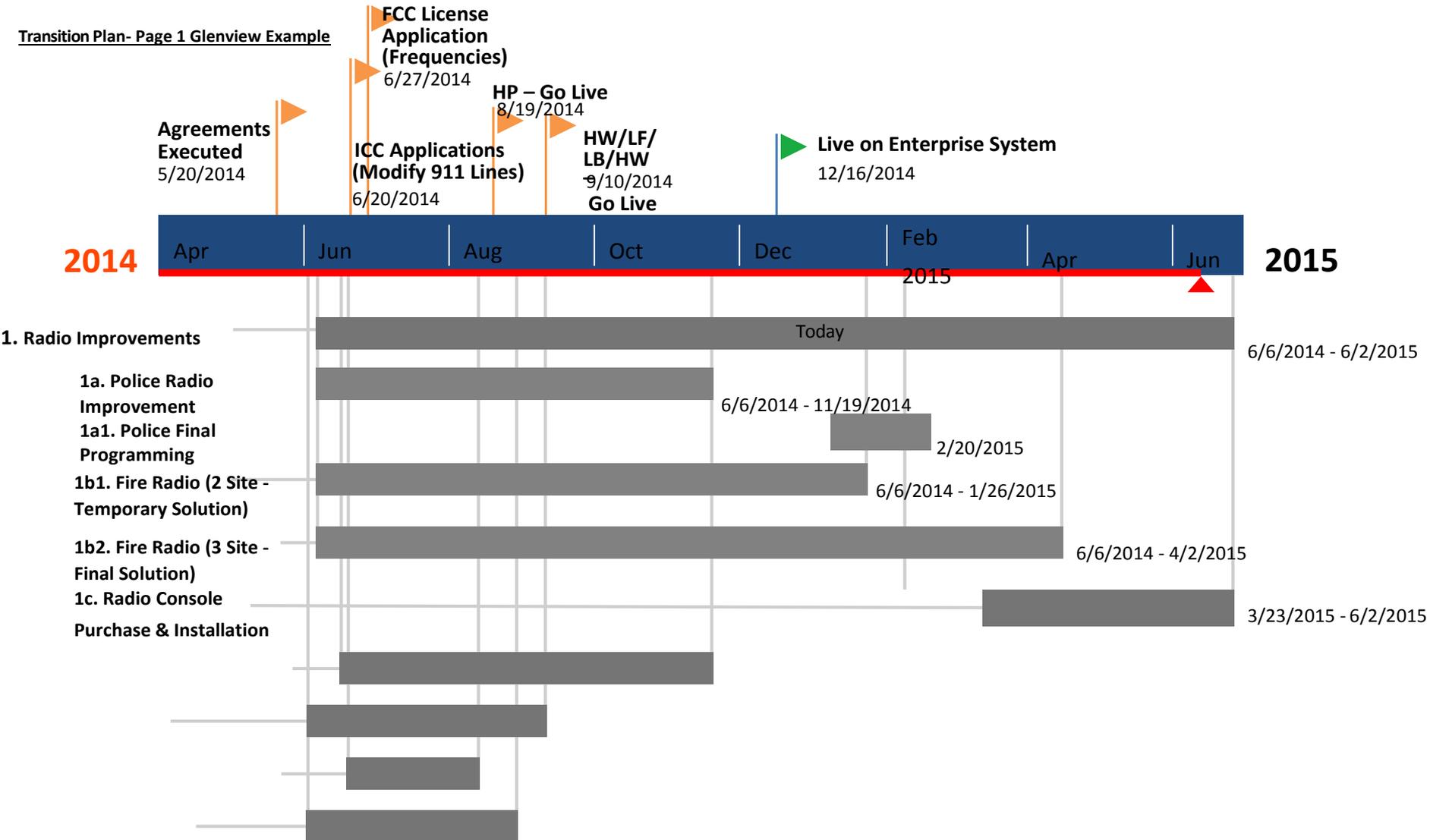
Key Highlights of Proposal:

