Exhibit F

City of Patterson

Energy Efficiency Project Feasibility Report

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PATTERSON CALIFORNIA

ALLIANCE BUILDING SOLUTIONS

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Section 1: Executive Summary and Background

Executive Summary

The City of Patterson has partnered with Alliance Building Solutions, LLC (ABS) to evaluate opportunities to reduce energy consumption, modernize aging infrastructure, and implement facility upgrades through an Energy Savings Performance Contract (ESPC) project delivery aligned with California Government Code Section 4217 procurement. This assessment was conducted by ABS at ***no cost to the City*** and structured to deliver a comprehensive project, the cost of which is entirely offset over time by energy and operational savings.

The proposed ***project includes guaranteed savings*** which support third-party financing, allowing for immediate implementation without upfront capital investment from the City of Patterson. This financially viable, low-risk solution is aligned with the City's operational and fiscal objectives.

This report summarizes the analyses conducted, the total recommended project cost, the projected savings to cover the cost, and identifies an Investment Tax Credit (ITC) amount that is potentially available to the City.

Background

ABS began discussions with the City in July 2024 regarding energy infrastructure needs, project delivery models, and procurement options. In December 2024, the City executed a Letter of Authorization (LOA) engaging ABS to perform a no-cost energy savings assessment and project development. The intent of the LOA was to develop a guaranteed, self-funding project meeting the City's technical, financial, and legal requirements and which could be brought forth for procurement under CA Government Code Section 4217.

Through citywide facility assessments at the direction of City staff, detailed equipment inventories, energy baseline analysis, and engineering development, ABS identified a portfolio of Energy Conservation Measures (ECMs) designed to reduce utility costs, improve asset performance, and support long-term sustainability goals.

The project has since been fully developed and meets or exceeds the parameters set forth in the LOA. The project scope and procurement have been discussed with the Mayor, City Council Members, City Manager, Deputy City Manager and Interim DPW Director, Finance Director, Public Works staff, and legal counsel.

Next Steps

ABS and City staff intend to bring the project to City Council for approval at the March 17, 2026, city council meeting, which requires a public hearing notice posting by March 3, 2026. ABS is working closely with the City's legal team to finalize contracts for inclusion in the council agenda packet. Timely approval is critical to secure the identified solar ITC rebate of $785,914, as applicable deadlines and milestones are rapidly approaching.

Section 2: Utility Analysis

The initial phase of the analysis involved a comprehensive review of the City's utility costs and energy consumption to establish accurate pre-project energy usage baselines. ABS submitted utility releases to TID for the latest 12 months of energy usage data and 15 min interval data for analyses at the facility level to understand consumption patterns, demand characteristics, and cost drivers.

This data was evaluated in conjunction with site walk observations, operating schedules, and staff input to identify opportunities to reduce energy use without compromising safety, comfort, or facility utilization. The resulting baselines provided the foundation for quantifying energy savings opportunities, developing targeted energy conservation measures, and supporting the guaranteed savings structure for this project.

This process included the following:

- Total annual energy consumption
- Total annual energy cost
- Peak demand charges
- Utility rate and tariff evaluation
- Load profile analysis / Peak load
- Demand charge reduction

The baseline table below represents the sites where ABS is recommending scope of work. The baseline period is June 2024 to May 2025.

Table 2.1: Utility Baseline

Site Name	Site Address	Area *(sqft)*	Meter #	Account #	Rate Schedule	Usage *(kWh)*	Annual Cost	Blended Rate *($/kWh)*
Aquatic Center	1025 W Las Palmas Ave	5,385	E214614	9340117280	NNT-MC	87,416	$9,272	$0.106
City Hall	1 Plaza Circle	17,000	E209260	0440156867	MD	268,320	$31,695	$0.118
Corporate Yard	16215 Baldwin Rd	20,750	E205925	9342685035	NNT-MC	48,401	$5,251	$0.108
Fire Station #1	344 W Las Palmas Ave	8,605	E200335	0440156934	MC	68,240	$7,851	$0.115
Fire Station #2	1950 Keystone Pacific Pkwy	10,832	E206845	0440159911	NNT-MD	92,680	$9,733	$0.105
Old Corporate Yard	420 S 4th St	7,930	E393073	0440156924	MC	22,944	$2,984	$0.130
Senior Center	1033 W Las Palmas Ave	8,465	E218548	9340144712	NNT-MD	88,071	$13,164	$0.149
WWTP South	14901 Poplar Ave	7,250	E215165	9340122305	NNT-MD	1,367,501	$164,969	$0.121
Well 8	Orange Ave		E211349	0440156899	MD	308,689	$39,504	$0.128
Well 9	636 Orange		E203188	0440156914	MD	605,200	$65,292	$0.108
Well 11	15804 Sycamore		E211337	0440156907	MD	473,284	$57,566	$0.122

Section 3: Site Walk Analysis & Scope of Work

Site Walk Analysis

As part of project development, ABS conducted comprehensive site walk assessments at City-owned facilities to evaluate existing conditions, verify equipment, and identify opportunities to improve energy efficiency, infrastructure, and operations. These assessments, coordinated with City staff, informed engineering analysis, scope development, and financial modeling.

The ABS team reviewed facility layouts, operating schedules, and equipment performance, assessing the type, age, condition, and operation of existing energy systems. This information validated utility data and ensured proposed measures aligned with actual operational needs.

In parallel, ABS met with City staff, particularly Public Works and facilities teams, to gather input on maintenance challenges, failing equipment, operational priorities, and long-term capital planning. These findings enabled us to develop a comprehensive scope of integrated energy conservation measures designed to reduce energy use, address deferred maintenance, and enhance facility performance while meeting technical, financial, and long-term City objectives.

Table 3.1: Scope of Work Matrix

	Lighting		HVAC / Mechanical				Controls	Renewables	Electrical	Envelope
	Interior LED Lighting Upgrades	Exterior LED Lighting Upgrades	Split Condenser Replacement (1 Ductless)	Wall Mount & Package Unit Replacement	Air-Cooled Condensing Unit Replacement	Boiler & HHW Pump Replacement	HVAC Controls	Solar	Transformer	Re-Roofing
Aquatic Center *1025 W Las Palmas*	✓						✓(2)			
City Hall *1 Plaza Circle*	✓	✓		✓(2) Both	✓(1)	✓(2)	✓(2)	✓		✓
Corporate Yard *16215 Baldwin Rd*	✓	✓	✓(3)				✓(3)			
Fire Station #1 *344 W Las Palmas Ave*	✓			✓(1) Package			✓(3)	✓		✓
Fire Station #2 *1950 Keystone Pacific Pkwy*	✓	✓	✓(1)	✓(3) Package			✓(3)	✓		
Old Corporate Yard *420 S 4th Street*	✓							✓		
Senior Center *1033 W Las Palmas*	✓	✓					✓(9)			
Well 8 *301 Orange*								✓		
Well 9 *636 Orange*								✓		
Well 11 *15804 Sycamore*								✓		
WQCF South *14901 Poplar Ave*	✓							✓	✓ (1)	
WQCF North *14901 Poplar Ave*								✓		
Total	**8 Sites**	**4 Sites**	**4 Units**	**6 Units**	**1 Unit**	**2 Units**	**22 Units**	**9 Sites**	**1 Unit**	**2 Sites**

Lighting Systems: Interior and Exterior

ABS reviewed existing fixture types, wattage, operating hours, and lighting levels to determine replacement needs. This included evaluation of lamp age, ballast type, and control functionality such as occupancy and daylight sensors.

