

WASHOE COUNTY SHERIFF'S MASTER PLAN 2017



MASTER PLAN 2017-2037

This document provides an overview of the existing facilities and functions at the Washoe County Sheriff's Office located at 911 Parr Boulevard in Reno, Nevada. Here in is an analysis of the existing facilities at the time of this report, an analysis of potential growth factors and recommendations to adapt the facility over time.

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"...the planning of short and long term needs of the Washoe County Sheriff's Department for infrastructure, increased inmate capacities, and facility support needs."

COVER LETTER

Arrington Watkins Architects have been contracted by Washoe County Community Services Department (WCCSD) to prepare the attached master plan summarizing both information provided by the Washoe County Sheriff's facility team and our field investigation and interviews of the various departments that comprise the Sheriff's Office. The information has been incorporated and analyzed in an effort to identify trends and projections that have led to the 20 year needs assessment/master plan. This information was used by the AWA team in the planning of short and long term needs of the Washoe County Sheriff's Department for infrastructure, increased inmate capacities, and facility support needs.

This master plan report summarizes the data provided by the WCCSD and the Washoe County Sheriff Office (WCSO) into criterial and analytical information. This information was used by AWA team in the planning of a 20 year capital improvement plan that addresses the needs of the WCSO infrastructure, housing and facility support buildings primarily located at 911 Parr Boulevard Reno, Nevada. The criteria used in this report includes determination of physical plant inventory for three major WCSO departments:

- Administration
- Operations
- Detention

This master plan provides Washoe County with a path to achieving additional physical plant building footprint increases including required additional bed capacity based on projected needs up to 2037. This plan considered operational efficiency and programmatic needs. The approach involved a variety of professionals with experience in planning, design, operations and community corrections. Evaluations included economic facility and capacity expansion, highest and best use and utilization efficiency.

This report makes recommendations for expansion at the following WCSO facilities:

- Medical Infirmary
- Forensic Laboratory
- Parking
- Housing
- Kitchen/Laundry
- Programs
- Patrols

The estimated capital cost to construct the required facilities to meet the 20 year projected increases based on population projections from the planning team is approximately \$260 Million. These costs include the design and construction of the core facilities as recommended. These costs are approximately \$13 million per year over the 20 year duration.

Because it takes the approximately 3 to 5 years from the start of design through the construction of a project, provisions to increase the WCSO infrastructure, facility support and increased bed capacity should begin in 2018 and continue through 2037 to keep up with the 2037 projections.

Sincerely,
Arrington Watkins Architects, LLC



Peter Sangiorgio
Principal Architect/Project Director

EXECUTIVE SUMMARY

INTRODUCTION

This report is a Washoe County Sheriff Office master plan. This master plan considered the physical plant capacity of existing facilities and compared the existing capacity against the Washoe County population projections through year 2037. The planning team used the various Washoe County population projection sources, with the listed criteria and projected a need for housing, operations and core facilities over a 20 year period. This report largely focused on the planning for the Sheriff's facility located at 911 Parr Boulevard Reno, Nevada. The planning team divided the three key areas into manageable components as follows:

- Administration
- Operations
- Detention

A key component for this report was time spent with each department at the Parr Boulevard campus. Although the primary focus of this report is based on planning efforts for the Parr Boulevard facility, this report includes additional analysis and recommendations for several off campus facilities such as:

- Raven
- Longley
- ATAC
- Additional outer satellite facilities

This report is organized with our findings and recommendations based on a 20 year needs assessment/master plan. This information was used by the Arrington Watkins Architects planning team in the establishment of trends for growth and for the planning of short and long term needs of the Washoe County Sheriff's Department for infrastructure, increased inmate capacities and facility support space.

Two additional key tasks required of this report was the re-evaluation and proofing for the facility master plan developed by a consultant in 2001 and the space utilization study performed by a firm in 2008.

This report used the following planning tasks and processes:

- Task 1 - Concept Design Workshop
- Task 2 - Facility Data Gathering
- Task 3 – Developed Criteria, Analysis and Recommendations including Concept Programming
- Task 4 - Facility Planning
- Task 5 - Final report

This report summarized both the short and long term needs up to 20 year growth into 2037 for required increased capacity related to the following major facility areas:

- Forensic Laboratory
- Medical Infirmary
- Kitchen/Laundry support services
- Programming space
- Planned additional detention bed space
- Increased staff and public parking space
- Renovation of various off campus support facilities
- Detention bed space

The planning team's approach involved a variety of professionals with experience in planning, design, operations, projections, corrections/detention, criminal justice design and cost estimating in very specific tasks that are defined in this document. The team evaluated the WCSO physical facilities for economic expansion, highest and best use and utilization efficiency. Included in this report are several recommendations for increasing the physical plant building footprint at the 911 Parr Boulevard facility including increased bed space to keep up with the projections through 2037. For each of the various sections of the facility the planning team used the following processes to arrive at the final recommendations contained in this report:

DATA GATHERING

- Review of WCSO and WCCSD Floor Plans and Facility Condition Analysis Reports
- Review of the Physical Plant Inventory through a site visit to the facility
- Determined number of dorm beds plus number of cell rooms
- Review of average length of stay documents from the WCSO beginning July 2010
- Review of number of bookings per month beginning January 2008 through December 2016
- Review of average daily populations by year beginning 2009 through June 2017 as provided by the WCSO
- Review of WCSO documents including 4 types of population projections through the year 2030. Because this is a 20 year growth plan, it was necessary for the planning team to extrapolate the future population into the year 2037

CRITERIA

- Cell housing is full at 1.50 inmates per cell
- Dormitory housing is full at 1 inmate per bed
- Sound correctional practices (e.g., line of sight and can the configuration for expansion occur in a manner that eliminates potential blind spots
- Physical Plant Inventory: Number of dorms (1 inmate per bed) + number of cells
- Establishment of the correct cell bed factor - Description of the Cell Bed Factor. A cell pod will be considered full for any bed above the established cell bed factor
- Identification of all cell beds above the established cell bed factor
- Comparison of national trends for forensic lab and operations design criteria

ANALYSIS

This section includes the following information the planning team used in the analysis for future expansion requirements based on the growth of Washoe County:

- Population projects through the year 2037
- Number of bookings per year
- Average length of stay (ALOS)
- Review of the WCSO occupancies and classifications – This report used various documents provided by the WCSO team in this analysis – See multiple spreadsheets below
- Review of projection as a function of increased Washoe County population
- Capacity VS Projections - Comparison of available bed space VS estimated projections
- Developed calculations for required additional capacity to keep up with the projections thorough 2037
- Benchmarking Washoe County
- Utilization Efficiency Analysis

RESULTS

- Determined approximate SF building footprint increases required to keep up with the current population projections through the year 2037
- Developed approximate cost estimates
- Sorted the various project needs by priority including identifying projects with an immediate need versus those projects that be pushed back

RECOMMENDATIONS

Final recommendations include the following projects:

High Priority

- Medical Infirmary
- Forensic Laboratory
- Parking Structure
- Kitchen/Laundry expansion
- New Housing – Year 2021
- Increased programming Year 2021
- Increased housing – 2031

Lower Priority

- Increase patrols division including combining several functions now residing at the Parr Boulevard facility to a combined remote location

Approximate Costs

The various projects identified over the next 20 years have a combined design and construction cost of \$260 Million. These costs include:

- The SF costs include estimated total project costs comprising construction, contingency (approximately \$15M), escalation @ 3% per annum (For 20 years totaling approximately \$31M)
- Project soft costs @ approx. 30% per project (approximately \$63M)

“A key component for this report was time spent with each department at the existing WCSO campus..”

INTRODUCTION AND SUMMARY

The Arrington Watkins Architects planning team including the specialty consultants were contracted by Washoe County Community Services Department (WCCSD) to prepare this master plan report that studied and makes recommendations for the strategic future development of the Washoe County Sheriff's Office (WCSO) facility. The purpose of this master plan is to develop a strategic plan that addresses a 20 year plan for growth addressing the needs for both the existing facility based on the evaluation for future changing needs of WCSO. A key component for this report was time spent with each department at the existing WCSO campus located at 911 Parr Boulevard in Reno, Nevada. Although the primary focus of this report is based on planning efforts for the Parr Boulevard facility, this report includes additional analysis and recommendations for several off campus facilities such as:

- Raven
- Longley
- Gerlach
- Incline Village
- ATAC

This report is organized with our findings and recommendations based on a 20 year needs assessment/master plan. This information was used by the AWA team in the establishment of trends for growth and for the planning of short and long term needs of the Washoe County Sheriff's Department for infrastructure, increased inmate capacities and facility support space.

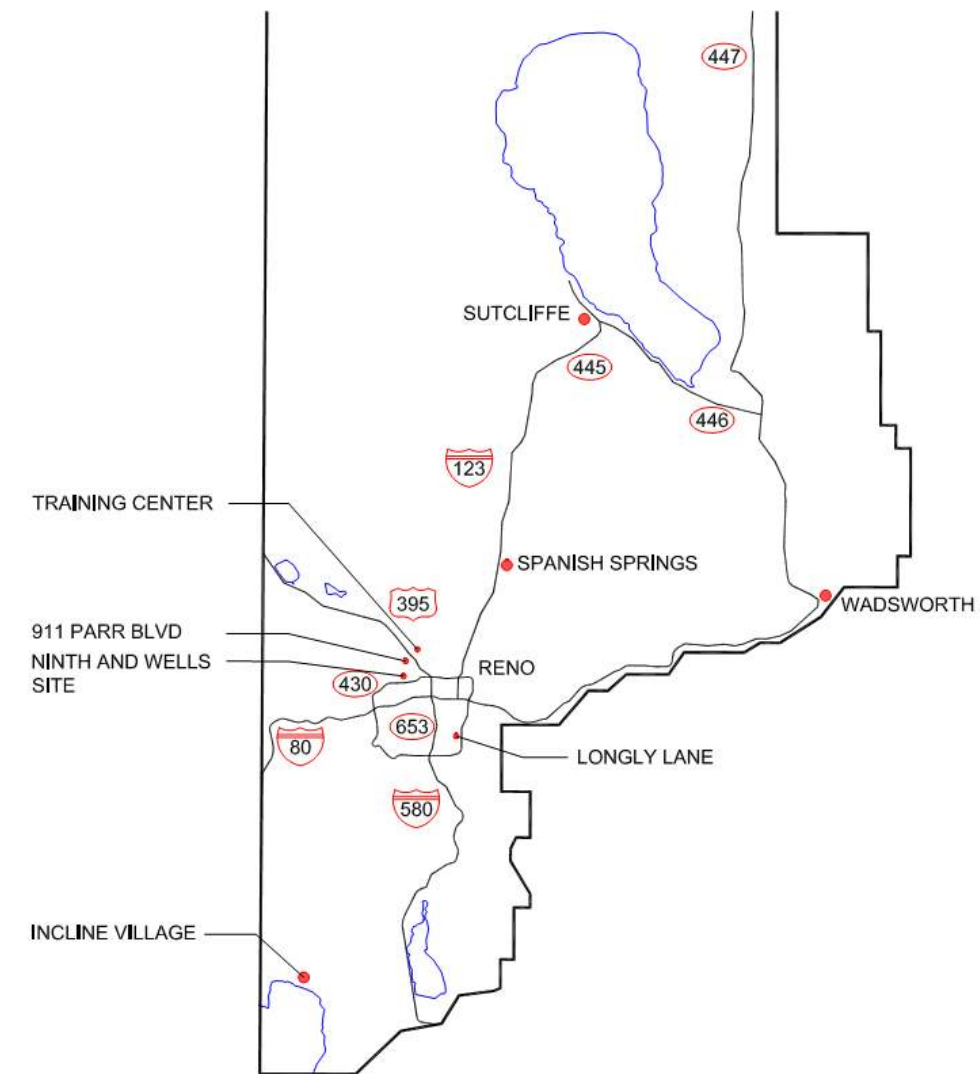
Two additional key tasks required of this report was the re-evaluation and proofing for the facility master plan developed by a consultant in 2001 and the space utilization study performed by a firm in 2008.

This report used the following planning processes:

- Task 1 - Concept Design Workshop
- Task 2 - Facility Data Gathering
- Task 3 – Developed Criteria, Analysis and Recommendations including Concept Programming
- Task 4 - Facility Planning
- Task 5 - Development of final deliverables

Task 1 – Concept Design Workshop – This task involved the initial receipt of various materials from the WCCSD team including the following:

- Electronic building plans
- Previous master plan documents
- Previous reports
- Washoe County population information
- Staffing information
- Information related to average length of stay and daily populations
- Detention Center bed count information



The initial review by the planning team of the materials provided by the Washoe County team, required the development of a list of additional items. At the conclusion of our due diligence review, the planning team developed a detail questionnaire tailored to each WCSO department involved with this planning effort. Once information was received from each department, a team meeting was established with members of the WCCSD team, WCSO team and the AWA planning team. Key tasks that resulted from this meeting was the establishment of a core team of decision makers, including all Washoe County stakeholders with representation for each of the main WCSO departments required in this planning effort. In anticipation of this meeting, the planning team developed an initial listing of all tasks to be reviewed at the meeting used as the agenda. This meeting allowed the planning team to present the initial concept for the analysis and ultimate proposed development plan of this planning effort which included additional discussion and information provided by the Washoe County teams.

This meeting allowed the planning team to confirm goals, set the direction for investigations, and plan meetings with all Divisions based on the org chart provided by the Washoe County team. The organization chart is included as an exhibit in this report and divides the Washoe County Sheriff's office into approximately 13 separate groups. Additional tasks and items of discussion were the identification and review of the Counties goals and vision for what this report needs to accomplish.

During this meeting the planning team presented the initial questionnaire developed for all departments. During this meeting the planning team presented the design schedule that identified time lines and milestones for all tasks required in this planning effort including the established timelines for the final deliverables.

The planning developed a meeting summary document that includes all topics of discussion and the identification of tasks along with the assigned responsible member for the completion of the tasks. This information is stored in the planning team's Vision database

Task 2 – Facility Data Gathering – This task involved three (3) face-to-face meetings/site visits with all departments identified in this report. Using the questionnaire developed during Task 1, which were graciously completed by the WCSO departments, the questionnaires provided the planning team with critical information about the operational processes and procedures utilized by each department. Using the questionnaires as an information gathering tool, the planning team conducted a two full day site visit for an analysis and feasibility study for future development projects to meet the 20 year needs of the facility.

During the site visit the planning team was able to physically observe staff at work during work hours, allowing the planning team to gain insight into what is or is not currently working in an efficient manner.

As mentioned, prior to the site tours the planning team was provided with a set of building plans of the Parr Boulevard facility. However during the tours it was noticed a number of physical plan changes have been made for which no documentation is available. The planning team tried to capture as much of the plan revisions as possible thru the use of hand sketches and floor plan area approximations. Samples of the drawings provided by the planning team are included in other sections of this report.

During this task the planning team collected large amounts of data related to each of the areas surveyed. Included were the notations taken from the face-to-face meetings with each department. The planning team further developed a summary document providing a square foot summary of each space by department.

Task 3 – Criteria, Analysis, Results and Programming – This task involved the sorting of information and data collected during the field assessment portion. The information was formatted and introduced into initial tables/spreadsheets. A set of specific criteria was developed that was used in the analysis portions of this report.

The spreadsheets, tables and drawings were reviewed with the WCCDS and WCSO teams to ensure and confirm that the information provided in this section of this report is accurate. Included with all spreadsheets is a brief description of the purpose and reasoning for the spreadsheet. Examples of the spreadsheets used in this report are the listing of all detention housing beds on a certain day, inmate classifications and bookings, a comparison of population growth as a function of increased crime, various population projections, average daily populations over a period of years, annual bookings over a given year, a listing of the various housing detention classification types, and projected populations for Washoe County into the year 2037. The purpose of the spreadsheets, was to allow the planning team

to identify trends for growth either up or down in a specific area of the facility that would further and correctly guide the planning team for final recommendations for the proper allocation of funding for capital improvement projects. Additionally since the detention operation is such a vital function of services provided by the WCSO, it was critical to identify the correct number of additional beds for housing expansion along with the correct types of beds such as medical and mental health treatment.

Task 4 - Facility Planning – During this phase critical tasks included the development of conceptual design alternatives that include best function and flow with efficient layouts for planning purposes. During this phase the planning team used a number of diagrams and renderings for analysis the purposes of conveying the design intent to the team of stakeholders. During this phase cost estimating efforts began and would continue through to the deliverables phase. During this phase the planning team began the process of prioritization based on immediate versus long term needs of the WCSO. The team held two (2) face-to-face meetings with all stakeholders. One of the meetings during this phase served as the interim progress presentation. An important task during this phase was the update of the past design team schedules based on the planning progress.

Task 5 – Development of final deliverables –

- a) Drawings A - Develop scalable CADD File Aerial plans of all Washoe County 911 Parr Boulevard facility buildings - These will be included as various exhibits in the final document
- b) Drawings B - Scaled drawing(s) of the site showing all physical features, and identification of each building area based on use with summaries in line and text form of potential study results
- c) Recommendations for CIP Projects – Developed a listing recommendations for future CIP projects and/or review past CIP requested projects that were not funded to see how valid those would be today based on the results and findings in our report
- d) Identification - Identified the most economical alternative ways to expand and operate the Washoe County Sheriff's facility given the results of the first few tasks identified above.
 - i. Costing A - Analysis of the existing Washoe County Jail facility in Reno.
 - ii. Costing B – Square-foot cost analysis of recommended housing and core facilities improvement and/or expansions. The provided estimate is not a detailed 50 division breakdown estimate
 - iii. Costing CIP Projects - Master plan document will also be used as a guideline in developing future cost associated with Washoe County capital improvement projects
 - iv. Projections – Developed a process for the identification of future detention populations based on the following factors:
- e) Projected Washoe County Populations through four methods:
 - Booking rate percentage multiplier
 - Average length of stay
 - Divided by 365 days
- f) Prioritization - Prepare an overall list of needs and associated costs in order of importance – related to potential CIP future projects
- g) Infrastructure - This study includes reviews of existing utilities that may be required to support the recommendations for expansion
- h) One (1) trip for final presentation meeting

Final Deliverables

Delivered a presentation of the Draft Master Plan to the State decision-makers. The presentation explained the Master Plan findings and presented proposed recommendations.

Report - In the form of a final draft Master Plan document - bed/need projection study, review report of each of the Washoe County Sheriff's complex operating departments, analysis of current space use, analysis of alternatives, facility condition index review, site utility capability study, site development options, schedule of activities/timeframes, prioritization of CIP projects with probable costs.

WASHOE COUNTY SHERIFF'S FACILITIES

The Facility - The WCSO provides law enforcement services for the unincorporated area of Washoe County. The WCSO is responsible for the operation and management of the only adult detention facility for pretrial detainees and sentenced misdemeanants within Washoe County. The Sheriff's Office is divided into three Bureaus. While each Bureau has a unique function, they impact the operation of the other Bureaus.

The Administrative Bureau includes Background Investigations, Community Relations, Training, Fleet Services, Research and Development, Records and Civil Sections, Dispatch, the Vulnerable Persons Unit and oversight of the Regional Public Safety Training Center.

The Detention Bureau includes the administration of the detention facility, alternative sentencing programs, inmate programs, transportation of inmates to court and medical appointments, court security and commissary services for inmates.

The Operations Bureau includes Patrol, Detectives/Investigations Unit and Special Operations Divisions.

Administration - The Administrative Division oversees and manages the functions, services and investigations that support all of the operational areas of the agency. This includes dispatch, conducting backgrounds on all employees, employee training as required by the Nevada Commission on Peace Officer's Standards and Training; training for all employees in support of policies, law and best practices, and training of new recruits at the Northern Nevada Law Enforcement Academy held at the regional Public Safety Training Center. The Administrative Division also oversees research and development of new technology and management concepts, maintenance and trouble-shooting of database systems and computer programs, and coordination of fleet services.

The Administrative Services Division oversees and manages services provided to the general public in accordance with Nevada Revised Statutes or Washoe County Code. This includes Concealed Weapons Permits, civil processes, case requests, work cards, fingerprinting, warrant information and filing of reports, either on-line or at the front desk. This Division also provides services to law enforcement personnel in the field which may include criminal information.

Detectives - Detectives investigate, arrest, and assist in the prosecution of those who commit crimes against the citizens of Washoe County. Detectives investigate all felony and some of the gross misdemeanor violations committed within the unincorporated area of Washoe County. Investigations are done in a manner that ensures the constitutional rights of all individuals. The Detective Division is organized into two specialized units: Crimes vs. Persons and Crimes vs. Property. There is also one detective assigned to the Sparks Police Department's Regional Sex Offender Unit.

Detention - The Washoe County Sheriff's Office operates the only adult detention facility for pretrial detainees within Washoe County. The Washoe County Detention Facility currently accepts detainees from over thirty law enforcement agencies, including those at the local, state and federal levels.

Forensic Sciences - The Washoe County Sheriff's Office Forensic Science Division provides forensic services to local, state, and federal law enforcement agencies in 14 of the 17 Nevada counties encompassing over 80 agencies. The Division is a full-service forensic laboratory staffed by more than 40 individuals in sworn and civilian capacities. The staff members receive continuing education through training programs, seminars and conferences. The equipment in the laboratory is updated as needed to provide state-of-the-art services to the users. The Division is funded by monies from Washoe County, the user agencies, and grants.

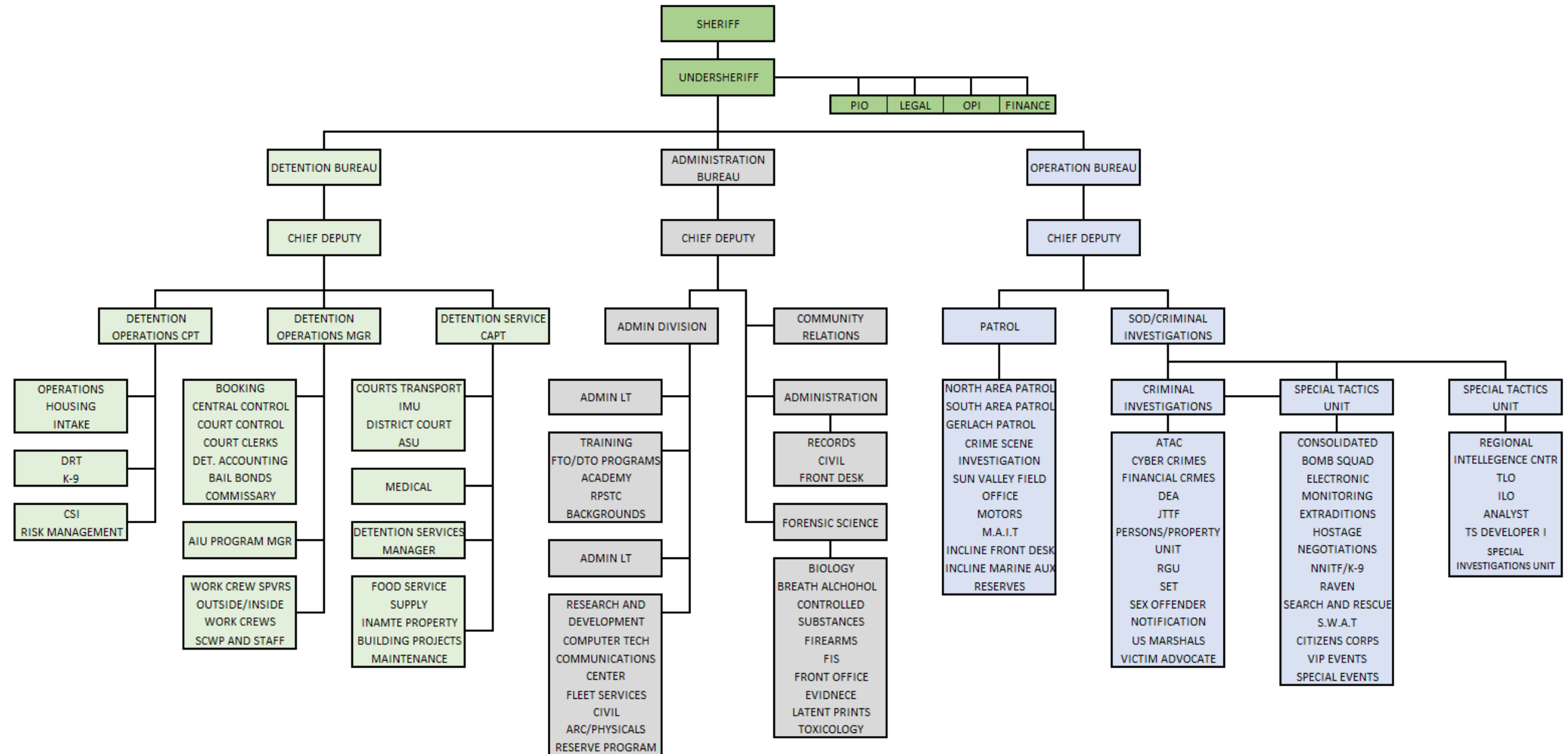
Patrol - The Patrol Division of the Washoe County Sheriff's Office is responsible for all law enforcement duties within the unincorporated area of Washoe County - an area of over 6,700 square miles. Historically, these duties were concentrated primarily around the central core of Reno and Incline Village. However, over the past ten years, the housing market trend has seen the development of large-scale planned communities in areas such as Spanish Springs, Golden Valley, Cold Springs, South Meadows, Pleasant Valley, etc. This trend necessitated a change in how the Patrol Division is organized and where the Patrol units are stationed.

Special Operations - The mission of the Special Operations Division is to respond to specific criminal incidents with specialized training and equipment to handle those situations efficiently and effectively. The members of this division are prepared to respond to requests from any other division of the Sheriff's Office or any outside agency in Northern Nevada to aid in resolving any incident or criminal case and help make our communities safer.

The Washoe County Sheriff's Office provides law enforcement services for the unincorporated area of Washoe County. We also are responsible for operating the only adult detention facility for pretrial detainees and sentenced misdemeanants within Washoe County. The Agency has an authorized strength of 423 commissioned, 291 civilian, and 45 intermittent hourly employees. We also have 13 active Reserve Deputy Sheriffs and a volunteer corps of 482 persons. The Sheriff's Office has an annual operating budget of \$101.5M and has been awarded grants in the amount of \$2,621,800.

The previous information was taken from the WCSO website.

WCSO ORGANIZATION STRUCTURE



The above chart is representative of the WCSO organization at the time of this report. The three main divisions of the Sheriff's office, Detention, Administration, and Operations, have served as the bases of how this report has been organized and approached.

CURRENT CAPITOL IMPROVEMENT PROJECTS

At the time of this report, Washoe County has proposed the following projects independent of the recommendations of this Master Plan Study.

PROJECTS	STATUS	PROJECT YEAR				
		FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
Housing Units 6 and 8 - HVAC replacement and Roof repairs	Under construction at the time of this report	\$1,546,800				
Detention Center – rebuild of 22 slider doors	Scheduled 2018	\$293,000				
Lower Detention Re-Roof	Under construction at the time of this report	\$750,000				
Sherriff's Office Security Measures	Pending Master Plan		\$162,500			
Housing Unit 10 - HVAC replacement			\$110,000			
Sherriff Detention Infirmary	Pending master plan			\$18,425,000		
Boiler Replacement				\$1,500,000		
Housing Unit 4 - HVAC replacement				TBD		
Housing Units 3, 4, Infirmary - Food Slots				TBD		
Forensic Lab Renovation (DNA Lab and Office space)		ASAP				
Replacement of Wooden doors (housing units)						TBD
Replacement of porcelain toilets (housing units)						TBD

TABLE 1

Most population projections do not account for economic factors that drive an increase in population such as Tesla

POPULATION AND CRIME

County Crime Rates

One of the growth factors to consider is the rate of crime, number of arrests and that maintained inmate population as each of these places it increased demand placed upon one or several divisions of the criminal justice system.

With regard to the crime rate, data from such sources as the FBI Uniform Crime Reporting Program, makes it difficult to assess crime rates on a local level. The FBI UCR began tracking the crimes reported to law enforcement in 2015. Data prior to this only focuses on reporting large population centers such as Reno and Sparks with steady populations over 100,000 which does not take into account outlying areas of Washoe County that hold almost half of its population. The table below is an excerpt from the 2015 and 2016 UCR. However, even this data does not present the full picture as it looks solely at crimes reported in Washoe County and does not take into account those reported adjacent metropolitan centers of Reno and Sparks that may be handled by the WCSO. As such, the tables for Reno and Sparks are also provided below to help form a complete picture which include crimes reported in Washoe County.

The general trend that can be observed from the tables shows a steady increase in the number of reported crimes. The table recording the 2 years of activity in Washoe County shows a slight decrease, however, this is a small sampling and discounts that additional impact that Reno and Sparks have on the WCSO facilities. The Metropolitan table shows a slight decline in the number of reported crimes in the years 2009-2013. This is to be expected as the estimated population of the area decreased and population is a factor that influences crime rates. However, with the improving economic conditions the population has begun to return which will certainly increase the number of crimes reported. This is supported by the 2014-2016 figures which show an increase in the crime rate.

WASHOE COUNTY CRIME REPORTED

Metropolitan/ Nonmetropolitan	Violent Crime	Murder and nonnegligent manslaughter	Rape (revised definition) (1)	Rape (legacy definition) (2)	Robbery	Aggravated Assault	Property Crime	Burglary	Larceny- theft	Motor Vehicle Theft	Arson
2016	132	1	24		7	100	770	202	465	103	7
2015	172	1	33		12	126	811	226	494	91	13

1 The figures shown in this column for the offense of rape were reported using the revised Uniform Crime Reporting (UCR) definition of rape. See the FBI data declaration for further explanation.

2 The figures shown in this column for the offense of rape were reported using the legacy UCR definition of rape. See the FBI data declaration for further explanation.

FBI (2017). Crime in the US. Retrieved from <https://ucr.fbi.gov/crime-in-the-u.s>

METROPOLITAIN (RENO/SPARKS) AREA CRIME REPORTED

Year	City	Population	Violent Crime		Murder and nonnegligent manslaughter		Rape (revised definition) (1)		Rape (legacy definition) (2)		Robbery		Aggravated Assault		Property Crime		Burglary		Larceny-theft		Motor Vehicle Theft	
2016	Reno	244,554	1,717	21%	9	-40%	139	2%			393	14%	1,176	27%	7,933	5%	1,208	-16%	5,381	6%	1,344	32%
2015	Reno	239,721	1,419	24%	15	0%	136	6%			345	31%	923	25%	7,531	11%	1,440	10%	5,070	8%	1,021	32%
2014	Reno	235,055	1,147	-1%	15	7%	128	88%			263	-14%	741	-3%	6,798	-5%	1,312	-7%	4,711	-4%	775	-11%
2013	Reno	232,561	1,154	-3%	14	100%	68				305	-7%	767	-7%	7,180	-3%	1,411	-14%	4,901	0%	868	-1%
2012	Reno	230,486	1,192	8%	7	-50%			33	22%	327	-15%	825	21%	7,423	13%	1,633	1%	4,909	14%	881	42%
2011	Reno	227,120	1,108	-5%	14	56%			27	-41%	383	-1%	684	-6%	6,550	-12%	1,618	-1%	4,311	-15%	621	-15%
	Sparks	91,025	285	-20%	7	-13%			46	31%	75	-27%	157	-26%	2,447	-11%	656	-6%	1,600	-13%	191	-18%
2010	Reno	222,242	1,168	-21%	9	0%			46	-45%	385	-6%	728	-25%	7,468	-15%	1,638	-11%	5,101	-18%	729	-3%
	Sparks	91,433	357	-11%	8	60%			35	-13%	103	-8%	211	-13%	2,761	-11%	699	-18%	1,829	-9%	233	-6%
2009	Reno	221,010	1,473	-4%	9	-40%			84	1%	409	-16%	971	3%	8,810	-9%	1,848	-6%	6,209	-8%	753	-23%
	Sparks	91,421	399	-3%	5	500%			40	-22%	112	-13%	242	5%	3,105	-11%	850	-6%	2,007	-12%	248	-18%
2008	Reno	218,556	1,532	1%	15	-12%			83	-13%	488	-5%	946	7%	9,714	3%	1,975	8%	6,757	4%	982	-8%
	Sparks	88,913	410	16%	0	-100%			51	42%	128	-4%	231	29%	3,486	-3%	903	9%	2,279	-6%	304	-13%
2007	Reno	214,197	1,513	2%	17	-26%			95	-5%	516	-1%	885	6%	9,418	-13%	1,835	-13%	6,511	-8%	1,072	-34%
	Sparks	86,884	352	-7%	3	0%			36	-10%	134	8%	179	-16%	3,603	4%	832	-7%	2,422	15%	349	-23%
2006	Reno	210,354	1,478		23				100		523		832		10,797		2,105		7,061		1,631	
	Sparks	84,794	380		3				40		124		213		3,452		893		2,104		455	

1 The figures shown in this column for the offense of rape were reported using the revised Uniform Crime Reporting (UCR) definition of rape. See the FBI data declaration for further explanation.

2 The figures shown in this column for the offense of rape were reported using the legacy UCR definition of rape. See the FBI data declaration for further explanation.

FBI (2017). Crime in the US. Retrieved from <https://ucr.fbi.gov/crime-in-the-u.s>

STATE OF NEVADA PERCENTAGE OF CHANGE CRIME RATE

Year	Violent Crime	Murder and nonnegligent manslaughter	Rape (revised definition) (1)	Rape (legacy definition) (2)	Robbery	Aggravated Assault	Property Crime	Burglary	Larceny-theft	Motor Vehicle Theft
2016-2015	-0.9%	25.8%	2.7%	4.9%	0.85	-2.7%	-1.4%	-15.7%	1.4%	16.1%
2015-2014	11.5%	4.7%	24.4%	25.4%	5.6%	13.3%	3.4%	2.0%	2.3%	11.5%
2014-2013	6.9%	4.3%	-8.4%	-8.7%	14.9%	5.0%	-5.9%	-4.9%	-8.0%	1.9%
2013-2012	-1.6%	31.5%		17.1%	5.4%	-6.8%	2.2%	4.2%	1.7%	-0.2%
2012-2011	8.5%	-10.8%		2.0%	14.2%	6.9%	10.6%	8.7%	13.0%	4.6%
2011-2010	-14.6%	-10.8%		-5.5%	-18.9%	-13.5%	-7.0%	-9.3%	-5.9%	-6.9%
2010-2009	-4.3%	1.3%		-5.8%	-12.1%	-0.1%	-7.5%	0.5%	-8.5%	-17.8%
2009-2008	-1.9%	-4.8%		-7.5%	-7.0%	1.7%	-10.1%	-9.1%	-6.7%	-22.2%
2008-2007	-2.2%	-15.1%		0.5%	-6.6%	0.6%	-7.5%	-2.8%	-0.3%	-28.8%
2007-2006	4.0%	-14.3%		1.6%	-1.4%	8.4%	-5.0%	0.1%	-1.0%	-17.2%

1 The figures shown in this column for the offense of rape were reported using the revised Uniform Crime Reporting (UCR) definition of rape. See the FBI data declaration for further explanation.

2 The figures shown in this column for the offense of rape were reported using the legacy UCR definition of rape. See the FBI data declaration for further explanation. FBI (2017). Crime in the US. Retrieved from <https://ucr.fbi.gov/crime-in-the-u.s>

The table above presents a snap shot of the percentage of change from year to year of the reported crime rate across the State of Nevada. While this is a very broad area to cover and includes Clark County and other metropolitan areas, it does provide a sense of the trends being observed in criminal activity that may eventually have an impact on Washoe County.

NATIONAL PERCENTAGE OF CHANGE CRIME RATE

Year	Violent Crime	Murder and nonnegligent manslaughter	Rape (revised definition) (1)	Rape (legacy definition) (2)	Robbery	Aggravated Assault	Property Crime	Burglary	Larceny-theft	Motor Vehicle Theft
2016-2015	4.0%	8.6%	3.5%	4.9%	1.25%	5.1%	-1.3%	-4.6%	-1.5%	7.4%
2015-2014	3.8%	10.8%	5.1%	6.3%	1.4%	4.6%	-2.6%	-7.8%	-1.8%	3.1%
2014-2013	-0.1%	-0.5%	2.6%	2.4%	-5.6%	2.0%	-4.3%	-10.5%	-2.7%	-1.5%
2013-2012	-4.4%	-4.5%		-6.3%	-2.8%	-5.0%	-4.1%	-8.6%	-2.7%	-3.3%
2012-2011	0.7%	1.1%		0.2%	-0.1%	1.1%	-0.9%	-3.7%	*	0.6%
2011-2010	-3.8%	-0.7%		-2.5%	-4.0%	-3.9%	-0.5%	0.9%	-0.7%	-3.3%
2010-2009	-6.0%	-4.2%		-5.0%	-10.0%	-4.1%	-2.7%	-2.0%	-2.4%	-7.4%
2009-2008	-5.3%	-7.3%		-2.6%	-8.0%	-4.2%	-4.6%	-1.3%	-4.0%	-17.1%
2008-2007	-1.9%	-3.9%		-1.6%	-0.7%	-2.5%	-0.8%	2.0%	0.3%	-12.7%
2007-2006	-0.7%	-0.6%		-2.5%	-0.5%	-0.6%	-1.4%	-0.2%	-0.6%	-8.15

1 The figures shown in this column for the offense of rape were reported using the revised Uniform Crime Reporting (UCR) definition of rape. See the FBI data declaration for further explanation.

2 The figures shown in this column for the offense of rape were reported using the legacy UCR definition of rape. See the FBI data declaration for further explanation.

* Less than one-tenth of 1 percent

FBI (2017). Crime in the US. Retrieved from <https://ucr.fbi.gov/crime-in-the-u.s>

The table above presents a snap shot of the percentage of change from year to year of the reported crime rate across the United States. Comparing the rate of change in the metropolitan regions within Washoe County, it appears that the rate of reported crime is fluctuating with similar spikes and declines. Recent exceptions of note are an increase in property crime, larceny and motor vehicle theft in the metropolitan areas while nationally these crimes are trending downward.

Future Population Analysis

The following population projections uses the four (4) processes to establish the population of Washoe County into 2030. For the remainder of the population forecast this report extrapolated the growth percentages from 2015 through 2030 to arrive at population projections from 2031 through the year 2037:

- Method A – Washoe County Consensus Forecast
- Method B – Washoe County Global Insight and Wood and Poole
- Method C – Truckee Meadows Water Authority
- Method D – The 2008 Demographers Population Projections for Washoe County

Method A – Washoe County Consensus Forecast

WASHOE COUNTY POPULATION FORECAST 2015 - 2037 - METHOD A									
Year	Method A	Change from Previous	Percent Change	Increase W Tesla	Percent Change Tesla	Combined Change	Combined Percent Change	Updated Population	NOTES
2015	472,718			6,165					
2016	480,610	7,892	1.67%	6,941	1.47%	14,833	3.14%	495,443	
2017	488,592	7,982	1.66%	8,122	1.69%	16,104	3.35%	504,696	
2018	496,440	7,848	1.61%	8,757	1.79%	16,605	3.40%	513,045	
2019	504,353	7,913	1.59%	8,432	1.70%	16,345	3.29%	520,698	
2020	512,137	7,784	1.54%	8,308	1.65%	16,092	3.19%	528,229	
2021	519,974	7,837	1.53%	8,113	1.58%	15,950	3.11%	535,924	
2022	527,680	7,706	1.48%	8,014	1.54%	15,720	3.02%	543,400	
2023	535,538	7,858	1.49%	7,893	1.50%	15,751	2.98%	551,289	
2024	543,242	7,704	1.44%	7,757	1.45%	15,461	2.89%	558,703	
2025	551,012	7,770	1.43%	7,644	1.41%	15,414	2.84%	566,426	
2026	558,624	7,612	1.38%	7,542	1.37%	15,154	2.75%	573,778	
2027	566,359	7,735	1.38%	7,418	1.33%	15,153	2.71%	581,512	
2028	574,048	7,689	1.36%	7,305	1.29%	14,994	2.65%	589,042	
2029	582,266	8,218	1.43%	6,990	1.22%	15,208	2.65%	597,474	
2030	590,490	8,224	1.41%	6,862	1.18%	15,086	2.59%	605,576	
Population Numbers Extrapolated from previous data									
2031	599,347	8,857	1.48%	6749	1.13%	15,606	2.60%	614,954	
2032	608,338	8,990	1.48%	6628	1.09%	15,618	2.57%	623,956	
2033	617,463	9,125	1.48%	6527	1.06%	15,652	2.53%	633,115	
2034	626,725	9,262	1.48%	6527	1.04%	15,789	2.52%	642,514	
2035	636,125	9,401	1.48%	6527	1.03%	15,928	2.50%	652,053	
2036	645,667	9,542	1.48%	6527	1.01%	16,069	2.49%	661,736	
2037	655,352	9,685	1.48%	6527	1.00%	16,212	2.47%	671,564	

Below is the listed source for the Method A process of population forecast:
 Method A - Washoe County Consensus Forecast - 2010 to 2030

Method A - Beginning in 2031 - The highlighted area above includes population data extrapolated into the Method A population forecast

This methods estimates the population to be 671,564 by the year 2037

Method B – Washoe County Global Insight and Wood and Poole

WASHOE COUNTY POPULATION FORECAST 2015 - 2037 - METHOD B									
Year	Method B	Change from Previous	Percent Change	Increase W Tesla	Percent Change Tesla	Combined Change	Combined Percent Change	Updated Population	NOTES
2015	462,182			6,165					
2016	470,235	8,053	1.74%	6,941	1.50%	14,994	3.24%	485,229	
2017	478,724	8,489	1.81%	8,122	1.73%	16,611	3.53%	495,335	
2018	487,225	8,501	1.78%	8,757	1.83%	17,258	3.60%	504,483	
2019	496,153	8,928	1.83%	8,432	1.73%	17,360	3.56%	513,513	
2020	505,104	8,951	1.80%	8,308	1.67%	17,259	3.48%	522,363	
2021	514,407	9,303	1.84%	8,113	1.61%	17,416	3.45%	531,823	
2022	523,631	9,224	1.79%	8,014	1.56%	17,238	3.35%	540,869	
2023	533,370	9,739	1.86%	7,893	1.51%	17,632	3.37%	551,002	
2024	542,984	9,614	1.80%	7,757	1.45%	17,371	3.26%	560,355	
2025	552,913	9,929	1.83%	7,644	1.41%	17,573	3.24%	570,486	
2026	562,706	9,793	1.77%	7,542	1.36%	17,335	3.14%	580,041	
2027	572,911	10,205	1.81%	7,418	1.32%	17,623	3.13%	590,534	
2028	583,186	10,275	1.79%	7,305	1.28%	17,580	3.07%	600,766	
2029	593,504	10,318	1.77%	6,990	1.20%	17,308	2.97%	610,812	
2030	603,918	10,414	1.75%	6,862	1.16%	17,276	2.91%	621,194	
Population numbers extrapolated from previous data									
2031	614,487	10,569	1.72%	6749	1.10%	17,318	2.82%	631,804	
2032	625,240	10,754	1.72%	6628	1.06%	17,382	2.78%	642,622	
2033	636,182	10,942	1.72%	6527	1.03%	17,469	2.75%	653,650	
2034	647,315	11,133	1.72%	6527	1.01%	17,660	2.73%	664,975	
2035	658,643	11,328	1.72%	6527	0.99%	17,855	2.71%	676,498	
2036	670,169	11,526	1.72%	6527	0.97%	18,053	2.69%	688,222	
2037	681,897	11,728	1.72%	6527	0.96%	18,255	2.68%	700,152	

Below is the listed source for the Method B process of population forecast:
 Method B - Washoe County Global Insight and Woods and Poole

Method B - Beginning in 2031 - The highlighted area above includes population data extrapolated into the Method B population forecast

This method estimates the population to be 700,152 by the year 2037

Method C – Truckee Meadows Water Authority

WASHOE COUNTY POPULATION FORECAST 2015 - 2037 - METHOD C									
Year	Method C	Change from Previous	Percent Change	Increase W Tesla	Percent Change Tesla	Combined Change	Combined Percent Change	Updated Population	NOTES
2015	478,572			6,165					
2016	485,851	7,279	1.52%	6,941	1.45%	14,220	2.97%	500,071	
2017	492,977	7,126	1.47%	8,122	1.67%	15,248	3.14%	508,225	
2018	499,946	6,969	1.41%	8,757	1.78%	15,726	3.19%	515,672	
2019	506,754	6,808	1.36%	8,432	1.69%	15,240	3.05%	521,994	
2020	513,398	6,644	1.31%	8,308	1.64%	14,952	2.95%	528,350	
2021	519,876	6,478	1.26%	8,113	1.58%	14,591	2.84%	534,467	
2022	526,185	6,309	1.21%	8,014	1.54%	14,323	2.76%	540,508	
2023	532,324	6,139	1.17%	7,893	1.50%	14,032	2.67%	546,356	
2024	538,291	5,967	1.12%	7,757	1.46%	13,724	2.58%	552,015	
2025	544,088	5,797	1.08%	7,644	1.42%	13,441	2.50%	557,529	
2026	549,713	5,625	1.03%	7,542	1.39%	13,167	2.42%	562,880	
2027	555,166	5,453	0.99%	7,418	1.35%	12,871	2.34%	568,037	
2028	560,450	5,284	0.95%	7,305	1.32%	12,589	2.27%	573,039	
2029	565,564	5,114	0.91%	6,990	1.25%	12,104	2.16%	577,668	
2030	570,511	4,947	0.87%	6,862	1.21%	11,809	2.09%	582,320	
Population numbers extrapolated from previous data									
2031	577,357	6,846	1.19%	6749	1.17%	13,595	2.35%	590,952	
2032	584,285	6,928	1.19%	6628	1.13%	13,556	2.32%	597,842	
2033	591,297	7,011	1.19%	6527	1.10%	13,538	2.29%	604,835	
2034	598,392	7,096	1.19%	6527	1.09%	13,623	2.28%	612,015	
2035	605,573	7,181	1.19%	6527	1.08%	13,708	2.26%	619,281	
2036	612,840	7,267	1.19%	6527	1.07%	13,794	2.25%	626,634	
2037	620,194	7,354	1.19%	6527	1.05%	13,881	2.24%	634,075	

Below are the listed methods/information for each of the population breakdowns:
 Method C - Truckee Meadows Water authority

Method C beginning in 2031 - The highlighted area above includes population data extrapolated into the Method C population forecast

This method estimates the population to be 634,075 by the year 2037

Method D – The 2008 Demographers Population Projections for Washoe County

WASHOE COUNTY POPULATION FORECAST 2015 - 2037 - METHOD D									
Year	Method D	Change from Previous	Percent Change	Increase W Tesla	Percent Change Tesla	Combined Change	Combined Percent Change	Updated Population	NOTES
2015	487,936			6,165					
2016	496,119	8,183	1.68%	6,941	1.42%	15,124	3.10%	511,243	
2017	503,940	7,821	1.58%	8,122	1.64%	15,943	3.21%	519,883	
2018	511,366	7,426	1.47%	8,757	1.74%	16,183	3.21%	527,549	
2019	518,351	6,985	1.37%	8,432	1.65%	15,417	3.01%	533,768	
2020	524,944	6,593	1.27%	8,308	1.60%	14,901	2.87%	539,845	
2021	531,204	6,260	1.19%	8,113	1.55%	14,373	2.74%	545,577	
2022	537,270	6,066	1.14%	8,014	1.51%	14,080	2.65%	551,350	
2023	543,087	5,817	1.08%	7,893	1.47%	13,710	2.55%	556,797	
2024	548,709	5,622	1.04%	7,757	1.43%	13,379	2.46%	562,088	
2025	554,134	5,425	0.99%	7,644	1.39%	13,069	2.38%	567,203	
2026	559,373	5,239	0.95%	7,542	1.36%	12,781	2.31%	572,154	
2027	564,448	5,075	0.91%	7,418	1.33%	12,493	2.23%	576,941	
2028	569,371	4,923	0.87%	7,305	1.29%	12,228	2.17%	581,599	
2029	576,491	7,120	1.25%	6,990	1.23%	14,110	2.48%	590,601	
2030	583,612	7,121	1.24%	6,862	1.19%	13,983	2.43%	597,595	
Population numbers extrapolated from previous data									
2031	590,966	7,354	1.24%	6749	1.14%	14,103	2.39%	605,068	
2032	598,412	7,446	1.24%	6628	1.11%	14,074	2.35%	612,486	
2033	605,952	7,540	1.24%	6527	1.08%	14,067	2.32%	620,019	
2034	613,587	7,635	1.24%	6527	1.06%	14,162	2.31%	627,749	
2035	621,318	7,731	1.24%	6527	1.05%	14,258	2.29%	635,576	
2036	629,146	7,829	1.24%	6527	1.04%	14,356	2.28%	643,502	
2037	637,074	7,927	1.24%	6527	1.02%	14,454	2.27%	651,528	

Below are the listed methods/information for each of the population breakdowns:
 Method D - The 2008 Nevada State Demographers Forecast for Washe County

Method C beginning in the year 2031 - The highlighted area above includes popualtion data extrapolated into the Method D population forecast

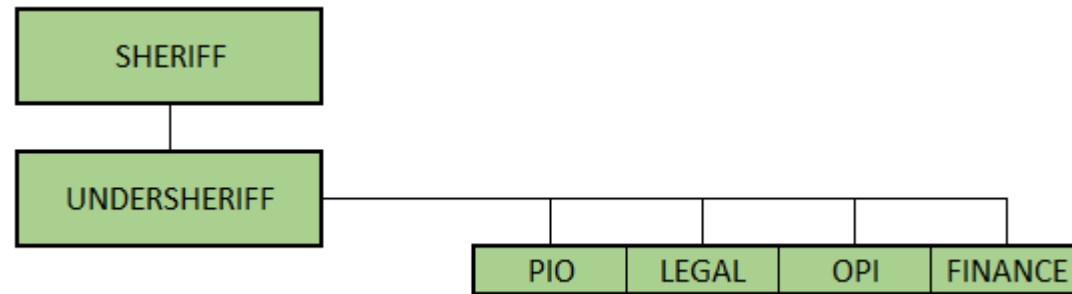
This method estimates to the population to be 651,528 by the year 2037

DATA GATHERING, CRITERIA, ANALYSIS and RESULTS

This report summarizes the analysis by the AWA team for the Washoe County Sheriff's Office (WCSO) campus located at 911 Parr Boulevard Reno, Nevada. This report summarized both the short and long term needs up to 20 year growth into 2037 for required increased capacity including physical plant footprint increase related to the following areas:

- Forensic Laboratory
- Medical Infirmary
- Kitchen/Laundry support space and services
- Programming space
- Additional detention bed space
- Number of private contact visitation spaces
- Parking space for both staff and the public
- Various off campus support facilities
- Combined patrol functions such as the Longley Facility, Incline Village and Gurlach Substations

EXECUTIVE OFFICES



The above chart is a portion taken from the WCSO organization chart located on page 7 of this report.

The executive offices accommodate the Sheriff, Undersheriffs and their support staff.

- Office of Professional integrity (OPI; internal investigations)
- Legal
- Finance
- Payroll
- Personnel
- Purchasing
- Public information
- Video production studio

Existing Facilities Summary

The executive offices currently house approximately 7000 sf of space. These offices are located off of the main public entry and are accessible via keycard access which is the only security measure in place.

Across the main entry are the additional support offices such as payroll, personal and finance. These spaces are integrated in with the other administrative groups and civilian support staff. Due to the expansion of the Administrative Bureau over the years and the configuration of the building, these groups have been forced to continually reconfigure their spaces and downsize their work stations to a minimal level.

OPI is located on the level above off of the main elevator vestibule. The suite includes reception/file storage and two offices. One of these offices doubles as a conference room for confidential debriefings. When debriefings occur, this displaces the officer assigned to this space where the electronic recording equipment is located.

