EXHIBIT # F-4
49 pages

SQUAW VALLEY
PUBLIC SERVICE DISTRICT

UTILITY OPERATIONS DEPARTMENT – SPACE NEEDS ANALYSIS
VILLAGE AT SQUAW VALLEY PROJECT

DATE: December 16, 2014

TO: District Board Members

FROM: Mike Geary, General Manager

SUBJECT: Assessment of the Space Needs of the Utility Operations Department – *Village at Squaw Valley* Project – Information Only

BACKGROUND: In March, 2013, District staff performed an evaluation of impacts created by the proposed *Village at Squaw* Project to the operations of the Utilities Department specific to its delivery of water and sewer services. A programmatic design of the department's facilities needs that focused on the District's ability to maintain its current level of service to its existing and proposed customers was prepared and provided to Squaw Valley Real Estate (SVRE).

In September, 2013, the Board approved a proposal from PR Design & Engineering, Inc., to provide support from a consultant with relevant experience and expertise to help facilitate discussions with SVRE and gain consensus on appropriate and fair mitigations of the proposed project's impacts to the District's levels of service and associated staffing and capital needs.

In January, 2014, SVRE redesigned and reduced the size of the proposed project and released a revised Specific Plan.

In August, 2014 the scope of work of the space needs analysis was amended to include a Comparative Analysis to verify that the identified space needs were within the range of space needed and used by similar agencies; the Board approved the amended proposal.

DISCUSSION: The attached Spatial Needs Assessment prepared by PR Design & Engineering, provides an analysis of current and future staffing and space needs of the District's Operations Department. The report assesses the department's existing staffing levels and facilities and identifies current deficiencies and future space needs for safe, code-compliant and efficient operations. The Assessment serves

as a guiding document for the planning and sizing of a consolidated Corporation Yard for the Operations Department.

The report projects future staffing levels, storage needs, and vehicle and equipment space requirements, as well as space needed for offices and additional facilities such as a water treatment plant, community dumpsters, parks and recreation administrative and maintenance facilities, overnight emergency personnel accommodations, and a regional fire training facility.

It concludes that the planning-level site size required for the Operations Department is 88,544 square-feet, or approximately two (2) acres. It includes both outdoor and indoor space requirements; it considers snow storage, waste materials handling, fuels storage, vehicular circulation and parking, as well as other space considerations.

ALTERNATIVES: This item is for informational purposes only and no action is requested of the Board of Directors.

FISCAL/RESOURCE IMPACTS: SVRE has committed to reimburse the District for the cost of the analysis, which is $11,540.

RECOMMENDATION: This item is for informational purposes only and no action is requested of the Board of Directors.

ATTACHMENTS: Operations Department Spatial Needs Assessment – Draft Report.

DATE PREPARED: December 10, 2014.

EXHIBIT # F-4

DRAFT REPORT

Spatial Needs Assessment

Operations Department

Squaw Valley Public Service District

December 10, 2014




Prepared for:

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Project Statement

In September of 2014, Squaw Valley Public Service District (PSD) engaged PR Design & Engineering Inc. (PRDEI) to conduct a Spatial Needs Assessment of the PSD Operations Department (Operations Dept.) current facilities. It is the desire of the PSD to understand its space needs resulting from current and future demands within the District's service boundary. This report captures the Operations Dept.'s current facilities type, scale, and function, as well as, required "space needs" or space needed for operations. This assessment addresses physical space needs only; no investigation of health and safety (OSHA), building codes, or regulatory Agency compliance was performed as part of this assessment. In addition to existing needs, presently deficient and future needs have been quantified.

The findings described in this report evolved from a simple concept—that Operations Dept. space needs are based on what the PSD must have in order to serve its community adequately. It is important that reviewers of this report acknowledge that these findings are to be the basis for future discussion and planning efforts; therefore, should not be considered as definitive. The items required to meet the PSD's service needs all have identifiable spatial requirements. This report captures broad space categories including:

- Staff projections
- Equipment counts and footprints
- Tools, parts, and hazardous materials storage
- Parking, circulation and access
- Site storage, materials areas and snow storage
- Indoor offices, break rooms and lavatories
- Shops, work areas and wash bay
- Ancillary spaces

This Spatial Needs Assessment is pre-architectural programming. It represents the first phase in a process that will include future Site Analysis and Recommendations, Conceptual Facility Planning and may culminate in Design and Construction Documents. This effort allows PSD staffing and services, relating to each of these areas listed above, to be projected to meet future needs and provide

a way to translate future service assumptions into an operational footprint. It is a beginning point for the process of facility planning.

It is intended that this Spatial Needs Assessment serves as a guiding document for the planning and location of a consolidated PSD corporate yard facility.

Squaw Valley Public Service District Background

Squaw Valley Public Service District is located in Olympic Valley, northwest of Lake Tahoe. This resort community has a mix of single family homes, condominium, hotel lodging facilities, commercial businesses and is home to the Squaw Valley Ski Resort. The Squaw Valley Ski Resort opened for operation in 1949 and was the site for the 1960 Winter Olympic Games. The PSD was formed on March 24, 1964 as a County Water District in Placer County, establishing the District's boundaries. In the years to come, the PSD applied for permits with the State of California and was granted permission to distribute water to customers within the District's boundaries. Following the Olympic Games, the water and sewer facilities constructed by the State for the Games, were taken over and operated by the District. In the 1990s a housing boom took place in Olympic Valley along with an increased commercial construction and the Resort at Squaw Creek was built. (Sierra Sun, 2014) The District also expanded the Operations Department staffing providing new connections, maintenance and repair service to new customers. Additionally, the SVPSD created a parks district in 1999. This parks division has been shelved, until the recent winter operations to remove snow on Placers County's Bike Trail. The Operations Dept. currently provides operations and maintenance services for the Squaw Valley Mutual Water Company on a contractual basis.

Spatial Assessment Methodology

The PSD provided current and needed space summaries for the Operations Dept. facilities, equipment and storage. This report includes measurement of all spaces, equipment counts and storage required. Current and needed vehicle fleet or rolling stock inventory (vehicles and equipment with wheels/skids/tracks) were also provided by the PSD. Operations Dept. personnel was quantified during review of existing Operations Dept. staff and projected future staff. Staff projections account

for General Plan "build out" and include forward looking projections based upon potential development projects and new District services.

Space needs have been determined through interviews and assessment of space use relative to function and frequency. Staff space projections must take into consideration the need for different types of work areas. Staff is categorized by type of position and a space requirement is assigned. The appropriate amount of space will be projected, based on total future staff. National standards for office space and workstations have been applied to ensure adequacy and limit excess space. There are a limited number of Operations Dept. personnel, mostly upper management, which require private office space and regular computer access. The majority of staff use shared indoor spaces: locker areas, break/meeting areas, kitchen, restrooms and require intermittent computer access. The majority of their time is at the facility yard or out in the field.

Equipment storage space needs have been quantified through current inventory and equipment projections and/or developed with staff during site visits. In cases of rolling stock, the square footage programmed includes the additional space required to operate and enter/exit the vehicle safely.

Assumptions

The preparers of this report have made certain assumptions based on experience, conversation with managing staff, and reasonable application of accepted standards. These assumptions are in regard to items including but not limited to:

- This phase of space needs planning is all-inclusive and does not consider budget constraints
- The amount of space needed for an employee to perform office work, field work and shop work of varying types and responsibilities
- Compliance with standards for safe and functional working environments
- The District desires to operate in an efficient and highly functional manner
- Operations Dept. space needs planning is based upon facilities with a 60 year useable life
- The snow country climate drives specific spatial needs
- The industry accepted "useful life" of certain equipment
- Spatial needs are forward looking based upon 20 year look-ahead or 2035 target

- Spatial needs capture a functional footprint for Capital Improvement Planning

Squaw Valley General Plan and Village at Squaw Project

The proposed Village at Squaw Valley Specific Plan represents approximately 50% of the remaining development under Placer County's 1983 Squaw Valley General Plan and Land Use Ordinance (General Plan).

The General Plan allows for an additional:

- 492 Single Family Rooms (SFR)
- 1,324 Multi Family Rooms (MFR)
- 195,256 square feet of hotels, commercial

The Village at Squaw proposes the development of:

- 1,757 Bedrooms
- 220,083 square-feet of hotels, commercial (hospitality and service and recreation spaces)

General Plan Development within the PSD service boundary impacts the Operations Dept. across a broad spectrum:

- **Additional Customer connections (water, sewer) require greater annual maintenance and system oversight**
- **Increased development intensity requires additional Operations Dept. staff:**
  - System(s) planning, assessment, scheduling, and coordination
  - Additional training and certification of new hires
  - Development plan review and permitting of public and private facilities
  - Staff support and inspection during construction of new facilities:
    - Private development construction support
    - Public development of new District facilities
    - New facility integration into existing system(s)
  - Increased potential of SVPSD rehab/retrofit projects to existing system components
  - Increased on-call or emergency repair: utility location, broken lines, night work, system shutdowns

- **New District facilities require additional Operations Dept. staff and equipment:**
  - Vehicles, tools, and equipment will be provided to additional staff
  - Increased use, requires increased vehicle, tools and equipment maintenance
  - Specialized tools, training, and equipment for specific projects (e.g. treatment plant certifications, trackless trail snow blower, vactor truck, etc.)
- **Large scale development affects efficiency of current operations:**
  - Large scale construction projects will affect the efficiency of the Operations Dept. while working out of East and West valley locations (See Operations Dept. Overview)
    - Time to complete tasks: constructions activity will affect ease of access and circulation within the Valley
    - Increase in shoulder season workloads: normal District maintenance periods will be busier with construction support resulting in shorter windows to complete regular and new tasks

Squaw Valley Public Service District Services

The following information and projections are as of November 2014. The intent of this section is to capture potential changes in the services offered by the District that would affect Operations Dept. functions.

Services

The PSD is the local government entity with an elected Board of Directors in Squaw Valley and provides the following services:

- Domestic water production, treatment and distribution
- Sewer collection, conveyance/ export and system maintenance
- Fire protection on private and public developed land
- Emergency Medical Services
- Municipal solid waste
- Limited parks and recreation

Fire protection and Emergency Medical Services are adequately addressed in the *Assessment of Project Impacts and Appropriate Fire Service Mitigations for the Proposed Village at Squaw Project 9/29/2014,* prepared by Citygate Associates, LLC.

Infrastructure

Total lineal feet of water line is approximately 80,700 with a future estimate of 150,000 lineal feet of water line at build-out. Current sewer lines are approximately 143,000 linear feet and will increase to 150,000 feet with the General Plan Build-out.

The increases in regular system infrastructure will result in a slight to moderate increase in annual maintenance as these new facilities (water and sewer) will be modern and well performing with system lifespans exceeding 30 years.