Existing lighting throughout facilities ranged from incandescent, fluorescent, HPS, and HID technology, with some sites already having been fully or partially converted to LED. Power density was compared against current LED standards and applicable energy codes. Systems with older technology outside of LED, high operating hours, or inadequate lighting controls were identified by City Staff for replacement, totaling 1,518 lamp replacements and 729 fixture replacements. Any existing LEDs that had been retrofitted were excluded from this scope.

Below are the sites with recommended lighting upgrades:

- Aquatic Center
  - Interior Lighting
- City Hall
  - Interior Lighting
  - Exterior Lighting
- Corporate Yard
  - Interior Lighting
  - Exterior Lighting
- Fire Station #1
  - Interior Lighting
- Fire Station #2
  - Interior Lighting
  - Exterior Lighting
- Old Corporate Yard
  - Interior Lighting
- Senior Center
  - Interior Lighting
  - Exterior Lighting
- WWTP South
  - Interior Lighting

For additional inventory information, site details, and equipment specifications please see Attachment B: Lighting Systems.

Mechanical Systems

Mechanical measures were evaluated based on system age, manufacturer efficiency ratings, operating conditions, and maintenance history to determine remaining useful life. Equipment was compared against ASHRAE standards and current market efficiency levels. This analysis included load conditions, runtime data, temperature control issues, and operational reliability. Systems approaching end-of-life, operating inefficiently, or requiring excessive maintenance were identified by Staff and/or ABS for replacement consideration.

Mechanical equipment site investigations focused on identifying major heating, cooling, and ventilation equipment, including package units, split systems, boilers, chillers, pumps, and associated distribution components. ABS engineers identified a wide range of manufacturers including McQuay, Trane, Marvair, Cooper, Bryant, York, and Carrier; with tonnage ranging from 3-50 Tons.

A total of 13 units have been recommended for replacement.

Below are the sites with recommended replacements:

- City Hall
  - 2 Wall Mount and Package Unit
  - 1 Air Cooled Condensing
  - 1 Boiler
  - 1 HWH Pump
- Corporate Yard
  - 3 Split Condenser
- Fire Station #1
  - 1 Package Unit
- Fire Station #2
  - 1 Split Condenser
  - 3 Package Unit

For additional inventory information, site details, and equipment specifications please see Attachment C: Mechanical Systems.

Control Systems

Control systems were reviewed to determine the level of automation, scheduling effectiveness, and the ability to manage temperature setpoints and occupant comfort. The controls investigation evaluated existing building automation systems, thermostats, control panels, sensors, and communication infrastructure. Systems with limited control functionality, lack of central scheduling, or outdated platforms were identified as candidates for controls upgrades.

Staff requested to replace the existing proprietary Alerton system that currently requires significant ongoing costs for maintenance and service subscriptions. The recommended Pelican thermostat system is an open protocol system, eliminating these costs and providing mobile access.

A total of 22 units have been recommended for replacement.

Below are sites with recommended replacements:

- Aquatic Center
  - 2 units
- City Hall
  - 2 units
- Corporate Yard
  - 3 units
- Fire Station #1
  - 3 units
- Fire Station #2
  - 3 units
- Senior Center
  - 9 units

For additional inventory information, site details, and equipment specifications please see Attachment D: Control Systems.

Electrical Systems

Transformers were evaluated based on age, loading profile, physical condition, manufacturer efficiency rating, and insulation performance. ABS reviewed peak demand loading and thermal performance based on interval data where available. Transformers that were undersized, oversized, or operating with outdated efficiency standards were identified for replacement.

One (1) unit has been recommended for replacement.

Below are the sites with recommended replacements:

- WWTP South
  - 1 unit

For additional inventory information, site details, and equipment specifications please see Attachment E: Electrical Systems.

Building Envelope Systems

Roofing assessments were conducted to evaluate roof age, material type, condition, and remaining useful life, and particularly for suitability to accept a new solar array. The investigation, coupled with input from Staff, identified roofs nearing end-of-life or requiring replacement to support long-term facility integrity and to optimize installation of rooftop equipment, including solar photovoltaic systems. Roofing considerations were coordinated with other measures to ensure constructability and sequencing.

Staff provided helpful feedback confirming roofing leaks and needed replacements at City Hall and Fire Station 1.

Two (2) roofing replacements with a new membrane layover have been recommended.

Below are the sites with recommended replacements:

- City Hall
- Fire Station #1

For additional inventory information, site details, and equipment specifications please see Attachment F: Roofing Systems.

Renewable Energy Systems

The ABS team conducted site walks and an analysis for potential solar and battery energy storage. Analysis included existing solar PV performance and compared generation to load profiles to determine efficiency and operational integrity. For new systems, we reviewed available site area, interconnection conditions, and utility tariff structures. The solar site investigation included evaluation of available roof and ground-mounted areas for photovoltaic installation. Factors assessed included roof condition, structural considerations, shading, orientation, available electrical interconnection points, and compatibility with existing electrical infrastructure.

The analysis focused on identifying viable locations for solar deployment and integration with the overall project scope. ABS performed technical and financial screening, considering current incentives, projected energy production, and lifecycle performance. It was identified that the existing solar system at the WWTP South was not operational, with no measurable site generation. (See NOTE below)

Seven (7) sites have been recommended for new solar installations, and two (2) sites have been recommended for a repowering measure.

Below are sites with recommended renewable measures:

- City Hall – 24.2 kW
- Fire Station #1 – 21.7 kW
- Fire Station #2 – 39 kW
- Old Corporate Yard – 13.3 kW
- Well 8 – 177 kW
- Well 9 – 153.7 kW
- Well 11 – 139 kW
- WWTP South – 584 kW
    - Repowering existing system that currently is not producing power
- WQCF North – 23 kW
    - Repair 7 panel strings

For additional information, site details, layouts and equipment specifications please see Attachment G: Renewable Energy Systems.

NOTE: Regarding the repowering measure for solar at WWTP South

The existing solar array at WWTP South was installed as part of a previous energy savings project that is still being paid off. This system components are beyond their warranty coverage, contain obsolete technology, and are not covered by a performance/savings guarantee.