Staffing

- Executive Staff - 5 sworn executives; 1 secretary, 1 administrative analyst, 1 grant writer
- Office of Professional Integrity — current: 2 sworn and 1 civilian
- Legal - 1 staff
- Finance - 2 staff
- Payroll - 3
- Personnel - 2 staff
- Purchasing - 2 staff
- Public information - 1 staff

Growth Trends

The number of executives and their support staff are not expected to grow in this area. However, do to the location of some of these groups, such a Payroll, Personnel, and OPI, the growth of other surrounding departments has been hindered. Additionally, the proximity of these groups to the main entry and potential for unmonitored access creates concerns regarding the security of the personal and documents at these locations.

Design Goals

- Maintain security between Sheriff Staff and the public entry.
- Provided perimeter security at entry and glass where line of site issues may occur
- Maintain privacy and confidentiality of the WCSO staff

Recommendations

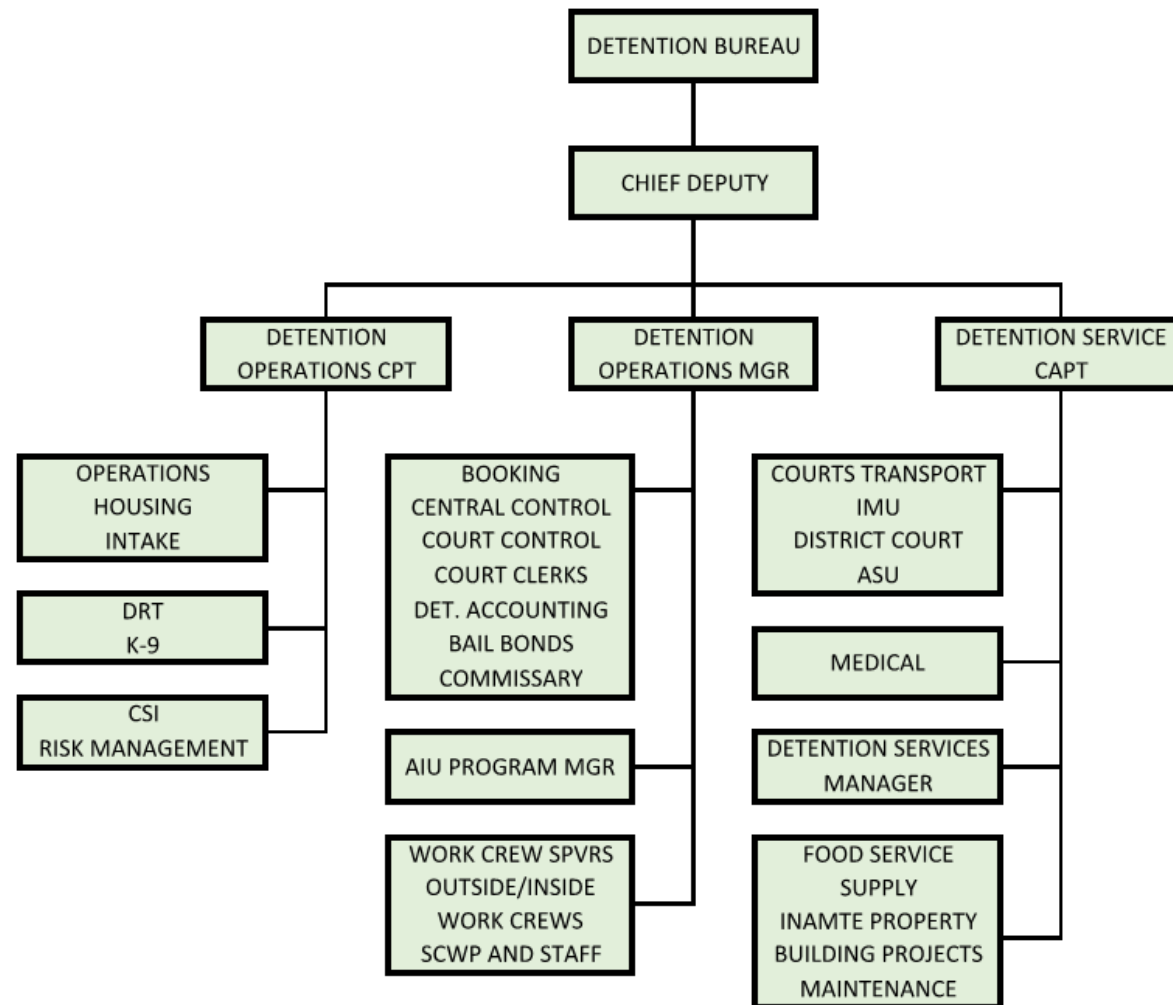
The first recommendation is to relocate OPI from the current 2nd Floor location to a nearby off site facility. This would free up space for adjacent departments to expand, would provide the OPI officers with increased space required for offices, records and interview rooms needed to maintain confidentiality of ongoing investigations.

Next it is possible to relocate Personal and Payroll to an alternate location where greater security can be provided on the 2ND Floor. Doing so would provide adequate secure storage for payroll and personal records department by controlling access to these areas.

Finally, providing a separate public entrance and lobby to the Civil and Records group from existing main entry can provided an extra layer separation between the staff and public. The entry would be expanded with security check point with screening equipment which is standard for facilities of this size and nature.

Consult the phasing matrix in Appendix 2 for the sequence of the recommendations above.

DETENTION BUREAU



The above chart is a portion taken from the WCSO organization chart located on page 7 of this report.

This portion of the report studies and makes recommendations for the need of detention bed expansion including addressing increasing the various program areas. Included in this analysis is the evaluation and recommendations for increased bed space capacity and if bed space is to be increased, the types of beds needed, taking into consideration operational efficiency, sound correctional practice and programmatic needs.

The approach involved a variety of professionals with experience in planning, design, operations, projections, corrections/detention, criminal justice design and cost estimating in very specific tasks that are defined in this document. We have evaluated the WCSO physical facilities for economic expansion, highest and best use and utilization efficiency. Included in this report are several recommendations for increased WCSO bed space to keep up with the projections through 2037. For each of the recommendations contained below, this report utilized the following step by step processes:

Data Gathering

The approach, process and reasoning used throughout this report provides the WCSO stakeholders with a plan to manage future projects required to keep up with potential growth.

The development of this master plan included the following steps and processes:

Data Gathering

- Data gathering through the review of WCSO and WCCSD Floor Plans and Facility Condition Analysis Reports
- Review of the Physical Plant Inventory – Number of dorm beds plus number of cell rooms – This was determined by a spreadsheet provided by the WCSO and both the review of the building plans and physical site review by the planning team.
- Average length of stay documents from the WCSO beginning July 2010
- Number of bookings per month beginning January 2008 through December 2016
- Average daily populations by year beginning 2009 through June 2017 as provided by the WCSO
- Review of WCSO documents including 4 types of population projections through the year 2030. Because this is a 20 year growth plan, it was necessary for the planning team to extrapolate the future population into the year 2037

DORM BEDS AND CELLS - In order to assess the required additional inmate bed space required to keep up with Washoe County growth, a key step in this report is the identification of existing WCSO physical plant availability for number of dorm beds and number of cell rooms. The following tables 1, 2 and 3 are provided as a summary for the WCSO Physical Plant inventory as follows:

- Table 1 – Male and Female Physical Plant Inventory
- Table 2 – Bed Classification Housing – May 31, 2017

Physical Plant Inventory - Existing Available Dorms and Cells

In order to establish the required additional bed space capacity, it is first required to identify all available bed space within the WCSO system. The analysis of the physical plant inventory is based on both site observation and the review of WCSO facility plans provided by the WCSO and WCCSD. For each facility, both drawings and bed space spreadsheets provided by the WCSO were reviewed to identify all dorm beds and all cell rooms. This information is provided in Table 1 and includes the available number of dorm and cell beds.

TABLE 1 - BED SPACE CAPACITY - PHYSICAL PLANT INVENTORY						
HOUSING UNIT REFERENCE	CUSTODY LEVEL					NOTES
	A - Minimum Dorm Beds	B - Medium Dorm Beds	C - Total Dorm Beds	D - Number of Cells	E - Total Dorm Beds + Cells	
HU1 - Female Intake	0	0	0	56	56	
HU2 - Female General	0	0	0	56	56	
HU3 - Mental Health	0	0	0	56	56	
HU4A - Special Housing	0	0	0	14	14	Part of HU4
HU4B - Special Housing	0	0	0	14	14	Part of HU4
HU4C - Special Housing	0	0	0	14	14	Part of HU4
HU4D - Special Housing	0	0	0	14	14	Part of HU4
HU5 - Sprung Building	0	0	0	0	0	Abandoned
HU6 - SHU & PC	0	0	0	56	56	
HU7 - Male Intake	0	0	0	56	56	
HU8 - High Risk GP	0	0	0	56	56	
HU9 - High Risk GP	0	0	0	56	56	
HU10 - Programs	0	0	0	0	0	No Housing
HU11 - Dorm	0	68	68	0	68	Medium GP
HU12 - Dorm	0	68	68	0	68	Medium GP
HU13 - Dorm	0	68	68	0	68	Medium GP
HU14 - Dorm	0	68	68	0	68	Medium GP
HU15 - High Risk GP	0	0	0	36	36	
HU16 - High Risk GP	0	0	0	72	72	
HU17 - SHU	0	0	0	36	36	
TOTAL HOUSING	0	272	272	592	864	
MEDICAL - Infirmary	0	0	0	15	15	
INK	0	0	0	19	19	
STM	0	0	0	2	2	
ADDITIONAL HOUSING	0	0	0	36	36	
TOTAL ALL HOUSING	0	272	272	628	900	

Bed Count Description - Cells and Dorms
 A - Minimum Dorm Beds
 B - Medium Dorm Beds
 C - Total Dorm Beds A + B
 D - Number of Cells
 E - Total Dorm beds + Number of Cells - C + D

Table 1 represents the total available bed space based on the number of dorm beds plus the number of cells as if occupied by a single inmate.

TABLE 2 - BED CLASSIFICATION HOUSING REPORT - 5/31/17					
HOUSING UNIT REFERENCE	A - TOTAL OCCUPIED BEDS	B - AVAILABLE CAPACITY	C - CURRENT PERCENTAGE OF CAPACITY	D - BED SPACE FACTOR	NOTES
HU2 - Female General	89	112	0.79	1.26	
HU3 - Mental Health	52	56	0.93	1.08	
HU4A - Special Housing	14	14	1.00	1.00	Part of HU4
HU4B - Special Housing	13	14	0.93	1.08	Part of HU4
HU4C - Special Housing	13	14	0.93	1.08	Part of HU4
HU4D - Special Housing	11	14	0.79	1.27	Part of HU4
HU5 - Sprung Building	0	0	0.00	0.00	Abandoned
HU6 - SHU & PC	83	112	0.74	1.35	
HU7 - Male Intake	69	112	0.62	1.62	
HU8 - High Risk GP	100	112	0.89	1.12	
HU9 - High Risk GP	105	112	0.94	1.07	
HU10 - Programs	0	0	0.00	0.00	No Housing
HU11 - Dorm	56	72	0.78	1.29	
HU12 - Dorm	67	72	0.93	1.07	
HU13 - Dorm	67	72	0.93	1.07	
HU14 - Dorm	70	72	0.97	1.03	
HU15 - High Risk GP	37	72	0.51	1.95	
HU16 - High Risk GP	125	144	0.87	1.15	
HU17 - SHU	20	48	0.42	2.40	
TOTAL HOUSING	1,077	1,336	0.82	1.29	
MEDICAL - Infirmary	15	19	0.79	1.27	
INK	19	20	0.95	1.05	
STM	2	2	1	1	
ADDITIONAL HOUSING	36	41	0.91	1.11	
TOTAL ALL HOUSING	1,113	1,377			

Bed Count Description - Cells and Dorms
 A - Total Occupied Beds
 B - Available Capacity
 C - Current Percentage of Capacity = A / B
 D - Bed Space Factor = B / A

Table 2 spreadsheet provides data as to the number and types of beds that were occupied on a per pod basis on the specific date of May 31, 2017.

About Housing Pods in the Detention Center

The detention facility is divided into 20 pods of varying sizes and inmate classifications. Prior to review of Table 3. The below information is provided as a brief summary of the current use and housing classification for each pod. This information helps to establish the percentage of the overall housing for which each future population is suggested.

The number of inmates during the time of the planning team's tour was 1,080 to 1,100 inmates

- HU-1 – This pod houses female inmates with longer stays
- HU-2 – This pod is used to house female intake inmates with approximate 30 day stays
- HU-3 – This pod houses 75% male – 25% female inmates with approximately 45 day stays
- HU-4A – This pod houses single cell occupancy male inmates
- HU-4B – This pod houses single cell occupancy male inmates
- HU-4C – This pod houses single cell occupancy male inmates
- HU-4D – This pod houses single cell occupancy female inmates
- HU-5 – Not used – This building will be demolished
- HU-6 – This pod houses both general population and Ad-Seg male inmates
- HU-7 – This pod houses inmates from intake of various mix of classifications
- HU-8 – This pod houses general population inmates
- HU-9 – This pod houses both medium and maximum custody inmates
- HU-10 – This building houses the programming and library functions
- HU-11 – This pod houses minimum custody male inmates with an approximate 10 to 180 day stay
- HU-12 – This pod houses medium custody inmates
- HU-13 - This pod houses medium custody inmates
- HU-14 - This pod houses medium custody inmates
- HU-15 – This pod houses maximum and protective custody male inmates
- HU-16 – This pod houses medium custody male inmates
- HU-17 – This pod houses super maximum custody inmates – The highest security custody level

Issues discussed by staff related to the detention center: During the planning team tour of the facility there were several reoccurring challenges that staff faced. The key items brought to the team's attention are the following:

There are several blind spots in various pods at various locations. As a low cost solution the use of an additional mirror or mirrors strategically placed can eliminate this item. A higher dollar value solution is the inclusion of additional CCTV cameras.

Blind spots at the exercise yards – The addition of some well-placed fixed type cameras will eliminate this item

The location of some added chain link fenced enclosure for inmate control in the higher security pods has created inmate movements that are awkward to staff. The chain link configuration will require some additional study to gain a better understanding of both the issues and the correct adjustment.

Visitation Space – The current facility use of non-contact visitation booths is obsolete. The current configuration requires additional staff to escort the inmates taking up valuable staff time especially for escorts of the higher custody inmates. It was also brought to the planning team's attention that there are not enough video visitation booths. A better use and repurposing of the space is to create both additional video visitation booths and additional private/attorney visitation rooms.

Problems with touch screens – There were several pods for which the control officer expressed issues with the functionality of the touch screen systems. Some appear to be a maintenance issue while others appear to have more serious issues. This should be addressed first by the facility maintenance personnel and then with the vendor that manages the facilities long term maintenance contract.

Criteria

The following information describes the criteria used for the evaluation of the required number of beds for expansion at the detention center:

Included in this report is the below listed criteria used in our process of analysis and evaluation for future WCSO growth. A primary criteria is that dorm beds will be occupied at one inmate per building official approved bed and cells are considered full at 1.5 bed factor. This allows the WCSO the flexibility to house the various inmate classification types not cable of being housed in dormitories. See Section 3. B. below.

Note: It is important to note that there are some pods at the WSCC facility that are a much lower custody level than others. For the WSCC facility it is possible for some pods to occupy cells at a higher than 1.5 factor (up to a factor of 2.0 - currently WSCC is occupying cells at a 1.43 cell bed factor), but for the maximum and administrative segregation pods, cells will be occupied with a much lower cell bed factor than the established 1.5 (Pod HU4A, B, C and D and HU17 are currently occupying cells at closer to 1.0 cell bed factor).

CRITERIA

- Cell housing is full at 1.50 inmates per cell
- Dormitory housing is full at 1 inmate per bed
- Sound correctional practices (e.g., line of sight and can the configuration for expansion occur in a manner that eliminates potential blind spots
- Physical Plant Inventory: Number of dorms (1 inmate per bed) + number of cells
- Establishment of the correct cell bed factor - Description of the Cell Bed Factor. A cell pod will be considered full for any bed above the established cell bed factor
- Identification of all cell beds above the established cell bed factor

Table 3 represents the current bed capacity for cells and establishes a normal operating capacity cell bed factor.

Establishment of Cell Bed Factor

TABLE 3 - CELL BED OCCUPANCY FACTOR ANALYSIS											
HOUSING UNIT REFERENCE	CUSTODY LEVEL						G - Total Occupied Cell Beds	H - Maximin Occupancy - Beds	I - Cell Occupancy Factor	J - Cell Bed Occupancy Percentage	NOTES
	A - Minimum Cells	B - Medium Cells	C - Maximum Cells	D - Super Max	E - MEFL	F - UNCL					
HU1 - Female Intake	23	29	16		18		86	112	1.30	77%	
HU2 - Female General	18	34	25		8	4	89	112	1.26	79%	
HU3 - Mental Health	13	15	16		7	1	52	110	2.12	47%	
HU4A - Special Housing				14			14	28	2.00	50%	Part of HU4
HU4B - Special Housing			10			3	13	28	2.15	46%	Part of HU4
HU4C - Special Housing			13				13	28	2.15	46%	Part of HU4
HU4D - Special Housing			11				11	28	2.55	39%	Part of HU4
HU5 - Sprung Building							0				Abandoned
HU6 - SHU & PC	11	18	41		13		83	112	1.35	74%	
HU7 - Male Intake	26	18	9		7	9	69	112	1.62	62%	
HU8 - High Risk GP			100				100	112	1.12	89%	
HU9 - High Risk GP	7	61	30		7		105	112	1.07	94%	
HU10 - Programs							0				No Housing
HU11 - Dorm							0				Dorm only
HU12 - Dorm							0				Dorm only
HU13 - Dorm							0				Dorm only
HU14 - Dorm							0				Dorm only
HU15 - High Risk GP	1	10	26				37	72	1.95	51%	
HU16 - High Risk GP	24	78	0		23		125	144	1.15	87%	
HU17 - SHU	2	4		12	2		20	72	4	28%	
TOTAL HOUSING	125	267	297	26	85	17	817	1,182	1.45	69%	
MEDICAL - Infirmary	4	3	2		4	2	15	19	1.27	79%	
INTAKE						19	19	19	1.00	100%	
STM		1	1				2	4	2.00	50%	
ADDITIONAL HOUSING		4	3		4	21	36	42	1.17	86%	
TOTAL ALL HOUSING		271	300	26	89	38	853	1,224	1.43	70%	

Bed Count Description – Cell Beds Only

- A – Minimum beds
- B – Medium beds
- C – Maximum beds
- D – Super Max beds
- E – Mental Health beds
- F – Unclassified beds
- G – Total occupied beds = A + B + C + D + E + F
- H – Maximum occupancy beds – Consider number of cells X 2 represents all cell beds as double bunked – However not all cells can be double bunked
- I – Cell occupancy factor = Cell bed/occupancy – Note – If a cell is double bunked it is considered to have a cell bed factor of 2
- J – Cell bed occupancy percentage = Actual occupants / Available bed space

Table 3 represents all cell beds being utilized that are appropriate for habitation. The cell bed factor as of May 31, 2017 is 1.43. If this bed occupancy factor could be increased to 1.5 per cell, the increase in cell bed capacity would be the following:

Potential cell bed occupancy = 631 cells X 1.5 factor = 947 available beds
 Increase in cell bed capacity = 947 - current 853 cell beds = 94 additional beds available

"For purposes of this report this facility should be considered full (Normal Operating Capacity) when the bed count reaches 1,220 beds."

Normal Operating Capacity

The following information attempts to identify and establish a normal operating capacity factor for bed occupancy. This number represents all beds being utilized that are appropriate for habitation. In accordance with Table 3 the current cell bed factor is 1.43. However as referenced above and for purposes of establishing a maximum normal operating capacity, this report recommends the use of a cell bed factor of 1.5. For this report Normal Operating Capacity is the combined number of dorms (1 dorm = 1 bed) plus the number of cells X the 1.5 cell factor.

This equals:

Number of Dorms = 272 beds

Number of Cells = 631 X 1.5 Cell Bed Factor = 947

Total Available Beds at Normal Operating Capacity = 272 + 947 = **1,219 beds say 1,220 beds**

For purposes of this report this facility should be considered full (Normal Operating Capacity) when the bed count reaches 1,220 beds.

About the 1.50 Cell Bed Factor – If all cells available in the WCSO inventory were to be double bunked the cell bed factor would be 2.0. However it is important to note that based on safe and sound correctional practice, not all cells are capable to be double bunked. Not all inmates are able to be housed in a double bunked environment. The WCSO has several operational ratings for inmates housed in cells:

- Minimum Custody inmates – both male and female
- Medium Custody inmates – both male and female
- Maximum Security inmates – both male and female
- Super Maximum – currently male only
- MEFL – both male and female
- UNCL – both male and female

Minimum Custody - Inmates who represent a minimum risk to the public and staff. These inmates have the ability to work outside the secure perimeter of an institution and require limited controlled movement within the institution.

Medium Custody – Inmates who represent a moderate risk to the public and staff. These inmates shall not work outside the secure perimeter of an institution and require limited controlled movement within the institution.

Maximum Security – Inmates who represent a high risk to the public and staff. These inmates shall not be assigned to work outside the secure perimeter of an institution. These inmates require controlled movement within the institution.

Super Maximum Custody – Inmates who represent the highest risk to the public and staff and require housing in a single cell environment. These inmates have limited opportunities outside of their cell environments and require frequent monitoring. These inmates require controlled movement at all times within the institution.

- MEFL Custody
- UNCL Custody

Before identifying THE PROBLEM, it is important to define how bed count information and projections are captured. A facilities capacity is functionally dependent on the size of the building and the number of beds than can be accommodated in each cell or dormitory. Furthermore, capacity is regulated by laws and correctional standards that aim at operational efficiency or optimal wellbeing for prisoners. Prison population forecasts are intended for strategic planning and this requires the distribution of the projected population across correctional systems. Custody distributions as well as gender must also be factored in the forecasts. For purposes of capacity planning, four measurements of density are utilized as overall guiding principles. Not every unit is populated in this manner; instead, the standards, serve as guidelines.

When the actual population exceeds the planned capacity of correctional facilities, shortages are offset by opening beds above normal operating capacity. These beds are temporary and not intended for permanent use as they impose additional demands on the staff and the facility. Density is the relative size of bed capacity to population by custody level with considerable variation in custody from quarter to quarter.

- Normal operating capacity – Includes dorms + cells W 1.5 factor
- Above normal operating capacity – (Bad beds)
- Total Open Beds
- Actual Population

Analysis

This section includes the following information the planning team used in the analysis for future expansion requirements based on the growth of Washoe County:

- Number of bookings per year
- Average length of stay (ALOS)
- Review of the WCSO occupancies and classifications – This report used various documents provided by the WCSO team in this analysis – See multiple spreadsheets below
- Review of projection as a function of increased Washoe County population
- Capacity VS Projections - Comparison of available bed space VS estimated projections
- Developed calculations for required additional capacity to keep up with the projections thorough 2037
- Benchmarking Washoe County
- Utilization Efficiency Analysis
- Additional analysis factors for the expansion for added bed space capacity as follows:
 - Benchmarking - Does the increase in bed capacity also require additional support space such as food service, medical, warehouse, laundry and programming?
 - Is the required additional support space achievable based on existing building footprint locations
 - Does the placement of new structures within operating facilities keep within sound correctional practices for security such as line of sight for staff and inmate safety
 - Review of spaces that are underutilized
 - Review the inmate population projected for 2011 and 2016 as included in the 2008 Space Utilization Report against actual updated inmate population counts

Jail Population Levels

This section reviews the trends in variables related to jail population levels for the WCSO facility. Jail population levels are a function of the following two basic variables:

- The number of jail admissions - bookings
- The length of stay for those admissions

Historical Data

Annual bookings for WCSO for the years 1992 through 2006 have ranged from a low of 19,125 in 1992 to 24,836 for 2006 as reported in the 2008 Space Utilization Study. Included in this report are the following additional annual booking calculations followed by the spreadsheets that identify not only the booking levels by year but include spreadsheets that identify the booking classifications by month per year.

Number of bookings 2008 through 2016:

- 2008 – 27,152
- 2009 – 25,817
- 2010 – 23,908
- 2011 – 22,469
- 2012 – 21,067
- 2013 – 20,402
- 2014 – 21,030
- 2015 – 20,629
- 2016 – 20,201

Total bookings 2008 through 2016 = **202,675**

The high number of bookings occurred in the year 2008 and reached **27,152**

The low number of bookings occurred in the year 2013 and dropped to **20,201**

Average bookings 2008 through 2016 = 202,675 / 9 years = **22,520**

The following tables are a summary of the number of bookings from the year 2008 through 2016

Bookings by Classification Level 2008								
Month/Year	INMATE CLASSIFICATIONS							Total Bookings
	MAX	MED	MEFL	MIN	NRSK	RISK	UNCL	
1/2008	169	319	125	491	0	0	1214	2318
2/2008	144	252	95	414	0	0	1151	2056
3/2008	170	302	112	466	0	0	1232	2282
4/2008	194	340	108	545	0	0	1114	2301
5/2008	155	341	114	489	0	0	1160	2259
6/2008	153	317	143	480	0	0	1165	2258
7/2008	181	324	135	521	0	0	1441	2602
8/2008	201	315	162	585	0	0	1243	2506
9/2008	168	292	134	466	0	0	1157	2217
10/2008	196	292	120	534	0	0	1080	2222
11/2008	149	251	113	456	0	0	1111	2080
12/2008	168	287	142	461	0	0	993	2051
Total 2008	2048	3632	1503	5908	0	0	14061	27152

Bookings by Classification Level 2009								
Month/Year	INMATE CLASSIFICATIONS							Total Bookings
	MAX	MED	MEFL	MIN	NRSK	RISK	UNCL	
1/2009	157	335	144	545	0	0	1285	2466
2/2009	154	248	113	398	1	0	1046	1960
3/2009	167	310	113	534	1	0	1110	2235
4/2009	137	317	94	537	0	0	1060	2145
5/2009	158	340	119	529	0	1	1078	2225
6/2009	164	344	120	477	1	0	1071	2177
7/2009	174	299	111	529	1	0	1024	2138
8/2009	209	310	136	592	4	0	1286	2537
9/2009	187	310	127	476	3	1	1053	2157
10/2009	134	304	126	457	0	0	984	2005
11/2009	129	285	113	492	3	0	902	1924
12/2009	140	281	115	487	2	0	823	1848
Total 2009	1910	3683	1431	6053	16	2	12722	25817

Bookings by Classification Level 2010								
Month/Year	INMATE CLASSIFICATIONS							Total Bookings
	MAX	MED	MEFL	MIN	NRSK	RISK	UNCL	
1/2010	141	363	92	565	0	0	985	2146
2/2010	115	243	108	481	1	0	849	1797
3/2010	168	320	129	499	0	0	954	2070
4/2010	175	315	120	565	0	0	921	2096
5/2010	138	263	109	506	1	0	904	1921
6/2010	165	272	127	521	0	0	894	1979
7/2010	175	308	142	515	0	0	1007	2147
8/2010	173	314	142	560	0	0	1017	2206
9/2010	149	282	108	514	0	0	995	2048
10/2010	173	259	103	458	0	0	871	1864
11/2010	121	266	121	458	1	0	826	1793
12/2010	150	266	112	437	1	0	875	1841
Total 2010	1843	3471	1413	6079	4	0	11098	23908

Bookings by Classification Level 2012								
Month/Year	INMATE CLASSIFICATIONS							Total Bookings
	MAX	MED	MEFL	MIN	NRSK	RISK	UNCL	
1/2012	176	305	130	393	0	0	836	1840
2/2012	144	258	106	394	1	0	770	1673
3/2012	166	324	107	391	0	0	797	1785
4/2012	174	290	103	368	0	0	802	1737
5/2012	178	277	108	459	0	0	822	1844
6/2012	140	270	107	376	0	0	705	1598
7/2012	170	265	104	405	1	0	796	1741
8/2012	180	324	134	406	0	0	975	2019
9/2012	168	253	142	367	0	0	974	1904
10/2012	161	263	134	359	0	0	840	1757
11/2012	165	256	101	346	0	0	716	1584
12/2012	131	257	76	303	0	0	818	1585
Total 2012	1953	3342	1352	4567	2	0	9851	21067

Bookings by Classification Level 2011								
Month/Year	INMATE CLASSIFICATIONS							Total Bookings
	MAX	MED	MEFL	MIN	NRSK	RISK	UNCL	
1/2011	137	279	122	517	0	0	984	2039
2/2011	119	241	83	431	0	0	893	1767
3/2011	167	295	125	448	0	0	882	1917
4/2011	144	284	108	435	0	0	930	1901
5/2011	158	275	111	448	0	0	919	1911
6/2011	159	276	105	443	0	0	843	1826
7/2011	161	268	109	357	1	0	1007	1903
8/2011	156	275	135	409	1	0	1073	2049
9/2011	165	286	137	415	3	0	902	1908
10/2011	182	291	125	438	0	0	844	1880
11/2011	172	244	111	379	1	1	705	1613
12/2011	148	268	94	405	1	0	839	1755
Total 2011	1868	3282	1365	5125	7	1	10821	22469

Bookings by Classification Level 2013								
Month/Year	INMATE CLASSIFICATIONS							Total Bookings
	MAX	MED	MEFL	MIN	NRSK	RISK	UNCL	
1/2013	156	259	107	355	1	0	850	1728
2/2013	167	241	102	349	0	0	765	1624
3/2013	174	263	92	371	0	0	836	1736
4/2013	151	247	112	377	0	0	755	1642
5/2013	168	295	133	429	0	0	730	1755
6/2013	167	233	120	430	0	0	760	1710
7/2013	155	294	116	403	0	0	823	1791
8/2013	176	275	119	401	0	0	810	1781
9/2013	160	253	110	365	0	0	818	1706
10/2013	160	275	101	435	1	0	781	1753
11/2013	171	247	93	371	0	0	768	1650
12/2013	172	232	93	329	0	0	700	1526
Total 2013	1977	3114	1298	4615	2	0	9396	20402

Bookings by Classification Level 2014								
Month/Year	INMATE CLASSIFICATIONS							Total Bookings
	MAX	MED	MEFL	MIN	NRSK	RISK	UNCL	
1/2014	201	280	116	455	1	0	773	1826
2/2014	141	304	118	398	1	0	734	1696
3/2014	187	289	116	416	0	1	794	1803
4/2014	147	294	107	362	0	1	859	1770
5/2014	190	263	123	469	0	0	783	1828
6/2014	180	231	121	467	0	0	724	1723
7/2014	172	274	128	486	0	0	763	1823
8/2014	197	272	141	450	0	0	865	1925
9/2014	177	256	126	444	1	1	751	1756
10/2014	192	256	116	441	0	0	677	1682
11/2014	165	233	108	390	0	0	700	1596
12/2014	171	254	114	402	1	0	660	1602
Total 2014	2120	3206	1434	5180	4	3	9083	21030

Bookings by Classification Level 2016								
Month/Year	INMATE CLASSIFICATIONS							Total Bookings
	MAX	MED	MEFL	MIN	NRSK	RISK	UNCL	
1/2016	164	252	148	438	0	2	634	1638
2/2016	166	225	112	415	0	0	634	1552
3/2016	184	276	126	433	0	1	751	1771
4/2016	189	253	144	434	0	0	650	1670
5/2016	182	278	139	431	0	2	715	1747
6/2016	177	282	132	458	0	0	699	1748
7/2016	172	271	110	433	1	1	786	1774
8/2016	220	265	150	455	0	0	816	1906
9/2016	163	263	115	421	1	1	684	1648
10/2016	160	255	123	353	0	0	709	1600
11/2016	143	244	125	354	0	2	684	1552
12/2016	161	270	104	410	0	1	649	1595
Total 2016	2081	3134	1528	5035	2	10	8411	20201

Bookings by Classification Level 2015								
Month/Year	INMATE CLASSIFICATIONS							Total Bookings
	MAX	MED	MEFL	MIN	NRSK	RISK	UNCL	
1/2015	168	237	125	465	1	0	773	1769
2/2015	155	251	124	345	1	0	695	1571
3/2015	166	281	142	438	0	1	783	1811
4/2015	167	256	135	471	0	1	710	1740
5/2015	192	229	148	456	0	0	773	1798
6/2015	175	235	138	428	0	2	699	1677
7/2015	189	257	154	461	0	2	757	1820
8/2015	187	262	142	425	0	2	786	1804
9/2015	177	252	130	462	0	0	713	1734
10/2015	179	259	145	474	0	0	693	1750
11/2015	154	222	107	450	0	0	622	1555
12/2015	140	265	132	410	0	1	652	1600
Total 2015	2049	3006	1622	5285	2	9	8656	20629

Total 2008-2016	17849	29870	12946	47847	39	25	94099	202675
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Percentage by Classifications	8.81%	14.74%	6.39%	23.61%	0.02%	0.01%	46.43%	100.00%
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Low Booking Level Year = 20,201 in 2016

High Booking Level Year = 27,152 in 2008

Difference in Booking Level = High - Low = 6,951

Average Bookings - 2008 through 2016 = 22,520

Average Length Of Stay – (ALOS)

Jail population levels are a function of two basic variables as discussed in other sections of this report. The two variables are:

- The number of admissions
- The average length of time for which the admissions stay in the facility

The previous section addressed the number of bookings at the WCSO facility. This section analyses the impact ALOS has on the inmate population levels.

The following table indicates the varying trends for the ALOS beginning in July 2010 and continuing through December 2016

AVERAGE LENGTH OF STAY - DAYS												
YEAR	MONTH											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2008												
2009												
2010							16.4	16.41	16.85	18.33	18.73	18.07
2011	16.26	16.78	17.09	19.01	17	17.33	17.35	16.57	17.78	17.58	19.2	18.86
2012	17.63	18.77	18.98	19.01	17.7	20.3	15.33	11.97	14.37	14.79	12.58	15.3
2013	14.2	13.62	14.57	13.85	13.74	14.09	14.29	14.5	14.36	14.62	14.86	15.13
2014	14.23	13.28	14.24	13.88	13.94	13.85	13.91	13.39	13.99	14.58	14.53	14.65
2015	14.12	13.14	14.02	14.33	14.09	13.67	14.36	13.62	14.43	14.71	15.41	14.88
2016	15.27	14.12	14.35	14.77	14.72	14.4	15.38	15.22	15.03	15.27	14.55	14.12

Low ALOS Month - November 2012 - 12.58 days

High ALOS Month - June 2012 - 20.3 days

Average Length of Stay - From July 2010 to December 2016 = 15.4 days

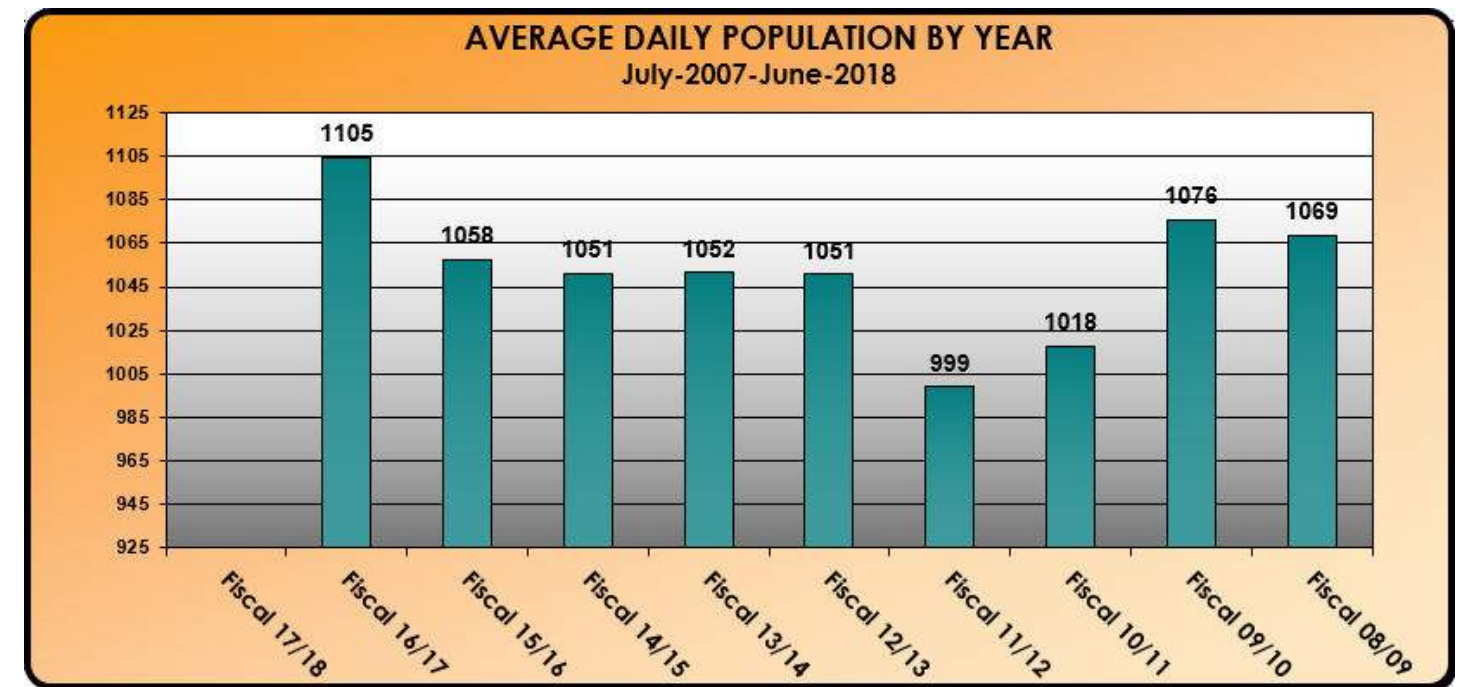
When comparing the ALOS from the 2008 report, by the year 2011 it was expected the ALOS would increase to 18.1 days. As evidenced by the above chart, the actual high level ALOS up to the year 2011 actually increased to 19.2 days, a difference of 1.1 days.

When comparing the ALOS from the 2008 report, by the year 2016 it was expected the ALOS would increase to 19.4 days. However, as evidenced by the above chart, the actual high level ALOS up to the year 2016 actually decreased to as low as 14.12 days, a difference of 4.1 days.

When comparing the ALOS from the 2008 report, by the year 2021 it was expected the ALOS would increase to 20.6 days. However, based on the past 5 year analysis, the trend for ALOS is indicating a decrease in inmate length of stay. It should be noted that the high ALOS occurred in June 2012 at an ALOS of 20.3 days.

Average daily population has grown from 629 inmates in 1990 to the high of 1,105 expected in 2017.

ANALYSIS OF 2008 REPORT - PROJECTIONS - Growth Projections Compared to Actual Available Bed Capacity - Before we begin the analysis of the population growth projections as a function of the increase in bookings for this facility, it is important to review the inmate population trends against the projected inmate population levels as defined in the 2008 Space Utilization Study. In accordance with the baseline projections as stated in the 2008 report, it was expected the inmate population would increase to 1,300 inmates by the year 2011 and increase to 1,450 inmates the year 2016. However the highest average population level reached for the two most recent years - 2016 and 2017, is 1,105 in 2017. See the chart below.



Review of the 2008 Report

When reviewing population projections included in the 2008 report for the year 2011, it was expected the inmate population would grow to 1,300 inmates. However as evidenced by the above chart, the actual high level average daily inmate population up to the year 2011 did not exceed 1,076 inmates which occurred in the year 2010. This is a difference of 224 inmates and as such any of the additional information related to the recommendations in the 2008 report, need to be adjusted per this report.

When reviewing population projections included in the 2008 report for the year 2016, it was expected the inmate population would grow to 1,450 inmates. However as evidenced by the above chart, the actual high level average daily inmate population up to the year 2016 did not exceed 1,076 inmates, which also occurred in the year 2010. This is an even larger difference of 374 inmates, which is 30% of the stated normal operating capacity number of 1,220 inmates defined in other sections of this report.

Average Daily Population (month)												
Year	Month											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2008	1101	1034	987	1004	1006	1011	1033	1108	1111	1084	1052	1044
2009	1112	1089	1067	1044	1051	1065	1034	1109	1133	1081	1093	1038
2010	1116	1074	1065	1091	1017	1051	1062	1093	1073	1034	1054	1000
2011	996	984	979	996	975	986	994	1015	1050	995	966	934
2012	964	993	1026	1026	1051	1080	1147	1137	1127	1119	1117	1065
2013	1049	1060	1067	1029	1057	1092	1093	1119	1084	1096	1120	1084
2014	1100	1091	1107	1112	1074	1100	1085	1075	1128	1146	1130	1102
2015	1085	1058	1078	1064	1021	1100	1014	1016	1048	1072	1099	1047
2016	1062	1004	986	1042	1065	1115	1130	1166	1185	1113	1119	1039

Low Average Daily Population - December 2011 - 934 Beds

High Daily Population Population - September 2016 - 1185

Average Daily Population - 2008 thru 2016 - 1,064 Beds

Variance - High - Low = 1,185 - 934 = 251 beds

Percentage of High Bed Count VS Available Physical Capacity = 1,185/1,355 (If all cells are double bunked - See Note Below) = 87%

Note: It is important to note that based on safe and sound correctional practice, not all cells are capable of double bunking.

Table Summary

Low Average Daily Population – December 2011 – 934 beds

High Daily Population – September 2016 – 1185 beds

Average Daily Population – 2008 thru 2016 – 1,064 beds

Variance – High – Low = 1,185 – 934 = 251 beds

Percentage of High Bed Count VS Available Physical Plant Capacity = 1,185 / 1,220 = 97% with 1.50 cell bed factor – See Note below

Note: Based on sound correctional practice – not all cells are capable of being double bunked

The previous two tables represent the average daily population (ADP) based on a per month basis. The highest ADP achieved from 2008 through 2016 was 1,185 inmates during the month of September 2016.

However the three months following the highest ADP saw the population lower to 1,113 in October 2016, 1,119 in November 2016, then down to 1,039 during the month of December 2016.

Initial discussion – When comparing the current bookings and ALOS against the baseline projections in the 2008 report, the actual bed counts have never approached the anticipated levels projected in the report. For each of the five projection methods used in the 2008 report, the actual facility stated numbers through the year 2016 have not

HIGH & LOW COUNT BY MONTH					
YEAR	HIGH	MONTH	LOW	MONTH	VARIANCE H-L
2008	1,111	September	987	March	124
2009	1,133	September	1,034	July	99
2010	1,116	January	1,034	October	82
2011	1,050	September	934	December	116
2012	1,147	July	964	January	183
2013	1,120	Novemebr	1,029	April	91
2014	1,146	October	1,074	May	72
2015	1,100	June	1,014	July	86
2016	1,185	September	986	March	171
AVERAGES	1123		1006		114

Low Average Daily Population - December 2011 - 934 Beds

High Daily Population Population - September 2016 - 1185

Variance - High - Low by Month = 114 Beds

WCSO should plan to increase the current bed capacity by 216 beds by the year 2025 and by an additional 216 beds by the year 2035

approached the projected numbers up to the year 2016 as stated in the 2008 report. Had the current population reached the projected numbers in the 2008 report, there would currently be a need for expansion to increase bed capacity. The population bed counts have remained largely flat over the past 9 years, with some up and down spikes.

Analysis of 2008 Report - Baseline ADP Projections - Baseline projections provide an indication of the magnitude of growth that can be expected if the correctional system conditions, policies and practices from past years continue into the future. These projections serve as a starting point for policy and program discussion and decisions for which the impact can either increase or decrease the need for additional detention beds.

For purposes of this report, we are using the following formula to be used in the calculations of the four (4) following projection scenarios:

$$ADP = (\text{projected population estimated 2016}) \times (\text{booking rate}) \times (\text{average length of stay}) / 365 \text{ days per year}$$

$$ADP \text{ 2016} = (\text{population 485,289}) \times (\text{booking rate} - \text{use 5\%}) \times (\text{ALOS} - \text{Use 15.4 for the past 9 years} - \text{say 16}) = 298,901 / 365 = 1,063 \text{ beds. This number is very close to the most recent ADP reports.}$$

$$\text{Using 1,220 (normal operating capacity)} - 1,063 = \mathbf{157 \text{ beds capacity}}$$

Analysis 2008 Report - The following information is based on the five scenarios for increased population projections and our analysis of those projections based on actual information through 2016:

- The historical highs scenario – Projected the ADP as 1,700 by year 2021. ADP has not reached 1,300 by 2011 and as such we would not expect the ADP to rise to 1,700 by year 2021
- Model booking and ALOS trends – Projected ALOS as 19.4 days by 2016. ALOS has not reached 19.4 days to 2016 and as such we would not expect the ALOS to reach 21.6 days or ADP reach 1,360 by 2021
- Capped model trends – The booking rates have declined over the past 9 years and the ADP has also remained stable for the past 9 years from a high of 1,105 in 2017 to a low of 999 in 2012. As such, the ADP has not reached the projected 1,300 beds by 2011. However, the ADP could approach 1,340 by 2025. Further analysis of this potential is required and included in this report.
- Historical average booking rate – Based on current levels the ADP of 1,330 by 2021, it

What this information reveals is based on current booking levels and ALOS, there is no immediate need to expand the existing bed capacity for the Washoe County detention area beyond current bed count capacity. However, it is important to provide further analysis based on population growth and trends. In the following sections, this report analyses additional factors related to population growth that could have an impact on current bed capacity.

Future Population Analysis

The following population projections uses the four (4) processes to establish the population of Washoe County into 2030. For the remainder of the population forecast this report extrapolated the growth percentages from 2015 through 2030 to arrive at population projections through the year 2037:

- Method A – Washoe County Consensus Forecast
- Method B – Washoe County Global Insight and Wood and Poole
- Method C – Truckee Meadows Water Authority
- Method D – The 2008 Demographers Population Projections for Washoe County

Below each of the population process table is a calculation that establishes the projected Average Daily Population of the facility.

