FITCH
& ASSOCIATES

Standards of Cover and Utilization Study
Police, Fire/EMT and Public Works Departments.
Project Proposal

Prepared for:
City of Leon Valley

June 2023

About Fitch & Associates

We've designed, developed, and managed some of the world's most innovative Emergency Services systems.

We approach every decision as a collaboration because we understand the value of successful partnerships and we bring the energy, focus, and credentials that drive decision-making and action.

FITCH has earned credibility for nearly forty years by implementing innovative, customized solutions in the public safety and healthcare arenas, providing consulting services in thousands of communities in 50 states, all Canadian provinces, and 12 other countries.

The Fitch Team for This Project

PROJECT CATEGORIES	TEAM MEMBERS
Project Lead	Guillermo Fuentes MBA-Partner
Project Team	Steven Knight, PhD-Partner (Fire/EMS) Bill Sturgeon MPA (Public Works) Bruce Moeller, PhD (Fire/EMS Public Works) Chief Melanie Bevan PhD (Police)

Project Objective

Does the City of Leon Valley have the appropriate number of personnel in Police, Fire/EMS, and Public Works currently and in the future in order to provide superior service.

Project Tasks Police Dept.

1. Review Current Workload Demands
2. Review of Resources
3. Evaluate Impact of Red Light Camera Elimination
4. Detailed Analysis of Current Resource Usage
5. Shifts and Deployment
6. Workload of Supervisory and Administrative Staff
7. Best Practices and Peer Comparison
8. Predictive Staffing Methodology

Project Tasks Fire/EMS Dept.

1. Assess Community Risks
2. Review of Assets, Infrastructure and Apparatus
3. Gather data on Community Expectations
4. Detailed Analysis of Current Resource Usage
5. Shifts and Deployment
6. Review 3rd Party Provider Resources and Service Delivery Model
7. Best Practices and Peer Comparison
8. Strategic Direction

Project Tasks Public Works Dept.

1. Review Current Demands
2. Conduct a Community Risk/Critical Task Analysis
3. Evaluate Current Resources
4. Stormwater Operations and Maintenance
5. Shifts and Deployment
6. Review 3rd Party Provider Resources and Service Delivery Model
7. Best Practices and Peer Comparison
8. Strategic Direction

Approach to Data Collection

Approach

FITCH used a mixed-methods approach—using both quantitative and qualitative data collection and analysis—to triangulate findings across data sources for each assessment deliverable and to provide multiple perspectives on the multi-dimensional challenges explored in the written report.

Quantitative

Quantitative data included publicly available data, CAD Systems, RMS Systems, Databases, and other records

Qualitative

Qualitative data included interviews with EMS system participants, elected officials, and health system stakeholders to understand the current communications, political, EMS, first response, and healthcare environment.

Time Period

At the kickoff meeting *FITCH* will submit an Information Data Request (IDR) that the Departments will ideally complete within 30 days of project initiation. Qualitative data and Community Consultation feedback will be gathered during the first 90 days of the project

The Workload: Police

Reactive (Calls for Service)

Call type, frequency and duration

Temporal Patterns

Queue, Travel and Response Times

Geospatial Analysis

The Workload: Police

Proactive

- Premise and Property Checks
- Traffic Enforcement
- Foot Patrols
- Compliance Checks
- Community Safety Initiatives
- Self-Initiated Activities