When ABS audited the facility, the central inverter at WWTP South was offline and was inoperable for about 7 months. From the utility data received from TID, the failure began in May 2025.

ABS conducted an exhaustive review of the situation and considered numerous avenues of remediation. Our solar leadership has over 25 years each in commercial solar experience and are extremely well-qualified to evaluate options and recommend the best path forward for the City based on our considered opinion and experience.

The proposed rejuvenation of the system – paid for by savings – avoids extensive capital outlays to repair obsolete equipment in an obsolete system configuration.

Problem Assessment:

- The existing array at WWTP South is configured so that ALL of the solar power produced – which is DC Voltage – is collected and channeled through one central inverter. The inverter is designed to convert DC to AC Voltage for compatibility with grid power, either to offset consumption at WWTP South or to feed back into TID.
- As a result of the central inverter failure, there was no AC power being delivered from the solar array to either offset ANY of the energy consumption at WWTP South or to deliver power back to TID.
- Given the age of the inverter, the fact that it is no longer manufactured, and the vulnerability inherent in the single-point-of-failure configuration, it is reasonably expected that a subsequent failure will be catastrophic and irreparable, or at the very least wildly expensive as an emergency repair, or simply left in a non-functioning state, which would not only eliminate any energy offset but could present an active life/safety/fire hazard.
- This “down” condition is indicative of an inverter that is beyond its useful life and beginning to fail. This assessment was apparently reiterated by an independent third party that was asked to review the array recently as well.

Potential Remedies – Capital Required

- Repair existing or Replace in kind:
  - The inverter is beyond its warranty period – 10 years from 2013
  - The specific inverter is no longer produced
  - The original manufacturer has been sold twice. Parts and service are reportedly not well supported and very costly when available
  - A central inverter design scenario for an array of this size is not recommended.
- When the existing inverter inevitably fails again, the result will be long periods of downtime while waiting for service that will result in further losses of energy production/$ savings
  - Repairing the existing inverter would be a step backward – good money after bad
  - Replacing the inverter in kind would be difficult – if not impossible - to match the performance parameters and very expensive to install.

Remedies – NO Capital Required

- ABS' recommended and proposed solution is to install multiple "string" inverters that mitigate the risk of full system failure.
  - This solution is included in the project scope with no upfront capital required and paid by guaranteed savings.
  - The recommended inverters come with a 20-year warranty which matches the duration of the financing of this project.
  - ABS will include several spare inverters so that in the event of an inverter failure, the array can be brought back online quickly

Conclusion

The existing array is a ticking time bomb that will result in lost energy savings and significant out of pocket capital expense:

- First and foremost, there is no savings guarantee for the city on the existing Chevron array.
- The central inverter is out of warranty and past its useful life.
- The inverter is no longer made, and the original manufacturer has been sold at least once, possibly twice.
- Some parts ***may*** be available, but parts and repairs will undoubtedly be expensive and are NOT free or covered by any warranty or guarantee.
- If the inverter goes down again, the entire array will not send power to TID and therefore will not offset the usage at WQCF

- Other components within the array – combiner boxes, wiring harnesses, etc. are also 13 years old and weather-worn.
- The array was down for 7 months – not a communication error – it was not sending kWh to TID.
- The panels are no longer made – the broken panels cannot be replaced.
- The broken panels are negatively impacting production and present a potential life/safety/fire hazard.

The proposed solution at WQCF South modernizes the system at no upfront cost to the City, provides resiliency, and its savings are guaranteed:

- Eliminates the single point of failure
- The savings are guaranteed for the duration of the contract.
- The inverters are warranted for 20 years – same as the financing term
- We adjusted the cash flow analysis to accommodate for the payoff of the existing loan for the Chevron project.
- The project modernizes the WQCF South, including:
    - Full investigation of every string, conductor, connector and every combiner box.
        - This includes thermography of the modules, connectors, and switchgear while operating
        - Performing an Insulation Resistance Test (Megger) of all conductors prior to re-energization
        - An I-V Curve analysis of each string to identify all poorly performing modules.
    - New state-of-the-art inverters – replacement of the single inverter with 15 individual string inverters
    - New switchgear equipment
    - New transformer
    - New wiring as required
    - Removal of the old inverter
    - Rearrangement of existing panels to remove potential fire/life/safety issues and to optimize the output of the array.
    - A full commissioning of the completed repowering

- Simply stated, the proposed upgrade represents production and savings certainty, whereas the existing array represents production and cost uncertainty.

Section 4: Savings Overview & Calculation Methodology

Savings Overview

Projected energy and cost savings for the identified measures were developed using a combination of field-verified equipment inventories, historical utility data, and engineering calculations consistent with industry-standard practices. A pre-project energy baseline was established for each facility using historical electricity data, as appropriate for operational and seasonal variability. Savings for individual measures were calculated by comparing baseline equipment performance to proposed equipment efficiencies, control strategies, and operating assumptions derived from site walk observations and staff input. The total projected savings were calculated using current utility rates, and applicable operational and maintenance savings. All savings factors have been incorporated into the guarantee and will be verified in accordance with the agreed-upon Measurement and Verification plan.

Lighting Systems

Lighting savings were calculated by comparing the connected load and operating hours of existing lighting systems to the proposed high-efficiency fixtures identified during site walks. Existing lamp wattages and fixture quantities were field-verified, and operating schedules were established based on facility use and staff input. These savings reflect reduction in electrical consumption resulting from improved lamp and fixture efficiency. The basis of the savings is from the delta in watts from baseline to post retrofit multiplied by the respective hours of operation.

A sample calculation is as follows:

kWh Savings = (baseline fixture wattage)(baseline hours) - (post-retrofit fixture wattage)(post-retrofit hours)

Mechanical Systems

Mechanical equipment savings were calculated using engineering-based comparisons of existing equipment performance to proposed high-efficiency systems and optimized operating strategies. Equipment capacities, efficiencies, and operating characteristics were verified during site assessments, and baseline energy consumption was developed using historical utility data and facility operating profiles. Savings estimates account for improved equipment efficiency, optimized control sequences, and reduced runtime where applicable. Calculations reflect anticipated performance under normal operating conditions and are incorporated into the project's guaranteed savings framework.

The basis of the savings is the electrical load of the baseline HVAC unit multiplied by the baseline hours of operation minus the electrical load of the post-retrofit HVAC unit

multiplied by the post-retrofit hours of operation. The savings come from overall unit efficiency and part-load efficiency improvements with either a modulating energy usage and/or multiple steps versus on/off. This component of load efficiency is quite often where the bulk of the energy savings result from.