Method A – Washoe County Consensus Forecast

WASHOE COUNTY POPULATION FORECAST 2015 - 2037 - METHOD A									
Year	Method A	Change from Previous	Percent Change	Increase W Tesla	Percent Change Tesla	Combined Change	Combined Percent Change	Updated Population	NOTES
2015	472,718			6,165					
2016	480,610	7,892	1.67%	6,941	1.47%	14,833	3.14%	495,443	
2017	488,592	7,982	1.66%	8,122	1.69%	16,104	3.35%	504,696	
2018	496,440	7,848	1.61%	8,757	1.79%	16,605	3.40%	513,045	
2019	504,353	7,913	1.59%	8,432	1.70%	16,345	3.29%	520,698	
2020	512,137	7,784	1.54%	8,308	1.65%	16,092	3.19%	528,229	
2021	519,974	7,837	1.53%	8,113	1.58%	15,950	3.11%	535,924	
2022	527,680	7,706	1.48%	8,014	1.54%	15,720	3.02%	543,400	
2023	535,538	7,858	1.49%	7,893	1.50%	15,751	2.98%	551,289	
2024	543,242	7,704	1.44%	7,757	1.45%	15,461	2.89%	558,703	
2025	551,012	7,770	1.43%	7,644	1.41%	15,414	2.84%	566,426	
2026	558,624	7,612	1.38%	7,542	1.37%	15,154	2.75%	573,778	
2027	566,359	7,735	1.38%	7,418	1.33%	15,153	2.71%	581,512	
2028	574,048	7,689	1.36%	7,305	1.29%	14,994	2.65%	589,042	
2029	582,266	8,218	1.43%	6,990	1.22%	15,208	2.65%	597,474	
2030	590,490	8,224	1.41%	6,862	1.18%	15,086	2.59%	605,576	
Population Numbers Extrapolated from previous data									
2031	599,347	8,857	1.48%	6749	1.13%	15,606	2.60%	614,954	
2032	608,338	8,990	1.48%	6628	1.09%	15,618	2.57%	623,956	
2033	617,463	9,125	1.48%	6527	1.06%	15,652	2.53%	633,115	
2034	626,725	9,262	1.48%	6527	1.04%	15,789	2.52%	642,514	
2035	636,125	9,401	1.48%	6527	1.03%	15,928	2.50%	652,053	
2036	645,667	9,542	1.48%	6527	1.01%	16,069	2.49%	661,736	
2037	655,352	9,685	1.48%	6527	1.00%	16,212	2.47%	671,564	

Below is the listed source for the Method A process of population forecast:
 Method A - Washoe County Consensus Forecast - 2010 to 2030

Method A - Beginning in 2031 - The highlighted area above includes population data extrapolated into the Method A population forecast

This methods estimates the population to be 671,564 by the year 2037

ADP Analysis - Method A - The ADP by 5 year increments as follows:

ADP 2020 = (population 528,229) X (booking rate – 5%) X ALOS – Use 16) = 422,583 / 365 = 1,158 beds – Say 1,175 = 1,220 (normal operating capacity) – 1,175 = **45 beds capacity**

ADP 2025 = (population 566,426) X (booking rate – 5%) X ALOS – Use 16) = 453,140 / 365 = 1,241 beds = Say 1,250 = 1,220 (normal operating capacity) – 1,250 = **30 bed shortage**

ADP 2037 = (population 671,564) X (booking rate – 5%) X (ALOS – Use 16) = 537,251 / 365 = 1,471 beds = Say 1,475 = 1,220 (Normal Operating Capacity) – 1,475 = **255 bed shortage**

Summary Analysis Method A - For planning purposes this report recommends the WCSO expand their current bed population by 144 cells X 1.5 = 216 beds by the year 2021 and an additional 144 cells X 1.5 = 216 beds by the year 2031 – Total population = 1,220 + 216 + 216 = **1,652 total beds**

Method B – Washoe County Global Insight and Wood and Poole

WASHOE COUNTY POPULATION FORECAST 2015 - 2037 - METHOD B									
Year	Method B	Change from Previous	Percent Change	Increase W Tesla	Percent Change Tesla	Combined Change	Combined Percent Change	Updated Population	NOTES
2015	462,182			6,165					
2016	470,235	8,053	1.74%	6,941	1.50%	14,994	3.24%	485,229	
2017	478,724	8,489	1.81%	8,122	1.73%	16,611	3.53%	495,335	
2018	487,225	8,501	1.78%	8,757	1.83%	17,258	3.60%	504,483	
2019	496,153	8,928	1.83%	8,432	1.73%	17,360	3.56%	513,513	
2020	505,104	8,951	1.80%	8,308	1.67%	17,259	3.48%	522,363	
2021	514,407	9,303	1.84%	8,113	1.61%	17,416	3.45%	531,823	
2022	523,631	9,224	1.79%	8,014	1.56%	17,238	3.35%	540,869	
2023	533,370	9,739	1.86%	7,893	1.51%	17,632	3.37%	551,002	
2024	542,984	9,614	1.80%	7,757	1.45%	17,371	3.26%	560,355	
2025	552,913	9,929	1.83%	7,644	1.41%	17,573	3.24%	570,486	
2026	562,706	9,793	1.77%	7,542	1.36%	17,335	3.14%	580,041	
2027	572,911	10,205	1.81%	7,418	1.32%	17,623	3.13%	590,534	
2028	583,186	10,275	1.79%	7,305	1.28%	17,580	3.07%	600,766	
2029	593,504	10,318	1.77%	6,990	1.20%	17,308	2.97%	610,812	
2030	603,918	10,414	1.75%	6,862	1.16%	17,276	2.91%	621,194	
Population numbers extrapolated from previous data									
2031	614,487	10,569	1.72%	6749	1.10%	17,318	2.82%	631,804	
2032	625,240	10,754	1.72%	6628	1.06%	17,382	2.78%	642,622	
2033	636,182	10,942	1.72%	6527	1.03%	17,469	2.75%	653,650	
2034	647,315	11,133	1.72%	6527	1.01%	17,660	2.73%	664,975	
2035	658,643	11,328	1.72%	6527	0.99%	17,855	2.71%	676,498	
2036	670,169	11,526	1.72%	6527	0.97%	18,053	2.69%	688,222	
2037	681,897	11,728	1.72%	6527	0.96%	18,255	2.68%	700,152	

Below is the listed source for the Method B process of population forecast:
 Method B - Washoe County Global Insight and Woods and Poole

Method B - Beginning in 2031 - The highlighted area above includes population data extrapolated into the Method B population forecast

This method estimates the population to be 700,152 by the year 2037

ADP Analysis - Method B - The ADP by 5 year increments as follows:

ADP 2020 = (population 522,363) X (booking rate – 5%) X ALOS – Use 16) = 417,890 / 365 = 1,144 beds – Say 1,150 = 1,220 (normal operating capacity) – 1,150 = 70 beds capacity

ADP 2025 = (population 570,486) X (booking rate – 5%) X ALOS – Use 16) = 456,389 / 365 = 1,250 beds = Say 1,250 = 1,220 (normal operating capacity) – 1,250 = 30 bed shortage

ADP 2037 = (population 700,152) X (booking rate – 5%) X (ALOS – Use 16) = 560,122 / 365 = 1,535 beds = Say 1,550 = 1,220 (Normal Operating Capacity) – 1,475 = 255 bed shortage

Summary Analysis Method B - For planning purposes this report recommends the WCSO expand their current bed population by 144 cells X 1.5 = 216 beds by the year 2021 and an additional 144 cells X 1.5 = 216 beds by the year 2031 - Total population = 1,220 + 216 + 216 = **1,652 total beds**

Method C – Truckee Meadows Water Authority

WASHOE COUNTY POPULATION FORECAST 2015 - 2037 - METHOD C									
Year	Method C	Change from Previous	Percent Change	Increase W Tesla	Percent Change Tesla	Combined Change	Combined Percent Change	Updated Population	NOTES
2015	478,572			6,165					
2016	485,851	7,279	1.52%	6,941	1.45%	14,220	2.97%	500,071	
2017	492,977	7,126	1.47%	8,122	1.67%	15,248	3.14%	508,225	
2018	499,946	6,969	1.41%	8,757	1.78%	15,726	3.19%	515,672	
2019	506,754	6,808	1.36%	8,432	1.69%	15,240	3.05%	521,994	
2020	513,398	6,644	1.31%	8,308	1.64%	14,952	2.95%	528,350	
2021	519,876	6,478	1.26%	8,113	1.58%	14,591	2.84%	534,467	
2022	526,185	6,309	1.21%	8,014	1.54%	14,323	2.76%	540,508	
2023	532,324	6,139	1.17%	7,893	1.50%	14,032	2.67%	546,356	
2024	538,291	5,967	1.12%	7,757	1.46%	13,724	2.58%	552,015	
2025	544,088	5,797	1.08%	7,644	1.42%	13,441	2.50%	557,529	
2026	549,713	5,625	1.03%	7,542	1.39%	13,167	2.42%	562,880	
2027	555,166	5,453	0.99%	7,418	1.35%	12,871	2.34%	568,037	
2028	560,450	5,284	0.95%	7,305	1.32%	12,589	2.27%	573,039	
2029	565,564	5,114	0.91%	6,990	1.25%	12,104	2.16%	577,668	
2030	570,511	4,947	0.87%	6,862	1.21%	11,809	2.09%	582,320	
Population numbers extrapolated from previous data									
2031	577,357	6,846	1.19%	6749	1.17%	13,595	2.35%	590,952	
2032	584,285	6,928	1.19%	6628	1.13%	13,556	2.32%	597,842	
2033	591,297	7,011	1.19%	6527	1.10%	13,538	2.29%	604,835	
2034	598,392	7,096	1.19%	6527	1.09%	13,623	2.28%	612,015	
2035	605,573	7,181	1.19%	6527	1.08%	13,708	2.26%	619,281	
2036	612,840	7,267	1.19%	6527	1.07%	13,794	2.25%	626,634	
2037	620,194	7,354	1.19%	6527	1.05%	13,881	2.24%	634,075	

Below are the listed methods/information for each of the population breakdowns:
 Method C - Truckee Meadows Water authority

Method C beginning in 2031 - The highlighted area above includes population data extrapolated into the Method C population forecast

This method estimates the population to be 634,075 by the year 2037

ADP Analysis - Method C - The ADP by 5 year increments as follows:

ADP 2020 = (population 528,350) X (booking rate – 5%) X ALOS – Use 16) = 422,680 / 365 = 1,158 beds – Say 1,175 = 1,220 (normal operating capacity) – 1,175 = 45 beds capacity

ADP 2025 = (population 557,529) X (booking rate – 5%) X ALOS – Use 16) = 446,023 / 365 = 1,222 beds = Say 1,250 = 1,220 (normal operating capacity) – 1,250 = 30 bed shortage

ADP 2037 = (population 634,075) X (booking rate – 5%) X (ALOS – Use 16) = 507,260 / 365 = 1,390 beds = Say 1,400 = 1,220 (Normal Operating Capacity) – 1,400 = 180 bed shortage

Summary Analysis Method C - For planning purposes this report recommends the WCSO expand their current bed population by 144 cells X 1.5 = 216 beds by the year 2021 and an additional 144 cells X 1.5 = 216 beds by the year 2031 - Total population = 1,220 + 216 + 216 = 1,652 total beds

Method D – The 2008 Demographers Population Projections for Washoe County

WASHOE COUNTY POPULATION FORECAST 2015 - 2037 - METHOD D									
Year	Method D	Change from Previous	Percent Change	Increase W Tesla	Percent Change Tesla	Combined Change	Combined Percent Change	Updated Population	NOTES
2015	487,936			6,165					
2016	496,119	8,183	1.68%	6,941	1.42%	15,124	3.10%	511,243	
2017	503,940	7,821	1.58%	8,122	1.64%	15,943	3.21%	519,883	
2018	511,366	7,426	1.47%	8,757	1.74%	16,183	3.21%	527,549	
2019	518,351	6,985	1.37%	8,432	1.65%	15,417	3.01%	533,768	
2020	524,944	6,593	1.27%	8,308	1.60%	14,901	2.87%	539,845	
2021	531,204	6,260	1.19%	8,113	1.55%	14,373	2.74%	545,577	
2022	537,270	6,066	1.14%	8,014	1.51%	14,080	2.65%	551,350	
2023	543,087	5,817	1.08%	7,893	1.47%	13,710	2.55%	556,797	
2024	548,709	5,622	1.04%	7,757	1.43%	13,379	2.46%	562,088	
2025	554,134	5,425	0.99%	7,644	1.39%	13,069	2.38%	567,203	
2026	559,373	5,239	0.95%	7,542	1.36%	12,781	2.31%	572,154	
2027	564,448	5,075	0.91%	7,418	1.33%	12,493	2.23%	576,941	
2028	569,371	4,923	0.87%	7,305	1.29%	12,228	2.17%	581,599	
2029	576,491	7,120	1.25%	6,990	1.23%	14,110	2.48%	590,601	
2030	583,612	7,121	1.24%	6,862	1.19%	13,983	2.43%	597,595	
Population numbers extrapolated from previous data									
2031	590,966	7,354	1.24%	6749	1.14%	14,103	2.39%	605,068	
2032	598,412	7,446	1.24%	6628	1.11%	14,074	2.35%	612,486	
2033	605,952	7,540	1.24%	6527	1.08%	14,067	2.32%	620,019	
2034	613,587	7,635	1.24%	6527	1.06%	14,162	2.31%	627,749	
2035	621,318	7,731	1.24%	6527	1.05%	14,258	2.29%	635,576	
2036	629,146	7,829	1.24%	6527	1.04%	14,356	2.28%	643,502	
2037	637,074	7,927	1.24%	6527	1.02%	14,454	2.27%	651,528	

Below are the listed methods/information for each of the population breakdowns:
 Method D - The 2008 Nevada State Demographers Forecast for Washoe County

Method C beginning in the year 2031 - The highlighted area above includes population data extrapolated into the Method D population forecast

This method estimates to the population to be 651,528 by the year 2037

ADP Analysis - Method D - The ADP by 5 year increments as follows:

ADP 2020 = (population 539,845) X (booking rate – 5%) X ALOS – Use 16) = 431,868 / 365 = 1,183 beds – Say 1,200 = 1,220 (normal operating capacity) – 1,200 = **20 beds capacity**

ADP 2025 = (population 567,203) X (booking rate – 5%) X ALOS – Use 16) = 453,762 / 365 = 1,243 beds = Say 1,250 = 1,220 (normal operating capacity) – 1,250 = **30 bed shortage**

ADP 2037 = (population 651,528) X (booking rate – 5%) X (ALOS – Use 16) = 521,223 / 365 = 1,428 beds = Say 1,450 = 1,220 (Normal Operating Capacity) – 1,450 = **230 bed shortage**

Summary Analysis Method D - For planning purposes this report recommends the WCSO expand their current bed population by 144 cells X 1.5 = 216 beds by the year 2021 and an additional 144 cells X 1.5 = 216 beds by the year 2031 - Total population = 1,220 + 216 + 216 = **1,652 total beds**

The Future Problem – Comparison of Available Beds vs Projections

The current WCSO bed capacity at the WCSO detention center is sufficient to accommodate the current inmate population. However, beyond the year 2021, the future bed capacity problem is a function of the available physical number of beds (dorms plus cells X suggested 1.5 factor) compared to the actual number of beds required based on the previously referenced population projection tables that indicate Washoe County growth through the year 2037. Currently the inmate population has remained steady over the past 9 years. However based on the various population forecasts, the inmate population in Washoe County has the potential to grow based on County growth.

Summary Analysis and Discussion – Based on the four population forecasting methods, and using a consistent booking rate of 5% for each year, with an average length of stay of 16 days and using the previously established normal operating capacity of 1,220 beds, the WCSO should plan to increase the current bed capacity by 144 cells X 1.5 = 216 beds by the year 2021 and by an additional 144 cells X 1.5 = 216 beds by the year 2031. Should current booking rates and/or ALOS counts change based on policy changes up or down, it will be important for the WCSO to re-evaluate the data included in this report.

It is the intent of this report to not only provide efficient recommendations for Washoe County for increased bed capacity to keep up with population forecasts provided in this report, but also to identify and address the needs for the correct types of beds including the analysis of the medical infirmary.

Bed Classification Data - The next step in the analysis for this report is the assessment and identification of the proper population classifications for the new beds based on current bed occupancies classification types and percentages.

The following spreadsheets indicates the types of beds for both men and women housed at the detention facility on June 1, 2017.

BED CLASSIFICATION HOUSING REPORT - 5/31/17												
HOUSING UNIT REFERENCE	CUSTODY LEVEL										K - TOTAL BEDS	NOTES
	A - FEMALE MINIMUM	B - MALE MINIMUM	C - FEMALE MEDIUM	D - MALE MEDIUM	E - FEMALE MAXIMUM	F - MALE MAXIMUM	G - FEMALE SUPER MAX	H - MALE SUPER MAX	I - MEFL	J - UNCL		
HU1 - Female Intake	23		29		16				18		86	
HU2 - Female General	18		34		25				8	4	89	
HU3 - Mental Health		13		15		16			7	1	52	
HU4A - Special Housing								14			14	Part of HU4
HU4B - Special Housing						10				3	13	Part of HU4
HU4C - Special Housing						13					13	Part of HU4
HU4D - Special Housing					11						11	Part of HU4
HU5 - Sprung Building											0	Abandoned
HU6 - SHU & PC		11		18		41			13		83	
HU7 - Male Intake		26		18		9			7	9	69	
HU8 - High Risk GP						100					100	
HU9 - High Risk GP		7		61		30			7		105	
HU10 - Programs											0	No Housing
HU11 - Dorm		56									56	Dorm
HU12 - Dorm				48					19		67	Dorm
HU13 - Dorm				59					8		67	Dorm
HU14 - Dorm				63					7		70	Dorm
HU15 - High Risk GP		1		10		26					37	
HU16 - High Risk GP		24		78					23		125	
HU17 - SHU		2		4				12	2		20	
TOTAL HOUSING	41	140	63	374	52	245	0	26	119	17	1,077	
MEDICAL - Infirmary	2	2	1	2	0	2	0		4	2	15	
INTAKE										19	19	
STM				1		1					2	
ADDITIONAL HOUSING	2	2	1	3	0	3	0	0	4	21	36	
TOTAL ALL HOUSING	43	142	64	377	52	248	0	26	123	38	1,113	

Percentage of overall population 3.86% 12.76% 5.75% 33.87% 4.67% 22.28% 0.00% 2.34% 11.05% 3.41% 100.00%

Beds Count Description – Cells and Dorms

- A – Female minimum
- B – Male minimum
- C – Female medium
- D – Male medium
- E – Female maximum
- F – Male maximum
- G – Female super max
- H – Male super max
- I – MEFL
- J – UNCL

The spreadsheet above identifies the male medium as the largest population at 34%

The next largest population is the male maximum at 22%

The largest female population is the female medium at 6%

The next largest female population is the female maximum at 4.5%

Based on the above table and percentages for each population type, the new expansion should consider similar population type percentages as follows:

For the 2021 expansion - Of the 1,220 + 216 = 1,436 beds should be provided as follows:

- Female Minimum - 55 Beds = 4%
- Male Minimum – 185 Beds – 13%
- Female Medium – 85 Beds – 6%
- Male Medium – 500 Beds – 34%
- Female Maximum – 70 Beds – 5%
- Male Maximum – 315 Beds – 22%
- Male Super Max – 30 Beds – 2%
- MEFL – 160 Beds – 11%
- UNCL – 40 Beds – 3%

For the 2031 expansion - Of the 1,436 + 216 = 1,652 beds should be provided as follows:

- Female Minimum - 65 Beds = 4%
- Male Minimum – 215 Beds – 13%
- Female Medium – 100 Beds – 6%
- Male Medium – 560 Beds – 34%
- Female Maximum – 85 Beds – 5%
- Male Maximum – 365 Beds – 22%
- Male Super Max – 35 Beds – 2%
- MEFL – 180 Beds – 11%
- UNCL – 50 Beds – 3%

Benchmarking Washoe County Detention Center

With respect to future planning needs of the Washoe County system, it is important to ensure support space is appropriately sized as it relates to both the existing and future inmate population. The benchmarking process aids the planning team in comparing the WCSO facility to similarly sized facilities for the purpose of improving the efficiency of operations, enhancing opportunities for rehabilitation, improving working conditions for staff, and reducing potential liability for Washoe County. Benchmarking is a common practice and sensible exercise to establish baselines, define best practices, and identify improvement opportunities. Benchmarking helps:

- Gain an independent perspective about how space is allocated
- Clearly identify specific areas of need
- Validate assumptions
- Prioritize improvement areas

Integrating benchmarking into the facilities results in valuable data that encourages discussion and sparks new ideas and practices. However, the approach to benchmarking can be just as important as the data.

The project team conducted a comparison of the Washoe County facility with several other similarly sized detention facilities across the western United States, including Oregon, Arizona, and California. The values noted next to each category represents the standard benchmark square footage needed per bed based on actual space utilized in these facilities. These square footages develop a suggested basis for expanding support spaces in the WCSO facility that closely align with typical best practices.

The intention of providing the benchmarking comparison is to show an adequate-sized support space based upon the number of beds for each facility. The information below displays the benchmark square footage by component to adequately support one inmate:

Benchmark Gross Square Footage

- Warehouse space – 7.5 SF per inmate
- Laundry – 2.5 SF per inmate
- Programs – 25 SF per inmate
- Medical – 9 SF per inmate
- Food Services – 10 SF per inmate
- Visitation – 3 to 4 SF per inmate – This could vary based on whether contact visitation is provided versus just video visitation.
- Standard office work station – 64 SF per staff
- Forensic Lab – 850SF per staff

Conclusion: The square footages listed above are to be used as a basis of comparison and to identify areas of this facility for which required space to perform the necessary functions identified, are provided in a manner necessary to support current populations, both before and after recommended expansion. A detailed programming effort should be undertaken to verify the extent of added core space required for each facility based upon planned and actual programming and support operations.

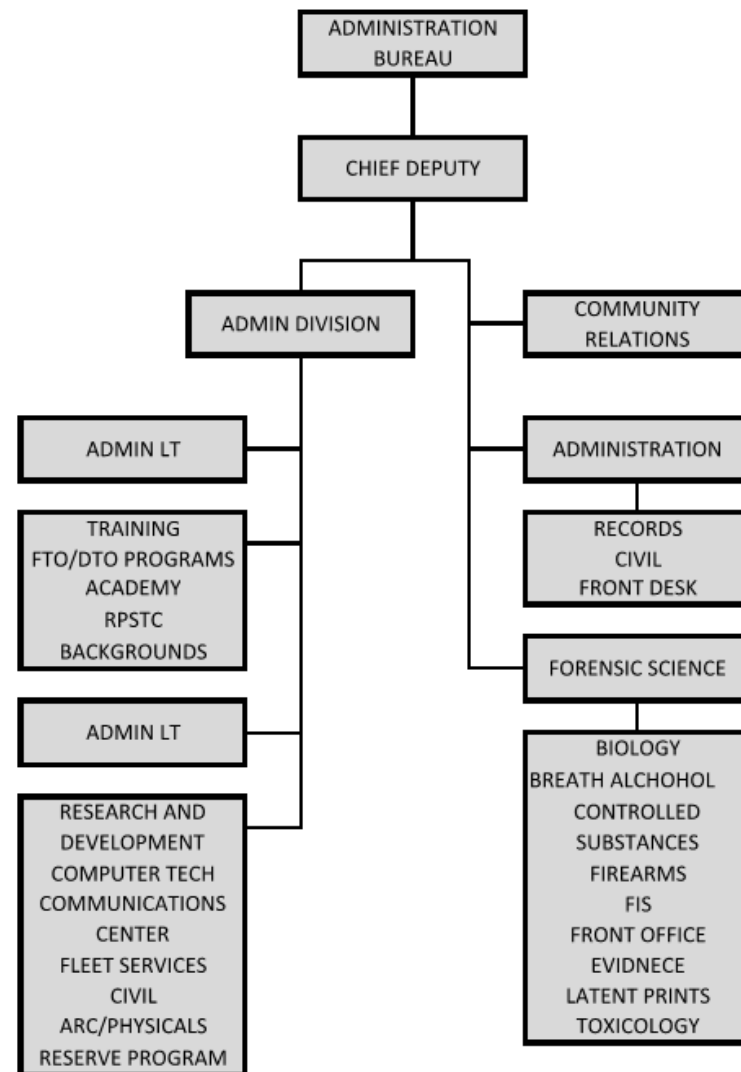
Utilization Efficiency of Space

In general most of the space utilized at the Parr Boulevard facility is used efficiently. However there are some pockets of space found in the facility that are underutilized such as the following:

- Non-contact visitation – Throughout the complex the non-contact visitation areas are not being used as designed. It has been stated to the planning team that a more efficient use of the space would be to remodel current non-contact spaces into usable private attorney-inmate secured contact rooms. This occurs throughout the complex. See the suggested renovation of the existing non-contact space contained in this report
- Existing Housing HU5 – Sprung Structure – this stand-alone sprung structure is no longer habitable and should be demolished to make room for additional expansion projects identified in this report. A follow up to this item - The facility is planning to demolish the HU5 structure and this work should be completed shortly. The area left vacated by the HU5 demolition can then be used as a future location for the new medical infirmary.
- Kitchen – Food Preparation – The kitchen is way undersized based on the current suggested 1,220 bed operating capacity. At 4,500 SF, the existing kitchen was right sized to support the original 500 bed population. However based on a number of expansion projects that have occurred over the years, increasing the size of the facility to 1,220 inmates, the kitchen should be sized at about 13,000 and if sized for future expansion should be sized to 17,000 SF. The space currently occupied by the kitchen and laundry can be repurposed as future programming and education space, that will be required at the time of the demolition for HU10.
 - An increased Kitchen size has additional potential operational cost savings that can be realized by providing a new central services facility. The existing refrigeration storage capacity of the kitchen is undersized. At the time of this report, WCSO was renting space at a privately owned offsite freezer location to maintain a basic stock of food for the inmate population. In addition to rent, the retrieval of the stock items is associated with delivery fee. The total figure for rent and delivery fees is estimated to be over \$2,900 per month or over \$38,000 a year.
 - The limited space also prevents the staff from making long-term bulk purchases that can bring a greater reduction in food costs. Figures were not available at the time of this report. However, during interviews with staff, it was proposed that with a proper sized kitchen facility and storage, WCSO inmates could even prepare meals for the Jan Evans Juvenile facility located adjacent the 911 Parr Blvd Facility. WCSO staff indicated that the current average cost per meal at the Jan Evans facility is \$4-5 per meal. WCSO staff feel that with the upgraded facility, meals could be produced for Jan Evans for around \$1 per meal

- Medical Infirmary – The existing medical infirmary is sized for 19 beds. Based on the original 500 bed inmate population this equates to about 20 beds per 500. A new medical infirmary should be constructed for a minimum of 80 beds to a recommended 100 beds to support the future 1,782 bed population into the year 2037. Building a new medical infirmary allows the current medical space to be renovated and incorporated as part of the intake function, providing additional mental health, larger medical treatment beds and additional padded cell beds currently lacking in the existing intake.
- **Repurposed Cell Housing to Programs – Unit 10** – The program building is a repurposed cell housing building for which there are large areas of space that are under-utilized. However, based on the original building design it is difficult to efficiently reuse rooms such as cells without major plan modifications and the facility has done an excellent job of repurposing the spaces as they now exist. Based on the use of the old dayroom as a library, the repurposed space is as efficient as it can be. There are some spaces that can be used as additional small group rooms, but it is recommended that this building be demolished to make room for the new planned structures.

ADMINISTRATION



The above chart is a portion taken from the WCSO organization chart located on page 7 of this report.

The administration group is organized into several different subgroups: Civil and Records, Forensics, R&D and Training. Each of these experiences growth according to several different factors. As such each requires an individual analysis regarding workloads and potential growth. Each of these sub groups resides within a separate arm of the organization. This report will address each of these arms.

Civil and Records

Administrative Services summary: Civil Records, Front Desk, Concealed and Carry Weapons

Per the WCSO website, the Civil Administration Division “is responsible, as mandated by state statute, to provide the service of process in civil and criminal cases, throughout Washoe County. Staff members process and serve thousands of court documents each year. Additionally permits for various businesses are accepted and processed where a level of screening is required such as locksmithing, child care and elderly care. A wide variety of legal papers are accepted, including protection orders, subpoenas, summons, writs of execution, evictions and other court orders.” including:

- Process CCW permits; Work Permits-All Childcare, Washoe County liquor, eldercare, locksmith, solicitors;
- Register Bail Bond Companies; Register Ex-Felons and Sex Offenders; Fingerprints – for employment, licensing, and identification;
- Print and Disseminate cases to media, public, law enforcement, district attorney, and government departments; Provide booking documents and mugshots; Scan cases, bookings and permits;
- Maintain original homicide cases after scanning; Provide the Uniform Crime Report to the State of Nevada;
- Receive and enter warrants from various courts; Confirm warrants; Enter stolen articles, stolen vehicles, stolen guns, and missing persons into NCIC;
- Research criminal history information for Detectives and Deputies;
- Take reports at the front desk for Missing persons, runaway juveniles, lewdness, lost and found, etc.; Process Internet reports; Direct people to the correct agencies and services they are looking for; VIN inspections;
- Processes Eviction Orders, Protection Orders, and Wage Garnishments/Bank Levies.
- Much information is handled electronically through the Tiburon system, which handles and integrates detention, records, dispatch, and reporting.

Existing Facilities Summary

Civil and Records functions are located on the ground floor adjacent to the main entry. The due to growth the overall building configuration there are several inefficiencies that have resulted. The Front counter is accessed directly off of the main lobby without access control, screening or surveillance. The waiting area for the Civil and Records department is small approximately 450 SF in relation to the high volume of visitors it receives which has proven to be disruptive to staff in adjacent offices and does not allow for private meetings between the staff and the public. Functions such as photographs and fingerprinting require the public to enter into the general office area which creates security and work flow problems.

Office and storage space are at a premium after several years of growth the inability to expand due to adjacent departments. To accommodate growth staff workspaces have slowly shrunk over the years. Staff are constantly being shuffled to accommodate the work load of each sub department. This has resulted in flexible work staff that are able

to cover multiple functions and provide support to the multiple sub-groups response to work load demands. A function that inhibits this, however, is the configuration of space which follows a dated subdivided style of office suite that segregate the staff from each other.

There is currently no location for mug shots in the Records department. Staff travel to HU10 once a week to perform this function.

Staffing

The following lists current staff

- Civil: 6 sworn and 14 civilian.
- Records: 5 staff total (1 manager, 2 office support specialist, 2 office staff dedicated to scanning physical record)
- Field Services – 8 staff
- Bookings/imaging - current: 9 positions,
- Permits/Registration - current: 6 positions.
- CCW – 2 civilian positions 1-2 volunteers assist on the weekends
- CIC – 9 staff (covering 3 shifts)

ADMINISTRATION - CIVIL AND RECORDS				Permits			Criminal Cases			Court Sealings			Warrants			Front Desk Reports			Civil Services			NCIC		
Year	Total Civil Cases	Change	Change %	Average Change	9.64%		Average Change	2.38%		Average Change	-0.81%		Average Change	-2.77%		Average Change	3.98%		Average Change	-4.18%		Average Change	-4.58%	
				Total Cases	Change	% Change	Total Cases	Change	% Change	Total Cases	Change	% Change	Total Cases	Change	% Change	Total Cases	Change	% Change	Total Cases	Change	% Change	Total Cases	Change	% Change
2008	65,160	N/A	N/A	3,791	N/A	N/A	32,542	N/A	N/A	829	N/A	N/A	5,046	N/A	N/A	2,088	N/A	N/A	20,864	N/A	N/A	281,109	N/A	N/A
2009	68,381	3221	4.94%	7,687	3,896	102.77%	31,134	-1,408	-4.33%	777	-52	-6.27%	4,832	-214	-4.24%	3,156	1,068	51.15%	20,795	-69	-0.33%	289,439	8,330	2.96%
2010	68,614	233	0.34%	7,500	-187	-2.43%	36,788	5,654	18.16%	525	-252	-32.43%	4,289	-543	-11.24%	3,028	-128	-4.06%	16,484	-4,311	-20.73%	174,036	-115,403	-39.87%
2011	77,304	8690	12.67%	5,781	-1,719	-22.92%	43,940	7,152	19.44%	680	155	29.52%	5,070	781	18.21%	4,818	1,790	59.11%	17,015	531	3.22%	147,035	-27,001	-15.51%
2012	56,147	-21157	-27.37%	5,322	-459	-7.94%	26,759	-17,181	-39.10%	836	156	22.94%	4,517	-553	-10.91%	3,154	-1,664	-34.54%	15,559	-1,456	-8.56%	125,283	-21,752	-14.79%
2013	46,300	-9847	-17.54%	6,217	895	16.82%	16,384	-10,375	-38.77%	993	157	18.78%	3,657	-860	-19.04%	2,802	-352	-11.16%	16,247	688	4.42%	136,769	11,486	9.17%
2014	45,210	-1090	-2.35%	6,044	-173	-2.78%	17,777	1,393	8.50%	473	-520	-52.37%	3,718	61	1.67%	2,312	-490	-17.49%	14,886	-1,361	-8.38%	123,899	-12,870	-9.41%
2015	52,508	7298	16.14%	6,664	620	10.26%	25,337	7,560	42.53%	550	77	16.28%	3,623	-95	-2.56%	2,310	-2	-0.09%	14,024	-862	-5.79%	140,597	16,698	13.48%
2016	56,207	3699	7.04%	6,842	178	2.67%	29,735	4,398	17.36%	525	-25	-4.55%	3,636	13	0.36%	2,237	-73	-3.16%	13,232	-792	-5.65%	152,159	11,562	8.22%

For the purposes of determining growth, the analysis of this data is sampling is being taken between 2013 and 2016. While data occurs prior to these dates, it has been omitted as the pre and mid recession figures cannot be used to validate typical operations and growth.

The chart above shows the total case load for the civil records group over the last 8 years.

Green Text indicates the lowest number of cases and the Red the highest number recorded during the time period analyzed.

While a detailed breakdown of each of the subgroups in the Civil Records group is present, it is important to look at the group as a whole as there is flexibility with the staffing in this area.

Highest case load: Total 77,304 cases per year

Lowest case load: Total 45,210 cases per year

Establish Criteria

To establish the criteria for growth, the civil group needs to be approached by examining its workload to staff ratios. First, the current average annual change in workload was ascertained to project the future work load and determine the potential number of future staff required. This is indicated in the adjacent table which condenses the work

Data analysis of the information in the adjacent table presents:

- A projected rate of growth of 1.5% annually.
- An optimal staff to Case ratio of 1:4,000 with 4,500-5,000 indicating the potential need for additional staff

To define what is meant by cases in this section, a case is an individual requests for new permits, warrants, reports or requests to update records on file. The total number of cases handled by the Civil group included in this table represent: CCW, Permits, records, warrants recorded, front desk reports, court sealing's, and criminal cases. It is also important to note that this does not include additional tasks such as the scanning and converting of hard copy documents to electronic form which places an additional work load on the staff.

Growth Rate

To establish a rate of growth, a review of the percentage of change between the number cases year to year was performed. The analysis of this data is sampling between 2013 and 2016. While data occurs prior to these dates, it has been omitted as the pre and mid recession figures cannot be used to validate typical operations and growth. The Civil and Records division work load is heavily based on the economic state of the county. As such, these figures demonstrate extreme swings in either direction which can skew the results. The figures have been include in the report, but are omitted from the calculations. It is recommended that the number of cases be re-evaluated again at a later date.

From the analysis of this data an average rate of growth is of 1.13% is calculated. For simplicity and to provide a margin of flexibility this factor is rounded to 1.5%. Applying this factor, it allows for the projection of future possible number of cases as demonstrated by the table.

CIVIL AND RECORDS PROJECTED GROWTH					
STAFF TO CASE RATIO		4,000	AVG RATE OF CHANGE		1.13%
				GROWTH RATE	1.50%
YEAR	STAFF	STAFF/CASE RATIO	TOTAL CIVIL CASES	CHANGE IN CASES	CHANGE %
2012	17	3,564	60,580	N/A	N/A
2013	17	3,045	51,763	-8,817	-14.55%
2014	17	2,917	49,583	-2,180	-4.21%
2015	10	5,798	57,976	8,393	16.93%
2016	10	6,165	61,651	3,675	6.34%
2017	14	4,470	62,576	925	1.50%
2018	16	4,000	63,514	939	1.50%
2019	16	4,000	64,467	953	1.50%
2020	16	4,000	65,434	967	1.50%
2021	17	4,000	66,416	982	1.50%
2022	17	4,000	67,412	996	1.50%
2023	17	4,000	68,423	1,011	1.50%
2024	17	4,000	69,449	1,026	1.50%
2025	18	4,000	70,491	1,042	1.50%
2026	18	4,000	71,549	1,057	1.50%
2027	18	4,000	72,622	1,073	1.50%
2028	18	4,000	73,711	1,089	1.50%
2029	19	4,000	74,817	1,106	1.50%
2030	19	4,000	75,939	1,122	1.50%
2031	19	4,000	77,078	1,139	1.50%
2032	20	4,000	78,234	1,156	1.50%
2033	20	4,000	79,408	1,174	1.50%
2034	20	4,000	80,599	1,191	1.50%
2035	20	4,000	81,808	1,209	1.50%
2036	21	4,000	83,035	1,227	1.50%
2037	21	4,000	84,280	1,246	1.50%

Permits and Concealed Carry Weapons are expected to grow based on economic and cultural drivers.

Staff Ratio

In determining how to translate the work load into a physical space requirement, a staff to case ratio has been established. Based on historic staffing and case levels, an optimal ratio can be determined. In reviewing historic staffing levels, staffing has typically increased at ratios of between 3,500 and 5,000 cases per staff member. By using a 4,000 case per staff member ratio, this allows for work load that has been historically manageable by the WCSO Civil staff. At a ratio of 4,500-5,000 this would serve as an indicator for the need to expand the staffing and the physical workspace associated with doing so. As evidenced by the adjacent chart using these ratios and the projected future case load this would potentially require an additional 2 staff members approximately every 5 years. This is the basis for determining the future space requirements.

Additional Growth Trends

To gain a further understanding of where the growth factors within this group it is helpful to take a more detailed examination of certain key groups.

- While much of the work is performed digitally in all groups, there is still a strong need for storage space.
 - Older records are scanned to a digital file and micro phish, however, due to the labor and cost associated with this process, it is being performed on a as need basis when files are pulled by specific request. This has resulted in the need to retain a substantial volume of old physical files.
 - State mandated retention schedules require physical copies of certain files to be store to be anywhere from 10 to at least 65years on site depending upon to record type. This also has created a need for a long term storage solution in a location where space is at a premium.
- With the implementation of the Federal system National Incident-Based Reporting System (NIBRS) there is an increase demand for man power although at this time it is indeterminable as to how much.

Permits. The growth of the Permits group is greatly tied to the economic welfare of the county. An extremely small percentage of the work performed by this group is related ex-felon and sex offender registrations, and rather more related to fingerprint clearance, work permits and other business matters. The adjacent chart indicates projected rate of growth of 6.75% annually using the same method as described earlier in this section.

- This division services the entire county.
- The move toward online scheduling of front counter service appointments may help relieve the congestion in the lobby area that services the public

CIVIL AND RECORDS DETAILED GROWTH						
PERMITS			CONCEALED CARRY			
AVG RATE OF CHANGE		6.74%	PROJECTED GROWTH RATE		9.43%	
YEAR	PROJECTED GROWTH RATE	6.75%	PROJECTED GROWTH RATE	9.50%		
	Total Cases	Change	% Change	Total Cases	Change	% Change
2012	5,322	N/A	N/A	3,880	N/A	N/A
2013	6,217	895	17%	4,603	723	19%
2014	6,044	-173	-2.78%	4,434	-169	-3.67%
2015	6,664	620	10.26%	5,373	939	21.18%
2016	6,842	178	2.67%	5,457	84	1.56%
2017	7,304	462	6.75%	5,975	518	9.50%
2018	7,797	493	6.75%	6,543	568	9.50%
2019	8,323	526	6.75%	7,165	622	9.50%
2020	8,885	562	6.75%	7,845	681	9.50%
2021	9,485	600	6.75%	8,591	745	9.50%
2022	10,125	640	6.75%	9,407	816	9.50%
2023	10,808	683	6.75%	10,300	894	9.50%
2024	11,538	730	6.75%	11,279	979	9.50%
2025	12,317	779	6.75%	12,350	1,071	9.50%
2026	13,148	831	6.75%	13,524	1,173	9.50%
2027	14,036	887	6.75%	14,808	1,285	9.50%
2028	14,983	947	6.75%	16,215	1,407	9.50%
2029	15,994	1,011	6.75%	17,756	1,540	9.50%
2030	17,074	1,080	6.75%	19,442	1,687	9.50%
2031	18,226	1,152	6.75%	21,290	1,847	9.50%
2032	19,457	1,230	6.75%	23,312	2,023	9.50%
2033	20,770	1,313	6.75%	25,527	2,215	9.50%
2034	22,172	1,402	6.75%	27,952	2,425	9.50%
2035	23,669	1,497	6.75%	30,607	2,655	9.50%
2036	25,266	1,598	6.75%	33,515	2,908	9.50%
2037	26,972	1,705	6.75%	36,699	3,184	9.50%

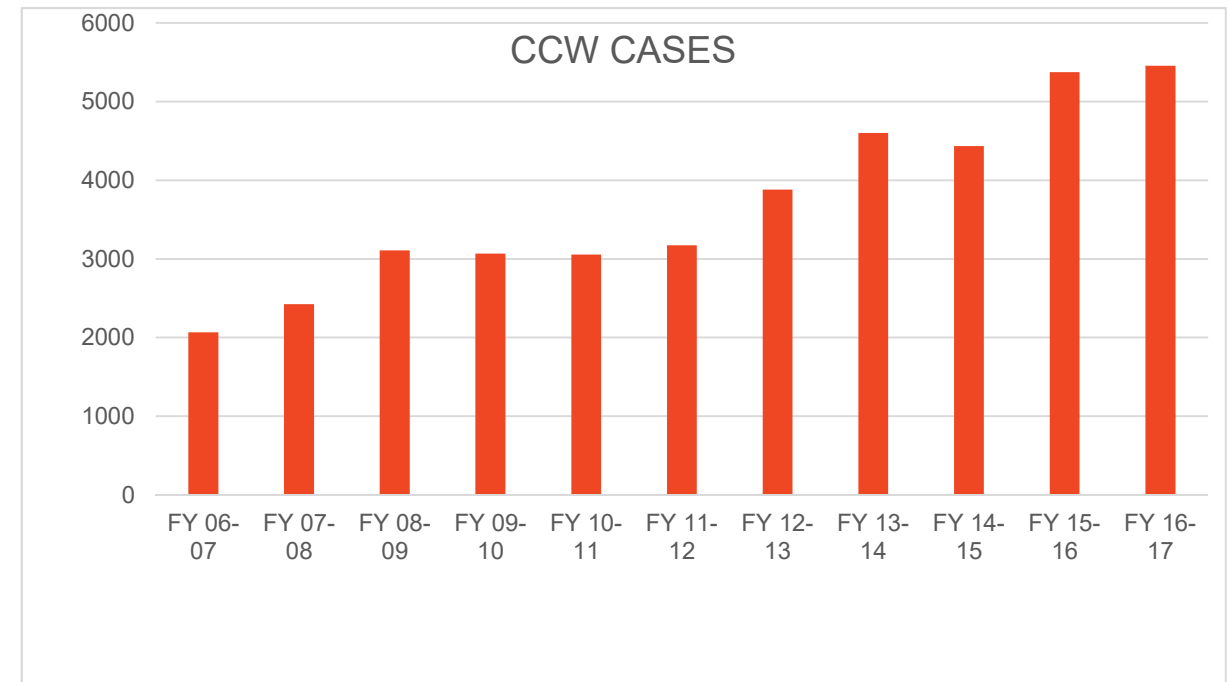
The chart above shows the sampling of the projected increase in the number of cases for the Permits and Concealed and Carry groups.

Concealed and Carry Weapons (CCW). As indicated by the chart, there is the potential for a rather large increase in this subgroup. It is unique in that while other sub-groups within the Civil and Records Division are cross trained for several other activities, this is a unique skill set that requires a full time dedicated staff.

It is difficult to point to a singular reason for the growth of this group. Rather than being driven by economic factors, it is driven by culture and political influences. The South West region of the United States has an extremely strong inherent gun culture and several key events such as elections and tragic events involving gun violence that reciprocate a call for gun control measures correspond to spikes on the adjacent chart.

The adjacent chart demonstrates the continued increase in the number of cases since 2006, many of the spikes

- At the time of this report, the CCW group was currently processing 1500 new applications a year on average and the number has been increasing.
- State Statues mandates each new application be processed in a maximum period of 120 days, which becomes increasingly difficult without staffing increases.
- The customer base seeking CCW permits has expanded
 - Proposition AB 118 was passed which now permits Military veterans age 18 and older to waive the 21 year minimum age requirement for concealed carry permits
 - In addition to the local population there are a high number of out of state applications for concealed weapons permits. Approximately 10-20% annually are from out of state. This is due to the high number of additional states that accept the State of Nevada's out-of-state CCW permits through reciprocity.



NCIC

While National Crime Information Center is part of the Civil and Records it is better served by being considered alone as its growth factors are different from the rest of the department. It currently resides within the Civil Records Division so the staff can perform warrants and warrants checks on their behalf.

Establishing Criteria

In similar fashion to the other subgroups of the Administration division, an average rate of change was established and was used to project the future growth.

- A growth rate of **5.4%** is used to project.
- The optimal staff ration is **20,000** cases per staff member.

Growth Rate

By taking the average rate of change from 2008 to the present, it would appear that there is a decline in the rate of growth in this group. However, it is to be noted that the years of 2010-2012 show an unusually high decrease in the number of cases handled. When compared with the FBI UCR data it is clear that the number of crimes reported also decrease along a similar curve. This does not necessarily mean that there was a decrease in crime, but rather a decrease in the number of crimes reported. At this particular time period, there was a reduction in law enforcement staff in Washoe County and on a national level. As such, this could account for the reduced in the number of reports. For the purposes of this report, the data prior to 2012 is not include in the method for calculating growth. It is recommended that the number of cases be re-evaluated again at a later date.

Staff Ratio

The staff ratio was determined by looking at the number of cases handled by staff annually and taking an average. This totals to approximately just under 20,000 cases. Looking at historical data, the group has been able to handle upwards of 32,000 cases per staff member and on the lowest level of approximately 15,000 cases. At the rate of 20,000, this allows for a manageable range of work and serves as an indicator of when staffing could potentially expand.

Additional Growth Factors

- With the implementation of the Federal system National Incident-Based Reporting System (NIBRS) there is a potential for and increase demand for man power, however, it is unknown to what level at this time.
One of the key metrics of this group is that they need to respond to requests for information in a 10 minute window under state law. Maintaining a staff to support these response times is crucial and warrants regular re-evaluation of the work load.

NCIC DETAILED GROWTH				
STAFF TO CASE RATIO				20,000
AVG RATE OF CHANGE				5.36%
YEAR	PROJECTED GROWTH RATE			5.40%
	Total Cases	Staff	Change	% Change
2012	125,283	9	N/A	N/A
2013	136,769	9	11,486	9%
2014	123,899	9	-12,870	-9.41%
2015	140,597	9	16,698	13.48%
2016	152,159	9	11,562	8.22%
2017	160,376	8	8,217	5.40%
2018	169,036	8	8,660	5.40%
2019	178,164	9	9,128	5.40%
2020	187,785	9	9,621	5.40%
2021	197,925	10	10,140	5.40%
2022	208,613	10	10,688	5.40%
2023	219,878	11	11,265	5.40%
2024	231,751	12	11,873	5.40%
2025	244,266	12	12,515	5.40%
2026	257,456	13	13,190	5.40%
2027	271,359	14	13,903	5.40%
2028	286,012	14	14,653	5.40%
2029	301,457	15	15,445	5.40%
2030	317,736	16	16,279	5.40%
2031	334,894	17	17,158	5.40%
2032	352,978	18	18,084	5.40%
2033	372,039	19	19,061	5.40%
2034	392,129	20	20,090	5.40%
2035	413,304	21	21,175	5.40%
2036	435,622	22	22,318	5.40%
2037	459,146	23	23,524	5.40%

The chart above shows the sampling used to determine growth in the NCIC and a future projection of growth to determine staff size.

Final Recommendations

The primary recommendation for the Civil and Records group is to provide a new upgraded public lobby. This will address the concerns of customer privacy, staff safety and security and address the ADA deficiencies in the existing space. The lobby would be an addition as there is nowhere else to create the space required. This would facilitate the creation of new public service counters and adjacent sally port style rooms with secured access where the staff can admit the public on as-needed bases for private conversations, fingerprinting, photographs, etc.

It is also recommended that the administration be converted to more open-office style space with standard sized work spaces. Due to the difficult shape of the space occupied by the Civil and Records division the difference between the gross available space and the net usable space is disproportionate to most buildings. By eliminating walls and other unnecessary encumbrances, this can maximize the space available. While, the majority of the staff would reside in this open plan, there are certain groups such as the NCIC that would require sectioned off space to reduce background noise.

An open office plan would also allow for the cross collaboration of staff and sub-groups, increasing the flexibility of the workspace. Projections for space use are available in appendix [2.1](#)

It is recommended that the long term record storage be relocated to the lower level. It is also recommended to relocate payroll and personal records to upper level to address as a security measure and to make more room for the expansion of Civil Record Division. These later recommendations are based upon space becoming available in other areas of the building as recommended in later parts of this report.

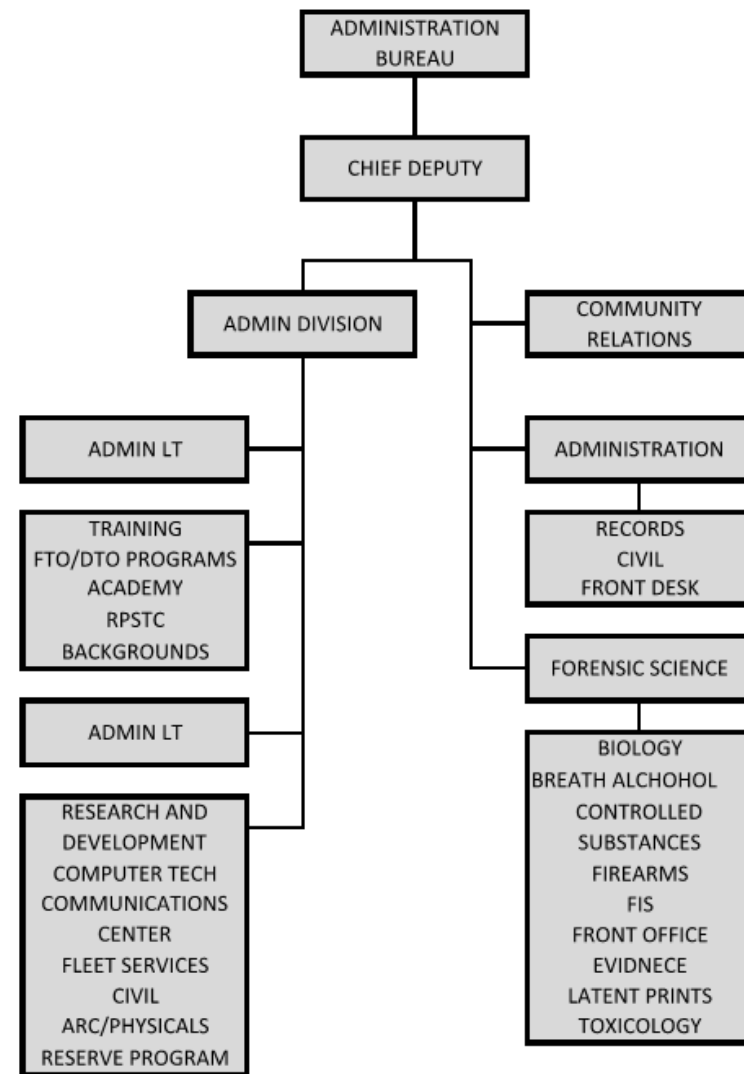
Design Goals

- Professional municipal offices
- Provide a secure and monitorable waiting for the public and work space for the staff
 - Create a separation between the staff and the public
 - Create a separation between ex-felon and sex offender registrants and the general public
- Maintenance of security and confidentiality of records.
- Create a flexible work space that allows reconfiguration to the current needs of the staff
- Confidentiality and security at public counters that addresses all customer types child care providers to sex offender registrants.
- Conversion of document storage to high density for those that must be maintained on-site, with consideration to moving archival files off-site.
- Accommodation of emerging information technologies.
- Mug Shot location needs to meet CJIS requirements

Locations Requirements

- The public need immediate access to civil and records, with adequate waiting and parking.
- Staff would prefer to have a location closer to the Records department where Mug Shots can be performed. This function is being performed weekly in HU10.
- It is possible to separate civil and records from the rest of operations, but because record's permit section does a wants and warrants check on permit applicants and finds a few per week who are wanted, there is a need to be collocated with CIC and for sworn staff to be nearby to make the arrest.
- Civil process servers need convenient access to departmental vehicles.

R&D, Training, Backgrounds, Fleet, Computer Technology Unit



The above chart is a portion taken from the WCSO organization chart located on page 7 of this report.

Department function summary: Training, Academy, R&D, Community relations, Fleet management

The Training Section provides commissioned and non-commissioned with the training in all subject areas that are relevant to job performance or required by mandate. Academy training and services are coordinated at the 911 Parr Blvd facility but all classes and certifications are tended to at the Regional Training Center or at off-site locations.

The Backgrounds Unit reviews and validates who has appropriate access the jail. Before an employee, volunteer or contractor is allowed entry into the jail, they must undergo a thorough background check. Backgrounds also reviews

potential candidates for other positions of employment throughout Washoe County and has expanded its services to assist Reno and Sparks.

Research and development incorporate the Computer Technology Unit. This group directly supports the Washoe County Sheriff's Office by coordinating and managing special projects, such as the implementation of body cameras, and is dedicated to serving the Sheriff's Office for all of their technological needs. It also works with various other County agencies share strategic information and help coordinate multi-agency applications.

Fleet maintenance provides standard ongoing service and repair to the patrol and investigative vehicle fleet. Major vehicle and body repair is addressed offsite at a contracted shop.

Dispatch is another group under the Administration Bureau. It currently resides off-site in a shared center between Reno and the Reservation. Information shared electronically through the Tiburon system, which handles and integrates detention, records, dispatch, and reporting.

Existing Facilities Summary

Training occupies space behind the Detention Central Control and is integrated in with the Operations Bureau. There is little room for expansion without displacing other staff members from other groups.

Research and Development resides on the main entry level adjacent to the other administration and records groups. The workstations in for this area are larger than more due to the manufacturing nature of their work.

Backgrounds is located adjacent to the CTU group off of the main lobby. This group has an open office layout and two interview rooms that are used regularly. This office group experienced a remodel in 2014 to accommodate additional staff. At the time of this report there were further plans to expand the open office portion of this space into an adjacent room to accommodate additional staff. A concern that may be addressed is that the Backgrounds group is located directly under the space that has been appropriated as a Gym and the sound transmission from floor to floor has become disruptive especially when conducting formal interviews and phone screening.

Fleet maintenance is located on the lower level with adjacent to the Forensics lab. The space is made up of 4 vehicle bays and is relatively small.

The CTU data center is located off of the main lobby in an area originally designed as an open office suite as data technology was not heavily used at the time of the buildings construction. The space is located beneath a restroom on the floor above which due to age has leaked and caused damage to the servers that houses the WCSO servers. The demand placed on the building systems (structural support, mechanical cooling and electrical supply) by the equipment required in recent years has strained the building infrastructure. The current building systems in place are not adequate to sustain the complex data center that has evolved over the years.

Staffing

The following lists current staff and anticipated near-term growth for each section, in addition to one each sworn commander and lieutenant: 57

- Deputies have desk at Parr Boulevard, but spend most of the day serving off-site.
- Transcription : 2 positions.
- Training : 4 staff
- CIS/Background checks : 19
- Computer technology support : 3 R&D, 5 IT, 4 Patrol IT

Establish Criteria

The *Computer Technology Unit* consists of Research and Development, IT and Patrol IT support.

The IT support group addressed day to day technical matters such and the internal network, data storage and phone systems. For this group the basic space needs are space for **1 staff member for every 60 terminal users.**

The Research and Development group is a small specialized team. Establishing a clear criteria for sizing is difficult to impossible due to the irregular and long term nature of the projects this group handles. As such, the existing space meet the needs of this group and will for some time. It is recommended that this group and their space needs be re-evaluated at a future date and that they be given flex space that can accommodate the various special projects that they handle.

Patrol IT provide support for the patrol regarding communications equipment. The space needs are **1 staff member for every 25 users.**

Training growth has been provided by the WCSO in line with the current training model. Staff positions are expected to increase by **2 every 5 years.**

CIS Backgrounds is will need to plan for space for **1 new staff every 10 years.**

Fleet **1 Technician for every 60 vehicles.**

Growth Rate

CIS Backgrounds. The interim staff that support the backgrounds are permitted to work a maximum of 1,039 hours annually which is a part time level. In each year there are a total number of cases received and those that are held over till the prior year either due to the timing of the case received or the volume of cases received.

BACKGROUNDS WORK LOAD TO STAFF	
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AVG HOURS PER CASE	23
MAXIMUM HOURS PER STAFF	1,039

YEAR	CASES TOTAL #	NUMBER OF STAFF	MAX AVAILBLE HOURS OF WORK	AVG HOURS PER CASE
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2008	737	8	8312	11
2009	318	18	18702	59
2010	561	18	18702	33
2011	283	11	11429	40
2012	415	11	11429	28
2013	521	11	11429	22
2014	612	11	11429	19
2015	593	11	11429	19
2016	700	19	19741	28
2017*	426			

- Total cases include cases carried over from prior year and exclude those carried over to the next

* - At the time of this report, the complete figures had not been accounted for and are excluded from calculation

By analyzing the number of staff available and the maximum number of hours the staff potentially could work can comparing it to the number of cases worked each year, it is possible to arrive at an average amount of time each case would take to complete. This is expressed in the table above.