- **Operations consolidated on same radio channel** as neighboring agencies for improved communication and interoperability
- **Operation of two dispatch centers offering “live” fully redundant backup to each center**
 - Consolidated dispatch center providing police and fire dispatch services to 12 agencies
 - Allows for staff to address peak call volumes across multiple agencies and between both centers
- **Latest technology and systems**
 - Next-Gen ready Airbus 9-1-1 Phone System
 - Motorola MCC 7500 Radio system (STARCOM ready)
 - New World Systems E-CAD, MSP, Mobile, and Field Reporting solution that has full geodiverse disaster recovery
 - **Dedicated New World application support specialist on staff**
 - Existing regional data sharing that can be expanded
 - GIS Data coordination through MGP
 - Active partner/customer with New World since 2007
- **Trained staff of telecommunicators (current staffing)**
 - 30 full-time Telecommunicators (Police and Fire trained, EMD certified)
 - 5 full-time 9-1-1 Shift Supervisors
 - 10 part-time Telecommunicators
- **Dedicated management team**

GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan

- Director – 24 years of 9-1-1 and dispatch service experience
- Deputy Director – 16 years of 9-1-1 and dispatch service experience
- Village Manager's Office support
- **Operating costs are all-inclusive**
 - Personnel Costs (salaries and all roll-ups), Part-time, Overtime, Holiday Pay, Longevity, Health Insurance, Workman's Comp, etc.
 - Uniforms, Training, Memberships, Certifications/Licenses, etc.
 - New World Support Service and Maintenance Agreement (SSMA) Costs
 - Maintenance Agreements for Dispatch equipment, LEADS hot files maintenance, 9-1-1 MSAG Maintenance
 - Capital Equipment Replacement Fund for Dispatch equipment
 - Information Technology Services for dispatch infrastructure and New World application support
 - New World map maintenance performed by Glenview
 - Management of center

GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan



**GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan**

2. Connectivity (Microwave &

Fiber)

11/19/2014

6/16/2014 -

3. Phone System

6/2/2014 - 9/10/2014

4a. ETSB Meetings/ICC Filing

(911 Modifications)

6/19/2014 - 8/13/2014

4b. 911 Trunk Lines

6/2/2014 - 8/29/2014

APPENDIX B – PROFILE OF EMERGENCY DISPATCH OPERATIONS

1. INTRODUCTION

This document provides the profile of current dispatching operations for Glencoe, Kenilworth, Northfield and Winnetka, Illinois (hereafter abbreviated GKNW Study). These data are based on interviews with public safety and other key personnel in the villages, collection of key workload data and statistics, and review of available documents. The profile is organized as follows:

- Background, Incident and telephone-based Data
- Summary of Current Dispatching Agencies

The purpose of the descriptive profile is to document the project team's understanding of the organizational structure of the agencies, including staffing levels, programs and other pertinent information in which confirmation is necessary. Data contained in the profile were developed based on the work conducted by the project team to date. This descriptive profile does not attempt to recapitulate all organizational and operational facets of the GKNW study's dispatch agencies. For Example, duties and responsibilities are not at the job description level. Rather, the profile reflects a summary of our understanding of the organizations, which prefaces forthcoming steps in the consolidation feasibility analysis. These profiles are descriptive only – there are no findings, conclusions nor recommendations to be found in this interim deliverable. Workload data are still being analyzed by the project team, which will be included in forthcoming documents. This profile should be reviewed for accuracy and completeness by the Steering Committee and/or key participants.

The information in this document will be one piece of information utilized as the basis for the development of consolidation alternatives. By understanding the general operations, staffing, and resources for the public safety agencies potentially impacted by dispatch consolidated options, alternatives can be devised. For contextual purposes, the first section below provides overall demographic information for the four villages.

2. THE FOUR VILLAGES HAVE A POPULATION OF APPROXIMATELY 29,500 THAT HAS NOT CHANGED SIGNIFICANTLY IN THE LAST SEVERAL YEARS.

The following table illustrates the population growth of the GKNW study's area over the past several years:

Community / Year	2000	2010	2014 (est.)	15-Year % Change
Village of Kenilworth	2,494	2,513	2,562	1.03%
Village of Northfield	5,389	5,420	5,483	1.02%
Village of Winnetka	12,419	12,187	12,490	1.01%

As shown above, the population of the various villages ranges from approximately 2,600 to 12,500. Limited growth has been experienced in these areas over the last 15 years.

3. INCIDENT AND TELEPHONE CALL DATA.

Based on dispatch-related workload such as incident and attendant telephone calls data obtained from the respective dispatching agencies, the sections below summarize some key information used in developing dispatch consolidation models.

GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan

Agency	Incidents	Telephone Calls				Incoming that are 911	Total
	Tot. CAD Incidents	Incoming	Outgoing	Abandoned			
Village of Glencoe	17,571	35,423	9,199	221	2,407	44,843	
Village of Kenilworth ⁱ	9,253	13,231	1,849	Unk.	797	15,060	
Village of Northfield	21,976	15,755	6,689	268	2,762	22,712	
Village of Winnetka ⁱⁱ	23,046	9,897	4,978	158	1,882	15,033	

4. SUMMARY OF DISPATCH AGENCIES.

To provide emergency communications and dispatching service to the local public safety agencies in Glencoe, Kenilworth, Northfield and Winnetka there are four separate public safety dispatch agencies. The summary of their respective organization, operation, and services are included in the table below. The matrix does not include Red Center providing Fire/EMD to Kenilworth, Northfield and Winnetka.

**GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan**

Department	Summary of Organization / Operation	Summary of Dispatch Services
------------	-------------------------------------	------------------------------

GLENCOE DISPATCH



**GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan**

Department	Summary of Organization / Operation	Summary of Dispatch Services										
<p>Glencoe Dispatch</p>	<p>Total dispatch staffing consists of following authorized positions:</p> <p><u>Oversight Supervisor/Manager:</u> (1) Public Safety Lieutenant</p> <p><u>Authorized Dispatch Staffing</u> (5) full-time dispatchers (2) part-time dispatchers (new in 2016)</p> <p>(1) CSO and a few officers are also certified to support dispatch.</p> <p><u>Actual Dispatch Staffing</u> (4) full-time dispatchers (1 retired 3/31/16) (2) part-time dispatchers</p> <p>Hours of operation: Works 8-hour weekday and 12-hour weekend shifts with weekend personnel filling two shifts on weekdays, Tue-Fri.</p> <ul style="list-style-type: none"> • M-F 0700 – 1500 hours • M-F 1500 – 2300 hours • M-F 2300 – 0700 hours • S-S 0700 – 1900 hours • S-S 1900 – 0700 hours <p>The center consists of 2 dispatching stations available. The following key hardware/software solutions are in use by the PSAP:</p> <table border="1" data-bbox="467 1297 927 1461"> <tr> <td>CAD</td> <td>Cushing PSIMS</td> </tr> <tr> <td>911</td> <td>Airbus Vesta 4</td> </tr> <tr> <td>Other Phone</td> <td>Cisco IP</td> </tr> <tr> <td>Radio(VHF/UHF)</td> <td>C. Comm Telex</td> </tr> <tr> <td>Surveillance</td> <td>Milestone Sys.</td> </tr> </table>	CAD	Cushing PSIMS	911	Airbus Vesta 4	Other Phone	Cisco IP	Radio(VHF/UHF)	C. Comm Telex	Surveillance	Milestone Sys.	<p>Serves as the primary Public Safety Answering Point for the village of Glencoe. Dispatches and supports law enforcement and Fire/EMD personnel in this public safety agency. Winnetka is back-up dispatch center.</p> <p>Provide 24/7 dispatching services and Records-related services. CPSE, CFAI and CALEA certified. Key responsibilities include:</p> <p>RE Dispatch: Assigns and dispatches appropriate police, fire, EMS units verbally and/or via MDT to calls for service and provides Emergency Medical Dispatch (EMD). Processes incoming/outgoing E911 and other calls. Maintains CAD information through incident-based transactions. Performs entries and queries into local, state and federal databases. Monitors the alarm board, building security and village facility camera systems. Performs other dispatch-related duties as assigned.</p> <p>RE Records: Records-related functions are currently being recorded in detail. A portion of time is dedicated to Records-related support functions to include but not be limited to: 24/7 front counter service; vehicle impounds; LEADS/ICLEAR administration; Cisco IP phone system telephone roll-over; records-based clerical support and other administrative support. Performs other clerical-related duties as assigned. (See Appendix).</p>
CAD	Cushing PSIMS											
911	Airbus Vesta 4											
Other Phone	Cisco IP											
Radio(VHF/UHF)	C. Comm Telex											
Surveillance	Milestone Sys.											
<p>Matrix Consulting Group</p>		<p>Page 84</p>										

Department	Summary of Organization / Operation	Summary of Dispatch Services
------------	-------------------------------------	------------------------------