The Workload: Police

General Patrol

Visibility

Deterrence

Positioned for Effective Response Times

The Workload: Police

Administrative Time

Report Preparation

Follow up Investigation

On Duty Court Time

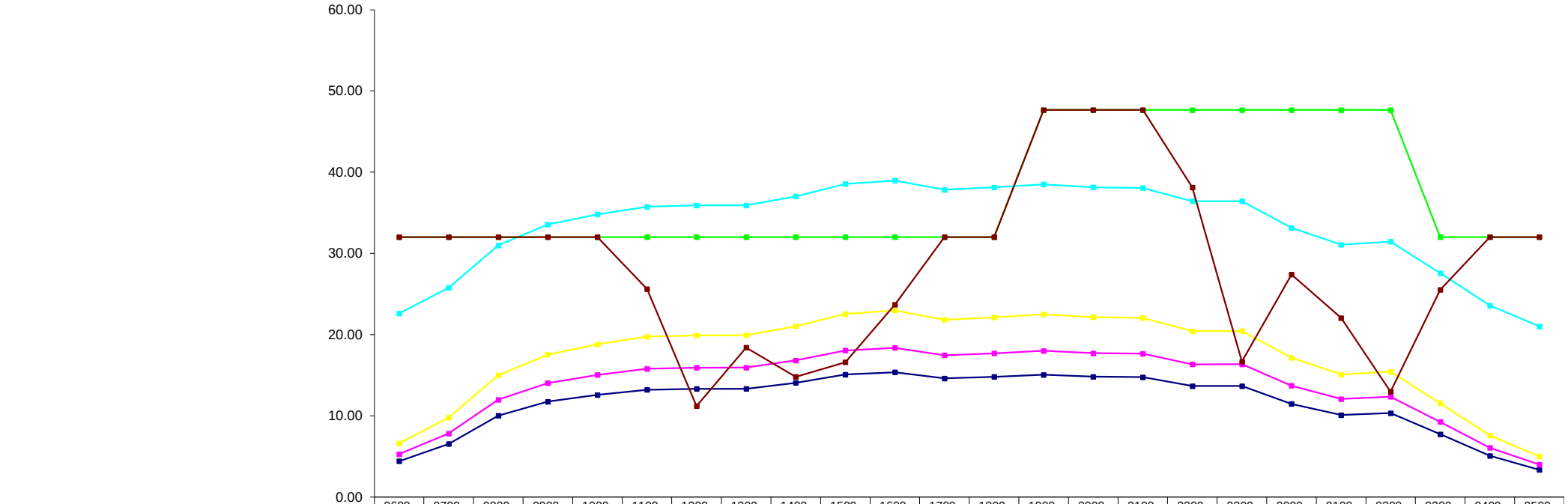
Lunches and Breaks

Sick Time

Duty Injuries

Training

Figure 22
Vehicles Required for Coverage



	0600-0659	0700-0759	0800-0859	0900-0959	1000-1059	1100-1159	1200-1259	1300-1359	1400-1459	1500-1559	1600-1659	1700-1759	1800-1859	1900-1959	2000-2059	2100-2159	2200-2259	2300-2599	0000-0059	0100-0159	0200-0259	0300-0359	0400-0459	0500-0559
average calls	4.42	6.54	10.03	11.74	12.58	13.21	13.32	13.32	14.07	15.09	15.37	14.61	14.80	15.05	14.81	14.76	13.67	13.67	11.47	10.09	10.33	7.73	5.08	3.35
Correction for time on task	5.29	7.82	11.99	14.04	15.04	15.79	15.93	15.93	16.82	18.04	18.38	17.47	17.70	18.00	17.71	17.65	16.34	16.35	13.71	12.07	12.35	9.25	6.07	4.01
Correction for dual response	6.61	9.78	14.99	17.55	18.81	19.74	19.91	19.92	21.03	22.55	22.97	21.83	22.12	22.50	22.14	22.06	20.43	20.43	17.14	15.08	15.44	11.56	7.59	5.01
Total Vehicles required including response time compliance	22.61	25.78	30.99	33.55	34.81	35.74	35.91	35.92	37.03	38.55	38.97	37.83	38.12	38.50	38.14	38.06	36.43	36.43	33.14	31.08	31.44	27.56	23.59	21.01
Average vehicles available	32	32	32	32	32	32	32	32	32	32	32	32	32	48	48	48	48	48	48	48	48	32	32	32
Vehicles available minus Lunch	32	32	32	32	32	26	11	18	15	17	24	32	32	48	48	48	38	17	27	22	13	26	32	32

Time of day

Leon Valley Fire Department

Standards of Cover

Customized to Community's Specific Needs

Data Collection

Data	Source
Stakeholder Input	Structured Interviews, survey, townhall – TBD by Client
Performance Data	CAD/NFIRS/RMS/ePCR
Service Demands and Historical Risk	CAD/NFIRS/RMS/ePCR
Risk – Occupancy Level	ISO Batch Report or Department RMS
Risk – Station or Planning Zone Area	Service Demands (type and severity), call concurrency, socioeconomic variables (median household income, unemployment, homeownership, etc.), demographic variables (age, population density, population change, household density, housing stock over 50 years old, occupancy level risk, etc.)…department will assist in development of risk matrices
Future Demands	Urban Growth Boundaries, Planning and Economic Development, Comprehensive Land Use Plans, and Historical Trends in Data
Geographic Limitations	GIS
Fiscal Capacity / Budget	City and Department
Operations and Program Data	Direct Observations, Structured Interviews, Review of Existing Documents

Potential Differences in Risk and Demand

- Risk (Readiness)
  - Geographic Limitations
  - Desired Response Time Performance
  - Occupancy and Building Risks
  - Socioeconomic Indicators
  - Demographic Indicators
  - Critical Tasks

- Demand (Actual Calls)
  - Number of Calls
  - Frequency of Calls
  - Concurrency of Calls
  - System Reliability
  - Geospatial Analysis
  - Temporal Analysis
  - Workload Indicators

Risk
Performance
Demand
Operations

Expectations
Fiscal Realities

The Workload: Fire EMS

Calls for Service

Call Frequency

Call Type

Elements of Time

Elements of Performance

Deployment Modelling

Effectiveness and Outcome Measures

The Workload: Fire EMS

Analysis of Capacity

- Overall Staffing
- Fire Station Staffing
- Response Area Analysis
- Response Times
- Overlapping Response Metrics
- Station Specific Performance Metrics

The Workload: Public Works

Calls and Routine Tasks

Task Type

Priority

Relevant Department and Overlapping Responsibilities

Task Complexity and Intensity

Planned versus Reactive Workload

The Workload: Public Works

Qualitative Analysis

Typically, Public Works Departments do not have the same level of data detail compared to Emergency Services. In order to yield a comprehensive picture of the current workload data about call outs and projects will be supplemented by interviews with members of the department themselves to add greater clarity and understanding about job-related tasks and workload.

The Fitch Advantages

Expertise

Team members are all subject matter experts and leaders in their fields and have been selected for their particular areas of expertise that match the requirements of this project.

Collaboration

FITCH has stayed true to its core values by accomplishing projects using a collaborative approach offering high level involvement for system participants without compromising the independent or objective nature of the project.

Experience

FITCH's experience represents an unparalleled base for the tasks at hand; we have worked with local, state, and federal government agencies, municipal and volunteer fire departments, ambulance services, and police departments.

Tangible Results

FITCH is known for developing innovative solutions to complex issues, and our recommendations and tangible work products have been implemented more frequently than any national public-safety consulting firm.

The Fitch Advantages

Marginal Utility Modelling

One of the key features of the Fitch and Associates methodology is the application of marginal utility modeling to human resource management. This approach contextualizes the relative value of additional resources by considering their impact against their cost. Additional or redeployed resources add extra capacity, but there is point of diminishing returns where their value is outpaced by their additional cost. Th Fitch team will recommend a range of options from minimally adequate to optimal, with our signature marginal utility modeling to assist in gauging the relative cost vers effectiveness of different levels of staffing.

Timeliness

FITCH is known for consultant access, responsiveness, producing its work on or before the scheduled completion date and within budget.

Questions