Number of staff x 1,039 hours = 26 average hours per cases

Number of cases handled

Next to establish a rate of growth in the number of cases received by this group it is necessary to determine the average rate of change. This presents a challenge. For the purposes of determining growth, the analysis of this data is sampling is being taken between 2012 and 2016. While data occurs prior to these dates, it has been omitted as the pre and mid recession figures cannot be used to validate typical operations and growth. By doing this the average increase in the workload is 26% annually as expressed in the table below. This however, presents a challenge. This rate of growth when projected would require in excess of 300 staff to handle to work load. To expect such a large continual rate of growth is not sustainable or practical.

Alternatively, a figure of 3% growth which is projected rate of population growth of Washoe County in this report.

BACKGROUNDS WORK LOAD TO STAFF			
AVG RATE OF GROWTH			26%
YEAR	CASES TOTAL #	CARRY OVER CASES	GROWTH IN NEW CASES RECEIVED
2008	784	47	82%
2009	392	121	-50%
2010	464	24	8%
2011	328	69	-29%
2012	409	63	-5%
2013	617	159	51%
2014	640	187	48%
2015	585	179	-9%
2016	627	106	45%
2017*	426		

* - At the time of this report, the complete figures had not been accounted for and are excluded from calculation

BACKGROUNDS RATE OF GROWTH		
PROPOSED AVG RATE OF GROWTH		3%
AVG HOURS PER CASE		23
MAXIMUM HOURS PER STAFF		1,039
YEAR	CASES LOAD TOTAL	STAFF
2008	784	8
2009	392	18
2010	561	18
2011	283	11
2012	415	11
2013	521	11
2014	612	11
2015	593	11
2016	700	19
2017	721	16
2018	743	17
2019	765	17
2020	788	18
2021	811	18
2022	836	19
2023	861	19
2024	887	20
2025	913	20
2026	941	21
2027	969	22
2028	998	22
2029	1,028	23
2030	1,059	24
2031	1,091	24
2032	1,123	25
2033	1,157	26
2034	1,192	27
2035	1,227	27
2036	1,264	28
2037	1,302	29

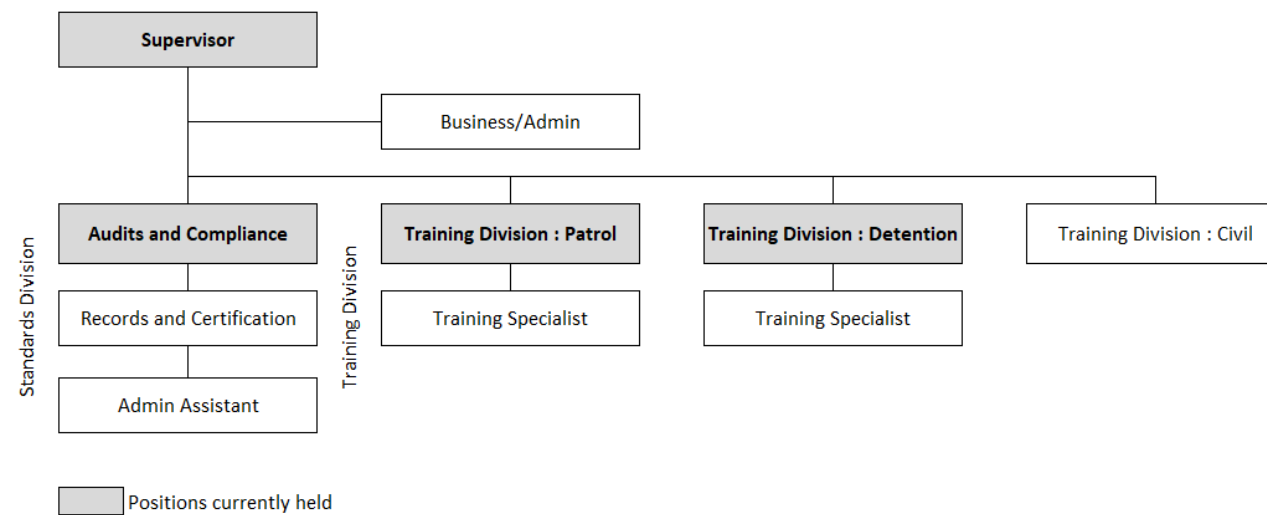
The table above demonstrates the projected increase in the number of cases in ratio to the staff to process them.

Training Unit. The rate of growth for this group has been determined by the WCSO. Due a reduced training budget and staff reductions, the continued training program cannot continue to function as it does not in the future. It is not clear at this time as to how the actual group will operate or to establish a data set for its future growth. As this is currently undersized and in a location which does not afford the option of expansion, it was necessary to establish a growth rate based upon the input from the WCSO.

The current training group consists of one sergeant to supervisor a unit of 3 people. One person is dedicated to auditing and rewriting policies and procedures, one person is dedicated to Patrol training issues, and another person is dedicated to Detention training issues. This model is very similar to the supervising staff in the POST academy and as such has been used as a model for planning growth.

Should there be a change to the training program or structure, it will become necessary to re-evaluate the long term space needs of this group.

Projected Staff model for Training:



Computer Technology Unit.

Interviews with the IT staff indicated that the current staff to user ratio is manageable. As such this ration of 1:60 technical staff is used to as the bases for the future increase in positions.

Number of Terminal Users / Number of staff = 1:60 recommended ratio

IT PROJECTED GROWTH		
YEAR	TERMINAL USERS *	IT STAFF
2022	602	10
2027	637	11
2032	718	12
2037	788	13

* - estimated number of terminal users

Fleet. The ratios for service technicians to fleet vehicles is based on recommendations published by Government Fleet Magazine of Torrance California published in 2011.

Additional Growth Trends

- Since 2013 the backgrounds unit has continues to provide services beyond WCSO and is performing background verification for all potential Washoe County Employees as well as vendors who work with the county, Reno and Sparks. Currently these represent a small portion of the work but this has the potential to change.
- The Training department is in a state of flux will see changes in its operations as the budgetary issues cease to have and affect. It is possible that the recommendations outlined in this report will no longer be valid and

Final Recommendations

CIS Backgrounds. With the recent expansion in of the Backgrounds group planned at the time of this report, there is little need for expansion at this time. In the future, however, it is recommended that Backgrounds expansion into the adjacent existing IT server space. Should group expand beyond 30 staff members there will need to be alternative action taken. Either the staff could be relocated to another off site facility, or the staff could move to a full time schedule.

Training Unit. Based on the slow rate of growth over the next several years, it may be possible to utilize the existing space occupied by the training group and to temporarily expansion into open seating central intelligence office suit. With the relocation of the R&D group to the new CTU data center (see below) this could free up enough space in the existing location to expand the Training Department within the current structure for a time. Ultimately it will be necessary to relocate the Training Unit to the 2nd floor to accommodate the group.

Computer Technology. It is recommended the whole of the CTU be relocated to a centralized data center that can be created at the time of the Forensic Lab expansion (see Forensics). The CTU data center would be initially created as a shell space with the IT, R&D and Patrol IT groups relocating as needed. This would accomplish a number of factors.

1. It would free space within the existing 911 Parr Blvd facility for larger adjacent groups to expand into.
2. It would unify allow for flex space for the R&D team to expand or contract freely in response to the need for special projects.
3. It would provide a better environment for the IT servers that currently is not ideal in the existing facility
 - a. There are structural concerns when it comes to adding equipment
 - b. There are concerns with consistent power flow
 - c. There is a present threat of water damage to the equipment due to the server location under the locker rooms
4. Creating a shell space that can allow for the future relocation can reduce the cost and allow for phasing.

Fleet. It is recommended to relocate fleet maintenance to the proposed new facility at the Longley site after its construction. The existing fleet service suite would be converted into a new facilities office space.

Design Goals

- Create a flexible professional training office suite
- Create a modern and flexible technology center

Locations Requirements

- The training unit needs to remain in close proximity to the detention, operations and administration groups as it regularly consults and updates procedures based on real-time feedback
- IT would require a relatively close connection to the main building. A remote work space would be recommended within the main building.

Forensics Laboratory

One of the arms of the Administrative group is the Forensics Lab. Due to the complexity and overall size of this group and work volume, it is being addressed in a separate section of this report.

Administration - Review of the 2008 Report

The 2008 report categories the Administration group as a collective group instead of a series subgroups. This approach neglected to account for the differences with in each of the subgroups and their independent drivers for growth.

Civil and Records. The report indicated that the use of digital storage and retrieval for records would allow for a decrease of storage space required and an increase area for staff expansion. This has not occurred at the pace expected and does not address the legal mandates for long term file storage.

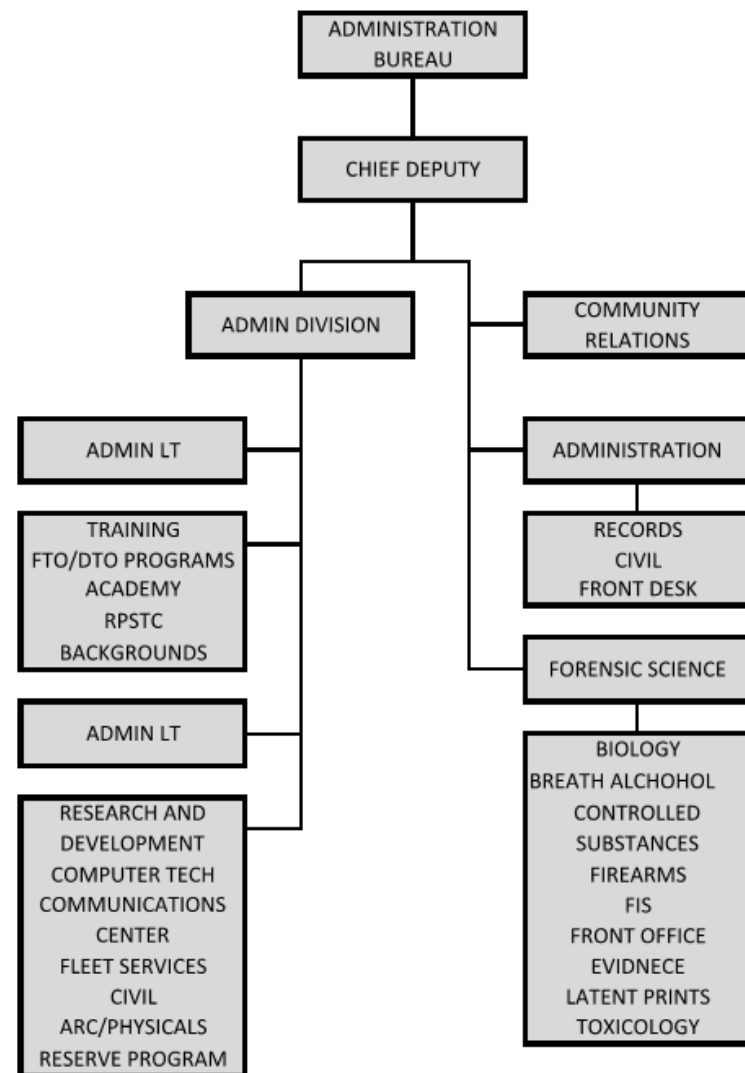
The report acknowledges that the existing lobby space in insufficient and proposes additional lobby space of approximately 1500 sf.

Training. Training was expected to move off site to a regional training center. The initial study performed in 2008 indicated that a shift to off-site facilities would eliminate the need for an onsite training group. This has not occurred due to budget restrictions. It has also been determined to be not feasible, as the training group at 911 Parr Blvd addresses the ongoing training of staff while the regional training center addresses the basic POST certification and academy training. As a result, it has yielded good results as the training staff are integrated into the facility and able to update their training requirements in response to feedback from the day to day operations.

CTU. The report indicated a small increase in the number of staff at the time of the initial report. There is no mention of the physical restrictions placed on the space.

WCSO Forensics serves over 80 additional agencies beyond the county and is one of two labs that carry national certification in Nevada

FORENSICS LAB



The above chart is a portion taken from the WCSO organization chart located on page 7 of this report.

This master plan study for the Washoe County Sheriff's Forensic Science Laboratory provides a long range forecast on the overall FSL building area needs. This master plan study will provide estimate on potential growth to the year 2038. Future programming and planning efforts would need to be conducted to identify specific requirements for each laboratory unit, site selection criteria and building support systems.

The existing Washoe County Sheriff's Forensic Science Laboratory is located on the ground floor level of the Sheriff's Administration building located at 911 East Parr Boulevard in Reno, NV. The existing Forensic Science Laboratory occupies approximately 19,594 gross square feet. (2008 report indicated area at 23,954 square feet.) Washoe County Sheriff's Forensic Science Laboratory is one of only two accredited Forensic Science laboratories serving the State of

Nevada. WCFSL services Washoe County Sheriff and over 80 agencies in 13 other neighboring counties in Northern Nevada and one county in Northern California (Mono County).

WCFSL offers the following forensic science services:

- Biology/DNA – DNA, Primary Examination, CODIS (DNA Database)
- Toxicology – Blood Alcohol and drug analysis
- Controlled Substance Analysis
- Firearms/Toolmark examinations including NIBIN (firearms database)
- Forensic Investigation Section (FIS) – crime scene processing, latent print processing, latent print comparison, impression comparisons (shoe and tire)
- Breath Alcohol Calibration

At the end of 2017 the existing Forensic Science laboratory had a staff count of 38. This includes lab criminalist and administrative support staff. 6 of the current staff are sworn officers. In 2018 the Lab staff is anticipated to grow to 44, with the anticipated addition of 6 new lab criminalist in the Biology/DNA unit.

The existing Washoe County Sheriff's Forensic Science Laboratory staff have learned to adapt and operate effectively within their current limited area. Due to extremely tight area the existing WCFSL does not have space for accommodate growth of staff, additional lab spaces or introduction of new forensic science program or instruments. Lab Staff responses in questionnaire noted lack of available lab space impacts criminalist ability to easily complete task. Lab staff also noted due the inability to introduce additional new lab analysis instruments lab staff have setup a schedule to work on available lab instruments. This causes stress and impacts lab staff more.

In a modern Forensic Science Laboratory which has been properly designed adjacencies, flow of evidence, evidence security and lab staff safety are critical planning factors. Consideration of Lab adjacency is critical to avoid placing incompatible lab sections adjacent to each other. Potential cross contamination could compromise evidence analysis results. Due to limited space flexibility the existing WCFSL suffers from the ability to setup ideal room adjacency. For example the Biology/DNA has functions located on opposite ends of the lab. In regards to office functions Lab Supervisors and Lab Staff offices are spread through-out the existing lab. The ability to manage staff is made complicated by the current arrangement. In a modern forensic Science Laboratory lab staff would be co-located to aid staff management and build a team environment. In addition collocating office area and separating this area from lab functions will help save cost in building mechanical system. Expansive lab mechanical systems can be dedicated strictly to serve lab spaces. In addition odors and exposure to potential biological hazards can be minimized.

Within the existing WCFSL Lab Staff office spaces are spread throughout the lab area due to limited available area. Ideally locating lab criminalist in close proximity to each other helps in staff management, aids in casework coordination and collaboration, as well as draws staff closer together. Existing WCFSL lacks sufficient conference room/meeting areas. Lab staff are not able to conduct multiple concurrent meetings and/or training functions. Existing laboratory space is located in the basement level of the building has no exterior windows, which has a negative effect on personnel.

The existing Washoe County Sheriff Building mechanical and electrical systems are at full capacity and cannot support future growth. Lab Staff noted the building electrical system is at maximum capacity. Addition of new instruments is limited due to limitation of existing building electrical system. The existing building lacks emergency power and ups power to fully support the existing laboratory equipment. Critical lab analysis equipment are using point-of-use UPS battery backup devices. The existing building mechanical system has problems controlling critical temperature, odors and humidity levels within the lab areas. In addition the existing building mechanical system has problems with air flow within the lab areas.

In a modern Forensic Science Laboratory lighting level and light fixture types are critical during the examination of evidence. Proper lighting aids in the ability to identify fine particles or identify color variations. Within the existing laboratory lighting levels and light fixture types are a mix and match of various repair over the life of the facility.

Lab Staff indicated there are portions of the existing laboratory, which are not fully utilized due to various building problems. Room #177 has on-going water leaks. Room 142 at the north-west area of the laboratory has electronic interference from electrical transformer located along north-western exterior wall.

Data Gathering

Information gather for this study was collected from various sources. This included discussions with Forensic Science Lab Staff, Senior Lab Staff responses to Lab Questionnaires, previously complete reports regarding the Sheriff's facility and plus additional data provided by the County.

On-site discussions occurred during planning meetings and tours of the existing Washoe County Forensic Science Laboratory on August 29, 2017 and November 02, 2017. While touring the FSL Lab Staff explained the current lab layout, identify laboratory sections, described existing building issues and noted possible options for future improvements.

Dewberry prepared detailed lab questionnaires customized for each lab unit, as well a questionnaire covering the overall forensic science laboratory operation. Lab questionnaires focused on potential growth issues, lab staff information, current lab operation, future trends, current and future laboratory room/spaces needs, caseload data, storage issues, building mechanical/electrical support systems issues. Laboratory Supervisors for each lab section provided written response to each questionnaire covering their area of responsibility. Laboratory Director provided responses to the overall FSL operation and future goals.

The team also reviewed previously completed reports for the Washoe County Sheriff operations and facilities. These reports included:

- Washoe County Facilities Masterplan Study, dated December 3, 2001, by Daniel C. Smith & Associates.
- Sheriff's Space Utilization Study, dated February 9, 2008, by the DLR Group.

Criteria

The driving factors for a future modern Forensic Science Laboratory for Washoe County Sheriff's Department are:

1. Increase space to hire additional FSL staff and add new equipment to meet increasing submission load, accommodate opportunities to add new forensic science investigation methods and accommodate ever changing crime investigation trends
2. Increase office space for current staff and future staff growth.
3. Located Lab staff office areas in one area or in close proximity to each other.
4. Additional space to accommodate current and future equipment.
5. Improve building mechanical and electrical support systems, which can adequately support existing and future laboratory needs.
6. Allow forensic science lab the ability to introduce new forensic science investigation programs to better serve the community and serve potential new clients.
7. Improve working environment to retain existing lab staff and attract new lab staff to Washoe County.
8. Improve natural daylighting which aids in analysis investigation but also improves staff morel.
9. Improve training opportunities within the laboratory facility for both non-lab work and hands on lab training. This would decrease cost for send FSL staff off-site for training.
10. Add additional conference rooms and meeting spaces.
11. Includes a staff break room to accommodate all Lab Staff.
12. Allow for increase in storage space for supplies, records and in-process evidence.
13. Possibly locate new Forensic Science Laboratory closer to off-site training center and/or firing range. This would save building size and cost by not including these function in the new FSL.

Trends

The future forensic science laboratory will be affected by various new forensic science investigation methods, legislation and equipment.

These trends could involve of the following:

- New & evolving national and international accreditation and certification requirements of Forensic Science Laboratories.
- Electronic Forensic Investigation: The forensic science community has seen a tremendous growth in electronic and videos criminal cases. The growth of mobile cell phones with video and audio recording capabilities has increased the needs for a FSL to have the capabilities to analyze potential evidence from these devices.
- Investigation of audio evidence requires room with a high acoustical barrier to reduce background noise.
- The growth of DNA evidence analysis capabilities has increase the need to accommodate new instruments, train existing lab staff and provide ample evidence storage space for the growth in submission.
- Use of robotic analysis instrument has increased in recent years. Use of robotics for evidence analysis impacts laboratory space, staff workload (analysis of results) and reliable building support systems (UPS electrical power).
- 3-D scanner for documenting crime scenes.

- New testing procedures and instruments in response to changing Forensic Science investigation advancement.
- Legal mandates and legislation requirements, which increases in lab work load.
- New testing procedures and instruments for marijuana use.
- Remote video testimony by Forensic Science Lab staff.

Analysis

Factors used to determine the potential forensic science laboratory facility requirements include:

- Estimated Staff growth.
- Submission workload increase.
- Population growth
- Legal Mandates
- Client services.

Lab Staff & Lab Position Forecast

First step was to identify historical staff growth. Identifying the percentage of historical growth a forecast future of lab staff growth was estimated. Resources included historical data provided from Forensic Science Laboratory Unit Supervisors and Laboratory Director. Historical Lab staff data was also collected from previous complete feasibility studies and master planning studies.

The percentage used to estimate the lab staff growth. There are various factors which can and most likely impact Lab staff projection. These factors include: submission changes, future trends, legislation mandates, new forensic investigation programs, new evidence analysis methods, use of robotics and improvement to lab instruments. For example over the last several years the growth to DNA and computer forensic investigation have had significant impact on lab staffing loads through-out the forensic science community.

The following are staff growth projections from previously completed studies:

- 2000 Facility study projected a staffing growth of 1.6% per year for the overall Sheriff Department staff growth of 1.6% per year. Forensic Science Laboratory staff count was not listed separately.
- 2001 Master plan study indicated a FSL staff count of 30 staff for the year 2000 with a projected staff growth to 38 in 2020. This equates to an approximately 1.2% growth rate per year.
- 2008 Utilization Study noted a FSL staff count of 35 staff in 2006 with a projected growth to 42 in 2021. Approximately 1.2% growth per year.

The actual staff grow rate from 2000 to 2008 was 2.60% based upon the actual staff count listed in the reports.

Historical growth rate from 2000 to current year 2018 the staff growth rate is approximately to 2.4%, based upon a staff count of 30 in 2000.

Forecasting future lab growth to this 2018 Master Plan Study was target for the year 2038, a twenty year span. Using the actual growth rates between 2000 and 2018 a 2.4% growth rate per year was used to determine the potential future

staff county. The estimated lab staff county by the year 2038 is estimated at 69. This is very close to the lab staff projection provided by the Laboratory Unit Supervisors and Laboratory Director. Based upon their lab questionnaire responses the lab staff projection added up to 72.

Estimated Lab Staff growth to 2038:

	2000	2006	2018	2023	2028	2033	2038
Lab Staff	30	35	44	49	55	62	69
Lab Positions			60	67	75	84	94
Historical Growth Rate (%)		2.60	2.77				
Projected Growth/Year (%)				2.4	2.4	2.4	2.4

It should be noted currently the FSL has fourteen lab staff members who preform lab work in multiple lab sections. This is a typical practice though out the forensic science community in the United States. We anticipate this practice will continue into the future Washoe County Forensic Science Laboratory facility. For this master plan study we propose to base future building area projections upon the number of Lab Positions, rather than Lab Staff. This approach will address the need to allow for sufficient laboratory space in the building.

As a hypothetical example: if within a Latent Prints laboratory unit there are 5 dedicated Latent Print Examiners plus 3 lab examiners who float between lab sections. The Latent Prints Laboratory should ideally be designed for 8 lab position. This would allow for those periods when all 8 examiners are working within the Latent Prints laboratory.

Non-lab office space would be designed for the lab staff count.

Laboratory Submission Growth

Forecasting the potential size of the future Forensic Science Facility is also effected by the number of submissions to each lab section. The ability of lab staff to complete a thorough detailed analysis of each submission depends on the number of available lab staff, adequate work space and available instruments to perform the work. If these items are lacking the submission turnaround time will increase and submission back log will increase.

Submission growth is impacted by various factors including population growth, crime rate, legal mandates, legalization of marijuana, etc. State of Nevada Demographer has forecast a population growth in Nevada as high as 0.7% average per year for period spanning from 2015 to 2035. (Nevada State Demographer Report, date October 1, 2016). State Legislation recently passed AB97 which has created a dramatically increase of submissions to the two full service Nevada Forensic Science Laboratories.

The following laboratory sections have seen significant growth in submissions over the last several years:

- Biology/DNA
- Firearms
- Toxicology
- Controlled Substances

As previously noted any increase in submissions for these lab sections would increase the burden on lab staff and available lab equipment. Historical submission data was provided by the Forensic Science Laboratory Unit Supervisors and Laboratory Director in the lab questionnaires.

Submissions to the Biology/DNA unit have increased over the last couple of years due to law enforcement officers collecting and submitting more articles and legal mandates from the State of Nevada Legislature. Based upon submission data provided by the Lab Staff there has been a continual growth of approximately 12.4% in submission

for the time period spanning the years 2012 to 2017. Between the periods of 2015 to 2016 the DNA unit submission rate jump up significantly by approx. 30%. From 2016 to 2017 the DNA unit saw its submission rate continued to grow by another 10%. In response to help address alleviate the submission growth the FSL was allowed to hire six new lab staff in 2017-2018.

The Firearms unit also saw a tremendous increase in submissions of approximately 59.6% between 2016 and 2017. There has been a steady growth in firearms submission for the time period spanning the year 2012 to 2017 of approximately 18% in submission.

Submission data provide for the Controlled Substances lab indicated a decline of submissions between 2012 and 2017 of approximately -6.8%. But Lab Supervisor noted the submissions for Controlled Substance could increase if the states legalizes marijuana. New testing procedures and instruments for testing marijuana use could increase the number of submissions. Lab Supervisors questionnaire response to caseload growth noted the Controlled Substances unit currently only analyzes cases going to court or are needed for investigation information. If testing requirements were to change to include all drug cases the impact to the Controlled Substances unit would double the work load.

The following table notes historical submission data submitted by Lab Supervisors:

	FY11-12	FY12-13		FY13-14		FY14-15		FY15-16		FY16-17	
Biology/DNA -Submissions	529	546	3.2%	629	15.2%	661	5.1%	861	30.3%	949	10.2%
Firearms Unit - Submissions	382	344	-9.9%	456	32.6%	511	12.1%	549	7.4%	876	59.6%
Controlled Substances Unit - Submissions	693	538	-22.4%	634	17.8%	577	-9.0%	530	-8.1%	486	-8.3%
Toxicology Unit - Submissions	4011	3074	-23.4%	3087	0.4%	2963	-4.0%	3277	10.6%	3797	15.9%

Breath Alcohol Unit Lab Supervisor noted in the questionnaire response their submissions will grow with population changes, increase in officers conduct test, and legislative/administrative changes. Questionnaire response noted the breath program contracts with Nevada and follows guidelines established by the Nevada Committee on Testing for Intoxication. Response noted the Breath Alcohol unit will have to change and adapt to changes and requirements made by the Committee. Potential future changes that would impact submission would be increase role in the "interlock" program, increase population in Northern Nevada, changes to the Committee's scope, and potentially the development of oral fluid testing for roadside marijuana testing.

Building Area Forecast

2013 National Institute of Standards & Technology "Forensic Science Laboratories: Handbook for Facility Planning Design, Construction & Relocation" suggests an initial planning space-to-staff ratio rule of thumb of 700 to 1,000 gross square foot per lab staff member. The gross square footage per staff number will vary based upon spaces, program and functions included within any Forensic Science Laboratory. For example the future Washoe County Forensic Science Laboratory may NOT include an evidence storage facility, indoor firing range or vehicle examination garage. Future detailed programming will need to determine what functions are to be included in the facility.

For this 2038 master planning study we propose a Space-to-Staff ratio of 850 gross square foot per staff. Reasoning for this:

- The Sheriff has an evidence warehouse available. The future Forensic Science Laboratory could omit a central evidence storage warehouse, but may include a smaller evidence storage room for only in-process evidence.
- Depending upon site location of future FSL site the building mechanical & electrical support area could be eliminated or reduced.
- Depending on site location of the future FSL vehicle examination garage or distance test firing range could be omitted.

Projected Washoe County Sheriff's Forensic Science Laboratory area

	2000	2006	2018	2023	2028	2033	2038
Lab Staff	30	35	44	49	55	62	69
Lab Positions			60	67	75	84	94
Existing FSL Area	19,592	19,592	19,592				
Historical Gross SF / Lab Staff	653	560	455				
Historical Gross SF / Lab Position			327				
Projected FSL Facility Size (Based upon 850 GSF/Lab Position)				57,120	63,974	71,651	80,249

Results

Building area: Based upon a projected Lab Position count of 94 for the master plan year of 2038 we estimate a facility maximum building area totaling approximately 80,249 gross square feet. This allow for a full service Forensic Science Facility located on a remote site in Washoe County.

Recommendations

There are multiple options available to accommodate a new modern forensic science laboratory for Washoe County Sheriff's Department.

- Option 1 – Remain within the existing Sheriff's Administration Building on level 1.
- Option 2 - Build a new stand-alone full service Forensic Science Laboratory on the existing 911 Parr Boulevard site.
- Option 3 – Build a new stand-alone full service Forensic Science Laboratory on a separate remote site.
- Option 4 – Keep portions of the Washoe County Forensic Science Laboratory operation within the basement of the existing Sheriff's administration building and build a smaller stand-alone Forensic Science Laboratory on the existing 911 Parr Boulevard site.

The following is a brief narrative outlining the positives and negatives with each option.

Option 1 – Remain within existing Sheriff's Administration Building on the sub level:

- Positives:
 - This option is potentially the least costly, but has critical limitation to the operation on the forensic science lab. Growth for new staff and new equipment would continue to be a problem.
 - Modify the level 1 area. The 2008 Utilization study noted the following modification to level 1 area: Expand the Forensic Science lab and Sheriff's Evidence Warehouse in the following ways: use the large evidence storage room as a lab and relocate archives off site; take over the vehicle maintenance garages for lab space (moving the vehicle maintenance function off site); expand evidence handling and storage into the parking area that serves the lab, preserving vehicular access but moving the cars to other parking areas.
- Negatives:
 - Deficiencies in the existing building mechanical & electrical support systems would need to be improved.
 - Growth potential to meet 2038 master plan projections would be severely limited.
 - Relocating the Evidence Storage Complex will need to take into consideration evidence security, chain-of-custody and potential contamination concerns.

Option 2 – Build a new stand-alone full service Forensic Science Laboratory on the existing 911 Parr Boulevard site.

- Positives:
 - The existing 911 Parr Blvd. site would need to be analyzed for the optimal location which meets the FSL operational needs and accommodates sheriff and visitor parking.
 - Use existing site utilities to reduce project cost.
 - Build a new parking garage in conjunction with the new Forensic Science Lab building.
 - Existing building maintenance staff and on-site security personal could be used to support the Forensic Science Building. Project operation cost savings.
 - Tie new Forensic Science Building into existing building support system (mechanical, electrical and plumbing) and add smaller building support system on new FSL to supplement capacity of existing systems.
- Negatives:
 - Re-organization of on-site parking could result in loss of available parking.
 - The need to access evidence storage would be impacted.

Option 3 – Build a new stand-alone full service Forensic Science Laboratory on a separate remote site:

- Positives:
 - New site could accommodate master plan growth projections for a full service Forensic Science Laboratory.
 - New site could accommodate the building area and required lab parking needs.
 - Lab adjacency can be planned.
 - New Program and functions could be added to future growth and meet client needs.
- Negatives:
 - Site will need to provide utilities with enough capacity to serve the new FSL. Project cost impact.
 - Site search will need to take place. Cost to purchase property will need to be include in the project cost.
 - The new lab would need an in-process evidence storage room. Daily trips to the main Evidence storage warehouse would need to be addressed in the operation of the remote FSL.
 - Sheriff's office would need to hire new staff to maintain the building and provide security coverage.

Option 4 – Existing Sheriff's Administration building and a smaller stand-alone Forensic Science Lab on the existing 911 Parr Boulevard site. (Similar to Option 2)

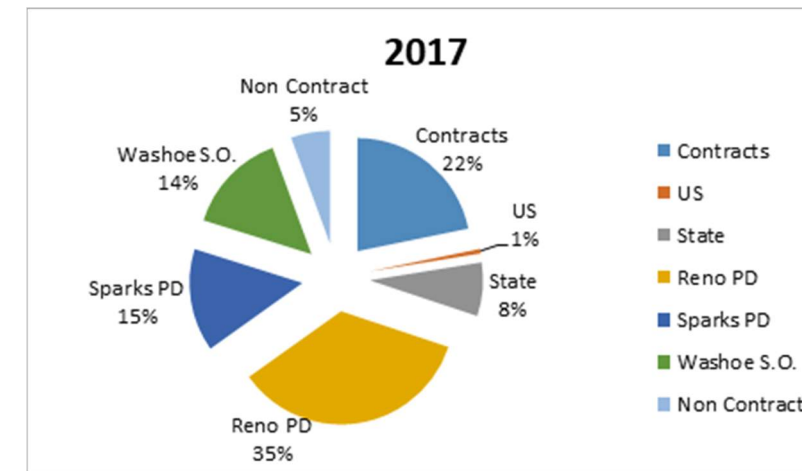
- Positives:
 - Use existing site utilities to reduce project cost.
 - Build a new parking garage in conjunction with the new Forensic Science Lab building.
 - Existing building maintenance staff and on-site security personal could be used to support the Forensic Science Building. Project operation cost savings.
 - Tie new Forensic Science Facility into existing building support system (mechanical, electrical and plumbing) and add smaller building support system on new FSL to supplement capacity of existing systems.

- Negatives:
 - The existing site would need to be analyzed for the optimal location which meets the operational needs of Sheriff's Department and FSL.
 - The existing 911 Parr Blvd. site would need to be analyzed for the optimal FSL building location, which minimizes loss of staff and visitor parking.
 - Re-organization of on-site parking could result in loss of available parking.
 - Splitting the FSL operation would disrupted the Lab Director goal of having all lab staff in one location. Lab Staff management would be affected.
 - FSL & Sheriff's Staff would need to decide which Forensic Science functions will remain within the existing building.
 - Maintaining evidence chain-of-custody and security while transporting between FSL facilities would need to be analyzed.

Additional Study

At the time of this report, there is no State sponsored crime lab in Nevada. Both the Forensics lab in Washoe County and in Las Vegas fill this role for the state in addition to accepted work from various other agencies. Several of these outside agencies exchange services or are in a contract relationship to receive the services provided by the WCSO Forensic Lab.

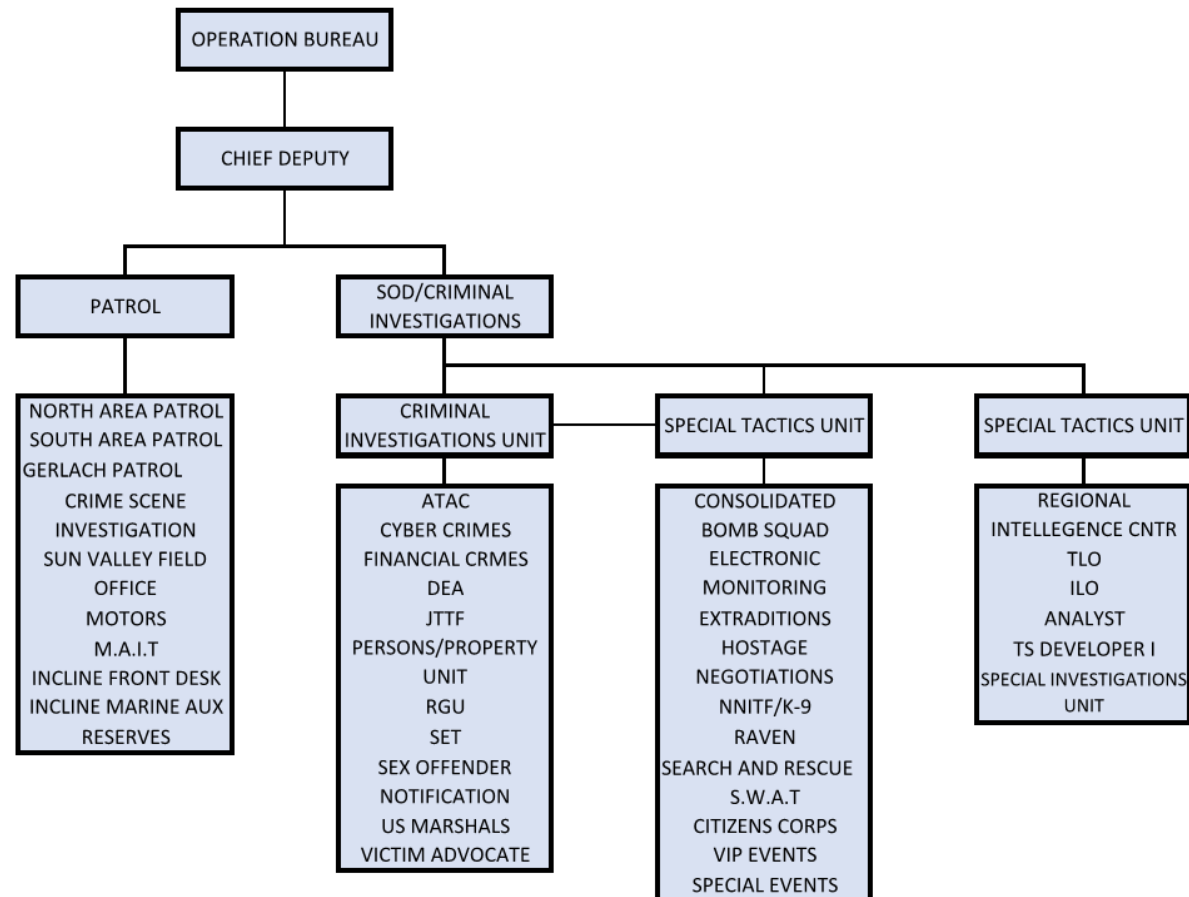
During the analysis of the number of cases handled by the Washoe County Forensics lab for this report, it became apparent that there is a disproportionate ratio in the number of cases handled in behalf of various agencies compared to those handled for Washoe County exclusively. While the primary purpose of this report was an evaluation and planning of physical plant capacity and was not primarily focused on a fiscal cost-benefit analysis, it did however become apparent that there is a potential financial imbalance in the arrangement for the exchange of services rendered by the Washoe County Forensic lab to outside agencies in comparison to the level of services received by the County.



As an example of the imbalance of caseloads, in 2017, only 14% of the Forensic Lab case load was dedicated to Washoe County. Of the various external agencies that received services, the some of the most notably are Reno PD (35%), Sparks PD (15%) and various other contracts (22%). Some of the services provided by the WCSO Forensics team are done in exchange for various other services from these other agencies.

The services rendered by the Washoe County forensic laboratory team to external agencies creates both additional demands on the staffing required to keep up with an increased case load and will impact both the quantity of space allocated to support this staff as well as the need for additional staff space that will not necessarily serve the Washoe County team. The information reviewed in this report highlights the widening gap between services rendered by the County which does not have an increased fiscal benefit provided by the agencies for which the Washoe County lab serves.

OPERATIONS BUREAU



Operations Bureau

Operations consists of Patrol, Criminal Investigations, and Special Operations Division.

The Operations Bureau serves over 100,000 residents who live in the unincorporated areas of Washoe County in addition to the thousands of visitors who attend various events in Reno, Lake Tahoe, and outlying areas. The Bureau also actively participates in many regional activities and units. The Operations Bureau incorporates the Patrol Division, Detective Division, Special Operations Division and the Northern Nevada Counter Terrorism Center.

Regional units include All Threats All Crimes Unit, Consolidated Bomb Squad, Consolidated Extraditions Unit, Regional Aviation Enforcement Unit (RAVEN), Regional Gang Unit, Search and Rescue Unit, Internet Crimes Against Children Task Force (ICAC), Sex Offender Notification Unit, DEA Drug Task Force, High Intensity Drug Trafficking Area (HIDTA) and Fugitive Investigative Strike Team (FIST).

The Operations Bureau uses intelligence-led policing to identify crime trends and direct deployment of resources. Intelligence-led policing is a collaborative enterprise based on improved intelligence operations and community-

oriented policing and problem solving. Intelligence-led policing increases the effectiveness and efficiency of the operational units. (The foregoing is quoted or paraphrased from the WCSO website.)

The Operations Bureau Staffing

Command staff reports that growth in the number of officers and support staff has been flat in the previous ten years due to recession era restrictions on budget. This report does not make staff level recommendations. However, data from "Table 71, FBI Full-time Law Enforcement Officers by Region and Geographic Division by Population Group Number and Rate per 1,000 Inhabitants, 2011" indicates the Washoe County ratio of officers to residents may be low. Data is provided below for comparison with national averages. Growth over time is straight line based on 2017 actual and population is based on the 2010-2030 Consensus Forecast. This baseline may also be low. The 2008 Utilization Study noted there were 119 officers in the Operations Bureau, or a ratio of approx. 1.13 officers to 1000 residents

Washoe With Tesla		
Total Population	Change Previous Year	Percentage Change
432,324		
437,580	5,256	1.2%
443,745	6,165	1.4%
450,687	6,941	1.6%
458,808	8,122	1.8%
467,565	8,757	1.9%
475,996	8,432	1.8%
484,304	8,308	1.7%
492,417	8,113	1.7%
500,431	8,014	1.6%
508,324	7,893	1.6%
516,081	7,757	1.5%
523,725	7,644	1.5%
531,267	7,542	1.4%
538,685	7,418	1.4%
545,991	7,305	1.4%
552,981	6,990	1.3%
559,843	6,862	1.2%
566,592	6,749	1.2%
573,220	6,628	1.2%
579,747	6,527	1.1%

Operations Bureau - Sworn Officer Projections Partol, SOD/Investigations								
Year	County Population	Unincorporated Population **	Washoe County		U.S. West/Pacific *		U.S. County average *	
			Officers /1000	Officers	Officers /1000	Officers	Officers /1000	Officers
2010	434,519	121,665						
2015	472,718	132,361						
2017	503,000	140,840	0.96	135	1.6	225	2.7	380
2020	512,137	143,398	1	143	1.6	229	2.7	387
2025	551,012	154,283	1	154	1.6	247	2.7	417
2030	590,490	165,337	1	165	1.6	265	2.7	446
2035	670,000	187,600	1	188	1.6	300	2.7	507

Notes:

Actual No. based on County data

* Officers rates from *Table 71, FBI Full-time Law Enforcement Officers by Region and Geographic Division by Population Group Number and Rate per 1,000 Inhabitants, 2011

** Unincorporated population is assumed to stay steady at 28% of total for purposes of this chart.

One population service factor that is difficult to account for is that Reno and Sparks may continue to annex land from the County, resulting in a lower growth in the population served by the Sheriff's Office.

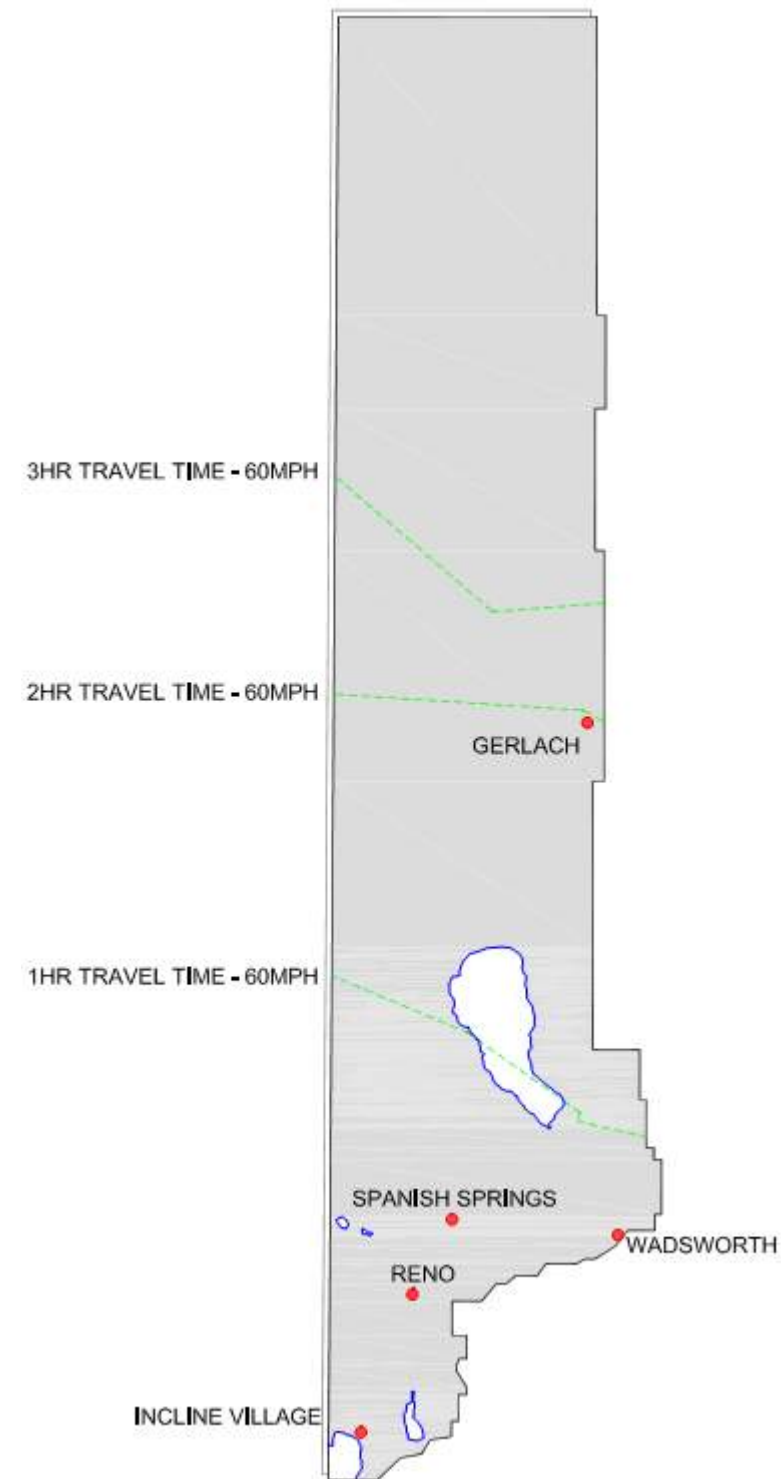
Another impact on staffing growth is miles driven. As the population of the County grows in the outlying areas, the calls for service will increase farther from the Parr Blvd. station, making the officer time less efficient and requiring more officers be located in the field. The northern reaches of the County are 4 hours away by car.

WASHOE COUNTY

For other trends impacting the Operations Division, refer to "Population and Crime" section earlier in this document.

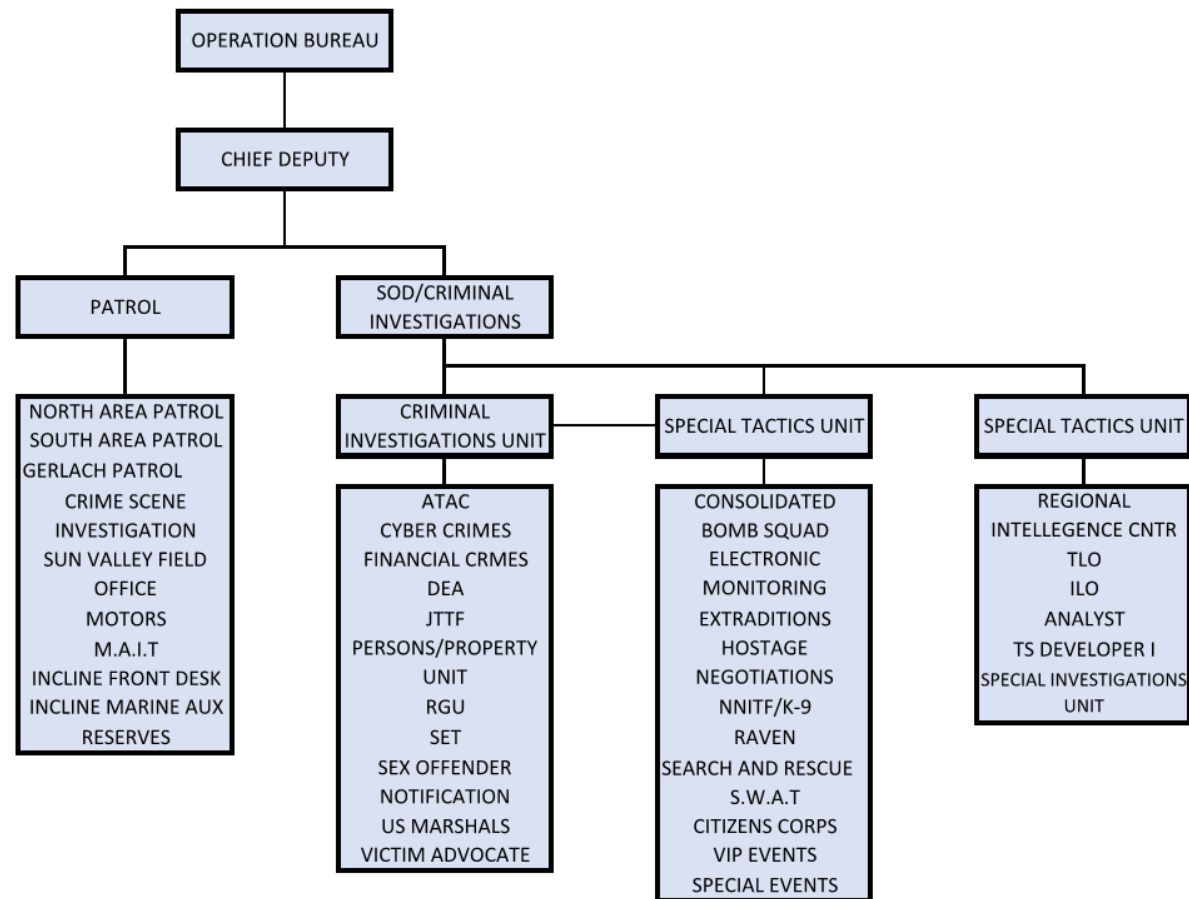
These issues were identified in the 2008 Space Utilization Study and are still relevant:

- As calls for service have increased, and taken a greater proportion of deputies' time, self-initiated actions have decreased proportionately.
- Anticipated trends in crime (especially serious crime) and marijuana crimes, will also drive demand.
- Traffic in the metropolitan Reno area is expected to get worse, lengthening response times from Parr Boulevard.
- The development of substations in the northern and southern portions of the metro area would both absorb growth that would both difficult to accommodate at Parr Boulevard and shorten response times.
- While a number of technological changes (in information technology and communications) have been made, and others will develop in the future, none are anticipated which would have major impacts on space needs.



The map above is diagrammatic and intended to present a scale to demonstrate the travel distance assuming a constant travel speed of 60 mph. This does not factor in road, weather, traffic or speed restrictions.

Operations: Patrol



The above chart is a portion of the overall WCSO organization chart located on page 7 of this report.

The Patrol Division of the Washoe County Sheriff's Office is responsible for all law enforcement duties within the unincorporated area of Washoe County - an area covering over 6,700 square miles. Historically, these duties were concentrated primarily around the central core of Reno and Incline Village. However, in recent years, the housing market trend has seen the development of large-scale planned communities in areas such as Spanish Springs, Golden Valley, Cold Springs, South Meadows and Pleasant Valley. This report is concerned primarily with the Valley Patrol area (and not with the substation at Incline Village or the deputies assigned to the Gerlach-Empire area).

Patrol deputies are the first responders to calls. The division is also responsible for traffic enforcement on county jurisdictional roadways. Patrol also operates the following programs from its Parr Boulevard headquarters:

- Patrol
- Crime Scene Investigation
- Motors
- M.A.I.T. Major Accident Investigation Team
- Incline Front Desk
- Marine Auxiliary
- Reserves
- Gerlach Patrol

Staffing

Patrol currently has a total of 82 filled staff positions working in or from the Parr Boulevard facility of which 78 are sworn deputies and 4 are civilian (note: The previous information is the best estimate based on staff roster chart located at the Parr Boulevard facility). No supporting documentation was provided by County.

Existing Facilities Summary

The Valley division is mainly located at Parr Boulevard. The Incline Village Substation is a satellite station, which can provide law enforcement services to the citizens of Incline Village and Crystal Bay.

At Parr Boulevard, patrol is mostly located on the second floor (lockers, report writing, offices). Vehicles are parked on the ground level (and briefing is also located there). This is very inconvenient and inefficient, since deputies' start by visiting their lockers, and results in unusual practices, such as the need for each deputy to drive their patrol vehicle to the staff parking back and forth to shift their equipment, stored in the trunk of their private vehicle.