KENILWORTH DISPATCH



**GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan**

Department	Summary of Organization / Operation	Summary of Dispatch Services										
<p>Kenilworth Dispatch</p>	<p>Total dispatch staffing consists of following authorized positions:</p> <p><u>Oversight Supervisor/Manager:</u> (1) Admn. Sergeant</p> <p><u>Authorized Dispatch Staffing</u> (3) full-time Records and Communication Officers (2) part-time Records and Communication Officers (4 FTE Total)</p> <p><u>Actual Dispatch Staffing</u> (3) full-time R&C officers (2) part-time R&C officers</p> <p>Hours of operation: Works 8-hour and 12-hour shifts with part-time primarily working Day shifts.</p> <ul style="list-style-type: none"> • M-T & F-Sa 0700 – 1900 hours • M-T & F-Sa 1900 – 0700 hours • W-Th 0700 – 1500 hours • W-Th 1500 – 2300 hours • W-Th 2300 – 0700 hours • Sun 0700 – 1500 hours • Sun 2300 – 0700 hours <p>The center consists of 2 dispatching stations available. The following key hardware/software solutions are in use by the PSAP:</p> <table border="1" data-bbox="467 1268 927 1493"> <tr> <td>CAD</td> <td>Tyler Tech. (New World)</td> </tr> <tr> <td>911</td> <td>TCI Cassidian</td> </tr> <tr> <td>Other Phone</td> <td>Avaya</td> </tr> <tr> <td>Radio</td> <td>Motorola Gold Elite</td> </tr> <tr> <td>Surveillance</td> <td>Geovision</td> </tr> </table>	CAD	Tyler Tech. (New World)	911	TCI Cassidian	Other Phone	Avaya	Radio	Motorola Gold Elite	Surveillance	Geovision	<p>Serves as the primary Public Safety Answering Point for the village of Kenilworth. Dispatches and supports law enforcement and transfers Fire/EMD to Red Center secondary PSAP. Wilmette is back-up dispatch center.</p> <p>Provide 24/7 dispatching services and Records-related services. Key responsibilities include:</p> <p>RE Dispatch: Assigns and dispatches appropriate police personnel verbally and through MDT to calls for service. Processes incoming/out-going E911 and other calls. Maintains CAD information through incident-based transactions. Performs entries and queries into local, state and federal databases. Monitors various police and village systems. Performs other dispatch-related duties as assigned.</p> <p>RE Records: Records-related functions are currently being recorded in detail. A portion of time is dedicated to Records-related support functions to include but not be limited to: 24/7 front counter service; monitoring jail cameras and prisoner checks; processing subpoenas; performing case management administration; records-based clerical support and other administrative support. Performs other clerical-related duties as assigned. (See Appendix)</p>
CAD	Tyler Tech. (New World)											
911	TCI Cassidian											
Other Phone	Avaya											
Radio	Motorola Gold Elite											
Surveillance	Geovision											
<p>Matrix Consulting Group</p>		<p>Page 86</p>										

**GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan**

Department	Summary of Organization / Operation	Summary of Dispatch Services
------------	-------------------------------------	------------------------------

NORTHFIELD DISPATCH



**GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan**

Department	Summary of Organization / Operation	Summary of Dispatch Services										
<p>Northfield Dispatch</p>	<p>Total dispatch staffing consists of following authorized positions:</p> <p><u>Oversight Supervisor/Manager:</u> (1) Communications / Records Supervisor</p> <p><u>Authorized Dispatch Staffing</u> (4) full-time dispatchers (2) Part-time records/dispatch 8-16 hrs per week.</p> <p>(1) Part-time records clerk (no dispatch but supported by other P/T).</p> <p><u>Actual Dispatch Staffing</u> (4) full-time dispatchers (2) part-time dispatchers</p> <p>Hours of operation: Works 8-hour shifts on 28-day rotating schedule with Thr/Fri, Sat/Sun, Mon/Tue days off.</p> <ul style="list-style-type: none"> • 0600 – 1400 hours • 1400 – 2200 hours • 2200 – 0600 hours <p>The center consists of 3 dispatching stations available with a fourth upgradeable. The following key hardware/software solutions are in use by the PSAP:</p> <table border="1" data-bbox="467 1297 927 1493"> <tr> <td>CAD</td> <td>Computer Info. Systems</td> </tr> <tr> <td>911</td> <td>Positron</td> </tr> <tr> <td>Other Phone</td> <td>Mitel</td> </tr> <tr> <td>Radio</td> <td>Moducom</td> </tr> <tr> <td>Surveillance</td> <td>Pelco DVR</td> </tr> </table>	CAD	Computer Info. Systems	911	Positron	Other Phone	Mitel	Radio	Moducom	Surveillance	Pelco DVR	<p>Serves as the primary Public Safety Answering Point for the village of Northfield. Dispatches and supports law enforcement and transfers Fire/EMD to Red Center secondary PSAP.</p> <p>Provide 24/7 dispatching services and Records-related services. Key responsibilities include:</p> <p>RE Dispatch: Assigns and dispatches appropriate police personnel to calls for service. Processes incoming/out-going E911 and other calls. Maintains CAD information through incident-based transactions. Performs entries and queries into local, state and federal databases. Monitors various police and village systems. Performs other dispatch-related duties as assigned.</p> <p>RE Records: Records-related functions are currently being recorded in detail. A portion of time is dedicated to Records-related and administrative support functions to include but not be limited to: monitoring jail cameras and prisoner checks; performing Livescan fingerprinting; notaries; records-based clerical support and other administrative support. Performs other clerical-related duties as assigned. (See Appendix).</p>
CAD	Computer Info. Systems											
911	Positron											
Other Phone	Mitel											
Radio	Moducom											
Surveillance	Pelco DVR											
<p>Matrix Consulting Group</p>		<p>Page 88</p>										

