



Background Information:

9-1-1 / Public Safety Answering Point (PSAP) Consolidation

June 24, 2022

Overview



- **Background and Update**

- **Consolidation Planning Project (Phase 1) - September 2018 to September 2022**

- **Lines of Effort (LOE)**

1. **Enterprise Technology (CAD, Mobile, RMS, JMS, E-Citation, E-Crash)**
2. **Physical Consolidation – New consolidated 9-1-1, ETSB, and EMA facility**
3. **Physical Consolidation – New consolidated PSAP entity / agency**
4. **Consolidation of ETSBs / JETSBs**

Consolidation Planning Project (Phase 1)

Summary (2018 to 2022)



September 2018:

- Intergovernmental Agreement (IGA) established Consortium (Phase 1 / Implementation Plan)
- Governance Committees formed
- Consortium members provided funds (project funds - \$410,000)
- Project manager hired, followed by a consulting firm(s)

December 2019:

- Concept of Operations / Phase 1 Implementation Plan completed and provided to Consortium

September 2020:

- IGA extended 12 months
- Executing Tier 1 and Tier 2 actions from the approved Implementation Plan
- Project funds fully expended / no request for addition funds from Consortium

September 2021:

- IGA extended a second 12 months
- Executing Tier 1, Tier 2, and Tier 3 actions from the approved Implementation Plan

September 2022:

- Phase 1 IGA expires - current consortium disestablished

Consolidation Planning Project (Phase 1)

Purpose



Build an implementation plan to consolidate regional 9-1-1 services in order to provide the highest quality 9-1-1 service and lasting value for the residents of participating communities

Core Requirement

- The right public safety resources
- To the right location
- With the right information
- In the shortest amount of time

AND

- General safety and situational awareness for responders during a call or incident

Additional Requirements
for Consolidated 9-1-1 and Dispatch Services
(As Decided by Governance Committees)

Consolidation Planning Project (Phase 1)

Project Partners



Regional 911 Consolidation Public Safety Entities (PSE)
1. Barrington, Village of
2. CenCom
3. Countryside Fire Fire Protection District
4. Fox Lake, Village of (PD / FoxComm 911 Center)
5. Grayslake Fire Protection Dist
6. Greater Round Lake Fire Protection District
7. Gurnee, Village of
8. Lake County
9. Lake County ETSB
10. Lake County Sheriff's Office
11. Libertyville, Village of
12. Lincolnshire, Village of
13. Mundelein, Village of
14. North Chicago, City of
15. Northeast Lake County Consolidated JETSB (Gurnee ETSB / Zion ETSB)
16. Round Lake, Village of
17. Round Lake Beach, Village of
18. Vernon Hills , Village of
19. VHL Joint ETSB (Vernon Hills, Libertyville)
20. Wauconda Fire Protection District
21. Waukegan, City of

Current Environment

Consolidation Partners



9-1-1 Consolidation Partners (21 public safety entities) represent:

- 8 Primary PSAPs (answer 9-1-1 calls), 1 Secondary PSAP (dispatch only)
 - 1 independent agency (CenCom)
 - 7 PSAPs part of LE agencies
 - 1 PSAP part of Fire / EMS agency
 - 8 Law Enforcement dispatch agencies
 - 8 Fire / EMS dispatch agencies
-
- 26 municipalities
 - 12 fire protection districts,
 - 1 county (Lake County)
-
- 28 Law Enforcement agencies
 - 20 Fire / EMS agencies
 - 8 “Other” agencies
-
- 7 ETSBs (≈ \$6.5 million in 9-1-1 surcharge funds)
-
- Partners service a population of:
 - ≈ 590,000 (Primary PSAP / 9-1-1 Call Answering)
 - ≈ 560,000 (Law Enforcement Dispatch)
 - ≈ 580,000 (Fire / EMS Dispatch)

PSAP = Public Safety Answer Point (9-1-1 and/or dispatch center)
ETSB = Emergency Telephone System Board (administers 9-1-1 surcharge funds)

Current Environment

9-1-1 Consolidation Partner Totals (Averages for 2016 & 2017)

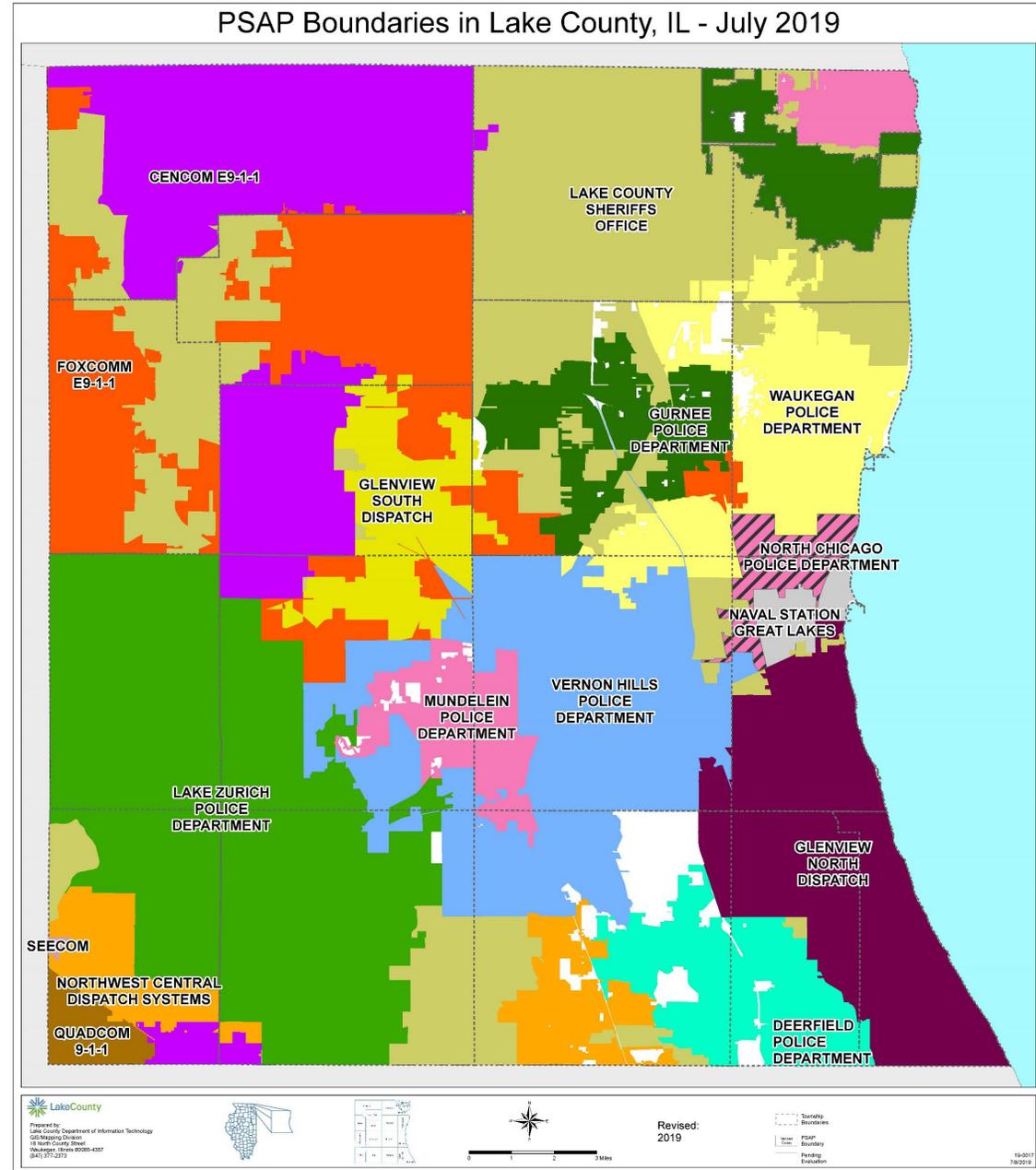
- Total calls at Partner PSAPs ≈ 1,330,000
- Total 9-1-1 calls (≈ 260,000)
 - ≈ 45,900 (17.5%) wire line 9-1-1 calls
 - ≈ 202,100 (77.2%) wireless 9-1-1 calls
 - ≈ 8,800 (3.4%) VoIP 9-1-1 calls
 - ≈ 4,900 (1.9%) abandoned 9-1-1 calls
- Total 10-digit calls (≈ 1,070,000)
 - ≈ 779,000 (72.6%) inbound 10-digit calls
 - ≈ 293,400 (27.4%) outbound 10-digit calls
- Total computer aided dispatch (CAD) incidents (≈ 953,000)
 - ≈ 67,000 (7%) Fire / EMS Incidents
 - ≈ 847,900 (89%) Law Enforcement Incidents
 - ≈ 38,300 (4%) Other