Anticipated capital improvements include:

- Water capacity production
    - Well development
    - West valley water tank (1.3 MG)
    - East valley water tank
    - Water import pipeline
    - Emergency water inter-tie with Squaw Valley Mutual Water Company
- Water treatment plant
- Sewer main replacements to meet wastewater capacity requirements
- East valley gravity sewer collection system
- West valley fire sub-station
- Development of a Corp Yard

Parks and Recreation

Placer County is the agency responsible for providing Parks and Recreation services in the Squaw Valley area. However, in similar fashion to other Public Service Districts in the Tahoe Truckee region, the Squaw Valley PSD is periodically asked to participate in the maintenance and/or development of

recreational amenities such as trails and parks. The District adopted Resolution 99-08 (April 29, 1999) to create a formal Parks and Recreation structure within the District's organizational structure. It should be noted that this Operations Dept. sub-entity is not currently staffed. The increased development and resulting population/customer demand within Squaw Valley will affect Parks and Recreation development. It is reasonable to expect continued requests for the PSD to participate in Parks and Recreation.

Presently, the PSD performs snow removal services on 2.3 miles of bike trail on an annual basis. This work includes snow removal, sanding, trail maintenance and signage from November 15th to April 30th. As part of this work, the District uses a specialized trackless blower with sanding attachment. It is anticipated that this pilot service will continue on an annual basis as the use from residents and businesses is anticipated to increase.

New development can encourage growth in Parks and Recreation by the following:

- Park dedication fees
- Developer driven demand
- Resident/business driven demand
- Increased annual contributions to the CSA

Growth in Parks and Recreation is a potential expansion of current PSD services. If the PSD Board and management decide that the funding and public demand are sufficient for an expansion of Park and Recreation there will be an effect on the operational space needs.

Operations Department Overview

The Operations Department was originally housed as a "whole" at the former fire station site, located at 1810 Squaw Valley Road (1810 Site) until the construction of the new Fire and Administration Center located at 305 Squaw Valley Road (305 Site), at the East end of the valley. Currently, the Operations Dept. is working out of both facilities. The 305 Site, houses the Operations Department's administrative offices and small equipment used daily, including smaller vehicle bays. The 1810 Site is located approximately 1.8 miles away at the west end of the valley and houses large heavy equipment,

sewer and water repair parts and maintenance equipment, a small mechanics workshop, materials yard and the community dumpsters.

Within the PSD, the Operations Dept. provides a variety of public services to the community of the Olympic Valley including:

- Domestic water production, treatment and distribution
- Sewer collection, conveyance/ export and system maintenance
- Wet utility (water and sewer) engineering plan review and permitting for all Olympic Valley construction projects
- Inspection of infrastructure installations by private contractors/developers
- Fleet maintenance for district vehicles
- Building maintenance of all PSD facilities
    - HVAC systems
        - Boilers and snow melt systems
        - Forced air systems
        - Controls
    - Lighting systems
    - Painting
    - General Repair
- Bike trail snow removal
- Trash and recycling collection – maintenance of community dumpsters
- Operations and maintenance services to the Squaw Valley Mutual Water Company (MWC) on a contractual basis

The Operations Department currently relies on the Administration Department for Human Resources, Accounting, and other administrative support.

Section 1:

Staff Projections

Current Facility Staff and Projections

The Operations Department currently has seven full-time, year-round positions and anticipates adding new full-time and part-time positions with the growth of Operations Dept. services and future build-out of the Village at Squaw and General Plan. See the current and forward looking staff position descriptions located in the Appendix for descriptions of new and existing position responsibilities.

Current Operations Department Positions

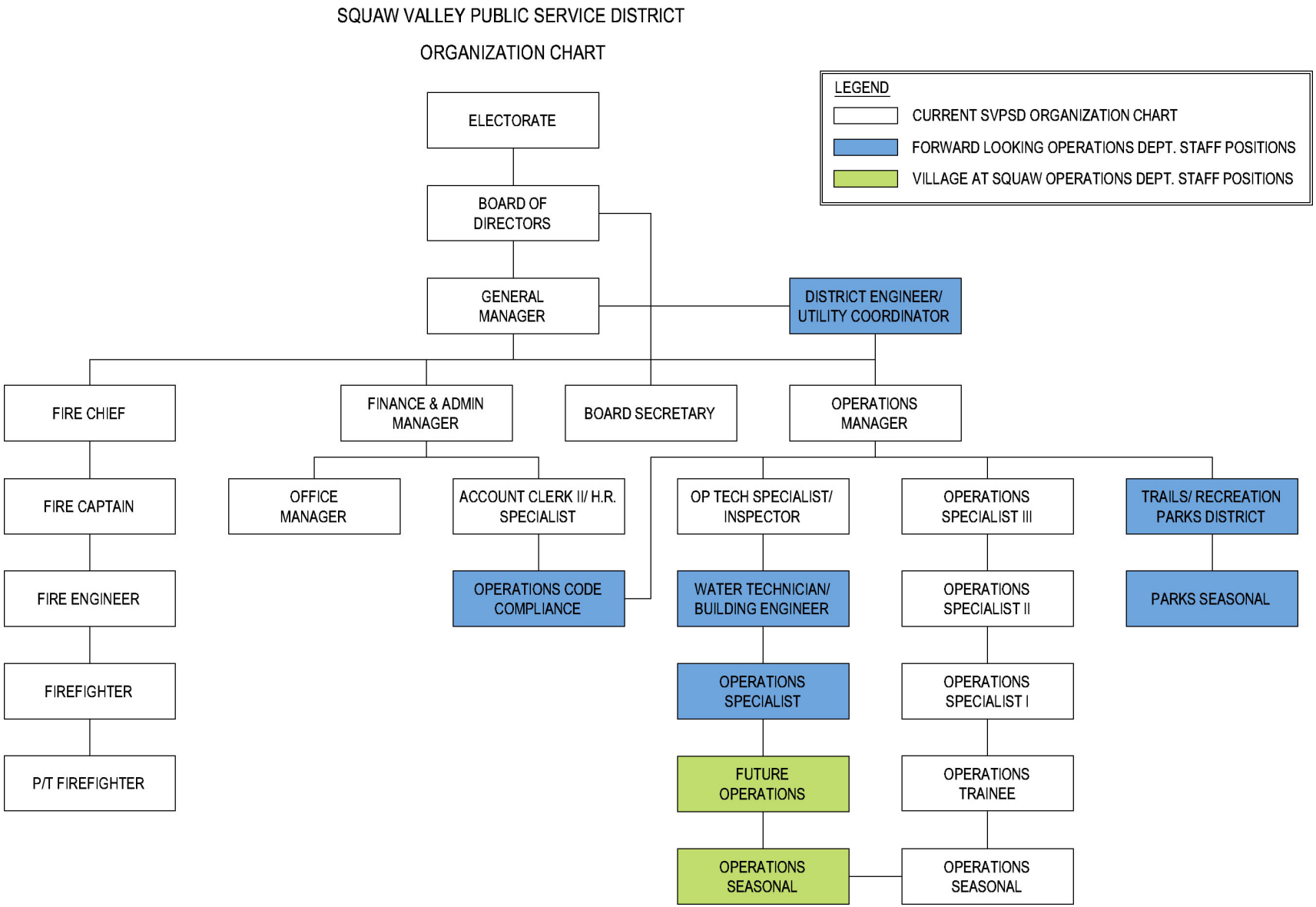
- Operations Manager
- Operations Technology Specialist/ Inspector
- Operations Specialist III
- Operations Specialist II
- Operations Specialist I x 2
- Operations Specialist Trainee
- Operations Specialist Seasonal

Future Operations Department Positions (Forward Looking)

- District Engineer/ Utility Coordinator
- Operations Specialist
- Water Technician/ Building Engineer
- Operations Code Compliance
- Trails/ Recreation Parks District Personnel
- Parks Seasonal Personnel

Village at Squaw Development Future Operations Department Positions

- Future Operations Dept. Personnel (Inspector)
- Part time/ Seasonal Operations Dept. Personnel


SQUAW VALLEY PUBLIC SERVICE DISTRICT
ORGANIZATION CHART
LEGEND
CURRENT SVPSD ORGANIZATION CHART
FORWARD LOOKING OPERATIONS DEPT. STAFF POSITIONS
VILLAGE AT SQUAW OPERATIONS DEPT. STAFF POSITIONS
ELECTORATE
BOARD OF DIRECTORS
GENERAL MANAGER
DISTRICT ENGINEER/ UTILITY COORDINATOR
FIRE CHIEF
FINANCE & ADMIN MANAGER
BOARD SECRETARY
OPERATIONS MANAGER
FIRE CAPTAIN
OFFICE MANAGER
ACCOUNT CLERK II/ H.R. SPECIALIST
OP TECH SPECIALIST/ INSPECTOR
OPERATIONS SPECIALIST III
TRAILS/ RECREATION PARKS DISTRICT
FIRE ENGINEER
OPERATIONS CODE COMPLIANCE
WATER TECHNICIAN/ BUILDING ENGINEER
OPERATIONS SPECIALIST II
PARKS SEASONAL
FIREFIGHTER
OPERATIONS SPECIALIST
OPERATIONS SPECIALIST I
P/T FIREFIGHTER
FUTURE OPERATIONS
OPERATIONS TRAINEE
OPERATIONS SEASONAL
OPERATIONS SEASONAL

SVPSD - OPERATIONS DEPARTMENT: CURRENT & PROJECTED FACILITY STAFF (20 YEAR PROJECTION)

PERSONNEL	2014 STAFF (CURRENT)	PROJECTED STAFF (0-5 YEARS)	PROJECTED STAFF (5-10 YEARS)	PROJECTED STAFF (10-15 YEARS)	PROJECTED STAFF TOTAL (2035)
Operations Department					
Operations Manager	1.0				1.00
Operations Technology Specialist/Inspector	1.0				1.00
Operations Specialist III	1.0				1.00
Operations Specialist II	1.0				1.00
Operations Specialist I	2.0			0.50	2.50
Operations Specialist Trainee	1.0				1.00
Operations Specialist Seasonal (Temp)	1.0	0.00			1.00
Future Operations Dept. Position					
District Engineer/ Utility Coordinator [1]		0.50	0.50		1.00
Operations Specialist				0.50	0.50
Water Technician / Building Engineer			0.50		0.50
Operations Department Subtotal	**8.00**	**0.50**	**1.00**	**1.00**	**10.50**
Forward Looking Staff Positions					
Trails/Recreation or Park District or Seasonal	0.0	1.00	0.25	0.25	**1.50**
Operations Code Compliance			0.25	0.25	**0.50**
Forward Looking Staff Positions Subtotal	**0.00**	**1.00**	**0.50**	**0.50**	**2.00**

PERSONNEL TOTALS EVERY 5 YEARS	2014 STAFF (CURRENT)	TOAL STAFF (0-5 YEARS)	TOTAL STAFF (5-10 YEARS)	TOTAL STAFF (10-15 YEARS)	PROJECTED STAFF TOTAL (2035)
	8	**1.5**	**1.5**	**1.5**	**12.50**