The following listing are suggested changes in policy, procedures and potential room expansions presented in an effort to increase productivity and efficiency at the Parr Blvd facility:

- Locker Rooms need to be expanded to accommodate growth.
- Physical fitness area needs to be improved.
- Parking spaces for patrol vehicles and larger equipment is limited and will need to expand.
- Access from interior building work areas to parking is poor.
- As staffing grows the quantity of offices will need to increase.
- The briefing room is close to its maximum capacity.
- There needs to be long term storage for investigators

The majority of this work should be accomplished as other areas of the building are renovated or vacated. A secondary strategy is to develop substations at other sites.

Growth Trends

As the population continues to grow, in order to keep up with expanded population areas that have moved further and further from urban population centers, patrol functions will also need to expand in order to maintain a reasonable level of service. Patrols are expected to grow in the unincorporated areas, as a function of demand for service, along with changes in crime types. Growth in Washoe County population is projected to average 1.55% per year over the next 20 years.

Design Goals: The following design goals are presented for the WCSO patrols division to maintain current levels of service:

- Upgrade and expand locker rooms and fitness area.
- Improve parking and increase quantity for both private and county owned vehicles.
- Improve office area layout.
- Most patrol staff spend the majority of their time out of the office, stopping in at the beginning and end of their shift. Efficient work areas are desirable.
- A convenient circulation path from the patrol vehicle parking area to lockers, equipment rooms, briefing and report writing is critical. This requirement is not met in the existing building.
- A single story structure (or at least the location of all patrol functions on the ground floor) is preferred.
- Some public access is required to command staff.

Locations Requirements

Patrol should be located on the same floor as vehicular parking with convenient links to the spaces deputies use (see Design Objectives, above).

The patrol function should be located at a generally central position with good access to the interstates (1-80 and US-395). The current site is appropriate, but relocating a bit to the north along the US-395 corridor would also be acceptable (moving to the south is also acceptable but perhaps since many deputies live there, shortening their commute to work, though most calls are from the northern area).

Substation option (noted in the 2008 Space Utilization Study):

One solution to long term growth that can also help lower response times and mitigate traffic problems is to construct new substations/field offices.

If new field offices were to be constructed, they would likely consist of at least the following room functions:

- Entry Lobby/Waiting
- Office Area for patrol officers and detectives; with computers, phones, and printer
- Briefing/break room with kitchenette
- Toilets with showers and large lockers for males and females
- Storage room for evidence with lockers and safe
- Storage room for large equipment items

- Possible clerical workstation(s) and command staff office(s)
- Site requirements include parking for patrol vehicles (preferably secured) and for the public, as well as space for a helicopter landing pad. Special parking needs may vary by region. The northern office would need room to park one or more rescue boats that serve Pyramid Lake.

Given the small size of the field offices, it would make sense to co-locate them with other county facilities where possible. This can reduce land costs and possibly take advantage of underutilized county holdings that are available, increasing the efficiency of such holdings and further reducing building costs.

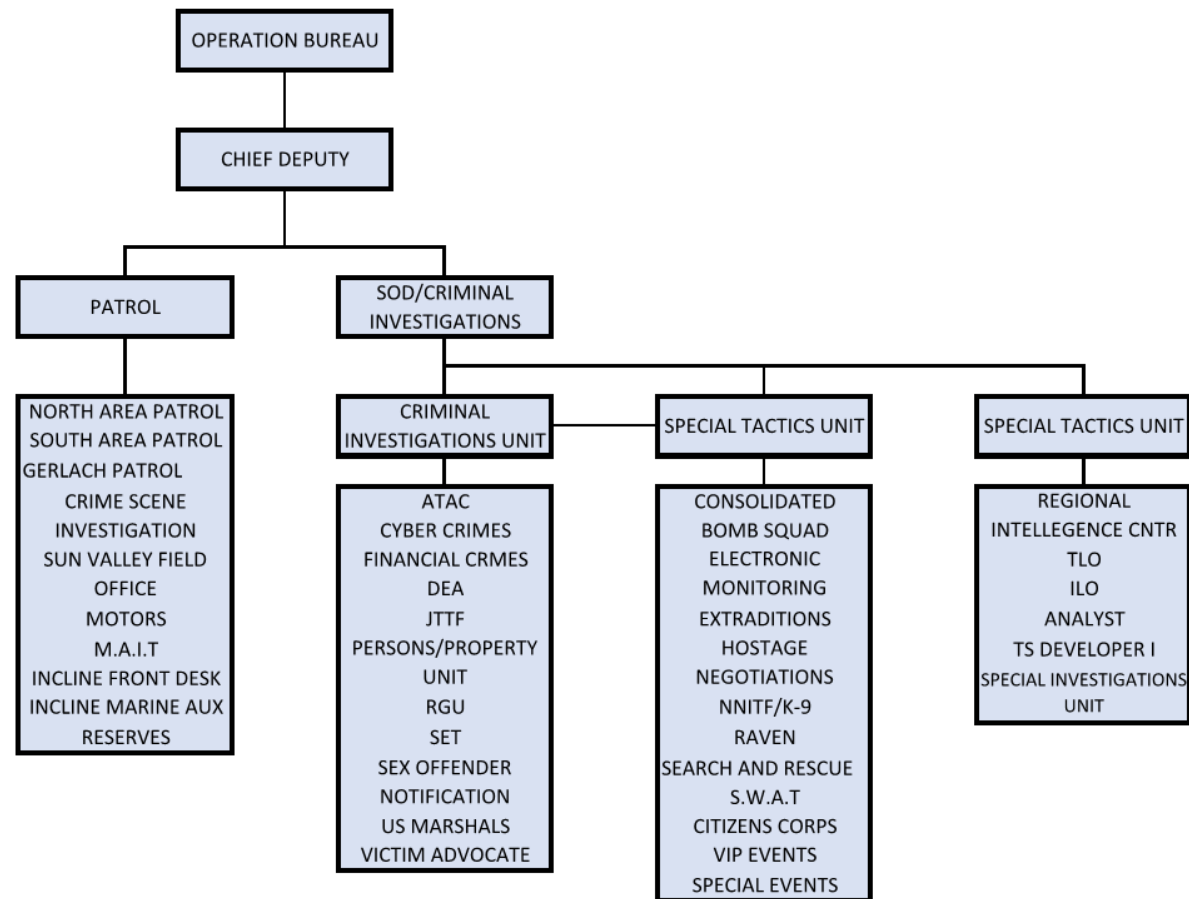
For full-blown sub-stations, it would be necessary to add additional command and clerical staff space, patrol desks, workout facilities and increased parking. Booking areas and holding cells are not anticipated.

Areas for improvements at other sites

Inclined Village substation: The substation at Incline Village (Lake Tahoe) is located at 625 Mount Rose Highway (State Route 431) and is housed in a structure built at least 60 years ago. Originally, it provided a residence for the deputy on the lower level and the station on the upper level. Currently the upper level houses dispatch, IT closets, dispatch supervisor's office, kitchen, lobby, holding/booking area, restrooms, holding cells, office, reception lobby, clerical assistant office, report room and commander office. The lower level houses IT/phone closet, locker rooms, briefing room, armory closet, restrooms, evidence room and an office. The two floors have about 3,600 sf total. There are about 36 parking spaces.

Washoe currently has one lieutenant, one support staff and one patrol officer currently assigned to this facility. This small facility is also made available to other agencies. There are no resident officers at Incline Village, staff drives in from other locations. In past decades, the building had been fully staffed with Patrol Deputies, a Commander, Dispatch staff, civilian support staff and a detective. The building is in need of general interior upgrades and maintenance repairs. If more staff was permanently assigned here a more complete remodel should be considered.

Special Operations Division/Criminal Investigations



Special Operations Division/Criminal Investigations

The Detectives division is responsible for investigating crimes within the Sheriff's area of jurisdiction - this includes all felony and some gross misdemeanor violations. The division is organized into three main groups: crimes against persons, crimes against children, and property crimes. Other sections or programs include: repeat offender program (ROP, which works off site), regional sex offender notification program (also off site), internet crimes against children task force (ICAC; grant-funded), firearms unit (also grant-funded), a domestic violence unit, and a victim's advocate in addition to the Street Enforcement Team (SET) and participation in DEA units.

Specialized facilities within the office area include interview rooms which are observed and recorded, waiting areas for children (generally of victims), and dedicated spaces for equipment and computer monitoring (of child predators). The division hopes to become more proactive in tracking and investigating crimes through analysis and undercover work

Existing Facilities Summary

Detectives are located on the second floor. Due to the odd shape of the building, its space feels somewhat disorganized and not all desired adjacencies are achieved.

Staffing

Criminal Investigations is divided into the following:

- ATAC - All Threats All Crimes Unit
- Amber Alert
- Crimes Against Persons
- Crimes Against Property
- Cyber Crimes Unit
- Financial Crimes Unit
- Joint Terrorism Task Force (JTTF)
- Missing Persons
- Most Wanted Criminals
- Sex Offender Unit
- Unsolved Crimes
- US Marshals (FIST)
- DEA
- Victim Information

Special Operations Division includes the following:

- Bomb Squad
- Consolidate Extraditions Unit
- Hostage Negotiation Team
- K-9
- Northern Nevada Interdiction Task Force (NNITF-HIDTA)
- Northern Nevada Regional Intelligence Center (NNRIC)
- RAVEN
- Regional Gang Unit
- Search and Rescue
- Special Weapons and Tactics (SWAT)
- Vulnerable Persons Unit
- Citizens Corps
- VIP Events
- Special Events

The SOD/Criminal Investigations department currently has a total of 78 staff positions of which 56 are sworn and 22 are civilian. The K-9 officers and undercover officers currently operate from other facilities.

Growth Trends

Growth can be expected based on increased population and crime in the unincorporated areas of the county. Growth in Washoe County population is projected to average 1.5% per year over the next 20 years. However, Reno and Sparks may continue to annex land from the County, resulting in a lower growth in the population served by the Sheriff's Office.

Increasing complexity of certain crimes will require more investigative time. Particular areas of growth are likely to be financial and internet crimes. Legalization of marijuana will have an impact on investigations, potentially more time could be involved in discerning legal from illegal marijuana supplies.

Some growth can be accommodated by placing a property detective in future substations to the north and south of Reno, should these be developed. However, major crime investigations would remain centralized.

Design Goals

- Access for the public to reception and interview rooms.
- Provide adequate work space for staff and equipment, including growth.

Locations Requirements

- Detective's second floor location works well.
- While property detectives could be located in future substations, major crime investigations should remain centralized.
- This division has close links to patrol and should be collocated with it.

Recommendations

Raven Hangar: The Raven Hangar is located at the Reno Stead Airport and is a cooperative effort between the County and Reno PD. The hangar is undersized for the helicopters being stored there. There is limited storage for parts, both inside and out. The work areas are occupying space between and around the stored craft. There are reports of chronic problems with the hangar door which could restrict operations. The Raven operations could utilize a facility double the current size.

Storage Warehouse: There is a leased warehouse off site for Search and Rescue equipment including boats, snow cats, a mobile command post and other gear. The leased space is completely full of equipment. The County should consider constructing a permanent facility. Several staff suggested the best location for this is thought to be the Longley yard, a County owned property adjacent to the airport in conjunction with the sheriff's aviation squad.

First noted in the 2008 Space Utilization Study, the idea of constructing a new **Emergency Services Building** to consolidated RAVEN, Search and Rescue, SWAT, Bomb Squad, Hostage Negotiators & Homeland Security Equipment still persists. A new metal building structure of approximately 28,000 sf at Longley Lane (or Mill and Rock) could accommodate all the specialized, large vehicles and equipment (including SWAT and bomb squad vehicles), the aircraft, pilots, support staff, and volunteers (Citizen Corps). The Longley Lane site is currently used for outdoor storage of large items and for some minor Patrol and SOD operations.



SITE

Description

The 911 Parr Boulevard facility sits on the southern portion of a 53.5 acre county owned site. It is bounded to the south by Parr Boulevard, the Martine Luther King Jr Memorial Highway to the East and rail lines to the West. The north portion of the property is available for expansion, however, due to the large changes in elevation this makes expansion costly grading work and retention.

Site Access

The site is accessed from Parr Boulevard with at the north and south end of the property. These access drives are uncontrolled intersections and serve as the main means of access for all staff, visitors and deliveries.

The high volume of traffic and the close proximity to the 395 Martine Luther King Jr Memorial Highway present difficulty in safely accessing the site. With the prospect of providing additional traffic through increased staff, it is recommended that a traffic study be performed to evaluate the best method of mitigating traffic congestion.

Public Access

Public access to the building provided via the parking lot on the south end of the site. This parking is shared with the staff.

Deliveries and Maintenance Access

Deliveries are made by accessing a service road connected to the access drive to the south of the property on Raggio Parkway. Deliveries to the forensic lab are made here for various items such as gas canisters, however, there is not a turnaround space available for the delivery vehicles.

The access road continues around the facility to the North-west corner where the supply building and impound lot reside. It is recommended that the function of the supply building be relocated near intake and that a turn-around be provided to limit the need for non-staff to enter far into the facility.

Access to the vehicle maintenance bays and the facilities maintenance rooms are provided through an access road from the secure parking. There is currently not a vehicle turn around space available. It is recommended that one be provided.

Inmate Intake Processing and Release

Intake is accessed by a service road connected to the access drive to the south of the property on Raggio Parkway.

There currently is not a separate release port for inmates on the site. Currently inmates are released through the main public lobby. It is recommended that an alternate release

Patrol and Staff Access

There is a secure patrol parking lot that is accessed from the main public parking lot, directly adjacent to the main entry.

Security

- Provide secure building parking and access to the building for staff
- Provide monitorable and secure parking for the public
- Create a separation between the path of travel for inmate release and the public entry to the building

Parking

The number of parking spaces available for public and staff use is currently under sized. Based on the land area available and the configuration of the lot it is not possible to expand with a standard surface addition. It is recommended that a parking garage be erected on site adjacent to the new Forensics lab. Both of these projects can take advantage of reduced escalation costs and economies of scale. These projects can utilize the same large pre-cast bay size which can expedite construction time and realize a cost benefit.

The parking structure would need to be a 2 story structure with parking for approximately 500 vehicles for the WCSO staff. As this building is adjacent to the parking structure, it could accommodate vehicle access for to the forensic lab for deliveries and a vehicle evidence examination bay.

VISITATION

Video Visitation	400 sf / 12 per sf	34	spaces
Visitation Lobby	1,120 sf/250 per sf	5	spaces
Contact Visitation	1,754 sf/60 per sf	30	spaces

DETENTION

<u>1500 inmates / 4 staff per inmate = 375 staff</u>			
	3 x 1.5 for peak shift	188	spaces

ADMINISTRATION

44100 sf / 250 per sf	177	spaces
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FORENSICS

94 staff	94	spaces
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TOTAL	528	spaces
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This space total is for public and staff parking. It does not include spaces for secure parking. This study has recommended the future relocation of the fleet maintenance shop, however, maintaining a secure facility for staff parking is still required.

It is recommended that the parking garage be dedicated to the staff alone to maintain a level of security and separation from the public. The remaining surface parking be provided for public use.

The impound lot on the North-west of the property will need to be relocated at the time of the Infirmary and housing unit expansion.

WASHOE COUNTY COURTS

Introduction

Although not originally part of the original master plan scope, the planning team was asked by the Washoe County team to look at the impacts the Washoe County Court system currently has with the 911 Parr Boulevard facility. Further, the planning team was tasked with identifying potential inefficiencies and how the future expansion of the 911 Parr Boulevard and interface with Court system could benefit Washoe County. As part of this report, the planning team developed the below information related to the court component of this report.

Based on the planning team's initial meeting in late August 2017 with various team members of the County planning team, it was learned that Washoe County was conducting a Downtown Courts Study to establish program requirements for a major court renovation project. The planning team was asked to review the Court documentation and have a meeting to discuss some possible synergies the court project may have with this master plan project. During the meeting, the planning team was asked to provide some supplemental information relative to recent similar experiences. The information requested is included in this narrative section. Used as a relevant past experience project, the Maricopa County Master Plan revealed several key deficiencies as follows:

1. *Maricopa County Summary* – During the Maricopa County Jail Master Plan project developed by this planning team, it became apparent that the Superior Court services would be a significant portion of the jail master plan upgrades. This summary captures in some detail elements where integrating the Court spaces helped achieve some of the savings being sought by Washoe County.
2. *Possible Synergies with the Jail Master Plan* - As discussed in the meeting, this section discusses some areas to consider for potential savings. The example of the Maricopa County process could serve as a template for how Washoe County could proceed with this part of the study.

Washoe County indicated that the National Center for the State Courts (NCSC) has been hired to provide a Courts programming and needs assessment study for the Downtown Courts. This work was completed in early 2016 prior to the planning team commencing with the Jail Master Plan. In addition, the original court study was completed before Washoe County considered a Private/Public/Partnership (3-P) delivery method.

The planning team understands that NCSC has been asked by Washoe County to update their study. The planning team anticipated Washoe County will send the updated plan for additional review with this master plan.

1. Maricopa County Summary

Included in this report is a summary of the discussions from the initial meeting. Topics of discussion included descriptions of several examples of the planning team's recent planning efforts for Maricopa County relative to increasing efficiency for the Maricopa County Jail much like the request from Washoe County. It is important to note the information presented here is being presented as a tool and information as what can or cannot be done relative to key components the planning team discovered during the Maricopa County master plan efforts. Again, this information is being presented only as a tool to Washoe County for possible future planning ideas and not as a hard and fast directive to Washoe County. This information is NOT contained in the Final Recommendations.

Presented in this narrative section are several elements that made the Intake-Transfer-Release (ITR) project a good resolution for the Maricopa County Jail and main Criminal Courts facilities:

- Developed a more efficient process for Intake that includes holding facility: Booking, Classification, Medical Screening, Opportunity to marry with court diversionary protocols, Services (small but sufficient): This process impacts continuum of medical care, impacts classification process, increases transports, affects court mandated requirement, and affect outside agencies.
- Identification of deficiencies in transportation components (sallyports, secure parking, holding areas, public/detainee/police parking areas, etc..) caused delays in transportation and scheduling. Transportation areas the team identified as too small or did not exist in some facilities
- The new design develops a solution that improved the Intake, Transfer and Release functions that will improve time to services, time to initial appearances and maintain the continuum of health care.
- The new master plan co-locates critical administrative functions so that key departments have increased interaction, jail operations can focus on inmate services, and redundant space can be utilized for jail critical operations.
- Identification of lack of confidential space for medical/mental health purposes, attorney visits and for staff conversations with the facility.
- Provisions for full court services at the ITR Jail will allow for streamlining the Initial Appearance fees, simplify the video hearing processes and provide additional court services.

Initial projections indicate approximately \$10,000,000 dollars will be realized by Maricopa County in annual savings which may grow depending on future trends. The full Master Plan provided the required beds for decades into the future while streamlining the process for processing and intake. Additionally, the early release capability is greatly enhanced in the centralized facility reducing transportation trips and associated expenses.

The ITR facility provides optimum transportation elements, access to programs, booking, intake, release, smaller-private meeting rooms, medical access and short-term 72 hour housing. An entire system wide video visitation and interaction space is provided to allow for enhanced hearings across the county.

The important Court component included in the centralized ITR facility is the 4 new Courtrooms provided at the ITR Jail. A separate area was designated that include the Courtroom functions along with spaces for Administration, Clerks, Public Defenders, Prosecutors, private meeting spaces, new video system that tied into a countywide program, transportation functions, Judges chambers, Commissioners, Pro Teams, Jury Assembly, Court Security and other Court support spaces. Judges and full court staff will be assigned on rotation basis to the ITR facility which is about 4.5 miles from the main Downtown Justice Core.

The four courts at the facility include:

- (2) Superior Courtrooms – These will handle trial cases up to a certain level of crimes, evidence hearings, sentence hearings, other courtroom services associated with the Judges to handle Superior Court cases for most of Maricopa County jurisdictions. They can flex into Initial Appearance (IA) hearings if there is condensed dockets.

- (1) Superior Court IA Courtroom – This will focus on managing the Initial Appearance process to make sure that all detainees are given their initial in 24 hours. This is the goal even though the County has 72 hours to provide the IA. This space will run 24/7.
- (1) City of Phoenix Court – Based on the demographic volume of the City of Phoenix, this facility will be staffed by City Court staff to handle the initial process in a streamlined manner eliminating the redundancy of travel time and staffing burdens of transporting so many individuals.

Streamlining the initial booking, classification, initial appearance, medical in a 72-hour holding facility allows these jurisdictions to complete all of these functions prior to transport to the permanent housing or release. The efficiency of the Courtroom services provides savings to the County by:

- Bringing all key administration functions to a location Central to 80% of the jail population
 - Provides for system wide video visitation and hearing spaces
 - Addresses streamlined booking process improving time to initial appearance and services. Pleas, probation assignments and bonding would eliminate the need for any transportation from the Central facility
 - Address 30% of population releases in first 72 hours without transport to permanent facilities (225 to 250 short-term releases per day)
 - Provide full court services since all felony arrests, new charges, or people arrested on outstanding warrants in Maricopa County must be seen in IA Court. Also, anyone arrested on misdemeanor charges by MCSO or the Department of Public Safety (DPS) within Maricopa County will be seen at IA Court, as well as people arrested from warrants issued by the twenty-six (26) justice courts in Maricopa County, and new charges and warrants from fifteen (15) different city courts.
 - As mentioned earlier additional annual savings may be realized as the ITR facility opens up, new trends emerge and the Superior Court can make adjustments based on the new infrastructure. An example is the possibility of adding additional services to the IA Courts.
 - Initial Appearance Court also hears out-of-county and out-of-state warrants, civil, probate, and family court matters. A total of 80,003 initial appearance (IA) hearings were held in IA Court in FY2016, which is a 9.3% increase from FY2015.
 - The IA Court also received 13,023 requests for search warrants and 8,566 search warrant returns in FY2016, which is 8% more than the previous fiscal year. Criminal Administration staff prepares all necessary documents for the commissioner to review.
 - In Maricopa County, transports to video courts would be eliminated reducing 13,080 transports annually.
- The ITR Facility will be located at the Durango Campus where a majority of the permanent housing facilities are located. The main Downtown Criminal Court is about 4.5 miles away in the heart of the City. This Court is located just north of 4th Avenue Jail. This facility will continue to house the hard core criminals on trial for the more serious crimes. The result in transportation advantages include:
 - There are currently 262,000 trips annually consuming time, equipment and staff expenses.
 - 83% of these trips are within the Durango Campus community so co-locating the Court services and programs would reduce the quantity of trips to some degree but, also shorten significantly the assets and time of eliminating approximately 9 miles off each of those trips.
 - The 13,080 trips to video court functions would be eliminated.
 - Approximately 24,000 trips countywide are associated with transports from South Tower (a lower level facility) with trips to outlying jurisdictions or downtown courts. These would be eliminated by handling them at the ITR.
 - There are other potential reductions that are difficult to gauge until the full facility as master planned is built and the Courts review their operations for possible additional savings. Estimated completion is July 2020.

2. Considerations for Court Synergies with Jail Master Plan

The second task discussed was for the planning team to provide a list of some items for Washoe County to consider in their Jail Masterplan that might incorporate some Court functions. The goal is to provide some ideas on where savings could be materialized given the opportunity.

The team understands that Washoe County and Maricopa County are not an apples to apples comparison. Washoe County has an approximate population of 500,000, while Maricopa County has a population of 4,168,000. It is understood the economy of scale applies to any comparisons between Maricopa County and Washoe County. Washoe County has two major components, the Downtown Court and the 911 Parr Boulevard Central Jail facility that are about 9 to 10 miles apart. Maricopa County had three components that are 4.5 miles apart. The higher level detainees and court cases are housed and will be continued to be housed adjacent to the Central Criminal Court. The majority of the jail population is located on the Durango Campus which is located 4.5 miles west of downtown Phoenix. Adding the Court Services at the central jail is part of the reason that the County is realizing long-term savings with their master plan.

Washoe County has hired National Center for the State Courts (NCSC) to perform the study of the Court Masterplan separate from the Jail Masterplan. Consequently the team does not have the intimate knowledge of Washoe County's Court operations or the decisions they have made for the future as part of their studies with NCSC. The team have shared our history with Maricopa County as examples of what they did to achieve their results. After much deliberation, Maricopa County made significant changes to their existing organization including increasing physical space, judicial allocation of resources and technological investments to improve the video and self-help/clerking processing. Perhaps Washoe County could evaluate their system in a similar manner.

Without direct access to the Court decision-makers the planning team is asking Court Administrative Staff and the Executive Project Team to consider the following options for reducing transport and operational costs:

- Co-location of Court Spaces at the 911 Parr Boulevard Jail. There may be the potential in providing for additional Court services to create a more efficient, time-saving process.
- Even if there is no inertia for full Courtrooms, the County may look at providing hearing rooms / video access where lesser services could be provided to save on transport costs beyond the current two (2) arraignment courts currently on site at the Parr Boulevard facility. While some of these may not apply, Washoe County may want to look at:
 - a) Initial Appearances, Arraignments
 - b) Evidence Hearings
 - c) Sentencing Hearings
 - d) Out-of-State Warrants (Family, Civil and Criminal)
 - e) Search Warrants
 - f) Search Warrant returns
 - g) Plea hearings
 - h) Probationary hearings
 - i) Other services not listed or unique to Washoe County's court organization
- Improved transportation hubs at the Central Jail and new Court that will allow for efficient intake, private/detainee movement, parking and efficient returns to minimize
- Any logical operational modification that will allow services to be provided at the source would reduce the costs associated with transport by eliminated the needs for trips. Again physical and/or technological video solutions would provide this inherent efficiency.
- A low percentage of filed cases end up in trials. A minority of these are major cases with higher level detainees. The demographics of Washoe County probably don't warrant a permanent solution to this problem because of an extremely long-time would be required to yield a return on investment. Focusing on the smaller cases and services that will occur 90-93% of the time seems to be the best alternative for maximizing potential savings.
- An area of overlap of this potential between this Jail master plan and the NCSC Court master plan is for the planning team to look at spaces that may currently exist at the 911 Parr Boulevard facility and spaces in the adjoining campus. This could be performed should the County want us to pursue this possibility.

Another major difference is that Washoe County is considering an alternative 3-P process for the delivery of the Court system. The structure and funding streams for this approach have not been fully designed nor identified. Based on preliminary conversation, the team understand that a developer may be looking at providing some non-Court leasable residential and/or retail properties in association with the Court Masterplan.

The team also knows that NCSC has identified two Options for the development of a new court facility for the County to review. Option 1 is a phased development that uses part of the existing Court infrastructure and a portion of new buildings south of the historical Courthouse. Option 2 is the construction of a new free standing building for an entire new Courthouse south of the historical Courthouse that would include the demolition of the existing 1960's era portion of the existing Court infrastructure.

Summary

The planning team's scope of work for this master plan does not include participating in the decision of the final Courthouse options, or any additional information beyond the information contained in this narrative. However, the team can suggest that providing some Court services at the Central Jail would reduce the program requirements at the Downtown Court, reducing current transport and security escort costs. This could potentially allow for greater flexibility in incorporating non-Court, 3-P related spaces in the Court master plan. Another possibility is the reduced program requirements could reduce the scope of the Downtown Court master plan, possibly providing some savings for the County in the 3-P process with less project to finance.

As mentioned previously in this narrative section, this above information is being presented only as a tool to Washoe County for possible future planning ideas and not as a hard and fast directive to Washoe County. This information is NOT contained in the Final Recommendations.

FINAL RECOMMENDATIONS

High Priority Projects

Detention Bed Capacity – Current Needs - Based on the data and information reviewed, developed criteria and analysis, it is not recommended nor necessary to expand the detention bed capacity beyond the current suggested 1,220 bed normal operating capacity using the 1.5 cell bed factor.

Detention Bed Capacity – Future Needs - Based on population projections, it will be necessary to expand detention bed capacity by 144 cells X 1.5 = 216 beds by year 2021 and by an additional 144 cells X 1.5 = 216 beds by year 2031 for a total future bed capacity of 1,652 beds.

The following projects are those projects recommended for Capital Improvement planning based on the data gathering, established criteria, analysis and final recommendations. The following listing is provided in order of priority.

1. Medical Infirmiry – 2019

The first project recommended for completion as part of this report is a new medical infirmary to be located outside the current WCSO Parr Boulevard building footprint. Medical and mental health inmates require complex supervision and service challenges including specific medical or mental health attention and closer observation needs, as well as specialized housing. The current 19 bed medical infirmary is way undersized to provide required services necessary to address the specific challenges for medical and mental health inmates. Based on the current increased population of this facility, the infirmary requires significant expansion.

Originally this infirmary was designed to support a 500 bed population which has now nearly tripled from its original size. The current size of the infirmary does not allow for required number of exam rooms, medical treatment rooms, required room size for X-ray and Dental as well as provide the required size and number of medical offices. The size of the existing infirmary does not allow for the necessary number of padded cells, negative air cells with ante rooms and other necessary functions such as adequate nurse station and medical records storage along with additional storage space. There is no clean and/or dirty linen laundry area included with this facility, however, this function can be shared with a new central laundry.

Based on the national trend in jails towards mental health treatment, there is the need to increase the infirmary and include all necessary functional space to allow the WCSO facility the ability to properly treat mental health and other inmates. The WCSO currently uses one of the general population pods as a 40 bed mental health treatment pod. If the new infirmary is constructed, the 40 mental health beds can be repurposed back to general population beds. Additionally, based on the mental health needs and suicide watch functions, the current medical infirmary does not allow for the proper orientation of suicide watch cells relative to the observation position. Currently staff provides adequate observation but a new medical infirmary will provide additional suicide watch provisions not available in the current infirmary configuration. There are several suggested options for expansion in this report that would provide a minimum of 100 infirmary beds with several of the beds to be sized for medical use. However, the final recommendation includes an infirmary that contains 120 beds. Further it is recommended that the infirmary be divided into pods of 16 beds up to a

maximum of 24 bed pods, which allows the WCSO staff for great flexibility in managing and treating smaller groups of mental health and medical inmates. This level of treatment is in keeping with the latest national trends for the correctional treatment of mental health patients. Additionally the 16 or 24 bed pod size works out very well for the provisions of American Correctional Association (ACA) standards for adult detention center shower, water closet and lavatory counts. At 120 beds, the medical and mental health needs of this facility would be addressed into the year 2037.

The new medical infirmary expansion would allow the current infirmary to be repurposed and renovated as part of intake that would include additional padded cells currently lacking in the intake. A portion of the some cells could be renovated to accommodate medical sized cells, normally larger than a typical general population type cell, and provide the intake with additional capacity and flexibility for medical inmate treatment. Based on a 120 bed infirmary the size of the expansion is approximately 45,000 SF.

Operations: The current staff posted positions in the existing infirmary includes a posted security officer and a nurse adjacent to the main entry. However neither position has a direct line of sight into all cell areas, which requires them to leave their post to be able to directly view into the cells. An additional option would be to add additional CCTV cameras to support the view into cells, but this is not an optimum option. There are realized costs savings in designing a facility which creates efficiencies for staffing in each new pod. However, the costs of staffing for the new facility will require additional study beyond this report, since there currently are no separate costs available for the operation of the infirmary separate from the costs of operations for the main detention center. It is recommended that a staffing analysis, specific to the operation of the proposed infirmary, be performed as part of the preliminary design phase.

2. Forensics Laboratory – 2021

The second project recommended for completion in this report is the design and construction of a new Forensic Laboratory. Based on the increased case load the existing facility requires expansion beyond its current capacity and footprint and needs to be expanded. The expanded case load and the potential for growth within Washoe County have the potential to increase the forensic lab needs for lab positions to 94. With a total of 94 staff positions, the National Institute of Science and Technology (NIST) recommends 700 to 1,000 gross square foot per lab staff member. For purposes of this report and to provide the WCSO some capacity for the 20 year future growth, this report is including a total of 94 lab positions. It is further recommended by the with ninety four (94) staff members it is recommended the building footprint be developed for 80,250 SF or about 850 SF per staff. With an 80,250 SF new facility, the Forensic Lab team will be provided with some capacity for the future growth into the year 2037. Due to the need for incremental expansion and the generally high cost associated that would be associated with building out the entire 82,250 SF, it is recommended that the entire shell be constructed with only the necessary square footage of lab space constructed in 2021. The additional lab portions may be constructed at later dates when expansion is required, thus efficiently using available funds. The future Forensic Science Laboratory could omit a central evidence storage warehouse, but may include a smaller evidence storage room for only in-process evidence.

With the creation of the new lab facility, it is also recommended that an IT data center be created in a shared facility. Due to the high cost of relocating IT systems and that this relocation would be a future need, it is

recommended that this be created as a shell space. This 9,000 facility would bring all of the CTU under one location. See recommendation 9 for more information.

Currently a portion of the new lab will need to be dedicated to keeping up with the increased case load for Washoe County and the various agencies it serves. It is recommended that an additional study be pursued to evaluate the increase in exterior caseloads on the Forensics lab, the potential cost impacts that this increased case load has on the funding of the new facility, and to ensure a that there is a balanced and equitable exchange of services between Washoe County and other agencies that exchange services. These services rendered by the Washoe County to other external agencies may potentially serve as an economic generator to help facilitate a portion of the funding for the construction and continued operation of the new facility.

Note: There is a current project that will add additional staff office space within the already tight building footprint. Included in this report are several expansion options to expand the existing forensic laboratory footprint.

3. Parking - 2021

The current available public and staff parking is longer sufficient to support the ever growing needs of this facility. The next project to be considered for expansion is a new multi-level parking structure. One option proposed in this list of final recommendations is a combined parking structure with a new forensic laboratory to be constructed outside of the current WCSO 911 Parr Boulevard building footprint.

4. Kitchen/Laundry - 2021

The current kitchen and laundry functions that support the current 1,220 normal operating capacity population is way undersized. However, this function can remain in place until the year 2020 when planning for the increased detention component of this facility begins. When this facility is expanded in the year 2021 by an additional 216 beds the kitchen and laundry at its current size and configuration will no longer be able to support the additional population.

5. Planning – 2021 – Increased Bed Capacity

Expand the current 1,220 detention bed capacity by 144 cells X 1.5 factor = 216 beds

6. Planning – 2021 – Additional Programming Support Space

At the time of the planning for the increased bed capacity it will be necessary to plan for the additional support space necessary to support the increased bed population.

7. Planning – 2031 – Additional Increased Bed Capacity

Expand the 1,436 detention bed capacity (2021 numbers after the bed expansion project) by an additional 144 cells X 1.5 factor = 216 beds

Additional Projects – Lower Priority

In addition to the projects identified as High Priority – There are a number of lower priority projects that should occur to ensure the current Parr Boulevard facility and staff can operate at the highest level of efficiency. The following projects although are of a lower priority should occur to ensure the level of service provided by the Parr Boulevard facility is on Parr with national standards:

8. Patrols – Increase number of patrol officers and spaces – 2025

It is recommended that the several of the functions that provide support to Operations be relocated to the space on the sub level formerly occupied by the Forensics lab. A new fitness center, lockers, briefing room, report writing, record and equipment storage would be provided. Relocation of these functions would allow for the expansion of the Patrol and SOD office suites as well as other support functions.

Currently there are a number of functions shared at this facility that support the patrols division. Functions such as fleet maintenance can be relocated off site to a new facility.

Regarding offsite elements of the Operations group, it is recommended that a new Emergency Services Building be constructed at an off-site location to consolidate RAVEN, Search and Rescue, SWAT, Bomb Squad, Hostage Negotiators & Homeland Security Equipment still persists. A new metal building structure of approximately 28,000 sf at Longley Lane (or Mill and Rock) could accommodate all the specialized, large vehicles and equipment (including SWAT and bomb squad vehicles), the aircraft, pilots, support staff, and volunteers (Citizen Corps). The Longley Lane site is currently used for outdoor storage of large items and for some minor Patrol and SOD operations.

9. Administration Building - 2025

It is also recommended that the administration be converted to more open-office style space with standard sized work spaces. Due to the difficult shape of the space occupied by the Civil and Records division the difference between the gross available space and the net usable space is disproportionate to most buildings. By eliminating walls and other unnecessary encumbrances, this can maximize the space available. While, the majority of the staff would reside in this open plan, there are certain groups such as the NCIC that would require sectioned off space to reduce background noise.

An open office plan would also allow for the cross collaboration of staff and sub-groups, increasing the flexibility of the workspace. Projections for space use are available in appendix 2.1

It is recommended that the long term record storage be relocated to the lower level. It is also recommended to relocate payroll and personal records to upper level to address as a security measure and to make more room for the expansion of Civil Record Division. These later recommendations are based upon space becoming available in other areas of the building as recommended in later parts of this report.

With the creation of new Forensics lab, a 9,000 shell space for a data center can also be created that can house all of CTU. Research and Development, IT support and support for Patrols can be located here,

freeing space for various departments such as backgrounds, training and patrols, to expand in the existing facility. The location of the data center would be in close enough proximity to the main building that the needed cross department relationships that are required in person interaction could still be maintained.

CIVIL AND STRUCTURAL ANALYSIS

Arrington Watkins retained the services of Tectonics Design Group to prepare a civil and structural analysis of the 911 Parr Blvd Facility for the master plan. The following is a report prepared by them for this report.



November 29, 2017

Peter Sangiorgio
Arrington Watkins Architects LLC
5240 N. 16th Street, Suite 101
Phoenix, AZ 85016

RE: WCSO Parr Blvd Master Plan – Civil Commentary

Dear Peter,

As part of your master planning effort at the above facility, we offer the following commentary regarding civil site aspects of the various options.

Infirmary

As a stand-alone facility, this will require separate new utilities to be run to the building. This will require extensions for water and sewer and a collection system for the storm drainage. With the new sewer demand, an overall sewer demand versus available sewer flow should be completed to determine if the existing sanitary sewer system has the capacity to take on additional load. The access road around the facility as well as the parking in the northwest will need to be relocated as well. Existing utilities within the access road will need to be relocated. The biggest concern is the extensive grading that will be required for not just the facility but the relocation of the parking lot. With the grading I would expect to see retaining walls being required for the new facility along the NE corner of the building to the NW side of the site. The ideal location of the storm drainage facility would be to the NW of the new facility.

Administration/Forensic Lab & Parking Structure

Both proposed facilities will be new construction and will be constructed over the existing southern parking lot. Existing utilities will be removed under the proposed structures and re-routed as needed.

The Administration facility will require water and sewer laterals be run to the structure. With the new sewer demand, an overall sewer demand versus available flow should be completed to determine if the existing sanitary sewer system has the capacity to take on the extra load. Truckee Meadows Water Authority is the current water purveyor for this area. I would recommend a Discovery Application be submitted to them as step one in determining the overall water availability and new water rights requirements associated with the project. The Discovery will outline the required water infrastructure required for the project as well as any fees. The overall fire flow will also be considered, determining how we will meet the new demands.

Grading for the Administration facility will be over the existing parking lot, so we will have to match the existing grades around the new base, though some additional parking lot might need to be removed to blend into the building. We are constrained to the west due to the rail road tracks so keeping the road to the north will be required.

The parking structure will require fire protection but no other utility services. Grading for this building will be similar to the Administration facility as it will be constructed over the existing

southern parking lot. There will be minimal impact to the required amount of storm drainage and detention requirements as we will not be increasing the impervious area; we are only replacing impervious parking for impervious building.

Housing Expansions # 1 & #2

Whichever option is chosen for the Housing expansion, this will require extensions for water and sewer and a collection system for the storm drainage. Options 1 and 3 will minimize site grading issues since it will be going over an existing facility, but Option 2 will have grading issues.

For Option 2, the biggest concern is the extensive grading that will be required for the relocation of the facility to the north. With the grading I would expect to see retaining walls being required for the new facility along the NE corner of the building to the NW side of the site. The ideal location of the storm drainage facility would be to the NW of the new facility.

Detention Services

Whichever option is chosen for the Detention Services, this will require extensions for water and sewer and a collection system for the storm drainage. Grading will be an issue as it will be going over an existing facility but will be tied to all the issues outlined in the Infirmary summary.

General

At this time an overall existing utility master plan would be a minimal starting point, so we can outline any relocation/rerouting of utilities as well as determine the best routes for extensions to the new facilities. A Discovery application to TMWA would also be a next step for determining future water facilities and fees as well as an overall sewer capacity report.

Once we have a geotechnical report we should be able to determine options for any retaining walls and if we will have any earthwork issues with the soils. Soil in this area might have expansive clays which would need to be removed from site and replaced with structural fill driving up the cost of the cut/fill.

Please let us know if questions arise on the above recommendations.

Sincerely,

TECTONICS DESIGN GROUP, INC.

Matthew K. Rasmussen, P.E., LEED AP



November 28, 2017

Peter Sangiorgio
Arrington Watkins Architects LLC
5240 N. 16th Street, Suite 101
Phoenix, AZ 85016

RE: WCSO Parr Blvd Master Plan – Structural Commentary

Dear Peter,

As part of your master planning effort at the above facility, we offer the following commentary regarding structural aspects of the various options.

Infirmary

As a stand-alone structure, there is some flexibility as to selection of a structural system. However the constraints of circulation and security will likely favor a structural steel framework. This allows much of the fabrication to occur off site, and minimizes erection time in a sensitive construction environment. Concrete work and its necessary manpower and pumps will be minimized as structural steel use is maximized.

The structure will be appropriately robust for an institutional building, but detention-specific standards will require architectural finishes (as opposed to having exposed structure). IBC 'Type of Construction' is yet to be determined.

Administration/Forensic Lab & Parking Structure

Similar to the Infirmary building, there are options as to structural system of the administrative areas and lab space, but a structural steel frame is recommended. Without the detention concern, exposed structure is an option if desirable architecturally.

The parking structure should be structurally separated from the admin/lab building. The two structures will exhibit different behaviors both seismically and thermally, and a slight separation (expansion joint) is appropriate. The structural system for the garage will likely be a precast concrete framework, with cast-in-place concrete topping slabs and foundations. Logistics of the construction operation will be spatially tight, but will at least be free of a detention concern while being built.

Housing Expansions # 1 & #2

Option 1 and Option 3 of your plan would lead us to recommend matching the structural system of the existing housing pods. That system consists mainly of tilt-up concrete walls supporting steel framing. Option 2, with the housing expansion located remotely, could lend itself to a precast (factory cast) wall system. Precast walls require less space (no casting slabs), and their aesthetic difference from existing housing buildings would be less obvious due to physical separation.

Detention Services

These structures lend themselves to structural steel for the reasons mentioned above. However, exterior walls could either be tilt-up concrete to match adjacent existing buildings, or precast to minimize needed construction space.

Patrol/Hangar Expansion

A pre-engineered steel building is an appropriate system for this use, due to both its economy and its ability to provide long spans. Being pre-engineered, it will require minimal erection time. Security or sensitivity of items housed in this building might warrant a concrete or masonry wall at its perimeter, even if only partial height.

General

Soils in this part of Reno can be tricky since pockets of expansive clay are often present. It is expected that these can be handled by simple overexcavation beneath conventional pad and strip footings, however thorough third-party inspection of earthwork operations will be key.

Please let us know if questions arise on the above recommendations.

Sincerely,

TECTONICS DESIGN GROUP, INC.

Jeffrey Turnipseed PE/SE

MECHANICAL ELECTRICAL, PLUMBING SYSTEMS

Arrington Watkins retained the services of MSA Engineering Consultants to prepare a report regarding the building systems of the 911 Parr Blvd facility. The following is their report and recommendations.

Washoe County Sheriff's Office

911 Parr Boulevard, Reno, NV



Mechanical & Electrical Systems Assessment Report

Prepared for
Arrington Watkins Architects

November 28, 2017



4599 Longley Lane
Reno, NV 89502
T 775.828.4889

R17042 WSCO MEP Assessment
November 28, 2017
Page 2 of 7

EXECUTIVE SUMMARY

Sean Frey and Chuck Pasillas, with MSA Engineering Consultants, conducted a 1-day walk-through of the Washoe County Sheriff's Office, located at Parr Boulevard, Reno, Nevada, on June 14th, 2017, in order to get an understanding of the system types and any equipment issues. We were accompanied by Washoe County maintenance staff employees who gave their insights of the property and equipment.

Our goal of the walk was to determine the general condition and capacities of the major mechanical and electrical systems, locate and identify any major deficiencies and determine the if the existing systems could be utilized for future growth.

MECHANICAL SYSTEMS

General Description:

There are multiple buildings as part of facility with each having its own source of heating and cooling and domestic water heating. The main building, which consists of Housing Units 1-9, the Infirmary and the Administration area are mostly served by the heating and chilled water plants. The air handlers for the housing units have their own dedicated cooling systems. AC-4, consisting of Housing Units 11-17 and Programs, are served by standalone HVAC equipment and a separate domestic water heating plant. Housing unit #5 was a stand-alone tent structure that is no longer used.

A separate "pump house", located at the southwest corner of the property, houses the domestic and fire water services. The domestic service splits underground to the west of the intake area to serve the main building, AC-4 and irrigation.

The existing service is located in a vault at the southwest end of the main building. This vault contains the main gas meter and piping tee before the meter that is routed to the rest of the facility. A single 4" polyethylene gas main routes from the main meter to the main building and another 4" polyethylene gas main routes along the west of the facility to two gas meters, one at Building 10 (Programs) and one at AC-4. This 4" PE main should be capable of supporting additional gas loads if new meters are set at any new building.

Observations/Comments:

Main Building Chiller Plant

The main building's chiller plant, located just to the west of Housing Unit #1, consists of two 200-ton chillers each with their own chilled water pump. One chiller, manufactured January 2000, is a Trane model RTHB215FLF serial U00A04332 device number 4332RT215, has R-22 refrigerant and is used as a backup. The second chiller, used as the primary chiller, is a Smardt model SWA080 serial FF0010J357Q1594 and has Danfoss Turbocor compressors that utilize magnetic-levitated bearings. This new chiller has no oil required in the R134A refrigerant and a greatly reduced friction resulting in a very efficient chiller.

The chillers are piped as variable primary flow and are sized for the load of the air handlers to which they are connected. There is no additional capacity in the chilled water plant to serve any additional load without removing the redundancy in the system. The piping mains are capable of adding some additional equipment and load. The chillers are water cooled by two cooling towers located on the roof above the chiller room. The cooling towers are connected to plate and frame heat exchanger that allows for the use of free cooling during cold months. The cooling towers are approaching the end of their service life and should be replaced soon.

Main Building Boiler Plant

The main building's heating water plant, located just to the west of Housing Unit #1, consists of two large Cleaver Brooks packaged boilers, six heating water pumps and an expansion tank. The boilers, model CB200-250, are each 10,500 MBH (312.5 boiler horsepower) and can be fueled by either natural gas or fuel oil; natural gas is the primary fuel source.

The heating hot water indirectly heats the domestic water throughout the main building via heat exchangers either next to or within the associated storage tanks. There are two 1,000 gallon domestic tanks with integral heat exchangers that serve the detention support areas, such as the kitchen. A 700 gallon tank is located in the Administration area penthouse that serves the Administration wing. And each of the eight housing units (#1-9) has an external heat exchanger that is connected to their own storage tanks.

The boilers are near the end of their service life and will need to be replaced soon. It is recommended to separate the heating system and domestic water heating so the boilers are not required to be fired year-round. An alternative would be to have multiple smaller boilers installed that will require only one or two to be used during the summer months. The existing heating plant has capacity to serve additional loads, but the actual available capacity would need to be reviewed in depth.

Main Building Administration Area

The first and second levels of the administration area are served by five variable air volume (VAV) air handlers that are located in the mechanical mezzanine at the roof level. These air handlers are served by the chilled and heating water plants and are approximately 30 years old. It has been noted that the intake louvers at the mezzanine leak into the space below. The basement level houses the crime lab and storage and is served by three air handlers that are 100% outside air. The heating system for these air handlers is on a tertiary loop with 35% glycol to help prevent freezing. The air volumes of the crime lab are out of balance and short of outside air.

A 700 gallon hot water tank with an indirect heat exchanger from the heating water system provides domestic water to the locker rooms and restrooms in administration wing.

The IT room in the administration area is cooled by two Liebert direct expansion (DX) units. The space was never intended to be an IT room and has underlying issues, such as, leaks from the locker room above, low ceiling space, and a poor space layout for cooling. It is recommended to provide a new location for the IT equipment with dedicated cooling systems that are fed from the chilled water plant with DX cooling on generator backup as the secondary source of cooling. An Inergen fire suppression system is utilized in this space. This system uses argon or other inert gas to displace the oxygen in order to extinguish any fire.

Detention Area - Infirmary, Intake, Visiting

The detention area is made up of two levels. The lower level or first floor consists of the Infirmary, Intake, Booking and the Main Kitchen. The Lower and Upper DFS mechanical rooms houses five 4-pipe air handlers that served by the chilled and heating water plants and are approximately 30 years old. The Intake area is served by packaged gas electric rooftop units that range from 10-18 years old. These units are nearing the end of their service life and replacement parts are getting hard to find and expensive. Additionally, these units utilize R-22 refrigerant which is costly to replace. The Intake corridor and rooms often experience a negative air situation, especially when the kitchen hoods are operating, which resulting in cold air in the winter and hot air in the summer being sucked into the space, making it very uncomfortable.

Domestic hot water is stored in two 1,000 gallon storage tanks located in the boiler and are connected to the heating water system. It is recommended to put this domestic system on its own water heating system to separate the heating from the domestic systems and reduce summertime use.

Housing Units 1-9

Housing Unit #5 has been abandoned in place and is therefore not included in this assessment. Each of the eight housing units has a dedicated air handler that is cooled via DX cooling (not connected to the chilled water plant) and heated via hot water from the heating plant. Many of the original multizone air handlers have been replaced and the remaining units are scheduled to be replaced in the coming years. Housing Units 2, 6, 7 & 8 are currently set up to be utilized as intake units, which consist of HEPA filtration of the air to reduce any airborne diseases. Housing Units 1, 2, 3, 6, 7 & 8 have all had the air handlers recently replaced; the units at HU 4 & 9 remain.

The domestic hot water is provided through an indirect heat exchanger that heats the domestic cold water and is stored in a tank in each housing unit mezzanine. The water is currently stored at 120F. It is recommended that the domestic hot water be stored at 140F and tempered to 120F for the showers in the space.

AC-4: Housing Units 11-17, Medical, Kitchen

AC-4 consists of Housing Units 11-17, a small infirmary area and a kitchen. The medical area is rarely used and kitchen is used for staging and reheating and the laundry area is unused. The areas are all served by packaged gas electric rooftop units which are approximately 20 years old. There are three heat recovery ventilators which mix air zones with the RTUs creating issues when trying to do medical isolation.

The building has its own gas meter which is tapped off the 4" PE gas line. There is a fire riser room located at the south end of the building. The mechanical mezzanine houses three Lochinvar 1,000 MBH Power Fin boilers; one of which is not operational. The boilers are connected to two 400 gallon storage tanks for domestic hot water. There are also two water heaters with 150 gallon storage tanks for the laundry service which have not been used. A 5,000 gallon grease exists to the east of the kitchen space. This would have to be removed and a new interceptor installed if a new building is to be located here.

Programs Building

Building 10, now used as the Detention Programs Building, is primarily used for meetings and library use. The building is served by packaged gas electric rooftop units which are approximately halfway through their intended service life. The spaces have had many walls removed to create open areas which are served by a couple large single units. The building has its own gas meter which is tapped off the 4" PE gas line.

Control System

The building HVAC control system is an Invensis DDC system. This system is used to control all the HVAC equipment in the building. Any new additions can be added to this system. A new front end system should be entertained within the next 15 years to take advantage of improved control system features and capabilities.

Water Pump House

A separate "pump house", located at the southwest corner of the property, houses the domestic and fire water services. The domestic service consists of a 10" inlet that is reduced to two 8" sets of strainers, double-check backflow preventers and clay-style pressure reducing valves.