Current Environment

PSAP Boundaries

Problem: Call Transfers

- More than 12 PSAPs serving Lake County
- Wireline 9-1-1 calls follow these boundaries
- Cellular (voice or text message) and VoIP 9-1-1 calls may not follow established boundaries

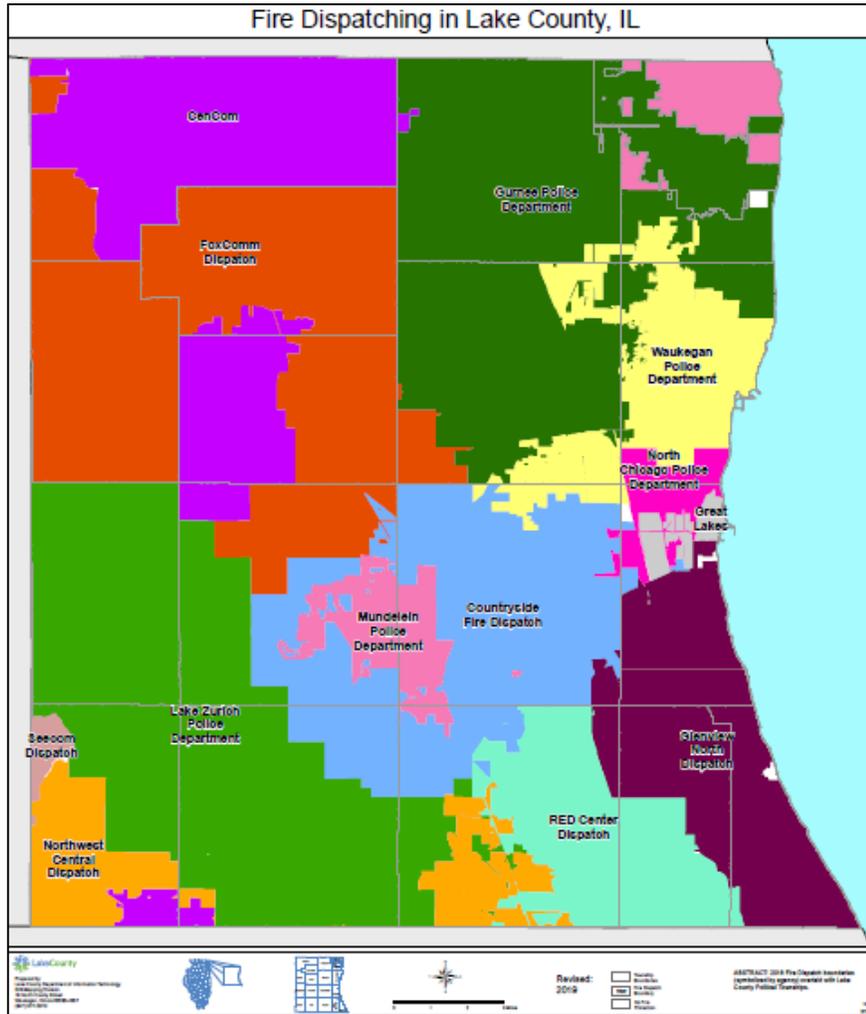


Current Environment

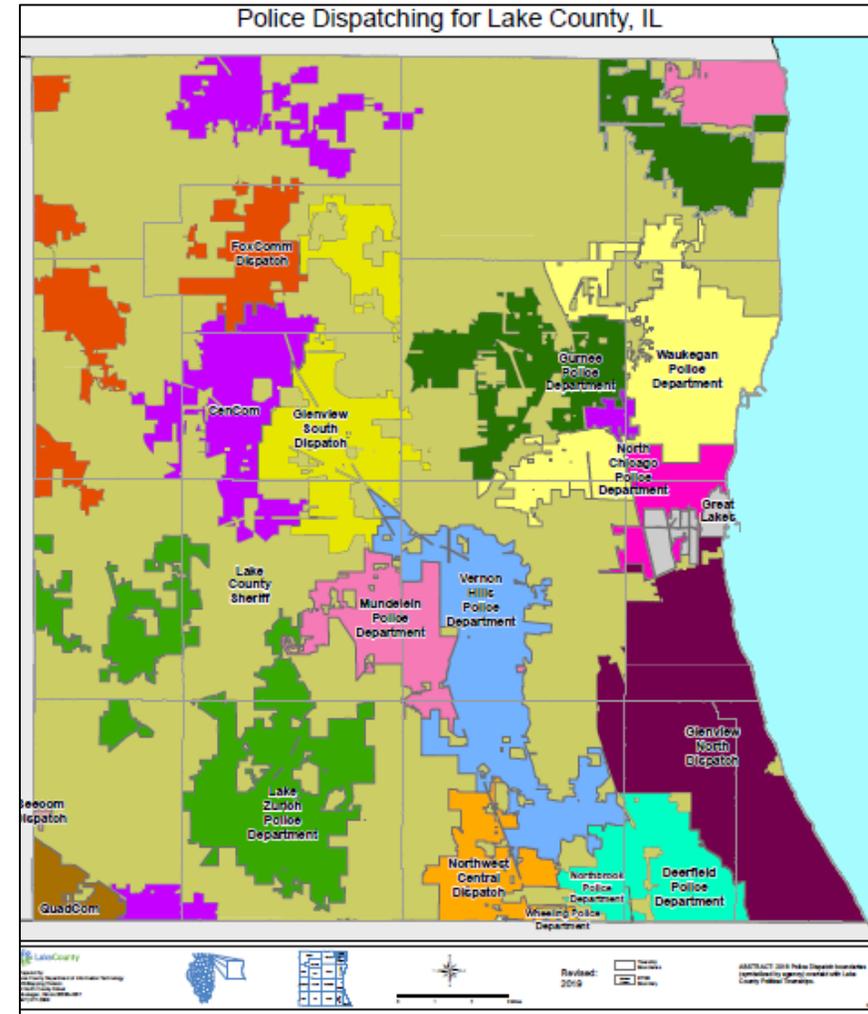
Dispatch Boundaries



Problem: Call Transfers



Fire / EMS Dispatch Agencies (>12)