An example of a sample calculation for HVAC replacement is as follows:

kWh Savings = [(base unit tons)(base efficiency kW/ton)(base avg LF)(avg DC) + (base hp supply fan)(conversion kW/hp)(base supply fan avg LF)(base supply fan avg DC)](baseline hours) - [(post-retrofit unit tons)(post-retrofit efficiency kW/ton)(post-retrofit avg LF)(post-retrofit avg DC) + (post-retrofit hp supply fan)(conversion kW/hp)(post-retrofit supply fan avg LF)(post-retrofit supply fan avg DC)](post-retrofit hours)

Control Systems

Energy savings associated with building controls were calculated based on reductions in equipment runtime, improved scheduling, and optimized system operation enabled by enhanced control strategies. Existing control capabilities were assessed during site walks, and proposed improvements were evaluated for their impact on HVAC and lighting operation. Savings estimates reflect reduced energy use resulting from improved occupancy scheduling, temperature setpoint management, and system optimization, and are based on industry standard engineering methodologies and operational assumptions.

The basis of the savings is the electrical load of the baseline HVAC unit multiplied by the baseline hours of operation minus the electrical load of the post-retrofit HVAC unit multiplied by the post-retrofit hours of operation. The savings are very similar to that from the HVAC replacement with the exception of the energy consumption of the HVAC does not change for each point of the part-load curve. The savings result from optimized sequence of operation, i.e., the hours are optimized for the OSA conditions and the fine-tuning of the temperature set-point results in the HVAC unit operating at a point lower in its load curve.

Electrical Systems

Transformer energy savings were calculated by evaluating reductions in no-load and load-related losses achieved through replacement of existing transformers with higher-efficiency units. Existing transformer sizes, loading conditions, and operating characteristics were reviewed during the site investigation.

The basis of the savings is the electrical load of the baseline transformer multiplied by the annual hours of operation of 8,760 hours minus the electrical load of the post-retrofit transformer multiplied by the post-retrofit annual hours of operation of 8,760 hours. The energy savings attributed to converting to a high efficiency transformer are from the core losses and from coil losses. Coil loss is relatively constant, independent of load on the

transformer; whereas coil losses will increase based upon the square of the current as the load on the transformer increases.

An example of a sample calculation for transformer replacement is as follows:

kWh Saving = EXISTING [(No Load Losses + ((On % Loading)^2(Full Load Losses-No Load Losses))) / 1000]*(Operation Hours) + [(No Load Losses + ((OFF % Loading)^2*(Full Load Losses-No Load Losses))) / 1000]*(Operation Hours) – PROPOSED [(No Load Losses + ((On % Loading)^2*(Full Load Losses-No Load Losses))) / 1000]*(Operation Hours) + [(No Load Losses + ((OFF % Loading)^2*(Full Load Losses-No Load Losses))) / 1000]*(Operation Hours)*

Renewable Energy Systems

Solar energy production and associated savings were modeled using industry standard software tools, including Energy Toolbase and HelioScope. Modeled annual energy production reflects local solar resource data, system design parameters, and anticipated performance losses. Energy production offsets grid-purchased electricity and was valued using current utility rates to determine projected cost savings. Solar production is incorporated into the overall project savings and guarantee.

The solar production and associated cost offset as a result of installing solar PV is quantified by looking at each hour of a year and comparing the energy load of the facility relative to the energy produced by the solar PV. This solar PV is then put relative to the cost of power to determine the actual cost offset.

Total Project Savings

For all the energy measures, once the kWh savings is calculated, it is converted to dollar savings by multiplying by the average utility rate for that meter.

Dollar Savings = (kWh Savings) x (Average Utility Baseline $/kWh Rate)

The tables and graphs below give a breakdown of the savings for each site and measure.

Table 4.1: Utility Consumption Savings Summary

Site	Baseline Consumption (kWh)	Utility Savings (kWh)	Year 1 Consumption (kWh)
Aquatic Center	87,416	4,253	83,163
City Hall	268,320	128,346	139,974
Corporate Yard	48,401	14,347	34,054
Fire Station #1	68,240	48,605	19,635
Fire Station #2	92,680	90,414	2,266
Old Corporate Yard	22,944	23,538	-594
Senior Center	88,071	21,789	66,282
WWTP South	1,367,501	1,028,676	338,825
Well 8	308,689	299,093	9,596
Well 9	605,200	257,116	348,084
Well 11	473,284	237,566	235,718
Total	**3,430,746**	**2,153,743**	**1,277,003**

Figure 4.1: Utility Consumption Comparison (Baseline vs Post Implementation)