The two sections then connect back to a 10" that extends up the west side of the complex. Either side of the domestic mains can be isolated to service the valves. The domestic service splits underground in the parking lot at the west of the intake area to serve the main building, AC-4 and irrigation. Each of the three zones has its own isolation valve located underground.

The fire service consists of a 12" inlet that is reduced to three 8" sets of strainers, double check valves and isolation valves. There are no pressure reducing valves in this system. The isolation valves are detector style so the fire alarm is activated once the valve is closed.

ELECTRICAL SYSTEMS

General Description:

It shall be the intention of this report to establish viable options for the expansion of the electrical utilities serving the Washoe County Detention Center (WCDC). A master plan for the development over the course of the next twenty years will be established based on future growth goals of the WCDC.

This report will evaluate both the normal power system and emergency power systems and advise on future growth options to serve the twenty year master plan. Final sizes and locations of future growth areas are still to be determined and changes to the master plan may affect the recommendations of this report.

Observations:

Normal Power Distribution System

The Washoe County Detention Center (WCDC) is presently served by two utility transformers located to the south end of the jail facility and the south end of the support building. The jail building transformer services a main switchboard 'MSB-A' and the support building transformer services a main switchboard 'MSB-B'.

Jail Facility Service

The jail facility is served by 'MSB-A' which is a 3000A 277/480V-3ph-4W switchboard that consists of a meter section and 3000A main breaker. This board feeds into a 2000A breaker that is located in original main switchboard 'MSB'. This breaker then feeds into the ATS served by the 750KW emergency generator. MSB-A is located at the south end of the existing jail facility adjacent to the utility transformer.

The 2000A 277/480V-3ph-4W distribution Board 'MSB' serves the majority of the loads in the existing jail facility. 'MSB' was originally a 6000A board that has been reduced over the years to a 2000A section. This modification was likely done to provide complete facility backup for the service. Subsequent modifications and improvements have been made to the building all of which appear to have added load to the building. Distribution board 'MSB' is located in the main electrical room of the existing jail facility.

The distribution board 'MSB' feeds a number of distribution boards:

- 'DSA-1' (1000A 277/480V-3ph-4W) located in the main electrical room.
- 'DSA-2' (1200A 120/208V-3ph-4W) fed from DSA-1 through a 300 KVA transformer. Both are located in the main electrical room.
- 'DSD-1' (1200A 277/480V-3ph-4W) located in the main electrical room
- 'DSD-2' (600A 120/208V-3ph-4W) fed from DSD-1 through a 150 KVA transformer. Both are located in the main electrical room.

- 'DSE-1' (800A 277/480V-3ph-4W) located in the main electrical room. DES-1 is also fed from an 350KW emergency generator via an automatic transfer switch. See
- 'DES-2' (600A 120/208V-3ph-4W) fed from DSE-1 through a 150 KVA transformer. Both are located in the main electrical room.

The distribution boards feed panels, elevators, motor control centers, and transformers throughout the jail facility.

Support Building Service

The support building and the housing units west of the support building are served by a 2000A 480V-3ph-4W main switchboard 'MSB-B' 'MSB-B' is located in the dock area of the support building. The switchboard feeds panels, elevators, and transformers throughout the buildings. 'MSB-B' is also backed up by two parallel 350 KW emergency generators. The generators and switchgear are all located in the main electrical room of the support building.

Emergency Power Distribution System

The WCDC is presently served by multiple engine generators which provide complete backup of both electrical services.

Jail Facility

The jail facility is served by two diesel fired gensets, Genset 'EG-A1' (750KW 277/480V 3ph-4W) and 'Genset 'EG-A2' (350KW 277/480V 3ph-4W). 'EG-A1' is connected to 'MSB-1' to provide full backup of the service 'MSB'. 'EG-A2' is connected to 'DSE-1' to provide backup to all loads connected to 'DSE-1'. It is unclear whether EG-A1 and EG-A2 are interlocked to run concurrently.

According to the 2008 utilization study, EG-A1 is overloaded and HVAC has to be shed in order to maintain generator power. HVAC units must be manually turned off through the BMS to shed load. EG-A2 has approximately 71% capacity according to the 2008 report.

Support Building

The support building is served by two paralleled diesel fired gensets 'EG-B1' and 'EG-B2', Both gensets are 500KW 277/480V-3ph-4W for a combined total load of 1000 KW. The paralleled gensets are connected directly to the main switchboard, so upon loss of power the generators will provide full backup.

Conclusion:

The Jail facility appears to be at capacity for the electrical service MSB-A and over capacity for the generator (specifically EG-A1). The support building does not appear to have an overloading issues for the service MSB-B or the generators.

Recommendations:

- Any future expansions to the facility should be provided with a new utility transformer and service.
- Any future expansion to the facility should be provided with a new emergency distribution system designed to current code with separate transfer switches and distribution systems for emergency lighting, code require loads, and option stand-by loads.
- Look at shifting loads from the MSB-A to MSB-B to reduce overloading issues. This would require a detailed load study to determine which loads could be shifted.
- Provide ancillary generator to carry portion of the distribution system for the jail facility.

- Clarify how EG-A1 and EG-A2 interact, does the normal circuit feeding the ATS for EG-A2 shunt upon loss of power?
- Look into automating load shedding and startup sequences as a potential solution to the overloading of EG-A1.

PROBABLE COSTS

Arrington Watkins retained the services of Rider Levett Bucknall to prepare a cost estimate of the recommendations.

It is important to note that the costs per SF referenced in the following report are an estimated total project costs comprising:

- Construction
- Contingency totaling \$15 million over all projects
- Escalation represented at a conservative a rate of 3% per annum, totaling \$31 million across all projects
- Project soft costs of approximately 30% per project which total \$63 million across all projects

Because some of these figures are conservative, there is potential for individual re-evaluation at the time to proceed with each project and realize a reduction in some of these figures.

The following is the report prepared by Rider Levett Bucknall.

**Washoe County Sheriff's Office Master Plan
All Projects**
Estimate of Probable Construction & Overall Project Costs

Washoe County Sheriff's Office Master Plan - All Projects
Estimate of Probable Construction & Overall Project Costs

Project Details

Description

Basis of Estimate

This estimate has been prepared at the request of Arrington Watkins Architects and is to provide an estimate of probable construction and overall project costs for the various scopes of work included within the Washoe County Sheriff's Office Master Plan.

The estimate is based upon information included within the Master Plan prepared by Arrington Watkins Architects through mid-January 2018.

Where information was insufficient, assumptions and allowances were made based wherever possible on discussions with the Architect and/or Engineers.

It is assumed that the construction elements within the Master Plan project will be competitively bid by at least four (4) to six (6) general contractors and that the awarded General Contractors and all Sub-Contractors will be required to pay market wage rates.

This estimate is for the sole use of providing high-level budgets based on the Master Plan documents. The estimate is not to be used for comparison with actual bids received at any time. Updated estimates based on final construction documents will need to be provided for comparison with bids.

Unit pricing is based on January 2018 costs. Construction cost escalation has been carried at 3% per annum within the estimate. A design and estimating contingency has also been included.

Items Specifically Included

- . Allowance for Project Related Soft Costs

Items Specifically Excluded

- . Hazardous materials abatement
- . Costs associated with sub-phasing the construction work
- . Out of hours working
- . Photovoltaics and other renewable energy resources
- . Work outside the site boundaries unless noted otherwise
- . Preconstruction service fees
- . Land and legal costs
- . Items marked as "Excl." in the estimate
- . Escalation beyond the stated timeframe(s)

Washoe County Sheriff's Office Master Plan - All Projects
 Estimate of Probable Construction & Overall Project Costs

Washoe County Sheriff's Office Master Plan - All Projects
 Estimate of Probable Construction & Overall Project Costs

Estimate Summary (Gross Costs) GFA: Gross Floor Area
Rates Current At January 2018

Estimate Summary (Gross Costs) GFA: Gross Floor Area
Rates Current At January 2018

Location		GFA SF	Cost/SF	Total Cost
MI2021	1. MEDICAL INFIRMARY (2021)			
DET13	Infirmary & Mental Health	40,000	728.37	29,134,691
SUPP1	Corridor	1,320	323.72	427,309
	MI2021 - 1. MEDICAL INFIRMARY (2021)	41,320	\$715.44	\$29,562,000
FL2023	2. FORENSICS LABORATORY (2023)			
ADM1	Forensic Lab	89,049	755.57	67,283,000
	FL2023 - 2. FORENSICS LABORATORY (2023)	89,049	\$755.57	\$67,283,000
FL2025	2. FORENSICS LABORATORY, INTERIOR DATA CENTER BUILD-OUT (2025)			
OTH1	Data Center Component Build-Out	8,800	692.16	6,091,000
	FL2025 - 2. FORENSICS LABORATORY, INTERIOR DATA CENTER BUILD-OUT (2025)	8,800	\$692.16	\$6,091,000
FL2028	2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2028)			
OTH2	Additional Lab Staff (6) & Lab Positions (8) Build-Out	6,854	419.17	2,873,000
	FL2028 - 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2028)	6,854	\$419.17	\$2,873,000
FL2033	2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2033)			
OTH3	Additional Lab Staff (7) & Lab Positions (9) Build-Out	7,677	607.92	4,667,000
	FL2033 - 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2033)	7,677	\$607.92	\$4,667,000
FL2038	2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2038)			
OTH4	Additional Lab Staff (7) & Lab Positions (10) Build-Out	8,598	670.85	5,768,000
	FL2038 - 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2038)	8,598	\$670.85	\$5,768,000
PKG2021	3. PARKING STRUCTURE (2021)			
SUPP10	Parking Deck	43,200	68.67	2,966,500
SUPP11	Parking Deck	43,200	68.67	2,966,500
	PKG2021 - 3. PARKING STRUCTURE (2021)	86,400	\$68.67	\$5,933,000
KL2021	4. KITCHEN/LAUNDRY (2021)			
DET1	Warehouse & Dock	13,161	404.67	5,325,797
DET10	Kitchen	18,039	728.40	13,139,559
DET12	Laundry	5,000	404.66	2,023,324
SUPP6	Corridor	4,480	323.73	1,450,320
	KL2021 - 4. KITCHEN/LAUNDRY (2021)	40,680	\$539.31	\$21,939,000

Location		GFA SF	Cost/SF	Total Cost
PIBC2021	5. PLANNING, INCREASED BED CAPACITY (2021)			
DET14	Future Housing Expansion	50,941	623.47	31,760,000
	PIBC2021 - 5. PLANNING, INCREASED BED CAPACITY (2021)	50,941	\$623.47	\$31,760,000
PAPSS2021	6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)			
DET2	Property Storage	5,754	233.82	1,345,378
DET3	Classification	990	233.82	231,478
DET4	Booking Expansion	5,026	233.82	1,175,159
DET5	Visitation Expansion	619	233.82	144,732
DET6	Visitation Expansion	669	233.82	156,423
DET7	Booking Expansion	1,471	233.82	343,944
DET8	Breakroom	419	233.82	97,969
DET9	Visiting Expansion	467	233.82	109,192
DET11	Programs	5,000	467.63	2,338,162
SUPP2	Warehouse & Equipment Storage	2,377	233.82	555,781
SUPP4	Warehouse & Equipment Storage	3,968	233.82	927,782
	PAPSS2021 - 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)	26,760	\$277.50	\$7,426,000
PAIBC2031	7. PLANNING, ADDITIONAL INCREASED BED CAPACITY (2031)			
DET15	Future Housing Expansion	50,941	795.08	40,502,408
SUPP3	Corridor	736	397.54	292,592
	PAIBC2031 - 7. PLANNING, ADDITIONAL INCREASED BED CAPACITY (2031)	51,677	\$789.42	\$40,795,000
PAT2025ON	8. PATROLS, ON-SITE FACILITY (2025)			
ADM9	Training	2,607	259.53	676,585
OPER1	Lockers	4,801	259.53	1,245,983
OPER2	Equipment Storage	2,901	259.53	752,885
OPER3	File Storage	1,491	259.53	386,954
OPER4	Report Writing	1,705	259.53	442,492
OPER5	Detectives - Persons	4,410	259.53	1,144,510
OPER6	Patrol	4,702	259.53	1,220,292
OPER7	Detectives - Persons	1,838	259.53	477,008
OPER8	Information Technology (IT) Support	498	259.52	129,243
OPER9	Cyber Crimes	2,000	259.53	519,052
OPER10	Briefing	1,934	259.53	501,923
SUPP5	Corridor	2,598	259.53	674,249

Washoe County Sheriff's Office Master Plan - All Projects

Estimate of Probable Construction & Overall Project Costs

GFA: Gross Floor Area
Rates Current At January 2018

Estimate Summary (Gross Costs)

Location		GFA SF	Cost/SF	Total Cost
SUPP7	Corridor	359	259.52	93,169
SUPP8	Storage	672	259.53	174,401
SUPP9	Corridor	814	259.53	211,254
PAT2025ON - 8. PATROLS, ON-SITE FACILITY (2025)		33,330	\$259.53	\$8,650,000
PAT2025OFF 8. PATROLS, OFF-SITE FACILITY (2028)				
OTH5	Emergency Services Building (2025)	28,000	743.61	20,821,000
PAT2025OFF - 8. PATROLS, OFF-SITE FACILITY (2028)		28,000	\$743.61	\$20,821,000
AB2025 9. ADMINISTRATION BUILDING (2025)				
ADM3	Offices & Conference	1,005	259.53	260,828
ADM4	Lobby	2,075	432.55	897,539
ADM5	Secure Contact	870	432.55	376,318
ADM6	Counters	295	432.55	127,602
ADM7	Civil Support	789	259.53	204,770
ADM8	Civil Records	4,393	259.53	1,140,113
ADM10	Backgrounds Expansion	2,860	259.53	742,257
ADM11	Crime Information Center (CIC)	1,285	259.53	333,497
ADM12	Payroll & Human Resources	803	259.53	208,401
ADM14	Information Technology (IT)	6,800	259.53	1,764,801
ADM15	Storage	2,037	259.53	528,661
SUPP12	Secure Vestibule	400	432.55	173,020
SUPP13	Maintenance Offices	2,224	259.53	577,193
AB2025 - 9. ADMINISTRATION BUILDING (2025)		25,836	\$283.91	\$7,335,000
ESTIMATED NET COST		505,922	\$515.70	\$260,903,000

Washoe County Sheriff's Office Master Plan - Medical Infirmery
 Estimate of Probable Construction & Overall Project Costs

Estimate Summary (Gross Costs)

GFA: Gross Floor Area
 Rates Current At January 2018

Washoe County Sheriff's Office Master Plan
Medical Infirmery
 Estimate of Probable Construction & Overall Project Costs

Location		GFA SF	Cost/SF	Total Cost
MI2021	1. MEDICAL INFIRMARY (2021)			
DET13	Infirmery & Mental Health	40,000	728.37	29,134,691
SUPP1	Corridor	1,320	323.72	427,309
MI2021 - 1. MEDICAL INFIRMARY (2021)		41,320	\$715.44	\$29,562,000
ESTIMATED TTL COST		41,320	\$715.44	\$29,562,000

Washoe County Sheriff's Office Master Plan - Medical Infirmary
 Estimate of Probable Construction & Overall Project Costs

Washoe County Sheriff's Office Master Plan - Medical Infirmary
 Estimate of Probable Construction & Overall Project Costs

Estimate Summary - Net Costs + Margins/Adjustments GFA: Gross Floor Area
Rates Current At January 2018

Estimate Detail GFA: 40,000 SF Cost/SF: \$450.00
Rates Current At January 2018

Location	GFA SF	Cost/SF	Total Cost
MI2021 1. MEDICAL INFIRMARY (2021)			
DET13 Infirmary & Mental Health	40,000	450.00	18,000,000
SUPP1 Corridor	1,320	200.00	264,000
MI2021 - 1. MEDICAL INFIRMARY (2021)	41,320	\$442.01	\$18,264,000
ESTIMATED NET COST	41,320	\$442.01	\$18,264,000
MARGINS & ADJUSTMENTS			
General Conditions including General & Temporary Requirements (Included in Unit Rates)			Incl.
Bonds & Insurance (Included in Unit Rates)			Incl.
General Contractor's Overhead & Profit (Fee) (Included in Unit Rates)			Incl.
Applicable State Sales & Use Tax (Included within Unit Rates)			Incl.
Design/Estimating Contingency @ Master Plan Phase (Allowance, Varies by Project Type)	10.0 %		\$1,826,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN CURRENT DOLLARS)	41,320	\$486.21	\$20,090,000
Construction Cost Escalation (Allowance, 3% per Annum, Varies based on Total Duration)	9.0 %		\$1,808,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN FUTURE DOLLARS)	41,320	\$529.96	\$21,898,000
Project Related Soft Costs including Design Professional Fees, FF&E, Permit Fees, Special Testing & Inspections etc. (Allowance)	35.0 %		\$7,664,000
ESTIMATED TOTAL COST	41,320	\$715.44	\$29,562,000

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
1 New construction - infirmary and mental health	SF	40,000	450.00	18,000,000
Integrated Construction			\$450.00/SF	\$18,000,000
INFIRMARY & MENTAL HEALTH			\$450.00/SF	\$18,000,000

Washoe County Sheriff's Office Master Plan - Medical Infirmmary

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

MI2021 1. MEDICAL INFIRMARY (2021)
SUPP1 Corridor

GFA: 1,320 SF Cost/SF: \$200.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
2 New construction - corridor	SF	1,320	200.00	264,000
	<i>Integrated Construction</i>		<i>\$200.00/SF</i>	<i>\$264,000</i>
	<i>CORRIDOR</i>		<i>\$200.00/SF</i>	<i>\$264,000</i>

**Washoe County Sheriff's Office Master Plan
Forensics Laboratory**
Estimate of Probable Construction & Overall Project Costs

Washoe County Sheriff's Office Master Plan - Forensics Laboratory
Estimate of Probable Construction & Overall Project Costs

GFA: Gross Floor Area
Rates Current At January 2018

Estimate Summary (Gross Costs)

Location	GFA SF	Cost/SF	Total Cost
FL2023 2. FORENSICS LABORATORY (2023)			
ADM1 Forensic Lab	89,049	755.57	67,283,000
FL2023 - 2. FORENSICS LABORATORY (2023)	89,049	\$755.57	\$67,283,000
FL2025 2. FORENSICS LABORATORY, INTERIOR DATA CENTER BUILD-OUT (2025)			
OTH1 Data Center Component Build-Out	8,800	692.16	6,091,000
FL2025 - 2. FORENSICS LABORATORY, INTERIOR DATA CENTER BUILD-OUT (2025)	8,800	\$692.16	\$6,091,000
FL2028 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2028)			
OTH2 Additional Lab Staff (6) & Lab Positions (8) Build-Out	6,854	419.17	2,873,000
FL2028 - 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2028)	6,854	\$419.17	\$2,873,000
FL2033 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2033)			
OTH3 Additional Lab Staff (7) & Lab Positions (9) Build-Out	7,677	607.92	4,667,000
FL2033 - 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2033)	7,677	\$607.92	\$4,667,000
FL2038 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2038)			
OTH4 Additional Lab Staff (7) & Lab Positions (10) Build-Out	8,598	670.85	5,768,000
FL2038 - 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2038)	8,598	\$670.85	\$5,768,000
ESTIMATED TTL COST	120,978	\$716.51	\$86,682,000

Washoe County Sheriff's Office Master Plan - Forensics Laboratory
 Estimate of Probable Construction & Overall Project Costs

Washoe County Sheriff's Office Master Plan - Forensics Laboratory
 Estimate of Probable Construction & Overall Project Costs

Estimate Summary - Net Costs + Margins/Adjustments GFA: Gross Floor Area
Rates Current At January 2018

Estimate Summary - Net Costs + Margins/Adjustments GFA: Gross Floor Area
Rates Current At January 2018

Location	GFA SF	Cost/SF	Total Cost
FL2023 2. FORENSICS LABORATORY (2023)			
ADM1 Forensic Lab	89,049	442.43	39,398,250
FL2023 - 2. FORENSICS LABORATORY (2023)			
	89,049	\$442.43	\$39,398,250
FL2025 2. FORENSICS LABORATORY, INTERIOR DATA CENTER BUILD-OUT (2025)			
OTH1 Data Center Component Build-Out	8,800	400.00	3,520,000
FL2025 - 2. FORENSICS LABORATORY, INTERIOR DATA CENTER BUILD-OUT (2025)			
	8,800	\$400.00	\$3,520,000
FL2028 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2028)			
OTH2 Additional Lab Staff (6) & Lab Positions (8) Build-Out	6,854	300.00	2,056,200
FL2028 - 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2028)			
	6,854	\$300.00	\$2,056,200
FL2033 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2033)			
OTH3 Additional Lab Staff (7) & Lab Positions (9) Build-Out	7,677	300.00	2,303,100
FL2033 - 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2033)			
	7,677	\$300.00	\$2,303,100
FL2038 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2038)			
OTH4 Additional Lab Staff (7) & Lab Positions (10) Build-Out	8,598	300.00	2,579,400
FL2038 - 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2038)			
	8,598	\$300.00	\$2,579,400
ESTIMATED NET COST			
	120,978	\$412.12	\$49,856,950
MARGINS & ADJUSTMENTS			
General Conditions including General & Temporary Requirements (Included in Unit Rates)			Incl.
Bonds & Insurance (Included in Unit Rates)			Incl.
General Contractor's Overhead & Profit (Fee) (Included in Unit Rates)			Incl.
Applicable State Sales & Use Tax (Included within Unit Rates)			Incl.
Design/Estimating Contingency @ Master Plan Phase (Allowance, Varies by Project Type)	9.7 %		\$4,812,050
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN CURRENT DOLLARS)			
	120,978	\$451.89	\$54,669,000
Construction Cost Escalation (Allowance, 3% per Annum, Varies based on Total Duration)	19.7 %		\$10,755,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN FUTURE DOLLARS)			
	120,978	\$540.79	\$65,424,000

Location	GFA SF	Cost/SF	Total Cost
MARGINS & ADJUSTMENTS (continued)			
Project Related Soft Costs including Design Professional Fees, FF&E, Permit Fees, Special Testing & Inspections etc. (Allowance)	32.5 %		\$21,258,000
ESTIMATED TOTAL COST			
	120,978	\$716.51	\$86,682,000

Washoe County Sheriff's Office Master Plan - Forensics Laboratory

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

FL2023 2. FORENSICS LABORATORY (2023)
ADM1 Forensic Lab

GFA: 89,049 SF Cost/SF: \$442.43
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
3 New construction - forensic laboratory (full-build)	SF	57,120	550.00	31,416,000
17 New construction - forensic laboratory (shell and core)	SF	31,929	250.00	7,982,250
<i>Integrated Construction</i>			\$442.43/SF	\$39,398,250
<i>FORENSIC LAB</i>			\$442.43/SF	\$39,398,250

Washoe County Sheriff's Office Master Plan - Forensics Laboratory

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

FL2025 2. FORENSICS LABORATORY, INTERIOR DATA CENTER BUILD-OUT (2025)
OTH1 Data Center Component Build-Out

GFA: 8,800 SF Cost/SF: \$400.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
4 New construction - data center component build-out	SF	8,800	400.00	3,520,000
<i>Integrated Construction</i>			\$400.00/SF	\$3,520,000
<i>DATA CENTER COMPONENT BUILD-OUT</i>			\$400.00/SF	\$3,520,000

Washoe County Sheriff's Office Master Plan - Forensics Laboratory

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

FL2028 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2028)
 OTH2 Additional Lab Staff (6) & Lab Positions (8) Build-Out

GFA: 6,854 SF Cost/SF: \$300.00
 Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
5 New construction - additional lab staff and lab position build-out	SF	6,854	300.00	2,056,200
			Integrated Construction	\$300.00/SF \$2,056,200
			ADDITIONAL LAB STAFF (6) & LAB POSITIONS (8) BUILD-OUT	\$300.00/SF \$2,056,200

Washoe County Sheriff's Office Master Plan - Forensics Laboratory

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

FL2033 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2033)
 OTH3 Additional Lab Staff (7) & Lab Positions (9) Build-Out

GFA: 7,677 SF Cost/SF: \$300.00
 Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
5 New construction - additional lab staff and lab position build-out	SF	7,677	300.00	2,303,100
			Integrated Construction	\$300.00/SF \$2,303,100
			ADDITIONAL LAB STAFF (7) & LAB POSITIONS (9) BUILD-OUT	\$300.00/SF \$2,303,100

Washoe County Sheriff's Office Master Plan - Forensics Laboratory

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

FL2038 2. FORENSICS LABORATORY, INTERIOR BUILD-OUT (2038)
 OTH4 Additional Lab Staff (7) & Lab Positions (10) Build-Out

GFA: 8,598 SF Cost/SF: \$300.00
 Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
5 New construction - additional lab staff and lab position build-out	SF	8,598	300.00	2,579,400
			Integrated Construction	\$300.00/SF \$2,579,400
			ADDITIONAL LAB STAFF (7) & LAB POSITIONS (10) BUILD-OUT	\$300.00/SF \$2,579,400

Washoe County Sheriff's Office Master Plan - Parking Structure
 Estimate of Probable Construction & Overall Project Costs

Estimate Summary (Gross Costs)

GFA: Gross Floor Area
 Rates Current At January 2018

Washoe County Sheriff's Office Master Plan
Parking Structure
 Estimate of Probable Construction & Overall Project Costs

Location		GFA SF	Cost/SF	Total Cost
PKG2021	3. PARKING STRUCTURE (2021)			
SUPP10	Parking Deck	43,200	68.67	2,966,500
SUPP11	Parking Deck	43,200	68.67	2,966,500
		PKG2021 - 3. PARKING STRUCTURE (2021)	86,400	\$68.67
				\$5,933,000
		ESTIMATED TTL COST	86,400	\$68.67
				\$5,933,000

Washoe County Sheriff's Office Master Plan - Parking Structure

Estimate of Probable Construction & Overall Project Costs

Estimate Summary - Net Costs + Margins/Adjustments

GFA: Gross Floor Area
Rates Current At January 2018

Location	GFA SF	Cost/SF	Total Cost
PKG2021 3. PARKING STRUCTURE (2021)			
SUPP10 Parking Deck	43,200	50.00	2,160,000
SUPP11 Parking Deck	43,200	50.00	2,160,000
PKG2021 - 3. PARKING STRUCTURE (2021)	86,400	\$50.00	\$4,320,000
ESTIMATED NET COST	86,400	\$50.00	\$4,320,000
MARGINS & ADJUSTMENTS			
General Conditions including General & Temporary Requirements (Included in Unit Rates)			Incl.
Bonds & Insurance (Included in Unit Rates)			Incl.
General Contractor's Overhead & Profit (Fee) (Included in Unit Rates)			Incl.
Applicable State Sales & Use Tax (Included within Unit Rates)			Incl.
Design/Estimating Contingency @ Master Plan Phase (Allowance, Varies by Project Type)	5.0 %		\$216,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN CURRENT DOLLARS)	86,400	\$52.50	\$4,536,000
Construction Cost Escalation (Allowance, 3% per Annum, Varies based on Total Duration)	9.0 %		\$408,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN FUTURE DOLLARS)	86,400	\$57.22	\$4,944,000
Project Related Soft Costs including Design Professional Fees, FF&E, Permit Fees, Special Testing & Inspections etc. (Allowance)	20.0 %		\$989,000
ESTIMATED TOTAL COST	86,400	\$68.67	\$5,933,000

Washoe County Sheriff's Office Master Plan - Parking Structure

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PKG2021 3. PARKING STRUCTURE (2021)

SUPP10 Parking Deck

GFA: 43,200 SF Cost/SF: \$50.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
6 New construction - parking structure	SF	43,200	50.00	2,160,000
			Integrated Construction	\$50.00/SF \$2,160,000
			PARKING DECK	\$50.00/SF \$2,160,000

Washoe County Sheriff's Office Master Plan - Parking Structure

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PKG2021 3. PARKING STRUCTURE (2021)

SUPP11 Parking Deck

GFA: 43,200 SF Cost/SF: \$50.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
6 New construction - parking structure	SF	43,200	50.00	2,160,000
			Integrated Construction	\$50.00/SF \$2,160,000
			PARKING DECK	\$50.00/SF \$2,160,000

Washoe County Sheriff's Office Master Plan - Kitchen/Laundry
 Estimate of Probable Construction & Overall Project Costs

GFA: Gross Floor Area
 Rates Current At January 2018

Estimate Summary (Gross Costs)

Washoe County Sheriff's Office Master Plan
Kitchen/Laundry
 Estimate of Probable Construction & Overall Project Costs

Location		GFA SF	Cost/SF	Total Cost
KL2021	4. KITCHEN/LAUNDRY (2021)			
DET1	Warehouse & Dock	13,161	404.67	5,325,797
DET10	Kitchen	18,039	728.40	13,139,559
DET12	Laundry	5,000	404.66	2,023,324
SUPP6	Corridor	4,480	323.73	1,450,320
KL2021 - 4. KITCHEN/LAUNDRY (2021)		40,680	\$539.31	\$21,939,000
ESTIMATED TTL COST		40,680	\$539.31	\$21,939,000

Washoe County Sheriff's Office Master Plan - Kitchen/Laundry
 Estimate of Probable Construction & Overall Project Costs

Washoe County Sheriff's Office Master Plan - Kitchen/Laundry
 Estimate of Probable Construction & Overall Project Costs

Estimate Summary - Net Costs + Margins/Adjustments GFA: Gross Floor Area
Rates Current At January 2018

Estimate Detail GFA: 13,161 SF Cost/SF: \$250.00
Rates Current At January 2018

Location	GFA SF	Cost/SF	Total Cost
KL2021 4. KITCHEN/LAUNDRY (2021)			
DET1 Warehouse & Dock	13,161	250.00	3,290,250
DET10 Kitchen	18,039	450.00	8,117,550
DET12 Laundry	5,000	250.00	1,250,000
SUPP6 Corridor	4,480	200.00	896,000
KL2021 - 4. KITCHEN/LAUNDRY (2021)			40,680 \$333.18 \$13,553,800
ESTIMATED NET COST			40,680 \$333.18 \$13,553,800
MARGINS & ADJUSTMENTS			
General Conditions including General & Temporary Requirements (Included in Unit Rates)			Incl.
Bonds & Insurance (Included in Unit Rates)			Incl.
General Contractor's Overhead & Profit (Fee) (Included in Unit Rates)			Incl.
Applicable State Sales & Use Tax (Included within Unit Rates)			Incl.
Design/Estimating Contingency @ Master Plan Phase (Allowance, Varies by Project Type)	10.0 %		\$1,355,200
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN CURRENT DOLLARS)			40,680 \$366.49 \$14,909,000
Construction Cost Escalation (Allowance, 3% per Annum, Varies based on Total Duration)	9.0 %		\$1,342,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN FUTURE DOLLARS)			40,680 \$399.48 \$16,251,000
Project Related Soft Costs including Design Professional Fees, FF&E, Permit Fees, Special Testing & Inspections etc. (Allowance)	35.0 %		\$5,688,000
ESTIMATED TOTAL COST			40,680 \$539.31 \$21,939,000

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
7 New construction - warehouse and dock	SF	13,161	250.00	3,290,250
			Integrated Construction	\$250.00/SF \$3,290,250
			WAREHOUSE & DOCK	\$250.00/SF \$3,290,250

Washoe County Sheriff's Office Master Plan - Kitchen/Laundry

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

KL2021 4. KITCHEN/LAUNDRY (2021)
DET10 Kitchen

GFA: 18,039 SF Cost/SF: \$450.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
8 New construction - kitchen	SF	18,039	450.00	8,117,550
			Integrated Construction	\$450.00/SF \$8,117,550
			KITCHEN	\$450.00/SF \$8,117,550

Washoe County Sheriff's Office Master Plan - Kitchen/Laundry

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

KL2021 4. KITCHEN/LAUNDRY (2021)
DET12 Laundry

GFA: 5,000 SF Cost/SF: \$250.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
9 New construction - laundry	SF	5,000	250.00	1,250,000
			Integrated Construction	\$250.00/SF \$1,250,000
			LAUNDRY	\$250.00/SF \$1,250,000

Washoe County Sheriff's Office Master Plan - Kitchen/Laundry

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

KL2021 4. KITCHEN/LAUNDRY (2021)
SUPP6 Corridor

GFA: 4,480 SF Cost/SF: \$200.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
10 New construction - corridor	SF	4,480	200.00	896,000
			<i>Integrated Construction</i>	<i>\$200.00/SF</i>
			<i>CORRIDOR</i>	<i>\$200.00/SF</i>
				<i>\$896,000</i>

Washoe County Sheriff's Office Master Plan - Planning, Increased Bed Capacity

Estimate of Probable Construction & Overall Project Costs

Estimate Summary (Gross Costs)

GFA: Gross Floor Area
Rates Current At January 2018

**Washoe County Sheriff's Office Master Plan
Planning, Increased Bed Capacity**
Estimate of Probable Construction & Overall Project Costs

Location		GFA SF	Cost/SF	Total Cost
PIBC2021	5. PLANNING, INCREASED BED CAPACITY (2021)			
DET14	Future Housing Expansion	50,941	623.47	31,760,000
	PIBC2021 - 5. PLANNING, INCREASED BED CAPACITY (2021)	50,941	\$623.47	\$31,760,000
	ESTIMATED TTL COST	50,941	\$623.47	\$31,760,000

Washoe County Sheriff's Office Master Plan - Planning, Increased Bed Capacity

Estimate of Probable Construction & Overall Project Costs

Estimate Summary - Net Costs + Margins/Adjustments

GFA: Gross Floor Area
Rates Current At January 2018

Location	GFA SF	Cost/SF	Total Cost
PIBC2021 5. PLANNING, INCREASED BED CAPACITY (2021)			
DET14 Future Housing Expansion	50,941	400.00	20,376,400
PIBC2021 - 5. PLANNING, INCREASED BED CAPACITY (2021)	50,941	\$400.00	\$20,376,400
ESTIMATED NET COST	50,941	\$400.00	\$20,376,400
MARGINS & ADJUSTMENTS			
General Conditions including General & Temporary Requirements (Included in Unit Rates)			Incl.
Bonds & Insurance (Included in Unit Rates)			Incl.
General Contractor's Overhead & Profit (Fee) (Included in Unit Rates)			Incl.
Applicable State Sales & Use Tax (Included within Unit Rates)			Incl.
Design/Estimating Contingency @ Master Plan Phase (Allowance, Varies by Project Type)	10.0 %		\$2,037,600
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN CURRENT DOLLARS)	50,941	\$440.00	\$22,414,000
Construction Cost Escalation (Allowance, 3% per Annum, Varies based on Total Duration)	9.0 %		\$2,017,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN FUTURE DOLLARS)	50,941	\$479.59	\$24,431,000
Project Related Soft Costs including Design Professional Fees, FF&E, Permit Fees, Special Testing & Inspections etc. (Allowance)	30.0 %		\$7,329,000
ESTIMATED TOTAL COST	50,941	\$623.47	\$31,760,000

Washoe County Sheriff's Office Master Plan - Planning, Increased Bed Capacity

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PIBC2021 5. PLANNING, INCREASED BED CAPACITY (2021)

GFA: 50,941 SF Cost/SF: \$400.00

DET14 Future Housing Expansion

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
11 New construction - future housing expansion	SF	50,941	400.00	20,376,400
Integrated Construction			\$400.00/SF	\$20,376,400
FUTURE HOUSING EXPANSION			\$400.00/SF	\$20,376,400

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Summary (Gross Costs)

GFA: Gross Floor Area
Rates Current At January 2018

**Washoe County Sheriff's Office Master Plan
Planning, Additional Program Support Space**
Estimate of Probable Construction & Overall Project Costs

Location	GFA SF	Cost/SF	Total Cost
PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)			
DET2 Property Storage	5,754	233.82	1,345,378
DET3 Classfication	990	233.82	231,478
DET4 Booking Expansion	5,026	233.82	1,175,159
DET5 Visitation Expansion	619	233.82	144,732
DET6 Visitation Expansion	669	233.82	156,423
DET7 Booking Expansion	1,471	233.82	343,944
DET8 Breakroom	419	233.82	97,969
DET9 Visiting Expansion	467	233.82	109,192
DET11 Programs	5,000	467.63	2,338,162
SUPP2 Warehouse & Equipment Storage	2,377	233.82	555,781
SUPP4 Warehouse & Equipment Storage	3,968	233.82	927,782
PAPSS2021 - 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)			26,760 \$277.50 \$7,426,000
ESTIMATED TTL COST			26,760 \$277.50 \$7,426,000

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Summary - Net Costs + Margins/Adjustments

GFA: Gross Floor Area
Rates Current At January 2018

Location	GFA SF	Cost/SF	Total Cost
PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)			
DET2 Property Storage	5,754	150.00	863,100
DET3 Classification	990	150.00	148,500
DET4 Booking Expansion	5,026	150.00	753,900
DET5 Visitation Expansion	619	150.00	92,850
DET6 Visitation Expansion	669	150.00	100,350
DET7 Booking Expansion	1,471	150.00	220,650
DET8 Breakroom	419	150.00	62,850
DET9 Visiting Expansion	467	150.00	70,050
DET11 Programs	5,000	300.00	1,500,000
SUPP2 Warehouse & Equipment Storage	2,377	150.00	356,550
SUPP4 Warehouse & Equipment Storage	3,968	150.00	595,200
PAPSS2021 - 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)			26,760 \$178.03 \$4,764,000
ESTIMATED NET COST			26,760 \$178.03 \$4,764,000
MARGINS & ADJUSTMENTS			
General Conditions including General & Temporary Requirements (Included in Unit Rates)			Incl.
Bonds & Insurance (Included in Unit Rates)			Incl.
General Contractor's Overhead & Profit (Fee) (Included in Unit Rates)			Incl.
Applicable State Sales & Use Tax (Included within Unit Rates)			Incl.
Design/Estimating Contingency @ Master Plan Phase (Allowance, Varies by Project Type)	10.0 %		\$476,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN CURRENT DOLLARS)			26,760 \$195.81 \$5,240,000
Construction Cost Escalation (Allowance, 3% per Annum, Varies based on Total Duration)	9.0 %		\$472,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN FUTURE DOLLARS)			26,760 \$213.45 \$5,712,000
Project Related Soft Costs including Design Professional Fees, FF&E, Permit Fees, Special Testing & Inspections etc. (Allowance)	30.0 %		\$1,714,000
ESTIMATED TOTAL COST			26,760 \$277.50 \$7,426,000

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)

DET2 Property Storage

GFA: 5,754 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	5,754	150.00	863,100
			Integrated Construction	\$150.00/SF \$863,100
			PROPERTY STORAGE	\$150.00/SF \$863,100

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)

DET3 Classification

GFA: 990 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	990	150.00	148,500
			Integrated Construction	\$150.00/SF
			CLASSFICIATION	\$150.00/SF
				\$148,500

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)

DET4 Booking Expansion

GFA: 5,026 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	5,026	150.00	753,900
			Integrated Construction	\$150.00/SF
			BOOKING EXPANSION	\$150.00/SF
				\$753,900

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)

DET5 Visitation Expansion

GFA: 619 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	619	150.00	92,850
			Integrated Construction	\$150.00/SF
			VISITATION EXPANSION	\$150.00/SF
				\$92,850

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)

DET6 Visitation Expansion

GFA: 669 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	669	150.00	100,350
			Integrated Construction	\$150.00/SF
			VISITATION EXPANSION	\$150.00/SF
				\$100,350

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)

DET7 Booking Expansion

GFA: 1,471 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	1,471	150.00	220,650
			Integrated Construction	\$150.00/SF
			BOOKING EXPANSION	\$150.00/SF
				\$220,650

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)

DET8 Breakroom

GFA: 419 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	419	150.00	62,850
			Integrated Construction	\$150.00/SF
			BREAKROOM	\$150.00/SF
				\$62,850

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)

DET9 Visiting Expansion

GFA: 467 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	467	150.00	70,050
			Integrated Construction	\$150.00/SF
			VISITING EXPANSION	\$150.00/SF
				\$70,050

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)

DET11 Programs

GFA: 5,000 SF Cost/SF: \$300.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
13 New construction - programs	SF	5,000	300.00	1,500,000
			Integrated Construction	\$300.00/SF
			PROGRAMS	\$300.00/SF
				\$1,500,000

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)

SUPP2 Warehouse & Equipment Storage

GFA: 2,377 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	2,377	150.00	356,550
			Integrated Construction	\$150.00/SF
			WAREHOUSE & EQUIPMENT STORAGE	\$150.00/SF
				\$356,550

Washoe County Sheriff's Office Master Plan - Planning, Additional Program Support Space

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAPSS2021 6. PLANNING, ADDITIONAL PROGRAMMING SUPPORT SPACE (2021)

SUPP4 Warehouse & Equipment Storage

GFA: 3,968 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	3,968	150.00	595,200
			Integrated Construction	\$150.00/SF
			WAREHOUSE & EQUIPMENT STORAGE	\$150.00/SF
				\$595,200

**Washoe County Sheriff's Office Master Plan - Planning, Additional
Increased Bed Capacity**

Estimate of Probable Construction & Overall Project Costs

Estimate Summary (Gross Costs)

GFA: Gross Floor Area
Rates Current At January 2018

**Washoe County Sheriff's Office Master Plan
Planning, Additional Increased Bed Capacity**
Estimate of Probable Construction & Overall Project Costs

Location		GFA SF	Cost/SF	Total Cost
PAIBC2031	7. PLANNING, ADDITIONAL INCREASED BED CAPACITY (2031)			
DET15	Future Housing Expansion	50,941	795.08	40,502,408
SUPP3	Corridor	736	397.54	292,592
PAIBC2031 - 7. PLANNING, ADDITIONAL INCREASED BED CAPACITY (2031)		51,677	\$789.42	\$40,795,000
ESTIMATED TTL COST		51,677	\$789.42	\$40,795,000

Washoe County Sheriff's Office Master Plan - Planning, Additional Increased Bed Capacity

Estimate of Probable Construction & Overall Project Costs

Estimate Summary - Net Costs + Margins/Adjustments

GFA: Gross Floor Area
Rates Current At January 2018

Location	GFA SF	Cost/SF	Total Cost
PAIBC2031 7. PLANNING, ADDITIONAL INCREASED BED CAPACITY (2031)			
DET15 Future Housing Expansion	50,941	400.00	20,376,400
SUPP3 Corridor	736	200.00	147,200
PAIBC2031 - 7. PLANNING, ADDITIONAL INCREASED BED CAPACITY (2031)	51,677	\$397.15	\$20,523,600
ESTIMATED NET COST	51,677	\$397.15	\$20,523,600
MARGINS & ADJUSTMENTS			
General Conditions including General & Temporary Requirements (Included in Unit Rates)			Incl.
Bonds & Insurance (Included in Unit Rates)			Incl.
General Contractor's Overhead & Profit (Fee) (Included in Unit Rates)			Incl.
Applicable State Sales & Use Tax (Included within Unit Rates)			Incl.
Design/Estimating Contingency @ Master Plan Phase (Allowance, Varies by Project Type)	10.0 %		\$2,052,400
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN CURRENT DOLLARS)	51,677	\$436.87	\$22,576,000
Construction Cost Escalation (Allowance, 3% per Annum, Varies based on Total Duration)	39.0 %		\$8,805,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN FUTURE DOLLARS)	51,677	\$607.25	\$31,381,000
Project Related Soft Costs including Design Professional Fees, FF&E, Permit Fees, Special Testing & Inspections etc. (Allowance)	30.0 %		\$9,414,000
ESTIMATED TOTAL COST	51,677	\$789.42	\$40,795,000

Washoe County Sheriff's Office Master Plan - Planning, Additional Increased Bed Capacity

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAIBC2031 7. PLANNING, ADDITIONAL INCREASED BED CAPACITY (2031)

DET15 Future Housing Expansion

GFA: 50,941 SF Cost/SF: \$400.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
11 New construction - future housing expansion	SF	50,941	400.00	20,376,400
Integrated Construction			\$400.00/SF	\$20,376,400
FUTURE HOUSING EXPANSION			\$400.00/SF	\$20,376,400

**Washoe County Sheriff's Office Master Plan - Planning, Additional
Increased Bed Capacity**

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

**PAIBC2031 7. PLANNING, ADDITIONAL INCREASED BED CAPACITY
(2031)**

GFA: 736 SF Cost/SF: \$200.00
Rates Current At January 2018

SUPP3 Corridor

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
12 New construction - corridor	SF	736	200.00	147,200
			<i>Integrated Construction</i>	<i>\$200.00/SF</i>
			<i>CORRIDOR</i>	<i>\$200.00/SF</i>
				<i>\$147,200</i>

Washoe County Sheriff's Office Master Plan - Patrols
 Estimate of Probable Construction & Overall Project Costs

Estimate Summary (Gross Costs)

GFA: Gross Floor Area
 Rates Current At January 2018

Washoe County Sheriff's Office Master Plan
Patrols
 Estimate of Probable Construction & Overall Project Costs

Location		GFA SF	Cost/SF	Total Cost
PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)				
ADM9	Training	2,607	259.53	676,585
OPER1	Lockers	4,801	259.53	1,245,983
OPER2	Equipment Storage	2,901	259.53	752,885
OPER3	File Storage	1,491	259.53	386,954
OPER4	Report Writing	1,705	259.53	442,492
OPER5	Detectives - Persons	4,410	259.53	1,144,510
OPER6	Patrol	4,702	259.53	1,220,292
OPER7	Detectives - Persons	1,838	259.53	477,008
OPER8	Information Technology (IT) Support	498	259.52	129,243
OPER9	Cyber Crimes	2,000	259.53	519,052
OPER10	Briefing	1,934	259.53	501,923
SUPP5	Corridor	2,598	259.53	674,249
SUPP7	Corridor	359	259.52	93,169
SUPP8	Storage	672	259.53	174,401
SUPP9	Corridor	814	259.53	211,254
PAT2025ON - 8. PATROLS, ON-SITE FACILITY (2025)		33,330	\$259.53	\$8,650,000
PAT2025OFF 8. PATROLS, OFF-SITE FACILITY (2028)				
OTH5	Emergency Services Building (2025)	28,000	743.61	20,821,000
PAT2025OFF - 8. PATROLS, OFF-SITE FACILITY (2028)		28,000	\$743.61	\$20,821,000
ESTIMATED TTL COST		61,330	\$480.53	\$29,471,000

Washoe County Sheriff's Office Master Plan - Patrols
 Estimate of Probable Construction & Overall Project Costs

Washoe County Sheriff's Office Master Plan - Patrols
 Estimate of Probable Construction & Overall Project Costs

Estimate Summary - Net Costs + Margins/Adjustments GFA: Gross Floor Area
Rates Current At January 2018

Estimate Summary - Net Costs + Margins/Adjustments GFA: Gross Floor Area
Rates Current At January 2018

Location	GFA SF	Cost/SF	Total Cost
PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)			
ADM9 Training	2,607	150.00	391,050
OPER1 Lockers	4,801	150.00	720,150
OPER2 Equipment Storage	2,901	150.00	435,150
OPER3 File Storage	1,491	150.00	223,650
OPER4 Report Writing	1,705	150.00	255,750
OPER5 Detectives - Persons	4,410	150.00	661,500
OPER6 Patrol	4,702	150.00	705,300
OPER7 Detectives - Persons	1,838	150.00	275,700
OPER8 Information Technology (IT) Support	498	150.00	74,700
OPER9 Cyber Crimes	2,000	150.00	300,000
OPER10 Briefing	1,934	150.00	290,100
SUPP5 Corridor	2,598	150.00	389,700
SUPP7 Corridor	359	150.00	53,850
SUPP8 Storage	672	150.00	100,800
SUPP9 Corridor	814	150.00	122,100
PAT2025ON - 8. PATROLS, ON-SITE FACILITY (2025)			33,330 \$150.00 \$4,999,500
PAT2025OFF 8. PATROLS, OFF-SITE FACILITY (2028)			
OTH5 Emergency Services Building (2025)	28,000	400.00	11,200,000
PAT2025OFF - 8. PATROLS, OFF-SITE FACILITY (2028)			28,000 \$400.00 \$11,200,000
ESTIMATED NET COST			61,330 \$264.14 \$16,199,500
MARGINS & ADJUSTMENTS			
General Conditions including General & Temporary Requirements (Included in Unit Rates)			Incl.
Bonds & Insurance (Included in Unit Rates)			Incl.
General Contractor's Overhead & Profit (Fee) (Included in Unit Rates)			Incl.
Applicable State Sales & Use Tax (Included within Unit Rates)			Incl.
Design/Estimating Contingency @ Master Plan Phase (Allowance, Varies by Project Type)		10.0 %	\$1,619,500
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN CURRENT DOLLARS)			61,330 \$290.54 \$17,819,000
Construction Cost Escalation (Allowance, 3% per Annum, Varies based on Total Duration)		27.2 %	\$4,851,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN FUTURE DOLLARS)			61,330 \$369.64 \$22,670,000

Location	GFA SF	Cost/SF	Total Cost
MARGINS & ADJUSTMENTS (continued)			
Project Related Soft Costs including Design Professional Fees, FF&E, Permit Fees, Special Testing & Inspections etc. (Allowance)		30.0 %	\$6,801,000
ESTIMATED TOTAL COST			61,330 \$480.53 \$29,471,000

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)
ADM9 Training

GFA: 2,607 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	2,607	150.00	391,050
			Integrated Construction	\$150.00/SF
			TRAINING	\$150.00/SF
				\$391,050

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)
OPER1 Lockers

GFA: 4,801 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	4,801	150.00	720,150
			Integrated Construction	\$150.00/SF
			LOCKERS	\$150.00/SF
				\$720,150

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)

OPER2 Equipment Storage

GFA: 2,901 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	2,901	150.00	435,150
			Integrated Construction	\$150.00/SF
			EQUIPMENT STORAGE	\$150.00/SF
				\$435,150

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)

OPER3 File Storage

GFA: 1,491 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	1,491	150.00	223,650
			Integrated Construction	\$150.00/SF
			FILE STORAGE	\$150.00/SF
				\$223,650

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)
OPER4 Report Writing

GFA: 1,705 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	1,705	150.00	255,750
			Integrated Construction	\$150.00/SF
			REPORT WRITING	\$150.00/SF
				\$255,750

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)
OPER5 Detectives - Persons

GFA: 4,410 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	4,410	150.00	661,500
			Integrated Construction	\$150.00/SF
			DETECTIVES - PERSONS	\$150.00/SF
				\$661,500

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)

OPER6 Patrol

GFA: 4,702 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	4,702	150.00	705,300
			Integrated Construction	\$150.00/SF
			PATROL	\$150.00/SF
				\$705,300

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)

OPER7 Detectives - Persons

GFA: 1,838 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	1,838	150.00	275,700
			Integrated Construction	\$150.00/SF
			DETECTIVES - PERSONS	\$150.00/SF
				\$275,700

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)

OPER8 Information Technology (IT) Support

GFA: 498 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	498	150.00	74,700
			Integrated Construction	\$150.00/SF
			INFORMATION TECHNOLOGY (IT) SUPPORT	\$150.00/SF
				\$74,700

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)

OPER9 Cyber Crimes

GFA: 2,000 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	2,000	150.00	300,000
			Integrated Construction	\$150.00/SF
			CYBER CRIMES	\$150.00/SF
				\$300,000

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)
OPER10 Briefing

GFA: 1,934 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	1,934	150.00	290,100
			Integrated Construction	\$150.00/SF
			BRIEFING	\$150.00/SF
				\$290,100

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)
SUPP5 Corridor

GFA: 2,598 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	2,598	150.00	389,700
			Integrated Construction	\$150.00/SF
			CORRIDOR	\$150.00/SF
				\$389,700

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)
SUPP7 Corridor

GFA: 359 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	359	150.00	53,850
			Integrated Construction	\$150.00/SF
			CORRIDOR	\$150.00/SF
				\$53,850

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)
SUPP8 Storage

GFA: 672 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	672	150.00	100,800
			Integrated Construction	\$150.00/SF
			STORAGE	\$150.00/SF
				\$100,800