Law Enforcement Dispatch Agencies (>12)

Concept of Operations

Three Tiers Defined in Dec. 6, 2019 Implementation Plan



Three-tiered concept of operations to improve 9-1-1 and emergency dispatch service and provide lasting value

Increased Efficiency & Effectiveness

3. Full (Physical) PSAP Consolidation

Decrease total number of PSAPs. Single entity or agency formed through an IGA between members that operate one (or more) physical PSAP(s)

Could be more than one consolidated entity or agency

2. Virtual PSAP Consolidation

Independent, geographically separated PSAPs who operate as a single entity through shared technology, policies, and procedures formalized in an IGA between PSAPs

1. Standardized PSAP Technology

Independent, geographically separated PSAPs agree to operate some or all of the same 9-1-1 and emergency dispatch systems / technology

Parallel Pathway: Standard, shared, integrated RMS and JMS

Individual partners decide if and when they participate in planning or execution for each tier

Current Situation

Independent, geographically separated PSAPs (8 primary, 1 secondary)

Assessment Criteria

(9-1-1 and Emergency Dispatch)

- How does each tier improve service?
 - Improve getting the right public safety resources, to the right place, with the right information, in the shortest amount of time
 - Decrease call transfers
- How does each tier decrease technology costs?
- How does each tier decrease facilities costs?
- How does each tier decrease personnel / staffing costs?
- What does each tier do to the competitive environment?

Overview



- **Background and Update**

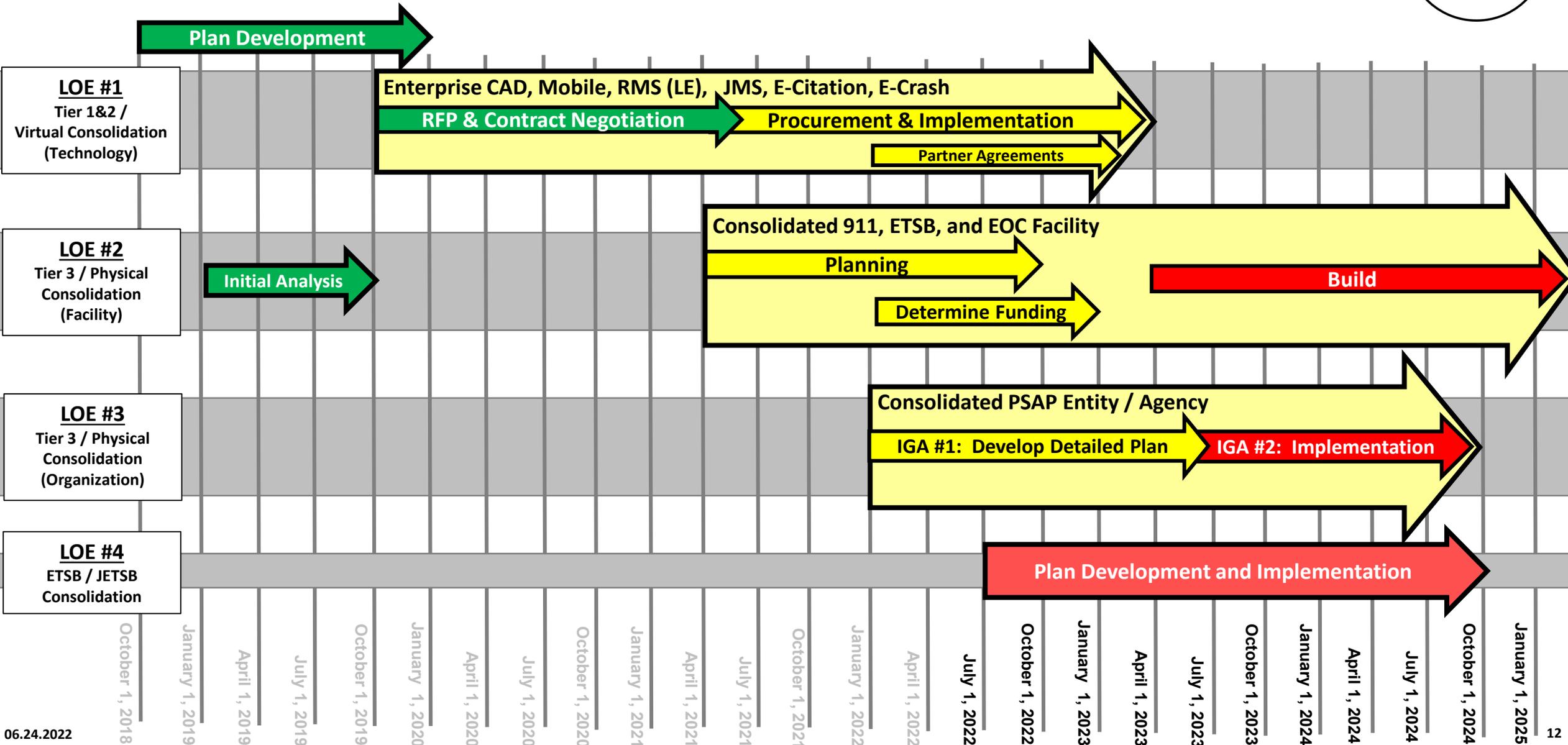
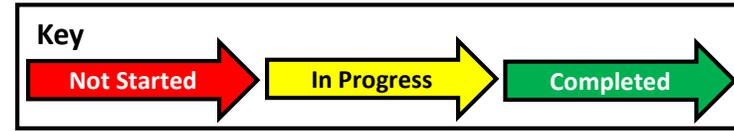
- Consolidation Planning Project (Phase 1) - September 2018 to September 2022