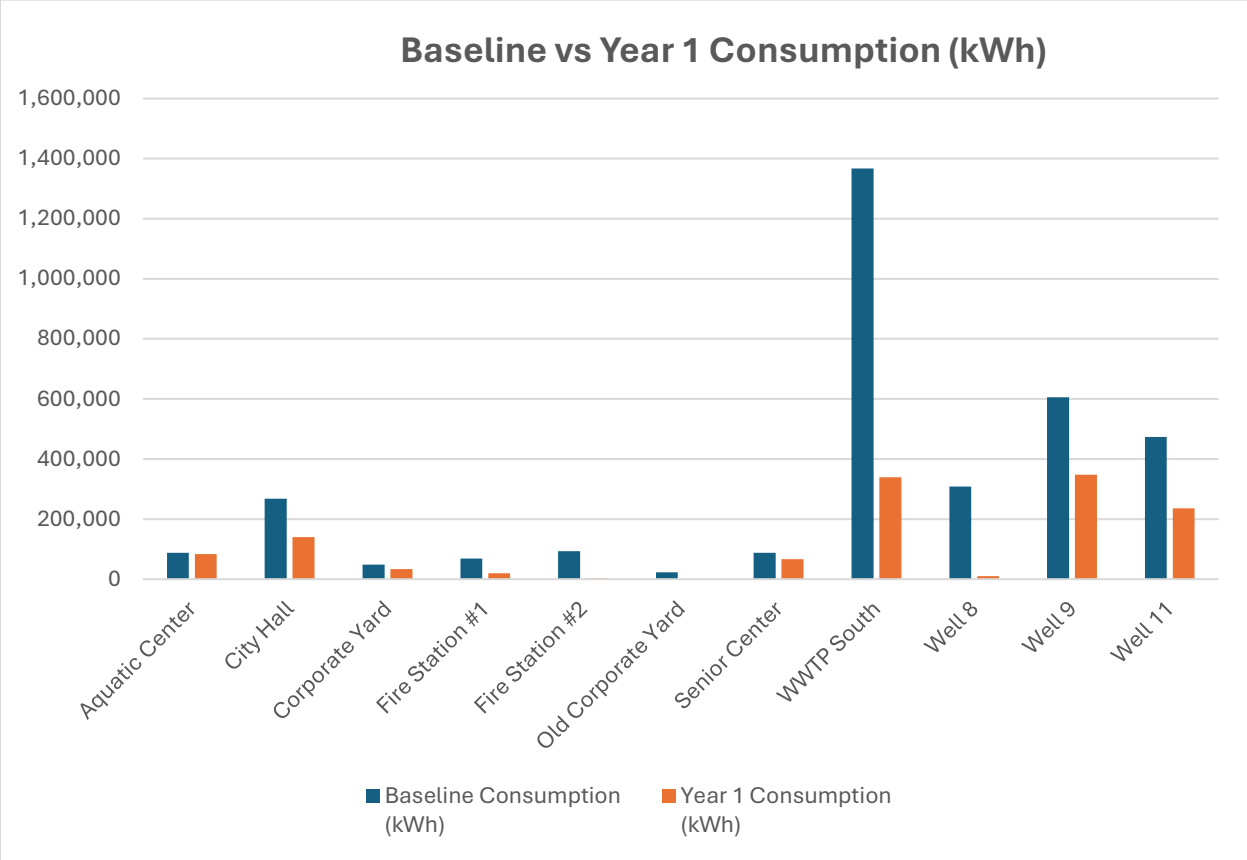


Table 4.2: Utility Consumption Savings Breakdown

Consumption Savings (kWh)					
Site	**Lighting**	**Mech. & Controls**	**Electrical**	**Renewable**	**Total**
Aquatic Center	3,390	863	-	-	4,253
City Hall	33,358	52,012	-	42,976	128,346
Corporate Yard	12,069	2,278	-	-	14,347
Fire Station #1	4,892	5,692	-	38,021	48,605
Fire Station #2	12,775	12,018	-	65,621	90,414
Old Corporate Yard	1,629	-	-	21,909	23,538
Senior Center	17,471	4,318	-	-	21,789
WWTP South	3,555	-	4,395	1,020,726	1,028,676
Well 8				299,093	299,093
Well 9	-	-	-	257,116	257,116
Well 11	-	-	-	237,566	237,566
Total	**89,139**	**77,181**	**4,395**	**1,983,028**	**2,153,743**

Table 4.3: Utility Cost Savings Breakdown

Utility Cost Savings ($)					
Site	**Lighting**	**Mech. & Controls**	**Electrical**	**Renewable**	**Total**
Aquatic Center	$389	$99	-	-	$488
City Hall	$4,262	$6,645	-	$5,151	$16,058
Corporate Yard	$1,416	$267	-	-	$1,683
Fire Station #1	$609	$708	-	$4,035	$5,352
Fire Station #2	$1,451	$1,365	-	$6,963	$9,780
Old Corporate Yard	$229	-	-	$2,324	$2,553
Senior Center	$2,824	$698	-	-	$3,523
WWTP South	$533	-	$659	$116,024	$117,217
Well 8				$27,987	$27,987
Well 9	-	-	-	$25,958	$25,958
Well 11	-	-	-	$25,028	$25,028
Total	**$11,714**	**$9,783**	**$659**	**$213,472**	**$235,628**

Section 5: Rebates & Incentives

Inflation Reduction Act - ITC Rebate

The Inflation Reduction Act expanded access to the federal Investment Tax Credit (ITC) for tax-exempt entities, including municipalities, through a Direct Pay ("Elective Pay") mechanism. Under this provision, the City of Patterson may receive a cash payment from the U.S. Treasury equal to the ITC value for qualifying solar photovoltaic projects, despite having no federal tax liability. These funds are paid directly to the City and may be used at the City's discretion.

Participation in the Direct Pay program is subject to eligibility requirements, deadlines, and milestone-based compliance, including project authorization, equipment procurement, and placed-in-service timelines. Delays in project approval or execution may impact incentive eligibility. This project is eligible for an ITC rebate of **$785,914**.

To maintain eligibility, project construction must begin by July 4, 2026, defined as having steel and racking installed for the solar arrays. Approval of the project on March 17 along with cooperation from the City of Patterson would allow sufficient time to complete required tasks, including contract execution, notice to proceed, engineering, permitting, soil testing, equipment procurement, and installation.

Utility Incentive with Turlock Irrigation District

Turlock Irrigation District (TID) offers a range of energy efficiency rebates and incentive programs for municipal customers aimed at reducing electricity demand and improving system efficiency. Incentives are generally structured to offset a portion of incremental project costs and are subject to TID program guidelines, pre-approval requirements, and available funding. This project is eligible for an incentive of $20,110, based on the following criteria set forth by the TID incentive program:

- Commercial lighting
  - $0.10/kWh saved in the first year.
- Transformers
  - Custom incentive of $0.08/kWh saved.
- Mechanical / HVAC
  - Per unit rebate of $500/unit for the units 5 tons and below / Per ton rebate of $120/ton for the units above 5 tons.

**These rebates are reflected in the financial cash flow that has been presented to staff and in the Financial Analysis section below.*

Section 6: Financial Analysis

The financial analysis for this project was developed to confirm that the recommended scope of work is economically viable and fully supported by guaranteed savings. Project implementation costs, equipment, installation, and associated soft costs are all included within this proposal. Utility rates, financing terms, and contract duration were incorporated to model annual project costs and savings over the life of the project. The analysis demonstrates that guaranteed savings are sufficient to fund project costs, providing budget neutrality to the City, while minimizing financial risk and avoiding the need for an upfront capital investment.

The project would be financed using a Tax-Exempt Lease Purchase (TELP) agreement. It allows public agencies to acquire essential equipment and infrastructure at low interest rates. TELP is the most widely used financing structure for public agencies and serves as an effective alternative to traditional debt financing (such as bonds or loans).

Currently the City pays for the following operation and maintenance contracts that would be eliminated through this ABS project:

- Alerton Controls:
  - Annual Cost - $12,889
- Engie Solar O&M Agreement:
  - PV Module Cleaning:
    - Annual Cost: $15,378
    - Annual Escalator: 5%
  - Monitoring Services:
    - Annual Cost: $4,380
    - Annual Escalator: 4%

The current Solar O&M agreement is only for cleaning once per year. The City desires to have cleaning and preventative maintenance conducted twice per year to ensure the system is working efficiently. Thus, in just the first year the City would save $52,921 on these maintenance agreements as shown in the project cash flows.

ABS estimates that it will cost the City $15,000 annually for the solar O&M on the existing and new solar PV arrays. Thus, saving the City $37,921 in maintenance agreements costs in the first year.

The Solar ITC and TID Rebate provide additional savings to the city that ABS has ***not*** factored into the project payments. The rebates will appear as unencumbered, non-earmarked ***cash to the general fund.***

The project has a total implementation price of **$4,794,785**. This price is fixed as ABS has a "no change order" policy. This provides the City with a guaranteed price and protection against mid-project change order cost increases.

The project has an estimated total gross savings of **$16,510,750**. Even after factoring interest expense, the project is cash flow positive every year and is expected to provide the city with **$7,031,613** in net savings.

The tables below show the project cash flow and its parameters in detail.