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025ON 8. PATROLS, ON-SITE FACILITY (2025)

SUPP9 Corridor

GFA: 814 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	814	150.00	122,100
			Integrated Construction	\$150.00/SF
			CORRIDOR	\$150.00/SF
				\$122,100

Washoe County Sheriff's Office Master Plan - Patrols

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

PAT2025OFF 8. PATROLS, OFF-SITE FACILITY (2028)

OTH5 Emergency Services Building (2025)

GFA: 28,000 SF Cost/SF: \$400.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
14 New construction - emergency services building	SF	28,000	400.00	11,200,000
			Integrated Construction	\$400.00/SF
			EMERGENCY SERVICES BUILDING (2025)	\$400.00/SF
				\$11,200,000

Washoe County Sheriff's Office Master Plan - Administration Building
 Estimate of Probable Construction & Overall Project Costs

Estimate Summary (Gross Costs)

GFA: Gross Floor Area
 Rates Current At January 2018

Washoe County Sheriff's Office Master Plan
Administration Building
 Estimate of Probable Construction & Overall Project Costs

Location	GFA SF	Cost/SF	Total Cost
AB2025 9. ADMINISTRATION BUILDING (2025)			
ADM3 Offices & Conference	1,005	259.53	260,828
ADM4 Lobby	2,075	432.55	897,539
ADM5 Secure Contact	870	432.55	376,318
ADM6 Counters	295	432.55	127,602
ADM7 Civil Support	789	259.53	204,770
ADM8 Civil Records	4,393	259.53	1,140,113
ADM10 Backgrounds Expansion	2,860	259.53	742,257
ADM11 Crime Information Center (CIC)	1,285	259.53	333,497
ADM12 Payroll & Human Resources	803	259.53	208,401
ADM14 Information Technology (IT)	6,800	259.53	1,764,801
ADM15 Storage	2,037	259.53	528,661
SUPP12 Secure Vestibule	400	432.55	173,020
SUPP13 Maintenance Offices	2,224	259.53	577,193
AB2025 - 9. ADMINISTRATION BUILDING (2025)			25,836 \$283.91 \$7,335,000
ESTIMATED TTL COST			25,836 \$283.91 \$7,335,000

Washoe County Sheriff's Office Master Plan - Administration Building
 Estimate of Probable Construction & Overall Project Costs

Washoe County Sheriff's Office Master Plan - Administration Building
 Estimate of Probable Construction & Overall Project Costs

Estimate Summary - Net Costs + Margins/Adjustments GFA: Gross Floor Area
Rates Current At January 2018

Estimate Detail GFA: 1,005 SF Cost/SF: \$150.00
Rates Current At January 2018

Location	GFA SF	Cost/SF	Total Cost
AB2025 9. ADMINISTRATION BUILDING (2025)			
ADM3 Offices & Conference	1,005	150.00	150,750
ADM4 Lobby	2,075	250.00	518,750
ADM5 Secure Contact	870	250.00	217,500
ADM6 Counters	295	250.00	73,750
ADM7 Civil Support	789	150.00	118,350
ADM8 Civil Records	4,393	150.00	658,950
ADM10 Backgrounds Expansion	2,860	150.00	429,000
ADM11 Crime Information Center (CIC)	1,285	150.00	192,750
ADM12 Payroll & Human Resources	803	150.00	120,450
ADM14 Information Technology (IT)	6,800	150.00	1,020,000
ADM15 Storage	2,037	150.00	305,550
SUPP12 Secure Vestibule	400	250.00	100,000
SUPP13 Maintenance Offices	2,224	150.00	333,600
AB2025 - 9. ADMINISTRATION BUILDING (2025)			
	25,836	\$164.09	\$4,239,400
ESTIMATED NET COST			
	25,836	\$164.09	\$4,239,400
MARGINS & ADJUSTMENTS			
General Conditions including General & Temporary Requirements (Included in Unit Rates)			Incl.
Bonds & Insurance (Included in Unit Rates)			Incl.
General Contractor's Overhead & Profit (Fee) (Included in Unit Rates)			Incl.
Applicable State Sales & Use Tax (Included within Unit Rates)			Incl.
Design/Estimating Contingency @ Master Plan Phase (Allowance, Varies by Project Type)	10.0 %		\$423,600
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN CURRENT DOLLARS)			
	25,836	\$180.48	\$4,663,000
Construction Cost Escalation (Allowance, 3% per Annum, Varies based on Total Duration)	21.0 %		\$979,000
SUB-TOTAL - ESTIMATE OF PROBABLE CONSTRUCTION COST (IN FUTURE DOLLARS)			
	25,836	\$218.38	\$5,642,000
Project Related Soft Costs including Design Professional Fees, FF&E, Permit Fees, Special Testing & Inspections etc. (Allowance)	30.0 %		\$1,693,000
ESTIMATED TOTAL COST			
	25,836	\$283.91	\$7,335,000

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	1,005	150.00	150,750
			Integrated Construction	\$150.00/SF
			OFFICES & CONFERENCE	\$150.00/SF
				\$150,750

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)
ADM4 Lobby

GFA: 2,075 SF Cost/SF: \$250.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
16 Building addition and remodel	SF	2,075	250.00	518,750
			Integrated Construction	\$250.00/SF
			LOBBY	\$250.00/SF
				\$518,750

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)
ADM5 Secure Contact

GFA: 870 SF Cost/SF: \$250.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
16 Building addition and remodel	SF	870	250.00	217,500
			Integrated Construction	\$250.00/SF
			SECURE CONTACT	\$250.00/SF
				\$217,500

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)
ADM6 Counters

GFA: 295 SF Cost/SF: \$250.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
16 Building addition and remodel	SF	295	250.00	73,750
			Integrated Construction	\$250.00/SF
			COUNTERS	\$250.00/SF
				\$73,750

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)
ADM7 Civil Support

GFA: 789 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	789	150.00	118,350
			Integrated Construction	\$150.00/SF
			CIVIL SUPPORT	\$150.00/SF
				\$118,350

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)

ADM8 Civil Records

GFA: 4,393 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	4,393	150.00	658,950
			Integrated Construction	\$150.00/SF
			CIVIL RECORDS	\$150.00/SF
				\$658,950

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)

ADM10 Backgrounds Expansion

GFA: 2,860 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	2,860	150.00	429,000
			Integrated Construction	\$150.00/SF
			BACKGROUND EXPANSION	\$150.00/SF
				\$429,000

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)

ADM11 Crime Information Center (CIC)

GFA: 1,285 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	1,285	150.00	192,750
			Integrated Construction	\$150.00/SF
			CRIME INFORMATION CENTER (CIC)	\$150.00/SF
				\$192,750

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)

ADM12 Payroll & Human Resources

GFA: 803 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	803	150.00	120,450
			Integrated Construction	\$150.00/SF
			PAYROLL & HUMAN RESOURCES	\$150.00/SF
				\$120,450

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)

ADM14 Information Technology (IT)

GFA: 6,800 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	6,800	150.00	1,020,000
			Integrated Construction	\$150.00/SF \$1,020,000
			INFORMATION TECHNOLOGY (IT)	\$150.00/SF \$1,020,000

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)

ADM15 Storage

GFA: 2,037 SF Cost/SF: \$150.00

Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	2,037	150.00	305,550
			Integrated Construction	\$150.00/SF \$305,550
			STORAGE	\$150.00/SF \$305,550

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)
SUPP12 Secure Vestibule

GFA: 400 SF Cost/SF: \$250.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
16 Building addition and remodel	SF	400	250.00	100,000
			Integrated Construction	\$250.00/SF
			SECURE VESTIBULE	\$100,000

Washoe County Sheriff's Office Master Plan - Administration Building

Estimate of Probable Construction & Overall Project Costs

Estimate Detail

AB2025 9. ADMINISTRATION BUILDING (2025)
SUPP13 Maintenance Offices

GFA: 2,224 SF Cost/SF: \$150.00
Rates Current At January 2018

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
15 Remodel/renovation to existing	SF	2,224	150.00	333,600
			Integrated Construction	\$150.00/SF
			MAINTENANCE OFFICES	\$333,600

DEFINITIONS AND ABBREVIATIONS

ALOS	Average Length of Stay	NCSC	National Center for State Courts
ADP	Average Daily population	OPI	Office of Professional Integrity
ATAC	All Threats All Crimes	POST	Peace Officer Basic Training
AIU	Alternatives to Incarceration Unit	RAVEN	Regional Aviation Enforcement Unit
CCW	Concealed and Carry Weapons	R&D	Research and Development
CIC	Criminal Information Center	SOD	Special Operations Division
CIP	Capital Improvement Projects	SO	Sheriff's Office (Washoe County Sheriff's Office)
CTU	Computer Technology Unit	SWAT	Special Weapons and Tactics
FBI	Federal Bureau of Investigation	Tenant Improvement	Construction, remodeling, addition, new building, build-out of shell space, deletion or addition of communication lines and/or conduit (e.g. telephone lines, fiber, wireless applications, and data circuits)
HU#	Housing Unit	UCR	The Uniform Crime Reporting (UCR) Program. Participating local, county, state, tribal, and federal law enforcement agencies have voluntarily provided the nation with a reliable set of crime statistics through the Uniform Crime Reporting (Data taken from FBI website)
IT	Information Technology	WSCO	Washoe County Sheriff's Office
JTTF	Joint Terrorism Task Force		
NIBRIS	National Incident-Based Reporting System. Implemented to improve the overall quality of crime data collected by law enforcement, captures details on each single crime incident—as well as on separate offenses within the same incident—including information on victims, known offenders, relationships between victims and offenders, arrestees, and property involved in the crimes. (Data taken from FBI website)		
NCIC	National Criminal Information Center		

Appendix 1 – Existing Facility Plans

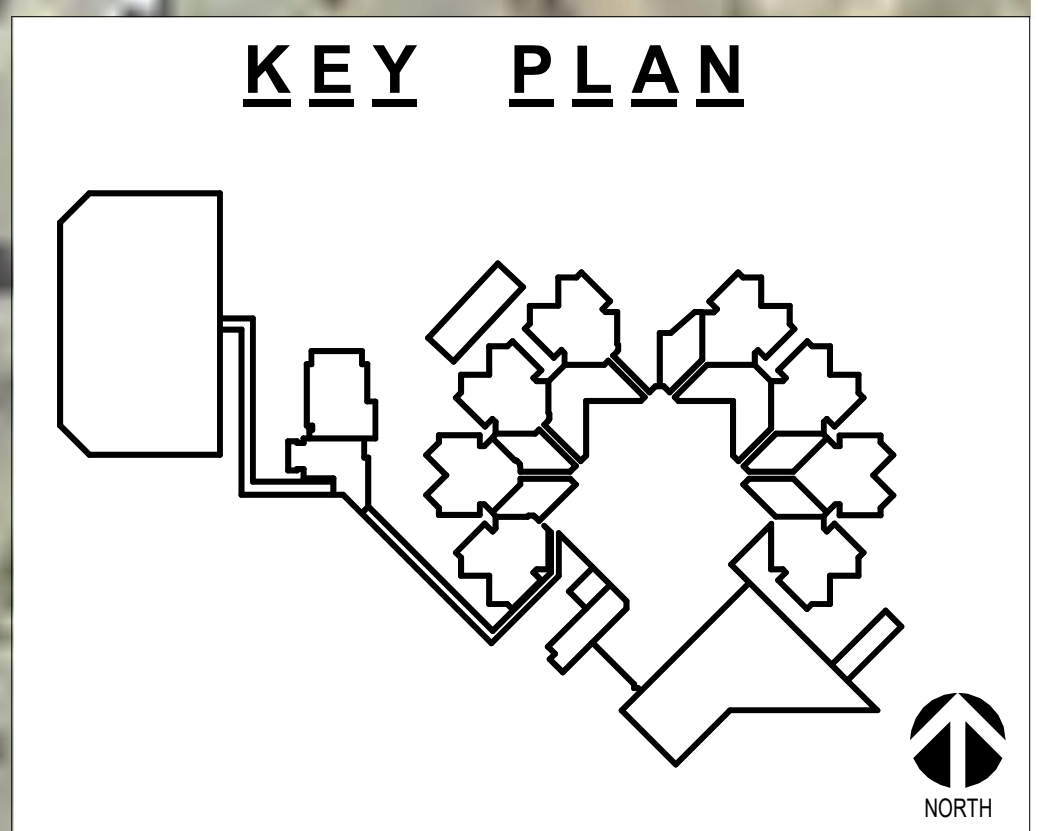
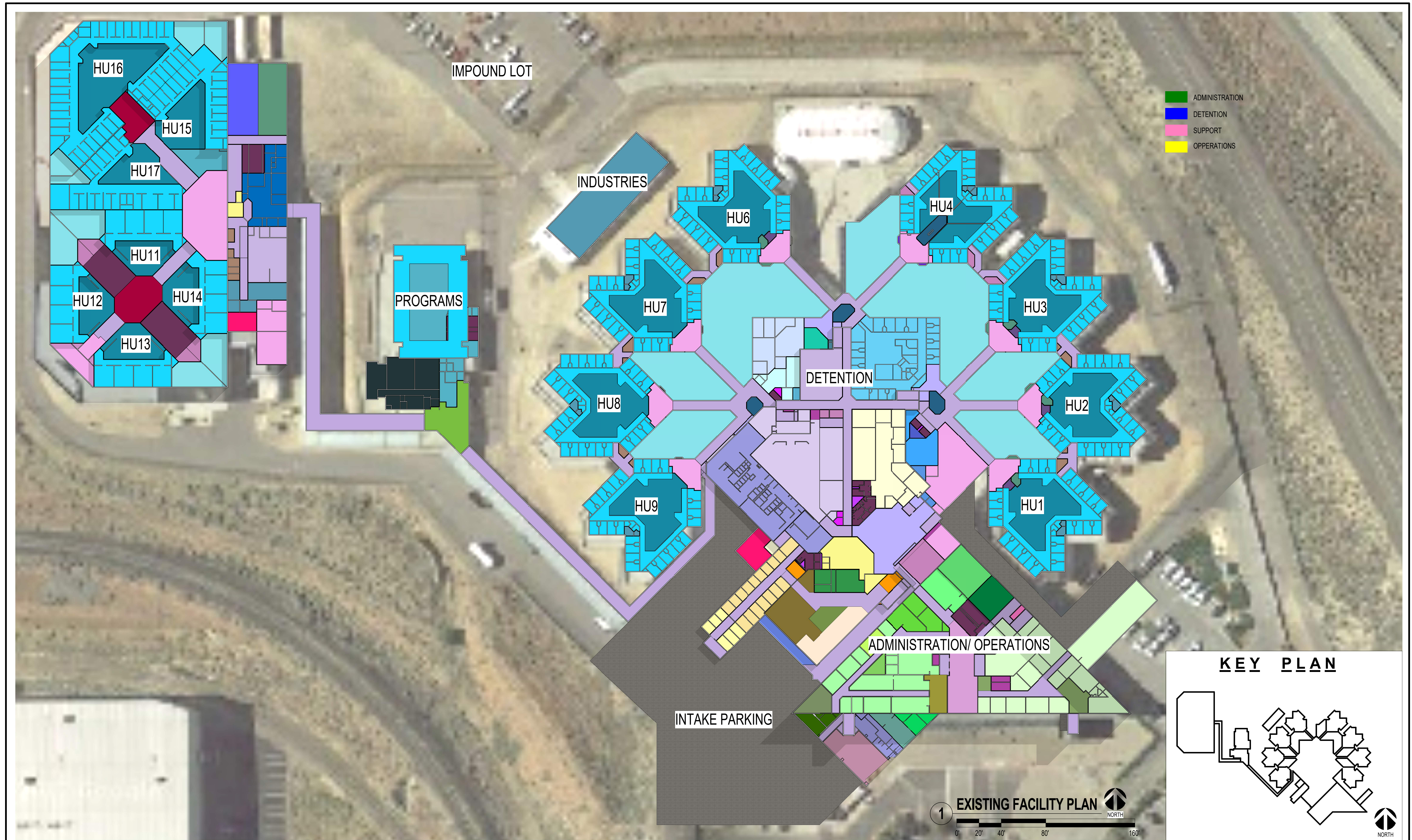
Figure 1.1 – Existing Overall Facility Plan

Figure 1.2 – Existing Sub Floor Plan

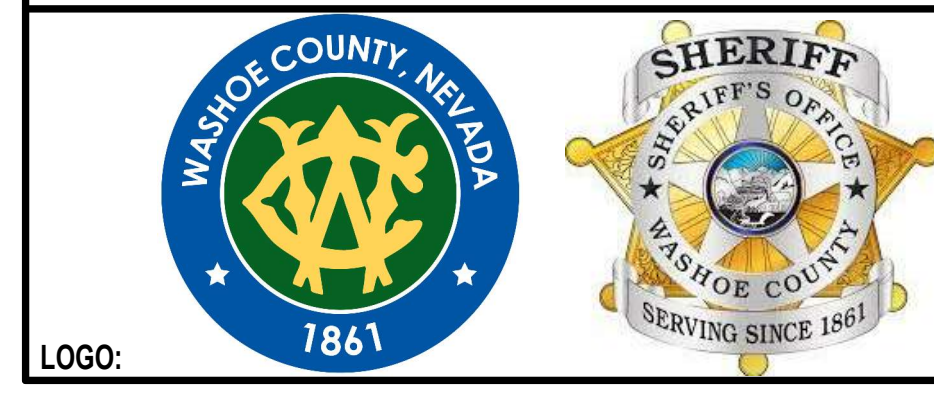
Figure 1.3 – Existing 1st Floor Plan

Figure 1.4 – Existing 2nd Floor Plan

Figure 1.5 – Existing 3D View



1 EXISTING FACILITY PLAN



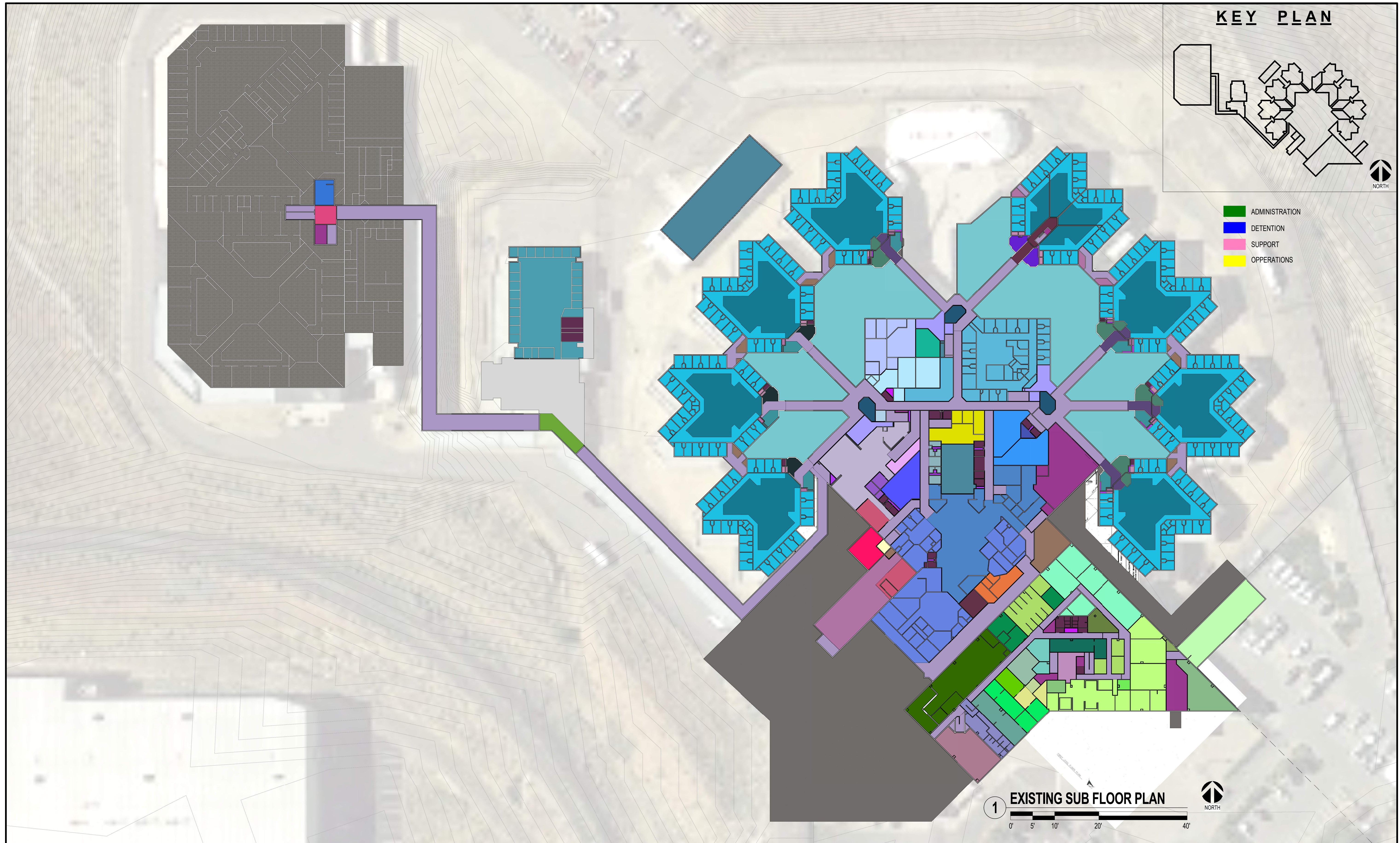
WASHOE COUNTY SHERIFF'S
OFFICE MASTER PLAN
911 PARR BLVD.

PRELIMINARY NOT
FOR
CONSTRUCTION

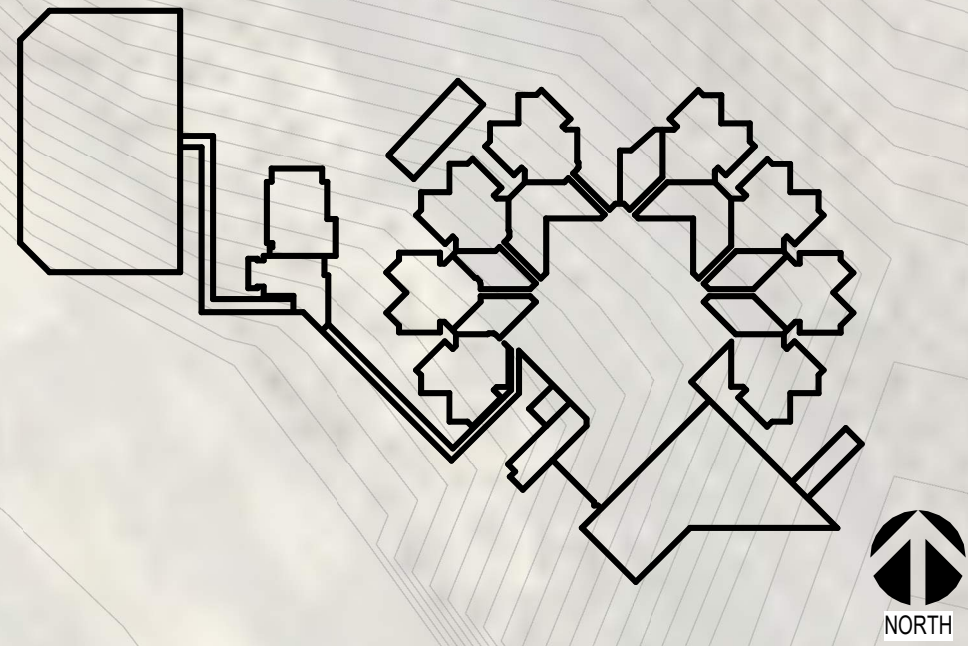
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Phoenix, Arizona 85016
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Fax: (602) 279-9110

PROJECT NO.: 2017.005
DATE: 7/28/2017
OWNER: Enter Client Name Here

NAME
EXISTING OVERALL FACILITY PLAN
SHEET NUMBER:
FIG 1.1



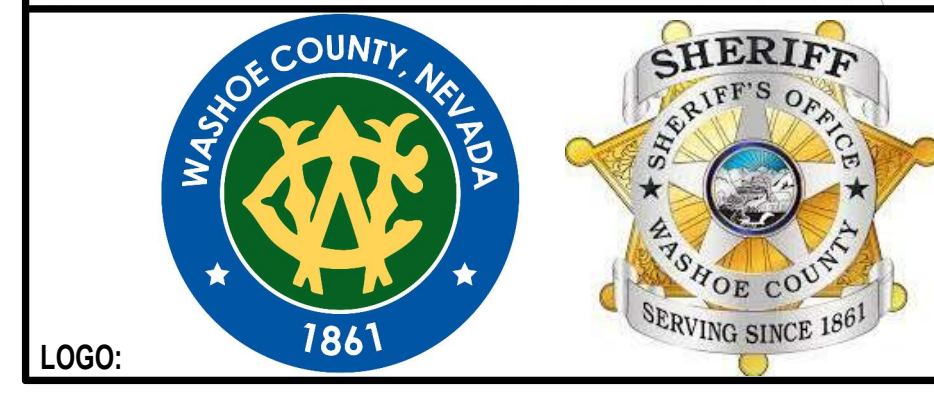
KEY PLAN



- ADMINISTRATION
- DETENTION
- SUPPORT
- OPERATIONS

1 EXISTING SUB FLOOR PLAN

0' 5' 10' 20' 40'



**WASHOE COUNTY SHERIFF'S
OFFICE MASTER PLAN
911 PARR BLVD.**

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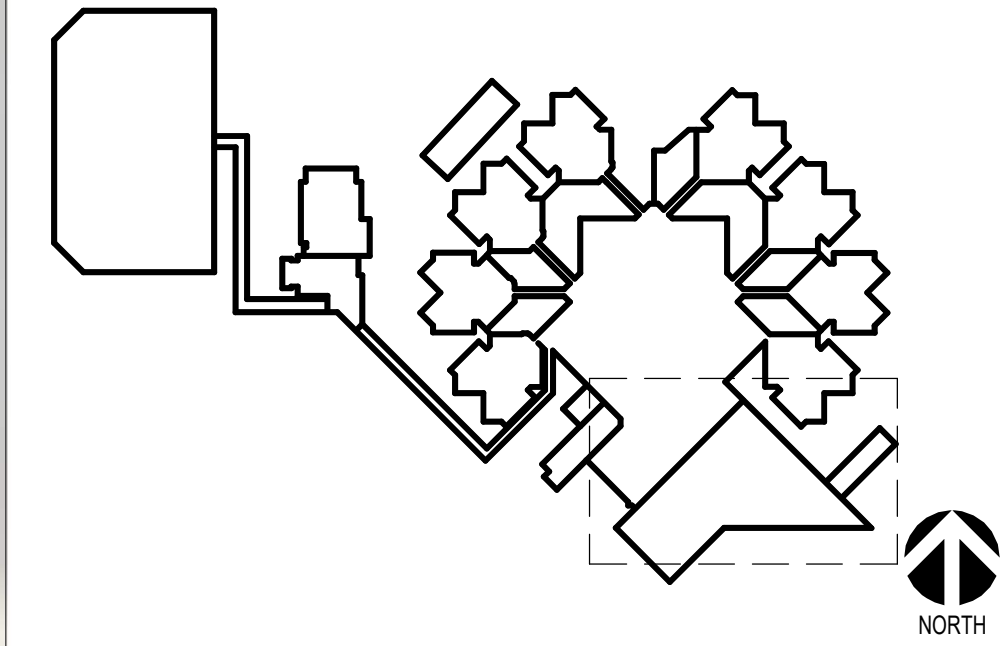
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NAME
EXISTING SUB FLOOR PLAN

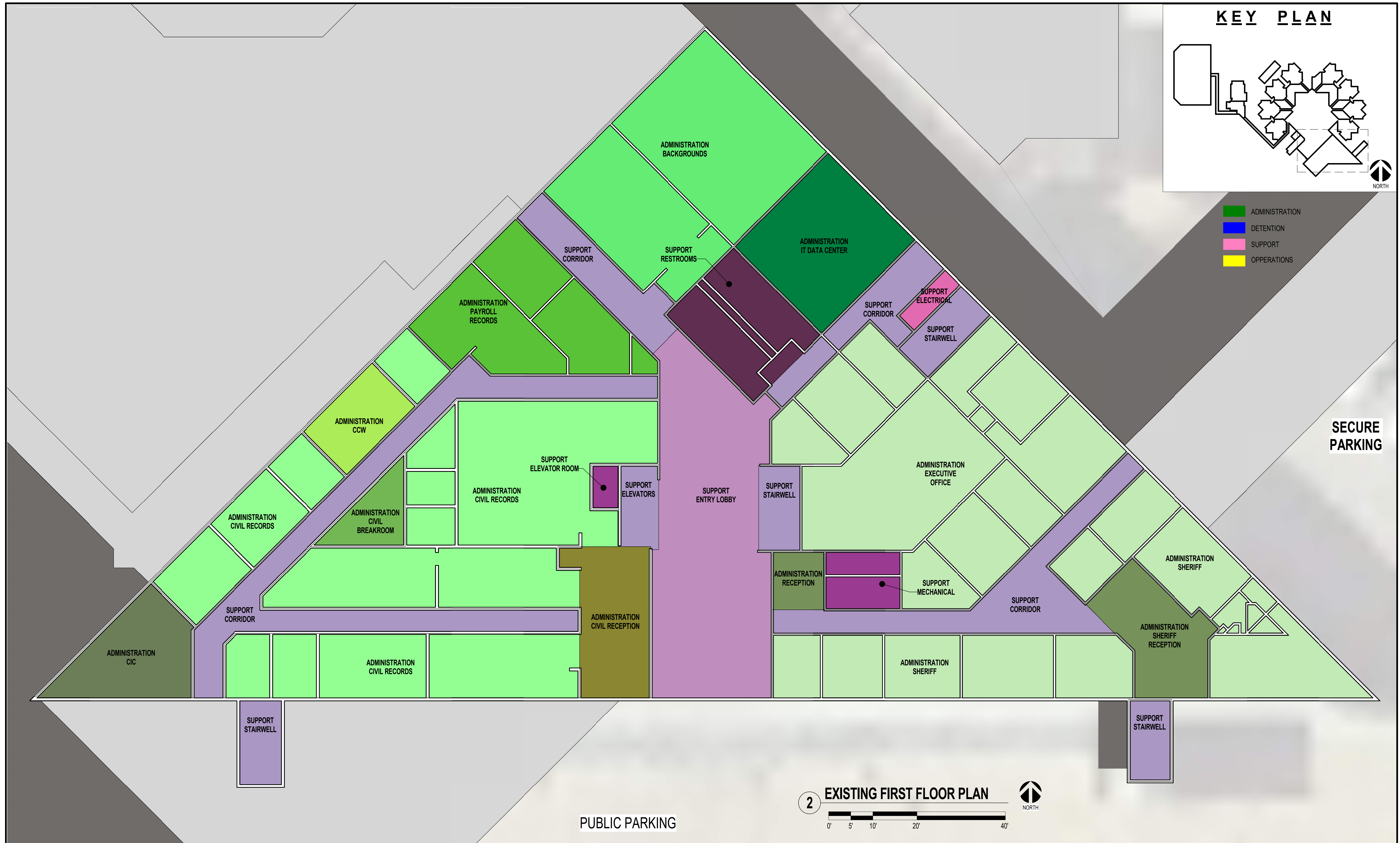
SHEET NUMBER:

FIG 1.2

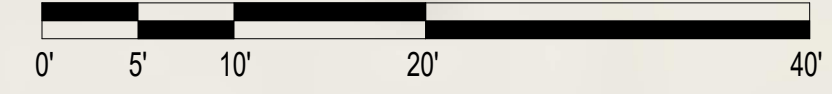
KEY PLAN



- ADMINISTRATION
- DETENTION
- SUPPORT
- OPERATIONS



2 EXISTING FIRST FLOOR PLAN



**WASHOE COUNTY SHERIFF'S
OFFICE MASTER PLAN
911 PARR BLVD.**

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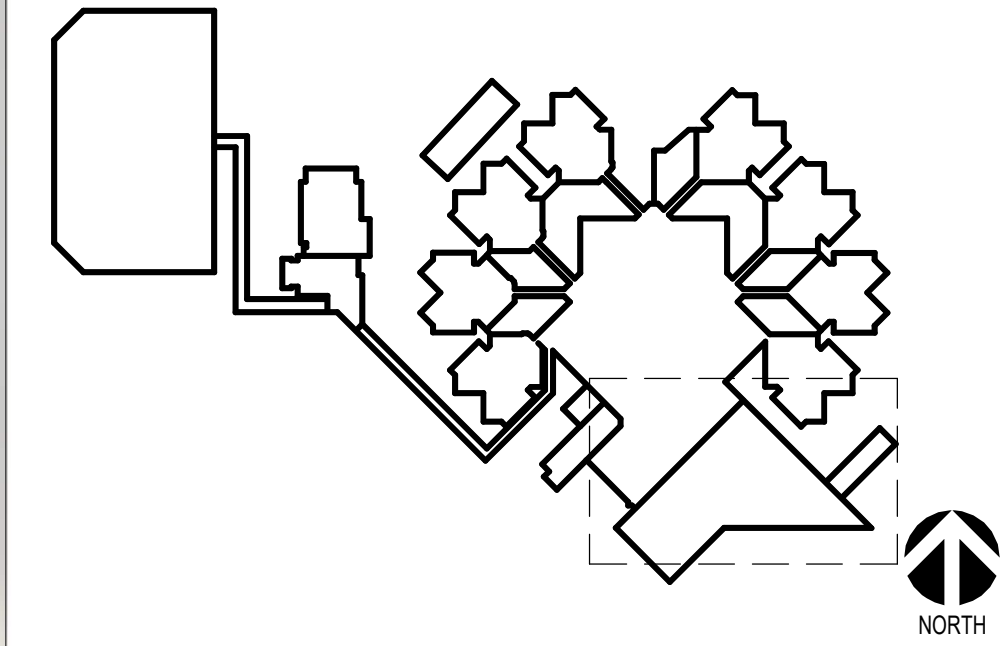
PROJECT NO.: 2017.005
DATE: 7/28/2017
OWNER: Enter Client Name Here

**NAME
EXISTING FIRST FLOOR PLAN**

SHEET NUMBER:

FIG 1.3

KEY PLAN



- ADMINISTRATION
- DETENTION
- SUPPORT
- OPERATIONS



2 SECOND FLOOR - EXISTING



**WASHOE COUNTY SHERIFF'S
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**NAME
EXISTING SECOND FLOOR PLAN**

SHEET NUMBER:

FIG 1.4



- ADMINISTRATION
- DETENTION
- SUPPORT
- OPERATIONS

1 OVERALL ARIAL SITE PLAN - EXISTING

0' 20' 40' 80' 160'



**WASHOE COUNTY SHERIFF'S
OFFICE MASTER PLAN
911 PARR BLVD.**

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FOR
CONSTRUCTION**



PROJECT NO.: 2017.005
DATE: 7/28/2017
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**NAME
EXISTING 3D VIEW**

SHEET NUMBER:

FIG 1.5

Appendix 2 – Proposed Facility Plans

Figure 2.1 – Proposed Site Plan

Figure 2.2 – Proposed Sub Floor Plan

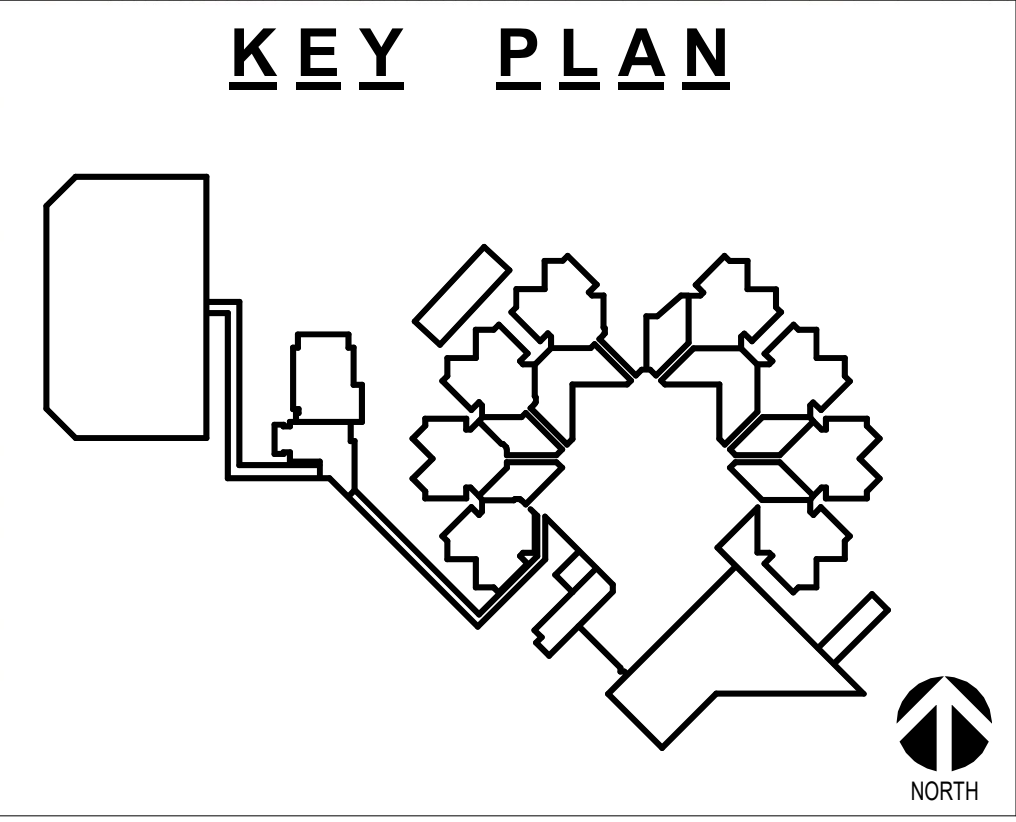
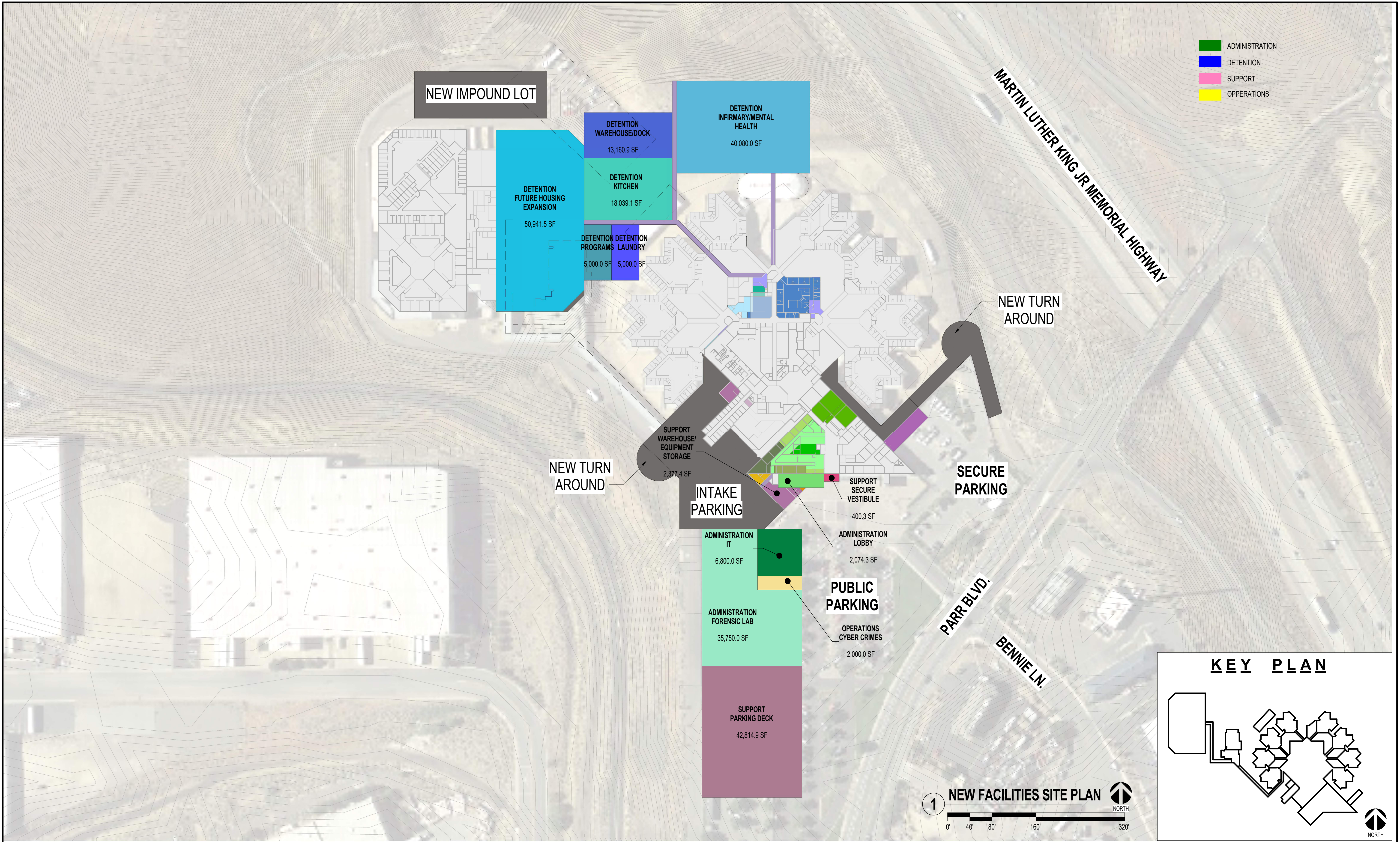
Figure 2.3 – Proposed Enlarged Sub Floor Plan

Figure 2.4 – Proposed 1st Floor Plan

Figure 2.5 – Proposed 2nd Floor Plan

Figure 2.6 – Forensics/Parking Deck Plan

Figure 2.7 – Proposed 3D View



1 NEW FACILITIES SITE PLAN



WASHOE COUNTY SHERIFF'S
OFFICE MASTER PLAN
911 PARR BLVD.

PRELIMINARY NOT
FOR
CONSTRUCTION

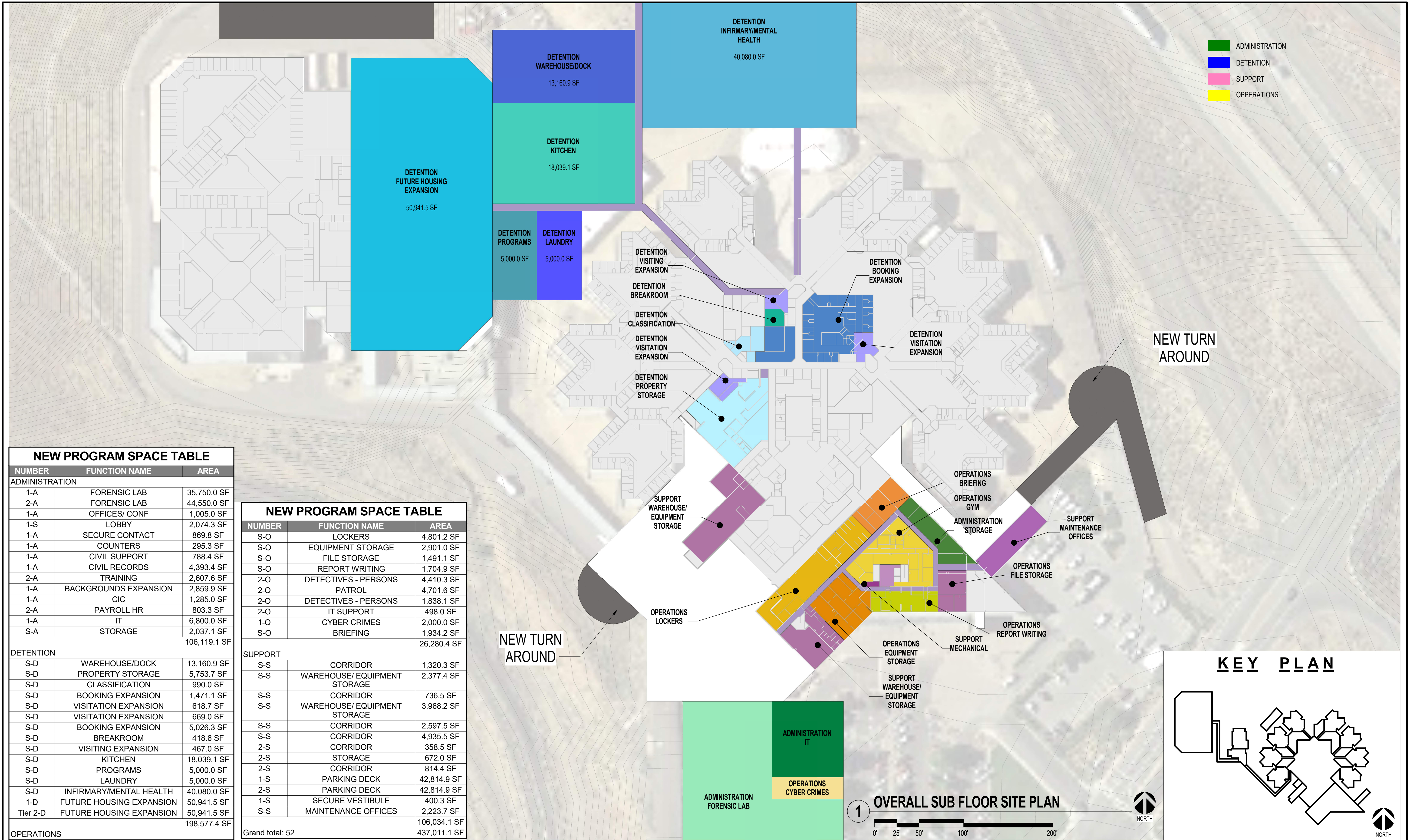


PROJECT NO.: 2017.005
DATE: 7/28/2017
OWNER: Enter Client Name Here

NAME
ARCHITECTURAL
PROPOSED SITE PLAN

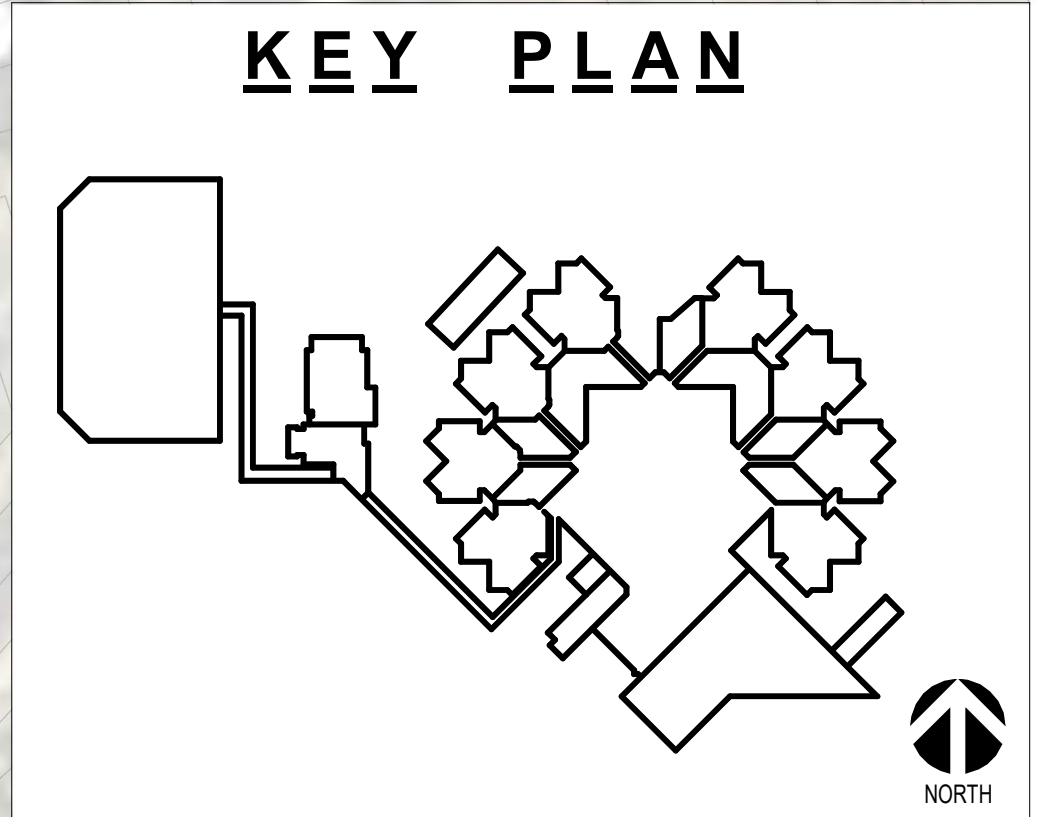
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FIG 2.1

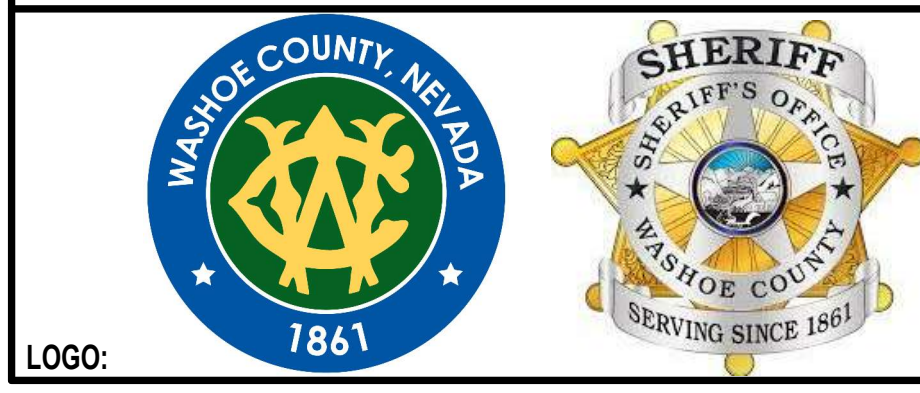


NEW PROGRAM SPACE TABLE		
NUMBER	FUNCTION NAME	AREA
ADMINISTRATION		
1-A	FORENSIC LAB	35,750.0 SF
2-A	FORENSIC LAB	44,550.0 SF
1-A	OFFICES/ CONF	1,005.0 SF
1-S	LOBBY	2,074.3 SF
1-A	SECURE CONTACT	869.8 SF
1-A	COUNTERS	295.3 SF
1-A	CIVIL SUPPORT	788.4 SF
1-A	CIVIL RECORDS	4,393.4 SF
2-A	TRAINING	2,607.6 SF
1-A	BACKGROUNDS EXPANSION	2,859.9 SF
1-A	CIC	1,285.0 SF
2-A	PAYROLL HR	803.3 SF
1-A	IT	6,800.0 SF
S-A	STORAGE	2,037.1 SF
		106,119.1 SF
DETECTION		
S-D	WAREHOUSE/DOCK	13,160.9 SF
S-D	PROPERTY STORAGE	5,753.7 SF
S-D	CLASSIFICATION	990.0 SF
S-D	BOOKING EXPANSION	1,471.1 SF
S-D	VISITATION EXPANSION	618.7 SF
S-D	VISITATION EXPANSION	669.0 SF
S-D	BOOKING EXPANSION	5,026.3 SF
S-D	BREAKROOM	418.6 SF
S-D	VISITING EXPANSION	467.0 SF
S-D	KITCHEN	18,039.1 SF
S-D	PROGRAMS	5,000.0 SF
S-D	LAUNDRY	5,000.0 SF
S-D	INFIRMARY/MENTAL HEALTH	40,080.0 SF
1-D	FUTURE HOUSING EXPANSION	50,941.5 SF
Tier 2-D	FUTURE HOUSING EXPANSION	50,941.5 SF
		198,577.4 SF
OPERATIONS		

NEW PROGRAM SPACE TABLE		
NUMBER	FUNCTION NAME	AREA
S-O	LOCKERS	4,801.2 SF
S-O	EQUIPMENT STORAGE	2,901.0 SF
S-O	FILE STORAGE	1,491.1 SF
S-O	REPORT WRITING	1,704.9 SF
2-O	DETECTIVES - PERSONS	4,410.3 SF
2-O	PATROL	4,701.6 SF
2-O	DETECTIVES - PERSONS	1,838.1 SF
2-O	IT SUPPORT	498.0 SF
1-O	CYBER CRIMES	2,000.0 SF
S-O	BRIEFING	1,934.2 SF
		26,280.4 SF
SUPPORT		
S-S	CORRIDOR	1,320.3 SF
S-S	WAREHOUSE/ EQUIPMENT STORAGE	2,377.4 SF
S-S	CORRIDOR	736.5 SF
S-S	WAREHOUSE/ EQUIPMENT STORAGE	3,968.2 SF
S-S	CORRIDOR	2,597.5 SF
S-S	CORRIDOR	4,935.5 SF
2-S	CORRIDOR	358.5 SF
2-S	STORAGE	672.0 SF
2-S	CORRIDOR	814.4 SF
1-S	PARKING DECK	42,814.9 SF
2-S	PARKING DECK	42,814.9 SF
1-S	SECURE VESTIBULE	400.3 SF
S-S	MAINTENANCE OFFICES	2,223.7 SF
		106,034.1 SF
Grand total:	52	437,011.1 SF



1 OVERALL SUB FLOOR SITE PLAN



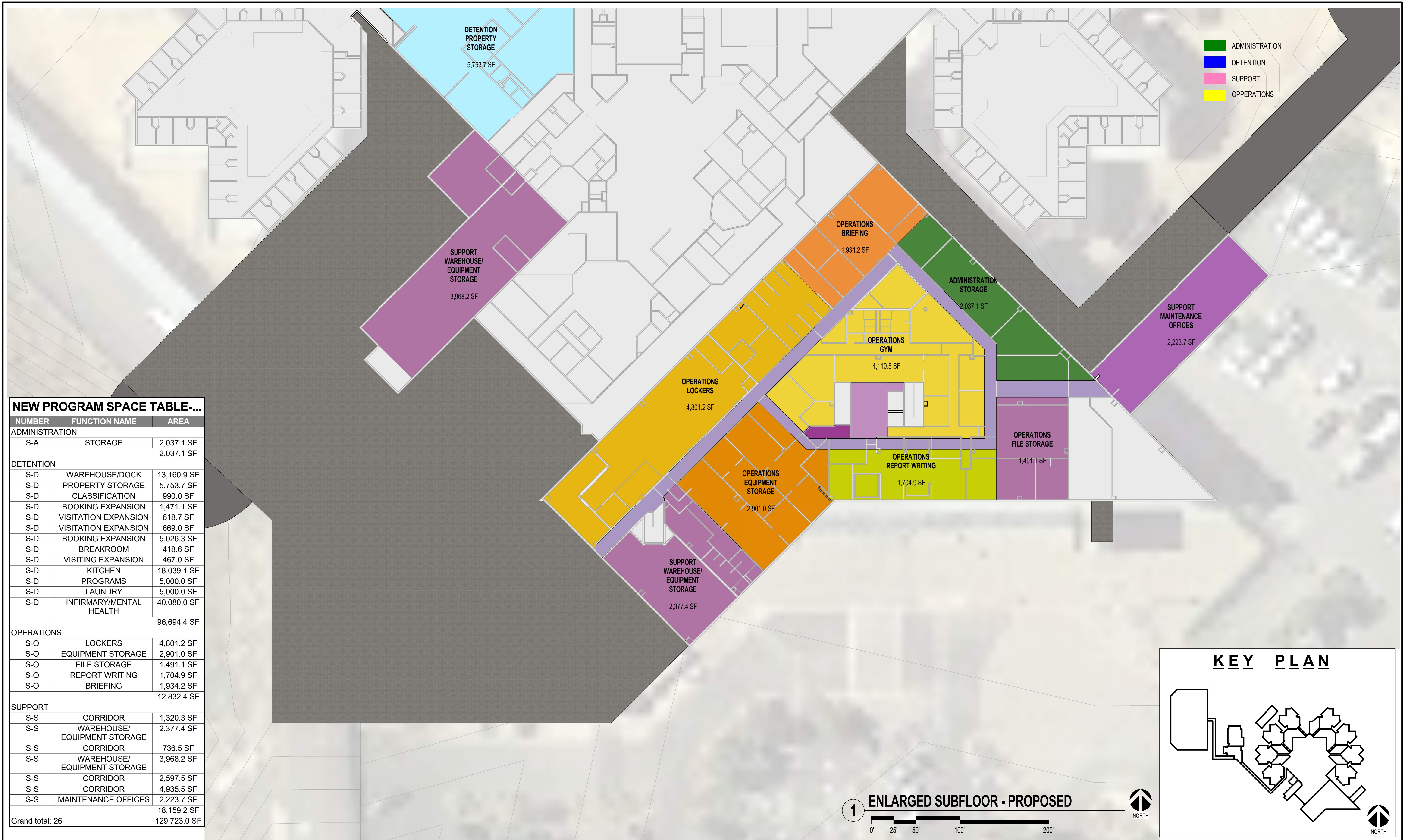
WASHOE COUNTY SHERIFF'S OFFICE MASTER PLAN
911 PARR BLVD.