Department	Summary of Organization / Operation	Summary of Dispatch Services
------------	-------------------------------------	------------------------------

WINNETKA DISPATCH



**GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan**

Department	Summary of Organization / Operation	Summary of Dispatch Services										
<p>Winnetka Dispatch</p>	<p>Total dispatch staffing consists of following authorized positions:</p> <p><u>Oversight Supervisor/Manager:</u> (1) Lead Records & Communications Officer</p> <p><u>Authorized Dispatch Staffing</u> (4) Full-time Records & Communications Ofcr. (4) part-time Records & Communications Ofcr</p> <p>Sergeants and officers will periodically provide break relief.</p> <p><u>Actual Dispatch Staffing</u> (4) Full-time Records & Communications Ofcr. (4) part-time Records & Communications Ofcr</p> <p>Hours of operation: Works 8-hour shifts with periodic 10-hour shifts when directly assigned to Records functions.</p> <ul style="list-style-type: none"> • 0600 – 1400 hours • 1400 – 2200 hours • 2200 – 0600 hours <p>The center consists of 3 dispatching stations available. The following key hardware/software solutions are in use by the PSAP:</p> <table border="1" data-bbox="467 1234 927 1430"> <tr> <td>CAD</td> <td>Tyler Tech. (New World)</td> </tr> <tr> <td>911</td> <td>Moducom</td> </tr> <tr> <td>Other Phone</td> <td>Mitel</td> </tr> <tr> <td>Radio</td> <td>Motorola</td> </tr> <tr> <td>Surveillance</td> <td>Avigilon</td> </tr> </table>	CAD	Tyler Tech. (New World)	911	Moducom	Other Phone	Mitel	Radio	Motorola	Surveillance	Avigilon	<p>Serves as the primary Public Safety Answering Point for the village of Winnetka. Dispatches and supports law enforcement and transfers Fire/EMD to Red Center secondary PSAP. Northfield is back-up dispatch center.</p> <p>Provide 24/7 dispatching services and Records-related services. Key responsibilities include:</p> <p>RE Dispatch: Assigns and dispatches verbally and/or via MDT appropriate police personnel to calls for service. Processes incoming/out-going E911 and other calls. Maintains CAD information through incident-based transactions. Performs entries and queries into local, state and federal databases. Monitors various police and village systems. Performs other dispatch-related duties as assigned.</p> <p>RE Records: Records-related functions are currently being recorded in detail. A portion of time is dedicated to Records-related support functions to include but not be limited to: 24/7 front counter service; records-based clerical support and other administrative support. Performs other clerical-related duties as assigned. (See Appendix).</p>
CAD	Tyler Tech. (New World)											
911	Moducom											
Other Phone	Mitel											
Radio	Motorola											
Surveillance	Avigilon											

Profile Appendix – Primary and Ancillary ‘Dispatcher’ Duties

The following table reflects key primary and ancillary duties performed by Glencoe, Kenilworth, Northfield and Winnetka staff. The table has been duplicated from information collected by the four public safety agencies.