Table 6.1: Project Cash Flow Parameters

Cash Flow Parameters	
Utility Escalator	4.0%
O&M Savings Escalator	4.0%
Inflation	4.0%
Solar Annual Degradation	0.80%
Financing Interest Rate	4.88%
Financing Term	20 Years

- WQCF South savings start after the Bank of America lease is paid off in April 2029 (year 3).
- WQCF South savings is counted only for the second half of 2029 (year 3).
- Cost of Issuance is $29,900

Table 6.2: Project Cash Flow

	Project Savings							Project Payments					
Timeline	**Utility Savings**	**O&M Savings**	**Existing Solar O&M Cost Savings**	**Existing Controls O&M Cost Savings**	**TID Rebate**	**Solar ITC**	**Total Annual Savings**	**M&V Payment**	**Solar O&M Payment**	**Financing Payment**	**Total Annual Payments**	**Net Annual Cash Flow**	**Net Cumulative Cash Flow**
Year 0	$24,377	$12,116					$36,494				$0	$36,494	$36,494
Year 1	$121,887	$60,582	$39,516	$13,405	$20,110		$255,500	$0	$15,000	$235,445	$250,445	$5,055	$41,549
Year 2	$125,933	$63,005	$41,406	$13,941		$785,914	$1,030,199	$0	$15,600	$235,445	$251,045	$779,154	$820,703
Year 3	$195,223	$65,525	$43,384	$14,498			$318,631	$0	$16,224	$264,908	$281,132	$37,499	$858,202
Year 4	$261,840	$68,147	$45,458	$15,078			$390,523	$20,000	$16,873	$316,150	$353,023	$37,500	$895,703
Year 5	$270,342	$70,872	$47,633	$15,681			$404,529	$20,800	$17,548	$328,682	$367,030	$37,499	$933,202
Year 6	$279,123	$73,707	$49,912	$16,309			$419,050	$21,632	$18,250	$341,668	$381,550	$37,501	$970,703
Year 7	$288,189	$76,656	$52,301	$16,961			$434,107	$22,497	$18,980	$355,130	$396,607	$37,500	$1,008,202
Year 8	$297,552	$79,722	$54,805	$17,639			$449,719	$23,397	$19,739	$369,082	$412,218	$37,501	$1,045,703
Year 9	$307,222	$82,911	$57,430	$18,345			$465,907	$24,333	$20,529	$383,546	$428,408	$37,500	$1,083,203
Year 10	$317,207	$86,227	$60,182	$19,079			$482,694	$25,306	$21,350	$398,538	$445,194	$37,500	$1,120,703
Year 11	$327,518	$89,676	$63,066	$19,842			$500,102	$26,319	$22,204	$414,080	$462,602	$37,500	$1,158,203
Year 12	$338,167	$93,263	$66,090	$20,636			$518,155	$27,371	$23,092	$430,192	$480,655	$37,500	$1,195,703
Year 13	$349,164	$96,994	$69,259	$21,461			$536,878	$28,466	$24,015	$446,896	$499,378	$37,500	$1,233,204
Year 14	$360,520	$100,873	$72,582	$22,320			$556,295	$29,605	$24,976	$464,214	$518,795	$37,500	$1,270,704
Year 15	$372,248	$104,908	$76,065	$23,212			$576,435	$30,789	$25,975	$482,170	$538,934	$37,500	$1,308,204
Year 16	$384,361	$109,105	$79,717	$24,141			$597,323	$32,021	$27,014	$500,788	$559,823	$37,500	$1,345,704
Year 17	$396,869	$113,469	$83,545	$25,106			$618,989	$33,301	$28,095	$520,094	$581,490	$37,499	$1,383,203
Year 18	$409,787	$118,008	$87,558	$26,111			$641,464	$34,634	$29,219	$540,112	$603,964	$37,500	$1,420,703
Year 19	$423,128	$122,728	$91,765	$27,155			$664,777	$36,019	$30,387	$560,870	$627,276	$37,501	$1,458,204
Year 20	$436,906	$127,637	$96,176	$28,241			$688,961	$37,460	$31,603	$575,904	$644,966	$43,995	$1,502,199
Year 21	$403,925		$100,800				$504,725		$32,867		$32,867	$471,858	$1,974,057
Year 22	$416,732		$105,648				$522,381		$34,182		$34,182	$488,199	$2,462,256
Year 23	$429,946		$110,731				$540,677		$35,549		$35,549	$505,128	$2,967,384
Year 24	$443,579		$116,060				$559,639		$36,971		$36,971	$522,668	$3,490,052
Year 25	$457,644		$121,647				$579,291		$38,450		$38,450	$540,841	$4,030,894
Year 26	$472,155		$127,505				$599,660		$39,988		$39,988	$559,672	$4,590,566
Year 27	$487,126		$133,647				$620,773		$41,587		$41,587	$579,186	$5,169,752
Year 28	$502,573		$140,086				$642,659		$43,251		$43,251	$599,408	$5,769,160
Year 29	$518,509		$146,838				$665,346		$44,981		$44,981	$620,366	$6,389,526
Year 30	$534,950		$153,917				$688,867		$46,780		$46,780	$642,087	$7,031,613
Totals	**$10,954,703**	**$1,816,132**	**$2,534,730**	**$399,162**	**$20,110**	**$785,914**	**$16,510,750**	**$473,950**	**$841,274**	**$8,163,913**	**$9,479,137**	**$7,031,613**	

Section 7: Project Implementation

Project implementation will be delivered through a collaborative and structured process designed to minimize disruption to City operations while ensuring quality, safety, and performance. The implementation phase includes detailed design development, equipment procurement, construction planning, installation, commissioning, and coordination with City staff at each facility.

Planning and Kickoff:

At project initiation, ABS conducts comprehensive kickoff meetings with City leadership, facilities, and maintenance staff to confirm goals, priorities, and expectations. These meetings establish a shared understanding of project objectives, identify key stakeholders, and define communication channels. The outcome is a clear roadmap that aligns technical priorities with educational and operational goals.

Collaborative Design Development:

Throughout design development, ABS maintains continuous collaboration with staff. We hold regular weekly progress meetings to review scope, equipment specifications, and potential design alternatives, always incorporating staff input and preferences. Using advanced modeling and simulation tools, we illustrate the energy, cost, and performance impacts of distinct options, enabling the facility staff team to make fully informed decisions.

All revisions are documented in Procore, ensuring transparent version control and immediate access to the latest design information.

Implementation and Ongoing Coordination:

During construction, ABS provides weekly coordination meetings and field reports to update staff on schedule, cost, and quality milestones. We proactively address design refinements or unforeseen site conditions through documented change-management procedures, keeping staff informed and in control of all decisions.