- **Lines of Effort (LOE)**

1. Enterprise Technology (CAD, Mobile, RMS, JMS, E-Citation, E-Crash)
2. Physical Consolidation – New consolidated 9-1-1, ETSB, and EMA facility
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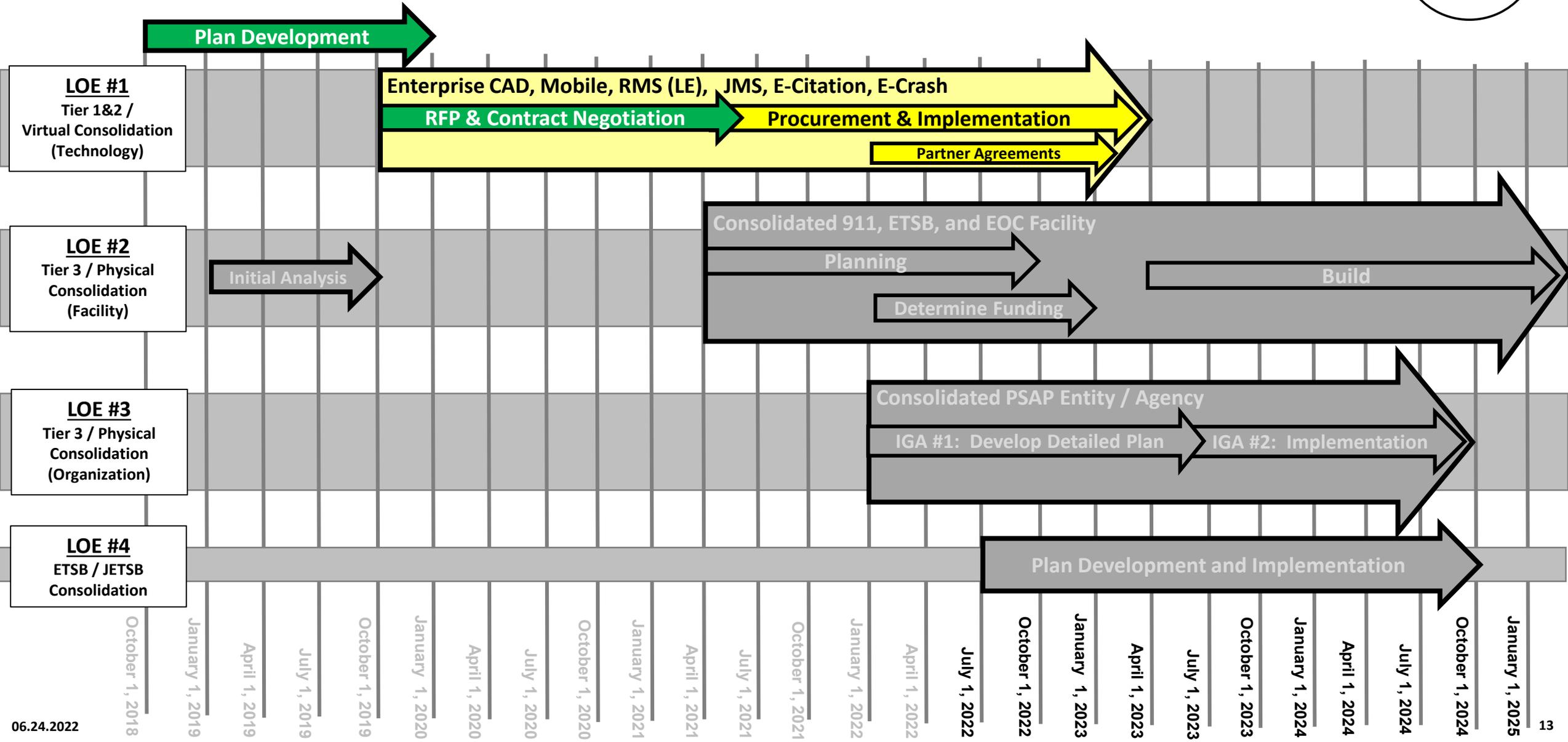
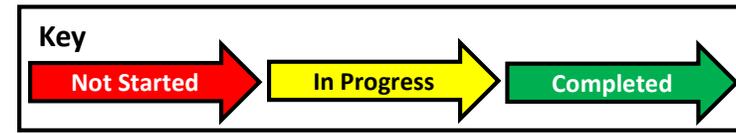
Lines of Effort (LOE)

9-1-1 Consolidation



Lines of Effort (LOE)

9-1-1 Consolidation



Line of Effort #1

Standard Technology Procurement

- Expanded mission to include coordinating the procurement of a shared, scalable, integrated, enterprise family of public safety systems
 - Computer aided dispatch (CAD)
 - Mobile messaging
 - Records management systems (RMS) – Law Enforcement
 - Jail management system (JMS)
 - E-Citation and E-Crash

High-Level Implementation Timeline*

Completed

Started

Not Started

Go-Live

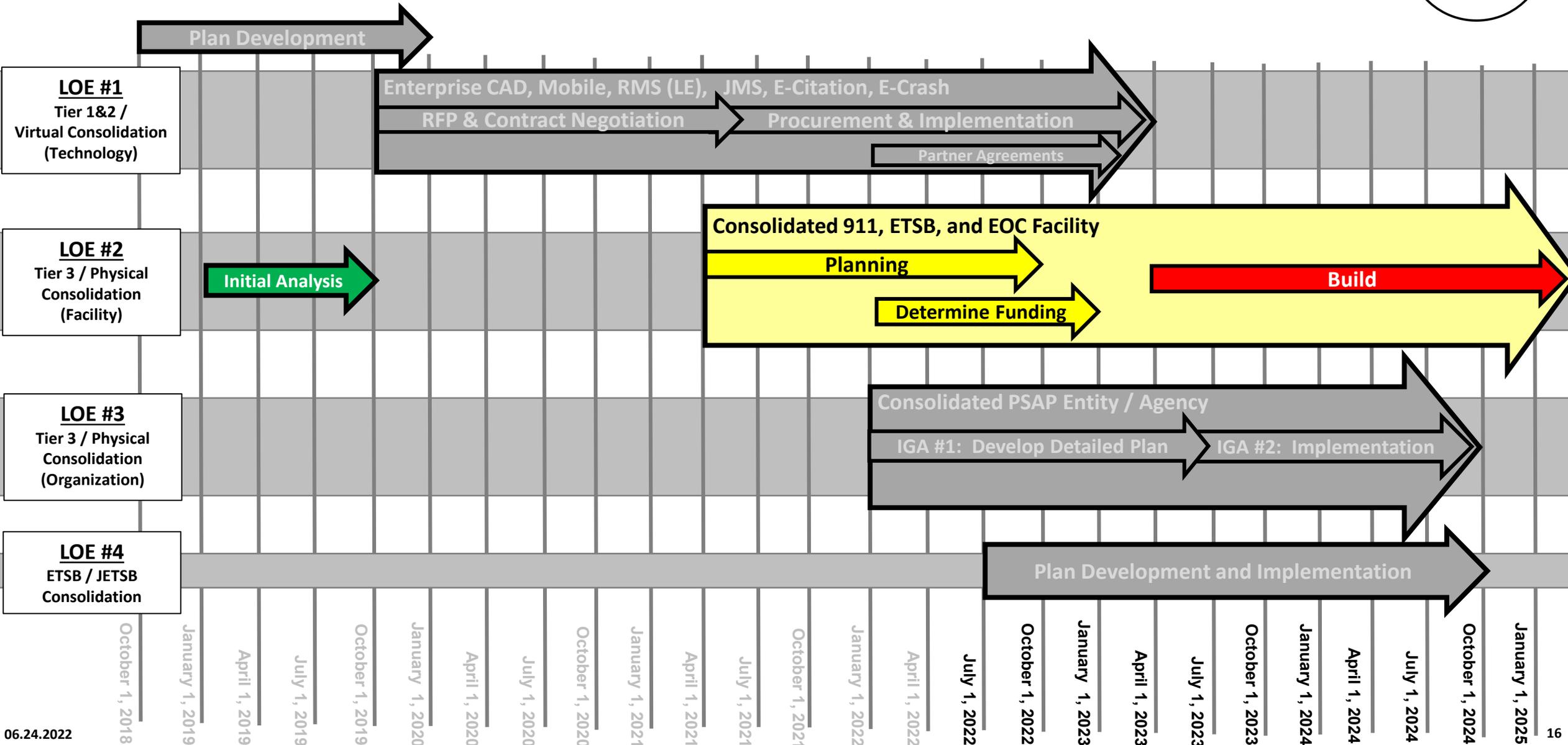
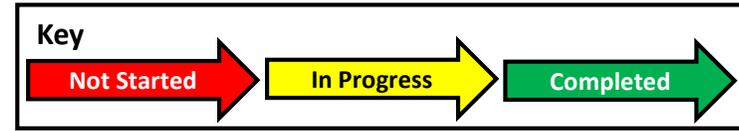
Phase / Stage	May – Aug 2021	Sep – Dec 2021	Jan – Mar 2022	Apr – Jun 2022	Jul – Sep 2022	Oct – Dec 2022	Jan – Mar 2023	Apr – Jun 2023	July – Sep 2023	Oct 2023 <
Initiate & Plan										
Assess & Define										
Prepare Solution (Configuration + Training)										
Production Readiness										
Production (Go-Live)										
Implementation Close										
Post Go-Live Support & System Optimization										