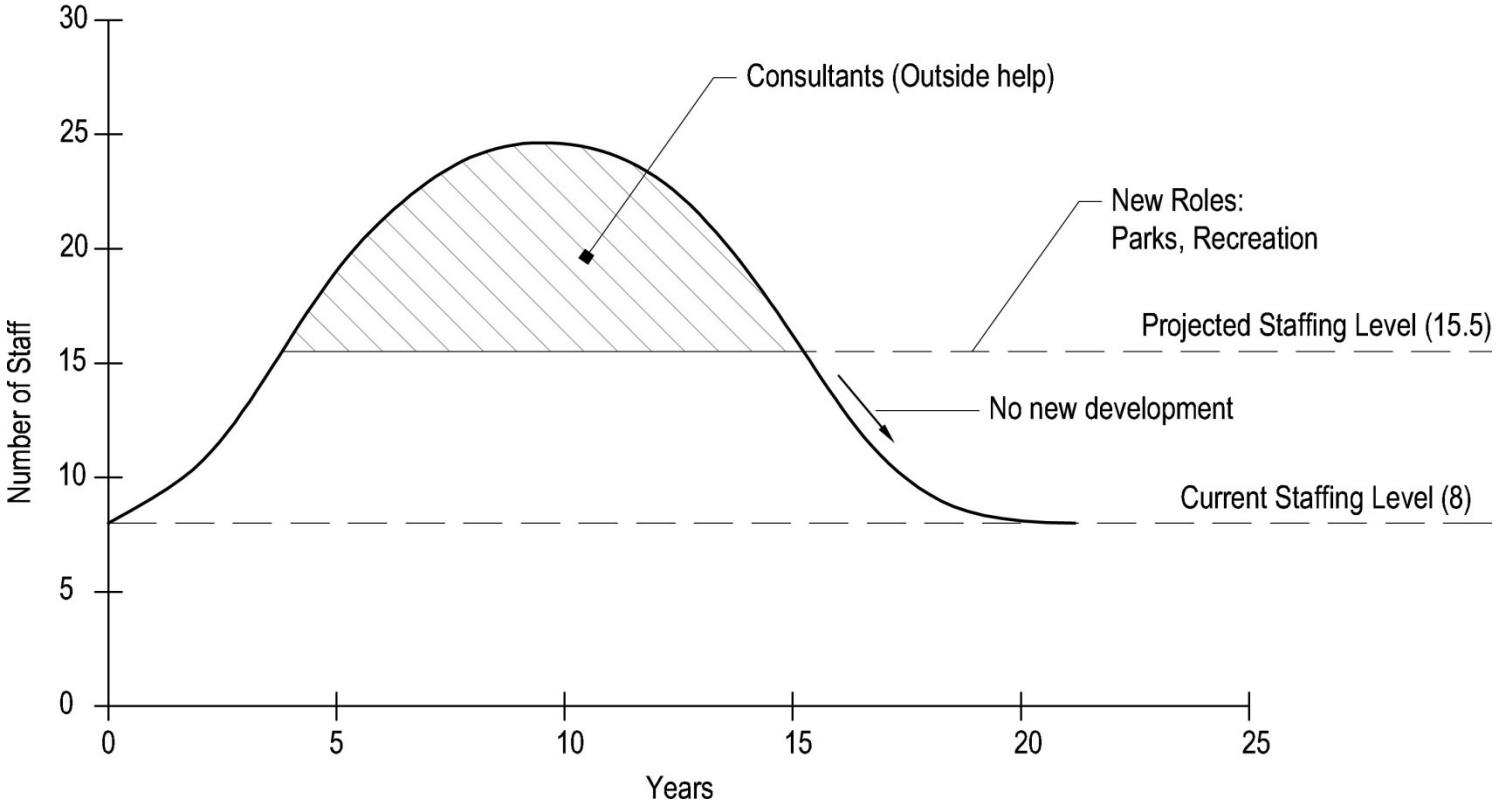
PERSONNEL	0% BUILD OUT	25% BUILD OUT (+/- 5%)	50% BUILD OUT (+/- 5%)	75% BUILD OUT (+/- 5%)	100% BUILD OUT
Village at Squaw Development					
Future Operations Dept. Position	0.5	0.50	0.75	0.25	2.00
Part time/Seasonal		0.25	0.25	0.50	1.00

PERSONNEL TOTALS BY % BUILD OUT	0% BUILD OUT	25% BUILD OUT (+/- 5%)	50% BUILD OUT (+/- 5%)	75% BUILD OUT (+/- 5%)	100% BUILD OUT
	0.50	**0.75**	**1.00**	**0.75**	**3.00**

Note:
1. UC/DE will likely be housed at the 305 site, however, they will spend a portion of each day at the operations department facility.

Operations Department Personnel Design Requirement	15.50
Full Time Personnel Req'd	12.00
Seasonal Personnel Req'd	3.50

Operations Department Staff Projections



Section 2:

Site & Storage Evaluation

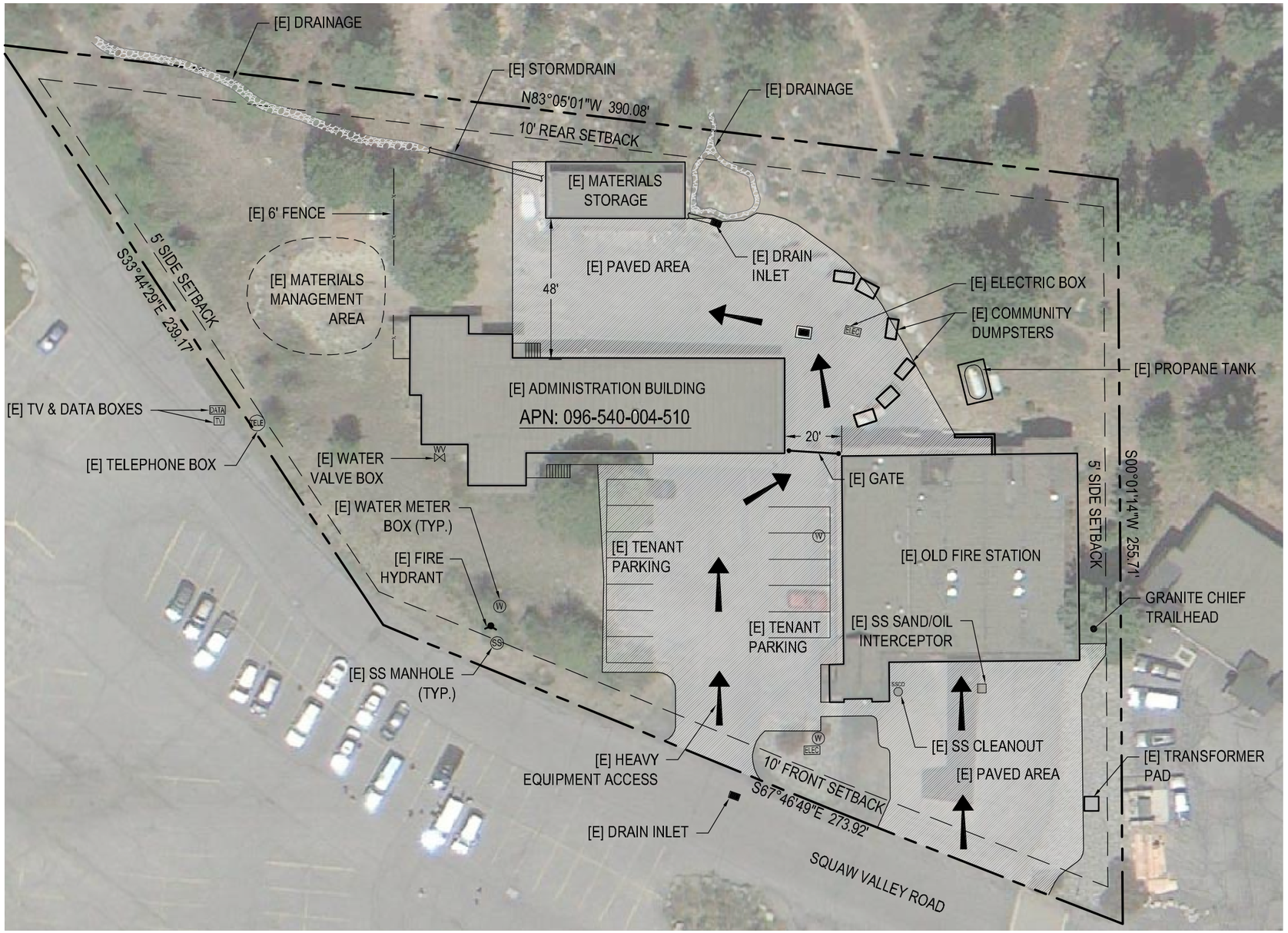
Existing Site & Storage Evaluation

The area studied for this section is the main utilities yard, the 1810 Site. The area is made up of one large parcel; APN 096-540-004-510 owned by Squaw Valley Public Service District, approximately 1.55 acres.

The current site has been used by SVPSD Operations Department and previous fire department activities for the last 75 years. The site was home to the SVPSD Fire Department until 2005, new construction of Fire and Administration Center located at the 305 Site.

There are three main structures on site, the old fire station, the administration building (circa 1958) (formerly the old old fire station) and the aggregate materials storage bay (see 1810 Existing Site Plan). The 1810 Site is surrounded by residential and tourist accommodations. The old fire station has a mix of uses and tenants. A large portion of the garage bays is used by the Operations Dept. for large rolling stock equipment, while the Fire Department occupies a smaller portion, (see Section 3 for additional detail). A portion of the upstairs area has been leased to a tenant. On site there are no clear, well defined pedestrian circulation paths or functional wayfinding signage. There is limited pedestrian protection and separation between public vehicular traffic and Operations Dept. equipment activity. At times there have been complaints regarding noise from regular Operations Dept. site use. The residential proximity and general public interaction is not optimal or efficient for the daily function of the Operations Dept.

The aggregate materials storage bays are located behind the administration building. The structure is enclosed on three sides with a shed roof, and houses asphalt cold patch, drain rock, aggregate base rock and sand. The bays are currently undersized for the storage of adequate material quantities and as a result are subject to overfilling. Access to the bays is constrained due to allowable turning radius between the buildings. Deliveries are limited to 10-wheel trucks or smaller.



LOT AREA = 67,788 SF (1.55 ACRES)

UTILIZED AREA = 27,412 SF (.62 ACRES)

1810 SQUAW VALLEY ROAD
EXISTING SITE PLAN

0 20 40 80 FEET

N

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Squaw Valley Public Service District

SQUAW VALLEY PSD OPERATIONS DEPARTMENT
DECEMBER 2014

The 1810 Site has two separate access points from Squaw Valley Road. The first access is the large tarmac area in front of the former fire station. This paved area provides a large staging area in front of the garage bays which is approximately 4,200 SF and includes roughly 4 parking spaces used by the Operations Dept.

The second access point is the driveway immediately west of the old fire station and is the driveway to the old admin building and double loaded parking lot. This parking lot is used by the Operations Dept., the other tenants and is the access to the community dumpsters.

Identified circulation issues include:

- Deliveries: Trucks hauling materials must maneuver around parked cars through the narrow drive aisle between the administration building and old fire station to enter the material storage area located in the rear.

- Public Vehicles: The vehicular circulation patterns allow for conflicts between Operations Dept. heavy equipment and private vehicles.

Access between the old fire station & administration building

Rear tarmac between administration building & materials storage

- Turnaround: This rear tarmac is long and narrow, approximately 2,160 SF with limited space for truck turnaround.