Training, Transition, and Post-Project Support:

Upon completion, ABS develops comprehensive operations and maintenance (O&M) plans tailored to City facilities. We conduct direct training sessions and workshops for facility/maintenance personnel to ensure they are confident operating new systems and technologies. We also provide digital documentation and cloud-based resources—including as-built drawings, submittals, and warranty records—stored within the project portal for ongoing access.

Continuous Communication and Accountability:

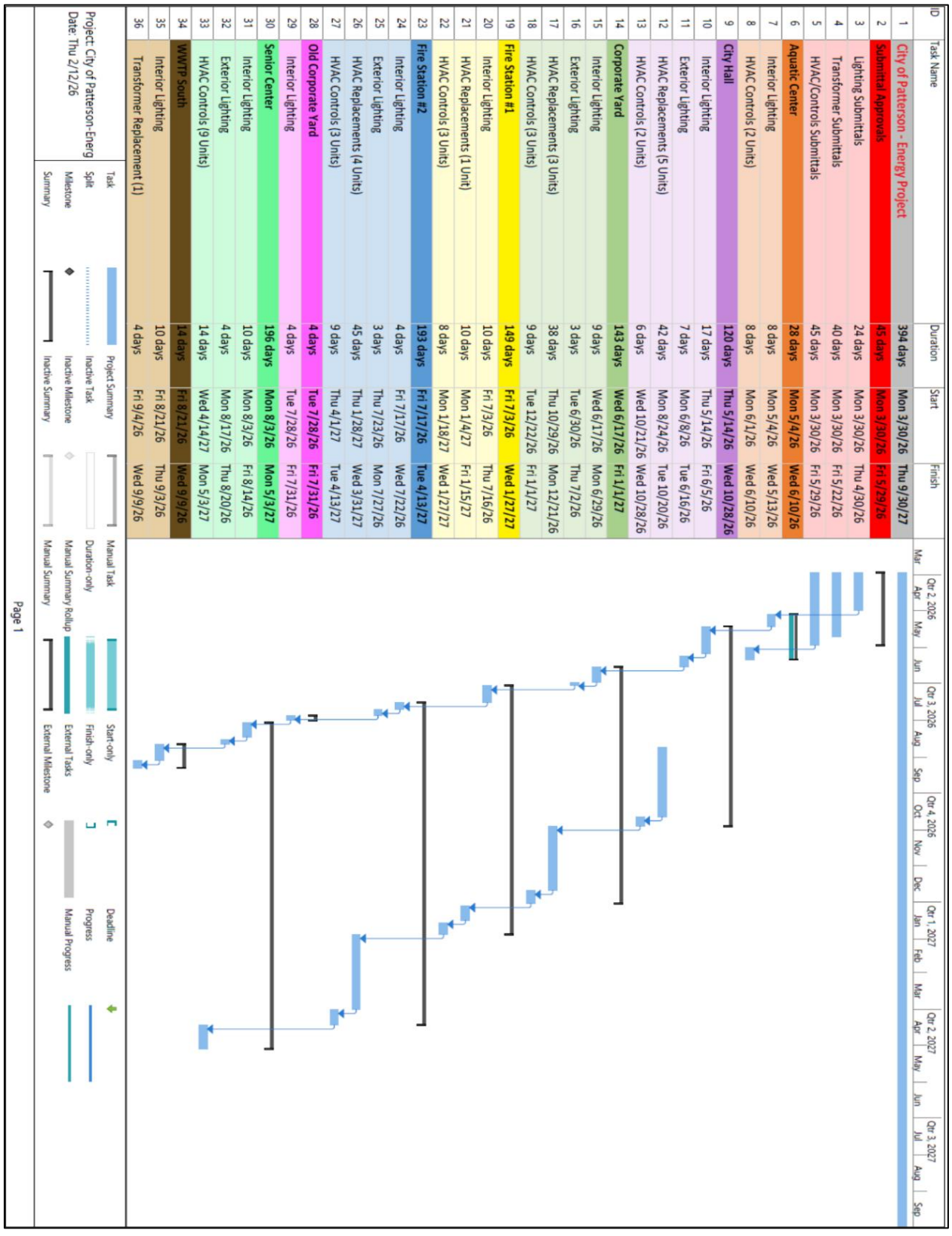
ABS's cloud-based collaboration platforms enable real-time communication, document sharing, and feedback throughout and after project completion. This ensures that all stakeholders remain informed and engaged, promoting accountability and performance continuity.

Please see the table and figure below for project installation schedule, assuming a March 17th city council approval.

Table 7.1: Project Implementation Schedule (Summary)

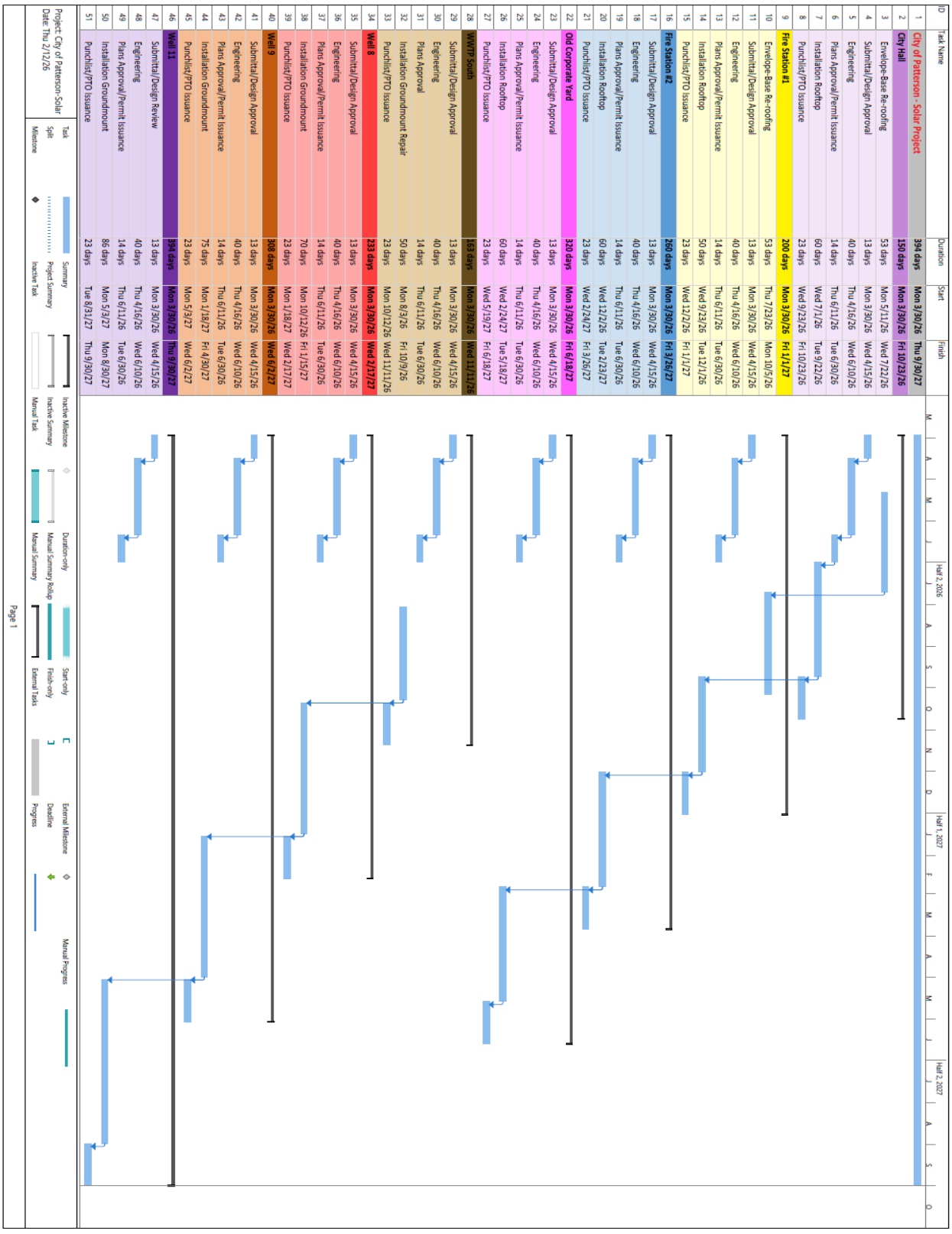
Milestones	Estimated Date
City Council Approval	March 17, 2026
Notice to Proceed	April 17, 2026
Engineering	May 25, 2026
City Permits	June 8, 2026
Solar Construction Begins	June 30, 2026
Project Installation Completion	May 20, 2027
Utility Interconnections (PTO)	June 30, 2027
Final Review and Training	August 31, 2027
Project Closeout	September 30, 2027