*Timeline not yet finalized and adopted with full team.

Continue working through iterations of the Project Plan as resources from Tyler are scheduled.

Lines of Effort (LOE)

9-1-1 Consolidation



Line of Effort #2

Physical PSAP Consolidation - Facility

- **Purpose-built facility for 9-1-1, Emergency Management Agency (EMA) and Emergency Telephone System Boards (ETSB)**
- **Building will provide:**
 - **Comprehensive functional space design**
 - **Opportunity for regional consolidation of ETSB and Public Safety Answering Points (PSAP)**
 - **Structural protection from severe weather and active threats**
 - **Provide needed permanent housing areas for emergency 9-1-1 equipment**
 - **34 positions on the 9-1-1 / Communications floor**
- **Modernize building's environmental controls**
- **Design with operator wellness in mind**
- **Maximize sustainable design**

Facility

Regional Operations & Communications Facility



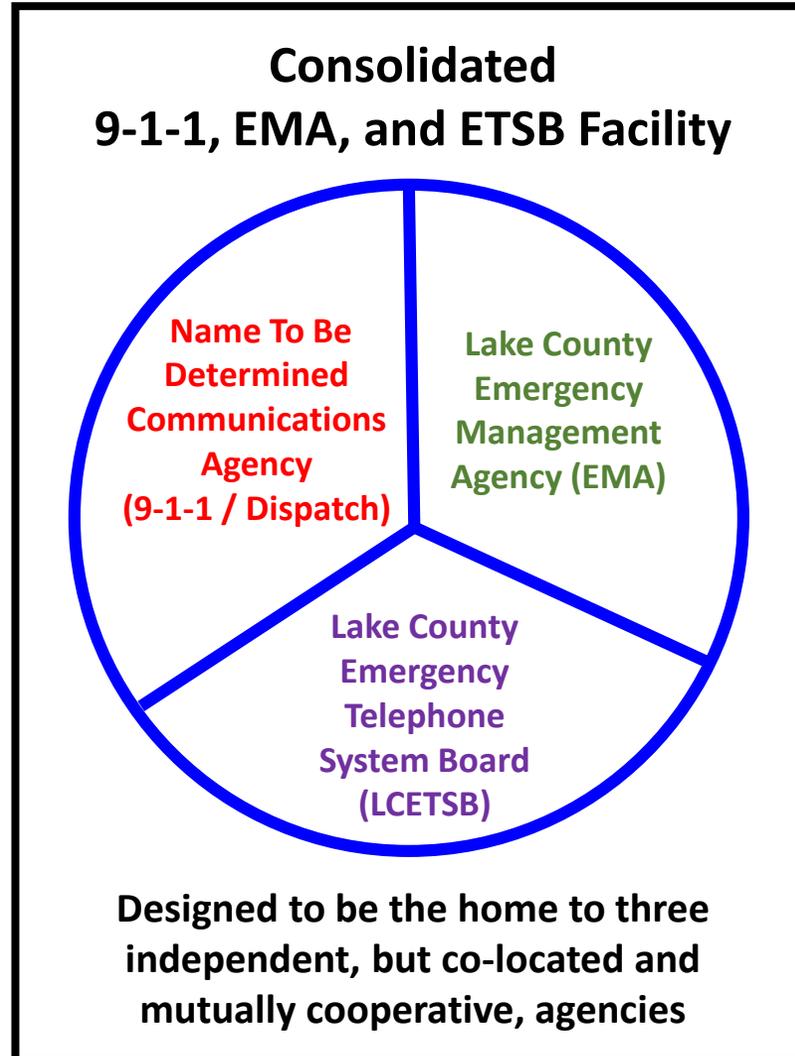
Regional Operations & Communications Facility (ROCF)

- or -

The ROC Facility

- or -

“The ROC”