- Public Dumpsters Access: The community dumpsters provide a benefit to the community. Prior to the 1990's, the dumpsters moved to three different locations. Today, the community dumpsters are located at the rear tarmac, behind the old fire station building. The Operations Dept. provides several dumpsters for trash and recycling, approximately 415 SF. Olympic Valley property owners deliver their own trash and recyclables to the site. Recently, a gate was installed to restrict vehicular access to the dumpsters, which in turn, has reduced the occurrence of illegal dumping. In addition, signage was installed reminding property owners to be aware of wildlife and garbage practices. Tahoe Truckee Sierra Disposal empties the dumpsters three times per week (M, W, F) and schedules additional pick-ups during Holidays.

Community dumpsters

Alligator cracking of the asphalt.

The materials management area provides a decanting location for the Operations Dept. to dump silt laden water from leak repairs and small excavations. This area is heavily used; it avoids landfill hauling costs and disposal fees. The Operations Dept. has created a makeshift containment area that is approximately four times too small for their dumping needs.

There is no equipment fueling existing at the 1810 Site. All equipment has to be driven or transported down to the 305 Site for fuel. This is less than ideal since all of the heavy equipment is stored at the 1810 Site.

Existing and Proposed Site Requirements Program

SVPSD - OPERATIONS DEPARTMENT: SITE REQUIREMENTS PROGRAM				
	CIRCULATION	**EXISTING SF**	**PROPOSED SF**	**DEFICIT SF**
	Circulation & Parking			
	Vehicular Circulation & Parking	8,700	24,500	(15,800)
	Pedestrian Circulation	1,500	1,500	0
	Regional Fire Training Facility Tarmac	0	2,500	(2,500)
	CIRCULATION Subtotal	**10,200**	**28,500**	**(18,300)**
	SITE STORAGE	**EXISTING SF**	**PROPOSED SF**	**DEFICIT SF**
	Enclosed Storage (Unconditioned)			
	Traffic Control Storage	60	1,000	(940)
	Propane Tank Storage	600	600	0
	Subtotal	**660**	**1,600**	**(940)**
	Covered Storage			
	Fueling Area (Diesel + Gas)	797	800	(3)
	Piping & Exterior Parts Storage	240	1,035	(795)
	Aggregate Storage	960	1,440	(480)
	Subtotal	**1,997**	**3,275**	**(1,278)**
	Materials Management Area			
	Mat'l Management Area Unpaved Mulch (Wood Chip, Rock, Pine Needle)	3,500	8,000	(4,500)
	Community Dumpster Storage	180	2,160	(1,980)
	Subtotal	**3,680**	**10,160**	**(6,480)**
	Snow Storage: Unpaved durable vegetation	**10,875**	**13,050**	**(2,175)**
	SITE STORAGE Subtotal	**17,212**	**28,085**	**(10,873)**
	SITE NET SQUARE FOOTAGE	**27,412**	**56,585**	**(29,173)**
	Additional Circulation Factor (10%): Ingress/Egress, Fire truck access	**Included**	**5,659**	
	TOTAL REQUIRED SQUARE FEET: SITE REQUIREMENTS	**27,412**	**62,244**	**(34,832)**

Recommendations: Site and Storage

Existing land area general comments: The current site(s) are insufficient in land area to support the current Operations Dept. operational footprint and potential expansion of the Operations Dept. In general, separation of industrial uses and residential uses is ideal. Corporate yard use appears to be incompatible with the surrounding land uses and may prove to have greater incompatibility with proposed Village at Squaw land use.

Parking and Circulation: The facility is currently deficient in outdoor parking for Operations Dept. staff and equipment. Parking and circulation will need to accommodate the growth of the services and staff over the next 20 years.

Fueling farm: Ideally, the fueling farm should be proximally located to the equipment storage and maintenance areas.

New Regional Fire Training Facility: As describe in the City Gate report, a designated training facility would be available for emergency responders throughout the Tahoe/ Truckee area. The space would provide a 3-story 600 SF training tower and approximately 2,500 SF of tarmac area including a water drafting tank. The training facility would be part of a larger regional training network. There is an economy to co-locating this training facility within a consolidated corporate yard.

Build an integrated Operations Department Corporate Yard site with the following features:

- Delivery truck access, 45 foot turning radius
- Wash bay
- Provide community dumpsters that are separate from Operations Dept. activities
- Materials management area: decanting basin and grizzle screen
- Maximize use of winter sun to melt access and tarmac areas

The consolidated Operations Dept. required site footprint is 62,244 SF (1.42 acres). The lot selected should be approximately two times the required site footprint.

Section 3:

Indoor Vehicle Bays & Workshop Evaluation

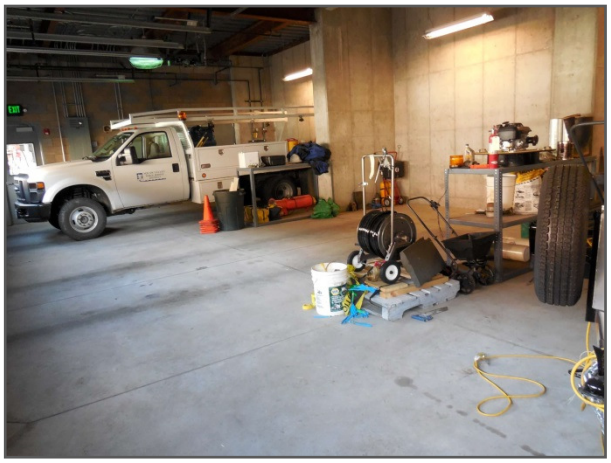
Existing Vehicle Bays and Workshop Evaluation

The current vehicle bays and workshop consists of three separate structures. The newest structure located at the Fire and Administration Center, 305 Site, houses medium and light duty fleet vehicle used by the Operations Dept. on a daily basis. The other two structures located at the 1810 Site are the old fire station structure and the old administration building. The garage bays of the old fire station are mostly occupied by the Operations Dept. with some space dedicated to the Fire Department. Two private tenant also occupy space at the old fire station. The administration building was once occupied by the Operations Dept. and with the construction of the 305 Site the building was leased to two other tenants. Recently, a portion of the administration building has been reacquired by the Operations Department as a temporary solution to increase the amount of enclosed storage.

305 Site Vehicle Bays

The vehicle bay structure was built at the time of the Fire and Administration Center and consists of 6 single loaded garage bays, approximately 2,576 SF. Another 1,000 SF houses the waste oil, shared fueling area and the fire department generator. The structure was designed to withstand the loads of future second story, with large concrete buttresses located at the rear of each bay. The bays vary in width: 14', 16' and one bay at 18' wide.

Fleet vehicle storage bays



Miscellaneous storage between garage bays

Operations Department and Fire Department fueling area

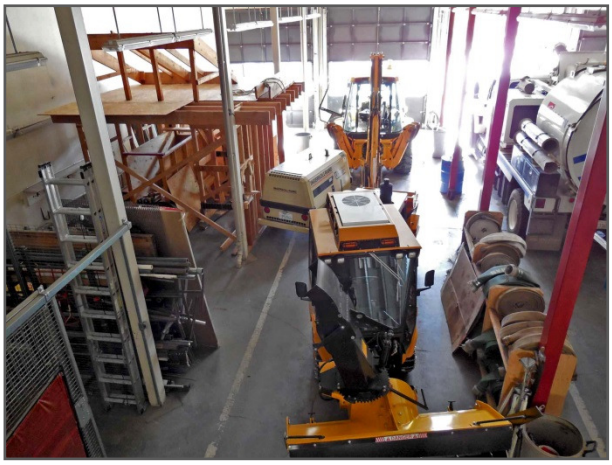
Traffic control storage in generator room

1810 Site Vehicle Bays and Workshop

The old fire station consists of 4 narrow and long garage bays (12′ x 60′) with the Operations Dept. utilizing about 80% to store heavy equipment and the remaining 20% is used to store the Fire Department's training gear and snowmobiles. The Operations Dept. heavy equipment must be stored inside and be readily available, especially during the winter season, to maintain an emergency response capability. The long bays allow for additional storage, though equipment is shuffled around as needed. The large paved tarmac in front of the garage bays provide the temporary space needed during the equipment shuffle. Not all of the heavy equipment can fit in the old fire station, forcing outdoor storage. This can be challenging and time consuming during the winter when equipment needs to be cleared of snow and ice. Small equipment is shoehorned in the available space between bays, restricting circulation.

The old fire station vehicle bays

Operations Department heavy equipment



Fire Department equipment & Operations Dept. heavy equipment

Small equipment storage between bays

At the rear of the garage bays, additional rooms house the vehicle maintenance shop, sewer and water system parts storage. The 400 square foot maintenance shop is a small space, with three sides of the shop dedicated to storage shelving. Additional storage of the larger mechanics tools are in the electrical panel room and beneath the stairs. The combined shop and storage is inadequate in size; totals approximately 480 SF. There is no dedicated garage bay for vehicle maintenance. Welding takes place at the old hose tower and has insufficient ventilation and task lighting. There is no curtain screening for the welding area. Some hazardous materials are stored in flammables cabinets and cages, but not all materials can be accommodated.

Vehicle maintenance shop

Vehicle maintenance storage in the electrical panel room

Two rooms are dedicated to sewer and water system parts, though currently not capable of storing everything the District stocks. System parts are required to be stored per the District's Sewer System Management Plan. Due to space constraints, the parts inventory for sewer system was reduced to emergency parts only. The water system parts are planned to be reduced as described in the Operations Plan if additional space is not acquired. Parts are stored on the top of shelves and in front of storage racks making access and inventory more burdensome. Lighting is poor in the parts storage room. Large parts are stored at the rear of the garage requiring vehicles to be moved to access the parts with the forklift.

Sewer and water small parts storage

Sewer and water large parts storage

The administration building consists of three small bays, approximately 1,037 square feet. This newly reacquired space has low ceilings, small garage door openings and no floor drainage system. Door size and space configuration restrict the size and type of equipment that can be stored in the bays. Ideally, no equipment used in the winter should be stored in this building as snowmelt from thawing equipment coupled with poorly draining concrete floors results in ponding. The Operations Dept. is currently moving smaller summer equipment to this space. It is a temporary solution to the indoor storage shortage on site.

Administration building garage bays

Administration building garage bays

There is no dedicated vehicle wash bay at either site. Vehicles are currently washed outdoors which does meet current EPA standards. Washing is needed to de-ice or clean equipment needing repair or maintenance.

Current and Planned Vehicle Fleet

SVPSD - OPERATIONS DEPARTMENT: VEHICLE FLEET INVENTORY

VEHICLE FLEET	CURRENT QTY.	PLANNED QTY.	NET NEW QTY.	BAY UNIT (16'x60')	VEHICLE BAY REQ'D.	CURRENT STORAGE	PLANNED STORAGE
Dump Truck	1	2	1	0.50	1.00	Indoor	Indoor
Vac-Con (Heavy Chassis)	1	1	0	0.75	0.75	Indoor	Indoor
Loader	1	2	1	0.75	1.50	Indoor	Indoor
Backhoe	1	1	0	0.50	0.50	Indoor	Indoor
Snow Blower	1	2	1	0.25	0.50	Outdoor	Indoor
Trail Snow Blower with Sander	1	1	0	0.25	0.25	Indoor	Indoor
Medium Duty Trucks (1 to 2 Ton)	1	2	1	0.50	1.00	Indoor	Indoor
Light Trucks/ Pickups	3	6	3	0.25	1.50	Indoor	Indoor
Vehicles/ SUV's	1	2	1	0.25	0.50	Indoor	Indoor
Fork Lift	0	1	1	0.10	0.10	-	Indoor
Television Truck (Medium Duty)	0	1	1	0.25	0.25	-	Indoor
Easement Machine Trailer	1	1	0	0.25	0.25	Indoor	Indoor
6" Trash Pump Trailer	1	1	0	0.25	0.25	Indoor	Indoor
Air Compressor Trailer	1	1	0	0.10	0.10	Indoor	Indoor
Hose Carrier Trailer	0	1	1	0.25	0.25	-	Indoor
Welder Trailer	0	1	1	0.10	0.10	-	Indoor
Mobile Generator Trailer	0	1	1	0.25	0.25	-	Indoor
TOTAL VEHICLE FLEET	**14**	**27**	**13**				
TOTAL NUMBER OF REQUIRED VEHICLE BAYS					**9**		

Reason for indoor storage:
1. Emergency readiness
2. Reduce slip and fall durning snow removal
3. UV/ harsh environment damage (hoses, tires, etc.)