PRELIMINARY NOT FOR CONSTRUCTION



PROJECT NO.: 2017.005
DATE: 7/28/2017
OWNER: Enter Client Name Here

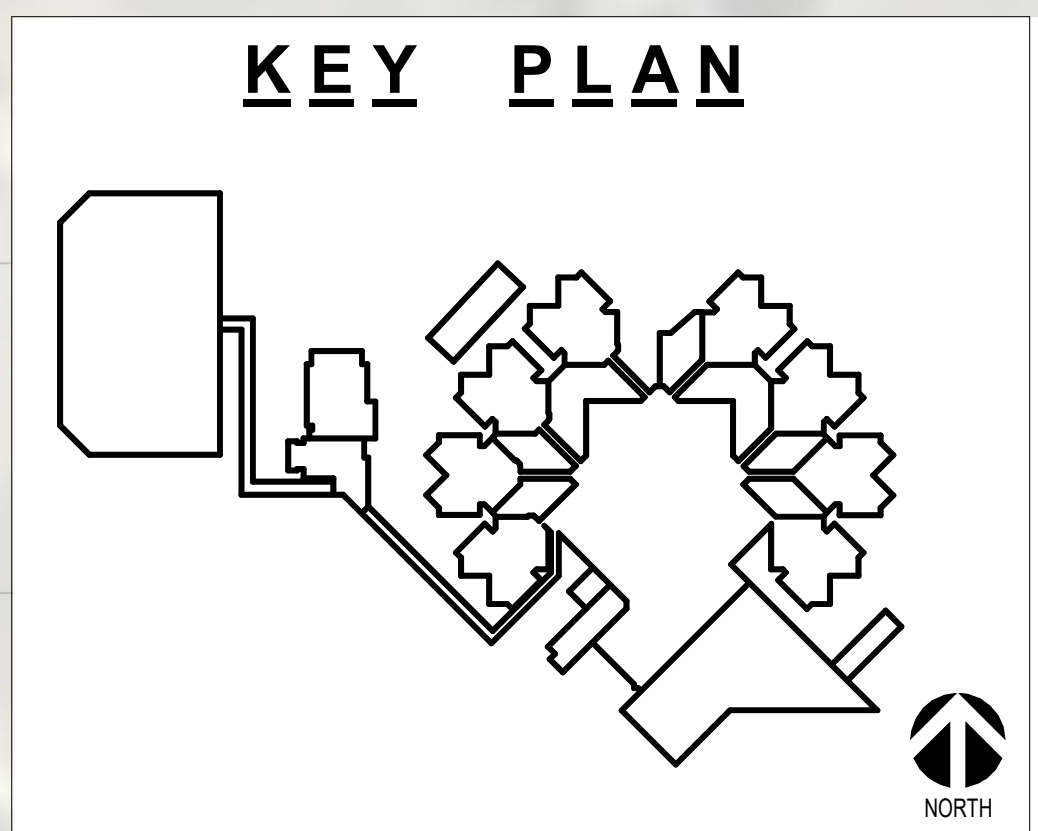
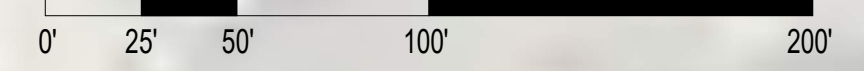
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SHEET NUMBER:



NEW PROGRAM SPACE TABLE-...

NUMBER	FUNCTION NAME	AREA
ADMINISTRATION		
S-A	STORAGE	2,037.1 SF
DETENTION		
S-D	WAREHOUSE/DOCK	13,160.9 SF
S-D	PROPERTY STORAGE	5,753.7 SF
S-D	CLASSIFICATION	990.0 SF
S-D	BOOKING EXPANSION	1,471.1 SF
S-D	VISITATION EXPANSION	618.7 SF
S-D	VISITATION EXPANSION	669.0 SF
S-D	BOOKING EXPANSION	5,026.3 SF
S-D	BREAKROOM	418.6 SF
S-D	VISITING EXPANSION	467.0 SF
S-D	KITCHEN	18,039.1 SF
S-D	PROGRAMS	5,000.0 SF
S-D	LAUNDRY	5,000.0 SF
S-D	INFIRMARY/MENTAL HEALTH	40,080.0 SF
		96,694.4 SF
OPERATIONS		
S-O	LOCKERS	4,801.2 SF
S-O	EQUIPMENT STORAGE	2,901.0 SF
S-O	FILE STORAGE	1,491.1 SF
S-O	REPORT WRITING	1,704.9 SF
S-O	BRIEFING	1,934.2 SF
		12,832.4 SF
SUPPORT		
S-S	CORRIDOR	1,320.3 SF
S-S	WAREHOUSE/EQUIPMENT STORAGE	2,377.4 SF
S-S	CORRIDOR	736.5 SF
S-S	WAREHOUSE/EQUIPMENT STORAGE	3,968.2 SF
S-S	CORRIDOR	2,597.5 SF
S-S	CORRIDOR	4,935.5 SF
S-S	MAINTENANCE OFFICES	2,223.7 SF
		18,159.2 SF
Grand total: 26		129,723.0 SF

1 ENLARGED SUBFLOOR - PROPOSED



**WASHOE COUNTY SHERIFF'S
OFFICE MASTER PLAN
911 PARR BLVD.**

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**NAME
PROPOSED SUB FLOOR PLAN**

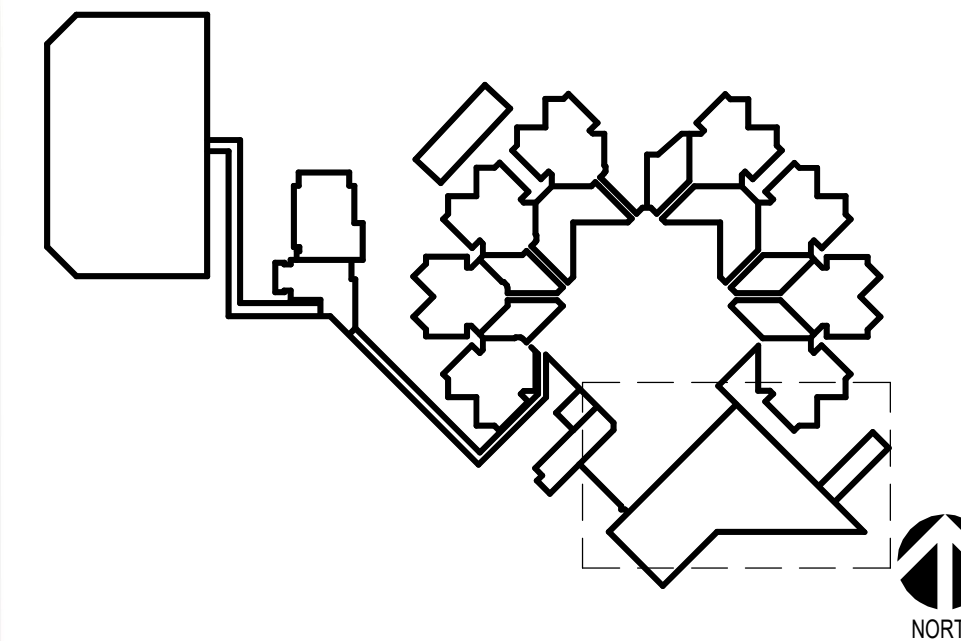
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FIG 2.3

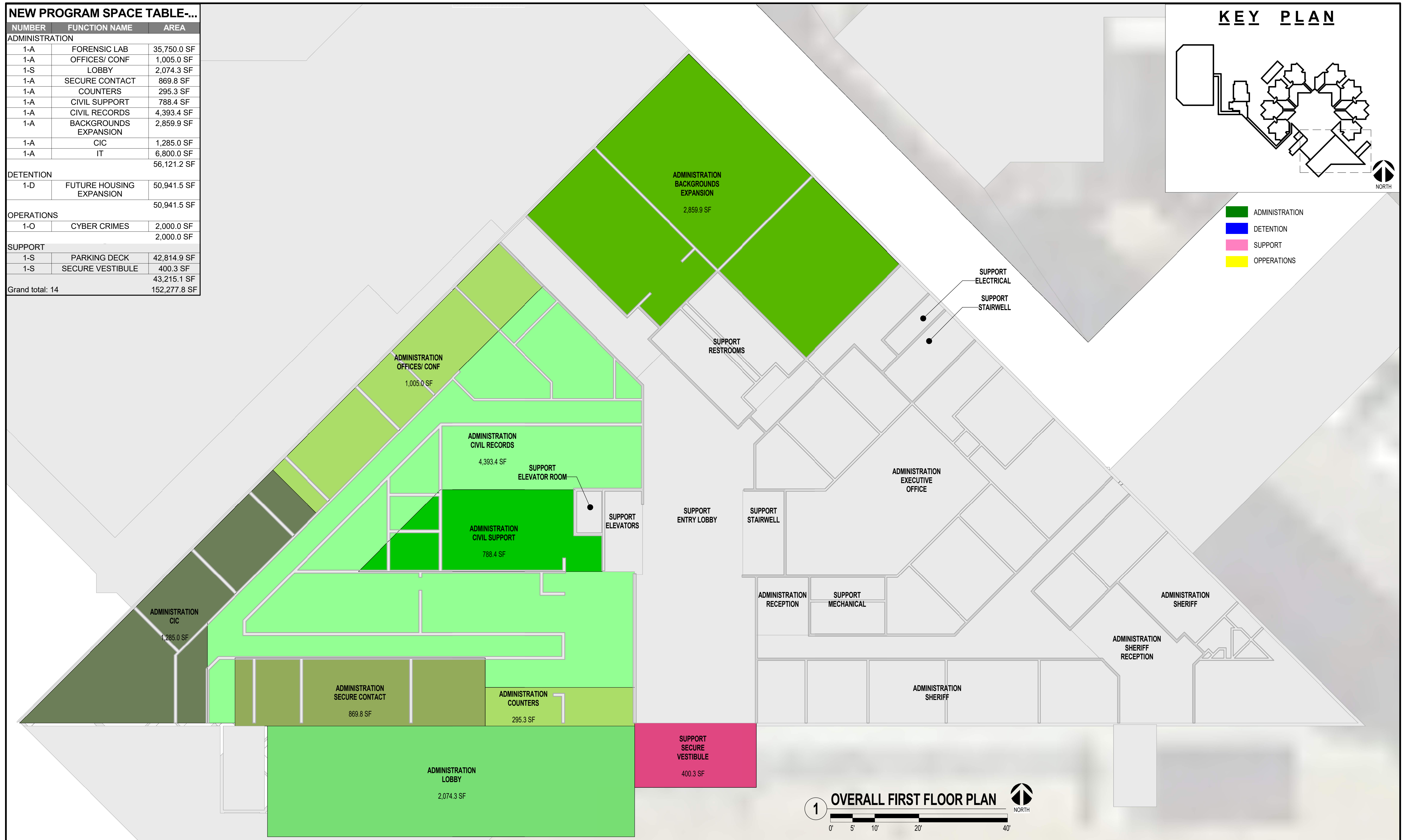
NEW PROGRAM SPACE TABLE-...

NUMBER	FUNCTION NAME	AREA
ADMINISTRATION		
1-A	FORENSIC LAB	35,750.0 SF
1-A	OFFICES/ CONF	1,005.0 SF
1-S	LOBBY	2,074.3 SF
1-A	SECURE CONTACT	869.8 SF
1-A	COUNTERS	295.3 SF
1-A	CIVIL SUPPORT	788.4 SF
1-A	CIVIL RECORDS	4,393.4 SF
1-A	BACKGROUNDS EXPANSION	2,859.9 SF
1-A	CIC	1,285.0 SF
1-A	IT	6,800.0 SF
		56,121.2 SF
DETENTION		
1-D	FUTURE HOUSING EXPANSION	50,941.5 SF
		50,941.5 SF
OPERATIONS		
1-O	CYBER CRIMES	2,000.0 SF
		2,000.0 SF
SUPPORT		
1-S	PARKING DECK	42,814.9 SF
1-S	SECURE VESTIBULE	400.3 SF
		43,215.1 SF
Grand total: 14		152,277.8 SF

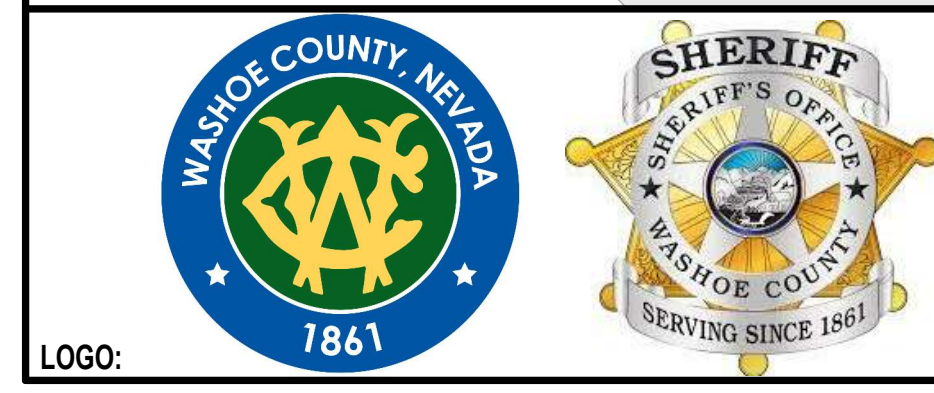
KEY PLAN



- ADMINISTRATION
- DETENTION
- SUPPORT
- OPERATIONS



1 OVERALL FIRST FLOOR PLAN



**WASHOE COUNTY SHERIFF'S
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911 PARR BLVD.**

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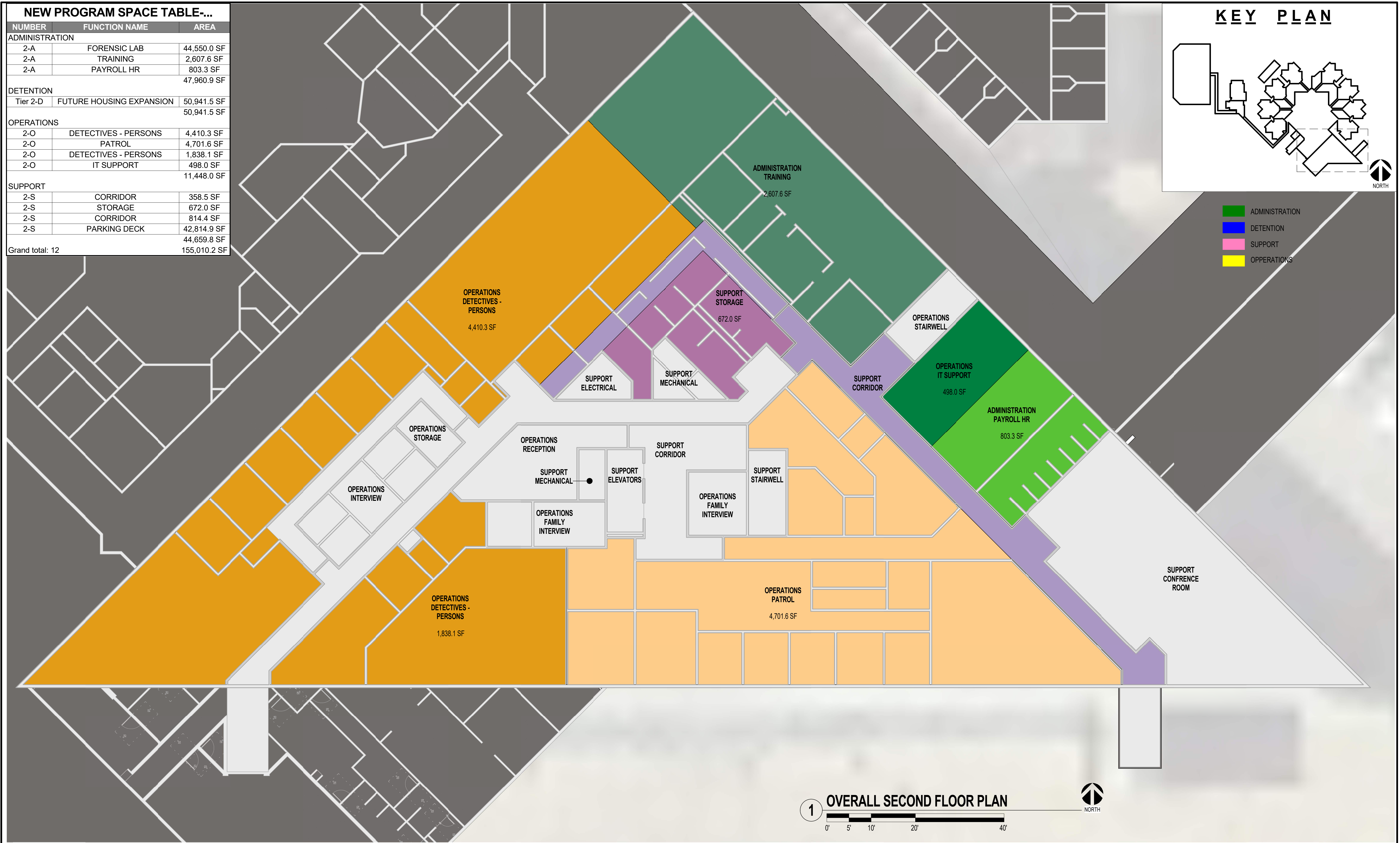


PROJECT NO.: 2017.005
DATE: 7/28/2017
OWNER: Enter Client Name Here

**NAME
PROPOSED FIRST FLOOR PLAN**

SHEET NUMBER: **FIG 2.4**

NEW PROGRAM SPACE TABLE-...		
NUMBER	FUNCTION NAME	AREA
ADMINISTRATION		
2-A	FORENSIC LAB	44,550.0 SF
2-A	TRAINING	2,607.6 SF
2-A	PAYROLL HR	803.3 SF
		47,960.9 SF
DETENTION		
Tier 2-D	FUTURE HOUSING EXPANSION	50,941.5 SF
		50,941.5 SF
OPERATIONS		
2-O	DETECTIVES - PERSONS	4,410.3 SF
2-O	PATROL	4,701.6 SF
2-O	DETECTIVES - PERSONS	1,838.1 SF
2-O	IT SUPPORT	498.0 SF
		11,448.0 SF
SUPPORT		
2-S	CORRIDOR	358.5 SF
2-S	STORAGE	672.0 SF
2-S	CORRIDOR	814.4 SF
2-S	PARKING DECK	42,814.9 SF
		44,659.8 SF
Grand total: 12		155,010.2 SF



1 OVERALL SECOND FLOOR PLAN



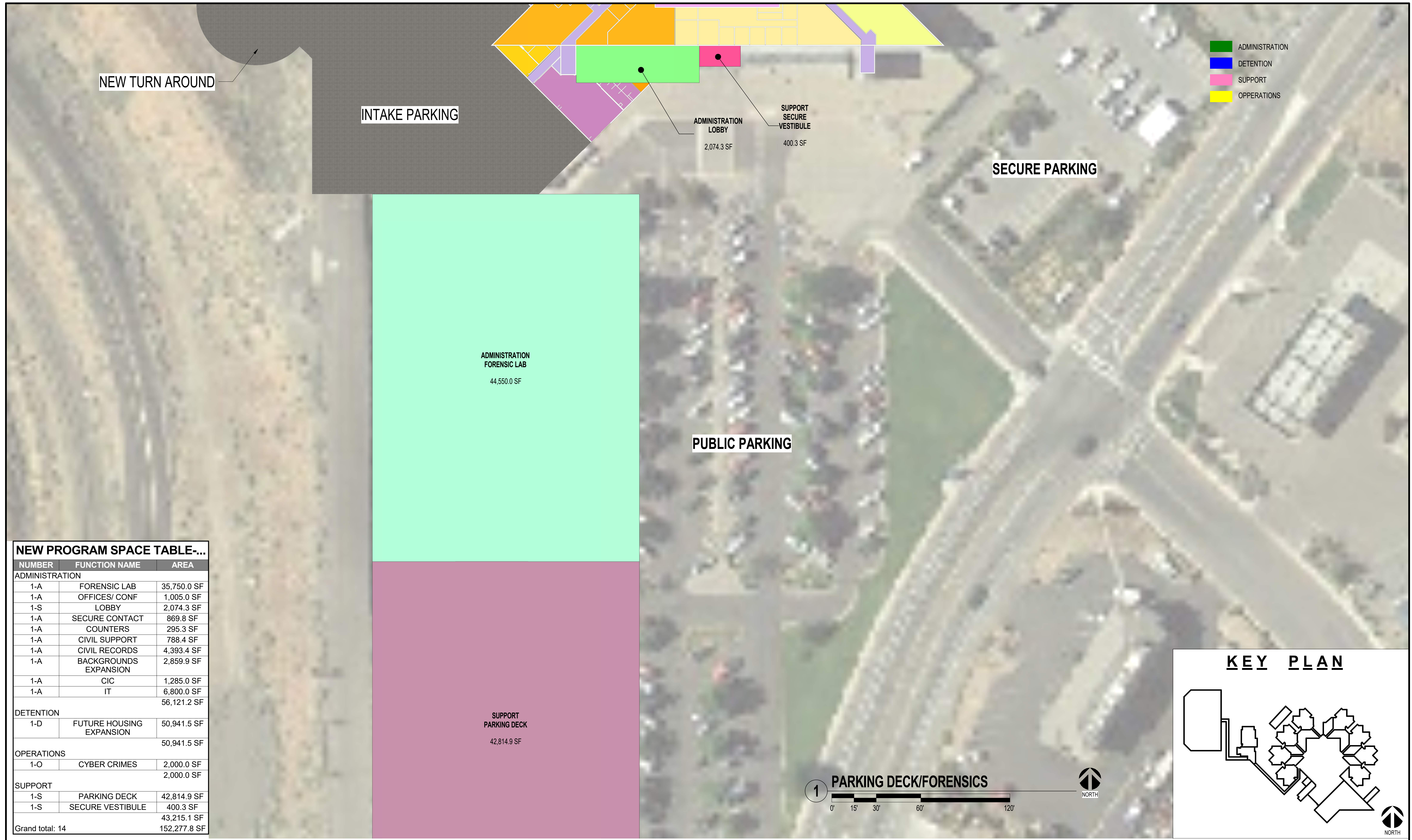
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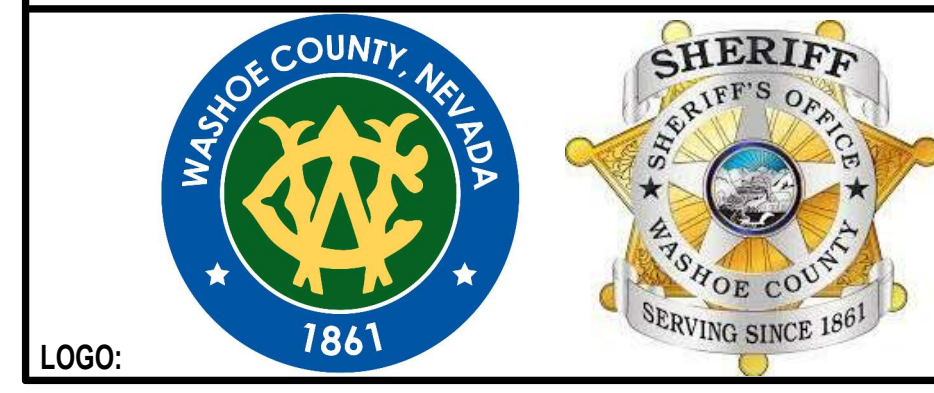
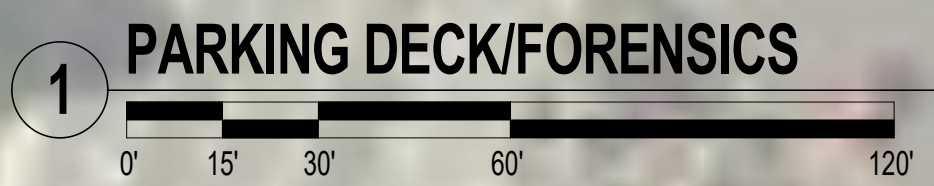
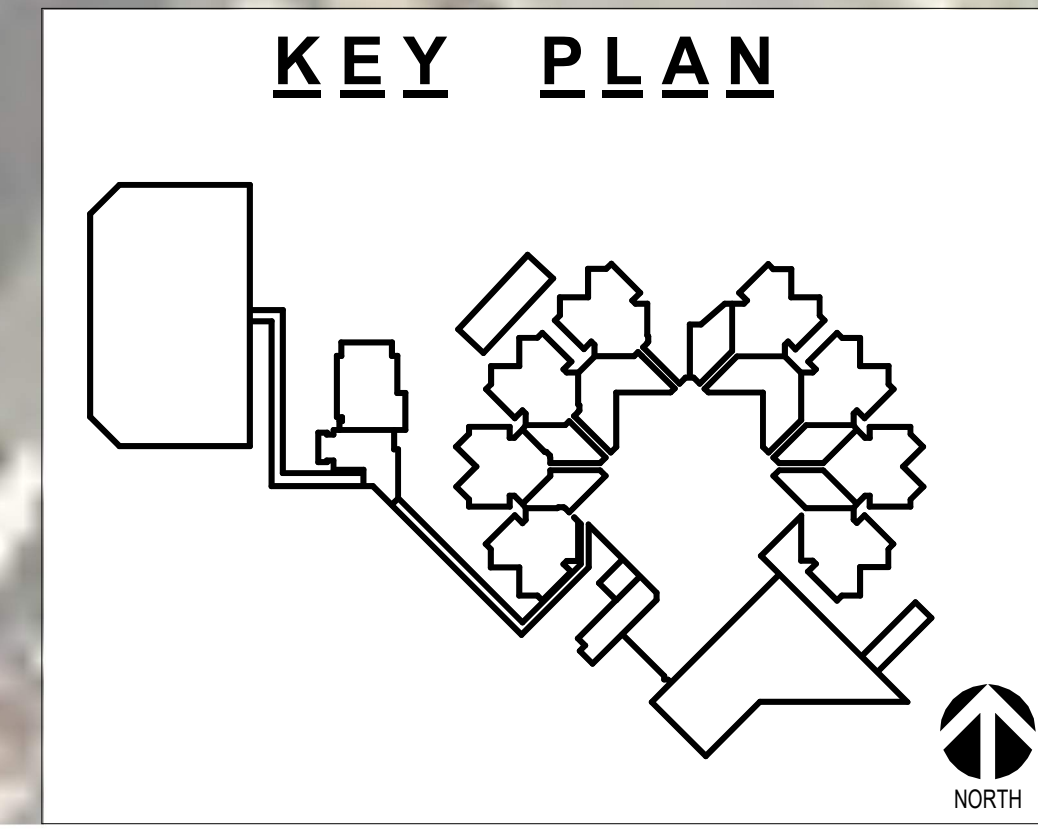
NAME
PROPOSED SECOND FLOOR PLAN
SHEET NUMBER:
FIG 2.5



- ADMINISTRATION
- DETENTION
- SUPPORT
- OPERATIONS

NEW PROGRAM SPACE TABLE-...

NUMBER	FUNCTION NAME	AREA
ADMINISTRATION		
1-A	FORENSIC LAB	35,750.0 SF
1-A	OFFICES/ CONF	1,005.0 SF
1-S	LOBBY	2,074.3 SF
1-A	SECURE CONTACT	869.8 SF
1-A	COUNTERS	295.3 SF
1-A	CIVIL SUPPORT	788.4 SF
1-A	CIVIL RECORDS	4,393.4 SF
1-A	BACKGROUNDS EXPANSION	2,859.9 SF
1-A	CIC	1,285.0 SF
1-A	IT	6,800.0 SF
		56,121.2 SF
DETENTION		
1-D	FUTURE HOUSING EXPANSION	50,941.5 SF
		50,941.5 SF
OPERATIONS		
1-O	CYBER CRIMES	2,000.0 SF
		2,000.0 SF
SUPPORT		
1-S	PARKING DECK	42,814.9 SF
1-S	SECURE VESTIBULE	400.3 SF
		43,215.1 SF
Grand total:	14	152,277.8 SF



**WASHOE COUNTY SHERIFF'S
OFFICE MASTER PLAN
911 PARR BLVD.**

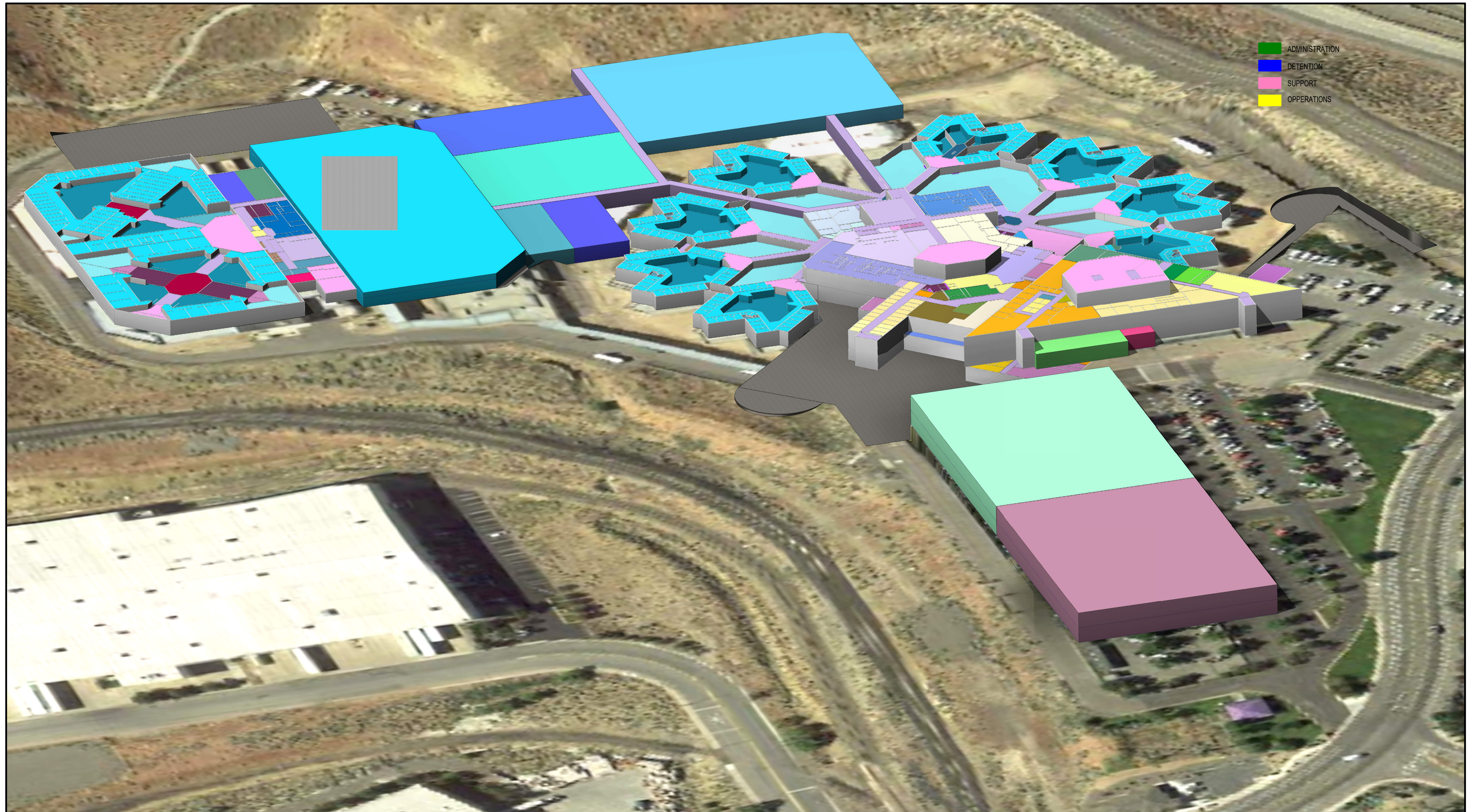
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**NAME
PROPOSED FORENSICS/ PARKING DECK
PLAN**

SHEET NUMBER: **FIG 2.6**

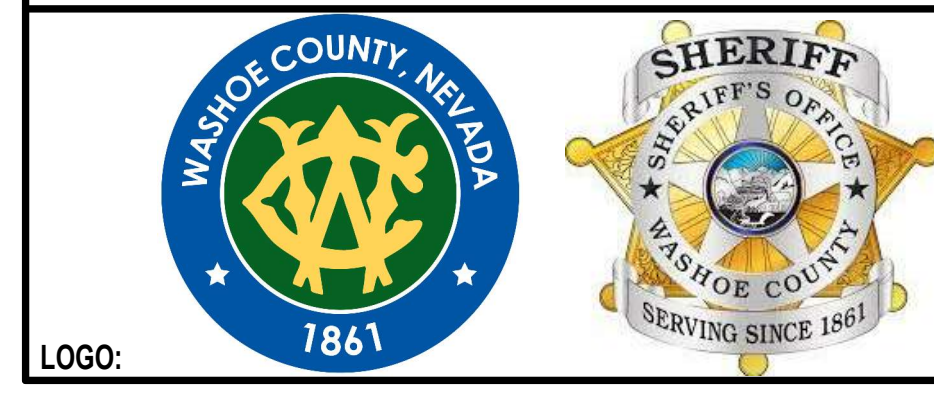


- ADMINISTRATION
- DETENTION
- SUPPORT
- OPERATIONS

1 OVERALL ARIAL SITE PLAN

0' 20' 40' 80' 160'

NORTH



**WASHOE COUNTY SHERIFF'S
OFFICE MASTER PLAN
911 PARR BLVD.**

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Telephone: (602) 279-4373
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PROJECT NO.: 2017.005
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**NAME
PROPOSED 3D VIEW**

SHEET NUMBER:

FIG 2.7

PHASING MATRIX

PROJECT	PRIORITY	PHASE ORDER	TASK	DEPENANCY	COMMENTS
PROJECT 1 - INFIRMARY					
	1	PHASE 1	CONSTRUCT NEW STAND ALONE INFIRMARY		This will require a relocating the existing impound lot and extensive regrading of the site
		PHASE 2	RELOCATE EXISTING INFIRMARY		
		PHASE 3A	EXPAND EXITING INTAKE HOLDING		This will take over the existing infirmary space
		PHASE 3B	EXPAND CONTACT VISITATION		
PROJECT 2 - FORENSIC LAB					
	2	PHASE 1A	CONSTRUCT NEW STAND ALONE FORENSIC LAB		
		PHASE 1B	CONSTRUCT DATA CENTER SHELL		
		PHASE 1C	CONSTRUCT PARKING STRUCTURE		
		PHASE 2	RELOCATE EXISTING FORENSIC		There a cost savings associate with building the garage and lab at the same time due to consolidated utilities, economies of scale and escalations. Existing Lab equipment will be used
PROJECT 3 - DETENTION SERVICES EXPANSION					
	3	PHASE 1	DEMOLITION OF INDUSTRIES BUILDING TEMPORARY STORAGE REQUIRED		The industries houses the equipment for the sworn officers
		PHASE 2	DEMOLITION OF PROGRAMS BUILDING TEMPORARY INMATE PATH OF TRAVEL AND RELOCATION OF PROGRAMS		Construction will require the demolition of the path connecting the main housing units and expanded housing. A secure temporary means of travel will be required.
		PHASE 3	CONSTRUCT NEW SUPPORT SERVICES KITCHEN, LAUNDRY, WAREHOUSE, PROGRAMS		
		PHASE 4	RELOCATE SUPPORT SERVICES		This is the relocation of the Kitchen, Laundry, Warehouse and Programs
		PHASE 5	REMODEL WAREHOUSE		The space is an existing warehouse and in the main building repurposed. Additional Security access will be required.
		PHASE 6	REMODEL AND EXPAND PROPERTY STORAGE		The prior kitchen and Laundry facility shall be converted into additional property storage and booking expansion

PROJECT 4 - ADMINISTRATION BUILDING				
4	PHASE 1	ADMINISTRATION EXPANSION LOBBY EXPANSION		This will be a building addition
	PHASE 2	SUB FLOOR REMODEL LOCKERS RELOCATED GYM RELOCATED STORAGE EXPANSION RELOCATE IT DEPT	PROJECT 2	
	PHASE 3	ADMINISTRATION REMODEL	PROJECT 5/PHASE 1	
	PHASE 4	2ND FLOOR REMODEL	PROJECT 5/PHASE 2	
PROJECT 5 - PATROL/HANGER EXPANSION				
5	PHASE 1	BUILD NEW METAL BUILDING		150,000 SF with 10% conditioned office space. This will house 4 helicopters and numerous other vehicles
PROJECT 6 - HOUSING EXPANSION #1				
6	PHASE 1	CONSTRUCT NEW HOUSING	PROJECT 3	144 Cells. Expansion of beds is not possible without expansion of support services
PROJECT 7 - HOUSING EXPANSION #2				
7	PHASE 1	CONSTRUCT NEW HOUSING		144 Cells

Appendix 3 – Space Allocation Charts

FIG 3.0 – CIVIL AND RECORDS

CIVIL AND RECORDS											
POSITION	SPACE	AREA	5 year		10 year		15 year		20 year		NOTES
			Quantity	Area	Quantity	Area	Quantity	Area	Quantity	Area	
CIVIL											
SWORN STAFF	PO	120	6	720	6	720	6	720	6	720	
MANAGER	PO	120	1	120	1	120	1	120	1	120	
CIVIL STAFF	WS	64	17	1088	18	1152	20	1280	21	1344	
CIC	WS	64	10	640	14	896	18	1152	23	1472	
SUPPORT											
CONFERENCE ROOM	TR	150	1	150	1	150	1	150	1	150	
BREAK ROOM	TR	200	1	200	1	200	1	200	1	200	
PRINTER ALCOVE	OA	50	3	150	3	150	3	150	3	150	
CONFERENCE ROOM	TR	150	1	150	2	300	2	300	2	300	
FILE STORAGE	ST	100	1	100	1	100	1	100	1	100	Located within 1st Floor Admin
FILE STORAGE	ST	800	1	800	1	800	1	800	1	800	Long Term in Sub Floor
COUNTER	OA	300	1	300	1	300	1	300	1	300	
SECURE MEETING	PO	120	7	840	7	840	7	840	7	840	
PUBLIC LOBBY	OA	2000	1	2000	1	2000	1	2000	1	2000	
		SUB TOTAL		7,258	SF	7,728	SF	8,112	SF	8,496	SF
		CIRCULATION 20%		1,452	SF	1,546	SF	1,622	SF	1,699	SF
		SUB TOTAL		8,710	SF	9,274	SF	9,734	SF	10,195	SF
		GROSS UPS 15%		1,089	SF	1,159	SF	1,217	SF	1,274	SF
TOTAL				9,798	SF	10,433	SF	10,951	SF	11,470	SF

LEGEND

TR	TRAINING/CONFERENCE ROOM
SPO	SUPERVISOR OFFICE
PO	PRIVATE OFFICE
WS	WORKSTATION
OA	OPEN AREA
ST	STORAGE

FIG 3.1 – TRAINING

TRAINING											
POSITION	SPACE	AREA	5 year		10 year		15 year		20 year		NOTES
			Quantity	Area	Quantity	Area	Quantity	Area	Quantity	Area	
STAFF											
DIRECTOR	WS	64	1	64	1	64	1	64	1	64	
ADMIN ASSISTANT	WS	64	1	64	1	64	1	64	1	64	
CHIEF - STANDARDS	WS	64	1	64	2	128	3	192	4	256	Patrol and Detention
CHIEF - TRAINING	WS	64	1	64	2	128	3	192	4	256	Patrol and Detention
CHIEF - AUDITS	WS	64	1	64	2	128	2	128	3	192	
SUPPORT											
CONFERENCE ROOM	TR	150	1	150	2	300	2	300	2	300	
FILE STORAGE	ST	100	1	100	1	100	1	100	1	100	
		SUB TOTAL		570	SF	912	SF	1,040	SF	1,232	SF
		CIRCULATION 20%		114	SF	182	SF	208	SF	246	SF
		SUB TOTAL		684	SF	1,094	SF	1,248	SF	1,478	SF
		GROSS UPS 15%		86	SF	137	SF	156	SF	185	SF
TOTAL				1,454	SF	2,326	SF	2,652	SF	3,142	SF

LEGEND

TR	TRAINING/CONFERENCE ROOM
SPO	SUPERVISOR OFFICE
PO	PRIVATE OFFICE
WS	WORKSTATION
OA	OPEN AREA
ST	STORAGE

FIG 3.2 – BACKGROUNDS

BACKGROUNDS											
POSITION	SPACE	AREA	5 year		10 year		15 year		20 year		NOTES
			Quantity	Area	Quantity	Area	Quantity	Area	Quantity	Area	
STAFF											
BACKGROUND STAFF	WS	64	19	1216	33	2112	33	2112	33	2112	
SUPPORT											
INTERVIEW ROOM	PO	120	2	240	2	240	2	240	2	240	
BREAK ROOM	OA	300	1	300	1	300	1	300	1	300	
WAITING AREA	OA	300	0	0	1	300	1	300	1	300	SHARE WITH PUBLIC LOBBY
FILE STORAGE	ST	100	1	100	1	100	1	100	1	100	
		SUB TOTAL		1,856	SF	3,052	SF	3,052	SF	3,052	SF
		CIRCULATION 20%		371	SF	610	SF	610	SF	610	SF
		SUB TOTAL		2,227	SF	3,662	SF	3,662	SF	3,662	SF
		GROSS UPS 15%		278	SF	458	SF	458	SF	458	SF
TOTAL				2,506	SF	4,120	SF	4,120	SF	4,120	SF

LEGEND

TR	TRAINING/CONFERENCE ROOM
SPO	SUPERVISOR OFFICE
PO	PRIVATE OFFICE
WS	WORKSTATION
OA	OPEN AREA
ST	STORAGE

FIG 3.3 – CTU TECHNOLOGY CENTER

INFORMATION TECHNOLOGY											
POSITION	SPACE	AREA (SF)	5 year		10 year		15 year		20 year		NOTES
			Quantity	Area	Quantity	Area	Quantity	Area	Quantity	Area	
IT STAFF											
MANAGER	PO	168	1	168	1	168	1	168	1	168	STAFF INCREASE IS BASED ON A 1:60 IT TO FACILITY STAFF RATIO LOCATED IN MAIN BUILDING
IT STAFF STATION	WS	64	10	640	11	704	12	768	13	832	
REMOTE DESK	PO	120	1	120	1	120	1	120	1	120	
SERVER SPACE	OA	300	1	300	1	300	1	300	1	300	
TECH STORAGE	ST	200	1	200	1	200	1	200	1	200	
R&D											
STAFF	WS	64	4	256	4	256	4	256	4	256	
WORK BENCHES	WS	64	4	256	4	256	4	256	4	256	
TECH STORAGE	ST	200	1	200	1	200	1	200	1	200	
PATROL COMMUNICATION/IT SUPPORT											
STAFF	WS	64	4	256	5	320	6	384	7	448	THESE PROJECTIONS MAY CHANGE BASED ON NUMBER OF PROJECTED PATROL STAFF
WORK BENCHES	WS	64	4	256	5	320	6	384	7	448	
TECH STORAGE	ST	200	1	200	1	200	1	200	1	200	
CTU - GENERAL											
WORK SPACE	OA	400	1	400	1	400	1	400	1	400	SHARED BETWEEN GROUPS FOR LAYOUT SPACE AND SPECIAL PROJECTS
RESTROOMS	OA	200	2	400	2	400	2	400	2	400	SHARED
CONFERENCE ROOMS	TR	250	1	250	1	250	1	250	1	250	SHARED
BREAK ROOM	OA	400	1	400	1	400	1	400	1	400	SHARED
CYBER CRIMES UNIT											
WORK SPACE	WS	100	6	600	8	800	10	1000	10	1000	
RESTROOMS	OA	200	2	400	2	400	2	400	2	400	
CONFERENCE ROOM	TR	300	1	300	1	300	1	300	1	300	
BREAK ROOM	OA	300	1	300	1	300	1	300	1	300	
SUB TOTAL				5,902 SF		6,294 SF		6,686 SF		6,878 SF	
CIRCULATION 20%				1,180 SF		1,259 SF		1,337 SF		1,376 SF	
SUB TOTAL				7,082 SF		7,553 SF		8,023 SF		8,254 SF	
GROSS UPS 15%				885 SF		944 SF		1,003 SF		1,032 SF	
TOTAL				7,968 SF		8,497 SF		9,026 SF		9,285 SF	

FIG 3.4 – OPERATIONS

OPERATIONS											
POSITION	SPACE	AREA	5 year		10 year		15 year		20 year		NOTES
			Quantity	Area	Quantity	Area	Quantity	Area	Quantity	Area	
PATROL											
CAPTAIN	PO	164	1	164	1	164	1	164	1	164	
LIEUTENANT	PO	164	3	492	4	656	4	656	5	820	
SGT	WS	64	13	832	13	832	14	896	16	1024	
ADMIN ASSISTANT	WS	64	8	512	8	512	9	576	9	576	
DETECTIVE											
CAPTAIN	PO	164	1	164	1	164	1	164	1	164	
LIEUTENANT	PO	164	5	820	5	820	5	820	5	820	
SGT	WS	64	12	768	13	832	13	832	13	832	
GUEST OFFICE	PO	164	1	164	1	164	1	164	1	164	
ADMIN ASSISTANT	WS	64	8	512	9	576	9	576	10	640	
VICTIM SERVICES	PO	120	3	360	3	360	3	360	3	360	
PATROL SUPPORT											
REPORT WRITING	OA	7	76	532	81	567	86	602	90	630	LOCATED ON SUB LEVEL
MEETING ROOM	OA	550	1	550	1	550	1.25	687.5	1.25	687.5	
DETECTIVE SUPPORT											
FILE STORAGE	PO	100	2	200	2	200	2	200	2	200	
INTERVIEW ROOMS	OA	100	6	600	6	600	6	600	6	600	INCLUDES AV SUPPORT
LONG TERM STORAGE	OA	100	2	200	2	200	2	200	2	200	LOCATED ON SUB LEVEL
SUPPORT											
MALE LOCKERS	OA	16	104	1664	108	1728	114	1824	121	1936	
FEMALE LOCKERS	OA	16	50	800	54	864	57	912	60	960	
EQUIPMENT STORAGE	ST	10	154	1540	162	1620	171	1710	182	1820	
RESTROOMS	OA	400	1	400	1	400	1	400	1	400	
SUB TOTAL			11,274	SF	11,809	SF	12,344	SF	12,998	SF	
CIRCULATION 20%			2,255	SF	2,362	SF	2,469	SF	2,600	SF	
SUB TOTAL			13,529	SF	14,171	SF	14,812	SF	15,597	SF	
GROSS UPS 15%			1,691	SF	1,771	SF	1,852	SF	1,950	SF	
TOTAL			15,220	SF	15,942	SF	16,664	SF	17,547	SF	

APPENDIX 4 – Table of Tables

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Table 25	Washoe County Population Forecast 2015-2037 – Method A – Pg.34		

Appendix 5 - Contacts

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