Upfront capital investment (design, build, furnish) funded by County

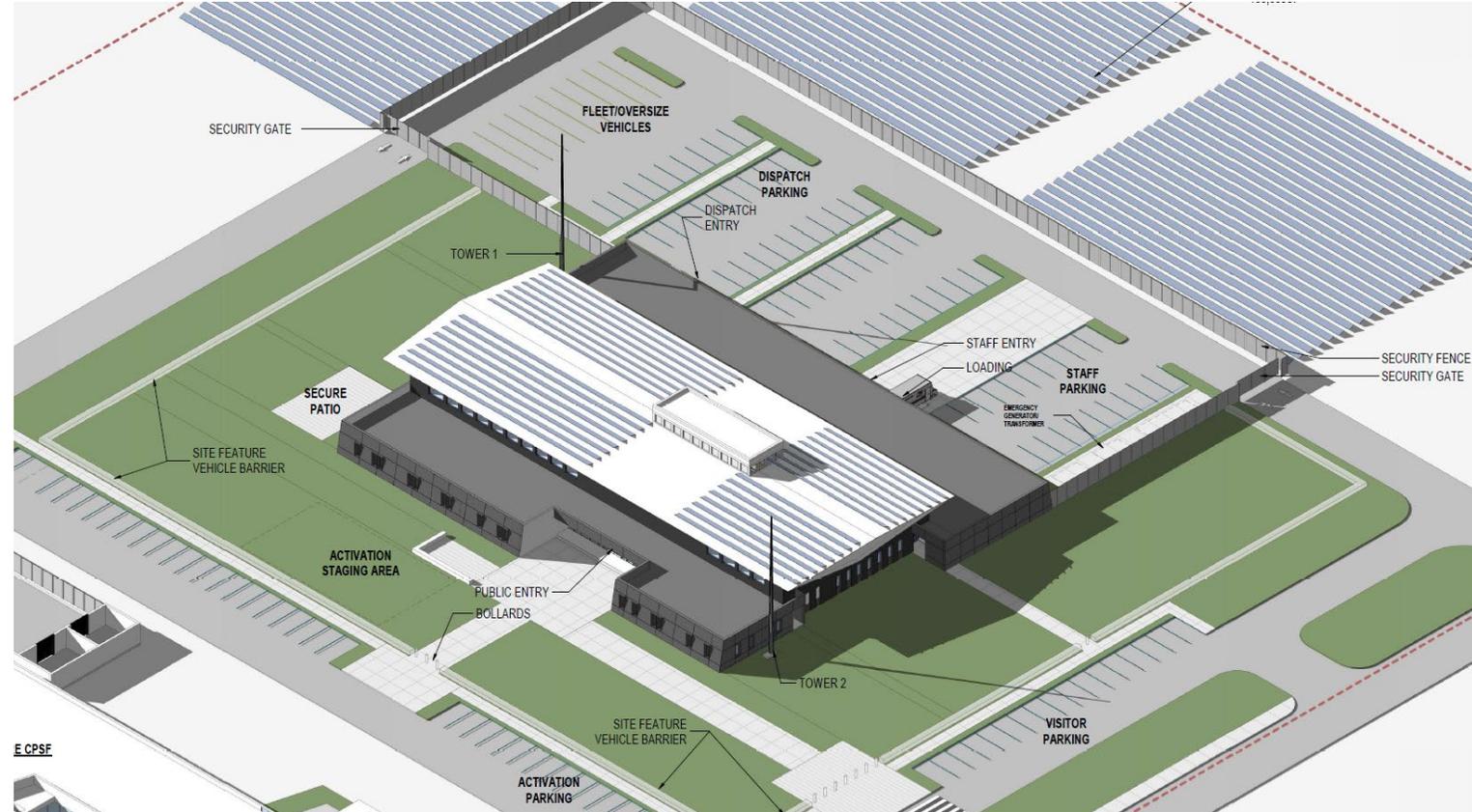
Long term cost sharing agreement for operations

Schematic Design

Regional Operations & Communications Facility

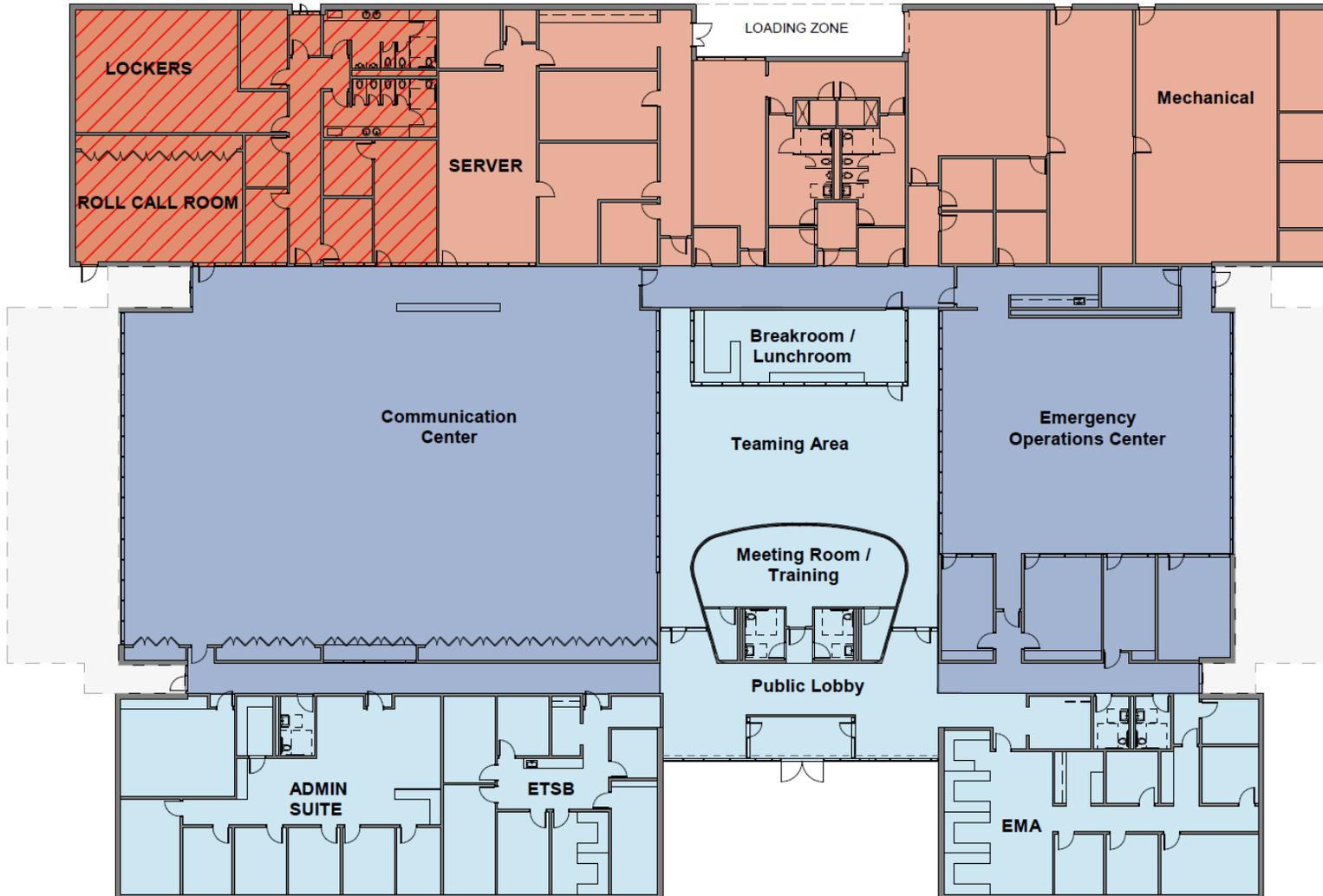


- County's Libertyville Campus
- East to west configuration
- Maximize natural light
- Layered force protection
- Geothermal and solar power integration