Existing and Proposed Vehicle Bays & Workshop Program

SVPSD - OPERATIONS DEPARTMENT: VEHICLE BAYS & WORKSHOP PROGRAM					
VEHICLE BAYS & WORKSHOP SPACE	EXISTING SF [1]	QTY.	REQ'D SF	PROPOSED SF	DEFICIT SF
Heavy Equipment Storage					
Workshop bays [2]	**6,493**	9	960	**8,640**	**(2,147)**
VEHICLE BAYS Subtotal	**6,493**			**8,640**	**(2,147)**
Vehicle Maintenance Workshop					
Workshop & Welding Area	480	1	1,160	1,160	(680)
Heavy Duty Lift (4 post)	0	1	960	960	(960)
Wash Bay (Power washer, hot water, misc. equipment)	0	1	1,080	1,080	(1,080)
Subtotal	**480**			**3,200**	**(2,720)**
Workshop Parts Storage					
Parts/ Tools Storage (Water + sewer)	592	1	1,600	1,600	(1,008)
Flammables room (Fluids delivery, hazardous)	18	1	500	500	(482)
Subtotal	**610**			**2,100**	**(1,490)**
Workshop Support					
Mechanical, Generator, & HVAC Storage	326	1	580	580	(254)
Ancillary space (Janitorial, eye wash, utility sinks, etc.)	27	1	330	330	(303)
Subtotal	**353**			**910**	**(557)**
WORKSHOP & STORAGE SPACE Subtotal	**1,443**			**6,210**	**(4,767)**
BUILDING NET SQUARE FOOTAGE	**7,936**			**14,850**	**(6,914)**
Circulation Factor (15% Building Net): Conveyance, utility, hallway	**Included**			**2,228**	
Net to Gross Factor (10% Building Net): Structure, walls, egress	**Included**			**1,485**	
TOTAL REQUIRED GROSS SQUARE FOOTAGE BAYS & SHOP	**7,936**			**18,563**	**(10,627)**

Notes:
1. Existing square footage are a composite of 305 and 1810 sites.
2. Existing heavy equipment bay dimensions:
   305 Site: 12'x28', 14x28' and 18x28'
   1810 Site: 12'x60'
   Proposed: 16'x60'

Future Requirements: Vehicle Bays and Workshop

The future workshop space will require a large conditioned space to accommodate multiple pieces of equipment, adequate water and sewer system parts storage, traffic control and BMP storage, dedicated welding area, code compliant flammables and hazardous materials storage and an enclosed wash bay. The current combined vehicle parking bays and workshop space of 7,936 SF is undersized for the large equipment fleet and the shop areas lack an efficient work environment. The future workshop space of 18,563 SF is proposed to have designated garage bays for heavy equipment storage, with shared spaces for the vehicle maintenance shop and welding area. This increase in space will allow for all emergency response vehicles to be stored indoors and in a "ready to go" position. There will need to be adequate circulation for forklifts to operate safely in and between the garage bays. The vehicle maintenance shop should be located proximally to the repair bay to facilitate efficient work flow. New compliant fluids delivery and recover systems are recommended and should be located within the flammables room.

Summary Statement: Vehicle Bays and Workshop

The fragmented vehicle bays and workshop currently provides partial storage needs and the basic essentials to complete daily tasks by the Operations Dept. However, this work is not always performed in a highly efficient or safe manner, due to inadequate and inefficient spaces. A new, larger consolidated workshop and vehicle storage bays are recommended to meet the current and future needs. Co-locating the recommended tools and equipment at a new facility will increase productivity as demands on the Operations Dept. increase.

Recommendations: Vehicle Bay and Workshop

- Circulation of forklift around heavy equipment
- Heavy duty lift (4 post)
- Install appropriate hoist system(s)
- New task and work area lighting with energy efficient high performance fixtures
- Install ventilation system with air to air heat exchangers
- Have dedicated equipment, tools and parts storage utility task
- Small parts sewer and water system storage and parts inventory system
- Install in-floor drains and debris traps (where required)

- Install EPA approved wash bay
- Create flammables room
- Install fluid delivery system
- Install fluids recovery system
- Install ventilation system and specific task hoods (welding)
- Increase safety during hazardous activities
- Create dedicated welding area
- Indoor/ covered pipe storage racks
- Incorporate daylight

Section 4:

Office Building Evaluation

Existing Office Evaluation

The Operations Dept. works out of a portion of the Administration Building at the 305 Site. This includes offices, workstations, break room, restrooms, locker rooms and storage areas. Benefits of this location include proximity to SVPSD Administration staff, parking and storage.

Current private office

Current workstations

Challenges to this location include:

- Another separate location that is distant from working areas
- Parts and equipment must be moved between locations
- Workers arrive to 305 Site before beginning work at other locations
- Frequent trips between Operations Dept. locations are required to complete tasks

A consolidated Corp Yard Facility would allow for the Operations Department to be contained in one location where Operations Dept. management and workers would perform daily functions. This arrangement would be more efficient and less time consuming and therefore less expensive. The Corp Yard Office program quantifies the need for additional office space support rooms and notes existing deficiencies at the present location.

Existing and Proposed Office Program

SVPSD - OPERATIONS DEPARTMENT: CORP YARD OFFICE SPACE					
PERSONNEL SPACE	**EXISTING SF**	**QTY.**	**REQ'D SF**	**PROPOSED SF**	**DEFICIT SF**
Administration					
Large Office (Ops. Manager)	201	1	224	224	(23)
Standard Office (Ops. Technology, Ops. III, Ops II)	457	3	120	360	97
Workstation (Ops. I, Trainee, Future)	228	11.5	62	713	(485)
SCADA Workstation	62	1	62	62	0
PERSONNEL Subtotal	**948**			**1,359**	**(411)**
ANCILLARY SPACE	**EXISTING SF**	**QTY.**	**REQ'D SF**	**PROPOSED SF**	**DEFICIT SF**
Office Support					
Break Room/ Kitchen/ Meeting Area (Staff + Vendors)	239	1	725	725	(486)
Restrooms (Proposed unisex restroom 1 stall, 1 sink, 1 shower)	385	2	90	180	205
Restroom (Proposed unisex restroom 1 stall, 1 sink)	0	1	40	40	(40)
Locker Room	120	1	435	435	(315)
Flat Files/ Layout Area/ Binder Storage	61	1	250	250	(189)
Laundry/ Dry Gear	58	1	130	130	(72)
Lab/ Water Sampling	14	1	60	60	(46)
Miscellaneous (Mop sink, cleaning supplies, etc.) storage closet	123	2	36	72	51
Subtotal	**1,000**			**1,892**	**(892)**
Building Support					
Mechanical Room	490	1	100	100	390
Electrical Room		1	100	100	(100)
Plumbing Valve Room		1	50	50	(50)
Server/Voice/Data/Telecom Room		1	80	80	(80)
Subtotal	**490**			**330**	**160**
ANCILLARY SPACE Subtotal	**1,490**			**2,222**	**(732)**
BUILDING NET SQUARE FOOTAGE	**2,438**			**3,581**	**(1,143)**
Circulation Factor (15% Building Net): Conveyance, utility, hallway	**Included**			**537**	
Net to Gross Factor (10% Building Net): Structure, walls, egress	**Included**			**358**	
TOTAL REQUIRED GROSS SQUARE FOOTAGE: OFFICE	**2,438**			**4,476**	**(2,038)**

Section 5:

Additional Facilities Evaluation

Additional Facilities Evaluation

On-call personnel housing quarters are under consideration to provide emergency staff accommodations. In the Squaw Valley and Tahoe-Truckee areas utility districts are experiencing difficulty finding employees who live locally. Due to the high cost of living in resort areas, it is common for employees to commute from the Reno or Carson Valley areas. The longer commute results in a slower emergency response. On-call personnel housing could be utilized during storm periods, night work and emergencies.

The PSD has considered the development of a new water treatment plant in the western part of Squaw Valley. The water treatment plant facility has been considered to improve reliability in the District's water supply. The treatment plant would be located adjacent to existing infrastructure and distribution systems.

The regional fire training facility would be the PSD's contribution to a larger reginal training network. The 3-story tower and roof appendage would allow fire fighters to train locally. A drafting tank is also proposed to allow for hands-on training of equipment use.

Existing and Proposed Additional Facilities Program

SVPSD - OPERATIONS DEPARTMENT: ADDITIONAL FACILITIES PROGRAM				
1				
2 3	**ADDITIONAL STRUCTURES**	**EXISTING SF**	**PROPOSED SF**	**DEFICIT SF**
4				
5	**On-Call Personnel Housing Quarters** (Minor kitchen, 2 bedroom, full bath) [1]	**0**	**960**	**(960)**
6				
7	**Off-Site Water Treatment Plant includes Parking & Circulation**	**0**	**6,246**	**(6,246)**
8				
9	**Regional Fire Training Facility Tower + Roof Appendage** [1]	**0**	**600**	**(600)**
10				
11	**ADDITIONAL STRUCTURE SQUARE NET FOOTAGE**	**0**	**7,806**	**(7,806)**
12				
13	Circulation Factor (15% Building Net): Conveyance, utility, hallway	0	1,171	
14				
15	Net to Gross Factor (10% Building Net): Structure, walls, egress	0	781	
16				
17	**TOTAL REQUIRED GROSS SQUARE FOOTAGE: ADDITIONAL STRUCTURES**	**0**	**9,758**	**(9,758)**

Note:
1. Parking and circulation is captured in Site Program.

Site and Building Visual Programs

The proposed programs were used to develop "visual programs" or "to scale" diagrams representing the site space requirements and building layouts. The configurations and size of each "block" in the visual programs is directly related to the proposed program and arranged by logical space use relationships.