Figure 7.2 (a): Project Implementation Schedule (Energy)



ID	Task Name	Duration	Start	Finish
1	City of Patterson - Energy Project	394 days	Mon 3/30/26	Thu 9/30/27
2	Submittal Approvals	45 days	Mon 3/30/26	Fri 5/29/26
3	Lighting Submittals	24 days	Mon 3/30/26	Thu 4/30/26
4	Transformer Submittals	40 days	Mon 3/30/26	Fri 5/22/26
5	HVAC/Controls Submittals	45 days	Mon 3/30/26	Fri 5/29/26
6	Aquatic Center	28 days	Mon 5/4/26	Wed 6/10/26
7	Interior Lighting	8 days	Mon 5/4/26	Wed 5/13/26
8	HVAC Controls (2 Units)	8 days	Mon 6/1/26	Wed 6/10/26
9	City Hall	120 days	Thu 5/14/26	Wed 10/28/26
10	Interior Lighting	17 days	Thu 5/14/26	Fri 6/5/26
11	Exterior Lighting	7 days	Mon 6/8/26	Tue 6/16/26
12	HVAC Replacements (5 Units)	42 days	Mon 8/24/26	Tue 10/20/26
13	HVAC Controls (2 Units)	6 days	Wed 10/21/26	Wed 10/28/26
14	Corporate Yard	143 days	Wed 6/17/26	Fri 1/1/27
15	Interior Lighting	9 days	Wed 6/17/26	Mon 6/29/26
16	Exterior Lighting	3 days	Tue 6/30/26	Thu 7/2/26
17	HVAC Replacements (3 Units)	38 days	Thu 10/29/26	Mon 12/21/26
18	HVAC Controls (3 Units)	9 days	Tue 12/22/26	Fri 1/1/27
19	Fire Station #1	149 days	Fri 7/3/26	Wed 1/27/27
20	Interior Lighting	10 days	Fri 7/3/26	Thu 7/16/26
21	HVAC Replacements (1 Unit)	10 days	Mon 1/4/27	Fri 1/15/27
22	HVAC Controls (3 Units)	8 days	Mon 1/18/27	Wed 1/27/27
23	Fire Station #2	193 days	Fri 7/17/26	Tue 4/13/27
24	Interior Lighting	4 days	Fri 7/17/26	Wed 7/22/26
25	Exterior Lighting	3 days	Thu 7/23/26	Mon 7/27/26
26	HVAC Replacements (4 Units)	45 days	Thu 1/28/27	Wed 3/31/27
27	HVAC Controls (3 Units)	9 days	Thu 4/1/27	Tue 4/13/27
28	Old Corporate Yard	4 days	Tue 7/28/26	Fri 7/31/26
29	Interior Lighting	4 days	Tue 7/28/26	Fri 7/31/26
30	Senior Center	196 days	Mon 8/3/26	Mon 5/3/27
31	Interior Lighting	10 days	Mon 8/3/26	Fri 8/14/26
32	Exterior Lighting	4 days	Mon 8/17/26	Thu 8/20/26
33	HVAC Controls (9 Units)	14 days	Wed 4/14/27	Mon 5/3/27
34	WWTP South	14 days	Fri 8/21/26	Wed 9/9/26
35	Interior Lighting	10 days	Fri 8/21/26	Thu 9/3/26
36	Transformer Replacement (1)	4 days	Fri 9/4/26	Wed 9/9/26

Figure 7.2 (b): Project Implementation Schedule (Solar)



Section 8: Savings Guarantee

ABS provides a contractual savings guarantee that ensures the project will meet the stated savings values. This provides the city protection against savings shortfall in any year and ensures that the project is cash flow positive annually. If verified savings fall short of the guaranteed amount, ABS is contractually obligated to reimburse the City for the difference. This structure provides budget certainty, protects public funds, and allows the City to implement needed facility improvements with confidence that the project will perform as promised.

Every year, ABS will review the city's monthly utility bills, solar production data, and conduct a monthly analysis. The analysis will be conducted for every meter included in this project. The city will annually receive a detailed Measurement and Verification Report with the analysis and all supporting data.

Through taking a conservative approach to calculate annual savings, on past projects ABS has exceeded savings by 20-200%. Any additional savings outside of projected values will go directly to the City thus providing additional general fund relief. ABS has never fallen short on its savings guarantee on past projects, exemplifying the high-quality approach to its projects.

On this project, ABS will provide the City with a savings guarantee and a Measurement and Verification Report at no charge for the first 3 years following project completion.

The guarantee is based on a clearly defined pre-project energy baseline, standard engineering assumptions, and an agreed-upon Measurement and Verification (M&V) plan. Additional information on the savings guarantee is provided within the "Measurement and Verification Agreement", which has been submitted to City staff.

Attachments

Attachment A: Scope of Work

Attachment B: Lighting Systems

Attachment C: Mechanical Systems

Attachment D: Control Systems

Attachment E: Electrical Systems

Attachment F: Building Envelope Systems

Attachment G: Renewable Energy Systems