Schematic Design

Regional Operations & Communications Facility



LEVELS OF HARDENING



STORM SHELTER

- Structural frame and envelope designed to meeting ICC 500
- Storm shelter rated glazing
- All openings protected
- Natural ventilation available for storm shelter area



TYPE - E (Hardened/Bunker)

- Structural frame and envelope designed to resist wind loads of 250 MPH
- Glazing to be protected and/or designed to resist _____
- All openings are protected



TYPE - D+ (National Design Trends)

- Structural frame & envelope designed to resist wind loads of 250 MPH
- Glazing & openings designed to resist 150 MPH winds (*not projectiles)



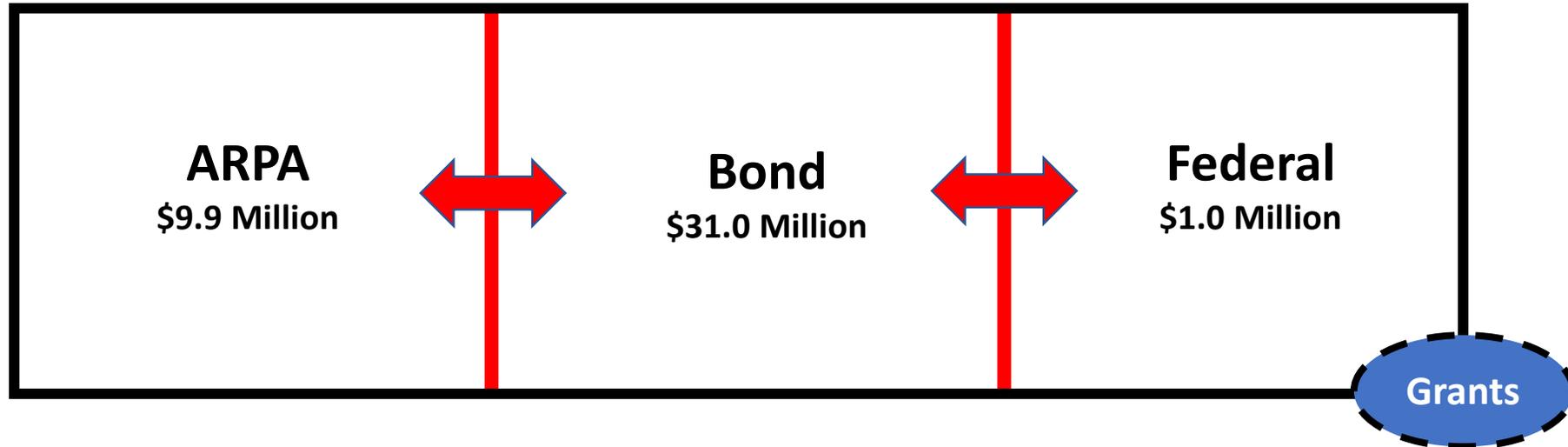
TYPE - C+ (Continuity of Operations)

- Structural frame & envelope designed to resist wind loads of 150 MPH
- Glazing & openings designed to resist 150 MPH winds (*not projectiles)

County Funding Strategy

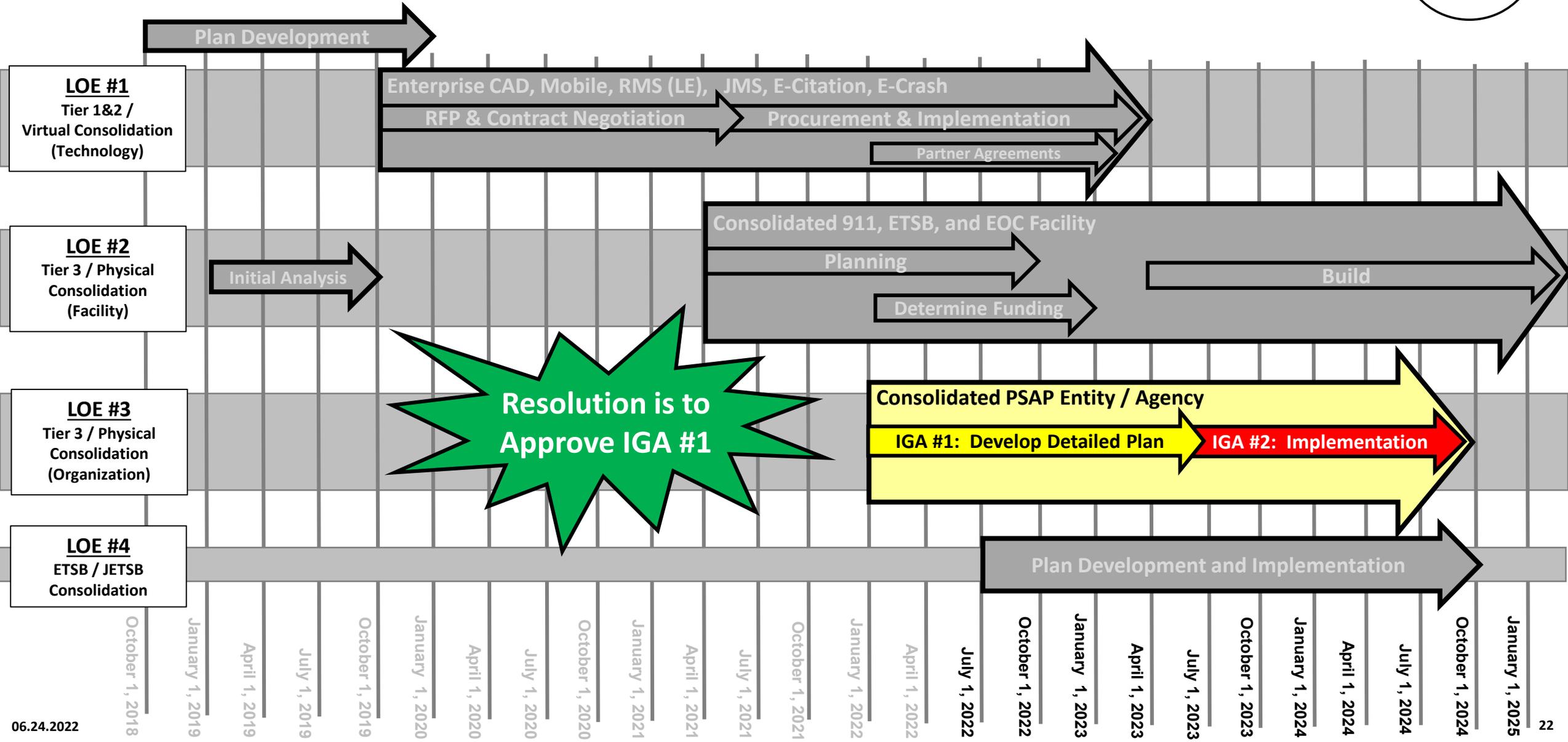
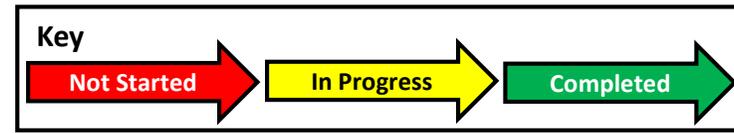
Regional Operations & Communications Facility