The Site Visual Program was separated into major space categories as follows:

- Building Footprints
- Vehicular Circulations, Parking and Fire Training Tarmac
- Water Treatment Plant
- Material Management Area
- Community Dumpsters
- Fueling Area and Propane Storage
- Materials Storage
- Snow Storage

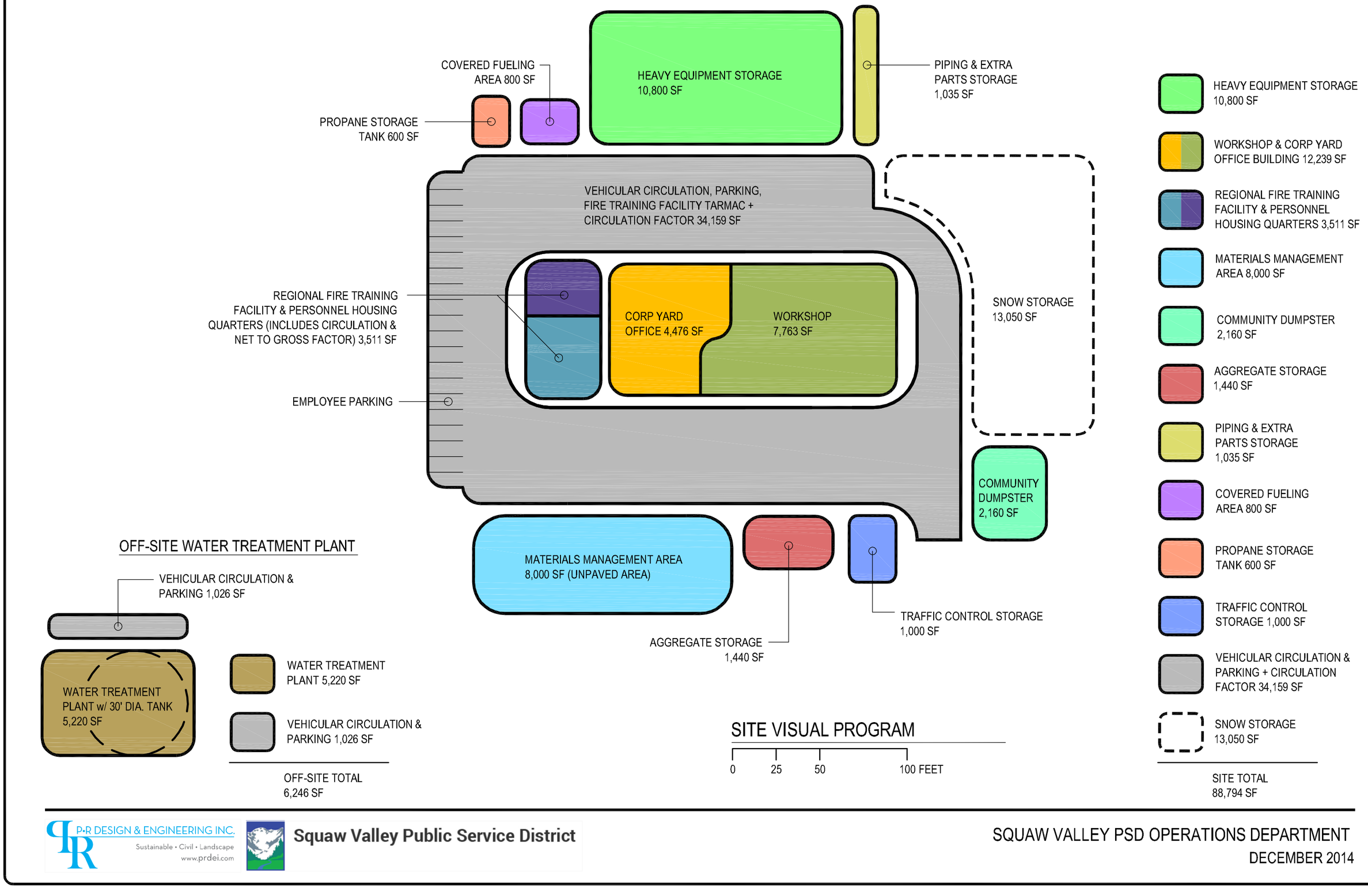
The Building Visual Program was separated into major space categories as follows:

- Office
- Office Support
- Kitchen & Break Room
- Locker Room
- Heavy Equipment Vehicle Bays
- Vehicle Maintenance Shop & Welding
- Shop Support
- Meeting
- Building Support

The visual programs will be used in the next project phases to design the development of the site and building(s) as part of the Conceptual Master Plan.

Consolidated Facility Program Summary

SVPSD - OPERATIONS DEPARTMENT: FACILITY SUMMARY PROGRAM			
SITE REQUIREMENTS	**EXISTING SF**	**PROPOSED SF**	**DEFICIT SF**
Circulation & Parking (Proposed SF includes 10% circulation factor)	10,200	28,500	(18,300)
Enclosed Storage (Unconditioned)	660	1,600	(940)
Covered Storage	1,997	3,275	(1,278)
Materials Management Area	3,680	10,160	(6,480)
Snow Storage: Unpaved durable vegetation	10,875	13,050	(2,175)
Additional Circulation Factor (10%): Ingress/Egress, Fire truck access	Included	5,659	(5,659)
TOTAL REQUIRED GROSS SQUARE FOOTAGE SITE REQUIREMENTS	**27,412**	**62,244**	**(34,832)**
VEHICLE BAYS & WORKSHOP	**EXISTING SF**	**PROPOSED SF**	**DEFICIT SF**
Heavy Equipment Storage	6,493	8,640	(2,147)
Vehicle Maintenance Shop	480	3,200	(2,720)
Workshop Parts Storage	610	2,100	(1,490)
Workshop Support	353	910	(557)
Circulation Factor (15%) & Net to Gross Factor (10%)	Included	3,713	(3,713)
TOTAL REQUIRED GROSS SQUARE FOOTAGE BAYS & WORKSHOP	**7,936**	**18,563**	**(10,627)**
CORP YARD OFFICE	**EXISTING SF**	**PROPOSED SF**	**DEFICIT SF**
Personnel Space	948	1,359	(411)
Ancillary Space	1,000	1,892	(892)
Building Support	490	330	160
Circulation Factor (15%) & Net to Gross Factor (10%)	Included	895	(895)
TOTAL REQUIRED GROSS SQUARE FOOTAGE CORP YARD OFFICE	**2,438**	**4,476**	**(2,038)**
ADDITIONAL FACILITIES	**EXISTING SF**	**PROPOSED SF**	**DEFICIT SF**
On-Call Personnel Housing Quarters	0	960	(960)
Water Treatment Plant	0	6,246	(6,246)
Regional Fire Training Facility Tower + Roof Appendage	0	600	(600)
Circulation Factor (15%) & Net to Gross Factor (10%)	Included	1,952	(1,952)
TOTAL REQUIRED GROSS SQUARE FOOTAGE ADDITIONAL FACILITIES	**0**	**9,758**	**(9,758)**
TOTAL REQUIRED GROSS SQUARE FOOTAGE FOR OPERATIONS DEPT. FACILITY	**37,786**	**95,040**	**(57,254)**



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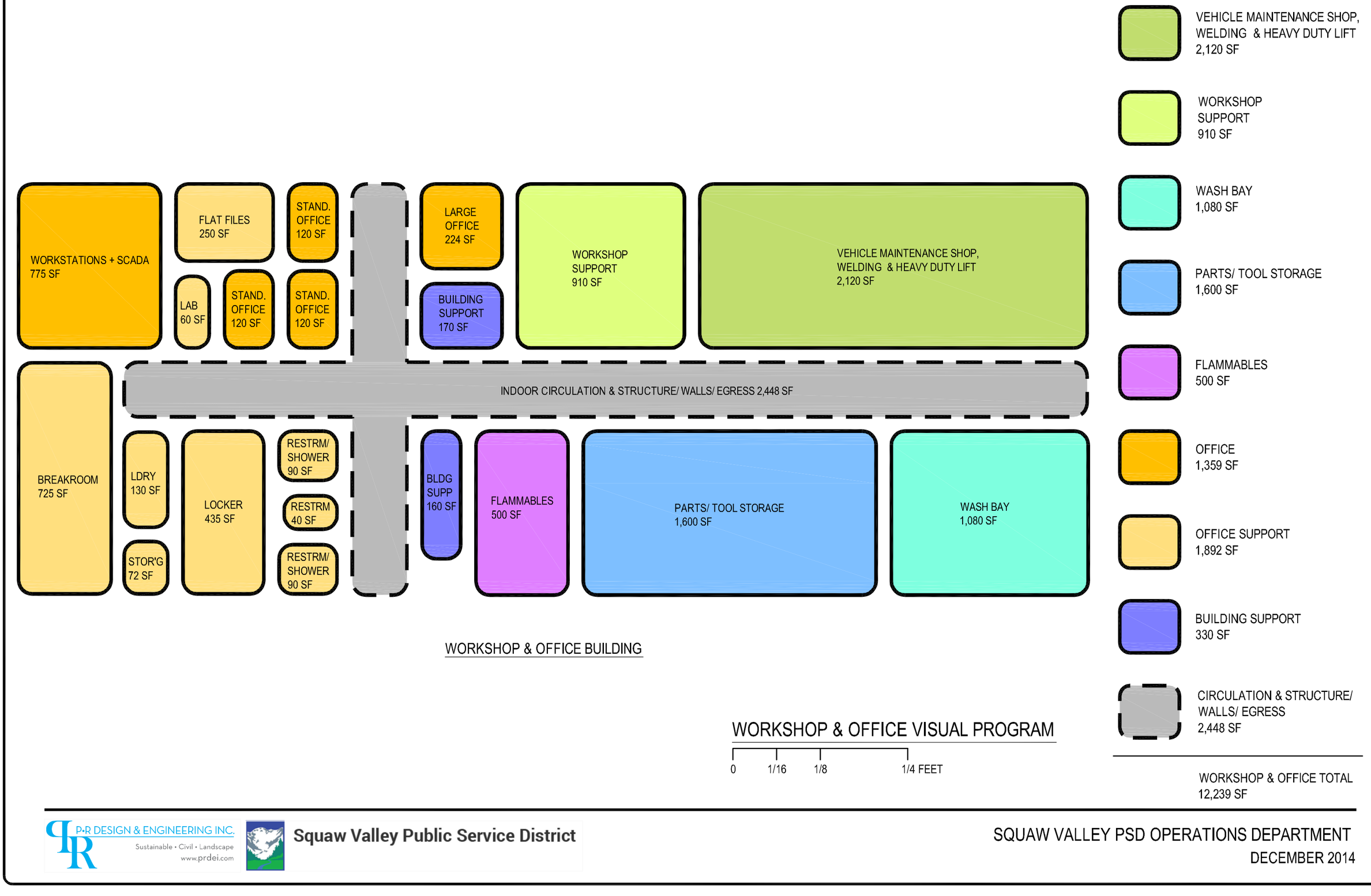