Task
<i>Communications Duties</i>
911 Answering
Fire Dispatch
EMD
Answer PW or VH Phones after Hours
Radio Contact with PW or Other Utilities
Monitor text to 911 system
Next Gen 911 System
Operate Voice Logger
<i>Interoperability Systems</i>
Activate Weather Sirens
Answer EMnet Alerts
Emergency Cell Phone / Tower Locates
Monitor StarCom21 Radio
<i>Wide Area Database</i>
UCR Reports
Crash Report Coding and Processing
<i>Local Databases</i>
CAD Entries
CAD File Maintenance
Process Vacation / House Watch Requests
Maintain Forms Inventories for Communications Center Only
Maintain Forms Inventories (Local Forms)
Maintain Lost Pets Log
Maintain Streetlight Log
Maintain Property Inventory
Maintain Communications Center Property Inventory
Maintain Business Contact Files
Maintain Repossession Logs
Maintain Personnel Records (Payroll)
Maintain Personnel Records (Payroll) for Communications Center
Senior Citizen Program
Handicapped File
Monthly Reports

**GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan**

Monthly Reports – Dispatch Related
Premise Alert Program / Census Contact
LEADS
LEADS Inquiries
LEADS Entries
LEADS Validations
LEADS Audits
I-CLEAR Admin
Administrative Phones
Administrative Telephone Line Answering
Approximate # of Daily Administrative TX Calls
Screen TX Calls for Officers
Screen TX Calls for Supervisors
Screen TX Calls for Staff
Alarms
Monitor Alarm Panel
Maintain Alarm Panel Info
Process/Issue Alarm Permits
Monitor Alarm Board (Police)
Monitor Alarm Board (Fire)
Maintain Alarm Board DB of Key Holders
Invoice False Alarms
Records Duties
Handle Records Duties
Process Expungements
Prepare Transfer Sheets
Enter Police Reports Data
Enter Traffic Citations & Warnings Data
Maintain Traffic Stop Data
Enter Parking Tickets
Create/Maintain CAD Global Jackets
Service FOIA Requests
Answer Subpoenas - Dispatch Related
Answer Subpoenas
Maintain Warrant Files
Order Office Supplies
Press Releases
Payables Database
Court Courier
Permits, Etc.
Sell Parking Permits
Process Solicitor Permits
Sell or Process Permits (Other)

**GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan**

Register Bicycles License/Database
Register Solicitors
Issue Village Permits (Non-Parking)
Maintain Village License File
Handicapped Permits
Parking
Receive Parking Permissions - Daytime Requests
Receive Parking Permissions Night Time and Overflow of Daytime Calls
Provide Court Dates or Appeals for Parking Tickets
Prepare Tickets for Collection
Parking Ticket Complaints
Process Compliance Tickets
Camera Monitoring
Monitor Police Station Cameras
Monitor Prisoner Video Cameras
Monitor Prisoner Audio Surveillance
Access to Security Cameras for Banks
Access to Security Cameras for Schools
Access to Security Cameras for VH / Public Facility
Access to Security Cameras for Other Public Area
Prisoners & Arrests
Search or Process Prisoners: Some Matron Duties – Ordering and serving food, etc. A search only if opposite sex is required and not available within the sworn officer staff.
LiveScan Processing
Make Physical Prisoner Checks
Take & Prepare Traffic Bonds
Fingerprint Prisoners
Prepare Arrest Reports for SA
Public Duties
Public Walk-in Counter Contact (Face to Face)
Fingerprint Services
Maintain/Store Village Keys
Maintain/Store Private Property Keys
Fingerprint School Employees
Lost/Found Dog Release
Lost/Found Dog Database
Lost/Found Item Release
Lost/Found Item Database
Child Safety Seat Technician
Glencoe – Additional Items
Facility Entry Authorization Log
After Hours Access to Family Services of Glencoe
Village / Golf Bank Deposit Vaults

**GLENCOE, KENILWORTH, NORTHFIELD AND WINNETKA, ILLINOIS
Dispatch Consolidation Feasibility Study and Plan**

Kenilworth – Additional Items

NORTAF Homicide and MCAT page out

Maintenance of NORTAF team member info for page out

ⁱ Incoming and outgoing 7-digit calls for Kenilworth based on annualized self-reporting exercise.

ⁱⁱ Telephone data based on 2014 Winnetka information given 2015 a new system was installed mid-year.