\$40.0M for ROC Facility Construction



Lines of Effort (LOE)

9-1-1 Consolidation



Resolution is to Approve IGA #1

Line of Effort #3

Physical PSAP Consolidation - New Entity / Agency

- “Two IGA” concept
- Participating PSAPs:
 - CenCom E9-1-1
 - Fox Lake
 - Gurnee
 - Lake Zurich
 - Mundelein
 - Vernon Hills (w/Countryside FPD)
 - Waukegan
 - Lake County Sheriff

Line of Effort #3

Physical PSAP Consolidation - New Entity / Agency

IGA #1 – *PSAP Planning & Development IGA*

- Participating PSAPs agree to:
 - “(D)evelop an Implementing Intergovernmental Agreement (“Implementing IGA”) that establishes a NEW CONSOLIDATED PSAP in Lake County, Illinois to replace and consolidate the PSAPs operated by the Parties in this Agreement.”
 - Ensure Consortium partners and new, potential partners have the ability to participate in development of the Implementing IGA
 - Contribute \$50,000 each to hire a Project Manager and required expertise
 - Establish the PSAP Consolidation Committee
- County agrees to:
 - Act as the Executive Agent
 - Construct a purpose-built 9-1-1 and emergency dispatch center at the County’s expense as part of the Regional Operations and Communications Facility
- Goal is to have IGA signed by August 1, 2022

Line of Effort #3

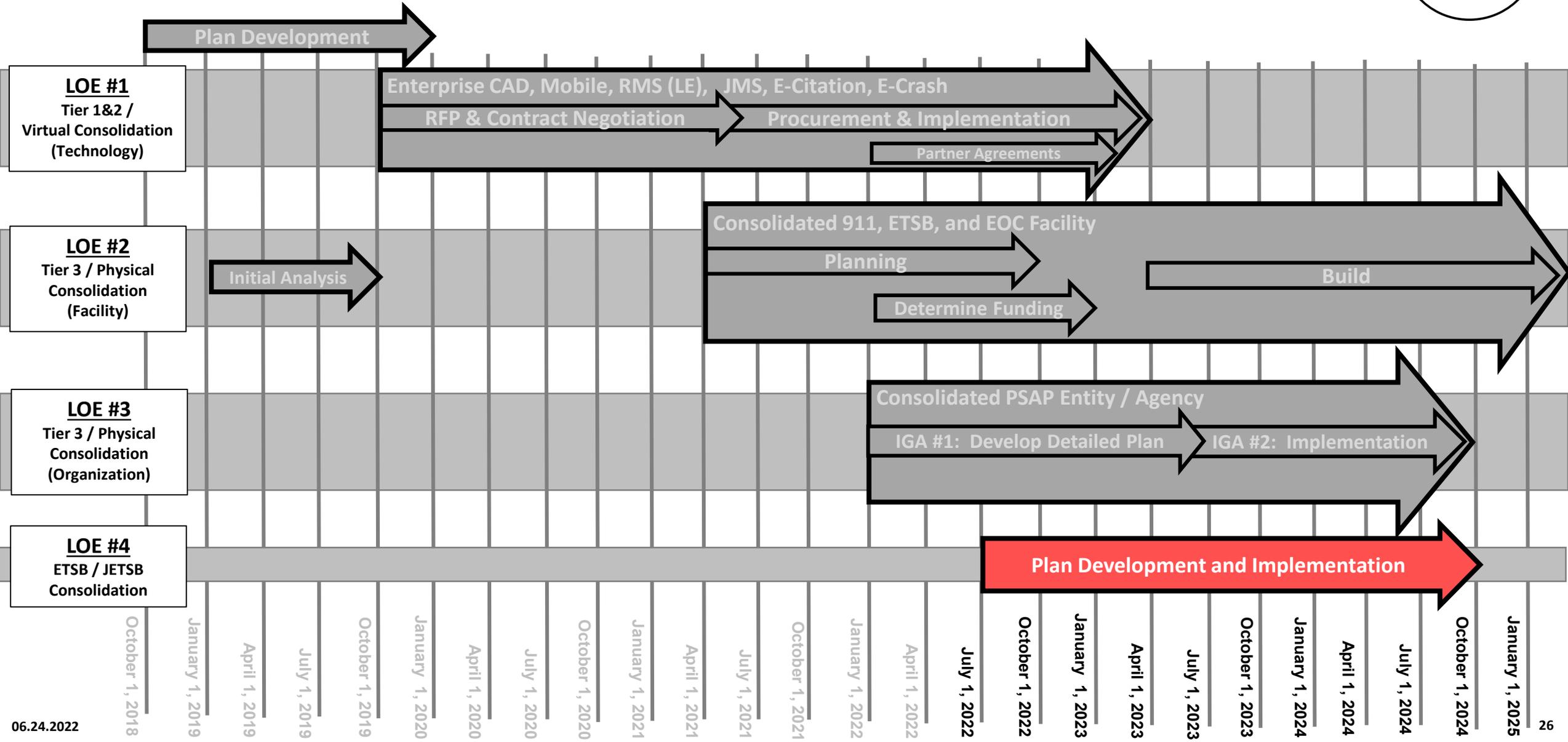
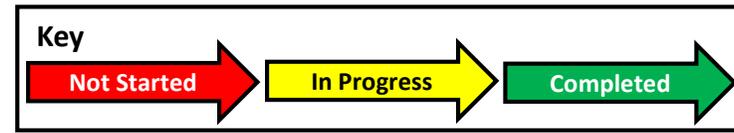
Physical PSAP Consolidation - New Entity / Agency

IGA #2 – Implementing IGA

- “(W)ill set forth the mechanism for a Lake County public entity (which includes without limitation municipal corporations, fire protection districts, cooperatives formed through intergovernmental agreements, and any of their subsidiary bodies) to become a full partner and receive services from the NEW CONSOLIDATED PSAP.”
- The Implementing IGA must:
 - Create of a new Intergovernmental Cooperative (joint governance) organization
 - Define a pathway for any public agency to become a partner
 - Include bylaws, governance, cost sharing etc.
 - Define baseline services
 - Include implementation and migration plans to transition from individual PSAPS to the newly constructed PSAP, located in Libertyville
 - Establish staffing structure and support functions
 - Provide a transition pathway for current PSAP employees to the new PSAP
 - Define technology needs and implement the new CAD system
 - Define timelines, insurance and other migration issues

Lines of Effort (LOE)

9-1-1 Consolidation



Line of Effort #4

ETSB / JETSB Consolidation



- Will work in parallel to PSAP consolidation planning

Overview



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Questions