WORKSHOP & OFFICE BUILDING

WORKSHOP & OFFICE VISUAL PROGRAM

0 1/16 1/8 1/4 FEET

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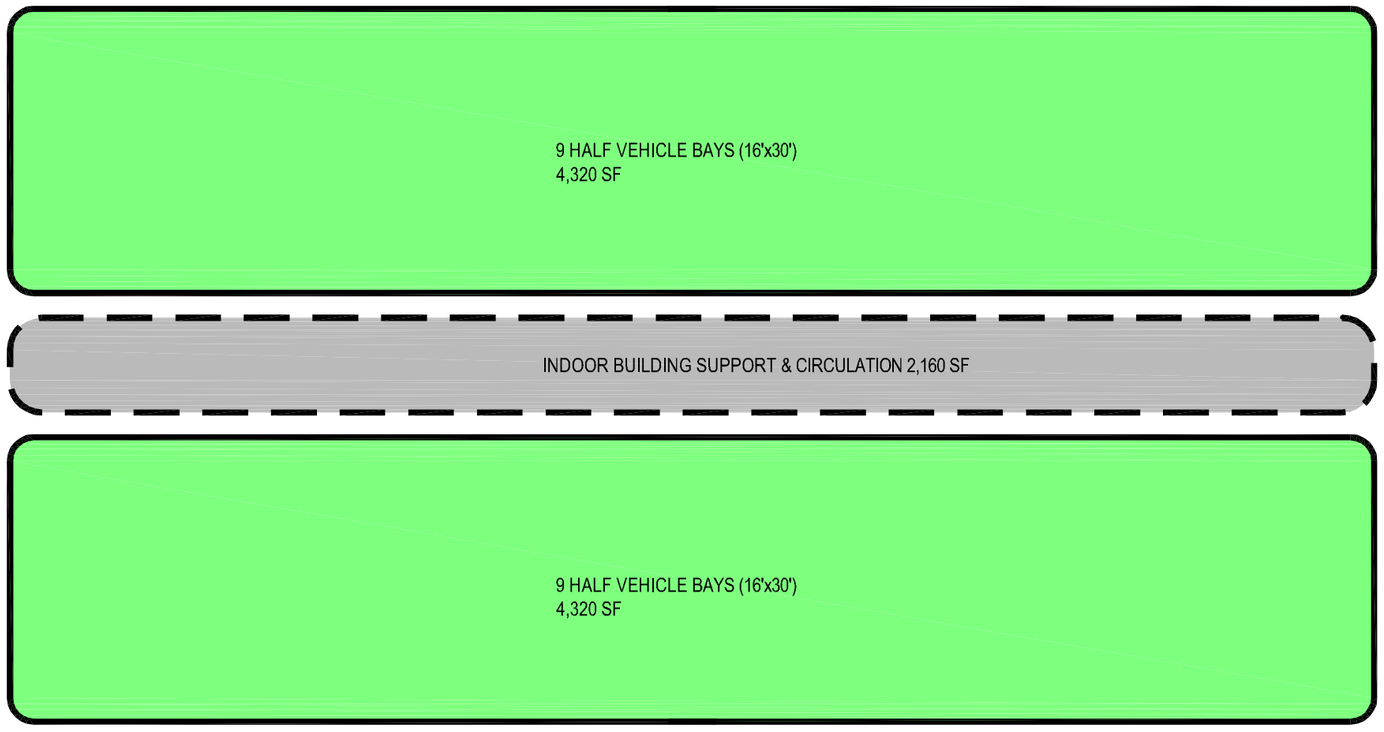


HEAVY EQUIPMENT STORAGE BUILDING

HEAVY EQUIPMENT
VEHICLE BAYS 8,640 SF

BUILDING SUPPORT &
CIRCULATION
2,160 SF

HEAVY EQUIPMENT STORAGE TOTAL
10,800 SF

HEAVY EQUIPMENT STORAGE VISUAL PROGRAM

0 1/16 1/8 1/4 FEET

Comparative Research

As part of developing the PSD spatial needs the operational footprint of two other local utility service districts were reviewed. This effort is similar to salary surveys performed by districts which are used to evaluate compensation packages within industry norms. Although the other agencies are not identical to the PSD they all share the following characteristics:

- Provide sewer, water and recreation services
- Climate
- Subject to similar codes and regulations
- Located in a resort area

During the comparative research the PSD consolidated corporate yard projected needs were compared to Northstar Community Services District (NCSD) and the North Tahoe Public Utility District (NTPUD) corporate yards. Using site plans and aerial imagery the amount of space utilized was tabulated. The NCSD has performed significant upgrades to their corporate yard within the last 5 years including new office building, new large equipment bays, new wash bay, new fueling area and shop retrofit. The NTPUD is currently in process of building a new administration building and various site improvements.

The functional footprint of corporate yards is driven by the services offered by the district and the ability to perform those services. It is not directly related to infrastructure or population counts. Whether a district has 1,000 or 10,000 service connections the same type of equipment is required for regular maintenance and repair work. For larger populations, duplication of equipment is needed as the sheer volume of work requires multiple crews performing similar tasks.

The projected needs for the consolidated PSD corporate yard facility fall within 15% of the actual in-use operational footprint of the other districts. At this time, the programmed needs do not account for efficiencies of good design, budgetary constraints or site constraints.

SVPSD - OPERATIONS DEPARTMENT FACILITY

SITE	PROPOSED SF
Circulation & Parking	28,500
Enclosed and Covered Storage	4,875
Materials Management Area	10,160
Snow Storage: Unpaved durable vegetation	13,050
Circulation Factor (10%)	5,659
TOTAL SITE SQUARE FOOTAGE	**62,244**

VEHICLE BAYS & WORKSHOP	PROPOSED SF
Heavy Equipment Storage	8,640
Vehicle Maintenance Shop & Parts Storage	6,210
Circulation Factor (15%) & Net to Gross Factor (10%)	3,713
TOTAL BAYS & WORKSHOP SQUARE FOOTAGE	**18,563**

OFFICE	PROPOSED SF
Personnel Space & Ancillary Space	3,581
Circulation Factor (15%) & Net to Gross Factor (10%)	895
TOTAL OFFICE SQUARE FOOTAGE	**4,476**

ADDITIONAL FACILITIES	PROPOSED SF
On-Call Personnel Housing Quarters	960
Off-Site Water Treatment Plant & Circulation	6,246
Regional Fire Training Facility Tower + Roof Appendage	600
Circulation Factor (15%) & Net to Gross Factor (10%)	1,952
TOTAL ADDITIONAL FACILITIES SQUARE FOOTAGE	**9,758**
TOTAL FACILITY SQUARE FOOTAGE	**95,040**

NCSD - CORPORATE YARD FACILITY

SITE	EXISTING SF
Circulation & Parking	40,750
Enclosed & Covered Storage	4,511
Materials Management Area	845
Snow Storage: Unpaved durable vegetation	10,188
Circulation Factor (10%)	Included
TOTAL SITE SQUARE FOOTAGE	**56,294**

VEHICLE BAYS & WORKSHOP	EXISTING SF
Heavy Equipment Storage	7,805
Vehicle Maintenance Shop & Parts Storage	7,313
Circulation Factor (15%) & Net to Gross Factor (10%)	Included
TOTAL BAYS & WORKSHOP SQUARE FOOTAGE	**15,118**

OFFICE	EXISTING SF
Personnel Space & Ancillary Space	3,472
Circulation Factor (15%) & Net to Gross Factor (10%)	Included
TOTAL OFFICE SQUARE FOOTAGE	**3,472**
SUBTOTAL FACILITY SQUARE FOOTAGE	**74,884**

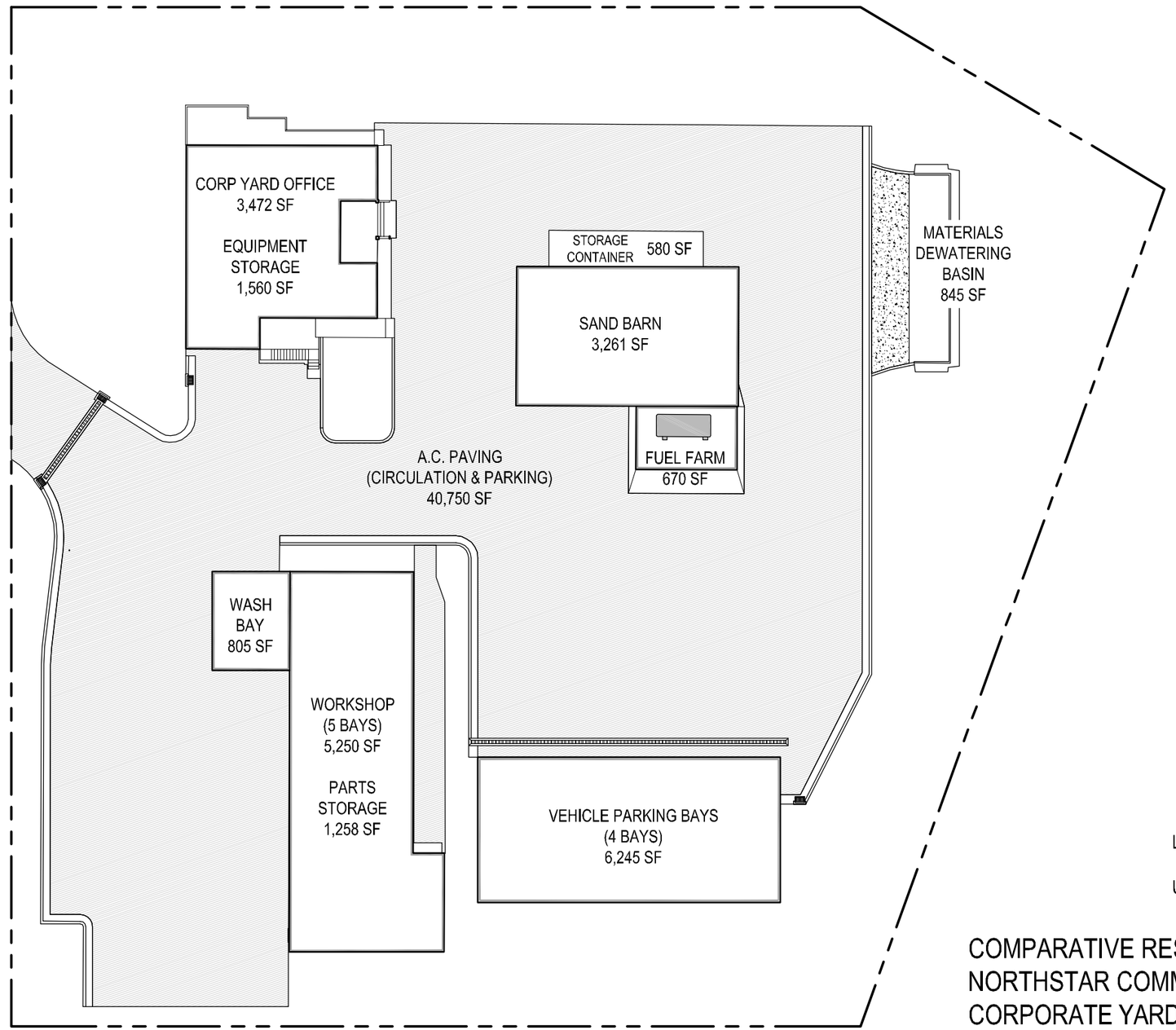
NTPUD - UTILITY OPERATION FACILITY

SITE	EXISTING SF
Circulation & Parking (Utility Operation Facility Only)	57,534
Enclosed & Covered Storage	1,393
Materials Management Area [1]	1,230
Snow Storage: Unpaved durable vegetation	14,384
Circulation Factor (10%)	Included
TOTAL SITE SQUARE FOOTAGE	**74,541**

VEHICLE BAYS & WORKSHOP	EXISTING SF
Heavy Equipment Storage	6,216
Vehicle Maintenance Shop & Parts Storage	2,462
Circulation Factor (15%) & Net to Gross Factor (10%)	Included
TOTAL BAYS & WORKSHOP SQUARE FOOTAGE	**8,678**

OFFICE	EXISTING SF
Personnel Space & Ancillary Space (portion of Admin Office)	3,734
Circulation Factor (15%) & Net to Gross Factor (10%)	Included
TOTAL OFFICE SQUARE FOOTAGE	**3,734**
SUBTOTAL FACILITY SQUARE FOOTAGE	**86,953**

Note:
1. Square footage number is only for on-site materials management area. An additional 2.2 acres of materials management area is located at the North Tahoe Regional Park.



LOT AREA = 106,995 SF (2.45 ACRES)

UTILIZED AREA = 74,884 SF (1.72 ACRES)

COMPARATIVE RESEARCH EXHIBIT
NORTHSTAR COMMUNITY SERVICES DISTRICT
CORPORATE YARD

0 20 40 80 FEET

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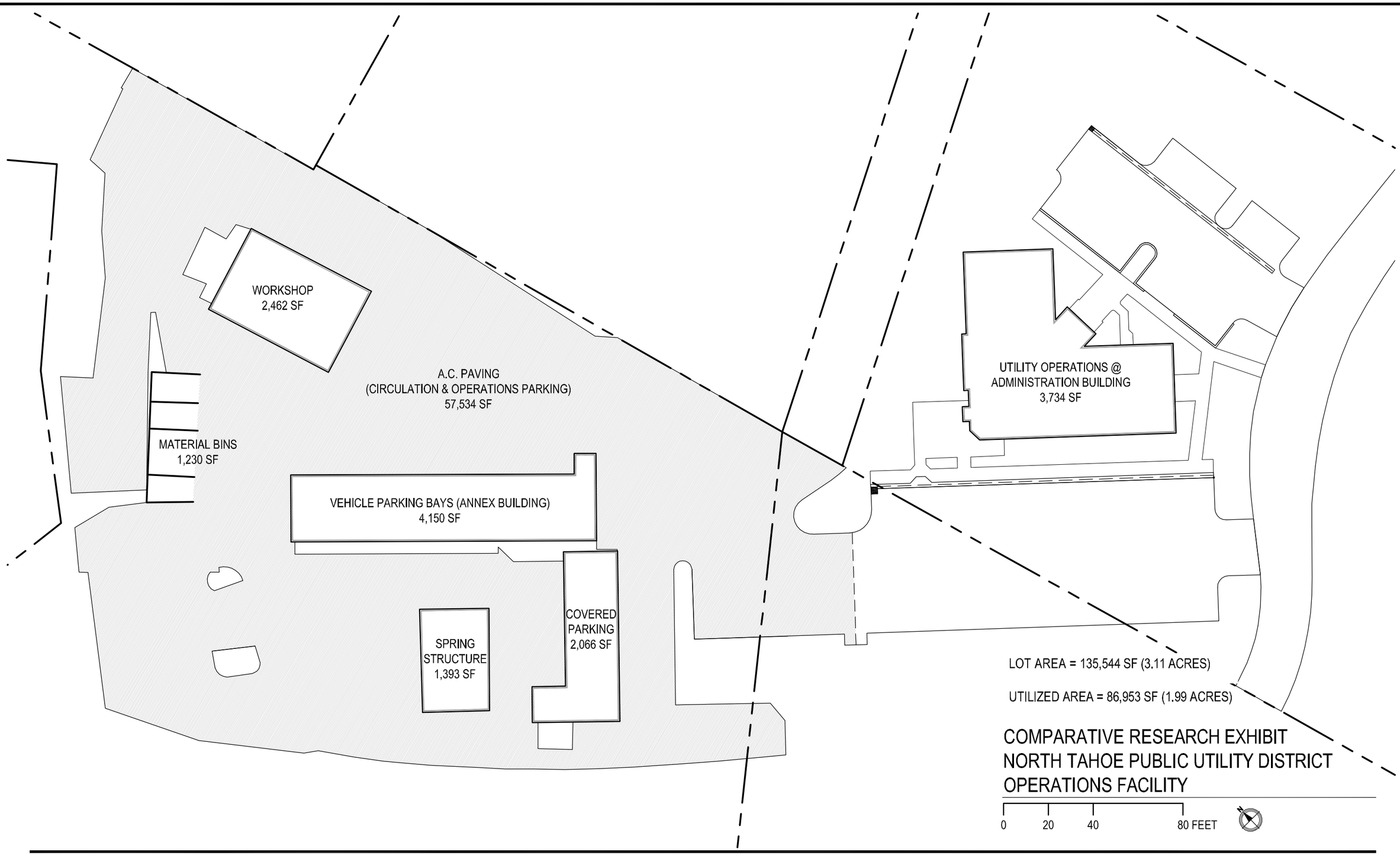

COMPARATIVE RESEARCH EXHIBIT
NORTH TAHOE PUBLIC UTILITY DISTRICT
OPERATIONS FACILITY

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Next Steps

The following next steps are generally performed over a period of time and in phases. The following suggests an approach that has worked effectively in past but, there is no one "right way" to proceed with facility planning.

1) Review and Accept Programmed Needs: The facility program is a living document and should be updated as new information comes to light. It does however, serve as a planning baseline and it should be acknowledged by Board and Staff as having appropriate findings. Any areas of concern would be discussed and modified to achieve agreement.
2) Preliminary Cost Estimating: Once the program is accepted a preliminary facility budget can be developed using industry standards and cost ranges per square foot. The use of cost ranges establishes a budget width, from minimally code compliant to turn-key. Design and construction contingencies will be carried to plan for unknowns and inflation costs.
3) Identify Potential Sites: The programmed needs can be overlaid on potential sites using the visual program "building blocks". Sites can be readily evaluated as viable or non-viable.
4) Conceptual Master Site Plan: Once a site has been deemed viable, a conceptual master site plan will verify that the needs of the program can be met on the site. Additionally, any permit, utility service or zoning issues would be explored.
5) Estimate of Probable Cost: This estimate would revise the preliminary cost estimate to be site specific.
6) Design, Permit and Construction Documents: With an accepted program, identified site and cost estimate the PSD would be able to advertise for design, engineering and permit services.

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APPENDIX

OPERATIONS DEPARTMENT JOB DESCRIPTIONS

Current Operations Department Staff Positions

Operations Manager
Under general direction from the General Manager, hires, trains, evaluates operations staff; plans, organizes and directs the activities the Operations Department for sewage collection system, water distribution system, facilities maintenance; serves as project manager in a number of areas including construction contracts, environmental compliance, and supervision of inspection personnel; and budget preparation.

Operations Technology Specialist/ Inspector
Under the direction of the General Manager and/or Operations Manager, operates and maintains information technology systems for the District's Operations Department, performs computer or manual drafting, data collection and data input, data management. Performs inspections and plan review, ensuring compliance with codes and regulations. Operates and assists in the inspection, maintenance, testing, repair and operation of the sewer and water systems, facilities, vehicles, and equipment. Prepares reports and maintains maintenance records.

Operations Technology Specialist
Under the direction of the General Manager and/or Operations Manager, operates and maintains information technology systems for the District's Operations Department, performs entry-level computer or manual drafting, data collection and data input, data management. Operates and assists in the maintenance, inspection and repair of the sewer and water systems, facilities, vehicles, and equipment.

Operations Technology Specialist/ Trainee
Under the direction of the General Manager and/or Operations Manager, operates and maintains information technology systems for the District's Operations Department within ability or as a trainee, performs entry-level computer or manual drafting, data collection and data input, data management. Operates and assists in the maintenance, inspection and repair of the sewer and water systems, facilities, vehicles, and equipment. The periods of employment for this position may be intermittent or as determined by the General Manager.

Operations Specialist III
Under the supervision of the Operations Manager, assists in the planning, supervision, inspection, maintenance, testing and operation of the sewer and water systems, facilities, vehicles, and equipment. Requires responsibility for carrying out and explaining maintenance and repair procedures to subordinate personnel, supervising and training personnel in safety practices and procedures, acting as the Operations Department Safety Officer, preparing routine and special reports and maintaining maintenance records.

Operations Specialist II
Under the supervision of the Operations Manager or Operations Specialist III, operates and assists in the maintenance, inspection, and repair and operation of the sewer and water systems, facilities, vehicles, and equipment. Supervises and trains personnel on safety practices in the field. Maintains records.

Operations Specialist I
Under the supervision of the Operations Manager or Operations Specialist III, operates and assists in the maintenance, inspection, and repair and operation of the sewer and water systems, facilities, vehicles, and equipment. Maintains records.

Operations Specialist Trainee
Under the supervision of the Operations Manager or Operations Specialist III, operates and assists in the maintenance, inspection, and repair of the sewer and water systems, facilities, vehicles, and equipment. Maintains records as directed.

Forward Looking Staff Positions

District Engineer/ Utilities Coordinator
Under the supervision of the General Manager, is responsible for overseeing the daily activities of the Operations Department, operations and maintenance of the water treatment plant, field operations and maintenance, Asset Management and performs a wide variety of duties in the areas of civil engineering: water resource planning, water systems and advanced project and program management techniques. Provides quality assurance and quality control activities for District engineering project. Provides oversight on construction actives through construction observations. Represents the District to coordinate actives with external agencies and private entities.

Operations Specialist
Under the supervision of Operations Manager, ensuring the availability of vehicles in safe operating condition including determining needed repairs and/or replacements on district vehicles tools and equipment; performing required repairs and preventive maintenance and providing written documentation of repairs to meet district, state and federal requirements. Coordinates preventive vehicle maintenance program for the purpose of maintaining vehicles in a safe operating condition. Fabricate parts, performs welding and fabrication, repairs and replaces parts and maintains records of repairs, costs, vehicle warranties, etc. for the purpose of documenting required information and meeting federal and state requirements.

Water Technician/ Building Engineer
Under the supervision of the Operations Manager, performs field and laboratory technician duties to evaluate water treatment plant operation, conducts chemical and microbiological analyses, keeps detailed and accurate records and enters laboratory data into information management systems; conforms to laboratory safe practices. Responsible for all water compliance issues with district, state and federal requirements. The building engineer is responsible for the maintenance of systems within buildings owned by the District. Systems include HVAC, lighting, generators and other similar equipment.

Operations Code Compliance
Under the supervision of the Operations Manager and Account Clerk II/ Human Resources Specialist, organizes, managers, directs and coordinates Operations personnel programs, employee relations, salary and benefits, recruitment, selection, resignation, termination, employee development and performance review for full time and seasonal staff. Updates and develops new Operations Department policies and procedures. Accountable for Operations training, certifications, code compliance to endure all actives are carried out in conformity with Department policies, local, state and federal regulations.

Trails/Recreation Parks District Personnel
Under the supervision of the Operations Manager, responsible for scheduling, daily administration planning, organizing and directs the work of seasonal staff performing park maintenance work and ground maintenance for parks and recreational trails. Provides assistance in long range planning, new parks and trail designation, new construction, repairs and maintenance of existing parks and recreation trails. Coordinates parks operation activates with other neighboring agencies.

Parks Seasonal Personnel
Under the supervision of Trails/ Recreation Parks District Personnel, season staff performs routine maintenance operations, ground maintenance for parks, recreation trails, picnic areas, restrooms cleaning and stocking and collection of trash.